

PLANNING BOARD

Tuesday, April 9, 2024 at 4:30 PM
Hybrid Meeting, Room 24 (Ground Floor
of City Hall) and Zoom



MEMBERS

Brandon Mazer, Chair
Justin Barker, Vice Chair
Marpheen Chann
Sean Murphy
David Silk
Austin Smith
Maggie Stanley

The Planning Board invites the public to attend the meeting **in person or Zoom** pursuant to the Remote Meeting Policy adopted by the Planning Board. Prior to the meeting, please check the Agenda Center <https://www.portlandmaine.gov/602/Agendas-Minutes> to view memos and reports which will be posted by the end of the day on the Friday before the Planning Board meeting. To submit written public comment on an agenda item, email planningboard@portlandmaine.gov. Submissions must be received by 12:00 pm **the day before** the Planning Board meeting to guarantee their inclusion in the agenda packet. All submissions must include the commenter's name and legal address. To help ensure your comment is submitted for the correct item, please include the name of the agenda item (see below).

REMOTE PARTICIPATION

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AGENDA:

WORKSHOP - 4:30 PM

- i. Major Site Plan; 331 Veranda Street; Martin's Point Health Care, Applicant. The Planning Board will hold a hybrid workshop to consider a proposal by Martin's Point Health Care to redevelop existing Building 7 at their Veranda Street campus, located at 331 Veranda Street, and construct a new 50,586 square foot administrative office building with structured parking. The subject property totals 13.95 acres, and is located in the R-P Residence Professional zone, and the Shoreland zone. A project and

plan summary are available for viewing on the city's CSS Portal (<https://css.portlandmaine.gov/>) by referencing Plan Number PL-002766-2023.

PUBLIC HEARING - 5:30 PM

1. ROLL CALL AND DECLARATION OF QUORUM

2. COMMUNICATION AND REPORTS

3. REPORT OF ATTENDANCE AT THE MEETING HELD ON MARCH 26, 2024

Workshop

246 Eastern Prom: Barker, Chann, Mazer, Murphy, Silk, Stanley and Smith present.

Public Hearing

2 West Commercial Street: Barker, Chann, Mazer, Murphy, Silk, Stanley and Smith present.

Text Amendments (Articles 3 and 12): Barker, Chann, Mazer, Murphy, Silk, Stanley and Smith present.

186 Woodford Street: Barker, Chann, Mazer, Murphy, Stanley and Smith present. Silk recused.

4. REPORTS OF DECISIONS AT THE MEETING HELD ON MARCH 26, 2024

- i. Major Site Plan; 2 West Commercial Street; MDOT Port Authority, Applicant. Barker motioned, and Stanley seconded a motion to waive the Maine DEP Ch. 500 Flooding Standard, Technical Manual Standard Sec. 5.III and 5.IV, due to the project discharging directly into a tidally-influenced waterbody. Vote 7-0. Barker motioned, and Smith seconded a motion to approve the major site plan application. Vote 7-0. Barker motioned, and Smith seconded a motion to find that the application complies with the shoreland zone requirements (Article 11) of the land use code. Vote 7-0. Barker motioned, and Silk seconded a motion to adopt the draft approval letter as amended by the Board on March 26, 2024, as the Board's decision, and authorize the Board Chair to sign the letter as amended. Vote 7-0.
- ii. Text Amendments to Articles 3 and 12 of the Land Use Code: Definitions and Floodplain Management; City of Portland, Applicant. Barker motioned, and Silk seconded a motion to recommend that the City Council adopt the proposed text amendments as drafted. Vote 7-0.
- iii. Major Site Plan; 186 Woodford Street; Community Housing of Maine (CHOM), Applicant. Barker motioned, and Stanley seconded a motion to waive Technical Manual standard Sec. 1.10.3, to reduce the minimum two-way driveway aisle width for right angle parking from 24 feet to 23 feet. Vote 6-0, Silk recused. Barker motioned, and Stanley seconded a motion to approve the subdivision application. Vote 6-0, Silk recused. Barker motioned, and Stanley seconded a motion to approve the major site plan application. Vote 6-0, Silk recused. Barker motioned, and Stanley seconded a motion to adopt the draft approval letter as the Board's decision, and authorize the Board Chair to sign the letter as drafted. Vote 6-0, Silk recused.

5. NEW BUSINESS

- i. Major Site Plan and Traffic Movement Permit; 84 Auburn Street; MSP Properties 94 Auburn, LLC and 84 Auburn, LLC Applicant. The Planning Board will hold a hybrid public hearing to consider a Major Site Plan and Traffic Movement Permit (TMP) application to facilitate the development of a national coffee franchise with drive-through facility, patio, off-street parking and site infrastructure improvements at 84/94 Auburn Street. The subject property totals 2.07 acres, and is zoned B-1 Neighborhood Business. A project and plan summary are available for viewing on the city's CSS Portal (<https://css.portlandmaine.gov/>) by referencing Plan Number PL-002298-2022.

To: Chair Brandon Mazer & Members of the Planning Board
From: Eric Freeman
Date: April 5, 2024
Re: 331 Veranda Street
Project ID: PL-002766-2023
CBL: CBL 434 Co01
Meeting Date: April 9, 2024

INTRODUCTION

Martin's Point Healthcare has submitted a Major Site Plan application to construct a 50,000 square foot administrative office building with 92 new parking spaces and associated site improvements at 331 Veranda Street in the Residence-Professional zone. This application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Site Plan Standards, Section 14.6.

The Planning and Urban Development Department mailed 55 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the March 30, 2024 and April 2, 2024 edition of the Portland Press Herald.

Applicant: Martin's Point Healthcare

Applicant Representatives: Sebago Technics, SMRT Architects



Figure 1: Rendering of the proposed building

REQUIRED REVIEWS

<i>Review</i>	<i>Applicable Standards</i>
Site Plan	Section 14.6
Shoreland Zone	Article 11

PROJECT DATA

Existing Zoning	R-P Residence-Professional
Property Size	533,0000 sf
Existing Use	Impervious asphalt, maintenance buildings, grassed area
Proposed Development Program	50,000 sf medical office building with structured parking and patio space.

EXISTING CONDITIONS AND SURROUNDING AREA

The existing site is located at the northeastern edge of Martin's Point, immediately adjacent to Building 6 on the Martin's Point Healthcare campus. The existing campus consists of the historic Marine Hospital building and several additional buildings hosting patient facilities and staff offices. The Campus is accessed from a signalized intersection at Veranda Street. The site of this application lies at the northeastern edge of the campus, with the development site featuring a mixture of both impervious and vegetated surfaces, with impervious areas largely being located on the eastern side of the parcel, closer to Veranda Street. The site also contains a mixture of mature and semi-mature trees of varying types, wild grasses, and bushes.

There are two existing buildings on the site; The former two-story Cerebral Palsy facility and a small maintenance building. Both structures would be removed to accommodate the new administrative office building.

Figure 2: The existing site



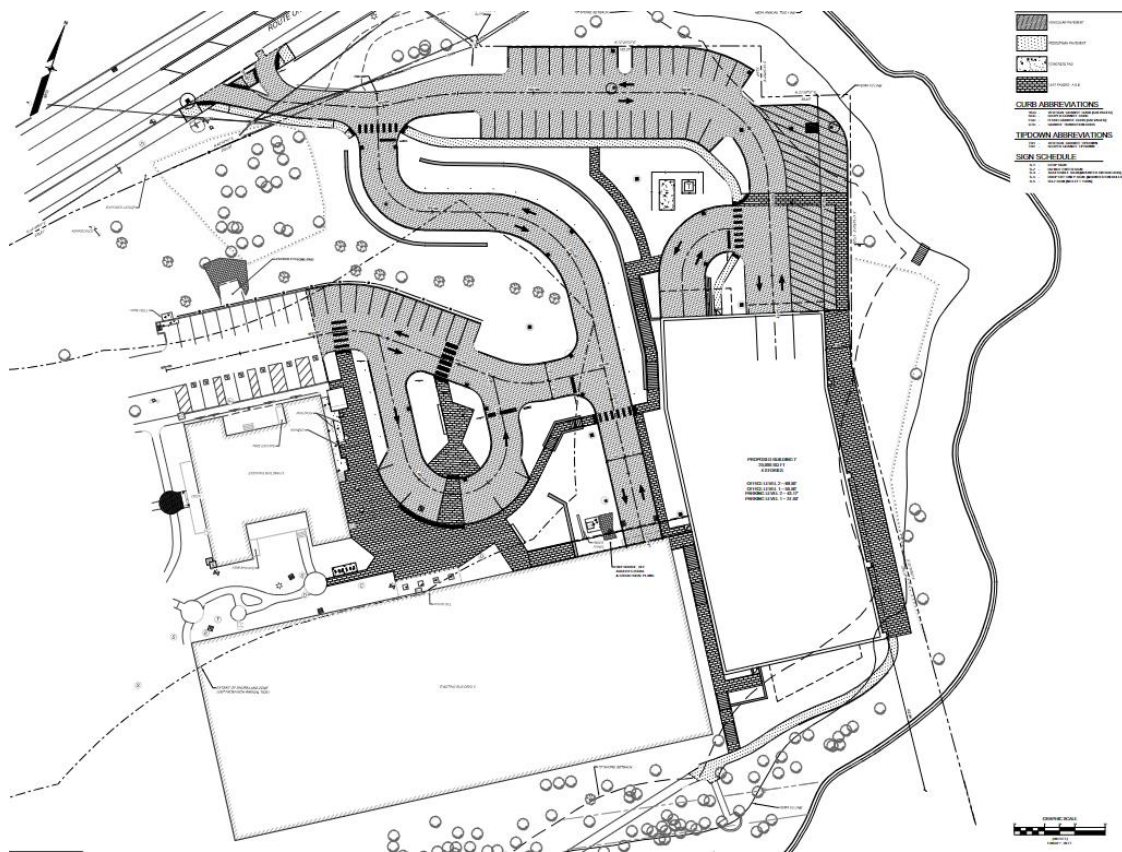


Figure 3: Proposed Site Plan

PROPOSED DEVELOPMENT

The proposed development involves the construction of a four-story, 50,000 square foot administrative office building with two levels of structured parking topped with two stories of office space, to be used exclusively by Martin's Point administrative staff, with no on-site patient services. The building would have a floorplate of approximately 25,000 square feet. The new building (building 7) would be connected to the existing building 6 via an elevated walkway. Due to the grade change on the site, the elevated walkway would connect the upper level of the new building with the upper campus and the Marine Hospital entryway. The elevated walkway would cross over the existing parking garage entrance of building 6, and above the proposed pedestrian pathway located between building 6 and the proposed building 7.

The proposed structured parking would be accessed via a right-in, right-out driveway entrance off of Veranda Street, which would serve as a secondary entrance to the Martin's Point campus. Vehicle traffic exiting the campus towards I-295, or entering the campus from the direction of Falmouth would utilize the existing signalized intersection approximately 500 feet to the south. Vehicular circulation within the Martin's Point campus would be modified to allow for full access to and from the new structured parking area.

New publicly accessible pedestrian connections are proposed along the eastern edge of the property to connect new surface parking areas with the existing Martin's Point trail. The trail itself is proposed to be

regraded to create ADA-compliant grades. New landscaping will include replanted trees, flower beds and native bushes.

WAIVER REQUESTS

The Applicant has requested a waiver from Environmental Quality Standards (14-14.6.2(D) Water Quality, Stormwater Management and Erosion Control (14.6.2(D))). The waiver is appropriate as the project discharges directly into a tidal body of water.

RIGHT, TITLE, & INTEREST

The applicant has demonstrated sufficient right, title and interest to all parcels involved in this application. The record owner of the parcel is Martin's Point Health Care, Inc., as recorded in the Cumberland County Registry of Deeds (CCRD):

- CCRD Book 29771/Page 60
- CCRD Book 24070/Page 323
- CCRD Book 11581/Page 337 (HTTA: Penobscot Bay Medical Associates, Inc.)
- CCRD Book 4898/Page 199 (HTTA: Penobscot Bay Medical Associates)

Full Right, Title and Interest documentation is included as Attachment C

FINANCIAL & TECHNICAL CAPACITY

The project will be developed and financed by Martins Point Health Care, which verifies financial capacity by letter in this section. Per PC Construction, the schematic design estimate of the probable cost for the overall project is approximately \$39,982,061.00. (Attachment F).

Sebago Technics and SMRT Architects have demonstrated technical capacity and experience working on projects of a similar scale throughout Maine. (Attachment G)

ZONING ANALYSIS

The subject properties lie within the Residence Professional (R-P) zone and within the Shoreland zone. The proposed use is a use that is permitted by right within the R-P zone, and the project is also subject to shoreland and floodplain regulations under Article 11 of the City's land use code. Relevant sections of the R-P purpose statements include:

- **R-P:** To provide appropriate location for the development and operation of low-intensity business uses, including offices on or near major arterials, that are compatible in scale, density and use with surrounding and adjacent residential neighborhoods; or to serve as a transition or buffer zone between residential and more intensive nonresidential zones.

	Required	Proposed
Lot Size	6,000 sf	533,000 sf
Maximum Height (ft)	45 ft.	44' -10"
Minimum Street Frontage (%)	60 ft	945 ft
Maximum Impervious Area	70%	53%
Rear Setback	20 ft	103.5 ft
Yard Right	14 ft	16.5 ft

SITE PLAN STANDARDS (Section 14.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 14.6. Staff comments are below.

1. Transportation Standards (Section 14.6.1)

A. Impact on surrounding street systems

This application involves changes to internal vehicular and pedestrian circulation within the Martin's Point Campus. Per discussions with Maine DOT and City Staff, the existing unsignalized driveway to building 7 will be reconfigured as a right-in / right-out access point. Primary campus access will be via the signalized intersection located approximately 500 feet to the south at the intersection of Veranda Street and Marine Hospital Road, which will be upgraded.

This project will include regrading for connection and compliance with ADA standards at the right-in/right-out access point. 20 linear feet of the existing Veranda Street sidewalk will be regraded and reconstructed to be ADA-compliant and to accommodate planned driveway alterations.

This application involves changes to internal vehicular circulation within the Martin's Point campus, including the removal of the circular drop-off area in front of the Marine Hospital and building 6.

Staff finding: Met

B. Access and circulation

Building 7 will be connected to existing campus buildings via continuous internal walkways and sidewalks. The existing Martin's Point trail will be regraded to allow for ADA compliant grades. The trail will be directly connected to the publicly accessible patio running along the eastern side of the proposed building and connecting through the front drive aisle and surface parking area to Veranda Street. Additional pedestrian improvements include the creation of a new publicly accessible staircase and walkway between building 6 and the proposed building 7. This walkway would directly connect the Martin's Point trail with the upper campus. Staff consider this standard to be met.

There are ongoing discussions between the applicant and City Staff regarding the granting of a public access easement through a portion of the Martin's Point

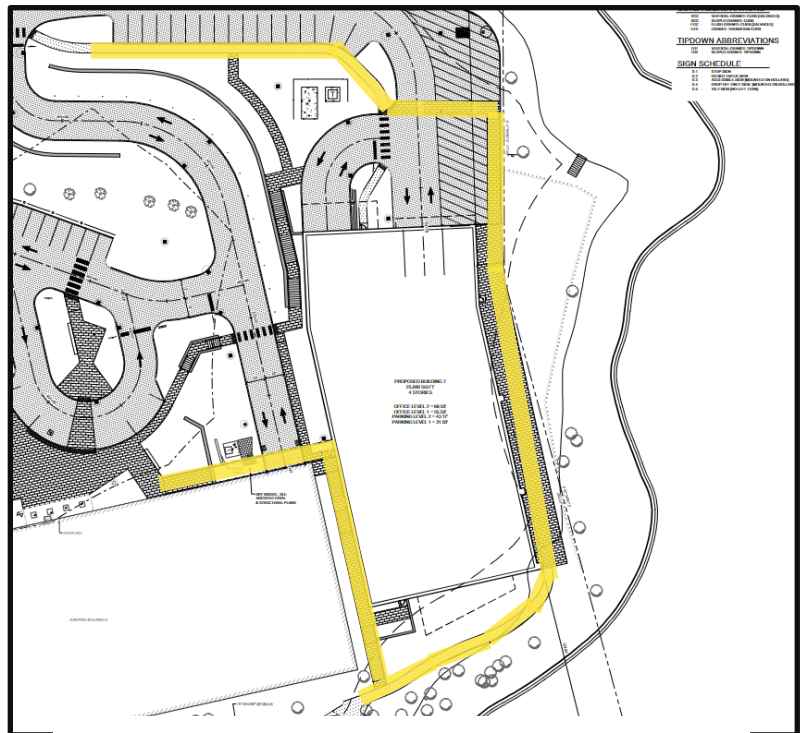


Figure 4: proposed publicly accessible pathway and extension of the Martin's Point Trail

property, to allow for public recreational access and extension of the Martin's Point Trail. This easement is not a requirement of site plan approval, and is being coordinated outside of the site plan review process.

C. Public transit access

Martin's Point Healthcare campus is served by Metro Route 7 with a stop on Veranda Street. The applicant is required to install a bus transit shelter as stated in Section 14.6.1-C.

D. Parking

This site is eligible for an exception to off-street parking minimums (Article 19) due to the site's proximity to fixed-route transit. In order to take advantage of this exception, the applicant is required to provide a transportation demand management (TDM) plan in accordance with the City's TDM requirements. The application involves the addition of 92 new parking spaces. The proposed office building will have two levels of structured parking with some additional surface parking being provided along the new accessway to the garage. Outdoor bicycle parking is provided at the upper level of the campus. Additional enclosed bicycle storage is proposed within the garage levels. A total of 22 level-2 chargers are planned within the parking garage with electrical conduits available for future EV charging spaces if needed. This application also involves the reconfiguration of existing surface parking and vehicular circulation within the existing campus.

A loading and servicing bay for delivery vehicles on the front facade of the building will be accessed via an area of striped pavement that will be flush with the garage drive aisle and the entrance to the pedestrian patio.

Staff finding: Met

E. Transportation demand management (TDM)

The applicant is working to develop a full TDM plan, which, when submitted, will be reviewed by the City for conformance with the City's TDM requirements, listed in Section 17 of the City's Technical Manual.

2. Environmental Quality Standards (Section 14.6.2)

A. Preservation of significant natural features

This application involves the removal of approximately 61 trees of 4" DBH or greater within the shoreland zone, which is the minimum size of vegetation subject to shoreland zone requirements around the clearing or removal of vegetation, Sec. 11.4.3. Nineteen of these trees are 10" DBH or greater. Licensed arborist and project consultant Jeff Tarling describes the on-site conditions and makes recommendations for tree preservation included within attachment P32.

B. Landscape preservation

The applicant intends to offset the removal of trees by implementing a formal landscaping plan that will provide buffer enhancement and improve visual aesthetics. Trees to remain will be protected by recognized protection measures as shown on the landscape plans.

The Building 7 development area and landscaping plans are designed to avoid the removal of existing trees to the greatest extent practicable. Existing vegetation will be preserved beyond construction limits.

C. Site landscaping and buffers

Three new street trees are proposed along Veranda Street. The exact locations of these plantings will be coordinated with the Department of Public Works and the City Arborist.

Loading and service areas are adequately screened from public view particularly from Veranda Street.

Proposed landscaping involves replanting a variety of trees identified in Technical Manual Section 4, Figure IV-1. Proposed shrubs, perennials and grasses are predominantly native species. full landscaping plan has been included as attachment P23.

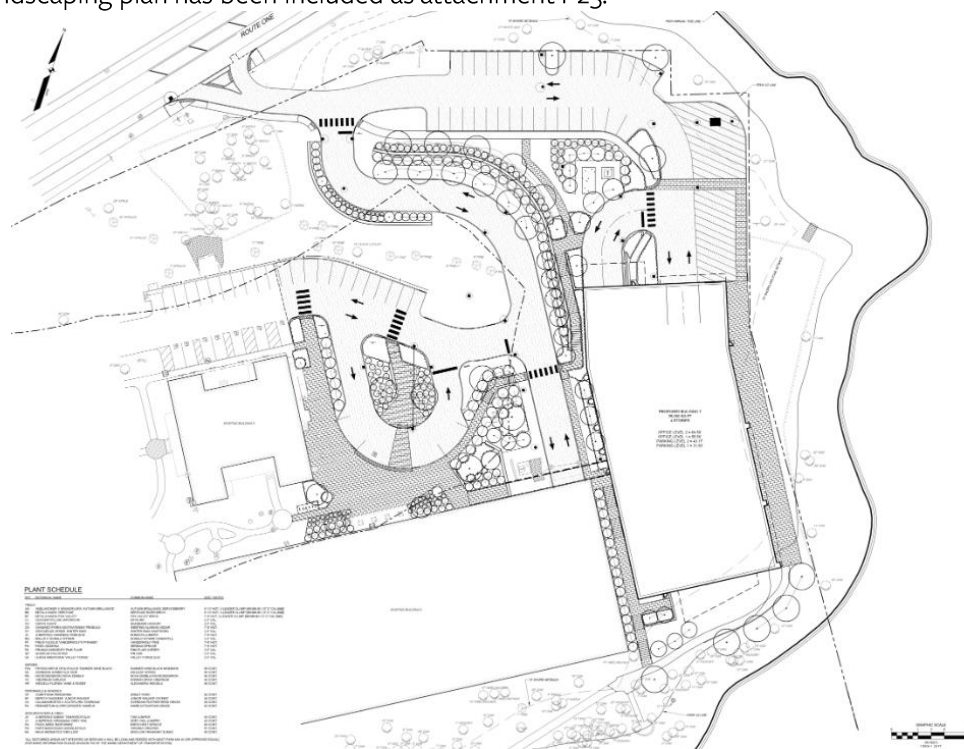


Figure 5: Landscaping Plan

D. Water quality/storm water management/erosion control

The project is required to provide for stormwater management in accordance with Maine DEP Chapter 500 and City of Portland Technical Manual Section 5 standards for stormwater management. The Applicant has submitted a stormwater management report and a grading and drainage plan to indicate erosion and sedimentation control measures and stormwater treatment for the proposed development. This project is classified as a redevelopment project under the existing General Standards and as such the applicant is required to treat 95% of new impervious area and 80% of all developed area where greater than 5,000 sf of non-roof impervious area is being redeveloped.

This application proposes the use of a jellyfish filter for on-site stormwater treatment. Drainage from covered parking areas will discharge through an oil-water separator to the sewer.

Based on the size of the proposed development and the information contained within the

stormwater management report, this application will require a Site Location of Development Permit. The applicant has begun the process of preparing a Site Location application, and it is anticipated that the City of Portland will have delegated review of this application. The City will provide a detailed overview of the project's compliance with the applicable Site Law standards, included within Section 14 of the City's Technical Manual, as part of the public hearing report.

The project has requested a waiver of the flooding standard in the stormwater management report, which the City staff are recommending, due to the fact that the project directly discharges into a tidal body of water.

Staff finding: Met

3. Public Infrastructure and Community Safety Standards (Section 14.6.3)

A. Consistency with City Master Plans

There are no long-range plans that apply to this project.

B. Public safety and fire prevention

A life safety plan and fire suppression plan was included as part of this application. The Applicant has ensured that emergency vehicles have adequate access to the rear of the building via the paved walkway on the northeastern side of the proposed building. Emergency Vehicle turning templates were also provided. Staff consider this standard to be met.

C. Availability and capacity of public utilities

This application involves underground electrical utilities extending from existing on-site infrastructure. Sewer connectivity will be provided by a new 6" service line with an exterior pump station. The Applicant has provided a wastewater capacity authorization letter and final ability to serve letters will be provided when they become available.

4. Site Design Standards (Section 14.6.4)

A. Massing, ventilation, and wind impact

The proposed building is 44'-10" in height. Given the grade change within the Martins Point campus, the roofline of the proposed building would be level with the existing Building 6. As the building is nearly identical in scale to surrounding buildings, there are no anticipated impacts with respect to building massing, ventilation, or wind, associated with this application. Staff consider this standard to be met.

B. Shadows

No adverse shadow impacts are anticipated with this application, and the building as designed is not subject to the City's shadow standards, based upon the height of the building, which is less than 45 feet.

Staff consider this standard to be met.

C. Snow and ice loading

The proposed building is not in a location where falling snow or ice could fall onto abutting properties or rights-of-way. The applicant has detailed snow storage locations on included plans. A

snow melt system will be incorporated into the garage ramps

Staff consider this standard to be met

D. View corridors

The proposed building is similar in height and scale to the existing building 6. There are no view corridor impacts anticipated with this application and the project is not located within an established view corridor.

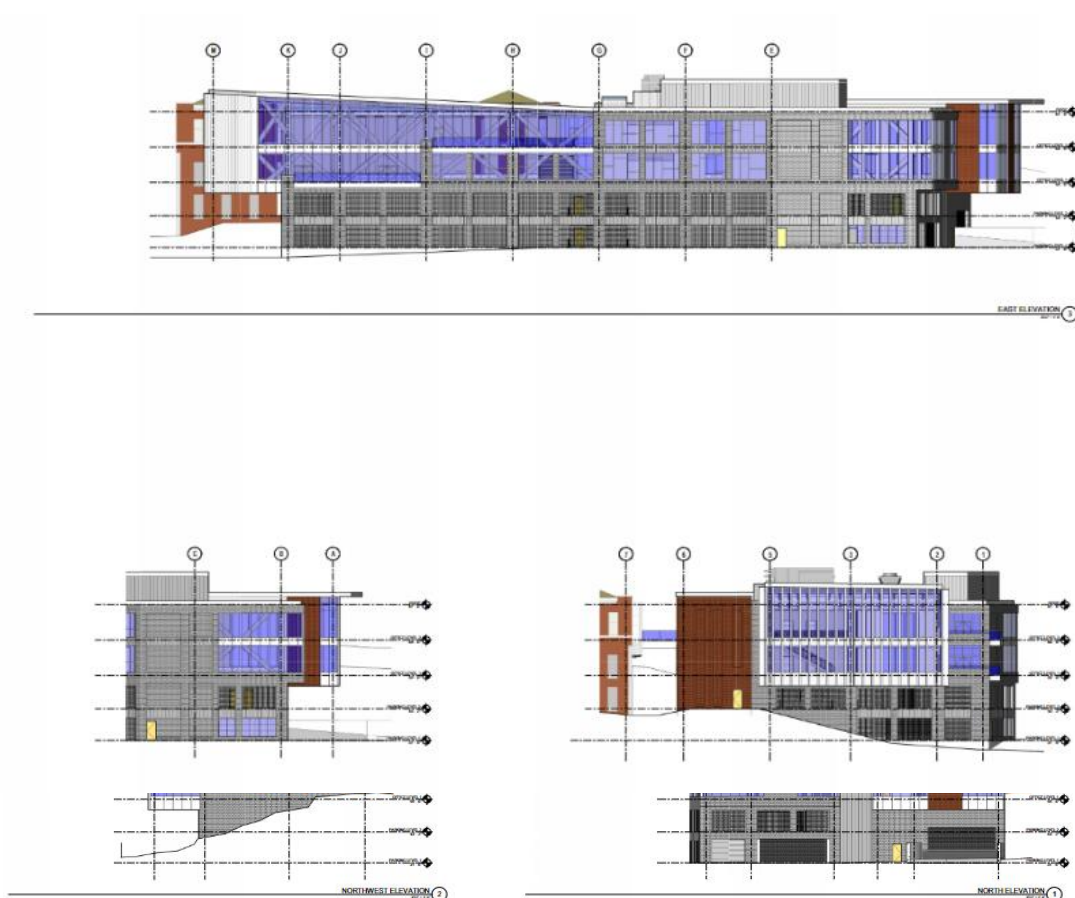


Figure 6: Building Elevations

E. Historic resources

This application is not within a historic district, but is subject to Historic Preservation advisory review given the site's proximity to the Marine Hospital, which is a designated historic landmark. The full Historic Preservation administrative review is included as Attachment 1

Staff consider this standard to be met

F. Exterior lighting

This application includes improvements to street lighting along Veranda Street. Pole mounted lighting will be installed along pedestrian walkways and along the public terraced area. On-site lighting will consist of full-cut-off LED fixtures. At this time there is no architectural or specialty lighting planned. Proposed lighting fixtures outlined in the photometric plan meet the standards outlined in Section 12 of the Technical Manual.

Due to the site's location, no significant light impact is anticipated for adjacent properties.

Staff consider this standard to be met

G. Noise and vibration

HVAC, air handling units, and other necessary equipment will be installed on the building rooftop. Modular water boilers will be located in the mechanical penthouse. A new emergency generator will be placed on an exterior pad and screened from direct views. A mechanical system for the proposed building has not yet been selected. Given the location of the building within an existing medical campus, the placement of HVAC, generators and other equipment is not anticipated to interfere with abutting residential properties.

Staff consider this standard to be met.

H. Signage and wayfinding

On-site directional traffic signage is provided for safety and ease of navigation within the Martin's Point campus. The applicant's sign schedule has not been fully reviewed. A full sign schedule is included as attachment AA

I. Zoning-related design standards

A design review has been included as Attachment 1. Staff consider this standard to be met.

SHORELAND ZONING SITE PLAN STANDARDS (Section 11.5.1)

The standards written below consist of nine supplemental site plan standards, that are to be applied to applications triggering site plan review.

A. The proposal will maintain safe and healthful conditions.

This application involves improvements to a portion of an existing medical campus facility and will create new public spaces along the waterfront.

B. The proposal will not result in water pollution, erosion, or sedimentation to surface waters.

The project as designed is fully compliant with the Maine DEP Ch. 500 Basic Erosion and Sedimentation Control requirements, along with the Maine DEP. Ch. 500 General Standard, which requires that a project treat 95% of all new impervious area and no less than 80% of all developed area, which includes pervious development.

C. The proposal will adequately provide for the disposal of all wastewater

Wastewater will be discharged into the Veranda Street sewer via a new 6" service line.

D. The proposal will not have an adverse impact on spawning grounds, fish, aquatic life, bird, or other wildlife habitat.

A portion of the Martin's Point Health Care campus is adjacent to recognized tidal waterfowl and wading bird habitat without specific documented occurrences per the Maine Department of Inland Fisheries and Wildlife Environmental Review Tool updated in 2022. Development and construction activity is not proposed within the resource or within 50 feet of the shoreline. By letter dated March 25, 2022, the Maine Natural Areas Program indicates the absence of documented rare botanical features and that there is a low probability that rare or botanical features occur at this project location; see attachments in this section

The site review response letter from the Maine Department of Inland Fisheries and Wildlife is included as attachment M

E. The proposal will conserve shore cover and visual, as well as actual, points of access to inland and coastal waters.

This application involves the removal of several trees within the 75' shoreland setback but given the scale and massing of the proposed building within the existing Martin's Point campus it is not anticipated that it will have an undue visual impact from the water. Tree removal within the 75' setback has been documented with a point survey. Staff have outstanding questions regarding the methodology of the point survey that was undertaken. The applicant intends to preserve 164 trees within the shoreland zone, this equates to approximately 37% of trees 4" DBH or greater being removed.

F. The proposal will protect archaeological and historic Resources.

Due to this site's proximity to the Marine Hospital, it is subject to Historic Preservation advisory review. The full review can be found as attachment 1.

The City's site plan ordinance requires that, in instances where archaeological resources and/or historic resources are identified during the course of construction, that the developer take specific steps, in accordance with Sec. 14.6.4.E.3, to protect the identified resource.

G. The proposal will not adversely affect existing commercial fishing or maritime activities.

There are no commercial fishing or marine activities in the vicinity of this application

H. The proposal will avoid problems associated with flood plain development and use.

Portions of the overall MPHIC campus are located within special flood hazard areas as delineated on the FEMA Flood Insurance Rate Map, Portland, Cumberland County, 2300510008B, effective date 7/17/1986 with the 100-year flood; base flood elevations of 27- feet (NGVD29). This application will also require a flood hazard permit.

I. The proposal is in conformance with the standards set forth in this article.

The proposal is in conformance with all the subsections that pertain in section 11.4.

NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant held a neighborhood meeting on March 29, 2024 at 3Pm. The in-person meeting was held at the Sebago Technics office located at 75 John Roberts Rd. in South Portland. A virtual meeting option was also provided via zoom. One (1) member of the public was in attendance. A full sign-in sheet and meeting minutes are included as attachment B

One item of written public comment has been received and is included at attachment PC1

NEXT STEPS

Staff will continue to review resubmitted plans and documents to ensure the proposed project complies with all applicable standards, and specifically:

1. Address outstanding Staff comments related to public easements, shoreland zoning and landscaping.
2. Address additional comments from the Planning Board.
3. Prepare final plan submission.
4. Schedule and hold planning board public hearing

ATTACHMENTS

Public Comment

PC1 – Jamie Parker / Portland Trails

Staff Materials

- 1 – Design & Historic Preservation review – 01/18/2024
- 2 - Site Plan Review – 01/29/2024
- 3 - Zoning Review – 01/29/2024
- 4- Zoning Administrator comments – 04/05/2024

Applicants Submittal

- A – Submission Checklist
- B – Neighborhood meeting sign-in sheet and minutes
- C – Right, Title & Interest
- D- Zoning Assessment
- E- Waivers
- F- Financial Capacity
- G – Technical Capacity
- H – Street Impact
- I - Access & Circulation
- J – Public Transit
- K – Off-street parking
- L– Transportation Demand Management
- M – Landscape Preservation
- N– Site Landscaping & Buffers
- O – Water Quality and Stormwater Management
- P – Public Safety
- Q – Public Utilities

R – Snow & Ice Loading
S – View Corridors
T – Historic Resources
U – Exterior Lighting
V – Massing, Ventilation & Wind Impact
W – Shadows
X – Construction Management
Y – Applicant Response to comments
Z – Signage and wayfinding
AA – Zoning design standards
BB – State and Federal Approvals

Plans:

P1 – Cover Plan
P2 - Notes and Legend
P3 – Demolition plan
P4 – Index plan
P5 – Overall site plan
P6 – Upper drive site plan
P7 – Lower drive site plan
P8 – Veranda St. site plan
P9 – rear path site plan
P10 – Erosion control plan
P11 – Overall grading plan
P12 – Upper drive grading plan
P13 – Lower drive grading plan
P14 – Veranda St. grading plan
P15 – rear path grading plan
P16 – Upper drive profile
P17 – Overall utility plan
P18 – Upper drive utility plan
P19 – Lower drive utility plan
P20 – veranda St. utility plan
P21 – Rear path utility plan
P22 – Utility context plan
P23 – Overall landscape plan
P24 – Upper drive landscape plan
P25 – Lower drive landscape plan
P26 – Veranda St. landscape plan
P27 – Rear path landscape plan
P28 – Erosion control notes
P29 – Details

- P30 – Existing stormwater conditions
- P31 – Post-development stormwater conditions
- P32 – Tree preservation and removal plan
- P33 – Existing conditions plan
- P34 – Building height analysis

Design Review

Planning and Urban Development Department



Subject: 331 Veranda Street
Zone: R-P Residential Professional
Date of Review: January 18, 2023
Reviewer(s): Sean King (Urban Designer), Evan Schueckler (Historic Preservation Project Manager), Eric Freeman (Planner)
Project ID: PL-002766-2023

I. INTRODUCTION

The project was reviewed against the R-P Residential Professional Zone Standards from the City of Portland Design Manual. Any proposal required to obtain a certificate of appropriateness under Portland's historic preservation ordinance is exempt from the R-6 design review standard.

II. DESIGN REVIEW COMMENTS: **bold** text denotes recent updates met, **red** text denotes standards not met to require resubmission.

R-P RESIDENTIAL PROFESSIONAL ZONE

(1) STANDARD. For development within the R-P zone where there is a consistent established architectural style or character to the existing structures in the immediate vicinity in which the development is proposed, that the concurrently visible architectural style or character of the proposed development would not be incongruous to that established style or character.

Staff comments: The proposed development plan and office building is located at the Martin's Point Health Care campus, situated on a peninsula of land with ocean views and steep topography. The existing campus is comprised of a sprawling arrangement of low-storied administration buildings, the health care center with a parking structure and the U.S. Marine Hospital as a designated National Register Landmark. Similar materials such as brick, stone, paneled glass and metal roofing and accents with strong symmetrical arrangements are utilized throughout the campus.

The proposed office building is an exaggerated two–three stories with cantilevered glass projections that terminate at each end. Large expansive glass curtain walls are integrated into brick and stone facades that Staff finds appropriate to relate to the established campus buildings. **Staff is requesting the Applicant provide specific material selections for the identified spandrel, as it appears the spandrel material is proposed between floors in the curtain wall system, below glass guardrails, and roofline. Staff recommends the termination of exterior building facades should relate to the surrounding campus buildings with stone capping above masonry and metal trim above glass.**

The existing campus buildings include clearly articulated building entrances with strong patterns of pedestrian circulation. **Staff finds that the primary building entrance that terminates the elevated walkway between the health care center and proposed office building is minimal and recommends an integrated canopy or other architectural element that relates to other campus buildings. In addition, Staff recommends secondary building entrances, such as along the north, east, northeast and south elevations should be clearly identified in addition to the proposed door color.**

III. HISTORIC PRESERVATION ADVISORY REVIEW

Article 14.6.4.E-2, states that developments within 100 feet of any landmark, historic district or historic landscape district shall be generally compatible with the major character-defining elements of the portions of the landmark and historic districts in the immediate vicinity of the proposed development. This requirement is informally referred to as the Historic Preservation Advisory Review. In conducting this advisory review, a member of the Historic Preservation staff participates in the design review with the Urban Designer and Assigned Planner.

Character-defining elements of landmarks and historic districts are identified in the historic resources inventory and respective historic district designation reports, which can be found here:

<https://www.portlandmaine.gov/665/Historic-Districts>.

For the purposes of this provision, “compatible” design shall be defined as design which respects the established building patterns and visual characteristics that exist in a given setting and, at the same time, is a distinct product of its own time. Historic Preservation staff has provided a written analysis of the proposed development’s immediate context, identifying the major character-defining elements and any established building patterns that characterize the context.

The Marine Hospital (at Martin’s Point):

The Marine Hospital at Martin’s Point is an Individual Portland Landmark, designated in 1990. The structure was built between 1855 and 1859, following the design of Ammi B. Young, Supervisory Architect of the United State Treasury. It was designed in the Italianate style to function as the first purpose-built home for Portland’s federally enabled Marine Hospital which had existed in the city since 1805. The building is constructed out of brick with a granite foundation and trim and extensive use of structural and ornamental cast iron, in particular at the front and side triple-height porches. The building features accentuated corners with large granite quoins, a strong horizontal string course above the first floor, and is capped by a heavy bracketed cornice. Windows are arranged regularly around the building, and overall it features a highly symmetrical H-shaped plan with central front and rear entrances. These entrances are prominent given their centered position and the grouped openings stacked above them.



Site Plan Review Standards (Sec. 14.6)		
Transportation Standards (Sec. 14.6.1)		
Standard	Discussion	Finding
Impact on Surrounding Street Systems	<u>Overview:</u> This application involves reconfiguring the unsignalized intersection approximately 500 feet north of the existing signalized entrance to the Martins Point campus to be a “right-in, right-out” intersection. As noted in the traffic engineering review, changes to the existing signalized intersection on Route 1 may also be required.	Not Met
	<u>Updates Requested</u> - The applicant should note if the relocation of existing employees to the proposed building is allowing for an increased in medical office space in existing buildings. - The base assumption for the trip generation analysis is that the proposed building will function as administrative, or office use only. If changes to the use occur, a revised trip generation analysis will be required. - Based upon the current assumptions, the project does not meet the requirement for a Traffic Movement Permit. - The analysis indicates the site driveway intersections will operate at acceptable levels of service following project completion. - Field observations of traffic conditions indicated congestion at the Veranda Street and I295 Southbound On-Ramp intersection. It appears this is related to traffic signal operational issues. - There are no safety concerns identified in the immediate vicinity of the project. - Sight distance from the northerly driveway meets City standards. - The traffic model analysis did identify vehicle queuing following project completion will exceed available storage. I would note that the through lane queue is longer and will prevent vehicles for entering the left-turn lane. - Traffic Signal Equipment upgrades to the site signal on Route 1 are required. The applicant shall implement the following: - Fiber interconnect to the new signals at the Veranda Bridge interchange. - The controller cabinet shall be updated to ATC architecture.	

	○ Reflective border backplates meeting current standards. ○ The Route 1 southbound permissive left-turn phasing shall be modified to a flashing yellow phasing system. • For the northerly driveway, I would suggest a raised median be constructed to prevent left-turn movements. This will also have traffic calming benefits. • The entrance off of Route One is a commercial driveway and needs to be designed in accordance with City Standards. The existing Driveway width shall be reduced, removed and reconstructed per the City Technical Manual Standard for <u>COMMERCIAL/INDUSTRIAL DRIVEWAY APRON I-9B and I-10C</u>. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope. • The applicant shall provide vehicle turning template graphics and justification for the wide diagonal painted area at the garage entrance.	
Access and Circulation	<u>Overview:</u> This application involves reconfiguring the interior driveways and sidewalks within the Martins Point campus to accommodate the proposed building and associated parking. This application also involves improvements to the public realm with publicly accessible areas including regrading sections of the Martins Point trail and creating a new public terrace area.	Not Met
	<u>Updates Requested</u> • Staff has noted several areas on the Martins Point trail where average gradients are too steep to be considered ADA compliant. • Any improvements, disturbance or impact to the City-owned parcel directly east of the project will require review and approval by the National Parks Service in compliance with the deed restrictions imposed on the parcel when the federal government gifted the land to the City. The City and the NPS must ensure that any proposed changes to the land conform to the development plan that was created when the land was transferred into City ownership. Similarly, any improvements or impact to this parcel will require Parks Commission review and approval. • Parks advocates strongly for public beach shoreline access (up to the high water line) at Martin's Point and would like to pursue a shoreline easement for public recreational use along the applicant's property. Providing public access through an easement at this site would allow for a nearly continuous stretch of publicly accessible shoreline between Martin's Point	

	Park (City Property east of the medical facility) to the Roux Institute property at the former B&M Factory. - It appears the pedestrian connectivity from the existing trail on the southeast side would be up the existing stairs, and then down a new set of stairs. Staff would like to ensure that all internal circulation through and between buildings is fully ADA compliant. - There is a need for Improvements for pedestrian circulation and access between the proposed front parking / loading area and the beginning of the multi-use trail and terrace area. A dedicated pedestrian through-route should be provided.	
Public Transit Access	<u>Overview:</u> This project is within ¼ mile of METRO Route 7. A bus stop on Veranda St. serves the Martins Point complex.	Met
	<u>Updates Requested</u> None	
Parking	<u>Overview:</u> This site is eligible for an exception to off-street parking minimums (Article 19) due to the site's proximity to fixed route transit. The application involves the addition of 92 new parking spaces. The proposed office building will have two levels of structured parking with some additional surface parking provided along the new accessway to the garage. This application also involves reconfiguring existing surface parking and vehicular circulation within the existing campus.	Not Met
	<u>Updates Requested:</u> - Section 11.4.11 prohibits parking to be located within the 75' setback. - Public parking should be provided for access to Martins Point Trail. - The large impervious loading area intrudes into the 75' shoreland setback. Please provide justification for why such a large impervious area is required.	
Transportation Demand Management	<u>Overview:</u> Not Applicable – This site does not meet the criteria for TDM	Met
	<u>Updates Requested</u> None – N/A	
Environmental Quality Standards (Sec. 14.6.2)		
Standard	Discussion	Finding
Preservation of Significant Natural Features and	<u>Overview:</u> The current site is a mixture of impervious and vegetated surfaces. The majority of the existing impervious surface is located on the eastern side of the parcel closer to Veranda St. The site also contains a mixture of mature and semi-mature trees of varying types, wild grasses and	Not Met

Landscape Preservation	bushes. Existing trees on site have been documented. The applicant has utilized protection measure outlined in the City's Technical Manual. <u>Updates Requested</u> - Tree removal in the shoreland zone between 75 and 250 feet from the high-water mark, including for permitted development, cannot exceed 40% of the existing trees 4" in diameter and greater - An inventory of all stems 4" and greater will be need to be provided to determine compliance - Tree removal within 75' of the high-water mark must comply with the point system thresholds outlined in section 11.4.3.F(2) of the city code/ - Please refrain from including maple trees in the proposed landscape plan - The greater Portland area is oversaturated with maple trees and is incredibly vulnerable to infestation by Asian Longhorned Beetle - General recommendation to plant single stem B&B birch specimens instead of the 3 stem clumps - The clump plantings are more prone to windthrow and snow/ice loading damage due to asymmetrical root systems and eccentric canopies	
Site Landscaping and Buffers	<u>Overview:</u> Landscape plans provided detailing proposed tree removals and new plantings. Existing tree cover and vegetation will be preserved where possible. Three new street trees are proposed along Veranda Street. The exact locations of these plantings will be coordinated with the Department of Public Works. Loading and service areas are adequately screened from public view particularly from Veranda St. <u>Updates Requested</u> - Please include the 75' and 250' boundaries from the high-water line for the shoreland zone on all plans	Not Met
Water Quality, Stormwater Management	<u>Overview:</u> The proposed building is designed to minimize impervious area to the greatest extent possible. Proposed stormwater facilities on site do not include ponding, and the stormwater report included in the application	Not Met

and Erosion Control	demonstrates that no flooding or adverse impacts are anticipated on adjacent properties.	
	<u>Updates Requested</u> - Based on the information provided in the stormwater management report, it appears that a Site Location of Development permit may be required. The Maine DEP threshold for Site Law is 3 acres of new “structure” which includes buildings, parking lots, roads, paved areas and any areas striped or graded and not revegetated. In the stormwater management report, the Applicant notes that proposed improvements within redeveloped and newly developed areas include 3.19 acres of impervious surface, which would indicate that the threshold has been met for this type of permit. Please clarify the areas being accounted for as part of the development work. If Site Law is required, the City of Portland has delegated review authority, but the Applicant should also confirm that a Site Law permit does not already exist for this site with the Maine DEP. - The project is required to provide for stormwater management in accordance with the standards in Maine DEP Chapter 500 and the City of Portland’s Section 5 of the Technical Manual. I have the following comments on the proposed stormwater management systems. STORMWATER MANAGEMENT: - Basic Standards: The project is required to provide for erosion and sedimentation controls in accordance with the Basic Standards. - The project generally complies with the standards, however there are a few places surrounding the site where filter barrier is not shown, along the northern side of the Veranda Street entrance, continuing through the site adjacent to the right hand turn in the driveway turning towards the new building, and along the west side of the steep driveway to the existing building. Filter barrier should be provided in all areas downhill of proposed disturbance. - With significant work within the stormwater treatment system, it is recommended that some type of barrier like a floating boom be installed downstream of the site’s outfall during any time that the system under construction remains connected to the outfall. - General Standards: The Applicant is proposing to remove existing Filterra tree box filters and a soil filter and replace them with a Jellyfish Filter for stormwater treatment for the proposed development. I have the following comments on the proposed system.	

	• The Jellyfish filter is an approved propriety stormwater treatment system in the Maine DEP Stormwater Best Management Practices manual, however, it is unclear how the submitted system meets the Maine DEP standards as currently shown. The proposed system does not include any associated storage, which is how the Jellyfish filter is described as part of the Maine DEP's standard approval. I did touch based with one of the Maine DEP stormwater engineers, and he noted that this type of system can be approved without storage in certain situations (i.e. designed for flow from the entire site of the 0.95" storm without bypass). The Applicant should work with the manufacturer to provide further verification that this system is designed per Maine DEP standards. • It's noted that the areas described in the manufacturer's design letter are larger than the treatment areas in the general standard design table. The design areas should be clarified. • The detail for the Jellyfish filter should be provided within the drawing plan set. It was only included in the stormwater report. • A small area of permeable paver treatment is proposed on the site. The plans should clarify where this is located. • Flooding Standards: The project has requested a waiver of the flooding standard in the stormwater management report. This waiver is appropriate as the project will be discharging directly to the ocean and should be reflected in the project waiver requests. It is recommended that the existing outfall condition be evaluated to ensure that no repairs are necessary. • Drainage from covered parking areas is required to discharge through an oil water separator to the sewer, and not connect to the stormdrain. This connection should be clarified on the plans and a detail should be provided for the oil water separator. • Within the proposed stormdrain system, there are a few pipes that have very steep slopes of 10% or greater. It is recommended that these be evaluated and adjusted to account for site conditions with invert changes, and possibly drop structures as necessary. • Any internal drainage from the covered parking area must be directed through an oil water separator (detail located in section # 2 of the technical manual) and directed into the sewer system. It appears internal drainage from the parking area may be directed to the storm drain system on the plans, but it is unclear.	
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	- A second row of ESC barriers should be added for devices protecting natural resource areas. - It's assumed that the site's existing storm drain system will be utilized during construction. ESC measures to protect this existing storm drain system during construction should be added to the plan. - Outlet protection details and notes should be added to the plans for the proposed storm drain outfall pipe	
Public Infrastructure and Community Safety Standards (Sec. 14.6.3)		
Standard	Discussion	Finding
Consistency with City Master Plans	<u>Overview:</u> This project is within an existing medical campus facility and is consistent with the 2017 Master Plan. The applicant has demonstrated adequate Right, Title and Interest for all parcels associated with this application.	Not Met
	<u>Updates Requested:</u> - The boundary survey provided dates from 1994 and is not in compliance with survey standards outlined in the City's technical manual (Article 13.2) - Label the City's easement interests with deed references on the land of Martin's Point. If they don't have these already I can pull them together for them and their team to review. - Label the City as the abutter to the northeast versus no label to the abutting land where the City owns park land. Land Martin's Point can't really use as part of their development project. - Move the proposed utility pole relocation of UP CMP 42 from land of Martin's Point and onto the City's gifted park land. This pole should stay on Martin's Point property and not be relocated onto City property. This is likely to be problematic and will require the City to grant an easement to CMP and possible other utilities.	
Public Safety and Fire Prevention	<u>Overview:</u> A life safety plan and fire suppressing plan was included with this application. The applicant has ensured that emergency vehicles have access to the rear of the building via the paved walkway on the northeastern side of the proposed building. Emergency Vehicle turning templates were also provided.	Met
	<u>Updates Requested</u> None	

Public Utilities	<u>Overview:</u> This application involves underground electrical utilities extending from existing on-site infrastructure. Sewer connectivity will be provided by a new 6" service line with an exterior pump station. The applicant has provided a wastewater capacity authorization letter. <u>Updates Requested</u> The applicant has included correspondence with the utilities as part of the application. Final concurrence of ability to serve should be provided when received.	Partially Met
Site Design Standards (Sec. 14.6.4)		
Standard	Discussion	Finding
Massing, Ventilation and Wind Impact	<u>Overview:</u> The proposed building is 44'-10" in height. Given the grade change within the Martins Point campus, the roofline of the proposed building would be level with the existing building 6. As the building is similar in scale to surrounding buildings, there are no anticipated impacts associated with this application. <u>Updates Requested</u> The maximum height in the R-P zone is 45'. The Zoning Analysis Table gives the height as 44' 10.5". How was this determined? The height needs to be measured from the average grade. Please provide documentation of how the average grade is determined and then include the average grade line on all the elevations. Also, the height is measured to the roof beam in a flat roof. Please provide information on what is located above the roofbeam on the building.	Met
Shadow	<u>Overview:</u> No adverse shadow impacts are associated with this application. <u>Updates Requested</u> None	Met
Snow and Ice Loading	<u>Overview:</u> The proposed building is not in a location which would impact snow and ice fall on abutting properties or Rights-of-way. A snow melt system will be incorporated into the garage ramps. <u>Updates Requested:</u> None	Met
View Corridors	<u>Overview:</u>	

	The proposed building is similar in height and scale to the existing building 6. There are no view corridor impacts anticipated with this application <u>Updates Requested</u> None	Met
Historic Resources	<u>Overview:</u> This application is no within a historic district, but is subject to Historic Preservation administrative review given the sites proximity to the Marine Hospital <u>Updates Requested:</u> See attached design / Historic Preservation Memo.	Partially Met
Exterior Lighting	<u>Overview:</u> This application includes improvements to street lighting along Veranda Street. Pole mounted lighting will also be installed along pedestrian walkways and alongthe public terraced area. Due to the location of the site, no significant light impact is anticipated for adjacent properties. <u>Updates Requested</u> None	Met
Noise and Vibration	<u>Overview:</u> No significant noise or vibration impacts are anticipated with this application. <u>Updates Requested</u> None	Met
Signage and Wayfinding	<u>Overview:</u> Proposed signage will be similar in scale and design to existing wayfinding signage for the Martin's Point campus. Additional traffic directional signage is detailed in the applicants sign schedule. <u>Updates Requested</u> Proposed signage meets all standards	Met
Design Standards	<u>Overview:</u> See attached design and historic preservation memo <u>Updates Requested</u> See attached design and historic preservation memo.	Partially met



Zoning Use Review (Article 6)				
Use Permissions (Table 6-A – Table 6-F)				
Proposed Use	Permitted, Conditional or Accessory Use	Zone	Use Std	
Medical office	Permitted	R-P		
Supplemental or Accessory Use Standards				
Standard	Discussion	Finding		
Shoreland Zoning	<u>Overview:</u> This project falls within 250 feet of the shoreland setback <u>Updates Requested</u> - The 75' setback should be measured from the Astronomical High Tide which is published by the Maine Geological Survey. The high tide elevation needs to be included on the site plan to confirm the 75' setback. - Within the Shoreland Zone a patio cannot encroach into the 75' setback. - Section 11.4.10 prohibits a driveway to be located within the 75' setback. - Section 11.4.11 prohibits parking to be located within the 75' setback. - The proposed building encroaches into the V2 (EL 27) Special Flood Hazard area. The site plan incorrectly labels it as an A2. The applicant will need to submit flood plain permits and elevation certificates when they apply for their building permit.	Not Met		
11.15.1				
Zoning Dimensional Review (Article 7)				
Dimensional Standards (Table 7-A – Table 7-H)				
Standard	Requirement 1	Requirement 2	Proposed	Finding
Lot Size (SF)	6,000 SF		533,000	Met
Area per D.U.				
Street Frontage	60'		142 ft.	Met
Front Setback (Min)	5 ft.		5 ft.	Met

Front Setback (Max)				
Rear Setback	20 ft.		103 ft.	Met
Side Setback	14 ft.		16.5 ft.	Met
Pavement Setback				
Stepback				
Building Height	45 ft.		44 ft.- 10 in.	Partially Met
Lot Coverage				
Impervious Surface Ratio	70%		66%	Met
Length of Building Wall at Maximum Setback				
Undifferentiated Wall				



Eric Freeman <efreeman@portlandmaine.gov>

331 Veranda St - PL-002766-2023

1 message

Ann Machado <amachado@portlandmaine.gov>
To: Eric Freeman <efreeman@portlandmaine.gov>

Fri, Apr 5, 2024 at 10:42 AM

Eric -

Sorry that I didn't get back to you sooner. I know that you wanted me to write up something in general about the Shoreland Zone for the workshop on Tuesday, but after looking over some of the revised plans and talking with Mark Reiland I'm not ready to do that yet.

1. Just noting that the height to T.O.S sloped roof is 84.865'. Height from average grade to this is 44.855'.

2. Do they have an updated survey or is it just the Existing Conditions Plan - 41 A and 41B?

2. Existing Conditions Plan - Sheet 41A (Sheet 1 of 2) .

See 75' Shore setback (Approximate Note 10) - Note 10 bases the HAT (Highest Annual Tide) on MDEP report (2018). They use 6.5 NAVD but Presumpscot River Bridge is 6.7' NAVD on DEP 2018 Chart. Maine Geological Survey map uses 6.9' NAVD which is the highest annual astronomical tide. DEP told me earlier this year that we are supposed to use the MGS map going forward. I have reached out to the Southern Maine DEP office to confirm which HAT we should be using.

3. Plan 40 shows the land preservation and removal plan. Mark Reiland has been coordinating with me to address the issues with the proposed grids and point system for clearing vegetation within the 75' shoreland zone setback (section 11.4.3.F). He had a meeting with the landscape architect from Sebago Technics on Wednesday, 4/3/24. This is from the follow up email from Mark after the meeting:

He (landscape architect) is going to re-draw the grids to cover the entire 75 ft buffer and re-calculate the points within each grid under the new layout. I told him he could send me the new layout and points totals when he gets them done so that you and I could take a look and get them some feedback before they resubmit. Unless there are additional trees that weren't included in the first survey they are going to run into problems with not having enough points in certain grids, I told them to document that and that replanting to make up points is usually only reserved for hazard tree removals in the buffer area so in this case would require a waiver, but the first step is to get a better grid layout figured out and then we would work from there

I'm not sure when the landscape architect will get back to Mark.

4. Section 11.5 Supplemental Site Plan Standards should be addressed by the applicant and then we review them. Has the applicant provided this information?

5. Just a heads up that the new floodplain maps go into effect on June 20, 2024. Part of the property will be in the VE, EL 15' flood zone. I'm not sure if the VE (labeled V2) shown on the site plan is completely accurate. The building may be located outside of it completely.

Let me know if you have any questions.

Ann

Ann Machado
Zoning Administrator
Permitting and Inspections Department
City of Portland, Maine
(207) 874-8709
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CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN GENERAL DOCUMENT AND DRAWINGS CHECKLIST Please submit each document as a separate PDF file. Please confirm by electronically checking the boxes in the left-hand column. ** PLEASE FILL OUT AND UPLOAD THE ZONING ASSESSMENT TABLE AND WAIVER TABLE SEPARATELY AS NOTED BELOW ** At the time of application submission, please contact the Department of Public Works regarding E-911 addressing for your project.			
GENERAL APPLICATION DOCUMENTS			
Yes	NA	Project Description Cover letter with detailed project description	01
Yes	NA	Completed Checklist (this document)	02
Yes	NA	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sales agreements	03
Yes	NA	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable	04
Yes	NA	Zoning Assessment (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code	05
Yes	NA	Site Plan Standards Assessment (see Section 14.6 of the land use code) Summary of project compliance with site plan standards of the land use code	06
Yes	NA	Summary of Existing and/or Proposed Easements or Covenants, applicable. Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way	07
Yes	NA	Waiver Requests (see Waiver Table) Written request for waiver describing request and compliance with applicable waiver standards	08
Yes	NA	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project	09
Yes	NA	Technical Capability Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects	10

MAJOR SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

**Provide assessment of compliance with standards and include supplemental documentation, as applicable.
Please submit each document as a separate PDF file.**

TRANSPORTATION		
Yes	NA	Impact on Surrounding Street Systems (14-14.6.1(A)) 11 Describe incremental volume of traffic impacts and mitigation measures. If needed
Yes	NA	Access and Circulation (14-14.6.1(B)) 12 Identify and describe the following: - Site access and internal circulation, including ADA access - Drive-up features, if applicable - Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable - Sidewalks and condition along street frontages and internal walkways - Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)
Yes	NA	Public Transit (14-14.6.1(C)), if applicable 13 Identify and describe the following: Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter
Yes	NA	Off-Street Parking (14-14.6.1(D)), if applicable 14 Identify and describe the following: - Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code - Curb cut separation and parking layout (Technical Manual, Section 1) - Construction details for bicycle racks - Management plan for snow storage and removal
Yes	NA	Transportation Demand Management (TDM) (14-14.6.1(E)), if applicable 15 Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements

ENVIRONMENTAL		
Yes	NA	Preservation of Significant Natural Features (14-14.6.2(A)), if applicable 16 Identify and describe the following: • High and moderate value waterfowl and wading habitat • Aquifers (for Casco Bay Islands) • Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) • Proposed preservation areas and protection measures • Documentation from environmental compliance consultants and determinations from applicable state and federal agencies
Yes	NA	Landscape Preservation (14-14.6.2(B)) 17 Identify and describe the following: • Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4) • Measures to protect existing vegetation during construction
Yes	NA	Site Landscaping and Buffers (14-14.6.2(C)) 18 Identify and describe the following: • Overall landscaping approach and consistency with standards • The use of screening and buffering of service areas and between non-residential and residential uses • Existing Heritage or Feature Trees on site and measures to preserve • Compliance with street tree requirements
Yes	NA	Water Quality, Stormwater Management, and Erosion Control (14-14.6.2(D)) 19 Identify and describe the following: • Erosion and sedimentation control plan and measures • Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater law, as applicable • Subsurface sanitary sewage disposal and groundwater protection measures

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY		
Yes	NA	Consistency with City Master Plans (14-14.6.3(A)) 20 Describe proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes	NA	Public Safety and Fire Prevention (14-14.6.3(B)) 21 Identify and describe the following: - Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3) - Emergency vehicle access - Consistency with public safety standards (Technical Manual, Section 3)
Yes	NA	Availability and Adequacy of Public Utilities (14-14.6.3(C)) (Technical Manual, Sections 2 & 9) 22 Identify and describe the following: - Electrical services, including providing underground services - Existing and proposed connections for public utilities and required public utility upgrades - Sewer line connections
SITE DESIGN		
Yes	NA	Massing, Ventilations and Wind Impact (14-14.6.4(A)) 23 Identify and describe the following: - Wind and ventilation impacts on adjoining structures and/or adjacent public spaces, including wind study, if applicable - Bulk, location, or height impacts on adjoining structures
Yes	NA	Shadows (14-14.6.4(B)), if applicable 24 Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes	NA	Snow and Ice Loading (14-14.6.4(C)) 25 Describe building design measures to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes	NA	View Corridors (14-14.6.4(D)), if applicable 26 Describe any protection of designated view corridors (Portland Design Manual, Appendix. 1)
Yes	NA	Historic Resources (14-14.6.4(E)), if applicable 27 Identify and describe the following: - The site's status as a designated landmark, within a historic district or historic landscape district, or within 100 feet of any designated landmark, historic district, or historic landscape district - Compliance with standards for preservation and documentation of archaeological resources

Yes	NA	Exterior Lighting (14-14.6.4(F)) 28 Describe how the proposed site lighting will adhere to photometrics requirements as it relates to light trespass and full cutoff fixture design, pursuant to Technical Manual Section 12
Yes	NA	Noise and Vibration (14-14.6.4(G)) 29 Provide data on noise levels for HVAC and other mechanical equipment, such as design specifications, to demonstrate consistency with state and federal noise emissions requirements as well as City code
Yes	NA	Signage and Wayfinding (14-14.6.4(H)), if applicable 30 - Provide signage plan showing the location, dimensions, height and setback of all existing and proposed signs - Provide drawings of all commercial and directional signage on site
Yes	NA	Zone-Related Design Standards (14-14.6.4(I)) 31 Address any applicable design review standards by zone, including compliance with Design Manual

MAJOR SITE PLAN DRAWINGS CHECKLIST

Please upload the following **DRAWINGS** with the listed details into e-Plan as separate pdfs.

All drawings must be submitted in a 24 x 36 sheet size.

BOUNDARY SURVEY (stamped by a Maine Licensed Surveyor and drawn as per Technical Manual Sec. 13)

SITE PLAN(s) (stamped by a Maine Licensed Professional Engineer) including:

All sheets – Include a title block with project title and the following information:

- Project street address
- Name and address of property owner & applicant
- Licensed design professional, incl firm that produced plans
- North arrow
- Date of preparation and revision history block
- Tax parcel (chart, block, and lot) number

Existing Conditions Plan with the following:

- Existing structures, with distance from primary building façade(s) to the property line
- Approximate location of structures on abutting properties
- All streets and intersections adjacent to the site
- Existing driveways, pedestrian ways, and bicycle infrastructure, including dimensions and materials
- Existing public transit infrastructure
- Existing vehicle & bicycle parking areas
- Existing utilities on site and within adjacent rights-of-way
- Existing grades (two-foot contours preferred)
- Location of water courses, wetlands, and vegetation, or other significant natural features
- Existing soil conditions and location of test pits and borings
- Zoning boundary lines, including overlays
- Location of all existing easements and rights-of-way

Proposed Site Plan with the following:

- Proposed structures, including distance from primary building façade(s) to property lines
- Ground floor area, and finished floor elevations for all buildings
- Any proposed geometric modifications to streets and intersections adjacent to site
- Location, dimensions and materials of all proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines
- Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas
- Location and dimensions of proposed loading areas, including turning templates
- Proposed transit infrastructure with dimensions/ engineering specifications
- Location of vehicle and bicycle parking with dimensions and engineering specifications
- Location of all snow storage areas
- Exterior lighting (please see Technical Manual Sec. 12 for photometrics requirements)

• Location of fire hydrants • Location of solid waste management receptacles • Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable • Location of proposed easements and rights-of-way, including dimensions • Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed
UTILITY PLAN including:
• Proposed electrical infrastructure • Location, sizing and directional flows of all proposed sewer and stormwater infrastructure • Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site • Electric utility infrastructure
GRADING AND DRAINAGE PLAN including:
• Proposed grades • Proposed stormwater management measures meeting Technical Manual (Section 5) standards • Any proposed alteration of a watercourse or wetlands • Any groundwater protection measures • Proposed buffers and preservation measures for wetlands or significant natural features
LANDSCAPE PLAN including:
• Existing vegetation to be preserved and preservation measures • Proposed landscaping, screening, and street trees, including caliper widths for trees • Planting schedule, including street trees
ARCHITECTURAL PLANS AND RENDERINGS including:
• Exterior building elevations, color renderings, illustrations of all sides • Axonometric and street-level views for structures greater than three stories in height • Provide context drawings, if applicable (Design Manual, page 1) • Floor plans
CONSTRUCTION MANAGEMENT PLAN including:
• Specifics on traffic control, sidewalk sheds, and pedestrian rerouting • Include a drawing and written narrative
OTHER
• Details and cross-sections, as necessary

31: ZONE-RELATED DESIGN STANDARDS (14.6.4(I))

The Martins Point campus in the R-P Residential Professional Zone (1) Standard has a consistently established architectural character that is observed and maintained. The new building complements the existing development, as shown on the SMRT architectural plans.

04: EVIDENCE OF STATE OR FEDERAL APPROVALS

The City has reviewed numerous site plans for continued improvements on the Veranda Street Martins Point Campus. Other anticipated reviews/approvals related to the proposed Campus Building #7 redevelopment:

Maine DEP Natural Resources Protection, Permit by Rule Notices

Maine Historic Preservation - Email comment received from MHPC on December 28, 2023, indicating the Building 7 site improvements will not affect the Marine Hospital is located in Section 27-Historic Resources.

We note that the proposed Building 7 improvements will disturb ±3.19 acres; however, less than one acre of additional impervious area is proposed. The site improvements, as designed, do not require MDEP Site Law or other state or federal permits that are not listed above.

03: EVIDENCE OF RIGHT, TITLE OR INTEREST

The record owner of the parcel is Martin's Point Health Care, Inc., as recorded in the Cumberland County Registry of Deeds (CCRD):

- CCRD Book 29771/Page 60
- CCRD Book 24070/Page 323
- CCRD Book 11581/Page 337 (HTTA: Penobscot Bay Medical Associates, Inc.)
- CCRD Book 4898/Page 199 (HTTA: Penobscot Bay Medical Associates)

Reference is made to the Existing Conditions plans prepared by Sebago Technics.

CORRECTIVE DEED
QUITCLAIM DEED WITH COVENANT

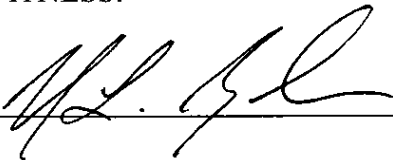
MORRISON CENTER (f/k/a Morrison Developmental Center and f/k/a Cerebral Palsy Association of Greater Portland, Inc.), a Maine nonprofit corporation ("Grantor"), FOR CONSIDERATION PAID, grants to MARTIN'S POINT HEALTH CARE, INC., a Maine nonprofit corporation ("Grantee") with a mailing address of 891 Washington Avenue, Portland, Maine, with QUITCLAIM COVENANT, certain real property, together with any improvements thereon (the "Premises") located at or near 331 Veranda Street, Portland, Cumberland County, Maine, and more particularly described on Exhibit A attached hereto and made a part hereof.

Meaning and intending to describe and convey the same premises conveyed to the Grantor by Quitclaim Deed from the City of Portland, dated April 17, 1986, and recorded in the Cumberland County Registry of Deeds at Book 7138, Page 247.

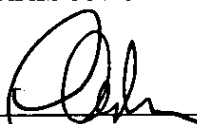
The purpose of this Corrective Deed is to correct the name of the Grantee in the Quitclaim Deed With Covenant dated December 14, 2007, recorded in the Cumberland County Registry of Deeds in Book 25685, Page 331.

IN WITNESS WHEREOF, MORRISON CENTER has caused this instrument to be executed by Charles McBrady, its President thereunto duly authorized, this 7th day of JUNE, 2012.

WITNESS:



MORRISON CENTER

By: 
Charles McBrady, Its President

STATE OF MAINE
COUNTY OF CUMBERLAND, SS.

JUNE 7, 2012

Personally appeared the above-named Charles McBrady, Its President as aforesaid of Morrison Center, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.

Before me,

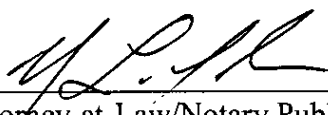

Attorney-at-Law/Notary Public (ex: 3-19-15)
Print Name: MARK L. RYDER

EXHIBIT A

A certain lot or parcel of land with any buildings and improvements thereon situated off Veranda Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at a point in the division line running between Parcel No. 1 and Parcel No. 2 as shown on a plan of Martins Point dated June 6, 1984. Said plan being on file in the office of the Director of Parks and Public Works of the City of Portland in plan file 548/21.

Said point of beginning being the fifth (5th) angle in said division line between Parcel 1 and Parcel 2 southerly of the old southerly side line of Veranda Street, all as shown on the aforementioned plan of Martins Point.

Thence from said point of beginning on a course having a bearing of North no degrees, fifty-five minutes and no second West (N 00°-55'-00" W) a distance of sixty-four and forty-five one-hundredths (64.45') feet to a point;

Thence South sixty-two degrees, twenty-five minutes and no seconds West (S 62°-25'-00" W) a distance of one hundred fifty-six and forty-five one-hundredths (156.45') feet to a point;

Thence South nineteen degrees, forty-two minutes and no seconds East (S 19°-42'-00" E) a distance of one hundred seventeen and eighty-four one-hundredths (117.84') feet to a point;

Thence South fifteen degrees, seventeen minutes and no seconds East (S 15°-17'-00" E) a distance of one hundred ninety-five and eighty-two one-hundredths (195.82') feet to a point;

Thence North seventy-four degrees, forty-three minutes and no seconds East (N 74°-43'-00" E) a distance of one hundred twenty-nine and fifty-five one-hundredths (129.55') feet to a point;

Thence North fifteen degrees, thirty-seven minutes and no seconds West (N 15°-37'-00" W) a distance of two hundred eighty-four and forty-one one-hundredths (284.41') feet to the point of beginning.

Also a perpetual easement for the purposes of ingress and egress over the parcel of land described below as well as the right to install, repair, maintain, and or replace utility lines over, under and above said parcel:

Beginning at a point in the most northerly side line of land now or formerly of the Cerebral Palsy Center Association of Greater Portland, Inc.

Said point being forty-six and twenty one-hundredths (46.20') feet westerly along the said northerly side line of land of the Cerebral Palsy Center Association of Greater Portland, Inc. from the most northerly corner of said Cerebral Palsy Association of Greater Portland, Inc. land.

Thence North eleven degrees, thirty-five minutes and no seconds West (N 11°-35'-00" W) a distance of one hundred sixteen and fifty-two one-hundredths (116.52') feet to a point;

Thence South eighty-nine degrees, fifty-three minutes and no seconds West (S 89°-53'-00" W) a distance of three hundred eleven and forty-three one-hundredths (311.43') feet to a point in the southerly side line of old Veranda Street.

Said point being one hundred sixty-four and eighty one-hundredths (164.80') feet easterly along the said southerly side line of old Veranda Street from the first angle therein easterly of its intersection with the southerly side line of Veranda Street relocated.

Said easement or right-of-way to be forty and no one-hundredths (40.00') feet wide and to lie equally on each side of the above described line.

The Premises are conveyed subject to the following conditions:

Conditions subsequent #4 (anti-discrimination provisions) set forth in the deed from the United States of America to the City of Portland dated August 12, 1976 and recorded at Cumberland County Registry of Deeds in Book 3892, Page 334, as affected by Consent to Transfer Agreement dated November 6, 1985, recorded in said Registry of Deeds in Book 7138, Page 239.

Rights and easements granted to the Portland Water District by the United States by deed dated September 20, 1955 and recorded in Book 2254, Page 97, including the building restrictions set forth therein.

Rights and easements granted to Central Maine Power Company by deed dated December 18, 1978 and recorded in Book 4385, Page 64.

Rights and easements granted to Central Maine Power Company and New England Telephone and Telegraph Company by deed dated January 14, 1980 and recorded in Book 4568, Page 90.

Received
Recorded Register of Deeds
Jul 23, 2012 10:35:53A
Cumberland County
Pamela E. Lovley

FINAL

QUITCLAIM DEED WITHOUT COVENANT

The CITY OF PORTLAND, a body politic and corporate, located in the County of Cumberland and State of Maine ("Grantor") for one dollar and other good and valuable consideration, Grants to MARTIN'S POINT HEALTH CARE, INC., a/k/a Martin's Point Health Care Center and f/k/a Penobscot Bay Medical Associates and/or Penobscot Bay Medical Associates, Inc., a Maine non-profit corporation, with offices at 331 Veranda Street, Portland, Maine 04103 ("Grantee") certain real property located on the southeasterly side of Veranda Street on Martin's Point in the City of Portland, Cumberland County, Maine, together with the buildings and improvements thereon and certain appurtenant easements, all as more particularly described on Exhibit A attached hereto and incorporated by reference herein (the "Premises").

The Premises are shown on a Plan entitled "Conveyance Plan on Veranda Street, Portland, Maine, made for Martin's Point Health Care Inc." by Owen Haskell, Inc. dated June 13, 2006, as last revised June 14, 2006, as "N/F City of Portland 3892/334" to be recorded at the Cumberland County Registry of Deeds.

The Premises are conveyed subject to:

1. A right of way and easement forty (40) feet in width on and over a strip of land more particularly described on Exhibit B attached hereto and made a part hereof, which right of way and easement benefits land of the Morrison Developmental Center (formerly of the Cerebral Palsy Association of Greater Portland, Inc. described in Quitclaim Deed recorded in the Cumberland County Registry of Deeds in Book 7138, Page 247). Grantee herein by acceptance of this deed assumes all obligations of Grantor arising after the date of this deed with respect to said forty (40) foot easement as may be set forth in said Quitclaim Deed.
2. Rights and easements described in instrument from City of Portland to Central Maine Power Company dated December 18, 1978 and recorded at the Cumberland County Registry of Deeds in Book 4385, Page 64, and the terms, provisions, and restrictions set forth therein.
3. Rights and easements described in instrument from City of Portland to Central Maine Power Company and New England Telephone and Telegraph dated January 14, 1980 and recorded at the Cumberland County Registry of Deeds in Book 4568, Page 90, and the terms, provisions and restrictions set forth therein.

DCK

MAINE REAL ESTATE TAX PAID

4. Rights and easements reserved to Grantor (and herein excepted and reserved) for a "Park Area," "Walkways" and public safety access (as set forth in Paragraphs "1," "2" and "3") in a deed from Grantor to Grantee dated August 8, 1994, and recorded in the Cumberland County Registry of Deeds in Book 11581, Page 337, said Easements for a Park Area and Walkways being further amended by a certain Easement Relocation Agreement of even date between Grantor and Grantee and to be recorded at the Cumberland County Registry of Deeds. Grantor also reserves the benefit of the covenants (a), (b), (c) and (d) set forth in said deed recorded in Book 11581, Page 337 provided that any reference to the "Park Area" and "Walkway" shall mean as relocated pursuant to the Easement Relocation Agreement of even date herewith.

5. Covenants, conditions and restrictions set forth as items (a), (b), (c) and (d) on page 8 in Deed from the United States of America dated August 12, 1976, to the Grantor and recorded at the Cumberland County Registry of Deeds in Book 3892, Page 334, excepting, however, any restrictions, covenants or conditions which were abrogated and/or released by a certain "Abrogation and Release of Restrictions" from the United States of America dated August 12, 1994, and recorded at said Registry of Deeds in Book 11581, Page 332.

Grantee by acceptance of this deed covenants and agrees that notwithstanding the fact that Grantee is a not-for-profit corporation whose purposes may render it real and personal property tax exempt Grantee agrees that so long as it or any affiliate owns the Premises it will pay to the City of Portland payments in lieu of taxes thereon in amounts equivalent to what would otherwise be then payable on the Premises in municipal real property and, if applicable, personal property taxes, reserving however to Grantee all rights and privileges as to abatement and appeal of valuations, rates and the like as are accorded non-tax exempt owners of real and personal property in Maine.

Grantor further reserves a right of first refusal respecting the Premises in favor of the Grantor on the following terms: The right shall, if not earlier terminated or waived, automatically terminate upon the earlier to occur of: (i) seven (7) years from the date of closing hereunder or (ii) one (1) year from the issuance of an occupancy permit to Grantee (or its affiliates) for the Marine Hospital building, so-called, located on the Premises. The right shall not be applicable to "Permitted Transfers" (as described below) however the right shall apply to a sale of the Premises or a sale of a combination of the Premises with the property currently owned by Grantee adjacent to the Premises (a "Campus Sale"). During the term of this right of first refusal, upon the receipt by Grantee of a bona fide offer from a third party purchaser, which Grantee proposes to accept or has accepted, Grantee will provide written notice (the "Sale Notice") to the Grantor of the proposed terms and conditions of sale contained in said offer, including the price and financing terms, if any. Following the Sale Notice, Grantor shall have the option, by written notice (the "Exercise Notice") to Grantee within twenty one (21) days of receipt of the Sale Notice, to notify Grantee of its election to purchase the property that is being sold at the price and on terms that the Grantee proposes to accept or has accepted from such bona fide third party purchaser. If Grantor timely exercises the right, the closing on such purchase by Grantor shall occur on the first business day that is sixty (60) days from the date of the Exercise Notice, at which time the Grantor shall pay the purchase price set out in the Sale Notice and otherwise close on the terms of such offer. If Grantor does not notify Grantee of its exercise of

PCN

the right within the said 21 -day period and by the means set forth herein, then Grantee may sell the Premises to the said third party purchaser for the same price set forth in the Sale Notice, and upon such sale, this right will automatically terminate. A confirmation of termination of the right may be recorded by Grantee in the Cumberland County Registry of Deeds. The right shall not be triggered by any transfer of the Premises by Grantee to (i) any party or entity for purpose of securing financing or lending arrangements (including without limitation a "sale-leaseback" transaction), or to any proceedings for the foreclosure thereof, including foreclosure auctions and the subsequent sale by a foreclosing mortgagee who is the successful bidder at the foreclosure auction or similar proceeding; (ii) any parent, subsidiary or affiliate corporation or entity or any corporation resulting from the consolidation or merger of Grantee into or with any other entity; or (iii) any person, firm, entity or corporation acquiring control of Grantee or otherwise, through ownership or voting securities, by contract or otherwise ("Permitted Transfers"). However, this right of first refusal, if not sooner terminated, shall survive such Permitted Transfer(s). In any event, the Grantor agrees to subordinate its interest in this right of first refusal to any such financing or lending arrangements upon the request of Grantee's lender.

SIGNATURES ON FOLLOWING PAGE

IN WITNESS WHEREOF, the CITY OF PORTLAND has caused this instrument to be signed by Duane G. Kline, its Finance Director, on the 15th day of June, 2006.

WITNESS:

Donna M. Katsifias

CITY OF PORTLAND

By: D. G. Kline
Duane G. Kline
Director of Finance

STATE OF MAINE
CUMBERLAND, SS.

June 15, 2006

PERSONALLY APPEARED the above-named Duane G. Kline, its Finance Director, as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said City of Portland.

Before me,

Donna M. Katsifias
Notary Public/Attorney-at-Law
Print Name: Donna M. Katsifias
Commission Expires:

EXHIBIT A

A certain lot or parcel of land with any buildings and improvements thereon situated on the southeasterly sideline of Veranda Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at a point on the southeasterly sideline of Veranda Street, said point being distant 313.30 feet northeasterly along said southeasterly sideline of Veranda Street on a course of N 61° 45' E from a granite three-foot offset monument located on the split of the last angle in Veranda Street as shown on a plan numbered 548/21 on file in the Office of the Director of Public Works, City Hall, Portland, Maine;

Thence S 59° 15' E, a distance of sixty (60) feet to a point;

Thence N 79° 55' E, a distance of one hundred and fifty (150.00) feet to a point;

Thence S 50° 55' E, a distance of two hundred forty-five (245.00) feet to a point;

Thence S 12° 55' E a distance of eleven and nine hundredths (11.90) feet to land n/f Penobscot Bay Medical Associates, Inc. (Book 11581, Page 337) to a point;

Thence N 77° 01' 16" E a distance of two hundred eighteen and fifty-three hundredths (218.53) feet to a point;

Thence S 12° 58' 44" E a distance of fourteen and thirty-four hundredths (14.34) feet to a point;

Thence N 77° 01' 16" E a distance of twenty-seven and seventy-two hundredths (27.72) feet to a point;

Thence N 12° 58' 44" W a distance of fourteen and thirty-four hundredths (14.34) feet to a point;

Thence N 77° 01' 16" E a distance of ninety-seven and fifty hundredths (97.50) feet to a point and land n/f Cerebral Palsy Association of Greater Portland, Inc. (Book 7138, Page 247);

Thence N 15° 17' 00" W along said land n/f of Cerebral Palsy Association a distance of forty two and eighty-two hundredths (42.82') feet to a point;

Thence N 19° 42' 00" W along said land n/f of Cerebral Palsy Association a distance of one hundred seventeen and eighty-four hundredths (117.84) feet to a point;

Thence N 62° 25' 00" E along said land n/f of Cerebral Palsy Association a distance of one hundred fifty-six and forty-five hundredths (156.45) feet and land n/f of United States of America;

Thence N 00° 55' W along said land n/f of United States of America a distance of one hundred twelve and fifty-seven hundredths (112.57) feet to a point;

Thence S 87° 35' W along said land n/f of United States of America a distance of fifty-eight and sixty-two hundredths (58.62) feet to a point;

Thence N 01° 25' W along said land n/f of United States of America a distance of thirty-three and eighty-four hundredths (33.84) feet to a point;

Thence S 89° 20' W along said land n/f of United States of America a distance of one hundred eighty-five and twenty-three hundredths (185.23) feet to a point;

Thence N 24° 17' W along said land n/f of United States of America a distance of eight and twelve hundredths (8.12) feet to a point and an intersection with the southeasterly sideline of the land of the State of Maine. Said southeasterly sideline of the land of the State of Maine being the southeasterly sideline of the old Veranda Street before its relocation on December 31, 1896;

Thence S 65° 43' W along the said southeasterly sideline of the land of the State of Maine, a distance of two hundred ninety-two and fifty-six hundredths (292.56) feet to a point;

Thence S 61° 45' W along the said southeasterly sideline of the land of the State of Maine and along the southeasterly sideline of Veranda Street as it now exists, a distance of three hundred thirty-eight and sixty-one hundredths (338.61) feet to the point of beginning.

The above-described premises are conveyed together with and the Grantor hereby releases to Grantee its rights under a certain "Easement to City of Portland 4015/160" which is shown on the Plan and more particularly described in instrument recorded in the Cumberland County Registry of Deeds in Book 4015, Page 160.

Together with and releasing to Grantee those easements for sewer, water and underground electric, as well as an easement relating to an underground storage tank (which has been removed by the Grantor prior to the date hereof) all of which were excepted and reserved by the Grantor in paragraphs numbered 4, 5 and 6 in the deed from Grantor to the Grantee dated August 8, 1994 and recorded in the Cumberland County Registry of Deeds in Book 11581, Page 337.

EXHIBIT B

A strip of land forty (40) feet in width whose centerline is described as follows:

Beginning at a point in the most northerly side line of land now or formerly of the Cerebral Palsy Center more particularly described in deed recorded in the Cumberland County Registry of Deeds in Book 7138, Page 247; said point being forty-six and twenty one-hundredths feet (46.20') westerly from the most northerly corner of said Cerebral Palsy Center land; thence North eleven degrees, thirty-five minutes and no seconds West (N 11° 35' 00" W) a distance of one hundred sixteen and fifty-two one hundredths feet (116.52') to a point; thence South eighty-nine degrees, fifty-three minutes and no seconds West (S 89° 53' 00" W) a distance of three hundred eleven and forty-three one hundredths feet (311.43') to a point in the southerly sideline of old Veranda Street. Said point being one hundred sixty-four and eighty one-hundredths feet (164.80') easterly along said southerly line of old Veranda Street from the first angle therein easterly of its intersection with the southerly side line of Veranda Street relocated.

Said easement or right-of-way to be forty and no one-hundredths feet (40.00') wide and to lie equally on each side of the above-described line.

Received
Recorded Register of Deeds
Jun 15, 2006 11:47:30A
Cumberland County
John B. O'Brien

49109

QUITCLAIM DEED WITH COVENANT

The CITY OF PORTLAND, a body politic and corporate located in the County of Cumberland and State of Maine ("Grantor") for One Dollar and other good and valuable consideration grants with Quitclaim Covenant to PENOBSCOT BAY MEDICAL ASSOCIATES, INC., a Maine non-profit corporation, formerly known as Penobscot Bay Medical Associates and sometimes doing business under the name Martin's Point Health Care Center, with offices at 331 Veranda Street, Portland, Maine 04103 ("Grantee"), certain real property located off the Southeasterly side of Veranda Street on Martin's Point in the City of Portland, Cumberland County, Maine, together with the buildings and improvements thereon and certain appurtenant easements all more particularly described as follows:

Commencing at the Northernmost corner of the land of Grantee (as described in instrument recorded at the Cumberland County Registry of Deeds in Book 4899, Page 203) as shown on "Plan of Property in Portland, Maine Made for Penobscot Bay Medical Associates by Morton & Rose Associates November 23, 1981" recorded at the Cumberland County Registry of Deeds in Plan Book 133, Page 18, and also shown on "Site Plan of Martin's Point City of Portland, Maine Department of Public Works June 6, 1974" by Morton & Rose filed as City Plan 548/21;

Thence, the following courses by the land of Grantee:

S-59°-15'-00"-E a distance of 60.00 feet;
N-79°-55'-00"-E a distance of 150.00 feet;
S-50°-55'-00"-E a distance of 245.00 feet to a 6" by 6" granite monument with a drill hole found;
S-12°-55'-00"-E a distance of 11.90 feet to a 5/8" iron rod set and the point of beginning of this parcel;

Thence, the following courses by the remaining land of Grantor:

N-77°-01'-16"-E a distance of 218.53 feet to a 5/8" iron rod set;
S-12°-58'-44"-E a distance of 14.34 feet to a 5/8" iron rod set;
N-77°-01'-16"-E a distance of 27.72 feet to a 5/8" iron rod set;
N-12°-58'-44"-W a distance of 14.34 feet to a 5/8" iron rod set;
N-77°-01'-16"-E a distance of 97.50 feet to a 5/8" iron rod set and the land now or formerly of the Cerebral Palsy Association of Greater Portland, Inc. (Book 7138, Page 247);

Thence, the following courses by land of the Cerebral Palsy Association of Greater Portland, Inc.:

S-15°-17'-00"-E a distance of 153 feet to a 5/8" iron rod set;

N-74°-43'-00"-E a distance of 129.45 feet to the land of the United States of America;

Thence, S-15°-37'-00"-E by the United States of America to low water of Casco Bay;

Thence, Southwesterly by low water of Casco Bay to the land of Grantee;

Thence, N-12°-55'-00"-W by the land of Grantee to high water of Casco Bay;

Thence, N-12°-55'-00"-W by the land of Grantee 286 feet more or less to the point of beginning.

Said parcel contains 1.66 acres more or less and is shown on "Standard Boundary Survey at Martins Point on Veranda Street, Portland, Maine made for Penobscot Bay Medical Associates, d/b/a Martin's Point Health Care Center dated June 7, 1994," prepared by Owen Haskell, Inc., and recorded in the Cumberland County Registry of Deeds in Plan Book 194, Page 258 (the "Plan"). All bearings are based on a plan recorded in the Cumberland County Registry of Deeds in Plan Book 133, Page 18.

The above described parcel is hereinafter referred to as the "Premises."

Together with the right to construct, install, maintain, replace and repair a walkway extending from the northerly sideline of the Premises running in a northerly direction on the easterly side of the road shown on the Plan as "Access To Lower Parking Lot," then crossing said road and running on the westerly side of and parallel to said road in the approximate location identified as "Walkway" on the Plan and extending across the Lower Parking Lot to land now or formerly of the United States of America.

Also together with an easement for purposes of vehicular and pedestrian passage extending from the Premises in a northerly direction on, over and along the area identified as "Access to Lower Parking Lot" on the Plan to the area designated on the Plan as "Lower Parking Lot," and in connection therewith the right to install, maintain, replace and repair said road and to enter onto land immediately adjacent to said Access to Lower Parking Lot area for any of the aforesaid purposes. The road designated as Access to Lower Parking Lot shall be used by Grantor and its successors and assigns in common with the Portland School Department, Grantee and their successors and assigns.

Also together with an easement in common with the Portland School Department, Grantor and the Cerebral Palsy Association of

Greater Portland, Inc., on and over a 40-foot wide strip of land shown on the Plan as "40' Easement."

Excepting and reserving to Grantor the following:

1. An easement for Grantor and the public for pedestrian (including wheelchair) use for recreational purposes during daylight hours of the area shown on the Plan as "Park Area (Proposed)" on the southerly side of the wall shown on the Plan as "Retaining Wall (Proposed)," which is to be located on the southerly edge of the area shown on the Plan as "Parking Area (Proposed)," together with the right to use the walkways, overlooks, seating areas and stairs constructed within such Park Area (the "Park Area") and the pathway shown on the Plan as "Access Pathway and Stairs (Proposed)" across the Park Area and Parking Area to remaining land of Grantor.
2. An easement for the installation, maintenance, replacement and repair of the Park Area on those portions of the above-described Premises that will not be used as a parking area, including without limitation the right to remove or relocate trees and shrubs and to provide landscaping of the Park Area, including the planting, pruning, and general maintenance of the trees and shrubs, and the installation, maintenance and repair of the Park Area, including the walkways, overlooks, stairs, benches, lighting and other park amenities which may be installed in the Park Area from time to time.
3. An easement for the entry into the Park Area at all times by the Portland Police Department, the Portland Fire Department, emergency medical personnel and other authorized officials, such as park rangers, to assure public safety and proper use of the Park Area.
4. An easement to maintain, replace and repair the sewer and underground electric lines crossing the Premises and serving the buildings shown on the Plan as the Portland School Department Buildings and the Cerebral Palsy Association Building.
5. An easement for the maintenance, replacement and repair of a water line providing water to the Portland School Department buildings, the Cerebral Palsy Association building, and Great Diamond Island.
6. An easement for the maintenance, replacement and repair of an underground storage tank and associated piping and manholes in the approximate location shown on the Plan as "Underground Fuel Tank" provided, however, in the event that the Grantor removes and/or replaces said tank,

Grantor shall restore the surface of the earth to substantially the same condition as prior to said removal and/or replacement, and provided further that Grantor shall maintain, remove, replace, repair and operate the tank in compliance with applicable laws.

Grantee by acceptance of this Deed on behalf of itself, its successors and assigns hereby covenants and agrees as follows:

- (a) At its expense to construct the Park Area and Walkways and install such other park amenities as are shown on site plans approved by the City of Portland Planning Board.
- (b) That the public shall have the right to use the Park Area as shown on the Plan and the Walkways that provide access to the Park Area during daylight hours.
- (c) To maintain the Park Area and Walkways in a clean and good condition and repair.
- (d) That any above ground new construction or exterior alterations on the Premises which may have a visual effect on the setting of the Marine Hospital Building, which is located on land of Grantor adjacent to the Premises, shall receive prior approval from the Maine Historic Preservation Commission. This covenant is also for the benefit of and enforceable by the United States of America.

These covenants are intended to benefit adjacent land being retained by Grantor and to run with and burden the Premises in perpetuity.

IN WITNESS WHEREOF, the CITY OF PORTLAND has caused this instrument to be signed by Duane G. Kline, its Finance Director, on the 5th day of August, 1994.

WITNESS:

Wm. J. Boland

CITY OF PORTLAND

By: *D. G. Kline*

Duane G. Kline

Its: Finance Director

STATE OF MAINE
CUMBERLAND, ss.

August 5, 1994.

PERSONALLY APPEARED, the above-named Duane G. Kline, its Finance Director, as aforesaid, and acknowledged the foregoing

0115813361

instrument to be his free act and deed in his said capacity and the
free act and deed of said City of Portland.

Before me,

Natalie L Burns

Natalie L Burns
~~Notary Public/Attorney-at-law~~

240.NHS
12079017.ded

RECEIVED
RECORDS SECTION OF CLERK
94 AUG 15 PM 3:36
CLATSOP COUNTY
John B. Smith

- 5 -

QUITCLAIM DEED

33604

This indenture, made this 11 th day of December, 1981 between the UNITED STATES OF AMERICA, acting by and through the Secretary of Health and Human Services, Grantor, under and pursuant to the power and authority provided by the Omnibus Budget Reconciliation Act of 1981, Public Law 97-35, (hereinafter called the Act), and the Penobscot Bay Medical Associates, a non-profit corporation, Rockland, Maine, Grantee.

WITNESSETH

WHEREAS, the Grantee has made a firm offer to the Secretary of Health and Human Services to acquire and operate the herein described real property, including improvements thereon, known as the Portland, Maine, Public Health Service Clinic (hereinafter called the Property), in accordance with the provisions of the Act; and

WHEREAS, the Grantor has accepted the offer of the Grantee;

NOW, THEREFORE, the Grantor, for and in consideration of the foregoing, the sum of one dollar (\$1.00), and of the observance and performance by the Grantee of the covenants and restrictions hereinafter contained and other good and valuable consideration, receipt of which is hereby acknowledged, has given, granted, conveyed and quitclaimed and by these presents does give, grant, convey and quitclaim without representation or warranty, express or implied to the Grantee, its successors and assigns, all right, title, interest, claim and demand, including any after acquired title, which the United States of America has in and to the Property, situate, lying, and being in the County of Cumberland, State of Maine, and more particularly described as follows:

Beginning at an iron pipe on the southeasterly right of way line of Veranda Street, at the northeasterly corner of land now or formerly of Edwin B. Thurston, Jr. and Cora R. Thurston on the line of a steel fence running on the line between the herein conveyed property and land of said Thurston, said pipe being approximately sixty (60.0) feet west of the west corner of a barn standing upon premises as shown on a "Site Plan," U.S. Public Health Services Hospital, Portland, Maine, dated July 7, 1954, General Services Administration drawing No. 27-CR1-13; thence N 61-45 E along the southerly side of Veranda Street three hundred thirteen and thirty hundredths (313.30) feet to an iron pipe set in the ground; thence S 59-15 E sixty (60.0) feet to an iron pipe set in the ground; thence N 79-55 E one hundred fifty (150.0) feet to a P.K. nail set in asphalt roadway; thence S 50-55 E two hundred forty five (245.0) feet to a granite monument set in the ground; thence S 12-55 E two hundred thirty two and eighty nine hundredths (232.89) feet to an iron pipe set in the ground at the top of the bank; thence S 12-55 E to the low water mark of Casco Bay approximately one hundred thirty (130.0) feet; thence westerly by said low water mark to a point intersected by a straight line bearing S 14-37 E from the iron pipe at the point of beginning; thence N 14-37 W approximately three hundred (300.0) feet to the high water mark of Casco Bay; thence N 14-37 W approximately forty one (41.0) feet to a granite monument; thence N 14-37 W along a steel fence seventy one and fifteen hundredths (71.15) feet to the point of beginning.

Containing approximately 8 acres of land.

Being a portion of a certain parcel of land situated in Westbrook (now Portland), known as "Martin's Point Farm" conveyed to the United States of America by deed of November 22, 1852 by Francis O.J. Smith recorded in Book 246, Page 14 of the Cumberland County Registry of Deeds. As shown on a plan entitled Plan of Land made for "Penobscot Bay Medical Associates" dated November 23, 1981 by Morton and Rose Associates to be recorded in the Cumberland County Registry of Deeds.

Subject to Grant of Easements to the City of Portland for roadway and sewer line, as recorded on May 15, 1977, in Cumberland County Registry of Deeds in Book 4015, Page 160 and as shown on Drawing No. 668/10 on file at the City of Portland Engineer's Office.

Subject also to Grants and Easement to Portland Water District for water line to Great Diamond Island dated August 10, 1928 and September 20, 1955 recorded in the Cumberland County Registry of Deeds, Book 2254, Page 97.

HHS PBMA 

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This conveyance is made subject to all other easements, reservations, exceptions or interests of Record now existing on the above described real estate and conveys any easements, Rights of Way, etc., appurtenant to the above described real estate.

TO HAVE AND TO HOLD the Property herein granted unto the Grantee, its successors and assigns forever.

Grantee covenants and agrees on its behalf and its successors and assigns to the following covenants which shall be binding upon and enforceable against the Grantee, its successors and assigns:

1. That for a period of thirty (30) years from the date hereof the Property herein conveyed will be used continuously as a general health care facility (except as such use may be interrupted by labor strikes, fire, flood, or acts of God or acts beyond the control of the Grantee) providing a range of diagnostic, therapeutic, rehabilitative and nursing services, to the population within its service area. Grantee shall have sole discretion in connection with the provision of this range of services in determining any services to be provided, beneficiaries, charges, maintenance of facilities, personnel matters, and other such matters involving operation of the Clinic for the purpose of providing those services.
2. That subject to all provisions of law, including State and Federal rights to privacy, the Secretary of Health and Human Services and the Comptroller General of the United States, their delegates, or successors shall have access during the aforesaid thirty (30) year period, for the purpose of audit and examination, to any then existing books, documents, or other records of the Grantee which, in the opinion of the Secretary or the Comptroller General, may be necessary for either of those officials to carry out his duties under the Act or under any other applicable provision of this deed.
3. That during the aforesaid period of thirty (30) years the Grantee will not resell, lease, mortgage, or encumber, or otherwise dispose of any part of the Property or interest therein except as the Grantor or its successor in function may authorize in writing, except for mortgages or encumbrances or other indebtedness insured or guaranteed by any agency, department, or instrumentality of the United States. Such authorization shall not unreasonably be withheld and such authorization shall, upon request, be provided in form and content required by Grantee. The Grantee hereby agrees that, at the time authorization is given by the Grantor for any such sale, lease, mortgage, encumbrance, or other disposition of the Property, the Grantor may require the Grantee to provide to the Grantor a security interest in any proceeds from such sale, lease, mortgage, encumbrance, or other disposition, except that such security interest shall not attach to any such proceeds that are used by the Grantee for health care purposes as provided in covenant numbered 1.
4. That, for the period during which the Property is used for the purpose for which the Federal assistance is hereby extended, the Grantee agrees that it will comply with Title VI of the Civil Rights Act of 1964, section 504 of the Rehabilitation Act of 1973, and where applicable, Title IX of the Education Amendments of 1972, and all requirements imposed by or pursuant to the Regulations of the Grantor (45 CFR Parts 80, 84 and 86) issued pursuant to said Acts and now in effect or as subsequently amended, to the end that, in accordance with said Acts and Regulations, no person shall, on the ground of race, color, national origin, handicap, or sex (where applicable) be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity of the Grantee, its successors or assigns to which such Acts apply by reason of this conveyance.

In the event that the Grantee breaches covenants, 1 through 4 set forth above, whether caused by the legal or other inability of the Grantee, its successors and assigns, the Grantee or its successors and assigns by acceptance of this deed agrees for itself, and its successors and assigns that the Grantee shall owe to the Grantor as damages an amount equal to the lesser of (a) a sum agreed to by Grantor and Grantee or (b) an amount equal to 1/360 of the appraised value of the Property, as determined below, for each full month remaining in the 30 year period referenced in covenant numbered 1, as of

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the date of receipt by the Grantee of written notice of the breach as provided below.

Notwithstanding anything to the contrary in this Deed or in a certain Note and Mortgage of even date herewith (the "Note" and "Mortgage") or in any other document between the Grantor and the Grantee, the Grantor agrees for itself, its successors and assigns that neither it nor they will seek collection of any damages due it or them under this Deed, the Note and Mortgage from any property or resources of the Grantee other than the real property described in said Mortgage and no other assets of the Grantee shall be levied upon and no director, officer or member of the Grantee shall be personally liable for payment of such damages.

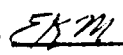
To determine the appraised value as set forth hereinabove Grantee shall appoint an MAI (Member of the Appraisers Institute) in good standing within ten (10) days after the Grantee is advised by the Grantor that the time to cure has expired without a cure being accomplished. Within fifteen (15) days after this appointment, the appointed appraiser shall complete and deliver an appraisal of the Property to the Grantee and Grantor setting forth an appraised value of the Property. Such determination shall in all respects be conclusive, unless Grantor shall notify Grantee within ten (10) days after receipt of the appraisal that (i) Grantor is not satisfied with the appraised value as determined by the appraisal and (ii) Grantor has appointed an MAI appraiser, in good standing. Within ten (10) days after the notice of Grantor's appointment and dissatisfaction to Grantee, both the appraiser appointed by Grantee and the appraiser appointed by the Grantor shall jointly appoint a third MAI appraiser, in good standing. Within fifteen (15) days after the appointment of said third appraiser, all three appraisers shall jointly appraise the Property and determine the appraised value of the Property. The determination made by the appraisers shall be in writing, signed by at least two of the appraisers. Such determination of appraised value shall be final for the purposes set forth herein, without the right to appeal to the courts or otherwise.

In the event either Grantor or Grantee shall fail or refuse to appoint an appraiser within the time provided herein, then the other party shall have the right to so appoint an MAI appraiser for that party. Each party shall pay the fees and expenses of the appraiser appointed by it. The fees and expenses of the third appraiser, if necessary, shall be divided equally between the Grantee and Grantor.

Prior to the assertion of any of the rights set forth above the Grantor will provide the Grantee with written notice of any breach and the opportunity to cure the breach within sixty (60) days of receipt of such written notice or, where by its nature such breach cannot reasonably be cured within sixty (60) days, to commence to cure the breach within such time and thereafter to diligently prosecute its efforts until such breach is cured.

The failure of the Grantor or its successor in function to insist in any one or more instances upon complete performance of any of the said covenants shall not be construed as a waiver or relinquishment of the future performance of any of said covenants, but the obligations of the Grantee with respect to such future performance shall continue in full force and effect. Notwithstanding any other provisions contained herein, the covenants numbered 1 through 3 shall terminate and be of no further force and effect thirty (30) years from the date hereof.

The Grantee, by acceptance of this deed, covenants and agrees for itself, its successors and assigns, with respect to the Property or any part thereof--which covenant shall attach to and run with the land for so long as the Property is used for a purpose for which Federal assistance is hereby extended by the Grantor or for another purpose involving the provision of similar services or benefits, and which covenant shall in any event, and without regard to technical classification or designation, legal or otherwise, be binding to the fullest extent permitted by law and equity, for the benefit of and in favor of and enforceable by the Grantor or its successor in function thereof--that it will comply with Title VI of the Civil Rights Act of 1964, section 504 of the Rehabilitation Act of 1973, and where applicable, Title IX of the Education Amendments of 1972, and with all requirements imposed by or pursuant to the Regulations of the Grantor (45 CFR Parts 80, 84 and 86) issued pursuant to said Acts and now in effect or as subsequently amended, to the end that, in accordance with said Acts and Regulations, no person in the United States shall, on the ground of race, color, national origin, handicap, or sex (where applicable) be excluded from participation in, be denied the benefits

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of, or otherwise be subjected to discrimination under the program referred to in covenant numbered 1 above or under any other program or activity of the Grantee's, its successors or assigns, to which said Acts and Regulations apply by reason of this conveyance.

The Grantee, by acceptance of this deed, covenants and agrees, for itself, its successors and assigns, and every successor in interest to the Property or any part thereof, which covenant shall attach to and run with the land and which covenant shall, in any event, and without regard to the technical classification or designation, legal or otherwise, be binding to the fullest extent permitted by law or equity, for the benefit and in favor of and enforceable by the Grantor and its successors against the Grantee, its successors and assigns and every successor in interest to the Property, or any part thereof;

- a. That with respect to any future restoration or action affecting the exterior architecture or structural integrity of any structures on the Property visible from the grounds or structure known as the Portland Maine Marine Hospital, such restoration or action will be accomplished to the maximum extent feasible in a manner which will not detract from the appearance and historic characteristics of the Portland Maine Marine Hospital.
- b. That it will present any proposed architectural or rehabilitation plans affecting structures visible from the grounds or structure known as the Portland Maine Marine Hospital and any plans for the construction of additional structures visible from the grounds or structure known as the Portland Maine Marine Hospital, to the State Historic Preservation Officer of the State of Maine, or his/her successor in interest and responsibility, for review and comment prior to the implementation thereof.

The Grantee by the acceptance of this deed, further covenants and agrees, for itself, its successors and assigns, that if the Grantee, its successors and assigns, shall cause any of the buildings on the Property to be insured against loss, damage or destruction and any such loss, damage or destruction shall occur during the period Grantee holds title to the Property subject to said covenants 1 through 3, said insurance and all moneys paid to the Grantee, its successors or assigns, thereunder shall be held in trust by the Grantee, its successors or assigns, and shall be promptly used by the Grantee for the purpose of repairing or replacing such buildings or, if not so used, shall to the extent available after satisfying any claims to such insurance proceeds which may be asserted by persons or entities which hold mortgages on the Property superior to those of the Grantee be paid over to the Treasurer of the United States in an amount not exceeding 1/360th of said insurance proceeds for each full month remaining in the thirty (30) year period referenced in covenant numbered 1 as of the date of such loss, damage, or destruction. Grantee agrees to advise Grantor promptly of any substantial loss, damage or destruction to a substantial portion of the Property.

Notwithstanding any other provision of this deed, all rights, titles, interests, liens, mortgages, claims and demands reserved by or given to the Grantor by the terms of this deed are hereby subordinated to the lien of any deed of trust, mortgage, indenture, security agreement or other instrument affecting the Property which secures payment of a loan to or other indebtedness of the Grantee, its successors or assigns, obtained for the purpose of constructing improvements to or rehabilitating, renovating, expanding or modifying the Property or for the purpose of providing working capital to operate the Property as provided in covenant numbered 1 above, provided, however, that such loan or other indebtedness is either (a) insured or guaranteed by an agency, department or instrumentality of the United States or (b) authorized by the Grantor or its successor in function in accordance with covenant numbered 3 above. The foregoing subordination shall be effective so that any deed of trust, mortgage, indenture, security agreement or other instrument to which the Grantor's rights are hereby subordinated shall have the same status, force and effect as if made, delivered and recorded before the making, delivery and recording of this deed.

This subordination provision is intended to be and shall be self-executing, and any mortgagee, title insurance company, or other third party involved in such financing may rely upon this provision without duty of further inquiry or confirmation from Grantor. Grantor hereby agrees that, notwithstanding the self-executing notice of this subordination provision, acting through the Secretary of Health and Human Services, or his or her

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PBMA



delegate, upon reasonable written request from any such mortgage, title insurance company or third party, to confirm in writing to such party the continued effectiveness of this provision and to execute and deliver such other documents as shall reasonably be requested by any such party to give full effect to such subordination.

The Grantee may secure abrogation of the covenants numbered 1, 2, and 3 herein by:

1. Obtaining the written consent of the Grantor, or its successor in function, therefor, which consent will not unreasonably be withheld; and
2. Paying to the United States of America, at the option of the Grantor, an amount not to exceed 1/360th of the appraised value, as of the date of such requested abrogation, of that portion of the Property to be released for each month of the period to be abrogated.

IN WITNESS WHEREOF, the Grantor has caused this instrument to be executed as of the day and year first above written.

UNITED STATES OF AMERICA
Acting through the Secretary
of Health and Human Services

By:



Albert A. Peter, Jr.
Director, Office of
Facilities Engineering

HHS



FBMA

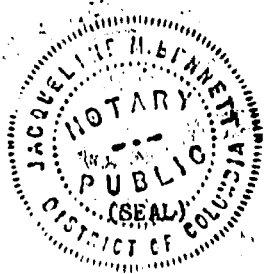


ACKNOWLEDGEMENT

CITY OF WASHINGTON)
DISTRICT OF COLUMBIA)

On this 16th day of December 1981, before me, a Notary Public in and for the City of Washington, District of Columbia, personally appeared Albert A. Peter, Jr., to me known to be the Director, Office of Facilities Engineering, and known to be the person who executed the foregoing instrument on behalf of the United States of America, and acknowledged to me that he subscribed to he said instrument on behalf of the United States of America.

Witness my hand and official seal.



Jacqueline M. Bennett
My Commission Expires: 8/1/86

ACCEPTANCE

The Penobscot Bay Medical Associates, hereby accepts this instrument and thereby accepts and agrees to all the terms, covenants, reservations and restrictions contained therein.



PENOBSCOT BAY MEDICAL
ASSOCIATES

By: Edward K. Morse
President

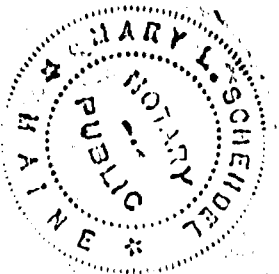
ACKNOWLEDGEMENT

STATE OF Maine)
COUNTY OF Cumberland) ss

December 17, 1981

Then personally appeared the above named Edward K Morse, President of Penobscot Bay Medical Associates and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.

Before me,



Mary L Schendel
Notary Public
MY COMMISSION EXPIRES
DECEMBER 15, 1985

DEC 18 1981

REGISTRY OF DEEDS CUMBERLAND COUNTY, MAINE
Received at 2 H 46 M PM, and recorded in

BOOK 4898 PAGE 199 Edward J. Austin Register

HHS AMP PBMA EMM

MORE INFO - Martins Point Health Care, 331 Veranda Street, Portland 04103**Applicable Reviews and Fees (Check All That Apply)**

Subdivision: 3 or More Lots or Units

1 # of Lots or Units After Construction:

Loss of Dwelling Units: Sec 14-483

of Dwelling/Rooming Units Removed

Traffic Movement Permit: 100+ Peak Hour Trips

City Review -DEP Stormwater Permit

City Review -DEP Site Location of Development

of Lots - DEP Site Location of Development

X Site Within a FEMA Flood Plain

X Site Within a Shoreland or Stream Protection Zone

Historic Preservation Review Required

After-the-fact Review

Conditional Use Review

Identify Specific CU review

Conditional Use - Inclusionary Zoning

X

Transportation Demand Management Plan

Preliminary Review

Final Review

Other Required Reviews by Outside Agencies

Army Corps of Engineer

DEP - Natural Resources Protection Act

X

DEP - Maine General Construction Permit

DEP - Site Location of Development Act

Permit By Rule

DEP - Other:

Harbor Commission

Site Data

*Major Site Plan Type

Under 50,000 SF 50,000 to 100,000 SF 100,000 to 200,000 SF
200,000 to 300,000 SF Over 300,000 SF

533,000 SF

Total Area of Site (sf):

197420

Total Site Area to be Disturbed (sf):

118040

Total Existing Impervious Area (sf):

139000

Total Impervious Area After Construction (sf):

Existing Parking Spaces:

407

Total Spaces:

0

Compact Spaces:

0

Handicapped Spaces:

0

Bicycle Spaces:

Parking Spaces After Construction

499

Total Spaces:

0

Compact Spaces:

0

Handicapped Spaces:

0

Bicycle Spaces:

Building Data (Check/Fill Fields as Appropriate)

Addition to Existing Buildings

X

New Building Construction

X

Demolition

10000-20000 sf Change of Use* in Existing Building

20000+ sf Change of Use* in Existing Building

***For the purposes of this section, this means any change in use of an existing building, whether or not alterations are involved, from any use in the following list to any other uses on the list: manufacturing or processing, storage and warehouse, and other industrial; residential; transportation (non-marine); institutional/government; retail and commercial; water-dependent use and marine use; office**

Existing Buildings:

7 Total # of Buildings:

80,000± Building Footprint (Total, sf):

209,006± Building Floor Area (Total, sf):

After Construction:

7 Total # of Buildings:

96,500± Building Footprint (Total, sf):

249,644± Building Floor Area (Total, sf):

9000

Building Area Demolished (Total,sf):

Land Use(s) Data by Floorspace**EXISTING Usage: Total sf by Category**

*Industrial: Manufacture /Storage /Warehouse

*Residential

*Transportation (Non-Marine)

209,006± Institutional / Government

*Retail and Commercial

*Water-Dependent Use and Marine Use

*Office

Usage AFTER CONSTRUCTION: Total sf by Category

*Industrial: Manufacture /Storage /Warehouse

*Residential

*Transportation (Non-Marine)

249,644± Institutional / Government

*Retail and Commercial

If Hotel, Number of Rooms

*Water-Dependent Use and Marine Use

*Office

Residential Data

EXISTING Residential Units:

0 Total Units:

0 # Efficiency:

0 # 1 Bedroom:

0	# 2 Bedroom:
---	--------------

0	# 3 Bedroom:
---	--------------

0	# Other:
---	----------

Residential Units AFTER CONSTRUCTION:

0	Total Units:
---	--------------

0	# Efficiency:
---	---------------

0	# 1 Bedroom:
---	--------------

0	# 2 Bedroom:
---	--------------

0	# 3 Bedroom:
---	--------------

0	# Other:
---	----------

Please review application summary on next page before pressing SUBMIT

05: ZONING ASSESSMENT

This section includes the Zoning Analysis Table for the R-P Zone.

ZONING ANALYSIS Relevant Zone(s) Residence Professional Zone (RP

All Projects:

	Required	Proposed
Lot Size	6,000 sf	533,000 sf
Area Per Dwelling Unit		
Minimum Street Frontage	60'	945'
Front Yard Minimum	20'	142.09'
Front Yard Maximum		
Rear Yard	20'	103.54'
Yard Right	14'	16.53'
Yard Left		
Side Street Setback		
Step Back		
Maximum Lot Coverage		
Minimum Lot Coverage		
Maximum Height	45'	44'-10 ½"
Open Space		
Maximum Impervious Area	70%	53%
Pavement Setback		
Floor Area Ratio		
Off Street Parking Spaces	None	499
Loading Bays		
Other 1		
Other 2		
Other 3		

08: WAIVER REQUESTS

Per City staff comments, the Applicant requests a waiver from the flooding standard of Section 19-Water Quality, Stormwater Management and Erosion Control (14.6.2(D)). The waiver is appropriate as the project discharges directly to the ocean. Reference is made to the Waiver Table in this section.

Cite Standard to be Waived: Cite specific language of applicable Ordinance or Technical Manual Standard	Waiver Being Sought: Describe waiver being sought. Ex.- We are requesting a two-way parking lot drive aisle width of 20'.	Justification for Waiver: Address specific waiver criteria, if applicable, and document reasons for the waiver request.
ENVIRONMENTAL QUALITY STANDARDS (14-14.6.2 (D)) D. Water quality, stormwater management, and erosion control. 2. All development shall comply with the Stormwater management standards of the Technical Manual.	We are requesting a waiver from the flooding standard in the Technical Manual. The proposed closed drainage system will utilize the same outlet pipe location as the existing system.	This project is eligible for wavier from flooding standards based on MDEP Ch. 500, Section 4.F because runoff from the discharges directly to a coastal wetland (Casco Bay) in a piped system, as allowed.

09: FINANCIAL CAPABILITY

Financial The project will be developed and financed by Martins Point Health Care, which verifies financial capacity by letter in this section.

Per PC Construction, the schematic design estimate of the probable cost for the overall project is approximately \$39,982,061.00

An itemized list of the significant site development costs are as follows:

OPINION OF PROBABLE SITE COSTS

02 Site Work

2.01 Demolition	\$ 166,198.00
2.03 Preliminary Sitework	\$ 178,211.00
2.04 Earthwork	\$ 83,029.00
2.08 Solider Piles+Lagging	\$ 276,625.00
2.12 Storm Drainage	\$ 528,467.00
2.13 Sanitary Systems	\$ 170,989.00
2.14 Water Systems	\$ 72,186.00
2.16 Misc Utility Work	\$ 139,032.00
2.17 Roads & Walks	\$ 544,905.00
2.18 Site Improvements	\$ 1,269,291.00

<u>Probable Site Cost</u>	<u>\$ 3,428,933.00</u>
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10: TECHNICAL CAPABILITY

Martins Point Health Care Applicant / Owner

Martins Point is a local not-for-profit organization providing high-quality health care for over 40 years. Martins Point currently offers medical services in six locations throughout southern Maine and New Hampshire. Martins Point has permitted and developed many projects at its sites, including the Veranda Street campus in Portland. The most recent approved site improvements at the Veranda Street Campus include the Building 4 improvements.

SMRT Architect

SMRT provides sustainable architecture design, bidding, building, and construction management services focusing on energy conservation. Projects throughout the northeast include health and wellness, educational, government, athletics, and science/technology clients. Reference is made to the enclosed resumes of the pertinent MPHIC team.

Sebago Technics, Inc. (STI) Civil Engineering/Survey/Site Permitting

Sebago Technics is a multi-disciplined engineering firm with more than 40 years of experience, offering a wide range of services specializing in land development, planning, landscape architecture, engineering design, survey, traffic, environmental, soil sciences, and regulatory permitting. Please see the attached resumes.



Derek Veilleux AIA, EDAC, NCARB

PRINCIPAL-IN-CHARGE

Derek leads SMRT's healthcare practice. He is an extremely skilled designer, bringing excellent communication skills and technical proficiency to every project. With a strong focus on healthcare design, he understands the intricacies of healthcare codes and guidelines and the need to address both hospital operational challenges and the patient experience in project planning and design.

EDUCATION

BArch, Rensselaer Polytechnic Institute

BS, Building Science, Rensselaer Polytechnic Institute

REGISTRATIONS

ME, CT, GA, MA, NH, NY, VT

SELECTED EXPERIENCE

- Martin's Point Healthcare – Brunswick Medical Office Building, Brunswick, ME
- Martin's Point Healthcare – Scarborough Medical Office Building, Scarborough, ME
- Martin's Point Healthcare – Biddeford Medical Office Building, Biddeford, ME
- Martin's Point Healthcare – Gorham Medical Office Building, Gorham, ME
- Maine Medical Center – Medical Office Building and Tenant Fit-Up, Scarborough, ME
- Maine General Medical Center – Harold Alfond Cancer Care Center, Augusta, ME
- Eastern Maine Medical Center – Emergency Department Renovations, Bangor, ME
- Mount Desert Island Hospital – Master Planning, Renovation, and Expansion, Bar Harbor, ME
- Husson University – Wellness Learning Center, Bangor, ME



Matthew Ranger AIA

ARCHITECT

Matt has more than 20 years of experience providing architectural design services, including serving as an architect, project manager, job captain, construction administrator, and performing existing condition surveys. Most recently he has been responsible for planning and construction administration for the addition and renovation to the Maine General Medical Center Harold Alfond Center for Cancer Care currently under construction in Augusta. Matt brings expertise in medical equipment planning, ensuring that equipment needs and overall design considerations are in alignment.

EDUCATION

AAS, Technical Graphics and Design, Southern Maine Technical College

REGISTRATION

ME

SELECTED EXPERIENCE

- Martin's Point Healthcare – Brunswick Medical Office Building, Brunswick, ME
- Martin's Point Healthcare – Scarborough Medical Office Building, Scarborough, ME
- Martin's Point Healthcare – Biddeford Medical Office Building, Biddeford, ME
- Martin's Point Healthcare – Gorham Medical Office Building, Gorham, ME
- Western Maine Health – Ripley Medical Center, Norway, ME
- Maine General Medical Center – Harold Alfond Cancer Care Center Expansion, Augusta, ME
- Maine Medical Center – Medical Office Building and Tenant Fit-Up, Scarborough, ME
- Eyecare Medical Group – Relocation and Expansion, South Portland, ME
- Plaistow Regional Health Center – Medical Office Building, Plaistow, NH



William Heil PE, LC, LEED AP

ELECTRICAL ENGINEER

Bill leads SMRT's electrical engineering group. In his 34 years of practice, he has acquired experience in electrical engineering design for healthcare, institutional, government, educational, retail, and industrial clients. His expertise includes project management, technical drawings and specifications, due-diligence reports, and power studies. He has been responsible for the design of normal and emergency power systems, lighting, fire alarm, security, and tel/data systems.

EDUCATION

BS, Electrical Engineering,
Pennsylvania State University

REGISTRATIONS

ME, CA, CT, DE, FL, GA, IL, IN, MA, MD,
MI, NH, NY, OH, PA, RI, SC, VA, VT

SELECTED EXPERIENCE

- Maine General Medical Center – Alford Center for Health, Augusta, ME
- Mercy Hospital – Fore River Campus Consolidation, Portland, ME
- Eastern Maine Medical Center – Emergency Department Renovation, Bangor, ME
- Heywood Hospital – Facilities Masterplan, Gardner, MA
- Mount Desert Island Hospital – Master Planning, Renovation, and Expansion, Bar Harbor, ME
- Athol Hospital – Emergency Department and Medical Office Building, Athol, MA
- Eastern Maine Medical Center – Grant Tower Renovations, Bangor, ME
- L.L.Bean – Corporate Headquarters, Freeport, ME



Michael Connors PE

MECHANICAL ENGINEER

Mike Connors has more than 20 years' experience as a mechanical engineer, focusing on the design and analysis of specialized HVAC systems for notable institutions in the healthcare, commercial, R&D, laboratory, pharmaceutical, and education sectors. Mike works closely with architects and owners in the design and selection of mechanical systems and QA/QC review.

EDUCATION

BS, Mechanical Engineering, Syracuse
University

REGISTRATIONS

ME, MA, NH

SELECTED EXPERIENCE

- Beth Israel Lahey Health – Lifestyle Health Center, Burlington, MA
- Stephens Memorial Hospital – AHU Replacement, Norway, ME
- Exeter Hospital – Operating Room Upgrades, Exeter, NH
- VA Medical Center Bedford – Women's Health Clinic, Bedford, MA
- VA Medical Center Brockton – Mental Health Unit Renovation, Brockton, MA
- Exeter Hospital – Imaging Renovation, Exeter, NH
- Exeter Hospital – Ultrasound Department Renovation, Exeter, NH
- RayzeBio – Manufacturing Facility and Office, Indianapolis, IN



Brian McDonough PE, LEED Green Associate
FIRE PROTECTION AND PLUMBING ENGINEER

Brian brings more than 15 years of experience designing plumbing and fire protection solutions for clients. He has extensive healthcare and workplace experience for clients throughout New England.

EDUCATION

BS, Mechanical Engineering,
Worcester Polytechnic Institute

REGISTRATIONS

ME, MA, NH, NY

SELECTED EXPERIENCE

- VA Medical Center Bedford – Women’s Health Clinic, Bedford, MA
- Millinocket Regional Hospital – Emergency Department Expansion and Renovations, Millinocket, ME
- Intermed – Marginal Way First Floor Renovations, Portland, ME
- Littleton Hospital – Laboratory Upgrades, Littleton, NH
- Intermed – 100 Foden Road Third Floor Renovation, South Portland, ME
- Hartford Healthcare – Medical Office, Hartford, CT*
- Shields Health – Dedham Medical Center, Dedham, MA*
- Brigham and Women’s Hospital – Shapiro Surgical Specialties, Boston, MA*
- Brookside Community Health Center, Jamaica Plain, MA*

** Projects completed under previous employment*

KYLIE S. MASON, RLA, LEED-AP

Chief Operations Officer



Kylie Mason, RLA, LEED-AP, is a Maine licensed landscape architect and Chief Operations Officer for Sebago Technics. In this role, she is responsible for the overall operations of one of Maine's largest and most successful land development firms.

In addition, Kylie oversees large-scale, complex projects serving a range of clients from Public & Private Schools to Medical Provider Campuses to Corporate Campuses. She excels in her listening and communication skills, which form the foundation of her strong design ability and understanding of clients' goals and objectives.

EXPERIENCE



- **Sanford School District:** Site Selection Study, Site Engineering and Permitting for a New 350,000 s.f. High School and Regional Technical Center in the City of Sanford.
- **Cross Street Extension, Freeport, Maine:** Masterplanning, Design and Permitting for new extension of Cross Street, redirecting retail traffic from Main Street into a new cooperative public parking area shared by multiple land owners. Pedestrian circulation and streetscape enhancements provide direct connectivity with retailers and Main Street. Traffic recirculation planning included the elimination of one-way streets.
- **Riverwalk North, Westbrook, Maine:** Evaluation of Site, Masterplanning, Design and Permitting for new Riverwalk, Park and Brown Street realignment and streetscape along the Presumpscot River in Westbrook between Bridge Street and Cumberland Street.
- **The City's representative, project manager and lead designer for the Gardiner Waterfront Park Project** working side-by-side with numerous stakeholders to ensure timely delivery of the park. Significant collaboration with the Savings Bank of Maine, having committed \$1 million to the project.
- **Campus Master Plan for the L.L. Bean Flagship Store & Retail Campus** featuring: innovative bioretention/rain gardens considered the first of its kind in Maine and received a LEED Silver Certification; multiple pedestrian plazas, retail vignette opportunities and Route One Streetscape Enhancements in Freeport, Maine.
- **Bowdoin College Land Acquisition Feasibility and Site Suitability Study:** Evaluation and Recommendation for strategic acquisition of 250 acres as part of the Brunswick Naval Air Station decommissioning.
- **Bowdoin College Campus Masterplanning:** Development of Masterplan, including programmatic uses for expansion as well as vehicular and pedestrian circulation between the existing campus and the campus expansion.
- **Maine Medical Center Long-Range Planning and Parcel Evaluation:** Portland and Scarborough Campus.
- **Martin's Point Healthcare Long-Range Planning and Site Development:** Site Selection, Site Engineering and Permitting for innovative new Medical Office Facilities throughout Maine.
- **Animal Refuge League of Greater Portland:** A new 25,000 s.f. facility with associated site improvements. The project required many partnerships to support and provide for an enriching sanctuary for Maine's future companions.
- **L.L. Bean Outdoor Discovery Center at Lower Flying Point,** a new waterfront facility serving thousands of visitors annually. Including; multi-purpose space, visitor orientation space and wrap-around porch with direct access to Casco Bay. This is the flagship for the premiere Maine retailer's Outdoor Discovery Programs.
- **Camp Susan Curtis** Recreation and Activity area Masterplan.

REGISTRATIONS



Registered Landscape Architect
Maine #3335

LEED Accredited Professional

CLARB Certified

LPA Certification, NHDOT

ASSOCIATIONS

American Society of Landscape
Architects

Council of Landscape Architects
Registration Board

USGBC (LEED)

PUBLIC SPEAKING

2013 USGBC - New Hampshire Chapter: Sustainable and Functional Aesthetics in the Landscape

2013 Maine Medical Association: Accommodating your levels of care - LEED Healthcare, Healing Spaces & Exterior considerations for your practice

2014 Maine Society of Landscape Architects: Sustainable Strategies for Stormwater in Maine



PAUL D. OSTROWSKI, PE

Senior Project Engineer / Project Delivery Engineering & Design Manager



Mr. Ostrowski joined Sebago Technics in 2013 and is a Senior Project Engineer with nearly two decades of experience in the civil engineering field, with extensive experience in the design and inspection of municipal utility projects. He has brought the knowledge gained from construction inspection back to project design, performing constructability reviews for projects, as well as finding unique design solutions for complex projects.

In his role as Project Delivery Engineering Design Manager, Paul is responsible for the training and development of team members, the QA&QC process, and the advancement of design assignments through our teams. As a talented and creative engineer, Paul continues to serve as the lead engineer on special projects, shaping challenging sites and developing creative solutions for clients. Paul's willingness to explore alternatives and commitment to the growth and advancement of the team members that he manages is admirable. He is responsible for shaping the most successful and recognized projects our organization has completed.

EXPERIENCE



Portland Schools Site Evaluation – Portland, ME: Mr. Ostrowski, as part of a larger project team, reviewed existing schools and ancillary buildings within the Portland School Department. Responsibilities included reviewing existing site conditions and their remaining life expectancy, identifying grading/drainage concerns or deficiencies, and ADA accessibility. Mr. Ostrowski assisted in generating conceptual cost estimates for addressing noted deficiencies or replacement of site amenities at or past their life expectancy.

Thornton Heights Sewer Separation – South Portland, ME: Mr. Ostrowski assisted in the design and bid document preparation for Phase 1 of a three phase sewer separation project in the Thornton Heights neighborhood. Responsibilities included sizing of the storm drain system to accommodate future phase separation, quantity take-offs and cost estimates. Mr. Ostrowski leads the design of the Portland Water District's work in Thornton Heights.

Westside Interceptor Sewer (Capisic Brook) – Portland, ME: While employed at another firm, Mr. Ostrowski served as full-time construction representative to observe the progress and quality of construction. The project included installation of 5,700 feet of 60-inch sanitary sewer pipe using T-Base and conventional manhole structures. Duties included daily observations; preparation of daily, weekly and monthly reports; verification of contractor payment requests; and coordination with City representatives for field changes during construction. The sewer replacement project traversed through Capisic Park, which is designated by the Maine Department of Environmental Protection as an Inland Wading Waterfowl Habitat (IWWH), thus requiring Mr. Ostrowski to closely monitor disturbance limits within the IWWH as well as discuss proposed work and restoration efforts with abutting property owners, Friends of Capisic Park Neighborhood Group, and Portland Trails.

Forest Avenue to Mt. Sinai Cemetery CSO Project – Portland, ME: Mr. Ostrowski was the design engineer for this project which separated the combined storm drainage within the West Side Interceptor sewer into a 42 to 48-inch diameter storm drain which parallels the existing interceptor sewer. Coordination was required with Portland Water District for the relocation of existing infrastructure (16-inch, 6-inch, and 4-inch mains) within Forest Avenue.

Numerous Assignments – Portland, ME: Senior Inspector responsible for part/full-time inspection of roadway and sewer infrastructure improvements from 2010 to 2013 for the City of Portland. Work included utility and infrastructure upgrades for the following roadways; Canco/ Carlyle/Read, Dorothy/Dibiase, Belfort/ Commonwealth, Broadway/Lexington, Victor/Vera, Allen/Auburn/Washington, Alpine/Hillside, and Bartley/Rustic.

EDUCATION



B.S., Civil Engineering
University of Maine, Orono, 2000

CERTIFICATIONS

MaineDOT LPA Certified
Recertification May 2019

NETTCP Paving Inspector # 4527

MEMBERSHIPS

American Society of Civil Engineers

REGISTRATIONS

Registered Professional Engineer:
Maine #11175



KELLY G. KOEHLER

Civil Engineer



Ms. Koehler joined Sebago Technics, Inc. (STI) in 2023 as a Civil Engineer. Kelly is a graduate of Colorado State University with a degree in Engineering Science with a focus in civil and environmental engineering. Born and raised in Colorado, she relocated to Maine after graduation. Kelly is a member of the Project Delivery Team at Sebago Technics.

EXPERIENCE



Dumas-Hall Residence — Great Diamond Island, Maine

Design engineer for a single-family house lot on Great Diamond Island. Provided grading and utility design for the site. Assisted in preparing project design documents and agency correspondence.

Poland Animal Hospital — Poland, Maine

Design engineer for the expansion of Poland Animal Hospital in Poland. Provided site grading, utility design, and stormwater treatment and design. Assisted in preparing local and state permitting and submission documents.

Nason Brook Stream Restoration Permitting — Westbrook, Maine

Assisted in the permitting process for the reconstruction of an approximately 600-ft section of Nasons Brook located between the Rock Row private way access road and the Westbrook-Portland City line. Involved in formatting an NRPA application.

Cobscook Bay State Park Shower & Utility Upgrades — Edmunds, Maine:

Assisted in preparing site development plans, utility layout design, grading, and septic system design for Cobscook Bay State Park

EDUCATION



Colorado State University
Fort Collins, CO
B.S., Engineering Science and
International Studies; Minor: German
2022

CERTIFICATIONS

Maine Engineer-Intern Certification:
EI8177



BRIAN A. MCMAHON

Landscape Designer



Brian McMahon graduated from the University of Rhode Island with a degree in Landscape Architecture and a minor in Community Planning. His curiosity and eagerness to learn have shaped him into a critical lead designer on all of his projects. He excels in numerous skills including due diligence research, site inventory and analysis, conceptual site planning, graphic visualizations, site design development, and planting design.

EXPERIENCE



One Diamond – Biddeford, ME: Provided master planning efforts for a large-scale residential project along the Saco River. Brian assisted with site design, including a riverwalk trail and recreational amenities, detailing site elements, landscape exhibits, and graphic renderings of the full master plan.

Lakeside Norway – Norway, ME: Assisted with site design for a commercial project located along a lakefront property. Brian assisted with the design of the site's recreational amenities along the waterfront, detailed planting plans, and graphic visitations for the full master plan.

L.L. Bean Campus – Freeport, ME: Created graphic visualizations, both in plan-view and section, for future master planning efforts of the existing campus.

Village Area Loop Trail – Gray, ME: Collaborated directly with the Town of Gray to develop a new trail as part of a larger masterplan effort. Brian designed the layout of the trail, as well as the associated amenities and planting plans.

Topolina – Kennebunk, ME: Provided site design for the conversion of an existing building into a restaurant located near downtown Kennebunk. Brian was responsible for the layout of outdoor amenity areas, detailing of site elements, and landscape exhibits for the project.

Berlin City Nissan Addition – South Portland, ME: As part of the design team, Brian was responsible for the site design associated with a building addition at the existing Berlin City Nissan. He also assisted with detailing the site elements and creating an updated landscape plan for the property.

EDUCATION

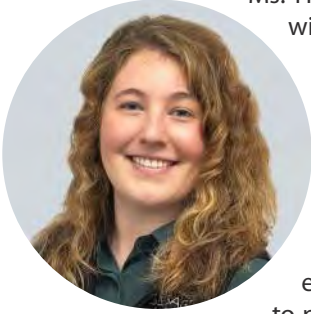


University of Rhode Island,
Kingston, Rhode Island
Bachelor of Landscape Architecture
Minor: Community Planning
2021



KIRA A. HARMON

Virtual Design and Construction Project Manager



Ms. Harmon joined Sebago Technics, Inc. (STI) in May of 2019 as a 3D Modeler and CAD Technician working with the Survey-Geomatics group to produce digital deliverables for municipal, federal, and private sector projects. In 2022 Kira was elevated to Virtual Design and Construction (VDC) Project Manager. In this role, Kira oversees all 3D modeling/graphics services including project scoping, estimating, and overall project/client management. Additionally, she supports the development and maintenance of 3D modeling processes and standards, along with training, coordination, and management of 3D modeling personnel.

Kira has worked on projects ranging from facility management modeling to creating life-like 3D renderings, and everything in between. Her project responsibilities have included accurately extracting existing conditions survey data from a point cloud as well as modeling a potential development project to produce life-like 3D renderings. This experience allows her the flexibility to understand project needs and goals in order to properly extract and provide the digital foundations necessary for a successful project and provide useful insight as a project team member.

EXPERIENCE



American Aquafarms – Frenchman Bay, ME: Ms. Harmon assisted in the production of 3D Modeling and visualizations for the proposed aquaculture facility. 3D Models were developed in Revit collaboratively with the client and used to generate visualizations from the key observation points. Sebago merged the 3D Models with measured photographs that were survey located within the study area. Paint color studies were also completed to determine the least contrasting options. The visualizations were included in the State of Maine Department of Marine Resource application.

Main Street – Orono, ME: Sebago Technics was retained to do a traffic study from Kelley Road to the Stillwater River Bridge in Orono Maine in 2020 by the Maine Department of Transportation. This study involved Sebago Technics survey/ geomatics division as well as their transportation engineering division. Ms. Harmon's role in this project was to assist with the survey aspect of the project. This project was surveyed using a high-definition laser scanner. Ms. Harmon used the laser scan data to extract survey features and geometry to create an existing condition plan of the entire stretch of roadway. By using this method of survey, the Sebago team was able to get more accurate data as well as much denser data. This allows for the transportation engineers to have more accurate studies as well as designs.

Shore Road – Cape Elizabeth, ME: The Town of Cape Elizabeth, looking to renovate a long section of their highly traveled Shore Road, retained Sebago Technics to provide a combination of survey and traffic engineering services. Town officials also wanted to be able to show townspeople what key areas would look like once restructured. To accomplish this, numerous high-quality 3D renderings of select locations along Shore Road were produced. Ms. Harmon oversaw the 3D renderings that Mr. Burbank created and assisted in the process of working with the engineers and landscape architects. Along with oversight it was Ms. Harmon's responsibility to quality review each image not only in the techniques Mr. Burbank was using but also the accuracy of each image. To achieve this Ms. Harmon used her knowledge of the virtual design and construction field as well as the quality assurance steps Sebago has put in place that Ms. Harmon assisted in creating to verify accuracy and realism of the rendered images.

Piper Shores Retirement Community Expansion – Scarborough, ME: The retirement community of Piper Shores decided to expand and develop a parcel of land across from the community's original development site. With the concept of the retirement community expansions and its location, there were some concerns from neighboring properties. Ms. Harmon made an Autodesk Revit 3D visualization model using the architect's plans, as well as Sebago Technics survey information and site design. Ms. Harmon was able to give the client, as well as the neighboring properties, some piece of mind as to how the buildings and new landscaping would impact the surrounding areas. A buffering concern was able to be addressed prior to the building process because of the 3D renderings.

EDUCATION



Southern Maine Community College
South Portland, ME
Associates of Applied Science,
Architectural and Engineering Design
2019

CERTIFICATIONS

OSHA 10-hour Construction Safety

CPR & First Aid



JEDIAH M. SCOTT, PLS

Senior Surveyor



Jediah Scott is a seasoned Senior Surveyor who joined Sebago Technics in 2021. With extensive expertise in land surveying, he has consistently delivered accurate and detailed survey data for a variety of projects. Jediah's proficiency in utilizing advanced surveying technologies, coupled with his exceptional attention to detail, has contributed to the successful execution of numerous complex projects. He is a dedicated professional who consistently demonstrates a commitment to precision, efficiency, and excellence in the field of surveying.

EXPERIENCE



Stroudwater Preserve – Portland, ME:

Surveyor for a multi-phase subdivision along the Stroudwater River. Review of subdivision amendments and site plans as well as drafting of easement exhibits and oversight of layout. Coordination with engineering firm and general contractor.

Continental Mill – Lewiston, ME:

Surveyor for a condominium plan of a historic mill on the Androscoggin River. Determination of boundary lines and encumbrances and drafting easements to connect to a proposed trail network across the adjacent canal.

Center Street CSO – Portland, ME:

Surveyor for a storm and sewer mapping project in order to separate storm and sewer systems. Field location of underground utilities and determination of the right of way for over 4,000 feet of City streets.

Madawaska LPOE – Madawaska, ME:

Surveyor for the Land Port of Entry site for the new Madawaska-Edmundston bridge. Boundary and topographic survey for engineering and design of new facilities, and subsequent layout.

EDUCATION



University of Maine
Farmington, Maine
B.A., Environmental Policy & Planning
Minor: Visual Arts
2013

REGISTRATIONS

Professional Land Surveyor
Maine #2660

CERTIFICATIONS

CPR & First Aid
OSHA 10

AFFILIATIONS

Maine Society of Land Surveyors



STEFANIE K. NICHOLS

Permitting Specialist/Project Coordinator



Mrs. Nichols joined Sebago Technics, Inc. (STI) in 2018 as a Permitting Specialist/Project Coordinator and is a Regulatory Specialist with over 36 years of diverse experience. During this time, she has worked with many different disciplines in the various aspects of site permitting and site inventory, and associated reports and graphics. Other duties over the years include civil drafting-hand and ACAD, project bid tracking and construction submittal processing, sourcing landscape materials, livestock procurement/travel permits, and short-term fostering.

EXPERIENCE



Solar Array Projects

Locations: Berwick, Kenduskeag, Lewiston, Livermore Falls, Mechanic Falls, Minot, North Berwick, Orrington, Oxford, Prospect, Seasmont, Stockton Springs, etc.

Applications: MDEP Site Law, NRPA, Stormwater, Transfer, Extension, Decommissioning, USACE, MDOT Driveway, and Municipal.

Homestead Farms Subdivision - Falmouth, ME

Single-Family Clustered Development

Applications: MDEP Site Law, NRPA, ACOE, Municipal Subdivision/Site Plan Review

Copart of Connecticut - Windham, ME

Vehicle Auction Facility/Offices

Applications: MDEP Site Law, NRPA, Municipal Site, and Subdivision

Harborchase - South Portland, ME

Senior Housing/Memory Care

Applications: Municipal, MDEP and FAA

Maine Medical Center - Portland, ME

Large Medical Facility Expansion, Congress Street

Application: Municipal Level III Site Plan Application

Colby College - Waterville, ME (2003-2018)

Liberal Arts College modifications and expansions: Athletic Fieldhouse Complex, Grossman Hall Addition/Renovation, Oakland Solar Array, Baseball/Softball Facility, Johnson Pond Water Quality, Biomass Plant Expansion, Cotter Union Expansion, The Diamond Building, Roberts Row Elevator Towers, Colby Green, etc.

Applications: MDEP, USACE, Municipal

Sugarloaf - Carrabassett Valley, ME (2003-2016)

Ski Resort additions and modifications: Glades at Burnt Mountain, Golf Course, Snow Park, Bullwinkle's Expansion, Trail Widening, Parking, Sand and Salt Storage, etc.

Applications: MDEP, USACE, Municipal

Sebasco Harbor Resort and Harbor Island - Phippsburg, ME (2003-2018)

Resort permitting, building modification, golf course modifications, parking, utilities, subdivision projects

Applications: MDEP Site Location, NRPA, OBD Renewal, DEP Transfers & Extensions, Municipal Site, and Subdivision

100+ Private Residences

Locations: Maine, Massachusetts, New Hampshire, Connecticut, Montana

Applications: Municipal Site/Shoreland Review, MDEP NRPA, USACE, MDOT Driveway

EDUCATION



Northern Maine Technical College
Presque Isle, ME
Drafting Technology

Central Maine Technical College
Auburn, ME

Maine Technical Source (MTS)
Yarmouth, ME
AutoCAD I



11: IMPACT ON SURROUNDING STREET SYSTEMS (14.6.1(A))

The proposed project will not create or aggravate any significant hazard to safety on the surrounding street network, nor will it substantially increase congestion on the roadways in the vicinity of the site. Reference is made to existing conditions, access, traffic volumes, generation, etc., included in the Traffic Impact Study Martin's Point Veranda Campus, December 18, 2023, prepared by Sebago Technics, Inc., this is included in this section.

Based on trip generation for a General Office Building, 50,000 SF, a Traffic Movement Permit (TMP) is not required.

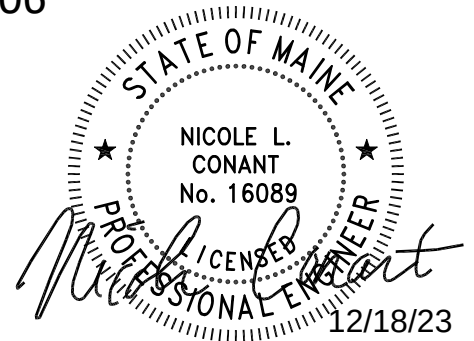


Traffic Impact Study Martin's Point Veranda Campus Portland, Maine

Applicant:
Martin's Point Health Care, Inc.
10700 Prairie Lakes Drive
Eden Prairie, Minnesota 55344

Prepared By:
Sebago Technics, Inc.
75 John Roberts Road, Suite 4A
South Portland, Maine 04106

December 18, 2023



Traffic Impact Study
Martin's Point Veranda Campus
Portland, Maine

Table of Contents

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8.0 Capacity Analysis	14
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10.0 Sight Distance Analysis	17
11.0 Conclusions and Recommendations	18

List of Appendices

- A. ITE Trip Generation Data
- B. Traffic Count Data
- C. MaineDOT Crash Data
- D. SimTraffic Reports

1.0 Introduction

On behalf of Martin's Point Health Care, Inc., Sebago Technics, Inc. has prepared this Traffic Impact Study (TIS) to evaluate the impact of the proposed redevelopment of a portion of the existing Martin's Point medical office campus off Veranda Street (Route 1) in Portland, Maine. The Veranda Campus is roughly 12.5 acres in size. The redevelopment is primarily anticipated on land identified by the City of Portland as Tax Map 434 and Lots C-10 with some redevelopment on parcels C-1 and C-5.

The redevelopment is proposed to eliminate the existing storage and greenhouse space and build a 50,000 square foot (SF) office building. Initial employee count projections for the new office space include about 85 employees, with a portion of them relocating from other buildings on the Veranda Street Campus. The long-term capacity of the building could be up to 250 employees; however, Martin's Point provides flexibility with remote work options and therefore actual daily in-office employee counts will likely vary. Construction is currently scheduled for fall of 2024 with 2026 occupancy. It should be noted that the office space is not intended to operate as a medical office building with patient services.

Access to the development from Veranda Street is provided via two existing access points: the signalized access of Marine Hospital Road and an additional unsignalized access approximately 500 feet north of Marine Hospital Road. Work as part of this development includes converting the unsignalized drive to a right-in/right-out only access.

The site plan proposes internal sidewalks from the unsignalized Veranda Street intersection to the proposed building on Lot C-10 as well as up the hill to the existing building on Lot C-1. A pedestrian bridge is also provided between the proposed building and the existing building on Lot C-1.

A meeting was held with City Staff for the project on September 26, 2023 with representatives from the project application team and the City of Portland to discuss traffic considerations, as outlined in the subsequent sections.

2.0 Study Area

Based on the trip generation and assignments, outlined in Section 6 – Trip Generation and Section 7 – Trip Assignment, the study area for analysis purposes includes the site access drives on Veranda Street. Data was also collected for the Veranda Street I-295 on and off ramp intersections given they are part of a coordinated signal system with the Marine Hospital Site Drive.

3.0 Existing Conditions

The existing Martin's Point Health Care is a medical office campus made up of multiple buildings with the primary purpose of serving patient health care. The operating hours for the campus are 7:30 AM to 6:00 PM.

The development parcels are bordered by Veranda Street (Route 1) to the northwest, the Atlantic Ocean to the east and the south, and a commercial property to the west. A location map is provided with this application.

A review of the surrounding area was completed to compile pedestrian, bicycle, and transit trip generators within a ¼ mile radius given this is considered an urban development.

Pedestrian generators within that study area include residential and commercial properties along Veranda Street to Olympia Street. Existing transit opportunities are available to the site with METRO stops in both the northbound and southbound directions in the vicinity of Martin's Point.

The Veranda Street Project (MaineDOT WIN# 21745.00) recently reconstructed this area on both sides of Veranda Street. Bicycle and pedestrian infrastructure upgrades in the vicinity of the site include the following:

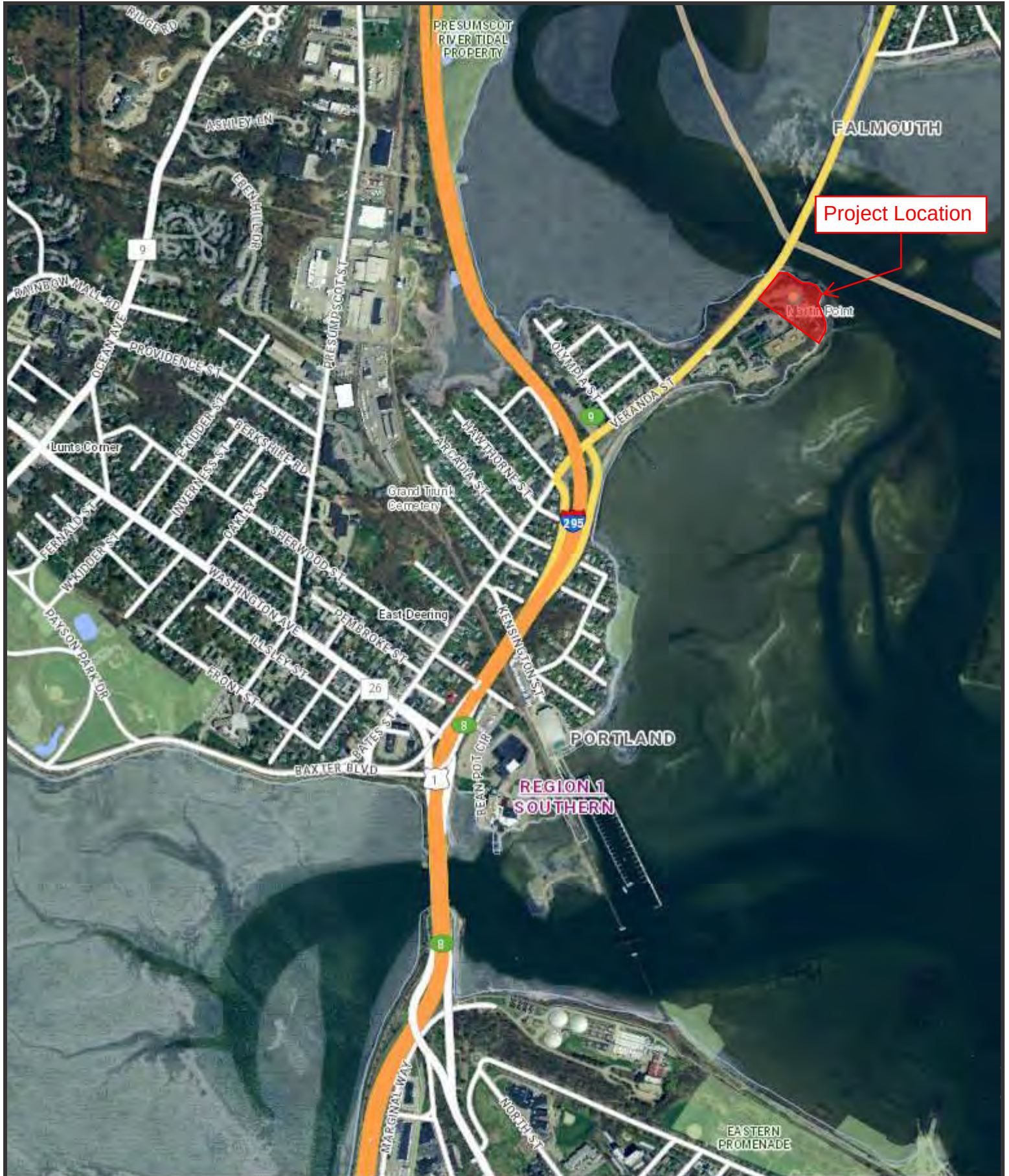
- Upgraded sidewalk on the northwest side of Veranda Street from Wordsworth Street to Marine Hospital Drive.
- Upgraded sidewalk on the southeast side of Veranda Street from Wordsworth Street to the unsignalized Martin's Point Access. The sidewalk widens to 10 feet north of Olympia Street providing shared access north towards Falmouth.
- Upgrades to the existing pedestrian infrastructure was provided at the signalized access of Marine Hospital Road.
- Buffered bicycle lanes are provided in both directions to Medical Campus Drive, transitioning to standard bicycle lanes just south of the unsignalized Martin's Point Access.
- Existing pedestrian and bicycle facilities continue across the bridge to and from Falmouth.

4.0 Site Access

Access to the development is via two (2) existing access points: Marine Hospital Road and an unsignalized right-in/right-out access drive. Internal site connections are available between the access points on Veranda Street.

1. The intersection of Veranda Street (Route 1) and Marine Hospital Road is a signalized access as a part of a coordinated corridor with the Interstate 295 on and off ramp intersections. Veranda Street has a through lane and left-turn lane southbound and a through/right-turn lane northbound. Marine Hospital Road has left and right-turn egress lanes and a single ingress lane. Signalized crosswalks are provided across Marine Hospital Road and across Veranda Street.
2. The unsignalized drive is located approximately 500 feet northeast of Marine Hospital Road. No crosswalks are currently provided at the access. This access is proposed to be converted to a right-in/right-out only access to reduce the unsignalized left-turn conflict points and encourage the use of the Marine Hospital Road signalized intersection. Given a sidewalk continues either side of the right-in/right-out, the access has been regraded to comply with the Americans with Disabilities Act (ADA).

LOCATION MAP



The Maine Department of Transportation provides this publication for information only. Reliance upon this information is at user risk. It is subject to revision and may be incomplete depending upon changing conditions. The Department assumes no liability if injuries or damages result from this information. This map is not intended to support emergency dispatch.

0.2
Miles
1 inch = 0.26 miles

Date: 5/24/2023
Time: 3:02:16 PM

5.0 Base Traffic Volumes

Turning movement counts (TMCs) were collected on Thursday, May 25th, 2023 to establish preliminary traffic patterns and trip assignments to determine the study area for the traffic study. Counts were collected for the AM (7:00 – 9:00 AM) and PM (3:00 – 6:00 PM) peak hour periods. The count data is provided in the Appendix and is summarized as follows:

- Veranda Street (Route 1) at Interstate 295 Southbound On-Ramp and Wordsworth Street
AM peak hour 8:00 – 9:00 AM, PM peak hour 3:15 – 4:15 PM
- Veranda Street (Route 1) at Interstate 295 Northbound Off-Ramp
AM peak hour 7:45 – 8:45 AM, PM peak hour 4:30 – 5:30 PM
- Veranda Street (Route 1) at Marine Hospital Road
AM peak hour 8:00 – 9:00 AM, PM peak hour 4:30 – 5:30 PM
- Veranda Street (Route 1) at Martin's Point Health Care Driveway
AM peak hour 8:00 – 9:00 AM, PM peak hour 4:30 – 5:30 PM

The roadways in the vicinity of the site are classified as Group I – Urban. The counts were factored to 30th highest hour volumes, or peak summer conditions utilizing the 2022 MaineDOT Weekly Group Mean Factors which resulted in a rate of $0.89/0.87 = 1.02$. The factored counts are summarized in Figure 1.

Traffic volume data for Veranda Street was reviewed in the vicinity of the site from MaineDOT's Traffic Database. The locations and associated historical AADT are summarized in Table 1:

Table 1 – Average Annual Daily Traffic Data

<i>Location</i>	<i>2016 AADT</i>	<i>2017 AADT</i>	<i>2019 AADT</i>	<i>2022 AADT</i>	<i>Avg. Annual Growth Rate</i>
US 1 (VERANDA ST) (SB) SW/O OLYMPIA ST	7,000	-	8,050	-	4.8%
US 1 (VERANDA ST) NE/O OREGON ST	14,020	15,240	15,620	-	3.7%
VERANDA ST SW/O KENSINGTON ST	3,960	-	4,500	-	4.4%
US 1 (MARTIN POINT BR) @ PORTLAND TL	12,680	-	13,210	11,840	-1.1%

As demonstrated in Table 1, a weighted average annual growth rate of approximately 2.5% was realized on the adjacent roadway system over the available data period. When comparing the collected turning movement counts from May 2023 and MaineDOT collected counts from May 2017, the peak hour through volumes on Route 1 were observed to decrease over the six-year period by approximately 19%. As such, a growth rate of 2% was utilized to project the 2023 volumes to 2026 base no-build conditions.

Additionally, the City of Portland Traffic Peer Reviewer was contacted to determine what other development in the vicinity of the site was approved, yet unbuilt or under construction that should be included in the background volumes. The Roux Institute Campus located at the former industrial space off Kensington Street was approved as a mixed-use development in early 2023. The project's

Institutional Development Plan estimated 565 and 737 external vehicle trips in the AM and PM peak hours respectively, assigning 7% of trips to and from the north via Veranda Street in the vicinity of Martin's Point. Additional projects under construction included the Front Street Redevelopment project which included 100 units of multi-family housing and the Winchester Woods residential apartments off Sherwood Street totaling 48 units of multi-family apartments. Given the proximity to Washington Avenue, a percentage (utilized similar rate of 7%) of traffic would travel north on Veranda Street to the Town of Falmouth. Remaining traffic would utilize Washington Avenue to travel west or access the Interstate. Trip generation for the three developments is summarized in Table 2.

Table 2 – Other Development Trip Generation

<i>Time Period</i>	<i>Total Entering</i>	<i>Total Exiting</i>	<i>Veranda St. Entering (7%)</i>	<i>Veranda St. Entering (7%)</i>
AM Peak Hour – Roux Development	424	141	30	10
AM Peak Hour – Front Street^a	5	20	0	1
AM Peak Hour – Winchester Woods^b	5	14	0	1
AM Peak Hour – TOTAL	434	175	30	12
PM Peak Hour – Roux Development	217	520	15	36
PM Peak Hour – Front Street^a	21	11	1	1
PM Peak Hour – Winchester Woods^b	15	9	1	1
PM Peak Hour – TOTAL	253	540	17	38

^aTrip generation from site application material.

^bTrip generation estimated using LUC – 220 Multifamily Housing (Low-Rise) for 48 dwelling units.

The other development trip assignments are shown in Figure 2 and added to the 2026 factored volumes to become the 2026 no-build volumes in Figure 3.

6.0 Trip Generation

Vehicular trip generation was completed for the proposed building by utilizing the 11th Edition of the Institute of Transportation Engineers (ITE), Trip Generation Manual. Land use code (LUC) 710 – General Office Building was utilized as ITE summarizes LUC 710 as “a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted.” Trip generation for the office building was calculated based on 50,000 SF in Table 3. Given the nature of the site and the fluctuations in the number of day-to-day employees with remote work available, trip generation was based on the square footage of the development only.

**Table 3 – ITE Trip Generation
Land Use Code 710 – General Office Building
50,000 SF**

<i>Time Period</i>	<i>Fitted Curve Equation</i>	<i>Trips</i>	<i>Entering</i>	<i>Exiting</i>
Weekday	$\ln(T) = 0.87 \ln(X) + 3.05$	636	318 (50%)	318 (50%)
AM Peak Hour – Adjacent Street (7 – 9 AM)	$\ln(T) = 0.86 \ln(X) + 1.16$	92	81 (88%)	11 (12%)
AM Peak Hour – Generator *	$\ln(T) = 0.86 \ln(X) + 1.16$	92	81 (88%)	11 (12%)
PM Peak Hour – Adjacent Street (4 – 6 PM)	$\ln(T) = 0.83 \ln(X) + 1.29$	93	16 (17%)	77 (83%)
PM Peak Hour – Generator *	$\ln(T) = 0.83 \ln(X) + 1.29$	93	16 (17%)	77 (83%)

*Data for peak hours of the generator not available and assumed to be equivalent to the adjacent street

As demonstrated in Table 3, the proposed office is expected to generate 92 trips and 93 trips during the AM and PM peak hour periods. Given this level of trip generation, a Traffic Movement Permit (TMP) is not required from the City of Portland as it does not surpass the 100-trip threshold during a peak hour. The City of Portland has delegated review authority from the Maine Department of Transportation (MaineDOT) for TMPs.

It is important to note that the existing Martin's Point Campus was built and occupied over ten (10) years ago. As such, those trips are grandfathered and the need for a permit is based on the proposed development only. The Martin's Point Campus did have a previous TMP that has since lapsed.

7.0 Trip Assignment

The project generated trips were assigned to the roadway network based on the trip composition and distribution. All northbound entering trips were assigned to the northerly access drive given the proximity to the new building. All the exiting northbound trips were also assigned to the unsignalized access. The remaining traffic was assigned to the signalized access at Marine Hospital Road given the unsignalized drive is proposed as right-in/right-out only. Existing left-turning traffic at the unsignalized intersection was re-assigned to the Marine Hospital Road signalized intersection.

Existing traffic volumes were reviewed during both peak hour periods to determine distributions for primary trip generation. Given the development traffic is expected to be 100% employee traffic, existing volumes in and out of Marine Hospital Road and the unsignalized site driveway, in the half hour before operational hours, were reviewed to determine distribution in front of the site. Distribution between the AM and PM is expected to be the same given the nature of employee trips. Trip distribution based on the available data is shown in Table 4:

Table 4 – Trip Distribution

<i>Location</i>	<i>Distribution</i>
To/From South (Portland)	65%
To/From North (Falmouth)	35%

The distribution of traffic between Interstate 295 and further south on Veranda Street was determined from the overall traffic volumes between both I-295 ramp intersections. It was determined that 80% of traffic to and from the south utilized the I-295 on and off ramps. The remaining 20% traveled further south on Veranda Street.

Based on the above trip assignment assumptions, and the previous trip generation calculations and distributions, the resulting trip assignments for the development are shown in Figures 4 and 5, for the AM and PM peak hour periods.

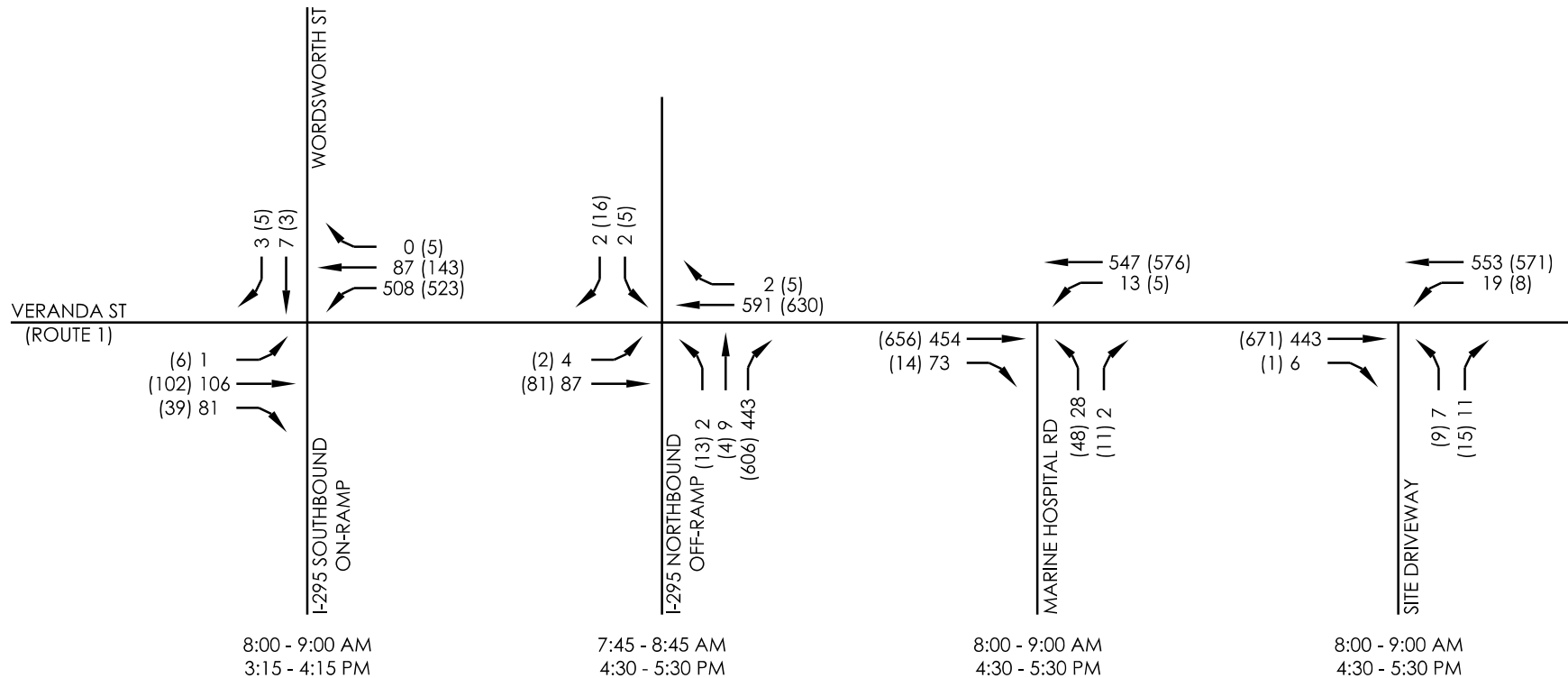
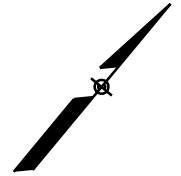
Given the trip assignment diagrams the preliminary study area is expected to include the following site access points:

- Veranda Street at Marine Hospital Road – Signalized
- Veranda Street at Martin’s Point Health Care Driveway – Right-in/Right-out

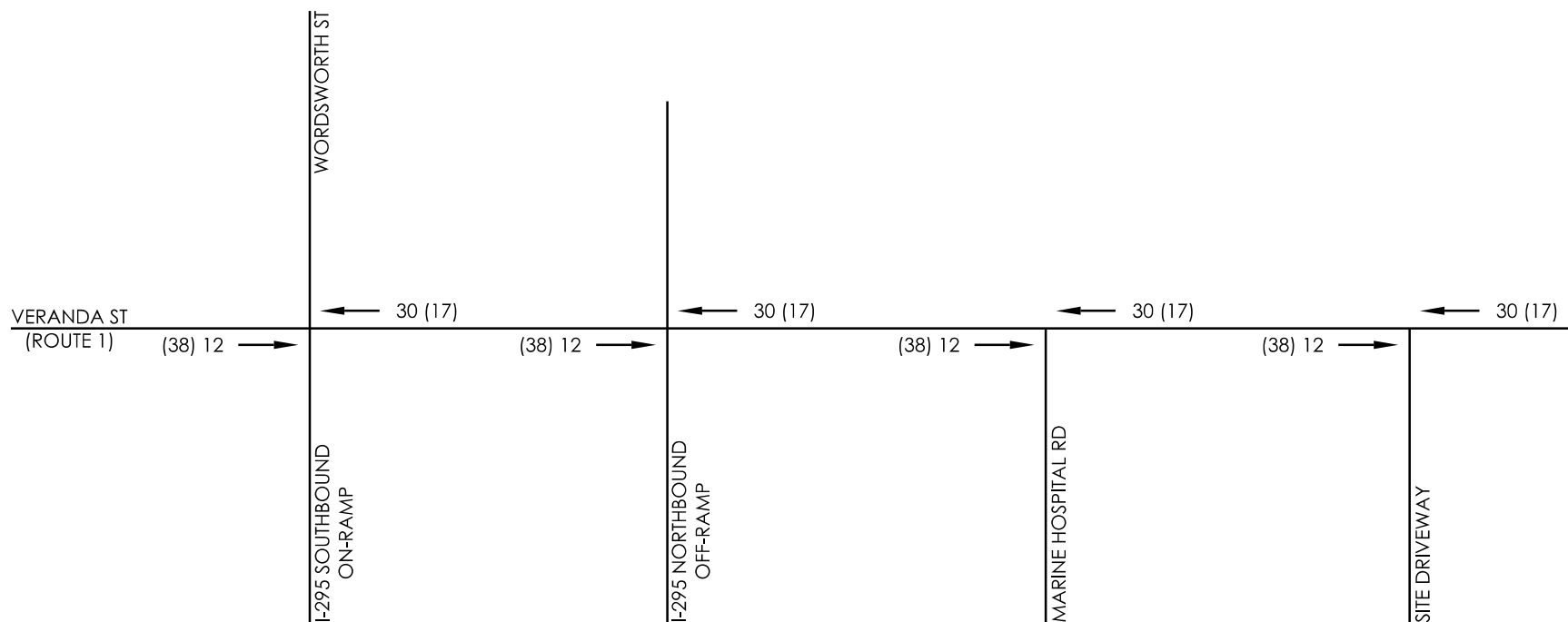
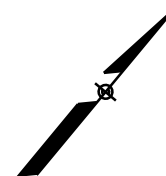
The Veranda Street ramps were included within data collection efforts, as the Marine Hospital Road intersection is a part of the coordinated corridor with the signals at the ramps. Given the ramp intersections were recently reconstructed and based on discussions at the Pre-Scoping Meeting with City Staff, they were excluded from the study results.

The resulting 2026 build volumes, found by adding the 2026 no-build volumes and the trip assignments, are shown in Figure 6.

NOTE:
 VOLUMES COLLECTED ON MAY 25, 2023. COUNTS WERE FACTORED TO 30TH HIGHEST HOUR USING
 2022 MAINEDOT WEEKLY GROUP MEAN FACTORS FOR A GROUP I ROADWAY.



AM PEAK HOUR
 (PM PEAK HOUR)



AM PEAK HOUR
(PM PEAK HOUR)

OTHER DEVELOPMENT VOLUMES MARTIN'S POINT HEALTH CARE

LOCATION:

MARTIN'S POINT
PORTLAND, MAINE

FOR:

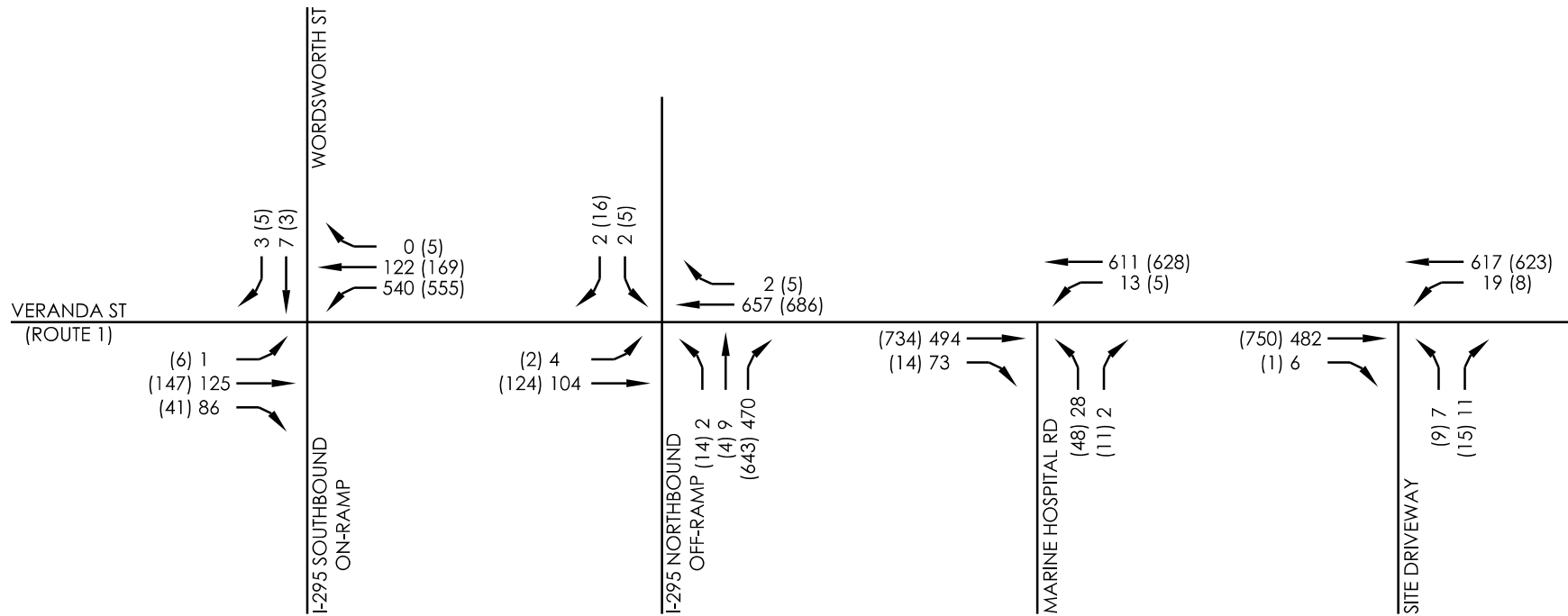
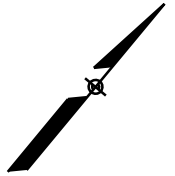
MARTIN'S POINT HEALTH CARE, INC.
10700 PRAIRIE LAKES DR
EDEN PRAIRIE, MN 55344

SCALE: N.T.S

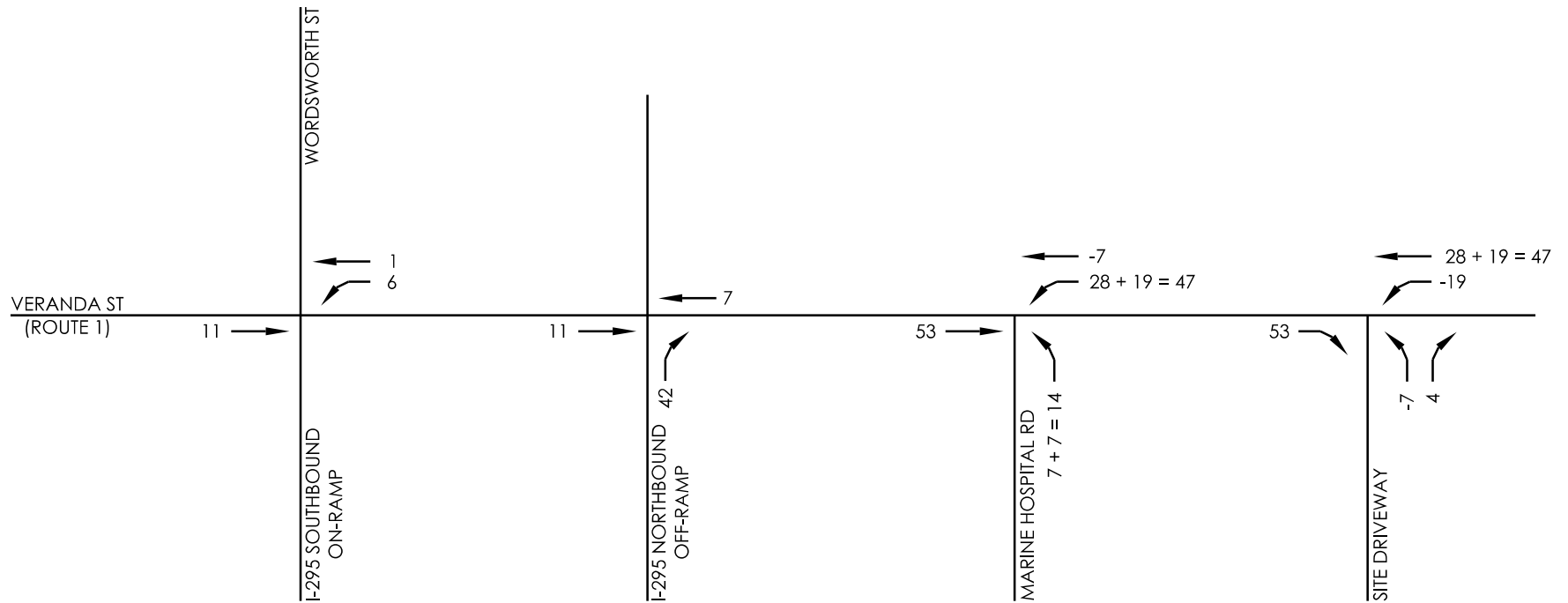
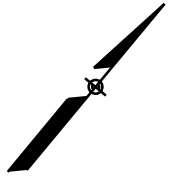
DATE: 12/06/23

FIGURE:

2 OF 6



AM PEAK HOUR
(PM PEAK HOUR)



PROJECT TRIP GENERATION

	AM
ENTERING	81
EXITING	11
TOTAL	92

AM TRIP ASSIGNMENTS
MARTIN'S POINT HEALTH CARE

LOCATION:

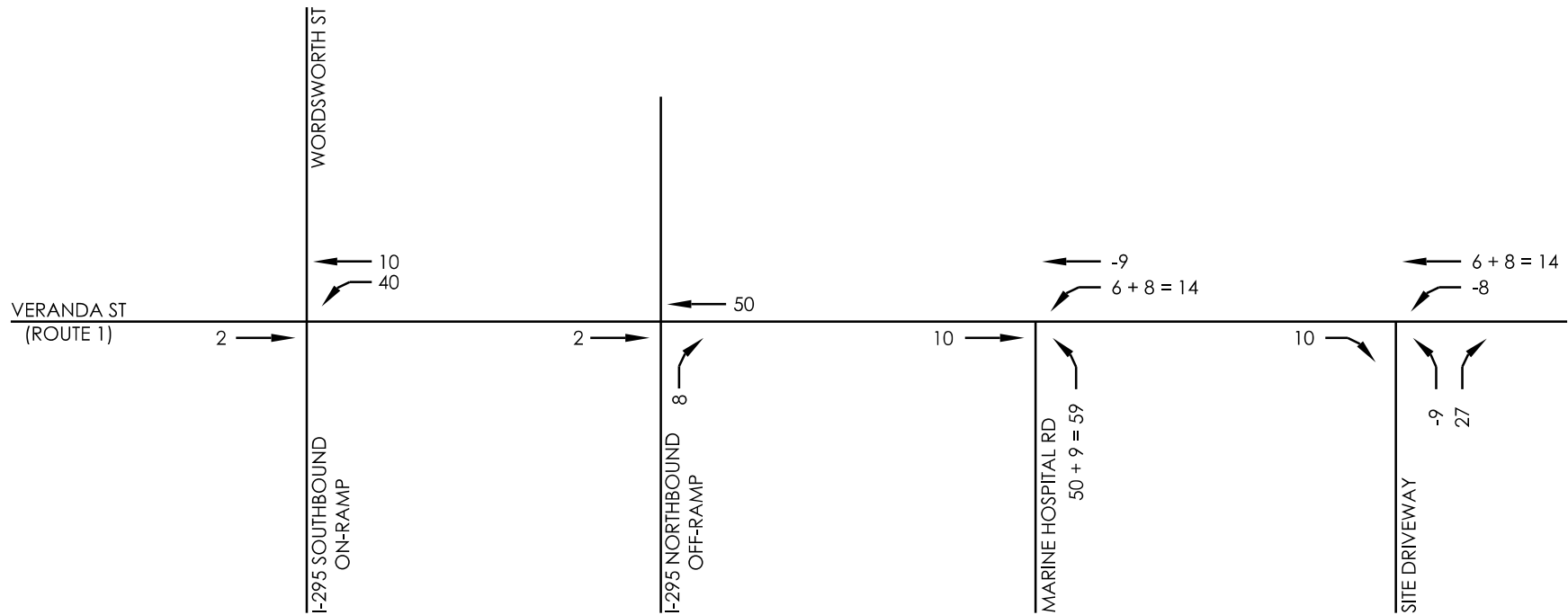
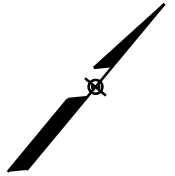
MARTIN'S POINT
PORTLAND, MAINE

FOR: MARTIN'S POINT HEALTH CARE, INC.
10700 PRAIRIE LAKES DR
EDEN PRAIRIE, MN 55344

SCALE: N.T.S

DATE: 12/06/23

FIGURE:
4 OF 6



PROJECT TRIP GENERATION

	PM
ENTERING	16
EXITING	77
TOTAL	93

PM TRIP ASSIGNMENTS
MARTIN'S POINT HEALTH CARE

LOCATION:

MARTIN'S POINT
PORTLAND, MAINE

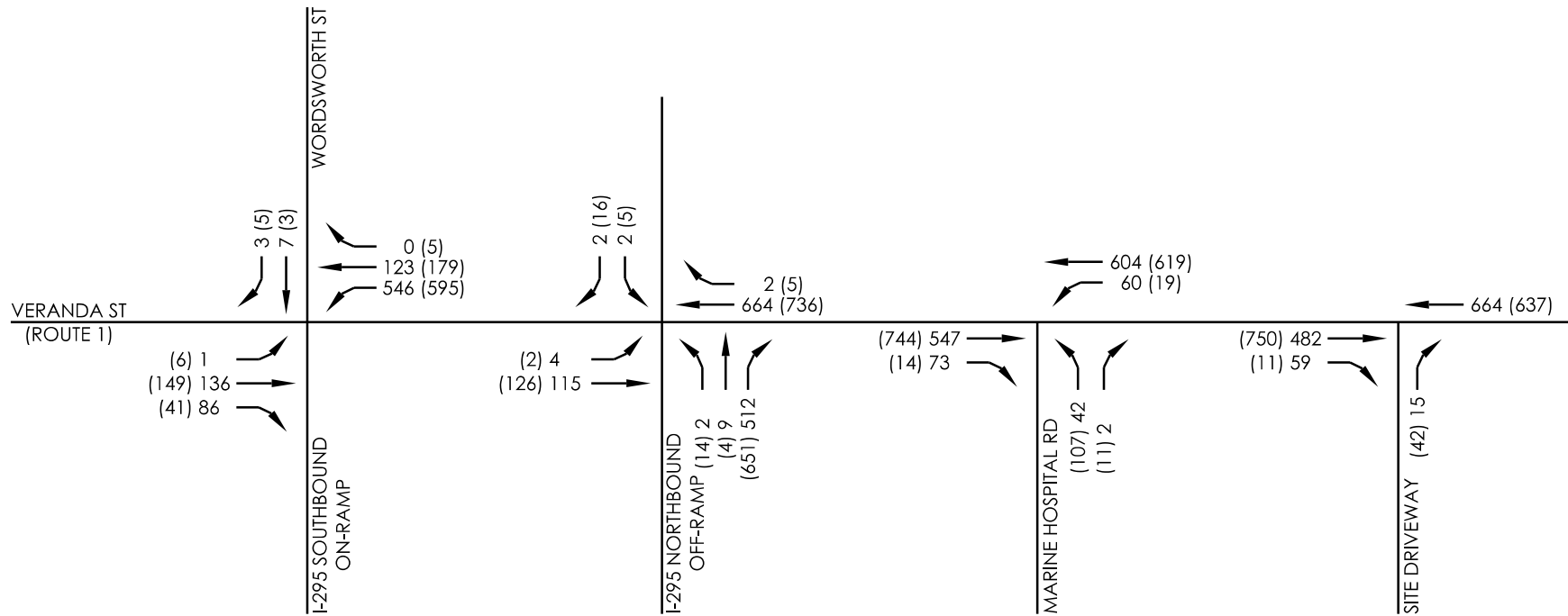
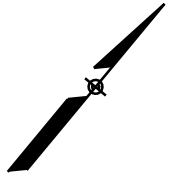
FOR: MARTIN'S POINT HEALTH CARE, INC.
10700 PRAIRIE LAKES DR
EDEN PRAIRIE, MN 55344

SCALE: N.T.S

DATE: 12/06/23

FIGURE:

5 OF 6



8.0 Capacity Analysis

An intersection capacity analysis was performed utilizing Synchro/SimTraffic v11 to calculate the control delay, or the average amount of delay that a vehicle experiences as it travels through an intersection or section of roadway. The analysis was completed by applying the average of ten (10) SimTraffic simulation runs, each consisting of a 15-minute seeding interval and a one-hour recording interval.

Level of Service (LOS) is determined by the control delay, in terms of “A” through “F,” with “A” being optimal and “F” being unacceptable. The LOS and control delay for signalized and unsignalized intersections is depicted in the Highway Capacity Manual 6 and shown in Table 5.

Table 5 – Level of Service from Control Delay

<i>Level of Service (LOS)</i>	<i>Signalized Control Delay (Sec./Vehicle)</i>	<i>Unsignalized Control Delay (Sec./Vehicle)</i>
A	≤10	≤10
B	>10-≤20	>10-≤15
C	>20-≤35	>15-≤25
D	>35-≤55	>25-≤35
E	>55-≤80	>35-≤50
F	>80	>50

Capacity analysis was completed for the site driveways for the AM and PM analysis periods. Signal timings for Marine Hospital Road were obtained from MaineDOT WIN# 21745.00 for the Veranda Street corridor. The model includes the I-295 intersections given the network is coordinated to appropriately model platooning conditions through the corridor. Volumes for the ramp intersections were balanced with the Marine Hospital Road peak hour volumes. The results for the levels of service for 2026 no-build and build conditions are shown in Tables 6 and 7:

**Table 6 – Level of Service from Control Delay
Right-In/Out at Veranda Street (Route 1)**

<i>Movement</i>	<i>2026 AM No-Build Delay (LOS)</i>	<i>2026 AM Build Delay (LOS)</i>	<i>2026 PM No-Build Delay (LOS)</i>	<i>2026 PM Build Delay (LOS)</i>
Martin’s Point WBL	32.0 (D)	-	35.8 (E)	-
Martin’s Point WBR	7.3 (A)	5.6 (A)	13.8 (B)	9.5 (A)
Veranda St SWL	3.2 (A)	-	7.0 (A)	-

**Table 7 – Level of Service from Control Delay
Marine Hospital Road at Veranda Street (Route 1)**

<i>Movement</i>	<i>2026 AM No-Build Delay (LOS)</i>	<i>2026 AM Build Delay (LOS)</i>	<i>2026 PM No-Build Delay (LOS)</i>	<i>2026 PM Build Delay (LOS)</i>
Marine Hospital Rd WBL	11.8 (B)	19.9 (B)	14.0 (B)	19.4 (B)
Marine Hospital Rd WBR	15.8 (B)	14.2 (B)	17.4 (B)	14.4 (B)
Veranda St NET	4.8 (A)	8.7 (A)	5.8 (A)	9.5 (A)
Veranda St NER	3.5 (A)	6.8 (A)	4.7 (A)	8.2 (A)
Veranda St SWL	11.5 (B)	17.8 (B)	21.8 (C)	27.0 (C)
Veranda St SWT	2.2 (A)	2.8 (A)	3.3 (A)	5.1 (A)
INTERSECTION	3.7 (A)	6.7 (A)	5.1 (A)	8.6 (A)

As shown in Tables 6 and 7, all movements in the build condition to and from the site driveways via Veranda Street are anticipated to operate at acceptable levels of service with all movements at LOS “C” or better. It should be noted that left-turns from the unsignalized access were operating at LOS “D” and “E” demonstrating an improvement by reconstructing this intersection to right-in/right-out.

A queue analysis was also completed utilizing Synchro/SimTraffic. The 95th percentile queues during the peak hours are summarized in Table 8 for the site drive intersections.

Table 8 – 95th Percentile Queue Analysis

<i>Movement (Storage Length)</i>	<i>2026 AM No-Build</i>	<i>2026 AM Build</i>	<i>2026 PM No-Build</i>	<i>2026 PM Build</i>
<i>Right-In/Out at Veranda Street (Route 1)</i>				
Martin’s Point WB LR	28	25	39	39
Veranda St SW L (55’)	28	-	22	-
<i>Marine Hospital Road at Veranda Street (Route 1)</i>				
Marine Hospital Rd WB L (100’)	31	46	42	88
Marine Hospital Rd WB R	12	12	28	33
Veranda St NE TR	126	203	173	238
Veranda St SW L (65’)	34	67	22	46
Veranda St SW R	109	126	121	158

As seen in Table 8, the left-turn lane queue into Marine Hospital Road slightly exceeds the available striped storage length of 65 feet in the 2026 AM build peak hour, but does not appear to impact the intersection performance. It should be noted that the left-turn length has approximately 100’ of full width length, with a portion likely operating as deceleration space.

A field review of the coordinated Veranda Street corridor was completed on December 5, 2023 to field verify the modeling. It was noted that the southbound I-295 and Veranda Street intersection in the PM peak hour period experienced long queue lengths where it appeared the northbound Veranda Street phase was green for an extended period with no vehicles present. There did not appear to be any

performance issues related to the existing Marine Hospital Road at Veranda Street intersection. While this queueing occasionally occurred in the PM peak 15-minute interval in the Synchro model, it did not appear to be caused by the northbound Veranda Street signal phase's green time.

9.0 Safety Analysis

Crash data was requested from MaineDOT for the most recent three-year period of 2020 to 2022 to determine if there are any high crash locations (HCLs) within the study area. An intersection or section of roadway is deemed an HCL if two criteria are met: a Critical Rate Factor (CRF) greater than 1.0 and a minimum of eight (8) crashes in a three-year period. The crash data reports are included in the Appendix and are summarized in Table 9 and Table 10.

Table 9 – Crash Summary – Intersections

<i>Node</i>	<i>Location</i>	<i># of Crashes</i>	<i>CRF</i>
17614	Intersection of Veranda Street and Arcadia Street	1	0.48
60334	Intersection of Veranda Street and I-295 Southbound	10	4.75
15787	Intersection of Veranda Street and Olympia Street	2	0.61
15786	Intersection of Veranda Street and Oregon Street	2	0.48
69124	Intersection of Veranda Street and Marine Hospital Road	2	0.12

Table 10 – Crash Summary – Segments

<i>Link</i>	<i>Location</i>	<i># of Crashes</i>	<i>CRF</i>
17612 – 60334	Veranda St between Hawthorne St and I-295 SB	1	1.14
74668 – 15787	Veranda St between I-295 Off-Ramp and Olympia St	1	0.37
69124 – 15788	Veranda St between Marine Hospital Rd and Falmouth TL	1	0.12

As demonstrated in the previous tables, there is one (1) high crash location within the proposed study area of the site: the intersection of Veranda Street at the I-295 southbound on-ramp and Wordsworth Street. The most recent available crash diagram (2019 to 2021) demonstrates all angle collisions at the intersection with several significant injuries and a fatality. The intersection was recently reconstructed in 2022 with a new signal as a part of the MaineDOT Veranda Street Project. As such no recommendations for improvements are included in conjunction with this project.

Evaluation of Pedestrian and Bicycle Crashes

Evaluation of pedestrian and bicycle related crashes was performed between the years of 2018 and 2022. General evaluation of pedestrian crashes within a ½ mile radius of the site revealed no pedestrian related crashes as shown on the map in the Appendix.

Evaluation of bicycle crashes within a mile radius of the site revealed a total of 11 bicycle related crashes, also shown in the Appendix. None of the 11 bicycle related crashes were located within the previously outlined study area.

10.0 Sight Distance Analysis

Sight distance for the proposed right in-right out driveway was reviewed in field on May 16, 2023 to assure the proposed access point would provide adequate sight lines. Sight distance was measured ten (10) feet behind the edge of travel way from an eye height of 3.5 feet to an object height of 4.25 feet. Table 11 outlines the required sight distance per the City of Portland's *Technical Manual*. These minimum sight distances are equivalent to MaineDOT's *Chapter 299 Highway Driveway and Entrance Rules*.

Table 11 – Sight Distance Requirements

<i>Posted Speed (MPH)</i>	<i>Minimum Sight Distance (Feet)</i>
25	200
30	250
35	305
40	360
45	425
50	495
55	570

The posted speed limit on Veranda Street in vicinity of the site is 35 MPH before transitioning to 40 MPH at the Martin's Point Bridge. Therefore, sight distance is required to be 305 feet looking left towards the interstate. Sight distance looking left from the proposed right-in/right-out driveway was measured to be 510 feet. As such, sight distance exceeded the required minimum for a 35 MPH roadway. It is important to note that no landscaping, signage, or other features shall be located within the sight triangle of the proposed driveway.

11.0 Conclusions and Recommendations

Sebago Technics, Inc. has completed the traffic impact study for the Martin's Point Veranda Campus redevelopment and provides the following conclusions and recommendations:

- The proposed 50,000 SF office building is calculated to generate a total of 92 trips and 93 trips during the AM and PM peak hour generator periods, respectively. Given this level of trip generation, a Traffic Movement Permit (TMP) is not required by the City of Portland as trip generation does not surpass the 100-PCE threshold requirement for a TMP during any peak hour period.
- One high crash location, as classified by MaineDOT, was identified in the vicinity of the site driveways. The intersection of Veranda Street at the I-295 southbound on-ramp and Wordsworth Street. The intersection was recently reconstructed in 2022 with a new signal as a part of the MaineDOT Veranda Street Project. As such no recommendations for improvements are included in conjunction with this project.
- Sight distance looking left from the proposed right-in/right-out exceeds the required minimum for the speed limit of 35 MPH along Veranda Street in vicinity of the site driveway. It is important to note that no landscaping, signage, or other features shall be located within the sight triangle of the proposed driveway.
- A review of the capacity analysis at the study area intersections demonstrated that all movements to and from the site drive intersections are expected to operate at LOS "C" or better in the build condition. Based on operations of the existing left-turn movements from the unsignalized access, the need for the alteration of the access to right-in/right-out is confirmed. As such, this access is proposed to be reconstructed in conjunction with this project, including regrading the crossing for ADA compliance.

Appendix A

Trip Generation Data

Land Use: 220

Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three floors (levels). Various configurations fit this description, including walkup apartment, mansion apartment, and stacked townhouse.

- A walkup apartment typically is two or three floors in height with dwelling units that are accessed by a single or multiple entrances with stairways and hallways.
- A mansion apartment is a single structure that contains several apartments within what appears to be a single-family dwelling unit.
- A fourplex is a single two-story structure with two matching dwelling units on the ground and second floors. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.
- A stacked townhouse is designed to match the external appearance of a townhouse. But, unlike a townhouse dwelling unit that only shares walls with an adjoining unit, the stacked townhouse units share both floors and walls. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.

Multifamily housing (mid-rise) (Land Use 221), multifamily housing (high-rise) (Land Use 222), affordable housing (Land Use 223), and off-campus student apartment (low-rise) (Land Use 225) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip

generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

For the three sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.72 residents per occupied dwelling unit.

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in British Columbia (CAN), California, Delaware, Florida, Georgia, Illinois, Indiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, and Washington.

Source Numbers

188, 204, 237, 300, 305, 306, 320, 321, 357, 390, 412, 525, 530, 579, 583, 638, 864, 866, 896, 901, 903, 904, 936, 939, 944, 946, 947, 948, 963, 964, 966, 967, 1012, 1013, 1014, 1036, 1047, 1056, 1071, 1076

Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 49

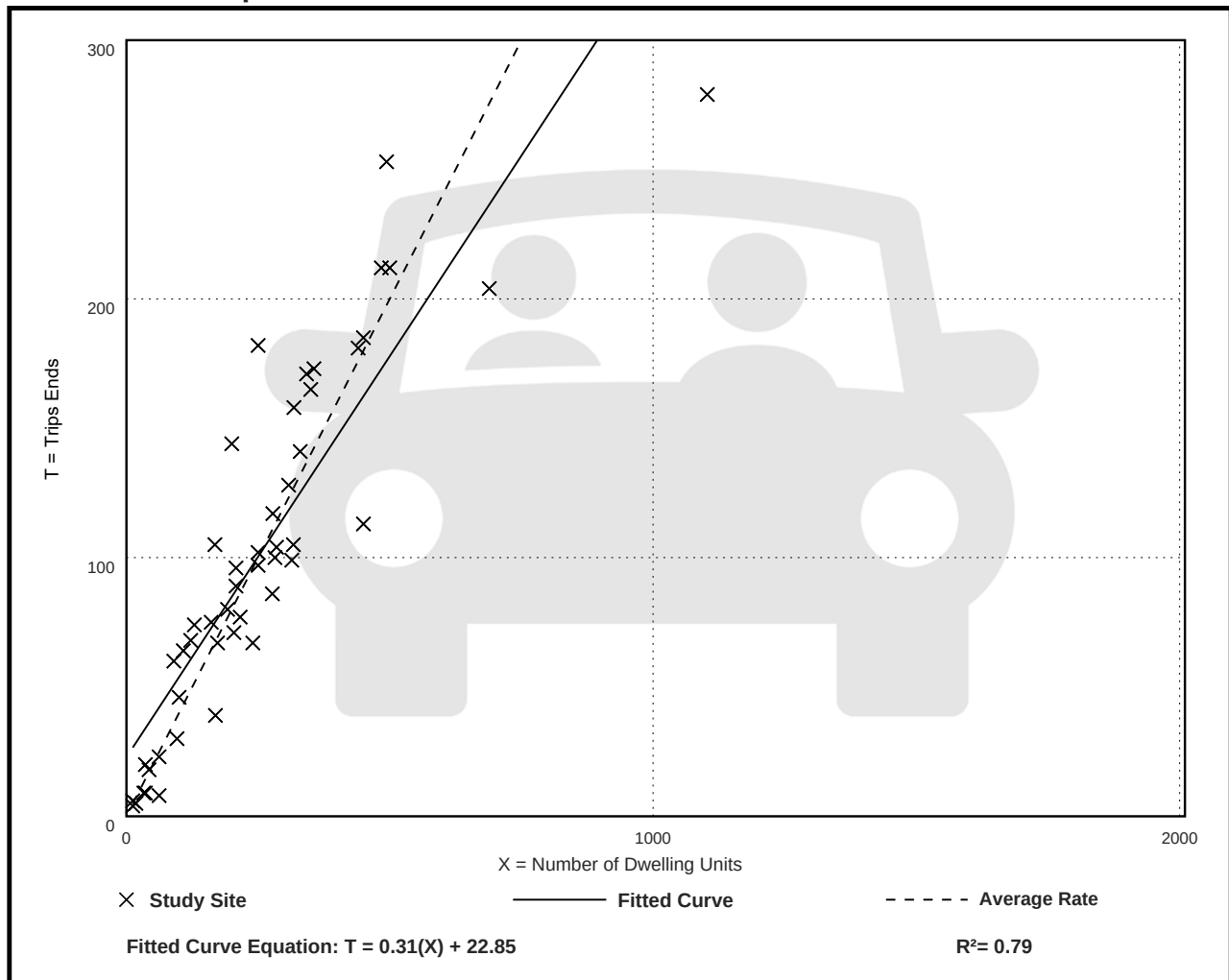
Avg. Num. of Dwelling Units: 249

Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 59

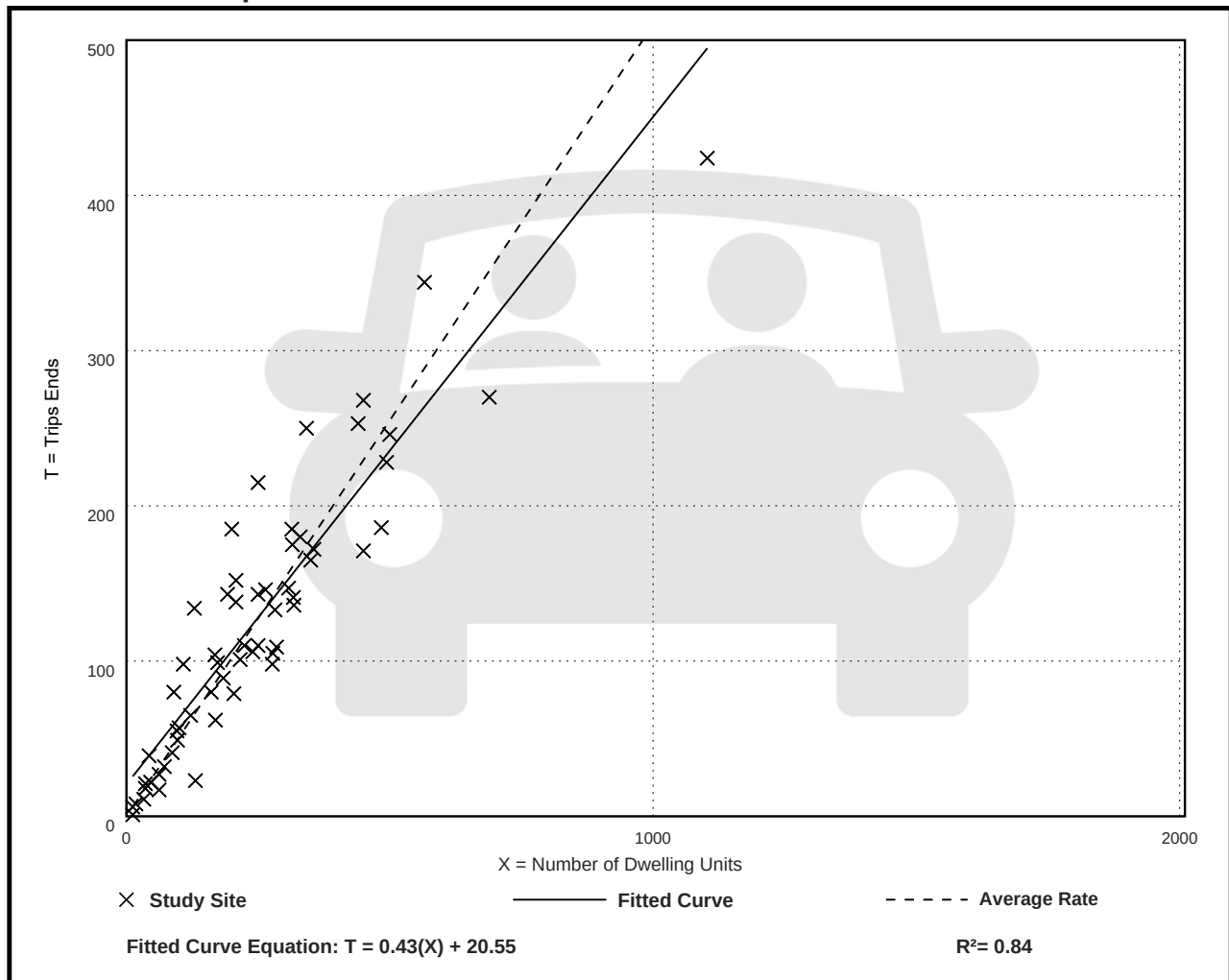
Avg. Num. of Dwelling Units: 241

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Land Use: 710

General Office Building

Description

A general office building is a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted. An office building houses multiple tenants that can include, as examples, professional services, insurance companies, investment brokers, a banking institution, a restaurant, or other service retailers. A general office building with a gross floor area of 10,000 square feet or less is classified as a small office building (Land Use 712). Corporate headquarters building (Land Use 714), single tenant office building (Land Use 715), medical-dental office building (Land Use 720), office park (Land Use 750), research and development center (Land Use 760), and business park (Land Use 770) are additional related uses.

Additional Data

If two or more general office buildings are in close physical proximity (within a close walk) and function as a unit (perhaps with a shared parking facility and common or complementary tenants), the total gross floor area or employment of the paired office buildings can be used for calculating the site trip generation. If the individual buildings are isolated or not functionally related to one another, trip generation should be calculated for each building separately.

For study sites with reported gross floor area and employees, an average employee density of 3.3 employees per 1,000 square feet GFA (or roughly 300 square feet per employee) has been consistent through the 1980s, 1990s, and 2000s. No sites counted in the 2010s reported both GFA and employees.

The average building occupancy varies considerably within the studies for which occupancy data were provided. The reported occupied gross floor area was 88 percent for general urban/suburban sites and 96 percent for the center city core and dense multi-use urban sites.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The average numbers of person trips per vehicle trip at the eight center city core sites at which both person trip and vehicle trip data were collected are as follows:

- 2.8 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 2.9 during Weekday, AM Peak Hour of Generator
- 2.9 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 3.0 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 18 dense multi-use urban sites at which both person trip and vehicle trip data were collected are as follows:

- 1.5 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.5 during Weekday, AM Peak Hour of Generator
- 1.5 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.5 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 23 general urban/suburban sites at which both person trip and vehicle trip data were collected are as follows:

- 1.3 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.3 during Weekday, AM Peak Hour of Generator
- 1.3 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.4 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, Colorado, Connecticut, Georgia, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Michigan, Minnesota, Missouri, Montana, New Hampshire, New Jersey, New York, Ontario (CAN), Pennsylvania, Texas, Utah, Virginia, and Washington.

Source Numbers

161, 175, 183, 184, 185, 207, 212, 217, 247, 253, 257, 260, 262, 273, 279, 297, 298, 300, 301, 302, 303, 304, 321, 322, 323, 324, 327, 404, 407, 408, 419, 423, 562, 734, 850, 859, 862, 867, 869, 883, 884, 890, 891, 904, 940, 944, 946, 964, 965, 972, 1009, 1030, 1058, 1061

General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 59

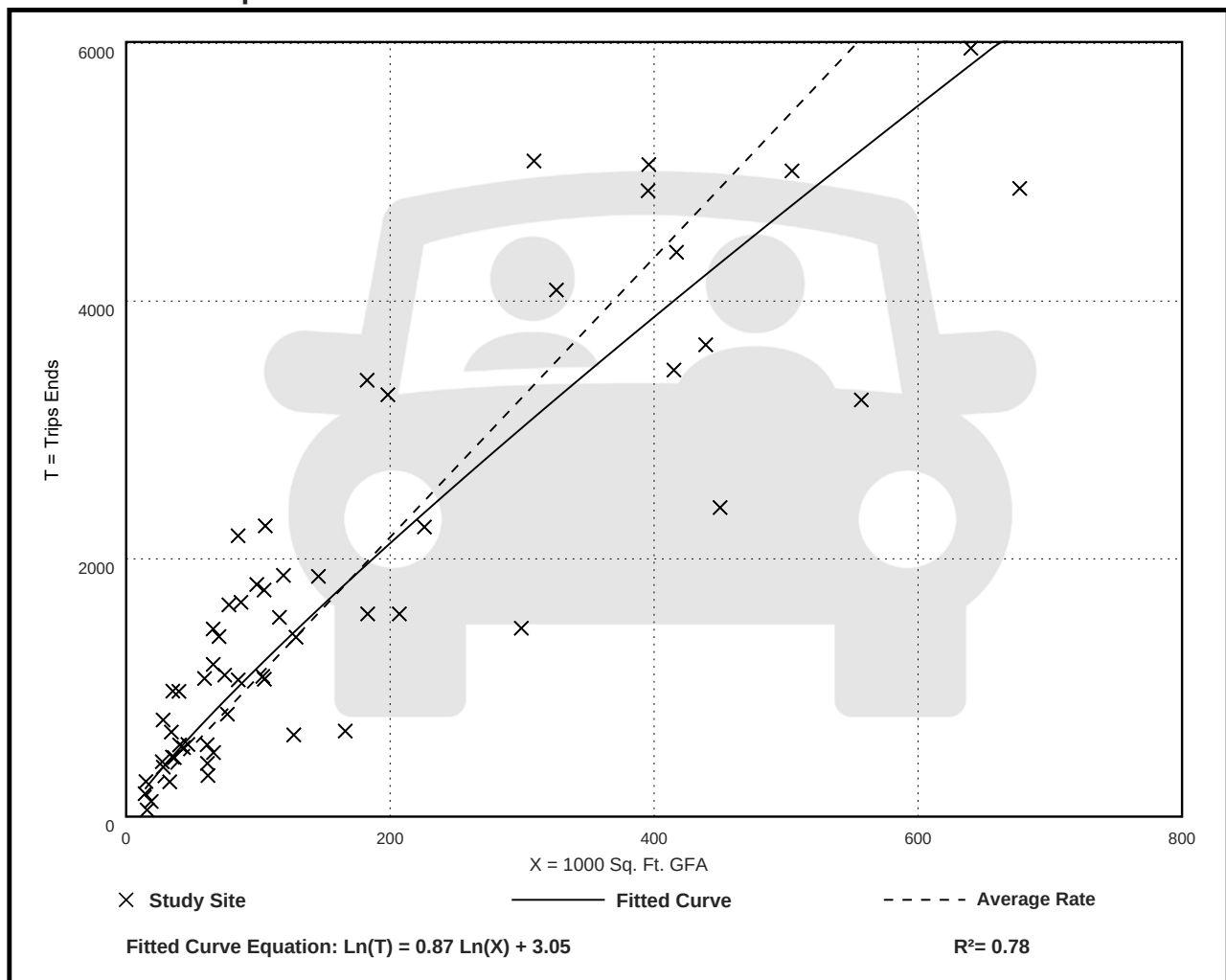
Avg. 1000 Sq. Ft. GFA: 163

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.84	3.27 - 27.56	4.76

Data Plot and Equation



General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 221

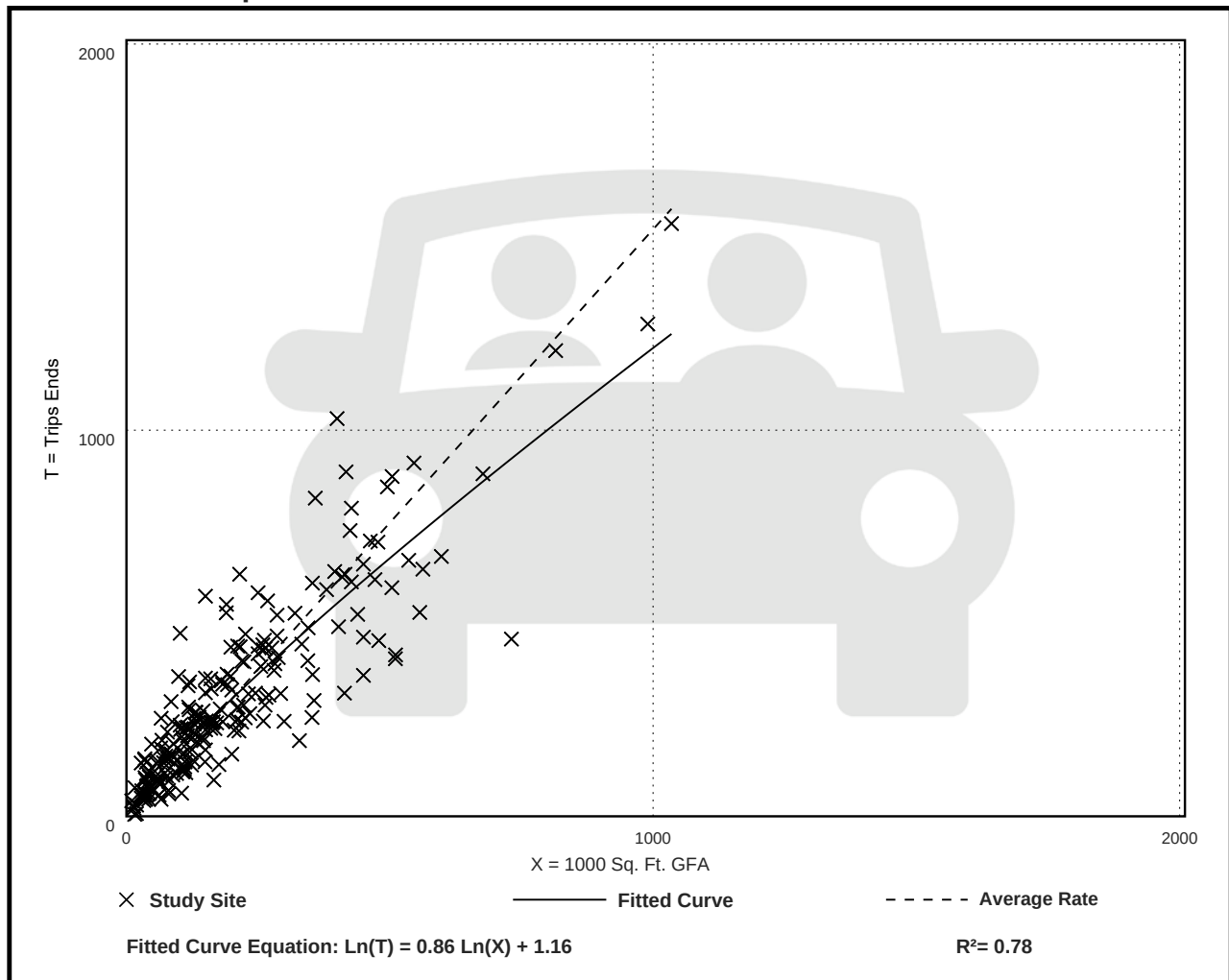
Avg. 1000 Sq. Ft. GFA: 201

Directional Distribution: 88% entering, 12% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.52	0.32 - 4.93	0.58

Data Plot and Equation



General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 232

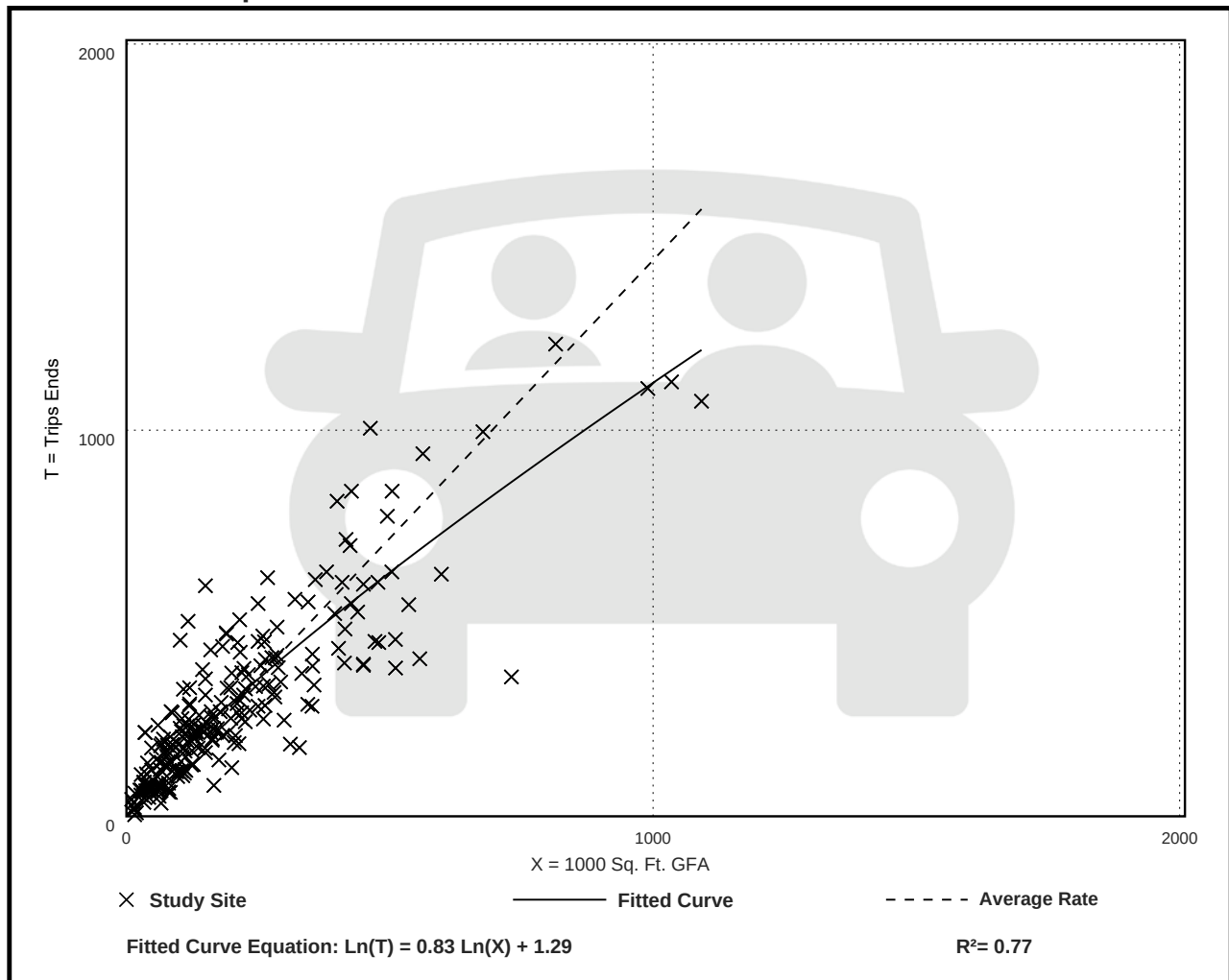
Avg. 1000 Sq. Ft. GFA: 199

Directional Distribution: 17% entering, 83% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.44	0.26 - 6.20	0.60

Data Plot and Equation



Appendix B

Traffic Count Data

Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

Page No : 1

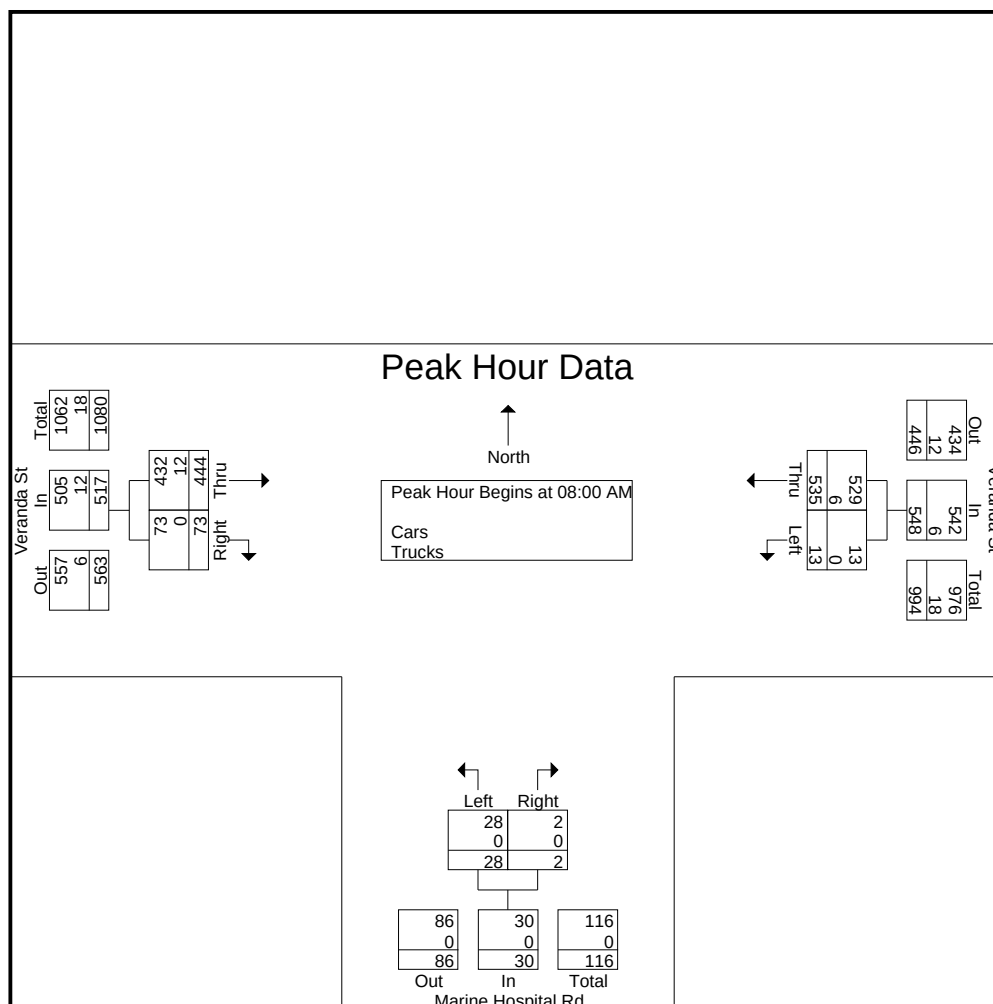
Groups Printed- Cars - Trucks

	Veranda St From East		Marine Hospital Rd From South		Veranda St From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	7	60	5	0	53	12	137
07:15 AM	3	99	6	0	71	18	197
07:30 AM	2	104	3	0	77	23	209
07:45 AM	8	122	2	2	110	20	264
Total	20	385	16	2	311	73	807
08:00 AM	5	132	9	1	112	17	276
08:15 AM	3	123	6	0	113	16	261
08:30 AM	1	154	4	0	103	13	275
08:45 AM	4	126	9	1	116	27	283
Total	13	535	28	2	444	73	1095
Grand Total	33	920	44	4	755	146	1902
Apprch %	3.5	96.5	91.7	8.3	83.8	16.2	
Total %	1.7	48.4	2.3	0.2	39.7	7.7	
Cars	33	911	44	4	735	145	1872
% Cars	100	99	100	100	97.4	99.3	98.4
Trucks	0	9	0	0	20	1	30
% Trucks	0	1	0	0	2.6	0.7	1.6

	Veranda St From East			Marine Hospital Rd From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	5	132	137	9	1	10	112	17	129	276
08:15 AM	3	123	126	6	0	6	113	16	129	261
08:30 AM	1	154	155	4	0	4	103	13	116	275
08:45 AM	4	126	130	9	1	10	116	27	143	283
Total Volume	13	535	548	28	2	30	444	73	517	1095
% App. Total	2.4	97.6		93.3	6.7		85.9	14.1		
PHF	.650	.869	.884	.778	.500	.750	.957	.676	.904	.967
Cars	13	529	542	28	2	30	432	73	505	1077
% Cars	100	98.9	98.9	100	100	100	97.3	100	97.7	98.4
Trucks	0	6	6	0	0	0	12	0	12	18
% Trucks	0	1.1	1.1	0	0	0	2.7	0	2.3	1.6

978-664-2565

File Name : 10260001
Site Code : 10260001
Start Date : 5/25/2023
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Peak Hour for Each Approach Begins at:

Peak Hour for Each Approach Begins at:									
	07:45 AM			08:00 AM			08:00 AM		
+0 mins.	8	122	130	9	1	10	112	17	129
+15 mins.	5	132	137	6	0	6	113	16	129
+30 mins.	3	123	126	4	0	4	103	13	116
+45 mins.	1	154	155	9	1	10	116	27	143
Total Volume	17	531	548	28	2	30	444	73	517
% App. Total	3.1	96.9		93.3	6.7		85.9	14.1	
PHF	.531	.862	.884	.778	.500	.750	.957	.676	.904
Cars	17	526	543	28	2	30	432	73	505
% Cars	100	99.1	99.1	100	100	100	97.3	100	97.7
Trucks	0	5	5	0	0	0	12	0	12
% Trucks	0	0.9	0.9	0	0	0	2.7	0	2.3

Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

Page No : 4

Groups Printed- Cars

	Veranda St From East		Marine Hospital Rd From South		Veranda St From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	7	59	5	0	51	12	134
07:15 AM	3	99	6	0	68	18	194
07:30 AM	2	103	3	0	76	22	206
07:45 AM	8	121	2	2	108	20	261
Total	20	382	16	2	303	72	795
08:00 AM	5	130	9	1	109	17	271
08:15 AM	3	122	6	0	110	16	257
08:30 AM	1	153	4	0	98	13	269
08:45 AM	4	124	9	1	115	27	280
Total	13	529	28	2	432	73	1077
Grand Total	33	911	44	4	735	145	1872
Apprch %	3.5	96.5	91.7	8.3	83.5	16.5	
Total %	1.8	48.7	2.4	0.2	39.3	7.7	

	Veranda St From East			Marine Hospital Rd From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	5	130	135	9	1	10	109	17	126	271
08:15 AM	3	122	125	6	0	6	110	16	126	257
08:30 AM	1	153	154	4	0	4	98	13	111	269
08:45 AM	4	124	128	9	1	10	115	27	142	280
Total Volume	13	529	542	28	2	30	432	73	505	1077
% App. Total	2.4	97.6		93.3	6.7		85.5	14.5		
PHF	.650	.864	.880	.778	.500	.750	.939	.676	.889	.962

Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

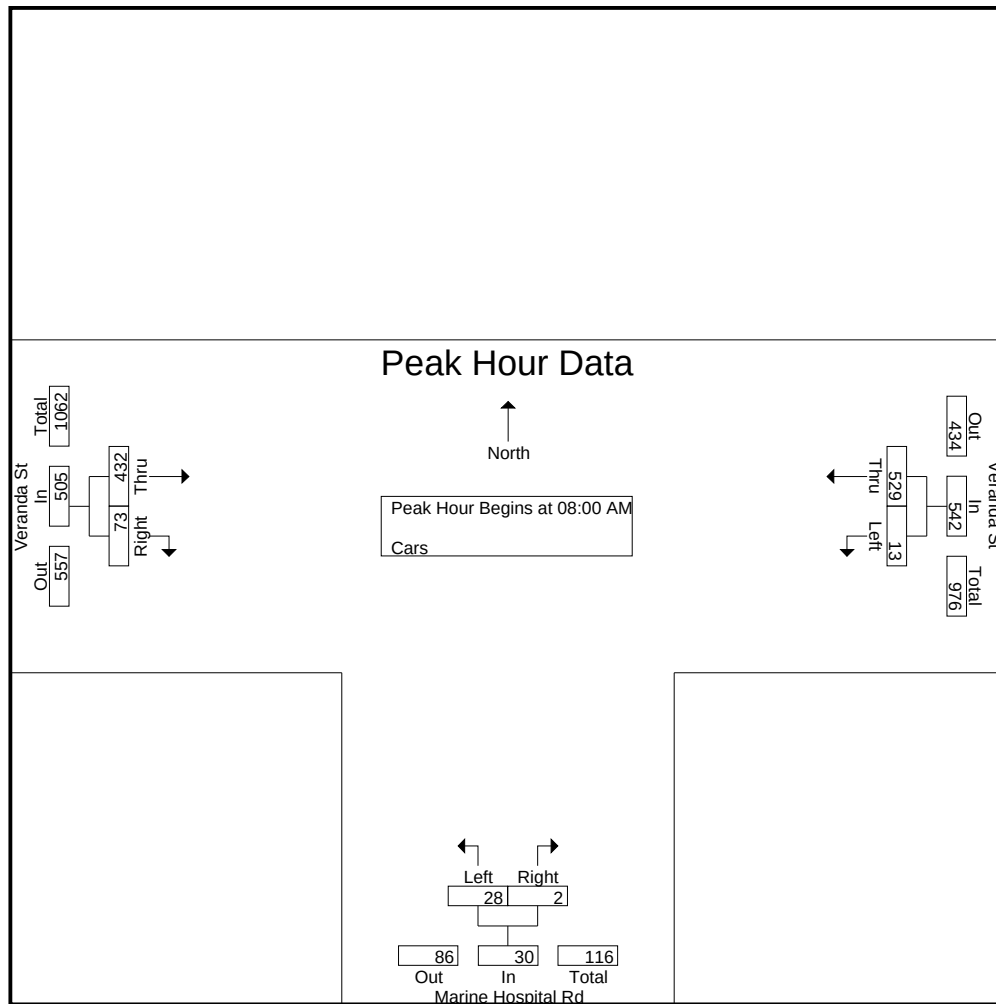
Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			08:00 AM			08:00 AM		
+0 mins.	8	121	129	9	1	10	109	17	126
+15 mins.	5	130	135	6	0	6	110	16	126
+30 mins.	3	122	125	4	0	4	98	13	111
+45 mins.	1	153	154	9	1	10	115	27	142
Total Volume	17	526	543	28	2	30	432	73	505
% App. Total	3.1	96.9		93.3	6.7		85.5	14.5	
PHF	.531	.859	.881	.778	.500	.750	.939	.676	.889

Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

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Groups Printed- Trucks

	Veranda St From East		Marine Hospital Rd From South		Veranda St From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	0	1	0	0	2	0	3
07:15 AM	0	0	0	0	3	0	3
07:30 AM	0	1	0	0	1	1	3
07:45 AM	0	1	0	0	2	0	3
Total	0	3	0	0	8	1	12
08:00 AM	0	2	0	0	3	0	5
08:15 AM	0	1	0	0	3	0	4
08:30 AM	0	1	0	0	5	0	6
08:45 AM	0	2	0	0	1	0	3
Total	0	6	0	0	12	0	18
Grand Total	0	9	0	0	20	1	30
Apprch %	0	100	0	0	95.2	4.8	
Total %	0	30	0	0	66.7	3.3	

	Veranda St From East			Marine Hospital Rd From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	1	1	0	0	0	2	0	2	3
08:00 AM	0	2	2	0	0	0	3	0	3	5
08:15 AM	0	1	1	0	0	0	3	0	3	4
08:30 AM	0	1	1	0	0	0	5	0	5	6
Total Volume	0	5	5	0	0	0	13	0	13	18
% App. Total	0	100		0	0		100	0		
PHF	.000	.625	.625	.000	.000	.000	.650	.000	.650	.750

Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

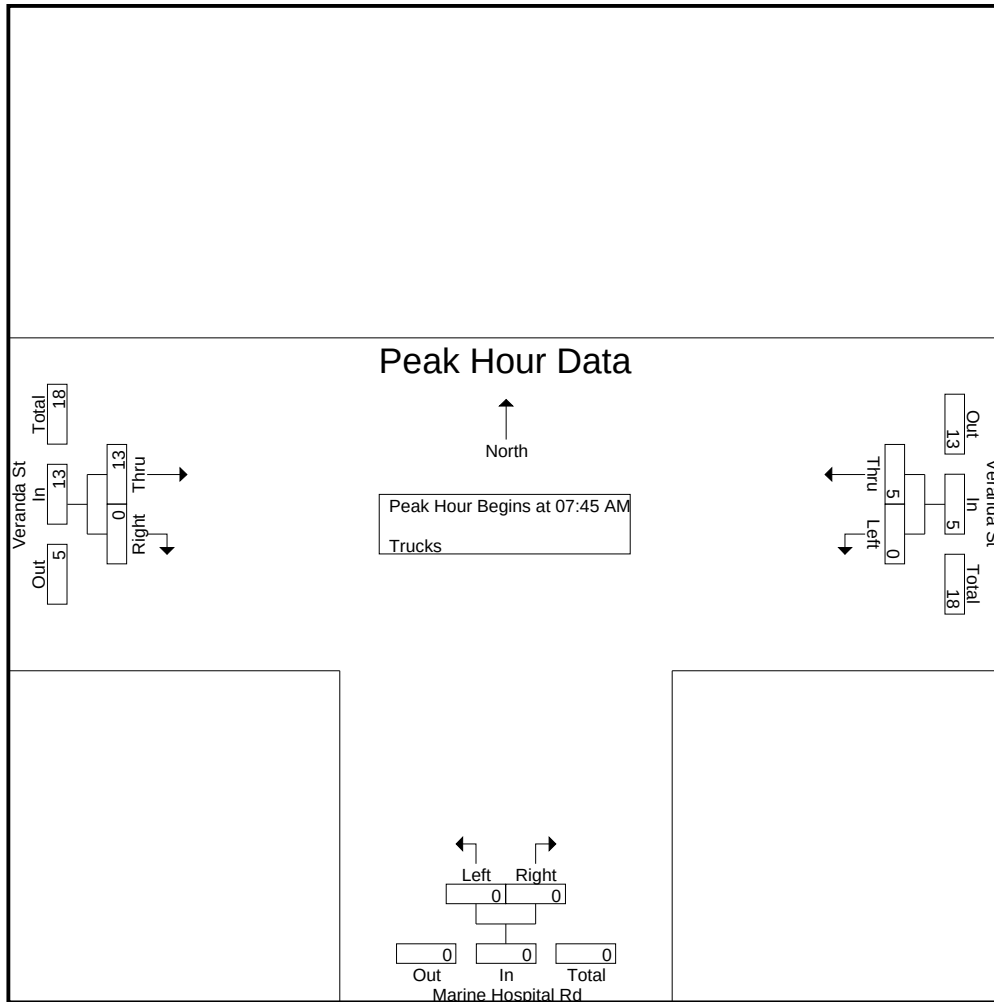
Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

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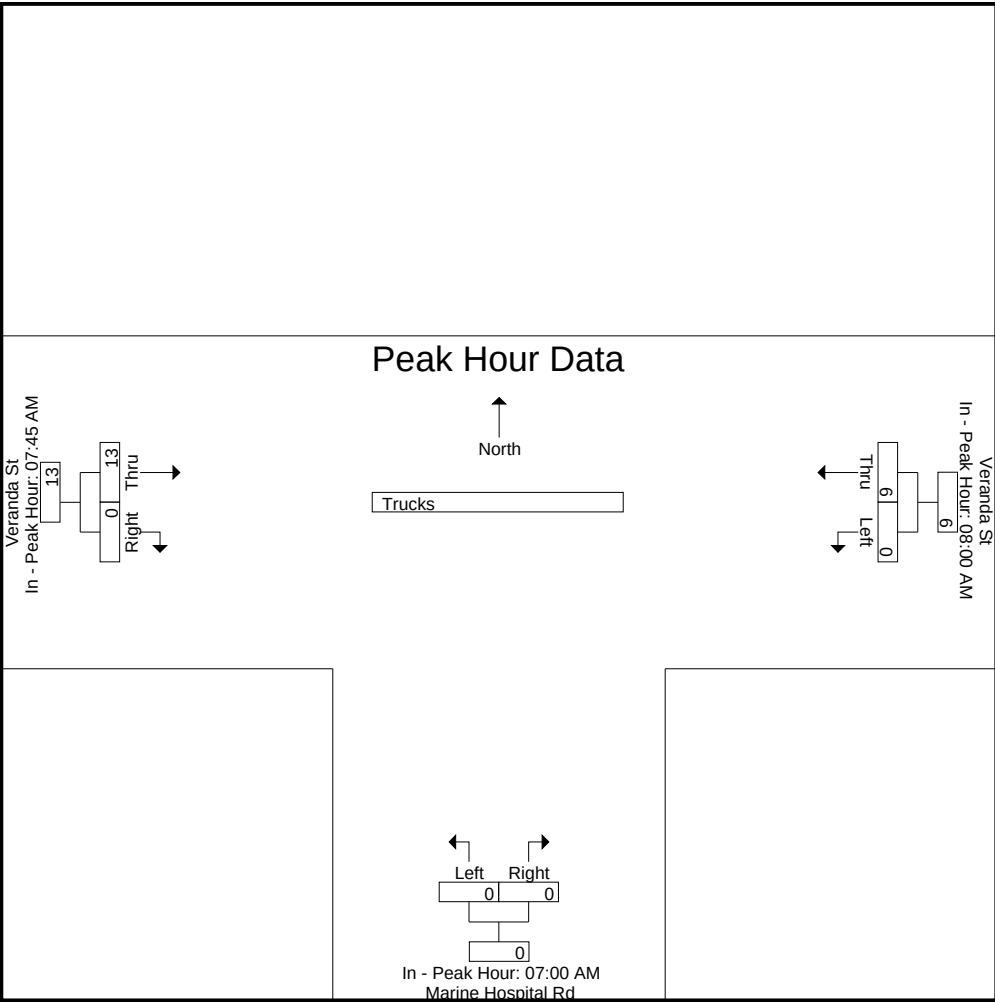
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:45 AM		
+0 mins.	0	2	2	0	0	0	2	0	2
+15 mins.	0	1	1	0	0	0	3	0	3
+30 mins.	0	1	1	0	0	0	3	0	3
+45 mins.	0	2	2	0	0	0	5	0	5
Total Volume	0	6	6	0	0	0	13	0	13
% App. Total	0	100		0	0		100	0	
PHF	.000	.750	.750	.000	.000	.000	.650	.000	.650

N/S Street : Marine Hospital Road
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260001
Site Code : 10260001
Start Date : 5/25/2023
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Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

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Groups Printed- Bikes Peds

	Veranda St From East			Marine Hospital Rd From South			Veranda St From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	1	0	0	0	1	0	0	0	1	1	2
07:15 AM	0	1	0	1	0	0	0	0	0	0	2	2
07:30 AM	0	1	0	0	0	0	1	0	0	0	2	2
07:45 AM	0	1	0	0	0	0	0	0	0	0	1	1
Total	0	4	0	1	0	1	1	0	0	1	6	7
08:00 AM	0	0	0	0	0	2	0	0	1	3	0	3
08:15 AM	0	1	0	0	0	2	0	0	2	4	1	5
08:30 AM	0	1	0	0	0	4	2	0	0	4	3	7
08:45 AM	0	0	0	0	0	5	0	0	0	5	0	5
Total	0	2	0	0	0	13	2	0	3	16	4	20
Grand Total	0	6	0	1	0	14	3	0	3	17	10	27
Apprch %	0	100		100	0		100	0				
Total %	0	60		10	0		30	0		63	37	

	Veranda St From East			Marine Hospital Rd From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	0	1	1	1	0	1	0	0	0	2
07:30 AM	0	1	1	0	0	0	1	0	1	2
07:45 AM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	4	4	1	0	1	1	0	1	6
% App. Total	0	100		100	0		100	0		
PHF	.000	1.00	1.00	.250	.000	.250	.250	.000	.250	.750

Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

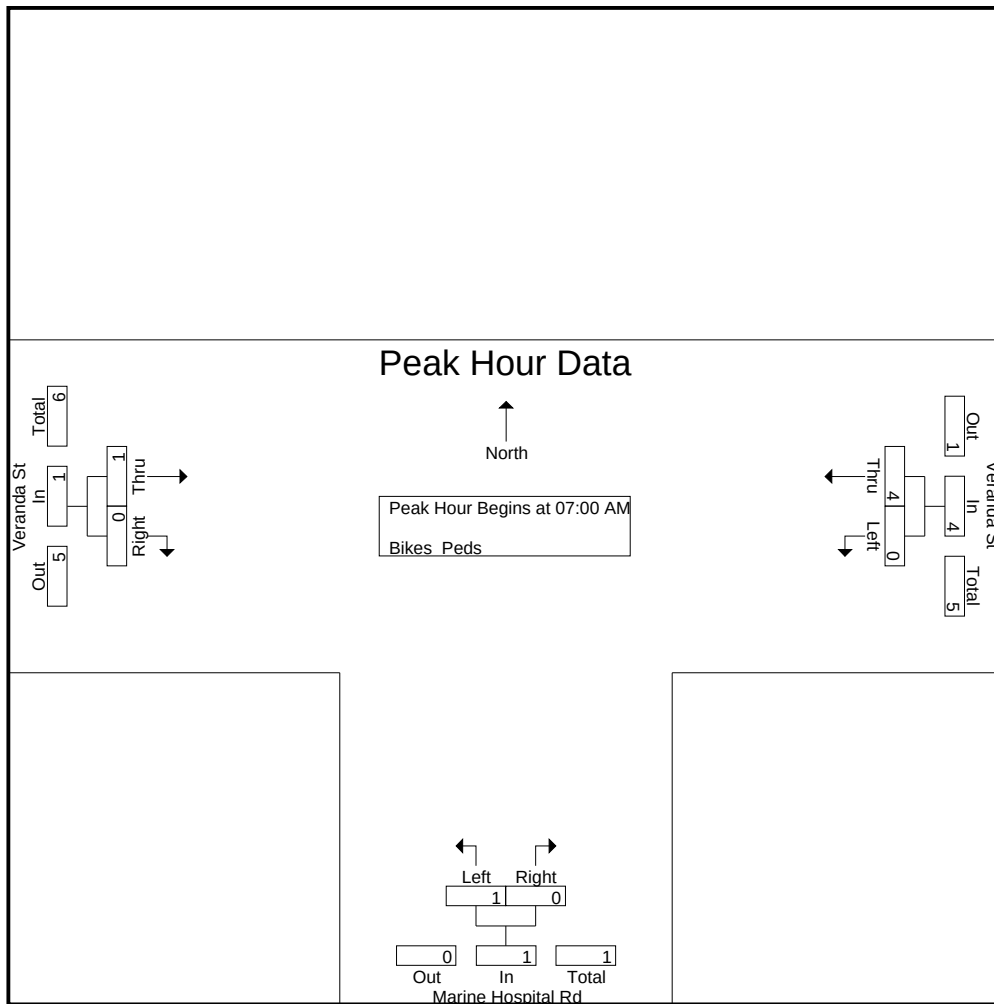
Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

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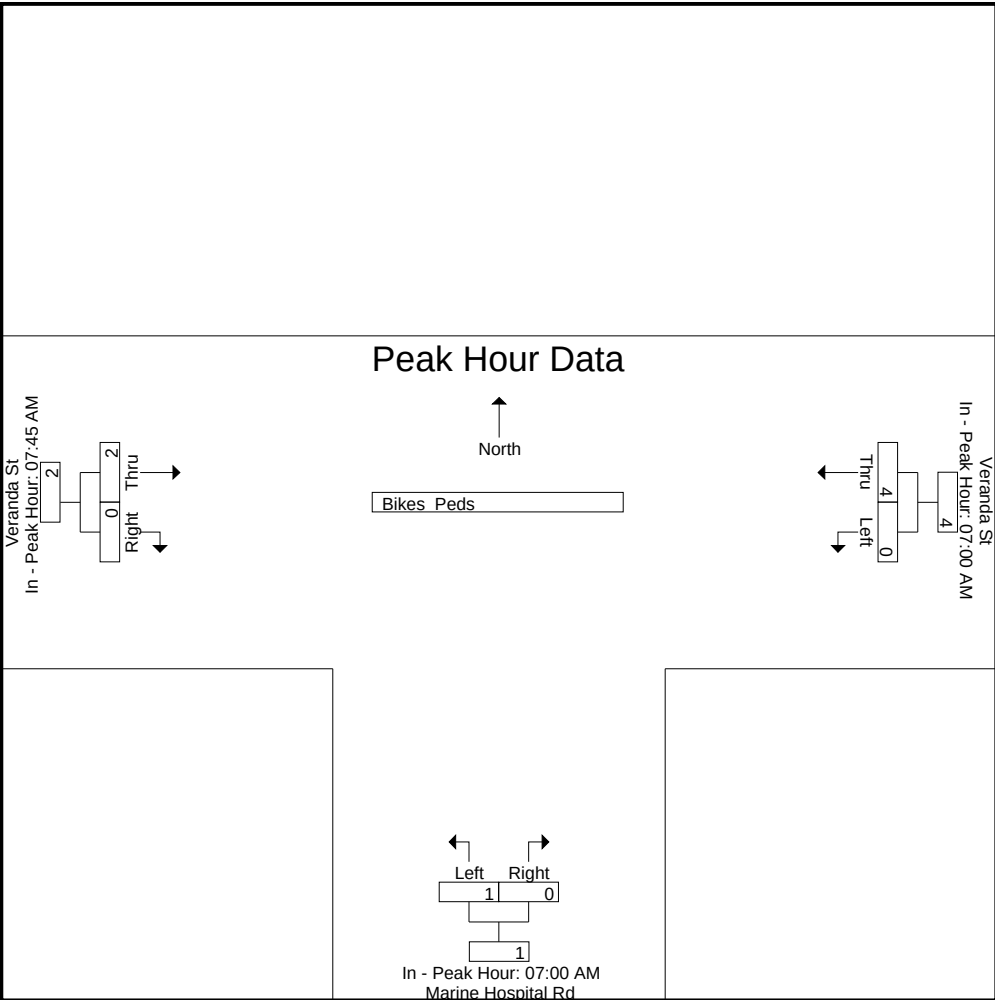
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:45 AM		
+0 mins.	0	1	1	0	0	0	0	0	0
+15 mins.	0	1	1	1	0	1	0	0	0
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	2	0	2
Total Volume	0	4	4	1	0	1	2	0	2
% App. Total	0	100		100	0		100	0	
PHF	.000	1.000	1.000	.250	.000	.250	.250	.000	.250

N/S Street : Marine Hospital Road
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260001
Site Code : 10260001
Start Date : 5/25/2023
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Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

Page No : 1

Groups Printed- Cars - Trucks

	Veranda St From East		Marine Hospital Rd From South		Veranda St From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
03:00 PM	3	156	1	2	139	15	316
03:15 PM	3	132	9	2	133	13	292
03:30 PM	0	146	12	4	147	11	320
03:45 PM	1	124	17	4	146	5	297
Total	7	558	39	12	565	44	1225
04:00 PM	0	143	23	11	138	5	320
04:15 PM	2	122	10	2	149	7	292
04:30 PM	1	155	17	3	168	2	346
04:45 PM	1	136	7	4	150	5	303
Total	4	556	57	20	605	19	1261
05:00 PM	1	143	7	3	175	3	332
05:15 PM	2	129	17	1	148	4	301
05:30 PM	1	117	6	3	146	2	275
05:45 PM	0	97	5	0	126	2	230
Total	4	486	35	7	595	11	1138
Grand Total	15	1600	131	39	1765	74	3624
Apprch %	0.9	99.1	77.1	22.9	96	4	
Total %	0.4	44.2	3.6	1.1	48.7	2	
Cars	15	1589	131	39	1761	74	3609
% Cars	100	99.3	100	100	99.8	100	99.6
Trucks	0	11	0	0	4	0	15
% Trucks	0	0.7	0	0	0.2	0	0.4

	Veranda St From East			Marine Hospital Rd From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	1	155	156	17	3	20	168	2	170	346
04:45 PM	1	136	137	7	4	11	150	5	155	303
05:00 PM	1	143	144	7	3	10	175	3	178	332
05:15 PM	2	129	131	17	1	18	148	4	152	301
Total Volume	5	563	568	48	11	59	641	14	655	1282
% App. Total	0.9	99.1		81.4	18.6		97.9	2.1		
PHF	.625	.908	.910	.706	.688	.738	.916	.700	.920	.926
Cars	5	560	565	48	11	59	639	14	653	1277
% Cars	100	99.5	99.5	100	100	100	99.7	100	99.7	99.6
Trucks	0	3	3	0	0	0	2	0	2	5
% Trucks	0	0.5	0.5	0	0	0	0.3	0	0.3	0.4

Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

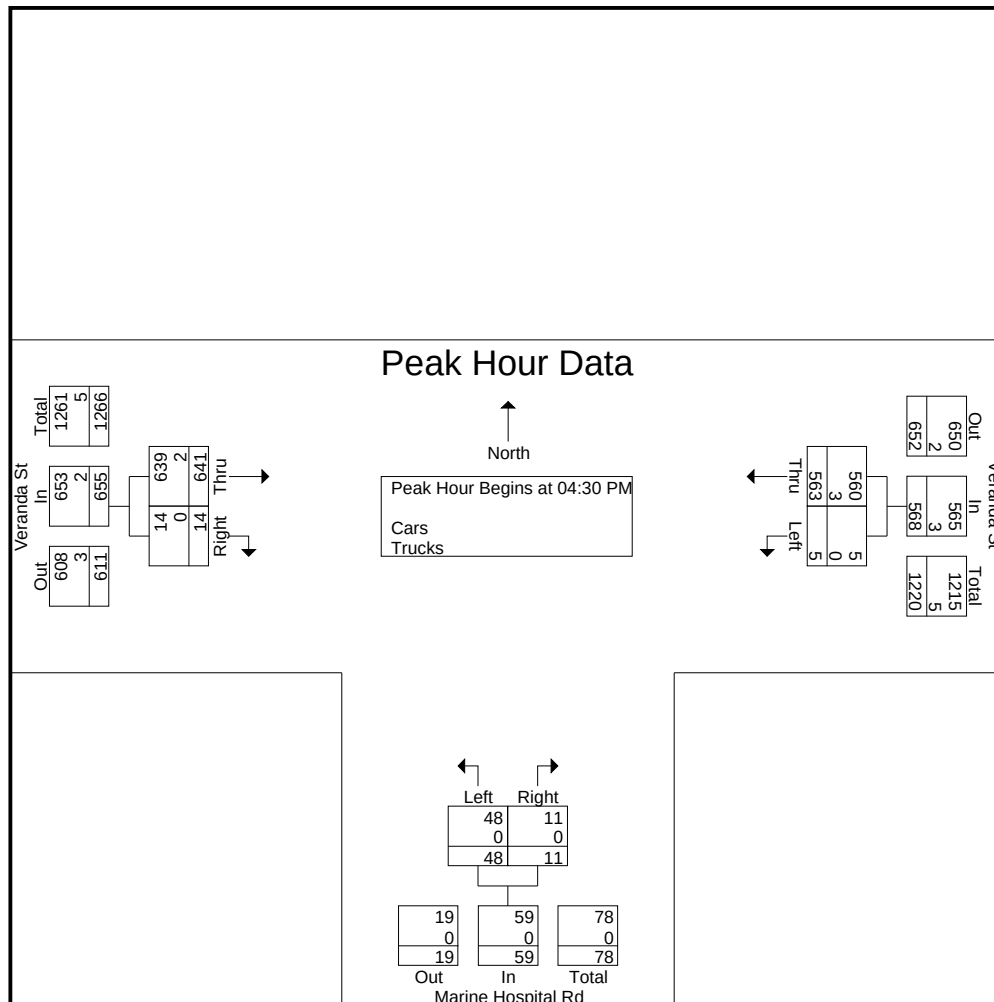
Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

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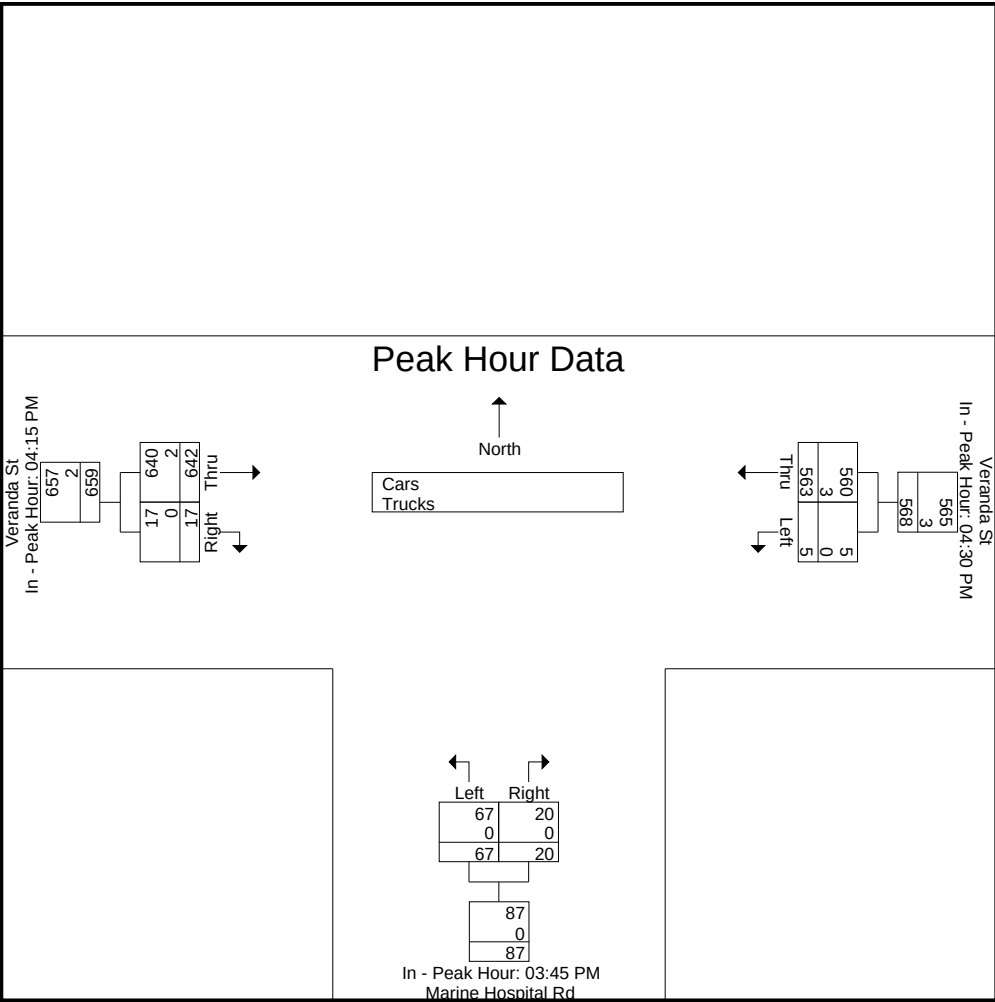
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM			03:45 PM			04:15 PM		
+0 mins.	1	155	156	17	4	21	149	7	156
+15 mins.	1	136	137	23	11	34	168	2	170
+30 mins.	1	143	144	10	2	12	150	5	155
+45 mins.	2	129	131	17	3	20	175	3	178
Total Volume	5	563	568	67	20	87	642	17	659
% App. Total	0.9	99.1		77	23		97.4	2.6	
PHF	.625	.908	.910	.728	.455	.640	.917	.607	.926
Cars	5	560	565	67	20	87	640	17	657
% Cars	100	99.5	99.5	100	100	100	99.7	100	99.7
Trucks	0	3	3	0	0	0	2	0	2
% Trucks	0	0.5	0.5	0	0	0	0.3	0	0.3

N/S Street : Marine Hospital Road
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260001
Site Code : 10260001
Start Date : 5/25/2023
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Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

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Groups Printed- Cars

	Veranda St From East		Marine Hospital Rd From South		Veranda St From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
03:00 PM	3	155	1	2	139	15	315
03:15 PM	3	129	9	2	133	13	289
03:30 PM	0	146	12	4	147	11	320
03:45 PM	1	123	17	4	145	5	295
Total	7	553	39	12	564	44	1219
04:00 PM	0	141	23	11	138	5	318
04:15 PM	2	121	10	2	149	7	291
04:30 PM	1	154	17	3	168	2	345
04:45 PM	1	136	7	4	148	5	301
Total	4	552	57	20	603	19	1255
05:00 PM	1	143	7	3	175	3	332
05:15 PM	2	127	17	1	148	4	299
05:30 PM	1	117	6	3	145	2	274
05:45 PM	0	97	5	0	126	2	230
Total	4	484	35	7	594	11	1135
Grand Total	15	1589	131	39	1761	74	3609
Apprch %	0.9	99.1	77.1	22.9	96	4	
Total %	0.4	44	3.6	1.1	48.8	2.1	

	Veranda St From East			Marine Hospital Rd From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	1	154	155	17	3	20	168	2	170	345
04:45 PM	1	136	137	7	4	11	148	5	153	301
05:00 PM	1	143	144	7	3	10	175	3	178	332
05:15 PM	2	127	129	17	1	18	148	4	152	299
Total Volume	5	560	565	48	11	59	639	14	653	1277
% App. Total	0.9	99.1		81.4	18.6		97.9	2.1		
PHF	.625	.909	.911	.706	.688	.738	.913	.700	.917	.925

Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

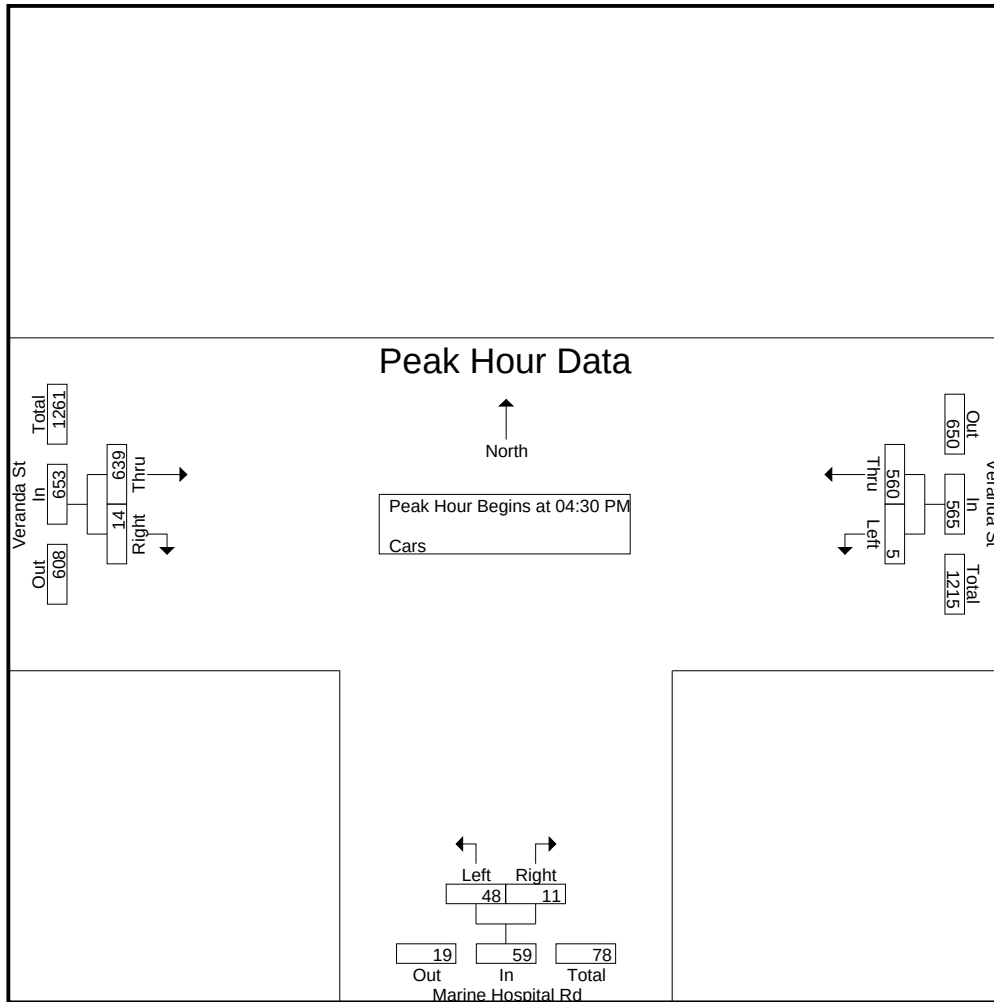
Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

Page No : 5



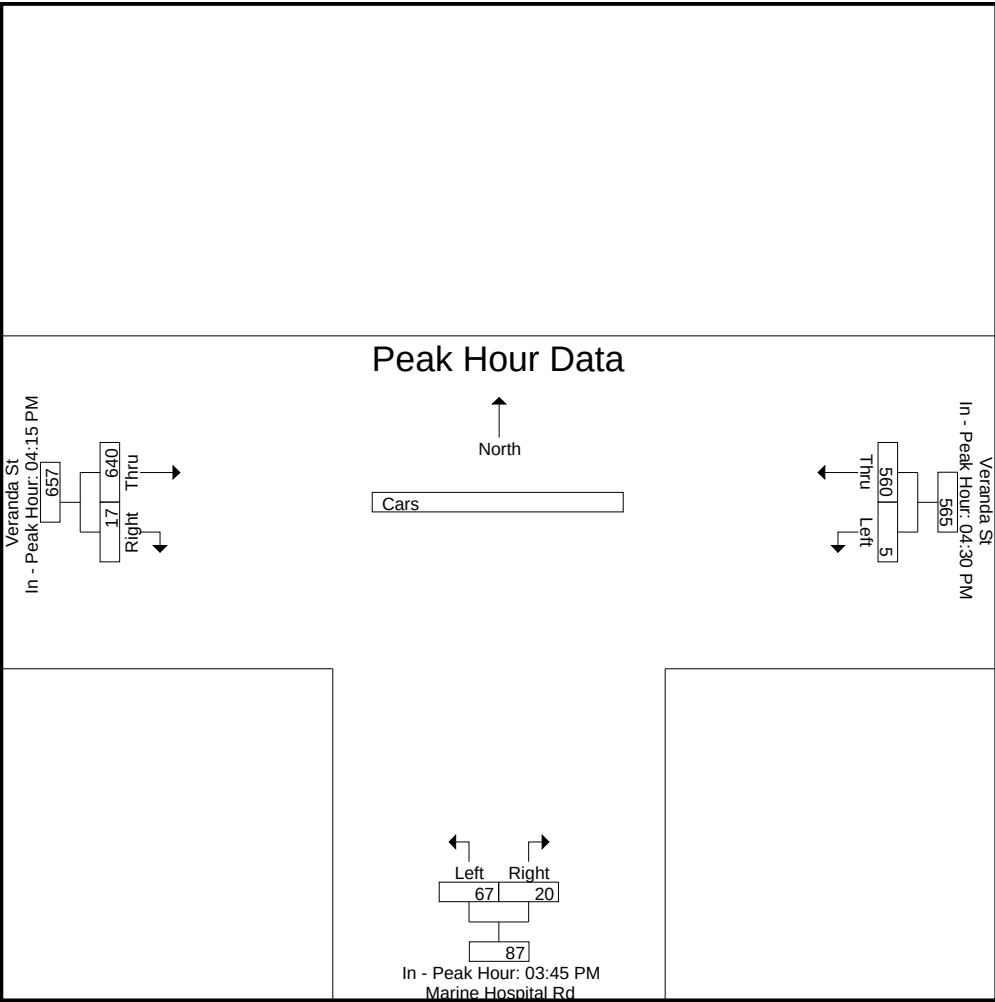
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM			03:45 PM			04:15 PM		
+0 mins.	1	154	155	17	4	21	149	7	156
+15 mins.	1	136	137	23	11	34	168	2	170
+30 mins.	1	143	144	10	2	12	148	5	153
+45 mins.	2	127	129	17	3	20	175	3	178
Total Volume	5	560	565	67	20	87	640	17	657
% App. Total	0.9	99.1		77	23		97.4	2.6	
PHF	.625	.909	.911	.728	.455	.640	.914	.607	.923

N/S Street : Marine Hospital Road
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260001
Site Code : 10260001
Start Date : 5/25/2023
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

Page No : 7

Groups Printed- Trucks

	Veranda St From East		Marine Hospital Rd From South		Veranda St From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
03:00 PM	0	1	0	0	0	0	1
03:15 PM	0	3	0	0	0	0	3
03:30 PM	0	0	0	0	0	0	0
03:45 PM	0	1	0	0	1	0	2
Total	0	5	0	0	1	0	6
04:00 PM	0	2	0	0	0	0	2
04:15 PM	0	1	0	0	0	0	1
04:30 PM	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	2	0	2
Total	0	4	0	0	2	0	6
05:00 PM	0	0	0	0	0	0	0
05:15 PM	0	2	0	0	0	0	2
05:30 PM	0	0	0	0	1	0	1
05:45 PM	0	0	0	0	0	0	0
Total	0	2	0	0	1	0	3
Grand Total	0	11	0	0	4	0	15
Apprch %	0	100	0	0	100	0	
Total %	0	73.3	0	0	26.7	0	

	Veranda St From East			Marine Hospital Rd From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:15 PM										
03:15 PM	0	3	3	0	0	0	0	0	0	3
03:30 PM	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	1	1	0	0	0	1	0	1	2
04:00 PM	0	2	2	0	0	0	0	0	0	2
Total Volume	0	6	6	0	0	0	1	0	1	7
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.250	.000	.250	.583

Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

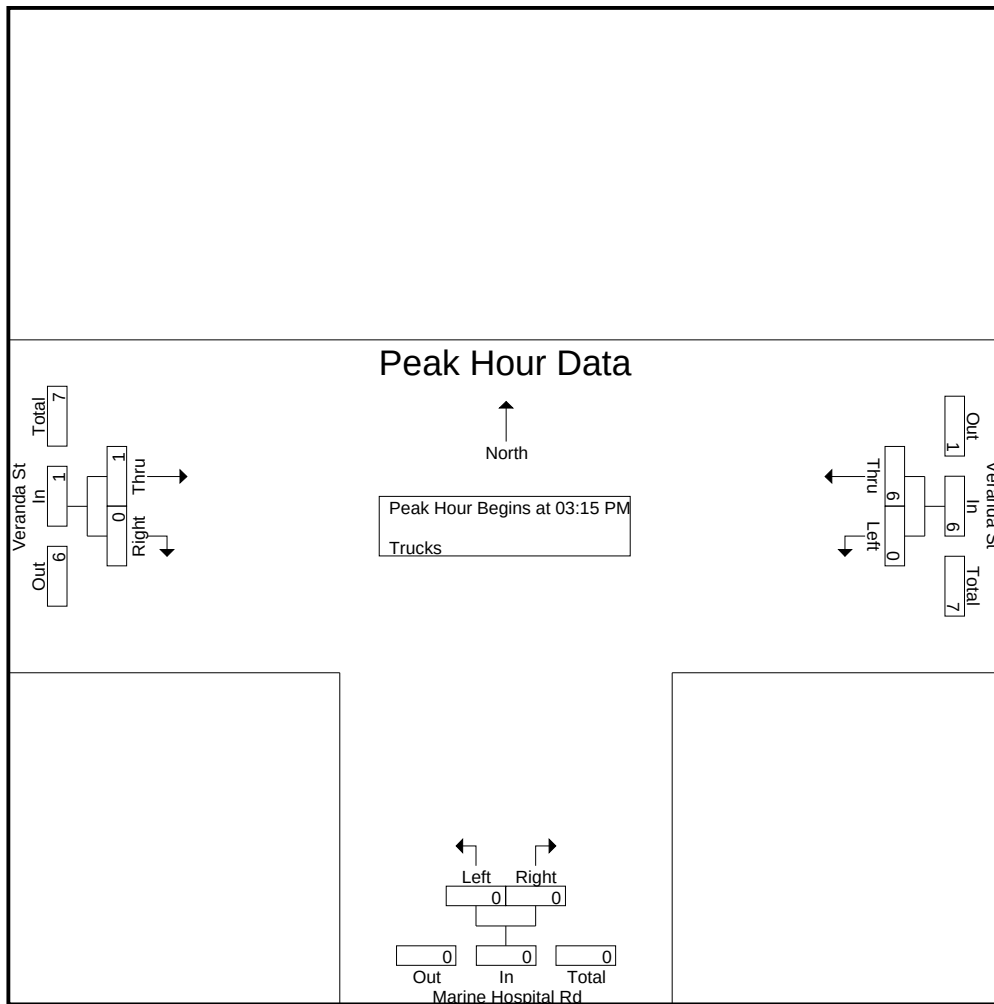
Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

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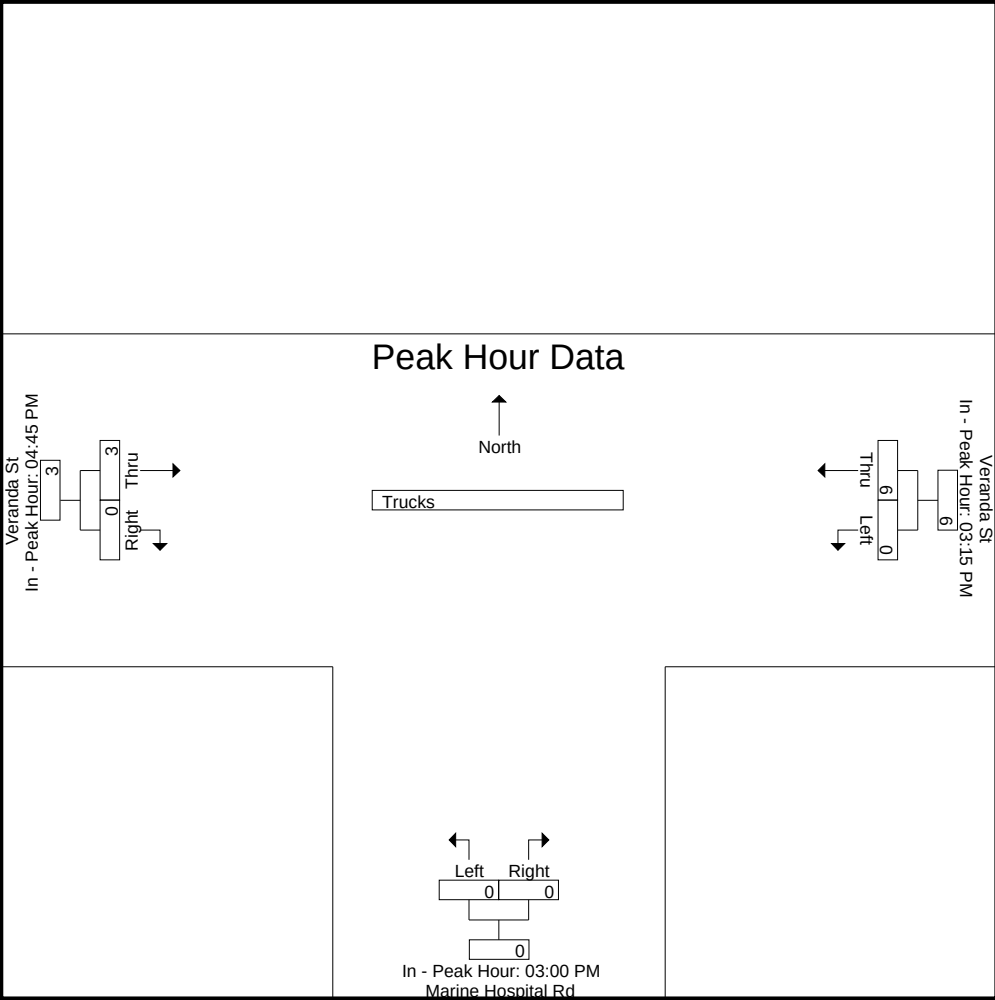
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:15 PM			03:00 PM			04:45 PM		
+0 mins.	0	3	3	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	2	2	0	0	0	1	0	1
Total Volume	0	6	6	0	0	0	3	0	3
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.375	.000	.375

N/S Street : Marine Hospital Road
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260001
Site Code : 10260001
Start Date : 5/25/2023
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

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Groups Printed- Bikes Peds

	Veranda St From East			Marine Hospital Rd From South			Veranda St From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	2	0	0	0	2	2
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	0	2	2
04:00 PM	0	1	0	0	0	0	2	0	0	0	3	3
04:15 PM	0	2	0	0	0	0	1	0	1	1	3	4
04:30 PM	0	1	0	0	0	1	1	0	0	1	2	3
04:45 PM	0	0	0	0	0	2	1	0	0	2	1	3
Total	0	4	0	0	0	3	5	0	1	4	9	13
05:00 PM	0	1	0	0	0	0	4	0	0	0	5	5
05:15 PM	0	1	0	0	0	1	1	0	0	1	2	3
05:30 PM	0	1	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	1	0	1	0	0	0	1	1	2
Total	0	3	0	1	0	2	5	0	0	2	9	11
Grand Total	0	7	0	1	0	5	12	0	1	6	20	26
Apprch %	0	100		100	0		100	0				
Total %	0	35		5	0		60	0		23.1	76.9	

	Veranda St From East			Marine Hospital Rd From South			Veranda St From West			Int. Total
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	2	2	0	0	0	1	0	1	3
04:30 PM	0	1	1	0	0	0	1	0	1	2
04:45 PM	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	1	1	0	0	0	4	0	4	5
Total Volume	0	4	4	0	0	0	7	0	7	11
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.438	.000	.438	.550

Accurate Counts

978-664-2565

N/S Street : Marine Hospital Road

E/W Street : Veranda Street

City/State : Portland, ME

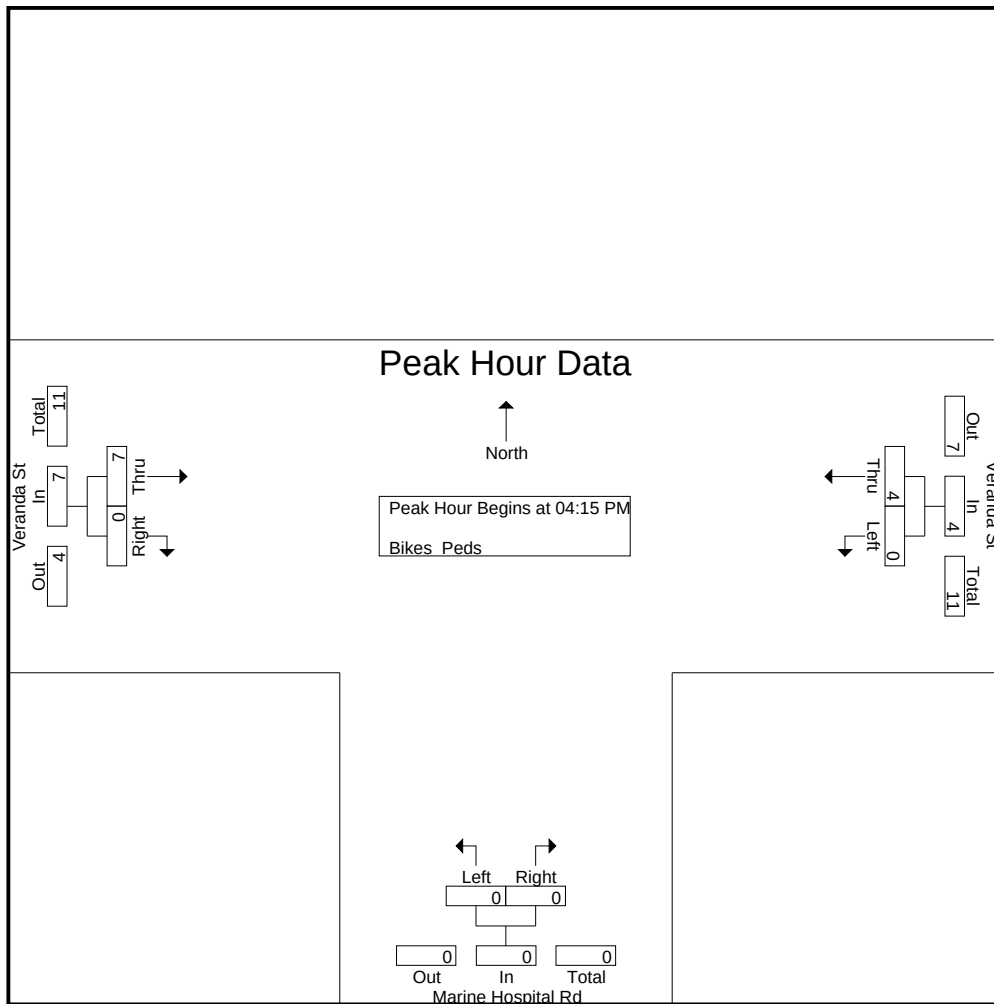
Weather : Clear

File Name : 10260001

Site Code : 10260001

Start Date : 5/25/2023

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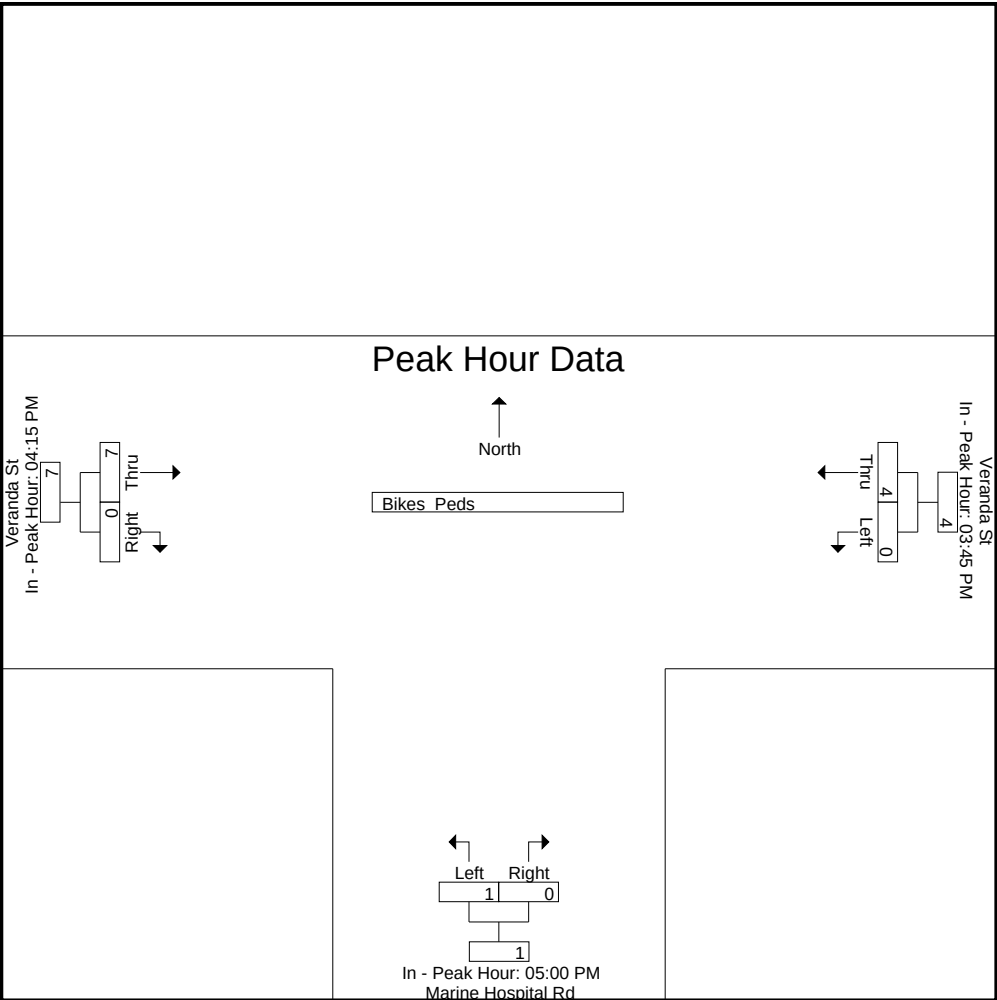
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:45 PM			05:00 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	1	1	0	0	0	1	0	1
+30 mins.	0	2	2	0	0	0	1	0	1
+45 mins.	0	1	1	1	0	1	4	0	4
Total Volume	0	4	4	1	0	1	7	0	7
% App. Total	0	100		100	0		100	0	
PHF	.000	.500	.500	.250	.000	.250	.438	.000	.438

N/S Street : Marine Hospital Road
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260001
Site Code : 10260001
Start Date : 5/25/2023
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 1

Groups Printed- Cars - Trucks

	Driveway From North			Veranda St From East			Route 295 NB Off Ramp From South			Veranda St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	1	0	58	2	0	0	51	0	13	0	125
07:15 AM	0	0	0	0	107	0	2	0	79	0	8	0	196
07:30 AM	0	0	0	0	117	0	0	0	86	0	15	0	218
07:45 AM	0	0	0	0	144	1	0	3	115	3	22	0	288
Total	0	0	1	0	426	3	2	3	331	3	58	0	827
08:00 AM	1	0	0	0	146	0	1	1	107	0	23	0	279
08:15 AM	0	0	1	0	128	1	0	1	108	1	21	0	261
08:30 AM	1	0	1	0	160	0	1	4	103	0	19	0	289
08:45 AM	0	0	2	0	136	4	1	2	104	0	36	0	285
Total	2	0	4	0	570	5	3	8	422	1	99	0	1114
Grand Total	2	0	5	0	996	8	5	11	753	4	157	0	1941
Apprch %	28.6	0	71.4	0	99.2	0.8	0.7	1.4	97.9	2.5	97.5	0	
Total %	0.1	0	0.3	0	51.3	0.4	0.3	0.6	38.8	0.2	8.1	0	
Cars	2	0	5	0	986	8	5	11	740	4	148	0	1909
% Cars	100	0	100	0	99	100	100	100	98.3	100	94.3	0	98.4
Trucks	0	0	0	0	10	0	0	0	13	0	9	0	32
% Trucks	0	0	0	0	1	0	0	0	1.7	0	5.7	0	1.6

	Driveway From North				Veranda St From East				Route 295 NB Off Ramp From South				Veranda St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	144	1	145	0	3	115	118	3	22	0	25	288
08:00 AM	1	0	0	1	0	146	0	146	1	1	107	109	0	23	0	23	279
08:15 AM	0	0	1	1	0	128	1	129	0	1	108	109	1	21	0	22	261
08:30 AM	1	0	1	2	0	160	0	160	1	4	103	108	0	19	0	19	289
Total Volume	2	0	2	4	0	578	2	580	2	9	433	444	4	85	0	89	1117
% App. Total	50	0	50		0	99.7	0.3		0.5	2	97.5		4.5	95.5	0		
PHF	.500	.000	.500	.500	.000	.903	.500	.906	.500	.563	.941	.941	.333	.924	.000	.890	.966
Cars	2	0	2	4	0	572	2	574	2	9	426	437	4	78	0	82	1097
% Cars	100	0	100	100	0	99.0	100	99.0	100	100	98.4	98.4	100	91.8	0	92.1	98.2
Trucks	0	0	0	0	0	6	0	6	0	0	7	7	0	7	0	7	20
% Trucks	0	0	0	0	0	1.0	0	1.0	0	0	1.6	1.6	0	8.2	0	7.9	1.8

Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

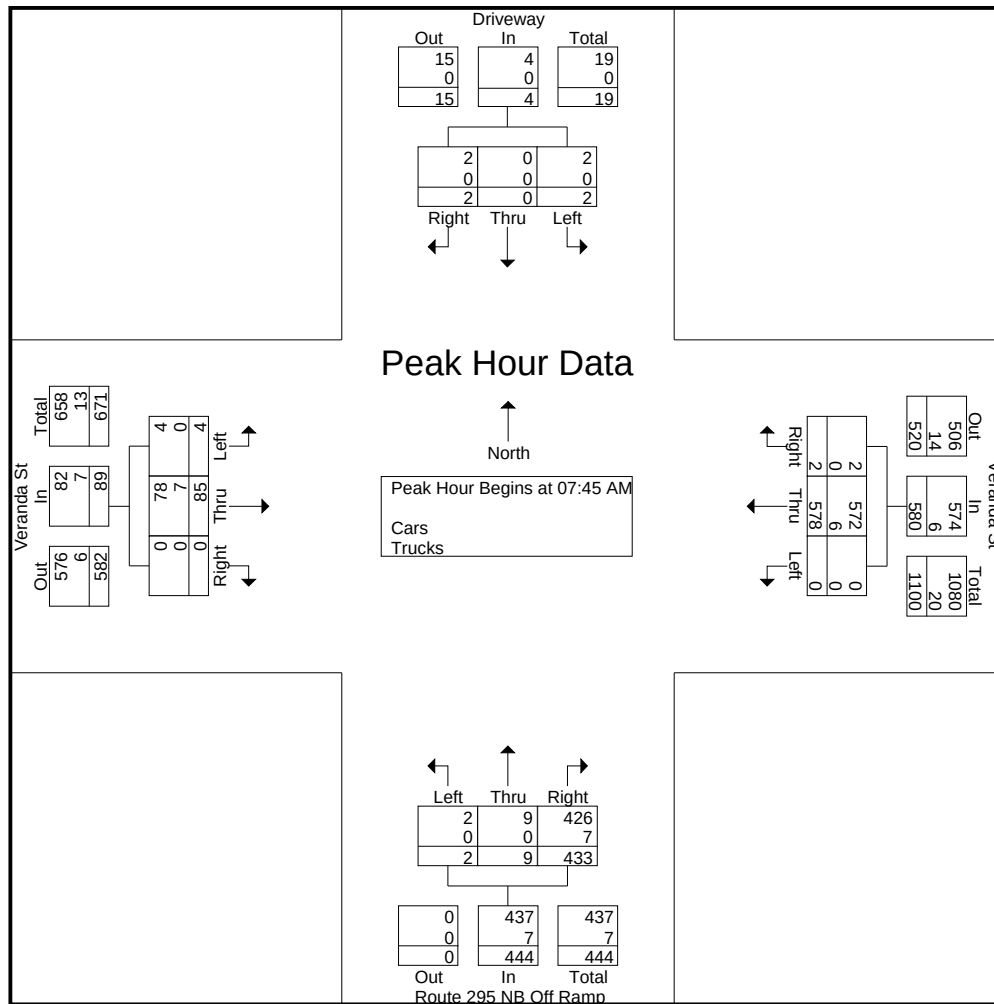
Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM				07:45 AM				07:45 AM				08:00 AM			
+0 mins.	1	0	0	1	0	144	1	145	0	3	115	118	0	23	0	23
+15 mins.	0	0	1	1	0	146	0	146	1	1	107	109	1	21	0	22
+30 mins.	1	0	1	2	0	128	1	129	0	1	108	109	0	19	0	19
+45 mins.	0	0	2	2	0	160	0	160	1	4	103	108	0	36	0	36
Total Volume	2	0	4	6	0	578	2	580	2	9	433	444	1	99	0	100
% App. Total	33.3	0	66.7		0	99.7	0.3		0.5	2	97.5		1	99	0	
PHF	.500	.000	.500	.750	.000	.903	.500	.906	.500	.563	.941	.941	.250	.688	.000	.694
Cars	2	0	4	6	0	572	2	574	2	9	426	437	1	93	0	94
% Cars	100	0	100	100	0	99	100	99	100	100	98.4	98.4	100	93.9	0	94
Trucks	0	0	0	0	0	6	0	6	0	0	7	7	0	6	0	6
% Trucks	0	0	0	0	0	1	0	1	0	0	1.6	1.6	0	6.1	0	6

Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

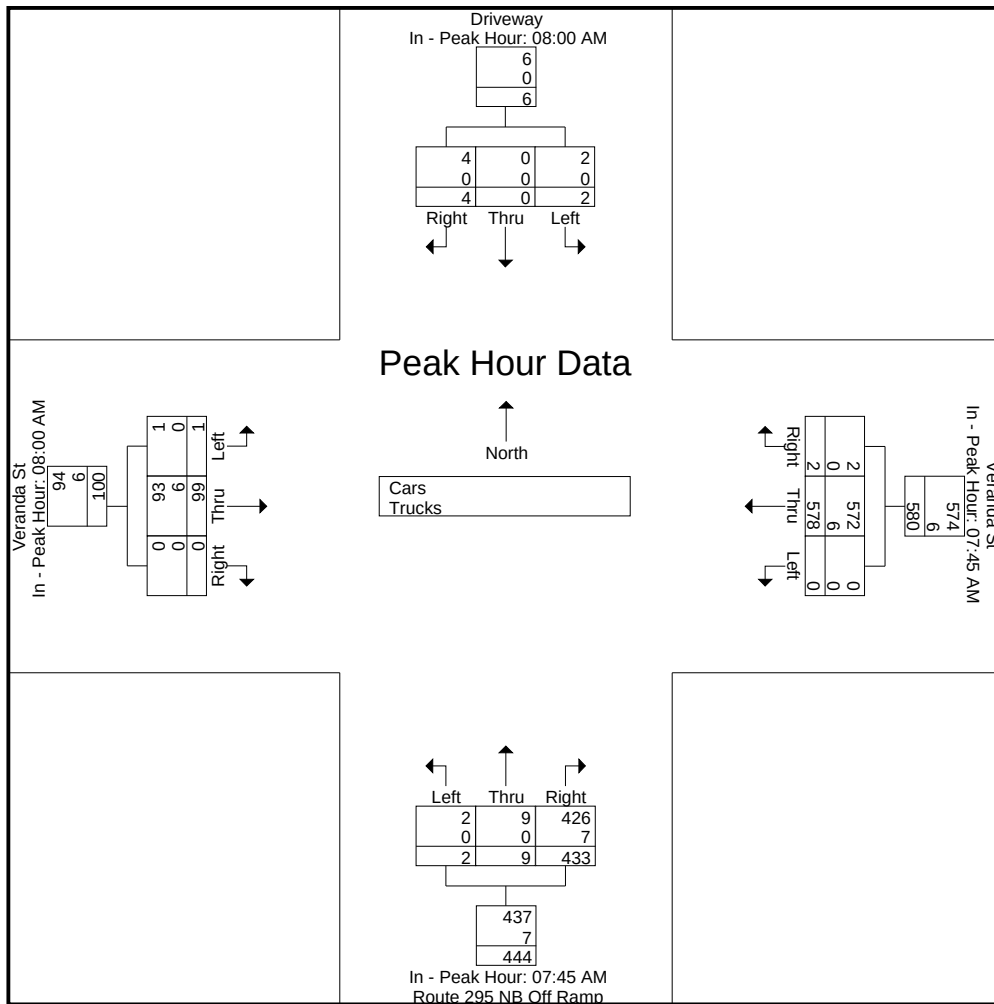
Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 3



Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 4

Groups Printed- Cars

	Driveway From North			Veranda St From East			Route 295 NB Off Ramp From South			Veranda St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	1	0	57	2	0	0	50	0	12	0	122
07:15 AM	0	0	0	0	107	0	2	0	76	0	8	0	193
07:30 AM	0	0	0	0	116	0	0	0	85	0	14	0	215
07:45 AM	0	0	0	0	143	1	0	3	114	3	21	0	285
Total	0	0	1	0	423	3	2	3	325	3	55	0	815
08:00 AM	1	0	0	0	144	0	1	1	105	0	22	0	274
08:15 AM	0	0	1	0	127	1	0	1	107	1	18	0	256
08:30 AM	1	0	1	0	158	0	1	4	100	0	17	0	282
08:45 AM	0	0	2	0	134	4	1	2	103	0	36	0	282
Total	2	0	4	0	563	5	3	8	415	1	93	0	1094
Grand Total	2	0	5	0	986	8	5	11	740	4	148	0	1909
Apprch %	28.6	0	71.4	0	99.2	0.8	0.7	1.5	97.9	2.6	97.4	0	
Total %	0.1	0	0.3	0	51.7	0.4	0.3	0.6	38.8	0.2	7.8	0	

	Driveway From North				Veranda St From East				Route 295 NB Off Ramp From South				Veranda St From West				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	143	1	144	0	3	114	117	3	21	0	24	285
08:00 AM	1	0	0	1	0	144	0	144	1	1	105	107	0	22	0	22	274
08:15 AM	0	0	1	1	0	127	1	128	0	1	107	108	1	18	0	19	256
08:30 AM	1	0	1	2	0	158	0	158	1	4	100	105	0	17	0	17	282
Total Volume	2	0	2	4	0	572	2	574	2	9	426	437	4	78	0	82	1097
% App. Total	50	0	50		0	99.7	0.3		0.5	2.1	97.5		4.9	95.1	0		
PHF	.500	.000	.500	.500	.000	.905	.500	.908	.500	.563	.934	.934	.333	.886	.000	.854	.962

Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

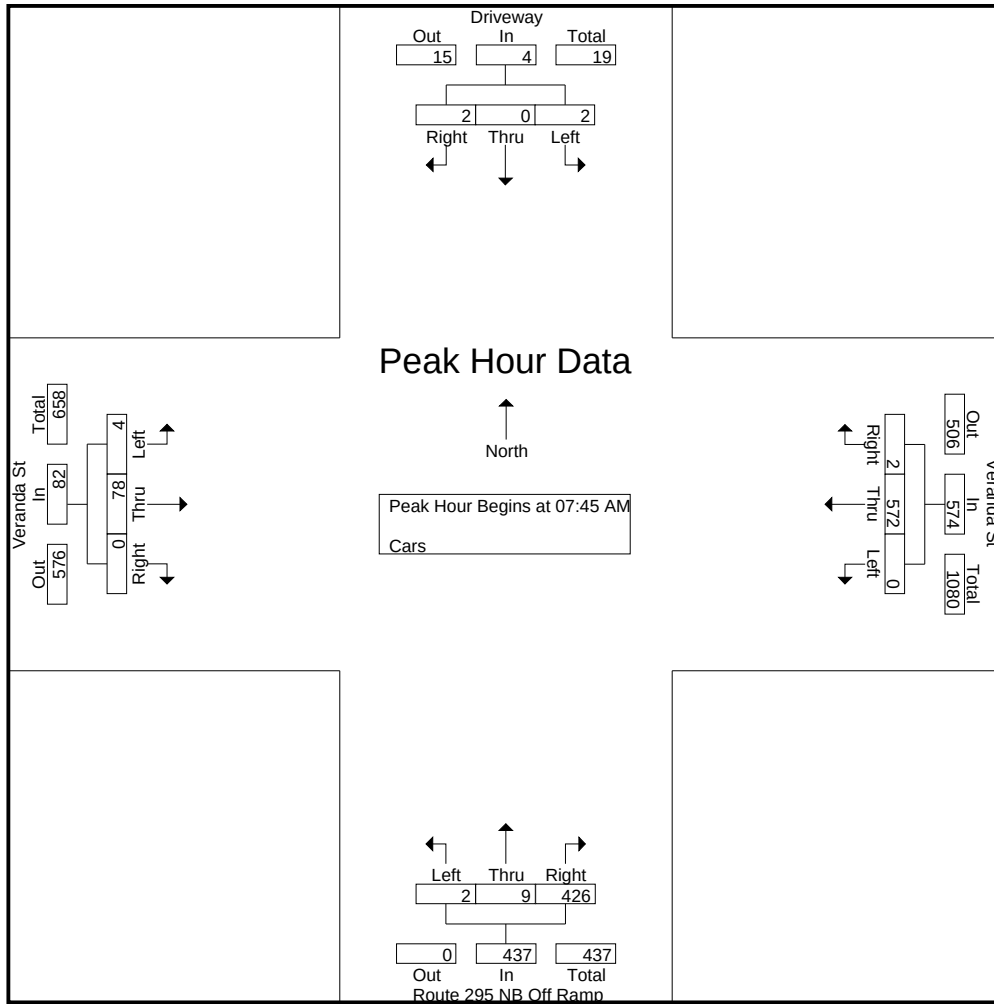
Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

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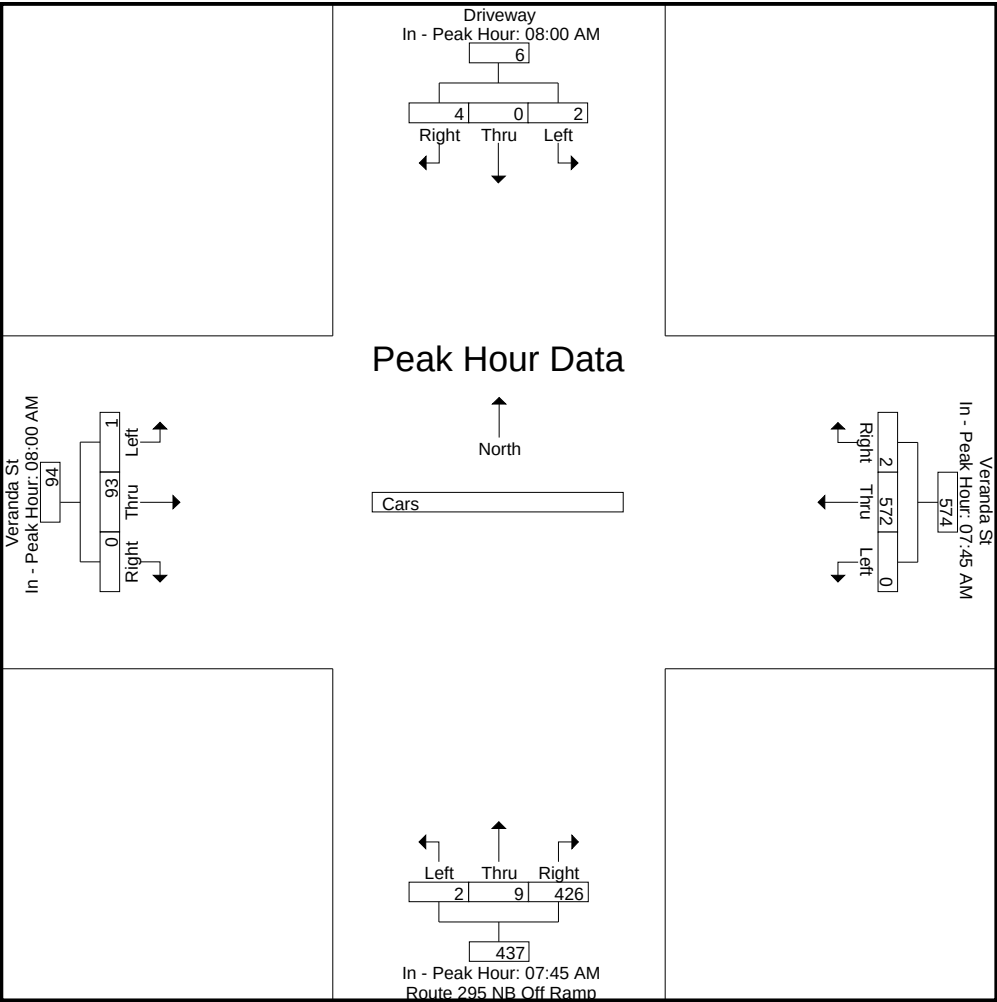
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM				07:45 AM				07:45 AM				08:00 AM			
+0 mins.	1	0	0	1	0	143	1	144	0	3	114	117	0	22	0	22
+15 mins.	0	0	1	1	0	144	0	144	1	1	105	107	1	18	0	19
+30 mins.	1	0	1	2	0	127	1	128	0	1	107	108	0	17	0	17
+45 mins.	0	0	2	2	0	158	0	158	1	4	100	105	0	36	0	36
Total Volume	2	0	4	6	0	572	2	574	2	9	426	437	1	93	0	94
% App. Total	33.3	0	66.7		0	99.7	0.3		0.5	2.1	97.5		1.1	98.9	0	
PHF	.500	.000	.500	.750	.000	.905	.500	.908	.500	.563	.934	.934	.250	.646	.000	.653

N/S Street : Driveway / Route 295 NB Off Ramp
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260002
Site Code : 10260002
Start Date : 5/25/2023
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 7

Groups Printed- Trucks

	Driveway From North			Veranda St From East			Route 295 NB Off Ramp From South			Veranda St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	0	1	0	0	0	1	0	1	0	3
07:15 AM	0	0	0	0	0	0	0	0	3	0	0	0	3
07:30 AM	0	0	0	0	1	0	0	0	1	0	1	0	3
07:45 AM	0	0	0	0	1	0	0	0	1	0	1	0	3
Total	0	0	0	0	3	0	0	0	6	0	3	0	12
08:00 AM	0	0	0	0	2	0	0	0	2	0	1	0	5
08:15 AM	0	0	0	0	1	0	0	0	1	0	3	0	5
08:30 AM	0	0	0	0	2	0	0	0	3	0	2	0	7
08:45 AM	0	0	0	0	2	0	0	0	1	0	0	0	3
Total	0	0	0	0	7	0	0	0	7	0	6	0	20
Grand Total	0	0	0	0	10	0	0	0	13	0	9	0	32
Apprch %	0	0	0	0	100	0	0	0	100	0	100	0	
Total %	0	0	0	0	31.2	0	0	0	40.6	0	28.1	0	

	Driveway From North				Veranda St From East				Route 295 NB Off Ramp From South				Veranda St From West				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	1	3
08:00 AM	0	0	0	0	0	2	0	2	0	0	2	2	0	1	0	1	5
08:15 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	3	0	3	5
08:30 AM	0	0	0	0	0	2	0	2	0	0	3	3	0	2	0	2	7
Total Volume	0	0	0	0	0	6	0	6	0	0	7	7	0	7	0	7	20
% App. Total	0	0	0		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.583	.583	.000	.583	.000	.583	.714

Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

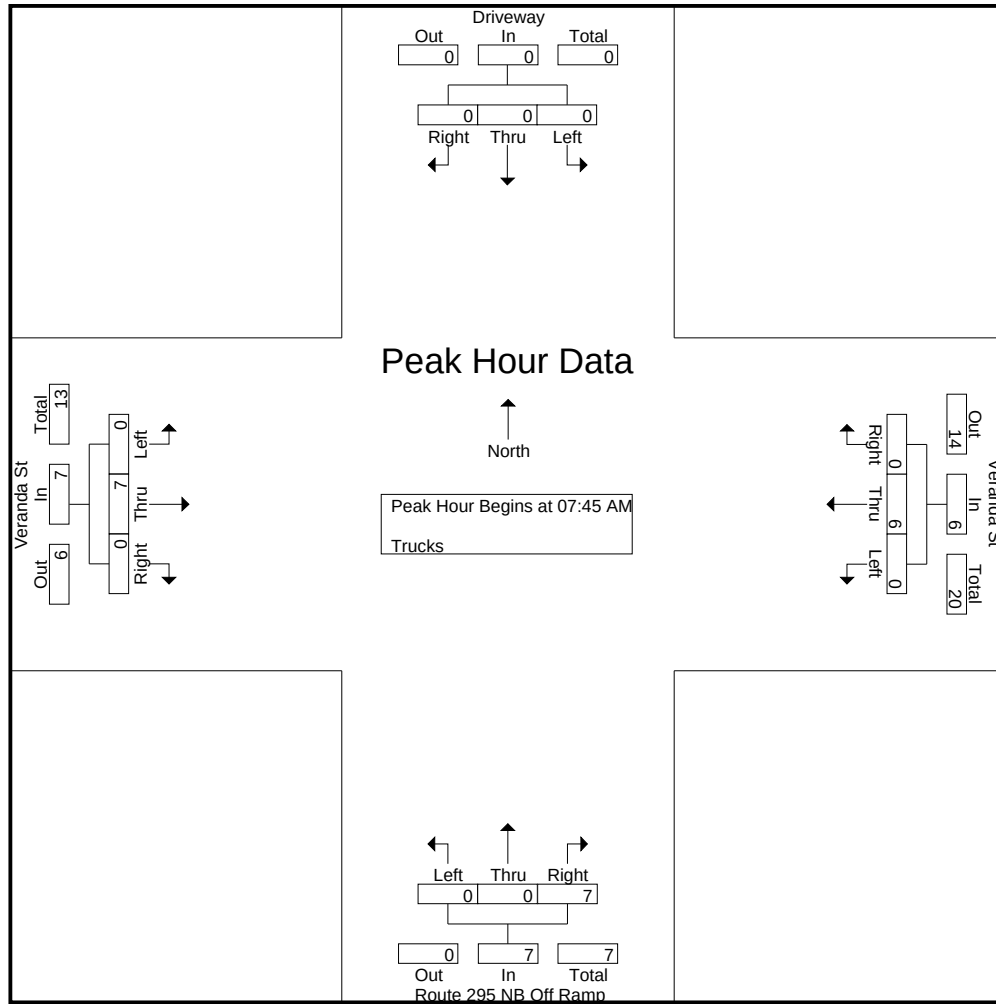
Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

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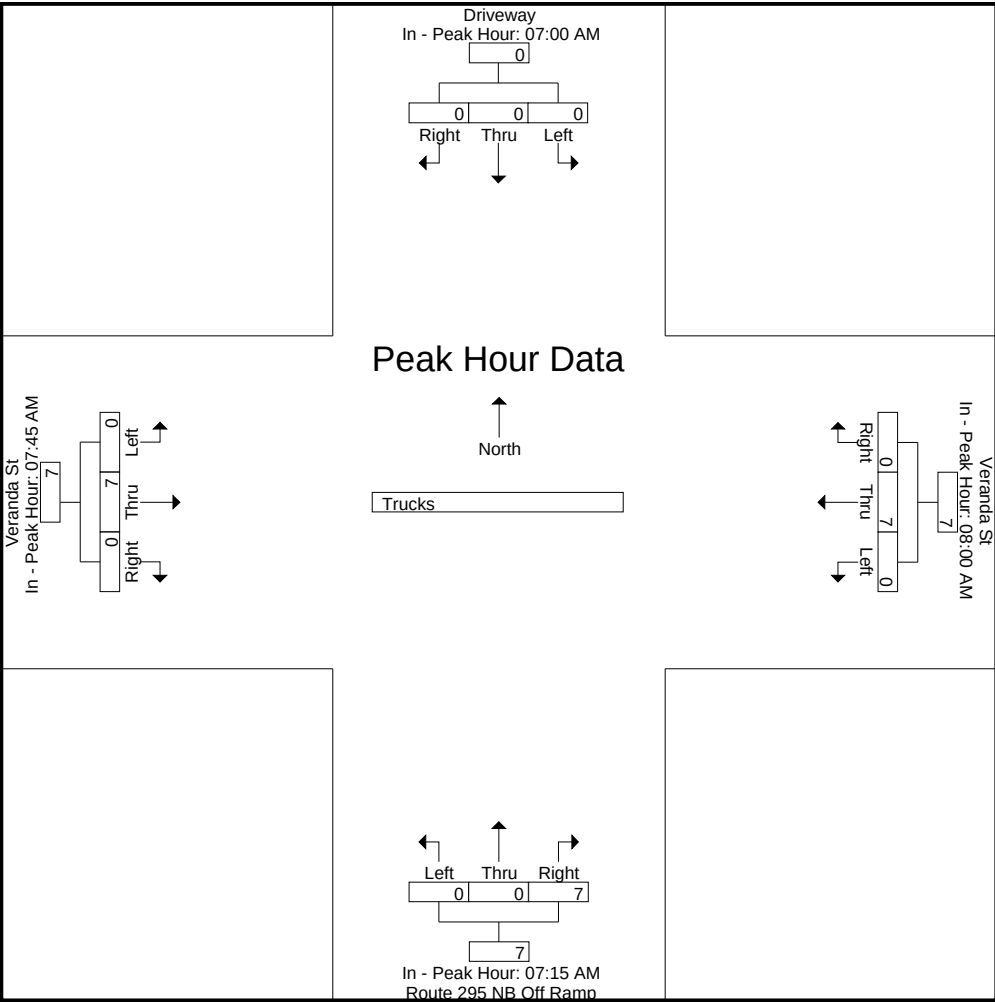
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				08:00 AM				07:15 AM				07:45 AM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	3	3	0	1	0	1
+15 mins.	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	1
+30 mins.	0	0	0	0	0	2	0	2	0	0	1	1	0	3	0	3
+45 mins.	0	0	0	0	0	2	0	2	0	0	2	2	0	2	0	2
Total Volume	0	0	0	0	0	7	0	7	0	0	7	7	0	7	0	7
% App. Total	0	0	0	0	0	100	0		0	0	100		0	100	0	
PHF	.000	.000	.000	.000	.000	.875	.000	.875	.000	.000	.583	.583	.000	.583	.000	.583

N/S Street : Driveway / Route 295 NB Off Ramp
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260002
Site Code : 10260002
Start Date : 5/25/2023
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 10

Groups Printed- Bikes Peds

	Driveway From North				Veranda St From East				Route 295 NB Off Ramp From South				Veranda St From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
07:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	2
07:45 AM	0	0	0	2	0	2	0	1	0	0	0	1	0	0	0	0	4	2	6
Total	0	0	0	2	0	6	0	1	0	0	0	1	0	1	0	0	4	7	11
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
08:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
08:30 AM	0	0	0	3	0	1	0	0	0	0	0	4	0	2	0	0	7	3	10
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
Total	0	0	0	4	0	2	0	0	0	0	0	6	0	2	0	0	10	4	14
Grand Total	0	0	0	6	0	8	0	1	0	0	0	7	0	3	0	0	14	11	25
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0				
Total %	0	0	0		0	72.7	0		0	0	0		0	27.3	0		56	44	

	Driveway From North				Veranda St From East				Route 295 NB Off Ramp From South				Veranda St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	6	0	6	0	0	0	0	0	1	0	1	7
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.250	.000	.250	.875

Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

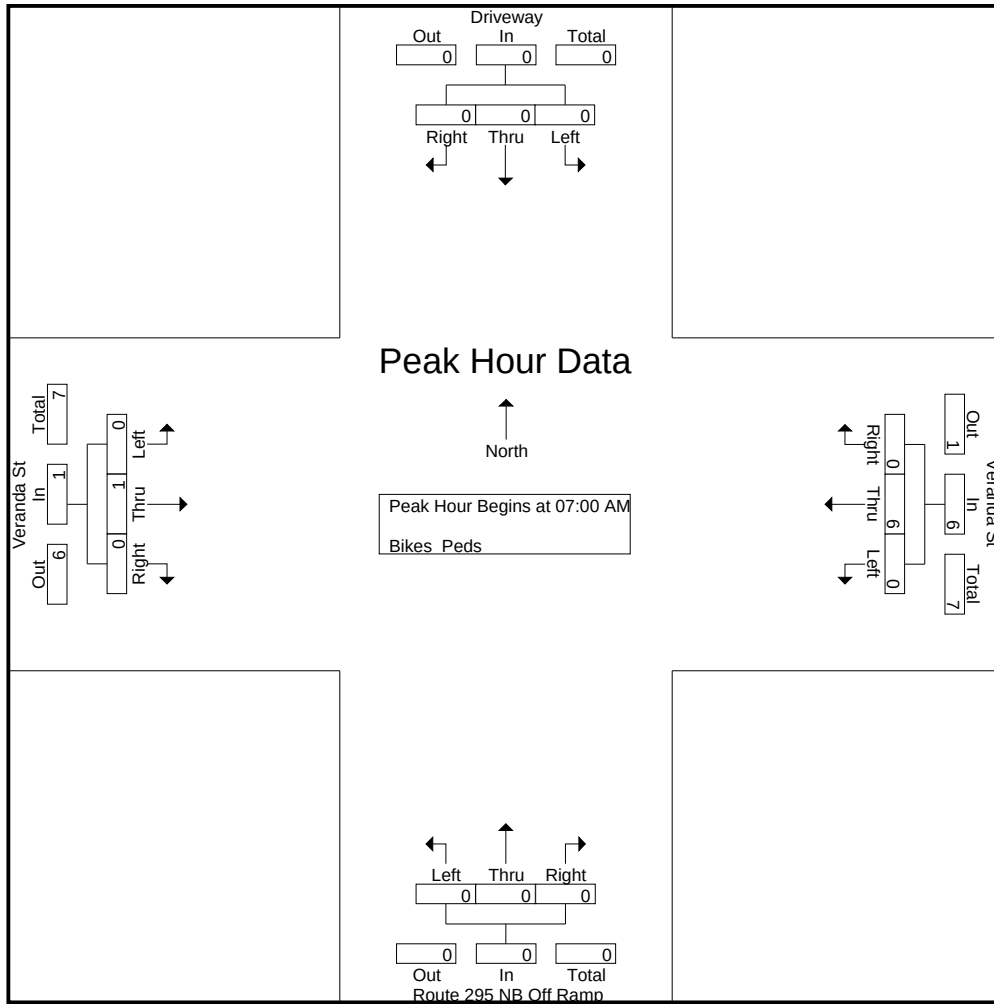
Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

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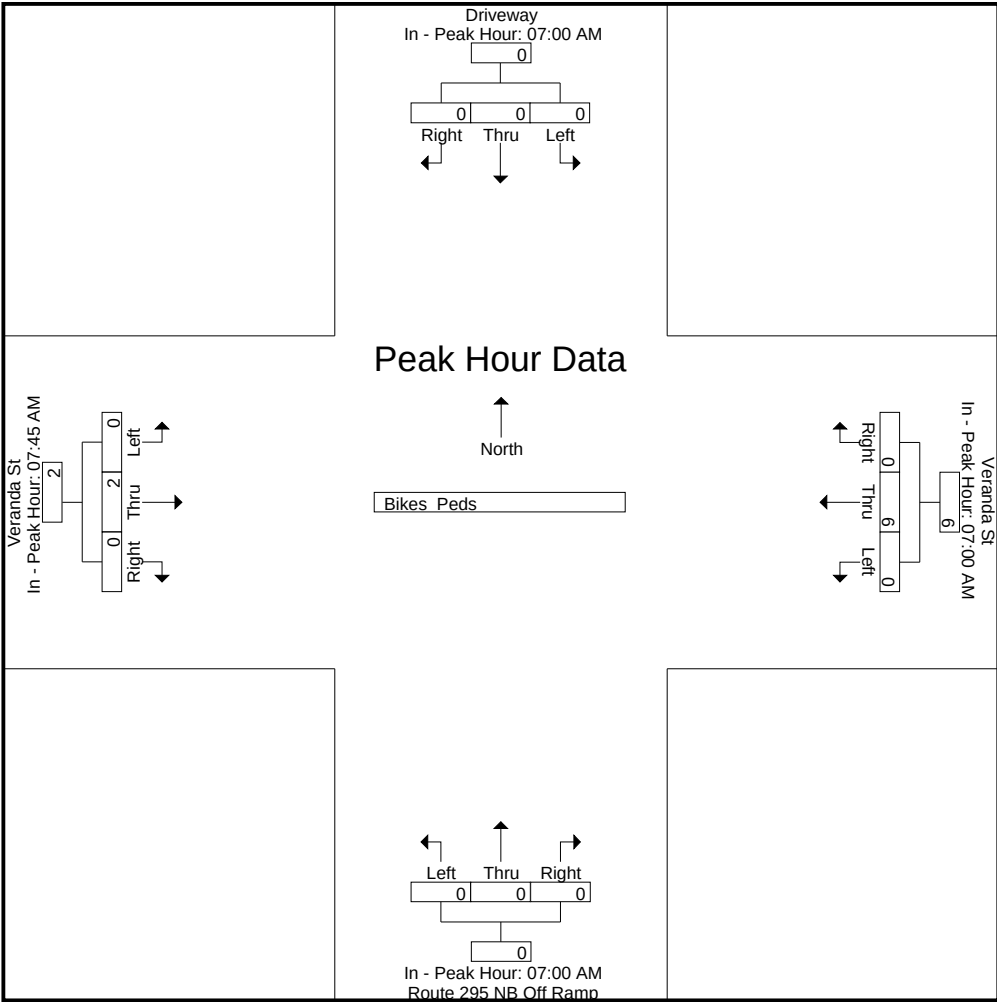
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:45 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2
Total Volume	0	0	0	0	0	6	0	6	0	0	0	0	0	2	0	2
% App. Total	0	0	0	0	0	100	0		0	0	0	0	0	100	0	
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.250	.000	.250

N/S Street : Driveway / Route 295 NB Off Ramp
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260002
Site Code : 10260002
Start Date : 5/25/2023
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Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 1

Groups Printed- Cars - Trucks

	Driveway From North			Veranda St From East			Route 295 NB Off Ramp From South			Veranda St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
03:00 PM	1	0	2	0	162	0	2	0	133	4	24	0	328
03:15 PM	0	0	4	0	142	0	2	3	123	2	28	0	304
03:30 PM	2	0	6	0	167	0	7	0	139	2	19	0	342
03:45 PM	0	0	2	0	143	0	4	1	123	0	29	0	302
Total	3	0	14	0	614	0	15	4	518	8	100	0	1276
04:00 PM	1	0	4	0	169	1	1	1	128	1	19	0	325
04:15 PM	4	0	2	0	125	1	4	2	143	3	19	0	303
04:30 PM	1	0	3	0	174	1	2	2	148	0	18	0	349
04:45 PM	2	0	4	0	142	1	5	2	140	1	20	0	317
Total	8	0	13	0	610	4	12	7	559	5	76	0	1294
05:00 PM	2	0	6	0	150	2	2	0	167	1	21	0	351
05:15 PM	0	0	3	0	150	1	4	0	137	0	20	0	315
05:30 PM	1	0	3	0	128	1	6	1	132	0	17	0	289
05:45 PM	0	0	1	0	105	0	6	0	112	0	13	0	237
Total	3	0	13	0	533	4	18	1	548	1	71	0	1192
Grand Total	14	0	40	0	1757	8	45	12	1625	14	247	0	3762
Apprch %	25.9	0	74.1	0	99.5	0.5	2.7	0.7	96.6	5.4	94.6	0	
Total %	0.4	0	1.1	0	46.7	0.2	1.2	0.3	43.2	0.4	6.6	0	
Cars	14	0	39	0	1745	8	45	11	1625	14	243	0	3744
% Cars	100	0	97.5	0	99.3	100	100	91.7	100	100	98.4	0	99.5
Trucks	0	0	1	0	12	0	0	1	0	0	4	0	18
% Trucks	0	0	2.5	0	0.7	0	0	8.3	0	0	1.6	0	0.5

	Driveway From North				Veranda St From East				Route 295 NB Off Ramp From South				Veranda St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	0	3	4	0	174	1	175	2	2	148	152	0	18	0	18	349
04:45 PM	2	0	4	6	0	142	1	143	5	2	140	147	1	20	0	21	317
05:00 PM	2	0	6	8	0	150	2	152	2	0	167	169	1	21	0	22	351
05:15 PM	0	0	3	3	0	150	1	151	4	0	137	141	0	20	0	20	315
Total Volume	5	0	16	21	0	616	5	621	13	4	592	609	2	79	0	81	1332
% App. Total	23.8	0	76.2		0	99.2	0.8		2.1	0.7	97.2		2.5	97.5	0		
PHF	.625	.000	.667	.656	.000	.885	.625	.887	.650	.500	.886	.901	.500	.940	.000	.920	.949
Cars	5	0	16	21	0	613	5	618	13	4	592	609	2	77	0	79	1327
% Cars	100	0	100	100	0	99.5	100	99.5	100	100	100	100	100	97.5	0	97.5	99.6
Trucks	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
% Trucks	0	0	0	0	0	0.5	0	0.5	0	0	0	0	0	2.5	0	2.5	0.4

Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

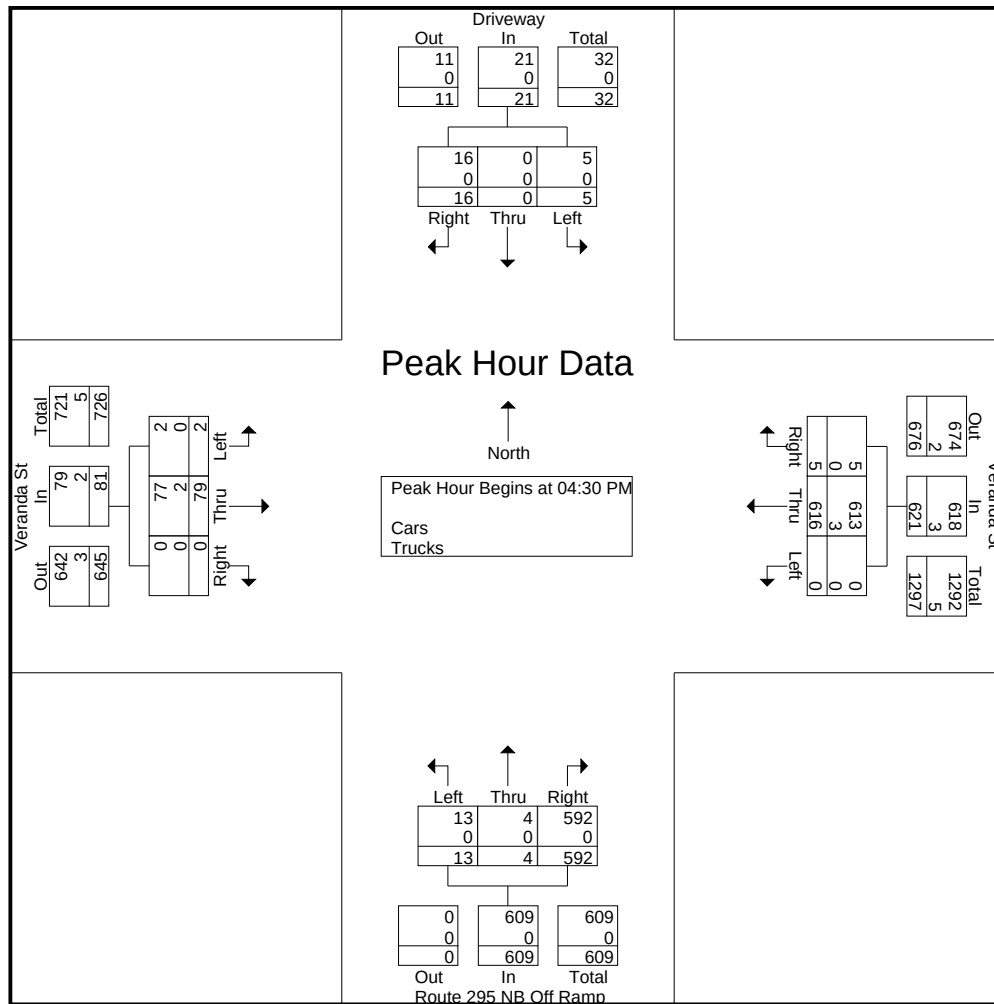
Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

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Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM				03:15 PM				04:15 PM				03:00 PM			
+0 mins.	4	0	2	6	0	142	0	142	4	2	143	149	4	24	0	28
+15 mins.	1	0	3	4	0	167	0	167	2	2	148	152	2	28	0	30
+30 mins.	2	0	4	6	0	143	0	143	5	2	140	147	2	19	0	21
+45 mins.	2	0	6	8	0	169	1	170	2	0	167	169	0	29	0	29
Total Volume	9	0	15	24	0	621	1	622	13	6	598	617	8	100	0	108
% App. Total	37.5	0	62.5		0	99.8	0.2		2.1	1	96.9		7.4	92.6	0	
PHF	.563	.000	.625	.750	.000	.919	.250	.915	.650	.750	.895	.913	.500	.862	.000	.900
Cars	9	0	15	24	0	614	1	615	13	6	598	617	8	99	0	107
% Cars	100	0	100	100	0	98.9	100	98.9	100	100	100	100	100	99	0	99.1
Trucks	0	0	0	0	0	7	0	7	0	0	0	0	0	1	0	1
% Trucks	0	0	0	0	0	1.1	0	1.1	0	0	0	0	0	1	0	0.9

Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

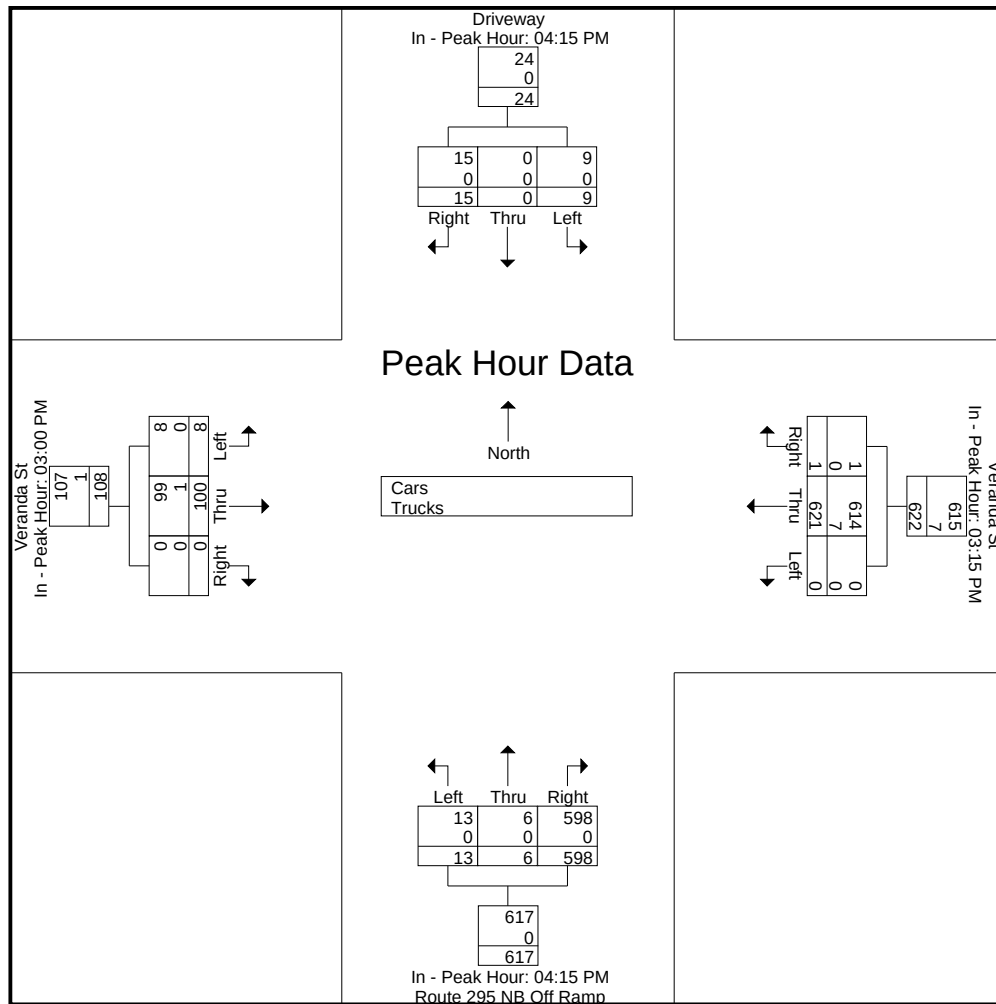
Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 3



Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 4

Groups Printed- Cars

	Driveway From North			Veranda St From East			Route 295 NB Off Ramp From South			Veranda St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
03:00 PM	1	0	2	0	161	0	2	0	133	4	24	0	327
03:15 PM	0	0	4	0	139	0	2	2	123	2	28	0	300
03:30 PM	2	0	5	0	167	0	7	0	139	2	19	0	341
03:45 PM	0	0	2	0	142	0	4	1	123	0	28	0	300
Total	3	0	13	0	609	0	15	3	518	8	99	0	1268
04:00 PM	1	0	4	0	166	1	1	1	128	1	19	0	322
04:15 PM	4	0	2	0	124	1	4	2	143	3	19	0	302
04:30 PM	1	0	3	0	173	1	2	2	148	0	17	0	347
04:45 PM	2	0	4	0	142	1	5	2	140	1	19	0	316
Total	8	0	13	0	605	4	12	7	559	5	74	0	1287
05:00 PM	2	0	6	0	150	2	2	0	167	1	21	0	351
05:15 PM	0	0	3	0	148	1	4	0	137	0	20	0	313
05:30 PM	1	0	3	0	128	1	6	1	132	0	16	0	288
05:45 PM	0	0	1	0	105	0	6	0	112	0	13	0	237
Total	3	0	13	0	531	4	18	1	548	1	70	0	1189
Grand Total	14	0	39	0	1745	8	45	11	1625	14	243	0	3744
Apprch %	26.4	0	73.6	0	99.5	0.5	2.7	0.7	96.7	5.4	94.6	0	
Total %	0.4	0	1	0	46.6	0.2	1.2	0.3	43.4	0.4	6.5	0	

	Driveway From North				Veranda St From East				Route 295 NB Off Ramp From South				Veranda St From West				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	0	3	4	0	173	1	174	2	2	148	152	0	17	0	17	347
04:45 PM	2	0	4	6	0	142	1	143	5	2	140	147	1	19	0	20	316
05:00 PM	2	0	6	8	0	150	2	152	2	0	167	169	1	21	0	22	351
05:15 PM	0	0	3	3	0	148	1	149	4	0	137	141	0	20	0	20	313
Total Volume	5	0	16	21	0	613	5	618	13	4	592	609	2	77	0	79	1327
% App. Total	23.8	0	76.2		0	99.2	0.8		2.1	0.7	97.2		2.5	97.5	0		
PHF	.625	.000	.667	.656	.000	.886	.625	.888	.650	.500	.886	.901	.500	.917	.000	.898	.945

Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

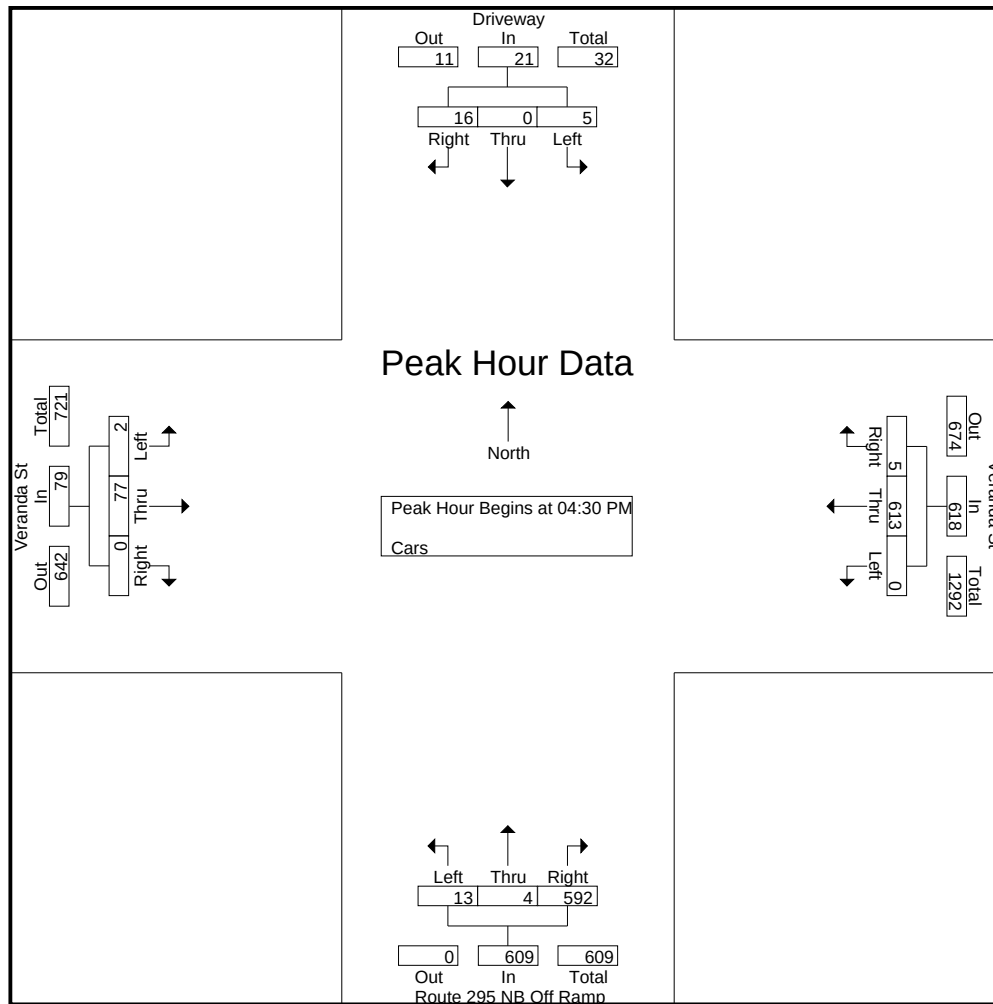
Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

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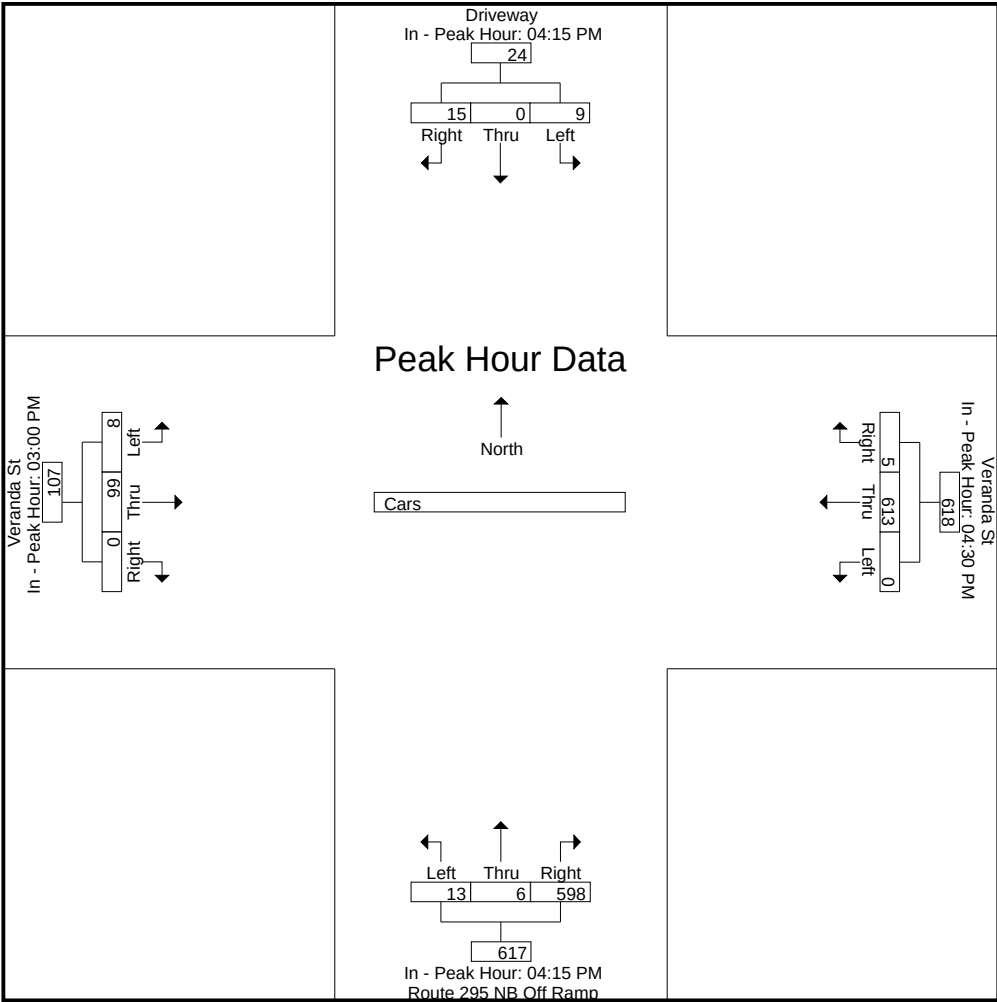
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM				04:30 PM				04:15 PM				03:00 PM			
+0 mins.	4	0	2	6	0	173	1	174	4	2	143	149	4	24	0	28
+15 mins.	1	0	3	4	0	142	1	143	2	2	148	152	2	28	0	30
+30 mins.	2	0	4	6	0	150	2	152	5	2	140	147	2	19	0	21
+45 mins.	2	0	6	8	0	148	1	149	2	0	167	169	0	28	0	28
Total Volume	9	0	15	24	0	613	5	618	13	6	598	617	8	99	0	107
% App. Total	37.5	0	62.5		0	99.2	0.8		2.1	1	96.9		7.5	92.5	0	
PHF	.563	.000	.625	.750	.000	.886	.625	.888	.650	.750	.895	.913	.500	.884	.000	.892

N/S Street : Driveway / Route 295 NB Off Ramp
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260002
Site Code : 10260002
Start Date : 5/25/2023
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

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Groups Printed- Trucks

	Driveway From North			Veranda St From East			Route 295 NB Off Ramp From South			Veranda St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
03:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
03:15 PM	0	0	0	0	3	0	0	1	0	0	0	0	4
03:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
03:45 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
Total	0	0	1	0	5	0	0	1	0	0	1	0	8
04:00 PM	0	0	0	0	3	0	0	0	0	0	0	0	3
04:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	5	0	0	0	0	0	2	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	0	0	0	0	0	1	0	3
Grand Total	0	0	1	0	12	0	0	1	0	0	4	0	18
Apprch %	0	0	100	0	100	0	0	100	0	0	100	0	
Total %	0	0	5.6	0	66.7	0	0	5.6	0	0	22.2	0	

	Driveway From North				Veranda St From East				Route 295 NB Off Ramp From South				Veranda St From West				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	0	0	0	0	0	3	0	3	0	1	0	1	0	0	0	0	4
03:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
Total Volume	0	0	1	1	0	7	0	7	0	1	0	1	0	1	0	1	10
% App. Total	0	0	100		0	100	0		0	100	0		0	100	0		
PHF	.000	.000	.250	.250	.000	.583	.000	.583	.000	.250	.000	.250	.000	.250	.000	.250	.625

Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

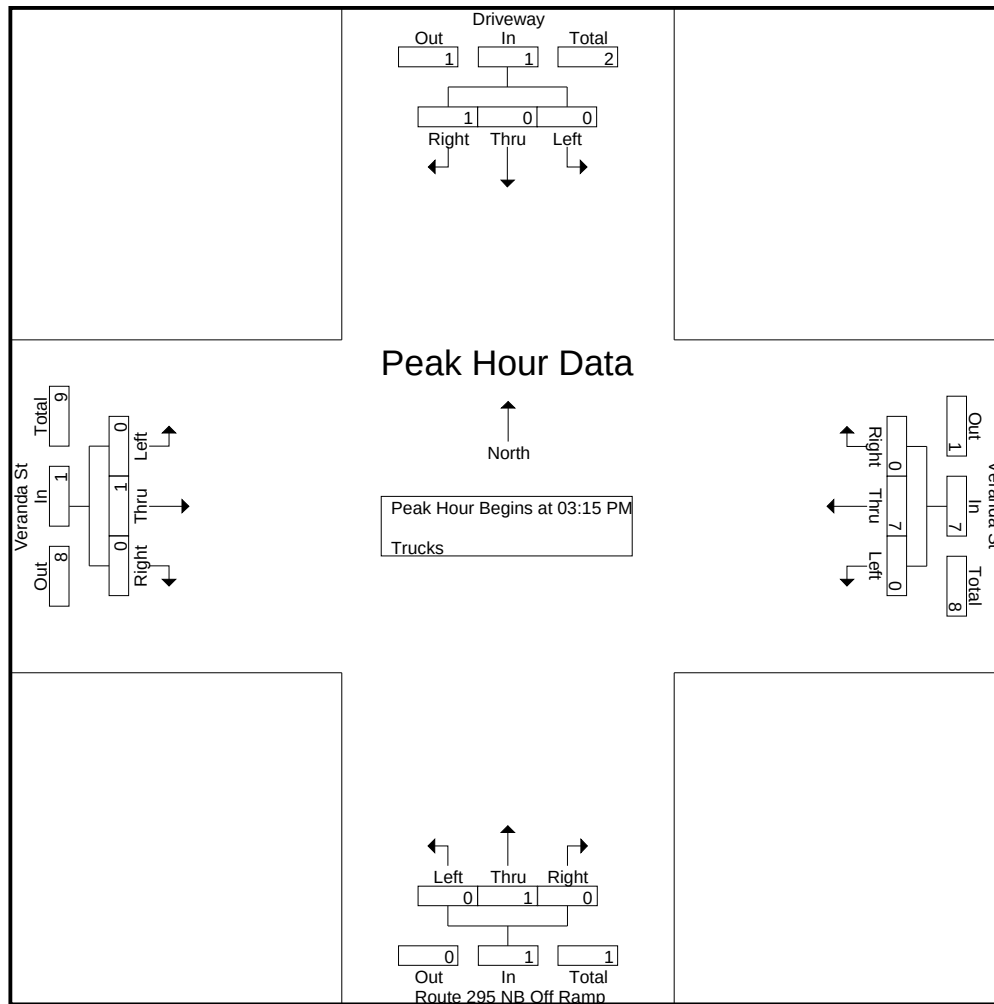
Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 8



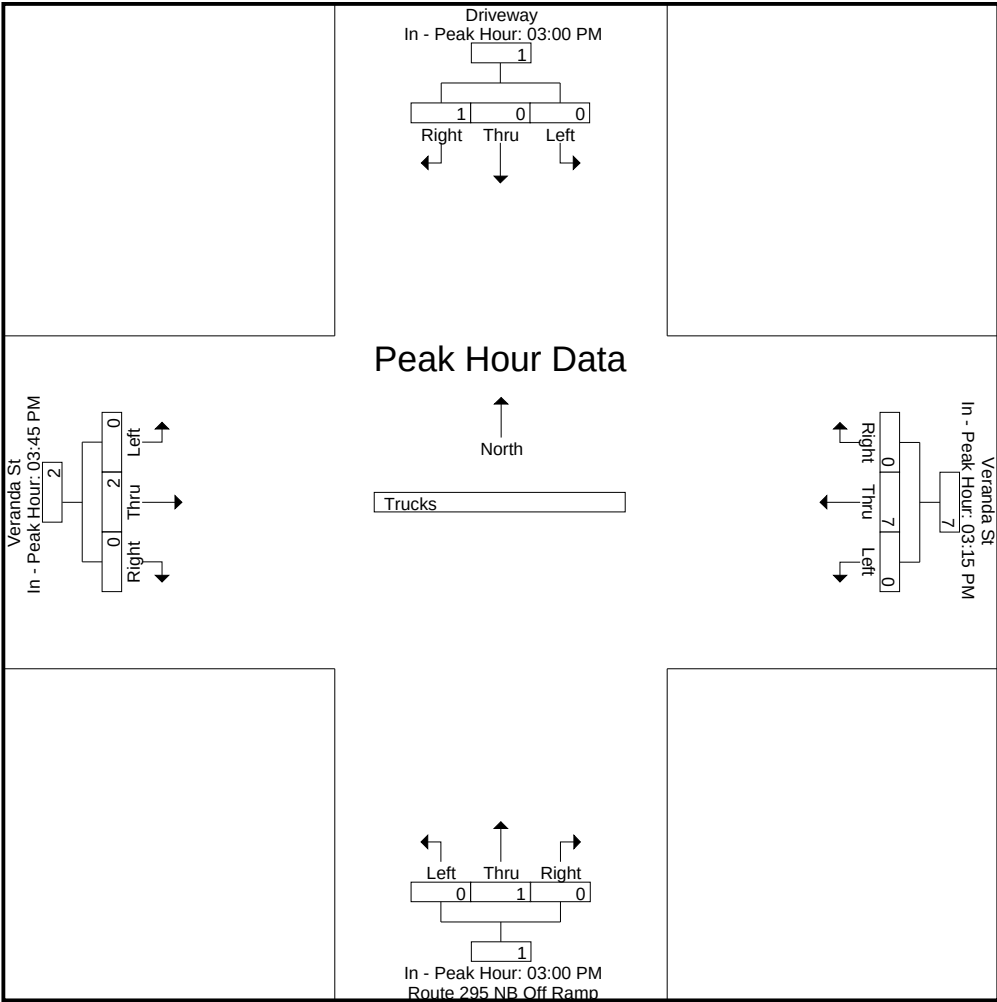
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:00 PM				03:15 PM				03:00 PM				03:45 PM			
+0 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1
Total Volume	0	0	1	1	0	7	0	7	0	1	0	1	0	2	0	2
% App. Total	0	0	100		0	100	0		0	100	0		0	100	0	
PHF	.000	.000	.250	.250	.000	.583	.000	.583	.000	.250	.000	.250	.000	.500	.000	.500

N/S Street : Driveway / Route 295 NB Off Ramp
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260002
Site Code : 10260002
Start Date : 5/25/2023
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 10

Groups Printed- Bikes Peds

	Driveway From North				Veranda St From East				Route 295 NB Off Ramp From South				Veranda St From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
03:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
03:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	3	0	0	0	0	0	0	0	0	0	3	0	0	3	3	6
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	3	3
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	2
04:30 PM	0	0	0	5	0	1	0	0	0	0	0	1	0	2	0	0	6	3	9
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	6	0	3	0	0	0	0	0	1	0	5	0	0	7	8	15
05:00 PM	0	0	0	2	0	2	0	0	0	0	0	0	0	3	0	0	2	5	7
05:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	1	2	3
05:30 PM	0	0	0	5	0	1	0	0	0	0	0	0	0	0	0	1	6	1	7
05:45 PM	0	0	0	5	0	1	0	0	0	0	0	1	0	0	0	0	6	1	7
Total	0	0	0	13	0	5	0	0	0	0	0	1	0	4	0	1	15	9	24
Grand Total	0	0	0	22	0	8	0	0	0	0	0	2	0	12	0	1	25	20	45
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0				
Total %	0	0	0		0	40	0		0	0	0		0	60	0		55.6	44.4	

	Driveway From North				Veranda St From East				Route 295 NB Off Ramp From South				Veranda St From West						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total			Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:15 PM																			
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1			2
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2			3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
05:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3			5
Total Volume	0	0	0	0	0	4	0	4	0	0	0	0	0	6	0	6			10
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0				
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500			.500

Accurate Counts

978-664-2565

N/S Street : Driveway / Route 295 NB Off Ramp

E/W Street : Veranda Street

City/State : Portland, ME

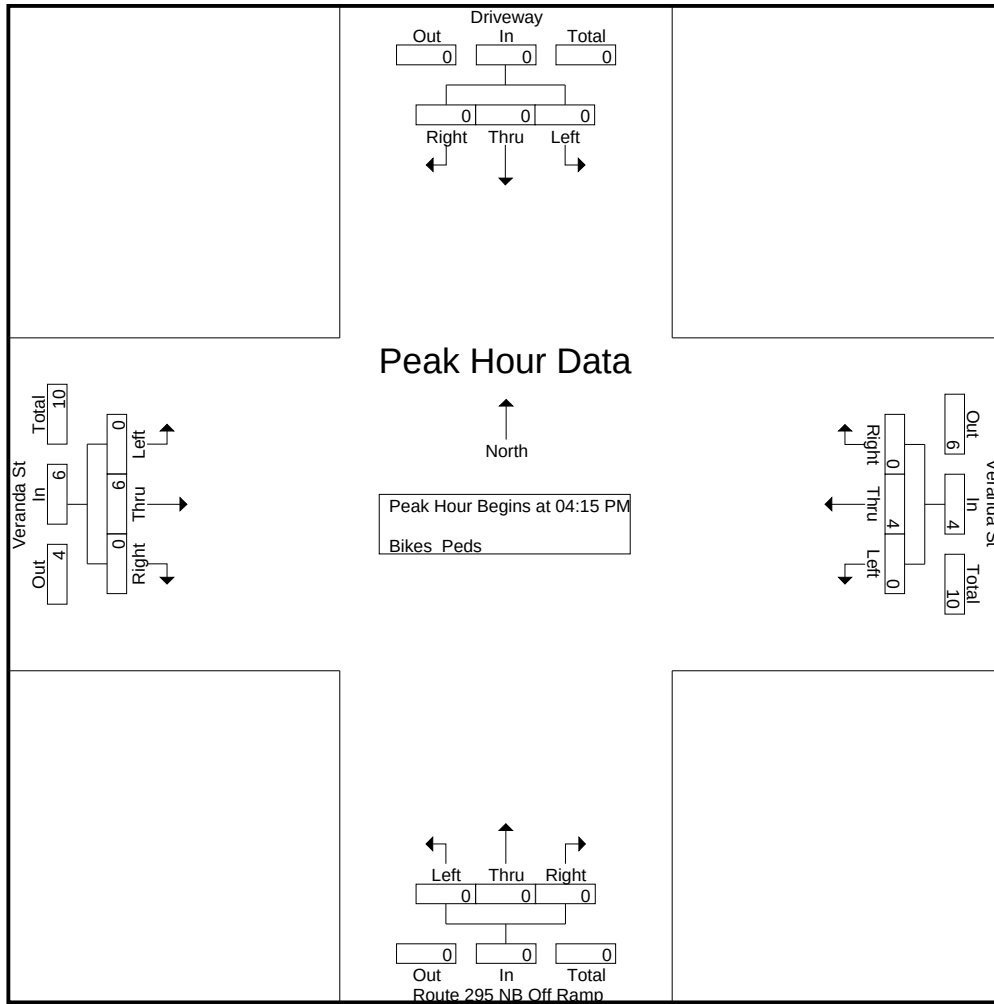
Weather : Clear

File Name : 10260002

Site Code : 10260002

Start Date : 5/25/2023

Page No : 11



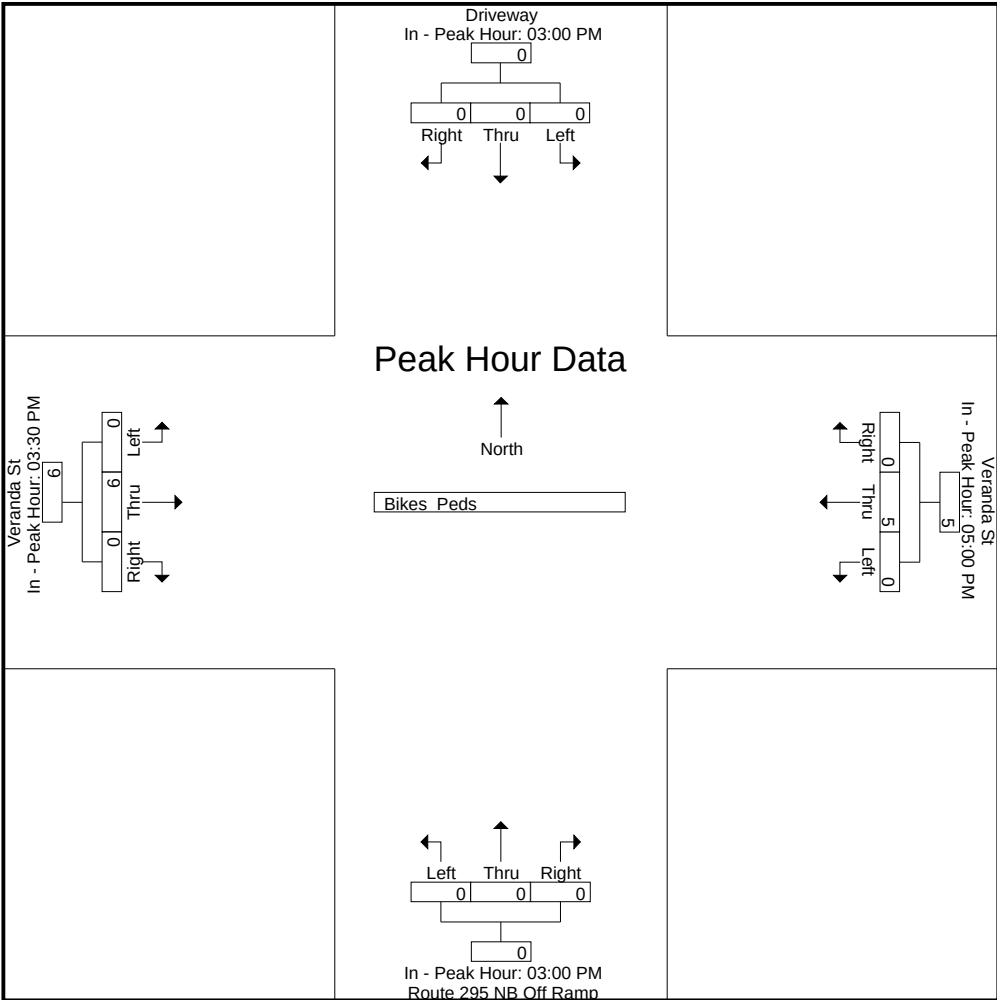
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:00 PM				05:00 PM				03:00 PM				03:30 PM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	5	0	5	0	0	0	0	0	6	0	6
% App. Total	0	0	0	0	0	100	0		0	0	0	0	0	100	0	
PHF	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.000	.500	.000	.500

N/S Street : Driveway / Route 295 NB Off Ramp
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260002
Site Code : 10260002
Start Date : 5/25/2023
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 1

Groups Printed- Cars - Trucks

	Wordsworth St From North			Veranda St From East			Route 295 SB On Ramp From South			Veranda St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	47	8	0	0	0	0	0	13	6	74
07:15 AM	0	1	1	96	15	0	0	0	0	0	9	16	138
07:30 AM	0	0	0	102	16	0	0	0	0	0	14	17	149
07:45 AM	0	3	0	110	25	0	0	0	0	1	25	25	189
Total	0	4	1	355	64	0	0	0	0	1	61	64	550
08:00 AM	0	0	0	139	17	0	0	0	0	1	24	24	205
08:15 AM	0	2	1	112	19	0	0	0	0	0	22	23	179
08:30 AM	0	2	0	138	20	0	0	0	0	0	17	17	194
08:45 AM	0	3	2	108	29	0	0	0	0	0	41	15	198
Total	0	7	3	497	85	0	0	0	0	1	104	79	776
Grand Total	0	11	4	852	149	0	0	0	0	2	165	143	1326
Apprch %	0	73.3	26.7	85.1	14.9	0	0	0	0	0.6	53.2	46.1	
Total %	0	0.8	0.3	64.3	11.2	0	0	0	0	0.2	12.4	10.8	
Cars	0	11	4	848	144	0	0	0	0	2	156	142	1307
% Cars	0	100	100	99.5	96.6	0	0	0	0	100	94.5	99.3	98.6
Trucks	0	0	0	4	5	0	0	0	0	0	9	1	19
% Trucks	0	0	0	0.5	3.4	0	0	0	0	0	5.5	0.7	1.4

	Wordsworth St From North				Veranda St From East				Route 295 SB On Ramp From South				Veranda St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	139	17	0	156	0	0	0	0	1	24	24	49	205
08:15 AM	0	2	1	3	112	19	0	131	0	0	0	0	0	22	23	45	179
08:30 AM	0	2	0	2	138	20	0	158	0	0	0	0	0	17	17	34	194
08:45 AM	0	3	2	5	108	29	0	137	0	0	0	0	0	41	15	56	198
Total Volume	0	7	3	10	497	85	0	582	0	0	0	0	1	104	79	184	776
% App. Total	0	70	30		85.4	14.6	0		0	0	0		0.5	56.5	42.9		
PHF	.000	.583	.375	.500	.894	.733	.000	.921	.000	.000	.000	.000	.250	.634	.823	.821	.946
Cars	0	7	3	10	493	83	0	576	0	0	0	0	1	98	79	178	764
% Cars	0	100	100	100	99.2	97.6	0	99.0	0	0	0	0	100	94.2	100	96.7	98.5
Trucks	0	0	0	0	4	2	0	6	0	0	0	0	0	6	0	6	12
% Trucks	0	0	0	0	0.8	2.4	0	1.0	0	0	0	0	0	5.8	0	3.3	1.5

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

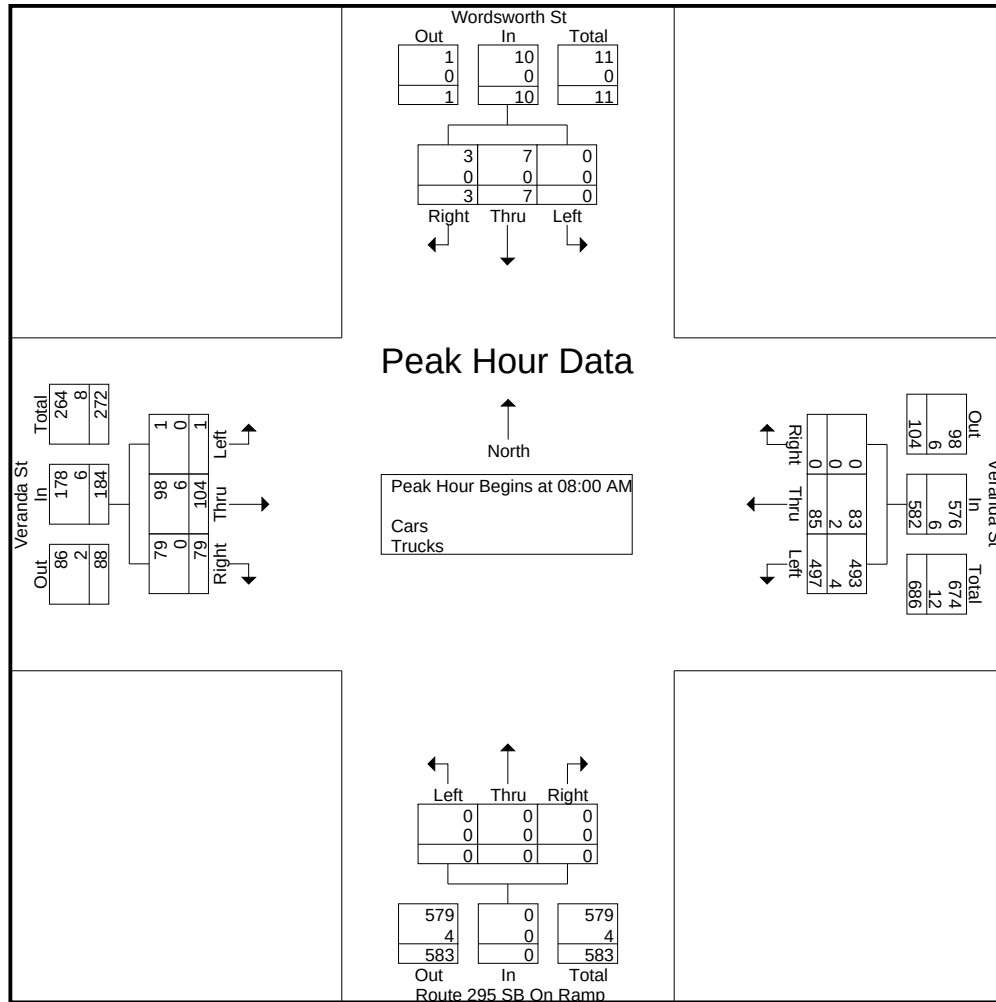
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				07:00 AM				08:00 AM			
+0 mins.	0	0	0	0	139	17	0	156	0	0	0	0	1	24	24	49
+15 mins.	0	2	1	3	112	19	0	131	0	0	0	0	0	22	23	45
+30 mins.	0	2	0	2	138	20	0	158	0	0	0	0	0	17	17	34
+45 mins.	0	3	2	5	108	29	0	137	0	0	0	0	0	41	15	56
Total Volume	0	7	3	10	497	85	0	582	0	0	0	0	1	104	79	184
% App. Total	0	70	30		85.4	14.6	0		0	0	0		0.5	56.5	42.9	
PHF	.000	.583	.375	.500	.894	.733	.000	.921	.000	.000	.000	.000	.250	.634	.823	.821
Cars	0	7	3	10	493	83	0	576	0	0	0	0	1	98	79	178
% Cars	0	100	100	100	99.2	97.6	0	99	0	0	0	0	100	94.2	100	96.7
Trucks	0	0	0	0	4	2	0	6	0	0	0	0	0	6	0	6
% Trucks	0	0	0	0	0.8	2.4	0	1	0	0	0	0	0	5.8	0	3.3

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

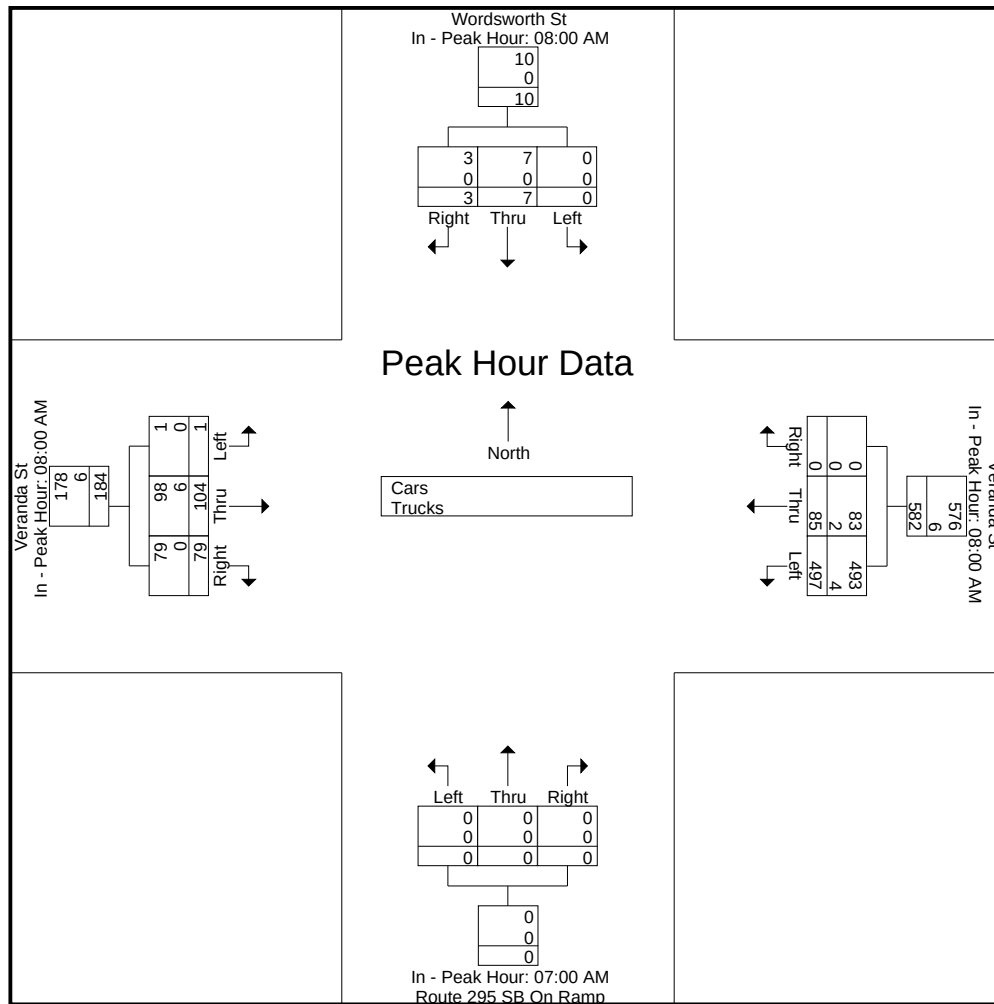
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 3



Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 4

Groups Printed- Cars

	Wordsworth St From North			Veranda St From East			Route 295 SB On Ramp From South			Veranda St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	47	7	0	0	0	0	0	12	6	72
07:15 AM	0	1	1	96	15	0	0	0	0	0	9	16	138
07:30 AM	0	0	0	102	15	0	0	0	0	0	13	17	147
07:45 AM	0	3	0	110	24	0	0	0	0	1	24	24	186
Total	0	4	1	355	61	0	0	0	0	1	58	63	543
08:00 AM	0	0	0	137	17	0	0	0	0	1	22	24	201
08:15 AM	0	2	1	112	18	0	0	0	0	0	20	23	176
08:30 AM	0	2	0	137	19	0	0	0	0	0	15	17	190
08:45 AM	0	3	2	107	29	0	0	0	0	0	41	15	197
Total	0	7	3	493	83	0	0	0	0	1	98	79	764
Grand Total	0	11	4	848	144	0	0	0	0	2	156	142	1307
Apprch %	0	73.3	26.7	85.5	14.5	0	0	0	0	0.7	52	47.3	
Total %	0	0.8	0.3	64.9	11	0	0	0	0	0.2	11.9	10.9	

	Wordsworth St From North				Veranda St From East				Route 295 SB On Ramp From South				Veranda St From West				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	137	17	0	154	0	0	0	0	1	22	24	47	201
08:15 AM	0	2	1	3	112	18	0	130	0	0	0	0	0	20	23	43	176
08:30 AM	0	2	0	2	137	19	0	156	0	0	0	0	0	15	17	32	190
08:45 AM	0	3	2	5	107	29	0	136	0	0	0	0	0	41	15	56	197
Total Volume	0	7	3	10	493	83	0	576	0	0	0	0	1	98	79	178	764
% App. Total	0	70	30		85.6	14.4	0		0	0	0		0.6	55.1	44.4		
PHF	.000	.583	.375	.500	.900	.716	.000	.923	.000	.000	.000	.000	.250	.598	.823	.795	.950

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

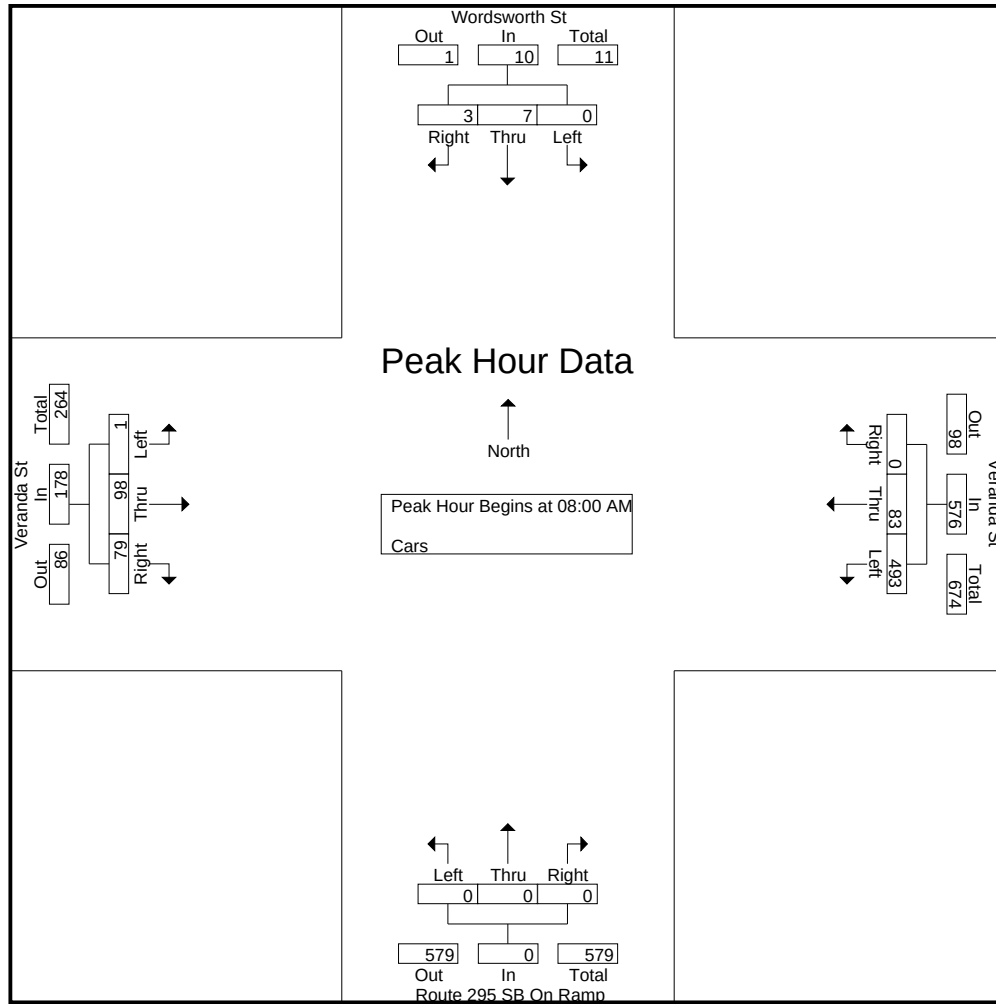
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				07:00 AM				08:00 AM			
+0 mins.	0	0	0	0	137	17	0	154	0	0	0	0	1	22	24	47
+15 mins.	0	2	1	3	112	18	0	130	0	0	0	0	0	20	23	43
+30 mins.	0	2	0	2	137	19	0	156	0	0	0	0	0	15	17	32
+45 mins.	0	3	2	5	107	29	0	136	0	0	0	0	0	41	15	56
Total Volume	0	7	3	10	493	83	0	576	0	0	0	0	1	98	79	178
% App. Total	0	70	30		85.6	14.4	0		0	0	0		0.6	55.1	44.4	
PHF	.000	.583	.375	.500	.900	.716	.000	.923	.000	.000	.000	.000	.250	.598	.823	.795

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

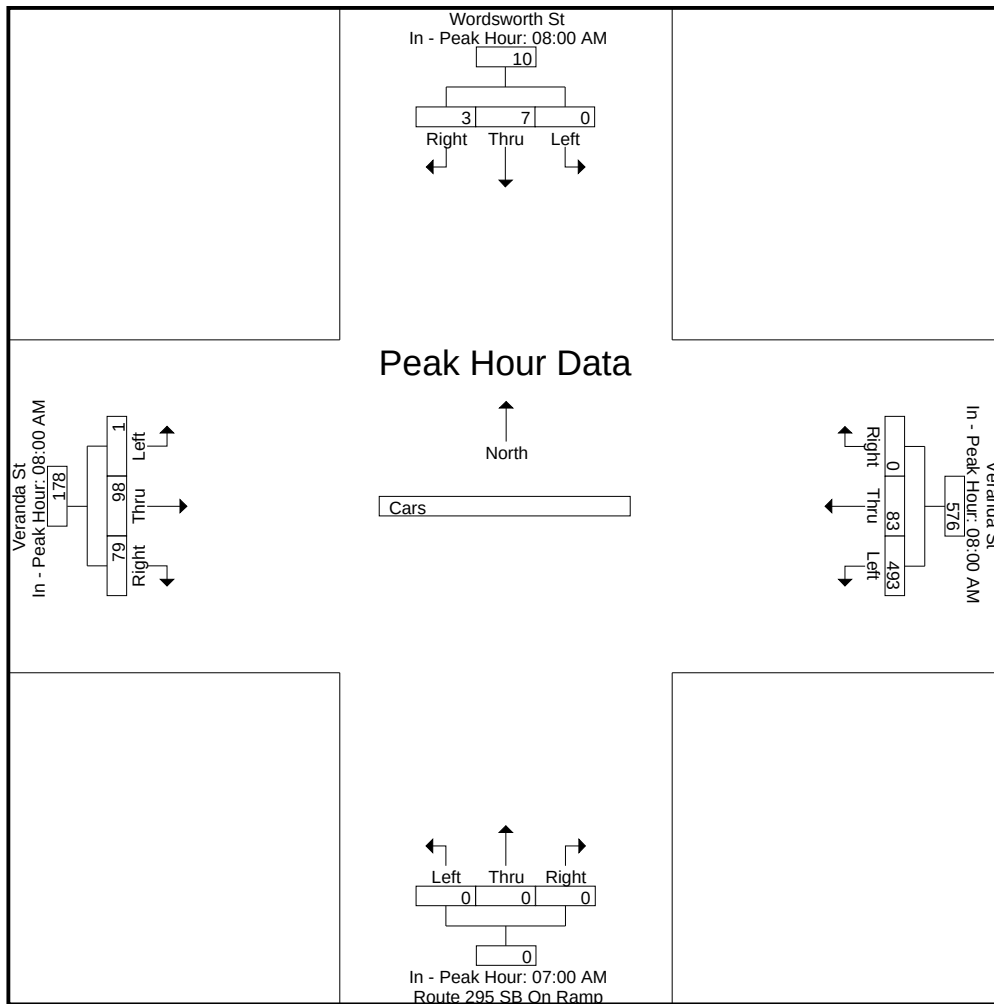
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 6



Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

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Groups Printed- Trucks

	Wordsworth St From North			Veranda St From East			Route 295 SB On Ramp From South			Veranda St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
07:45 AM	0	0	0	0	1	0	0	0	0	0	1	1	3
Total	0	0	0	0	3	0	0	0	0	0	3	1	7
08:00 AM	0	0	0	2	0	0	0	0	0	0	2	0	4
08:15 AM	0	0	0	0	1	0	0	0	0	0	2	0	3
08:30 AM	0	0	0	1	1	0	0	0	0	0	2	0	4
08:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	4	2	0	0	0	0	0	6	0	12
Grand Total	0	0	0	4	5	0	0	0	0	0	9	1	19
Apprch %	0	0	0	44.4	55.6	0	0	0	0	0	90	10	
Total %	0	0	0	21.1	26.3	0	0	0	0	0	47.4	5.3	

	Wordsworth St From North				Veranda St From East				Route 295 SB On Ramp From South				Veranda St From West				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2	3
08:00 AM	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	2	4
08:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
08:30 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	2	0	2	4
Total Volume	0	0	0	0	3	3	0	6	0	0	0	0	0	7	1	8	14
% App. Total	0	0	0		50	50	0		0	0	0		0	87.5	12.5		
PHF	.000	.000	.000	.000	.375	.750	.000	.750	.000	.000	.000	.000	.000	.875	.250	1.00	.875

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

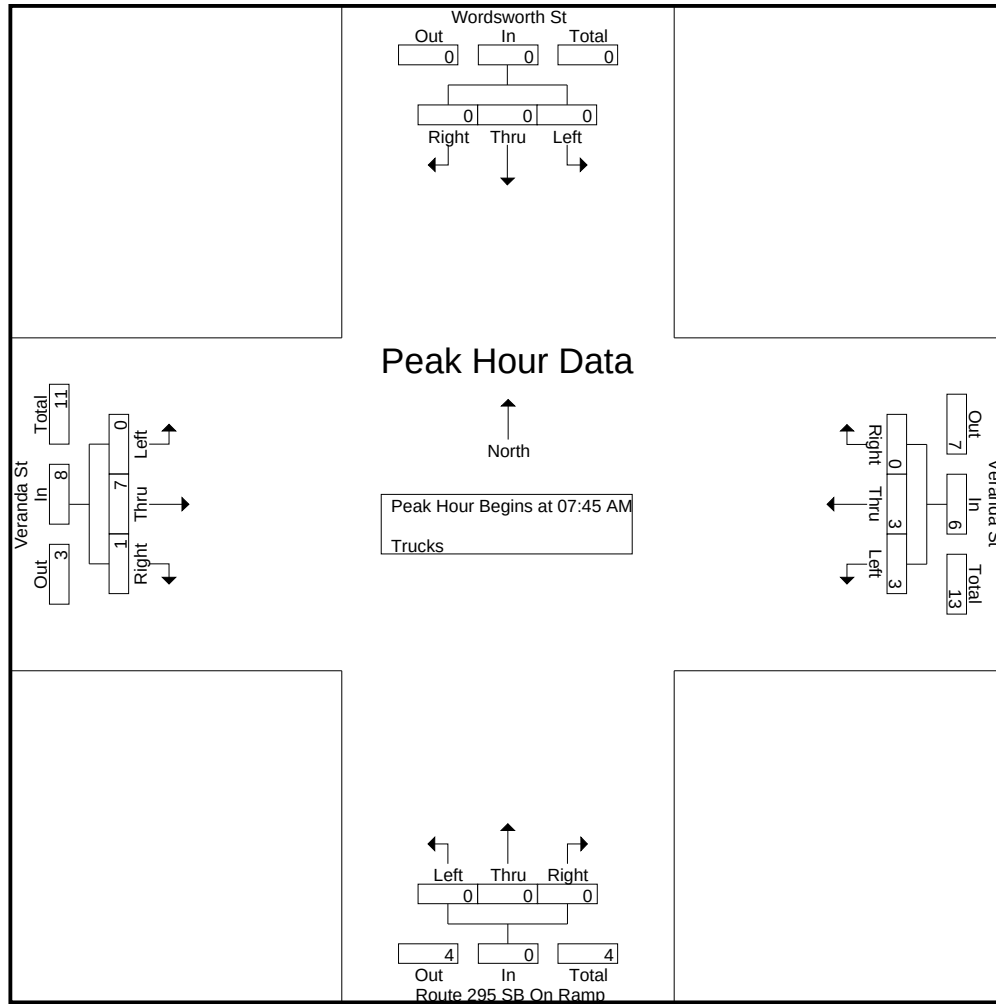
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:00 AM				07:45 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2
+15 mins.	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	1	1	0	2	0	0	0	0	0	2	0	2
Total Volume	0	0	0	0	3	3	0	6	0	0	0	0	0	7	1	8
% App. Total	0	0	0	0	50	50	0		0	0	0	0	0	87.5	12.5	
PHF	.000	.000	.000	.000	.375	.750	.000	.750	.000	.000	.000	.000	.000	.875	.250	1.000

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

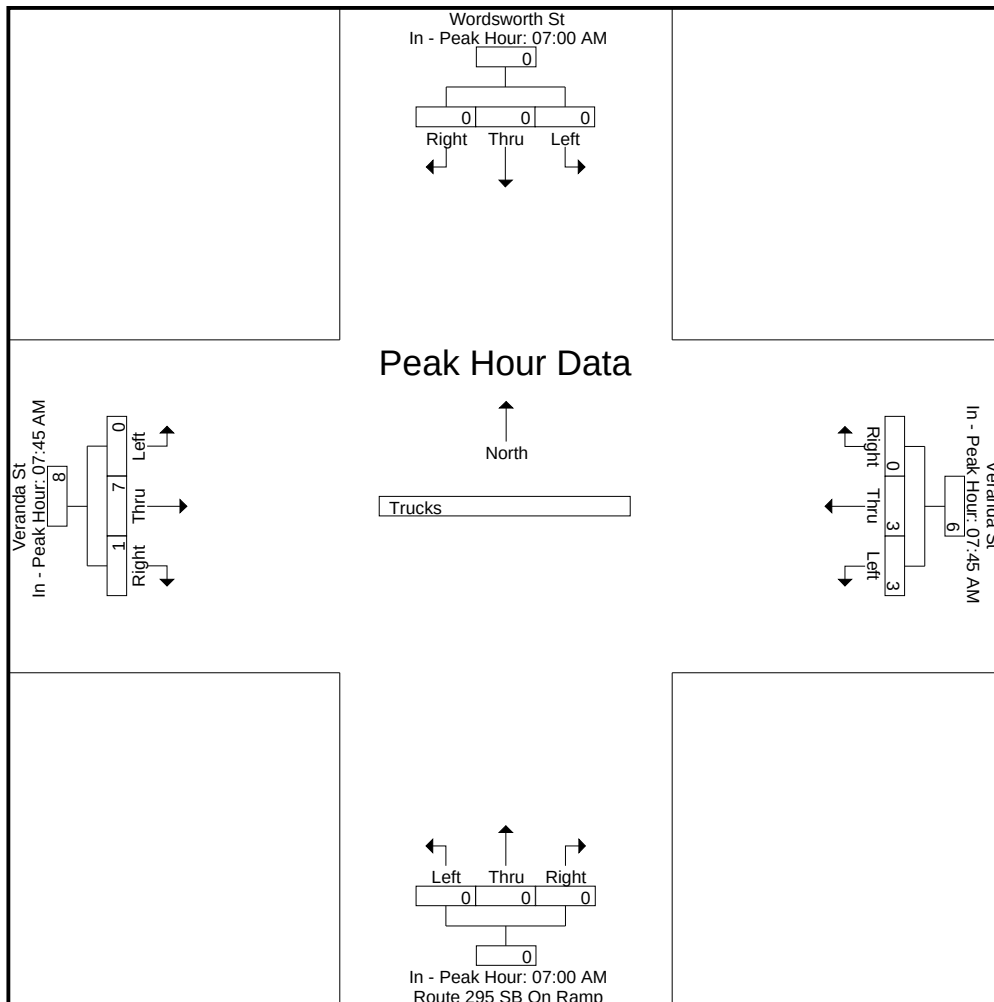
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 9



Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 10

Groups Printed- Bikes Peds

	Wordsworth St From North				Veranda St From East				Route 295 SB On Ramp From South				Veranda St From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
07:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	2
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	1	0	0	5	0	0	0	0	0	0	0	1	0	0	0	7	7
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
08:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	3	3	6
08:45 AM	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	2	1	3
Total	0	0	0	2	0	2	0	0	0	0	0	5	0	3	0	0	7	5	12
Grand Total	0	0	1	2	0	7	0	0	0	0	0	5	0	4	0	0	7	12	19
Apprch %	0	0	100		0	100	0		0	0	0		0	100	0				
Total %	0	0	8.3		0	58.3	0		0	0	0		0	33.3	0		36.8	63.2	

	Wordsworth St From North				Veranda St From East				Route 295 SB On Ramp From South				Veranda St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	1	1	0	5	0	5	0	0	0	0	0	1	0	1	7
% App. Total	0	0	100		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.250	.250	.000	.625	.000	.625	.000	.000	.000	.000	.000	.250	.000	.250	.875

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

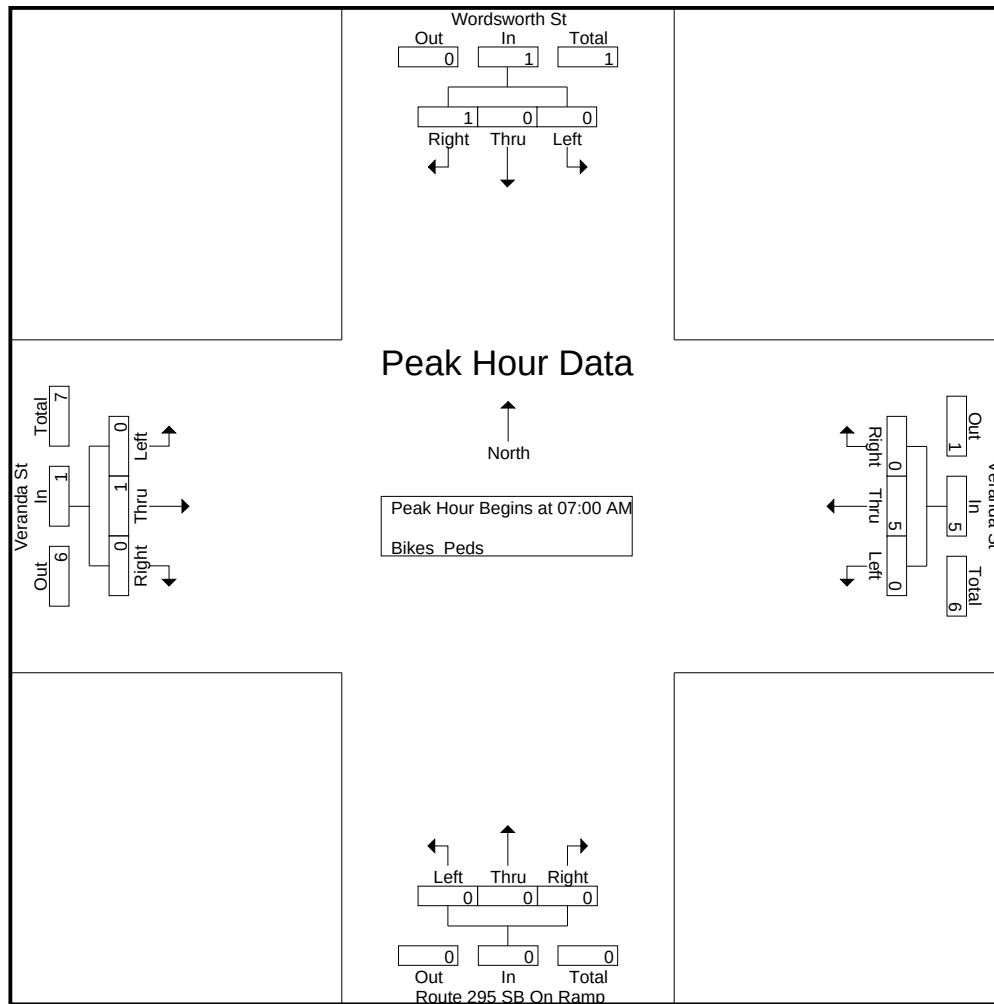
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 11



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:45 AM			
+0 mins.	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3
Total Volume	0	0	1	1	0	5	0	5	0	0	0	0	0	3	0	3
% App. Total	0	0	100		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.250	.250	.000	.625	.000	.625	.000	.000	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

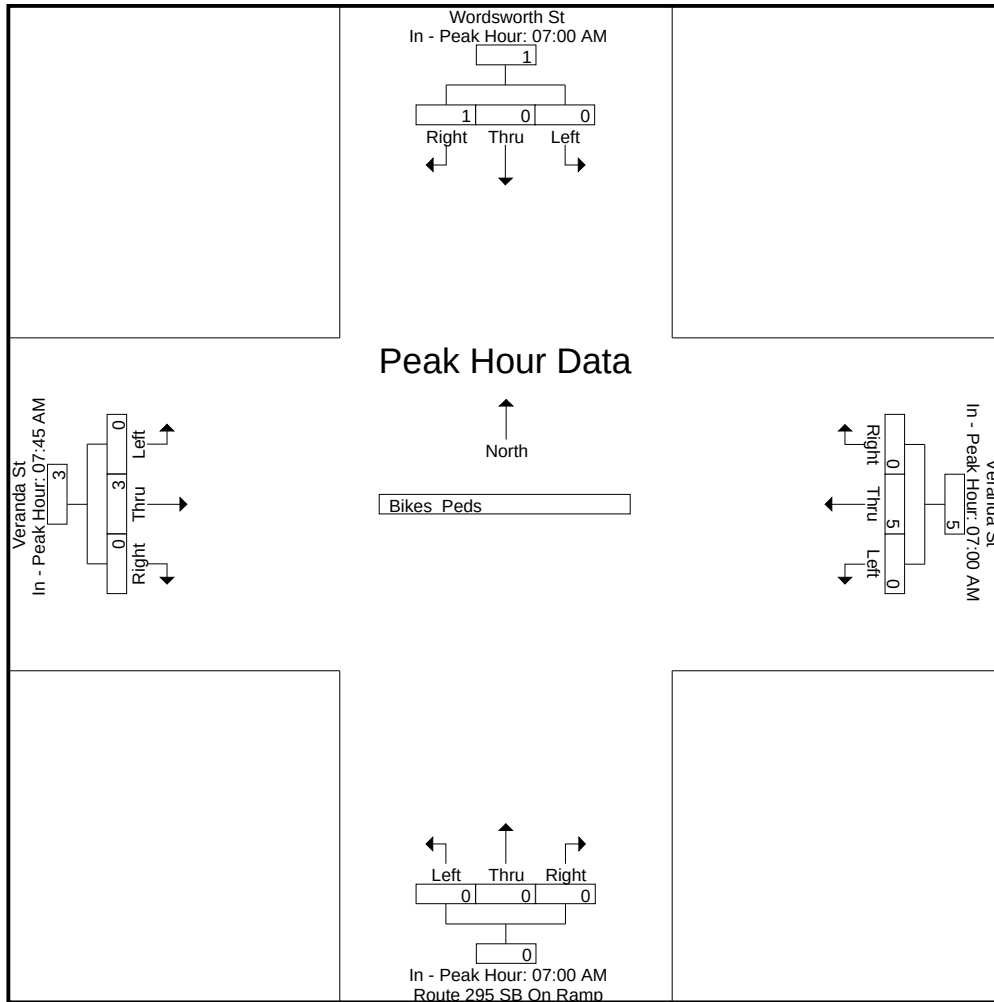
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 12



Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 1

Groups Printed- Cars - Trucks

	Wordsworth St From North			Veranda St From East			Route 295 SB On Ramp From South			Veranda St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
03:00 PM	1	0	1	144	27	1	0	0	0	1	28	5	208
03:15 PM	0	0	1	113	31	0	0	0	0	0	29	5	179
03:30 PM	0	0	1	149	37	1	0	0	0	1	23	12	224
03:45 PM	0	0	1	111	35	2	0	0	0	0	29	10	188
Total	1	0	4	517	130	4	0	0	0	2	109	32	799
04:00 PM	0	3	2	138	37	2	0	0	0	5	19	11	217
04:15 PM	1	1	2	107	28	0	0	0	0	2	20	13	174
04:30 PM	0	2	0	134	34	0	0	0	0	4	18	12	204
04:45 PM	1	0	0	124	36	1	0	0	0	0	21	15	198
Total	2	6	4	503	135	3	0	0	0	11	78	51	793
05:00 PM	2	2	2	114	44	0	0	0	0	3	19	15	201
05:15 PM	0	1	2	124	32	1	0	0	0	2	20	11	193
05:30 PM	0	2	0	103	36	2	0	0	0	3	18	10	174
05:45 PM	0	3	1	84	29	2	0	0	0	2	14	15	150
Total	2	8	5	425	141	5	0	0	0	10	71	51	718
Grand Total	5	14	13	1445	406	12	0	0	0	23	258	134	2310
Apprch %	15.6	43.8	40.6	77.6	21.8	0.6	0	0	0	5.5	62.2	32.3	
Total %	0.2	0.6	0.6	62.6	17.6	0.5	0	0	0	1	11.2	5.8	
Cars	5	14	13	1438	400	12	0	0	0	23	254	132	2291
% Cars	100	100	100	99.5	98.5	100	0	0	0	100	98.4	98.5	99.2
Trucks	0	0	0	7	6	0	0	0	0	0	4	2	19
% Trucks	0	0	0	0.5	1.5	0	0	0	0	0	1.6	1.5	0.8

	Wordsworth St From North				Veranda St From East				Route 295 SB On Ramp From South				Veranda St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	0	0	1	1	113	31	0	144	0	0	0	0	0	29	5	34	179
03:30 PM	0	0	1	1	149	37	1	187	0	0	0	0	1	23	12	36	224
03:45 PM	0	0	1	1	111	35	2	148	0	0	0	0	0	29	10	39	188
04:00 PM	0	3	2	5	138	37	2	177	0	0	0	0	5	19	11	35	217
Total Volume	0	3	5	8	511	140	5	656	0	0	0	0	6	100	38	144	808
% App. Total	0	37.5	62.5		77.9	21.3	0.8		0	0	0		4.2	69.4	26.4		
PHF	.000	.250	.625	.400	.857	.946	.625	.877	.000	.000	.000	.000	.300	.862	.792	.923	.902
Cars	0	3	5	8	506	137	5	648	0	0	0	0	6	99	37	142	798
% Cars	0	100	100	100	99.0	97.9	100	98.8	0	0	0	0	100	99.0	97.4	98.6	98.8
Trucks	0	0	0	0	5	3	0	8	0	0	0	0	0	1	1	2	10
% Trucks	0	0	0	0	1.0	2.1	0	1.2	0	0	0	0	0	1.0	2.6	1.4	1.2

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

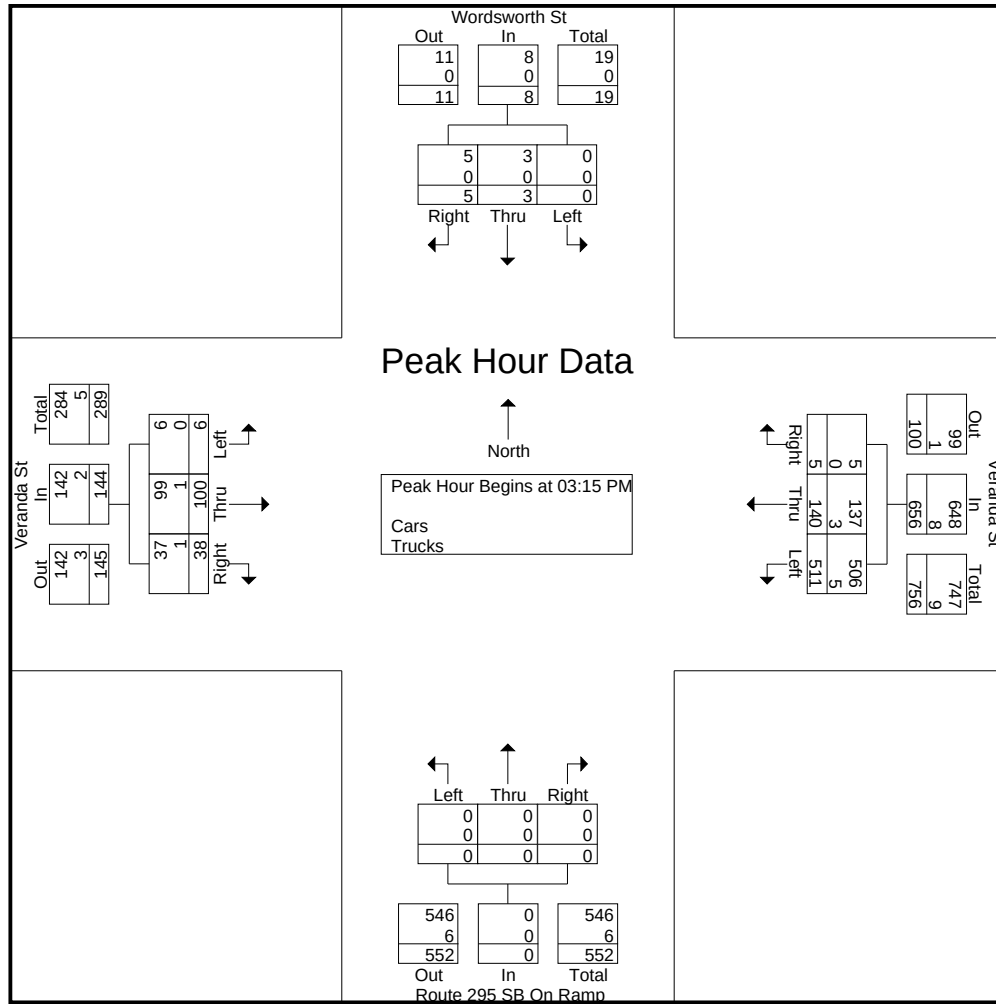
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM				03:15 PM				03:00 PM				03:30 PM			
+0 mins.	2	2	2	6	113	31	0	144	0	0	0	0	1	23	12	36
+15 mins.	0	1	2	3	149	37	1	187	0	0	0	0	0	29	10	39
+30 mins.	0	2	0	2	111	35	2	148	0	0	0	0	5	19	11	35
+45 mins.	0	3	1	4	138	37	2	177	0	0	0	0	2	20	13	35
Total Volume	2	8	5	15	511	140	5	656	0	0	0	0	8	91	46	145
% App. Total	13.3	53.3	33.3		77.9	21.3	0.8		0	0	0		5.5	62.8	31.7	
PHF	.250	.667	.625	.625	.857	.946	.625	.877	.000	.000	.000	.000	.400	.784	.885	.929
Cars	2	8	5	15	506	137	5	648	0	0	0	0	8	90	45	143
% Cars	100	100	100	100	99	97.9	100	98.8	0	0	0	0	100	98.9	97.8	98.6
Trucks	0	0	0	0	5	3	0	8	0	0	0	0	0	1	1	2
% Trucks	0	0	0	0	1	2.1	0	1.2	0	0	0	0	0	1.1	2.2	1.4

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

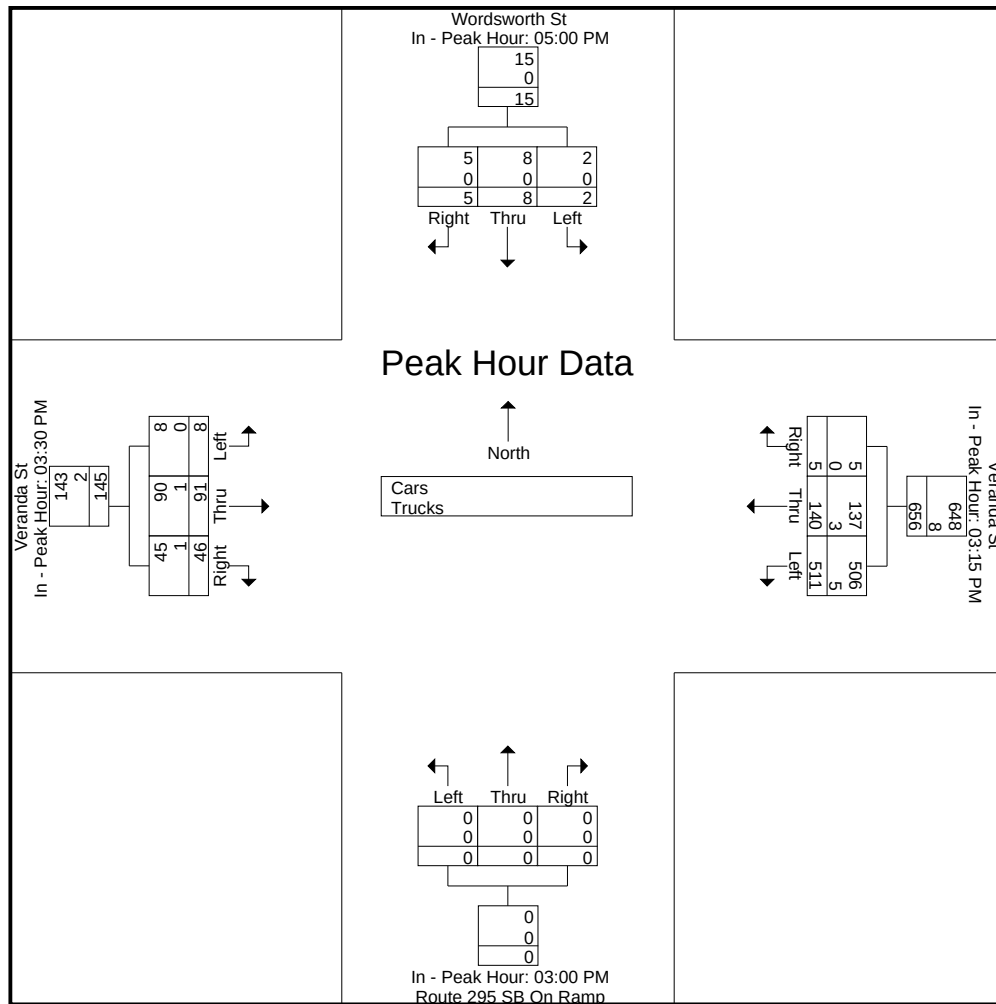
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 3



Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 4

Groups Printed- Cars

	Wordsworth St From North			Veranda St From East			Route 295 SB On Ramp From South			Veranda St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
03:00 PM	1	0	1	143	27	1	0	0	0	1	28	5	207
03:15 PM	0	0	1	112	29	0	0	0	0	0	29	5	176
03:30 PM	0	0	1	148	37	1	0	0	0	1	23	12	223
03:45 PM	0	0	1	110	35	2	0	0	0	0	28	9	185
Total	1	0	4	513	128	4	0	0	0	2	108	31	791
04:00 PM	0	3	2	136	36	2	0	0	0	5	19	11	214
04:15 PM	1	1	2	107	27	0	0	0	0	2	20	13	173
04:30 PM	0	2	0	133	34	0	0	0	0	4	17	12	202
04:45 PM	1	0	0	124	36	1	0	0	0	0	20	15	197
Total	2	6	4	500	133	3	0	0	0	11	76	51	786
05:00 PM	2	2	2	114	44	0	0	0	0	3	19	14	200
05:15 PM	0	1	2	124	30	1	0	0	0	2	20	11	191
05:30 PM	0	2	0	103	36	2	0	0	0	3	17	10	173
05:45 PM	0	3	1	84	29	2	0	0	0	2	14	15	150
Total	2	8	5	425	139	5	0	0	0	10	70	50	714
Grand Total	5	14	13	1438	400	12	0	0	0	23	254	132	2291
Apprch %	15.6	43.8	40.6	77.7	21.6	0.6	0	0	0	5.6	62.1	32.3	
Total %	0.2	0.6	0.6	62.8	17.5	0.5	0	0	0	1	11.1	5.8	

	Wordsworth St From North				Veranda St From East				Route 295 SB On Ramp From South				Veranda St From West				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	0	0	1	1	112	29	0	141	0	0	0	0	0	29	5	34	176
03:30 PM	0	0	1	1	148	37	1	186	0	0	0	0	1	23	12	36	223
03:45 PM	0	0	1	1	110	35	2	147	0	0	0	0	0	28	9	37	185
04:00 PM	0	3	2	5	136	36	2	174	0	0	0	0	5	19	11	35	214
Total Volume	0	3	5	8	506	137	5	648	0	0	0	0	6	99	37	142	798
% App. Total	0	37.5	62.5		78.1	21.1	0.8		0	0	0		4.2	69.7	26.1		
PHF	.000	.250	.625	.400	.855	.926	.625	.871	.000	.000	.000	.000	.300	.853	.771	.959	.895

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

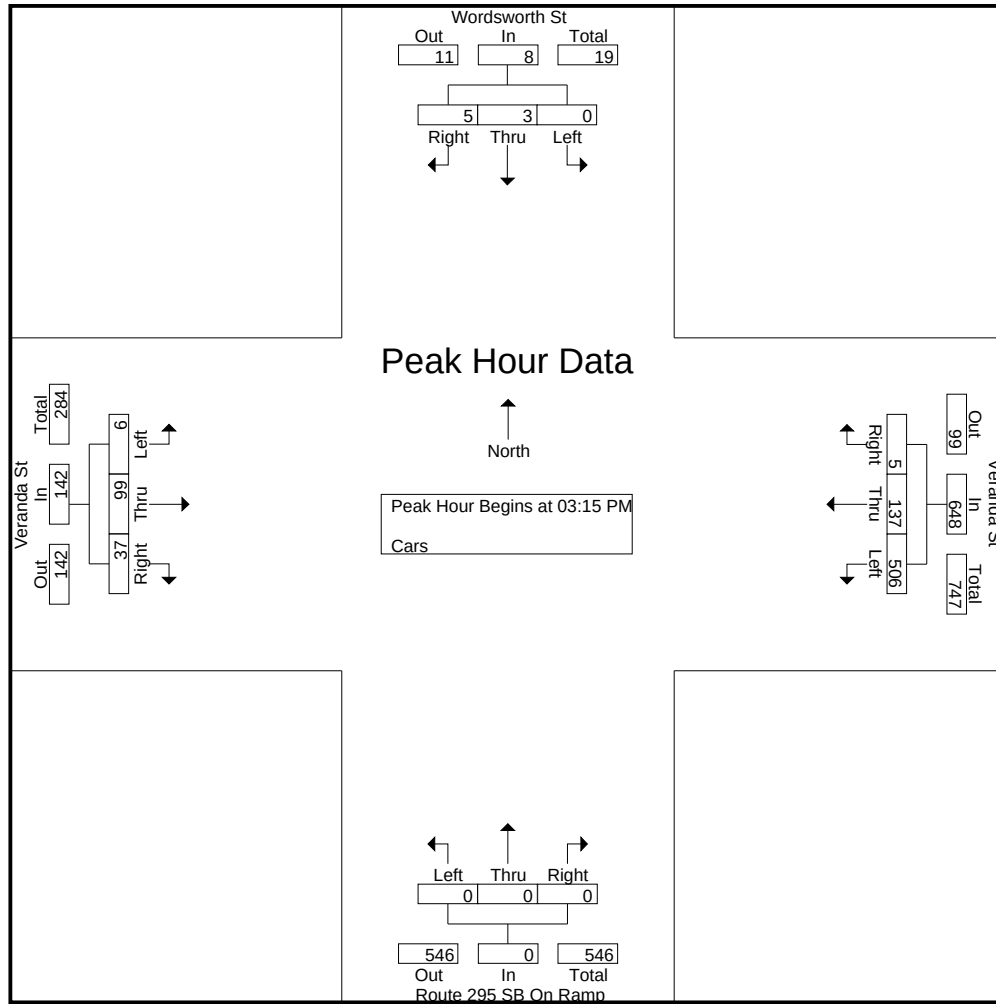
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 5



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM				03:15 PM				03:00 PM				03:30 PM			
+0 mins.	2	2	2	6	112	29	0	141	0	0	0	0	1	23	12	36
+15 mins.	0	1	2	3	148	37	1	186	0	0	0	0	0	28	9	37
+30 mins.	0	2	0	2	110	35	2	147	0	0	0	0	5	19	11	35
+45 mins.	0	3	1	4	136	36	2	174	0	0	0	0	2	20	13	35
Total Volume	2	8	5	15	506	137	5	648	0	0	0	0	8	90	45	143
% App. Total	13.3	53.3	33.3		78.1	21.1	0.8		0	0	0		5.6	62.9	31.5	
PHF	.250	.667	.625	.625	.855	.926	.625	.871	.000	.000	.000	.000	.400	.804	.865	.966

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

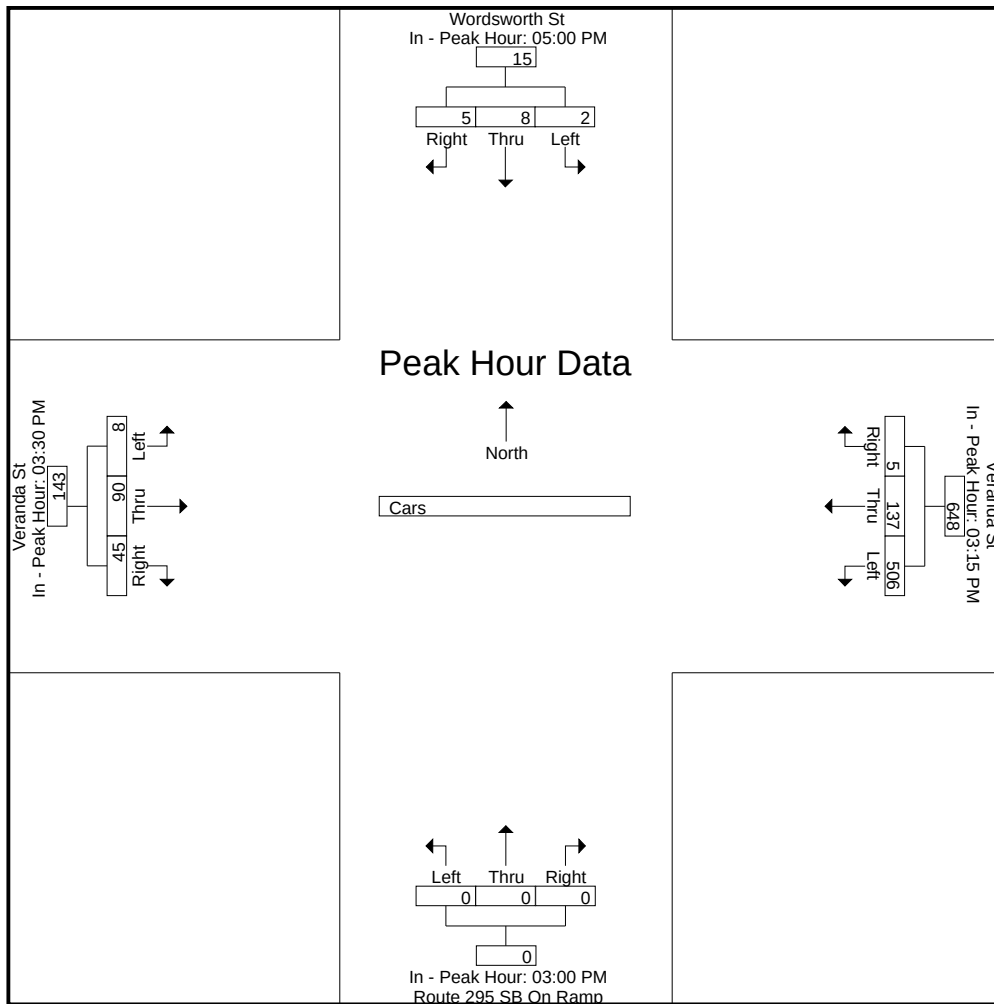
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 6



Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

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Groups Printed- Trucks

	Wordsworth St From North			Veranda St From East			Route 295 SB On Ramp From South			Veranda St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
03:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
03:15 PM	0	0	0	1	2	0	0	0	0	0	0	0	3
03:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
03:45 PM	0	0	0	1	0	0	0	0	0	0	1	1	3
Total	0	0	0	4	2	0	0	0	0	0	1	1	8
04:00 PM	0	0	0	2	1	0	0	0	0	0	0	0	3
04:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	1	0	0	0	0	0	0	1	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	3	2	0	0	0	0	0	2	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	0	0	0	0	0	1	1	4
Grand Total	0	0	0	7	6	0	0	0	0	0	4	2	19
Apprch %	0	0	0	53.8	46.2	0	0	0	0	0	66.7	33.3	
Total %	0	0	0	36.8	31.6	0	0	0	0	0	21.1	10.5	

	Wordsworth St From North				Veranda St From East				Route 295 SB On Ramp From South				Veranda St From West				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	3
03:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
03:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1	2	3
04:00 PM	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	3
Total Volume	0	0	0	0	5	3	0	8	0	0	0	0	0	1	1	2	10
% App. Total	0	0	0		62.5	37.5	0		0	0	0		0	50	50		
PHF	.000	.000	.000	.000	.625	.375	.000	.667	.000	.000	.000	.000	.000	.250	.250	.250	.833

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

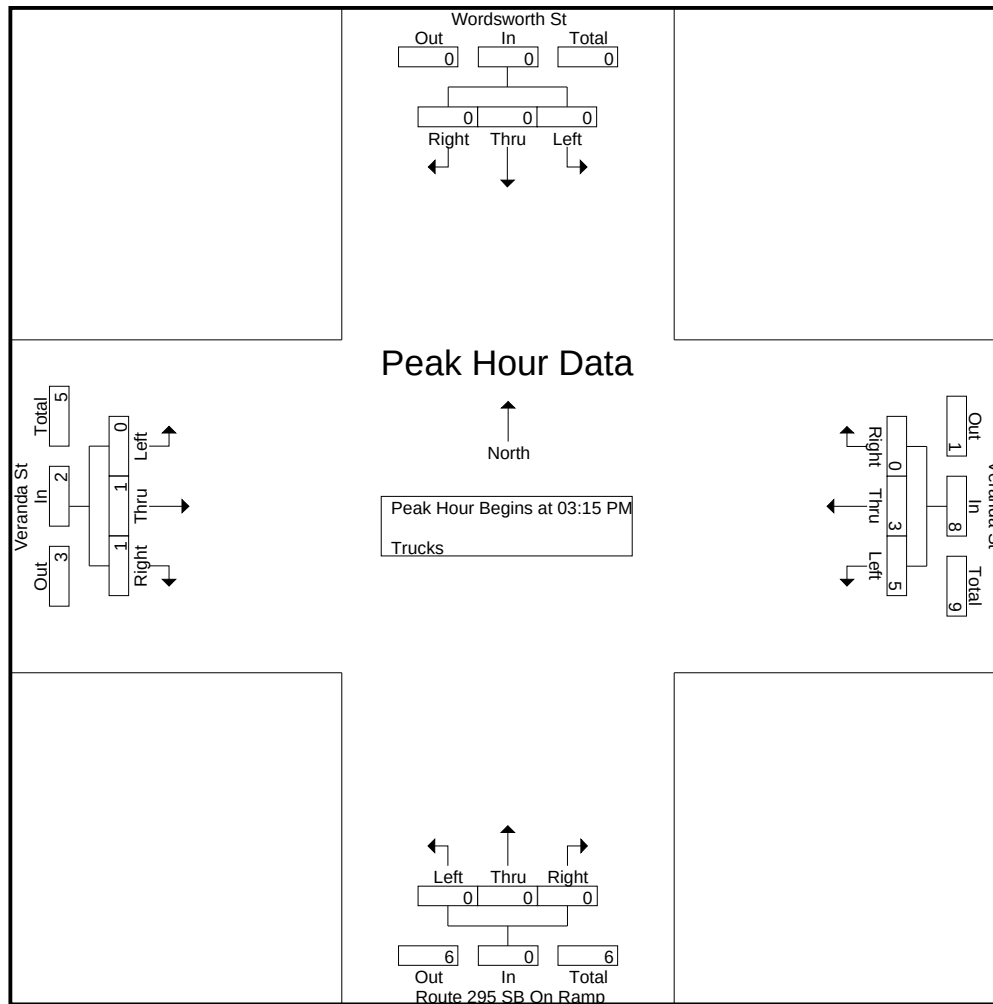
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 8



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:00 PM				03:15 PM				03:00 PM				03:45 PM			
+0 mins.	0	0	0	0	1	2	0	3	0	0	0	0	0	1	1	2
+15 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	2	1	0	3	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	5	3	0	8	0	0	0	0	0	2	1	3
% App. Total	0	0	0	0	62.5	37.5	0		0	0	0	0	0	66.7	33.3	
PHF	.000	.000	.000	.000	.625	.375	.000	.667	.000	.000	.000	.000	.000	.500	.250	.375

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

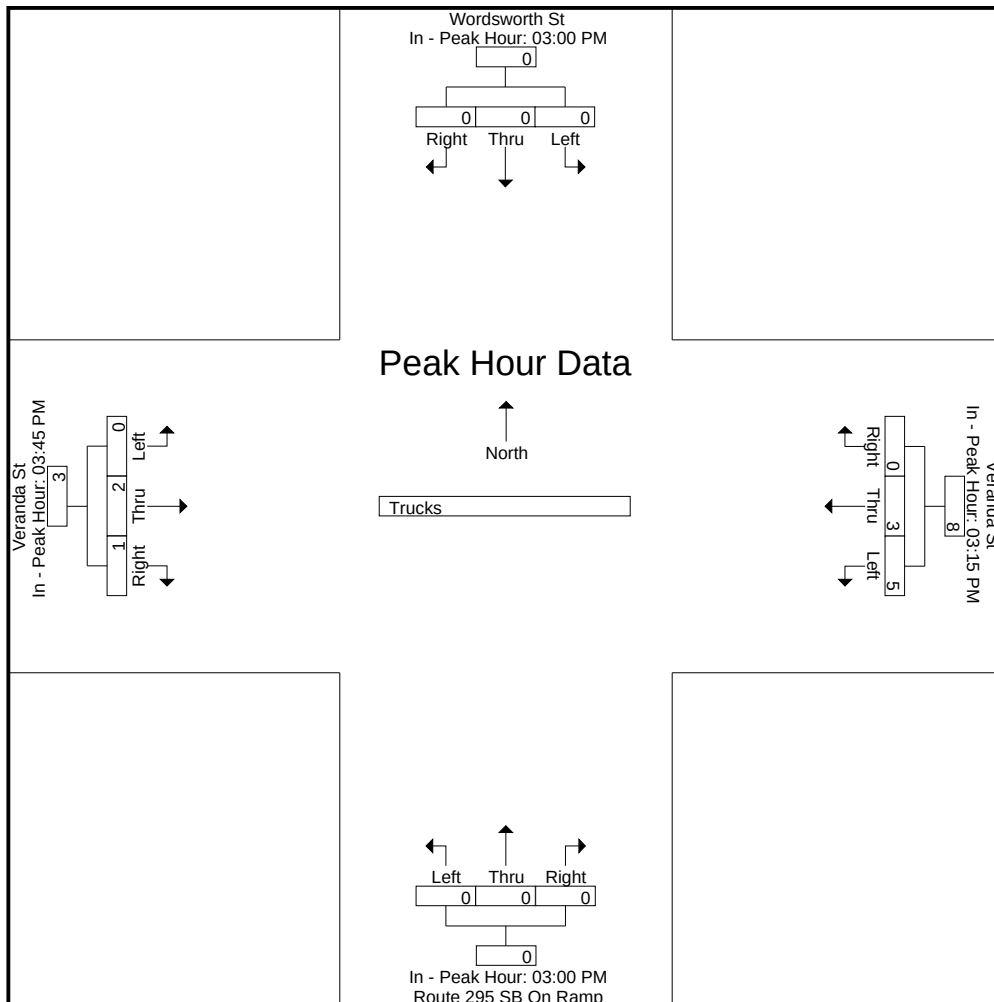
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 9



Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

Page No : 10

Groups Printed- Bikes Peds

	Wordsworth St From North				Veranda St From East				Route 295 SB On Ramp From South				Veranda St From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
03:45 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Total	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0	0	2	3	5
04:00 PM	0	0	0	1	0	2	0	0	0	0	0	0	0	2	0	0	1	4	5
04:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	1	2	3
04:30 PM	0	0	0	3	0	1	0	0	0	0	0	0	0	3	0	0	3	4	7
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2
Total	0	0	0	6	0	4	0	0	0	0	0	0	0	7	0	0	6	11	17
05:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	4	4
05:15 PM	0	0	0	4	0	1	0	1	0	0	0	0	0	1	0	0	5	2	7
05:30 PM	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	3	1	4
05:45 PM	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	4	1	5
Total	0	0	0	11	0	5	0	1	0	0	0	0	0	3	0	0	12	8	20
Grand Total	0	0	0	19	0	9	0	1	0	0	0	0	0	13	0	0	20	22	42
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0				
Total %	0	0	0		0	40.9	0		0	0	0		0	59.1	0		47.6	52.4	

	Wordsworth St From North				Veranda St From East				Route 295 SB On Ramp From South				Veranda St From West						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total			Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:00 PM																			
04:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2			4
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1			2
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3			4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1			1
Total Volume	0	0	0	0	0	4	0	4	0	0	0	0	0	7	0	7			11
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0				
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.583	.000	.583			.688

Accurate Counts

978-664-2565

N/S Street : Wordsworth St / Route 295 SB On Ramp

E/W Street : Veranda Street

City/State : Portland, ME

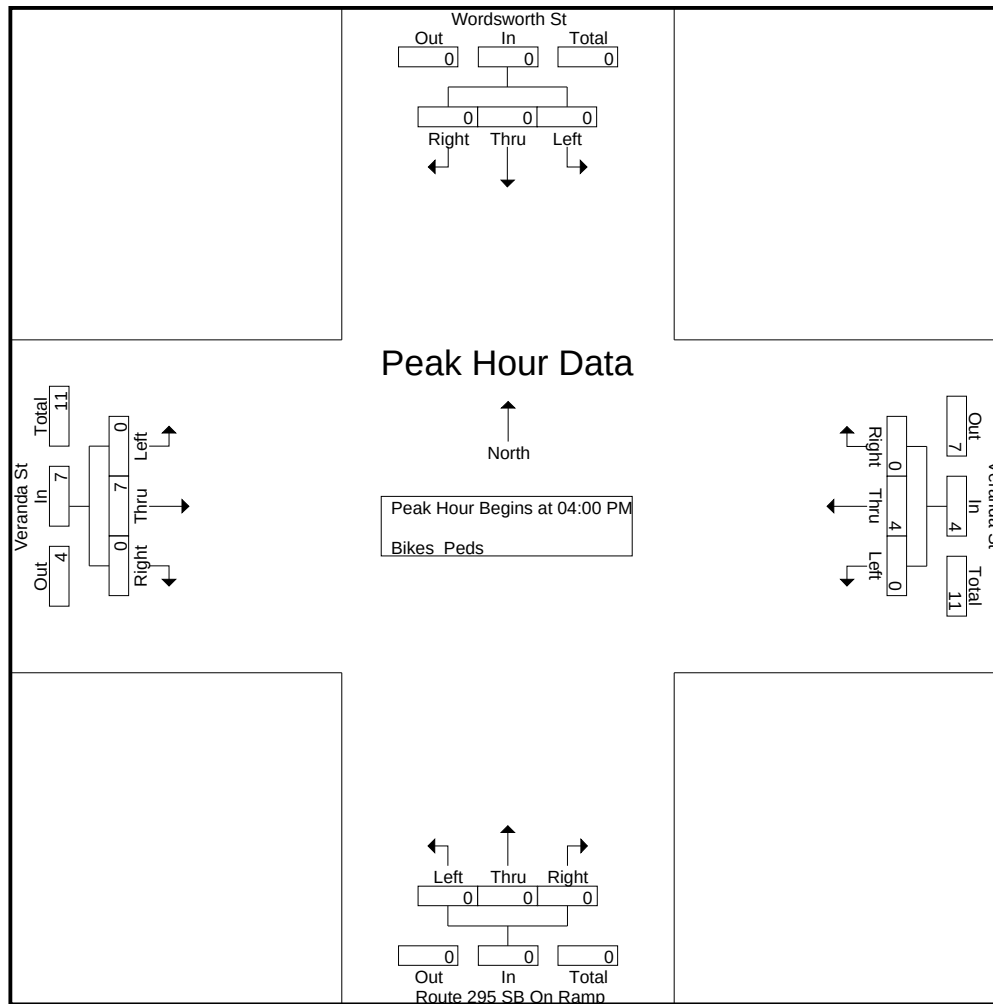
Weather : Clear

File Name : 10260003

Site Code : 10260003

Start Date : 5/25/2023

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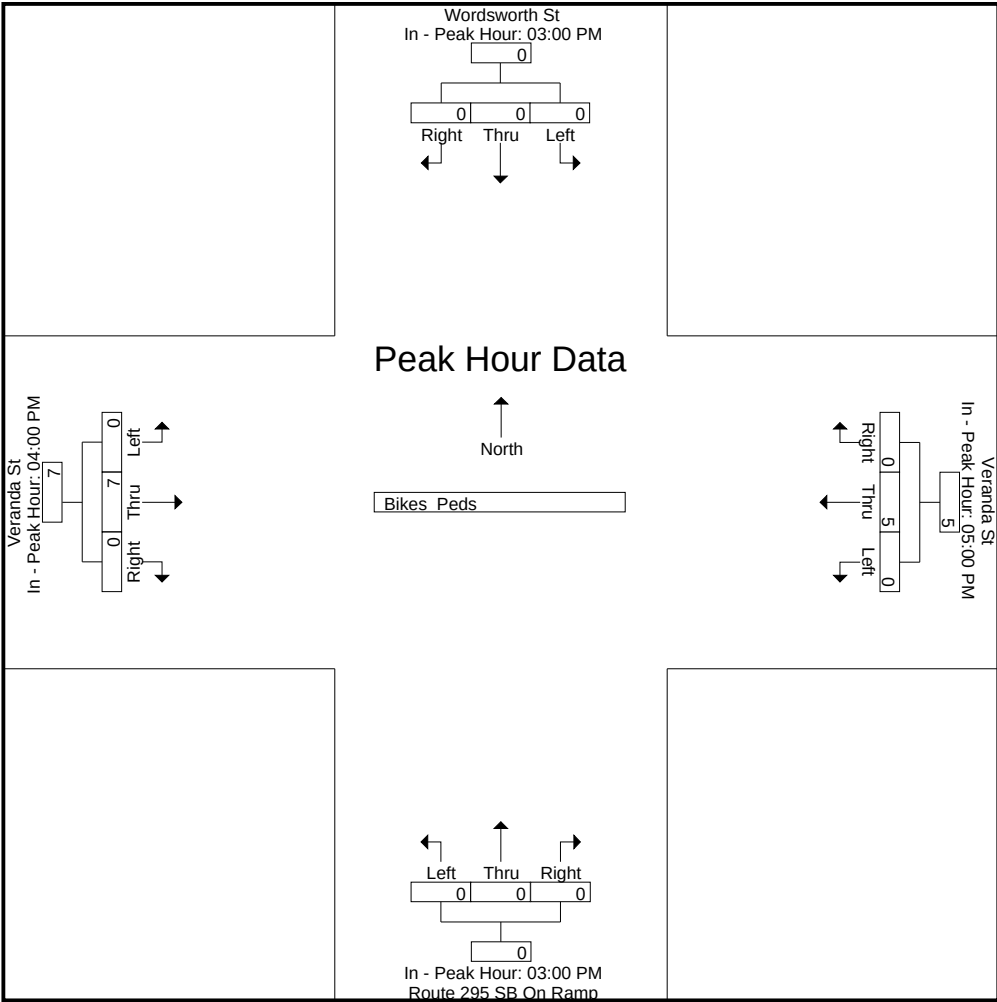
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:00 PM				05:00 PM				03:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	5	0	5	0	0	0	0	0	7	0	7
% App. Total	0	0	0	0	0	100	0		0	0	0	0	0	100	0	
PHF	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.000	.583	.000	.583

N/S Street : Wordsworth St / Route 295 SB On Ramp
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260003
Site Code : 10260003
Start Date : 5/25/2023
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Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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Groups Printed- Cars - Trucks

	Veranda St From East		Martins Point Second Dwy From South		Veranda St From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	2	70	0	0	49	0	121
07:15 AM	5	99	1	3	73	0	181
07:30 AM	8	104	0	0	76	1	189
07:45 AM	4	132	0	1	115	0	252
Total	19	405	1	4	313	1	743
08:00 AM	2	136	1	1	109	3	252
08:15 AM	5	127	1	3	110	1	247
08:30 AM	3	153	2	4	101	1	264
08:45 AM	9	125	3	3	113	1	254
Total	19	541	7	11	433	6	1017
Grand Total	38	946	8	15	746	7	1760
Apprch %	3.9	96.1	34.8	65.2	99.1	0.9	
Total %	2.2	53.8	0.5	0.9	42.4	0.4	
Cars	38	937	8	15	726	7	1731
% Cars	100	99	100	100	97.3	100	98.4
Trucks	0	9	0	0	20	0	29
% Trucks	0	1	0	0	2.7	0	1.6

	Veranda St From East			Martins Point Second Dwy From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	2	136	138	1	1	2	109	3	112	252
08:15 AM	5	127	132	1	3	4	110	1	111	247
08:30 AM	3	153	156	2	4	6	101	1	102	264
08:45 AM	9	125	134	3	3	6	113	1	114	254
Total Volume	19	541	560	7	11	18	433	6	439	1017
% App. Total	3.4	96.6		38.9	61.1		98.6	1.4		
PHF	.528	.884	.897	.583	.688	.750	.958	.500	.963	.963
Cars	19	535	554	7	11	18	420	6	426	998
% Cars	100	98.9	98.9	100	100	100	97.0	100	97.0	98.1
Trucks	0	6	6	0	0	0	13	0	13	19
% Trucks	0	1.1	1.1	0	0	0	3.0	0	3.0	1.9

Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

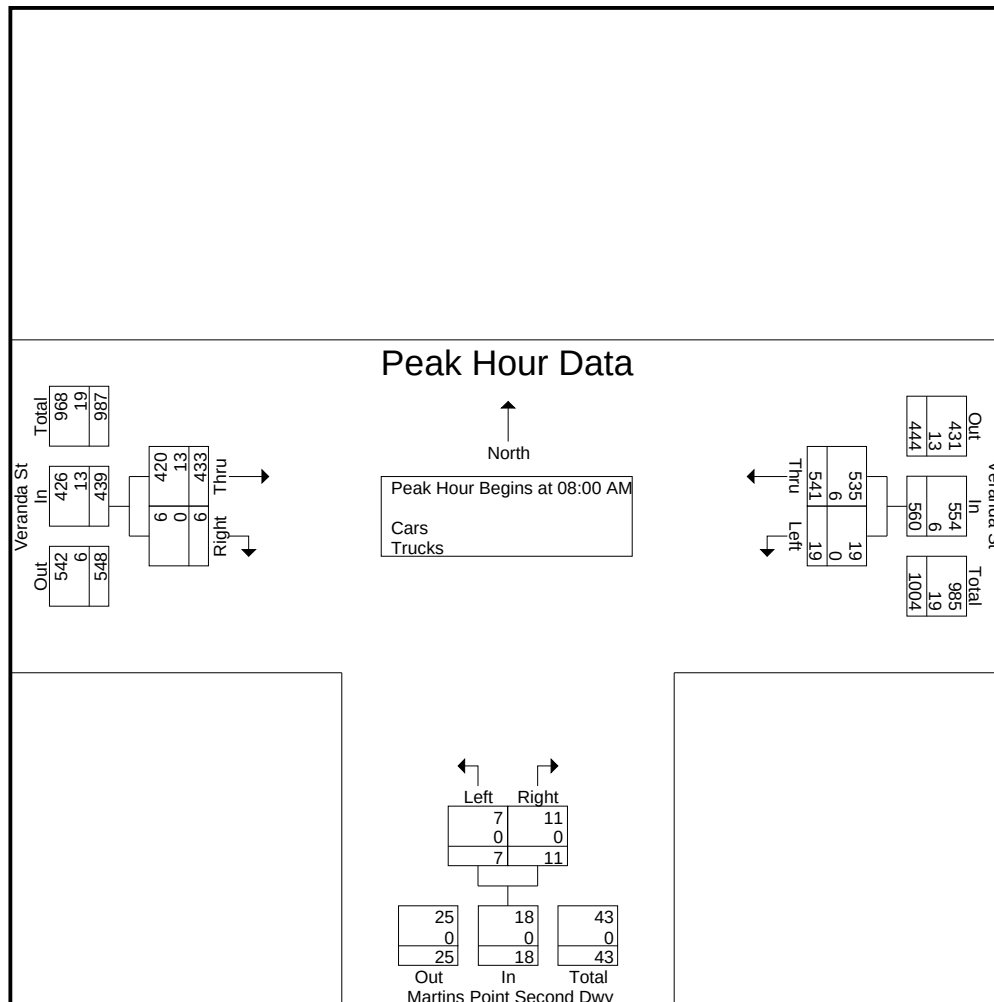
Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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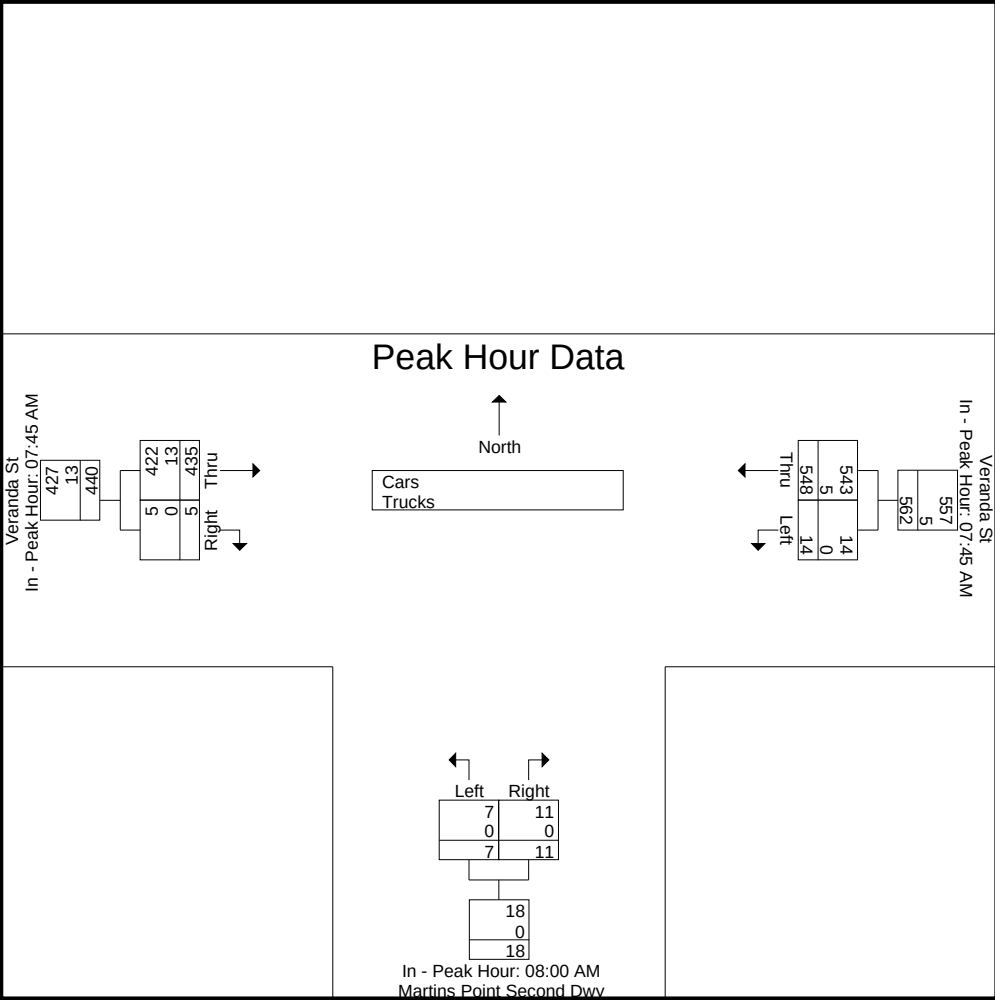
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			08:00 AM			07:45 AM		
+0 mins.	4	132	136	1	1	2	115	0	115
+15 mins.	2	136	138	1	3	4	109	3	112
+30 mins.	5	127	132	2	4	6	110	1	111
+45 mins.	3	153	156	3	3	6	101	1	102
Total Volume	14	548	562	7	11	18	435	5	440
% App. Total	2.5	97.5		38.9	61.1		98.9	1.1	
PHF	.700	.895	.901	.583	.688	.750	.946	.417	.957
Cars	14	543	557	7	11	18	422	5	427
% Cars	100	99.1	99.1	100	100	100	97	100	97
Trucks	0	5	5	0	0	0	13	0	13
% Trucks	0	0.9	0.9	0	0	0	3	0	3

N/S Street : Martins Point Second Driveway
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260004
Site Code : 10260004
Start Date : 5/25/2023
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Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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Groups Printed- Cars

	Veranda St From East		Martins Point Second Dwy From South		Veranda St From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	2	69	0	0	48	0	119
07:15 AM	5	99	1	3	71	0	179
07:30 AM	8	103	0	0	74	1	186
07:45 AM	4	131	0	1	113	0	249
Total	19	402	1	4	306	1	733
08:00 AM	2	134	1	1	106	3	247
08:15 AM	5	126	1	3	107	1	243
08:30 AM	3	152	2	4	96	1	258
08:45 AM	9	123	3	3	111	1	250
Total	19	535	7	11	420	6	998
Grand Total	38	937	8	15	726	7	1731
Apprch %	3.9	96.1	34.8	65.2	99	1	
Total %	2.2	54.1	0.5	0.9	41.9	0.4	

	Veranda St From East			Martins Point Second Dwy From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	2	134	136	1	1	2	106	3	109	247
08:15 AM	5	126	131	1	3	4	107	1	108	243
08:30 AM	3	152	155	2	4	6	96	1	97	258
08:45 AM	9	123	132	3	3	6	111	1	112	250
Total Volume	19	535	554	7	11	18	420	6	426	998
% App. Total	3.4	96.6		38.9	61.1		98.6	1.4		
PHF	.528	.880	.894	.583	.688	.750	.946	.500	.951	.967

Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

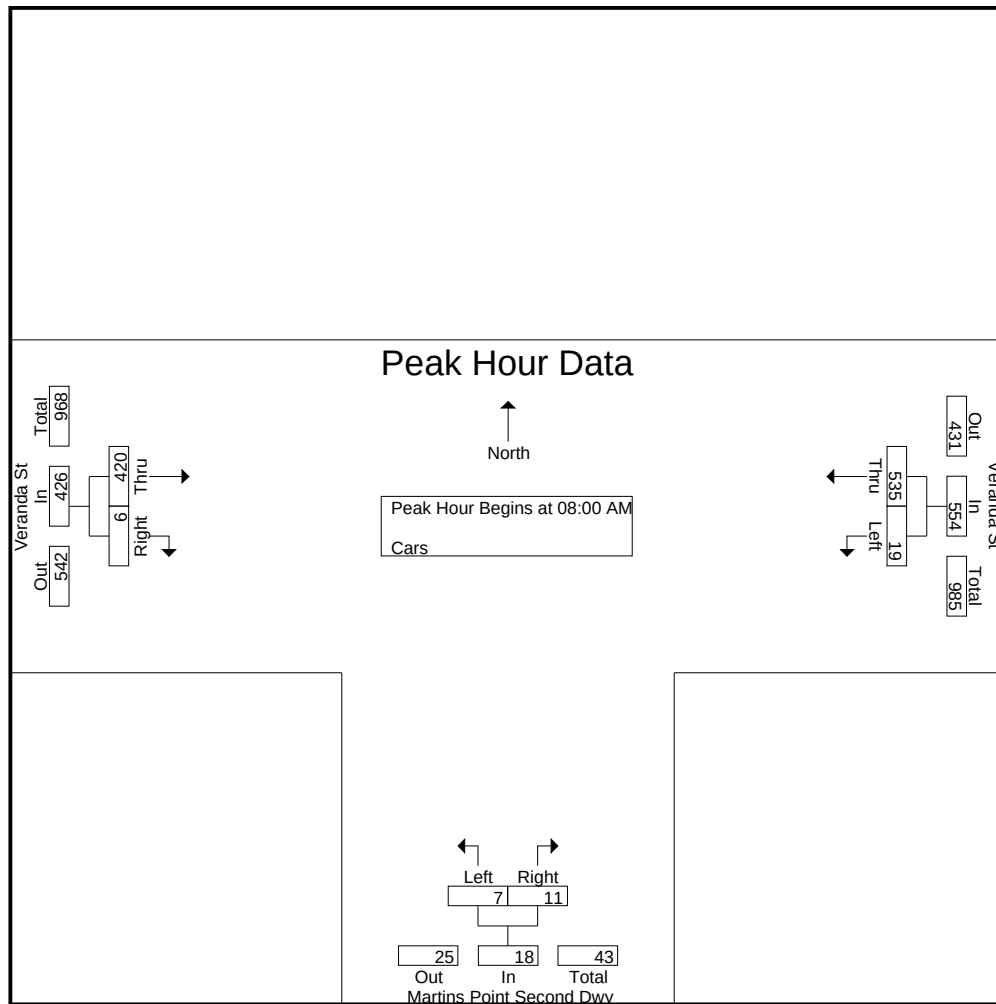
Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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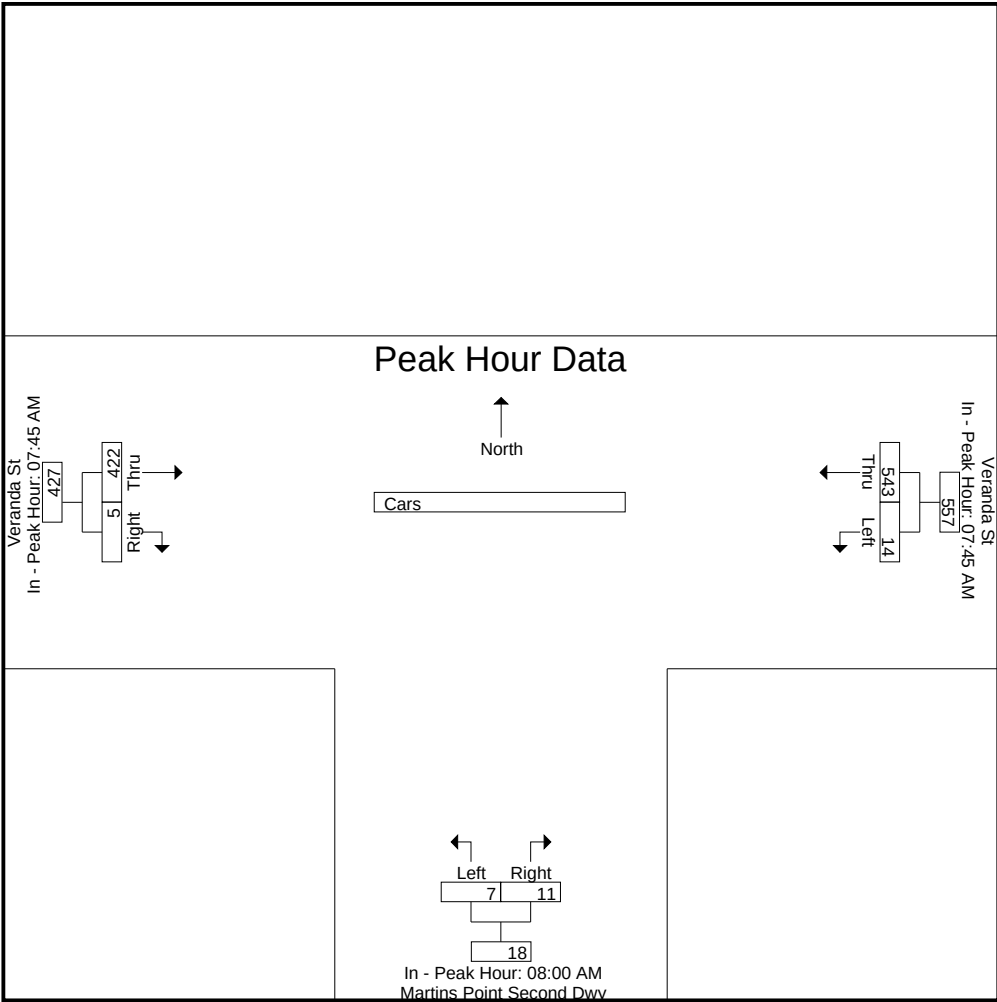
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			08:00 AM			07:45 AM		
+0 mins.	4	131	135	1	1	2	113	0	113
+15 mins.	2	134	136	1	3	4	106	3	109
+30 mins.	5	126	131	2	4	6	107	1	108
+45 mins.	3	152	155	3	3	6	96	1	97
Total Volume	14	543	557	7	11	18	422	5	427
% App. Total	2.5	97.5		38.9	61.1		98.8	1.2	
PHF	.700	.893	.898	.583	.688	.750	.934	.417	.945

N/S Street : Martins Point Second Driveway
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260004
Site Code : 10260004
Start Date : 5/25/2023
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Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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Groups Printed- Trucks

	Veranda St From East		Martins Point Second Dwy From South			Veranda St From West		
Start Time	Left	Thru	Left	Right		Thru	Right	Int. Total
07:00 AM	0	1	0	0		1	0	2
07:15 AM	0	0	0	0		2	0	2
07:30 AM	0	1	0	0		2	0	3
07:45 AM	0	1	0	0		2	0	3
Total	0	3	0	0		7	0	10
08:00 AM	0	2	0	0		3	0	5
08:15 AM	0	1	0	0		3	0	4
08:30 AM	0	1	0	0		5	0	6
08:45 AM	0	2	0	0		2	0	4
Total	0	6	0	0		13	0	19
Grand Total	0	9	0	0		20	0	29
Apprch %	0	100	0	0		100	0	
Total %	0	31	0	0		69	0	

	Veranda St From East			Martins Point Second Dwy From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	2	2	0	0	0	3	0	3	5
08:15 AM	0	1	1	0	0	0	3	0	3	4
08:30 AM	0	1	1	0	0	0	5	0	5	6
08:45 AM	0	2	2	0	0	0	2	0	2	4
Total Volume	0	6	6	0	0	0	13	0	13	19
% App. Total	0	100		0	0		100	0		
PHF	.000	.750	.750	.000	.000	.000	.650	.000	.650	.792

Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

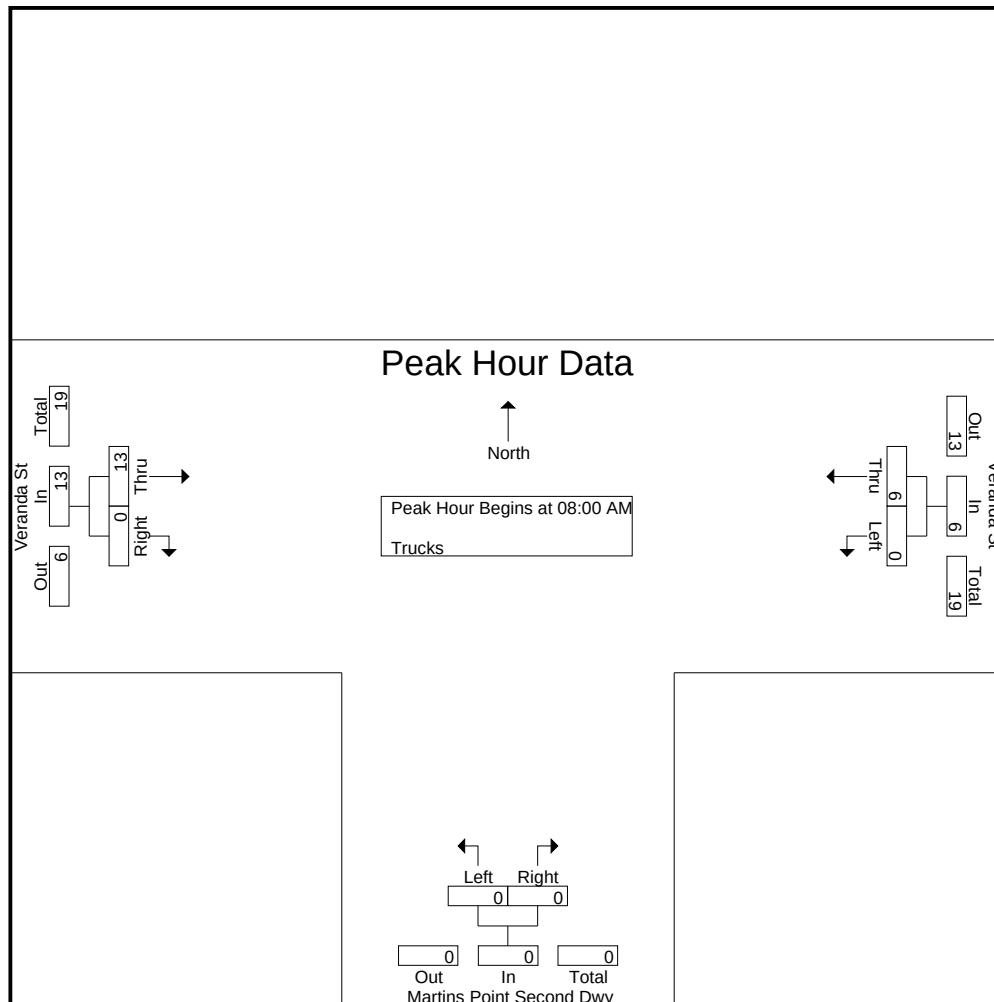
Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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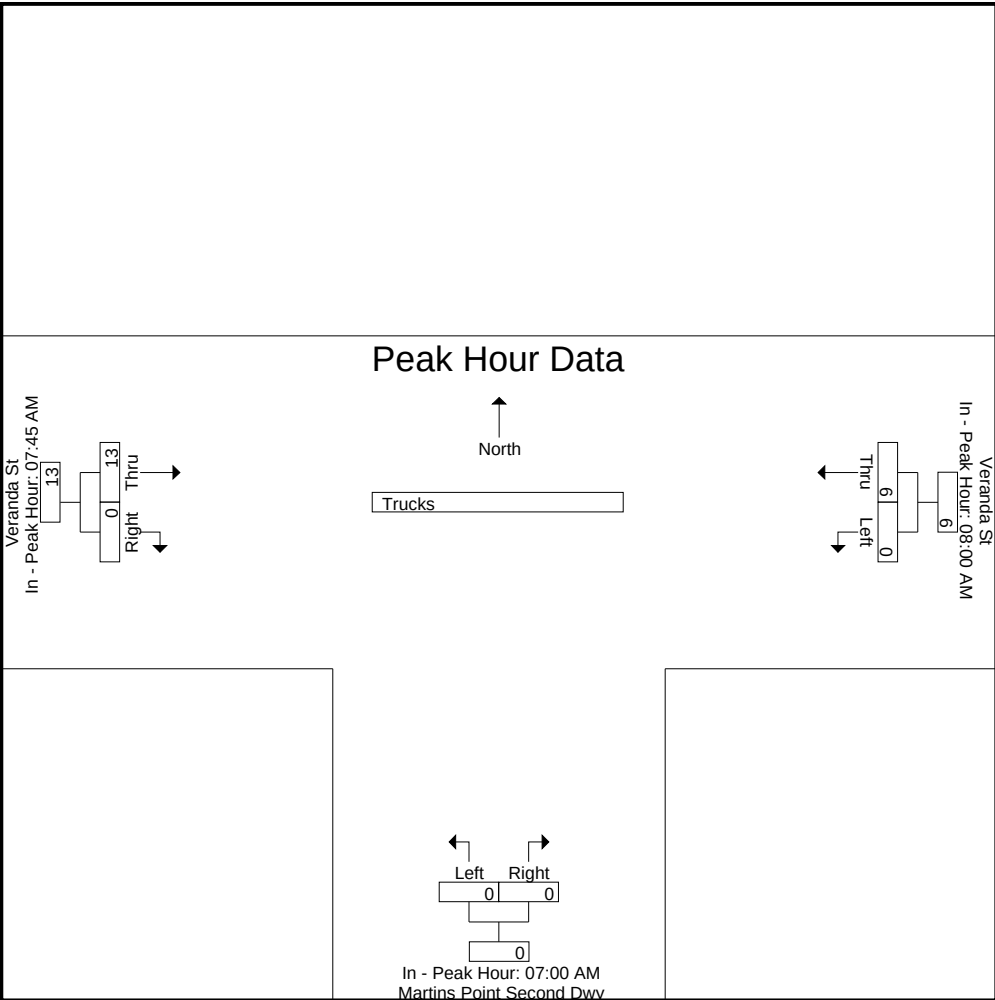
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:45 AM		
+0 mins.	0	2	2	0	0	0	2	0	2
+15 mins.	0	1	1	0	0	0	3	0	3
+30 mins.	0	1	1	0	0	0	3	0	3
+45 mins.	0	2	2	0	0	0	5	0	5
Total Volume	0	6	6	0	0	0	13	0	13
% App. Total	0	100		0	0		100	0	
PHF	.000	.750	.750	.000	.000	.000	.650	.000	.650

N/S Street : Martins Point Second Driveway
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260004
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Accurate Counts

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N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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Groups Printed- Bikes Peds

	Veranda St From East			Martins Point Second Dwy From South			Veranda St From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	1	1	0	0	1	2	3
07:30 AM	0	1	0	0	0	0	1	0	0	0	2	2
07:45 AM	0	1	0	0	0	0	0	0	0	0	1	1
Total	0	3	0	0	0	1	2	0	0	1	5	6
08:00 AM	0	1	0	0	0	2	1	0	0	2	2	4
08:15 AM	0	1	0	0	0	0	0	0	1	1	1	2
08:30 AM	0	2	0	0	0	5	1	0	0	5	3	8
08:45 AM	0	0	0	0	0	4	0	0	0	4	0	4
Total	0	4	0	0	0	11	2	0	1	12	6	18
Grand Total	0	7	0	0	0	12	4	0	1	13	11	24
Apprch %	0	100		0	0		100	0				
Total %	0	63.6		0	0		36.4	0		54.2	45.8	

	Veranda St From East			Martins Point Second Dwy From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	1	1	0	0	0	1	0	1	2
07:30 AM	0	1	1	0	0	0	1	0	1	2
07:45 AM	0	1	1	0	0	0	0	0	0	1
08:00 AM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	4	4	0	0	0	3	0	3	7
% App. Total	0	100		0	0		100	0		
PHF	.000	1.00	1.00	.000	.000	.000	.750	.000	.750	.875

Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

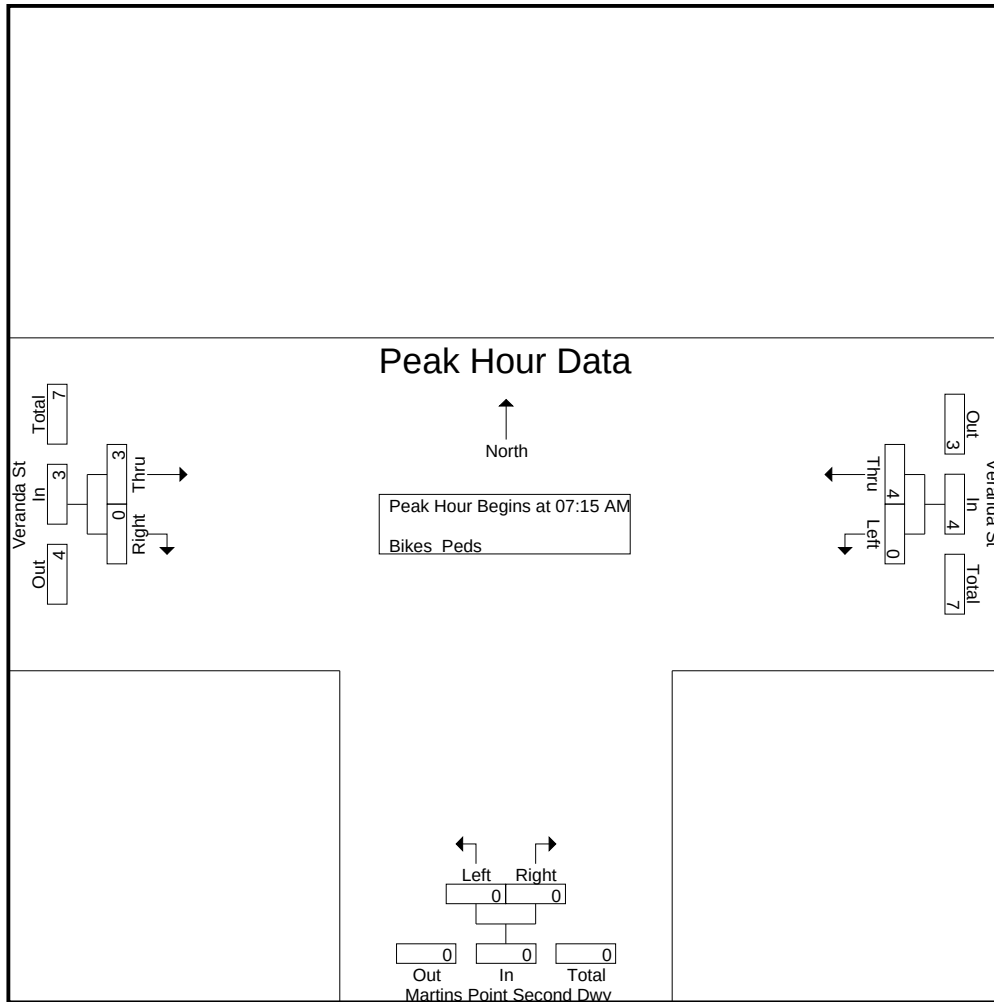
Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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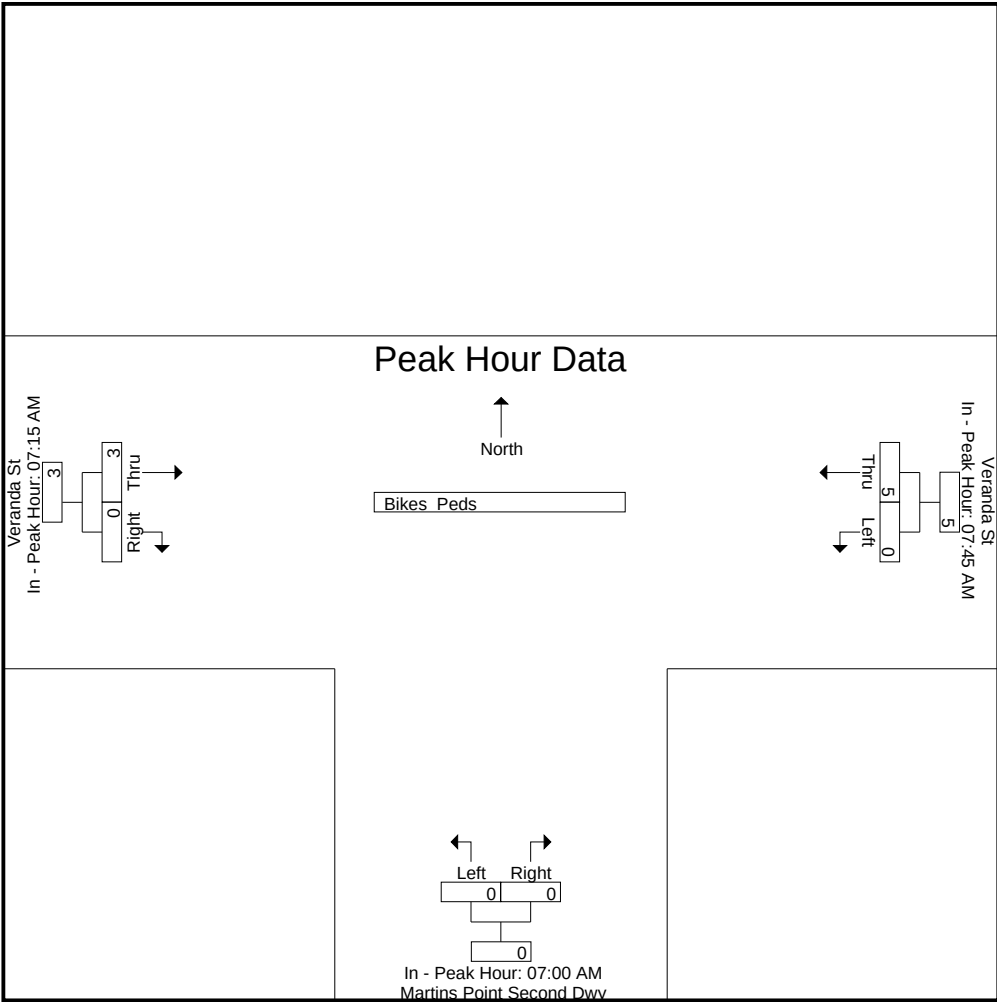
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			07:00 AM			07:15 AM		
+0 mins.	0	1	1	0	0	0	1	0	1
+15 mins.	0	1	1	0	0	0	1	0	1
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	2	2	0	0	0	1	0	1
Total Volume	0	5	5	0	0	0	3	0	3
% App. Total	0	100		0	0		100	0	
PHF	.000	.625	.625	.000	.000	.000	.750	.000	.750

N/S Street : Martins Point Second Driveway
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260004
Site Code : 10260004
Start Date : 5/25/2023
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Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

Page No : 1

Groups Printed- Cars - Trucks

	Veranda St From East		Martins Point Second Dwy From South		Veranda St From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
03:00 PM	3	156	3	3	141	0	306
03:15 PM	4	133	3	5	131	2	278
03:30 PM	4	141	4	8	149	1	307
03:45 PM	1	124	1	1	153	0	280
Total	12	554	11	17	574	3	1171
04:00 PM	2	137	4	5	148	0	296
04:15 PM	2	121	4	0	147	2	276
04:30 PM	2	152	3	8	170	0	335
04:45 PM	3	135	3	3	156	0	300
Total	9	545	14	16	621	2	1207
05:00 PM	2	139	2	2	180	1	326
05:15 PM	1	132	1	2	150	0	286
05:30 PM	3	114	7	3	144	3	274
05:45 PM	1	94	2	1	126	0	224
Total	7	479	12	8	600	4	1110
Grand Total	28	1578	37	41	1795	9	3488
Apprch %	1.7	98.3	47.4	52.6	99.5	0.5	
Total %	0.8	45.2	1.1	1.2	51.5	0.3	
Cars	28	1566	37	41	1791	9	3472
% Cars	100	99.2	100	100	99.8	100	99.5
Trucks	0	12	0	0	4	0	16
% Trucks	0	0.8	0	0	0.2	0	0.5

	Veranda St From East			Martins Point Second Dwy From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	2	152	154	3	8	11	170	0	170	335
04:45 PM	3	135	138	3	3	6	156	0	156	300
05:00 PM	2	139	141	2	2	4	180	1	181	326
05:15 PM	1	132	133	1	2	3	150	0	150	286
Total Volume	8	558	566	9	15	24	656	1	657	1247
% App. Total	1.4	98.6		37.5	62.5		99.8	0.2		
PHF	.667	.918	.919	.750	.469	.545	.911	.250	.907	.931
Cars	8	554	562	9	15	24	654	1	655	1241
% Cars	100	99.3	99.3	100	100	100	99.7	100	99.7	99.5
Trucks	0	4	4	0	0	0	2	0	2	6
% Trucks	0	0.7	0.7	0	0	0	0.3	0	0.3	0.5

978-664-2565

Weather : Clear

Page No : 2



North

Peak Hour Begins at 04:30 PM

	Cars	Trucks
1990	100	100
1991	100	100
1992	100	100
1993	100	100
1994	100	100
1995	100	100
1996	100	100
1997	100	100
1998	100	100
1999	100	100
2000	100	100
2001	100	100
2002	100	100
2003	100	100
2004	100	100
2005	100	100
2006	100	100
2007	100	100
2008	100	100
2009	100	100
2010	100	100
2011	100	100
2012	100	100
2013	100	100
2014	100	100
2015	100	100
2016	100	100
2017	100	100
2018	100	100
2019	100	100
2020	100	100
2021	100	100
2022	100	100
2023	100	100
2024	100	100
2025	100	100
2026	100	100
2027	100	100
2028	100	100
2029	100	100
2030	100	100

```

graph TD
    Root[ ] --> Left[Left]
    Root --> Right[Right]
    Left --> LeftOut[Out]
    Left --> LeftIn[In]
    Right --> RightIn[In]
    Right --> RightTotal[Total]
    RightTotal --> MartinsPoint[Martins Point]
    RightTotal --> SecondDwellings[Second Dwellings]
  
```

Left: 9, 0, 9
Right: 15, 0, 15
Out: 9, 0, 9
In: 24, 0, 24
Total: 33, 0, 33
Martins Point
Second Dwellings

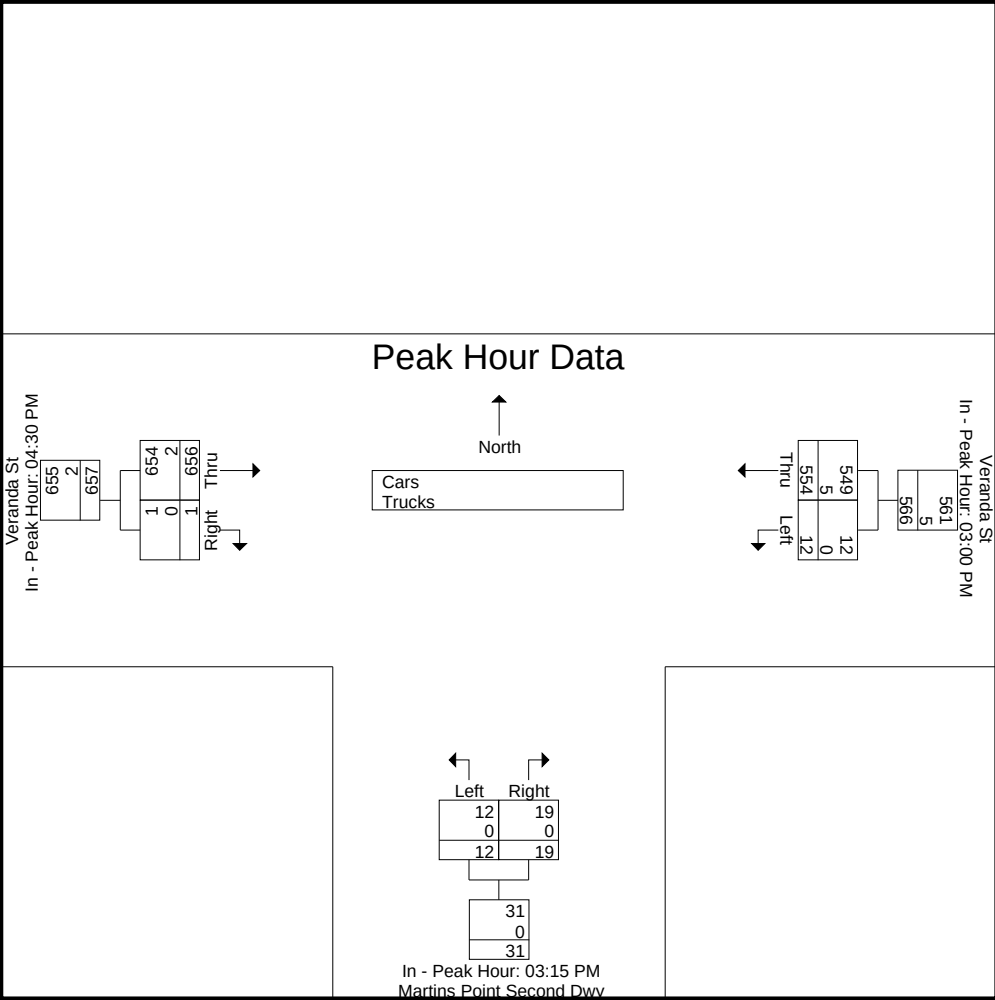
	Out	In	Total
Martins Point Second Dwy			

Peak Hour for Each Approach Begins at:

Peak Hour for Each Approach Begins at:									
	03:00 PM			03:15 PM			04:30 PM		
+0 mins.	3	156	159	3	5	8	170	0	170
+15 mins.	4	133	137	4	8	12	156	0	156
+30 mins.	4	141	145	1	1	2	180	1	181
+45 mins.	1	124	125	4	5	9	150	0	150
Total Volume	12	554	566	12	19	31	656	1	657
% App. Total	2.1	97.9		38.7	61.3		99.8	0.2	
PHF	.750	.888	.890	.750	.594	.646	.911	.250	.907
Cars	12	549	561	12	19	31	654	1	655
% Cars	100	99.1	99.1	100	100	100	99.7	100	99.7
Trucks	0	5	5	0	0	0	2	0	2
% Trucks	0	0.9	0.9	0	0	0	0.3	0	0.3

N/S Street : Martins Point Second Driveway
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260004
Site Code : 10260004
Start Date : 5/25/2023
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

Page No : 4

Groups Printed- Cars

	Veranda St From East		Martins Point Second Dwy From South		Veranda St From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
03:00 PM	3	155	3	3	141	0	305
03:15 PM	4	130	3	5	131	2	275
03:30 PM	4	141	4	8	149	1	307
03:45 PM	1	123	1	1	152	0	278
Total	12	549	11	17	573	3	1165
04:00 PM	2	135	4	5	148	0	294
04:15 PM	2	120	4	0	147	2	275
04:30 PM	2	151	3	8	170	0	334
04:45 PM	3	135	3	3	154	0	298
Total	9	541	14	16	619	2	1201
05:00 PM	2	139	2	2	180	1	326
05:15 PM	1	129	1	2	150	0	283
05:30 PM	3	114	7	3	144	3	274
05:45 PM	1	94	2	1	125	0	223
Total	7	476	12	8	599	4	1106
Grand Total	28	1566	37	41	1791	9	3472
Apprch %	1.8	98.2	47.4	52.6	99.5	0.5	
Total %	0.8	45.1	1.1	1.2	51.6	0.3	

	Veranda St From East			Martins Point Second Dwy From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	2	151	153	3	8	11	170	0	170	334
04:45 PM	3	135	138	3	3	6	154	0	154	298
05:00 PM	2	139	141	2	2	4	180	1	181	326
05:15 PM	1	129	130	1	2	3	150	0	150	283
Total Volume	8	554	562	9	15	24	654	1	655	1241
% App. Total	1.4	98.6		37.5	62.5		99.8	0.2		
PHF	.667	.917	.918	.750	.469	.545	.908	.250	.905	.929

Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

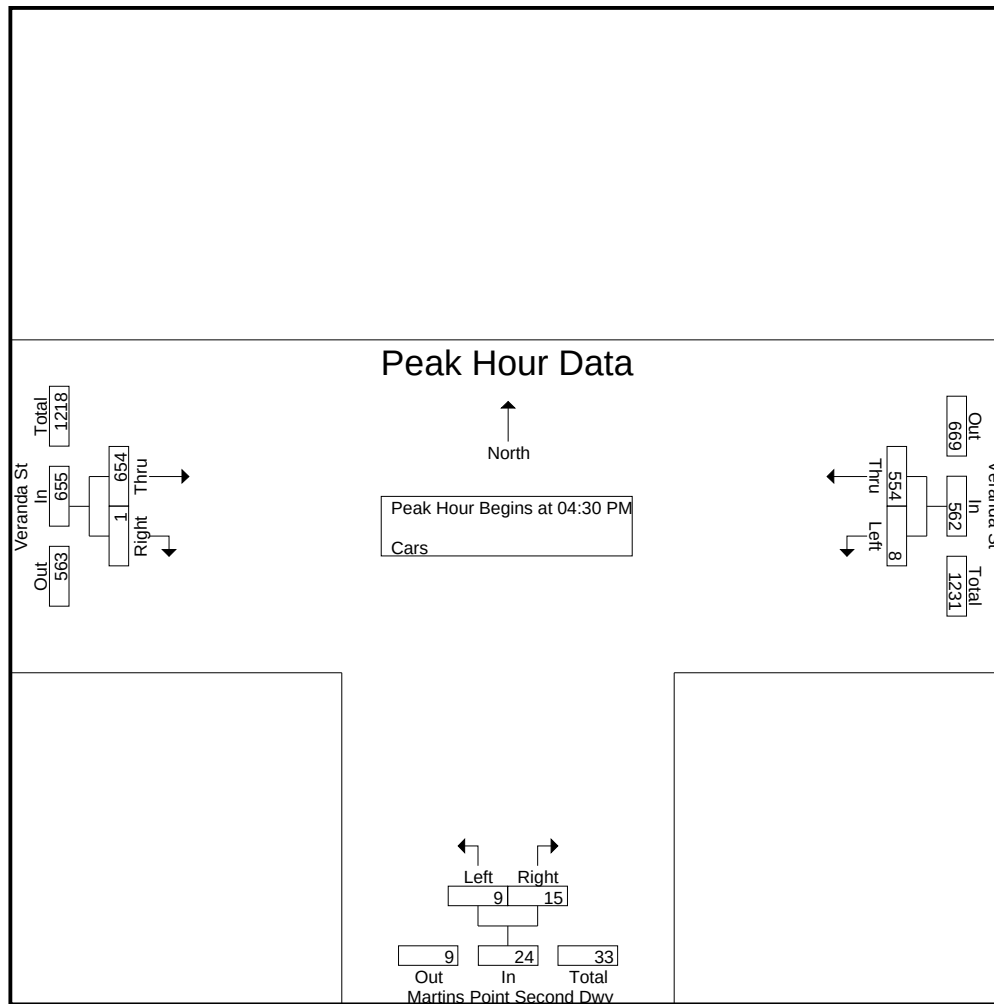
Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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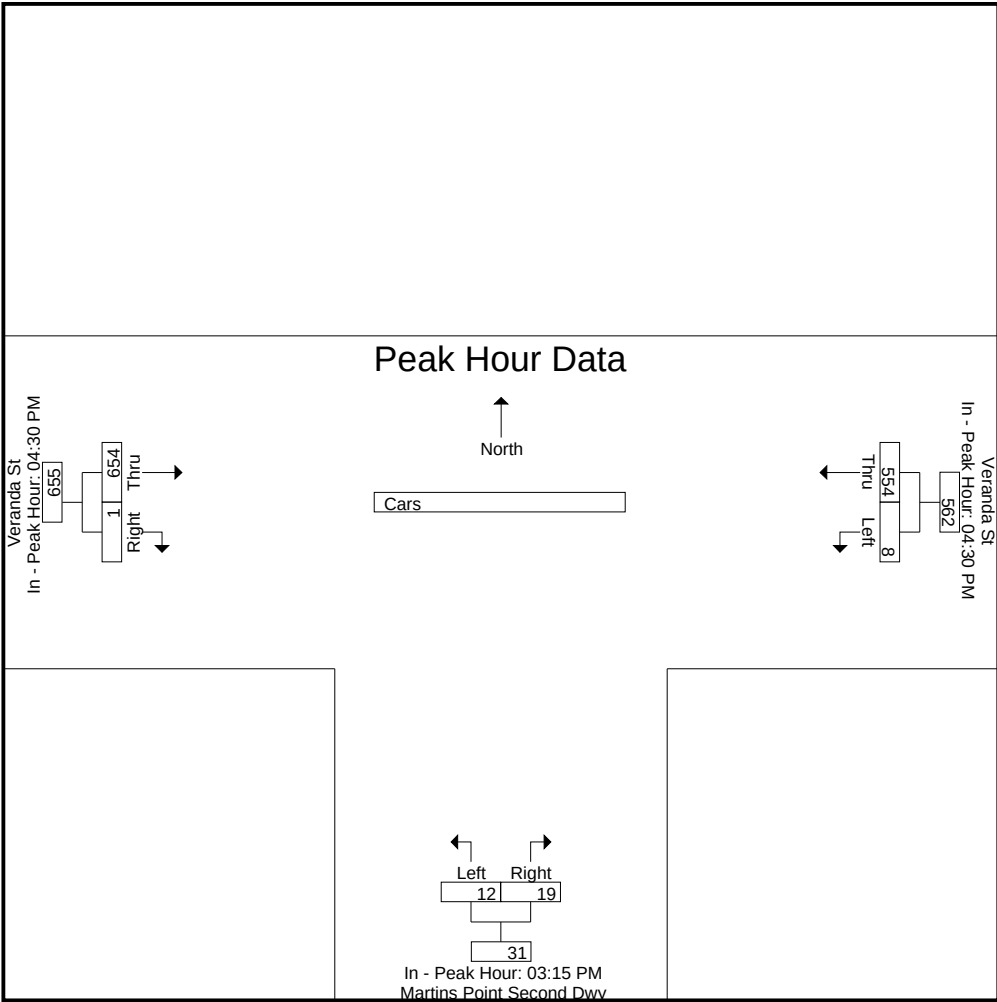
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM			03:15 PM			04:30 PM		
+0 mins.	2	151	153	3	5	8	170	0	170
+15 mins.	3	135	138	4	8	12	154	0	154
+30 mins.	2	139	141	1	1	2	180	1	181
+45 mins.	1	129	130	4	5	9	150	0	150
Total Volume	8	554	562	12	19	31	654	1	655
% App. Total	1.4	98.6		38.7	61.3		99.8	0.2	
PHF	.667	.917	.918	.750	.594	.646	.908	.250	.905

N/S Street : Martins Point Second Driveway
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260004
Site Code : 10260004
Start Date : 5/25/2023
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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Groups Printed- Trucks

	Veranda St From East		Martins Point Second Dwy From South		Veranda St From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
03:00 PM	0	1	0	0	0	0	1
03:15 PM	0	3	0	0	0	0	3
03:30 PM	0	0	0	0	0	0	0
03:45 PM	0	1	0	0	1	0	2
Total	0	5	0	0	1	0	6
04:00 PM	0	2	0	0	0	0	2
04:15 PM	0	1	0	0	0	0	1
04:30 PM	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	2	0	2
Total	0	4	0	0	2	0	6
05:00 PM	0	0	0	0	0	0	0
05:15 PM	0	3	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	1	0	1
Total	0	3	0	0	1	0	4
Grand Total	0	12	0	0	4	0	16
Apprch %	0	100	0	0	100	0	
Total %	0	75	0	0	25	0	

	Veranda St From East			Martins Point Second Dwy From South			Veranda St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:15 PM										
03:15 PM	0	3	3	0	0	0	0	0	0	3
03:30 PM	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	1	1	0	0	0	1	0	1	2
04:00 PM	0	2	2	0	0	0	0	0	0	2
Total Volume	0	6	6	0	0	0	1	0	1	7
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.250	.000	.250	.583

Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

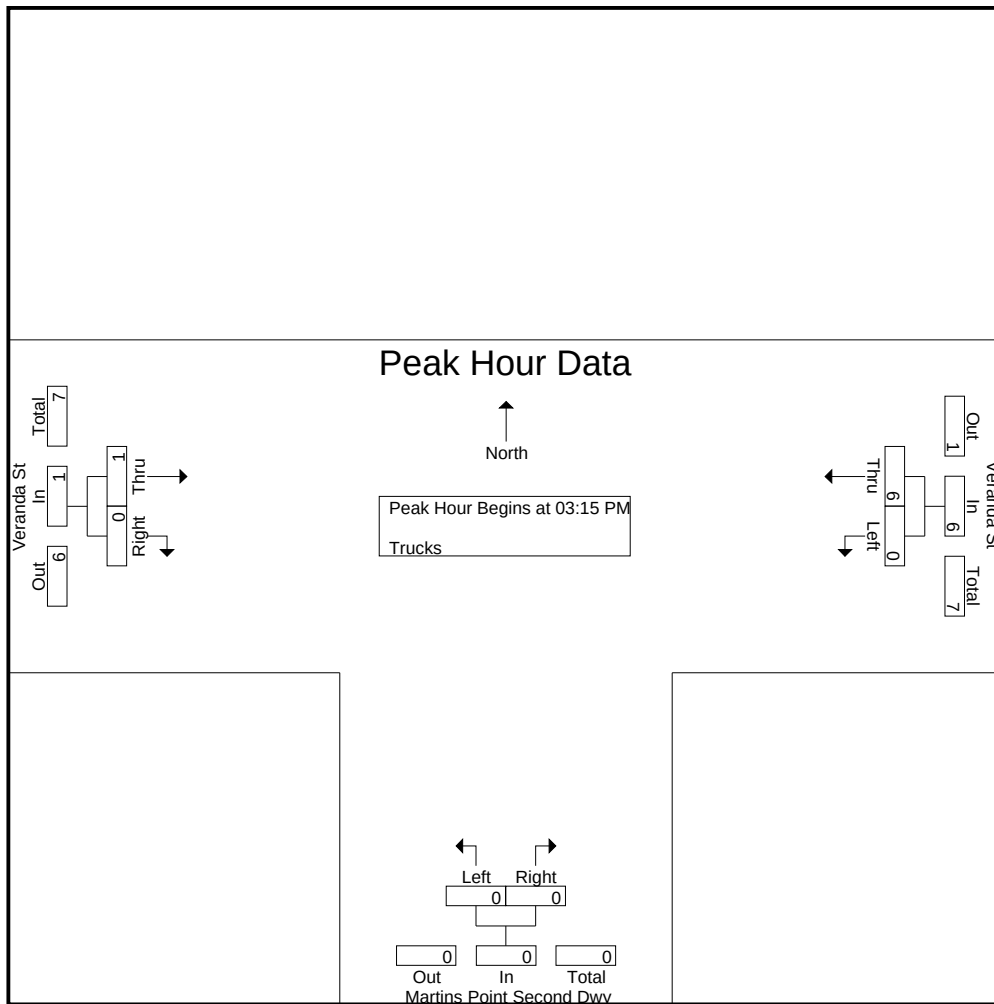
Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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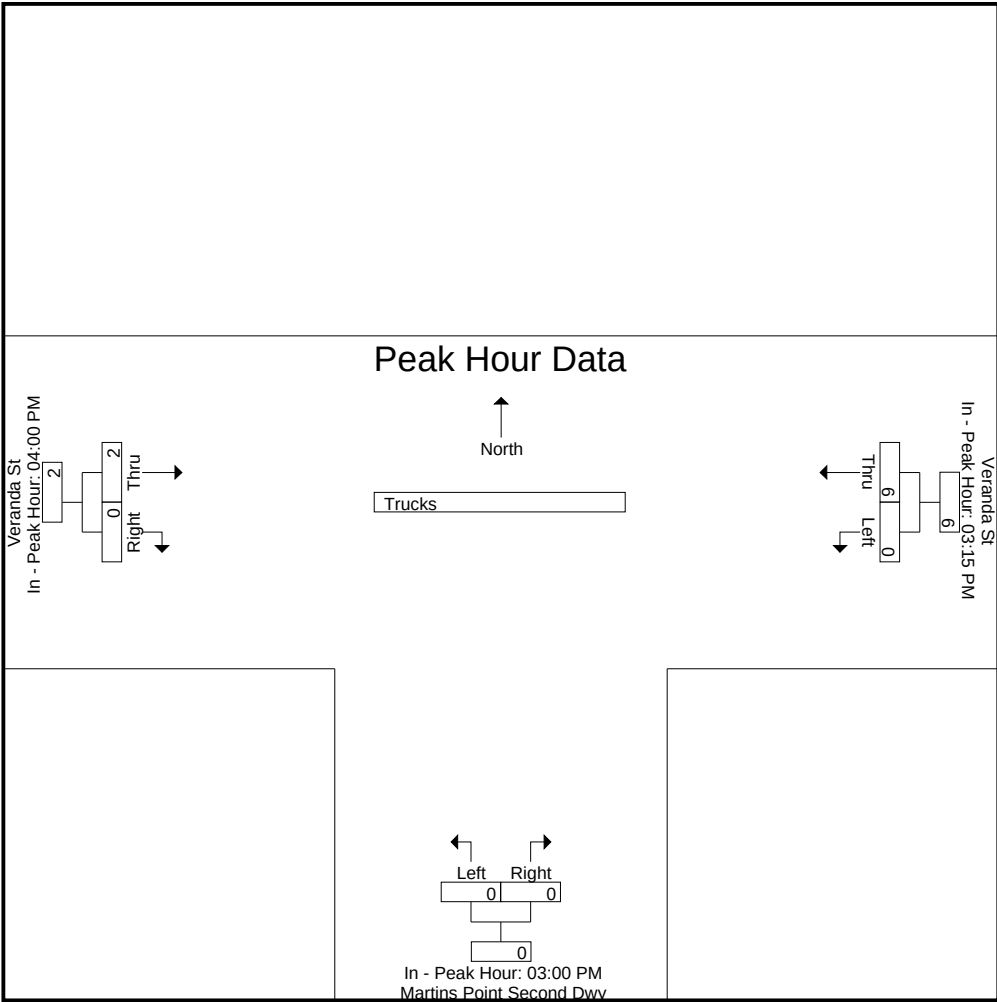
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:15 PM			03:00 PM			04:00 PM		
+0 mins.	0	3	3	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	2	2	0	0	0	2	0	2
Total Volume	0	6	6	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.250	.000	.250

N/S Street : Martins Point Second Driveway
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260004
Site Code : 10260004
Start Date : 5/25/2023
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

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Groups Printed- Bikes Peds

	Veranda St From East			Martins Point Second Dwy From South			Veranda St From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	1	0	0	0	1	0	1
03:30 PM	0	0	0	0	0	1	2	0	0	1	2	3
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	2	0	0	2	2	4
04:00 PM	0	1	0	0	0	0	2	0	0	0	3	3
04:15 PM	0	2	0	0	0	0	0	0	0	0	2	2
04:30 PM	0	1	0	0	0	0	1	0	0	0	2	2
04:45 PM	0	0	0	0	0	1	1	0	0	1	1	2
Total	0	4	0	0	0	1	4	0	0	1	8	9
05:00 PM	0	2	0	0	0	1	4	0	0	1	6	7
05:15 PM	0	0	0	0	0	1	1	0	0	1	1	2
05:30 PM	0	1	0	0	0	1	0	0	1	2	1	3
05:45 PM	0	0	0	0	0	1	0	0	0	1	0	1
Total	0	3	0	0	0	4	5	0	1	5	8	13
Grand Total	0	7	0	0	0	7	11	0	1	8	18	26
Apprch %	0	100		0	0		100	0				
Total %	0	38.9		0	0		61.1	0		30.8	69.2	

	Veranda St From East			Martins Point Second Dwy From South			Veranda St From West			Int. Total
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	2	2	0	0	0	0	0	0	2
04:30 PM	0	1	1	0	0	0	1	0	1	2
04:45 PM	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	2	2	0	0	0	4	0	4	6
Total Volume	0	5	5	0	0	0	6	0	6	11
% App. Total	0	100		0	0		100	0		
PHF	.000	.625	.625	.000	.000	.000	.375	.000	.375	.458

Accurate Counts

978-664-2565

N/S Street : Martins Point Second Driveway

E/W Street : Veranda Street

City/State : Portland, ME

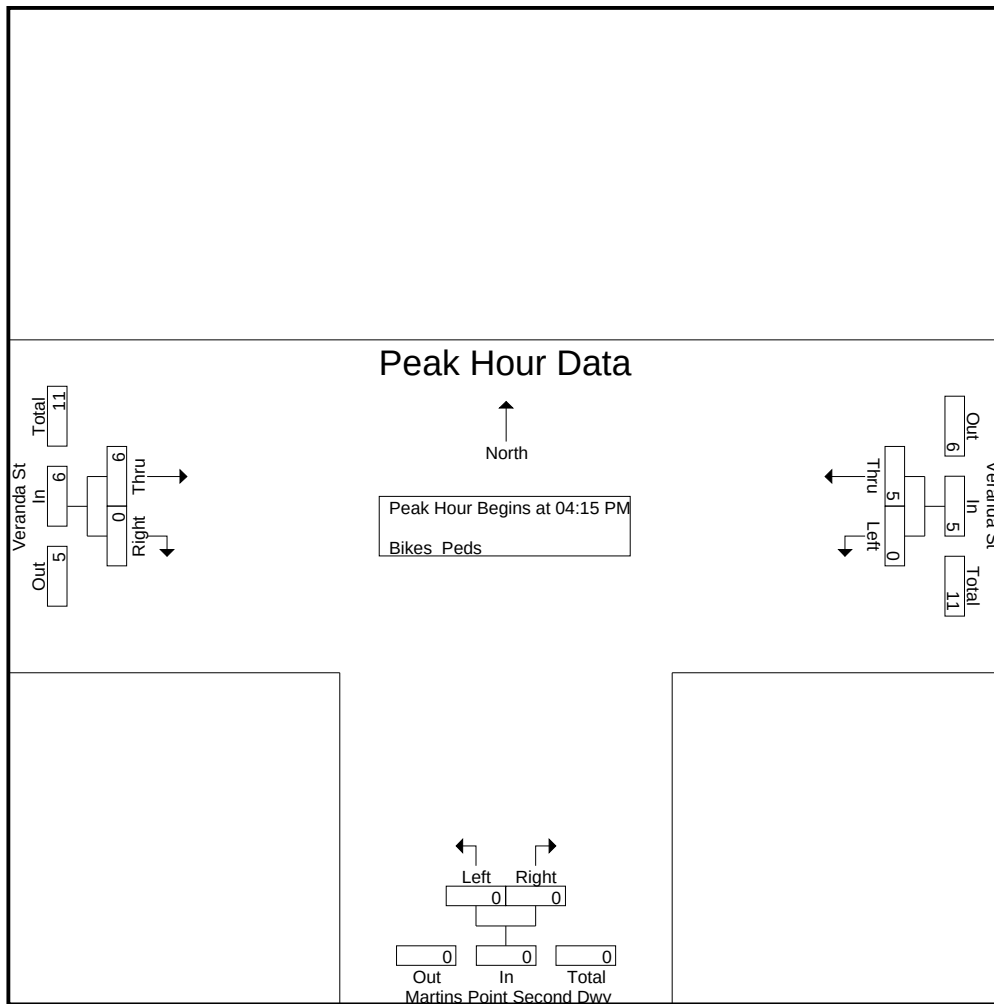
Weather : Clear

File Name : 10260004

Site Code : 10260004

Start Date : 5/25/2023

Page No : 11



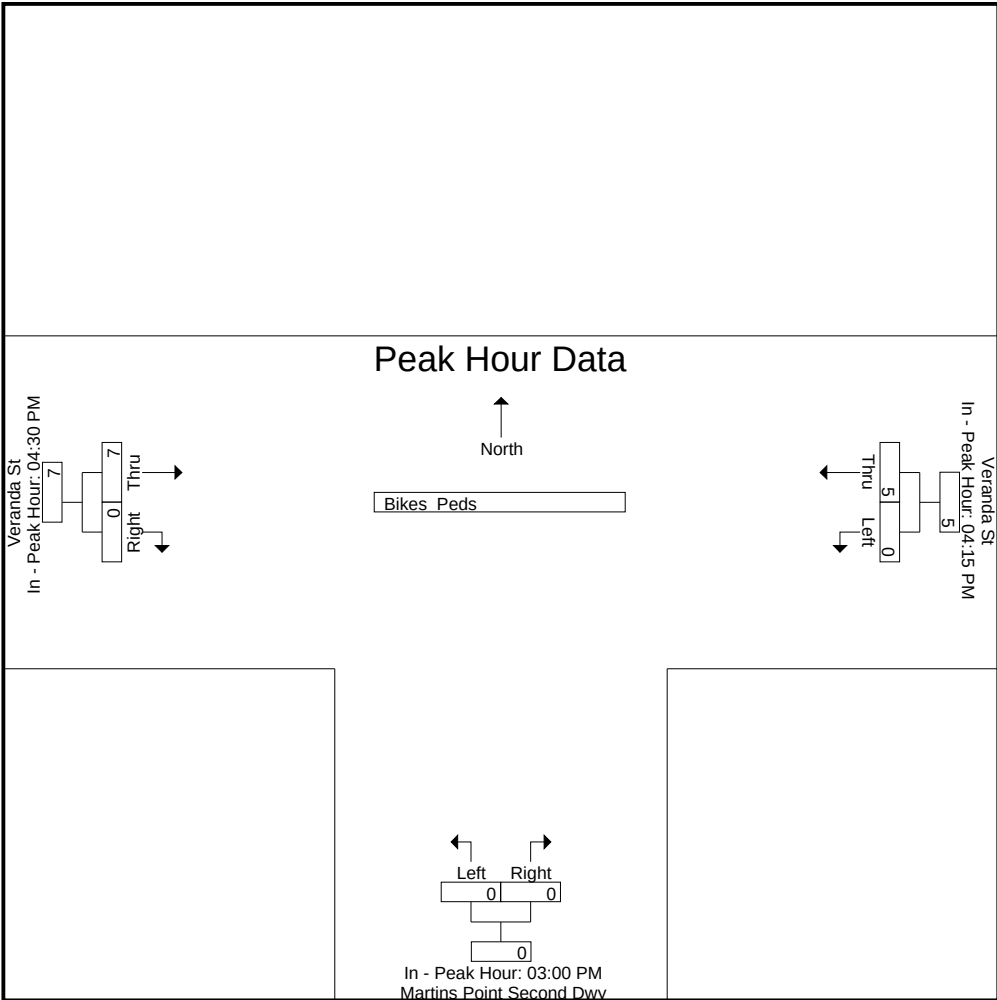
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM			03:00 PM			04:30 PM		
+0 mins.	0	2	2	0	0	0	1	0	1
+15 mins.	0	1	1	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	4	0	4
+45 mins.	0	2	2	0	0	0	1	0	1
Total Volume	0	5	5	0	0	0	7	0	7
% App. Total	0	100		0	0		100	0	
PHF	.000	.625	.625	.000	.000	.000	.438	.000	.438

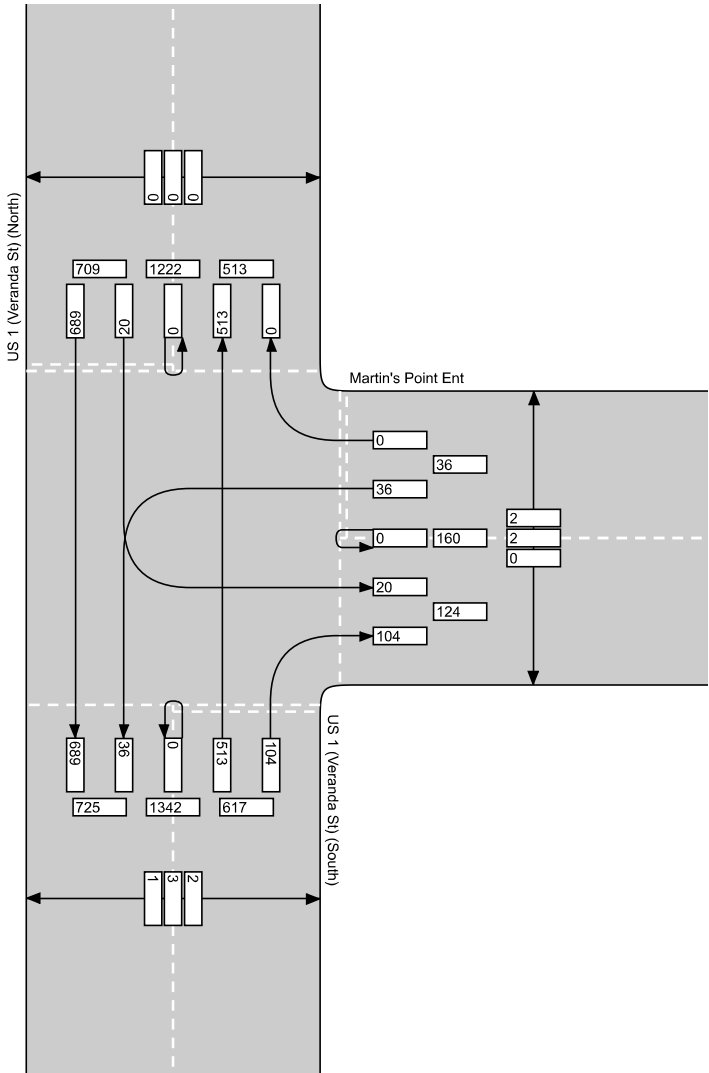
N/S Street : Martins Point Second Driveway
E/W Street : Veranda Street
City/State : Portland, ME
Weather : Clear

File Name : 10260004
Site Code : 10260004
Start Date : 5/25/2023
Page No : 12



Diagram

MAINE_DOT_TM - 000005170314 - US 1 (VERANDA ST), MARTINS POINT S ENT, 17/05/2017 - Wednesday, May 17, 2017



Time Period:

☐ All times

☒ AM Peak Hour: 08:00 - 09:00

☐ PM Peak Hour: 16:45 - 17:45

☐ Overall Peak Hour: 16:45 - 17:45

☐ Custom: 06:00 - 18:00

Traffic Bins:

☒ MCI

☒ Car

☒ LGV

☒ Bus

☒ SUT

☒ Semis

☐ Bicycle

Crossing Bins:

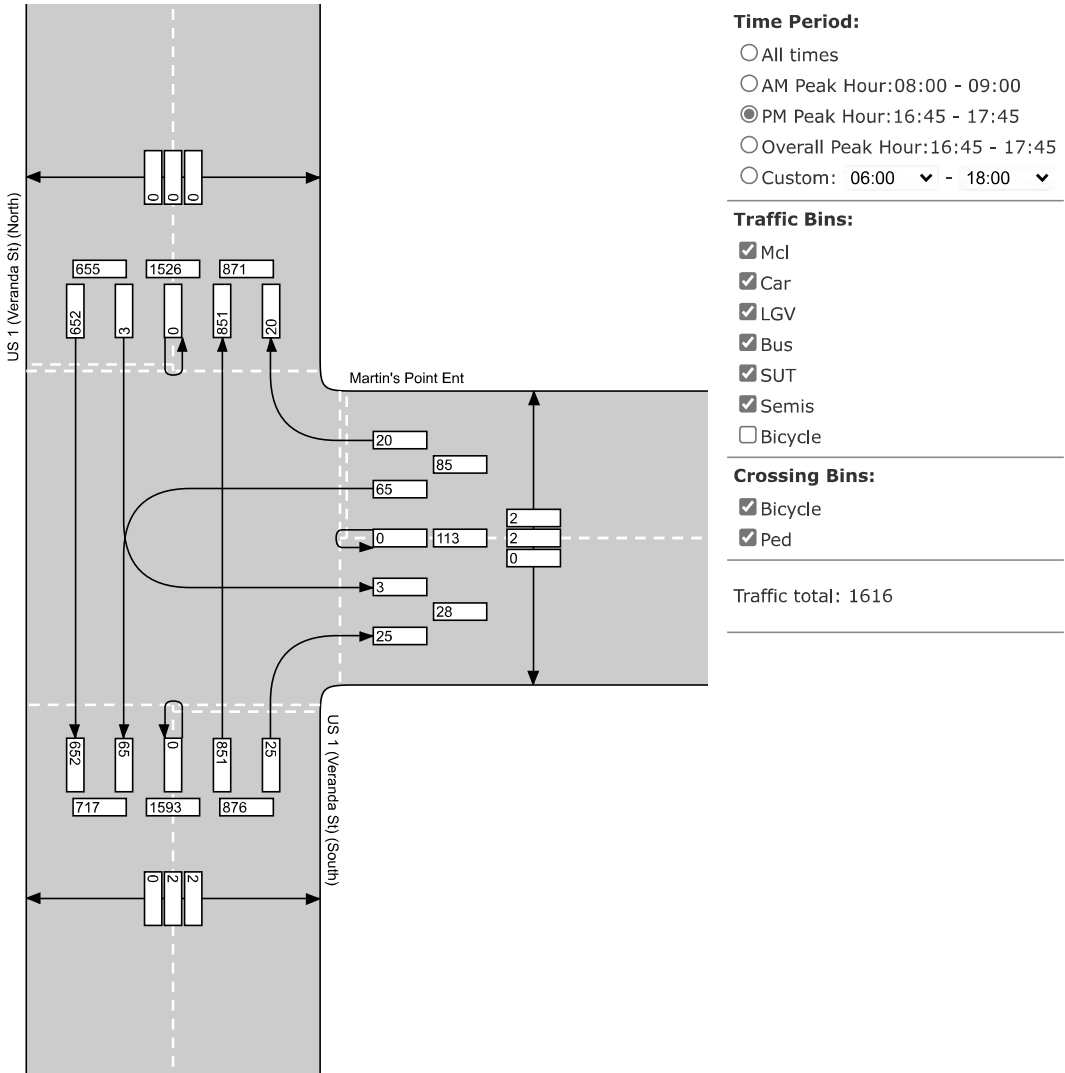
☒ Bicycle

☒ Ped

Traffic total: 1362

Diagram

MAINE_DOT_TM - 000005170314 - US 1 (VERANDA ST), MARTINS POINT S ENT, 17/05/2017 - Wednesday, May 17, 2017



Appendix C

MaineDOT Crash Data

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☐ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Portland
Veranda St. from Acadia/Fairfield St. to Falmouth TL

REPORT PARAMETERS

Year 2020, Start Month 1 through Year 2022 End Month: 12

Route: 0560753	Start Node: 17614 End Node: 60334	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node
Route: 0001S	Start Node: 74668 End Node: 60334	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0001X	Start Node: 74668 End Node: 15788	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node

Crash Summary I

Nodes

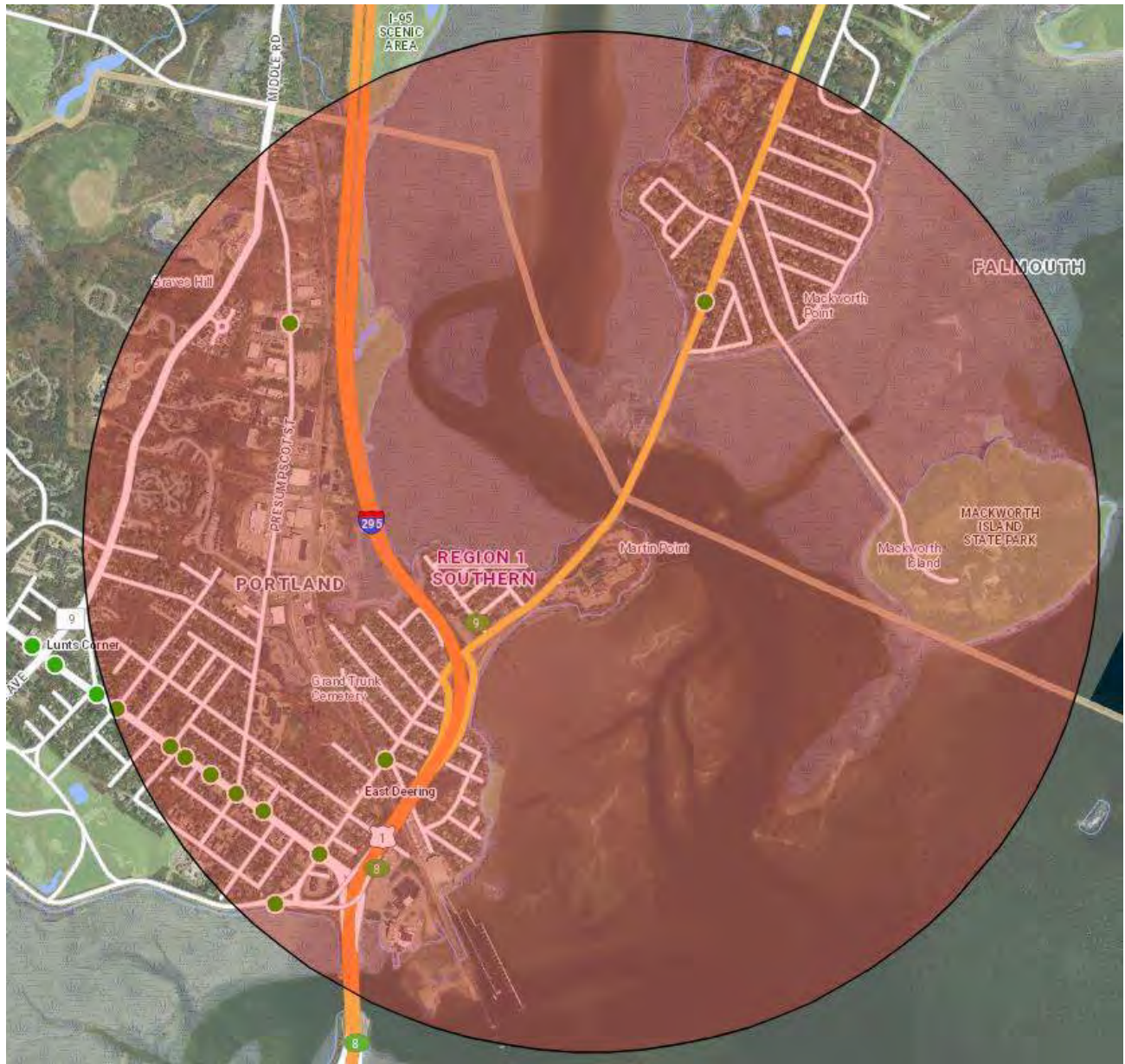
Node	Route - MP	Node Description			U/R	Total Crashes	K	Injury Crashes				Percent Annual M	Crash Rate	Critical Rate	CRF	
								A	B	C	PD	Injury	Ent-Veh			
17614	0560753 - 0.33	Int of ARCADIA ST	FAIRFIELD ST	VERANDA ST	2	1	0	0	0	1	0	100.0	1.677	0.20	0.42	0.48
													Statewide Crash Rate:	0.12		
17612	0560753 - 0.38	Int of FAYETTE ST	HAWTHORNE ST	VERANDA ST	2	0	0	0	0	0	0	0.0	1.558	0.00	0.43	0.00
													Statewide Crash Rate:	0.12		
60334	0560753 - 0.43	Int of RAMP ON FROM	VERANDA ST	VERANDA ST WORD	2	10	1	1	0	4	4	60.0	2.010	1.66	0.35	4.75
													Statewide Crash Rate:	0.10		
74668	0001X - 52.27	Int of US 1 NB	VERANDA ST		2	0	0	0	0	0	0	0.0	5.103	0.00	0.28	0.00
													Statewide Crash Rate:	0.10		
15787	0001X - 52.33	Int of OLYMPIA ST	VERANDA ST		2	2	0	0	0	0	2	0.0	3.044	0.22	0.36	0.61
													Statewide Crash Rate:	0.12		
15786	0001X - 52.42	Int of OREGON ST	VERANDA ST		2	2	0	0	0	1	1	50.0	4.144	0.16	0.33	0.48
													Statewide Crash Rate:	0.12		
69124	0001X - 52.50	Int of ENT TO MARTINS POINT	VERANDA ST		9	2	0	0	1	0	1	50.0	4.875	0.14	1.14	0.12
													Statewide Crash Rate:	0.64		
15788	0001X - 52.71	TL Falmouth	Portland		2	0	0	0	0	0	0	0.0	4.008	0.00	0.34	0.00
													Statewide Crash Rate:	0.12		
Study Years:	3.00	NODE TOTALS:				17	1	1	1	6	8	52.9	26.419	0.21	0.34	0.64

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
17612	17614	3122281	0 - 0.05	0560753 - 0.33	0.05	2	0	0	0	0	0	0	0.0	0.00076	0.00	609.48	0.00
Int of FAYETTE ST HAWTHORNE ST VERANDA ST				RD INV 05 60753	Statewide Crash Rate: 155.59												
60334	17612	5402045	0 - 0.02	0560753 - 0.38	0.02	2	0	0	0	0	0	0	0.0	0.00029	0.00	670.69	0.00
Int of RAMP ON FROM VERANDA ST VERANDA ST WORDSWORTH ST				RD INV 05 60753	Statewide Crash Rate: 155.59												
60334	17612	5402045	0.02 - 0.05	0560753 - 0.38	0.03	2	1	0	0	0	0	0	0.0	0.00044	754.25	660.92	1.14
Int of RAMP ON FROM VERANDA ST VERANDA ST WORDSWORTH ST				RD INV 05 60753	Statewide Crash Rate: 155.59												
74668	60334	5402069	0 - 0.04	0001S - 16.28	0.04	2	0	0	0	0	0	0	0.0	0.00095	0.00	581.51	0.00
Int of US 1 NB VERANDA ST				US 1 SB	Statewide Crash Rate: 155.59												
74668	60334	5402069	0.04 - 0.07	0001S - 16.32	0.03	2	0	0	0	0	0	0	0.0	0.00072	0.00	616.20	0.00
Int of US 1 NB VERANDA ST				US 1 SB	Statewide Crash Rate: 155.59												
15787	74668	5402070	0 - 0.06	0001X - 52.27	0.06	2	1	0	0	0	0	1	0.0	0.00181	184.49	499.79	0.37
Int of OLYMPIA ST VERANDA ST				US 1	Statewide Crash Rate: 155.59												
15786	15787	5402071	0 - 0.09	0001X - 52.33	0.09	2	0	0	0	0	0	0	0.0	0.00260	0.00	455.53	0.00
Int of OREGON ST VERANDA ST				US 1	Statewide Crash Rate: 155.59												
69124	15786	3509045	0 - 0.08	0001X - 52.42	0.08	2	0	0	0	0	0	0	0.0	0.00423	0.00	401.36	0.00
Int of ENT TO MARTINS POINT VERANDA ST				US 1	Statewide Crash Rate: 155.59												
15788	69124	3509044	0 - 0.21	0001X - 52.50	0.21	2	1	0	0	1	0	0	100.0	0.00842	39.61	338.00	0.12
TL Falmouth Portland				US 1	Statewide Crash Rate: 155.59												
Study Years:		3.00		Section Totals:		0.61	3	0	0	1	0	1	33.3	0.02021	49.47	277.82	0.18
				Grand Totals:		0.61	20	1	1	2	6	9	50.0	0.02021	329.79	409.68	0.80



Pedestrian Crash Locations within ½ Mile of the Site



Bicycle Crash Locations within 1 Mile of the Site

Appendix D

SimTraffic Reports

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	7:45	7:45	7:45	7:45	7:45	7:45	7:45
End Time	9:00	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	1453	1438	1371	1385	1370	1418	1346
Vehs Exited	1441	1430	1376	1397	1370	1419	1356
Starting Vehs	22	18	35	36	25	36	37
Ending Vehs	34	26	30	24	25	35	27
Travel Distance (mi)	695	690	661	673	652	683	652
Travel Time (hr)	32.7	33.7	31.9	32.5	30.8	33.1	30.3
Total Delay (hr)	9.7	10.9	10.1	10.3	9.3	10.5	8.9
Total Stops	946	994	964	929	885	969	863
Fuel Used (gal)	25.6	25.7	24.9	25.2	24.2	25.5	24.0

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	7:45	7:45	7:45	7:45
End Time	9:00	9:00	9:00	9:00
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	1464	1448	1419	1413
Vehs Exited	1463	1447	1419	1413
Starting Vehs	27	29	24	30
Ending Vehs	28	30	24	26
Travel Distance (mi)	709	692	676	678
Travel Time (hr)	36.0	33.3	32.8	32.7
Total Delay (hr)	12.5	10.3	10.5	10.3
Total Stops	1095	942	977	956
Fuel Used (gal)	26.7	25.7	25.2	25.3

Interval #0 Information Seeding

Start Time	7:45
End Time	8:00
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	351	362	342	322	312	314	320
Vehs Exited	348	351	341	330	316	321	323
Starting Vehs	22	18	35	36	25	36	37
Ending Vehs	25	29	36	28	21	29	34
Travel Distance (mi)	174	176	166	165	154	155	157
Travel Time (hr)	8.0	8.2	7.8	7.8	6.6	7.0	6.8
Total Delay (hr)	2.3	2.4	2.3	2.4	1.5	1.9	1.6
Total Stops	200	215	243	245	164	193	174
Fuel Used (gal)	6.4	6.4	6.3	6.1	5.4	5.7	5.7

Interval #1 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	321	363	311	332
Vehs Exited	327	365	316	334
Starting Vehs	27	29	24	30
Ending Vehs	21	27	19	25
Travel Distance (mi)	160	179	152	164
Travel Time (hr)	7.5	7.9	6.9	7.4
Total Delay (hr)	2.2	2.0	1.9	2.0
Total Stops	215	181	217	205
Fuel Used (gal)	5.8	6.3	5.5	6.0

Interval #2 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	418	434	385	398	432	409	390
Vehs Exited	409	424	374	394	422	403	381
Starting Vehs	25	29	36	28	21	29	34
Ending Vehs	34	39	47	32	31	35	43
Travel Distance (mi)	182	198	173	183	190	188	172
Travel Time (hr)	9.1	10.9	9.5	9.9	10.5	9.6	9.1
Total Delay (hr)	3.0	4.3	3.8	3.8	4.2	3.4	3.3
Total Stops	291	365	320	283	307	289	295
Fuel Used (gal)	7.0	7.7	7.0	7.2	7.5	7.1	6.7

Interval #2 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	456	400	427	417
Vehs Exited	433	385	415	403
Starting Vehs	21	27	19	25
Ending Vehs	44	42	31	38
Travel Distance (mi)	205	178	191	186
Travel Time (hr)	12.0	9.2	9.8	10.0
Total Delay (hr)	5.2	3.3	3.5	3.8
Total Stops	409	293	284	312
Fuel Used (gal)	8.1	6.8	7.3	7.2

Interval #3 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	342	318	313	338	313	335	328
Vehs Exited	346	315	331	334	306	328	342
Starting Vehs	34	39	47	32	31	35	43
Ending Vehs	30	42	29	36	38	42	29
Travel Distance (mi)	169	154	157	164	150	166	169
Travel Time (hr)	8.1	7.2	7.3	7.6	6.8	8.4	7.6
Total Delay (hr)	2.5	2.1	2.2	2.2	1.8	2.9	2.0
Total Stops	260	191	206	212	209	241	191
Fuel Used (gal)	6.2	5.6	5.8	5.9	5.6	6.2	6.2

Interval #3 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	319	326	361	328
Vehs Exited	338	344	354	332
Starting Vehs	44	42	31	38
Ending Vehs	25	24	38	31
Travel Distance (mi)	163	164	176	163
Travel Time (hr)	7.8	8.3	9.0	7.8
Total Delay (hr)	2.5	2.9	3.2	2.4
Total Stops	220	264	277	227
Fuel Used (gal)	6.0	6.3	6.6	6.0

Interval #4 Information Recording

Start Time	8:45
End Time	9:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	342	324	331	327	313	360	308
Vehs Exited	338	340	330	339	326	367	310
Starting Vehs	30	42	29	36	38	42	29
Ending Vehs	34	26	30	24	25	35	27
Travel Distance (mi)	169	162	165	162	157	175	153
Travel Time (hr)	7.5	7.4	7.3	7.3	6.9	8.1	6.9
Total Delay (hr)	2.0	2.1	1.9	1.9	1.7	2.4	1.9
Total Stops	195	223	195	189	205	246	203
Fuel Used (gal)	6.0	6.0	5.8	5.9	5.6	6.5	5.5

Interval #4 Information Recording

Start Time	8:45
End Time	9:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	368	359	320	336
Vehs Exited	365	353	334	339
Starting Vehs	25	24	38	31
Ending Vehs	28	30	24	26
Travel Distance (mi)	180	172	156	165
Travel Time (hr)	8.7	7.9	7.1	7.5
Total Delay (hr)	2.7	2.2	2.0	2.1
Total Stops	251	204	199	210
Fuel Used (gal)	6.7	6.3	5.7	6.0

3: Veranda St & Martin's Point Performance by movement

Movement	WBL	WBR	NET	NER	SWL	SWT	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	3.0	0.6	0.4
Total Del/Veh (s)	32.0	7.3	1.5	1.1	3.2	0.6	1.3

5: Veranda St & Marine Hospital Rd Performance by movement

Movement	WBL	WBR	NET	NER	SWL	SWT	All
Denied Del/Veh (s)	4.1	0.1	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	11.8	15.8	4.8	3.5	11.5	2.2	3.7

Total Zone Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	224.7

Intersection: 3: Veranda St & Martin's Point

Movement	WB	SW
Directions Served	LR	L
Maximum Queue (ft)	35	38
Average Queue (ft)	9	7
95th Queue (ft)	28	28
Link Distance (ft)	217	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		55
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Intersection: 5: Veranda St & Marine Hospital Rd

Movement	WB	WB	NE	SW	SW
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	41	24	163	41	141
Average Queue (ft)	12	2	53	10	41
95th Queue (ft)	31	12	126	34	109
Link Distance (ft)		350	1168		452
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100			65	
Storage Blk Time (%)				0	2
Queuing Penalty (veh)				0	0

Zone Summary

Zone wide Queuing Penalty: 1

Intersection: 5: Veranda St & Marine Hospital Rd

Phase	1	2	4	6
Movement(s) Served	SWL	NET	WBL	SWT
Maximum Green (s)	5.0	70.0	17.0	81.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	Min	None	C-Min
Avg. Green (s)	6.4	77.4	6.1	106.2
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	67	18	30	33
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	0	28	0	67
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	7:45	7:45	7:45	7:45	7:45	7:45	7:45
End Time	9:00	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	1501	1519	1538	1511	1483	1503	1467
Vehs Exited	1493	1537	1541	1535	1465	1512	1473
Starting Vehs	35	44	33	47	19	37	36
Ending Vehs	43	26	30	23	37	28	30
Travel Distance (mi)	719	721	732	726	703	718	691
Travel Time (hr)	37.5	36.4	39.3	36.4	35.5	35.3	34.8
Total Delay (hr)	13.7	12.5	14.9	12.2	12.1	11.5	11.7
Total Stops	1237	1122	1267	1192	1123	1096	1152
Fuel Used (gal)	27.5	27.7	28.5	27.7	26.7	27.2	26.5

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	7:45	7:45	7:45	7:45
End Time	9:00	9:00	9:00	9:00
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	1520	1537	1481	1504
Vehs Exited	1508	1533	1489	1508
Starting Vehs	31	37	30	32
Ending Vehs	43	41	22	31
Travel Distance (mi)	721	724	702	716
Travel Time (hr)	36.7	36.7	35.0	36.4
Total Delay (hr)	12.6	12.7	11.7	12.5
Total Stops	1145	1193	1116	1166
Fuel Used (gal)	27.9	27.8	26.8	27.4

Interval #0 Information Seeding

Start Time	7:45
End Time	8:00
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	362	363	375	346	326	316	325
Vehs Exited	359	372	364	367	326	327	323
Starting Vehs	35	44	33	47	19	37	36
Ending Vehs	38	35	44	26	19	26	38
Travel Distance (mi)	181	176	173	175	158	159	155
Travel Time (hr)	9.1	8.4	8.8	8.4	7.2	7.2	7.1
Total Delay (hr)	3.1	2.6	3.0	2.6	1.9	2.0	2.0
Total Stops	260	265	280	283	229	212	242
Fuel Used (gal)	6.8	6.7	6.6	6.6	5.8	5.9	5.8

Interval #1 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	336	383	344	348
Vehs Exited	334	390	342	351
Starting Vehs	31	37	30	32
Ending Vehs	33	30	32	31
Travel Distance (mi)	165	185	165	169
Travel Time (hr)	8.2	9.0	7.9	8.1
Total Delay (hr)	2.7	2.8	2.4	2.5
Total Stops	268	300	269	260
Fuel Used (gal)	6.2	6.9	6.3	6.4

Interval #2 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	462	447	450	421	461	444	439
Vehs Exited	452	447	435	397	444	443	431
Starting Vehs	38	35	44	26	19	26	38
Ending Vehs	48	35	59	50	36	27	46
Travel Distance (mi)	208	198	204	189	202	197	194
Travel Time (hr)	12.0	11.1	12.9	10.3	11.7	10.6	11.2
Total Delay (hr)	5.0	4.4	6.1	4.0	4.9	4.0	4.7
Total Stops	426	356	421	359	384	347	383
Fuel Used (gal)	8.2	8.0	8.5	7.3	8.1	7.6	7.8

Interval #2 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	445	443	442	446
Vehs Exited	443	434	441	436
Starting Vehs	33	30	32	31
Ending Vehs	35	39	33	40
Travel Distance (mi)	200	195	199	199
Travel Time (hr)	11.1	10.7	10.7	11.2
Total Delay (hr)	4.4	4.2	4.1	4.6
Total Stops	355	353	337	373
Fuel Used (gal)	8.0	7.9	7.7	7.9

Interval #3 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	340	331	377	391	356	361	363
Vehs Exited	355	324	405	408	344	347	381
Starting Vehs	48	35	59	50	36	27	46
Ending Vehs	33	42	31	33	48	41	28
Travel Distance (mi)	170	160	192	190	172	176	179
Travel Time (hr)	8.7	7.2	10.0	9.7	8.5	8.6	8.7
Total Delay (hr)	3.1	1.9	3.6	3.4	2.8	2.8	2.7
Total Stops	295	193	317	308	277	257	266
Fuel Used (gal)	6.6	5.8	7.4	7.4	6.5	6.6	6.8

Interval #3 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	350	355	371	356
Vehs Exited	357	363	369	366
Starting Vehs	35	39	33	40
Ending Vehs	28	31	35	34
Travel Distance (mi)	173	176	181	177
Travel Time (hr)	8.2	8.7	8.9	8.7
Total Delay (hr)	2.5	2.9	2.9	2.9
Total Stops	246	282	270	271
Fuel Used (gal)	6.6	6.6	6.7	6.7

Interval #4 Information Recording

Start Time	8:45
End Time	9:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	337	378	336	353	340	382	340
Vehs Exited	327	394	337	363	351	395	338
Starting Vehs	33	42	31	33	48	41	28
Ending Vehs	43	26	30	23	37	28	30
Travel Distance (mi)	161	187	162	173	171	185	164
Travel Time (hr)	7.8	9.6	7.6	8.0	8.1	8.9	7.8
Total Delay (hr)	2.5	3.5	2.2	2.2	2.4	2.8	2.3
Total Stops	256	308	249	242	233	280	261
Fuel Used (gal)	6.0	7.2	6.0	6.5	6.3	7.2	6.1

Interval #4 Information Recording

Start Time	8:45
End Time	9:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	389	356	324	353
Vehs Exited	374	346	337	358
Starting Vehs	28	31	35	34
Ending Vehs	43	41	22	31
Travel Distance (mi)	184	169	157	171
Travel Time (hr)	9.2	8.4	7.5	8.3
Total Delay (hr)	3.1	2.8	2.3	2.6
Total Stops	276	258	240	261
Fuel Used (gal)	7.0	6.5	6.0	6.5

3: Veranda St & Martin's Point Performance by movement

Movement	WBR	NET	NER	SWT	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.5	0.3
Total Del/Veh (s)	5.6	3.3	2.5	0.6	1.8

5: Veranda St & Marine Hospital Rd Performance by movement

Movement	WBL	WBR	NET	NER	SWL	SWT	All
Denied Del/Veh (s)	4.1	0.2	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	19.9	14.2	8.7	6.8	17.8	2.8	6.7

Total Zone Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	317.3

Intersection: 3: Veranda St & Martin's Point

Movement	WB
Directions Served	R
Maximum Queue (ft)	25
Average Queue (ft)	8
95th Queue (ft)	25
Link Distance (ft)	211
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Veranda St & Marine Hospital Rd

Movement	WB	WB	NE	SW	SW
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	58	26	270	86	148
Average Queue (ft)	20	2	102	35	51
95th Queue (ft)	46	12	203	67	126
Link Distance (ft)		350	1168		457
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100			65	
Storage Blk Time (%)				2	3
Queuing Penalty (veh)				11	2

Zone Summary

Zone wide Queuing Penalty: 13

Intersection: 5: Veranda St & Marine Hospital Rd

Phase	1	2	4	6
Movement(s) Served	SWL	NET	WBL	SWT
Maximum Green (s)	5.0	70.0	17.0	81.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	Min	None	C-Min
Avg. Green (s)	6.6	37.6	6.9	87.3
g/C Ratio	-0.01	NA	-0.01	-0.01
Cycles Skipped (%)	9	0	21	22
Cycles @ Minimum (%)	4	0	0	0
Cycles Maxed Out (%)	4	9	0	78
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:45	3:45	3:45	3:45	3:45	3:45	3:45
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	1487	1655	1635	1587	1526	1540	1546
Vehs Exited	1486	1663	1629	1597	1530	1523	1531
Starting Vehs	35	37	35	42	33	30	27
Ending Vehs	36	29	41	32	29	47	42
Travel Distance (mi)	758	840	828	808	778	775	783
Travel Time (hr)	35.6	41.3	40.7	40.0	38.3	37.8	38.9
Total Delay (hr)	10.9	14.0	14.0	13.7	13.1	12.6	13.4
Total Stops	1062	1227	1290	1284	1219	1114	1199
Fuel Used (gal)	28.6	31.8	31.6	30.9	29.9	29.2	30.0

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:45	3:45	3:45	3:45
End Time	5:00	5:00	5:00	5:00
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	1521	1513	1530	1556
Vehs Exited	1523	1523	1539	1555
Starting Vehs	40	43	41	37
Ending Vehs	38	33	32	34
Travel Distance (mi)	773	772	778	789
Travel Time (hr)	39.4	37.2	38.3	38.7
Total Delay (hr)	14.3	12.1	12.9	13.1
Total Stops	1296	1088	1187	1197
Fuel Used (gal)	30.0	29.1	29.8	30.1

Interval #0 Information Seeding

Start Time	3:45
End Time	4:00
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	364	403	426	374	332	340	377
Vehs Exited	363	403	403	375	334	351	364
Starting Vehs	35	37	35	42	33	30	27
Ending Vehs	36	37	58	41	31	19	40
Travel Distance (mi)	187	202	216	192	174	178	190
Travel Time (hr)	8.6	9.5	9.9	9.3	8.0	8.3	8.7
Total Delay (hr)	2.6	2.9	2.9	3.1	2.3	2.5	2.5
Total Stops	274	270	274	298	256	235	245
Fuel Used (gal)	7.1	7.6	7.8	7.2	6.6	6.6	7.1

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	310	370	372	367
Vehs Exited	318	364	380	365
Starting Vehs	40	43	41	37
Ending Vehs	32	49	33	37
Travel Distance (mi)	162	188	198	189
Travel Time (hr)	7.3	8.8	9.7	8.8
Total Delay (hr)	2.1	2.7	3.2	2.7
Total Stops	236	234	297	260
Fuel Used (gal)	6.1	6.9	7.5	7.0

Interval #2 Information Recording

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	452	468	414	445	458	456	458
Vehs Exited	442	443	438	441	457	432	443
Starting Vehs	36	37	58	41	31	19	40
Ending Vehs	46	62	34	45	32	43	55
Travel Distance (mi)	219	226	204	218	225	218	224
Travel Time (hr)	10.7	11.8	10.7	12.3	13.0	11.7	12.4
Total Delay (hr)	3.5	4.5	4.0	5.1	5.6	4.5	5.1
Total Stops	314	390	353	438	447	340	386
Fuel Used (gal)	8.3	8.7	8.2	8.8	9.3	8.5	8.8

Interval #2 Information Recording

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	498	441	433	454
Vehs Exited	456	422	431	441
Starting Vehs	32	49	33	37
Ending Vehs	74	68	35	48
Travel Distance (mi)	236	211	206	219
Travel Time (hr)	13.3	11.2	10.9	11.8
Total Delay (hr)	5.6	4.3	4.1	4.6
Total Stops	467	382	400	392
Fuel Used (gal)	9.4	8.4	8.3	8.7

Interval #3 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	319	395	392	364	372	354	344
Vehs Exited	338	423	389	377	359	364	363
Starting Vehs	46	62	34	45	32	43	55
Ending Vehs	27	34	37	32	45	33	36
Travel Distance (mi)	171	213	202	190	188	181	183
Travel Time (hr)	7.5	10.6	9.8	8.5	8.8	8.8	8.7
Total Delay (hr)	1.9	3.7	3.3	2.3	2.7	3.0	2.7
Total Stops	188	311	322	245	273	282	287
Fuel Used (gal)	6.3	8.2	7.7	7.1	6.9	6.8	7.0

Interval #3 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	340	347	358	358
Vehs Exited	396	383	367	375
Starting Vehs	74	68	35	48
Ending Vehs	18	32	26	31
Travel Distance (mi)	188	185	187	189
Travel Time (hr)	10.0	8.7	8.7	9.0
Total Delay (hr)	3.9	2.7	2.6	2.9
Total Stops	326	250	227	272
Fuel Used (gal)	7.6	6.9	7.0	7.1

Interval #4 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	352	389	403	404	364	390	367
Vehs Exited	343	394	399	404	380	376	361
Starting Vehs	27	34	37	32	45	33	36
Ending Vehs	36	29	41	32	29	47	42
Travel Distance (mi)	181	200	206	208	190	198	185
Travel Time (hr)	8.7	9.4	10.4	9.9	8.6	9.0	9.0
Total Delay (hr)	2.9	2.9	3.8	3.1	2.4	2.6	3.0
Total Stops	286	256	341	303	243	257	281
Fuel Used (gal)	6.8	7.3	8.0	7.8	7.1	7.3	7.1

Interval #4 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	373	355	367	377
Vehs Exited	353	354	361	372
Starting Vehs	18	32	26	31
Ending Vehs	38	33	32	34
Travel Distance (mi)	188	189	188	193
Travel Time (hr)	8.9	8.4	8.9	9.1
Total Delay (hr)	2.7	2.4	2.9	2.9
Total Stops	267	222	263	273
Fuel Used (gal)	7.0	6.9	7.0	7.2

3: Veranda St & Martin's Point Performance by movement

Movement	WBL	WBR	NET	NER	SWL	SWT	All
Denied Del/Veh (s)	0.1	0.1	0.0		3.1	0.5	0.2
Total Del/Veh (s)	35.8	13.8	1.8		7.0	0.6	1.7

5: Veranda St & Marine Hospital Rd Performance by movement

Movement	WBL	WBR	NET	NER	SWL	SWT	All
Denied Del/Veh (s)	4.1	0.3	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	14.0	17.4	5.8	4.7	21.8	3.3	5.1

Total Zone Performance

Denied Del/Veh (s)			0.7				
Total Del/Veh (s)			388.8				

Intersection: 3: Veranda St & Martin's Point

Movement	WB	SW
Directions Served	LR	L
Maximum Queue (ft)	52	30
Average Queue (ft)	14	5
95th Queue (ft)	39	22
Link Distance (ft)	217	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		55
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Intersection: 5: Veranda St & Marine Hospital Rd

Movement	WB	WB	NE	SW	SW
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	52	31	222	31	160
Average Queue (ft)	19	8	81	4	55
95th Queue (ft)	42	28	173	22	121
Link Distance (ft)		350	1168		452
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100			65	
Storage Blk Time (%)					4
Queuing Penalty (veh)					0

Zone Summary

Zone wide Queuing Penalty: 0

Intersection: 5: Veranda St & Marine Hospital Rd

Phase	1	2	4	6
Movement(s) Served	SWL	NET	WBL	SWT
Maximum Green (s)	5.0	51.0	22.0	62.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	Min	None	C-Min
Avg. Green (s)	6.2	61.0	6.6	65.1
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	88	13	15	16
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	0	28	0	84
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:45	3:45	3:45	3:45	3:45	3:45	3:45
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	1741	1688	1638	1601	1613	1637	1646
Vehs Exited	1750	1688	1641	1593	1597	1629	1639
Starting Vehs	33	32	46	41	35	34	33
Ending Vehs	24	32	43	49	51	42	40
Travel Distance (mi)	870	846	816	792	787	809	817
Travel Time (hr)	58.6	44.2	44.3	39.8	44.9	42.8	41.9
Total Delay (hr)	30.0	16.5	17.7	13.8	19.0	16.4	15.0
Total Stops	2107	1522	1561	1350	1591	1504	1400
Fuel Used (gal)	36.8	33.1	32.7	30.8	32.0	31.9	32.0

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:45	3:45	3:45	3:45
End Time	5:00	5:00	5:00	5:00
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	1653	1650	1654	1653
Vehs Exited	1663	1650	1654	1648
Starting Vehs	45	39	42	36
Ending Vehs	35	39	42	40
Travel Distance (mi)	822	829	821	821
Travel Time (hr)	44.5	43.2	44.3	44.8
Total Delay (hr)	17.7	16.1	17.4	18.0
Total Stops	1468	1461	1561	1553
Fuel Used (gal)	32.8	32.5	32.5	32.7

Interval #0 Information Seeding

Start Time	3:45
End Time	4:00
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	424	402	409	374	361	349	420
Vehs Exited	409	388	415	364	363	351	397
Starting Vehs	33	32	46	41	35	34	33
Ending Vehs	48	46	40	51	33	32	56
Travel Distance (mi)	214	200	208	185	181	175	206
Travel Time (hr)	11.0	9.8	11.0	9.1	8.4	8.3	11.1
Total Delay (hr)	4.0	3.2	4.2	3.1	2.5	2.6	4.4
Total Stops	363	331	390	308	280	298	399
Fuel Used (gal)	8.4	7.6	8.2	7.2	6.9	6.7	8.2

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	384	386	391	389
Vehs Exited	389	381	397	385
Starting Vehs	45	39	42	36
Ending Vehs	40	44	36	41
Travel Distance (mi)	201	193	200	196
Travel Time (hr)	9.5	9.9	10.1	9.8
Total Delay (hr)	3.0	3.6	3.6	3.4
Total Stops	282	339	357	337
Fuel Used (gal)	7.5	7.5	7.8	7.6

Interval #2 Information Recording

Start Time	4:15
End Time	4:30
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	6	7
Vehs Entered	538	474	450	446	507	495	465
Vehs Exited	488	474	443	450	472	465	482
Starting Vehs	48	46	40	51	33	32	56
Ending Vehs	98	46	47	47	68	62	39
Travel Distance (mi)	241	229	211	215	232	228	227
Travel Time (hr)	19.2	13.7	13.7	11.4	17.6	13.8	12.3
Total Delay (hr)	11.2	6.1	6.7	4.2	9.9	6.2	4.8
Total Stops	772	497	533	402	689	520	403
Fuel Used (gal)	10.9	9.4	9.1	8.5	10.4	9.5	9.2

Interval #2 Information Recording

Start Time	4:15
End Time	4:30
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	8	9	10	Avg
Vehs Entered	500	477	471	483
Vehs Exited	471	463	452	466
Starting Vehs	40	44	36	41
Ending Vehs	69	58	55	59
Travel Distance (mi)	231	228	224	227
Travel Time (hr)	14.6	13.1	13.8	14.3
Total Delay (hr)	7.0	5.6	6.5	6.8
Total Stops	552	492	522	539
Fuel Used (gal)	9.8	9.4	9.3	9.5

Interval #3 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	396	411	377	388	351	405	376
Vehs Exited	446	424	378	394	387	439	386
Starting Vehs	98	46	47	47	68	62	39
Ending Vehs	48	33	46	41	32	28	29
Travel Distance (mi)	215	211	193	193	181	210	194
Travel Time (hr)	18.2	10.6	9.3	9.6	9.5	11.1	9.7
Total Delay (hr)	11.2	3.7	3.1	3.2	3.5	4.3	3.3
Total Stops	639	375	307	327	326	383	313
Fuel Used (gal)	9.8	8.2	7.5	7.6	7.3	8.3	7.6

Interval #3 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	368	391	401	386
Vehs Exited	394	410	421	406
Starting Vehs	69	58	55	59
Ending Vehs	43	39	35	36
Travel Distance (mi)	189	203	200	199
Travel Time (hr)	10.4	10.0	10.3	10.9
Total Delay (hr)	4.2	3.3	3.8	4.4
Total Stops	308	286	350	362
Fuel Used (gal)	7.6	7.6	8.0	7.9

Interval #4 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	383	401	402	393	394	388	385
Vehs Exited	407	402	405	385	375	374	374
Starting Vehs	48	33	46	41	32	28	29
Ending Vehs	24	32	43	49	51	42	40
Travel Distance (mi)	200	205	205	200	192	196	191
Travel Time (hr)	10.1	10.1	10.3	9.8	9.4	9.6	8.8
Total Delay (hr)	3.6	3.5	3.7	3.2	3.1	3.2	2.5
Total Stops	333	319	331	313	296	303	285
Fuel Used (gal)	7.7	7.9	7.9	7.6	7.4	7.4	7.1

Interval #4 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	401	396	391	392
Vehs Exited	409	396	384	393
Starting Vehs	43	39	35	36
Ending Vehs	35	39	42	40
Travel Distance (mi)	202	204	197	199
Travel Time (hr)	10.0	10.2	10.0	9.8
Total Delay (hr)	3.4	3.5	3.5	3.3
Total Stops	326	344	332	316
Fuel Used (gal)	7.9	8.0	7.5	7.6

3: Veranda St & Martin's Point Performance by movement

Movement	WBR	NET	NER	SWT	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.5	0.2
Total Del/Veh (s)	9.5	2.7	2.2	0.5	1.9

5: Veranda St & Marine Hospital Rd Performance by movement

Movement	WBL	WBR	NET	NER	SWL	SWT	All
Denied Del/Veh (s)	3.9	0.4	0.0	0.0	0.1	0.0	0.3
Total Del/Veh (s)	19.4	14.4	9.5	8.2	27.0	5.1	8.6

Total Zone Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	590.5

Intersection: 3: Veranda St & Martin's Point

Movement	WB
Directions Served	R
Maximum Queue (ft)	48
Average Queue (ft)	18
95th Queue (ft)	39
Link Distance (ft)	211
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Veranda St & Marine Hospital Rd

Movement	WB	WB	NE	SW	SW
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	116	43	310	56	191
Average Queue (ft)	41	8	122	16	82
95th Queue (ft)	88	33	238	46	158
Link Distance (ft)		350	1168		457
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100			65	
Storage Blk Time (%)	1			0	7
Queuing Penalty (veh)	0			3	1

Zone Summary

Zone wide Queuing Penalty: 5

Intersection: 5: Veranda St & Marine Hospital Rd

Phase	1	2	4	6
Movement(s) Served	SWL	NET	WBL	SWT
Maximum Green (s)	5.0	51.0	22.0	62.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	Min	None	C-Min
Avg. Green (s)	6.4	38.3	8.3	45.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	60	2	2	2
Cycles @ Minimum (%)	3	0	0	0
Cycles Maxed Out (%)	3	14	0	98
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

12: ACCESS AND CIRCULATION (14.6.1(B))

1. In general

- a. Safe and reasonable access and internal circulation is provided following the design standards of the Technical Manual.

Per discussion with the Maine Department of Transportation (MDOT), the unsignalized existing access at Building 7 will be redesigned to provide right-in/right-out access only. Primary campus access is via the signalized access located 500 feet± south at Marine Hospital Road.

- b. Continuous accessible internal walkways between existing and proposed development and pedestrian access trails are provided. Sidewalk regrading is proposed at Veranda Street unsignalized access for compliance with the Americans with Disabilities (ADA) standards.
- c. Access for Building #7 is over the existing approved unsignalized curb cut at Veranda Street, and the site is also accessible from the signalized primary access at Marine Hospital Road, as shown on the appended site plans.
- d. Services requiring stacking capacity are not proposed.

2. Loading and servicing.

The site is designed to meet the loading and servicing needs associated with anticipated uses. Vehicular, parking, pedestrian, and bicycle circulation will not be affected by deliveries. Internal circulation routes and geometry were checked utilizing turn templates for anticipated rescue and delivery vehicles. Reference is made to the turn graphics in Section 21.

3. Curb and sidewalks.

- a./b./c. The existing curb and sidewalk along Veranda Street are in good condition. This project will include regrading for connection and compliance with ADA standards at the new right-in/right-out access point. The existing sidewalk connection will be improved as a result of the new vehicular entrance alignment at the Building 7 curb cut. Slopes range from 1% to 4%, in compliance with the Americans with Disabilities Act (ADA) regulations, providing a safe and accessible route to the proposed Building 7, and the public trail system south of Building 6. Waivers from standards are not requested.
- d. Curbing will be reset, as necessary, and shown on appended site plans.

13: PUBLIC TRANSIT (14.6.1(C))

The Martins Point Veranda Street campus is on METRO Route 7- Falmouth Route 1, with transit opportunities available in northbound and southbound directions. Change to available service is not required or proposed.

14: OFF-STREET PARKING (14.6.1(D))

1. Vehicular parking

Martins Point Health Care is eligible for a categorical exception to off-street parking minimums per Land Use Code 19-Off-Street Parking & Loading, Table 19-B: Major Site Plans and Transit proximate development and uses.

No off-street parking is required within ¼ mile of fixed route transit service. Martin's Point Health Care is on METRO Route 7, with inbound and outbound stops within the ¼ mile designation.

For informational purposes, the overall parking count existing and proposed is provided to the City, as requested during the pre-application meetings, as follows:

Existing Surface and Garage:	407
<u>Proposed Surface and Garage:</u>	<u>499</u>
+92 Spaces, 0 Required	

The proposed parking meets the dimensional requirements of the Technical Manual.

15: Transportation Demand Management (TDM) (14.6.1(E))

In accordance with the provisions of this section, 1 we offer the following responses to TDM criteria:

- a. All major site plan triggering development in the B-7 Zone.
Response: Not applicable, the site is not in a B-7 Zone.
- b. All commercial, institutional, or mixed-use developments of 50,000 square feet or more total floor area.
Response: The proposed use as a non-profit organization is categorized as an institutional use with a total floor area of over 50,000 square feet, requiring a TDM Plan that will be submitted under separate cover.
- c. All commercial or institutional uses designed to accommodate 100 or more employees or, for educational institutions, 100 or more students.
Response: The use is designed to accommodate 100+ employees requiring a TDM.

17: LANDSCAPE PRESERVATION (14.6.2(B))

1. The proposed project site is a previously developed urban parcel currently or formerly used for surface parking, a greenhouse, a garage, immunization drive-through services, and a vacant building (Building 7) to be razed and replaced. The Building 7 redevelopment area is designed to avoid the removal of existing trees to the greatest extent practicable. The existing vegetation will be preserved beyond the construction limits, as shown on the site plans. The proposed project has a comprehensive landscaping plan.
2. Proposed removals are identified on site plans, and new plantings and details are shown on the landscape plans. Protection measures outlined in the standards of the City Technical Manual will be utilized.
3. Trees 10 inches or larger DBH within the project area have been located and documented as required. Licensed arborist and project consultant Jeff Tarling describes the on-site conditions and suggests a landscape note per his letter dated November 21, 2023, included in this section.

Additional vegetation location between the 75' and 250' setbacks has occurred since Jeff Tarling's letter, upon request of City staff. The inventory confirms that the proposed removal area does not exceed 40% of the existing trees 4" or greater in size and the removal area is in compliance with requirements. The information is shown on the appended civil plan set.

A point system inventory has been conducted within the 75' high-water mark to verify compliance with allowed vegetation standards. Rectangular plots have been established where the applicant proposes clearing within the required buffer. The results of the point system inventory are included in the updated submittal documents, namely civil plan sheet 40 which is included in the comment response submittal documents, as requested.

- 4./5. Per an email comment received on February 8, 2024, from Mark Reiland, City Arborist, regarding a single hickory to be removed as part of the proposed Building 7 site improvements, the applicant will offer a financial contribution of \$2,000.00 to the City of Portland Tree Fund. The fee is based on the City of Portland Technical Manual Section 4.3.8 fee table indicating \$100.00 per inch diameter (\$100. x 20) for a feature mature tree removal.

Please see the plan set for the proposed landscaping plans.

18: SITE LANDSCAPE AND BUFFERS (14.6.2(C))

The proposed project has been designed to be in compliance with the applicable landscape and buffering requirements of the R-P zone.

1. Landscaping.

This provision of the ordinance is applicable, and the landscape design at the Building 7 lot meets or exceeds the requirements of the Technical Manual. Landscape plans are provided within the plan set, identifying trees to remain and proposed plantings.

2. Buffers.

- a. Loading and service areas are screened from view from public rights of way. Trash service areas are internal to the building behind doors. Site screening for the proposed emergency generator is shown on the site plan. The building's mechanical systems are roof-mounted and screened.
- b. The project does not abut a residential zone; therefore, a new landscape buffer is not applicable.

3. Parking and vehicle display lot landscaping.

- a./b./c. Parking is located in exterior lots and on the two lower levels of the new administrative building. By allowed exception, Section 19-Table 19B, transit proximate projects, additional parking is not required. We note that the proposed parking stalls meet the dimensional requirements of the Technical Manual.

4. Street Trees.

- a. Eleven (11) existing trees greater than 6" on the site are within 20' of the front property line and are visible from the right of way. Five (5) existing trees are located in the city's right-of-way.
- b. The existing vegetation on the Building 7 lot will be preserved to the greatest extent practicable and supplemented by the landscaping shown on the appended site plans.

19: WATER QUALITY, STORMWATER MANAGEMENT, AND EROSION CONTROL (14.6.2(D))

1. The Building 7 site is designed to minimize impervious areas to the greatest extent practicable. We note that stormwater management, as planned, provides an increase to treatment and improved conditions on the site by improvements at an eroded area permitted by a Maine DEP Permit by Rule, Section 7-Outfalls.
 - a. Stormwater management does not include ponding or flooding on the site or adjacent properties.
 - b./c. Downstream problems or stormwater system capacity issues are not anticipated.
2. Stormwater management for this project is permitted by the standards of a Maine DEP Stormwater Management Permit by Rule that includes the required Maine Construction General Permit authorization.
3. Development does not pose a risk of groundwater contamination during or post-construction per the Technical Manual stormwater management and water supply standards description.

Please see the plan set for the written ESC Plan and this section for the Stormwater Management Plan.

NOTE: Per City staff comments received in February 2024, updated Contech Engineered Solutions information regarding the Jellyfish Filter design has been inserted at the end of this section. The enclosed letter, design calculations, and standard detail configuration plan amend and supersede the Contech design submittal dated December 2023.



Stormwater Management Report

For:

Martin's Point Veranda Campus

331 Veranda Street
Portland, Maine

Prepared for:

Martin's Point Health Care, INC
PO Box 9746
Portland, ME 04103

Prepared by:

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March 2024

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Attachment 1 – Stormwater Quality Calculations

Attachment 2A – Hydrologic Modeling– Existing Condition (HydroCAD) Summary

Attachment 2B – Hydrologic Modeling– Proposed Condition (HydroCAD) Summary

Attachment 3 – Inspection, Maintenance, and Housekeeping Plan

Attachment 4 – FEMA Flood Insurance Rate Map

Attachment 5 – Stormwater Management Plans

Stormwater Management Report Narrative

A. Introduction

This Stormwater Management Report has been prepared to present analyses performed to address the potential impacts associated with the project due to proposed modifications in stormwater runoff characteristics and land cover changes. The stormwater management controls that are outlined in this report have been designed to suit the proposed redevelopment project and to comply with applicable regulatory requirements.

B. Existing Conditions

Located in Portland Maine, the approximate 12.6-acre property is fully developed as Martin's Point Health Care Vernada Street campus. The entire campus consists of 7 buildings with associated parking, walkways, and landscaped areas. The campus is identified as Lots C001, C005, and C010 on the City of Portland Tax Map 434. The site is bounded by Veranda Street to the north and west, land owned by The City of Portland to the east, and Casco Bay to the south.

This report focuses on an approximate 4.5-acre portion of the campus surrounding the existing buildings 5,6, and 7 that is being directly impacted by the proposed redevelopment project. The project impacts Lot C010 and a portion of Lot C005.

An existing closed drainage system conveys stormwater runoff from the site and outlets directly to Casco Bay at the northeastern edge of the site. The Martin's Point Veranda campus has three existing Filterra tree filters and one existing underdrain soil filter for stormwater treatment within the areas of impact for this project. Although these systems exist on-site, Martin's Point does not currently collect any stormwater credits from the City of Portland. All three existing stormwater detention and treatment systems will be removed and replaced with a proposed end-of-the-line treatment system.

The area of redevelopment is located within Zone V2 100-year floodplain, per the FEMA Flood Insurance Rate Map as depicted on the FEMA FIRM panel 230051 0008 B with an effective date of July 17, 1986. A copy of the FIRM can be found in Attachment 4.

The project site is located within the Casco Bay watershed. Casco Bay is not classified as urban impaired or a lake most at risk from development, per the Maine Department of Environmental Protection (MDEP) Chapter 502.

C. Soils

Soil information for the site was obtained via the USDA United States Department of Agriculture and Natural Resources Conservation Service's Web Soil Survey. The Hydrologic Soil Group (HSG) of the site soils are classified by Technical Release TR-55 of the Soil Conservation Service as follows:

Soil Name	Soil Map Symbol	HSG	Slope (%)
Lyman-Tunbridge Complex	HrB	C	0-8
Lyman-Tunbridge Complex	HrC	C	8-15
Suffield Silt Loam	SuC2	C	8-15

D. Proposed Site and Stormwater Improvements

Proposed site improvements include the removal of an existing structure (BLDG 7), construction of a new 4-story building with a 25,000 square-foot footprint, the redevelopment of the access drive from Veranda Street, the redevelopment of surface-level parking areas, and a variety of enhancements to the existing Martin's Point Varanda campus. Proposed improvements include both redeveloped and newly developed areas, totaling approximately 4.48 acres of developed area with 3.14 acres of impervious area.

Stormwater infrastructure for the development is designed to accommodate proposed site improvements. The proposed drainage system drains to the northeast corner of the site where an end-of-the-line Jellyfish Filter stormwater treatment system is proposed to treat stormwater runoff. Runoff from a proposed offsite trailhead plaza will be captured and treated via permeable pavers before discharging to the proposed drainage system. Runoff from areas of the site that will not be treated by the Jellyfish Filter system will drain directly to Casco Bay. The project's Stormwater Management Plan is designed so that the existing drainage patterns will not be significantly altered. The proposed closed drainage system will utilize the same outlet pipe location as the existing system.

E. Methodology

Stormwater runoff analyses were developed using the "HydroCAD" computer modeling software, which incorporates the TR-55 and TR-20 methodologies as provided by the Soil Conservation Service of the U.S. Department of Agriculture.

The estimated peak runoff rates were calculated using a 24-hour duration storm event with a Type III rainfall distribution. The rainfall amounts for Cumberland County SE for the 2-year, 10-year and 25-year storm events are as follows:

Storm Frequency	24-hr Duration Rainfall (in.)
2-yr	3.1
10-yr	4.6
25-yr	5.8

F. Existing Conditions Model

The existing conditions HydroCAD model consists of eleven (11) catchment areas labeled 1S-11S, and one (1) point of analysis (POA-1) for comparing peak runoff rates.

POA-1: All proposed catchment areas contribute runoff to Point of Analysis 1 (POA-1), Casco Bay, with a total area of approximately 4.48 acres.

- Existing condition catchment areas 1S through 8S represent areas of the project site where stormwater runoff is collected within the existing closed drainage system. Runoff collected in this drainage system is treated by three Filterra tree filters and one underdrain soil filter before discharging at the northeast corner of the property, directly into Casco Bay. Approximately 2.4 acres of impervious area and 0.9 acres of landscaped area are represented by these catchment areas.
- Existing condition catchment area 10S represents the northwestern portion of the project site where runoff drains directly to Casco Bay. 10S consists of mostly wooded and landscaped areas with a minor amount of impervious area. Approximately 0.05 acres of impervious area and 0.23 acres of landscaped area are represented by catchment 10S.
- Existing condition catchment area 9S represents the remaining area on the southeastern portion of the project site where runoff drains directly to Casco Bay. Approximately 0.26 acres of impervious and 0.63 acres of landscaped area are represented by catchment area 9S.

G. Proposed Conditions Model

The post-developed condition HydroCAD model consists of thirteen (13) catchment areas labeled 1.0S – 11.0S. The total proposed area is consistent with existing conditions.

POA-1: All proposed catchment areas contribute runoff to Point of Analysis 1 (POA-1), Casco Bay, with a total area of approximately 4.48 acres.

- Proposed catchment areas 1.0S (inclusive of 1.1S) through 8.0S represent areas of the project site in which stormwater runoff will be collected within the proposed closed drainage system and treated by the Jellyfish Filter system, represented by pond 31P. Approximately 2.36 acres of impervious area and 0.83 acres of landscaped area are represented by these catchment areas.
- Proposed catchment area 1.2S represents the proposed structure which will have a flat light-colored membrane roof which will not be treated via the proposed Jellyfish. This roof drain will connect to a manhole just downstream of the Jellyfish unit and discharge to Casco Bay.
- Proposed catchment area 10.0S represents the northwestern portion of the project site that drains directly to Casco Bay. Approximately 0.05 acres of impervious and 0.19 acres of landscaped area are represented by catchment 10.0S.
- Proposed catchment area 9.0S represents the remaining area along the southern and eastern edges of the project site where runoff drains directly to Casco Bay. Approximately 0.16 acres of impervious area and 0.33 acres of landscaped area are represented by catchment 9.0S.

H. Regulatory Requirements

MDEP Chapters 500 and 502 describe stormwater management requirements for new projects. The rules describe performance standards divided into five major categories: Basic Standard, General Standard, Phosphorous Standard, Urban Impaired Stream Standard, and Flooding Standard. The following sections describe how this project will address these stormwater management performance standards.

Basic Standard – Chapter 500, Section 4(B)

Since the project will disturb more than one (1) acre of land area, MDEP Basic Standards apply, requiring that grading or other construction activities on the site do not impede or otherwise alter drainage ways to have an unreasonable adverse impact. Adverse impacts are minimized by providing an Erosion and Sedimentation Control Plan, and an Inspection, Maintenance, and Housekeeping Plan (Attachment 3) to be implemented during construction and post-construction stabilization of the site. These construction requirements have been developed following Best Management Practice guidelines.

General Standard – Chapter 500, Section 4(C)

Since the project will create more than one (1) acre of impervious surface, MDEP General Standards apply, which require a project's stormwater management system to include treatment measures that will mitigate the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. The General Standards require treatment of no less than 95% of the site's created impervious area and no less than 80% of the site's created developed area (landscaped area and impervious area combined).

A Jellyfish Filter system is being proposed as an end-of-the-line treatment system for the proposed closed drainage system. Jellyfish Filters are effective at removing a wide range of pollutants. Runoff from 100% of the new impervious area and portions of existing impervious areas and 91% of the developed area (impervious and landscaped) is being treated by the Jellyfish Filter. All proposed impervious area is being treated as new impervious area except for the roof of existing building 6. Runoff from building 6 will be collected and treated within the proposed system, bringing the percentage of impervious area treated above 100%. Before runoff enters the Jellyfish Filter, it will pass through The Cascade Separator by Contech as a pre-treatment measure. The Cascade utilizes sediment capture technology to provide high sediment removal efficiency.

Flooding Standard – Chapter 500, Section 4(F)

This project is eligible for a waiver from the flooding standard because runoff from the project site discharges directly to a coastal wetland exclusively in sheet flow, a manmade open channel, or in a piped system.

The following table summarizes the peak rates of runoff for the existing and proposed conditions:

Stormwater Peak Discharge Summary Table									
Study Point	2-Year Storm			10-Year Storm			25-Year Storm		
	Pre (cfs)	Post (cfs)	Diff. (cfs)	Pre (cfs)	Post (cfs)	Diff. (cfs)	Pre (cfs)	Post (cfs)	Diff. (cfs)
POA-1	10.0	10.8	+0.8	16.8	17.2	+0.4	22.3	22.4	+0.2

The HydroCAD Data output sheets from this analysis are appended to this report under Attachments 2A and 2B, along with existing condition and proposed condition stormwater management plans as attachments. The results of stormwater modeling at the identified study point indicate that the peak rates of runoff under proposed conditions will slightly exceed existing conditions for the 2-year, 10-year, and 25-year storm events. However, all stormwater runoff discharges directly into Casco Bay, a major coastal wetland.

I. Summary

The proposed project requires the use of stormwater management systems to meet treatment requirements specified in MDEP Chapter 500 standards. A waiver is being requested for the standard to control peak rates of runoff in accordance with City of Portland standards (Chapter 500.F.3). The proposed stormwater management system includes a Jellyfish that provides the necessary treatment.

Flows leaving the site from the study point and converging at downstream locations, follow the same drainage patterns as the existing condition. Based on the modeling data, it is anticipated that stormwater runoff from the proposed site development will not cause a significant adverse effect on off-site receiving channels or downstream areas, as the existing outfall location is being utilized in the post-development condition and this area is a rock stabilized slope.

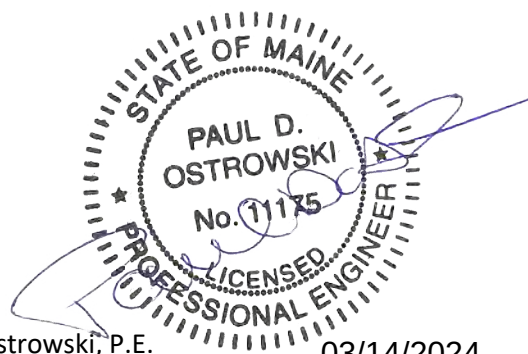
Additionally, erosion and sedimentation controls along with associated maintenance and housekeeping procedures have been outlined to prevent unreasonable impacts on the site and to the surrounding environment.

Prepared by:

SEBAGO TECHNICS, INC.



Kelly Koehler, E.I.
Project Engineer



Paul Ostrowski, P.E.
Senior Project Engineer/Engineering Design Manager

03/14/2024

Attachment 1

Stormwater Quality Calculations

Table 1: MDEP GENERAL STANDARD CALCULATIONS

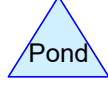
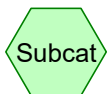
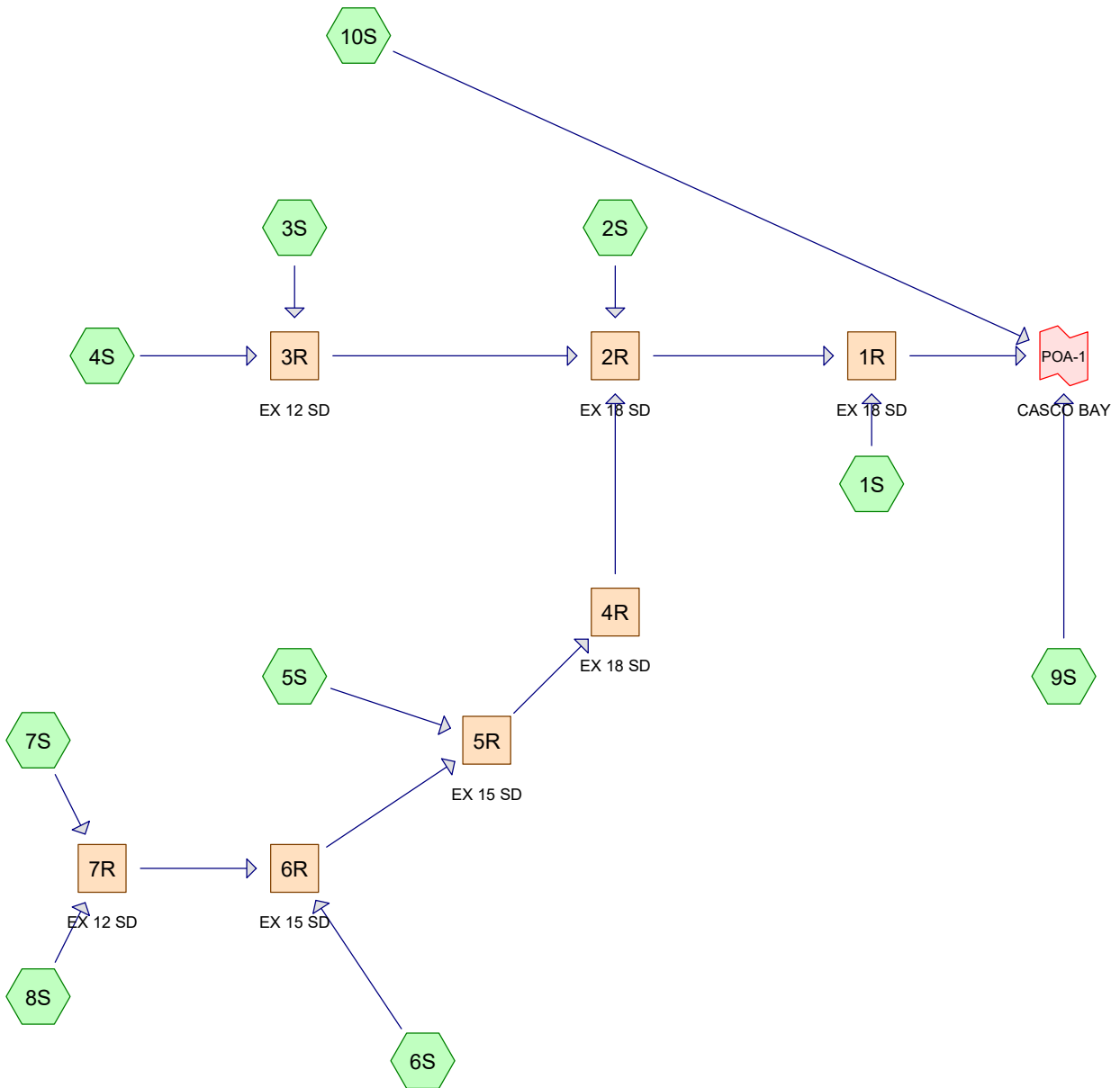
Job #

AREA ID	WATERSHED SIZE (S.F.)	EXISTING ONSITE IMPERVIOUS AREA TO REMAIN (S.F.)	NEW ONSITE IMPERVIOUS AREA (S.F.)	EXISTING ONSITE LANDSCAPED AREA TO REMAIN (S.F.)	NEW ONSITE LANDSCAPED AREA (S.F.)	NET NEW DEVELOPED AREA (S.F.)	NET EXISTING DEVELOPED AREAS (S.F.)	TREATMENT PROVIDED?	IMPERVIOUS AREA TREATED (S.F.)	LANDSCAPED AREA TREATED (S.F.)	DEVELOPED AREA TREATED (S.F.)	TREATMENT BMP
1	2,600		2,600		0	2,600	0	YES	2,600	0	2,600	JELLYFISH FILTER
2	3,620		3,400		220	3,620	0	YES	3,400	220	3,620	JELLYFISH FILTER
3	3,400		200		3200	3,400	0	YES	200	3,200	3,400	JELLYFISH FILTER
4	3,200		1600		1600	3,200	0	YES	1,600	1,600	3,200	JELLYFISH FILTER
5	2,100		2100		0	2,100	0	YES	2,100	0	2,100	JELLYFISH FILTER
6	1,100		0		1100	1,100	0	YES	0	1,100	1,100	JELLYFISH FILTER
7	1,800		1500		300	1,800	0	YES	1,500	300	1,800	JELLYFISH FILTER
8	1,000		300		700	1,000	0	YES	300	700	1,000	JELLYFISH FILTER
9	6,100		5200		900	6,100	0	YES	5,200	900	6,100	JELLYFISH FILTER
10	2,800		1700		1100	2,800	0	YES	1,700	1,100	2,800	JELLYFISH FILTER
11	2,300		1700		600	2,300	0	YES	1,700	600	2,300	JELLYFISH FILTER
12	6,700		4600		2100	6,700	0	YES	4,600	2,100	6,700	JELLYFISH FILTER
13	900		200		700	900	0	YES	200	700	900	JELLYFISH FILTER
14	2,200		1100		1100	2,200	0	YES	1,100	1,100	2,200	JELLYFISH FILTER
15	1,200		1200		0	1,200	0	YES	1,200	0	1,200	JELLYFISH FILTER
16	4,100		0		4100	4,100	0	YES	0	4,100	4,100	JELLYFISH FILTER
17	10,500		2200		8300	10,500	0	NO	0	0	0	N/A
18	4,400		0		4400	4,400	0	YES	0	4,400	4,400	JELLYFISH FILTER
19	3,800		2000		1800	3,800	0	YES	2,000	1,800	3,800	JELLYFISH FILTER
20	2,200		1900		300	2,200	0	YES	1,900	300	2,200	JELLYFISH FILTER
21	7,500		6000		1500	7,500	0	YES	6,000	1,500	7,500	JELLYFISH FILTER
22	3,300		3200		100	3,300	0	YES	3,200	100	3,300	JELLYFISH FILTER
23	4,800		1700		3100	4,800	0	YES	1,700	3,100	4,800	JELLYFISH FILTER
24	1,900		1600		300	1,900	0	YES	1,600	300	1,900	JELLYFISH FILTER
25	800		800		0	800	0	YES	800	0	800	JELLYFISH FILTER
26	13,300		10200		3100	13,300	0	YES	10,200	3,100	13,300	JELLYFISH FILTER
27	25,000		25000		0	25,000	0	NO	0	0	0	WHITE MEMBRANE
28	21,100		6900		14200	21,100	0	NO	0	0	0	N/A
29	43,000	43,000	0	0	0	0	43,000	YES	43,000	0	43,000	JELLYFISH FILTER
30	3,000		1200		1800	3,000	0	YES	1,200	1,800	3,000	JELLYFISH FILTER
31	1,700		200		1500	1,700	0	YES	200	1,500	1,700	JELLYFISH FILTER
32	3,600		3300		300	3,600	0	YES	3,300	300	3,600	JELLYFISH FILTER
TOTAL (S.F.)	195,020	43,000	93600	0	58,420	152,020	43,000		102,500	35,920	138,420	

TOTAL NEW IMPERVIOUS AREA (S.F.)	93,600	TOTAL DEVELOPED AREA (S.F.)	152,020
TOTAL IMPERVIOUS AREA RECEIVING TREATMENT (S.F.)	102,500	TOTAL AREA RECEIVING TREATMENT (S.F.)	138,420
% OF IMPERVIOUS AREA RECEIVING TREATMENT	109.51%	% OF AREA RECEIVING TREATMENT	91.05%

Attachment 2A

Existing Condition HydroCAD Summary



Routing Diagram for 211026 SW EXIST
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211026 SW EXIST

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.626	74	>75% Grass cover, Good, HSG C (1S, 2S, 3S, 4S, 5S, 6S, 7S, 8S, 9S, 10S)
1.662	98	Paved parking, HSG C (1S, 2S, 3S, 4S, 5S, 6S, 7S, 8S, 9S, 10S)
0.987	98	Roof (6S)
0.202	70	Woods, Good, HSG C (4S, 5S, 7S, 10S)

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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 1S:

Runoff = 1.4 cfs @ 12.09 hrs, Volume= 0.096 af, Depth= 1.83"
 Routed to Reach 1R : EX 18 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.298	74	>75% Grass cover, Good, HSG C
0.333	98	Paved parking, HSG C
0.631	87	Weighted Average
0.298		47.23% Pervious Area
0.333		52.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	5	0.0200	0.74		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
0.0	5	0.3000	8.82		Shallow Concentrated Flow, B-C
					Unpaved Kv= 16.1 fps
0.1	10	0.2100	2.29		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
0.0	10	0.2000	7.20		Shallow Concentrated Flow, D-E
					Unpaved Kv= 16.1 fps
0.4	65	0.2500	2.50		Shallow Concentrated Flow, E-F
					Woodland Kv= 5.0 fps
0.0	10	0.1000	5.09		Shallow Concentrated Flow, F-G
					Unpaved Kv= 16.1 fps
0.3	85	0.0470	4.40		Shallow Concentrated Flow, G-H
					Paved Kv= 20.3 fps
0.4	85	0.0300	3.52		Shallow Concentrated Flow, H-I
					Paved Kv= 20.3 fps
4.7					Direct Entry, DIRECT
6.0	275	Total			

Summary for Subcatchment 2S:

Runoff = 1.1 cfs @ 12.09 hrs, Volume= 0.079 af, Depth= 2.08"
 Routed to Reach 2R : EX 18 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.149	74	>75% Grass cover, Good, HSG C
0.305	98	Paved parking, HSG C
0.454	90	Weighted Average
0.149		32.82% Pervious Area
0.305		67.18% Impervious Area

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Type III 24-hr 2-YR Rainfall=3.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	60	0.3000	0.45		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.10"
0.2	60	0.0500	4.54		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
3.6					Direct Entry, DIRECT
6.0	120	Total			

Summary for Subcatchment 3S:

Runoff = 0.2 cfs @ 12.08 hrs, Volume= 0.017 af, Depth= 2.65"
Routed to Reach 3R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.005	74	>75% Grass cover, Good, HSG C
0.074	98	Paved parking, HSG C
0.079	96	Weighted Average
0.005		6.33% Pervious Area
0.074		93.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	20	0.0750	1.66		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.10"
0.4	130	0.0850	5.92		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
5.4					Direct Entry, DIRECT
6.0	150	Total			

Summary for Subcatchment 4S:

Runoff = 0.2 cfs @ 12.09 hrs, Volume= 0.018 af, Depth= 1.33"
Routed to Reach 3R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.050	70	Woods, Good, HSG C
0.060	74	>75% Grass cover, Good, HSG C
0.052	98	Paved parking, HSG C
0.162	80	Weighted Average
0.110		67.90% Pervious Area
0.052		32.10% Impervious Area

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Type III 24-hr 2-YR Rainfall=3.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	30	0.2100	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.0	25	0.3800	9.92		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.5	150	0.0660	5.22		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
2.2					Direct Entry, DIRECT
6.0	205	Total			

Summary for Subcatchment 5S:

Runoff = 0.2 cfs @ 12.09 hrs, Volume= 0.016 af, Depth= 1.67"
Routed to Reach 5R : EX 15 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.009	70	Woods, Good, HSG C
0.053	74	>75% Grass cover, Good, HSG C
0.055	98	Paved parking, HSG C
0.117	85	Weighted Average
0.062		52.99% Pervious Area
0.055		47.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	50	0.0300	0.17		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.10"
0.2	60	0.0560	4.80		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.6					Direct Entry, DIRECT
6.0	210	Total			

Summary for Subcatchment 6S:

Runoff = 3.6 cfs @ 12.08 hrs, Volume= 0.269 af, Depth= 2.45"
Routed to Reach 6R : EX 15 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

211026 SW EXIST

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Type III 24-hr 2-YR Rainfall=3.10"

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Area (ac)	CN	Description
0.229	74	>75% Grass cover, Good, HSG C
0.104	98	Paved parking, HSG C
* 0.987	98	Roof
1.320	94	Weighted Average
0.229		17.35% Pervious Area
1.091		82.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	10	0.2000	0.27		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.10"
0.3	45	0.1500	2.71		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
0.3	165	0.0200	8.06	9.90	Pipe Channel, C-D 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
4.8					Direct Entry, DIRECT ENTRY
6.0	220	Total			

Summary for Subcatchment 7S:

Runoff = 0.7 cfs @ 12.09 hrs, Volume= 0.050 af, Depth= 2.16"
 Routed to Reach 7R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.006	70	Woods, Good, HSG C
0.078	74	>75% Grass cover, Good, HSG C
0.193	98	Paved parking, HSG C
0.277	91	Weighted Average
0.084		30.32% Pervious Area
0.193		69.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	70	0.0280	1.44		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.10"
0.2	65	0.0460	4.35		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.1	25	0.0800	4.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
4.9					Direct Entry, DIRECT
6.0	160	Total			

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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 8S:

Runoff = 0.8 cfs @ 12.08 hrs, Volume= 0.059 af, Depth= 2.55"
 Routed to Reach 7R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.035	74	>75% Grass cover, Good, HSG C
0.244	98	Paved parking, HSG C
0.279	95	Weighted Average
0.035		12.54% Pervious Area
0.244		87.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT

Summary for Subcatchment 9S:

Runoff = 1.4 cfs @ 12.09 hrs, Volume= 0.102 af, Depth= 1.39"
 Routed to Link POA-1 : CASCO BAY

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.631	74	>75% Grass cover, Good, HSG C
0.253	98	Paved parking, HSG C
0.884	81	Weighted Average
0.631		71.38% Pervious Area
0.253		28.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	33	0.1000	0.26		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.7	135	0.2400	3.43		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
0.2	80	0.1200	7.03		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
0.0	10	1.0000	20.30		Shallow Concentrated Flow, D-E
					Paved Kv= 20.3 fps
2.9					Direct Entry, DIRECT
6.0	258	Total			

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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 10S:

Runoff = 0.3 cfs @ 12.09 hrs, Volume= 0.025 af, Depth= 1.08"
 Routed to Link POA-1 : CASCO BAY

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.137	70	Woods, Good, HSG C
0.088	74	>75% Grass cover, Good, HSG C
0.049	98	Paved parking, HSG C
0.274	76	Weighted Average
0.225		82.12% Pervious Area
0.049		17.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	20	0.2900	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.5	90	0.1600	2.80		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
0.2	45	0.0330	3.69		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.8	80	0.0510	1.58		Shallow Concentrated Flow, D-E Short Grass Pasture Kv= 7.0 fps
2.4					Direct Entry, DIRECTY ENTRY
6.0	235	Total			

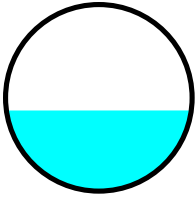
Summary for Reach 1R: EX 18 SD

Inflow Area = 3.319 ac, 70.71% Impervious, Inflow Depth = 2.19" for 2-YR event
 Inflow = 8.3 cfs @ 12.09 hrs, Volume= 0.605 af
 Outflow = 8.3 cfs @ 12.09 hrs, Volume= 0.605 af, Atten= 0%, Lag= 0.0 min
 Routed to Link POA-1 : CASCO BAY

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Max. Velocity= 11.24 fps, Min. Travel Time= 0.0 min
 Avg. Velocity= 3.56 fps, Avg. Travel Time= 0.1 min

Peak Storage= 19 cf @ 12.09 hrs
 Average Depth at Peak Storage= 0.65' , Surface Width= 1.49'
 Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 21.2 cfs

18.0" Round Pipe
 n= 0.012
 Length= 26.0' Slope= 0.0346 '/'
 Inlet Invert= 22.90', Outlet Invert= 22.00'

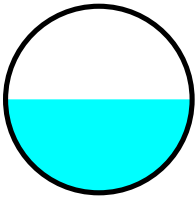
**Summary for Reach 2R: EX 18 SD**

Inflow Area = 2.688 ac, 74.93% Impervious, Inflow Depth = 2.27" for 2-YR event
Inflow = 6.9 cfs @ 12.09 hrs, Volume= 0.509 af
Outflow = 6.9 cfs @ 12.09 hrs, Volume= 0.509 af, Atten= 0%, Lag= 0.2 min
Routed to Reach 1R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.79 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.50 fps, Avg. Travel Time= 0.9 min

Peak Storage= 115 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.75' , Surface Width= 1.50'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 13.8 cfs

18.0" Round Pipe
n= 0.012
Length= 130.0' Slope= 0.0146 '/'
Inlet Invert= 24.90', Outlet Invert= 23.00'

**Summary for Reach 3R: EX 12 SD**

Inflow Area = 0.241 ac, 52.28% Impervious, Inflow Depth = 1.76" for 2-YR event
Inflow = 0.5 cfs @ 12.09 hrs, Volume= 0.035 af
Outflow = 0.5 cfs @ 12.10 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.4 min
Routed to Reach 2R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.00 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.27 fps, Avg. Travel Time= 2.0 min

Peak Storage= 18 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.21' , Surface Width= 0.81'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.0 cfs

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Type III 24-hr 2-YR Rainfall=3.10"

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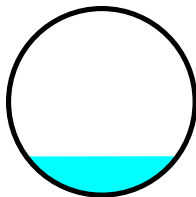
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12.0" Round Pipe

n= 0.012

Length= 150.0' Slope= 0.0167 '/'

Inlet Invert= 27.40', Outlet Invert= 24.90'

**Summary for Reach 4R: EX 18 SD**

Inflow Area = 1.993 ac, 79.43% Impervious, Inflow Depth = 2.38" for 2-YR event

Inflow = 5.3 cfs @ 12.09 hrs, Volume= 0.395 af

Outflow = 5.3 cfs @ 12.09 hrs, Volume= 0.395 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 2R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 14.50 fps, Min. Travel Time= 0.1 min

Avg. Velocity= 4.66 fps, Avg. Travel Time= 0.2 min

Peak Storage= 18 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.39' , Surface Width= 1.32'

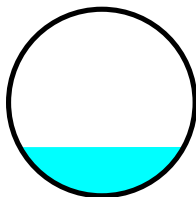
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 35.6 cfs

18.0" Round Pipe

n= 0.012

Length= 50.0' Slope= 0.0980 '/'

Inlet Invert= 29.90', Outlet Invert= 25.00'

**Summary for Reach 5R: EX 15 SD**

Inflow Area = 1.993 ac, 79.43% Impervious, Inflow Depth = 2.38" for 2-YR event

Inflow = 5.3 cfs @ 12.09 hrs, Volume= 0.395 af

Outflow = 5.3 cfs @ 12.09 hrs, Volume= 0.395 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 4R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 22.53 fps, Min. Travel Time= 0.0 min

Avg. Velocity= 7.26 fps, Avg. Travel Time= 0.1 min

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Type III 24-hr 2-YR Rainfall=3.10"

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Peak Storage= 11 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.31' , Surface Width= 1.08'

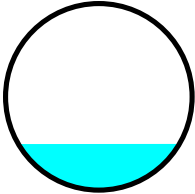
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 39.6 cfs

15.0" Round Pipe

n= 0.012

Length= 45.0' Slope= 0.3209 '/'

Inlet Invert= 44.44', Outlet Invert= 30.00'

**Summary for Reach 6R: EX 15 SD**

Inflow Area = 1.876 ac, 81.45% Impervious, Inflow Depth = 2.42" for 2-YR event

Inflow = 5.1 cfs @ 12.09 hrs, Volume= 0.378 af

Outflow = 5.1 cfs @ 12.09 hrs, Volume= 0.378 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 5R : EX 15 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 8.70 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 2.86 fps, Avg. Travel Time= 0.1 min

Peak Storage= 9 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.60' , Surface Width= 1.25'

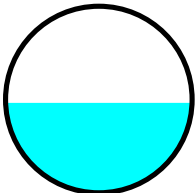
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 10.8 cfs

15.0" Round Pipe

n= 0.012

Length= 15.0' Slope= 0.0240 '/'

Inlet Invert= 44.90', Outlet Invert= 44.54'

**Summary for Reach 7R: EX 12 SD**

Inflow Area = 0.556 ac, 78.60% Impervious, Inflow Depth = 2.36" for 2-YR event

Inflow = 1.5 cfs @ 12.09 hrs, Volume= 0.109 af

Outflow = 1.5 cfs @ 12.09 hrs, Volume= 0.109 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 6R : EX 15 SD

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Type III 24-hr 2-YR Rainfall=3.10"

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 19.07 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 6.16 fps, Avg. Travel Time= 0.1 min

Peak Storage= 2 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.16' , Surface Width= 0.72'

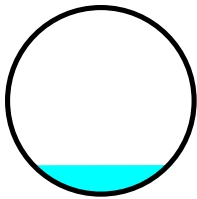
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 28.4 cfs

12.0" Round Pipe

n= 0.012

Length= 20.0' Slope= 0.5400 '/'

Inlet Invert= 56.50', Outlet Invert= 45.70'

**Summary for Link POA-1: CASCO BAY**

Inflow Area = 4.477 ac, 59.17% Impervious, Inflow Depth = 1.96" for 2-YR event

Inflow = 10.0 cfs @ 12.09 hrs, Volume= 0.732 af

Primary = 10.0 cfs @ 12.09 hrs, Volume= 0.732 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 1S:

Runoff = 2.3 cfs @ 12.09 hrs, Volume= 0.168 af, Depth= 3.19"
 Routed to Reach 1R : EX 18 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.298	74	>75% Grass cover, Good, HSG C
0.333	98	Paved parking, HSG C
0.631	87	Weighted Average
0.298		47.23% Pervious Area
0.333		52.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	5	0.0200	0.74		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
0.0	5	0.3000	8.82		Shallow Concentrated Flow, B-C
					Unpaved Kv= 16.1 fps
0.1	10	0.2100	2.29		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
0.0	10	0.2000	7.20		Shallow Concentrated Flow, D-E
					Unpaved Kv= 16.1 fps
0.4	65	0.2500	2.50		Shallow Concentrated Flow, E-F
					Woodland Kv= 5.0 fps
0.0	10	0.1000	5.09		Shallow Concentrated Flow, F-G
					Unpaved Kv= 16.1 fps
0.3	85	0.0470	4.40		Shallow Concentrated Flow, G-H
					Paved Kv= 20.3 fps
0.4	85	0.0300	3.52		Shallow Concentrated Flow, H-I
					Paved Kv= 20.3 fps
4.7					Direct Entry, DIRECT
6.0	275	Total			

Summary for Subcatchment 2S:

Runoff = 1.8 cfs @ 12.09 hrs, Volume= 0.132 af, Depth= 3.49"
 Routed to Reach 2R : EX 18 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.149	74	>75% Grass cover, Good, HSG C
0.305	98	Paved parking, HSG C
0.454	90	Weighted Average
0.149		32.82% Pervious Area
0.305		67.18% Impervious Area

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Type III 24-hr 10-YR Rainfall=4.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	60	0.3000	0.45		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.2	60	0.0500	4.54		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
3.6					Direct Entry, DIRECT
6.0	120	Total			

Summary for Subcatchment 3S:

Runoff = 0.3 cfs @ 12.08 hrs, Volume= 0.027 af, Depth= 4.14"
 Routed to Reach 3R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.005	74	>75% Grass cover, Good, HSG C
0.074	98	Paved parking, HSG C
0.079	96	Weighted Average
0.005		6.33% Pervious Area
0.074		93.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	20	0.0750	1.66		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
0.4	130	0.0850	5.92		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
5.4					Direct Entry, DIRECT
6.0	150	Total			

Summary for Subcatchment 4S:

Runoff = 0.5 cfs @ 12.09 hrs, Volume= 0.034 af, Depth= 2.55"
 Routed to Reach 3R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.050	70	Woods, Good, HSG C
0.060	74	>75% Grass cover, Good, HSG C
0.052	98	Paved parking, HSG C
0.162	80	Weighted Average
0.110		67.90% Pervious Area
0.052		32.10% Impervious Area

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Type III 24-hr 10-YR Rainfall=4.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	30	0.2100	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.0	25	0.3800	9.92		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.5	150	0.0660	5.22		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
2.2					Direct Entry, DIRECT
6.0	205	Total			

Summary for Subcatchment 5S:

Runoff = 0.4 cfs @ 12.09 hrs, Volume= 0.029 af, Depth= 3.00"
Routed to Reach 5R : EX 15 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.009	70	Woods, Good, HSG C
0.053	74	>75% Grass cover, Good, HSG C
0.055	98	Paved parking, HSG C
0.117	85	Weighted Average
0.062		52.99% Pervious Area
0.055		47.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	50	0.0300	0.17		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.10"
0.2	60	0.0560	4.80		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.6					Direct Entry, DIRECT
6.0	210	Total			

Summary for Subcatchment 6S:

Runoff = 5.7 cfs @ 12.08 hrs, Volume= 0.431 af, Depth= 3.91"
Routed to Reach 6R : EX 15 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

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Type III 24-hr 10-YR Rainfall=4.60"

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Area (ac)	CN	Description
0.229	74	>75% Grass cover, Good, HSG C
0.104	98	Paved parking, HSG C
* 0.987	98	Roof
1.320	94	Weighted Average
0.229		17.35% Pervious Area
1.091		82.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	10	0.2000	0.27		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.10"
0.3	45	0.1500	2.71		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
0.3	165	0.0200	8.06	9.90	Pipe Channel, C-D 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
4.8					Direct Entry, DIRECT ENTRY
6.0	220	Total			

Summary for Subcatchment 7S:

Runoff = 1.1 cfs @ 12.08 hrs, Volume= 0.083 af, Depth= 3.59"
Routed to Reach 7R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.006	70	Woods, Good, HSG C
0.078	74	>75% Grass cover, Good, HSG C
0.193	98	Paved parking, HSG C
0.277	91	Weighted Average
0.084		30.32% Pervious Area
0.193		69.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	70	0.0280	1.44		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.10"
0.2	65	0.0460	4.35		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.1	25	0.0800	4.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
4.9					Direct Entry, DIRECT
6.0	160	Total			

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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 8S:

Runoff = 1.2 cfs @ 12.08 hrs, Volume= 0.094 af, Depth= 4.02"
 Routed to Reach 7R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.035	74	>75% Grass cover, Good, HSG C
0.244	98	Paved parking, HSG C
0.279	95	Weighted Average
0.035		12.54% Pervious Area
0.244		87.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT

Summary for Subcatchment 9S:

Runoff = 2.7 cfs @ 12.09 hrs, Volume= 0.194 af, Depth= 2.63"
 Routed to Link POA-1 : CASCO BAY

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.631	74	>75% Grass cover, Good, HSG C
0.253	98	Paved parking, HSG C
0.884	81	Weighted Average
0.631		71.38% Pervious Area
0.253		28.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	33	0.1000	0.26		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.7	135	0.2400	3.43		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
0.2	80	0.1200	7.03		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
0.0	10	1.0000	20.30		Shallow Concentrated Flow, D-E
					Paved Kv= 20.3 fps
2.9					Direct Entry, DIRECT
6.0	258	Total			

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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 10S:

Runoff = 0.7 cfs @ 12.09 hrs, Volume= 0.050 af, Depth= 2.21"
 Routed to Link POA-1 : CASCO BAY

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.137	70	Woods, Good, HSG C
0.088	74	>75% Grass cover, Good, HSG C
0.049	98	Paved parking, HSG C
0.274	76	Weighted Average
0.225		82.12% Pervious Area
0.049		17.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	20	0.2900	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.5	90	0.1600	2.80		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
0.2	45	0.0330	3.69		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.8	80	0.0510	1.58		Shallow Concentrated Flow, D-E Short Grass Pasture Kv= 7.0 fps
2.4					Direct Entry, DIRECTY ENTRY
6.0	235	Total			

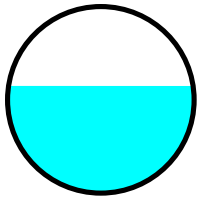
Summary for Reach 1R: EX 18 SD

Inflow Area = 3.319 ac, 70.71% Impervious, Inflow Depth = 3.61" for 10-YR event
 Inflow = 13.4 cfs @ 12.09 hrs, Volume= 0.998 af
 Outflow = 13.4 cfs @ 12.09 hrs, Volume= 0.998 af, Atten= 0%, Lag= 0.0 min
 Routed to Link POA-1 : CASCO BAY

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Max. Velocity= 12.67 fps, Min. Travel Time= 0.0 min
 Avg. Velocity= 4.09 fps, Avg. Travel Time= 0.1 min

Peak Storage= 27 cf @ 12.09 hrs
 Average Depth at Peak Storage= 0.86' , Surface Width= 1.48'
 Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 21.2 cfs

18.0" Round Pipe
 n= 0.012
 Length= 26.0' Slope= 0.0346 '/'
 Inlet Invert= 22.90', Outlet Invert= 22.00'

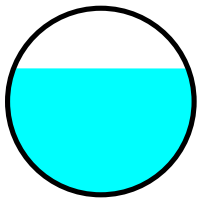
**Summary for Reach 2R: EX 18 SD**

Inflow Area = 2.688 ac, 74.93% Impervious, Inflow Depth = 3.71" for 10-YR event
Inflow = 11.0 cfs @ 12.09 hrs, Volume= 0.830 af
Outflow = 11.0 cfs @ 12.09 hrs, Volume= 0.830 af, Atten= 0%, Lag= 0.2 min
Routed to Reach 1R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.65 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.87 fps, Avg. Travel Time= 0.8 min

Peak Storage= 166 cf @ 12.09 hrs
Average Depth at Peak Storage= 1.02' , Surface Width= 1.40'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 13.8 cfs

18.0" Round Pipe
n= 0.012
Length= 130.0' Slope= 0.0146 '/'
Inlet Invert= 24.90', Outlet Invert= 23.00'

**Summary for Reach 3R: EX 12 SD**

Inflow Area = 0.241 ac, 52.28% Impervious, Inflow Depth = 3.07" for 10-YR event
Inflow = 0.8 cfs @ 12.09 hrs, Volume= 0.062 af
Outflow = 0.8 cfs @ 12.09 hrs, Volume= 0.062 af, Atten= 0%, Lag= 0.4 min
Routed to Reach 2R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.70 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.46 fps, Avg. Travel Time= 1.7 min

Peak Storage= 26 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.28' , Surface Width= 0.89'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.0 cfs

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Type III 24-hr 10-YR Rainfall=4.60"

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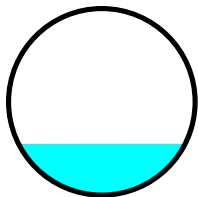
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12.0" Round Pipe

n= 0.012

Length= 150.0' Slope= 0.0167 '/'

Inlet Invert= 27.40', Outlet Invert= 24.90'

**Summary for Reach 4R: EX 18 SD**

Inflow Area = 1.993 ac, 79.43% Impervious, Inflow Depth = 3.83" for 10-YR event

Inflow = 8.4 cfs @ 12.08 hrs, Volume= 0.636 af

Outflow = 8.4 cfs @ 12.09 hrs, Volume= 0.636 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 2R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 16.48 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 5.30 fps, Avg. Travel Time= 0.2 min

Peak Storage= 25 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.50' , Surface Width= 1.41'

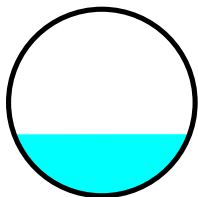
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 35.6 cfs

18.0" Round Pipe

n= 0.012

Length= 50.0' Slope= 0.0980 '/'

Inlet Invert= 29.90', Outlet Invert= 25.00'

**Summary for Reach 5R: EX 15 SD**

Inflow Area = 1.993 ac, 79.43% Impervious, Inflow Depth = 3.83" for 10-YR event

Inflow = 8.4 cfs @ 12.08 hrs, Volume= 0.636 af

Outflow = 8.4 cfs @ 12.08 hrs, Volume= 0.636 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 4R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 25.63 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 8.25 fps, Avg. Travel Time= 0.1 min

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Type III 24-hr 10-YR Rainfall=4.60"

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Peak Storage= 15 cf @ 12.08 hrs

Average Depth at Peak Storage= 0.39' , Surface Width= 1.16'

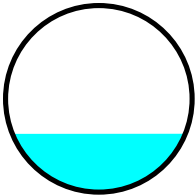
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 39.6 cfs

15.0" Round Pipe

n= 0.012

Length= 45.0' Slope= 0.3209 '/'

Inlet Invert= 44.44', Outlet Invert= 30.00'

**Summary for Reach 6R: EX 15 SD**

Inflow Area = 1.876 ac, 81.45% Impervious, Inflow Depth = 3.88" for 10-YR event

Inflow = 8.0 cfs @ 12.08 hrs, Volume= 0.607 af

Outflow = 8.0 cfs @ 12.08 hrs, Volume= 0.607 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 5R : EX 15 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 9.66 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 3.26 fps, Avg. Travel Time= 0.1 min

Peak Storage= 12 cf @ 12.08 hrs

Average Depth at Peak Storage= 0.80' , Surface Width= 1.20'

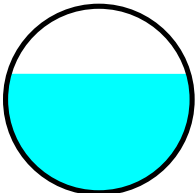
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 10.8 cfs

15.0" Round Pipe

n= 0.012

Length= 15.0' Slope= 0.0240 '/'

Inlet Invert= 44.90', Outlet Invert= 44.54'

**Summary for Reach 7R: EX 12 SD**

Inflow Area = 0.556 ac, 78.60% Impervious, Inflow Depth = 3.81" for 10-YR event

Inflow = 2.3 cfs @ 12.08 hrs, Volume= 0.177 af

Outflow = 2.3 cfs @ 12.08 hrs, Volume= 0.177 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 6R : EX 15 SD

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Type III 24-hr 10-YR Rainfall=4.60"

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 21.82 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 6.99 fps, Avg. Travel Time= 0.0 min

Peak Storage= 2 cf @ 12.08 hrs

Average Depth at Peak Storage= 0.19' , Surface Width= 0.79'

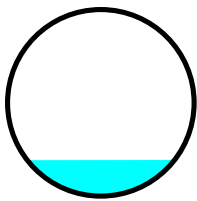
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 28.4 cfs

12.0" Round Pipe

n= 0.012

Length= 20.0' Slope= 0.5400 '/'

Inlet Invert= 56.50', Outlet Invert= 45.70'

**Summary for Link POA-1: CASCO BAY**

Inflow Area = 4.477 ac, 59.17% Impervious, Inflow Depth = 3.33" for 10-YR event

Inflow = 16.8 cfs @ 12.09 hrs, Volume= 1.242 af

Primary = 16.8 cfs @ 12.09 hrs, Volume= 1.242 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 1S:

Runoff = 3.1 cfs @ 12.09 hrs, Volume= 0.227 af, Depth= 4.33"
 Routed to Reach 1R : EX 18 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.298	74	>75% Grass cover, Good, HSG C
0.333	98	Paved parking, HSG C
0.631	87	Weighted Average
0.298		47.23% Pervious Area
0.333		52.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	5	0.0200	0.74		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
0.0	5	0.3000	8.82		Shallow Concentrated Flow, B-C
					Unpaved Kv= 16.1 fps
0.1	10	0.2100	2.29		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
0.0	10	0.2000	7.20		Shallow Concentrated Flow, D-E
					Unpaved Kv= 16.1 fps
0.4	65	0.2500	2.50		Shallow Concentrated Flow, E-F
					Woodland Kv= 5.0 fps
0.0	10	0.1000	5.09		Shallow Concentrated Flow, F-G
					Unpaved Kv= 16.1 fps
0.3	85	0.0470	4.40		Shallow Concentrated Flow, G-H
					Paved Kv= 20.3 fps
0.4	85	0.0300	3.52		Shallow Concentrated Flow, H-I
					Paved Kv= 20.3 fps
4.7					Direct Entry, DIRECT
6.0	275	Total			

Summary for Subcatchment 2S:

Runoff = 2.4 cfs @ 12.08 hrs, Volume= 0.176 af, Depth= 4.65"
 Routed to Reach 2R : EX 18 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.149	74	>75% Grass cover, Good, HSG C
0.305	98	Paved parking, HSG C
0.454	90	Weighted Average
0.149		32.82% Pervious Area
0.305		67.18% Impervious Area

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Type III 24-hr 25-YR Rainfall=5.80"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	60	0.3000	0.45		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.10"
0.2	60	0.0500	4.54		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
3.6					Direct Entry, DIRECT
6.0	120	Total			

Summary for Subcatchment 3S:

Runoff = 0.4 cfs @ 12.08 hrs, Volume= 0.035 af, Depth= 5.33"
 Routed to Reach 3R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.005	74	>75% Grass cover, Good, HSG C
0.074	98	Paved parking, HSG C
0.079	96	Weighted Average
0.005		6.33% Pervious Area
0.074		93.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	20	0.0750	1.66		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.10"
0.4	130	0.0850	5.92		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
5.4					Direct Entry, DIRECT
6.0	150	Total			

Summary for Subcatchment 4S:

Runoff = 0.7 cfs @ 12.09 hrs, Volume= 0.049 af, Depth= 3.60"
 Routed to Reach 3R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.050	70	Woods, Good, HSG C
0.060	74	>75% Grass cover, Good, HSG C
0.052	98	Paved parking, HSG C
0.162	80	Weighted Average
0.110		67.90% Pervious Area
0.052		32.10% Impervious Area

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Type III 24-hr 25-YR Rainfall=5.80"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	30	0.2100	0.15		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.10"
0.0	25	0.3800	9.92		Shallow Concentrated Flow, B-C
					Unpaved Kv= 16.1 fps
0.5	150	0.0660	5.22		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
2.2					Direct Entry, DIRECT
6.0	205	Total			

Summary for Subcatchment 5S:

Runoff = 0.6 cfs @ 12.09 hrs, Volume= 0.040 af, Depth= 4.11"
Routed to Reach 5R : EX 15 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.009	70	Woods, Good, HSG C
0.053	74	>75% Grass cover, Good, HSG C
0.055	98	Paved parking, HSG C
0.117	85	Weighted Average
0.062		52.99% Pervious Area
0.055		47.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	50	0.0300	0.17		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.2	60	0.0560	4.80		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
0.6					Direct Entry, DIRECT
6.0	210	Total			

Summary for Subcatchment 6S:

Runoff = 7.3 cfs @ 12.08 hrs, Volume= 0.561 af, Depth= 5.10"
Routed to Reach 6R : EX 15 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

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Type III 24-hr 25-YR Rainfall=5.80"

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Area (ac)	CN	Description
0.229	74	>75% Grass cover, Good, HSG C
0.104	98	Paved parking, HSG C
* 0.987	98	Roof
1.320	94	Weighted Average
0.229		17.35% Pervious Area
1.091		82.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	10	0.2000	0.27		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.10"
0.3	45	0.1500	2.71		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
0.3	165	0.0200	8.06	9.90	Pipe Channel, C-D 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
4.8					Direct Entry, DIRECT ENTRY
6.0	220	Total			

Summary for Subcatchment 7S:

Runoff = 1.5 cfs @ 12.08 hrs, Volume= 0.110 af, Depth= 4.76"
Routed to Reach 7R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.006	70	Woods, Good, HSG C
0.078	74	>75% Grass cover, Good, HSG C
0.193	98	Paved parking, HSG C
0.277	91	Weighted Average
0.084		30.32% Pervious Area
0.193		69.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	70	0.0280	1.44		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.10"
0.2	65	0.0460	4.35		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.1	25	0.0800	4.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
4.9					Direct Entry, DIRECT
6.0	160	Total			

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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 8S:

Runoff = 1.6 cfs @ 12.08 hrs, Volume= 0.121 af, Depth= 5.21"
 Routed to Reach 7R : EX 12 SD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.035	74	>75% Grass cover, Good, HSG C
0.244	98	Paved parking, HSG C
0.279	95	Weighted Average
0.035		12.54% Pervious Area
0.244		87.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT

Summary for Subcatchment 9S:

Runoff = 3.8 cfs @ 12.09 hrs, Volume= 0.273 af, Depth= 3.70"
 Routed to Link POA-1 : CASCO BAY

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.631	74	>75% Grass cover, Good, HSG C
0.253	98	Paved parking, HSG C
0.884	81	Weighted Average
0.631		71.38% Pervious Area
0.253		28.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	33	0.1000	0.26		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.7	135	0.2400	3.43		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
0.2	80	0.1200	7.03		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
0.0	10	1.0000	20.30		Shallow Concentrated Flow, D-E
					Paved Kv= 20.3 fps
2.9					Direct Entry, DIRECT
6.0	258	Total			

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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 10S:

Runoff = 1.0 cfs @ 12.09 hrs, Volume= 0.073 af, Depth= 3.21"
 Routed to Link POA-1 : CASCO BAY

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.137	70	Woods, Good, HSG C
0.088	74	>75% Grass cover, Good, HSG C
0.049	98	Paved parking, HSG C
0.274	76	Weighted Average
0.225		82.12% Pervious Area
0.049		17.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	20	0.2900	0.16		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.10"
0.5	90	0.1600	2.80		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
0.2	45	0.0330	3.69		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
0.8	80	0.0510	1.58		Shallow Concentrated Flow, D-E
					Short Grass Pasture Kv= 7.0 fps
2.4					Direct Entry, DIRECTY ENTRY
6.0	235	Total			

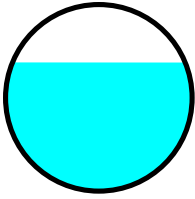
Summary for Reach 1R: EX 18 SD

Inflow Area = 3.319 ac, 70.71% Impervious, Inflow Depth = 4.77" for 25-YR event
 Inflow = 17.4 cfs @ 12.09 hrs, Volume= 1.319 af
 Outflow = 17.4 cfs @ 12.09 hrs, Volume= 1.319 af, Atten= 0%, Lag= 0.0 min
 Routed to Link POA-1 : CASCO BAY

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Max. Velocity= 13.38 fps, Min. Travel Time= 0.0 min
 Avg. Velocity= 4.44 fps, Avg. Travel Time= 0.1 min

Peak Storage= 34 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.04' , Surface Width= 1.39'
 Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 21.2 cfs

18.0" Round Pipe
 n= 0.012
 Length= 26.0' Slope= 0.0346 '/'
 Inlet Invert= 22.90', Outlet Invert= 22.00'

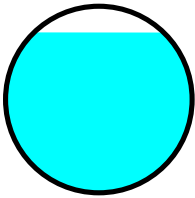
**Summary for Reach 2R: EX 18 SD**

Inflow Area = 2.688 ac, 74.93% Impervious, Inflow Depth = 4.87" for 25-YR event
Inflow = 14.3 cfs @ 12.09 hrs, Volume= 1.092 af
Outflow = 14.3 cfs @ 12.09 hrs, Volume= 1.092 af, Atten= 0%, Lag= 0.3 min
Routed to Reach 1R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.87 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.10 fps, Avg. Travel Time= 0.7 min

Peak Storage= 210 cf @ 12.09 hrs
Average Depth at Peak Storage= 1.29' , Surface Width= 1.04'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 13.8 cfs

18.0" Round Pipe
n= 0.012
Length= 130.0' Slope= 0.0146 '/'
Inlet Invert= 24.90', Outlet Invert= 23.00'

**Summary for Reach 3R: EX 12 SD**

Inflow Area = 0.241 ac, 52.28% Impervious, Inflow Depth = 4.17" for 25-YR event
Inflow = 1.1 cfs @ 12.09 hrs, Volume= 0.084 af
Outflow = 1.1 cfs @ 12.09 hrs, Volume= 0.084 af, Atten= 0%, Lag= 0.4 min
Routed to Reach 2R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.12 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.59 fps, Avg. Travel Time= 1.6 min

Peak Storage= 33 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.32' , Surface Width= 0.93'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.0 cfs

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Type III 24-hr 25-YR Rainfall=5.80"

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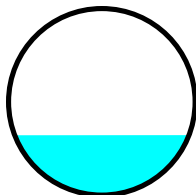
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12.0" Round Pipe

n= 0.012

Length= 150.0' Slope= 0.0167 '/'

Inlet Invert= 27.40', Outlet Invert= 24.90'

**Summary for Reach 4R: EX 18 SD**

Inflow Area = 1.993 ac, 79.43% Impervious, Inflow Depth = 5.01" for 25-YR event

Inflow = 10.8 cfs @ 12.08 hrs, Volume= 0.832 af

Outflow = 10.8 cfs @ 12.09 hrs, Volume= 0.832 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 2R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 17.68 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 5.72 fps, Avg. Travel Time= 0.1 min

Peak Storage= 31 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.57' , Surface Width= 1.45'

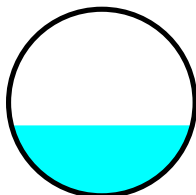
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 35.6 cfs

18.0" Round Pipe

n= 0.012

Length= 50.0' Slope= 0.0980 '/'

Inlet Invert= 29.90', Outlet Invert= 25.00'

**Summary for Reach 5R: EX 15 SD**

Inflow Area = 1.993 ac, 79.43% Impervious, Inflow Depth = 5.01" for 25-YR event

Inflow = 10.8 cfs @ 12.08 hrs, Volume= 0.832 af

Outflow = 10.8 cfs @ 12.08 hrs, Volume= 0.832 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 4R : EX 18 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 27.52 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 8.89 fps, Avg. Travel Time= 0.1 min

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Type III 24-hr 25-YR Rainfall=5.80"

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Peak Storage= 18 cf @ 12.08 hrs

Average Depth at Peak Storage= 0.45' , Surface Width= 1.20'

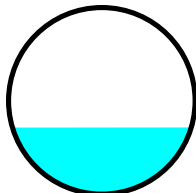
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 39.6 cfs

15.0" Round Pipe

n= 0.012

Length= 45.0' Slope= 0.3209 '/'

Inlet Invert= 44.44', Outlet Invert= 30.00'

**Summary for Reach 6R: EX 15 SD**

Inflow Area = 1.876 ac, 81.45% Impervious, Inflow Depth = 5.07" for 25-YR event

Inflow = 10.3 cfs @ 12.08 hrs, Volume= 0.792 af

Outflow = 10.3 cfs @ 12.08 hrs, Volume= 0.792 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 5R : EX 15 SD

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 10.05 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 3.51 fps, Avg. Travel Time= 0.1 min

Peak Storage= 15 cf @ 12.08 hrs

Average Depth at Peak Storage= 0.97' , Surface Width= 1.04'

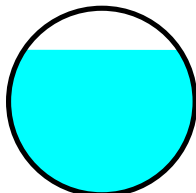
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 10.8 cfs

15.0" Round Pipe

n= 0.012

Length= 15.0' Slope= 0.0240 '/'

Inlet Invert= 44.90', Outlet Invert= 44.54'

**Summary for Reach 7R: EX 12 SD**

Inflow Area = 0.556 ac, 78.60% Impervious, Inflow Depth = 4.99" for 25-YR event

Inflow = 3.0 cfs @ 12.08 hrs, Volume= 0.231 af

Outflow = 3.0 cfs @ 12.08 hrs, Volume= 0.231 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 6R : EX 15 SD

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Type III 24-hr 25-YR Rainfall=5.80"

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 23.50 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 7.52 fps, Avg. Travel Time= 0.0 min

Peak Storage= 3 cf @ 12.08 hrs

Average Depth at Peak Storage= 0.22' , Surface Width= 0.83'

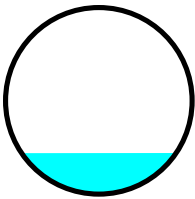
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 28.4 cfs

12.0" Round Pipe

n= 0.012

Length= 20.0' Slope= 0.5400 '/'

Inlet Invert= 56.50', Outlet Invert= 45.70'

**Summary for Link POA-1: CASCO BAY**

Inflow Area = 4.477 ac, 59.17% Impervious, Inflow Depth = 4.46" for 25-YR event

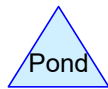
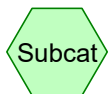
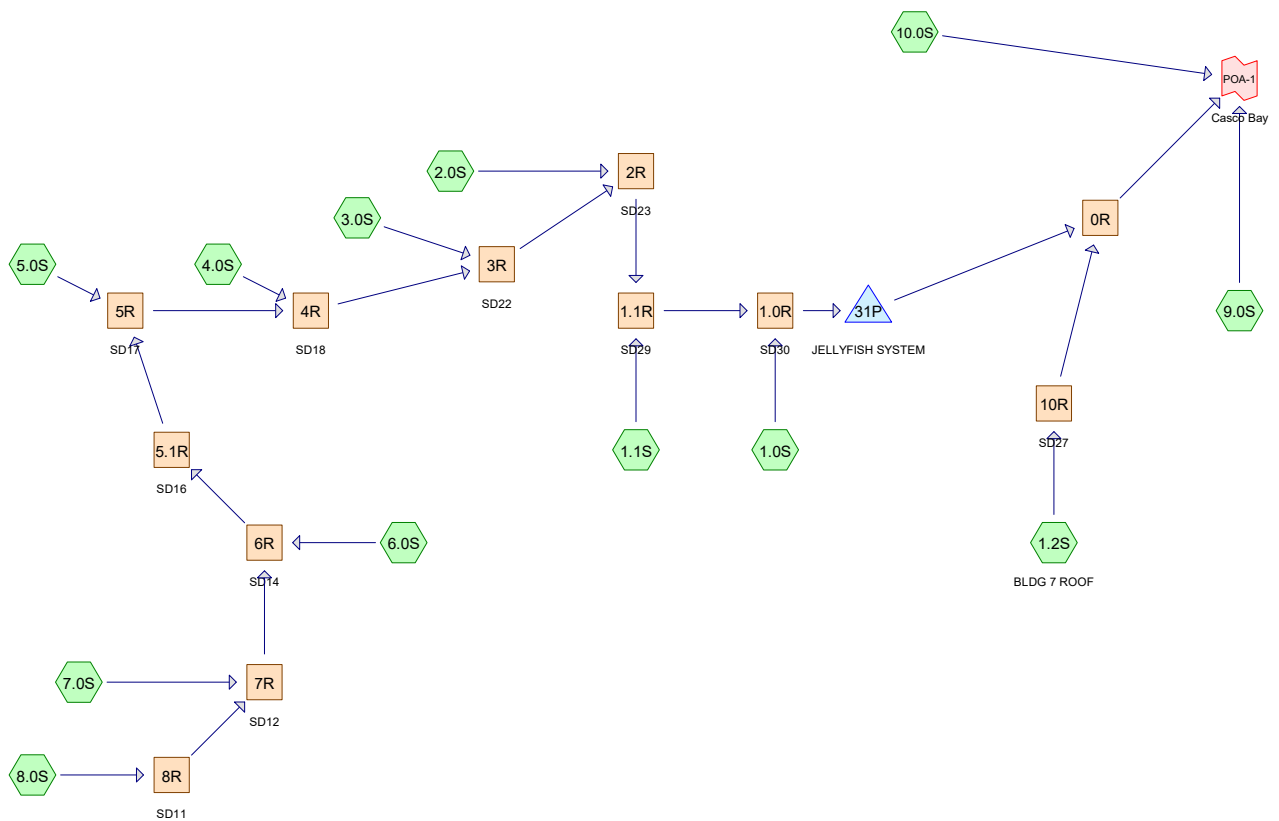
Inflow = 22.3 cfs @ 12.09 hrs, Volume= 1.665 af

Primary = 22.3 cfs @ 12.09 hrs, Volume= 1.665 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Attachment 2B

Proposed Condition HydroCAD Summary



Routing Diagram for 211026 SW PROPOSED
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.151	74	>75% Grass cover, Good, HSG C (1.0S, 1.1S, 2.0S, 3.0S, 4.0S, 5.0S, 6.0S, 7.0S, 8.0S, 9.0S, 10.0S)
1.577	98	Paved parking, HSG C (1.0S, 1.1S, 2.0S, 3.0S, 4.0S, 5.0S, 6.0S, 7.0S, 8.0S, 9.0S, 10.0S)
1.561	98	Roofs, HSG C (1.2S, 8.0S)
0.188	70	Woods, Good, HSG C (5.0S, 10.0S)

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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 1.0S:

Runoff = 0.8 cfs @ 12.08 hrs, Volume= 0.062 af, Depth= 2.43"
 Routed to Reach 1.0R : SD30

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.234	98	Paved parking, HSG C
0.071	74	>75% Grass cover, Good, HSG C
0.305		Weighted Average
0.071		23.28% Pervious Area
0.234		76.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	25	0.0200	1.03		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
0.6	100	0.0200	2.87		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
5.0					Direct Entry, DIRECT
6.0	125	Total			

Summary for Subcatchment 1.1S:

Runoff = 0.7 cfs @ 12.09 hrs, Volume= 0.058 af, Depth= 1.87"
 Routed to Reach 1.1R : SD29

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.195	74	>75% Grass cover, Good, HSG C
0.175	98	Paved parking, HSG C
0.370		Weighted Average
0.195		52.70% Pervious Area
0.175		47.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	20	0.0200	0.12		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.5	110	0.0300	3.52		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
2.8					Direct Entry, DIRECT ENTRY
6.0	130	Total			

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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 1.2S: BLDG 7 ROOF

Runoff = 1.7 cfs @ 12.08 hrs, Volume= 0.137 af, Depth= 2.87"
 Routed to Reach 10R : SD27

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.574	98	Roofs, HSG C
0.574		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT ENTRY

Summary for Subcatchment 2.0S:

Runoff = 0.2 cfs @ 12.08 hrs, Volume= 0.018 af, Depth= 2.82"
 Routed to Reach 2R : SD23

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.074	98	Paved parking, HSG C
0.002	74	>75% Grass cover, Good, HSG C
0.076		Weighted Average
0.002		2.63% Pervious Area
0.074		97.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT ENTRY

Summary for Subcatchment 3.0S:

Runoff = 0.5 cfs @ 12.08 hrs, Volume= 0.036 af, Depth= 2.49"
 Routed to Reach 3R : SD22

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
6,000	98	Paved parking, HSG C
1,500	74	>75% Grass cover, Good, HSG C
7,500		Weighted Average
1,500		20.00% Pervious Area
6,000		80.00% Impervious Area

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Type III 24-hr 2-YR Rainfall=3.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	15	0.1500	0.26		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.0	5	0.0150	2.49		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
0.3	20	0.0250	1.11		Shallow Concentrated Flow, C-D
					Short Grass Pasture Kv= 7.0 fps
0.6	115	0.0220	3.01		Shallow Concentrated Flow, D-E
					Paved Kv= 20.3 fps
4.1					Direct Entry, DIRECT ENTRY
6.0	155	Total			

Summary for Subcatchment 4.0S:

Runoff = 0.1 cfs @ 12.08 hrs, Volume= 0.011 af, Depth= 2.61"
 Routed to Reach 4R : SD18

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.044	98	Paved parking, HSG C
0.007	74	>75% Grass cover, Good, HSG C
0.051		Weighted Average
0.007		13.73% Pervious Area
0.044		86.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	25	0.0400	1.35		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
0.3	105	0.1000	6.42		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
5.4					Direct Entry, DIRECT
6.0	130	Total			

Summary for Subcatchment 5.0S:

Runoff = 0.3 cfs @ 12.09 hrs, Volume= 0.021 af, Depth= 1.36"
 Routed to Reach 5R : SD17

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

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Type III 24-hr 2-YR Rainfall=3.10"

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Area (ac)	CN	Description
0.071	74	>75% Grass cover, Good, HSG C
0.046	98	Paved parking, HSG C
0.071	70	Woods, Good, HSG C
0.188		Weighted Average
0.142		75.53% Pervious Area
0.046		24.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	10	0.5000	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.1	25	0.5000	3.54		Shallow Concentrated Flow, B-C Woodland Kv= 5.0 fps
0.4	50	0.1000	2.21		Shallow Concentrated Flow, C-D Short Grass Pasture Kv= 7.0 fps
0.2	70	0.0800	5.74		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
4.3					Direct Entry, DIRECT ENTRY
6.0	155	Total			

Summary for Subcatchment 6.0S:

Runoff = 0.2 cfs @ 12.09 hrs, Volume= 0.015 af, Depth= 2.26"
 Routed to Reach 6R : SD14

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.025	74	>75% Grass cover, Good, HSG C
0.053	98	Paved parking, HSG C
0.078		Weighted Average
0.025		32.05% Pervious Area
0.053		67.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	25	0.0500	1.48		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.10"
0.2	50	0.0600	4.97		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
5.5					Direct Entry, DIRECT ENTRY
6.0	75	Total			

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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 7.0S:

Runoff = 0.4 cfs @ 12.09 hrs, Volume= 0.029 af, Depth= 2.28"
 Routed to Reach 7R : SD12

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.106	98	Paved parking, HSG C
0.048	74	>75% Grass cover, Good, HSG C
0.154		Weighted Average
0.048		31.17% Pervious Area
0.106		68.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	25	0.0200	1.03		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
0.4	90	0.0300	3.52		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
0.3	35	0.0570	1.67		Shallow Concentrated Flow, C-D
					Short Grass Pasture Kv= 7.0 fps
4.9					Direct Entry, DIRECT
6.0	150	Total			

Summary for Subcatchment 8.0S:

Runoff = 4.8 cfs @ 12.08 hrs, Volume= 0.379 af, Depth= 2.55"
 Routed to Reach 8R : SD11

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.299	74	>75% Grass cover, Good, HSG C
0.498	98	Paved parking, HSG C
0.987	98	Roofs, HSG C
1.784		Weighted Average
0.299		16.76% Pervious Area
1.485		83.24% Impervious Area

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Type III 24-hr 2-YR Rainfall=3.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	10	0.0200	0.11		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.3	40	0.0100	2.03		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
0.3	65	0.0350	3.80		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
0.1	40	0.0550	11.53	9.05	Pipe Channel, D-E
					12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
					n= 0.012
0.1	70	0.0500	12.75	15.65	Pipe Channel, E-F
					15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
					n= 0.012
3.6					Direct Entry, DIRECT ENTRY
6.0	225	Total			

Summary for Subcatchment 9.0S:

Runoff = 0.8 cfs @ 12.09 hrs, Volume= 0.064 af, Depth= 1.59"
 Routed to Link POA-1 : Casco Bay

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.158	98	Paved parking, HSG C
0.326	74	>75% Grass cover, Good, HSG C
0.484		Weighted Average
0.326		67.36% Pervious Area
0.158		32.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT

Summary for Subcatchment 10.0S:

Runoff = 0.3 cfs @ 12.09 hrs, Volume= 0.026 af, Depth= 1.28"
 Routed to Link POA-1 : Casco Bay

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-YR Rainfall=3.10"

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Type III 24-hr 2-YR Rainfall=3.10"

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Area (ac)	CN	Description
0.051	98	Paved parking, HSG C
0.073	74	>75% Grass cover, Good, HSG C
0.117	70	Woods, Good, HSG C
0.241		Weighted Average
0.190		78.84% Pervious Area
0.051		21.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	20	0.2900	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.5	90	0.1600	2.80		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
0.2	45	0.0330	3.69		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.8	80	0.0510	1.58		Shallow Concentrated Flow, D-E Short Grass Pasture Kv= 7.0 fps
2.4					Direct Entry, DIRECT ENTRY
6.0	235	Total			

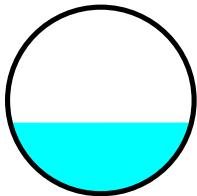
Summary for Reach 0R:

Inflow Area = 3.752 ac, 78.05% Impervious, Inflow Depth = 2.45" for 2-YR event
 Inflow = 9.6 cfs @ 12.09 hrs, Volume= 0.765 af
 Outflow = 9.6 cfs @ 12.09 hrs, Volume= 0.765 af, Atten= 0%, Lag= 0.0 min
 Routed to Link POA-1 : Casco Bay

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Max. Velocity= 8.70 fps, Min. Travel Time= 0.0 min
 Avg. Velocity= 2.81 fps, Avg. Travel Time= 0.1 min

Peak Storage= 28 cf @ 12.09 hrs
 Average Depth at Peak Storage= 0.77' , Surface Width= 1.94'
 Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.0 cfs

24.0" Round Pipe
 n= 0.012
 Length= 25.0' Slope= 0.0160 '/'
 Inlet Invert= 22.60', Outlet Invert= 22.20'



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Type III 24-hr 2-YR Rainfall=3.10"

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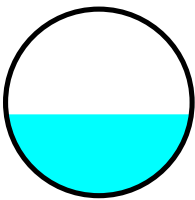
Summary for Reach 1.0R: SD30

Inflow Area = 3.178 ac, 74.09% Impervious, Inflow Depth = 2.37" for 2-YR event
Inflow = 7.9 cfs @ 12.09 hrs, Volume= 0.628 af
Outflow = 7.9 cfs @ 12.09 hrs, Volume= 0.628 af, Atten= 0%, Lag= 0.0 min
Routed to Pond 31P : JELLYFISH SYSTEM

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.99 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.98 fps, Avg. Travel Time= 0.1 min

Peak Storage= 20 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.87' , Surface Width= 1.98'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 20.0 cfs

24.0" Round Pipe
n= 0.012
Length= 15.0' Slope= 0.0067 '/
Inlet Invert= 23.45', Outlet Invert= 23.35'



Summary for Reach 1.1R: SD29

Inflow Area = 2.873 ac, 73.81% Impervious, Inflow Depth = 2.37" for 2-YR event
Inflow = 7.1 cfs @ 12.09 hrs, Volume= 0.567 af
Outflow = 7.1 cfs @ 12.09 hrs, Volume= 0.567 af, Atten= 0%, Lag= 0.1 min
Routed to Reach 1.0R : SD30

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.98 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.97 fps, Avg. Travel Time= 0.3 min

Peak Storage= 42 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.81' , Surface Width= 1.96'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 20.7 cfs

24.0" Round Pipe
n= 0.012
Length= 35.0' Slope= 0.0071 '/
Inlet Invert= 23.80', Outlet Invert= 23.55'

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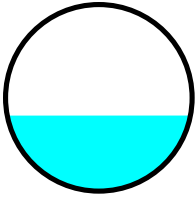
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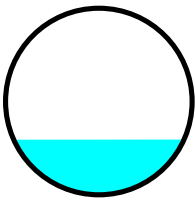
Summary for Reach 2R: SD23

Inflow Area = 2.503 ac, 77.73% Impervious, Inflow Depth = 2.44" for 2-YR event
Inflow = 6.4 cfs @ 12.09 hrs, Volume= 0.509 af
Outflow = 6.4 cfs @ 12.09 hrs, Volume= 0.509 af, Atten= 0%, Lag= 0.1 min
Routed to Reach 1.1R : SD29

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.23 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.68 fps, Avg. Travel Time= 0.2 min

Peak Storage= 31 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.59' , Surface Width= 1.83'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 33.6 cfs

24.0" Round Pipe
n= 0.012
Length= 40.0' Slope= 0.0187 '/'
Inlet Invert= 24.65', Outlet Invert= 23.90'



Summary for Reach 3R: SD22

Inflow Area = 2.427 ac, 77.12% Impervious, Inflow Depth = 2.43" for 2-YR event
Inflow = 6.2 cfs @ 12.09 hrs, Volume= 0.491 af
Outflow = 6.2 cfs @ 12.09 hrs, Volume= 0.491 af, Atten= 0%, Lag= 0.1 min
Routed to Reach 2R : SD23

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.03 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.94 fps, Avg. Travel Time= 0.5 min

Peak Storage= 62 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.54' , Surface Width= 1.78'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 38.7 cfs

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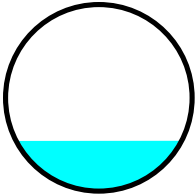
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24.0" Round Pipe

n= 0.012

Length= 90.0' Slope= 0.0250 '/'

Inlet Invert= 27.00', Outlet Invert= 24.75'

**Summary for Reach 4R: SD18**

Inflow Area = 2.255 ac, 76.90% Impervious, Inflow Depth = 2.42" for 2-YR event
Inflow = 5.7 cfs @ 12.09 hrs, Volume= 0.455 af
Outflow = 5.7 cfs @ 12.09 hrs, Volume= 0.455 af, Atten= 0%, Lag= 0.2 min
Routed to Reach 3R : SD22

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.36 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 3.04 fps, Avg. Travel Time= 0.8 min

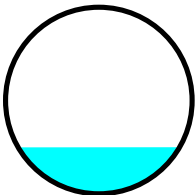
Peak Storage= 92 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.50', Surface Width= 1.73'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 42.0 cfs

24.0" Round Pipe

n= 0.012

Length= 150.0' Slope= 0.0293 '/'

Inlet Invert= 31.50', Outlet Invert= 27.10'

**Summary for Reach 5.1R: SD16**

Inflow Area = 2.016 ac, 81.55% Impervious, Inflow Depth = 2.52" for 2-YR event
Inflow = 5.3 cfs @ 12.09 hrs, Volume= 0.423 af
Outflow = 5.3 cfs @ 12.09 hrs, Volume= 0.423 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 5R : SD17

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 14.20 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 4.62 fps, Avg. Travel Time= 0.1 min

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Peak Storage= 15 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.40' , Surface Width= 1.32'

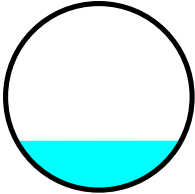
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 34.6 cfs

18.0" Round Pipe

n= 0.012

Length= 40.0' Slope= 0.0925 '/'

Inlet Invert= 36.15', Outlet Invert= 32.45'



Summary for Reach 5R: SD17

Inflow Area = 2.204 ac, 76.68% Impervious, Inflow Depth = 2.42" for 2-YR event

Inflow = 5.6 cfs @ 12.09 hrs, Volume= 0.444 af

Outflow = 5.6 cfs @ 12.09 hrs, Volume= 0.444 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 4R : SD18

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 7.89 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 2.61 fps, Avg. Travel Time= 0.1 min

Peak Storage= 14 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.63' , Surface Width= 1.48'

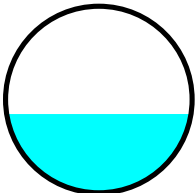
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 15.1 cfs

18.0" Round Pipe

n= 0.012

Length= 20.0' Slope= 0.0175 '/'

Inlet Invert= 32.35', Outlet Invert= 32.00'



Summary for Reach 6R: SD14

Inflow Area = 2.016 ac, 81.55% Impervious, Inflow Depth = 2.52" for 2-YR event

Inflow = 5.3 cfs @ 12.09 hrs, Volume= 0.423 af

Outflow = 5.3 cfs @ 12.09 hrs, Volume= 0.423 af, Atten= 0%, Lag= 0.1 min

Routed to Reach 5.1R : SD16

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 12.88 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 4.20 fps, Avg. Travel Time= 0.4 min

Peak Storage= 46 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.43' , Surface Width= 1.35'

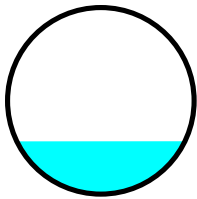
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 30.2 cfs

18.0" Round Pipe

n= 0.012

Length= 110.0' Slope= 0.0705 '/'

Inlet Invert= 44.00', Outlet Invert= 36.25'



Summary for Reach 7R: SD12

Inflow Area = 1.938 ac, 82.09% Impervious, Inflow Depth = 2.53" for 2-YR event

Inflow = 5.2 cfs @ 12.09 hrs, Volume= 0.408 af

Outflow = 5.2 cfs @ 12.09 hrs, Volume= 0.408 af, Atten= 0%, Lag= 0.1 min

Routed to Reach 6R : SD14

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 9.47 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 3.11 fps, Avg. Travel Time= 0.3 min

Peak Storage= 27 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.52' , Surface Width= 1.43'

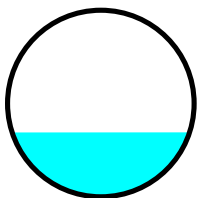
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.0 cfs

18.0" Round Pipe

n= 0.012

Length= 50.0' Slope= 0.0308 '/'

Inlet Invert= 45.64', Outlet Invert= 44.10'



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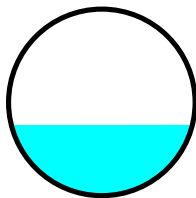
Summary for Reach 8R: SD11

Inflow Area = 1.784 ac, 83.24% Impervious, Inflow Depth = 2.55" for 2-YR event
Inflow = 4.8 cfs @ 12.08 hrs, Volume= 0.379 af
Outflow = 4.8 cfs @ 12.09 hrs, Volume= 0.379 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 7R : SD12

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.75 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.55 fps, Avg. Travel Time= 0.2 min

Peak Storage= 20 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.57' , Surface Width= 1.46'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 15.6 cfs

18.0" Round Pipe
n= 0.012
Length= 32.0' Slope= 0.0188 '/
Inlet Invert= 46.34', Outlet Invert= 45.74'



Summary for Reach 10R: SD27

Inflow Area = 0.574 ac, 100.00% Impervious, Inflow Depth = 2.87" for 2-YR event
Inflow = 1.7 cfs @ 12.08 hrs, Volume= 0.137 af
Outflow = 1.7 cfs @ 12.09 hrs, Volume= 0.137 af, Atten= 0%, Lag= 0.3 min
Routed to Reach 0R :

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.93 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.93 fps, Avg. Travel Time= 1.1 min

Peak Storage= 38 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.36' , Surface Width= 1.13'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 9.6 cfs

15.0" Round Pipe
n= 0.012
Length= 130.0' Slope= 0.0188 '/
Inlet Invert= 26.00', Outlet Invert= 23.55'

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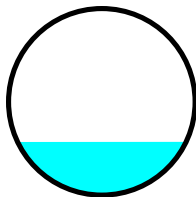
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Type III 24-hr 2-YR Rainfall=3.10"

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**Summary for Pond 31P: JELLYFISH SYSTEM**

Inflow Area = 3.178 ac, 74.09% Impervious, Inflow Depth = 2.37" for 2-YR event
 Inflow = 7.9 cfs @ 12.09 hrs, Volume= 0.628 af
 Outflow = 7.9 cfs @ 12.10 hrs, Volume= 0.628 af, Atten= 0%, Lag= 0.1 min
 Primary = 7.9 cfs @ 12.10 hrs, Volume= 0.628 af
 Routed to Reach 0R :

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Starting Elev= 22.85' Surf.Area= 0.001 ac Storage= 0.009 af
 Peak Elev= 25.00' @ 12.10 hrs Surf.Area= 0.001 ac Storage= 0.012 af (0.003 af above start)
 Flood Elev= 30.00' Surf.Area= 0.001 ac Storage= 0.016 af (0.007 af above start)

Plug-Flow detention time= 19.1 min calculated for 0.619 af (99% of inflow)
 Center-of-Mass det. time= 1.7 min (771.6 - 770.0)

Volume	Invert	Avail.Storage	Storage Description
#1	16.35'	0.016 af	8.00'W x 8.00'L x 11.50'H Prismatic 0.017 af Overall x 96.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Device 3	22.85'	JFPD0808-11-3-54 CSV File Head (feet) 0.00 0.08 0.17 0.25 0.33 0.42 0.50 0.58 0.67 0.75 0.83 0.92 1.00 1.08 1.17 1.25 1.33 1.42 1.50 Disch. (cfs) 0.000 0.015 0.030 0.045 0.059 0.074 0.089 0.267 0.446 0.624 0.802 0.980 1.159 1.337 1.515 1.693 1.872 2.050 2.228
#2	Device 3	24.35'	3.5' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	22.85'	24.0" Round Culvert L= 13.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 22.85' / 22.70' S= 0.0115 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.9 cfs @ 12.10 hrs HW=24.99' TW=23.36' (Dynamic Tailwater)

3=Culvert (Passes 7.9 cfs of 12.7 cfs potential flow)

1=JFPD0808-11-3-54 CSV File (Custom Controls 2.2 cfs)

2=Broad-Crested Rectangular Weir (Weir Controls 5.7 cfs @ 2.51 fps)

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Summary for Link POA-1: Casco Bay

Inflow Area = 4.477 ac, 70.08% Impervious, Inflow Depth = 2.29" for 2-YR event
Inflow = 10.8 cfs @ 12.09 hrs, Volume= 0.855 af
Primary = 10.8 cfs @ 12.09 hrs, Volume= 0.855 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 1.0S:

Runoff = 1.2 cfs @ 12.08 hrs, Volume= 0.097 af, Depth= 3.83"
 Routed to Reach 1.0R : SD30

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.234	98	Paved parking, HSG C
0.071	74	>75% Grass cover, Good, HSG C
0.305		Weighted Average
0.071		23.28% Pervious Area
0.234		76.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	25	0.0200	1.03		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
0.6	100	0.0200	2.87		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
5.0					Direct Entry, DIRECT
6.0	125	Total			

Summary for Subcatchment 1.1S:

Runoff = 1.2 cfs @ 12.09 hrs, Volume= 0.097 af, Depth= 3.14"
 Routed to Reach 1.1R : SD29

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.195	74	>75% Grass cover, Good, HSG C
0.175	98	Paved parking, HSG C
0.370		Weighted Average
0.195		52.70% Pervious Area
0.175		47.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	20	0.0200	0.12		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.5	110	0.0300	3.52		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
2.8					Direct Entry, DIRECT ENTRY
6.0	130	Total			

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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 1.2S: BLDG 7 ROOF

Runoff = 2.6 cfs @ 12.08 hrs, Volume= 0.209 af, Depth= 4.36"
 Routed to Reach 10R : SD27

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.574	98	Roofs, HSG C
0.574		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT ENTRY

Summary for Subcatchment 2.0S:

Runoff = 0.3 cfs @ 12.08 hrs, Volume= 0.027 af, Depth= 4.30"
 Routed to Reach 2R : SD23

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.074	98	Paved parking, HSG C
0.002	74	>75% Grass cover, Good, HSG C
0.076		Weighted Average
0.002		2.63% Pervious Area
0.074		97.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT ENTRY

Summary for Subcatchment 3.0S:

Runoff = 0.7 cfs @ 12.08 hrs, Volume= 0.056 af, Depth= 3.90"
 Routed to Reach 3R : SD22

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
6,000	98	Paved parking, HSG C
1,500	74	>75% Grass cover, Good, HSG C
7,500		Weighted Average
1,500		20.00% Pervious Area
6,000		80.00% Impervious Area

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Type III 24-hr 10-YR Rainfall=4.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	15	0.1500	0.26		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.10"
0.0	5	0.0150	2.49		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.3	20	0.0250	1.11		Shallow Concentrated Flow, C-D Short Grass Pasture Kv= 7.0 fps
0.6	115	0.0220	3.01		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
4.1					Direct Entry, DIRECT ENTRY
6.0	155	Total			

Summary for Subcatchment 4.0S:

Runoff = 0.2 cfs @ 12.08 hrs, Volume= 0.017 af, Depth= 4.05"
 Routed to Reach 4R : SD18

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.044	98	Paved parking, HSG C
0.007	74	>75% Grass cover, Good, HSG C
0.051		Weighted Average
0.007		13.73% Pervious Area
0.044		86.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	25	0.0400	1.35		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.10"
0.3	105	0.1000	6.42		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
5.4					Direct Entry, DIRECT
6.0	130	Total			

Summary for Subcatchment 5.0S:

Runoff = 0.5 cfs @ 12.09 hrs, Volume= 0.039 af, Depth= 2.50"
 Routed to Reach 5R : SD17

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

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Type III 24-hr 10-YR Rainfall=4.60"

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Area (ac)	CN	Description
0.071	74	>75% Grass cover, Good, HSG C
0.046	98	Paved parking, HSG C
0.071	70	Woods, Good, HSG C
0.188		Weighted Average
0.142		75.53% Pervious Area
0.046		24.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	10	0.5000	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.1	25	0.5000	3.54		Shallow Concentrated Flow, B-C Woodland Kv= 5.0 fps
0.4	50	0.1000	2.21		Shallow Concentrated Flow, C-D Short Grass Pasture Kv= 7.0 fps
0.2	70	0.0800	5.74		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
4.3					Direct Entry, DIRECT ENTRY
6.0	155	Total			

Summary for Subcatchment 6.0S:

Runoff = 0.3 cfs @ 12.09 hrs, Volume= 0.024 af, Depth= 3.62"
Routed to Reach 6R : SD14

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.025	74	>75% Grass cover, Good, HSG C
0.053	98	Paved parking, HSG C
0.078		Weighted Average
0.025		32.05% Pervious Area
0.053		67.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	25	0.0500	1.48		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.10"
0.2	50	0.0600	4.97		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
5.5					Direct Entry, DIRECT ENTRY
6.0	75	Total			

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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 7.0S:

Runoff = 0.6 cfs @ 12.08 hrs, Volume= 0.047 af, Depth= 3.64"
 Routed to Reach 7R : SD12

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.106	98	Paved parking, HSG C
0.048	74	>75% Grass cover, Good, HSG C
0.154		Weighted Average
0.048		31.17% Pervious Area
0.106		68.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	25	0.0200	1.03		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
0.4	90	0.0300	3.52		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
0.3	35	0.0570	1.67		Shallow Concentrated Flow, C-D
					Short Grass Pasture Kv= 7.0 fps
4.9					Direct Entry, DIRECT
6.0	150	Total			

Summary for Subcatchment 8.0S:

Runoff = 7.4 cfs @ 12.08 hrs, Volume= 0.591 af, Depth= 3.98"
 Routed to Reach 8R : SD11

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.299	74	>75% Grass cover, Good, HSG C
0.498	98	Paved parking, HSG C
0.987	98	Roofs, HSG C
1.784		Weighted Average
0.299		16.76% Pervious Area
1.485		83.24% Impervious Area

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Type III 24-hr 10-YR Rainfall=4.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	10	0.0200	0.11		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.10"
0.3	40	0.0100	2.03		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.3	65	0.0350	3.80		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.1	40	0.0550	11.53	9.05	Pipe Channel, D-E 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
0.1	70	0.0500	12.75	15.65	Pipe Channel, E-F 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
3.6					Direct Entry, DIRECT ENTRY
6.0	225	Total			

Summary for Subcatchment 9.0S:

Runoff = 1.5 cfs @ 12.09 hrs, Volume= 0.113 af, Depth= 2.81"
Routed to Link POA-1 : Casco Bay

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.158	98	Paved parking, HSG C
0.326	74	>75% Grass cover, Good, HSG C
0.484		Weighted Average
0.326		67.36% Pervious Area
0.158		32.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT

Summary for Subcatchment 10.0S:

Runoff = 0.6 cfs @ 12.09 hrs, Volume= 0.048 af, Depth= 2.39"
Routed to Link POA-1 : Casco Bay

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

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Type III 24-hr 10-YR Rainfall=4.60"

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Area (ac)	CN	Description
0.051	98	Paved parking, HSG C
0.073	74	>75% Grass cover, Good, HSG C
0.117	70	Woods, Good, HSG C
0.241		Weighted Average
0.190		78.84% Pervious Area
0.051		21.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	20	0.2900	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.5	90	0.1600	2.80		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
0.2	45	0.0330	3.69		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.8	80	0.0510	1.58		Shallow Concentrated Flow, D-E Short Grass Pasture Kv= 7.0 fps
2.4					Direct Entry, DIRECT ENTRY
6.0	235	Total			

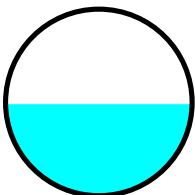
Summary for Reach 0R:

Inflow Area = 3.752 ac, 78.05% Impervious, Inflow Depth = 3.85" for 10-YR event
 Inflow = 15.1 cfs @ 12.09 hrs, Volume= 1.204 af
 Outflow = 15.1 cfs @ 12.09 hrs, Volume= 1.204 af, Atten= 0%, Lag= 0.0 min
 Routed to Link POA-1 : Casco Bay

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Max. Velocity= 9.79 fps, Min. Travel Time= 0.0 min
 Avg. Velocity= 3.20 fps, Avg. Travel Time= 0.1 min

Peak Storage= 38 cf @ 12.09 hrs
 Average Depth at Peak Storage= 0.98' , Surface Width= 2.00'
 Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.0 cfs

24.0" Round Pipe
 n= 0.012
 Length= 25.0' Slope= 0.0160 '/'
 Inlet Invert= 22.60', Outlet Invert= 22.20'



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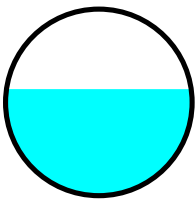
Summary for Reach 1.0R: SD30

Inflow Area = 3.178 ac, 74.09% Impervious, Inflow Depth = 3.76" for 10-YR event
Inflow = 12.5 cfs @ 12.09 hrs, Volume= 0.995 af
Outflow = 12.5 cfs @ 12.09 hrs, Volume= 0.995 af, Atten= 0%, Lag= 0.0 min
Routed to Pond 31P : JELLYFISH SYSTEM

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.72 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.26 fps, Avg. Travel Time= 0.1 min

Peak Storage= 28 cf @ 12.09 hrs
Average Depth at Peak Storage= 1.14' , Surface Width= 1.98'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 20.0 cfs

24.0" Round Pipe
n= 0.012
Length= 15.0' Slope= 0.0067 '/
Inlet Invert= 23.45', Outlet Invert= 23.35'

**Summary for Reach 1.1R: SD29**

Inflow Area = 2.873 ac, 73.81% Impervious, Inflow Depth = 3.75" for 10-YR event
Inflow = 11.3 cfs @ 12.09 hrs, Volume= 0.898 af
Outflow = 11.3 cfs @ 12.09 hrs, Volume= 0.898 af, Atten= 0%, Lag= 0.1 min
Routed to Reach 1.0R : SD30

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.73 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.25 fps, Avg. Travel Time= 0.3 min

Peak Storage= 59 cf @ 12.09 hrs
Average Depth at Peak Storage= 1.05' , Surface Width= 2.00'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 20.7 cfs

24.0" Round Pipe
n= 0.012
Length= 35.0' Slope= 0.0071 '/
Inlet Invert= 23.80', Outlet Invert= 23.55'

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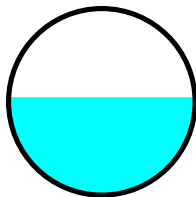
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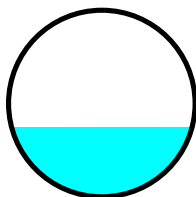
Summary for Reach 2R: SD23

Inflow Area = 2.503 ac, 77.73% Impervious, Inflow Depth = 3.84" for 10-YR event
Inflow = 10.0 cfs @ 12.09 hrs, Volume= 0.801 af
Outflow = 10.0 cfs @ 12.09 hrs, Volume= 0.801 af, Atten= 0%, Lag= 0.1 min
Routed to Reach 1.1R : SD29

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.33 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.06 fps, Avg. Travel Time= 0.2 min

Peak Storage= 43 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.75' , Surface Width= 1.94'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 33.6 cfs

24.0" Round Pipe
n= 0.012
Length= 40.0' Slope= 0.0187 '/
Inlet Invert= 24.65', Outlet Invert= 23.90'



Summary for Reach 3R: SD22

Inflow Area = 2.427 ac, 77.12% Impervious, Inflow Depth = 3.83" for 10-YR event
Inflow = 9.7 cfs @ 12.09 hrs, Volume= 0.774 af
Outflow = 9.7 cfs @ 12.09 hrs, Volume= 0.774 af, Atten= 0%, Lag= 0.1 min
Routed to Reach 2R : SD23

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 10.25 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.35 fps, Avg. Travel Time= 0.4 min

Peak Storage= 85 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.68' , Surface Width= 1.90'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 38.7 cfs

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Type III 24-hr 10-YR Rainfall=4.60"

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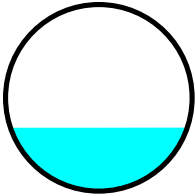
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24.0" Round Pipe

n= 0.012

Length= 90.0' Slope= 0.0250 '/'

Inlet Invert= 27.00', Outlet Invert= 24.75'

**Summary for Reach 4R: SD18**

Inflow Area = 2.255 ac, 76.90% Impervious, Inflow Depth = 3.82" for 10-YR event
Inflow = 9.0 cfs @ 12.09 hrs, Volume= 0.718 af
Outflow = 9.0 cfs @ 12.09 hrs, Volume= 0.718 af, Atten= 0%, Lag= 0.2 min
Routed to Reach 3R : SD22

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 10.64 fps, Min. Travel Time= 0.2 min

Avg. Velocity = 3.47 fps, Avg. Travel Time= 0.7 min

Peak Storage= 127 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.63' , Surface Width= 1.86'

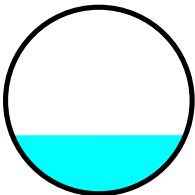
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 42.0 cfs

24.0" Round Pipe

n= 0.012

Length= 150.0' Slope= 0.0293 '/'

Inlet Invert= 31.50', Outlet Invert= 27.10'

**Summary for Reach 5.1R: SD16**

Inflow Area = 2.016 ac, 81.55% Impervious, Inflow Depth = 3.94" for 10-YR event
Inflow = 8.3 cfs @ 12.09 hrs, Volume= 0.661 af
Outflow = 8.3 cfs @ 12.09 hrs, Volume= 0.661 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 5R : SD17

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 16.08 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 5.27 fps, Avg. Travel Time= 0.1 min

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Peak Storage= 21 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.50' , Surface Width= 1.41'

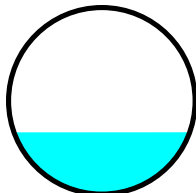
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 34.6 cfs

18.0" Round Pipe

n= 0.012

Length= 40.0' Slope= 0.0925 '/'

Inlet Invert= 36.15', Outlet Invert= 32.45'



Summary for Reach 5R: SD17

Inflow Area = 2.204 ac, 76.68% Impervious, Inflow Depth = 3.81" for 10-YR event

Inflow = 8.8 cfs @ 12.09 hrs, Volume= 0.701 af

Outflow = 8.8 cfs @ 12.09 hrs, Volume= 0.701 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 4R : SD18

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 8.85 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 2.98 fps, Avg. Travel Time= 0.1 min

Peak Storage= 20 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.82' , Surface Width= 1.49'

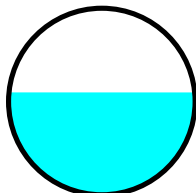
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 15.1 cfs

18.0" Round Pipe

n= 0.012

Length= 20.0' Slope= 0.0175 '/'

Inlet Invert= 32.35', Outlet Invert= 32.00'



Summary for Reach 6R: SD14

Inflow Area = 2.016 ac, 81.55% Impervious, Inflow Depth = 3.94" for 10-YR event

Inflow = 8.3 cfs @ 12.09 hrs, Volume= 0.661 af

Outflow = 8.3 cfs @ 12.09 hrs, Volume= 0.661 af, Atten= 0%, Lag= 0.1 min

Routed to Reach 5.1R : SD16

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 14.57 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 4.79 fps, Avg. Travel Time= 0.4 min

Peak Storage= 62 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.54' , Surface Width= 1.44'

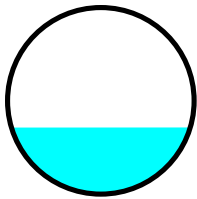
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 30.2 cfs

18.0" Round Pipe

n= 0.012

Length= 110.0' Slope= 0.0705 '/'

Inlet Invert= 44.00', Outlet Invert= 36.25'



Summary for Reach 7R: SD12

Inflow Area = 1.938 ac, 82.09% Impervious, Inflow Depth = 3.95" for 10-YR event

Inflow = 8.0 cfs @ 12.08 hrs, Volume= 0.638 af

Outflow = 8.0 cfs @ 12.09 hrs, Volume= 0.638 af, Atten= 0%, Lag= 0.1 min

Routed to Reach 6R : SD14

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 10.66 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 3.54 fps, Avg. Travel Time= 0.2 min

Peak Storage= 37 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.66' , Surface Width= 1.49'

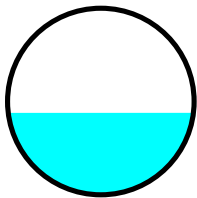
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.0 cfs

18.0" Round Pipe

n= 0.012

Length= 50.0' Slope= 0.0308 '/'

Inlet Invert= 45.64', Outlet Invert= 44.10'



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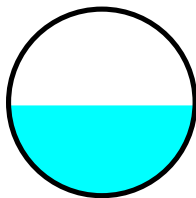
Summary for Reach 8R: SD11

Inflow Area = 1.784 ac, 83.24% Impervious, Inflow Depth = 3.98" for 10-YR event
Inflow = 7.4 cfs @ 12.08 hrs, Volume= 0.591 af
Outflow = 7.4 cfs @ 12.08 hrs, Volume= 0.591 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 7R : SD12

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.70 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.91 fps, Avg. Travel Time= 0.2 min

Peak Storage= 27 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.73' , Surface Width= 1.50'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 15.6 cfs

18.0" Round Pipe
n= 0.012
Length= 32.0' Slope= 0.0188 '/
Inlet Invert= 46.34', Outlet Invert= 45.74'

**Summary for Reach 10R: SD27**

Inflow Area = 0.574 ac, 100.00% Impervious, Inflow Depth = 4.36" for 10-YR event
Inflow = 2.6 cfs @ 12.08 hrs, Volume= 0.209 af
Outflow = 2.6 cfs @ 12.09 hrs, Volume= 0.209 af, Atten= 0%, Lag= 0.2 min
Routed to Reach 0R :

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.64 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.19 fps, Avg. Travel Time= 1.0 min

Peak Storage= 50 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.44' , Surface Width= 1.20'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 9.6 cfs

15.0" Round Pipe
n= 0.012
Length= 130.0' Slope= 0.0188 '/
Inlet Invert= 26.00', Outlet Invert= 23.55'

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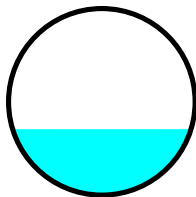
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Type III 24-hr 10-YR Rainfall=4.60"

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**Summary for Pond 31P: JELLYFISH SYSTEM**

Inflow Area = 3.178 ac, 74.09% Impervious, Inflow Depth = 3.76" for 10-YR event
 Inflow = 12.5 cfs @ 12.09 hrs, Volume= 0.995 af
 Outflow = 12.5 cfs @ 12.09 hrs, Volume= 0.995 af, Atten= 0%, Lag= 0.1 min
 Primary = 12.5 cfs @ 12.09 hrs, Volume= 0.995 af
 Routed to Reach 0R :

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Starting Elev= 22.85' Surf.Area= 0.001 ac Storage= 0.009 af
 Peak Elev= 25.27' @ 12.09 hrs Surf.Area= 0.001 ac Storage= 0.013 af (0.003 af above start)
 Flood Elev= 30.00' Surf.Area= 0.001 ac Storage= 0.016 af (0.007 af above start)

Plug-Flow detention time= 13.0 min calculated for 0.986 af (99% of inflow)
 Center-of-Mass det. time= 1.2 min (765.1 - 763.8)

Volume	Invert	Avail.Storage	Storage Description
#1	16.35'	0.016 af	8.00'W x 8.00'L x 11.50'H Prismatic 0.017 af Overall x 96.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Device 3	22.85'	JFPD0808-11-3-54 CSV File Head (feet) 0.00 0.08 0.17 0.25 0.33 0.42 0.50 0.58 0.67 0.75 0.83 0.92 1.00 1.08 1.17 1.25 1.33 1.42 1.50 Disch. (cfs) 0.000 0.015 0.030 0.045 0.059 0.074 0.089 0.267 0.446 0.624 0.802 0.980 1.159 1.337 1.515 1.693 1.872 2.050 2.228
#2	Device 3	24.35'	3.5' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	22.85'	24.0" Round Culvert L= 13.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 22.85' / 22.70' S= 0.0115 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=12.5 cfs @ 12.09 hrs HW=25.27' TW=23.58' (Dynamic Tailwater)

↑ **3=Culvert** (Passes 12.5 cfs of 14.2 cfs potential flow)

↑ **1=JFPD0808-11-3-54 CSV File** (Custom Controls 2.2 cfs)

↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 10.2 cfs @ 3.18 fps)

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Summary for Link POA-1: Casco Bay

Inflow Area = 4.477 ac, 70.08% Impervious, Inflow Depth = 3.66" for 10-YR event
Inflow = 17.2 cfs @ 12.09 hrs, Volume= 1.365 af
Primary = 17.2 cfs @ 12.09 hrs, Volume= 1.365 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 1.0S:

Runoff = 1.6 cfs @ 12.08 hrs, Volume= 0.126 af, Depth= 4.97"
 Routed to Reach 1.0R : SD30

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.234	98	Paved parking, HSG C
0.071	74	>75% Grass cover, Good, HSG C
0.305		Weighted Average
0.071		23.28% Pervious Area
0.234		76.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	25	0.0200	1.03		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
0.6	100	0.0200	2.87		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
5.0					Direct Entry, DIRECT
6.0	125	Total			

Summary for Subcatchment 1.1S:

Runoff = 1.7 cfs @ 12.09 hrs, Volume= 0.130 af, Depth= 4.22"
 Routed to Reach 1.1R : SD29

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.195	74	>75% Grass cover, Good, HSG C
0.175	98	Paved parking, HSG C
0.370		Weighted Average
0.195		52.70% Pervious Area
0.175		47.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	20	0.0200	0.12		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.5	110	0.0300	3.52		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
2.8					Direct Entry, DIRECT ENTRY
6.0	130	Total			

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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 1.2S: BLDG 7 ROOF

Runoff = 3.3 cfs @ 12.08 hrs, Volume= 0.266 af, Depth= 5.56"
 Routed to Reach 10R : SD27

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.574	98	Roofs, HSG C
0.574		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT ENTRY

Summary for Subcatchment 2.0S:

Runoff = 0.4 cfs @ 12.08 hrs, Volume= 0.035 af, Depth= 5.50"
 Routed to Reach 2R : SD23

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.074	98	Paved parking, HSG C
0.002	74	>75% Grass cover, Good, HSG C
0.076		Weighted Average
0.002		2.63% Pervious Area
0.074		97.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT ENTRY

Summary for Subcatchment 3.0S:

Runoff = 0.9 cfs @ 12.08 hrs, Volume= 0.073 af, Depth= 5.05"
 Routed to Reach 3R : SD22

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
6,000	98	Paved parking, HSG C
1,500	74	>75% Grass cover, Good, HSG C
7,500		Weighted Average
1,500		20.00% Pervious Area
6,000		80.00% Impervious Area

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Type III 24-hr 25-YR Rainfall=5.80"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	15	0.1500	0.26		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.10"
0.0	5	0.0150	2.49		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.3	20	0.0250	1.11		Shallow Concentrated Flow, C-D Short Grass Pasture Kv= 7.0 fps
0.6	115	0.0220	3.01		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
4.1					Direct Entry, DIRECT ENTRY
6.0	155	Total			

Summary for Subcatchment 4.0S:

Runoff = 0.3 cfs @ 12.08 hrs, Volume= 0.022 af, Depth= 5.21"
 Routed to Reach 4R : SD18

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.044	98	Paved parking, HSG C
0.007	74	>75% Grass cover, Good, HSG C
0.051		Weighted Average
0.007		13.73% Pervious Area
0.044		86.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	25	0.0400	1.35		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.10"
0.3	105	0.1000	6.42		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
5.4					Direct Entry, DIRECT
6.0	130	Total			

Summary for Subcatchment 5.0S:

Runoff = 0.7 cfs @ 12.09 hrs, Volume= 0.055 af, Depth= 3.50"
 Routed to Reach 5R : SD17

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

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Type III 24-hr 25-YR Rainfall=5.80"

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Area (ac)	CN	Description
0.071	74	>75% Grass cover, Good, HSG C
0.046	98	Paved parking, HSG C
0.071	70	Woods, Good, HSG C
0.188		Weighted Average
0.142		75.53% Pervious Area
0.046		24.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	10	0.5000	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.1	25	0.5000	3.54		Shallow Concentrated Flow, B-C Woodland Kv= 5.0 fps
0.4	50	0.1000	2.21		Shallow Concentrated Flow, C-D Short Grass Pasture Kv= 7.0 fps
0.2	70	0.0800	5.74		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
4.3					Direct Entry, DIRECT ENTRY
6.0	155	Total			

Summary for Subcatchment 6.0S:

Runoff = 0.4 cfs @ 12.08 hrs, Volume= 0.031 af, Depth= 4.75"
Routed to Reach 6R : SD14

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.025	74	>75% Grass cover, Good, HSG C
0.053	98	Paved parking, HSG C
0.078		Weighted Average
0.025		32.05% Pervious Area
0.053		67.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	25	0.0500	1.48		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.10"
0.2	50	0.0600	4.97		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
5.5					Direct Entry, DIRECT ENTRY
6.0	75	Total			

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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 7.0S:

Runoff = 0.8 cfs @ 12.08 hrs, Volume= 0.061 af, Depth= 4.77"
 Routed to Reach 7R : SD12

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.106	98	Paved parking, HSG C
0.048	74	>75% Grass cover, Good, HSG C
0.154		Weighted Average
0.048		31.17% Pervious Area
0.106		68.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	25	0.0200	1.03		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
0.4	90	0.0300	3.52		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
0.3	35	0.0570	1.67		Shallow Concentrated Flow, C-D
					Short Grass Pasture Kv= 7.0 fps
4.9					Direct Entry, DIRECT
6.0	150	Total			

Summary for Subcatchment 8.0S:

Runoff = 9.5 cfs @ 12.08 hrs, Volume= 0.763 af, Depth= 5.14"
 Routed to Reach 8R : SD11

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.299	74	>75% Grass cover, Good, HSG C
0.498	98	Paved parking, HSG C
0.987	98	Roofs, HSG C
1.784		Weighted Average
0.299		16.76% Pervious Area
1.485		83.24% Impervious Area

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Type III 24-hr 25-YR Rainfall=5.80"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	10	0.0200	0.11		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.3	40	0.0100	2.03		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
0.3	65	0.0350	3.80		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
0.1	40	0.0550	11.53	9.05	Pipe Channel, D-E
					12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
					n= 0.012
0.1	70	0.0500	12.75	15.65	Pipe Channel, E-F
					15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
					n= 0.012
3.6					Direct Entry, DIRECT ENTRY
6.0	225	Total			

Summary for Subcatchment 9.0S:

Runoff = 2.0 cfs @ 12.09 hrs, Volume= 0.155 af, Depth= 3.85"
Routed to Link POA-1 : Casco Bay

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.158	98	Paved parking, HSG C
0.326	74	>75% Grass cover, Good, HSG C
0.484		Weighted Average
0.326		67.36% Pervious Area
0.158		32.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DIRECT

Summary for Subcatchment 10.0S:

Runoff = 0.9 cfs @ 12.09 hrs, Volume= 0.068 af, Depth= 3.38"
Routed to Link POA-1 : Casco Bay

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

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Type III 24-hr 25-YR Rainfall=5.80"

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Area (ac)	CN	Description
0.051	98	Paved parking, HSG C
0.073	74	>75% Grass cover, Good, HSG C
0.117	70	Woods, Good, HSG C
0.241		Weighted Average
0.190		78.84% Pervious Area
0.051		21.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	20	0.2900	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.5	90	0.1600	2.80		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
0.2	45	0.0330	3.69		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.8	80	0.0510	1.58		Shallow Concentrated Flow, D-E Short Grass Pasture Kv= 7.0 fps
2.4					Direct Entry, DIRECT ENTRY
6.0	235	Total			

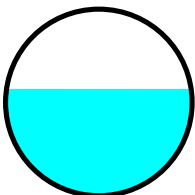
Summary for Reach 0R:

Inflow Area = 3.752 ac, 78.05% Impervious, Inflow Depth = 5.00" for 25-YR event
 Inflow = 19.4 cfs @ 12.09 hrs, Volume= 1.562 af
 Outflow = 19.5 cfs @ 12.09 hrs, Volume= 1.562 af, Atten= 0%, Lag= 0.0 min
 Routed to Link POA-1 : Casco Bay

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Max. Velocity= 10.42 fps, Min. Travel Time= 0.0 min
 Avg. Velocity= 3.45 fps, Avg. Travel Time= 0.1 min

Peak Storage= 47 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.15' , Surface Width= 1.98'
 Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.0 cfs

24.0" Round Pipe
 n= 0.012
 Length= 25.0' Slope= 0.0160 '/'
 Inlet Invert= 22.60', Outlet Invert= 22.20'



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Type III 24-hr 25-YR Rainfall=5.80"

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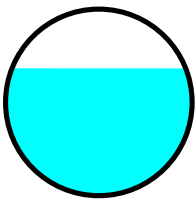
Summary for Reach 1.0R: SD30

Inflow Area = 3.178 ac, 74.09% Impervious, Inflow Depth = 4.89" for 25-YR event
Inflow = 16.2 cfs @ 12.09 hrs, Volume= 1.296 af
Outflow = 16.2 cfs @ 12.09 hrs, Volume= 1.296 af, Atten= 0%, Lag= 0.0 min
Routed to Pond 31P : JELLYFISH SYSTEM

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.09 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.44 fps, Avg. Travel Time= 0.1 min

Peak Storage= 34 cf @ 12.09 hrs
Average Depth at Peak Storage= 1.37' , Surface Width= 1.86'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 20.0 cfs

24.0" Round Pipe
n= 0.012
Length= 15.0' Slope= 0.0067 '/
Inlet Invert= 23.45', Outlet Invert= 23.35'



Summary for Reach 1.1R: SD29

Inflow Area = 2.873 ac, 73.81% Impervious, Inflow Depth = 4.89" for 25-YR event
Inflow = 14.7 cfs @ 12.09 hrs, Volume= 1.170 af
Outflow = 14.7 cfs @ 12.09 hrs, Volume= 1.170 af, Atten= 0%, Lag= 0.1 min
Routed to Reach 1.0R : SD30

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.15 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.43 fps, Avg. Travel Time= 0.2 min

Peak Storage= 72 cf @ 12.09 hrs
Average Depth at Peak Storage= 1.24' , Surface Width= 1.94'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 20.7 cfs

24.0" Round Pipe
n= 0.012
Length= 35.0' Slope= 0.0071 '/
Inlet Invert= 23.80', Outlet Invert= 23.55'

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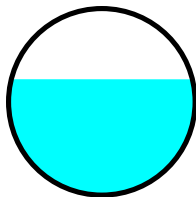
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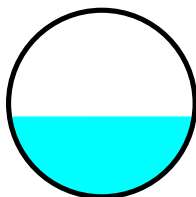
Summary for Reach 2R: SD23

Inflow Area = 2.503 ac, 77.73% Impervious, Inflow Depth = 4.98" for 25-YR event
Inflow = 13.0 cfs @ 12.09 hrs, Volume= 1.040 af
Outflow = 13.0 cfs @ 12.09 hrs, Volume= 1.040 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 1.1R : SD29

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 10.00 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.30 fps, Avg. Travel Time= 0.2 min

Peak Storage= 52 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.86' , Surface Width= 1.98'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 33.6 cfs

24.0" Round Pipe
n= 0.012
Length= 40.0' Slope= 0.0187 '/
Inlet Invert= 24.65', Outlet Invert= 23.90'



Summary for Reach 3R: SD22

Inflow Area = 2.427 ac, 77.12% Impervious, Inflow Depth = 4.97" for 25-YR event
Inflow = 12.6 cfs @ 12.09 hrs, Volume= 1.005 af
Outflow = 12.6 cfs @ 12.09 hrs, Volume= 1.005 af, Atten= 0%, Lag= 0.1 min
Routed to Reach 2R : SD23

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 11.01 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.62 fps, Avg. Travel Time= 0.4 min

Peak Storage= 103 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.78' , Surface Width= 1.95'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 38.7 cfs

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Type III 24-hr 25-YR Rainfall=5.80"

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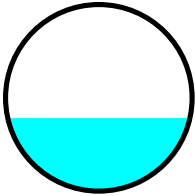
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24.0" Round Pipe

n= 0.012

Length= 90.0' Slope= 0.0250 '/'

Inlet Invert= 27.00', Outlet Invert= 24.75'



Summary for Reach 4R: SD18

Inflow Area = 2.255 ac, 76.90% Impervious, Inflow Depth = 4.96" for 25-YR event

Inflow = 11.7 cfs @ 12.09 hrs, Volume= 0.933 af

Outflow = 11.7 cfs @ 12.09 hrs, Volume= 0.933 af, Atten= 0%, Lag= 0.2 min

Routed to Reach 3R : SD22

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 11.43 fps, Min. Travel Time= 0.2 min

Avg. Velocity = 3.74 fps, Avg. Travel Time= 0.7 min

Peak Storage= 153 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.72' , Surface Width= 1.92'

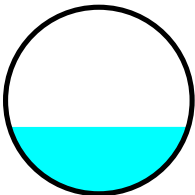
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 42.0 cfs

24.0" Round Pipe

n= 0.012

Length= 150.0' Slope= 0.0293 '/'

Inlet Invert= 31.50', Outlet Invert= 27.10'



Summary for Reach 5.1R: SD16

Inflow Area = 2.016 ac, 81.55% Impervious, Inflow Depth = 5.09" for 25-YR event

Inflow = 10.7 cfs @ 12.09 hrs, Volume= 0.856 af

Outflow = 10.7 cfs @ 12.09 hrs, Volume= 0.856 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 5R : SD17

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 17.24 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 5.68 fps, Avg. Travel Time= 0.1 min

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Peak Storage= 25 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.57' , Surface Width= 1.46'

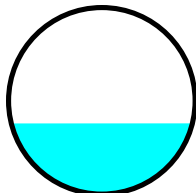
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 34.6 cfs

18.0" Round Pipe

n= 0.012

Length= 40.0' Slope= 0.0925 '/'

Inlet Invert= 36.15', Outlet Invert= 32.45'



Summary for Reach 5R: SD17

Inflow Area = 2.204 ac, 76.68% Impervious, Inflow Depth = 4.96" for 25-YR event

Inflow = 11.4 cfs @ 12.09 hrs, Volume= 0.910 af

Outflow = 11.4 cfs @ 12.09 hrs, Volume= 0.910 af, Atten= 0%, Lag= 0.0 min

Routed to Reach 4R : SD18

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 9.36 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 3.22 fps, Avg. Travel Time= 0.1 min

Peak Storage= 24 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.97' , Surface Width= 1.43'

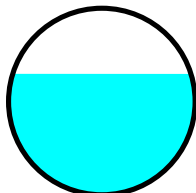
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 15.1 cfs

18.0" Round Pipe

n= 0.012

Length= 20.0' Slope= 0.0175 '/'

Inlet Invert= 32.35', Outlet Invert= 32.00'



Summary for Reach 6R: SD14

Inflow Area = 2.016 ac, 81.55% Impervious, Inflow Depth = 5.09" for 25-YR event

Inflow = 10.7 cfs @ 12.09 hrs, Volume= 0.856 af

Outflow = 10.7 cfs @ 12.09 hrs, Volume= 0.856 af, Atten= 0%, Lag= 0.1 min

Routed to Reach 5.1R : SD16

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 15.61 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 5.17 fps, Avg. Travel Time= 0.4 min

Peak Storage= 75 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.62' , Surface Width= 1.48'

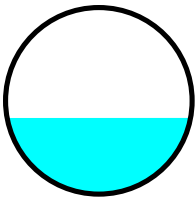
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 30.2 cfs

18.0" Round Pipe

n= 0.012

Length= 110.0' Slope= 0.0705 '/'

Inlet Invert= 44.00', Outlet Invert= 36.25'



Summary for Reach 7R: SD12

Inflow Area = 1.938 ac, 82.09% Impervious, Inflow Depth = 5.11" for 25-YR event

Inflow = 10.3 cfs @ 12.08 hrs, Volume= 0.825 af

Outflow = 10.3 cfs @ 12.09 hrs, Volume= 0.825 af, Atten= 0%, Lag= 0.1 min

Routed to Reach 6R : SD14

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Max. Velocity= 11.38 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 3.82 fps, Avg. Travel Time= 0.2 min

Peak Storage= 45 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.76' , Surface Width= 1.50'

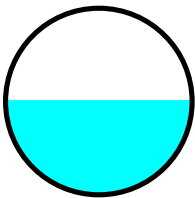
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.0 cfs

18.0" Round Pipe

n= 0.012

Length= 50.0' Slope= 0.0308 '/'

Inlet Invert= 45.64', Outlet Invert= 44.10'



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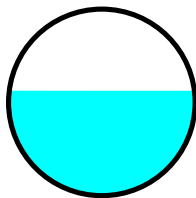
Summary for Reach 8R: SD11

Inflow Area = 1.784 ac, 83.24% Impervious, Inflow Depth = 5.14" for 25-YR event
Inflow = 9.5 cfs @ 12.08 hrs, Volume= 0.763 af
Outflow = 9.5 cfs @ 12.08 hrs, Volume= 0.763 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 7R : SD12

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.25 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.14 fps, Avg. Travel Time= 0.2 min

Peak Storage= 33 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.85' , Surface Width= 1.49'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 15.6 cfs

18.0" Round Pipe
n= 0.012
Length= 32.0' Slope= 0.0188 '/
Inlet Invert= 46.34', Outlet Invert= 45.74'

**Summary for Reach 10R: SD27**

Inflow Area = 0.574 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-YR event
Inflow = 3.3 cfs @ 12.08 hrs, Volume= 0.266 af
Outflow = 3.3 cfs @ 12.09 hrs, Volume= 0.266 af, Atten= 0%, Lag= 0.2 min
Routed to Reach 0R :

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.07 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.36 fps, Avg. Travel Time= 0.9 min

Peak Storage= 60 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.50' , Surface Width= 1.23'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 9.6 cfs

15.0" Round Pipe
n= 0.012
Length= 130.0' Slope= 0.0188 '/
Inlet Invert= 26.00', Outlet Invert= 23.55'

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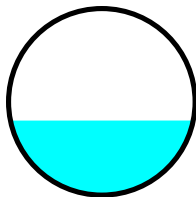
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**Summary for Pond 31P: JELLYFISH SYSTEM**

Inflow Area = 3.178 ac, 74.09% Impervious, Inflow Depth = 4.89" for 25-YR event
 Inflow = 16.2 cfs @ 12.09 hrs, Volume= 1.296 af
 Outflow = 16.2 cfs @ 12.10 hrs, Volume= 1.296 af, Atten= 0%, Lag= 0.2 min
 Primary = 16.2 cfs @ 12.10 hrs, Volume= 1.296 af
 Routed to Reach 0R :

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Starting Elev= 22.85' Surf.Area= 0.001 ac Storage= 0.009 af
 Peak Elev= 25.69' @ 12.10 hrs Surf.Area= 0.001 ac Storage= 0.013 af (0.004 af above start)
 Flood Elev= 30.00' Surf.Area= 0.001 ac Storage= 0.016 af (0.007 af above start)

Plug-Flow detention time= 10.3 min calculated for 1.287 af (99% of inflow)
 Center-of-Mass det. time= 1.0 min (761.5 - 760.5)

Volume	Invert	Avail.Storage	Storage Description
#1	16.35'	0.016 af	8.00'W x 8.00'L x 11.50'H Prismatic 0.017 af Overall x 96.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Device 3	22.85'	JFPD0808-11-3-54 CSV File Head (feet) 0.00 0.08 0.17 0.25 0.33 0.42 0.50 0.58 0.67 0.75 0.83 0.92 1.00 1.08 1.17 1.25 1.33 1.42 1.50 Disch. (cfs) 0.000 0.015 0.030 0.045 0.059 0.074 0.089 0.267 0.446 0.624 0.802 0.980 1.159 1.337 1.515 1.693 1.872 2.050 2.228
#2	Device 3	24.35'	3.5' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	22.85'	24.0" Round Culvert L= 13.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 22.85' / 22.70' S= 0.0115 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=16.2 cfs @ 12.10 hrs HW=25.69' TW=23.75' (Dynamic Tailwater)

↑ **3=Culvert** (Inlet Controls 16.2 cfs @ 5.15 fps)

↑ **1=JFPD0808-11-3-54 CSV File** (Passes < 2.2 cfs potential flow)

↑ **2=Broad-Crested Rectangular Weir** (Passes < 17.9 cfs potential flow)

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Summary for Link POA-1: Casco Bay

Inflow Area = 4.477 ac, 70.08% Impervious, Inflow Depth = 4.79" for 25-YR event
Inflow = 22.4 cfs @ 12.09 hrs, Volume= 1.785 af
Primary = 22.4 cfs @ 12.09 hrs, Volume= 1.785 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Attachment 3

Inspection, Maintenance, & Housekeeping Plan



INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

For:
Martin's Point Vernada Campus
Portland, Maine

By:
Sebago Technics, Inc.
75 John Roberts Road, Suite 4A
South Portland, Maine

Introduction

The following plan outlines the anticipated inspection and maintenance procedures for the erosion and sedimentation control measures as well as stormwater management facilities for the project. This plan also outlines several housekeeping requirements that shall be followed during and after construction. These procedures shall be followed in order to ensure the intended function of the designed measures and to prevent unreasonably adverse impacts to the surrounding environment.

The procedures outlined in this Inspection, Maintenance and Housekeeping Plan are provided as an overview of the anticipated practices to be used on this site. In some instances, additional measures may be required due to unexpected conditions. For additional detail on any of the erosion and sedimentation control measures or stormwater management devices to be utilized on this project, refer to the most recently revised edition of the "Maine Erosion and Sedimentation Control BMP" manual and/or the "Stormwater Management for Maine: Best Management Practices" manual as published by the Maine Department of Environmental Protection (MDEP).

During Construction

1. **Inspection:** During the construction process, it is the Contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section. These responsibilities include inspecting disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected at least once a week as well as before and after a storm event (0.5" of rainfall), and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in any applicable permits, shall conduct the inspections.
2. **Maintenance:** All measures shall be maintained in an effective operating condition until areas are permanently stabilized. If Best Management Practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within 7 calendar days and prior to any storm event (0.5" of rainfall).
3. **Documentation:** A log summarizing the inspections and any corrective action taken must be maintained on-site. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, material storage areas, and vehicle access points to the site. Major observations must include BMPs that need maintenance, BMPs that failed

to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

4. **Specific Inspection and Maintenance Tasks:** The following is a list of erosion control and stormwater management measures and the specific inspection and maintenance tasks to be performed during construction.

A. Sediment Barriers:

- Hay bale barriers, silt fences, and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- If the fabric on a silt fence or filter barrier should decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, it shall be replaced.
- Sediment deposits should be removed after each storm event (0.5" of rainfall). They must be removed before deposits reach approximately one-half the height of the barrier.
- Filter berms shall be reshaped as needed.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared, and seeded.

B. Riprap Materials:

- Once a riprap installation has been completed, it should require very little maintenance. It shall, however, be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone.

C. Erosion Control Blankets:

- Inspect these reinforced areas semi-annually and after significant rainfall events for slumping, sliding, seepage, and scour. Pay close attention to unreinforced areas adjacent to the erosion control blankets, which may experience accelerated erosion.
- Review all applicable inspection and maintenance procedures recommended by the specific blanket manufacturer. These tasks shall be included in addition to the requirements of this plan.

D. Stabilized Construction Entrances/Exits:

- The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way.
- When the control pad becomes ineffective, the stone shall be removed along with the collected soil material. The entrance should then be reconstructed.
- Areas that have received mud-tracking or sediment deposits shall be swept or washed. Washing shall be done on an area stabilized with aggregate, which drains

into an approved sediment-trapping device (not into storm drains, ditches, or waterways).

E. Temporary Seed and Mulch:

- Mulched areas should be inspected after rain events to check for rill erosion.
- If less than 90% of the soil surface is covered by mulch, additional mulch shall be applied in bare areas.
- In applications where seeding and mulch have been applied in conjunction with erosion control blankets, the blankets must be inspected after rain events for dislocation or undercutting.
- Mulch shall continue to be reapplied until 95% of the soil surface has established temporary vegetative cover.

F. Stabilized Temporary Drainage Swales:

- Sediment accumulation in the swale shall be removed once the cross section of the swale is reduced by 25%.
- The swales shall be inspected after rainfall events. Any evidence of sloughing of the side slopes or channel erosion shall be repaired and corrective action should be taken to prevent reoccurrence of the problem.
- In addition to the stabilized lining of the channel (i.e. erosion control blankets), stone check dams may be needed to further reduce channel velocity.

5. **Housekeeping:** The following general performance standards apply to the proposed project.

- A. Spill prevention: Controls must be used to prevent pollutants from being discharged from materials on-site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
- B. Groundwater protection: During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors, accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
- C. Fugitive sediment and dust: Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.
- D. Debris and other materials: Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- E. Trench or foundation dewatering: Trench dewatering is the removal of water from trenches, foundations, cofferdams, ponds, and other areas within the construction area

that retain water after excavation. In most cases, the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved.

Post-Construction

1. **Inspection:** After construction, it is the responsibility of the owner or assigned heirs to comply with the inspection and maintenance procedures outlined in this section. All measures must be maintained in effective operating condition. The owner shall inspect and maintain the BMPs, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.
2. **Specific Inspection and Maintenance Tasks:** The following is a list of permanent erosion control and stormwater management measures and the inspection and maintenance tasks to be performed after construction. If the BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator of the BMP shall take corrective action(s) to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective action(s) to the local municipality in the annual report.

A. Vegetated Areas:

- Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains (>0.5") to identify active or potential erosion problems.
- Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

B. Ditches, Swales and Other Open Channels:

- Inspect ditches, swales, level spreaders and other open stormwater channels in the spring, in the late fall, and after heavy rains to remove any obstructions to flow. Remove accumulated sediments and debris, remove woody vegetative growth that could obstruct flow, and repair any erosion of the ditch lining.
- Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity.
- Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable.
- If the ditch has a riprap lining, replace riprap in areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged.

C. Culverts:

- Inspect culverts in the spring, in the late fall, and after heavy rains (>0.5") to remove any obstructions to flow.
- Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit.
- Inspect and repair any erosion damage at the culvert's inlet and outlet.

D. Removal of Winter Sand:

- Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring.
- Accumulations on pavement may be removed by pavement sweeping.
- Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader or other acceptable method

E. Jellyfish Filter

- The system must be inspected at least once every six months.
- Jellyfish systems require periodic maintenance on an annual basis.
- Maintenance should be performed when sediment depth reaches 12" of accumulation.

3. Documentation:

- A. The owner or operator of a BMP or a qualified post-construction stormwater inspector hired by that person, shall, as required by the local municipality, provide a completed and signed certification on a form provided by the local municipality, certifying that the person has inspected the BMP(s) and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they required maintenance or repair, including the record of the deficiency and corrective action(s) taken.
- B. A log summarizing the inspections and any corrective action taken must be maintained. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of controls. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. A sample "Stormwater Inspection and Maintenance Form" has been included in Attachment 1 of this Inspection, Maintenance, and Housekeeping Plan.

4. **Duration of Maintenance:** Perform maintenance as described and required for any associated permits unless and until the system is formally accepted by a municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. If a municipality or quasi-municipal district chooses to accept a stormwater management system or a component of a stormwater system, it must provide a letter to the MDEP stating that it assumes responsibility for the system. The letter must specify the components of the system for which the municipality or district will assume responsibility, and that the municipality or district agrees to maintain those components of the system in compliance with MDEP standards. Upon such assumption of responsibility, and approval by the MDEP, the municipality, quasi-municipal district, or association becomes a co-permittee for this purpose only and must comply with all terms and conditions of the permit.

ATTACHMENT 1 – STORMWATER INSPECTION AND MAINTENANCE LOG

**Martin's Point Veranda Campus
331 Veranda Street
Portland, Maine**

This log is intended to accompany the Inspection, Maintenance, and Housekeeping Plan for the Martin's Point Veranda Campus Development in Portland, Maine. The following items shall be checked, cleaned, and maintained on a regular basis as specified in the Maintenance Plan and as described in the sections below. This log shall be kept on file for a minimum of five (5) years and shall be available for review by the City of Portland and the Maine DEP. Qualified personnel familiar with the drainage systems and soils shall perform all inspections. A copy of the construction and post-construction maintenance logs are provided.

Jellyfish Filter

INSPECTION MAINTENANCE AND HOUSEKEEPING FORM			
General Information			
Project Name:		Inspection Date:	
Project Location:		Current Weather:	
		Date / Amount Last Precip:	
BMP Owner:		Company conducting inspection:	
Owner Mailing Address:		Company Mailing Address	
Owner Phone #:		Company Phone #:	
Owner Email:		Inspector Name:	
		Inspector Email:	
BMP Element	Suggested Maintenance (recm'd frequency)	Observations	Inspection Notes/Recommended Action
Cascade Separator			
	Sediment Depth (Annually)		
Jellyfish Filter			
	Sediment Depth (Annually)		
Additional Notes/Observations:			

General Site

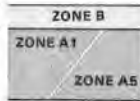
INSPECTION MAINTENANCE AND HOUSEKEEPING FORM			
General Information			
Project Name:		Inspection Date:	
Project Location:		Current Weather:	
		Date / Amount Last Precip:	
BMP Owner:		Company conducting inspection:	
Owner Mailing Address:		Company Mailing Address	
Owner Phone #:		Company Phone #:	
Owner Email:		Inspector Name:	
		Inspector Email:	
Site Element	Suggested Maintenance (recm'd frequency)	Observations	Inspection Notes/Recommended Action
Vegetated Areas	Inspect Slopes/Embankments for erosion (annually)		
	Replant bare areas or areas of sparse growth (annually)		
Ditches/Swales	Remove obstructions/debris/sediment (monthly)		
	Inspect for erosion/repair as needed (annually)		
	Remove woody vegetation (annually)		
	Mow vegetated ditches (annually)		
Catch Basins	Remove sediment/debris from sump (annually)		
	Remove accumulated debris from inlet grate		
Culverts	Remove sediment/debris from inlet/outlet aprons (annually)		
	Inspect inlet/outlet aprons for erosion, repair as needed (annually)		
	Inspect, repair as needed, riprap aprons for dislodged/sparse coverage (annually)		
Pipe Outlets	Remove sediment/debris from outlet aprons (annually)		
	Inspect outlet aprons for erosion, repair as needed (annually)		
	Inspect, repair as needed, riprap aprons for dislodged/sparse coverage (annually)		
Additional Notes/Observations:			

Attachment 4

FEMA Flood Insurance Rate Map



KEY TO MAP

500-Year Flood Boundary	—
100-Year Flood Boundary	—
Zone Designations*	
100-Year Flood Boundary	—
500-Year Flood Boundary	—
Base Flood Elevation Line With Elevation in Feet**	—513—
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7x
Zone D Boundary	—
River Mile	•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

ZONE V2
(EL 22)

ZONE V2
(EL 19)

ZONE A2
(EL 16)

ZONE V2
(EL 16)

CLEVELAND

VICTORIA

OREGON

ZONE C

ZONE A2
(EL 27)

ZONE V2
(EL 27)

MARTIN
POINT

COASTAL BASE FLOOD ELEVATION
APPLY ONLY LANDWARD OF

 Subject Site

Fema Flood Hazards

Zone A2 - 100-year Floodplain;
Base Flood Elevation (BFE)
Determined

Zone V2 - 100-year Floodplain with
Velocity (Wave Action); Base Flood
Elevation (BFE) Determined

 Feet
0 300 600

SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd., Suite 4A
South Portland, ME 04106
Tel: 207-200-2100

FEMA NATIONAL FLOOD HAZARDS MARTIN'S POINT VERANDA CAMPUS

LOCATION:
331 VERANDA STREET,
PORTLAND, ME

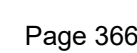
INFORMATION:
FEMA FIRM PANEL 230051 0008 B
EFFECTIVE JULY 17, 1986

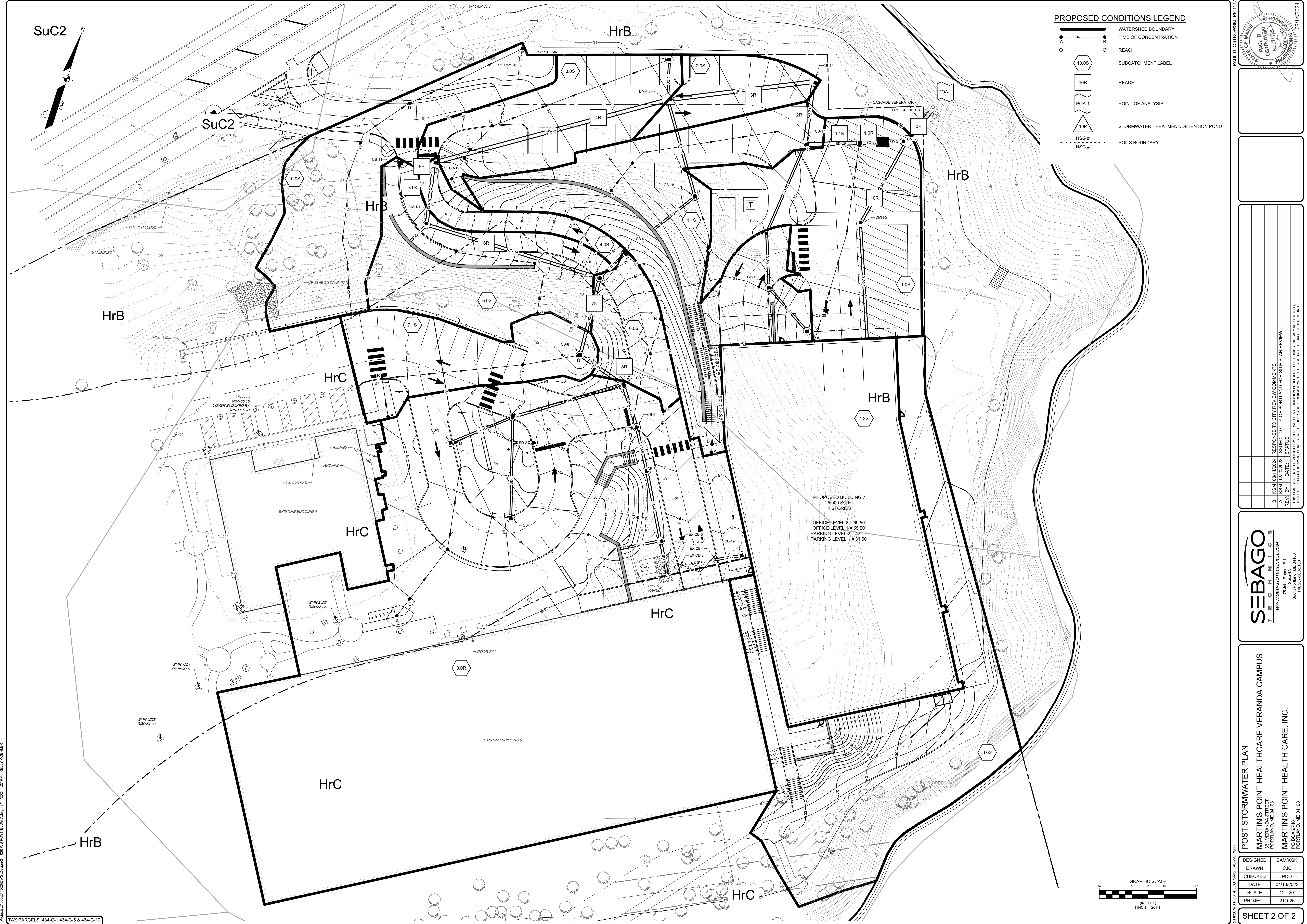
SCALE: 1:3,600

DATE: 11/8/2023

Attachment 5

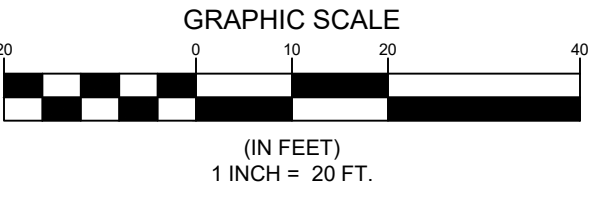
Stormwater Management Plans





PROPOSED CONDITIONS LEGEND

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- REACH
- SUBCATCHMENT LABEL
- REACH
- POINT OF ANALYSIS
- STORMWATER TREATMENT/DETENTION POND
- HSG #
- SOILS BOUNDARY



TAX PARCELS: 434-C-1, 434-C-5 & 434-C-10

PAUL D. OSTROWSKI, P.E. 11175

PAUL D. OSTROWSKI, P.E. 11175

PAUL D. OSTROWSKI, P.E. 11175

RESPONSE TO CITY REVIEW COMMENTS

ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW

DATE: 03/14/2024

BY: KSM

STATUS: A

SEBAGO TECHNICALS

WWW.SEAGOTECHNICALS.COM

75 South Portland Rd

South Portland, ME 04106

TEL: 207-269-2100

POST STORMWATER PLAN

MARTIN'S POINT HEALTHCARE VERANDA CAMPUS

331 VERANDA STREET

PORTLAND, ME 04103

MARTIN'S POINT HEALTH CARE, INC.

PO BOX 8746

PORTLAND, ME 04103

DESIGNED	BAM/KGK
DRAWN	CJC
CHECKED	PDG
DATE	04/10/2023
SCALE	1" = 20'
PROJECT	211026

SHEET 2 OF 2

March 8, 2024

Kelly Koehler, EI
Sebago Technics, Inc.
75 John Roberts Road, Suite 4A
South Portland, ME 04106

RE: Martin's Point Veranda Campus (Contech Reference No. 777865)
Review of Jellyfish Design

Dear Ms. Koehler:

The purpose of this letter is to document review of the plans and the proposed application of the Jellyfish water quality unit for the Martin's Point Veranda Campus, Portland, ME project.

Contech Engineered Solutions (Contech) has reviewed the Jellyfish Filter design for the project. We believe the Jellyfish Filter is an appropriate water quality solution for this site. The Jellyfish system is approved for use by MEDEP meeting the General Standards of the Stormwater Rules (Chapter 500) if designed, installed, and maintained in accordance with the provisions noted in the January 21, 2015 approval letter from the MEDEP.

The engineer of record reports a drainage area of 3.18 acres, of which, 2.35 acres is impervious, and a WQ Flow rate of 2.08 cfs. The Jellyfish is designed in accordance with the tested hydraulic loading rate of the 54-inch Hi-Flo cartridges at 80 gpm and Drain Down cartridge at 40 gpm. In order to adequately treat the runoff from this area, Contech recommends a Jellyfish Peak Diversion Vault 8'x8' with 54" cartridges (11 Hi-Flo and 3 Drain Down) with model designation JFPD0808-11-3 (54" cartridges) with up to 2.23 cfs treatment flow.

Our systems require periodic maintenance to continue operating properly. Given typical runoff pollutant loading rates, Contech recommends maintenance inspections on an annual basis. Maintenance should be performed when sediment depth reaches 12" of accumulation.

This system is expected to operate in accordance with Contech's design intent. Please feel free to contact me if you have any questions or concerns.

Sincerely,



David Adams, PE
Project Engineer
Contech Engineered Solutions LLC
dave.adams@conteches.com



Jellyfish Design Calculation

CONTECH Stormwater Solutions Inc. Engineer:
Date Prepared:

DRA
3/8/2024

Site Information

Project Name **Martin's Point Veranda Campus**
Project State **Portland**
Project City **ME**

Total Drainage Area, Ad **3.18** ac
Post Development Impervious Area, Ai **2.35** ac
Pervious Area, Ap **0.83** ac
% Impervious **74%**
Runoff Coefficient, Rc **0.72**

Mass Loading Calculations

Mean Annual Rainfall, P **49** in
Agency Required % Removal **80%**
Percent Runoff Capture **90%**
Mean Annual Runoff, Vt **364,029** ft³
Event Mean Concentration of Pollutant, EMC **75** mg/l
Annual Mass Load, M total **1,703** lbs

Filter System

Filtration Brand **Jelly Fish**
Cartridge Length **54** in

Jelly Fish Sizing

Mass to be Captured by System **1,363** lbs
Water Quality Flow **2.08** cfs

Method to Use

FLOW BASED

Summary		
Flow	Treatment Flow Rate	2.23 cfs
	Required Size	JFPD0808-11-3



THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE
FOLLOWING: U.S. PATENT NO. 8,287,726; 8,221,618; US 8,123,935;
OTHER INTERNATIONAL PATENTS PENDING

CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HI-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	2.94	2.21	1.47	0.81
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00



* PER ENGINEER OF RECORD

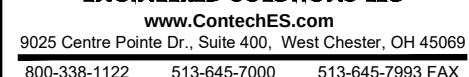
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 10', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
6. OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
7. THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
8. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.

C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).

D. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.



JELLYFISH JFPD0808
STANDARD DETAIL
PEAK DIVERSION CONFIGURATION

21: PUBLIC SAFETY AND FIRE PREVENTION (14.6.3(B))

1. The project has been designed following public safety principles for Crime Prevention through Environmental Design:
 - a. Natural Surveillance.

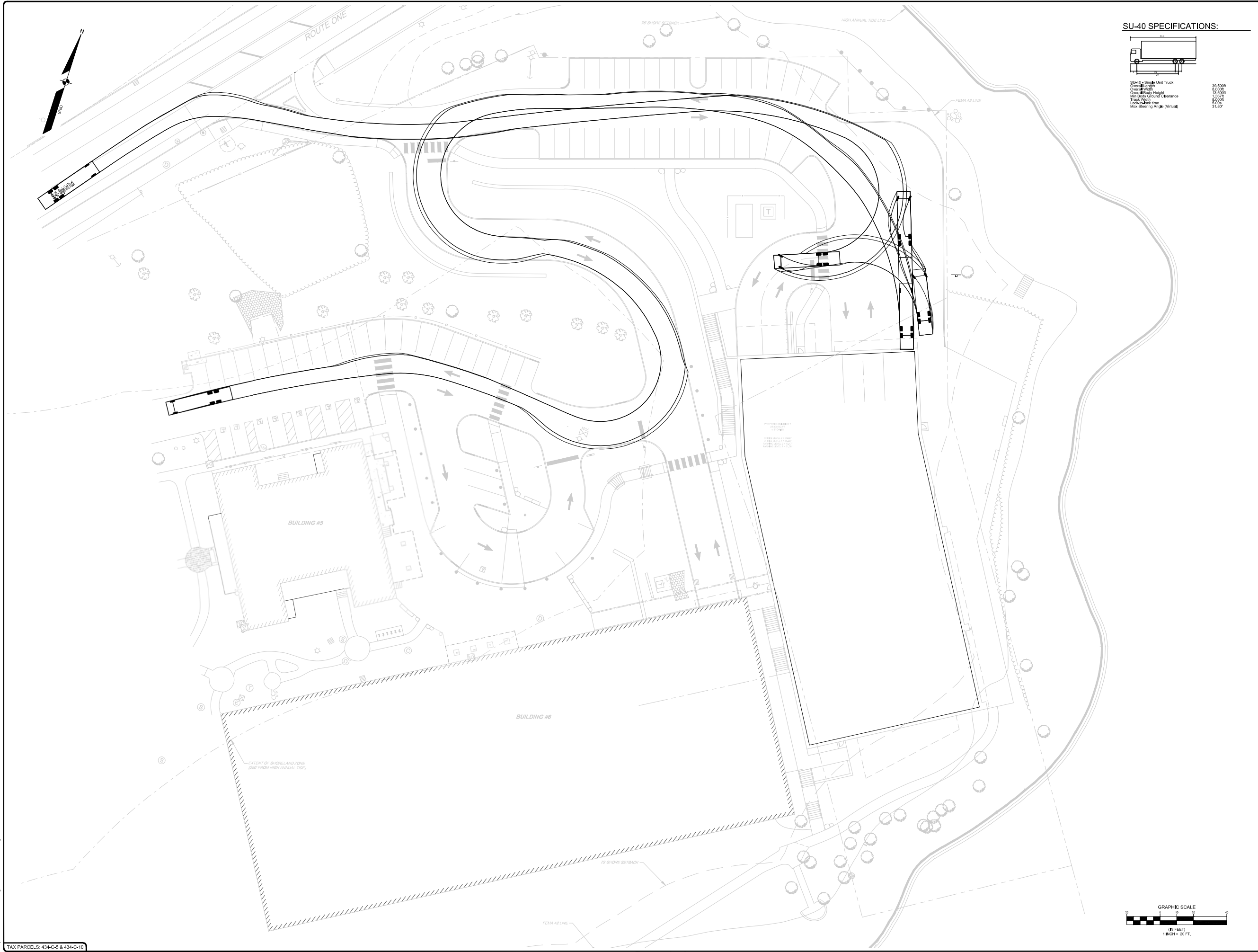
The proposed building design provides for natural surveillance by promoting the visibility of public areas and spaces. The public entrances are located adjacent to existing campus building access points and in well-lit parking areas in exterior and interior locations. Proposed plantings will not interrupt views or compromise natural surveillance opportunities.
 - b. Access control.

The parking garage will include a new access control security system to allow for restricted access to exterior doors, telecommunication rooms, office suite main entrances, and any other areas where general circulation limitation is essential. Features will include door controllers and proximity card readers to control unauthorized building access.

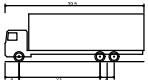
A new video surveillance system will be provided at the exterior and common interior spaces of the facility. Components include IP-based cameras and network video recording.
 - c. The site has been designed to provide territorial reinforcement and promote a sense of ownership and responsibility through environmental design. The site design, varying materials, and signage visually identify public areas versus dedicated staff use and access points. Shared outdoor space will be available to medical center visitors and staff.
2. The proposed project site is designed to provide adequate emergency vehicle access per the requirements of the Technical Manual. This section references truck turn graphics, demonstrating that single-unit 40-foot trucks (SU-40) and fire trucks can maneuver throughout the proposed Building 7 precinct. We have updated the fire truck turn graphic to show the proposed delivery parking location.

F:\Projects\210206\210206\DWG\Design\210206 TRUCK LAYOUT.dwg - 2/13/2023 2:27 PM - BRIAN A. MCMAHON

TAX PARCELS: 434-C-5 & 434-C-10



SU-40 SPECIFICATIONS:



SU-40 - Single Unit Truck	39'-0.00
Overall Length	8'-0.00
Overall Width	13'-0.00
Overall Body Height	8'-0.00
Min Body Ground Clearance	6'-0.00
Track Width	5.00
Lock-to-lock time	31.80°
Max Steering Angle (Virtual)	

TURNING MOVEMENT 1 - SU-40
MARTIN'S POINT VERANDA CAMPUS
1000 VERANDA STREET
PORTLAND, ME
MARTIN'S POINT HEALTH CARE, INC.
PO BOX 9746
PORTLAND, ME 04103

DESIGNED	BAMKKG
DRAWN	CJC
CHECKED	PDO
DATE	04/10/2023
SCALE	1" = 20'
PROJECT	211026

SHEET 5 OF 31



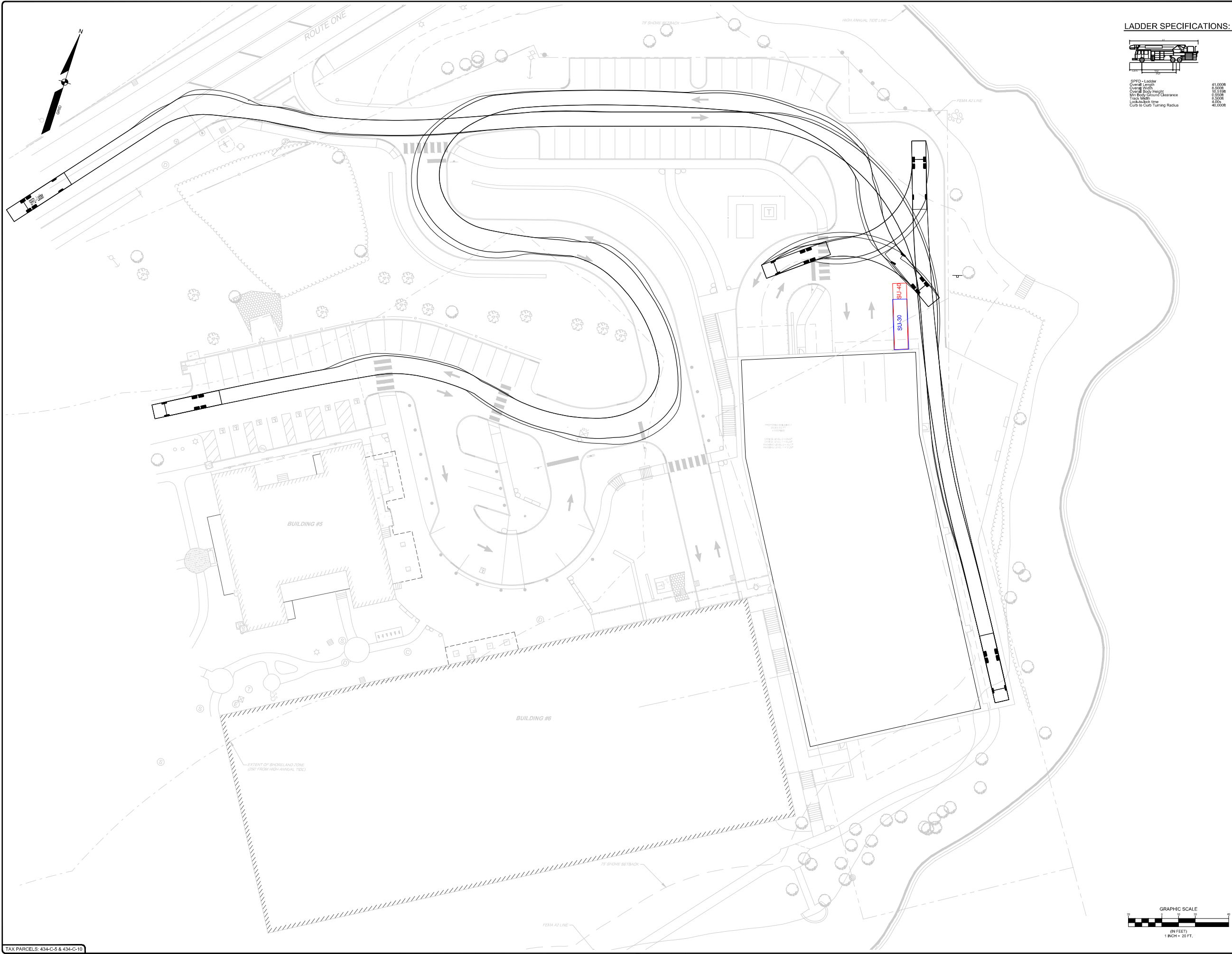
REV.	BY	DATE	STATUS
A	BY	12/20/2023	ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECH, INC. ANY ALTERATIONS, ADDITIONS OR DELETIONS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECH, INC.

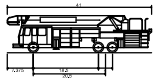
KYLE S. MASON, RJA 3335 PAUL D. OSTROWSKI, PE 11175

F:\Projects\210206\210206\Drawings\210206 TRUCK LAYOUT.dwg - 21/10/2023 2:27 PM - BRIAN A. MCMAHON

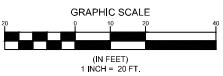
TAX PARCELS: 434-C-5 & 434-C-10



LADDER SPECIFICATIONS:



SPFD - Ladder
Overall Length 41.00m
Overall Width 2.50m
Overall Body Height 10.51m
Min Body Ground Clearance 4.20m
Track Width 2.50m
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 40.00m



TURNING MOVEMENT 2 - FIRE TRUCK
MARTIN'S POINT VERANDA CAMPUS
MARTIN'S POINT HEALTH CARE, INC.
PO BOX 9746
PORTLAND, ME 04103

DESIGNED	BAMKKG
DRAWN	CJC
CHECKED	PDO
DATE	04/10/2023
SCALE	1" = 20'
PROJECT	211026

SHEET 5 OF 31



A	BY	12/20/2023	ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW
REV	BY	DATE	STATUS
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KYLE S. MASON, RJA 3335 PAUL D. OSTROWSKI, PE 1115

22: AVAILABILITY AND ADEQUACY OF PUBLIC UTILITIES (14.6.3(C))
(TECHNICAL MANUAL, SECTIONS 2 & 9)

1. The development will not overburden sanitary sewers, storm drainage, water services, or other available public infrastructure or utilities. The design provides adequate utility infrastructure connection on-site and in connection to surrounding locations and facilities, as shown on the site plans.
2. Electrical service is underground, extending from available on-site infrastructure as coordinated by the project architect, SMRT.
3. All sanitary sewer, storm drainage, water lines, and other utilities are designed to meet the standards of the Technical Manual.

Sanitary sewer: Per City requirements, sanitary service will be extended from existing on-site infrastructure that will include a new 6" service line and exterior sewer pump station. The proposed system is part of the overall MPHC campus sewage removal. The letter of capacity inquiry and Wastewater Capacity application are included in this section.

Water: The Portland Water District (PWD) provided a formal ability/capacity to serve letter for the Building 7 project dated March 15, 2024, included in this section. As previously noted, water services will consist of a 4" domestic and a wet fire sprinkler system throughout the conditioned portions of the building at office levels 1 and 2 and the mechanical penthouse.

Storm Drainage: We note that drainage improvements and proposed treatment are detailed on the site plans and in the Stormwater Management Plan located in Section 19.

Natural gas: A new natural gas connection by Unitil with regulator and meter assembly is required to serve Building 7, as shown. Natural gas service coordination correspondence is included in this section.

4. Per City requirements and in accordance with the Technical Manual, the proposed new building will be connected to the existing public sanitary service as shown on the appended utility plans.
5. The proposed administrative space project has been designed to provide for the temporary interior storage of trash and recycling within a designated location. MPHC will continue to utilize existing contracted campus-wide solid waste disposal services, including Building 7. Outdoor storage of trash or recyclables is not proposed; therefore,

screening measures are not necessary or proposed. Please refer to the appended plans for additional information.

Utilities will meet the standards of the Technical Manual, Sections 2 and 9, as required.



23 October, 2023
211026

Brad Roland, P.E.
City of Portland Public Works Department
212 Canco Road
Portland, ME 04103

Sewer Capacity Request
Martin's Point Veranda Campus, 331 Veranda Street

Dear Brad:

On behalf of Martin's Point Health Care, Inc., we respectfully request a letter of sewer capacity for a proposed office building located on Martin's Point Veranda Campus at 331 Veranda Street. The project proposes to demolish the existing building 7 and develop a two-story office building with two levels of parking underneath it. It is proposed that an internal pump station will connect to the existing internal gravity sewer system on the site.

82 employees are expected to work in the proposed office building. A total flow calculation (gpd) for the proposed development was performed using Maine Subsurface Wastewater Disposal Rules, Table 4C: Design Flows for Other Facilities. This calculation resulted in a total flow of 984 gpd. The table below displays the breakdown of this calculation.

ESTIMATE OF ANTICIPATED DESIGN FLOWS			
	ANTICIPATED EMPLOYEES	FLOW PER EMPLOYEE (GPD)	TOTAL GALLONS PER DAY (GPD)
EMPLOYEES AT A PLACE OF EMPLOYMENT WITH NO SHOWERS	82	12	984

We are hopeful that there is sufficient availability to serve the proposed development and await your response. We plan to submit the Wastewater Capacity Application found on the Portland Public Works website under Sewer Rules and Regulations once the project is further along. In the interim, please call with any questions or if you require additional information. My direct line is 207-482-6305. Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.

Kelly Koehler, E.I.

KGK
Att.

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Portland Dept. of Public Works -
Water Resources
212 Canco Road
Portland, Maine 04103



Bradley Roland, P.E.
Water Resources Division
Department of Public Works
212 Canco Road
Portland, ME 04103

Date: 12-15-2023

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 331 Veranda Street Portland, ME 04103

Chart Block Lot Number: 434 / C001,
C005, C010

Proposed Use: Office Building

Previous Use: Storage Building

Existing Sanitary Flows: 0 GPD building no

Existing Process Flows: 0 GPD longer in use

Description and location of City sewer that is to
receive the proposed building sewer lateral.

Sewer from proposed building will connect
into an existing force main that ties into Route
one.

Site Category
Commercial (see part 4 below)
Industrial (complete part 5 below)
Governmental
Residential
Other (specify)

☒
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☐

Clearly, indicate the proposed connections, on the submitted plans.

2. Please, Submit Contact Information.

City Planner's Name: Matthew Grooms Phone: 207-874-8719

Owner/Developer Name: Martin's Point Health Care, Inc.

Owner/Developer Address: PO Box 9746 Portland, ME 04103

Phone: _____ Fax: _____ E-mail: _____

Engineering Consultant Name: Sebago Technics, INC.

Engineering Consultant Address: 75 John Roberts RD. Suite 4A South Portland, ME 04106

Phone: 207-200-2100 Fax: _____ E-mail: postrowski@sebagotechnics.com

Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review.

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 984 GPD

Peaking Factor/ Peak Times: Peak Times = 9 AM - 5 PM

Specify the source of design guidelines: (i.e. "Handbook of Subsurface Wastewater Disposal in Maine,"
"Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify)
Handbook of Subsurface Wastewater Disposal in Maine

Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet.

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

Not Applicable

Size of External Grease Interceptor:

Retention Time:

Peaking Factor/ Peak Times:

Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet.

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

GPD

Do you currently hold Federal or State discharge permits?

Yes ☐ No ☐

Is the process wastewater termed categorical under CFR 40?

Yes ☐ No ☐

OSHA Standard Industrial Code (SIC):

(<http://www.osha.gov/oshstats/sicser.html>)

Peaking Factor/Peak Process Times:

Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps.

Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided, or attached, as a separate sheet.



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

March 15, 2024

Paul Ostrowski, PE
Sebago Technics, Inc.
75 John Roberts Rd., Suite 4A, South Portland, ME 04106

Re: 331 Veranda Street, PO
Ability to Serve with PWD Water

Dear Mr. Ostrowski:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on September 6, 2023. Based on the information provided per plans dated March 15, 2024, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed and is valid for eighteen (18) months after the date of issue. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 6-inch fire service and a 4-inch domestic water service, with a 1.5-inch meter, may be installed from the water main in Veranda Street. The services should enter through the property's frontage on Veranda Street at least 10-feet from any side property lines.
- An approved testable double check backflow prevention device must be installed on each service line directly after the meter and before the sprinkler riser prior to service activation.
- The Portland Water District does not have record of any other existing infrastructure in public roads and recommends a survey and test pitting be performed by the development team prior to construction. Any conflicts that arise during construction are at the risk of the developer and may result in job shutdown until new plans are submitted by the developer and reviewed and approved by PWD.

Prior to construction, the owner or contractor will need to complete a Service Application and pay all necessary fees for each proposed service. When the project is ready for construction, an Application for each service can be requested by contacting the MEANS Group at MEANS@pwd.org or 207-774-5961 ext. 3199. Once a completed Application has been submitted with payment, please allow seven (7) days for processing.

Existing Site Service

According to District records, the project site does not currently have existing water service.

Water System Characteristics

According to District records, there is an 12-inch diameter ductile iron water main in Veranda Street and a public fire hydrant located adjacent to the site. The estimated static pressure in the area is 100 psi.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District



Robert A. Bartels, P.E.
Senior Project Engineer

From: AMaP MEANS <means@pwd.org>
Sent: Wednesday, December 20, 2023 7:54 AM
To: Paul Ostrowski <postrowski@sebagotechnics.com>
Subject: RE: [External] RE: 211026 - Martin's Point Healthcare - 331 Veranda St PO - PRJ 155025

Good morning Paul,

Thank you for the information and your request for an Ability to Serve Letter for a new building at 331 Veranda Street in Portland. The information has been forwarded on to a PWD engineer to begin the review process; the assigned engineer will reach out to you with any question and/ or comments about the project. Once all PWD requirements have been met an Ability to Serve Determination letter will be issued. Please allow up to 30-days for the issuance of an Ability to Serve determination letter; this time begins once all of the documents have been correctly submitted to the engineer assigned to the review of this project.

Please don't hesitate to contact us in the meantime with any further questions.

Thank you,
Heather Smith

MEANS Group
Main Extensions and New Services
Portland Water District
225 Douglass Street
Portland, ME 04104-3553
P:(207)774-5961 Ext. 3199
F:(207)761-8307
MEANS@pwd.org

From: Paul Ostrowski <postrowski@sebagotechnics.com>
Sent: Tuesday, December 19, 2023 3:58 PM
To: AMaP MEANS <means@pwd.org>
Cc: 211026 <211026@sebagotechnics.com>
Subject: RE: [External] RE: 211026 - Martin's Point Healthcare - 331 Veranda St PO - PRJ 155025

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The sprinkler demand is 826 GPM.

Attached is an updated fixture count.

Thank you,
Paul

Paul Ostrowski, PE

Senior Project Engineer/Engineering Design Manager
Sebago Technics, Inc. | An Employee-Owned Company
75 John Roberts Rd., Suite 4A, South Portland, ME 04106
Office: 207.200.2100 | Direct: 207.200.2088 | Fax: 207.856.2206
postrowski@sebagotechnics.com | www.sebagotechnics.com



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From: AMaP MEANS <means@pwd.org>
Sent: Monday, December 11, 2023 11:49 AM
To: Paul Ostrowski <postrowski@sebagotechnics.com>
Cc: 211026 <211026@sebagotechnics.com>
Subject: RE: [External] RE: 211026 - Martin's Point Healthcare - 331 Veranda St PO - PRJ 155025

Good morning Paul,

Thank you for the fixture count worksheet. Your information will be passed along to an engineer for review once we have been provided the calculations from the sprinkler designer in GPM that will enable us to ensure your service line and meter will be sized appropriately for your project.

Thank you,
Kathryn W.

MEANS Group
Main Extensions and New Services
Portland Water District
225 Douglass Street
Portland, ME 04104-3553
P:(207)774-5961 Ext. 3199
F:(207)761-8307
MEANS@pwd.org

From: Paul Ostrowski <postrowski@sebagotechnics.com>
Sent: Monday, December 11, 2023 10:45 AM
To: AMaP MEANS <means@pwd.org>
Cc: 211026 <211026@sebagotechnics.com>
Subject: RE: [External] RE: 211026 - Martin's Point Healthcare - 331 Veranda St PO - PRJ 155025

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Attached is the fixture count spreadsheet. I am working with the Mechanical Engineer for a GPM flow for the building sprinkler.

Thank you
Paul

From: AMaP MEANS <means@pwd.org>
Sent: Monday, December 4, 2023 9:34 AM
To: Paul Ostrowski <postrowski@sebagotechnics.com>
Subject: [External] RE: 211026 - Martin's Point Healthcare - 331 Veranda St PO - PRJ 155025

Good morning Paul,

I hope you had a great weekend. Thank you for submitting your project documents for an Ability to Serve review for your project at 331 Veranda Street in Portland. Before this can be passed along to one of our engineers, we will need you to submit either a completed "fixture count worksheet" (form attached) or furnish the peak flow in Gallons per Minute (rather than Gallons per Day which is what your submitted letter currently provides). Once we have this final piece of information we will initiate the review process.

Thank you,
Kathryn W.

MEANS Group
Main Extensions and New Services
Portland Water District
225 Douglass Street
Portland, ME 04104-3553
P:(207)774-5961 Ext. 3199
F:(207)761-8307
MEANS@pwd.org

AMAP MEANS



means@pwd.org

<https://www.pwd.org/>



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 Please consider the environment before printing this email

From: Paul Ostrowski <postrowski@sebagotechnics.com>
Sent: Friday, December 1, 2023 3:41 PM
To: AMaP MEANS <means@pwd.org>
Cc: Kelly Koehler <kkoehler@sebagotechnics.com>; 211026 <211026@sebagotechnics.com>
Subject: 211026 - Martin's Point Healthcare

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AMAP,
Please find enclosed a letter to request a District Engineer to assist in reviewing a proposed water main connection for a new office building for Martin's Point Healthcare at their Veranda Street campus in Portland, Maine.

Thank you,
Paul

Paul Ostrowski, PE

Senior Project Engineer/Engineering Design Manager
Sebago Technics, Inc. | An Employee-Owned Company
75 John Roberts Rd., Suite 4A, South Portland, ME 04106
Office: 207.200.2100 | Direct: 207.200.2088 | Fax: 207.856.2206
postrowski@sebagotechnics.com | www.sebagotechnics.com



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From: Carpenter, Scott <carpenters@unitil.com>
Sent: Monday, December 18, 2023 8:33 AM
To: Brian McDonough
Subject: RE: Martins Point Building 7 Gas Service

Brian, typically we would want a sleeve that is at least twice the diameter of the service but given the length and difficulty in giving us a straight, level path, we are suggesting 8 inch so that we minimize the chances that of the 2 inch service that we would be looking to install gets hung up inside of it.

For Sleeving:

- A conduit that won't crush (PVC schedule 40 or something similar). You definitely don't want to use corrugated pipe as we need a smooth interior to push our gas service through. The sleeve needs to be at least twice the diameter of your future service.
- Ideally it would be buried with 30 inches of cover.
- Tape both ends & take good measurements, stake them, and/or take photos. Anything so we can actually locate the sleeve when we need to.
- Warning tape should be installed just below the surface as it is helpful to warn future excavators that there is a gas line inside that conduit below. We can provide you with caution tape if needed.

If you have any questions please don't hesitate to call me directly at (207) 541-2543.

Thank you.

Scott

Scott Carpenter
Senior Business Development Representative



ME Gas Operations
376 Riverside Industrial Parkway
Portland, ME 04103
Phone/Fax: (207) 541-2543
unitil.com | [Twitter](#) | [Facebook](#) | [Instagram](#) | energy for life

From: Brian McDonough <bmcdonough@smrtinc.com>
Sent: Monday, December 18, 2023 7:31 AM
To: Carpenter, Scott <carpenters@unitil.com>
Subject: RE: Martins Point Building 7 Gas Service

Scott,

What is the reason for the 8" sleeve, exactly? Is that because you are assuming there is ledge to deal with or is that a standard requirement?

What are the requirements for the sleeve (material, etc.)?

Brian McDonough PE
Senior Plumbing/Fire Protection Engineer

Licensed/Registered: MA, ME, NH, NY



SMRT Architects and Engineers

| d: 978.289.6036

smrtinc.com

From: Carpenter, Scott <carpenters@unitil.com>
Sent: Friday, December 15, 2023 4:33 PM
To: Brian McDonough <bmcdonough@smrtinc.com>
Subject: RE: Martins Point Building 7 Gas Service

Brian, I met with the cost estimator and he said that the route that you sent should work but we would need you to provide us with an 8 inch sleeve from the existing gas service that feeds building 6 all the way to the riser location at building 7. Another option might be to use the existing meter and put in a tee and run the piping up onto the roof of building 6 all the way to building 7. Your thoughts?

If you have any questions please don't hesitate to call me directly at (207) 541-2543.

Thank you.

Scott

Scott Carpenter
Senior Business Development Representative



ME Gas Operations
376 Riverside Industrial Parkway
Portland, ME 04103
Phone/Fax: (207) 541-2543
unitil.com | [Twitter](#) | [Facebook](#) | [Instagram](#) | energy for life

From: Brian McDonough <bmcdonough@smrtinc.com>
Sent: Friday, December 15, 2023 9:12 AM
To: Carpenter, Scott <carpenters@unitil.com>
Subject: Martins Point Building 7 Gas Service

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

Hi Scott,

We talked on the phone a while back about a new building, Martins Point Building 7, being constructed adjacent to the existing Building 6 at 331 Veranda St, Portland, ME.

The estimated new gas load will be 2950 CFH.

The civil engineer (Sebago Technics) provided a site plan (attached) with the proposed gas main routing from the existing service at the west side of Building 6, routing south of Building 6, to a meter at the southeast corner of the new Building 7. The grade drops about 16 feet from the west end of Building 6 to the south end of Building 7.

Also attached is an architectural building elevation plan and floor plan showing the gas service/meter/regulator assembly location. The lowest two levels of the building are a parking garage. A few questions on the location:

1. What are the clearance requirements from the regulator/meter to garage openings/mechanical intakes?
2. Does the gas service/meter assembly need to be supported from the building or would there be a concrete pad at grade to support it?

Please review the gas service routing and meter location for feasibility and provide any other comments/questions you have.

What are my options for guaranteed minimum gas pressure delivery to the building?

If you want to jump on a call to discuss anything, my cell phone is 781-413-6312.

Brian McDonough PE
Senior Plumbing/Fire Protection Engineer

Licensed/Registered: MA, ME, NH, NY



SMRT Architects and Engineers

| d: 978.289.6036

smrtinc.com

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25: SNOW AND ICE LOADING (14.6.4(C))

Att. R

The proposed project will not result in the accumulation of significant amounts of snow and ice from loading or falling offsite. The building is designed with flat roofs with architectural designs consistent with building code requirements. Building 7 is not situated in a location where snow and ice can fall on abutting properties or public ways. A snow melt system independent of the boiler encompassing ~1,500 SF will be incorporated at the garage vehicle ramp.

Snow will be removed from the onsite driveways and sidewalks per applicable City regulations by existing contracted removal and treatment services.

5

26: VIEW CORRIDORS (14.6.4(D))

The site and views to and from the site are not identified in the Downtown Vision View Corridor Protection Plan.

The massing and height of the proposed new Building 7 meet the required zoning setbacks and are similar to the adjacent Building 6.

27: HISTORIC RESOURCES (14.6.4(E))

1. The proposed project is not located in a designated historic or historic landscape district; therefore, a Certificate of Appropriateness is not required.
2. Proposed improvements on the Martins Point campus are located within close proximity to the Marine Hospital (Building 5), which is listed on the National Register of Historic Places. By email received December 29, 2023, the Maine Historic Preservation Commission (MHPC) determined that the Building 7 redevelopment project is approved; see attached correspondence from Mike Johnson, MHPC.

Stefanie Nichols

From: Johnson, Mike D <Mike.D.Johnson@maine.gov>
Sent: Friday, December 29, 2023 8:30 AM
To: Stefanie Nichols
Subject: RE: [External] Maine Historic Preservation - Martin's Point -Portland Follow-Up

Thank you Stefanie,

Based on the site conditions and the plans and renderings provided by Sebago Technics, we have determined that the proposed Martin's Point redevelopment is in accordance with the terms of the Marine Hospital deeded covenant and is approved.

Please feel free to contact me if you have any questions.
Mike

Mike Johnson

Historic Rehabilitation Tax Credit Coordinator
Grants & Easements Coordinator
Maine Historic Preservation Commission
State House Station 65
55 Capitol Street
Augusta, ME 04333
207-287-2949

From: Stefanie Nichols <snichols@sebagotechnics.com>
Sent: Tuesday, December 19, 2023 11:31 AM
To: Johnson, Mike D <Mike.D.Johnson@maine.gov>
Cc: Kira Harmon <kharmon@sebagotechnics.com>; Kylie Mason <kmason@sebagotechnics.com>
Subject: RE: Maine Historic Preservation - Martin's Point -Portland Follow-Up

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Good morning Mike,

Please find the winter conditions plans as viewed from the bridge, as requested. Kira is working on the bird's eye model for MHPC.

Best, Stef

From: Stefanie Nichols
Sent: Tuesday, December 12, 2023 4:43 PM
To: 'Johnson, Mike D' <Mike.D.Johnson@maine.gov>
Cc: Kira Harmon <kharmon@sebagotechnics.com>
Subject: RE: [External] Martin's Point -Portland Follow-Up

Mike,

Yes. This email request is copied to Kira Harmon, Sebago's virtual design manager overseeing all in-house 3D modeling/graphics services.

Best, Stefanie

From: Johnson, Mike D <Mike.D.Johnson@maine.gov>
Sent: Tuesday, December 12, 2023 3:08 PM
To: Stefanie Nichols <snichols@sebagotechnics.com>
Subject: RE: [External] Martin's Point -Portland Follow-Up

Thanks Stefanie,

Can you send me a couple renderings showing what this would look like in the winter?

Thanks,
Mike

Mike Johnson

Historic Rehabilitation Tax Credit Coordinator
Grants & Easements Coordinator
Maine Historic Preservation Commission
State House Station 65
55 Capitol Street
Augusta, ME 04333
207-287-2949

From: Stefanie Nichols <snichols@sebagotechnics.com>
Sent: Tuesday, December 5, 2023 1:53 PM
To: Johnson, Mike D <Mike.D.Johnson@maine.gov>
Subject: Martin's Point -Portland Follow-Up

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Good afternoon Mike,

Martins Point is progressing with the Building 7 development plan discussed last year. I offer recent site plans and the requested supplemental information addressing the proposed visual massing as viewed from the bridge. We are pleased to offer the attached information based on the current design for MHPC consideration. Sebago will have a bird's eye graphic showing the campus building relationship available before Christmas. Federal permitting is not anticipated for the proposed site improvements.

We look forward to hearing from you.

Best, Stefanie







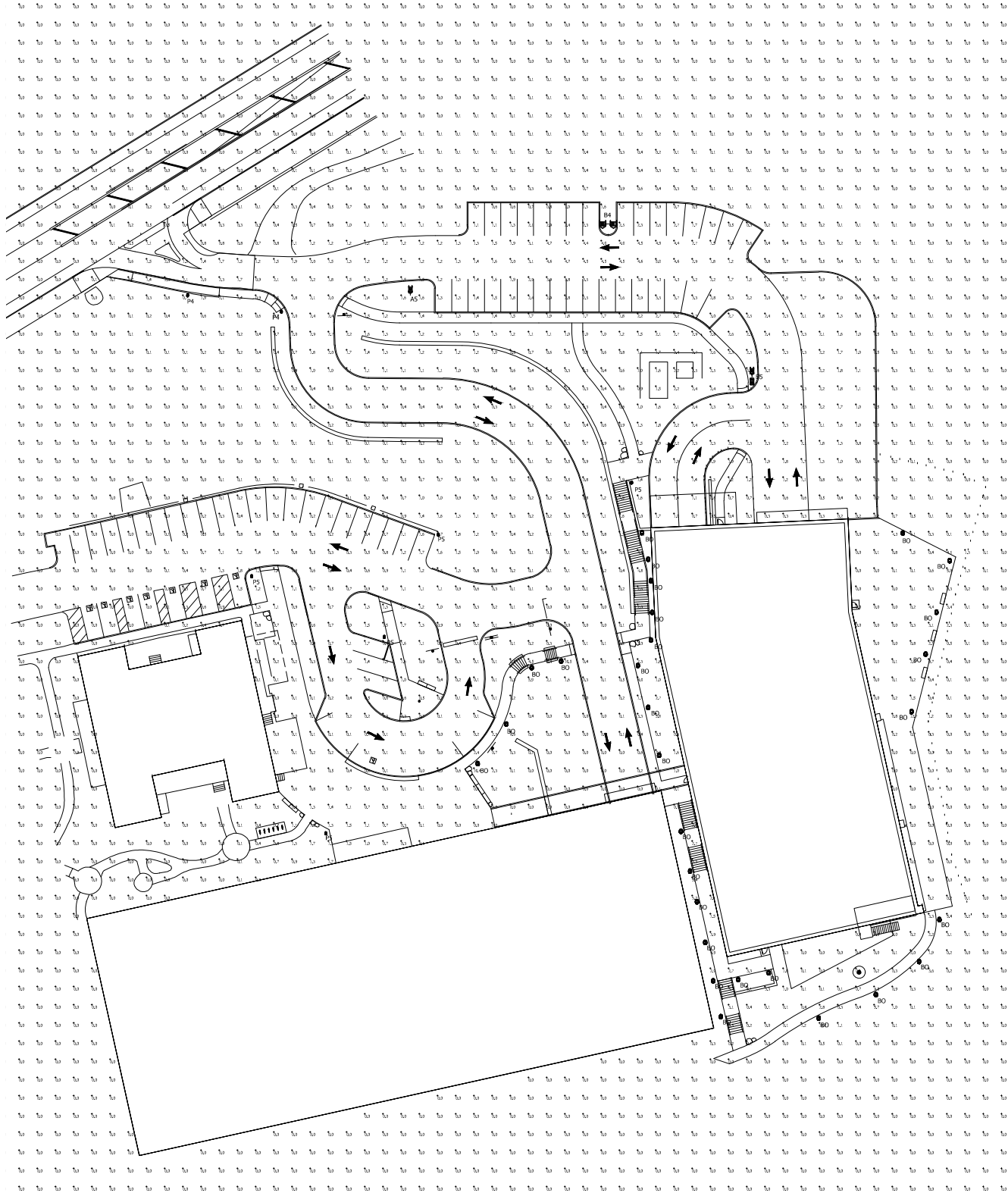


28: EXTERIOR LIGHTING (14.6.4(F))

1. Site lighting.
 - a. The building architect professionally prepared and coordinated the proposed site lighting for the new administrative headquarters. We understand that the lighting will consist of full-cut-off LED fixtures at a level adequate for safety but not excessive or at a level that contributes to light pollution. All lighting will be in conformance with the lighting standards of the Technical Manual.
 - b. Due to the secluded site location, light from the proposed improvements at Building 7 will not adversely impact residential properties.
2. Architectural specialty lighting.
 - a./b. If proposed, architectural or specialty lighting will conform to the lighting standards of the Technical Manual.
3. Street lighting.

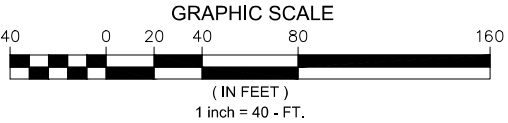
The proposed Martins Point Building 7 improvements are on Veranda Street, and site access will occur over existing lighted curb cuts at Marine Hospital Drive and Building 7 right-in/right-out drive.

Reference is made to the light fixture cut sheets and photometric plan prepared by Swaney Lighting, Inc. in this section.



Luminaire Schedule							
Symbol	Qty	Label	Mounting Height	LLF	Lum. Lumens	Lum. Watts	Description
	1	A5	25' - 0" AFG	0.900	17209	135	VP-1-160L-135-3K7-5QW
	1	B4	25' - 0" AFG	0.900	14224	111.9	VP-1-160L-115-3K7-4W
	1	B5	25' - 0" AFG	0.900	17209	135	VP-1-160L-135-3K7-5QW
	29	B0	3' - 6" AFG	0.900	1735	25	PROB-Y5-2030
	2	P4	15' - 0" AFG	0.900	5593	60	PROV2-36L-510-3K7-4W
	5	P5	15' - 0" AFG	0.900	5638	60	PROV2-36L-510-3K7-5W

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Area	Illuminance	Fc	0.42	12.7	0.0	N.A.	N.A.
Paved Area	Illuminance	Fc	1.23	5.0	0.0	N.A.	N.A.



1. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO CURRENT. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.					
2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.					
3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.					
TITLE: MARTIN'S POINT HEALTHCARE PORTLAND, ME SITE PHOTOMETRIC PLAN			REVISED FROM DRAWING NUMBER(S): 		



Transmittal

Swaney Lighting

PO Box 1597

Scarborough ME 04070

Phone: (207) 883-7100

From: Therese Freeman X-103

Project MARTIN'S POINT VERANDA CAMPUS

Quote# SLA23-57244

Location PORTLAND ME

Contact:

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

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|-----------------------------------|--|--------|
| ☐ Drawings | ☐ Specifications | Other: |
| ☐ Prints | ☐ Information | |
| ☐ Plans | ☒ Submittals | |

THESE ARE TRANSMITTED FOR:

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|--|---|---------------------------------|
| ☒ Prior Approval | ☐ Resubmittal for Approval | ☐ Record |
| ☐ Approval | ☐ Corrections | Bids due on: |
| ☐ Approval as Submitted | ☐ Your Use | Other: |
| ☐ Approval as Noted | ☐ Review and Comment | |

Type	MFG	Part
A5	BEACON PRODUCTS	VP-1-160L-135-3K7-5QW-UNV-A-DBT
A5	BEACON PRODUCTS	SSSB25-40A-1-B3-DBT-VM1
B4-L	BEACON PRODUCTS	VP-1-160L-115-3K7-4W-L-UNV-A-DBT
B4-R	BEACON PRODUCTS	VP-1-160L-115-3K7-4W-R-UNV-A-DBT
B4	BEACON PRODUCTS	SSSB25-40A-2-B3-DBT-VM1
B5	BEACON PRODUCTS	VP-1-160L-135-3K7-5QW-UNV-A-DBT
	Item Note: 2@180	
B5	BEACON PRODUCTS	SSSB25-40A-2-B3-DBT-VM1
BO	Architectural Area Lighting	PROB-Y5-2030-DBT-RD-BOLTS AHEAD-WIRED120-277V
P4	Architectural Area Lighting	PROV2-36L-510-3K7-4W-DBT-STND_ MNT-UNV
P4	Architectural Area Lighting	RSSA15-40A-OT-DBT
P5	Architectural Area Lighting	PROV2-36L-510-3K7-5W-DBT-STND_ MNT-UNV
P5	Architectural Area Lighting	RSSA15-40A-OT-DBT



VIPER Area/Site

VIPER LUMINAIRE

FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as auto dealership, retail, commercial, and campus parking lots
- Featuring two different optical technologies, Strike and Micro Strike Optics, which provide the best distribution patterns for retrofit or new construction
- Rated for high vibration applications including bridges and overpasses. All sizes are rated for 1.5G
- Control options including photo control, occupancy sensing, NX Lighting Controls™, LightGRID+ and 7-Pin with networked controls
- New customizable lumen output feature allows for the wattage and lumen output to be customized in the factory to meet whatever specification requirements may entail
- Field interchangeable mounting provides additional flexibility after the fixture has shipped



CONTROL TECHNOLOGY



SERVICE PROGRAMS



SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with 1000 hour powder coat paint finish
- External hardware is corrosion resistant

OPTICS

- Micro Strike Optics (160, 320, 480, or 720 LED counts) maximize uniformity in applications and come standard with mid-power LEDs which evenly illuminate the entire luminous surface area to provide a low glare appearance. Catalog logic found on page 2
- Strike Optics (36, 72, 108, or 162 LED counts) provide best in class distributions and maximum pole spacing in new applications with high powered LEDs. Strike optics are held in place with a polycarbonate bezel to mimic the appearance of the Micro Strike Optics so both solutions can be combined on the same application. Catalog logic found on page 3
- Both optics maximize target zone illumination with minimal losses at the house-side, reducing light trespass issues. Additional backlight control shields and house side shields can be added for further reduction of illumination behind the pole
- One-piece silicone gasket ensures a weatherproof seal
- Zero up-light at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Mounting patterns for each arm can be found on page 11
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option (ASQU) or accessory for square and round poles
- All mounting hardware included
- Knuckle arm fitter option available for 2-3/8" OD tenon
- For products with EPA less than 1 mounted to a pole greater than 20ft, a vibration damper is recommended

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40°C to 40°C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised
- Dual Driver option provides 2 drivers within luminaire but only one set of leads exiting the luminaire, where Dual Power Feed provides two drivers which can be wired independently as two sets of leads are extended from the luminaire. Both options cannot be combined

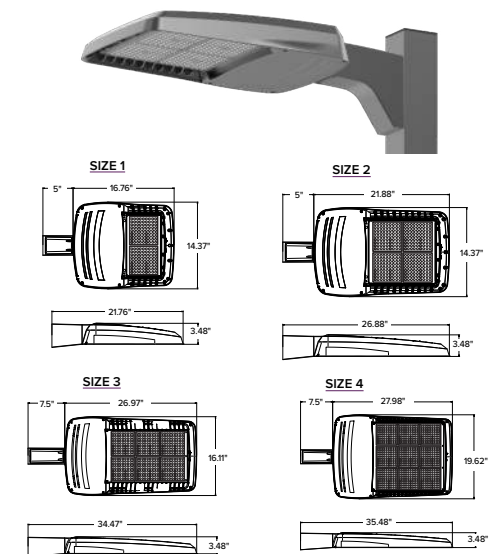
CONTROLS

- Photo control, occupancy sensor programmable controls, and Zigbee wireless controls available for complete on/off and dimming control
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)

CONTROLS (CONTINUED)

- 0-10V Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard
- NX Lighting Controls™ available with in fixture wireless control module, features dimming and occupancy sensor
- LightGRID+ available with in fixture wireless control module, features dimming and occupancy sensor. Also available in 7-pin configuration

MICROSTRIKE | STRIKE



	EPA				Config.
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

CERTIFICATIONS

- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations listed in this document are DLC® qualified. Refer to <http://www.designlights.org> for the most up-to-date list.
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures
- 1.5 G rated for ANSI C136.31 high vibration applications
- Fixture is IP65 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9) and Trade Agreements Act (FAR 52.225-11). See Buy America(n) Solutions (link to <https://www.currentlighting.com/resources/america-solutions>).

WARRANTY

- 5 year warranty



VIPER Area/Site

VIPER LUMINAIRE

MICROSTRIKE OPTICS – ORDERING GUIDE

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

Gray Shading = Service Program Limit of 15 luminaires

QS10

Example: VP-2-320L-145-3K7-2-R-UNV-A3-BLT

CATALOG #

VP	Series	Optic Platform	Size	Light Engine	CCT/CRI	Distribution	Optic Rotation	Voltage
	VP Viper	Micro Strike	1 Size 1	160L-35 ⁶ 5500 lumens 160L-50 ⁶ 7500 lumens 160L-75 10000 lumens 160L-100 12500 lumens 160L-115 15000 lumens 160L-135 18000 lumens 160L-160 21000 lumens 320L-145 21000 lumens 320L-170 24000 lumens 320L-185 27000 lumens 320L-210 30000 lumens 320L-235 33000 lumens 320L-255 36000 lumens 320L-315 ⁶ 40000 lumens 480L-285 40000 lumens 480L-320 44000 lumens 480L-340 48000 lumens 480L-390 52000 lumens 480L-425 55000 lumens 480L-470 60000 lumens 720L-435 60000 lumens 720L-475 65000 lumens 720L-515 70000 lumens 720L-565 ⁶ 75000 lumens 720L-600 ⁶ 80000 lumens CLO Custom Lumen Output ¹	AP AP-Amber Phosphor Converted 27K8 2700K, 80 CRI 3K7 3000K, 70 CRI 3K8 3000K, 80 CRI 35K8 3500K, 80 CRI 3K9 3000K, 90 CRI 4K7 4000K, 70 CRI 4K8 4000K, 80 CRI 4K9 4000K, 90 CRI 5K7 5000K, 70 CRI 5K8 5000K, 80 CRI	2 Type 2 3 Type 3 4F Type 4 Forward 4W Type 4 Wide 5QW Type 5 Square Wide	BLANK No Rotation L Optic rotation left R Optic rotation right	UNV 120-277V 120 120V 208 208V 240 240V 277 277V 347 347V 480 480V
			2 Size 2					
			3 Size 3					
			4 Size 4					

Mounting	Color	Options	Network Control Options
A Arm mount for square pole/flat surface (B3 Drill Pattern) (Does not include round pole adapter)	BLT Black Matte Textured	F Fusing	NXWS16F NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4}
ASQU Universal arm mount for square pole. Can be used with B3 or S2 Drill Pattern	BLS Black Gloss Smooth	2PF Dual Power Feed	NXWS40F NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4}
A_U Universal arm mount for round pole ²	DBT Dark Bronze Matte Textured	2DR Dual Driver	NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ^{3,4}
AAU Adjustable arm for pole mounting (universal drill pattern)	DBS Dark Bronze Gloss Smooth	TE Toolless Entry	WIR LightGRID+ In-Fixture Module ^{3,4}
AA_U Adjustable arm mount for round pole ²	GTT Graphite Matte Textured	BC Backlight Control ⁸	WIRSC LightGRID+ Module and Occupancy Sensor ^{3,4}
ADU Decorative upswept Arm (universal drill pattern)	LGS Light Grey Gloss Smooth	TB Terminal Block	Stand Alone Sensors
AD_U Decorative upswept arm mount for round pole ²	LGT Light Grey Gloss Textured		BTS-14F Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
MAF Mast arm fitter for 2-3/8" OD horizontal arm	PSS Platinum Silver Smooth		BTS-40F Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
K Knuckle	WHT White Matte Textured		BTSO-12F Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
T Trunnion	WHS White Gloss Smooth		7PR 7-Pin Receptacle ⁴
WB Wall Bracket, horizontal tenon with MAF	VGT Verde Green Textured		7PR-SC 7-Pin Receptacle with shorting cap ⁴
WM Wall mount bracket with decorative upswept arm	Color Option		3PR 3-Pin twist lock ⁴
WA Wall mount bracket with adjustable arm	CC Custom Color		3PR-SC 3-Pin receptacle with shorting cap ⁴
			3PR-TL 3-Pin PCR with photocontrol ⁴
			Programmed Controls
			SCP_F Sensor Control Programmable, 8F or 40F ⁹
			ADD AutoDim Timer Based Dimming ⁴
			ADT AutoDim Time of Day Dimming ⁴
			Photocontrols
			PC Button Photocontrol ^{4,7}

1 – Items with a grey background can be done as a custom order. Contact brand representative for more information
 2 – Replace “_” with “3” for 3.5”-4.13” OD pole, “4” for 4.18”-5.25” OD pole, “5” for 5.5”-6.5” OD pole
 3 – Networked Controls cannot be combined with other control options
 4 – Not available with 2PF option
 5 – Not available with Dual Driver option

6 – Some voltage restrictions may apply when combined with controls
 7 – Not available with 480V
 8 – BC not available on 4F and type 5 distributions
 9 – At least one SCPREMOTE required to program SCP motion sensor. Must select 8ft or 40ft.



VIPER Area/Site

VIPER LUMINAIRE

VIPER POLE EXPRESS COMBO – ORDERING GUIDE



Catalog Number	Pole	Single or Double Head	Fixture	Lumens*	Wattage	Distribution	CCT/CRI	Mounting	Finish
VP-1-160-4K-3-LS-S20	20' Square Straight Steel	Single	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S20	20' Square Straight Steel	Single	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S25	25' Square Straight Steel	Single	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S25	25' Square Straight Steel	Single	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S20	20' Square Straight Steel	Single	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S20	20' Square Straight Steel	Single	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S25	25' Square Straight Steel	Single	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S25	25' Square Straight Steel	Single	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured

VIPER POLE EXPRESS COMBO – STOCK LUMINAIRE SKUS

Catalog Number	Lumens	LPW	Distribution	Wattage	CCT/CRI	Voltage	Mounting	Finish
VP-1-160-4K-3-LS	19584	123.9	3	158W	4000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-4K-4F-LS	19426	122.9	4F	158W	4000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-5K-3-LS	19499	123.4	3	158W	5000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-5K-4F-LS	19186	121.4	4F	158W	5000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured

VIPER POLE EXPRESS COMBO – ACCESSORIES

Catalog Number	Description
VM14DB	Vibration Dampener, mounts to top of pole for reduced vibration





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____	LOCATION: _____
TYPE: _____	PROJECT: _____
CATALOG #: _____	

OUTDOOR LIGHTING CONTROLS OPTIONS CONTROLS FUNCTIONALITY LIGHT GRID⁺ NX[™]

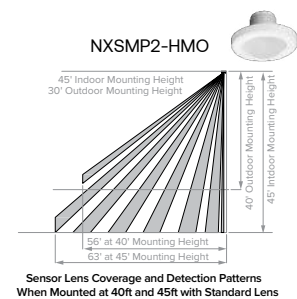
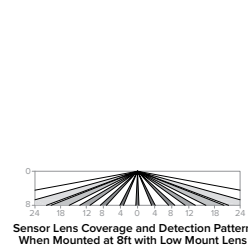
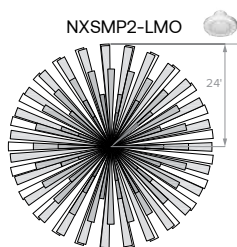
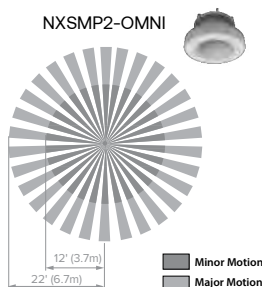
Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components
		Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
NX Wireless	NXOFMIRID-UNV	✓	✓	✓	Paired with external control	✓	✓	✓	✓	-	NXOFMIRID-UNV
	NXW	✓	✓	✓	-	-	✓	✓	✓	-	NXRM2-H
	NXWS12F	✓	✓	✓	✓	✓	✓	✓	✓	12ft	NXSMP2-OMNI-O
	NXWS16F	✓	✓	✓	✓	✓	✓	✓	✓	16ft	NXSMP2-LMO
	NXWS40F	✓	✓	✓	✓	✓	✓	✓	✓	40ft	NXSMP2-HMO
LightGRID+	WIR	✓	-	✓	-	-	✓	✓	Gateway	-	WIR
	WIR-RME-L	✓	-	✓	-	-	✓	✓	Gateway	-	WIR-RME-L
	WIRSC	✓	✓	✓	✓	✓	✓	✓	Gateway	14ft - 40ft	BTMSP
Independent	BTSO-12F	-	-	-	✓	✓	✓	✓	✓	12ft	BTSMP-OMNI-O
	BTS-14F	-	-	-	✓	✓	✓	✓	✓	14ft	BTSMP-LMO
	BTS-40F	-	-	-	✓	✓	✓	✓	✓	40ft	BTSMP-HMO

DEFAULT SETTINGS

NX Wireless	Occupancy Sensor	Enabled
	Occupancy Sensor Sensitivity	7
	Occupancy Sensor Timeout	15 Minutes
	Occupied Dim Level	100%
	Unoccupied Dim Level	0%
	Daylight Sensor	Disabled
	Bluetooth	Enabled
	2.4GHz Wireless Mesh	On
	*Passcode Factory Passcode: HubbN3T!	Enabled

Stand Alone	Occupancy Sensor	Enabled
	Occupancy Sensor Sensitivity	7
	Occupancy Sensor Timeout	8 Minutes
	Occupied Dim Level	100%
	Unoccupied Dim Level	50%
	Daylight Sensor	Disabled

NX WIRELESS COVERAGE PATTERNS





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

NX LIGHTING CONTROLS FREE APP**CONTROLS TECH SUPPORT 800-888-8006 (7:00 AM - 7:00 PM)**

The NX Lighting Controls App is free to use mobile application for programming both NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enable luminaires and program NX system settings.

Apple App: <https://apps.apple.com/us/app/nx-lighting-controls/id962112904>

Google Play: https://play.google.com/store/apps/details?id=io.cordova.NXBTR&hl=en_US&q=US



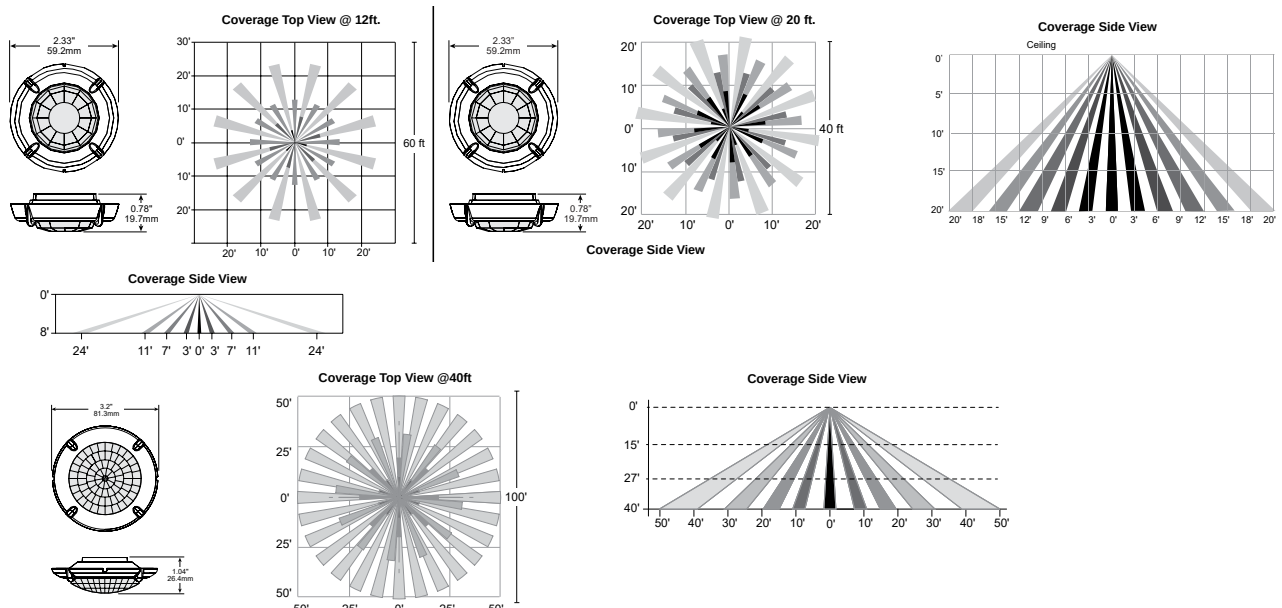
Apple App



Google Play

OUTDOOR LIGHTING CONTROLS OPTIONS**CONTROLS FUNCTIONALITY**

Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components
		Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
SCP_F	Sensor Control Programmable, 8F or 40F	-	-	-	✓	✓	✓	✓	-	8ft or 40ft	SCP_F
ADD	AutoDIM Timer Based Dimming	-	-	✓	-	-	-	✓	-	-	ADD
ADT	AutoDIM Time of Day Dimming	-	-	✓	-	-	-	✓	-	-	ADT
7PR	7-Pin Receptacle	-	-	Paired with external control	-	Paired with external control	-	Paired with external control	-	-	7PR
7PR-SC	7-Pin Receptacle with shorting cap	-	-	-	-	-	-	-	-	-	7PR-SC
3PR	3-Pin twist lock	-	-	-	-	-	-	Paired with external control	-	-	3PR
3PR-SC	3-Pin Receptacle with shorting cap	-	-	-	-	-	-	-	-	-	3PR-SC
3PR-TL	3-Pin with photocontrol	-	-	-	-	✓	-	✓	-	-	3PR-TL

COVERAGE PATTERNS FOR SCP_F



VIPER Area/Site

VIPER LUMINAIRE

PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6 - Delay 6 hours
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50% brightness
Auto-Dim Return	Delay 0-9 Hours	R6 - Return to full output after 6 hours

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6 - Dim at 6PM
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50%
Auto-Dim Return	12-6 AM and 9-11P	R6 - Return to full output at 6AM

DELIVERED LUMENS

For delivered lumens, please see Lumens Data PDF on www.Currentlighting.com

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	0	25,000	*TM-21-11 36,000	50,000	100,000	Calculated L ₇₀ (Hours)
25°C / 77°F	1.00	0.97	0.96	0.95	0.91	408,000
40°C / 104°F	0.99	0.96	0.95	0.94	0.89	356,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature			Micro Strike Lumen Multiplier				Strike Lumen Multiplier			
Ambient Temperature		Lumen Multiplier	CCT	70 CRI	80 CRI	90 CRI	CCT	70 CRI	80 CRI	90 CRI
0°C	32°F	1.03								
10°C	50°F	1.01	2700K	—	0.841	—	2700K	0.9	0.81	0.62
20°C	68°F	1.00	3000K	0.977	0.861	0.647	3000K	0.933	0.853	0.659
25°C	77°F	1.00	3500K	—	0.900	—	3500K	0.959	0.894	0.711
30°C	86°F	0.99	4000K	1	0.926	0.699	4000K	1	0.9	0.732
40°C	104°F	0.98	5000K	1	0.937	0.791	5000K	1	0.9	0.732
			AP-Amber Phosphor Converted Multiplier				Monochromatic Amber Multiplier			
			Amber				Amber			
			0.710				See Amber Spec Sheet			



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____	LOCATION: _____
TYPE: _____	PROJECT: _____
CATALOG #: _____	

ELECTRICAL DATA: MICRO STRIKE

# OF LEDS	160						
NOMINAL WATTAGE	35	50	75	100	115	135	160
SYSTEM POWER (W)	34.9	50.5	72.1	97.2	111.9	132.2	157.8
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	0.29	0.42	0.63	0.83	0.96	1.13	1.33
208	0.17	0.24	0.36	0.48	0.55	0.65	0.77
240	0.15	0.21	0.31	0.42	0.48	0.56	0.67
277	0.13	0.18	0.27	0.36	0.42	0.49	0.58
347	0.10	0.14	0.22	0.29	0.33	0.39	0.46
480	0.07	0.10	0.16	0.21	0.24	0.28	0.33

# OF LEDS	320						
NOMINAL WATTAGE	145	170	185	210	235	255	315
SYSTEM POWER (W)	150	166.8	185.7	216.2	240.9	261.5	312
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	1.21	1.42	1.54	1.75	1.96	2.13	2.63
208	0.70	0.82	0.89	1.01	1.13	1.23	1.51
240	0.60	0.71	0.77	0.88	0.98	1.06	1.31
277	0.52	0.61	0.67	0.76	0.85	0.92	1.14
347	0.42	0.49	0.53	0.61	0.68	0.73	0.91
480	0.30	0.35	0.39	0.44	0.49	0.53	0.66

# OF LEDS	480					
NOMINAL WATTAGE	285	320	340	390	425	470
SYSTEM POWER (W)	286.2	316.7	338.4	392.2	423.2	468
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.38	2.67	2.83	3.25	3.54	3.92
208	1.37	1.54	1.63	1.88	2.04	2.26
240	1.19	1.33	1.42	1.63	1.77	1.96
277	1.03	1.16	1.23	1.41	1.53	1.70
347	0.82	0.92	0.98	1.12	1.22	1.35
480	0.59	0.67	0.71	0.81	0.89	0.98

# OF LEDS	720				
NOMINAL WATTAGE	435	475	515	565	600
SYSTEM POWER (W)	429.3	475	519.1	565.2	599.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	3.63	3.96	4.29	4.71	5.00
208	2.09	2.28	2.48	2.72	2.88
240	1.81	1.98	2.15	2.35	2.50
277	1.57	1.71	1.86	2.04	2.17
347	1.25	1.37	1.48	1.63	1.73
480	0.91	0.99	1.07	1.18	1.25



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ELECTRICAL DATA: STRIKE

# OF LEDS	36				
NOMINAL WATTAGE	39	55	85	105	120
SYSTEM POWER (W)	39.6	56.8	83.6	108.2	120.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	0.33	0.46	0.71	0.88	0.96
208	0.19	0.26	0.41	0.50	0.55
240	0.16	0.23	0.35	0.44	0.48
277	0.14	0.20	0.31	0.38	0.42
347	0.11	0.16	0.24	0.30	0.33
480	0.08	0.11	0.18	0.22	0.24

# OF LEDS	72				
NOMINAL WATTAGE	115	145	180	210	240
SYSTEM POWER (W)	113.7	143.2	179.4	210.2	241.7
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	1.00	1.21	1.50	1.75	1.79
208	0.58	0.70	0.87	1.01	1.03
240	0.50	0.60	0.75	0.88	0.90
277	0.43	0.52	0.65	0.76	0.78
347	0.35	0.42	0.52	0.61	0.62
480	0.25	0.30	0.38	0.44	0.45

# OF LEDS	108				
NOMINAL WATTAGE	215	250	280	325	365
SYSTEM POWER (W)	214.8	250.8	278.3	324.7	362.6
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	2.00	2.08	2.33	3.04	2.67
208	1.15	1.20	1.35	1.75	1.54
240	1.00	1.04	1.17	1.52	1.33
277	0.87	0.90	1.01	1.32	1.16
347	0.69	0.72	0.81	1.05	0.92
480	0.50	0.52	0.58	0.76	0.67

# OF LEDS	162					
NOMINAL WATTAGE	320	365	405	445	485	545
SYSTEM POWER (W)	322.1	362.6	403.6	445.1	487.1	543.9
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.71	2.67	3.38	3.71	4.04	4.54
208	1.56	1.54	1.95	2.14	2.33	2.62
240	1.35	1.33	1.69	1.85	2.02	2.27
277	1.17	1.16	1.46	1.61	1.75	1.97
347	0.94	0.92	1.17	1.28	1.40	1.57
480	0.68	0.67	0.84	0.93	1.01	1.14



Job Name:
MARTIN'S POINT VERANDA CAMPUS

Catalog Number:
VP-1-160L-135-3K7-5QW-UNV-A-DBT
Notes:

Type:

A5

SLA23-57244



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

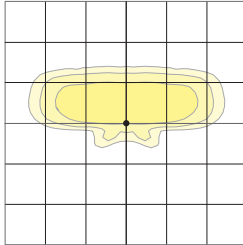
TYPE: _____ PROJECT: _____

CATALOG #: _____

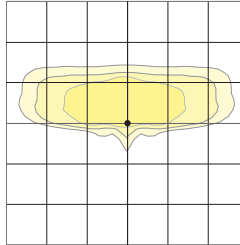
MICRO STRIKE PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

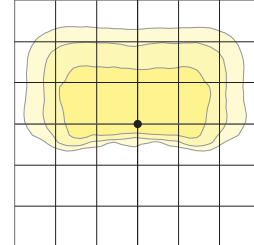
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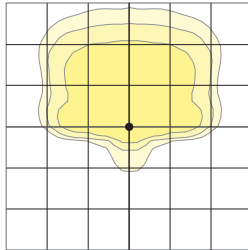
Type 3



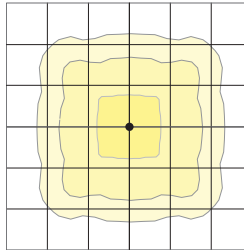
Type 4 Wide



Type 4F



Type 5QW





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

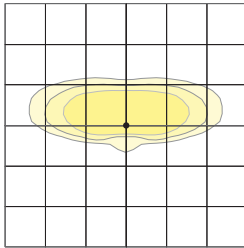
TYPE: _____ PROJECT: _____

CATALOG #: _____

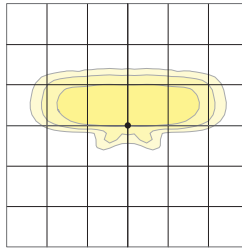
OPTIC STRIKE PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

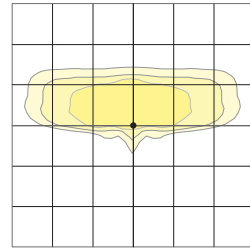
Type FR – Front Row/Auto Optic



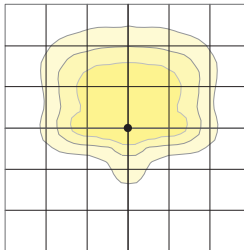
Type 2



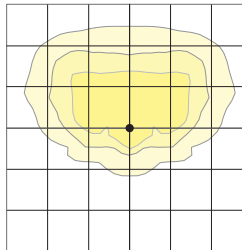
Type 3



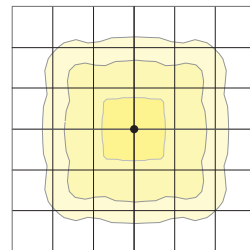
Type 4 Forward



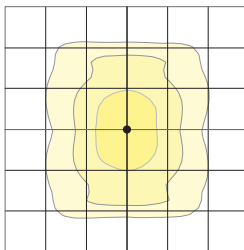
Type 4 Wide



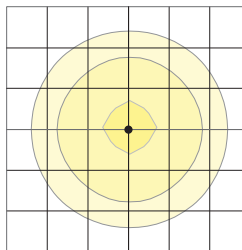
Type 5QM



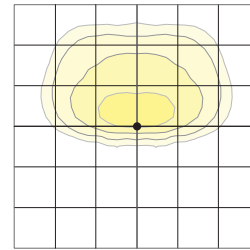
Type 5RW (rectangular)



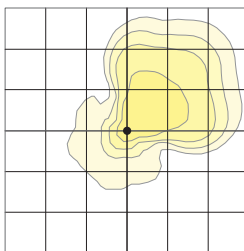
Type 5W (round wide)



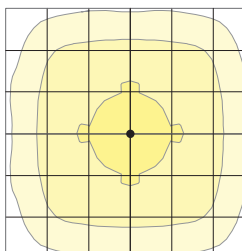
Type TC



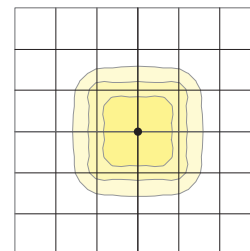
Type Corner



Type 5QW



Type 5QN





VIPER Area/Site

VIPER LUMINAIRE

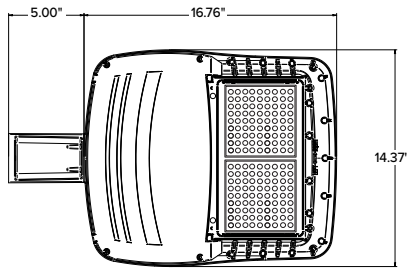
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

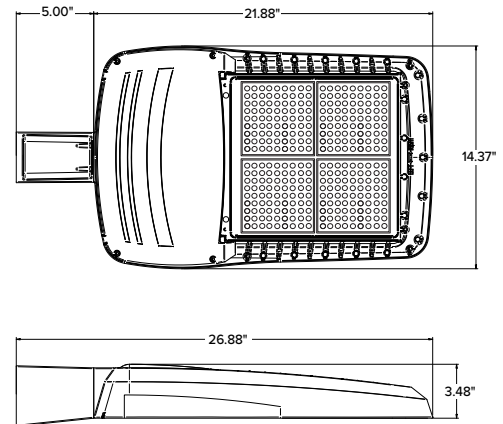
CATALOG #: _____

DIMENSIONS

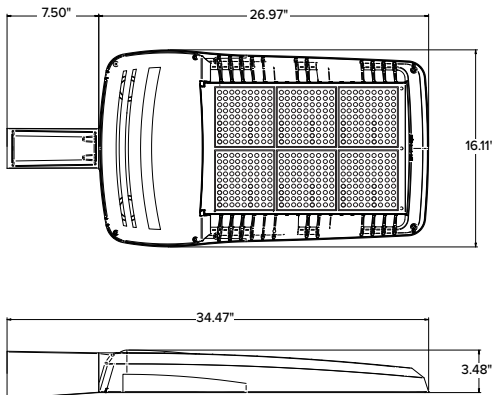
SIZE 1



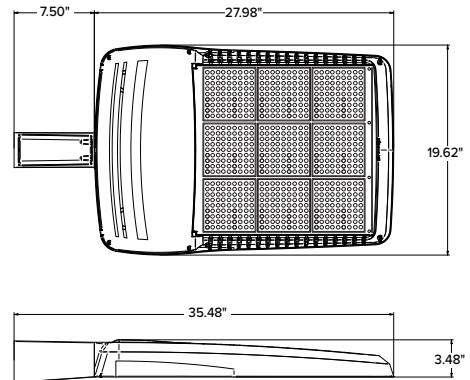
SIZE 2



SIZE 3



SIZE 4



	EPA				Config.
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

	Weight	
	lbs	kgs
VP1 (Size 1)	13.7	6.2
VP2 (Size 2)	16.0	7.26
VP3 (Size 3)	25.9	11.7
VP4 (Size 4)	30.8	13.9



VIPER Area/Site

VIPER LUMINAIRE

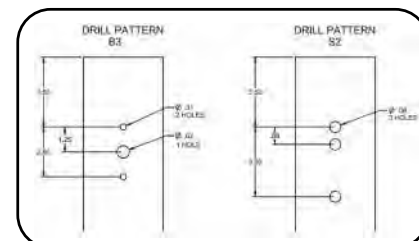
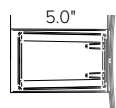
DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

MOUNTING



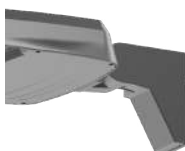
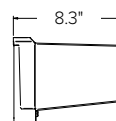
A-STRAIGHT ARM MOUNT

Fixture ships with integral arm for ease of installation. Compatible with Current Outdoor B3 drill pattern for ease of installation on square poles. For round poles add applicable suffix (2/3/4/5)



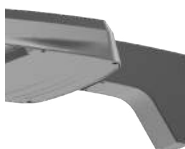
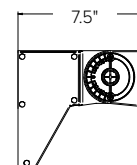
ASQU-UNIVERSAL ARM MOUNT

Universal mounting block for ease of installation. Compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5)



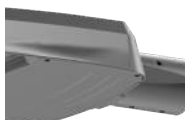
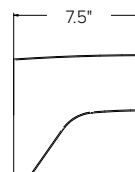
AAU-ADJUSTABLE ARM FOR POLE MOUNTING

Rotatable arm mounts directly to pole. Compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2 and B3. For round poles add applicable suffix (2/3/4/5). Rotatable in 15° aiming angle increments. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



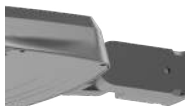
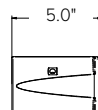
ADU-DECORATIVE UPSWEPT ARM

Upswept Arm compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5).



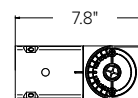
MAF-MAST ARM FITTER

Fits 2-3/8" OD horizontal tenons.



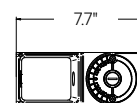
K-KNUCKLE

Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



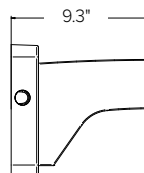
T-TRUNNION

Trunnion for surface and crossarm mounting using (1) 3/4" or (2) 1/2" size through bolts. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



WM-WALL MOUNT

Compatible with universal arm mount, adjustable arm mount, and decorative arm mount. The WA option uses the same wall bracket but replaces the decorative arm with an adjustable arm.





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

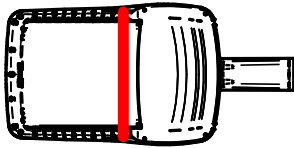
ADDITIONAL INFORMATION (CONTINUED)

HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES

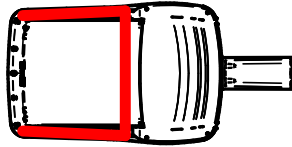
HSS has a depth of 5" for all Viper sizes

Not to be used with Occupancy Sensors as the shield may block the light to the sensor.

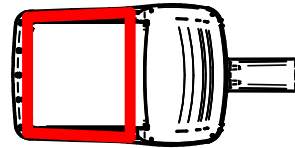
VPR2x HSS-90-B-xx



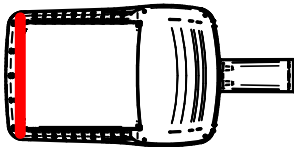
VPR2x HSS-270-BSS-xx



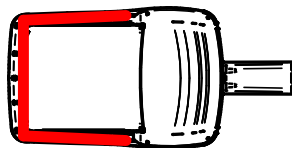
VPR2x HSS-360-xx



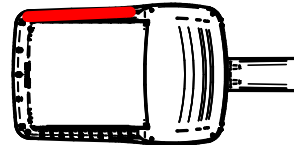
VPR2x HSS-90-F-xx



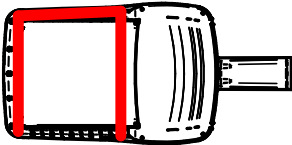
VPR2x HSS-270-FSS-xx



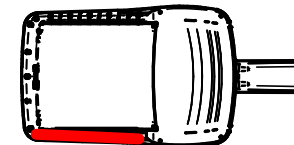
VPR2x HSS-90-S-xx



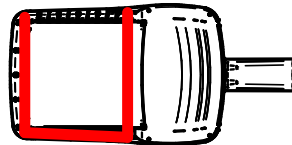
VPR2x HSS-270-FSB-xx



VPR2x HSS-90-S-xx



VPR2x HSS-270-FSB-xx



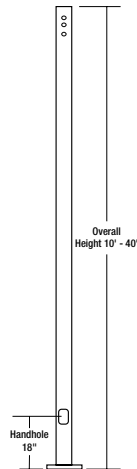
Submitted by Swaney Lighting	Job Name: MARTIN'S POINT VERANDA CAMPUS	Catalog Number: SSSB25-40A-1-B3-DBT-VM1	Type: A5
		Notes:	SLA23-57244



SSS-B Series Poles

SQUARE STRAIGHT STEEL

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	



APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

CONSTRUCTION

- SHAFT:** One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners; Minimum yield of 46,000 psi (ASTM-A500, Grade B); Longitudinal weld seam to appear flush with shaft side wall; Steel base plate with axial bolt circle slots welded flush to pole shaft having minimum yield of 36,000 psi (ASTM A36)
- BASE COVER:** Two-piece square aluminum base cover included standard
- POLE CAP:** Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- HAND HOLE:** Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS:** Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling

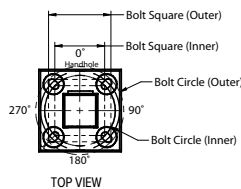
Anchor bolt part numbers: 3/4 x 30 x 3 — TAB-30-M38
1 x 36 x 4 — TAB-36-M38

FINISH

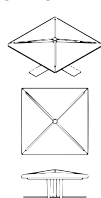
- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in multiple standard colors; Custom colors available; RAL number preferable

WAREHOUSE 'STOCKED' POLES:

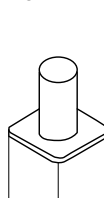
- SSSH20-40A-4-HV-DB-RDC, SSSH25-40A-4-HV-DB-RDC and SSSH30-50B-4-HV-DB-RDC
- The HV designation in the above catalog numbers is a combination drill pattern of the Current S2 pattern and the Beacon B3/B4 Viper pattern (rectangular arm mounting)



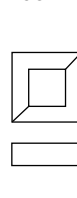
POLE CAP



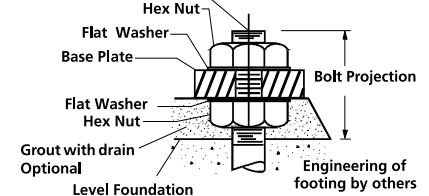
TENON



BASE COVER



BASE DETAIL



ORDERING INFORMATION

ORDERING EXAMPLE:

Reference page 2 for available configurations

SSS - B	25	40	A/B/C	2L	B3	BLT	UL
SERIES	HEIGHT	SHAFT	THICKNESS	MOUNTING		FINISH	OPTIONS
SSS-B Square Straight Steel Pole Beacon	Reference page 2 Ordering matrix 25	Reference page 2 Ordering matrix 40	Reference page 2 Ordering matrix A	1 Single arm mount 2 Two fixtures at 180° 2L Two fixtures at 90° 3T Three fixtures at 90° 4 Four fixtures at 90° TA Tenon (2.38" OD x 4" Tall) TB Tenon (2.88" OD x 4" Tall) TC Tenon (3.5" OD x 6" Tall) TR ¹ Removable Tenon (2.375 x 4.25) OT Open Top (includes pole cap)		BLT Black Matte Textured BLS Black Gloss Smooth DBT Dark Bronze Matte Textured DBS Dark Bronze Gloss Smooth GTT Graphite Matte Textured LGS Light Grey Gloss Smooth PSS Platinum Silver Smooth WHT White Matte Textured WHS White Gloss Smooth VGT Verde Green Textured Color Option CC Custom Color	GFI ² 20 Amp GFCI Receptacle and Cover EHH ³ Extra Handhole C05 ² .5" Coupling C07 ² .75" Coupling C20 ² 2" Coupling MPB ² Mid-pole Luminaire Bracket VM2 2nd mode vibration damper LAB Less Anchor Bolts UL UL Certified

1

2

2L

3T

3Y

4

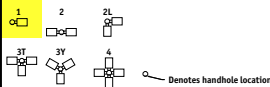
Denotes handhole location

1 Removable tenon used in conjunction with side arm mounting. First specify desired arm configuration followed by the "TR" notation. Example: **SSS-B-25-40-A-1-B1-TR-BBT**

2 Specify option location using logic found on page 2 (**Option Orientation**)

3 VMI recommended on poles 20' and taller with EPA of less than 1.

MOUNTING ORIENTATION



- Removable tenon used in conjunction with side arm mounting. First specify desired arm configuration followed by the "TR" notation. Example: SSS-B-25-40-A-1-B1-TR-BBT
- Specify option location using logic found on page 2 (Option Orientation)
- VM1 recommended on poles 20' and taller with EPA of less than 1.

ACCESSORIES - Order Separately

Catalog Number	Description
VM1	1st mode vibration damper
VM2SXX	2nd mode vibration damper

DRILL PATTERN

- B1** Cruiser, "AM" arm
- B3** 2 bolt (2-1/2" spacing), Viper "A" arm
- S2** 2 bolt (3-1/2" spacing), Viper "AD" arm



SSS-B Series Poles

SQUARE STRAIGHT STEEL

DATE: LOCATION:

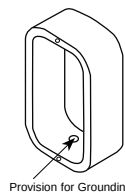
TYPE: PROJECT:

CATALOG #:

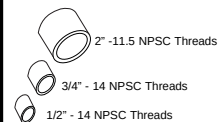
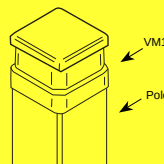
ORDERING INFORMATION Cont.

Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle (suggested)	Bolt Circle (range)	Bolt Square (range)	Base Plate Square	Anchor bolt size	Bolt Projection	Pole weight
	Feet	Meters									
SSS-B-10-40-A-XX-XX	10	3.0	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	77
SSS-B-12-40-A-XX-XX	12	3.7	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	90
SSS-B-14-40-A-XX-XX	14	4.3	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	103
SSS-B-16-40-A-XX-XX	16	4.9	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	116
SSS-B-18-40-A-XX-XX	18	5.5	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	129
SSS-B-20-40-A-XX-XX	20	6.1	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	142
SSS-B-25-40-A-XX-XX	25	7.6	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	175
SSS-B-14-40-B-XX-XX	14	4.3	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	152
SSS-B-16-40-B-XX-XX	16	4.9	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	171
SSS-B-18-40-B-XX-XX	18	5.5	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	190
SSS-B-20-40-B-XX-XX	20	6.1	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	209
SSS-B-25-40-B-XX-XX	25	7.6	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	257
SSS-B-30-40-B-XX-XX	30	9.1	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	304
SSS-B-16-50-B-XX-XX	16	4.9	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	219
SSS-B-18-50-B-XX-XX	18	5.5	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	243
SSS-B-20-50-B-XX-XX	20	6.1	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	267
SSS-B-25-50-B-XX-XX	25	7.6	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	327
SSS-B-30-50-B-XX-XX	30	9.1	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	387
SSS-B-25-50-C-XX-XX	25	7.6	5" square	.25"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	427
SSS-B-30-50-C-XX-XX	30	9.1	5" square	.25"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	507
SSS-B-20-60-B-XX-XX	20	6.1	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	329
SSS-B-25-60-B-XX-XX	25	7.6	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	404
SSS-B-30-60-B-XX-XX	30	9.1	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	479
SSS-B-35-60-B-XX-XX	35	10.7	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	554
SSS-B-40-60-B-XX-XX	40	12.2	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	629

NOTE Factory supplied template must be used when setting anchor bolts. Beacon Products will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

EHH - EXTRA HANDHOLE


Provision for Grounding

C05 - C07 - C20 - COUPLING

VM1 - VIBRATION DAMPER 1ST MODE


Field Installed Pole Top damper designed to reduce pole top deflection or sway. VM1 is recommended for pole systems 25' and taller with a total EPA of 1.0 or less.

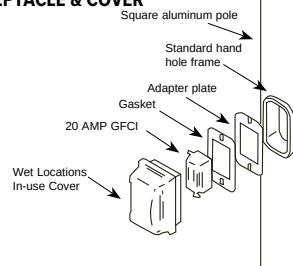
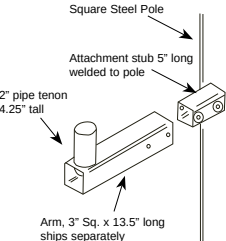
VM2 - VIBRATION DAMPER 2ND MODE


Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

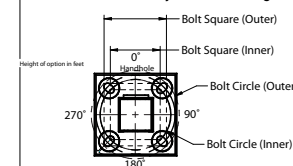
VM2SXX - VIBRATION DAMPER 2ND MODE


VM2S08 - 8'
 VM2S12 - 12'
 VM2S16 - 16'
 VM2S20 - 20'
 VM2S24 - 24'

Field installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

GFI - 20 AMP GFCI RECEPTACLE & COVER

MPB - MID POLE BRACKET

OPTION ORIENTATION

Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option C07 should be ordered as: **SSS-B-20-40-A-TA-DB-C05-0-15** (.5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1" spacing required between option. Consult factory for other configurations.



For more information about pole vibration and vibration dampers, please consult our website.
 Due to our continued efforts to improve our products, product specifications are subject to change without notice.



SSS-B Series Poles

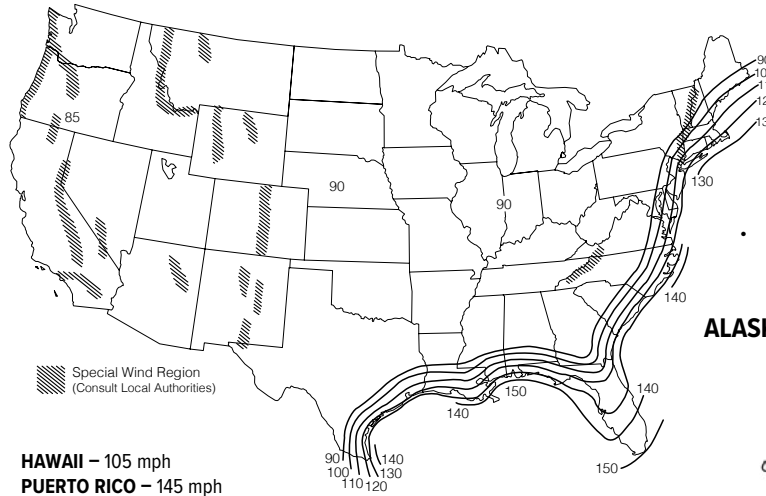
SQUARE STRAIGHT STEEL

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

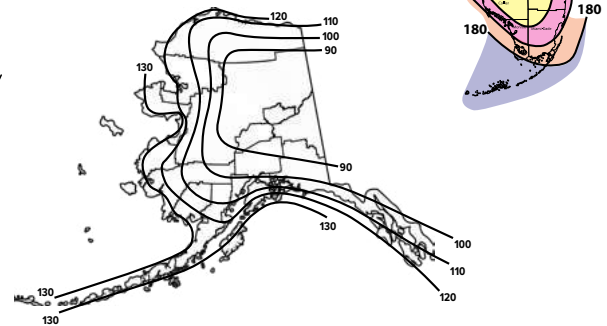
ASCE7-05 WIND MAP



FLORIDA REGION WIND MAP

- Florida region wind map above is based upon 3-second gust winds and the 2017 Florida Building Code

ALASKA REGION WIND MAP



ASCE 7-05 wind map EPA Load Rating - 3 second gust wind speeds (Use for all locations except Florida)										
Catalog Number	85	90	100	105	110	120	130	140	145	150
SSS-B-10-40-A	25.0	25.0	25.0	22.8	20.6	17.0	14.2	11.9	11.0	10.1
SSS-B-12-40-A	25.0	25.0	20.0	18.0	16.1	13.2	10.8	8.9	8.1	7.4
SSS-B-14-40-A	23.1	20.4	16.1	14.3	12.8	10.2	8.2	6.6	5.9	5.3
SSS-B-16-40-A	19.0	16.7	13.0	11.5	10.1	7.9	6.2	4.7	4.1	3.6
SSS-B-18-40-A	15.6	13.6	10.0	9.0	7.8	5.9	4.4	3.1	2.6	2.1
SSS-B-20-40-A	12.7	10.9	7.9	6.9	5.9	4.2	2.8	1.7	1.3	0.9
SSS-B-25-40-A	7.3	5.9	3.8	2.9	2.1	0.8	NR	NR	NR	NR
SSS-B-14-40-B	25.0	25.0	23.3	20.8	18.6	15.1	12.3	10.2	9.2	8.4
SSS-B-16-40-B	25.0	24.9	19.4	17.3	15.4	12.3	9.9	8.0	7.2	6.4
SSS-B-18-40-B	24.0	20.8	16.1	14.2	12.5	9.8	7.7	6.1	5.3	4.7
SSS-B-20-40-B	20.2	17.5	13.2	11.6	10.1	7.7	5.9	4.4	3.8	3.2
SSS-B-25-40-B	12.8	11.0	7.9	6.7	5.5	3.7	2.3	1.2	0.7	NR
SSS-B-30-40-B	8.0	6.6	4.1	3.1	2.2	0.8	NR	NR	NR	NR
SSS-B-16-50-B	25.0	25.0	25.0	25.0	24.8	20.1	16.5	13.6	12.3	11.2
SSS-B-18-50-B	25.0	25.0	25.0	22.9	20.4	16.4	13.2	10.7	9.6	8.6
SSS-B-20-50-B	25.0	25.0	21.3	18.9	16.7	13.2	10.4	8.1	7.2	6.3
SSS-B-25-50-B	20.7	17.8	13.3	11.5	9.8	7.2	5.0	3.3	2.6	1.9
SSS-B-30-50-B	13.5	11.3	7.7	6.2	4.9	2.8	1.1	NR	NR	NR
SSS-B-25-50-C	25.0	25.0	19.4	17.1	15.1	11.7	9.0	6.9	6.0	5.1
SSS-B-30-50-C	20.1	17.3	12.7	10.9	9.3	6.6	4.5	2.8	2.1	1.4
SSS-B-20-60-B	25.0	25.0	25.0	25.0	25.0	20.2	16.1	12.9	11.5	10.3
SSS-B-25-60-B	25.0	25.0	20.6	18.0	15.6	11.8	8.7	6.2	5.2	4.2
SSS-B-30-60-B	21.4	18.1	12.9	10.7	8.8	5.7	3.3	1.3	NR	NR
SSS-B-35-60-B	14.0	11.3	6.9	5.2	3.6	1.0	NR	NR	NR	NR
SSS-B-40-60-B	8.1	5.8	2.2	nr	NR	NR	NR	NR	NR	NR

Florida Building Code 2017 EPA Load Rating - 3 second gust wind speeds (Use for Florida only)									
Catalog Number	115	120	130	140	150	160	170	180	
SSS-B-10-40-A	25.0	25.0	25.0	25.0	21.4	18.4	15.9	13.9	
SSS-B-12-40-A	25.0	25.0	23.6	19.8	16.7	14.2	12.1	10.4	
SSS-B-14-40-A	25.0	23.1	19.0	15.7	13.1	10.9	9.1	7.6	
SSS-B-16-40-A	20.8	18.7	15.2	12.3	10.1	8.2	6.7	5.4	
SSS-B-18-40-A	16.8	15.0	11.9	9.4	7.5	5.9	4.5	3.4	
SSS-B-20-40-A	13.6	11.9	9.2	7.1	5.3	3.9	2.7	1.7	
SSS-B-25-40-A	7.4	6.2	4.1	2.5	1.1	NR	NR	NR	
SSS-B-14-40-B	25.0	23.6	19.4	16.1	13.4	11.2	9.4	7.8	
SSS-B-16-40-B	21.4	19.2	15.6	12.7	10.4	8.5	6.9	5.6	
SSS-B-18-40-B	17.2	15.4	12.2	9.7	7.7	6.1	4.7	3.6	
SSS-B-20-40-B	13.9	12.3	9.5	7.3	5.5	4.1	2.9	1.9	
SSS-B-25-40-B	7.7	6.4	4.3	2.6	1.3	NR	NR	NR	
SSS-B-30-40-B	3.2	2.1	NR	NR	NR	NR	NR	NR	
SSS-B-16-50-B	25.0	25.0	25.0	25.0	25.0	21.4	18.2	15.5	
SSS-B-18-50-B	25.0	25.0	25.0	24.4	20.4	17.0	14.2	11.9	
SSS-B-20-50-B	25.0	25.0	24.4	19.9	16.3	13.4	11.0	8.9	
SSS-B-25-50-B	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1	
SSS-B-30-50-B	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR	
SSS-B-25-50-C	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1	
SSS-B-30-50-C	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR	
SSS-B-20-60-B	25.0	25.0	25.0	21.9	17.8	14.5	11.7	9.4	
SSS-B-25-60-B	23.8	20.9	16.1	12.3	9.2	6.6	4.5	2.8	
SSS-B-30-60-B	14.6	12.3	8.4	5.3	2.8	0.8	NR	NR	
SSS-B-35-60-B	7.5	5.6	2.4	NR	NR	NR	NR	NR	
SSS-B-40-60-B	1.8	NR	NR	NR	NR	NR	NR	NR	

Submitted by Swaney Lighting	Job Name: MARTIN'S POINT VERANDA CAMPUS	Catalog Number: SSSB25-40A-1-B3-DBT-VM1 Notes:	Type: A5 SLA23-57244
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SSS-B Series Poles

SQUARE STRAIGHT STEEL

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

NOTES

Wind-speed Website disclaimer:

Current has no connection to the linked website and makes no representations as to its accuracy. While the information presented on this third-party website provides a useful starting point for analyzing wind conditions, Current has not verified any of the information on this third party website and assumes no responsibility or liability for its accuracy. The material presented in the windspeed website should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. Current does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the windspeed report provided by this website. Users of the information from this third party website assume all liability arising from such use. Use of the output of these referenced websites do not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the windspeed report. <http://windspeed.atcouncil.org>

NOTES

- Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
- The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
- Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
- Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings.
- Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

Due to our continued efforts to improve our products, product specifications are subject to change without notice.



VIPER Area/Site

VIPER LUMINAIRE

FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as auto dealership, retail, commercial, and campus parking lots
- Featuring two different optical technologies, Strike and Micro Strike Optics, which provide the best distribution patterns for retrofit or new construction
- Rated for high vibration applications including bridges and overpasses. All sizes are rated for 1.5G
- Control options including photo control, occupancy sensing, NX Lighting Controls™, LightGRID+ and 7-Pin with networked controls
- New customizable lumen output feature allows for the wattage and lumen output to be customized in the factory to meet whatever specification requirements may entail
- Field interchangeable mounting provides additional flexibility after the fixture has shipped



CONTROL TECHNOLOGY



LIGHTGRID+

SERVICE PROGRAMS

STOCK QS10

SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with 1000 hour powder coat paint finish
- External hardware is corrosion resistant

OPTICS

- Micro Strike Optics (160, 320, 480, or 720 LED counts) maximize uniformity in applications and come standard with mid-power LEDs which evenly illuminate the entire luminous surface area to provide a low glare appearance. Catalog logic found on page 2
- Strike Optics (36, 72, 108, or 162 LED counts) provide best in class distributions and maximum pole spacing in new applications with high powered LEDs. Strike optics are held in place with a polycarbonate bezel to mimic the appearance of the Micro Strike Optics so both solutions can be combined on the same application. Catalog logic found on page 3
- Both optics maximize target zone illumination with minimal losses at the house-side, reducing light trespass issues. Additional backlight control shields and house side shields can be added for further reduction of illumination behind the pole
- One-piece silicone gasket ensures a weatherproof seal
- Zero up-light at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Mounting patterns for each arm can be found on page 11
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option (ASQU) or accessory for square and round poles
- All mounting hardware included
- Knuckle arm fitter option available for 2-3/8" OD tenon
- For products with EPA less than 1 mounted to a pole greater than 20ft, a vibration damper is recommended

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40°C to 40°C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised
- Dual Driver option provides 2 drivers within luminaire but only one set of leads exiting the luminaire, where Dual Power Feed provides two drivers which can be wired independently as two sets of leads are extended from the luminaire. Both options cannot be combined

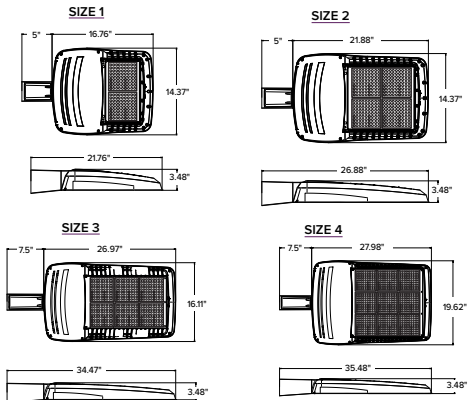
CONTROLS

- Photo control, occupancy sensor programmable controls, and Zigbee wireless controls available for complete on/off and dimming control
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)

CONTROLS (CONTINUED)

- 0-10V Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard
- NX Lighting Controls™ available with in fixture wireless control module, features dimming and occupancy sensor
- LightGRID+ available with in fixture wireless control module, features dimming and occupancy sensor. Also available in 7-pin configuration

MICROSTRIKE | STRIKE OPTICS



	EPA				Config
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

CERTIFICATIONS

- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations listed in this document are DLC® qualified. Refer to <http://www.designlights.org> for the most up-to-date list.
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures
- 1.5 G rated for ANSI C136.31 high vibration applications
- Fixture is IP65 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9) and Trade Agreements Act (FAR 52.225-11). See Buy America(n) Solutions (link to <https://www.currentlighting.com/resources/america-solutions>).

WARRANTY

- 5 year warranty



VIPER Area/Site

VIPER LUMINAIRE

MICROSTRIKE OPTICS – ORDERING GUIDE

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

Gray Shading = Service Program Limit of 15 luminaires

QS10

Example: VP–2–320L-145–3K7–2–R–UNV–A3–BLT

CATALOG #

VP	Series	Optic Platform	Size	Light Engine	CCT/CRI	Distribution	Optic Rotation	Voltage
	VP Viper	Micro Strike	1 Size 1	160L-35 ⁶ 5500 lumens 160L-50 ⁶ 7500 lumens 160L-75 10000 lumens 160L-100 12500 lumens 160L-115 15000 lumens 160L-135 18000 lumens 160L-160 21000 lumens 320L-145 21000 lumens 320L-170 24000 lumens 320L-185 27000 lumens 320L-210 30000 lumens 320L-235 33000 lumens 320L-255 36000 lumens 320L-315 ⁶ 40000 lumens 480L-285 40000 lumens 480L-320 44000 lumens 480L-340 48000 lumens 480L-390 52000 lumens 480L-425 55000 lumens 480L-470 60000 lumens 720L-435 60000 lumens 720L-475 65000 lumens 720L-515 70000 lumens 720L-565 ⁶ 75000 lumens 720L-600 ⁶ 80000 lumens CLO Custom Lumen Output ¹	AP AP-Amber Phosphor Converted 27K8 2700K, 80 CRI 3K7 3000K, 70 CRI 3K8 3000K, 80 CRI 35K8 3500K, 80 CRI 3K9 3000K, 90 CRI 4K7 4000K, 70 CRI 4K8 4000K, 80 CRI 4K9 4000K, 90 CRI 5K7 5000K, 70 CRI 5K8 5000K, 80 CRI	2 Type 2 3 Type 3 4F Type 4 Forward 4W Type 4 Wide 5QW Type 5 Square Wide	BLANK No Rotation L Optic rotation left R Optic rotation right	UNV 120-277V 120 120V 208 208V 240 240V 277 277V 347 347V 480 480V
			2 Size 2					
			3 Size 3					
			4 Size 4					

Mounting	Color	Options	Network Control Options
A Arm mount for square pole/flat surface (B3 Drill Pattern) (Does not include round pole adapter)	BLT Black Matte Textured	F Fusing	NXWS16F NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4}
ASQU Universal arm mount for square pole. Can be used with B3 or S2 Drill Pattern	BLS Black Gloss Smooth	2PF Dual Power Feed	NXWS40F NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4}
A_U Arm mount for round pole ²	DBT Dark Bronze Matte Textured	2DR Dual Driver	NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ^{3,4}
AAU Universal arm mount for round pole ²	DBS Dark Bronze Gloss Smooth	TE Toolless Entry	WIR LightGRID+ In-Fixture Module ^{3,4}
AAU Adjustable arm for pole mounting (universal drill pattern)	GTT Graphite Matte Textured	BC Backlight Control ⁸	WIRSC LightGRID+ Module and Occupancy Sensor ^{3,4}
AA_U Adjustable arm mount for round pole ²	LGS Light Grey Gloss Smooth	TB Terminal Block	Stand Alone Sensors
ADU Decorative upswept Arm (universal drill pattern)	LGT Light Grey Gloss Textured		BTS-14F Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
AD_U Decorative upswept arm mount for round pole ²	PSS Platinum Silver Smooth		BTS-40F Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
MAF Mast arm fitter for 2-3/8" OD horizontal arm	WHT White Matte Textured		BTSO-12F Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
K Knuckle	WHS White Gloss Smooth		7PR 7-Pin Receptacle ⁴
T Trunnion	VGT Verde Green Textured		7PR-SC 7-Pin Receptacle with shorting cap ⁴
WB Wall Bracket, horizontal tenon with MAF	Color Option		3PR 3-Pin twist lock ⁴
WM Wall mount bracket with decorative upswept arm	CC Custom Color		3PR-SC 3-Pin receptacle with shorting cap ⁴
WA Wall mount bracket with adjustable arm			3PR-TL 3-Pin PCR with photocontrol ⁴
			Programmed Controls
			SCP_F Sensor Control Programmable, 8F or 40F ⁹
			ADD AutoDim Timer Based Dimming ⁴
			ADT AutoDim Time of Day Dimming ⁴
			Photocontrols
			PC Button Photocontrol ^{4,7}

1 – Items with a grey background can be done as a custom order. Contact brand representative for more information
2 – Replace “_” with “3” for 3.5”-4.13” OD pole, “4” for 4.18”-5.25” OD pole, “5” for 5.5”-6.5” OD pole
3 – Networked Controls cannot be combined with other control options
4 – Not available with 2PF option
5 – Not available with Dual Driver option

6 – Some voltage restrictions may apply when combined with controls
7 – Not available with 480V
8 – BC not available on 4F and type 5 distributions
9 – At least one SCPREMOTE required to program SCP motion sensor. Must select 8ft or 40ft.



VIPER Area/Site

VIPER LUMINAIRE

VIPER POLE EXPRESS COMBO – ORDERING GUIDE



Catalog Number	Pole	Single or Double Head	Fixture	Lumens*	Wattage	Distribution	CCT/CRI	Mounting	Finish
VP-1-160-4K-3-LS-S20	20' Square Straight Steel	Single	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S20	20' Square Straight Steel	Single	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S25	25' Square Straight Steel	Single	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S25	25' Square Straight Steel	Single	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S20	20' Square Straight Steel	Single	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S20	20' Square Straight Steel	Single	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S25	25' Square Straight Steel	Single	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S25	25' Square Straight Steel	Single	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured

VIPER POLE EXPRESS COMBO – STOCK LUMINAIRE SKUS

Catalog Number	Lumens	LPW	Distribution	Wattage	CCT/CRI	Voltage	Mounting	Finish
VP-1-160-4K-3-LS	19584	123.9	3	158W	4000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-4K-4F-LS	19426	122.9	4F	158W	4000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-5K-3-LS	19499	123.4	3	158W	5000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-5K-4F-LS	19186	121.4	4F	158W	5000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured

VIPER POLE EXPRESS COMBO – ACCESSORIES

Catalog Number	Description
VM14DB	Vibration Dampener, mounts to top of pole for reduced vibration





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

OUTDOOR LIGHTING CONTROLS OPTIONS CONTROLS FUNCTIONALITY LIGHT GRID⁺ NX[™]

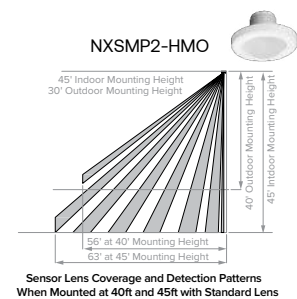
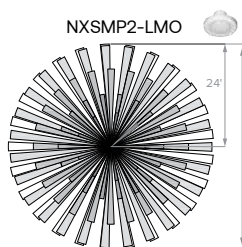
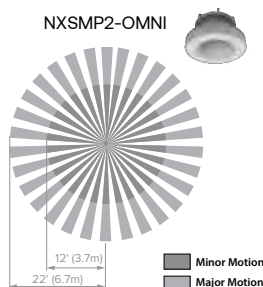
Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components
		Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
NX Wireless	NXOFMIRID-UNV	✓	✓	✓	Paired with external control	✓	✓	✓	✓	-	NXOFM-IRID-UV
	NXW	✓	✓	✓	-	-	✓	✓	✓	-	NXRM2-H
	NXWS12F	✓	✓	✓	✓	✓	✓	✓	✓	12ft	NXSMP2-OMNI-O
	NXWS16F	✓	✓	✓	✓	✓	✓	✓	✓	16ft	NXSMP2-LMO
	NXWS40F	✓	✓	✓	✓	✓	✓	✓	✓	40ft	NXSMP2-HMO
LightGRID+	WIR	✓	-	✓	-	-	✓	✓	Gateway	-	WIR
	WIR-RME-L	✓	-	✓	-	-	✓	✓	Gateway	-	WIR-RME-L
	WIRSC	✓	✓	✓	✓	✓	✓	✓	Gateway	14ft - 40ft	BTMSP
Independent	BTSO-12F	-	-	-	✓	✓	✓	✓	✓	12ft	BTSMP-OMNI-O
	BTS-14F	-	-	-	✓	✓	✓	✓	✓	14ft	BTSMP-LMO
	BTS-40F	-	-	-	✓	✓	✓	✓	✓	40ft	BTSMP-HMO

DEFAULT SETTINGS

NX Wireless	Occupancy Sensor	Enabled
	Occupancy Sensor Sensitivity	7
	Occupancy Sensor Timeout	15 Minutes
	Occupied Dim Level	100%
	Unoccupied Dim Level	0%
	Daylight Sensor	Disabled
	Bluetooth	Enabled
	2.4GHz Wireless Mesh	On
	*Passcode Factory Passcode: HubbN3T!	Enabled

Stand Alone	Occupancy Sensor	Enabled
	Occupancy Sensor Sensitivity	7
	Occupancy Sensor Timeout	8 Minutes
	Occupied Dim Level	100%
	Unoccupied Dim Level	50%
	Daylight Sensor	Disabled

NX WIRELESS COVERAGE PATTERNS





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

NX LIGHTING CONTROLS FREE APP**CONTROLS TECH SUPPORT 800-888-8006 (7:00 AM - 7:00 PM)**

The NX Lighting Controls App is free to use mobile application for programming both NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enable luminaires and program NX system settings.

Apple App: <https://apps.apple.com/us/app/nx-lighting-controls/id962112904>

Google Play: https://play.google.com/store/apps/details?id=io.cordova.NXBTR&hl=en_US&q=US



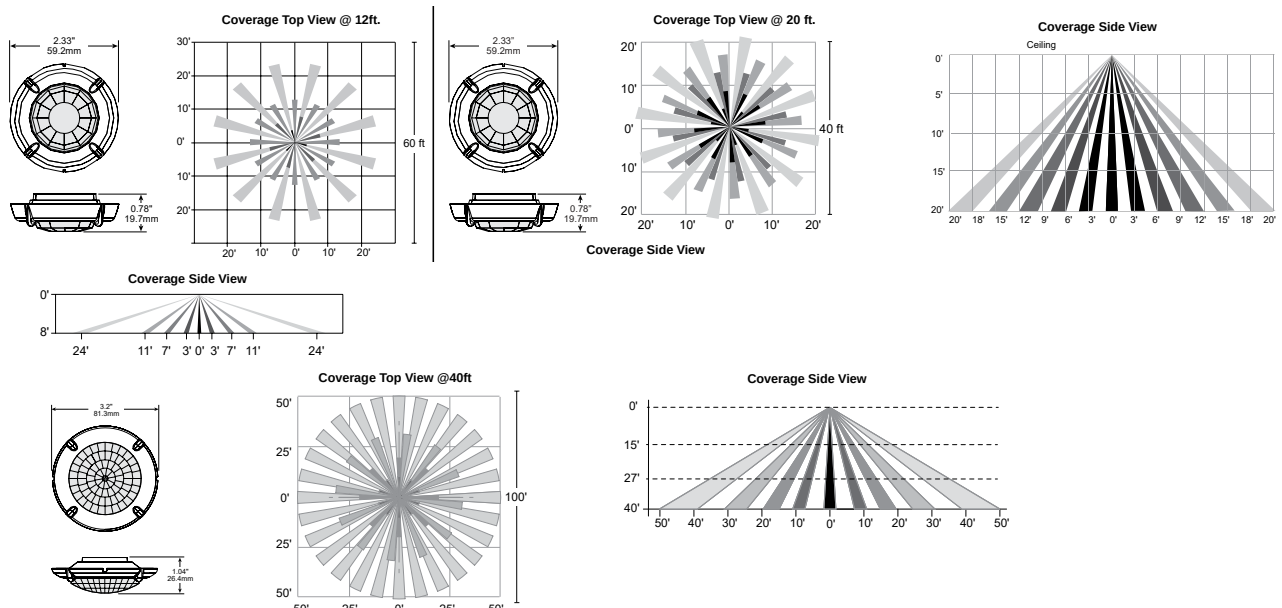
Apple App



Google Play

OUTDOOR LIGHTING CONTROLS OPTIONS**CONTROLS FUNCTIONALITY**

Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components
		Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
SCP_F	Sensor Control Programmable, 8F or 40F	-	-	-	✓	✓	✓	✓	-	8ft or 40ft	SCP_F
ADD	AutoDIM Timer Based Dimming	-	-	✓	-	-	-	✓	-	-	ADD
ADT	AutoDIM Time of Day Dimming	-	-	✓	-	-	-	✓	-	-	ADT
7PR	7-Pin Receptacle	-	-	Paired with external control	-	Paired with external control	-	Paired with external control	-	-	7PR
7PR-SC	7-Pin Receptacle with shorting cap	-	-	-	-	-	-	-	-	-	7PR-SC
3PR	3-Pin twist lock	-	-	-	-	-	-	Paired with external control	-	-	3PR
3PR-SC	3-Pin Receptacle with shorting cap	-	-	-	-	-	-	-	-	-	3PR-SC
3PR-TL	3-Pin with photocontrol	-	-	-	-	✓	-	✓	-	-	3PR-TL

COVERAGE PATTERNS FOR SCP_F



VIPER Area/Site

VIPER LUMINAIRE

PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6 - Delay 6 hours
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50% brightness
Auto-Dim Return	Delay 0-9 Hours	R6 - Return to full output after 6 hours

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6 - Dim at 6PM
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50%
Auto-Dim Return	12-6 AM and 9-11P	R6 - Return to full output at 6AM

DELIVERED LUMENS

For delivered lumens, please see Lumens Data PDF on www.Currentlighting.com

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	0	25,000	*TM-21-11 36,000	50,000	100,000	Calculated L ₇₀ (Hours)
25°C / 77°F	1.00	0.97	0.96	0.95	0.91	408,000
40°C / 104°F	0.99	0.96	0.95	0.94	0.89	356,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

Micro Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	—	0.841	—
3000K	0.977	0.861	0.647
3500K	—	0.900	—
4000K	1	0.926	0.699
5000K	1	0.937	0.791
AP-Amber Phosphor Converted Multiplier			
Amber	0.710		

Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	0.9	0.81	0.62
3000K	0.933	0.853	0.659
3500K	0.959	0.894	0.711
4000K	1	0.9	0.732
5000K	1	0.9	0.732
Monochromatic Amber Multiplier			
Amber	See Amber Spec Sheet		



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ELECTRICAL DATA: MICRO STRIKE

# OF LEDS	160						
NOMINAL WATTAGE	35	50	75	100	115	135	160
SYSTEM POWER (W)	34.9	50.5	72.1	97.2	111.9	132.2	157.8
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	0.29	0.42	0.63	0.83	0.96	1.13	1.33
208	0.17	0.24	0.36	0.48	0.55	0.65	0.77
240	0.15	0.21	0.31	0.42	0.48	0.56	0.67
277	0.13	0.18	0.27	0.36	0.42	0.49	0.58
347	0.10	0.14	0.22	0.29	0.33	0.39	0.46
480	0.07	0.10	0.16	0.21	0.24	0.28	0.33

# OF LEDS	320						
NOMINAL WATTAGE	145	170	185	210	235	255	315
SYSTEM POWER (W)	150	166.8	185.7	216.2	240.9	261.5	312
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	1.21	1.42	1.54	1.75	1.96	2.13	2.63
208	0.70	0.82	0.89	1.01	1.13	1.23	1.51
240	0.60	0.71	0.77	0.88	0.98	1.06	1.31
277	0.52	0.61	0.67	0.76	0.85	0.92	1.14
347	0.42	0.49	0.53	0.61	0.68	0.73	0.91
480	0.30	0.35	0.39	0.44	0.49	0.53	0.66

# OF LEDS	480					
NOMINAL WATTAGE	285	320	340	390	425	470
SYSTEM POWER (W)	286.2	316.7	338.4	392.2	423.2	468
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.38	2.67	2.83	3.25	3.54	3.92
208	1.37	1.54	1.63	1.88	2.04	2.26
240	1.19	1.33	1.42	1.63	1.77	1.96
277	1.03	1.16	1.23	1.41	1.53	1.70
347	0.82	0.92	0.98	1.12	1.22	1.35
480	0.59	0.67	0.71	0.81	0.89	0.98

# OF LEDS	720				
NOMINAL WATTAGE	435	475	515	565	600
SYSTEM POWER (W)	429.3	475	519.1	565.2	599.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	3.63	3.96	4.29	4.71	5.00
208	2.09	2.28	2.48	2.72	2.88
240	1.81	1.98	2.15	2.35	2.50
277	1.57	1.71	1.86	2.04	2.17
347	1.25	1.37	1.48	1.63	1.73
480	0.91	0.99	1.07	1.18	1.25



Job Name:
MARTIN'S POINT VERANDA CAMPUS

Catalog Number:
VP-1-160L-115-3K7-4W-L-UNV-A-DBT
Notes:

Type:

B4-L

SLA23-57244



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ELECTRICAL DATA: STRIKE

# OF LEDS	36				
NOMINAL WATTAGE	39	55	85	105	120
SYSTEM POWER (W)	39.6	56.8	83.6	108.2	120.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	0.33	0.46	0.71	0.88	0.96
208	0.19	0.26	0.41	0.50	0.55
240	0.16	0.23	0.35	0.44	0.48
277	0.14	0.20	0.31	0.38	0.42
347	0.11	0.16	0.24	0.30	0.33
480	0.08	0.11	0.18	0.22	0.24

# OF LEDS	72				
NOMINAL WATTAGE	115	145	180	210	240
SYSTEM POWER (W)	113.7	143.2	179.4	210.2	241.7
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	1.00	1.21	1.50	1.75	1.79
208	0.58	0.70	0.87	1.01	1.03
240	0.50	0.60	0.75	0.88	0.90
277	0.43	0.52	0.65	0.76	0.78
347	0.35	0.42	0.52	0.61	0.62
480	0.25	0.30	0.38	0.44	0.45

# OF LEDS	108				
NOMINAL WATTAGE	215	250	280	325	365
SYSTEM POWER (W)	214.8	250.8	278.3	324.7	362.6
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	2.00	2.08	2.33	3.04	2.67
208	1.15	1.20	1.35	1.75	1.54
240	1.00	1.04	1.17	1.52	1.33
277	0.87	0.90	1.01	1.32	1.16
347	0.69	0.72	0.81	1.05	0.92
480	0.50	0.52	0.58	0.76	0.67

# OF LEDS	162					
NOMINAL WATTAGE	320	365	405	445	485	545
SYSTEM POWER (W)	322.1	362.6	403.6	445.1	487.1	543.9
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.71	2.67	3.38	3.71	4.04	4.54
208	1.56	1.54	1.95	2.14	2.33	2.62
240	1.35	1.33	1.69	1.85	2.02	2.27
277	1.17	1.16	1.46	1.61	1.75	1.97
347	0.94	0.92	1.17	1.28	1.40	1.57
480	0.68	0.67	0.84	0.93	1.01	1.14



Job Name:
MARTIN'S POINT VERANDA CAMPUS

Catalog Number:

VP-1-160L-115-3K7-4W-L-UNV-A-DBT

Notes:

Type:

B4-L

SLA23-57244



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

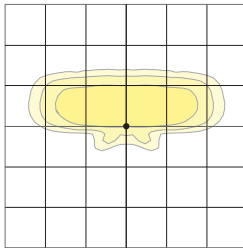
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CATALOG #: _____

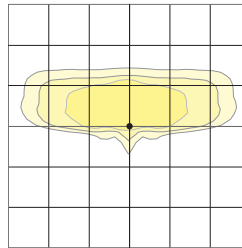
MICRO STRIKE PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

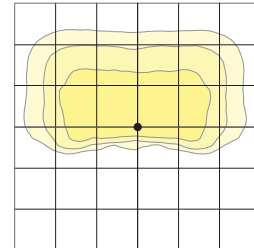
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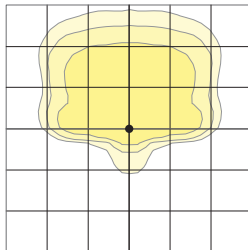
Type 3



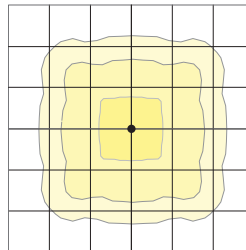
Type 4 Wide



Type 4F



Type 5QW





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

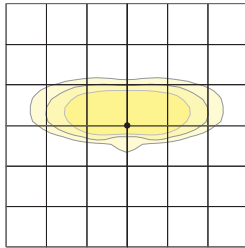
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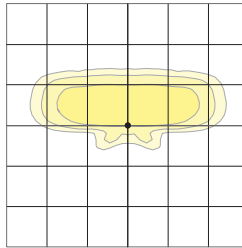
OPTIC STRIKE PHOTOMETRY

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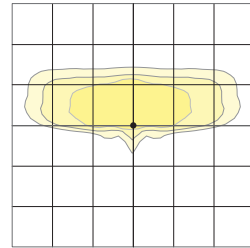
Type FR – Front Row/Auto Optic



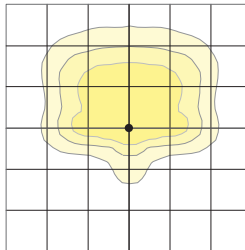
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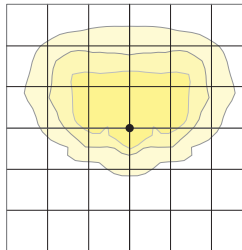
Type 3



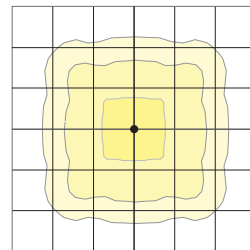
Type 4 Forward



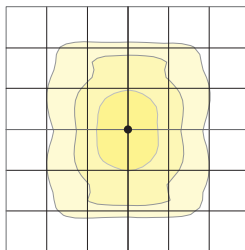
Type 4 Wide



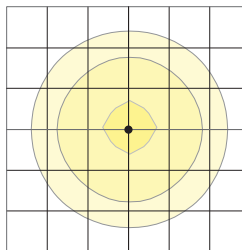
Type 5QM



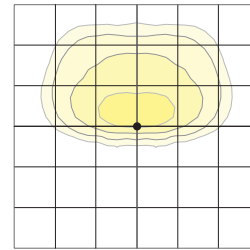
Type 5RW (rectangular)



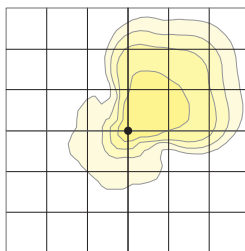
Type 5W (round wide)



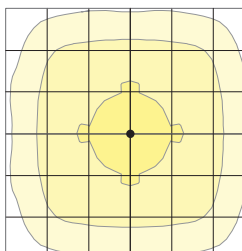
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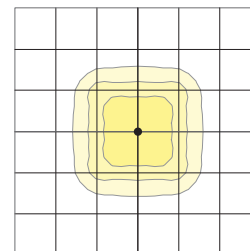
Type Corner



Type 5QW



Type 5QN





VIPER Area/Site

VIPER LUMINAIRE

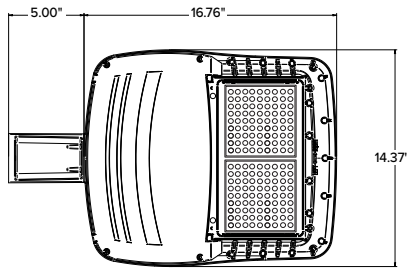
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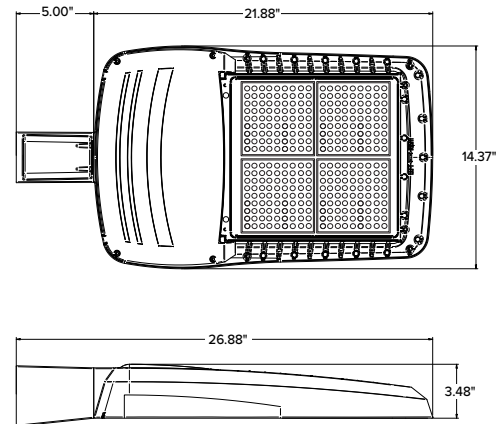
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DIMENSIONS

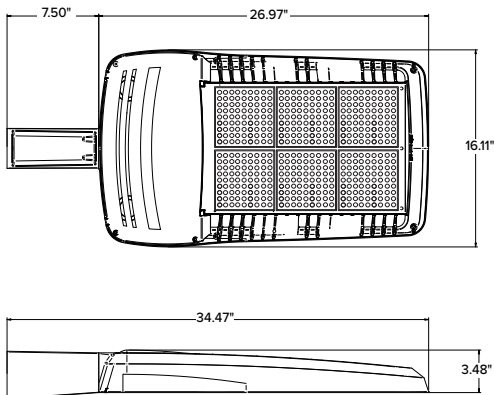
SIZE 1



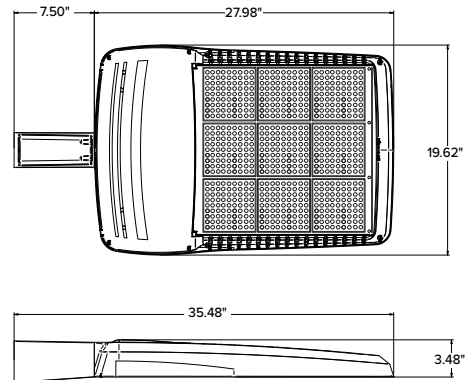
SIZE 2



SIZE 3



SIZE 4



	EPA				Config.
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

	Weight	
	lbs	kgs
VP1 (Size 1)	13.7	6.2
VP2 (Size 2)	16.0	7.26
VP3 (Size 3)	25.9	11.7
VP4 (Size 4)	30.8	13.9



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

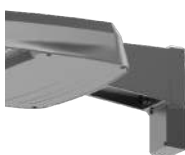
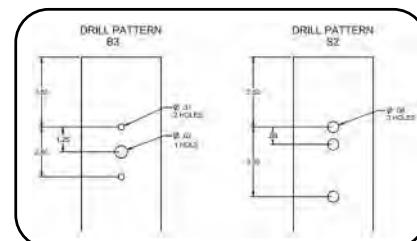
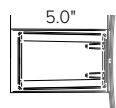
CATALOG #: _____

MOUNTING



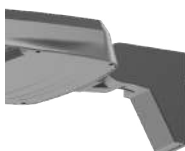
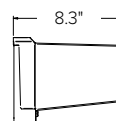
A-STRAIGHT ARM MOUNT

Fixture ships with integral arm for ease of installation. Compatible with Current Outdoor B3 drill pattern for ease of installation on square poles. For round poles add applicable suffix (2/3/4/5)



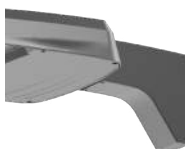
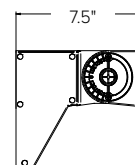
ASQU-UNIVERSAL ARM MOUNT

Universal mounting block for ease of installation. Compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5)



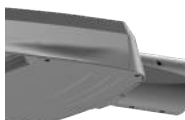
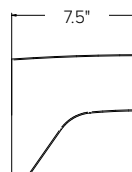
AAU-ADJUSTABLE ARM FOR POLE MOUNTING

Rotatable arm mounts directly to pole. Compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2 and B3. For round poles add applicable suffix (2/3/4/5). Rotatable in 15° aiming angle increments. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



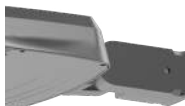
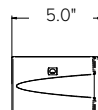
ADU-DECORATIVE UPSWEPT ARM

Upswept Arm compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5).



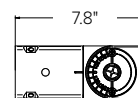
MAF-MAST ARM FITTER

Fits 2-3/8" OD horizontal tenons.



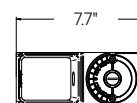
K-KNUCKLE

Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



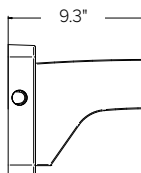
T-TRUNNION

Trunnion for surface and crossarm mounting using (1) 3/4" or (2) 1/2" size through bolts. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



WM-WALL MOUNT

Compatible with universal arm mount, adjustable arm mount, and decorative arm mount. The WA option uses the same wall bracket but replaces the decorative arm with an adjustable arm.





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

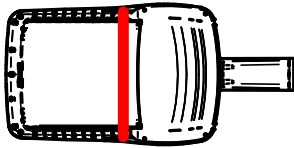
ADDITIONAL INFORMATION (CONTINUED)

HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES

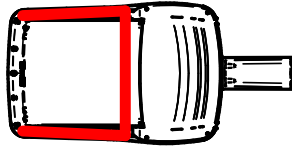
HSS has a depth of 5" for all Viper sizes

Not to be used with Occupancy Sensors as the shield may block the light to the sensor.

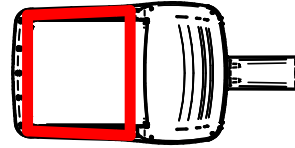
VPR2x HSS-90-B-xx



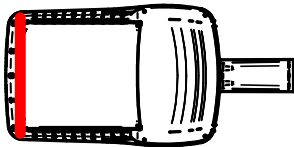
VPR2x HSS-270-BSS-xx



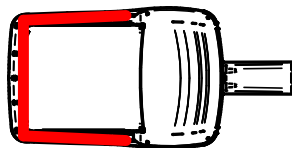
VPR2x HSS-360-xx



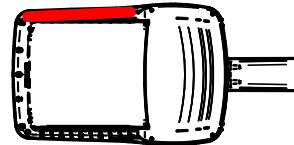
VPR2x HSS-90-F-xx



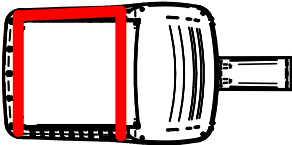
VPR2x HSS-270-FSS-xx



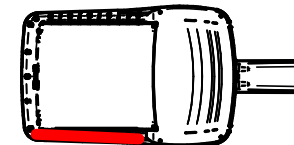
VPR2x HSS-90-S-xx



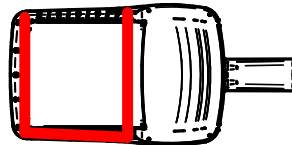
VPR2x HSS-270-FSB-xx



VPR2x HSS-90-S-xx



VPR2x HSS-270-FSB-xx





VIPER Area/Site

VIPER LUMINAIRE

FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as auto dealership, retail, commercial, and campus parking lots
- Featuring two different optical technologies, Strike and Micro Strike Optics, which provide the best distribution patterns for retrofit or new construction
- Rated for high vibration applications including bridges and overpasses. All sizes are rated for 1.5G
- Control options including photo control, occupancy sensing, NX Lighting Controls™, LightGRID+ and 7-Pin with networked controls
- New customizable lumen output feature allows for the wattage and lumen output to be customized in the factory to meet whatever specification requirements may entail
- Field interchangeable mounting provides additional flexibility after the fixture has shipped



CONTROL TECHNOLOGY



LIGHTGRID+

SERVICE PROGRAMS

STOCK QS10

SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with 1000 hour powder coat paint finish
- External hardware is corrosion resistant

OPTICS

- Micro Strike Optics (160, 320, 480, or 720 LED counts) maximize uniformity in applications and come standard with mid-power LEDs which evenly illuminate the entire luminous surface area to provide a low glare appearance. Catalog logic found on page 2
- Strike Optics (36, 72, 108, or 162 LED counts) provide best in class distributions and maximum pole spacing in new applications with high powered LEDs. Strike optics are held in place with a polycarbonate bezel to mimic the appearance of the Micro Strike Optics so both solutions can be combined on the same application. Catalog logic found on page 3
- Both optics maximize target zone illumination with minimal losses at the house-side, reducing light trespass issues. Additional backlight control shields and house side shields can be added for further reduction of illumination behind the pole
- One-piece silicone gasket ensures a weatherproof seal
- Zero up-light at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Mounting patterns for each arm can be found on page 11
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option (ASQU) or accessory for square and round poles
- All mounting hardware included
- Knuckle arm fitter option available for 2-3/8" OD tenon
- For products with EPA less than 1 mounted to a pole greater than 20ft, a vibration damper is recommended

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40°C to 40°C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised
- Dual Driver option provides 2 drivers within luminaire but only one set of leads exiting the luminaire, where Dual Power Feed provides two drivers which can be wired independently as two sets of leads are extended from the luminaire. Both options cannot be combined

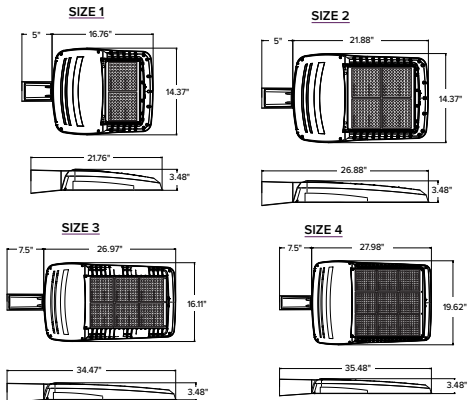
CONTROLS

- Photo control, occupancy sensor programmable controls, and Zigbee wireless controls available for complete on/off and dimming control
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)

CONTROLS (CONTINUED)

- 0-10V Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard
- NX Lighting Controls™ available with in fixture wireless control module, features dimming and occupancy sensor
- LightGRID+ available with in fixture wireless control module, features dimming and occupancy sensor. Also available in 7-pin configuration

MICROSTRIKE | STRIKE OPTICS



	EPA				Config
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

CERTIFICATIONS

- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations listed in this document are DLC® qualified. Refer to <http://www.designlights.org> for the most up-to-date list.
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures
- 1.5 G rated for ANSI C136.31 high vibration applications
- Fixture is IP65 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9) and Trade Agreements Act (FAR 52.225-11). See Buy America(n) Solutions (link to <https://www.currentlighting.com/resources/america-solutions>).

WARRANTY

- 5 year warranty



VIPER Area/Site

VIPER LUMINAIRE

MICROSTRIKE OPTICS – ORDERING GUIDE

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

Gray Shading = Service Program Limit of 15 luminaires

QS10

Example: VP-2-320L-145-3K7-2-R-UNV-A3-BLT

CATALOG #

VP	Series	Optic Platform	Size	Light Engine	CCT/CRI	Distribution	Optic Rotation	Voltage
	VP Viper	Micro Strike	1 Size 1	160L-35 ⁶ 5500 lumens 160L-50 ⁶ 7500 lumens 160L-75 10000 lumens 160L-100 12500 lumens 160L-115 15000 lumens 160L-135 18000 lumens 160L-160 21000 lumens 320L-145 21000 lumens 320L-170 24000 lumens 320L-185 27000 lumens 320L-210 30000 lumens 320L-235 33000 lumens 320L-255 36000 lumens 320L-315 ⁶ 40000 lumens 480L-285 40000 lumens 480L-320 44000 lumens 480L-340 48000 lumens 480L-390 52000 lumens 480L-425 55000 lumens 480L-470 60000 lumens 720L-435 60000 lumens 720L-475 65000 lumens 720L-515 70000 lumens 720L-565 ⁶ 75000 lumens 720L-600 ⁶ 80000 lumens CLO Custom Lumen Output ¹	AP AP-Amber Phosphor Converted 27K8 2700K, 80 CRI 3K7 3000K, 70 CRI 3K8 3000K, 80 CRI 35K8 3500K, 80 CRI 3K9 3000K, 90 CRI 4K7 4000K, 70 CRI 4K8 4000K, 80 CRI 4K9 4000K, 90 CRI 5K7 5000K, 70 CRI 5K8 5000K, 80 CRI	2 Type 2 3 Type 3 4F Type 4 Forward 4W Type 4 Wide 5QW Type 5 Square Wide	BLANK No Rotation L Optic rotation left R Optic rotation right	UNV 120-277V 120 120V 208 208V 240 240V 277 277V 347 347V 480 480V
			2 Size 2					
			3 Size 3					
			4 Size 4					

Mounting	Color	Options	Network Control Options
A Arm mount for square pole/flat surface (B3 Drill Pattern) (Does not include round pole adapter)	BLT Black Matte Textured	F Fusing	NXWS16F NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4}
A_ Arm mount for round pole ²	BLS Black Gloss Smooth	2PF Dual Power Feed	NXWS40F NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4}
ASQU Universal arm mount for square pole. Can be used with B3 or S2 Drill Pattern	DBT Dark Bronze Matte Textured	2DR Dual Driver	NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ^{3,4}
A_U Universal arm mount for round pole ²	DBS Dark Bronze Gloss Smooth	TE Toolless Entry	WIR LightGRID+ In-Fixture Module ^{3,4}
AAU Adjustable arm for pole mounting (universal drill pattern)	GTT Graphite Matte Textured	BC Backlight Control ⁸	WIRSC LightGRID+ Module and Occupancy Sensor ^{3,4}
AA_U Adjustable arm mount for round pole ²	LGS Light Grey Gloss Smooth	TB Terminal Block	Stand Alone Sensors
ADU Decorative upswept Arm (universal drill pattern)	LGT Light Grey Gloss Textured		BTS-14F Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
AD_U Decorative upswept arm mount for round pole ²	PSS Platinum Silver Smooth		BTS-40F Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
MAF Mast arm fitter for 2-3/8" OD horizontal arm	WHT White Matte Textured		BTSO-12F Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
K Knuckle	WHS White Gloss Smooth		7PR 7-Pin Receptacle ⁴
T Trunnion	VGT Verde Green Textured		7PR-SC 7-Pin Receptacle with shorting cap ⁴
WB Wall Bracket, horizontal tenon with MAF	Color Option		3PR 3-Pin twist lock ⁴
WM Wall mount bracket with decorative upswept arm	CC Custom Color		3PR-SC 3-Pin receptacle with shorting cap ⁴
WA Wall mount bracket with adjustable arm			3PR-TL 3-Pin PCR with photocontrol ⁴
			Programmed Controls
			SCP_F Sensor Control Programmable, 8F or 40F ⁹
			ADD AutoDim Timer Based Dimming ⁴
			ADT AutoDim Time of Day Dimming ⁴
			Photocontrols
			PC Button Photocontrol ^{4,7}

1 – Items with a grey background can be done as a custom order. Contact brand representative for more information

2 – Replace “_” with “3” for 3.5”-4.13” OD pole, “4” for 4.18”-5.25” OD pole, “5” for 5.5”-6.5” OD pole

3 – Networked Controls cannot be combined with other control options

4 – Not available with 2PF option

5 – Not available with Dual Driver option

6 – Some voltage restrictions may apply when combined with controls

7 – Not available with 480V

8 – BC not available on 4F and type 5 distributions

9 – At least one SCPREMOTE required to program SCP motion sensor. Must select 8ft or 40ft.

Current

currentlighting.com/beacon

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Page 2 of 15

Rev 11/15/23

BEA_VIPERSPEC_R08



VIPER Area/Site

VIPER LUMINAIRE

VIPER POLE EXPRESS COMBO – ORDERING GUIDE



Catalog Number	Pole	Single or Double Head	Fixture	Lumens*	Wattage	Distribution	CCT/CRI	Mounting	Finish
VP-1-160-4K-3-LS-S20	20' Square Straight Steel	Single	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S20	20' Square Straight Steel	Single	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S25	25' Square Straight Steel	Single	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S25	25' Square Straight Steel	Single	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S20	20' Square Straight Steel	Single	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S20	20' Square Straight Steel	Single	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S25	25' Square Straight Steel	Single	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S25	25' Square Straight Steel	Single	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured

VIPER POLE EXPRESS COMBO – STOCK LUMINAIRE SKUS

Catalog Number	Lumens	LPW	Distribution	Wattage	CCT/CRI	Voltage	Mounting	Finish
VP-1-160-4K-3-LS	19584	123.9	3	158W	4000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-4K-4F-LS	19426	122.9	4F	158W	4000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-5K-3-LS	19499	123.4	3	158W	5000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-5K-4F-LS	19186	121.4	4F	158W	5000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured

VIPER POLE EXPRESS COMBO – ACCESSORIES

Catalog Number	Description
VM14DB	Vibration Dampener, mounts to top of pole for reduced vibration





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

OUTDOOR LIGHTING CONTROLS OPTIONS CONTROLS FUNCTIONALITY LIGHT GRID⁺

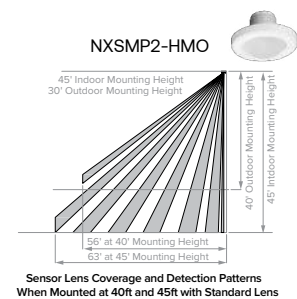
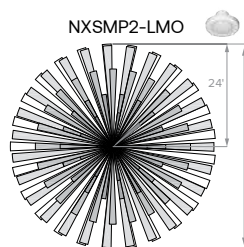
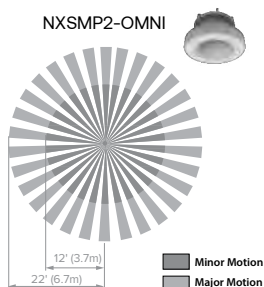
Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components
		Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
NX Wireless	NXOFMIRID-UNV	✓	✓	✓	Paired with external control	✓	✓	✓	✓	-	 NXOFMIRID-UNV
	NXW	✓	✓	✓	-	-	✓	✓	✓	-	 NXRM2-H
	NXWS12F	✓	✓	✓	✓	✓	✓	✓	✓	12ft	 NXSMP2-OMNI-O
	NXWS16F	✓	✓	✓	✓	✓	✓	✓	✓	16ft	 NXSMP2-LMO
	NXWS40F	✓	✓	✓	✓	✓	✓	✓	✓	40ft	 NXSMP2-HMO
LightGRID+	WIR	✓	-	✓	-	-	✓	✓	Gateway	-	 WIR
	WIR-RME-L	✓	-	✓	-	-	✓	✓	Gateway	-	 WIR-RME-L
	WIRSC	✓	✓	✓	✓	✓	✓	✓	Gateway	14ft - 40ft	 BTMSP
Independent	BTSO-12F	-	-	-	✓	✓	✓	✓	✓	12ft	 BTSMP-OMNI-O
	BTS-14F	-	-	-	✓	✓	✓	✓	✓	14ft	 BTSMP-LMO
	BTS-40F	-	-	-	✓	✓	✓	✓	✓	40ft	 BTSMP-HMO

DEFAULT SETTINGS

NX Wireless	Occupancy Sensor	Enabled
	Occupancy Sensor Sensitivity	7
	Occupancy Sensor Timeout	15 Minutes
	Occupied Dim Level	100%
	Unoccupied Dim Level	0%
	Daylight Sensor	Disabled
	Bluetooth	Enabled
	2.4GHz Wireless Mesh	On
	*Passcode Factory Passcode: HubbN3T!	Enabled

Stand Alone	Occupancy Sensor	Enabled
	Occupancy Sensor Sensitivity	7
	Occupancy Sensor Timeout	8 Minutes
	Occupied Dim Level	100%
	Unoccupied Dim Level	50%
	Daylight Sensor	Disabled

NX WIRELESS COVERAGE PATTERNS





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

NX LIGHTING CONTROLS FREE APP

CONTROLS TECH SUPPORT 800-888-8006 (7:00 AM - 7:00 PM)



The NX Lighting Controls App is free to use mobile application for programming both NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enable luminaires and program NX system settings.

Apple App: <https://apps.apple.com/us/app/nx-lighting-controls/id962112904>

Google Play: https://play.google.com/store/apps/details?id=io.cordova.NXBTR&hl=en_US&q=US



Apple App



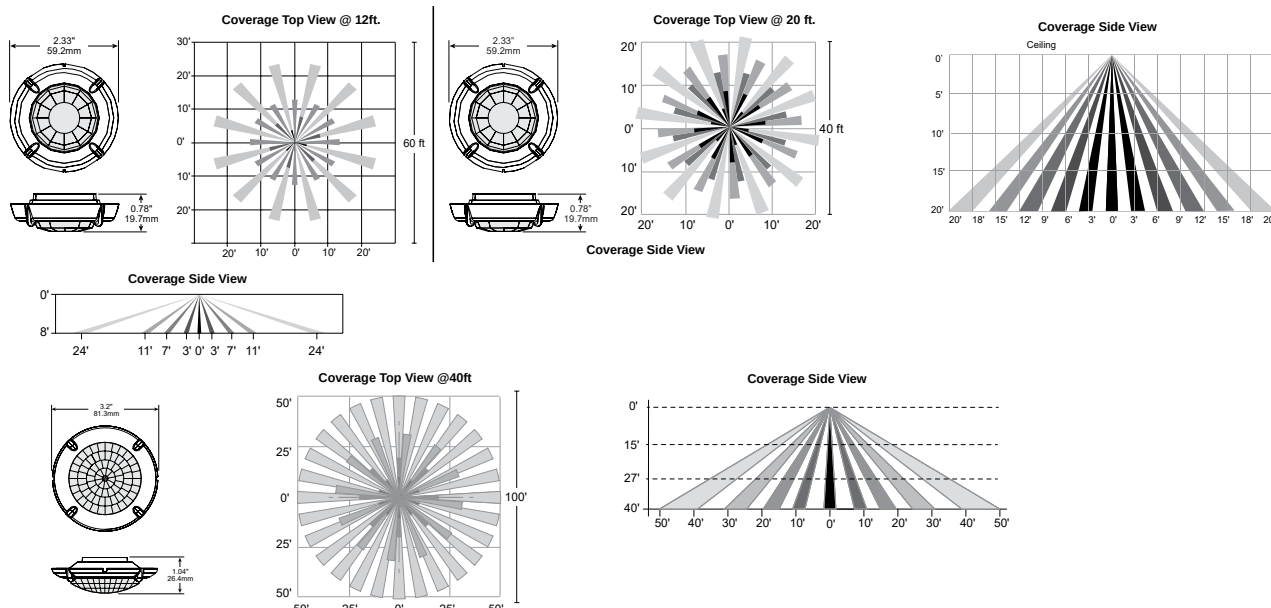
Google Play

OUTDOOR LIGHTING CONTROLS OPTIONS

CONTROLS FUNCTIONALITY

Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components	
		Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height		
Independent	SCP_F	Sensor Control Programmable, 8F or 40F	–	–	–	✓	✓	✓	✓	–	8ft or 40ft	SCP_F
	ADD	AutoDIM Timer Based Dimming	–	–	✓	–	–	–	✓	–	–	ADD
	ADT	AutoDIM Time of Day Dimming	–	–	✓	–	–	–	✓	–	–	ADT
	7PR	7-Pin Receptacle	–	–	Paired with external control	–	Paired with external control	–	Paired with external control	–	–	7PR
	7PR-SC	7-Pin Receptacle with shorting cap	–	–	–	–	–	–	–	–	–	 7PR-SC
	3PR	3-Pin twist lock	–	–	–	–	–	–	Paired with external control	–	–	3PR
	3PR-SC	3-Pin Receptacle with shorting cap	–	–	–	–	–	–	–	–	–	 3PR-SC
	3PR-TL	3-Pin with photocontrol	–	–	–	–	✓	–	✓	–	–	 3PR-TL

COVERAGE PATTERNS FOR SCP_F





VIPER Area/Site

VIPER LUMINAIRE

PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6 - Delay 6 hours
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50% brightness
Auto-Dim Return	Delay 0-9 Hours	R6 - Return to full output after 6 hours

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6 - Dim at 6PM
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50%
Auto-Dim Return	12-6 AM and 9-11P	R6 - Return to full output at 6AM

DELIVERED LUMENS

For delivered lumens, please see Lumens Data PDF on www.Currentlighting.com

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	0	25,000	*TM-21-11 36,000	50,000	100,000	Calculated L ₇₀ (Hours)
25°C / 77°F	1.00	0.97	0.96	0.95	0.91	408,000
40°C / 104°F	0.99	0.96	0.95	0.94	0.89	356,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

Micro Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	—	0.841	—
3000K	0.977	0.861	0.647
3500K	—	0.900	—
4000K	1	0.926	0.699
5000K	1	0.937	0.791
AP-Amber Phosphor Converted Multiplier			
Amber	0.710		

Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	0.9	0.81	0.62
3000K	0.933	0.853	0.659
3500K	0.959	0.894	0.711
4000K	1	0.9	0.732
5000K	1	0.9	0.732
Monochromatic Amber Multiplier			
Amber	See Amber Spec Sheet		



Job Name:
MARTIN'S POINT VERANDA CAMPUS

Catalog Number:
VP-1-160L-115-3K7-4W-R-UNV-A-DBT

Notes:

Type:

B4-R

SLA23-57244



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ELECTRICAL DATA: MICRO STRIKE

# OF LEDS	160						
NOMINAL WATTAGE	35	50	75	100	115	135	160
SYSTEM POWER (W)	34.9	50.5	72.1	97.2	111.9	132.2	157.8
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	0.29	0.42	0.63	0.83	0.96	1.13	1.33
208	0.17	0.24	0.36	0.48	0.55	0.65	0.77
240	0.15	0.21	0.31	0.42	0.48	0.56	0.67
277	0.13	0.18	0.27	0.36	0.42	0.49	0.58
347	0.10	0.14	0.22	0.29	0.33	0.39	0.46
480	0.07	0.10	0.16	0.21	0.24	0.28	0.33

# OF LEDS	320						
NOMINAL WATTAGE	145	170	185	210	235	255	315
SYSTEM POWER (W)	150	166.8	185.7	216.2	240.9	261.5	312
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	1.21	1.42	1.54	1.75	1.96	2.13	2.63
208	0.70	0.82	0.89	1.01	1.13	1.23	1.51
240	0.60	0.71	0.77	0.88	0.98	1.06	1.31
277	0.52	0.61	0.67	0.76	0.85	0.92	1.14
347	0.42	0.49	0.53	0.61	0.68	0.73	0.91
480	0.30	0.35	0.39	0.44	0.49	0.53	0.66

# OF LEDS	480					
NOMINAL WATTAGE	285	320	340	390	425	470
SYSTEM POWER (W)	286.2	316.7	338.4	392.2	423.2	468
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.38	2.67	2.83	3.25	3.54	3.92
208	1.37	1.54	1.63	1.88	2.04	2.26
240	1.19	1.33	1.42	1.63	1.77	1.96
277	1.03	1.16	1.23	1.41	1.53	1.70
347	0.82	0.92	0.98	1.12	1.22	1.35
480	0.59	0.67	0.71	0.81	0.89	0.98

# OF LEDS	720				
NOMINAL WATTAGE	435	475	515	565	600
SYSTEM POWER (W)	429.3	475	519.1	565.2	599.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	3.63	3.96	4.29	4.71	5.00
208	2.09	2.28	2.48	2.72	2.88
240	1.81	1.98	2.15	2.35	2.50
277	1.57	1.71	1.86	2.04	2.17
347	1.25	1.37	1.48	1.63	1.73
480	0.91	0.99	1.07	1.18	1.25



Job Name:
MARTIN'S POINT VERANDA CAMPUS

Catalog Number:
VP-1-160L-115-3K7-4W-R-UNV-A-DBT

Notes:

Type:

B4-R

SLA23-57244



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ELECTRICAL DATA: STRIKE

# OF LEDS	36				
NOMINAL WATTAGE	39	55	85	105	120
SYSTEM POWER (W)	39.6	56.8	83.6	108.2	120.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	0.33	0.46	0.71	0.88	0.96
208	0.19	0.26	0.41	0.50	0.55
240	0.16	0.23	0.35	0.44	0.48
277	0.14	0.20	0.31	0.38	0.42
347	0.11	0.16	0.24	0.30	0.33
480	0.08	0.11	0.18	0.22	0.24

# OF LEDS	72				
NOMINAL WATTAGE	115	145	180	210	240
SYSTEM POWER (W)	113.7	143.2	179.4	210.2	241.7
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	1.00	1.21	1.50	1.75	1.79
208	0.58	0.70	0.87	1.01	1.03
240	0.50	0.60	0.75	0.88	0.90
277	0.43	0.52	0.65	0.76	0.78
347	0.35	0.42	0.52	0.61	0.62
480	0.25	0.30	0.38	0.44	0.45

# OF LEDS	108				
NOMINAL WATTAGE	215	250	280	325	365
SYSTEM POWER (W)	214.8	250.8	278.3	324.7	362.6
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	2.00	2.08	2.33	3.04	2.67
208	1.15	1.20	1.35	1.75	1.54
240	1.00	1.04	1.17	1.52	1.33
277	0.87	0.90	1.01	1.32	1.16
347	0.69	0.72	0.81	1.05	0.92
480	0.50	0.52	0.58	0.76	0.67

# OF LEDS	162					
NOMINAL WATTAGE	320	365	405	445	485	545
SYSTEM POWER (W)	322.1	362.6	403.6	445.1	487.1	543.9
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.71	2.67	3.38	3.71	4.04	4.54
208	1.56	1.54	1.95	2.14	2.33	2.62
240	1.35	1.33	1.69	1.85	2.02	2.27
277	1.17	1.16	1.46	1.61	1.75	1.97
347	0.94	0.92	1.17	1.28	1.40	1.57
480	0.68	0.67	0.84	0.93	1.01	1.14



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

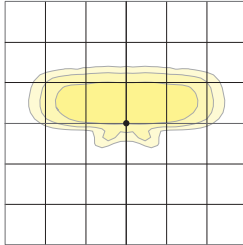
TYPE: _____ PROJECT: _____

CATALOG #: _____

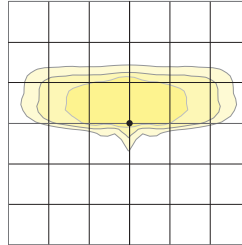
MICRO STRIKE PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

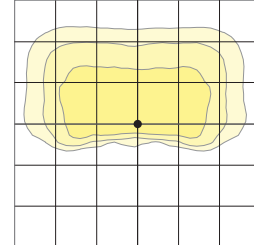
Type 2



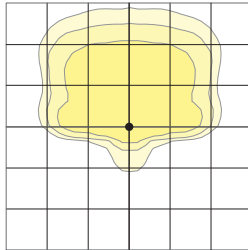
Type 3



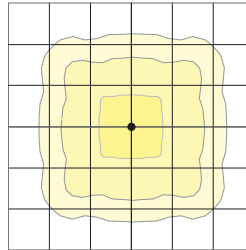
Type 4 Wide



Type 4F



Type 5QW





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

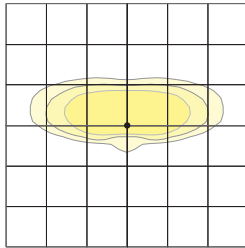
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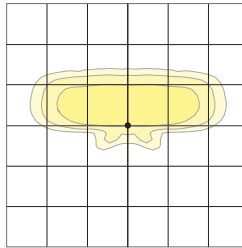
OPTIC STRIKE PHOTOMETRY

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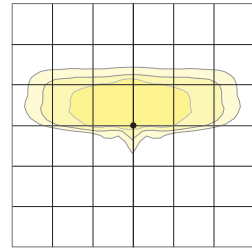
Type FR – Front Row/Auto Optic



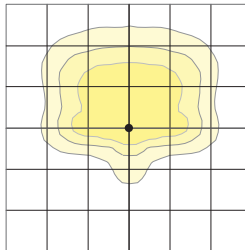
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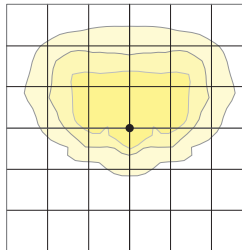
Type 3



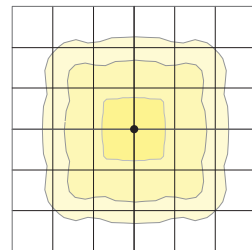
Type 4 Forward



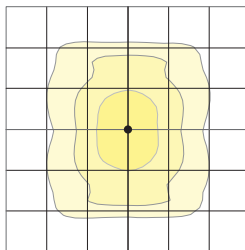
Type 4 Wide



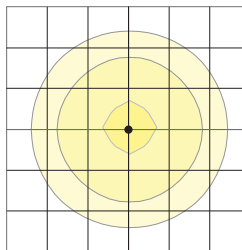
Type 5QM



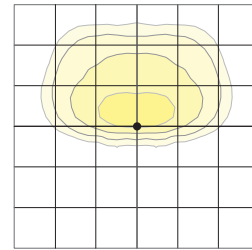
Type 5RW (rectangular)



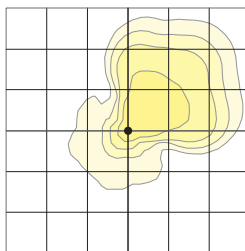
Type 5W (round wide)



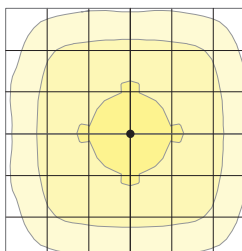
Type TC



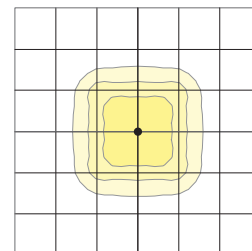
Type Corner



Type 5QW



Type 5QN





VIPER Area/Site

VIPER LUMINAIRE

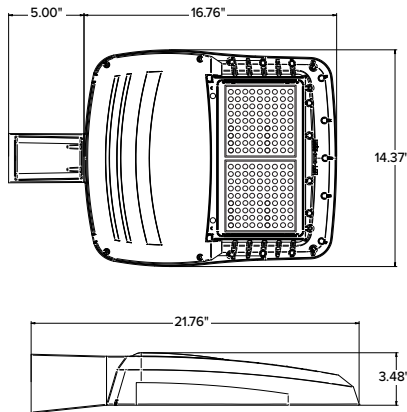
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TYPE: _____ PROJECT: _____

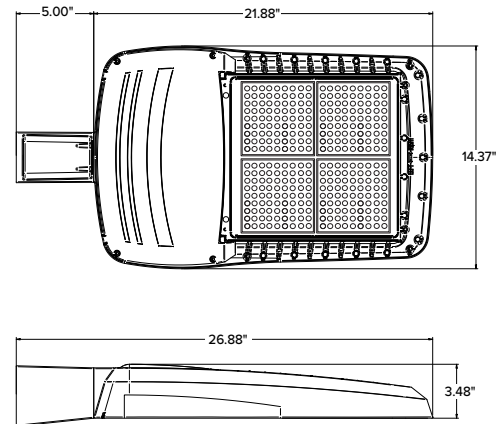
CATALOG #: _____

DIMENSIONS

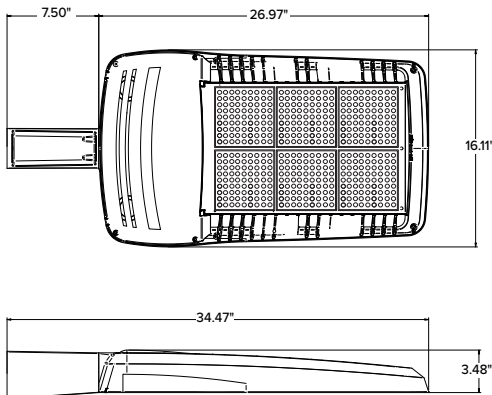
SIZE 1



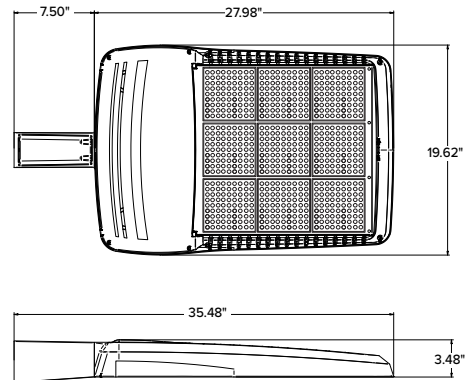
SIZE 2



SIZE 3



SIZE 4



	EPA				Config.
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

	Weight	
	lbs	kgs
VP1 (Size 1)	13.7	6.2
VP2 (Size 2)	16.0	7.26
VP3 (Size 3)	25.9	11.7
VP4 (Size 4)	30.8	13.9



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

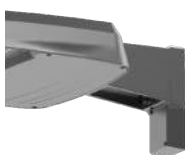
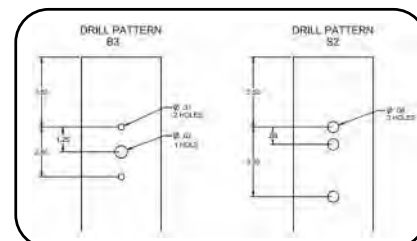
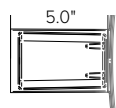
CATALOG #: _____

MOUNTING



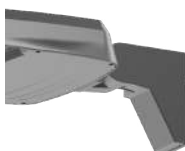
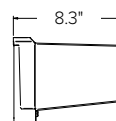
A-STRAIGHT ARM MOUNT

Fixture ships with integral arm for ease of installation. Compatible with Current Outdoor B3 drill pattern for ease of installation on square poles. For round poles add applicable suffix (2/3/4/5)



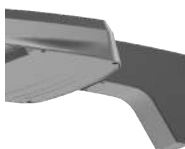
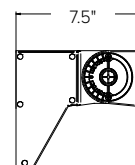
ASQU-UNIVERSAL ARM MOUNT

Universal mounting block for ease of installation. Compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5)



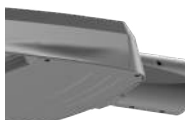
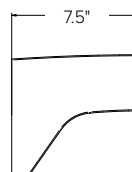
AAU-ADJUSTABLE ARM FOR POLE MOUNTING

Rotatable arm mounts directly to pole. Compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2 and B3. For round poles add applicable suffix (2/3/4/5). Rotatable in 15° aiming angle increments. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



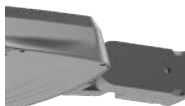
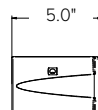
ADU-DECORATIVE UPSWEPT ARM

Upswept Arm compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5).



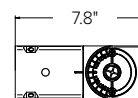
MAF-MAST ARM FITTER

Fits 2-3/8" OD horizontal tenons.



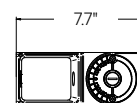
K-KNUCKLE

Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



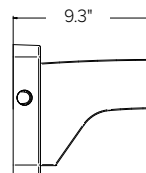
T-TRUNNION

Trunnion for surface and crossarm mounting using (1) 3/4" or (2) 1/2" size through bolts. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



WM-WALL MOUNT

Compatible with universal arm mount, adjustable arm mount, and decorative arm mount. The WA option uses the same wall bracket but replaces the decorative arm with an adjustable arm.





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

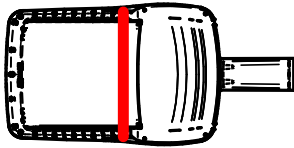
ADDITIONAL INFORMATION (CONTINUED)

HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES

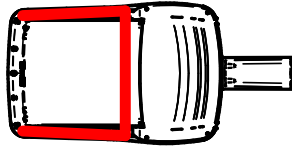
HSS has a depth of 5" for all Viper sizes

Not to be used with Occupancy Sensors as the shield may block the light to the sensor.

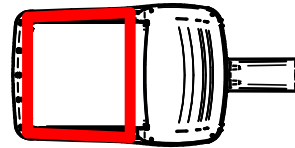
VPR2x HSS-90-B-xx



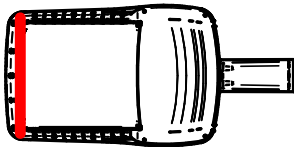
VPR2x HSS-270-BSS-xx



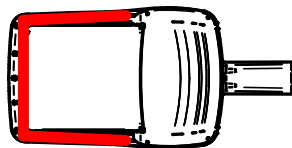
VPR2x HSS-360-xx



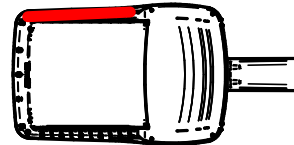
VPR2x HSS-90-F-xx



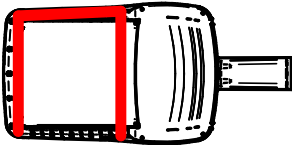
VPR2x HSS-270-FSS-xx



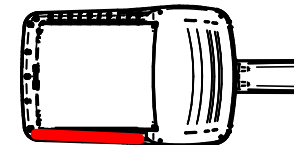
VPR2x HSS-90-S-xx



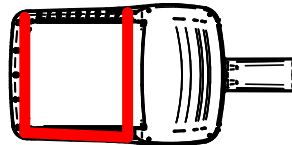
VPR2x HSS-270-FSB-xx



VPR2x HSS-90-S-xx



VPR2x HSS-270-FSB-xx

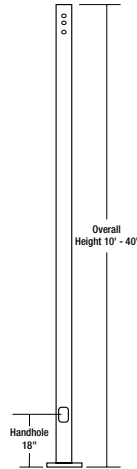




SSS-B Series Poles

SQUARE STRAIGHT STEEL

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____



APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

CONSTRUCTION

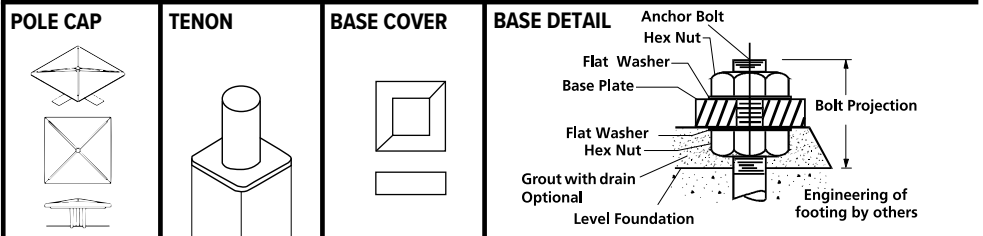
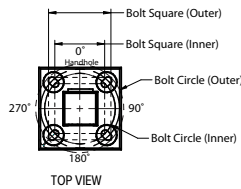
- SHAFT:** One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners; Minimum yield of 46,000 psi (ASTM-A500, Grade B); Longitudinal weld seam to appear flush with shaft side wall; Steel base plate with axial bolt circle slots welded flush to pole shaft having minimum yield of 36,000 psi (ASTM A36)
- BASE COVER:** Two-piece square aluminum base cover included standard
- POLE CAP:** Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- HAND HOLE:** Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS:** Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling
 Anchor bolt part numbers: 3/4 x 30 x 3 — TAB-30-M38
 1 x 36 x 4 — TAB-36-M38

FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in multiple standard colors; Custom colors available; RAL number preferable

WAREHOUSE 'STOCKED' POLES:

- SSSH20-40A-4-HV-DB-RDC, SSSH25-40A-4-HV-DB-RDC and SSSH30-50B-4-HV-DB-RDC
- The HV designation in the above catalog numbers is a combination drill pattern of the Current S2 pattern and the Beacon B3/B4 Viper pattern (rectangular arm mounting)



ORDERING INFORMATION

ORDERING EXAMPLE:

Reference page 2 for available configurations

SSS -B	-	25	-	40	-	A/B/C	-	2L	-	B3	-	BLT	-	UL
SERIES		HEIGHT		SHAFT		THICKNESS		MOUNTING				FINISH		OPTIONS
SSS-B Square Straight Steel Pole Beacon		Reference page 2 Ordering matrix 25		Reference page 2 Ordering matrix 40		Reference page 2 Ordering matrix A		1 Single arm mount 2 Two fixtures at 180° 2L Two fixtures at 90° 3T Three fixtures at 90° 4 Four fixtures at 90° TA Tenon (2.38" OD x 4" Tall) TB Tenon (2.88" OD x 4" Tall) TC Tenon (3.5" OD x 6" Tall) TR Removable Tenon (2.375 x 4.25) OT Open Top (includes pole cap)				BLT Black Matte Textured BLS Black Gloss Smooth DBT Dark Bronze Matte Textured DBS Dark Bronze Gloss Smooth GTT Graphite Matte Textured LGS Light Grey Gloss Smooth PSS Platinum Silver Smooth WHT White Matte Textured WHS White Gloss Smooth VGT Verde Green Textured Color Option CC Custom Color		GFI 20 Amp GFCI Receptacle and Cover EHH Extra Handhole C05 .5" Coupling C07 .75" Coupling C20 2" Coupling MPB Mid-pole Luminaire Bracket VM2 2nd mode vibration damper LAB Less Anchor Bolts UL UL Certified

1

2

2L

3T

3Y

4

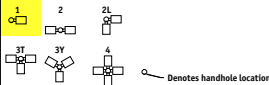
Denotes handhole location

1 Removable tenon used in conjunction with side arm mounting. First specify desired arm configuration followed by the "TR" notation. Example: SSS-B-25-40-A-1-B1-TR-BBT

2 Specify option location using logic found on page 2 (Option Orientation)

3 VMI recommended on poles 20" and taller with EPA of less than 1.

MOUNTING ORIENTATION



- Removable tenon used in conjunction with side arm mounting. First specify desired arm configuration followed by the "TR" notation. Example: SSS-B-25-40-A-1-B1-TR-BBT
- Specify option location using logic found on page 2 (Option Orientation)
- VM1 recommended on poles 20' and taller with EPA of less than 1.

ACCESSORIES - Order Separately

Catalog Number	Description
VM1	1st mode vibration damper
VM2SXX	2nd mode vibration damper

DRILL PATTERN

- B1** Cruiser, "AM" arm
B3 2 bolt (2-1/2" spacing), Viper "A" arm
S2 2 bolt (3-1/2" spacing), Viper "AD" arm



SSS-B Series Poles

SQUARE STRAIGHT STEEL

DATE: _____ LOCATION: _____

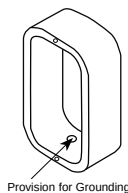
TYPE: _____ PROJECT: _____

CATALOG #: _____

ORDERING INFORMATION Cont.

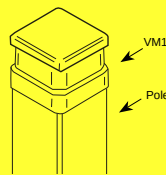
Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle (suggested)	Bolt Circle (range)	Bolt Square (range)	Base Plate Square	Anchor bolt size	Bolt Projection	Pole weight
	Feet	Meters									
SSS-B-10-40-A-XX-XX	10	3.0	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	77
SSS-B-12-40-A-XX-XX	12	3.7	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	90
SSS-B-14-40-A-XX-XX	14	4.3	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	103
SSS-B-16-40-A-XX-XX	16	4.9	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	116
SSS-B-18-40-A-XX-XX	18	5.5	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	129
SSS-B-20-40-A-XX-XX	20	6.1	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	142
SSS-B-25-40-A-XX-XX	25	7.6	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	175
SSS-B-14-40-B-XX-XX	14	4.3	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	152
SSS-B-16-40-B-XX-XX	16	4.9	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	171
SSS-B-18-40-B-XX-XX	18	5.5	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	190
SSS-B-20-40-B-XX-XX	20	6.1	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	209
SSS-B-25-40-B-XX-XX	25	7.6	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	257
SSS-B-30-40-B-XX-XX	30	9.1	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	304
SSS-B-16-50-B-XX-XX	16	4.9	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	219
SSS-B-18-50-B-XX-XX	18	5.5	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	243
SSS-B-20-50-B-XX-XX	20	6.1	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	267
SSS-B-25-50-B-XX-XX	25	7.6	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	327
SSS-B-30-50-B-XX-XX	30	9.1	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	387
SSS-B-25-50-C-XX-XX	25	7.6	5" square	.25"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	427
SSS-B-30-50-C-XX-XX	30	9.1	5" square	.25"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	507
SSS-B-20-60-B-XX-XX	20	6.1	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	329
SSS-B-25-60-B-XX-XX	25	7.6	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	404
SSS-B-30-60-B-XX-XX	30	9.1	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	479
SSS-B-35-60-B-XX-XX	35	10.7	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	554
SSS-B-40-60-B-XX-XX	40	12.2	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	629

NOTE Factory supplied template must be used when setting anchor bolts. Beacon Products will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

EHH - EXTRA HANDHOLE


Provision for Grounding

C05 - C07 - C20 - COUPLING

VM1 - VIBRATION DAMPER 1ST MODE


Field Installed Pole Top damper designed to reduce pole top deflection or sway. VM1 is recommended for pole systems 25' and taller with a total EPA of 1.0 or less.

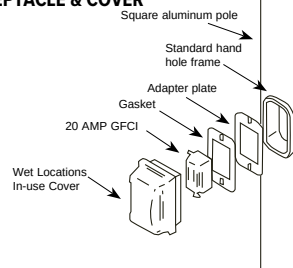
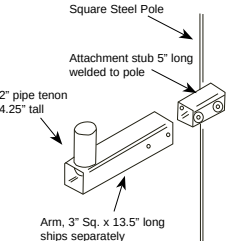
VM2 - VIBRATION DAMPER 2ND MODE


Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

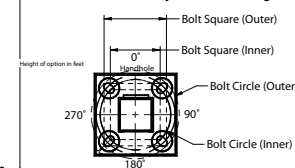
VM2SXX - VIBRATION DAMPER 2ND MODE


VM2S08 - 8'
VM2S12 - 12'
VM2S16 - 16'
VM2S20 - 20'
VM2S24 - 24'

Field installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

GFI - 20 AMP GFCI RECEPTACLE & COVER

MPB - MID POLE BRACKET

OPTION ORIENTATION

Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option C07 should be ordered as: **SSS-B-20-40-A-TA-DB-C05-0-15** (.5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1" spacing required between option. Consult factory for other configurations.



For more information about pole vibration and vibration dampers, please consult our website.
Due to our continued efforts to improve our products, product specifications are subject to change without notice.



SSS-B Series Poles

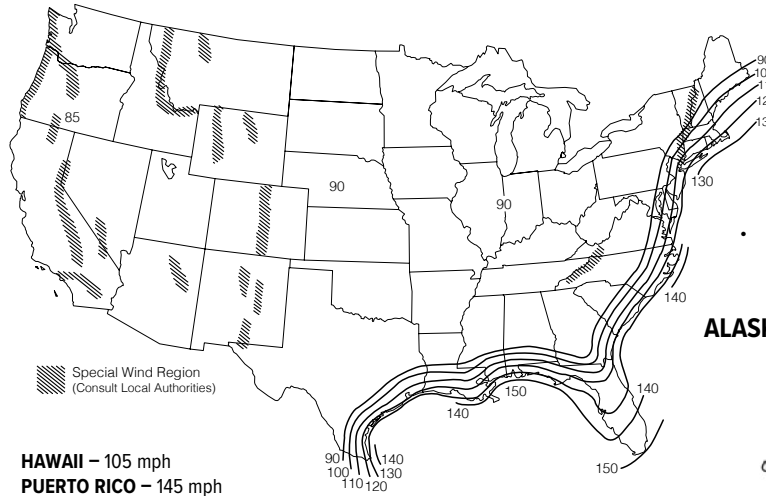
SQUARE STRAIGHT STEEL

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

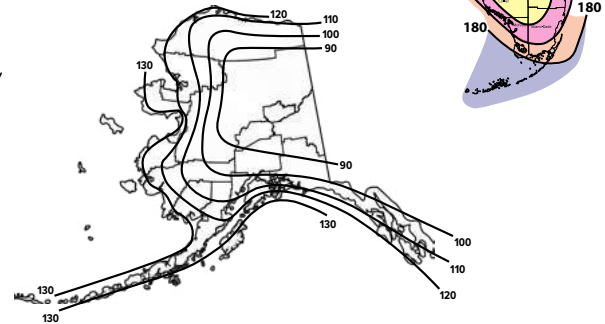
ASCE7-05 WIND MAP



FLORIDA REGION WIND MAP

- Florida region wind map above is based upon 3-second gust winds and the 2017 Florida Building Code

ALASKA REGION WIND MAP



ASCE 7-05 wind map EPA Load Rating - 3 second gust wind speeds (Use for all locations except Florida)										
Catalog Number	85	90	100	105	110	120	130	140	145	150
SSS-B-10-40-A	25.0	25.0	25.0	22.8	20.6	17.0	14.2	11.9	11.0	10.1
SSS-B-12-40-A	25.0	25.0	20.0	18.0	16.1	13.2	10.8	8.9	8.1	7.4
SSS-B-14-40-A	23.1	20.4	16.1	14.3	12.8	10.2	8.2	6.6	5.9	5.3
SSS-B-16-40-A	19.0	16.7	13.0	11.5	10.1	7.9	6.2	4.7	4.1	3.6
SSS-B-18-40-A	15.6	13.6	10.0	9.0	7.8	5.9	4.4	3.1	2.6	2.1
SSS-B-20-40-A	12.7	10.9	7.9	6.9	5.9	4.2	2.8	1.7	1.3	0.9
SSS-B-25-40-A	7.3	5.9	3.8	2.9	2.1	0.8	NR	NR	NR	NR
SSS-B-14-40-B	25.0	25.0	23.3	20.8	18.6	15.1	12.3	10.2	9.2	8.4
SSS-B-16-40-B	25.0	24.9	19.4	17.3	15.4	12.3	9.9	8.0	7.2	6.4
SSS-B-18-40-B	24.0	20.8	16.1	14.2	12.5	9.8	7.7	6.1	5.3	4.7
SSS-B-20-40-B	20.2	17.5	13.2	11.6	10.1	7.7	5.9	4.4	3.8	3.2
SSS-B-25-40-B	12.8	11.0	7.9	6.7	5.5	3.7	2.3	1.2	0.7	NR
SSS-B-30-40-B	8.0	6.6	4.1	3.1	2.2	0.8	NR	NR	NR	NR
SSS-B-16-50-B	25.0	25.0	25.0	25.0	24.8	20.1	16.5	13.6	12.3	11.2
SSS-B-18-50-B	25.0	25.0	25.0	22.9	20.4	16.4	13.2	10.7	9.6	8.6
SSS-B-20-50-B	25.0	25.0	21.3	18.9	16.7	13.2	10.4	8.1	7.2	6.3
SSS-B-25-50-B	20.7	17.8	13.3	11.5	9.8	7.2	5.0	3.3	2.6	1.9
SSS-B-30-50-B	13.5	11.3	7.7	6.2	4.9	2.8	1.1	NR	NR	NR
SSS-B-25-50-C	25.0	25.0	19.4	17.1	15.1	11.7	9.0	6.9	6.0	5.1
SSS-B-30-50-C	20.1	17.3	12.7	10.9	9.3	6.6	4.5	2.8	2.1	1.4
SSS-B-20-60-B	25.0	25.0	25.0	25.0	25.0	20.2	16.1	12.9	11.5	10.3
SSS-B-25-60-B	25.0	25.0	20.6	18.0	15.6	11.8	8.7	6.2	5.2	4.2
SSS-B-30-60-B	21.4	18.1	12.9	10.7	8.8	5.7	3.3	1.3	NR	NR
SSS-B-35-60-B	14.0	11.3	6.9	5.2	3.6	1.0	NR	NR	NR	NR
SSS-B-40-60-B	8.1	5.8	2.2	nr	NR	NR	NR	NR	NR	NR

Florida Building Code 2017 EPA Load Rating - 3 second gust wind speeds (Use for Florida only)									
Catalog Number	115	120	130	140	150	160	170	180	
SSS-B-10-40-A	25.0	25.0	25.0	25.0	21.4	18.4	15.9	13.9	
SSS-B-12-40-A	25.0	25.0	23.6	19.8	16.7	14.2	12.1	10.4	
SSS-B-14-40-A	25.0	23.1	19.0	15.7	13.1	10.9	9.1	7.6	
SSS-B-16-40-A	20.8	18.7	15.2	12.3	10.1	8.2	6.7	5.4	
SSS-B-18-40-A	16.8	15.0	11.9	9.4	7.5	5.9	4.5	3.4	
SSS-B-20-40-A	13.6	11.9	9.2	7.1	5.3	3.9	2.7	1.7	
SSS-B-25-40-A	7.4	6.2	4.1	2.5	1.1	NR	NR	NR	
SSS-B-14-40-B	25.0	23.6	19.4	16.1	13.4	11.2	9.4	7.8	
SSS-B-16-40-B	21.4	19.2	15.6	12.7	10.4	8.5	6.9	5.6	
SSS-B-18-40-B	17.2	15.4	12.2	9.7	7.7	6.1	4.7	3.6	
SSS-B-20-40-B	13.9	12.3	9.5	7.3	5.5	4.1	2.9	1.9	
SSS-B-25-40-B	7.7	6.4	4.3	2.6	1.3	NR	NR	NR	
SSS-B-30-40-B	3.2	2.1	NR	NR	NR	NR	NR	NR	
SSS-B-16-50-B	25.0	25.0	25.0	25.0	25.0	21.4	18.2	15.5	
SSS-B-18-50-B	25.0	25.0	25.0	24.4	20.4	17.0	14.2	11.9	
SSS-B-20-50-B	25.0	25.0	24.4	19.9	16.3	13.4	11.0	8.9	
SSS-B-25-50-B	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1	
SSS-B-30-50-B	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR	
SSS-B-25-50-C	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1	
SSS-B-30-50-C	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR	
SSS-B-20-60-B	25.0	25.0	25.0	21.9	17.8	14.5	11.7	9.4	
SSS-B-25-60-B	23.8	20.9	16.1	12.3	9.2	6.6	4.5	2.8	
SSS-B-30-60-B	14.6	12.3	8.4	5.3	2.8	0.8	NR	NR	
SSS-B-35-60-B	7.5	5.6	2.4	NR	NR	NR	NR	NR	
SSS-B-40-60-B	1.8	NR	NR	NR	NR	NR	NR	NR	

Submitted by Swaney Lighting	 Job Name: MARTIN'S POINT VERANDA CAMPUS	Catalog Number: SSSB25-40A-2-B3-DBT-VM1 Notes:	Type: B4 SLA23-57244
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SSS-B Series Poles

SQUARE STRAIGHT STEEL

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

NOTES

Wind-speed Website disclaimer:

Current has no connection to the linked website and makes no representations as to its accuracy. While the information presented on this third-party website provides a useful starting point for analyzing wind conditions, Current has not verified any of the information on this third party website and assumes no responsibility or liability for its accuracy. The material presented in the windspeed website should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. Current does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the windspeed report provided by this website. Users of the information from this third party website assume all liability arising from such use. Use of the output of these referenced websites do not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the windspeed report. <http://windspeed.atcouncil.org>

NOTES

- Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
- The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
- Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
- Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings.
- Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

Due to our continued efforts to improve our products, product specifications are subject to change without notice.



VIPER Area/Site

VIPER LUMINAIRE

FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as auto dealership, retail, commercial, and campus parking lots
- Featuring two different optical technologies, Strike and Micro Strike Optics, which provide the best distribution patterns for retrofit or new construction
- Rated for high vibration applications including bridges and overpasses. All sizes are rated for 1.5G
- Control options including photo control, occupancy sensing, NX Lighting Controls™, LightGRID+ and 7-Pin with networked controls
- New customizable lumen output feature allows for the wattage and lumen output to be customized in the factory to meet whatever specification requirements may entail
- Field interchangeable mounting provides additional flexibility after the fixture has shipped



CONTROL TECHNOLOGY



LIGHTGRID+

SERVICE PROGRAMS

STOCK QS10

SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with 1000 hour powder coat paint finish
- External hardware is corrosion resistant

OPTICS

- Micro Strike Optics (160, 320, 480, or 720 LED counts) maximize uniformity in applications and come standard with mid-power LEDs which evenly illuminate the entire luminous surface area to provide a low glare appearance. Catalog logic found on page 2
- Strike Optics (36, 72, 108, or 162 LED counts) provide best in class distributions and maximum pole spacing in new applications with high powered LEDs. Strike optics are held in place with a polycarbonate bezel to mimic the appearance of the Micro Strike Optics so both solutions can be combined on the same application. Catalog logic found on page 3
- Both optics maximize target zone illumination with minimal losses at the house-side, reducing light trespass issues. Additional backlight control shields and house side shields can be added for further reduction of illumination behind the pole
- One-piece silicone gasket ensures a weatherproof seal
- Zero up-light at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Mounting patterns for each arm can be found on page 11
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option (ASQU) or accessory for square and round poles
- All mounting hardware included
- Knuckle arm fitter option available for 2-3/8" OD tenon
- For products with EPA less than 1 mounted to a pole greater than 20ft, a vibration damper is recommended

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40°C to 40°C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised
- Dual Driver option provides 2 drivers within luminaire but only one set of leads exiting the luminaire, where Dual Power Feed provides two drivers which can be wired independently as two sets of leads are extended from the luminaire. Both options cannot be combined

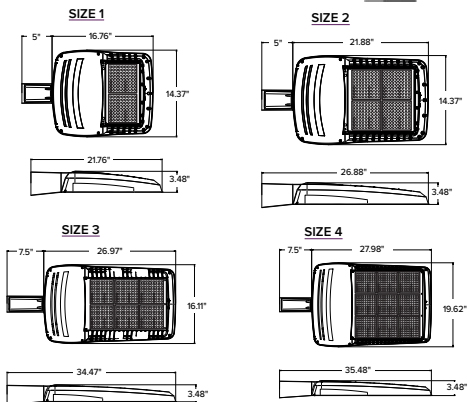
CONTROLS

- Photo control, occupancy sensor programmable controls, and Zigbee wireless controls available for complete on/off and dimming control
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photoccontrols or wireless control modules (control accessories sold separately)

CONTROLS (CONTINUED)

- 0-10V Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard
- NX Lighting Controls™ available with in fixture wireless control module, features dimming and occupancy sensor
- LightGRID+ available with in fixture wireless control module, features dimming and occupancy sensor. Also available in 7-pin configuration

MICROSTRIKE | STRIKE OPTICS



	EPA				Config.
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

CERTIFICATIONS

- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations listed in this document are DLC® qualified. Refer to <http://www.designlights.org> for the most up-to-date list.
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures
- 1.5 G rated for ANSI C136.31 high vibration applications
- Fixture is IP65 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9) and Trade Agreements Act (FAR 52.225-11). See Buy America(n) Solutions (link to <https://www.currentlighting.com/resources/america-solutions>).

WARRANTY

- 5 year warranty



VIPER Area/Site

VIPER LUMINAIRE

MICROSTRIKE OPTICS – ORDERING GUIDE

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

Gray Shading = Service Program Limit of 15 luminaires

QS10

Example: VP-2-320L-145-3K7-2-R-UNV-A3-BLT

CATALOG #

VP	Series	Optic Platform	Size	Light Engine	CCT/CRI	Distribution	Optic Rotation	Voltage
	VP Viper	Micro Strike	1 Size 1	160L-35 ⁶ 5500 lumens 160L-50 ⁶ 7500 lumens 160L-75 10000 lumens 160L-100 12500 lumens 160L-115 15000 lumens 160L-135 18000 lumens 160L-160 21000 lumens 320L-145 21000 lumens 320L-170 24000 lumens 320L-185 27000 lumens 320L-210 30000 lumens 320L-235 33000 lumens 320L-255 36000 lumens 320L-315 ⁶ 40000 lumens 480L-285 40000 lumens 480L-320 44000 lumens 480L-340 48000 lumens 480L-390 52000 lumens 480L-425 55000 lumens 480L-470 60000 lumens 720L-435 60000 lumens 720L-475 65000 lumens 720L-515 70000 lumens 720L-565 ⁶ 75000 lumens 720L-600 ⁶ 80000 lumens CLO Custom Lumen Output ¹	AP AP-Amber Phosphor Converted 27K8 2700K, 80 CRI 3K7 3000K, 70 CRI 3K8 3000K, 80 CRI 35K8 3500K, 80 CRI 3K9 3000K, 90 CRI 4K7 4000K, 70 CRI 4K8 4000K, 80 CRI 4K9 4000K, 90 CRI 5K7 5000K, 70 CRI 5K8 5000K, 80 CRI	2 Type 2 3 Type 3 4F Type 4 Forward 4W Type 4 Wide 5QW Type 5 Square Wide	BLANK No Rotation L Optic rotation left R Optic rotation right	UNV 120-277V 120 120V 208 208V 240 240V 277 277V 347 347V 480 480V
			2 Size 2					
			3 Size 3					
			4 Size 4					

Mounting	Color	Options	Network Control Options
A Arm mount for square pole/flat surface (B3 Drill Pattern) (Does not include round pole adapter)	BLT Black Matte Textured	F Fusing	NXWS16F NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4}
ASQU Universal arm mount for square pole. Can be used with B3 or S2 Drill Pattern	BLS Black Gloss Smooth	2PF Dual Power Feed	NXWS40F NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4}
A_U Universal arm mount for round pole ²	DBT Dark Bronze Matte Textured	2DR Dual Driver	NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ^{3,4}
AAU Adjustable arm for pole mounting (universal drill pattern)	DBS Dark Bronze Gloss Smooth	TE Toolless Entry	WIR LightGRID+ In-Fixture Module ^{3,4}
AA_U Adjustable arm mount for round pole ²	GTT Graphite Matte Textured	BC Backlight Control ⁸	WIRSC LightGRID+ Module and Occupancy Sensor ^{3,4}
ADU Decorative upswept Arm (universal drill pattern)	LGS Light Grey Gloss Smooth	TB Terminal Block	Stand Alone Sensors
AD_U Decorative upswept arm mount for round pole ²	LGT Light Grey Gloss Textured		BTS-14F Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
MAF Mast arm fitter for 2-3/8" OD horizontal arm	PSS Platinum Silver Smooth		BTS-40F Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
K Knuckle	WHT White Matte Textured		BTSO-12F Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
T Trunnion	WHS White Gloss Smooth		7PR 7-Pin Receptacle ⁴
WB Wall Bracket, horizontal tenon with MAF	VGT Verde Green Textured		7PR-SC 7-Pin Receptacle with shorting cap ⁴
WM Wall mount bracket with decorative upswept arm	Color Option		3PR 3-Pin twist lock ⁴
WA Wall mount bracket with adjustable arm	CC Custom Color		3PR-SC 3-Pin receptacle with shorting cap ⁴
			3PR-TL 3-Pin PCR with photocontrol ⁴
			Programmed Controls
			SCP_F Sensor Control Programmable, 8F or 40F ⁹
			ADD AutoDim Timer Based Dimming ⁴
			ADT AutoDim Time of Day Dimming ⁴
			Photocontrols
			PC Button Photocontrol ^{4,7}

1 – Items with a grey background can be done as a custom order. Contact brand representative for more information

2 – Replace “_” with “3” for 3.5”-4.13” OD pole, “4” for 4.18”-5.25” OD pole, “5” for 5.5”-6.5” OD pole

3 – Networked Controls cannot be combined with other control options

4 – Not available with 2PF option

5 – Not available with Dual Driver option

6 – Some voltage restrictions may apply when combined with controls

7 – Not available with 480V

8 – BC not available on 4F and type 5 distributions

9 – At least one SCPREMOTE required to program SCP motion sensor. Must select 8ft or 40ft.

Current

currentlighting.com/beacon

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Page 2 of 15

Rev 11/15/23

BEA_VIPERSPEC_R08



VIPER Area/Site

VIPER LUMINAIRE

VIPER POLE EXPRESS COMBO – ORDERING GUIDE



Catalog Number	Pole	Single or Double Head	Fixture	Lumens*	Wattage	Distribution	CCT/CRI	Mounting	Finish
VP-1-160-4K-3-LS-S20	20' Square Straight Steel	Single	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S20	20' Square Straight Steel	Single	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S25	25' Square Straight Steel	Single	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S25	25' Square Straight Steel	Single	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S20	20' Square Straight Steel	Single	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S20	20' Square Straight Steel	Single	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S25	25' Square Straight Steel	Single	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S25	25' Square Straight Steel	Single	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured

VIPER POLE EXPRESS COMBO – STOCK LUMINAIRE SKUS

Catalog Number	Lumens	LPW	Distribution	Wattage	CCT/CRI	Voltage	Mounting	Finish
VP-1-160-4K-3-LS	19584	123.9	3	158W	4000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-4K-4F-LS	19426	122.9	4F	158W	4000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-5K-3-LS	19499	123.4	3	158W	5000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-5K-4F-LS	19186	121.4	4F	158W	5000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured

VIPER POLE EXPRESS COMBO – ACCESSORIES

Catalog Number	Description
VM14DB	Vibration Dampener, mounts to top of pole for reduced vibration





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

OUTDOOR LIGHTING CONTROLS OPTIONS CONTROLS FUNCTIONALITY LIGHT GRID⁺ NX[™]

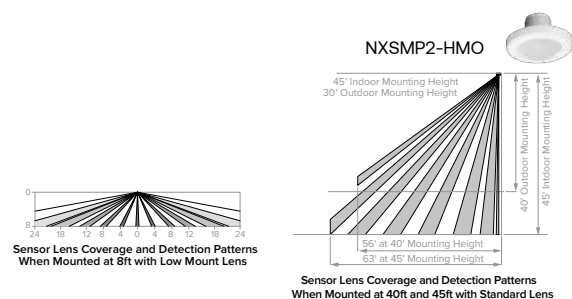
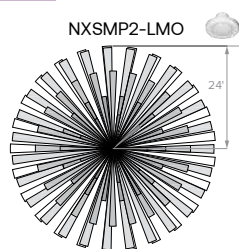
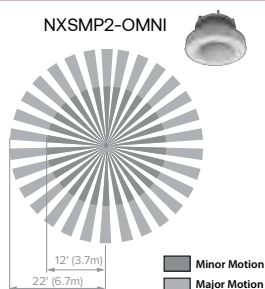
Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components
		Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
NX Wireless	NXOFMIRID-UNV	✓	✓	✓	Paired with external control	✓	✓	✓	✓	-	 NXOFMIRID-UNV
	NXW	✓	✓	✓	-	-	✓	✓	✓	-	 NXRM2-H
	NXWS12F	✓	✓	✓	✓	✓	✓	✓	✓	12ft	 NXSMP2-OMNI-O
	NXWS16F	✓	✓	✓	✓	✓	✓	✓	✓	16ft	 NXSMP2-LMO
	NXWS40F	✓	✓	✓	✓	✓	✓	✓	✓	40ft	 NXSMP2-HMO
LightGRID+	WIR	✓	-	✓	-	-	✓	✓	Gateway	-	 WIR
	WIR-RME-L	✓	-	✓	-	-	✓	✓	Gateway	-	 WIR-RME-L
	WIRSC	✓	✓	✓	✓	✓	✓	✓	Gateway	14ft - 40ft	 BTMSP
Independent	BTSO-12F	-	-	-	✓	✓	✓	✓	✓	12ft	 BTSMP-OMNI-O
	BTS-14F	-	-	-	✓	✓	✓	✓	✓	14ft	 BTSMP-LMO
	BTS-40F	-	-	-	✓	✓	✓	✓	✓	40ft	 BTSMP-HMO

DEFAULT SETTINGS

NX Wireless	Occupancy Sensor	Enabled
	Occupancy Sensor Sensitivity	7
	Occupancy Sensor Timeout	15 Minutes
	Occupied Dim Level	100%
	Unoccupied Dim Level	0%
	Daylight Sensor	Disabled
	Bluetooth	Enabled
	2.4GHz Wireless Mesh	On
	*Passcode Factory Passcode: HubbN3T!	Enabled

Stand Alone	Occupancy Sensor	Enabled
	Occupancy Sensor Sensitivity	7
	Occupancy Sensor Timeout	8 Minutes
	Occupied Dim Level	100%
	Unoccupied Dim Level	50%
	Daylight Sensor	Disabled

NX WIRELESS COVERAGE PATTERNS





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

NX LIGHTING CONTROLS FREE APP

CONTROLS TECH SUPPORT 800-888-8006 (7:00 AM - 7:00 PM)



The NX Lighting Controls App is free to use mobile application for programming both NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enable luminaires and program NX system settings.

Apple App: <https://apps.apple.com/us/app/nx-lighting-controls/id962112904>

Google Play: https://play.google.com/store/apps/details?id=io.cordova.NXBTR&hl=en_US&q=US



Apple App



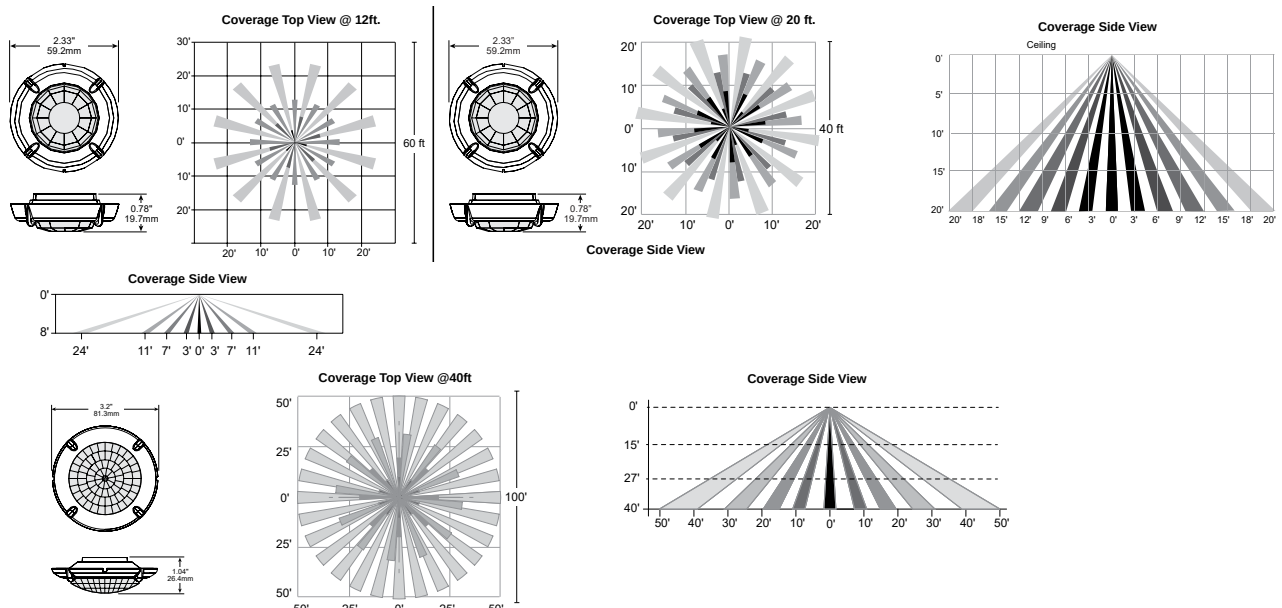
Google Play

OUTDOOR LIGHTING CONTROLS OPTIONS

CONTROLS FUNCTIONALITY

	Control Option Ordering Logic & Description	Control Option Functionality									Control Option Components
		Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
Independent	SCP_F Sensor Control Programmable, 8F or 40F	-	-	-	✓	✓	✓	✓	-	8ft or 40ft	SCP_F
	ADD AutoDIM Timer Based Dimming	-	-	✓	-	-	-	✓	-	-	ADD
	ADT AutoDIM Time of Day Dimming	-	-	✓	-	-	-	✓	-	-	ADT
	7PR 7-Pin Receptacle	-	-	Paired with external control	-	Paired with external control	-	Paired with external control	-	-	7PR
	7PR-SC 7-Pin Receptacle with shorting cap	-	-	-	-	-	-	-	-	-	7PR-SC
	3PR 3-Pin twist lock	-	-	-	-	-	-	Paired with external control	-	-	3PR
	3PR-SC 3-Pin Receptacle with shorting cap	-	-	-	-	-	-	-	-	-	3PR-SC
	3PR-TL 3-Pin with photocontrol	-	-	-	-	✓	-	✓	-	-	3PR-TL

COVERAGE PATTERNS FOR SCP_F





VIPER Area/Site

VIPER LUMINAIRE

PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6 - Delay 6 hours
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50% brightness
Auto-Dim Return	Delay 0-9 Hours	R6 - Return to full output after 6 hours

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6 - Dim at 6PM
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50%
Auto-Dim Return	12-6 AM and 9-11P	R6 - Return to full output at 6AM

DELIVERED LUMENS

For delivered lumens, please see Lumens Data PDF on www.Currentlighting.com

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	0	25,000	*TM-21-11 36,000	50,000	100,000	Calculated L ₇₀ (Hours)
25°C / 77°F	1.00	0.97	0.96	0.95	0.91	408,000
40°C / 104°F	0.99	0.96	0.95	0.94	0.89	356,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature			Micro Strike Lumen Multiplier				Strike Lumen Multiplier			
Ambient Temperature		Lumen Multiplier	CCT	70 CRI	80 CRI	90 CRI	CCT	70 CRI	80 CRI	90 CRI
0°C	32°F	1.03								
10°C	50°F	1.01	2700K	—	0.841	—	2700K	0.9	0.81	0.62
20°C	68°F	1.00	3000K	0.977	0.861	0.647	3000K	0.933	0.853	0.659
25°C	77°F	1.00	3500K	—	0.900	—	3500K	0.959	0.894	0.711
30°C	86°F	0.99	4000K	1	0.926	0.699	4000K	1	0.9	0.732
40°C	104°F	0.98	5000K	1	0.937	0.791	5000K	1	0.9	0.732
			AP-Amber Phosphor Converted Multiplier				Monochromatic Amber Multiplier			
			Amber				Amber			
			0.710				See Amber Spec Sheet			



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ELECTRICAL DATA: MICRO STRIKE

# OF LEDS	160						
NOMINAL WATTAGE	35	50	75	100	115	135	160
SYSTEM POWER (W)	34.9	50.5	72.1	97.2	111.9	132.2	157.8
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	0.29	0.42	0.63	0.83	0.96	1.13	1.33
208	0.17	0.24	0.36	0.48	0.55	0.65	0.77
240	0.15	0.21	0.31	0.42	0.48	0.56	0.67
277	0.13	0.18	0.27	0.36	0.42	0.49	0.58
347	0.10	0.14	0.22	0.29	0.33	0.39	0.46
480	0.07	0.10	0.16	0.21	0.24	0.28	0.33

# OF LEDS	320						
NOMINAL WATTAGE	145	170	185	210	235	255	315
SYSTEM POWER (W)	150	166.8	185.7	216.2	240.9	261.5	312
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	1.21	1.42	1.54	1.75	1.96	2.13	2.63
208	0.70	0.82	0.89	1.01	1.13	1.23	1.51
240	0.60	0.71	0.77	0.88	0.98	1.06	1.31
277	0.52	0.61	0.67	0.76	0.85	0.92	1.14
347	0.42	0.49	0.53	0.61	0.68	0.73	0.91
480	0.30	0.35	0.39	0.44	0.49	0.53	0.66

# OF LEDS	480					
NOMINAL WATTAGE	285	320	340	390	425	470
SYSTEM POWER (W)	286.2	316.7	338.4	392.2	423.2	468
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.38	2.67	2.83	3.25	3.54	3.92
208	1.37	1.54	1.63	1.88	2.04	2.26
240	1.19	1.33	1.42	1.63	1.77	1.96
277	1.03	1.16	1.23	1.41	1.53	1.70
347	0.82	0.92	0.98	1.12	1.22	1.35
480	0.59	0.67	0.71	0.81	0.89	0.98

# OF LEDS	720				
NOMINAL WATTAGE	435	475	515	565	600
SYSTEM POWER (W)	429.3	475	519.1	565.2	599.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	3.63	3.96	4.29	4.71	5.00
208	2.09	2.28	2.48	2.72	2.88
240	1.81	1.98	2.15	2.35	2.50
277	1.57	1.71	1.86	2.04	2.17
347	1.25	1.37	1.48	1.63	1.73
480	0.91	0.99	1.07	1.18	1.25



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ELECTRICAL DATA: STRIKE

# OF LEDS	36				
NOMINAL WATTAGE	39	55	85	105	120
SYSTEM POWER (W)	39.6	56.8	83.6	108.2	120.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	0.33	0.46	0.71	0.88	0.96
208	0.19	0.26	0.41	0.50	0.55
240	0.16	0.23	0.35	0.44	0.48
277	0.14	0.20	0.31	0.38	0.42
347	0.11	0.16	0.24	0.30	0.33
480	0.08	0.11	0.18	0.22	0.24

# OF LEDS	72				
NOMINAL WATTAGE	115	145	180	210	240
SYSTEM POWER (W)	113.7	143.2	179.4	210.2	241.7
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	1.00	1.21	1.50	1.75	1.79
208	0.58	0.70	0.87	1.01	1.03
240	0.50	0.60	0.75	0.88	0.90
277	0.43	0.52	0.65	0.76	0.78
347	0.35	0.42	0.52	0.61	0.62
480	0.25	0.30	0.38	0.44	0.45

# OF LEDS	108				
NOMINAL WATTAGE	215	250	280	325	365
SYSTEM POWER (W)	214.8	250.8	278.3	324.7	362.6
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	2.00	2.08	2.33	3.04	2.67
208	1.15	1.20	1.35	1.75	1.54
240	1.00	1.04	1.17	1.52	1.33
277	0.87	0.90	1.01	1.32	1.16
347	0.69	0.72	0.81	1.05	0.92
480	0.50	0.52	0.58	0.76	0.67

# OF LEDS	162					
NOMINAL WATTAGE	320	365	405	445	485	545
SYSTEM POWER (W)	322.1	362.6	403.6	445.1	487.1	543.9
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.71	2.67	3.38	3.71	4.04	4.54
208	1.56	1.54	1.95	2.14	2.33	2.62
240	1.35	1.33	1.69	1.85	2.02	2.27
277	1.17	1.16	1.46	1.61	1.75	1.97
347	0.94	0.92	1.17	1.28	1.40	1.57
480	0.68	0.67	0.84	0.93	1.01	1.14



VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

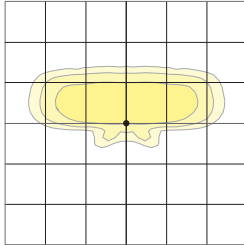
TYPE: _____ PROJECT: _____

CATALOG #: _____

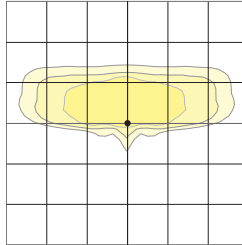
MICRO STRIKE PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

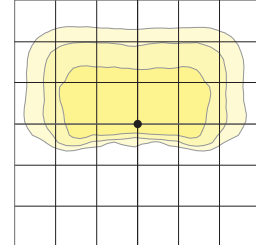
Type 2



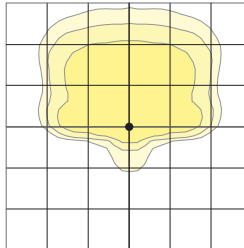
Type 3



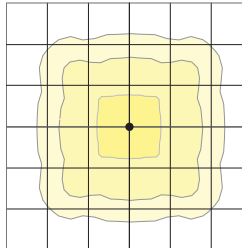
Type 4 Wide



Type 4F



Type 5QW





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

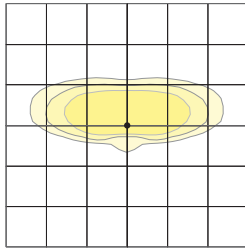
TYPE: _____ PROJECT: _____

CATALOG #: _____

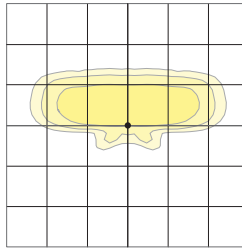
OPTIC STRIKE PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

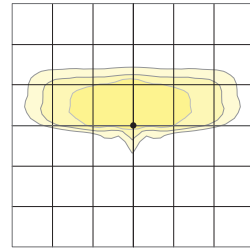
Type FR – Front Row/Auto Optic



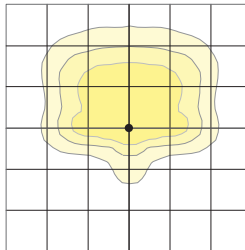
Type 2



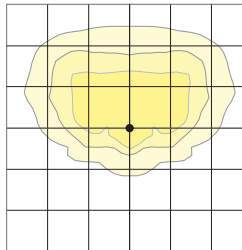
Type 3



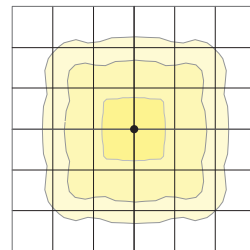
Type 4 Forward



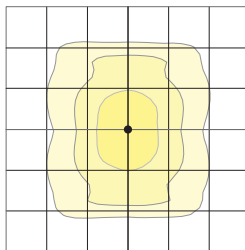
Type 4 Wide



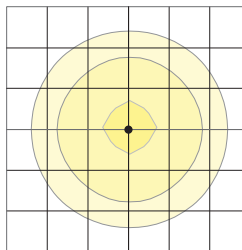
Type 5QM



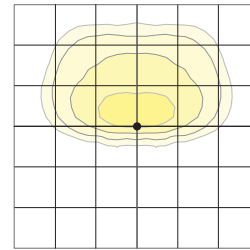
Type 5RW (rectangular)



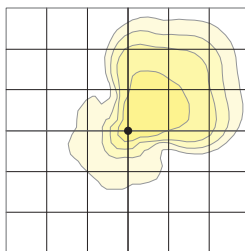
Type 5W (round wide)



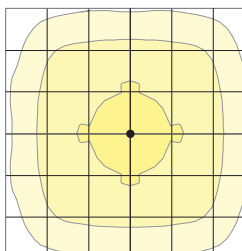
Type TC



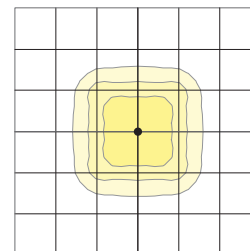
Type Corner



Type 5QW



Type 5QN





VIPER Area/Site

VIPER LUMINAIRE

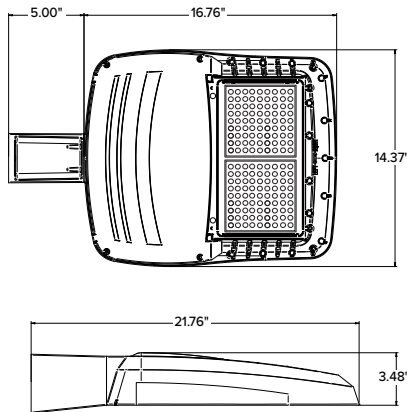
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

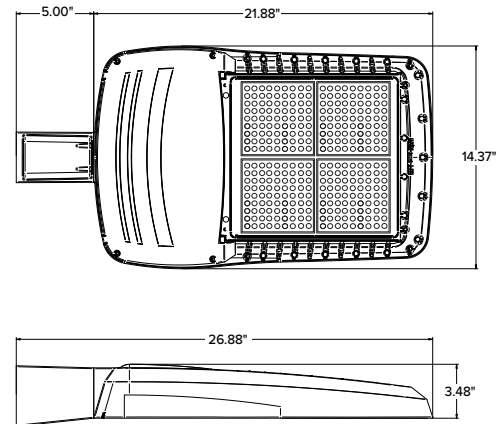
CATALOG #: _____

DIMENSIONS

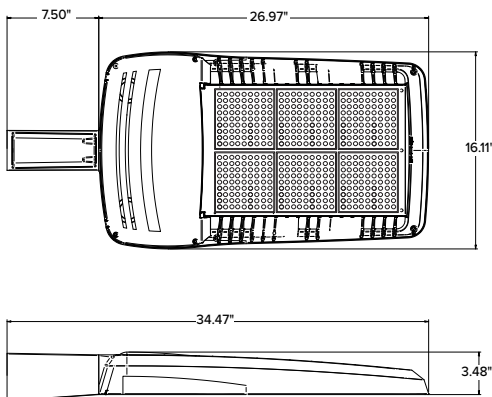
SIZE 1



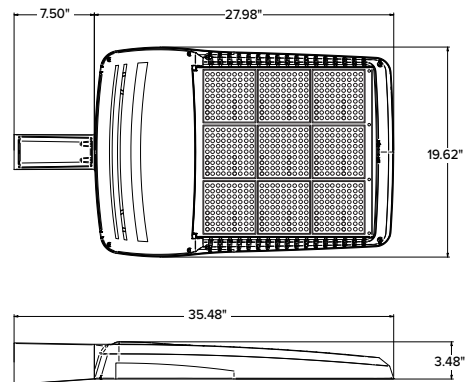
SIZE 2



SIZE 3



SIZE 4



	EPA				Config.
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

	Weight	
	lbs	kgs
VP1 (Size 1)	13.7	6.2
VP2 (Size 2)	16.0	7.26
VP3 (Size 3)	25.9	11.7
VP4 (Size 4)	30.8	13.9



VIPER Area/Site

VIPER LUMINAIRE

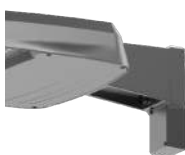
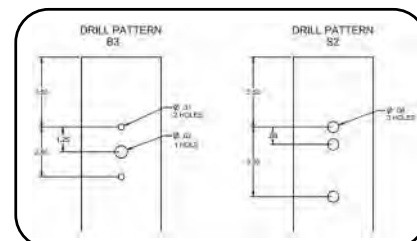
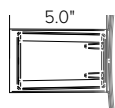
DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

MOUNTING



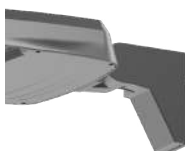
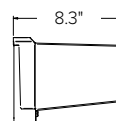
A-STRAIGHT ARM MOUNT

Fixture ships with integral arm for ease of installation. Compatible with Current Outdoor B3 drill pattern for ease of installation on square poles. For round poles add applicable suffix (2/3/4/5)



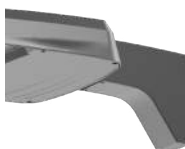
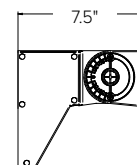
ASQU-UNIVERSAL ARM MOUNT

Universal mounting block for ease of installation. Compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5)



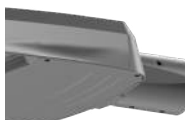
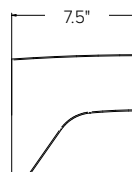
AAU-ADJUSTABLE ARM FOR POLE MOUNTING

Rotatable arm mounts directly to pole. Compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2 and B3. For round poles add applicable suffix (2/3/4/5). Rotatable in 15° aiming angle increments. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



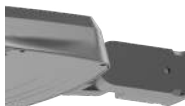
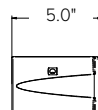
ADU-DECORATIVE UPSWEPT ARM

Upswept Arm compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5).



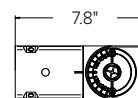
MAF-MAST ARM FITTER

Fits 2-3/8" OD horizontal tenons.



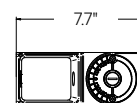
K-KNUCKLE

Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



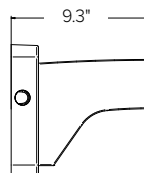
T-TRUNNION

Trunnion for surface and crossarm mounting using (1) 3/4" or (2) 1/2" size through bolts. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



WM-WALL MOUNT

Compatible with universal arm mount, adjustable arm mount, and decorative arm mount. The WA option uses the same wall bracket but replaces the decorative arm with an adjustable arm.





VIPER Area/Site

VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

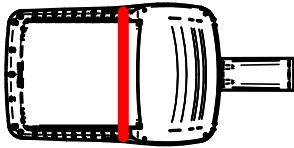
ADDITIONAL INFORMATION (CONTINUED)

HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES

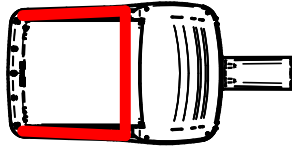
HSS has a depth of 5" for all Viper sizes

Not to be used with Occupancy Sensors as the shield may block the light to the sensor.

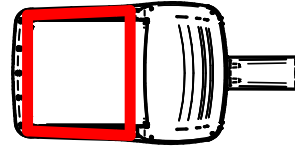
VPR2x HSS-90-B-xx



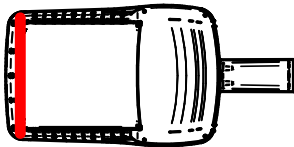
VPR2x HSS-270-BSS-xx



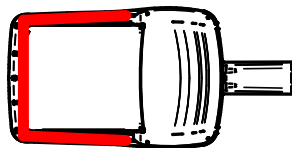
VPR2x HSS-360-xx



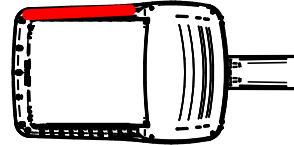
VPR2x HSS-90-F-xx



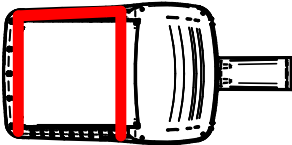
VPR2x HSS-270-FSS-xx



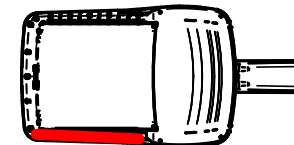
VPR2x HSS-90-S-xx



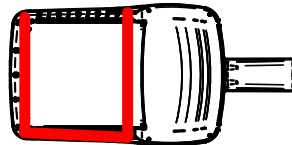
VPR2x HSS-270-FSB-xx



VPR2x HSS-90-S-xx



VPR2x HSS-270-FSB-xx

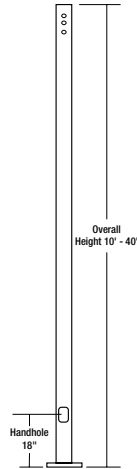




SSS-B Series Poles

SQUARE STRAIGHT STEEL

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____



APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

CONSTRUCTION

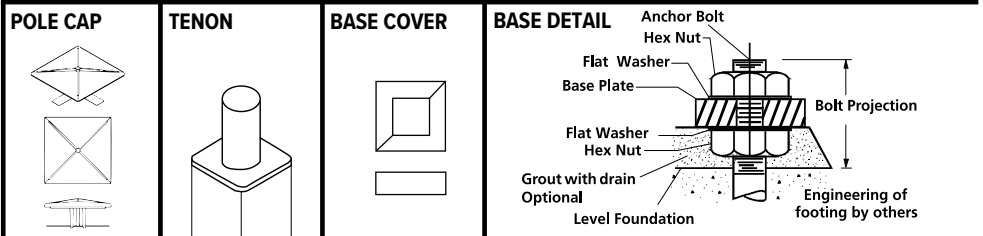
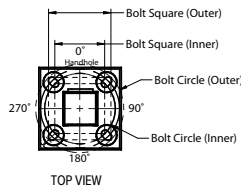
- SHAFT:** One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners; Minimum yield of 46,000 psi (ASTM-A500, Grade B); Longitudinal weld seam to appear flush with shaft side wall; Steel base plate with axial bolt circle slots welded flush to pole shaft having minimum yield of 36,000 psi (ASTM A36)
- BASE COVER:** Two-piece square aluminum base cover included standard
- POLE CAP:** Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- HAND HOLE:** Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS:** Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling
 Anchor bolt part numbers: 3/4 x 30 x 3 — TAB-30-M38
 1 x 36 x 4 — TAB-36-M38

FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in multiple standard colors; Custom colors available; RAL number preferable

WAREHOUSE 'STOCKED' POLES:

- SSSH20-40A-4-HV-DB-RDC, SSSH25-40A-4-HV-DB-RDC and SSSH30-50B-4-HV-DB-RDC
- The HV designation in the above catalog numbers is a combination drill pattern of the Current S2 pattern and the Beacon B3/B4 Viper pattern (rectangular arm mounting)



ORDERING INFORMATION

ORDERING EXAMPLE:

Reference page 2 for available configurations

SSS -B	-	25	-	40	-	A/B/C	-	2L	-	B3	-	BLT	-	UL
SERIES		HEIGHT		SHAFT		THICKNESS		MOUNTING				FINISH		OPTIONS
SSS-B Square Straight Steel Pole Beacon		Reference page 2 Ordering matrix 25		Reference page 2 Ordering matrix 40		Reference page 2 Ordering matrix A		1 Single arm mount 2 Two fixtures at 180° 2L Two fixtures at 90° 3T Three fixtures at 90° 4 Four fixtures at 90° TA Tenon (2.38" OD x 4" Tall) TB Tenon (2.88" OD x 4" Tall) TC Tenon (3.5" OD x 6" Tall) TR Removable Tenon (2.375 x 4.25) OT Open Top (includes pole cap)				BLT Black Matte Textured BLS Black Gloss Smooth DBT Dark Bronze Matte Textured DBS Dark Bronze Gloss Smooth GTT Graphite Matte Textured LGS Light Grey Gloss Smooth PSS Platinum Silver Smooth WHT White Matte Textured WHS White Gloss Smooth VGT Verde Green Textured Color Option CC Custom Color		GFI 20 Amp GFCI Receptacle and Cover EHH Extra Handhole C05 .5" Coupling C07 .75" Coupling C20 2" Coupling MPB Mid-pole Luminaire Bracket VM2 2nd mode vibration damper LAB Less Anchor Bolts UL UL Certified

1

2

2L

3T

3Y

4

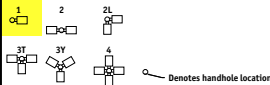
Denotes handhole location

1 Removable tenon used in conjunction with side arm mounting. First specify desired arm configuration followed by the "TR" notation. Example: SSS-B-25-40-A-1-B1-TR-BBT

2 Specify option location using logic found on page 2 (Option Orientation)

3 VMI recommended on poles 20" and taller with EPA of less than 1.

MOUNTING ORIENTATION



- Removable tenon used in conjunction with side arm mounting. First specify desired arm configuration followed by the "TR" notation. Example: SSS-B-25-40-A-1-B1-TR-BBT
- Specify option location using logic found on page 2 (Option Orientation)
- VM1 recommended on poles 20' and taller with EPA of less than 1.

ACCESSORIES - Order Separately

Catalog Number	Description
VM1	1st mode vibration damper
VM2SXX	2nd mode vibration damper

DRILL PATTERN

- B1** Cruiser, "AM" arm
B3 2 bolt (2-1/2" spacing), Viper "A" arm
S2 2 bolt (3-1/2" spacing), Viper "AD" arm



SSS-B Series Poles

SQUARE STRAIGHT STEEL

DATE: LOCATION:

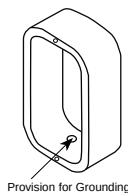
TYPE: PROJECT:

CATALOG #:

ORDERING INFORMATION Cont.

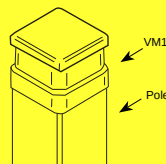
Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle (suggested)	Bolt Circle (range)	Bolt Square (range)	Base Plate Square	Anchor bolt size	Bolt Projection	Pole weight
	Feet	Meters									
SSS-B-10-40-A-XX-XX	10	3.0	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	77
SSS-B-12-40-A-XX-XX	12	3.7	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	90
SSS-B-14-40-A-XX-XX	14	4.3	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	103
SSS-B-16-40-A-XX-XX	16	4.9	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	116
SSS-B-18-40-A-XX-XX	18	5.5	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	129
SSS-B-20-40-A-XX-XX	20	6.1	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	142
SSS-B-25-40-A-XX-XX	25	7.6	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	175
SSS-B-14-40-B-XX-XX	14	4.3	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	152
SSS-B-16-40-B-XX-XX	16	4.9	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	171
SSS-B-18-40-B-XX-XX	18	5.5	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	190
SSS-B-20-40-B-XX-XX	20	6.1	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	209
SSS-B-25-40-B-XX-XX	25	7.6	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	257
SSS-B-30-40-B-XX-XX	30	9.1	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	304
SSS-B-16-50-B-XX-XX	16	4.9	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	219
SSS-B-18-50-B-XX-XX	18	5.5	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	243
SSS-B-20-50-B-XX-XX	20	6.1	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	267
SSS-B-25-50-B-XX-XX	25	7.6	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	327
SSS-B-30-50-B-XX-XX	30	9.1	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	387
SSS-B-25-50-C-XX-XX	25	7.6	5" square	.25"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	427
SSS-B-30-50-C-XX-XX	30	9.1	5" square	.25"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	507
SSS-B-20-60-B-XX-XX	20	6.1	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	329
SSS-B-25-60-B-XX-XX	25	7.6	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	404
SSS-B-30-60-B-XX-XX	30	9.1	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	479
SSS-B-35-60-B-XX-XX	35	10.7	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	554
SSS-B-40-60-B-XX-XX	40	12.2	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	629

NOTE Factory supplied template must be used when setting anchor bolts. Beacon Products will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

EHH - EXTRA HANDHOLE


Provision for Grounding

C05 - C07 - C20 - COUPLING

VM1 - VIBRATION DAMPER 1ST MODE


Field Installed Pole Top damper designed to reduce pole top deflection or sway. VM1 is recommended for pole systems 25' and taller with a total EPA of 1.0 or less.

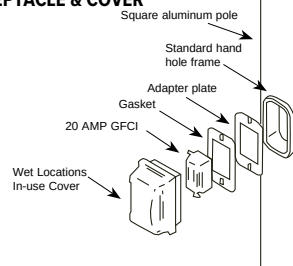
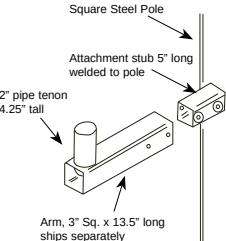
VM2 - VIBRATION DAMPER 2ND MODE


Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

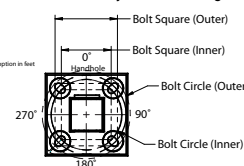
VM2SXX - VIBRATION DAMPER 2ND MODE


VM2S08 - 8'
 VM2S12 - 12'
 VM2S16 - 16'
 VM2S20 - 20'
 VM2S24 - 24'

Field installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

GFI - 20 AMP GFCI RECEPTACLE & COVER

MPB - MID POLE BRACKET

OPTION ORIENTATION

Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option C07 should be ordered as: **SSS-B-20-40-A-TA-DB-C05-0-15** (.5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1" spacing required between option. Consult factory for other configurations.



For more information about pole vibration and vibration dampers, please consult our website.
 Due to our continued efforts to improve our products, product specifications are subject to change without notice.



SSS-B Series Poles

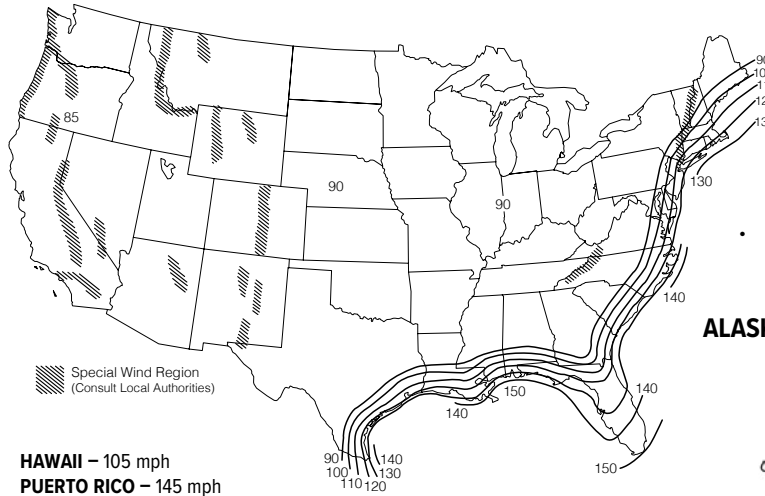
SQUARE STRAIGHT STEEL

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

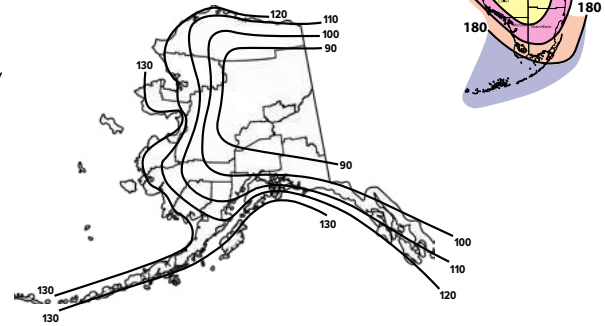
ASCE7-05 WIND MAP



FLORIDA REGION WIND MAP

- Florida region wind map above is based upon 3-second gust winds and the 2017 Florida Building Code

ALASKA REGION WIND MAP



ASCE 7-05 wind map EPA Load Rating - 3 second gust wind speeds (Use for all locations except Florida)										
Catalog Number	85	90	100	105	110	120	130	140	145	150
SSS-B-10-40-A	25.0	25.0	25.0	22.8	20.6	17.0	14.2	11.9	11.0	10.1
SSS-B-12-40-A	25.0	25.0	20.0	18.0	16.1	13.2	10.8	8.9	8.1	7.4
SSS-B-14-40-A	23.1	20.4	16.1	14.3	12.8	10.2	8.2	6.6	5.9	5.3
SSS-B-16-40-A	19.0	16.7	13.0	11.5	10.1	7.9	6.2	4.7	4.1	3.6
SSS-B-18-40-A	15.6	13.6	10.0	9.0	7.8	5.9	4.4	3.1	2.6	2.1
SSS-B-20-40-A	12.7	10.9	7.9	6.9	5.9	4.2	2.8	1.7	1.3	0.9
SSS-B-25-40-A	7.3	5.9	3.8	2.9	2.1	0.8	NR	NR	NR	NR
SSS-B-14-40-B	25.0	25.0	23.3	20.8	18.6	15.1	12.3	10.2	9.2	8.4
SSS-B-16-40-B	25.0	24.9	19.4	17.3	15.4	12.3	9.9	8.0	7.2	6.4
SSS-B-18-40-B	24.0	20.8	16.1	14.2	12.5	9.8	7.7	6.1	5.3	4.7
SSS-B-20-40-B	20.2	17.5	13.2	11.6	10.1	7.7	5.9	4.4	3.8	3.2
SSS-B-25-40-B	12.8	11.0	7.9	6.7	5.5	3.7	2.3	1.2	0.7	NR
SSS-B-30-40-B	8.0	6.6	4.1	3.1	2.2	0.8	NR	NR	NR	NR
SSS-B-16-50-B	25.0	25.0	25.0	25.0	24.8	20.1	16.5	13.6	12.3	11.2
SSS-B-18-50-B	25.0	25.0	25.0	22.9	20.4	16.4	13.2	10.7	9.6	8.6
SSS-B-20-50-B	25.0	25.0	21.3	18.9	16.7	13.2	10.4	8.1	7.2	6.3
SSS-B-25-50-B	20.7	17.8	13.3	11.5	9.8	7.2	5.0	3.3	2.6	1.9
SSS-B-30-50-B	13.5	11.3	7.7	6.2	4.9	2.8	1.1	NR	NR	NR
SSS-B-25-50-C	25.0	25.0	19.4	17.1	15.1	11.7	9.0	6.9	6.0	5.1
SSS-B-30-50-C	20.1	17.3	12.7	10.9	9.3	6.6	4.5	2.8	2.1	1.4
SSS-B-20-60-B	25.0	25.0	25.0	25.0	25.0	20.2	16.1	12.9	11.5	10.3
SSS-B-25-60-B	25.0	25.0	20.6	18.0	15.6	11.8	8.7	6.2	5.2	4.2
SSS-B-30-60-B	21.4	18.1	12.9	10.7	8.8	5.7	3.3	1.3	NR	NR
SSS-B-35-60-B	14.0	11.3	6.9	5.2	3.6	1.0	NR	NR	NR	NR
SSS-B-40-60-B	8.1	5.8	2.2	nr	NR	NR	NR	NR	NR	NR

Florida Building Code 2017 EPA Load Rating - 3 second gust wind speeds (Use for Florida only)									
Catalog Number	115	120	130	140	150	160	170	180	
SSS-B-10-40-A	25.0	25.0	25.0	25.0	21.4	18.4	15.9	13.9	
SSS-B-12-40-A	25.0	25.0	23.6	19.8	16.7	14.2	12.1	10.4	
SSS-B-14-40-A	25.0	23.1	19.0	15.7	13.1	10.9	9.1	7.6	
SSS-B-16-40-A	20.8	18.7	15.2	12.3	10.1	8.2	6.7	5.4	
SSS-B-18-40-A	16.8	15.0	11.9	9.4	7.5	5.9	4.5	3.4	
SSS-B-20-40-A	13.6	11.9	9.2	7.1	5.3	3.9	2.7	1.7	
SSS-B-25-40-A	7.4	6.2	4.1	2.5	1.1	NR	NR	NR	
SSS-B-14-40-B	25.0	23.6	19.4	16.1	13.4	11.2	9.4	7.8	
SSS-B-16-40-B	21.4	19.2	15.6	12.7	10.4	8.5	6.9	5.6	
SSS-B-18-40-B	17.2	15.4	12.2	9.7	7.7	6.1	4.7	3.6	
SSS-B-20-40-B	13.9	12.3	9.5	7.3	5.5	4.1	2.9	1.9	
SSS-B-25-40-B	7.7	6.4	4.3	2.6	1.3	NR	NR	NR	
SSS-B-30-40-B	3.2	2.1	NR	NR	NR	NR	NR	NR	
SSS-B-16-50-B	25.0	25.0	25.0	25.0	25.0	21.4	18.2	15.5	
SSS-B-18-50-B	25.0	25.0	25.0	24.4	20.4	17.0	14.2	11.9	
SSS-B-20-50-B	25.0	25.0	24.4	19.9	16.3	13.4	11.0	8.9	
SSS-B-25-50-B	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1	
SSS-B-30-50-B	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR	
SSS-B-25-50-C	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1	
SSS-B-30-50-C	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR	
SSS-B-20-60-B	25.0	25.0	25.0	21.9	17.8	14.5	11.7	9.4	
SSS-B-25-60-B	23.8	20.9	16.1	12.3	9.2	6.6	4.5	2.8	
SSS-B-30-60-B	14.6	12.3	8.4	5.3	2.8	0.8	NR	NR	
SSS-B-35-60-B	7.5	5.6	2.4	NR	NR	NR	NR	NR	
SSS-B-40-60-B	1.8	NR	NR	NR	NR	NR	NR	NR	

Submitted by Swaney Lighting	Job Name: MARTIN'S POINT VERANDA CAMPUS	Catalog Number: SSSB25-40A-2-B3-DBT-VM1 Notes:	Type: B5 SLA23-57244
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SSS-B Series Poles

SQUARE STRAIGHT STEEL

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

NOTES

Wind-speed Website disclaimer:

Current has no connection to the linked website and makes no representations as to its accuracy. While the information presented on this third-party website provides a useful starting point for analyzing wind conditions, Current has not verified any of the information on this third party website and assumes no responsibility or liability for its accuracy. The material presented in the windspeed website should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. Current does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the windspeed report provided by this website. Users of the information from this third party website assume all liability arising from such use. Use of the output of these referenced websites do not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the windspeed report. <http://windspeed.atcouncil.org>

NOTES

- Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
- The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
- Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
- Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings.
- Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

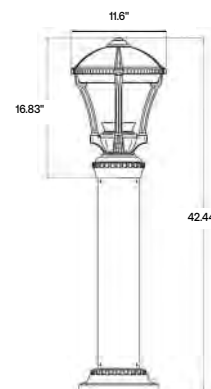

PROB
 BOLLARD

 DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

Providence® Bollard

FEATURES

- Reliable uniform illumination
- True IES Type 2, 3, 4, and 5 distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimmable
- 20kV/10kA surge suppression
- Thermal protection



	Weight
PROB	27 lbs / 12 kg

SPECIFICATIONS

HOUSING

- Luminaire shall have discrete optical and gear compartments that do not share any physical housings
- All housing components shall be die-cast aluminum, sealed with continuous silicone rubber gaskets
- Standard configurations shall have a clear flat tempered glass lens
- All internal and external hardware shall be stainless steel
- Optical bezel finish shall match the luminaire housing
- Luminaire finish shall consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish
- Luminaire finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance

LED/OPTICS

- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features
- LED optics shall be clear injection molded PMMA acrylic
- MCPCB and optic shall be sealed to a die-cast anodized aluminum heat sink with an injection molded silicone rubber gasket. IP66

INSTALLATION

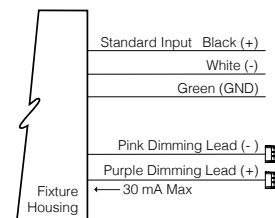
- Fixture shall slip over two 12" x 10" x 2" anchor bolts supported by hex nuts and washers to level fixture. Provision for water drainage at footing is recommended
- One-piece cast aluminum arms accept the standard 3" slip fitter on the Providence fixture
- Arms are prewired with quick disconnects
- Wall mounted arms do not include wall mounting hardware
- Pole mounted arms use 3/8-16 hardware bolts for attaching to the pole
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal
- Luminaire shall have tool-less service access to the gear compartment. Driver and surge suppressor shall be mounted to a prewired tray with quick disconnects that may be removed from the gear compartment

ELECTRICAL

- Luminaires shall have integral surge protection that shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J
- Drivers shall be U.L. recognized with an inrush current maximum of <20.0 Amps maximum at 230VAC
- Drivers shall not be compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems, approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV

ELECTRICAL (CONTINUED)

- Luminaires not configured with an optional control system shall be provided with 0-10V purple and pink dimming leads



CERTIFICATIONS

- Luminaire shall be listed with ETL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250
- IDA approved, 3000K and warmer CCTs only

WARRANTY

- 5 year warranty

Submitted by Swaney Lighting		Catalog Number: PROB-Y5-2030-DBT-RD-BOLTS AHEAD-WIRED120-277V Notes:	Type: BO SLA23-57244
	Job Name: MARTIN'S POINT VERANDA CAMPUS		



DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: PROB-Y2-2040-LDL-BLT

CATALOG #

Model	Distribution	Lumen Package	Color
PROB Providence Bollard LED	Y2 Type 2	2030 3000K CCT, 25 watts	BLS Black Gloss Smooth
	Y3 Type 3	2040 4000K CCT, 25 watts	BLT Black Matte Textured
	Y4 Type 4	2050 5000K CCT, 25 watts	DBS Dark Bronze Gloss Smooth
	Y5 Type 5	3030 3000K CCT, 43 watts	DBT Dark Bronze Matte Textured
		3040 4000K CCT, 43 watts	GTT Graphite Matte Texture
		3050 5000K CCT, 43 watts	LGS Light Grey Gloss Smooth
			LGT Light Grey Matte Textured
			PSS Platinum Silver Gloss Smooth
			VGT Verde Green Matte Textured
			WHS White Gloss Smooth
			WHT White Matte Textured
			CC Custom Color †

Options	Mounting
FS1 Fusing	FL Fluted Shaft 5" DIA.
DSC Dark Sky Cap	RD Round Shaft 5" DIA.
PFC Brass Painted Finial	PM Pier Mount
BPS Brass Painted Struts	
LDL Lightly Diffused Lens	

Notes:
1 Consult factory for custom color, marine and corrosive finish

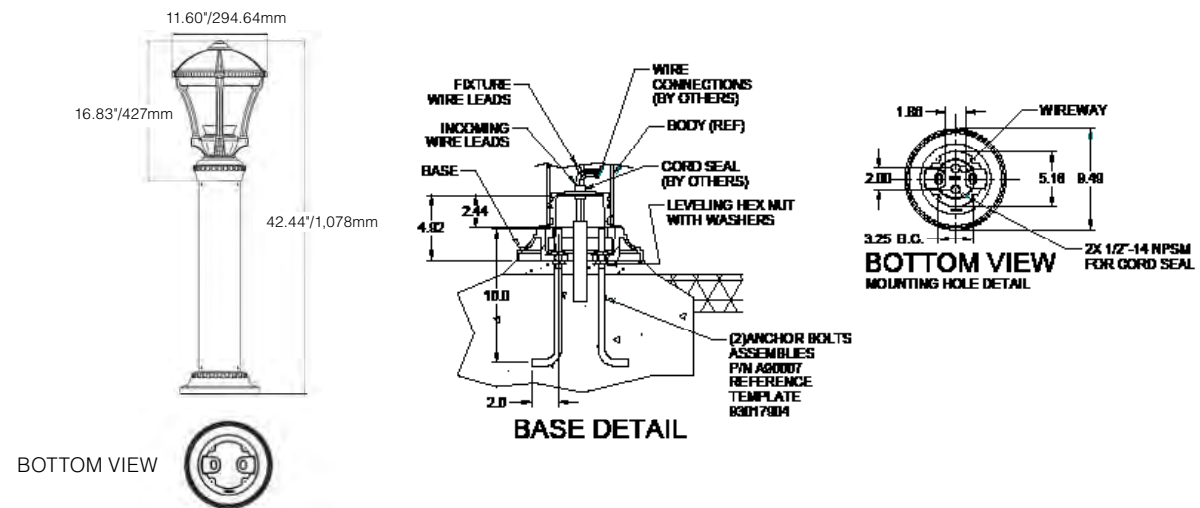


DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

DELIVERED LUMENS

Light Engine	Lensing	Distribution	Ordering Code	Average System Watts	3000K 70CRI					4000K 70CRI					5000K 70CRI				
					Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)
						B	U	G			B	U	G			B	U	G	
					2030					2040					2050				
2000 Series	Clear Lens (Standard)	Type 2	Y2	25	1792	1	0	1	71	1957	1	0	1	78	1951	1	0	1	78
		Type 3	Y3		1830	1	0	1	73	1970	1	0	1	78	1958	1	0	1	78
		Type 4	Y4		1793	1	0	1	71	1957	1	0	1	78	1960	1	0	1	78
		Type 5	Y5		1735	1	0	1	65	1894	1	0	1	76	1989	1	0	1	76
	Lightly Diffused Lens	Type 2	Y2 LDL		1216	1	1	1	49	1361	1	1	1	54	1387	0	1	1	56
		Type 3	Y3 LDL		1216	1	1	1	50	1361	1	1	1	56	1386	1	1	1	57
		Type 4	Y4 LDL		1170	1	2	1	47	1309	1	2	1	52	1334	1	2	1	53
		Type 5	Y5 LDL		1139	1	1	1	46	1275	1	1	1	51	1299	1	1	1	52
								3030					3040					3050	
3000 Series	Clear Lens (Standard)	Type 2	Y2	43	2975	1	0	1	69	3247	1	0	1	76	3238	1	0	1	75
		Type 3	Y3		3038	1	1	1	70	3270	1	0	1	76	3261	1	0	1	75
		Type 4	Y4		2988	1	0	1	69	3262	1	0	1	76	3253	1	0	1	75
		Type 5	Y5		2892	2	0	1	67	3157	2	0	1	73	3148	2	0	1	73
	Lightly Diffused Lens	Type 2	Y2 LDL		2092	1	1	1	49	2342	1	1	1	54	2386	1	1	1	56
		Type 3	Y3 LDL		2091	1	1	1	50	2341	1	1	1	56	2385	1	1	1	57
		Type 4	Y4 LDL		2012	1	2	1	47	2252	1	2	1	52	2295	1	2	1	53
		Type 5	Y5 LDL		1959	1	1	1	46	2193	1	1	1	51	2234	1	1	1	52

DIMENSIONS





DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

LED COLOR

Value	Ordering Code		
	XX30	XX40	XX50
CCT Average	3000K	4000K	5000K
CRI Minimum	70	70	70
S/P Ratio	1.22	1.5	1.8

ELECTRICAL CHARACTERISTICS

Configuration	Driver								Inrush Current Peak				Dimming		
Ordering Code	LED Current (mA)	System Wattage (W)	Line Voltage		Amps AC		Min. Power Factor	Max THD (%)	Operating Temp. Range	120V		277V		Dimming Range (V)	Source/ Sink Current (mA)
			VAC	HZ	120	277				Ipeak (A)		Ipeak (A)			
20XX	255	25	120-277	50/60	0.21	0.09	>0.9	20	-40°C To +55°C	21	160 uS	49	160 uS	10% TO 100%	1mA
30XX	400	42			0.35	0.15									

TM-21 LIFETIME CALCULATION (500MA)

Optical System	Ordering Code	Ambient Environment °C	Projected Lumen Maintenance (Khrs)						Reported L70
			15	25	50	60 (TM-21)	100		
MicroCore	32LED	15	100%	99%	99%	98%	97%		>96Khrs.
		25	99%	99%	98%	97%	95%		
		40	98%	97%	94%	93%	89%		

Consult factory for Amber, Turtle Friendly, Gulf Coast and Observatory applications.

**PROV2**

ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

FEATURES

- Reliable, uniform, glare free illumination
- Types 1, 2, 3, 4W, 5Q, and 5W distributions
- Amber, 3000K, 4000K, 5000K CCT
- 0-10V dimming ready
- Integral Surge protection: 10k in parallel, 20k in series
- Upgrade Kits

PROVIDENCE®

Providence Medium

**SPECIFICATIONS****CONSTRUCTION**

- All housing components aluminum 360 alloy, sealed with continuous silicone rubber gaskets
- Standard configurations do not require a flat lens, optional lenses are tempered glass
- All internal and external hardware is stainless steel
- Finish: fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat
- Optical bezel finish to match the luminaire housing

LED/OPTICS

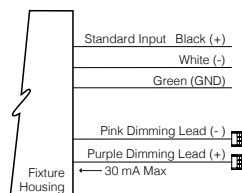
- Optical cartridge system consisting of a die cast heat sink, LED engine, TIR optics, gasket and bezel plate
- Optics are held in place without the use of adhesives
- Molded silicone gasket ensures a weather-proof seal around each individual LED.
- Features individual LED optical control based on high performance TIR optical designs
- House Side Shield is available on Standard and Clear Lens options except any Type 5 distribution. House Side Shield is not available for any distribution using a Diffused Lens

INSTALLATION

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

ELECTRICAL

- Luminaires have UL recognized integral surge protection, and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J
- Drivers are UL recognized with an inrush current maximum of <20.0 Amps maximum at 230VAC
- 100%-1% dimming range. Fixture will be wired for low voltage 0-10V dimming control



- Driver and surge suppressor are mounted to a prewired tray with quick disconnects that may be removed from the gear compartment
- Surge protection: 10,000k in parallel, 20,000k in series

CONTROLS

- Egress adapter(s) will slip over a 4"/100mm DIA. pole with the luminaire or arm slipping over the adapter to add a total of 4.5"/114mm to the overall height. Adapter(s) are prewired, independently rotatable 359°, and have a cast access cover with an integral lens and lanyard

CONTROLS (CONTINUED)

- Egress adapter will require an auxiliary 120 volt supply for operation of an integral MR16 lamp in the event of emergency. The lamp may be aimed and locked into position with an adjustment range of 15°-45°. Adapter will have a socket that accepts miniature bi-pin MR16 lamps up to 50 watts, lamp by others
- Photocell adapter includes a 7-Pin internal twist lock receptacle. Photocell by others

CERTIFICATIONS

- ETL listed under UL 1598 and CSA C22.2 No. 250.0-08 for wet locations
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 5/29/2020

WARRANTY

- 5 year warranty

KEY DATA	
LUMEN RANGE	1,81–9,336
WATTAGE RANGE	31.52–71.6
EFFICACY RANGE (LPW)	44.9–118.9
INPUT CURRENT RANGE (mA)	295–615 mA
WEIGHT	29 lbs / 13.15 kg
EPA	1.33

Submitted by Swaney Lighting



Job Name:
MARTIN'S POINT VERANDA CAMPUS

Catalog Number:
PROV2-36L-510-3K7-4W-DBT-STND MNT-UNV
Notes:

Type:

P4

SLA23-57244



DATE:
LOCATION:

TYPE:
PROJECT:

CATALOG #:

ORDERING GUIDE

Example: PROV2-36L-325-3K7-4W-BL-SLA1-DF-HS-AD5-UNV

CATALOG #

HOUSING

PROV2									
Housing		LED Quantity		Lumen output		CCT/CRI		Distribution	Finish
PROV2 Providence Medium 2.0		36L 36 LED	295	450mA Microcore Equivalent	AMB	Amber-595nm Peak ¹	1	Type I	BLS Black Gloss Smooth
			325	325mA, 4500 Lumens	3K7	3000K, 70 CRI	2	Type II	BLT Black Matte Textured
			510	510mA, 6500 Lumens	4K7	4000K, 70 CRI	3	Type III	DBS Dark Bronze Gloss Smooth
			525	700mA Microcore Equivalent	5K7	5000K, 70 CRI	4W	Type IV Wide	DBT Dark Bronze Matte Textured
			615	615mA, 7500 Lumens	Contact factory for options listed below 27K8 2700K, 80 CRI 80 or 90 CRI for standard color temperatures		5Q	Type V Square	GTT Graphite Matte Textured
			5W	Type V Wide			LGS Light Grey Gloss Smooth		
									LGT Light Grey Matte Textured
									PSS Platinum Silver Gloss Smooth
									VGT Verde Green Matte Textured
									WHS White Gloss Smooth
						WHT White Matte Textured			
								Color Option	
								CC ² Custom Color	



DATE: _____	LOCATION: _____
TYPE: _____	PROJECT: _____
CATALOG #: _____	

DELIVERED LUMENS

The table below shows the delivered lumens for the various lumen outputs and beam distributions. Use this chart in connection with the lumen factor (LF) capability to deliver any output required.

LED #	Drive Current	Lumen Package	Lens	Distribution	3000K 70CRI					4000K 70CRI					5000K 70CRI				
					Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)
36	295	450mA Microcore Equivalent	None	1	3807	1	0	1	111.6	3960	1	0	1	116.1	4128	1	0	1	121.0
				2	3596	1	0	1	105.4	3740	1	0	1	109.7	3899	1	0	1	114.3
				3	3471	1	0	1	101.8	3611	1	0	1	105.9	3764	1	0	1	110.4
				4W	3501	1	0	1	102.7	3642	1	0	1	106.8	3796	1	0	1	111.3
				1-HS	2355	0	0	1	69.1	2450	0	0	1	71.8	2554	0	0	1	74.9
				2-HS	2049	0	0	1	60.1	2132	0	0	1	62.5	2222	0	0	1	65.2
				3-HS	1981	0	0	1	58.1	2061	0	0	1	60.4	2148	0	0	1	63.0
				4W-HS	2044	0	0	1	59.9	2126	0	0	1	62.3	2216	0	0	1	65.0
				5Q	3818	2	0	1	112.0	3971	2	0	1	116.5	4140	2	0	1	121.4
				5W	3529	2	0	1	103.5	3670	2	0	1	107.6	3826	2	0	1	112.2
			Clear	1-CL	3242	1	0	1	95.0	3373	1	0	1	98.8	3516	1	0	1	103.0
				2-CL	3062	1	0	1	89.7	3186	1	0	1	93.3	3321	1	0	1	97.3
				3-CL	2957	1	0	1	86.6	3075	1	0	1	90.1	3206	1	0	1	93.9
				4W-CL	2982	1	0	1	87.4	3102	1	0	1	90.9	3233	1	0	1	94.7
				1-CL-HS	2006	0	0	1	58.8	2087	0	0	1	61.1	2175	0	0	1	63.7
				2-CL-HS	1746	0	0	1	51.1	1816	0	0	1	53.2	1893	0	0	1	55.5
				3-CL-HS	1688	0	0	1	49.4	1755	0	0	1	51.4	1830	0	0	1	53.6
				4W-CL-HS	1740	0	0	1	51.0	1810	0	0	1	53.0	1887	0	0	1	55.3
			5Q-CL	3252	2	0	1	95.3	3382	2	0	1	99.1	3526	2	0	1	103.3	
			5W-CL	3005	2	0	1	88.1	3126	2	0	1	91.6	3259	2	0	1	95.5	
			Diffused	3-DL	2243	1	0	1	65.8	2334	1	0	1	68.4	2433	1	0	1	71.3
				5W-DL	2280	1	0	1	66.9	2372	1	0	1	69.6	2473	1	0	1	72.5
	325	4500	None	1	4147	1	0	1	110	4313	1	0	1	114	4496	1	0	1	118.9
				2	3917	1	0	1	104	4074	1	0	1	108	4247	1	0	1	112.3
				3	3781	1	0	1	100	3933	1	0	1	104	4100	1	0	1	108.4
				4W	3813	1	0	1	101	3967	1	0	2	105	4135	1	0	2	109.3
				1-HS	2566	0	0	1	68	2669	0	0	1	71	2782	0	0	1	73.6
				2-HS	2232	0	0	1	59	2322	0	0	1	61	2421	0	0	1	64.0
				3-HS	2158	0	0	1	57	2245	0	0	1	59	2340	0	0	1	61.9
				4W-HS	2226	0	0	1	59	2315	0	0	1	61	2414	0	0	1	63.8
				5Q	4158	2	0	1	110	4326	2	0	1	114	4509	2	0	1	119.2
				5W	3844	2	0	1	102	3998	2	0	1	106	4168	3	0	1	110.2
			Clear	1-CL	3532	1	0	1	93.4	3674	1	0	1	97.1	3829	1	0	1	101.3
				2-CL	3336	1	0	1	88.2	3470	1	0	1	91.7	3617	1	0	1	95.6
				3-CL	3220	1	0	1	85.2	3350	1	0	1	88.6	3492	1	0	1	92.3
				4W-CL	3248	1	0	1	85.9	3379	1	0	1	89.3	3522	1	0	1	93.1
				1-CL-HS	2185	0	0	1	57.8	2273	0	0	1	60.1	2369	0	0	1	62.6
				2-CL-HS	1901	0	0	1	50.3	1978	0	0	1	52.3	2062	0	0	1	54.5
				3-CL-HS	1838	0	0	1	48.6	1912	0	0	1	50.6	1993	0	0	1	52.7
				4W-CL-HS	1896	0	0	1	50.1	1972	0	0	1	52.1	2056	0	0	1	54.4
				5Q-CL	3542	2	0	1	93.6	3684	2	0	1	97.4	3840	2	0	1	101.5
				5W-CL	3274	2	0	1	86.6	3405	2	0	1	90.0	3550	2	0	1	93.9
			Diffused	3-DL	2459	1	0	1	65.0	2558	1	0	1	67.7	2666	1	0	1	70.7
				5W-DL	2469	1	0	1	65.3	2568	1	0	1	67.9	2677	1	0	1	70.9


PROV2
ARCHITECTURAL AREA/SITE

DATE: | LOCATION:
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DELIVERED LUMENS (CONTINUED)

The table below shows the delivered lumens for the various lumen outputs and beam distributions. Use this chart in connection with the lumen factor (LF) capability to deliver any output required.

LED #	Drive Current	Lumen Package	Lens	Distribution	3000K 70CRI				4000K 70CRI				5000K 70CRI						
					Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)
36	510	6500	None	1	6081	1	0	1	104.1	6326	1	0	1	108	6594	1	0	1	113
				2	5744	1	0	1	98.3	5975	1	0	1	102	6228	1	0	1	107
				3	5545	1	0	2	94.9	5768	1	0	2	99	6013	1	0	2	103
				4W	5593	1	0	2	95.7	5818	1	0	2	100	6064	1	0	2	104
				1-HS	3763	0	0	1	64.4	3914	0	0	1	67	4080	0	0	1	70
				2-HS	3274	0	0	1	56.1	3406	0	0	1	58	3550	0	0	1	61
				3-HS	3165	0	0	1	54.2	3292	0	0	1	56	3432	0	0	1	59
				4W-HS	3265	0	0	1	55.9	3396	0	0	1	58	3540	0	0	1	61
				5Q	6099	2	0	1	104.4	6344	2	0	1	109	6613	3	0	1	113
				5W	5637	3	0	1	96.5	5864	3	0	1	100	6112	3	0	1	105
			Clear	1-CL	5180	1	0	1	88.7	5388	1	0	1	92.2	5616	1	0	1	96.2
				2-CL	4892	1	0	1	83.8	5089	1	0	1	87.1	5305	1	0	1	90.8
				3-CL	4723	1	0	1	80.9	4913	1	0	1	84.1	5121	1	0	1	87.7
				4W-CL	4763	1	0	2	81.6	4955	1	0	2	84.8	5165	1	0	2	88.4
				1-CL-HS	3205	0	0	1	54.9	3334	0	0	1	57.1	3475	0	0	1	59.5
				2-CL-HS	2788	0	0	1	47.7	2901	0	0	1	49.7	3024	0	0	1	51.8
				3-CL-HS	2696	0	0	1	46.2	2804	0	0	1	48.0	2923	0	0	1	50.0
				4W-CL-HS	2780	0	0	1	47.6	2892	0	0	1	49.5	3015	0	0	1	51.6
				5Q-CL	5194	2	0	1	88.9	5403	2	0	1	92.5	5632	2	0	1	96.4
				5W-CL	4801	3	0	1	82.2	4994	3	0	1	85.5	5206	3	0	1	89.1
	Diffused	3-DL	3584	1	0	1	61.4	3728	1	0	1	63.8	3886	1	0	1	66.5		
		5W-DL	3615	2	0	1	61.9	3760	2	0	1	64.4	3919	2	0	1	67.1		
	525	None	700mA Microcore Equivalent	1	6235	1	0	1	103.6	6486	1	0	1	107.7	6761	1	0	1	112.3
				2	5889	1	0	1	97.8	6126	1	0	1	101.8	6386	1	0	1	106.1
				3	5686	1	0	2	94.4	5914	1	0	2	98.2	6165	1	0	2	102.4
				4W	5734	1	0	2	95.3	5965	1	0	2	99.1	6218	1	0	2	103.3
				1-HS	3858	0	0	1	64.1	4013	0	0	1	66.7	4183	0	0	1	69.5
				2-HS	3357	0	0	1	55.8	3492	0	0	1	58.0	3640	0	0	1	60.5
				3-HS	3245	0	0	1	53.9	3376	0	0	1	56.1	3519	0	0	1	58.5
				4W-HS	3347	0	0	1	55.6	3482	0	0	1	57.8	3629	1	0	1	60.3
				5Q	6253	2	0	1	103.9	6504	2	0	1	108.0	6780	3	0	1	112.6
				5W	5779	3	0	1	96.0	6012	3	0	1	99.9	6267	3	0	1	104.1
		Clear	1-CL	5311	1	0	1	88.2	5524	1	0	1	91.8	5758	1	0	1	95.7	
			2-CL	5016	1	0	1	83.3	5218	1	0	1	86.7	5439	1	0	1	90.3	
			3-CL	4842	1	0	1	80.4	5037	1	0	2	83.7	5251	1	0	2	87.2	
			4W-CL	4884	1	0	2	81.1	5080	1	0	2	84.4	5296	1	0	2	88.0	
			1-CL-HS	3286	0	0	1	54.6	3418	0	0	1	56.8	3563	0	0	1	59.2	
			2-CL-HS	2859	0	0	1	47.5	2974	0	0	1	49.4	3100	0	0	1	51.5	
			3-CL-HS	2764	0	0	1	45.9	2875	0	0	1	47.8	2997	0	0	1	49.8	
			4W-CL-HS	2851	0	0	1	47.4	2965	0	0	1	49.3	3091	0	0	1	51.3	
5Q-CL			5326	2	0	1	88.5	5540	2	0	1	92.0	5775	2	0	1	95.9		
5W-CL			4922	3	0	1	81.8	5120	3	0	1	85.1	5337	3	0	1	88.7		
Diffused	3-DL	3675	1	0	1	61.0	3822	1	0	1	63.5	3984	1	0	1	66.2			
	5W-DL	3735	2	0	1	62.0	3885	2	0	1	64.5	4050	2	0	1	67.3			

Current

currentlighting.com/aal

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aal_prov2led_spec_R02

Submitted On: Dec 20, 2023

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PROV2

ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____
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DELIVERED LUMENS (CONTINUED)

The table below shows the delivered lumens for the various lumen outputs and beam distributions. Use this chart in connection with the lumen factor (LF) capability to deliver any output required.

LED #	Drive Current	Lumen Package	Lens	Distribution	3000K 70CRI					4000K 70CRI					5000K 70CRI				
					Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)
36	615	7500	None	1	7118	1	0	1	101.3	7404	1	0	1	105.4	7718	1	0	1	109.9
				2	6723	1	0	1	95.7	6994	1	0	2	99.6	7290	1	0	2	103.8
				3	6491	1	0	2	92.4	6752	1	0	2	96.1	7038	1	0	2	100.2
				4W	6546	1	0	2	93.2	6809	1	0	2	96.9	7098	1	0	2	101.0
				1-HS	4404	0	0	1	62.7	4581	0	0	1	65.2	4775	0	0	1	68.0
				2-HS	3832	0	0	1	54.5	3986	0	0	1	56.7	4155	0	0	1	59.1
				3-HS	3705	0	0	1	52.7	3854	0	0	1	54.9	4017	0	0	1	57.2
				4W-HS	3821	1	0	1	54.4	3975	1	0	1	56.6	4143	1	0	1	59.0
				5Q	7138	3	0	1	101.6	7425	3	0	1	105.7	7740	3	0	1	110.2
			Clear	5W	6598	3	0	1	93.9	6863	3	0	1	97.7	7154	3	0	1	101.8
				1-CL	6063	1	0	1	86.3	6306	1	0	1	89.8	6574	1	0	1	93.6
				2-CL	5726	1	0	1	81.5	5956	1	0	1	84.8	6209	1	0	1	88.4
				3-CL	5528	1	0	1	78.7	5750	1	0	1	81.9	5994	1	0	2	85.3
				4W-CL	5575	1	0	2	79.4	5800	1	0	2	82.6	6045	1	0	2	86.1
				1-CL-HS	3751	0	0	1	53.4	3902	0	0	1	55.5	4067	0	0	1	57.9
				2-CL-HS	3264	0	0	1	46.5	3395	0	0	1	48.3	3539	0	0	1	50.4
				3-CL-HS	3155	0	0	1	44.9	3282	0	0	1	46.7	3421	0	0	1	48.7
				4W-CL-HS	3254	0	0	1	46.3	3385	0	0	1	48.2	3529	0	0	1	50.2
			Diffused	5Q-CL	6080	2	0	1	86.5	6324	2	0	1	90.0	6592	2	0	1	93.8
				5W-CL	5619	3	0	1	80.0	5845	3	0	1	83.2	6093	3	0	1	86.7
				3-DL	4195	1	0	1	59.7	4364	1	0	1	62.1	4549	1	0	1	64.7
				5W-DL	4264	2	0	1	60.7	4436	2	0	1	63.1	4624	2	0	1	65.8

**PROV2**

ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____

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PHOTOMETRY

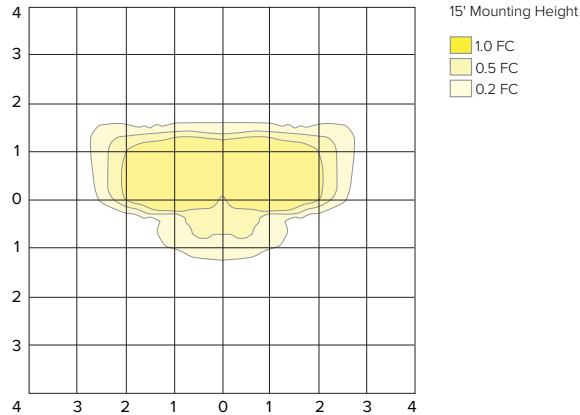
PROV2-36L-615-4K7-1

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	7405
Watts	70.25
Efficacy	105.4
IES Type	II
BUG Rating	B1-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	6403	86%
Downward House Side	1002	14%
Downward Total	7405	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	7405	100%

ISOFOOT CANDLE PLOT

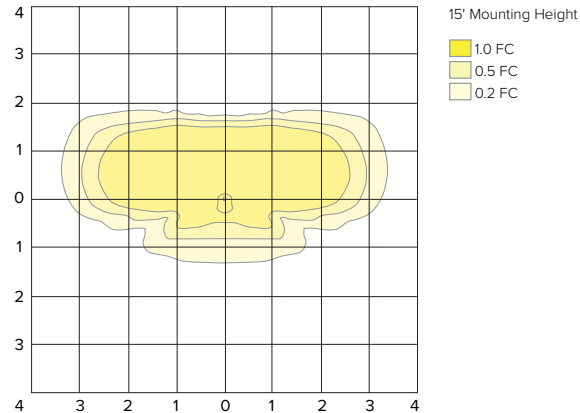
PROV2-36L-615-4K7-2

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	6994
Watts	70.25
Efficacy	99.6
IES Type	II
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	5665	81%
Downward House Side	1329	19%
Downward Total	6994	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	6994	100%

ISOFOOT CANDLE PLOT

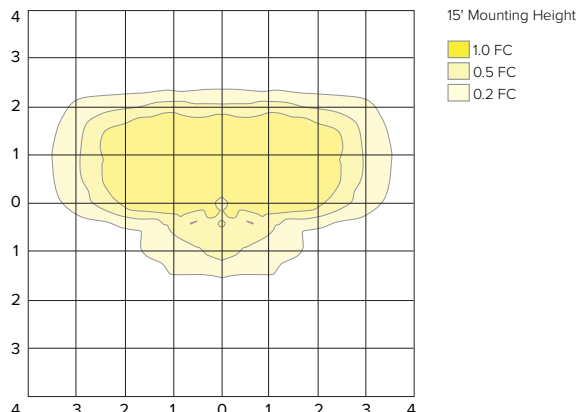
PROV2-36L-615-4K7-3

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	6752
Watts	70.25
Efficacy	96.1
IES Type	III
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	5552	82%
Downward House Side	1200	18%
Downward Total	6752	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	6752	100%

ISOFOOT CANDLE PLOT

**PROV2**

ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

PHOTOMETRY

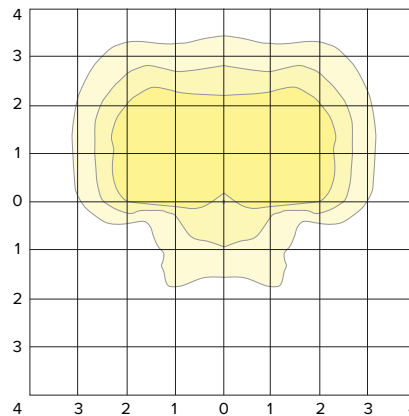
PROV2-36L-615-4K7-4W

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	6809
Watts	70.25
Efficacy	96.9
IES Type	IV Wide
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	5802	85%
Downward House Side	1007	15%
Downward Total	6809	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	6809	100%

ISOFOOT CANDLE PLOT

15' Mounting Height

 1.0 FC
 0.5 FC
 0.2 FC

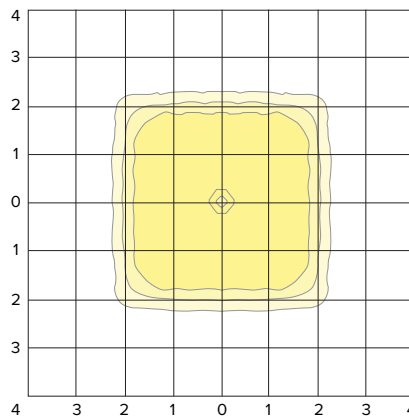
PROV2-36L-615-4K7-5Q

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	7425
Watts	70.25
Efficacy	105.7
IES Type	VS
BUG Rating	B3-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	3713	50%
Downward House Side	3713	50%
Downward Total	7425	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	7425	100%

ISOFOOT CANDLE PLOT

15' Mounting Height

 1.0 FC
 0.5 FC
 0.2 FC

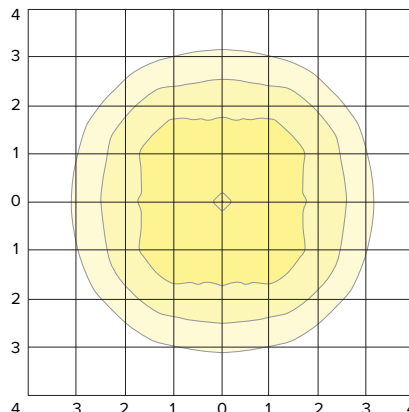
PROV2-36L-615-4K7-5W

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	6863
Watts	70.25
Efficacy	97.7
IES Type	VS
BUG Rating	B3-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	3432	50%
Downward House Side	3432	50%
Downward Total	6863	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	6863	100%

ISOFOOT CANDLE PLOT

15' Mounting Height

 1.0 FC
 0.5 FC
 0.2 FC

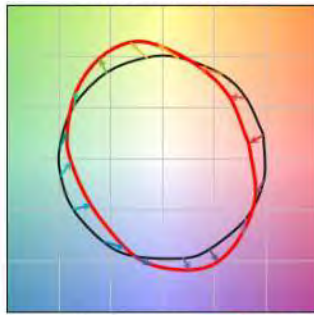
**PROV2**

ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

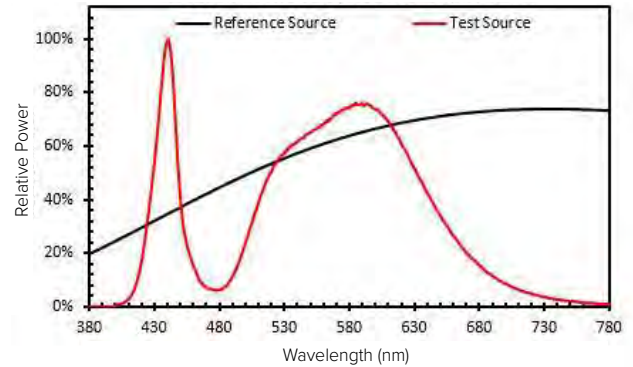
CATALOG #: _____

TM-30 DATA**COLOR VECTOR GRAPHIC**

— Reference Illuminant — Test Source

TEST SOURCE

MBM TEST RESULTS	
CCT (K)	3947
CIE Ra	72
Duv	0.0004
x	0.3831
y	0.3793
Rf	68
Rg	99

SPECTRAL POWER DISTRIBUTION COMPARISON**ELECTRICAL DATA**

Electrical										Dimming					
Light Engine	System Current	System Watts	Line Voltage		Amps AC				Min. Power Factor	Max THD (%)	Dimming Range	Source current out of 0-10V		Absolute voltage range on 0-10V (+)	
			VAC	HZ	120	208	240	277				Min	Max	Min	Max
36	295 mA	34.1	120-277	50/60	0.28	0.16	0.14	0.12	>0.9	20	10% to 100%	0mA	1mA	0V	10V
	325 mA	37.8			0.32	0.18	0.16	0.14							
	510 mA	58.4			0.49	0.28	0.24	0.21							
	525 mA	60.2			0.50	0.29	0.25	0.22							
	615 mA	70.3			0.59	0.34	0.29	0.25							

TM-21 LIFETIME CALCULATION - PROJECTED LUMEN MAINTENANCE (25°C / 77°F)						
HOURS	0	25,000	36,000	50,000	100,000	REPORTED L70
Projected Lumen Maintenance	100%	98.0%	96.9%	95.4%	90.5%	> 60,000

AMBER MULTIPLIER	
CCT	MULTIPLIER
5000K	1
AM	0.1727

2700K MULTIPLIER	
CCT	MULTIPLIER
5000K	1
2700K	0.897

LENS OPTION MULTIPLIER	
CLEAR LENS	DIFFUSED LENS
0.8517	0.6462

Submitted by Swaney Lighting	Job Name: MARTIN'S POINT VERANDA CAMPUS	Catalog Number: RSSA15-40A-OT-DBT	Type: P4
		Notes:	SLA23-57244

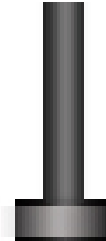


RSS-A Series

ROUND STRAIGHT STEEL POLE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

AAL Poles



SPECIFICATIONS

APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

CONSTRUCTION

- SHAFT:** One-piece straight steel with round cross section, Minimum yield of 46,000 psi (ASTM-A500, Grade C); Longitudinal weld seam to appear flush in shaft wall; Steel base plate with axial bolt circle slots welded flush to pole shaft having minimum yield of 36,000 psi (ASTM A36)
- BASE COVER:** Two-piece square aluminum base cover included standard
- POLE CAP:** Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- HAND HOLE:** Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS:** Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling

FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in multiple standard colors; Custom colors available; RAL number preferable

ORDERING GUIDE

Example: RSS-A-10-40-A-1-BLT-GFI-VM2

CATALOG #

POLE

Series	Pole	Shaft	Thickness	Mounting	Drill Pattern	Finish	VM2
RSS-A Round Straight Steel Pole	Reference page 2 Ordering matrix 15	Reference page 2 Ordering matrix 40	Reference page 2 Ordering matrix A	1 Single arm mount 2 Two fixtures at 180° 2L Two fixtures at 90° 3T Three fixtures at 90° 3Y Three fixtures at 120° 4 Four fixtures at 90° TA Tenon (2.375" OD) TB Tenon (2.875" OD) TC Tenon (3.5" OD) OT Open top (includes pole cap)	K1 2 Bolt 5-9/16 spacing K2 2 Bolt 3-12" spacing K3 2 Bolt 3" spacing	BLS Black Gloss Smooth BLT Black Matte Textured DBS Dark Bronze Gloss Smooth DBT Dark Bronze Matte Textured GTT Graphite Matte Textured LGS Light Grey Gloss Smooth LGT Light Grey Matte Textured PSS Platinum Silver Gloss Smooth VGT Verde Green Matte Textured WHS White Gloss Smooth WHT White Matte Textured Color Option CC ¹ Custom Color	GFI 20 Amp GFCI Receptacle and Cover EHH Extra Handhole C05 .5" Coupling C07 .75" Coupling C20 2" Coupling VM2 2nd mode vibration damper LAB Less Anchor Bolts UL UL Certified

Accessories

VM2SXX 2nd mode vibration damper, ordered separately

Notes:
1 Consult factory for custom color, marine and corrosive finish



RSS-A Series

ROUND STRAIGHT STEEL POLE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

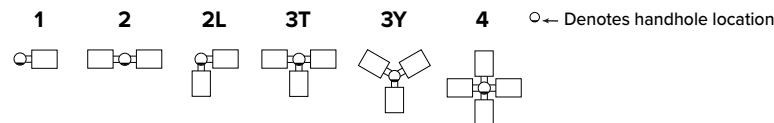
PRODUCTS EXCEPTIONS & DETAILS

ORDERING MATRIX

Cut to
15'

Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle (suggested)	Bolt Circle (range)	Base Square (range)	Base Plate Square	Base Plate Thickness	Anchor bolt size	Bolt Projection	Pole weight
	Feet	Meters										
RSS-A-10-40-A	10	3.0	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	52
RSS-A-12-40-A	12	3.7	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	62
RSS-A-14-40-A	14	4.3	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	72
RSS-A-16-40-A	16	4.9	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	83
RSS-A-18-40-A	18	5.5	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	93
RSS-A-20-40-A	20	6.1	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	103
RSS-A-10-40-B	10	3.0	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	77
RSS-A-12-40-B	12	3.7	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	92
RSS-A-14-40-B	14	4.3	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	107
RSS-A-16-40-B	16	4.9	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	122
RSS-A-18-40-B	18	5.5	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	138
RSS-A-20-40-B	20	6.1	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	153
RSS-A-10-50-B	10	3.0	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	97
RSS-A-12-50-B	12	3.7	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	116
RSS-A-14-50-B	14	4.3	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	135
RSS-A-16-50-B	16	4.9	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	155
RSS-A-18-50-B	18	5.5	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	174
RSS-A-20-50-B	20	6.1	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	194
RSS-A-25-50-B	25	7.6	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	242
RSS-A-20-60-C	20	6.1	6" round	0.250"	11"	9.0" - 11"	6.36" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	307
RSS-A-25-60-C	25	7.6	6" round	0.250"	11"	9.0" - 11"	6.36" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	384
RSS-A-30-60-C	30	9.1	6" round	0.250"	11"	9.0" - 11"	6.36" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	461

MOUNTING ORIENTATION





RSS-A Series

ROUND STRAIGHT STEEL POLE

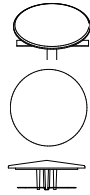
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

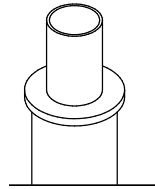
CATALOG #: _____

PRODUCTS EXCEPTIONS & DETAILS (CONTINUED)

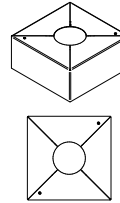
PRODUCT DETAILS



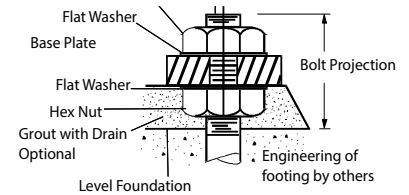
Pole Cap



Tenon



Base Cover



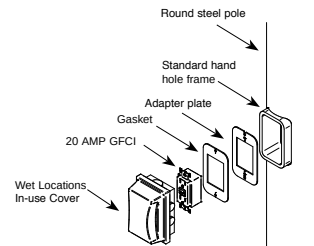
Base Detail



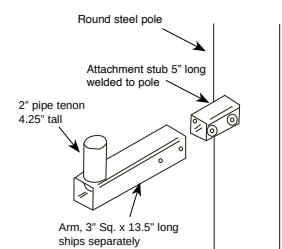
EHH - Extra Handhole



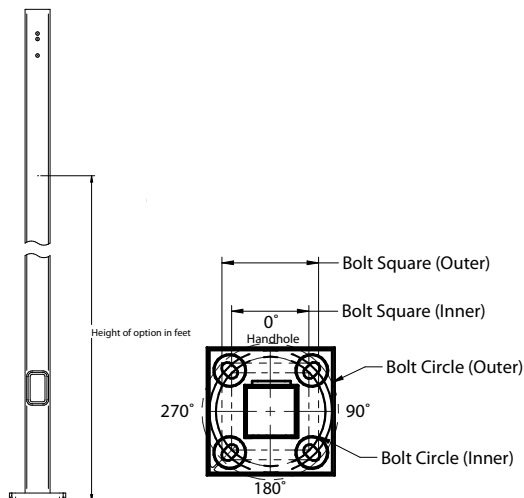
C05 - C07 - C20 - Coupling



GFI - 20 AMP GFCI Receptacle & Cover



MPB - Mid Pole Bracket



OPTION ORIENTATION

- Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option C07 should be ordered as: RSS-A-20-40-A-TA-DBS-C05-0-15 (5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1' spacing required between option. Consult factory for other configurations.

NOTE: Factory supplied template must be used when setting anchor bolts. Current Lighting will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

VM2 - Vibration Damper 2nd Mode

Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd vibration.

VM2SXX - Vibration Damper 2nd Mode

Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd vibration.

VM2S08 - 8'
 VM2S12 - 12'
 VM2S16 - 16'
 VM2S20 - 20'
 VM2S24 - 24'



RSS-A Series

ROUND STRAIGHT STREET POLE

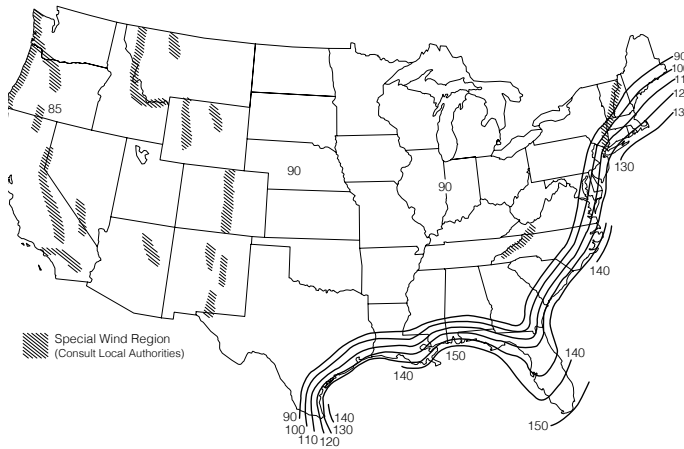
DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

PRODUCTS EXCEPTIONS & DETAILS (CONTINUED)

ASCE7-05 WIND MAP

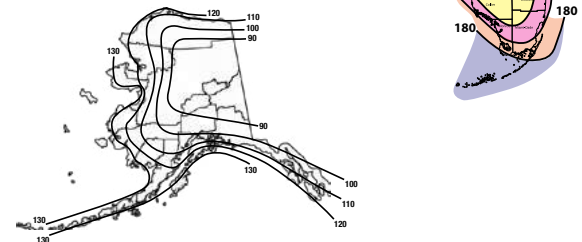

 HAWAII – 105 mph
 PUERTO RICO – 145 mph

*PRINTED WITH PERMISSION FROM ASCE

FLORIDA REGION WIND MAP

- Florida region wind map above is based upon 3-second gust winds and the 2017 Florida Building Code

ALASKA REGION WIND MAP



ASCE 7-05 wind map EPA Load Rating - 3 second gust wind speeds							
Catalog Number	85	90	100	110	120	105	145
RSS-A-10-40-A	21.0	18.7	15.0	12.2	10.1	13.5	6.8
RSS-A-12-40-A	16.8	14.8	11.8	9.5	7.7	10.5	5.1
RSS-A-14-40-A	13.6	12.0	9.4	7.4	5.9	8.3	3.9
RSS-A-16-40-A	11.1	9.7	7.5	5.8	4.5	6.6	2.9
RSS-A-18-40-A	9.0	7.8	5.8	4.4	3.3	5.1	2.0
RSS-A-20-40-A	7.2	6.2	4.5	3.1	2.2	3.8	1.2
RSS-A-10-40-B	25.0	25.0	22.4	18.4	15.3	20.2	10.4
RSS-A-12-40-B	25.0	22.3	17.9	14.5	12.0	16.1	8.1
RSS-A-14-40-B	20.6	18.3	14.6	11.7	9.6	13.0	6.4
RSS-A-16-40-B	17.2	15.2	12.0	9.5	7.7	10.7	5.1
RSS-A-18-40-B	14.3	12.6	9.8	7.6	6.1	8.6	3.9
RSS-A-20-40-B	11.8	10.3	7.9	6.0	4.7	6.9	2.9
RSS-A-10-50-B	25.0	25.0	25.0	25.0	25.0	25.0	17.7
RSS-A-12-50-B	25.0	25.0	25.0	24.8	20.8	25.0	14.3
RSS-A-14-50-B	25.0	25.0	24.7	20.5	17.2	22.4	11.7
RSS-A-16-50-B	25.0	25.0	20.7	17.1	14.3	18.8	9.7
RSS-A-18-50-B	24.5	21.6	17.3	14.3	11.9	15.7	8.0
RSS-A-20-50-B	20.6	18.1	14.4	11.8	9.8	13.0	6.5
RSS-A-25-50-B	13.6	11.7	9.1	7.3	6.0	8.1	3.8
RSS-A-20-60-C	25.0	25.0	25.0	25.0	21.5	25.0	14.8
RSS-A-25-60-C	25.0	25.0	21.9	18.0	15.0	19.8	10.1
RSS-A-30-60-C	21.8	19.4	15.6	12.7	10.6	14.1	6.9

Florida Building Code 2017 EPA Load Rating - 3 second gust wind speeds								
Catalog Number	115	120	130	140	150	160	170	180
RSS-A-10-40-A	25.0	23.5	20.0	17.0	14.5	12.5	11.0	10.0
RSS-A-12-40-A	21.0	19.0	16.0	13.5	11.5	9.5	9.0	8.0
RSS-A-14-40-A	17.5	15.7	13.0	10.8	9.0	7.5	7.0	6.5
RSS-A-16-40-A	14.2	13.0	10.5	8.5	7.0	5.8	5.0	4.5
RSS-A-18-40-A	11.6	10.4	8.2	6.8	5.4	4.4	4.0	3.6
RSS-A-20-40-A	9.5	8.4	6.5	5.2	4.0	3.0	2.8	2.5
RSS-A-10-40-B	25.0	25.0	25.0	22.0	19.0	16.5	15.2	13.4
RSS-A-12-40-B	25.0	25.0	20.8	17.6	15.1	13.0	12.0	10.6
RSS-A-14-40-B	22.5	20.4	17.2	14.4	12.2	10.4	10.0	8.8
RSS-A-16-40-B	18.9	17.0	14.1	11.7	9.8	8.2	7.5	7.0
RSS-A-18-40-B	15.6	14.1	11.5	9.4	7.7	6.4	6.0	5.7
RSS-A-20-40-B	13.0	11.6	9.3	7.5	6.0	4.8	4.0	3.5
RSS-A-10-50-B	25.0	25.0	25.0	25.0	25.0	23.6	20.8	18.4
RSS-A-12-50-B	25.0	25.0	25.0	25.0	22.2	19.3	16.8	14.8
RSS-A-14-50-B	25.0	25.0	23.9	21.5	18.4	15.9	13.8	12.1
RSS-A-16-50-B	25.0	23.8	19.6	18.0	15.4	13.2	11.4	9.9
RSS-A-18-50-B	21.8	19.6	16.1	15.1	12.8	10.8	9.3	8.0
RSS-A-20-50-B	18.2	16.4	14.1	12.7	10.7	9.0	7.7	6.5
RSS-A-25-50-B	11.7	10.2	9.4	8.4	6.8	5.6	4.5	3.7
RSS-A-20-60-C	25.0	25.0	25.0	22.1	18.8	16.1	13.9	12.0
RSS-A-25-60-C	24.7	22.4	18.4	15.3	12.8	10.8	9.1	7.6
RSS-A-30-60-C	18.2	16.3	13.2	10.7	8.7	7.0	5.7	4.5

Submitted by Swaney Lighting	 Job Name: MARTIN'S POINT VERANDA CAMPUS	Catalog Number: RSSA15-40A-OT-DBT Notes:	Type: P4 SLA23-57244
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RSS-A Series

ROUND STRAIGHT STEEL POLE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

PRODUCTS EXCEPTIONS & DETAILS (CONTINUED)

WIND-SPEED WEBSITE DISCLAIMER:

- Current Lighting has no connection to the linked website and makes no representations as to its accuracy. While the information presented on this third-party website provides a useful starting point for analyzing wind conditions, Hubbell Lighting has not verified any of the information on this third party website and assumes no responsibility or liability for its accuracy. The material presented in the windspeed website should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. Current Lighting does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the windspeed report provided by this website. Users of the information from this third party website assume all liability arising from such use. Use of the output of these referenced websites do not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the windspeed report. <http://windspeed.atcouncil.org>
- Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
- The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
- Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
- Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings.
- Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

Submitted by Swaney Lighting	Job Name: MARTIN'S POINT VERANDA CAMPUS	Catalog Number: RSSA15-40A-OT-DBT Notes:	Type: P4 SLA23-57244
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RSS-A Series
ROUND STRAIGHT STEEL POLE

DATE: _____

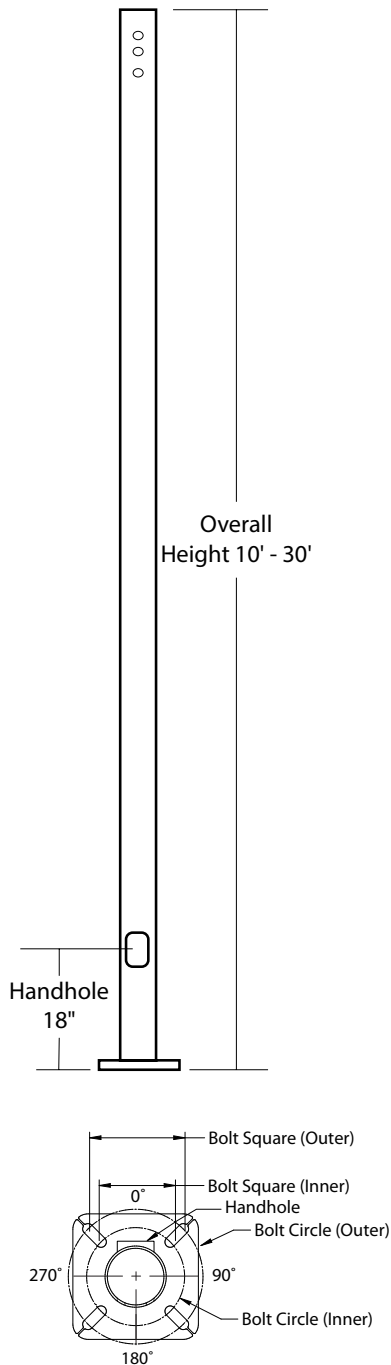
LOCATION: _____

TYPE: _____

PROJECT: _____

CATALOG #: _____

DIMENSIONS





PROV2

ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____
TYPE: _____ PROJECT: _____
CATALOG #: _____

FEATURES

- Reliable, uniform, glare free illumination
- Types 1, 2, 3, 4W, 5Q, and 5W distributions
- Amber, 3000K, 4000K, 5000K CCT
- 0-10V dimming ready
- Integral Surge protection: 10k in parallel, 20k in series
- Upgrade Kits

PROVIDENCE®



Providence Medium



SPECIFICATIONS

CONSTRUCTION

- All housing components aluminum 360 alloy, sealed with continuous silicone rubber gaskets
- Standard configurations do not require a flat lens, optional lenses are tempered glass
- All internal and external hardware is stainless steel
- Finish: fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat
- Optical bezel finish to match the luminaire housing

LED/OPTICS

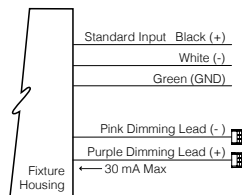
- Optical cartridge system consisting of a die cast heat sink, LED engine, TIR optics, gasket and bezel plate
- Optics are held in place without the use of adhesives
- Molded silicone gasket ensures a weather-proof seal around each individual LED.
- Features individual LED optical control based on high performance TIR optical designs
- House Side Shield is available on Standard and Clear Lens options except any Type 5 distribution. House Side Shield is not available for any distribution using a Diffused Lens

INSTALLATION

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

ELECTRICAL

- Luminaires have UL recognized integral surge protection, and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J
- Drivers are UL recognized with an inrush current maximum of <20.0 Amps maximum at 230VAC
- 100%-1% dimming range. Fixture will be wired for low voltage 0-10V dimming control



- Driver and surge suppressor are mounted to a prewired tray with quick disconnects that may be removed from the gear compartment
- Surge protection: 10,000k in parallel, 20,000k in series

CONTROLS

- Egress adapter(s) will slip over a 4"/100mm DIA. pole with the luminaire or arm slipping over the adapter to add a total of 4.5"/114mm to the overall height. Adapter(s) are prewired, independently rotatable 359°, and have a cast access cover with an integral lens and lanyard

CONTROLS (CONTINUED)

- Egress adapter will require an auxiliary 120 volt supply for operation of an integral MR16 lamp in the event of emergency. The lamp may be aimed and locked into position with an adjustment range of 15°-45°. Adapter will have a socket that accepts miniature bi-pin MR16 lamps up to 50 watts, lamp by others
- Photocell adapter includes a 7-Pin internal twist lock receptacle. Photocell by others

CERTIFICATIONS

- ETL listed under UL 1598 and CSA C22.2 No. 250.0-08 for wet locations
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 5/29/2020

WARRANTY

- 5 year warranty

KEY DATA	
LUMEN RANGE	1,81–9,336
WATTAGE RANGE	31.52–71.6
EFFICACY RANGE (LPW)	44.9–118.9
INPUT CURRENT RANGE (mA)	295–615 mA
WEIGHT	29 lbs / 13.15 kg
EPA	1.33

Submitted by Swaney Lighting



Job Name:
MARTIN'S POINT VERANDA CAMPUS

Catalog Number:
PROV2-36L-510-3K7-5W-DBT-STND MNT-UNV
Notes:

Type:
P5
SLA23-57244



PROV2

ARCHITECTURAL AREA/SITE

DATE:
LOCATION:

TYPE:
PROJECT:

CATALOG #:

ORDERING GUIDE

Example: PROV2-36L-325-3K7-4W-BL-SLA1-DF-HS-AD5-UNV

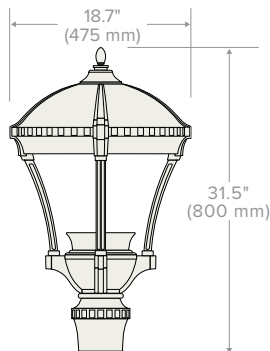
CATALOG #

HOUSING

PROV2											
Housing		LED Quantity		Lumen output		CCT/CRI		Distribution		Finish	
PROV2	Providence Medium 2.0	36L	36 LED	295	450mA Microcore Equivalent	AMB	Amber-595nm Peak ¹	1	Type I	BLS	Black Gloss Smooth
				325	325mA, 4500 Lumens	3K7	3000K, 70 CRI	2	Type II	BLT	Black Matte Textured
				510	510mA, 6500 Lumens	4K7	4000K, 70 CRI	3	Type III	DBS	Dark Bronze Gloss Smooth
				525	700mA Microcore Equivalent	5K7	5000K, 70 CRI	4W	Type IV Wide	DBT	Dark Bronze Matte Textured
				615	615mA, 7500 Lumens	Contact factory for options listed below		5Q	Type V Square	GTT	Graphite Matte Textured
								5W	Type V Wide	LGS	Light Grey Gloss Smooth
						27K8	2700K, 80 CRI			LGT	Light Grey Matte Textured
							80 or 90 CRI for standard color temperatures			PSS	Platinum Silver Gloss Smooth
										VGT	Verde Green Matte Textured
										WHS	White Gloss Smooth
										WHT	White Matte Textured
										Color Option	
										CC ²	Custom Color

Mounting	Optional Lens	Options	Mounting Options	Voltage
Pole Mount	CL Clear Lens	HS House Side Shield ^{3,5}	AD5 Adaptor-5" OD Pole	UNV 120-277V
STND_MNT ⁶ Standard Mount	DL Diffused Lens ²	PFN Brass Colored Finish	PCA-C Photocontrol Adapter Contemporary	
PT23 2 3/8" tenon		SPK Cast Spikes	PCA-T Rotatable photocell housing. The housing slips over a 4"/100mm o.d. pole.a fixture slips over the 4"/100mm O.D. tenon. Includes an internal twist lock receptacle, and an access cover with integral lens and stainless steel tether. Adds 5"/125mm to the overall height of the pole/fixtureassembly. Prewire don the load side and line side for easy installation. Photocell by others	
PT3 3" tenon		BPS Brass Colored Struts		
PT4 4" tenon		SF Single Fuse (120, 277)		
Arm Mount		DF Double Fuse (208, 240)	EPA-C Egress Adapter Contemporary	
SLA1 4" pole or tenon				
TRA5U-4 4" pole or tenon				
TRA6U-4 4" pole or tenon				
TRA8U-4 4" pole or tenon				
TRA55-4 4" pole or tenon				
TRA5U-5 5" pole or tenon				
TRA6U-5 5" pole or tenon				
TRA8U-5 5" pole or tenon				
TRA55-5 5" pole or tenon				
TRA56-5 5" pole or tenon				
Wall Mount				
WMA55 Wall Mount				
WMA56 Wall Mount				
Pier Mount				
PM1 Pier Mount 1				
PM2 Pier Mount 2				
PM3 Pier Mount 3				

DIMENSIONS



- Notes:
- Turtle Friendly
 - Diffused Lens is available only with T3 and T5W distribution
 - House side Shield is available only with T1, T2, T3 and T4W distributions
 - Consult factory for custom color, marine and corrosive finish options
 - Contact Factory for additional glare shield options
 - Slide over 4" OD Pole



PROV2

ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

DELIVERED LUMENS

The table below shows the delivered lumens for the various lumen outputs and beam distributions. Use this chart in connection with the lumen factor (LF) capability to deliver any output required.

LED #	Drive Current	Lumen Package	Lens	Distribution	3000K 70CRI					4000K 70CRI					5000K 70CRI				
					Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)
36	295	450mA Microcore Equivalent	None	1	3807	1	0	1	111.6	3960	1	0	1	116.1	4128	1	0	1	121.0
				2	3596	1	0	1	105.4	3740	1	0	1	109.7	3899	1	0	1	114.3
				3	3471	1	0	1	101.8	3611	1	0	1	105.9	3764	1	0	1	110.4
				4W	3501	1	0	1	102.7	3642	1	0	1	106.8	3796	1	0	1	111.3
				1-HS	2355	0	0	1	69.1	2450	0	0	1	71.8	2554	0	0	1	74.9
				2-HS	2049	0	0	1	60.1	2132	0	0	1	62.5	2222	0	0	1	65.2
				3-HS	1981	0	0	1	58.1	2061	0	0	1	60.4	2148	0	0	1	63.0
				4W-HS	2044	0	0	1	59.9	2126	0	0	1	62.3	2216	0	0	1	65.0
				5Q	3818	2	0	1	112.0	3971	2	0	1	116.5	4140	2	0	1	121.4
				5W	3529	2	0	1	103.5	3670	2	0	1	107.6	3826	2	0	1	112.2
			Clear	1-CL	3242	1	0	1	95.0	3373	1	0	1	98.8	3516	1	0	1	103.0
				2-CL	3062	1	0	1	89.7	3186	1	0	1	93.3	3321	1	0	1	97.3
				3-CL	2957	1	0	1	86.6	3075	1	0	1	90.1	3206	1	0	1	93.9
				4W-CL	2982	1	0	1	87.4	3102	1	0	1	90.9	3233	1	0	1	94.7
				1-CL-HS	2006	0	0	1	58.8	2087	0	0	1	61.1	2175	0	0	1	63.7
				2-CL-HS	1746	0	0	1	51.1	1816	0	0	1	53.2	1893	0	0	1	55.5
				3-CL-HS	1688	0	0	1	49.4	1755	0	0	1	51.4	1830	0	0	1	53.6
				4W-CL-HS	1740	0	0	1	51.0	1810	0	0	1	53.0	1887	0	0	1	55.3
			5Q-CL	3252	2	0	1	95.3	3382	2	0	1	99.1	3526	2	0	1	103.3	
			5W-CL	3005	2	0	1	88.1	3126	2	0	1	91.6	3259	2	0	1	95.5	
			Diffused	3-DL	2243	1	0	1	65.8	2334	1	0	1	68.4	2433	1	0	1	71.3
				5W-DL	2280	1	0	1	66.9	2372	1	0	1	69.6	2473	1	0	1	72.5
	325	4500	None	1	4147	1	0	1	110	4313	1	0	1	114	4496	1	0	1	118.9
				2	3917	1	0	1	104	4074	1	0	1	108	4247	1	0	1	112.3
				3	3781	1	0	1	100	3933	1	0	1	104	4100	1	0	1	108.4
				4W	3813	1	0	1	101	3967	1	0	2	105	4135	1	0	2	109.3
				1-HS	2566	0	0	1	68	2669	0	0	1	71	2782	0	0	1	73.6
				2-HS	2232	0	0	1	59	2322	0	0	1	61	2421	0	0	1	64.0
				3-HS	2158	0	0	1	57	2245	0	0	1	59	2340	0	0	1	61.9
				4W-HS	2226	0	0	1	59	2315	0	0	1	61	2414	0	0	1	63.8
				5Q	4158	2	0	1	110	4326	2	0	1	114	4509	2	0	1	119.2
				5W	3844	2	0	1	102	3998	2	0	1	106	4168	3	0	1	110.2
			Clear	1-CL	3532	1	0	1	93.4	3674	1	0	1	97.1	3829	1	0	1	101.3
				2-CL	3336	1	0	1	88.2	3470	1	0	1	91.7	3617	1	0	1	95.6
				3-CL	3220	1	0	1	85.2	3350	1	0	1	88.6	3492	1	0	1	92.3
				4W-CL	3248	1	0	1	85.9	3379	1	0	1	89.3	3522	1	0	1	93.1
				1-CL-HS	2185	0	0	1	57.8	2273	0	0	1	60.1	2369	0	0	1	62.6
				2-CL-HS	1901	0	0	1	50.3	1978	0	0	1	52.3	2062	0	0	1	54.5
				3-CL-HS	1838	0	0	1	48.6	1912	0	0	1	50.6	1993	0	0	1	52.7
				4W-CL-HS	1896	0	0	1	50.1	1972	0	0	1	52.1	2056	0	0	1	54.4
			5Q-CL	3542	2	0	1	93.6	3684	2	0	1	97.4	3840	2	0	1	101.5	
			5W-CL	3274	2	0	1	86.6	3405	2	0	1	90.0	3550	2	0	1	93.9	
			Diffused	3-DL	2459	1	0	1	65.0	2558	1	0	1	67.7	2666	1	0	1	70.7
				5W-DL	2469	1	0	1	65.3	2568	1	0	1	67.9	2677	1	0	1	70.9



DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

DELIVERED LUMENS (CONTINUED)

The table below shows the delivered lumens for the various lumen outputs and beam distributions. Use this chart in connection with the lumen factor (LF) capability to deliver any output required.

LED #	Drive Current	Lumen Package	Lens	Distribution	3000K 70CRI				4000K 70CRI				5000K 70CRI						
					Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)
36	510	6500	None	1	6081	1	0	1	104.1	6326	1	0	1	108	6594	1	0	1	113
				2	5744	1	0	1	98.3	5975	1	0	1	102	6228	1	0	1	107
				3	5545	1	0	2	94.9	5768	1	0	2	99	6013	1	0	2	103
				4W	5593	1	0	2	95.7	5818	1	0	2	100	6064	1	0	2	104
				1-HS	3763	0	0	1	64.4	3914	0	0	1	67	4080	0	0	1	70
				2-HS	3274	0	0	1	56.1	3406	0	0	1	58	3550	0	0	1	61
				3-HS	3165	0	0	1	54.2	3292	0	0	1	56	3432	0	0	1	59
				4W-HS	3265	0	0	1	55.9	3396	0	0	1	58	3540	0	0	1	61
				5Q	6099	2	0	1	104.4	6344	2	0	1	109	6613	3	0	1	113
				5W	5637	3	0	1	96.5	5864	3	0	1	100	6112	3	0	1	105
			Clear	1-CL	5180	1	0	1	88.7	5388	1	0	1	92.2	5616	1	0	1	96.2
				2-CL	4892	1	0	1	83.8	5089	1	0	1	87.1	5305	1	0	1	90.8
				3-CL	4723	1	0	1	80.9	4913	1	0	1	84.1	5121	1	0	1	87.7
				4W-CL	4763	1	0	2	81.6	4955	1	0	2	84.8	5165	1	0	2	88.4
				1-CL-HS	3205	0	0	1	54.9	3334	0	0	1	57.1	3475	0	0	1	59.5
				2-CL-HS	2788	0	0	1	47.7	2901	0	0	1	49.7	3024	0	0	1	51.8
				3-CL-HS	2696	0	0	1	46.2	2804	0	0	1	48.0	2923	0	0	1	50.0
				4W-CL-HS	2780	0	0	1	47.6	2892	0	0	1	49.5	3015	0	0	1	51.6
				5Q-CL	5194	2	0	1	88.9	5403	2	0	1	92.5	5632	2	0	1	96.4
				5W-CL	4801	3	0	1	82.2	4994	3	0	1	85.5	5206	3	0	1	89.1
			Diffused	3-DL	3584	1	0	1	61.4	3728	1	0	1	63.8	3886	1	0	1	66.5
				5W-DL	3615	2	0	1	61.9	3760	2	0	1	64.4	3919	2	0	1	67.1
	525	700mA Microcore Equivalent	None	1	6235	1	0	1	103.6	6486	1	0	1	107.7	6761	1	0	1	112.3
				2	5889	1	0	1	97.8	6126	1	0	1	101.8	6386	1	0	1	106.1
				3	5686	1	0	2	94.4	5914	1	0	2	98.2	6165	1	0	2	102.4
				4W	5734	1	0	2	95.3	5965	1	0	2	99.1	6218	1	0	2	103.3
				1-HS	3858	0	0	1	64.1	4013	0	0	1	66.7	4183	0	0	1	69.5
				2-HS	3357	0	0	1	55.8	3492	0	0	1	58.0	3640	0	0	1	60.5
				3-HS	3245	0	0	1	53.9	3376	0	0	1	56.1	3519	0	0	1	58.5
				4W-HS	3347	0	0	1	55.6	3482	0	0	1	57.8	3629	1	0	1	60.3
				5Q	6253	2	0	1	103.9	6504	2	0	1	108.0	6780	3	0	1	112.6
				5W	5779	3	0	1	96.0	6012	3	0	1	99.9	6267	3	0	1	104.1
			Clear	1-CL	5311	1	0	1	88.2	5524	1	0	1	91.8	5758	1	0	1	95.7
				2-CL	5016	1	0	1	83.3	5218	1	0	1	86.7	5439	1	0	1	90.3
				3-CL	4842	1	0	1	80.4	5037	1	0	2	83.7	5251	1	0	2	87.2
				4W-CL	4884	1	0	2	81.1	5080	1	0	2	84.4	5296	1	0	2	88.0
				1-CL-HS	3286	0	0	1	54.6	3418	0	0	1	56.8	3563	0	0	1	59.2
				2-CL-HS	2859	0	0	1	47.5	2974	0	0	1	49.4	3100	0	0	1	51.5
				3-CL-HS	2764	0	0	1	45.9	2875	0	0	1	47.8	2997	0	0	1	49.8
				4W-CL-HS	2851	0	0	1	47.4	2965	0	0	1	49.3	3091	0	0	1	51.3
				5Q-CL	5326	2	0	1	88.5	5540	2	0	1	92.0	5775	2	0	1	95.9
				5W-CL	4922	3	0	1	81.8	5120	3	0	1	85.1	5337	3	0	1	88.7
			Diffused	3-DL	3675	1	0	1	61.0	3822	1	0	1	63.5	3984	1	0	1	66.2
				5W-DL	3735	2	0	1	62.0	3885	2	0	1	64.5	4050	2	0	1	67.3



ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

DELIVERED LUMENS (CONTINUED)

The table below shows the delivered lumens for the various lumen outputs and beam distributions. Use this chart in connection with the lumen factor (LF) capability to deliver any output required.

LED #	Drive Current	Lumen Package	Lens	Distribution	3000K 70CRI					4000K 70CRI					5000K 70CRI				
					Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)
36	615	7500	None	1	7118	1	0	1	101.3	7404	1	0	1	105.4	7718	1	0	1	109.9
				2	6723	1	0	1	95.7	6994	1	0	2	99.6	7290	1	0	2	103.8
				3	6491	1	0	2	92.4	6752	1	0	2	96.1	7038	1	0	2	100.2
				4W	6546	1	0	2	93.2	6809	1	0	2	96.9	7098	1	0	2	101.0
				1-HS	4404	0	0	1	62.7	4581	0	0	1	65.2	4775	0	0	1	68.0
				2-HS	3832	0	0	1	54.5	3986	0	0	1	56.7	4155	0	0	1	59.1
				3-HS	3705	0	0	1	52.7	3854	0	0	1	54.9	4017	0	0	1	57.2
				4W-HS	3821	1	0	1	54.4	3975	1	0	1	56.6	4143	1	0	1	59.0
				5Q	7138	3	0	1	101.6	7425	3	0	1	105.7	7740	3	0	1	110.2
				5W	6598	3	0	1	93.9	6863	3	0	1	97.7	7154	3	0	1	101.8
			Clear	1-CL	6063	1	0	1	86.3	6306	1	0	1	89.8	6574	1	0	1	93.6
				2-CL	5726	1	0	1	81.5	5956	1	0	1	84.8	6209	1	0	1	88.4
				3-CL	5528	1	0	1	78.7	5750	1	0	1	81.9	5994	1	0	2	85.3
				4W-CL	5575	1	0	2	79.4	5800	1	0	2	82.6	6045	1	0	2	86.1
				1-CL-HS	3751	0	0	1	53.4	3902	0	0	1	55.5	4067	0	0	1	57.9
				2-CL-HS	3264	0	0	1	46.5	3395	0	0	1	48.3	3539	0	0	1	50.4
				3-CL-HS	3155	0	0	1	44.9	3282	0	0	1	46.7	3421	0	0	1	48.7
				4W-CL-HS	3254	0	0	1	46.3	3385	0	0	1	48.2	3529	0	0	1	50.2
				5Q-CL	6080	2	0	1	86.5	6324	2	0	1	90.0	6592	2	0	1	93.8
				5W-CL	5619	3	0	1	80.0	5845	3	0	1	83.2	6093	3	0	1	86.7
			Diffused	3-DL	4195	1	0	1	59.7	4364	1	0	1	62.1	4549	1	0	1	64.7
				5W-DL	4264	2	0	1	60.7	4436	2	0	1	63.1	4624	2	0	1	65.8

**PROV2**

ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

PHOTOMETRY

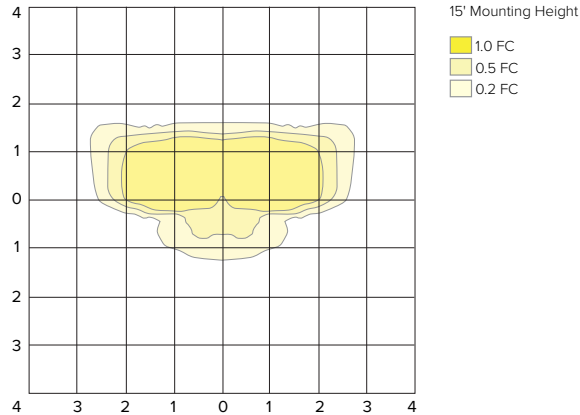
PROV2-36L-615-4K7-1

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	7405
Watts	70.25
Efficacy	105.4
IES Type	II
BUG Rating	B1-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	6403	86%
Downward House Side	1002	14%
Downward Total	7405	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	7405	100%

ISOFOOT CANDLE PLOT

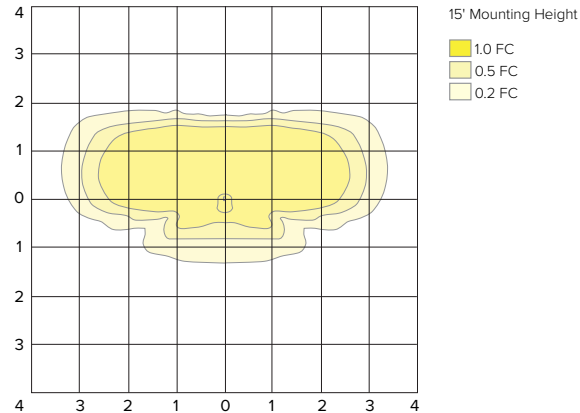
PROV2-36L-615-4K7-2

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	6994
Watts	70.25
Efficacy	99.6
IES Type	II
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	5665	81%
Downward House Side	1329	19%
Downward Total	6994	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	6994	100%

ISOFOOT CANDLE PLOT

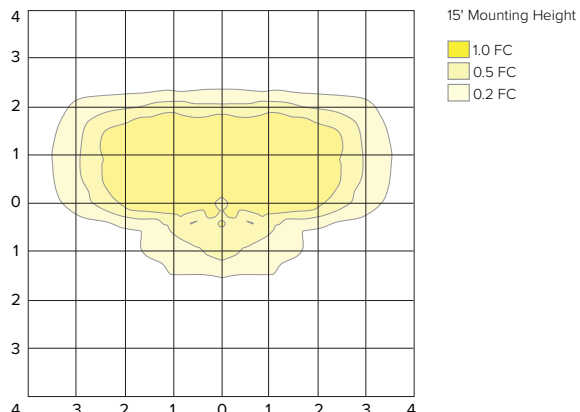
PROV2-36L-615-4K7-3

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	6752
Watts	70.25
Efficacy	96.1
IES Type	III
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	5552	82%
Downward House Side	1200	18%
Downward Total	6752	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	6752	100%

ISOFOOT CANDLE PLOT

**PROV2**

ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

PHOTOMETRY

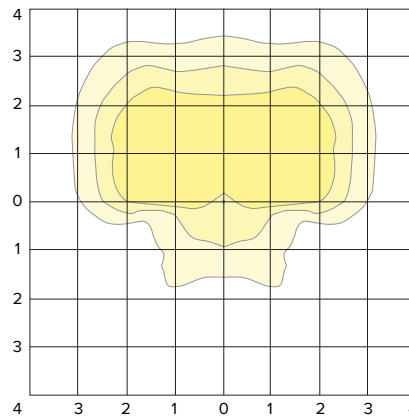
PROV2-36L-615-4K7-4W

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	6809
Watts	70.25
Efficacy	96.9
IES Type	IV Wide
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	5802	85%
Downward House Side	1007	15%
Downward Total	6809	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	6809	100%

ISOFOOT CANDLE PLOT

15' Mounting Height

 1.0 FC
 0.5 FC
 0.2 FC

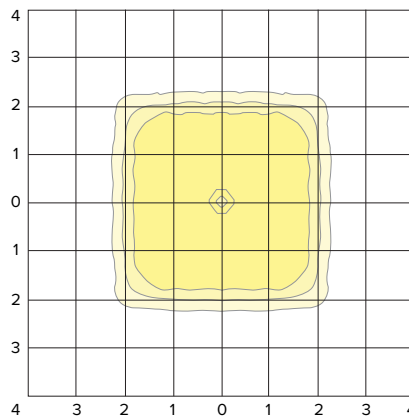
PROV2-36L-615-4K7-5Q

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	7425
Watts	70.25
Efficacy	105.7
IES Type	VS
BUG Rating	B3-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	3713	50%
Downward House Side	3713	50%
Downward Total	7425	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	7425	100%

ISOFOOT CANDLE PLOT

15' Mounting Height

 1.0 FC
 0.5 FC
 0.2 FC

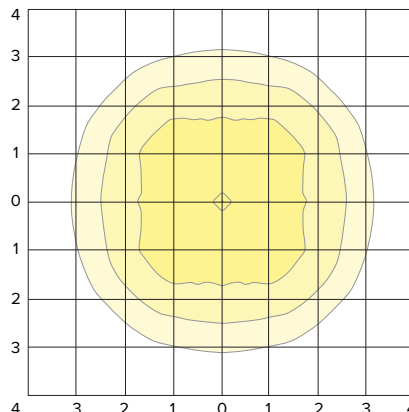
PROV2-36L-615-4K7-5W

LUMINAIRE DATA

Description	4000 Kelvin, 70CRI
Delivered Lumens	6863
Watts	70.25
Efficacy	97.7
IES Type	VS
BUG Rating	B3-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	3432	50%
Downward House Side	3432	50%
Downward Total	6863	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	6863	100%

ISOFOOT CANDLE PLOT

15' Mounting Height

 1.0 FC
 0.5 FC
 0.2 FC

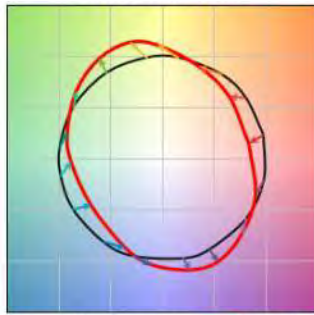
**PROV2**

ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

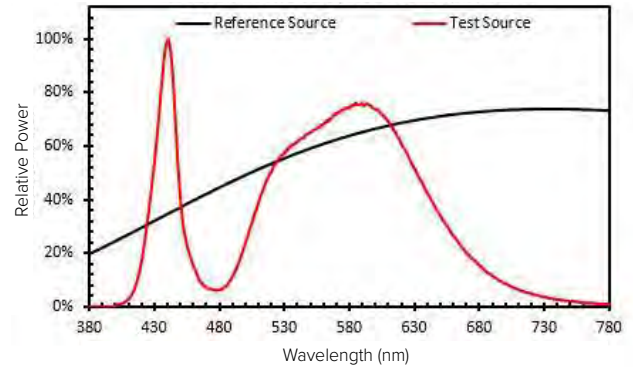
CATALOG #: _____

TM-30 DATA**COLOR VECTOR GRAPHIC**

— Reference Illuminant — Test Source

TEST SOURCE

MBM TEST RESULTS	
CCT (K)	3947
CIE Ra	72
Duv	0.0004
x	0.3831
y	0.3793
Rf	68
Rg	99

SPECTRAL POWER DISTRIBUTION COMPARISON**ELECTRICAL DATA**

Electrical										Dimming					
Light Engine	System Current	System Watts	Line Voltage		Amps AC				Min. Power Factor	Max THD (%)	Dimming Range	Source current out of 0-10V		Absolute voltage range on 0-10V (+)	
			VAC	HZ	120	208	240	277				Min	Max	Min	Max
36	295 mA	34.1	120-277	50/60	0.28	0.16	0.14	0.12	>0.9	20	10% to 100%	0mA	1mA	0V	10V
	325 mA	37.8			0.32	0.18	0.16	0.14							
	510 mA	58.4			0.49	0.28	0.24	0.21							
	525 mA	60.2			0.50	0.29	0.25	0.22							
	615 mA	70.3			0.59	0.34	0.29	0.25							

TM-21 LIFETIME CALCULATION - PROJECTED LUMEN MAINTENANCE (25°C / 77°F)						
HOURS	0	25,000	36,000	50,000	100,000	REPORTED L70
Projected Lumen Maintenance	100%	98.0%	96.9%	95.4%	90.5%	> 60,000

AMBER MULTIPLIER	
CCT	MULTIPLIER
5000K	1
AM	0.1727

2700K MULTIPLIER	
CCT	MULTIPLIER
5000K	1
2700K	0.897

LENS OPTION MULTIPLIER	
CLEAR LENS	DIFFUSED LENS
0.8517	0.6462

Submitted by Swaney Lighting	Job Name: MARTIN'S POINT VERANDA CAMPUS	Catalog Number: RSSA15-40A-OT-DBT	Type: P5
		Notes:	SLA23-57244

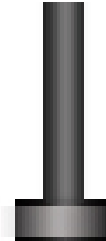


RSS-A Series

ROUND STRAIGHT STEEL POLE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

AAL Poles



SPECIFICATIONS

APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

CONSTRUCTION

- SHAFT:** One-piece straight steel with round cross section, Minimum yield of 46,000 psi (ASTM-A500, Grade C); Longitudinal weld seam to appear flush in shaft wall; Steel base plate with axial bolt circle slots welded flush to pole shaft having minimum yield of 36,000 psi (ASTM A36)
- BASE COVER:** Two-piece square aluminum base cover included standard
- POLE CAP:** Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- HAND HOLE:** Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS:** Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling

FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in multiple standard colors; Custom colors available; RAL number preferable

ORDERING GUIDE

Example: RSS-A-10-40-A-1-BLT-GFI-VM2

CATALOG #

POLE

Series	Pole	Shaft	Thickness	Mounting	Drill Pattern	Finish	VM2
RSS-A Round Straight Steel Pole	Reference page 2 Ordering matrix 15	Reference page 2 Ordering matrix 40	Reference page 2 Ordering matrix A	1 Single arm mount 2 Two fixtures at 180° 2L Two fixtures at 90° 3T Three fixtures at 90° 3Y Three fixtures at 120° 4 Four fixtures at 90° TA Tenon (2.375" OD) TB Tenon (2.875" OD) TC Tenon (3.5" OD) OT Open top (includes pole cap)	K1 2 Bolt 5-9/16 spacing K2 2 Bolt 3-12" spacing K3 2 Bolt 3" spacing	BLS Black Gloss Smooth BLT Black Matte Textured DBS Dark Bronze Gloss Smooth DBT Dark Bronze Matte Textured GTT Graphite Matte Textured LGS Light Grey Gloss Smooth LGT Light Grey Matte Textured PSS Platinum Silver Gloss Smooth VGT Verde Green Matte Textured WHS White Gloss Smooth WHT White Matte Textured Color Option CC ¹ Custom Color	GFI 20 Amp GFCI Receptacle and Cover EHH Extra Handhole C05 .5" Coupling C07 .75" Coupling C20 2" Coupling VM2 2nd mode vibration damper LAB Less Anchor Bolts UL UL Certified

Accessories

VM2SXX 2nd mode vibration damper, ordered separately

Notes:
1 Consult factory for custom color, marine and corrosive finish



RSS-A Series

ROUND STRAIGHT STEEL POLE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

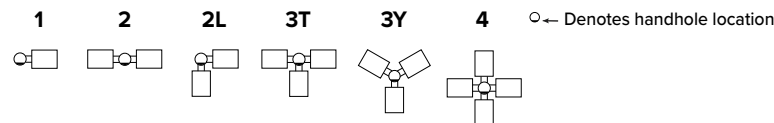
PRODUCTS EXCEPTIONS & DETAILS

ORDERING MATRIX

Cut to 15'

Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle (suggested)	Bolt Circle (range)	Base Square (range)	Base Plate Square	Base Plate Thickness	Anchor bolt size	Bolt Projection	Pole weight
	Feet	Meters										
RSS-A-10-40-A	10	3.0	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	52
RSS-A-12-40-A	12	3.7	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	62
RSS-A-14-40-A	14	4.3	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	72
RSS-A-16-40-A	16	4.9	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	83
RSS-A-18-40-A	18	5.5	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	93
RSS-A-20-40-A	20	6.1	4" round	0.125"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	103
RSS-A-10-40-B	10	3.0	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	77
RSS-A-12-40-B	12	3.7	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	92
RSS-A-14-40-B	14	4.3	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	107
RSS-A-16-40-B	16	4.9	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	122
RSS-A-18-40-B	18	5.5	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	138
RSS-A-20-40-B	20	6.1	4" round	0.188"	9"	7.5" - 10"	5.30" x 7.07"	9"	0.75"	3/4" x 30" x 3"	3.5"	153
RSS-A-10-50-B	10	3.0	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	97
RSS-A-12-50-B	12	3.7	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	116
RSS-A-14-50-B	14	4.3	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	135
RSS-A-16-50-B	16	4.9	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	155
RSS-A-18-50-B	18	5.5	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	174
RSS-A-20-50-B	20	6.1	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	194
RSS-A-25-50-B	25	7.6	5" round	0.188"	11"	8.0" - 11"	5.66" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	242
RSS-A-20-60-C	20	6.1	6" round	0.250"	11"	9.0" - 11"	6.36" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	307
RSS-A-25-60-C	25	7.6	6" round	0.250"	11"	9.0" - 11"	6.36" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	384
RSS-A-30-60-C	30	9.1	6" round	0.250"	11"	9.0" - 11"	6.36" x 7.78"	10.25"	1"	1" x 36" x 4"	4.5"	461

MOUNTING ORIENTATION





RSS-A Series

ROUND STRAIGHT STEEL POLE

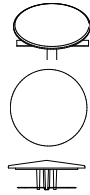
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TYPE: _____ PROJECT: _____

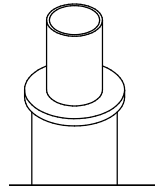
CATALOG #: _____

PRODUCTS EXCEPTIONS & DETAILS (CONTINUED)

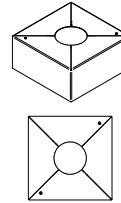
PRODUCT DETAILS



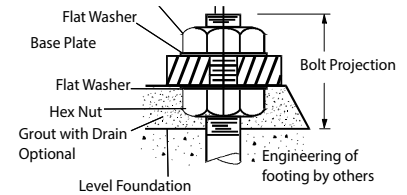
Pole Cap



Tenon



Base Cover



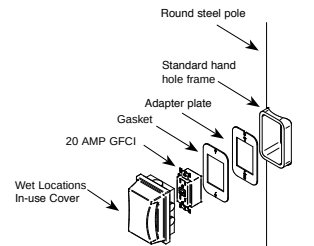
Base Detail



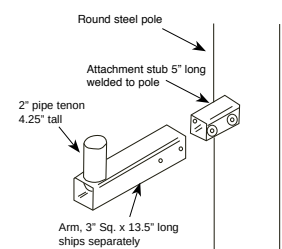
EHH - Extra Handhole



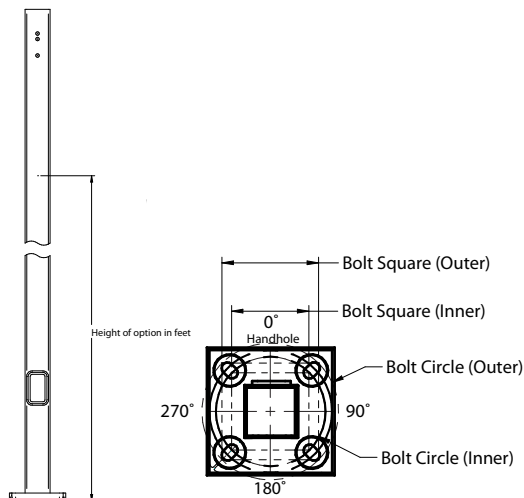
C05 - C07 - C20 - Coupling



GFI - 20 AMP GFCI Receptacle & Cover



MPB - Mid Pole Bracket



OPTION ORIENTATION

- Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option C07 should be ordered as: RSS-A-20-40-A-TA-DBS-C05-0-15 (5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1' spacing required between option. Consult factory for other configurations.

NOTE: Factory supplied template must be used when setting anchor bolts. Current Lighting will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

VM2 - Vibration Damper 2nd Mode

Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd vibration.

VM2SXX - Vibration Damper 2nd Mode

Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd vibration.

VM2S08 - 8'
 VM2S12 - 12'
 VM2S16 - 16'
 VM2S20 - 20'
 VM2S24 - 24'

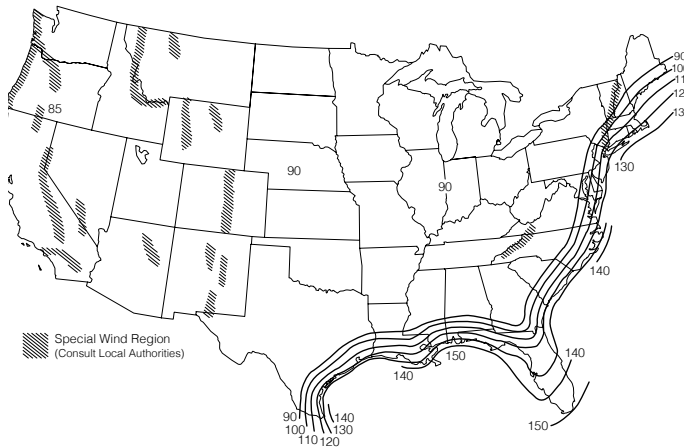

RSS-A Series

ROUND STRAIGHT STREET POLE

DATE: LOCATION:

TYPE: PROJECT:

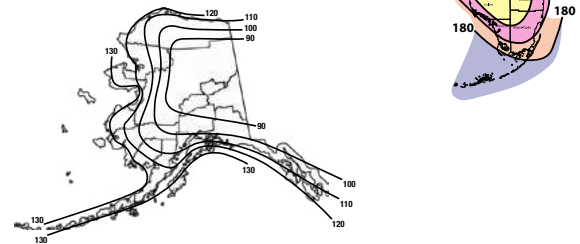
CATALOG #:

PRODUCTS EXCEPTIONS & DETAILS (CONTINUED)
ASCE7-05 WIND MAP

 HAWAII – 105 mph
 PUERTO RICO – 145 mph

*PRINTED WITH PERMISSION FROM ASCE

FLORIDA REGION WIND MAP

- Florida region wind map above is based upon 3-second gust winds and the 2017 Florida Building Code

ALASKA REGION WIND MAP


ASCE 7-05 wind map EPA Load Rating - 3 second gust wind speeds							
Catalog Number	85	90	100	110	120	105	145
RSS-A-10-40-A	21.0	18.7	15.0	12.2	10.1	13.5	6.8
RSS-A-12-40-A	16.8	14.8	11.8	9.5	7.7	10.5	5.1
RSS-A-14-40-A	13.6	12.0	9.4	7.4	5.9	8.3	3.9
RSS-A-16-40-A	11.1	9.7	7.5	5.8	4.5	6.6	2.9
RSS-A-18-40-A	9.0	7.8	5.8	4.4	3.3	5.1	2.0
RSS-A-20-40-A	7.2	6.2	4.5	3.1	2.2	3.8	1.2
RSS-A-10-40-B	25.0	25.0	22.4	18.4	15.3	20.2	10.4
RSS-A-12-40-B	25.0	22.3	17.9	14.5	12.0	16.1	8.1
RSS-A-14-40-B	20.6	18.3	14.6	11.7	9.6	13.0	6.4
RSS-A-16-40-B	17.2	15.2	12.0	9.5	7.7	10.7	5.1
RSS-A-18-40-B	14.3	12.6	9.8	7.6	6.1	8.6	3.9
RSS-A-20-40-B	11.8	10.3	7.9	6.0	4.7	6.9	2.9
RSS-A-10-50-B	25.0	25.0	25.0	25.0	25.0	25.0	17.7
RSS-A-12-50-B	25.0	25.0	25.0	24.8	20.8	25.0	14.3
RSS-A-14-50-B	25.0	25.0	24.7	20.5	17.2	22.4	11.7
RSS-A-16-50-B	25.0	25.0	20.7	17.1	14.3	18.8	9.7
RSS-A-18-50-B	24.5	21.6	17.3	14.3	11.9	15.7	8.0
RSS-A-20-50-B	20.6	18.1	14.4	11.8	9.8	13.0	6.5
RSS-A-25-50-B	13.6	11.7	9.1	7.3	6.0	8.1	3.8
RSS-A-20-60-C	25.0	25.0	25.0	25.0	21.5	25.0	14.8
RSS-A-25-60-C	25.0	25.0	21.9	18.0	15.0	19.8	10.1
RSS-A-30-60-C	21.8	19.4	15.6	12.7	10.6	14.1	6.9

Florida Building Code 2017 EPA Load Rating - 3 second gust wind speeds								
Catalog Number	115	120	130	140	150	160	170	180
RSS-A-10-40-A	25.0	23.5	20.0	17.0	14.5	12.5	11.0	10.0
RSS-A-12-40-A	21.0	19.0	16.0	13.5	11.5	9.5	9.0	8.0
RSS-A-14-40-A	17.5	15.7	13.0	10.8	9.0	7.5	7.0	6.5
RSS-A-16-40-A	14.2	13.0	10.5	8.5	7.0	5.8	5.0	4.5
RSS-A-18-40-A	11.6	10.4	8.2	6.8	5.4	4.4	4.0	3.6
RSS-A-20-40-A	9.5	8.4	6.5	5.2	4.0	3.0	2.8	2.5
RSS-A-10-40-B	25.0	25.0	25.0	22.0	19.0	16.5	15.2	13.4
RSS-A-12-40-B	25.0	25.0	20.8	17.6	15.1	13.0	12.0	10.6
RSS-A-14-40-B	22.5	20.4	17.2	14.4	12.2	10.4	10.0	8.8
RSS-A-16-40-B	18.9	17.0	14.1	11.7	9.8	8.2	7.5	7.0
RSS-A-18-40-B	15.6	14.1	11.5	9.4	7.7	6.4	6.0	5.7
RSS-A-20-40-B	13.0	11.6	9.3	7.5	6.0	4.8	4.0	3.5
RSS-A-10-50-B	25.0	25.0	25.0	25.0	25.0	23.6	20.8	18.4
RSS-A-12-50-B	25.0	25.0	25.0	25.0	22.2	19.3	16.8	14.8
RSS-A-14-50-B	25.0	25.0	23.9	21.5	18.4	15.9	13.8	12.1
RSS-A-16-50-B	25.0	23.8	19.6	18.0	15.4	13.2	11.4	9.9
RSS-A-18-50-B	21.8	19.6	16.1	15.1	12.8	10.8	9.3	8.0
RSS-A-20-50-B	18.2	16.4	14.1	12.7	10.7	9.0	7.7	6.5
RSS-A-25-50-B	11.7	10.2	9.4	8.4	6.8	5.6	4.5	3.7
RSS-A-20-60-C	25.0	25.0	25.0	22.1	18.8	16.1	13.9	12.0
RSS-A-25-60-C	24.7	22.4	18.4	15.3	12.8	10.8	9.1	7.6
RSS-A-30-60-C	18.2	16.3	13.2	10.7	8.7	7.0	5.7	4.5

Submitted by Swaney Lighting	 Job Name: MARTIN'S POINT VERANDA CAMPUS	Catalog Number: RSSA15-40A-OT-DBT Notes:	Type: P5 SLA23-57244
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RSS-A Series

ROUND STRAIGHT STREEL POLE

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

PRODUCTS EXCEPTIONS & DETAILS (CONTINUED)

WIND-SPEED WEBSITE DISCLAIMER:

- Current Lighting has no connection to the linked website and makes no representations as to its accuracy. While the information presented on this third-party website provides a useful starting point for analyzing wind conditions, Hubbell Lighting has not verified any of the information on this third party website and assumes no responsibility or liability for its accuracy. The material presented in the windspeed website should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. Current Lighting does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the windspeed report provided by this website. Users of the information from this third party website assume all liability arising from such use. Use of the output of these referenced websites do not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the windspeed report. <http://windspeed.atcouncil.org>
- Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
- The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
- Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
- Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings.
- Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

Submitted by Swaney Lighting	Job Name: MARTIN'S POINT VERANDA CAMPUS	Catalog Number: RSSA15-40A-OT-DBT Notes:	Type: P5 SLA23-57244
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RSS-A Series

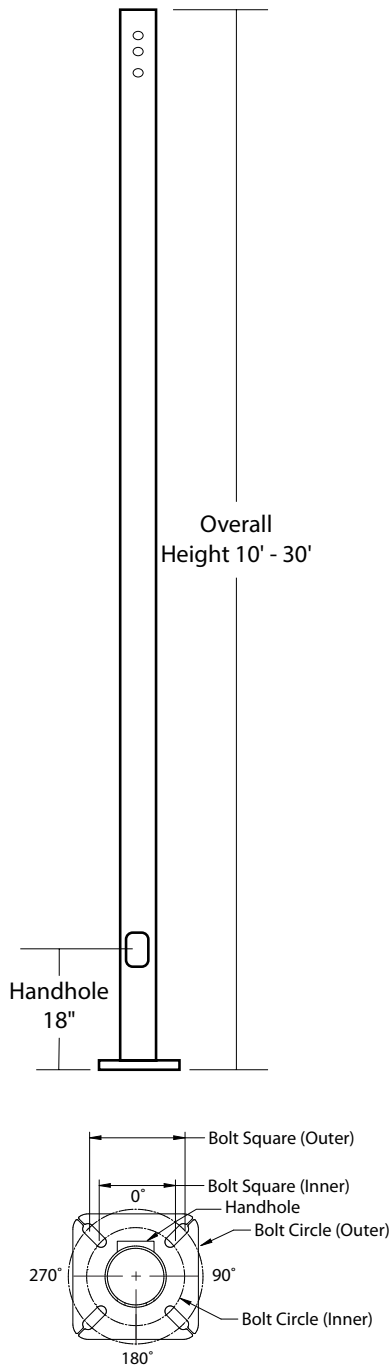
ROUND STRAIGHT STEEL POLE

DATE:
LOCATION:

TYPE:
PROJECT:

CATALOG #:

DIMENSIONS



23: MASSING, VENTILATIONS AND WIND IMPACT (14.6 (A))

1. The proposed building's bulk, location, or height shall not result in health or safety problems from a reduction in ventilation to abutting structures or changes to the existing wind climate that would result in unsafe wind conditions for users of the site and/or adjacent public spaces.
2. The proposed building's bulk, location, or height will not result in any substantial diminution in the value or utility of neighboring structures.
3. Due to the property location, HVAC venting mechanisms will not affect public spaces and residential properties.

We note that an emergency generator will be included to provide emergency egress lighting if power is lost. The emergency generator for the proposed building has not been selected. Zoning requirements related to noise levels produced by mechanical and electrical equipment will be adhered to during the equipment selection process. Once specified, SMRT will provide cut sheets for the emergency generator.

24: SHADOWS (14.6.4(B))

Att. W

The proposed project is located in the R-P zone. The proposed new building will not result in adverse impacts of shadows cast by new structures on publically designated open spaces.

**Construction Management Plan
Martin's Point Health Care – Building 7
331 Veranda Street, Portland 04103**

December 27, 2023

Purpose:

Construction Management Plans shall be depicted on the project site plan, including the overall planning, coordination, and control of a construction site from beginning to completion. The City's goal for a construction management plan is to support a safe construction site and protect public safety, accessibility (including preserving accessible pedestrian, bicycle, and vehicular modes of transport throughout the City), and welfare during construction. In addition, the construction management plan shall minimize construction impacts in duration and magnitude to the surrounding area and develop an effective communication process for resolving concerns and conflicts.

Project Narrative:

The applicant/developer proposes the redevelopment of the Building 7 precinct at the existing Martin's Point Health Care campus at 331 Veranda Street in Portland. This project will primarily disturb previously developed areas involving the removal and replacement of Building 7 and other associated site improvements.

1. Install temporary erosion control measures;
2. Remove vegetation;;
3. Demolition and removals;
4. Excavate to subgrade;
5. Grade for access, building replacement, and stormwater management area;
6. Utilities extension and new services;
7. Install subbase materials;
8. Install surface finishes for parking, walks, courtyard, and pathways and striping in parking;
9. Install landscaping;
10. Removal and disposal of erosion control measures.

Performance Guarantees, Inspection Fees, Pre-construction Meeting, and Permits:

As a Major Site Plan Application, the developer of the project will be required to submit a performance guarantee. This performance guarantee and site development inspection fees will be based on a cost estimate submitted and approved by the City. The guarantee will be a letter of credit from an approved bank or credit union, deposited in a bank-held escrow account or a city-held escrow account. These fees/guarantees will need to be paid and in place prior to scheduling the pre-construction meeting.

As this project involves work within the street right-of-way, the selected site contractor will obtain the required street opening permit from the Department of Public Works. If blasting is necessary for this project, the site contractor will obtain the required permit from Public Works.

Construction Administration and Communication:

This project will be managed by PC Construction of Portland, Maine. A project manager has yet to be assigned.

1. Contact Person and contact information:
 - Developer (Martin's Point Health Care): c/o Jacob Jeppson, (207) 828-2492
 - Site Contractor: TBD c/o Name, (207) phone
 - Civil Engineer (Sebago Technics, Inc.) c/o Paul Ostrowski, P.E. (207) 200-2088
2. Signage will be placed at the site that will include the above contact information. This signage will be removed when the project is complete.
3. The representative for the contractor /developer will reach out to the direct abutters to notify them of the commencement of construction.

Construction Schedule*:

- Application Approval: Anticipated – Spring 2024.
- Pre-construction Meeting: Summer 2024
- Demolition: Summer 2024
- Site Preparation – Summer 2024
- Rough Grading – Summer/Fall 2024
- Utilities, Access, Parking – Fall 2024/Spring 2025
- Building Construction – Fall 2024
- Landscaping/Seeding – Fall 2025/Spring 2026
- ESC Removals – Winter 2025
- Expected Completion – Winter 2025

* Dates are subject to change at the discretion of the engineer, depending on construction progress.

Estimated construction time: -----18 Months±
Erosion Control Measures Placed: ----- 2 Weeks
Demolition----- 1 Month
Site preparation -----2 Months
Rough Grading----- 4 Months
Utilities, Access, Parking-----9 Months
Office/Parking Construction ----- 12 Months
Landscaping/Seeding----- 1 Month
Removal of erosion control devices----- Upon Final Project Completion

1. In accordance with the R-P Zone noise standards, no person shall engage in construction activities generating noise exceeding fifty (55) dB, at all times of day as measured at the property line.

2. Extended Hours or Night Work: Pursuant to Section 17-18, this section does not apply to emergency utility work or "Situations where the public works authority or the office of building inspections determines that the construction activity is of a unique character which cannot reasonably be completed or performed during the permitted hours and which is not of a recurring nature, provided that prior to engaging in such activity, the contractor or his representatives gives notice of the time and scope of such proposed activity, the notice to be given in a manner approved by the public works authority."
3. Pursuant to Section 25-129: "Each permittee shall conduct and carry out excavation work in such manner as to avoid unnecessary inconvenience and annoyance to the general public and occupants of neighboring property. To the fullest extent practicable, the permittee shall take appropriate measures to reduce noise, dust, and unsightly debris in the performance of the excavation work. Excavation work, including the use of any tool, appliance, or equipment, shall be performed between the hours of 7:00 a.m. and 10:00 p.m. only, exclusive of emergency work. Time waiver requests may be submitted to the Public Works authority for work outside of this time period and will be subject to neighborhood concerns. Excavation work shall not occur on Sundays, holidays, or on major holiday weekends unless expressly authorized by the Public Works authority or as a result of an emergency need.
4. If allowed, no construction activity shall begin before 8:00 a.m. on a Saturday, Sunday, or legal holiday.
5. All deliveries for materials will comply with the noise requirements listed above or be restricted to the hours allowed for construction work.

Security and Public Safety:

1. Prior to commencing construction, the site contractor shall install a "Construction Ahead" signs to warn bicyclists, motorists, and pedestrians of construction within the area.
2. The contractor shall be responsible for the setup of the construction staging area before construction begins.
3. The contractors shall be responsible for the safe storage of materials or equipment on-site.
4. The contractor shall have weekly tailgate meetings, which shall include discussions on security and public security.
5. The contractor shall develop a fire safety and emergency protocol and contact the nearest fire station to advise them of the ongoing construction project.
6. Excavations within the site shall be provided with adequate barricades or warnings (i.e. construction area tape around excavation) at night.

Construction Permitting and Traffic Control Plans:

1. Construction Activity in Public Streets: At no time will construction activity, including delivery vehicles, close or block streets or affect public safety access without prior notice and approval of the City of Portland Department of Public Works (DPW).
2. Traffic Control Plans: Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public.

- a. Work within the right-of-way and travel way of Veranda Street is proposed; therefore, temporary lane closures will be required and coordinated with Portland DPW.
- b. Traffic Control signs shall not be placed where they are an obstruction to bicycles or pedestrians.

Site Management and Controls:

1. The land development contractor shall be responsible for the site management during the construction of site infrastructure.
2. Contractor will be responsible for providing and maintaining dumpsters during construction.
3. The contractor will utilize the existing unsignalized access from Veranda Street adjacent to Building 7 as a construction entrance and will maintain Veranda Street by including sweeping as necessary to remove tracked materials.
4. The contractor shall maintain construction BMPs and execute good housekeeping measures.
5. Dust controls: The construction shall comply with Portland's requirements under Section 25-129 on Noise, dust, and debris.
6. Noise: The construction shall comply with Portland's requirements under Section 17-18 of the City Code and Section 25-129 on Noise, dust and debris. The Contractor and City will be responsible for adjusting work should noise become an issue.
7. Rodent Control is not expected for this project. Should it become necessary, it will be provided, if applicable, by a professional exterminator and consistent with Chapter 22 of the City Code or City of Portland Public Works.
8. Snow Removal: Pursuant to Section 25-173, Contractors to ensure a safe means of travel within the work zone.
 - 1) Snow/ice removal or commence automatically from (1" of snow and up) or Ice
 - 2) Remove snow as needed within the work zone, including parking spaces, intending not to block driveways or site lines with piles of snow.
 - 3) Clear all walks and ramps within the work zone
 - 4) Sand or Salt as needed
 - 5) Clear all basin or drainage structures to help snow melt
 - 6) This would include Monday-Friday, Saturday/Sunday, and Holidays.
9. Site management and controls shall be discussed at each tailgate meeting, including maintenance of BMPs and good housekeeping measures.

Erosion Control and Preservation of Trees:

1. The site contractor shall install all temporary erosion and sedimentation controls as depicted on the plans before the pre-construction meeting for inspection by the City. The contractor shall regularly inspect the control measures, no less than weekly and after significant storm events, and maintain any installed temporary or permanent stormwater management systems in working order. The contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for

inspection by the City, and/or the Maine Department of Environmental Protection upon request.

2. The site contractor shall maintain storage of materials and equipment away from the tree drip lines to preserve vegetation at the construction limits.

Construction Staging Area:

1. Portions of the existing paved parking area (unsignalized entrance) will be utilized for material (open storage) and equipment storage area. The exact location of these areas shall be up to the owner and contractor but should be sufficiently away from trees identified for preservation within the designated construction limit line.
2. Delivery Truck Holding Areas On-Site: The construction delivery holding area consists of the parking area abutting the expansion. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always an adequate on-site area for holding the trucks until they can be unloaded without queueing on public streets.
3. Delivery Truck Holding Areas Off-Site: Adequate on-site area for holding of trucks is available, such that Veranda Street will not be utilized for offloading.

Parking During Construction:

1. Construction Parking: Parking for construction workers shall be on the site. No parking shall occur along Veranda Street.
2. Truck Routes and Volumes: All deliveries to and from the site shall occur from I-295 or Washington Avenue and proceed along Veranda Street to the site.

Prepared by:

Sebago Technics, Inc.



Paul D. Ostrowski, P.E.

Senior Project Engineer/Project Delivery & Design Manager

March 14, 2024
211026

Eric Freeman, City Planner
City of Portland Planning Department
389 Congress Street 4th Floor Portland, ME 04101
Portland, Maine 04101

Martin's Point Healthcare Veranda Campus - Site Plan Review Staff Comment Response

331 Veranda Street Portland, Maine 04103

Applicant: Martin's Point Health Care, Inc.

Assessor References: Map 434, Lots C001, C005, C010

Project ID: PL-002766-2023

Dear Eric:

This letter and the enclosed revised plan set are provided to address the major site plan application staff and peer comments for the proposed Martin's Point Healthcare Veranda Campus project on Veranda Street. This response addresses comments provided by the attachments to the Project Review Letter received by email on February 1, 2024. We have organized the responses to restate each italicized review comment, followed by our response in **bold**.

This development triggers major site plan review, and is subject to the following regulations:

- Site Plan-Article 14.6
- Zoning-Table 6C, and Table 7E
- Shoreland Zoning-Article 11.2

Martin's Point Health Care, Inc. has submitted a Major Site Plan application for the redevelopment of the Building 7 precinct at the northern limits of the Veranda Street Campus in Portland. After review of the revised submission materials, the staff's comments are provided below. These comments should not be construed as final or definitive with respect to the ongoing review process.

SITE PLAN WORKSHEET, January 29, 2024, Submission #01/04/2024

Transportation Standards (Sec. 14.6.1)

1. Impact on Surrounding Street Systems

Overview: This application involves reconfiguring the unsignalized intersection approximately 500 feet north of the existing signalized entrance to the Martins Point campus to be a "right-in, right-out" intersection. As noted in the traffic engineering review, changes to the existing signalized intersection on Route 1 may also be required.

Updates Requested:

A. The Applicant should note if the relocation of existing employees to the proposed building is allowing for an increase in medical office space in existing buildings.

Response: Initially, staffing will remain as it exists in the existing space. The focus of this application is the relocation of staff currently working off-site.

B. The base assumption for the trip generation analysis is that the proposed building will function as administrative or office use only. If changes to the use occur, a revised trip generation analysis will be required.

Response: Acknowledged.

C. Based upon the current assumptions, the project does not meet the requirement for a Traffic Movement Permit.

Response: Acknowledged.

D. The analysis indicates the site driveway intersections will operate at acceptable levels of service following project completion.

Response: Acknowledged.

E. Field observations of traffic conditions indicated congestion at the Veranda Street and I-295 Southbound on-ramp intersection. It appears this is related to traffic signal operational issues.

Response: Acknowledged.

F. There are no safety concerns identified in the immediate vicinity of the project.

Response: Acknowledged.

G. Sight distance from the northerly driveway meets city standards.

Response: Acknowledged.

- H. *The traffic model analysis did identify vehicle queuing following project completion will exceed available storage. I would note that the through-lane queue is longer and will prevent vehicles from entering the left-turn lane.*

Response: Acknowledged.

- I. *Traffic Signal Equipment upgrades to the signal on Route 1 are required. The Applicant shall implement the following:*
- *Fiber interconnect to the new signals at the Vernada Bridge interchange.*
 - *The controller cabinet shall be updated to ATC architecture.*
 - *Reflective border backplates meeting current standards.*
 - *The Route 1 Southbound permissive left-turn phasing shall be modified to a flashing yellow phasing system.*

Response: It is our understanding based on a review of the construction plans from MaineDOT WIN #021745.00, that fiber interconnect to the new signals was already installed in 2022 along with a new ATC controller, fiber optic patch panel, and ethernet switch. It is our opinion that the remaining items including the reflective border backplates and signal head modifications are maintenance items and were not identified as a need in the study based on safety or capacity review.

- J. *For the northerly driveway, I would suggest a raised median be constructed to prevent left-turn movements. This will also have traffic-calming benefits.*

Response: The right-in/right-out was designed such to restrict left-turns entering and exiting the access, and for that reason, a raised median was not proposed.

- K. *The entrance off of Route One is a commercial driveway and needs to be designed in accordance with City Standards. The existing driveway width shall be reduced, removed, and reconstructed per the City Technical Manual Standard for COMMERCIAL/INDUSTRIAL DRIVEWAY APRON I-9B and I-10C. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope.*

Response: The entrance is designed in accordance with the City Technical Manual to the maximum extent possible. The profile is designed to meet required slopes, including a maximum 2% slope in the sidewalk width. The design does not follow the 24' maximum apron width due to the alignment for the right-in/right-out. The plans have been updated to include a note referencing the Standards for the Contractor to assure compliance with the standards.

- L. *The Applicant shall provide vehicle turning template graphics and justification for the wide diagonal painted area at the garage entrance.*

Response: Vehicle turn graphics were included in **Section 21 Public Safety & Fire Protection** uploaded to EPlan on 12/22/2023. The painted area provides fire truck access to the building side and also accommodates short-term parking for deliveries or maintenance arriving in vehicles that exceed the garage entry height. Please see the enclosed updated **Turning Movement 2-Fire Truck** graphic showing both the movement of the fire truck and a delivery truck occupying the space.

2. Access and Circulation

Overview: This application involves reconfiguring the interior driveways and sidewalks within the Martins Point campus to accommodate the proposed building and associated parking. This application also involves improvements to the public realm with publicly accessible areas, including regrading sections of the Martins Point trail and creating a new public terrace area.

Response: Per subsequent discussion with the City, the public terrace area has been removed from consideration.

Updates requested:

- A. *Staff has noted several areas on the Martin's Point trail where average gradients are too steep to be considered ADA compliant.*

Response: Acknowledged. Please see revised Sheet 15-Rear Path Grading Plan. The grading along the pathway is revised to be ADA-compliant.

- B. *Any improvements, disturbance, or impact to the City-owned parcel directly east of the project will require review and approval by the National Parks Service in compliance with the deed restrictions imposed on the parcel when the federal government gifted the land to the City. The City and the NPS must ensure that any proposed changes to the land conform to the development plan that was created when the land was transferred into City Ownership. Similarly, any improvements or impact to this parcel will require Parks Commission review and approval.*

Response: Acknowledged.

- C. *Parks advocates strongly for public beach shoreline access (up to the high-water line) at Martin's Point and would like to pursue a shoreline easement for public recreational use along the Applicant's property. Providing public access through an easement at this site would allow for a nearly continuous stretch of publicly accessible shoreline between Martin's Point Park (City property east of the medical facility) to the Roux Institute Property at the former B&M Factory.*

Response: Acknowledged. We note that a formal agreement for trail access currently exists between the City and MPH. The Parks request for expanded and continuous shoreline access continues to be discussed between the Applicant, the Applicant's representative (Sebago Technics), and the City. The decision is contingent upon factors such as access timing, use enforcement, repairs and responsibilities, liability issues, scheduled maintenance visits by Parks, and a possible ranger patrol agreement. A formal agreement will be generated, and after mutual review and acceptance of the proposed terms, it will be recorded in the registry of deeds.

- D. It appears the pedestrian connectivity from the existing trail on the southeast side would be up the existing stairs, and then down a new set of stairs. Staff would like to ensure that all internal circulation through and between buildings is fully ADA-compliant.*

Response: The stairs between existing Building 6 and the proposed Building 7 are not considered a trailhead connection. The proposed stairs represent the utilization of unused space on the Martin's Point property. The official trail connection that meets applicable standards occurs along the face of the proposed Building 7, as shown on the appended plans.

- E. There is a need for improvements for pedestrian circulation and access between the proposed front parking/loading area and the beginning of the multi-use trail and terrace area. A dedicated pedestrian through-route should be provided.*

Response: Acknowledged. Please see the revised site plan, where an additional crosswalk is proposed north of Building 7 to guide pedestrians from the front parking/loading area to the multi-use trail area.

3. Public Transit Access

Overview: This project is within the ¼ mile of METRO Route 7. A bus stop on Veranda Street serves the Martins Point complex.

Updates requested: None, Finding: Met

4. Parking

Overview: This site is eligible for an exception to off-street parking minimums (Article 19) due to the site's proximity to fixed-route transit. The application involves the addition of 92 new parking spaces. The proposed office building will have two levels of structured parking with some additional surface parking provided along the new accessway to the garage. This application also involves reconfiguring existing surface parking and vehicular circulation within the existing campus.

Updates requested:

- A. *Section 11.4.11 prohibits parking to be located within the 75' setback.*

Response: The proposed parking is the redevelopment of an existing parking lot. Site conditions are improved by reducing impervious area located within the 75' setback.

- B. *Public parking should be provided for access to Martin's Point Trail.*

Response: The public will not be restricted from parking in the exterior lot at Building 7 to access the trail. The public will not have access to garage parking if they are on-site to enjoy recreational uses provided by the City.

- C. *The large impervious loading area intrudes into the 75' shoreland setback. Please provide justification for why such a large impervious area is required.*

Response: The proposed loading area is the redevelopment of an existing impervious area. Space must be provided to accommodate short-term parking for deliveries or maintenance and emergency vehicle access to the fire lane. Reference is made to Section 21.

5. Transportation Demand Management

Overview: Not applicable – This site does not meet the criteria for TDM

Environmental Quality Standards (Sec. 14.6.2)

Preservation of Significant Natural Features and Landscape Preservation

Overview: the current site is a mixture of impervious and vegetated surfaces. The majority of the existing impervious surface is located on the eastern side of the parcel, closer to Veranda Street. The site also contains a mixture of mature and semi-mature trees of varying types, wild grasses, and bushes. Existing trees on site have been documented. The Applicant has utilized protection measures outlined in the City's Technical Manual.

1. Landscape Preservation

- A. *Tree removal in the shoreland zone between 75 and 250 feet from the high-water mark, including for permitted development, cannot exceed 40% of the existing trees 4" in diameter and greater.*

- *An inventory of all stems 4" and greater will need to be provided to determine compliance.*

Response: Acknowledged. The plans have been revised to indicate the requested tree inventory. Per the updated information, we confirm that the permitted development does not exceed the 40% tree removal standard.

Reference is made to the revised plan *Sheet 40-Tree Preservation and Removal Plan*.

- B. Tree removal within 75' of the high-water mark must comply with the point system thresholds outlined in section 11.4.3.F(2) of the City Code.*

Response: As discussed, Sebago Technics has conducted a point system threshold inventory for trees removed within 75' of the high-water mark as outlined in the referenced City Code above. The results of the inventory are included on plan *Sheet 40-Tree Preservation and Removal Plan*.

- C. Please refrain from including maple trees in the proposed landscape plan.*

- The greater Portland area is oversaturated with maple trees and is incredibly vulnerable to infestation by Asian Longhorned Beetle.*

Response: We acknowledge the City's preference and will refrain from using maple trees in the landscape plan.

- D. General recommendation is to plant single-stem B&B birch specimens instead of the 3 stem clumps*

- The clump plantings are more prone to windthrow and snow/ice loading damage due to asymmetrical root systems and eccentric canopies.*

Response: Multi-stem plantings are not proposed in public right-of-ways. As discussed, multi-stem plantings are not regulated by the City. We appreciate the discussion and have selected this plant to avoid windthrow and snow/ice damage.

2. Site Landscaping and Buffers

Overview: Landscape plans provided detailing proposed tree removals and new plantings. Existing tree cover and vegetation will be preserved where possible.

Three new street trees are proposed along Veranda Street. The exact locations of these plantings will be coordinated with the Department of Public Works.

Loading and service areas are adequately screened from public view particularly from Veranda Street.

Updates requested:

- A. Please include the 75' and 250' boundaries from the high-water line for the shoreland zone on all plans.*

Response: The resource setbacks have been added to plans, as requested.

3. Water Quality, Stormwater Management, and Erosion Control

Overview: The proposed building is designed to minimize impervious area to the greatest extent possible. Proposed stormwater facilities on site do not include ponding, and the stormwater report included in the application demonstrates that no flooding or adverse impacts are anticipated on adjacent properties.

Updates requested:

- A. *Based on the information provided in the stormwater management report, it appears that a Site Location of Development permit may be required. The Maine DEP threshold for Site Law is 3 acres of new "structure" which includes buildings, parking lots, roads, paved areas, and any areas striped or graded and not revegetated. In the stormwater management report, the Applicant notes that proposed improvements within redeveloped and newly developed areas include 3.19 acres of impervious surface, which would indicate that the threshold has been met for this type of permit. Please clarify the areas being accounted for as part of the development work. If Site Law is required, the City of Portland has delegated review authority, but the Applicant should also confirm that a Site Law permit does not already exist for this site with the Maine DEP.*

Response: The 3.19 acres of impervious surface includes the existing impervious area that is being redeveloped. With the removal of the proposed trailhead patio, the total proposed impervious area is now reduced to 3.14 acres. The project proposes approximately 0.49 acres of new impervious area.

The project is required to provide for stormwater management in accordance with standards in Maine DEP Chapter 500 and the City of Portland's Section 5 of the Technical Manual. I have the following comments on the proposed stormwater management systems.

STORMWATER MANAGEMENT:

Basic Standards: The project is required to provide for erosion and sedimentation controls in accordance with Basic Standards.

- B. *The project generally complies with the standards; however, there are a few places surrounding the site where the filter barrier is not shown, along the northern side of the Veranda Street entrance, continuing through the site adjacent to the right-hand turn in the driveway turning towards the new building, and along the west side of the steep driveway to the existing building. Filter barriers should be provided in all areas downhill of the proposed disturbance.*

Response: Acknowledged. Please see the revised grading plans for the updated filter barrier locations.

- C. *With significant work within the stormwater treatment system, it is recommended that some type of barrier like a floating boom be installed downstream of the site's outfall during any time that the system under construction remains connected to the outfall.*

Response: Acknowledged.

General Standards: *The Applicant is proposing to remove existing Filterra tree box filters and a soil filter and replace them with a Jellyfish for stormwater treatment for the proposed development. I have the following comments on the proposed system.*

- D. *The Jellyfish filter is an approved propriety stormwater treatment system in the Maine DEP Stormwater Best Management Practices manual; however, it is unclear how the submitted system meets the Maine DEP standards as currently shown. The proposed system does not include any associated storage, which is how the Jellyfish Filter is described as part of the Maine DEP's standard approval. I did touch base with one of the Maine DEP stormwater engineers, and he noted that this type of system can be approved without storage in certain situations (i.e. designed for flow from the entire site of the 0.95" storm without bypass). The Applicant should work with the manufacturer to provide further verification that this system is designed per Maine DEP standards.*

Response: Acknowledged.

- E. *It's noted that the areas described in the manufacturer's design letter are larger than the treatment areas in the general standard design table. The design areas should be clarified.*

Response: Acknowledged. Reference is made to the March 8, 2024 letter, calculation and details received from Contech that is enclosed at the end of **Section 19-Water Quality, Stormwater Management, and Erosion Control**, submitted to the City as a versioned copy.

- F. *The detail for the Jellyfish Filter should be provided within the drawing plan set. It was only included in the stormwater report.*

Response: The details for the Jellyfish filter have been added to the plan set, as requested.

- G. *A small area of permeable paver treatment is proposed on the site. The plans should clarify where this is located.*

Response: Acknowledged. This permeable paver design feature has been removed from the proposed project.

- H. *Flooded Standards: The project has requested a waiver of the flooding standard in the stormwater management report. This waiver is appropriate as the project will be discharging directly to the ocean and should be reflected in the project waiver requests. It is recommended that the existing outfall condition be evaluated to ensure that no repairs are necessary.*

Response: The waiver request has been added to Section 8 of the application, as requested. The versioned copy is available in EPlan.

- I. *Drainage from covered parking areas is required to discharge through an oil water separator to the sewer, and not connect to the stormdrain. This connection should be clarified on the plans and a detail should be provided for the oil water separator.*

Response: An oil water separator has been added to the design and is detailed on the revised plans.

- J. *Within the proposed stormdrain system, there are a few pipes that have very steep slopes of 10% or greater. It is recommended that these be evaluated and adjusted to account for site conditions and invert changes, and possibly drop structures as necessary.*

Response: The proposed pipes showing slopes steeper than 14% are relief drains from the proposed retaining walls. The project's revised stormdrain system now proposes the relief drains outlet directly to the site to be collected in the closed drainage system downslope.

- K. *Any internal drainage from the covered parking area must be directed through an oil water separator. (detail located in section #2 of the technical manual) and directed into the sewer system. It appears internal drainage from the parking area may be directed to the storm drain system on the plans, but it is unclear.*

Response: Internal drainage from the parking area is directed through a proposed oil water separator to the proposed sewer pump station. The roof drain from the proposed building is directed to the storm drain system.

- L. *A second row of ESC barriers should be added for devices protecting natural resource areas.*

Response: Acknowledged. Please see the revised grading and utility plans for additional ESC controls, as requested.

- M. *It's assumed that the site's existing storm drain system will be utilized during construction. ES measures to protect this existing storm drain system during construction should be added to the plan.*

Response: Acknowledged. Please see the revised grading and utility plans.

- N. Outlet protection details and notes should be added to the plans for the proposed storm drain outfall pipe.*

Response: Acknowledged. Please see the revised grading and utility plans for updated details and notes.

Public Infrastructure and Community Safety Standards (Sec. 14.6.3)

1. Consistency with City Master Plans

Overview: This project is within an existing medical campus facility and is consistent with the 2017 Master Plan. The Applicant has demonstrated adequate Right, Title and Interest for all parcels associated with this application.

Updates requested:

- A. The boundary survey provided dates from 1994 and is not in compliance with survey standards outlined in the City's technical manual (Article 13.2)*

Response: Acknowledged. As discussed with City staff, the boundary information has been updated and is shown on *Plans 41 and 42* prepared by Sebago Technics, revised to meet City standards. The updated plans supersede the previous Existing Conditions plans prepared by others.

- B. Label the City's easement interests with deed references on the land of Martin's Point. If they don't have these already, I can pull them together for them and their team to review.*

Response: The City's easement interests are shown on *Existing Conditions Plans 41 and 42*.

- C. Label the City as the abutter to the northeast versus no label to the abutting land where the City owns park land. Land Martin's Point can't really use as part of their development project.*

Response: The abutting property is labeled as requested. Improvements on the abutting land of the City are no longer proposed.

- D. Move the proposed utility pole relocation of UP CMP 42 from land of Martin's Point and onto the City's gifted park land. This pole should stay on Martin's Point property and not be relocated onto City property. This is likely to be problematic and will require the City to grant an easement to CMP and possible other utilities.*

Response: Acknowledged. The utility pole is no longer proposed as part of the site improvements.

2. Public Safety and Fire Prevention

Overview: A life safety plan and fire suppressing plan was included with this application. The Applicant has ensured that emergency vehicles have access to the rear of the building via the paved walkway on the northeastern side of the proposed building. Emergency Vehicle turning templates were also provided.

Updates requested: None, standards met.

3. Public Utilities

Overview: This application involves underground electrical utilities extending from existing on-site infrastructure.

Sewer connectivity will be provided by a new 6" service line with an exterior pump station. The Applicant has provided a wastewater capacity authorization letter.

Updates requested:

A. *The Applicant has included correspondence with the utilities as part of the application. Final concurrence of ability to serve should be provided when received.*

Response: Final ability to serve letters will be provided to the City, as requested, when available.

Site Design Standards (Sec. 14.6.4)

1. Massing, Ventilation and Wind Impact

Overview: The proposed building is 44'-10" in height. Given the grade change within the Martins Point campus, the roofline of the proposed building would be level with the existing Building 6.

As the building is smaller in scale to surrounding buildings, there are no anticipated impacts associated with this application.

Updates requested:

A. *The maximum height in the R-P Zone is 45' The Zoning Analysis Table gives the height as 44' 10.5". How was this determined? The height needs to be measured from the average grade. Please provide documentation of how the average grade is determined and then include the average grade line on all of the elevations. Also, the height is measured to the roof beam in a flat roof. Please provide information on what is located above the roofbeam on the building.*

Response: The project architect, SMRT, provides plan AE200 - Building Height Analysis as measured from average grade. Items located above the roofbeam include required mechanical infrastructure.

2. Shadow

Overview: No adverse shadow impacts are associated with this application.

Updates requested: *None. The standards of this section are met.*

3. Snow and Ice Loading

Overview: The proposed building is not in a location which would impact snow and ice fall on abutting properties or Rights-of-way. A snow melt system will be incorporated into the garage ramps.

Updates requested: *None. The standards of this section are met.*

4. View Corridors

Overview: The proposed building is similar in height and scale to the existing building 6. There are no view corridor impacts anticipated with this application.

Updates requested: *None. The standards of this section are met.*

5. Historic Resources

Overview: This application is not within a historic district, but is subject to Historic Preservation administrative review given the sites proximity to the Marine Hospital.

Updates requested: *See attached design/Historic Preservation Memo.*

6. Exterior Lighting

Overview: This application includes improvements to street lighting along Veranda Street. Pole mounted lighting will be installed along pedestrian walkways and along the public terraced area. Due to the location, no significant light impact is anticipated for adjacent properties.

Updates requested: *None. The standards of this section are met.*

7. Noise and Vibration

Overview: No significant noise or vibration impacts are anticipated with this application.

Updates requested: *None. The standards of this section are met.*

8. Signage and Wayfinding

Overview: Proposed signage will be similar in scale and design to existing wayfinding signage for the Martin's Point campus. Additional traffic directional signage is detailed in the applicans sign schedule.

Updates requested: *None. The standards of this section are met.*

9. Design Standards

Overview/Updates requested: *See attached design and historic preservation memo.*

Zoning Use Review (Article 6)

Proposed Use: Medical Office, R-P Zone

Supplemental or Accessory Use Standards

1. Shoreland Zoning 11.15.1

Overview: This project falls within 250 feet of the shoreland setback.

Updates requested:

- A. *The 75' setback should be measured from the Astronomical High Tide which is published by the Maine Geological Survey. The high tide elevation needs to be included on the site plan to confirm the 75' setback.*

Response: Acknowledged. The 75' setback shown is measured from Astronomical High Tide, as discussed with City staff.

- B. *Within the shoreland zone a patio cannot encroach into the 75' setback.*

Response: Acknowledged. The proposed patio, as shown on the initial project plans, has been removed from consideration.

- C. *Section 11.4.10 prohibits a driveway to be located within the 75' setback.*

Response: The proposed driveway is the redevelopment of an existing impervious area.

- D. *Section 11.4.11 prohibits parking to be located within the 75' setback.*

Response: The proposed parking is the redevelopment of an existing parking lot. Conditions are improved by the reduction of impervious square footage located within the setback.

- E. *The proposed building encroaches into the V2 (EL 27) Special Flood Hazard area. The site plan incorrectly labels it as an A2. The Applicant will need to submit flood plain permits and elevation certificates when they apply for their building permit.*

Response: Acknowledged. Please see revised site plan for updated labeling.

Zoning Performance Standards (Sec. 6.8)

1. 6.8.8 Landscaping and Screening

Overview: In all mixed-use zones, the O-P zone and the R-P zone, and the A-B zone outside of restricted access areas, sites shall be landscaped to screen parking and accessory site elements, including storage and solid waste receptacles, from right-of-way, public open space, or abutting residential zones.

Updates requested: None. The standards of this section are met.

2. 6.8.18 Vibration

Overview: In all mixed-use zones, the O-P, and the R-P zones, vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries. This shall not apply to vibration resulting from activities aboard a vessel or from railroad vehicle activities, or from activities on a pile-supported pier.

Updates requested: None. The standards of this section are met.

Zoning Dimensional Review (Article 7)

The dimensional standards (Table 7A-7H) are met with the exception of the demonstration of the building height. As previously stated, supplemental information regarding the building height will be provided by the project architect, SMRT.

Design Review Planning and Urban Development, Date of Review: January 18, 2024

II. Design Review Comments: ~~bold text denotes recent updates met~~, red text denotes standards not met to require resubmission.

Staff comments: The proposed development plan and office building is located at the Martin's Point Health Care campus, situated on a peninsula of land with ocean views and steep topography. The existing campus is comprised of a sprawling arrangement of low-storied administration buildings, the health care center with a parking structure and the U.S. Marine Hospital as a designated National Register Landmark. Similar materials such as brick, stone, paneled glass and metal roofing and accents with strong symmetrical arrangements are utilized throughout the campus.

The proposed office building is an exaggerated two-three stories with cantilevered glass projections that terminate at each end. Large expansive glass curtain walls are integrated into brick and stone facades that staff finds appropriated to relate to the established campus buildings. Staff is requesting the Applicant provide specific material selections for the identified spandrel, as it appears the spandrel material is proposed between floors in the curtain wall system, below glass guardrails, and roofline. Staff recommends the termination of exterior

building facades should relate to the surrounding campus building with stone capping above masonry and metal trim above glass.

SMRT RESPONSE: Spandrel is intended to be glass where spandrel occurs within curtain wall portions of the building to maintain the continuity of the building form. The spandrel at the masonry portions of the building, below guardrails, and at rooflines (other than curtain wall) is intended to be aluminum metal panel. There is intentionality in the use of different masonry materials in addition to the curtain wall to create contrast and celebrate the Marine Hospital. The building volume is broken down into distinct forms to help reduce the overall scale of the proposed building and create scalar relationships with the marine hospital's form and patterning, particularly when viewed from Route 1. To mitigate the current "sprawling arrangement of low-rise" red brick structures, we introduced a darker brick volume and the curtain wall to complement and celebrate the Marine Hospital so it would not get obscured in a sea of red brick. In lieu of relating to the Marine hospital with granite lintels above windows, the red brick portion of the building celebrates traditional brick construction by utilizing corbelling to terminate window heads and other openings. The darker brick creates continuity with the shoreline and formal relationship to Fort Gorges which is a simple, singular material approach to window and other openings.

The existing campus buildings include clearly articulated building entrances with strong patterns of pedestrian circulation. Staff finds that the primary building entrance that terminates the elevated walkway between the health care center and the proposed office building is minimal and recommends an integrated canopy or other architectural element that relates to other campus buildings. In addition, staff recommends secondary building entrances, such as long the north, east, northeast and south elevations should be clearly identified in addition to the proposed door color.

SMRT RESPONSE: The owner is sensitive to creating confusion between patient points of entry and employees. Patient care is the primary focus which led to subtle, less prominent access points to the proposed building since no patient activities exist within it.

III. Historic Preservation Advisory Review

Article 14.6.4.E-2, states that developments within 100 feet of any landmark, historic district, or historic landscape district shall be generally compatible with the major character-defining elements of the portions of the landmark and historic districts in the immediate vicinity of the proposed development. This requirement is informally referred to as the Historic Preservation Advisory Review. In conducting this advisory review, a member of the Historic Preservation staff participates in the design review with the Urban Designer and Assigned Planner.

Response: Pedestrian and vehicular elements associated with the overall campus circulation occur within the aforementioned 100-foot radius of the Marine Hospital. Building 7, as designed, is located beyond the 100-foot setback; however, as described above by SMRT, Building 7 is thoughtfully designed to be compatible with the existing character of the Marine Hospital and other adjacent brick buildings on the MPHRC campus without being overstated or detracting from the prominent features or overall character of the Marine Hospital.

As you may know, Maine Historic Preservation reviewed the project and massing for elements of historical concern prior to the City application submittal. MHPC concluded that the development program at Building 7 does not adversely affect the Marine Hospital. Reference is made to the revised *Section 27-Historic Resources*.

For the purpose of this provision, "compatible" design shall be defined as design which respects the established building patterns and visual characteristics that exist in a given setting and, at the same time, is a district product of its own time. Historic Preservation staff has provided a written analysis of the proposed development's immediate context, identifying the major character-defining elements and any established building patterns that characterize the context.

The Marine Hospital (at Martin's Point)

The Marine Hospital at Martin's Point is an Individual Portland Landmark, designated in 1990. The structure was built between 1855 and 1859, following the design of Ammi B. Young, Supervisory Architect of the United States Treasury. It was designed in the Italianate style to function as the first purpose-built home for Portland's federally enabled Marine Hospital which had existed in the City since 1805. The building is constructed out of brick with a granite foundation and trim and extensive use of structural and ornamental cast iron, in particular at the front and side triple-height porches. The building features accentuated corners with large granite quoins, a strong horizontal string course above the first floor, and is capped by a heavy bracketed cornice. Windows are arranged regularly around the building, and overall it features a highly symmetrical H-shaped plan with central front and rear entrances. These entrances are prominent given their centered position and the grouped openings stacked above them.

Additional information provided to the City in this comment response includes a revised *MORE INFO* section originally uploaded to CSS on December 22, 2023 prior to the EPlan invite. Since that time, the project site is revised to include all MPHPC acreage on Veranda Street. The revised information is offered for the City record and formally amends and supersedes the original CSS *MORE INFO* provided to the City in December of last year. The changes do not affect the proposed development submittal or review. The changes are provided to document the site data for the overall parcel in lieu of the improvement area only.

We are hopeful that this letter, the versioned section text, and the revised plans adequately address the review comments so that the project will move forward in the City's Major Site Plan review process. Upon your review of the enclosed information, please call with any questions or comments. We appreciate your consideration.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Kylie S. Mason". The signature is written in a cursive, flowing style.

Kylie S. Mason, RLA, LEED-AP
Chief Operations Officer
Maine Licensed Landscape Architect

KSM/kgk/skn

enc.

cc: Martin's Point Health Care, Inc.

30: SIGNAGE AND WAYFINDING (14.6.4(H))

1. The size, scale, proportions, design, and materials of permanent freestanding signs are designed to complement the subject building and do not adversely affect visibility at the building or intersections.
2. On-site directional traffic signage is provided for safety and ease of navigation. A formal sign schedule is provided on the appended site plans.



Eric Freeman <efreeman@portlandmaine.gov>

Martin's Point site plan

Jaime Parker <jaime@trails.org>

Fri, Jan 12, 2024 at 5:11 PM

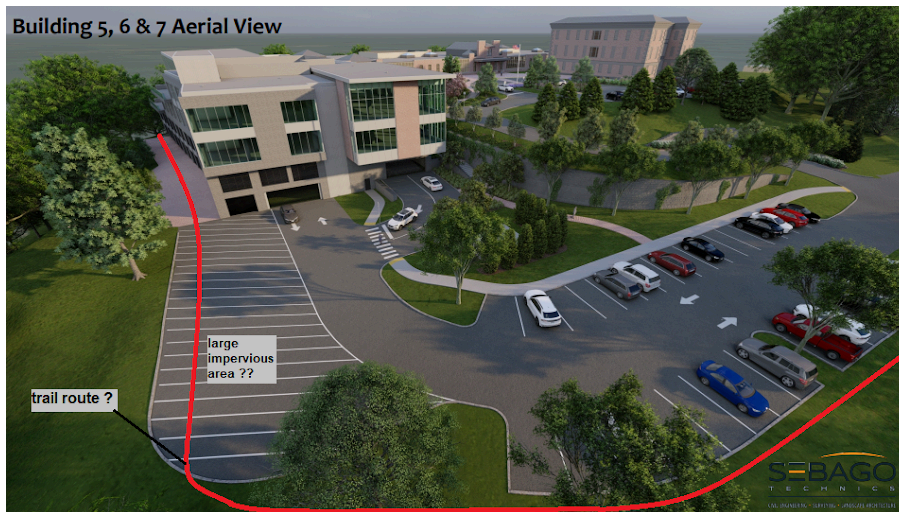
To: efreeman@portlandmaine.gov, Jon Kachmar <jon@trails.org>

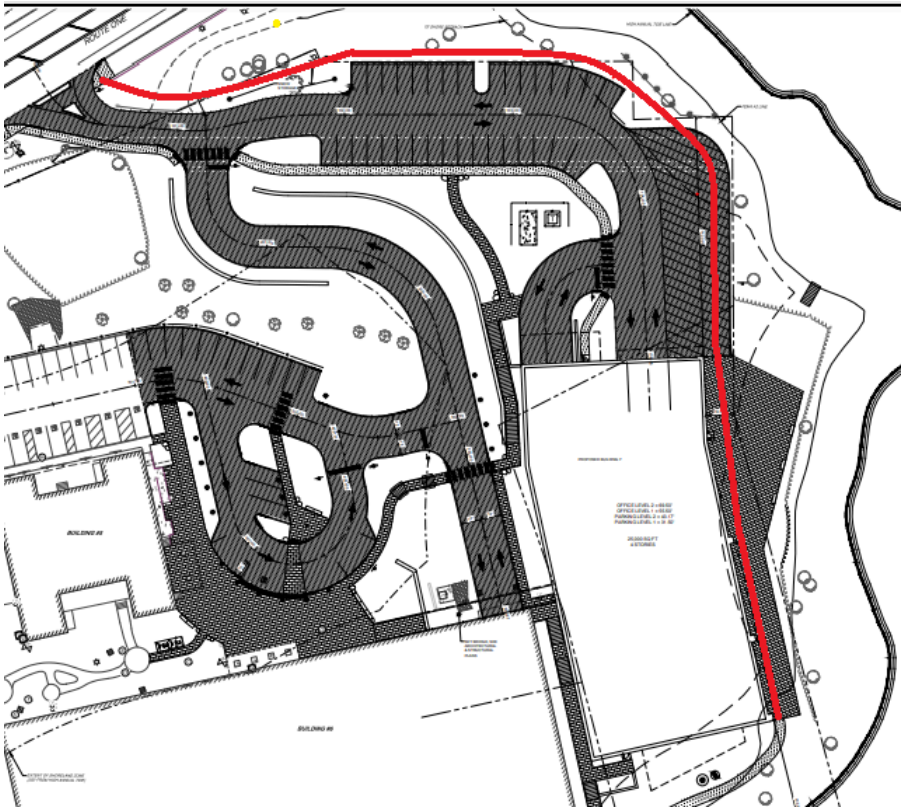
Hello Eric,

I had some questions about trail connectivity related to the proposed project [PL-002766-2023].

1. It appears the pedestrian connectivity from the existing trail on the southeast side would be up the existing stairs, and then down a new set of stairs. This seems an awkward route, and I'm curious if there has been consideration of an at-grade continuation of the trail along the east side of the new building, and along the edge of the access drive/parking lot out to Veranda St and the multi-use trail.

2. There is a large paved area shown adjacent to the access drive. What is the purpose of this area (presumably impervious) which appears partly to come into the 75' shoreland setback?





Portland Trails has long been interested in continuing the trail along the edge of the point to connect back to the bridge. We'd be interested to meet with you and maybe someone from Acorn to discuss options.

Thanks so much, have a great long weekend.

Jaime

Jaime Parker
Trails, Transportation and Placemaking
Portland Trails
jaime@trails.org
207.329.6180

Non Sibi, Sed Omnibus

TAX PARCELS: 434-C-1-434-C-5 & 434-C-10

LEGEND

EXISTING	PROPOSED
PROPERTY LINE/R.O.W.	
ABUTTER LINE/R.O.W.	
DEED LINE/R.O.W.	
TE LINE	
SETBACK	
EASEMENT	
BUFFER	
FLOODPLAIN	
FLOODWAY	
CENTERLINE	
MONUMENT	
IRON PIPE/ROD	
DRILL HOLE	
C1/L1 DEED CALL	
C1/L1 CURVE/LINE NO.	C1/L1
SOILS	
ZONE LINE	
ZONE LINE ON PL	
BENCHMARK	BENCHMARK
SURVEY CONTROL	
TEST PIT	
MONITORING WELL	
BORING	
BUILDING	
DECKSTEPS/ OVERHANG	
EDGE WETLAND	
WETLANDS	
UPLANDS	
STREAM	
LEDGE	
EDGE PAVEMENT	
PAVEMENT SAWCUT	
EDGE CONCRETE	
PAVEMENT PAINT	
EDGE GRAVEL	
CURB LINE	
EDGE OF WATER	
TREELINE	
CONTOURS	
SPOT GRADE	
CHAIN LINK FENCE	
BARB WIRE FENCE	
STOCKADE FENCE	
GUARD RAIL	
STONE WALL	
RETAINING WALL	
DECIDUOUS TREE	
CONIFEROUS TREE	
MULCH LINE	
BOLLARD	
SIGN	
RAILROAD	
GAS	
GAS GATE VALVE	
GAS METER	
GAS MANHOLE	
WATER	
WATER GATE VALVE	
WATER SHUT OFF	
HYDRANT	
WATER MANHOLE	
WELL	
SANITARY SEWER	
FORCE MAIN	
SANITARY MANHOLE	
SEWER CLEANOUT	
STORM DRAIN	
UNDER DRAIN	
DRAINAGE MANHOLE	
CATCH BASIN	
OVERHEAD UTILITY	
UNDERGROUND UTILITY	
TRANSFORMER PAD	
ELECTRICAL MANHOLE	
ELECTRIC METER	
HVAC UNIT	
TELEPHONE MANHOLE	
LIGHT POLE	
UTILITY POLE	
CUT WIRE	
DRAINAGE DITCH	
EROSION CONTROL BLANKET	
FILTER BARRIER	
RIPRAP	
CHECK DAM	
INLET PROTECTION	
BOULDER	
STREAM	

GENERAL NOTES

- THE RECORD OWNER OF THE PARCEL IS MARTINS POINT HEALTH CARE, INC. AS RECORDED IN BOOK 24070, PAGE 323, BOOK 29771, PAGE 60, BOOK 11581, PAGE 337 (HTTA, PENOBSCOT BAY MEDICAL ASSOCIATES, INC. 71 AND BOOK 4896, PAGE 109 (HTTA, PENOBSCOT BAY MEDICAL ASSOCIATES). BOOK AND PAGE NUMBERS ARE REFERENCED TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS UNLESS NOTED OTHERWISE.
- THE PROPERTY IS SHOWN AS LOTS C001, C010, AND C005 ON THE CITY OF PORTLAND TAX MAP 434 AND IS LOCATED IN THE RESIDENTIAL PROFESSIONAL DISTRICT WITH A SHORELAND ZONING OVERLAY.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNIQS, INC. IN 2023-2024 AND INFORMATION COLLECTED BY OWEN HASKELL, INC. IN 2012 (AS NOTED).
- BASIS OF BEARING IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE REFERENCED TO CITY OF PORTLAND DATUM, AS DERIVED FROM A CITY OF PORTLAND BENCHMARK LOCATED ON THE WESTERLY SIDE OF VERANDA STREET AT THE FIRST ANGLE NORTHERLY OF OREGON STREET, BEING A COPPER BOLT IN GRANITE 3-FOOT OFFSET MONUMENT (ELEVATION: 27.014).
- BENCHMARK: BM-1 BOX CUT ON LIGHT POLE BASE ELEVATION: 84.20 (PORTLAND DATUM)
- UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD CHASE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
- PORTIONS OF THE PROPERTY AS DEPICTED HEREON DOES FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR PORTLAND, MAINE, CUMBERLAND COUNTY, COMMUNITY PANEL NUMBER 230010088, HAVING AN EFFECTIVE DATE OF JULY 17, 1986. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE A2, AREAS OF 100-YEAR FLOOD, BASE ELEVATIONS (ELEVATION 27') AND FLOOD HAZARD FACTORS DETERMINED. A PORTION OF THE PROPERTY ALSO FALLS WITHIN AN AREA IDENTIFIED AS V2 AREAS OF 100-YEAR COASTAL FLOOD WITH VELOCITY (WAVE ACTION), BASE FLOOD ELEVATIONS, (ELEVATIONS 19', 22' & 27' AND FLOOD HAZARD FACTORS DETERMINED).
- THE SITE IS LOCATED WITHIN THE RESIDENTIAL PROFESSIONAL (RP) ZONING DISTRICT. ZONING DIMENSIONAL STANDARDS ARE AS FOLLOWS:

REQUIRED:	
LOT SIZE:	6,000 SF
STREET FRONTAGE:	60 FT
LOT WIDTH:	60 FT
FRONT SETBACK:	20 FT
REAR SETBACK:	20 FT
SIDE SETBACK:	14 FT (3 OR MORE STORIES)
STRUCTURE HEIGHT:	45 FT
IMPERVIOUS SURFACE RATIO:	70%
- ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.
- CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.
- PROVIDE ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
- CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.
- CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.
- SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENT CONTROL BMP'S" PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
- ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
- ALL SHRUB JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
- NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
- IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.
- THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
- ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.
- WHERE THE TERMS "APPROVED EQUAL," "OTHER APPROVED," "EQUAL TO," "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGEMENT OF SEBAGO TECHNIQS, INC.
- THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.
- THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.
- THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.
- DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.
- BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FLOW THROUGH THE EXISTING CLOSED STORM DRAINAGE SYSTEM DURING CONSTRUCTION AND SHALL SUBMIT A WORK PLAN FOR APPROVAL BY THE DESIGN ENGINEER.

UTILITY DEMOLITION NOTES

- PROTECT EXISTING BOUNDARY LINE MONUMENTATION. IF DISTURBED, EXISTING MONUMENTATION TO BE RESET BY A PROFESSIONAL LAND SURVEYOR.
- DEMOLITION OF UTILITIES REQUIRING TREE REMOVAL SHALL BE COORDINATED WITH THE OWNER AND IN ACCORDANCE WITH PROJECT PLANS.
- UTILITY DEMOLITION SHALL BE COMPLETED IN COORDINATION WITH NEW INFRASTRUCTURE. CONTRACTOR SHALL ENSURE EXISTING SURFACE DRAINAGE IS MAINTAINED DURING CONSTRUCTION.
- EXISTING SEWER AND STORM DRAINAGE INFRASTRUCTURE TO REMAIN ACTIVE DURING CONSTRUCTION AND UPON COMPLETION OF PROJECT. DEMOLITION/CONSTRUCTION ACTIVITIES SHALL NOT INTERFERE OR IMPED EXISTING FLOWS. CONTRACTOR SHALL PROVIDE BYPASS PUMPING AS REQUIRED DURING SEWER AND STORM DEMOLITION AND NEW CONSTRUCTION. DAMAGE TO EXISTING SEWER INFRASTRUCTURE SHALL BE REPAIRED BY CONTRACTOR AT THEIR EXPENSE.
- DEMOLITION SHOWN IS FOR MAJOR SITE ELEMENTS TO BE DEMOLISHED. OTHER MINOR DEMOLITION MAY BE REQUIRED AS PART OF CONSTRUCTION AND SHALL BE CONSIDERED INCIDENTAL TO THE COST OF CONSTRUCTION. COORDINATE ALL DEMOLITION WORK WITH SITE AND BUILDING DRAWINGS.
- PRIOR TO ANY DEMOLITION, THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF DEMOLITION PLANS TO THE OWNER. THIS PLAN SHALL DEPICT LOCATIONS OF PROPOSED TERMINATIONS AND ANY TEMPORARY SERVICES THAT WILL BE NEEDED.
- CONTRACTOR REQUIRED TO CONFIRM/MAINTAIN BENCHMARKS. IF IMPACTED CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION/RELOCATION AND COORDINATION WITH PROJECT TEAM.

GRADING & EROSION NOTES

- SIDESLOPES SHALL NOT BE STEEPER THAN 3:1 (H:V) EXCEPT AS OTHERWISE IDENTIFIED ON THIS PLAN. ALL SIDESLOPES STEEPER THAN 3:1 (H:V) SHALL BE LINED WITH EROSION CONTROL BLANKET, OR ADDITIONAL MEASURES AS INDICATED.
- ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENT CONTROL BMP'S" MANUAL PUBLISHED BY BUREAU OF LAND AND WATER QUALITY MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
- ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE LOAM AND SEED PER DETAIL.
- SEE UTILITY DRAWINGS FOR PIPE AND STRUCTURE DATA TABLES.

CONSTRUCTION PLAN

- PROVIDE EROSION CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
- GRADING AND CLEARING LIMITS SHALL NOT ENDOURCH ON ADJACENT PROPERTIES UNLESS NOTED OTHERWISE ON THE PLANS.
- OPEN AREAS SHALL BE LIMITED TO AREAS BEING WORKED IN. THE AREA STRIPPED OF EXISTING VEGETATION AT ANY GIVEN TIME SHALL BE MINIMIZED AND BE PHASED WHERE PRACTICAL, SO THAT AREAS ARE REVEGETATED AND PERMANENTLY STABILIZED BEFORE ADDITIONAL AREAS ARE STRIPPED OF EXISTING VEGETATION. STABILIZE CONSTRUCTION AREAS BY USE OF RIPRAP, SEED, MULCH, OR OTHER GROUND COVER WITHIN ONE WEEK FROM THE TIME IT WAS ACTIVELY WORKED. SURFACES SHALL BE STABILIZED PRIOR TO DIRECTING STORMWATER RUNOFF TOWARD STORMWATER BMPs. PLEASE REFER TO DRAINAGE PLANS FOR WATERSHED AREAS.
- LANDSCAPE NOTES
- PLANT QUANTITIES SHOWN ON PLANT LISTS ARE FOR CONVENIENCE TO THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL PLANT MATERIAL INSTALLATION AS SHOWN ON PLANS.
- SIZE AND GRADING STANDARDS OF PLANT MATERIALS SHALL CONFORM TO THE LATEST EDITION OF "US A STANDARD FOR NURSERY STOCK," BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
- ALL PLANT MATERIAL SHALL BE FREE FROM INSECTS AND DISEASE.
- ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING, STAKING OR LUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE BY THE OWNER.
- PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR BY THE CONTRACTOR AND A PERIOD OF TWO YEARS THEREAFTER BY THE OWNER FROM DATE OF INSTALLATION DURING THE ONE-YEAR GUARANTEE PERIOD, DEAD PLANT MATERIAL SHALL BE REPLACED AT NO COST TO THE OWNER. AT THE END OF THE ONE-YEAR PERIOD, THE CONTRACTOR SHALL OBTAIN FINAL ACCEPTANCE FROM THE OWNER.
- ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
- EXISTING TREES TO BE PRESERVED WILL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF THE UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES, PAVING, WALKS, CURBS, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO THE OWNER.
- ALL SHRUB BEDS SHALL BE MULCHED WITH 3" CLEAN SHREDDED DARK BROWN BARK MULCH.
- THE CONTRACTOR SHALL PROVIDE 4" LOAM FOR ALL AREAS TO BE SODDED OR SEEDED. PLANTING AREAS SHALL RECEIVE 12" ROLLED THICKNESS OF LOAM. THE LANDSCAPE CONTRACTOR SHALL COORDINATE SUBGRADE PREPARATION WITH THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.
- ANY DEVIATION FROM THE LANDSCAPE PLAN, INCLUDING PLANT LOCATION, SELECTION, SIZE, QUANTITY OR CONDITION SHALL BE REVIEWED AND APPROVED BY THE OWNER AND LANDSCAPE ARCHITECT AND MUNICIPAL AUTHORITY, IF APPLICABLE, PRIOR TO INSTALLATION ON SITE.
- WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR PERENNIAL AND ANNUAL FLOWER BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST. POTTOLITE BEDS TO A DEPTH OF 6 INCHES.

- DURING CLEANING OF SITE AND PRIOR TO TREE AND SHRUB INSTALLATION, CONTRACTOR SHALL REMOVE INVASIVE PLANTS. AREAS WHERE INVASIVE PLANTS ARE REMOVED AND NO OTHER PLANTING IS PROPOSED, AREA SHALL BE LOAM AND SEED.

UTILITY NOTES

- UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL EVIDENCE LOCATED IN THE FIELD. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION. PROTECT EXISTING ON-SITE SEWER PIPE AND ADJUST MANHOLE RIMS TO GRADE WHERE APPLICABLE.
- ALL GRAVITY CONDUIT PIPES SHALL BE INSTALLED USING A PIPE LASER AND TARGET SYSTEM THROUGH THE PIPE. ON PIPE RUNS 80 FEET OR LESS, THE CONTRACTOR SHALL REQUEST ENGINEER'S APPROVAL TO USE OR NOT USE A GROUND LASER.
- MAINTAIN MINIMUM 5'-6" OF COVER ABOVE TOP OF WATER SERVICE PIPE.
- MAINTAIN MINIMUM 10 FEET HORIZONTAL SEPARATION BETWEEN WATER SERVICES AND OTHER UTILITIES. MAINTAIN MINIMUM 18 INCHES VERTICAL SEPARATION BETWEEN WATER SERVICES AND OTHER UTILITIES.
- LOWER OR RAISE WATER SERVICES AS REQUIRED TO MAINTAIN MINIMUM 12 INCH VERTICAL SEPARATION FROM OTHER UTILITIES. WATER SERVICES CROSSING SEWERS SHALL MAINTAIN 12 INCH MINIMUM SEPARATION BETWEEN THE BOTTOM OF WATER LINE AND TOP OF SEWER UNLESS NOTED OTHERWISE ON THE PLANS.
- PIPE:
 - SEWER PIPE SHALL BE SDR 35 PVC OR APPROVED EQUAL.
 - STORM/RAIN SHALL BE ADS N-12 DUAL WALL HDPE PIPE WITH SMOOTH-WALLED INTERIOR OR APPROVED EQUAL UNLESS NOTED OTHERWISE ON THE UTILITY PLANS.
 - WATER PIPE AND FITTINGS SHALL CONFORM TO THE DISTRICT HAVING JURISDICTION'S SPECIFICATIONS. MAIN WATER SERVICE PIPE SHALL BE DUCTILE IRON, CLASS 52 PUSH-ON PIPE MEETING THE REQUIREMENTS OF AWWA/C900 (LATEST REVISION). PIPE SHALL BE CEMENT-LINED AWWA/C900 (LATEST REVISION) WITH LINING TWICE THE THICKNESS SPECIFIED, AND COATED TWICE WITH A BITUMINOUS SEAL COATING. PROVIDE THRUST BLOCKS AT ALL WATER SERVICE BENDS.
- COORDINATE ALL UTILITY LOCATIONS AND INVERTS AT BUILDING WITH ARCHITECTURAL, STRUCTURAL AND PLUMBING DRAWINGS.
- WATER SERVICE ENTRANCE DESIGNS TO INCLUDE METERS AND BACKFLOW PREVENTERS TO MEET ALL STANDARDS AND REQUIREMENTS OF THE DISTRICT HAVING JURISDICTION.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY GRADE CHANGES THAT WILL IMPACT STORM DRAINAGE INFRASTRUCTURE OR OTHER UTILITIES.
- UTILITIES WITHIN 5 FEET FROM FACE OF BUILDING ARE COORDINATED ON RELEVANT M.E.P. DRAWINGS. CONTRACTOR SHALL COORDINATE INVERTS, CONNECTIONS AND MATERIALS WITH ALL DRAWINGS.
- CONTRACTOR SHALL FURNISH AND INSTALL TRENCHING, MATERIALS AND BACKFILL FOR ALL UTILITIES. ELECTRICAL AND TELECOM DATA PROVIDERS WILL FULFILL PRIMARY SERVICE TO TRANSFORMER AND PANEL. CONTRACTOR RESPONSIBLE FOR TIMING AND COORDINATION WITH UTILITIES AND DRAWINGS. COORDINATE WITH ELECTRICAL DRAWINGS FOR CONDUIT SCHEDULE, TYPE AND SIZES.
- COORDINATE ALL WATER RELATED WORK WITH DISTRICT HAVING JURISDICTION.
- THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG-SAFE (811) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.
- CONTRACTOR SHALL BE AWARE THAT DIG-SAFE ONLY NOTIFIES ITS "MEMBER" UTILITIES ABOUT THE DIG. WHEN NOTIFIED, DIG-SAFE WILL ADVISE CONTRACTOR OF MEMBER UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND CONTACTING NON-MEMBER UTILITIES DIRECTLY. NON-MEMBER UTILITIES MAY INCLUDE TOWN OR CITY WATER AND SEWER DISTRICTS AND SMALL LOCAL UTILITIES, AS WELL AS USDC PUBLIC WORKS SYSTEMS.
- CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 29 MRSA 380-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.
- UTILITY CONTACTS:
 - WATER: PORTLAND WATER DISTRICT MEANS GROUP 207-774-5961
 - SEWER: CITY OF PORTLAND DEPARTMENT OF PUBLIC WORKS, WATER RESOURCES 207-674-6462

TYPICAL ABBREVIATIONS

AC	ACRE
AFG	ABOVE FINISH GRADE
APPROX	APPROXIMATELY
BC	BOTTOM OF CURB
BCC	BOTTOM OF CURB
BIT	BITUMINOUS
BLDG	BUILDING
BS	BOTTOM OF SLAB
BW	BOTTOM OF WALL
CB	CATCH BASIN
CONC	CONCRETE
CONT	CONTINUOUS
DI	DUCTILE IRON
DMH	DRAIN MANHOLE
E.V.	EACH WAY
ELEV	ELEVATION
F.FE	FINISH FLOOR ELEVATION
FIN	FINISH GRADE
FTG	FOOTING
GTC	GRANITE TRANSITION CURB
HDPE	HIGH DENSITY POLYETHYLENE
HOT	HOT MIX ASPHALT
HMA	HOT MIX ASPHALT
INV	INVERT
LF	LINEAR FEET
OC	ON CENTER
PVC	POLYVINYL CHLORIDE
FIN GR	PORTLAND WATER DISTRICT RADIUS
R.O.W.	RIGHT OF WAY
S.F.	SQUARE FEET
SCH	SCHEDULE
SCSC	SLOPEFORM CONCRETE SLOPED CURB
SD	SLOPEFORM CONCRETE VERTICAL CURB
SGC	SEWER MANHOLE SPECS SPECIFICATIONS
SMH	SANITARY SEWER
TS	TOP OF CURB
TS	TOP OF SLAB
TW	TOP OF WALL
TYP	TYPICAL
VGC	VERTICAL GRANITE CURB
VF	VERIFY IN FIELD

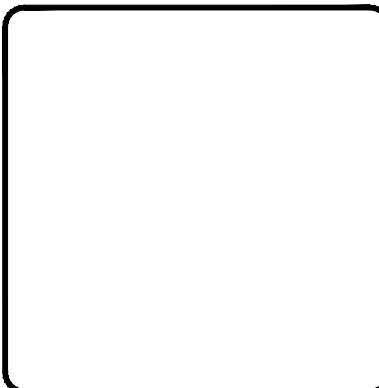
NOTES AND LEGEND

MARTIN'S POINT HEALTHCARE VERANDA CAMPUS
331 VERANDA STREET
PORTLAND, ME 04103

MARTIN'S POINT HEALTH CARE, INC.

21 0206 N.L.BLDG 7.dwg, TAB NOTES AND LEGEND

KYLE S. MASON RLA 3336 PAUL D. OSTROWSKI PE 11178

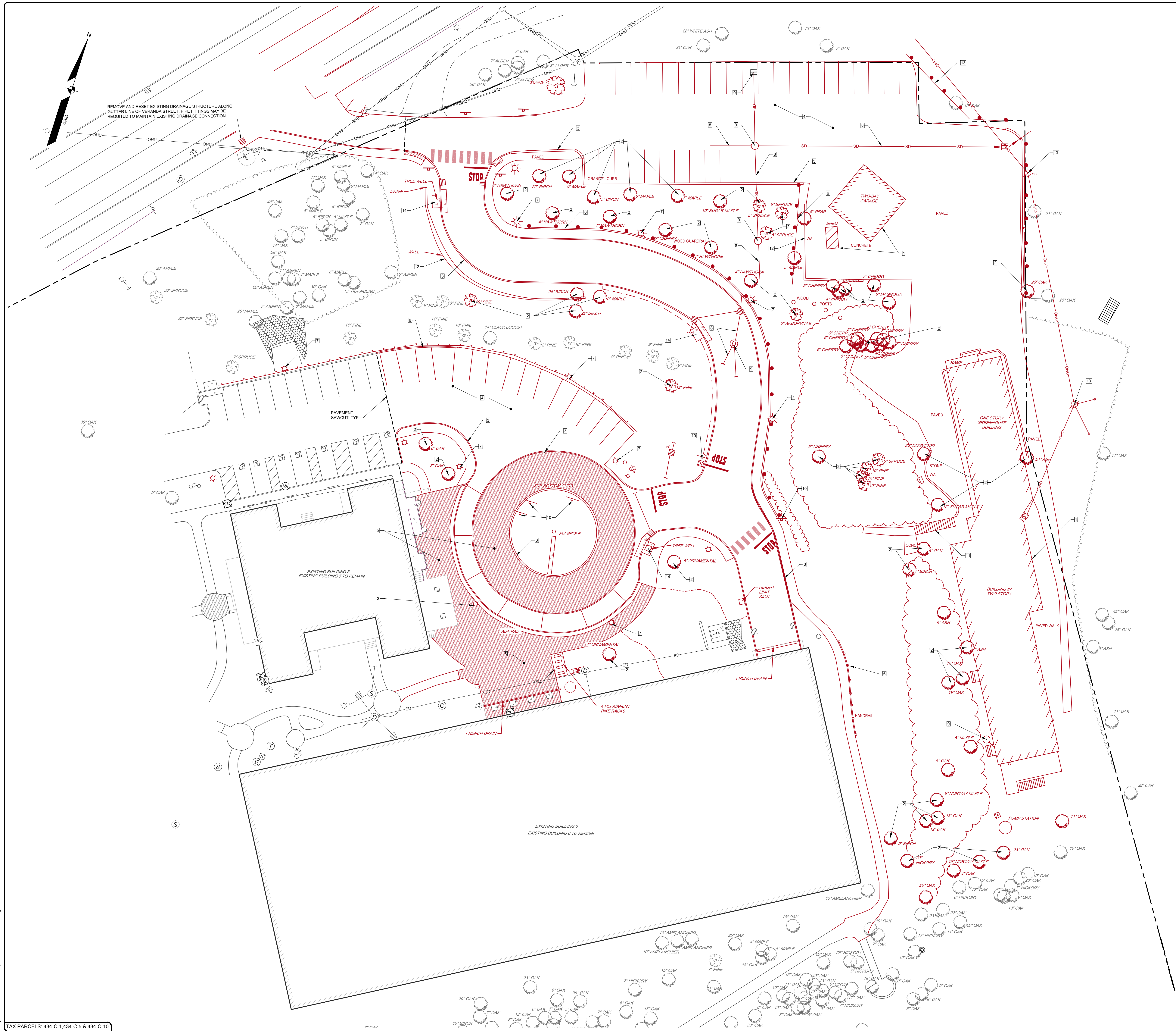


REV.	BY	DATE	STATUS	RESPONSE TO CITY REVIEW COMMENTS
B	KSM	03/14/2024	ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW	
A	KSM	12/20/2023	ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW	

SEBAGO TECHNIQS
WWW.SEBAGOTECHNIQS.COM
75 Main Street
South Portland, ME 04106
Tel: 207-267-2100

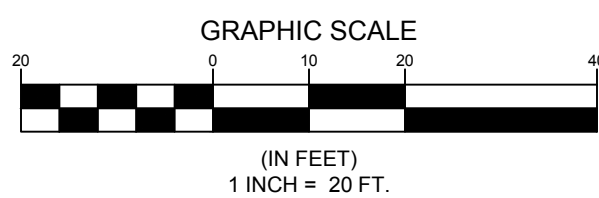
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DRAWN	CJC
CHECKED	PDG
DATE	04/10/2023
SCALE	NTS
PROJECT	211026

SHEET 2 OF 37



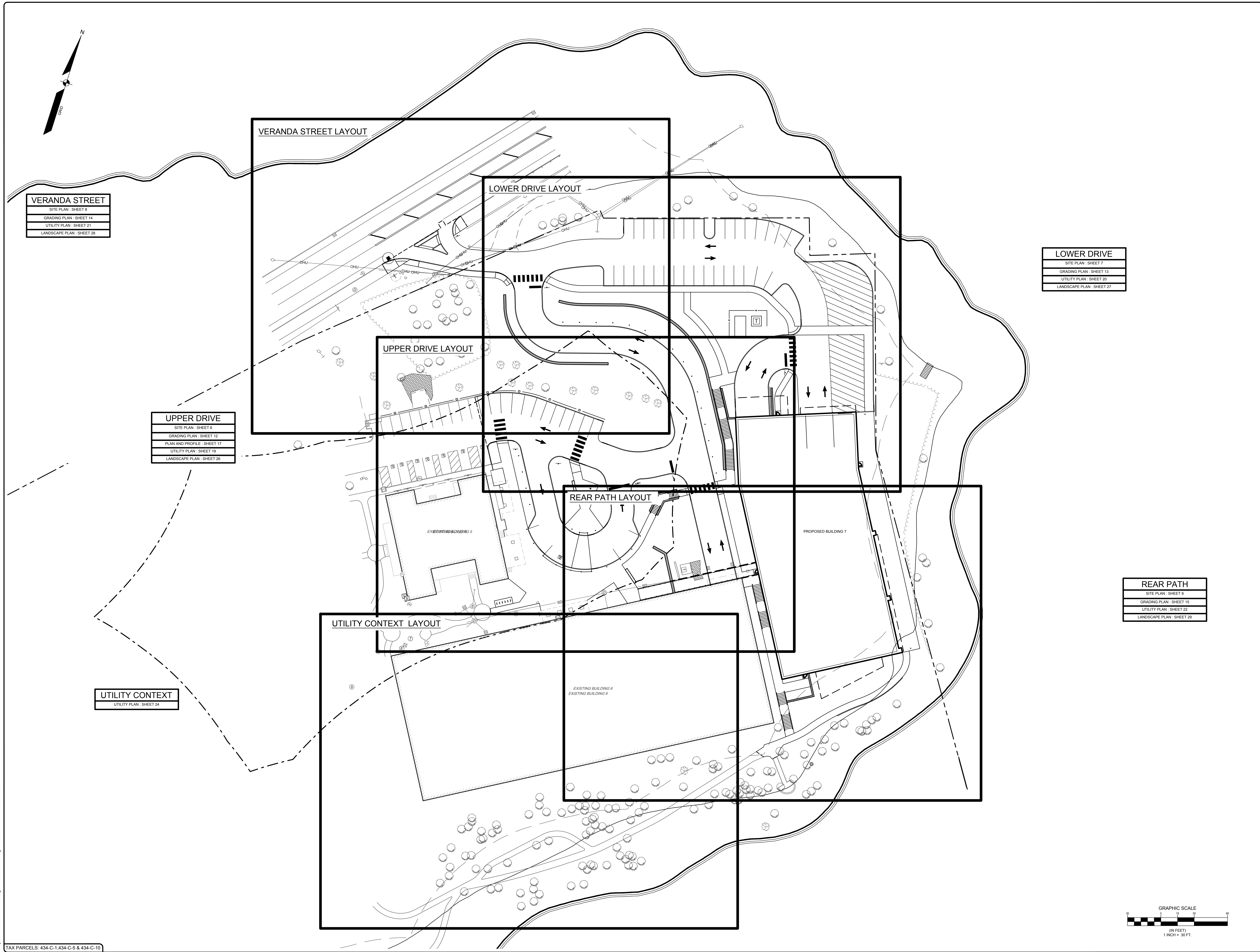
DEMOLITION NOTES:

1. REMOVE EXISTING BUILDING AND FOUNDATIONS
2. REMOVE TREES (AND STUMPS)
3. REMOVE/STACK FOR REUSE OF EXISTING GRANITE CURBING
4. REMOVE PAVEMENT
5. REMOVE PAVER/BRICK AREA
6. REMOVE GUARDRAIL
7. REMOVE EXISTING LIGHT POLE AND BASE
8. REMOVE UTILITY PIPING
9. REMOVE UTILITY STRUCTURE
10. REMOVE SITE SIGNAGE
11. REMOVE SITE AMENITY
12. REMOVE RETAINING WALL
13. COORDINATE WITH LAND OWNER FOR REMOVAL OF OFF-SITE FEATURE
14. REMOVE TREE WELL FILTER AND ASSOCIATED CONCRETE



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TAX PARCELS: 434-C-1,434-C-5 & 434-C-10



VERANDA STREET
SITE PLAN - SHEET 8
GRADING PLAN - SHEET 14
UTILITY PLAN - SHEET 21
LANDSCAPE PLAN - SHEET 26

UPPER DRIVE
SITE PLAN - SHEET 6
GRADING PLAN - SHEET 12
PLAN AND PROFILE - SHEET 17
UTILITY PLAN - SHEET 19
LANDSCAPE PLAN - SHEET 26

UTILITY CONTEXT
UTILITY PLAN - SHEET 24

VERANDA STREET LAYOUT
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GRADING PLAN - SHEET 14
UTILITY PLAN - SHEET 21
LANDSCAPE PLAN - SHEET 26

LOWER DRIVE LAYOUT
SITE PLAN - SHEET 7
GRADING PLAN - SHEET 13
UTILITY PLAN - SHEET 20
LANDSCAPE PLAN - SHEET 27

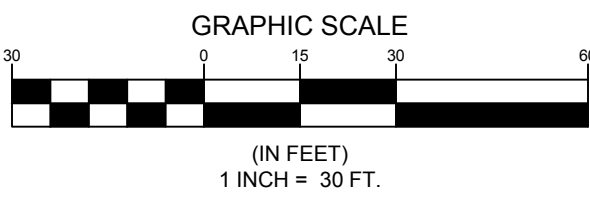
UPPER DRIVE LAYOUT
SITE PLAN - SHEET 6
GRADING PLAN - SHEET 12
PLAN AND PROFILE - SHEET 17
UTILITY PLAN - SHEET 19
LANDSCAPE PLAN - SHEET 26

REAR PATH LAYOUT
SITE PLAN - SHEET 9
GRADING PLAN - SHEET 15
UTILITY PLAN - SHEET 22
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UTILITY CONTEXT LAYOUT
UTILITY PLAN - SHEET 24

LOWER DRIVE
SITE PLAN - SHEET 7
GRADING PLAN - SHEET 13
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LANDSCAPE PLAN - SHEET 27

REAR PATH
SITE PLAN - SHEET 9
GRADING PLAN - SHEET 15
UTILITY PLAN - SHEET 22
LANDSCAPE PLAN - SHEET 29



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DRAWN	CJC
CHECKED	PDO
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SCALE	1" = 30'
PROJECT	211026

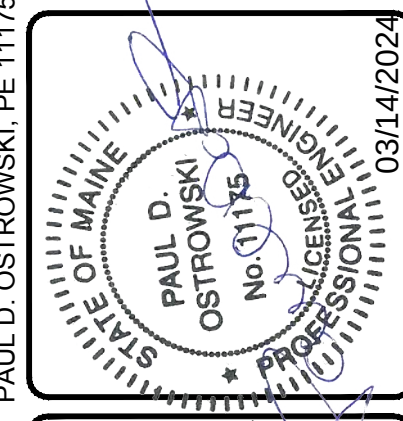
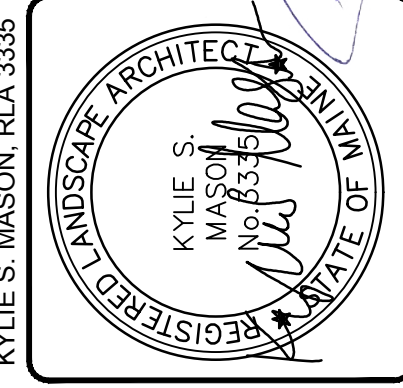
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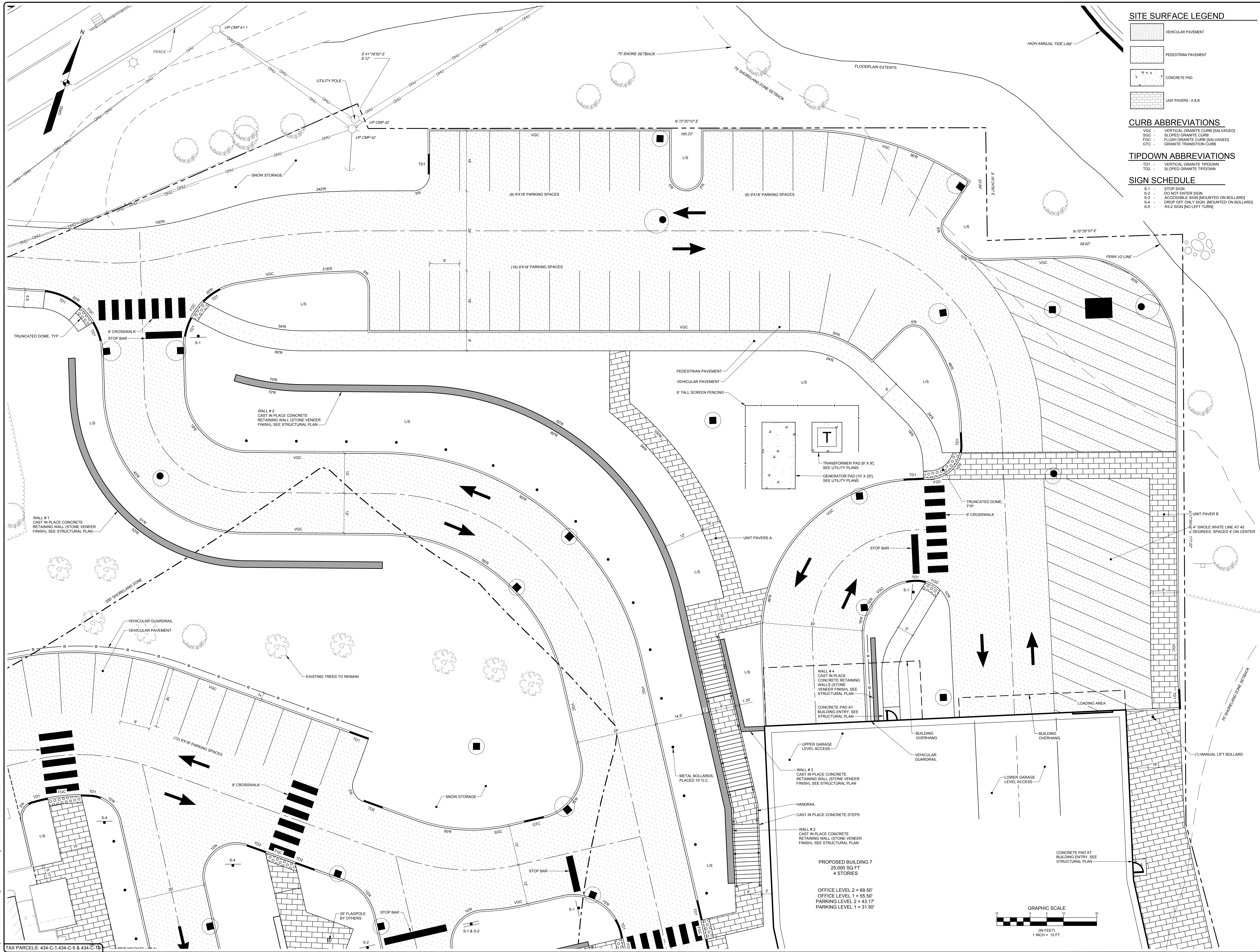
INDEX PLAN
MARTIN'S POINT HEALTHCARE VERANDA CAMPUS
331 VERANDA STREET
PORTLAND, ME 04103
MARTIN'S POINT HEALTH CARE, INC.
PO BOX 8746
PORTLAND, ME 04103

SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 JEFFERSON RD
SOUTH PORTLAND, ME 04106
TEL: 207-262-2100

B	KSM	03/14/2024	RESPONSE TO CITY REVIEW COMMENTS
A	KSM	12/20/2023	ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW
REV.	BY:	DATE:	STATUS:
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS AUTHORIZED ON OTHER SHEETS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.			

KYLE S. MASON RLA 3336
PAUL D. OSTROWSKI PE 11176





SITE SURFACE LEGEND

- VEHICULAR PAVEMENT
- PEDESTRIAN PAVEMENT
- CONCRETE PAD
- UNIT PAVERS - A & B

CURB ABBREVIATIONS

- VGC - VERTICAL GRANITE CURB (SALVAGED)
- SGC - SLOPED GRANITE CURB
- FGC - FLUSH GRANITE CURB (SALVAGED)
- GTC - GRANITE TRANSITION CURB

TIPDOWN ABBREVIATIONS

- TD1 - VERTICAL GRANITE TIPDOWN
- TD2 - SLOPED GRANITE TIPDOWN

SIGN SCHEDULE

- S-1 - STOP SIGN
- S-2 - DO NOT ENTER SIGN
- S-3 - ACCESSIBLE SIGN (MOUNTED ON BOLLARD)
- S-4 - DROP OFF ONLY SIGN (MOUNTED ON BOLLARD)
- S-5 - R3-2 SIGN (NO LEFT TURN)

PAUL D. OSTROWSKI
REGISTERED PROFESSIONAL ENGINEER
STATE OF MAINE
No. 0176
EXPIRATION DATE 12/31/2024

KYLE S. MASON
REGISTERED ARCHITECT
STATE OF MAINE
No. 1431
EXPIRATION DATE 12/31/2024

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	03/14/2023	AK	ISSUED FOR PERMIT REVIEW
2	03/14/2023	AK	REVISED FOR CITY REVIEW COMMENTS
3	03/14/2023	AK	REVISED FOR CITY REVIEW COMMENTS
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74	03/14/2023	AK	REVISED FOR CITY REVIEW COMMENTS
75	03/14/2023	AK	REVISED FOR CITY REVIEW COMMENTS
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99	03/14/2023	AK	REVISED FOR CITY REVIEW COMMENTS
100	03/14/2023	AK	REVISED FOR CITY REVIEW COMMENTS

DESIGNED BY: BAM/KGK

DRAWN BY: CJC

CHECKED BY: PDO

DATE: 04/10/2023

SCALE: 1" = 10'

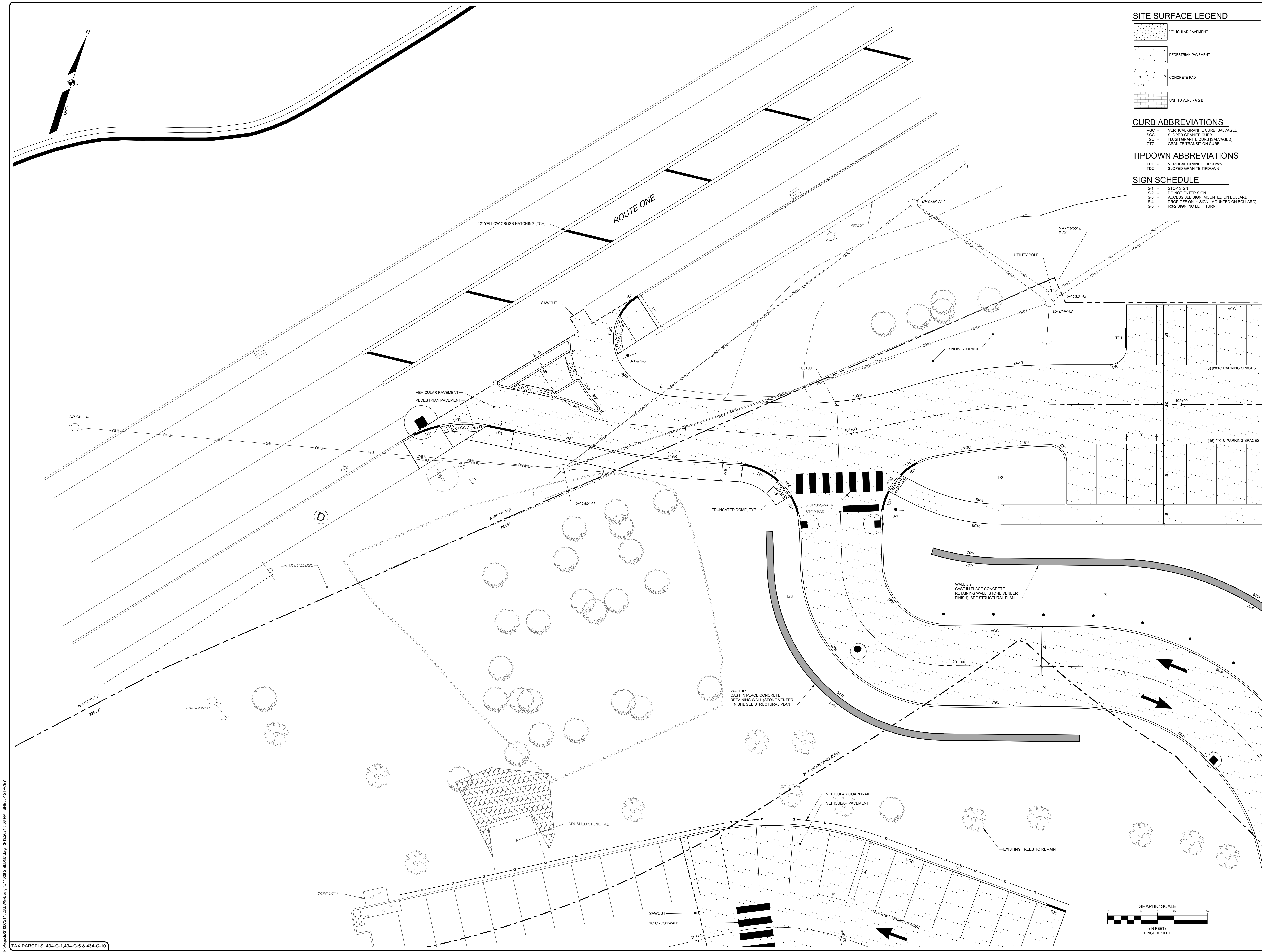
PROJECT: 211026

LOWER DRIVE SITE PLAN

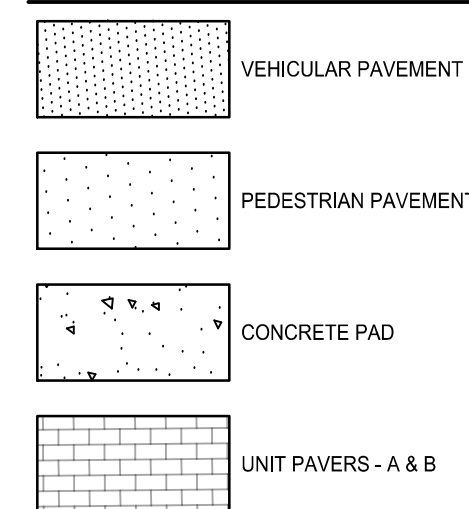
MARTIN'S POINT HEALTHCARE VERANDA CAMPUS
331 VERANDA STREET
PORTLAND, ME 04103

MARTIN'S POINT HEALTH CARE, INC.
PO BOX 9746
PORTLAND, ME 04103

Page 529



SITE SURFACE LEGEND



CURB ABBREVIATIONS

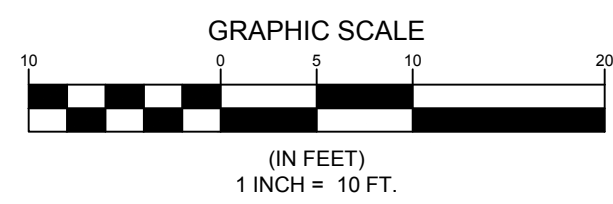
- VGC - VERTICAL GRANITE CURB (SALVAGED)
- SGC - SLOPED GRANITE CURB
- FGC - FLUSH GRANITE CURB (SALVAGED)
- GTC - GRANITE TRANSITION CURB

TIPDOWN ABBREVIATIONS

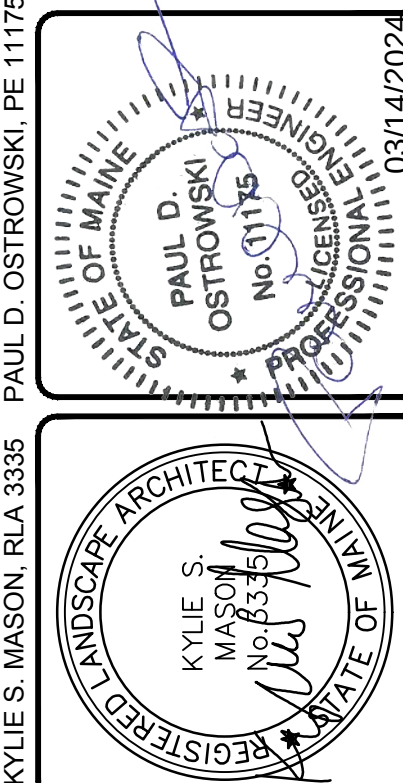
- TD1 - VERTICAL GRANITE TIPDOWN
- TD2 - SLOPED GRANITE TIPDOWN

SIGN SCHEDULE

- S-1 - STOP SIGN
- S-2 - DO NOT ENTER SIGN
- S-3 - ACCESSIBLE SIGN (MOUNTED ON BOLLARD)
- S-4 - DROP OFF ONLY SIGN (MOUNTED ON BOLLARD)
- S-5 - R3-2 SIGN (NO LEFT TURN)



KYLE S. MASON R/LA 3336 PAUL D. OSTROWSKI P/E 11178



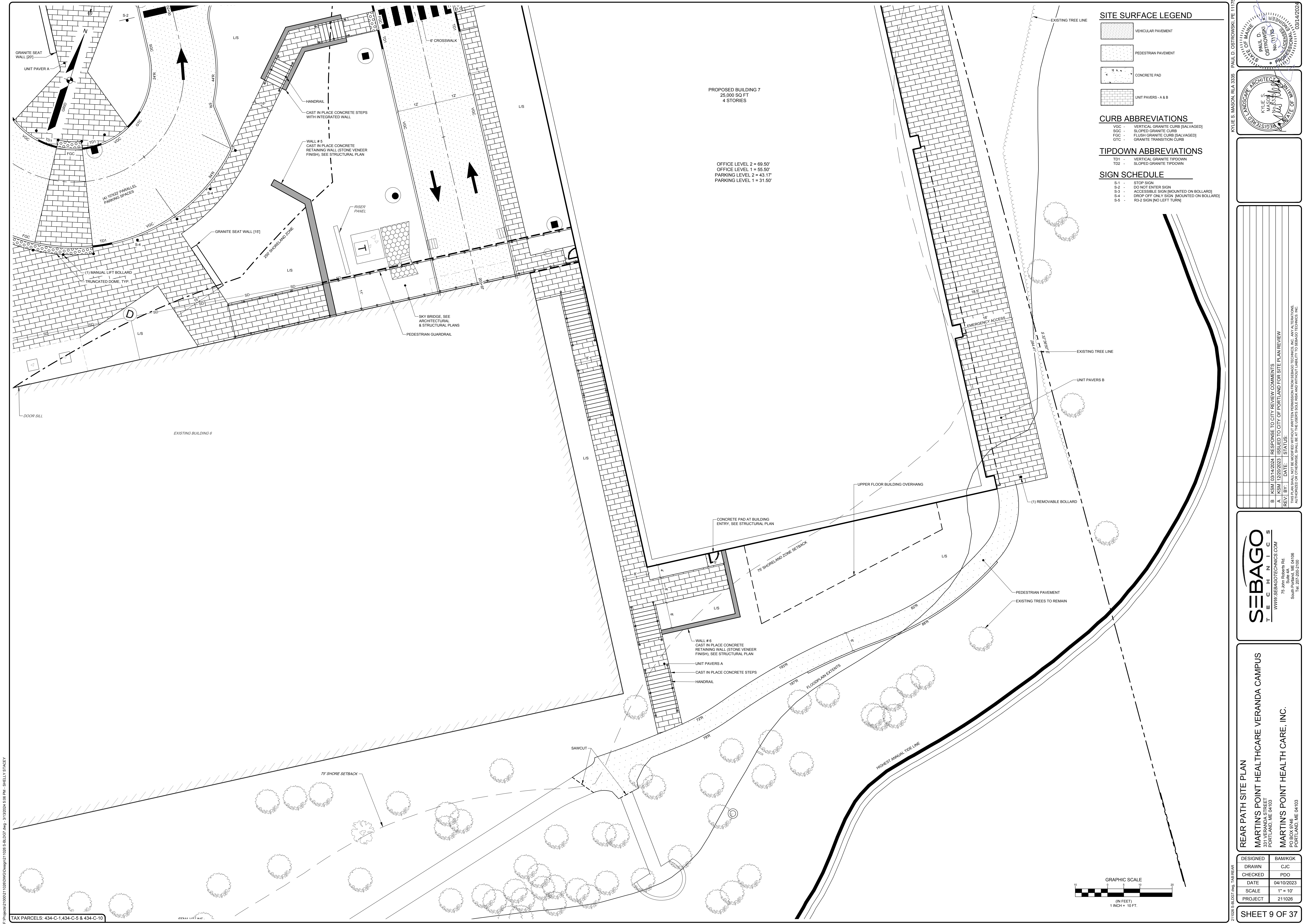
REV.	BY	DATE	STATUS	REVISION
B	KSM	03/14/2024	RESPONSE TO CITY REVIEW COMMENTS	
A	KSM	12/20/2023	ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW	

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNIQUES, INC. ANY ALTERATIONS AUTHORIZED ON OTHER SHEETS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNIQUES, INC.

SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 S. Main Rd.
South Portland, ME 04106
Tel: 207-267-2100

VERANDA STREET SITE PLAN
MARTIN'S POINT HEALTHCARE VERANDA CAMPUS
331 VERANDA STREET
PORTLAND, ME 04103
MARTIN'S POINT HEALTH CARE, INC.
PO BOX 8746
PORTLAND, ME 04103

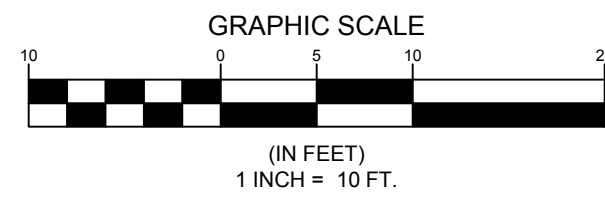
DESIGNED	BAM/KGK
DRAWN	CJC
CHECKED	PDO
DATE	04/10/2023
SCALE	1" = 10'
PROJECT	211026



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TAX PARCELS: 434-C-1, 434-C-5 & 434-C-10

REAR PATH SITE PLAN



SITE SURFACE LEGEND

- VEHICULAR PAVEMENT
- PEDESTRIAN PAVEMENT
- CONCRETE PAD
- UNIT PAVERS - A & B

CURB ABBREVIATIONS

- VGC - VERTICAL GRANITE CURB (SALVAGED)
- SGC - SLOPED GRANITE CURB
- FGC - FLUSH GRANITE CURB (SALVAGED)
- GTC - GRANITE TRANSITION CURB

TIPDOWN ABBREVIATIONS

- TD1 - VERTICAL GRANITE TIPDOWN
- TD2 - SLOPED GRANITE TIPDOWN

SIGN SCHEDULE

- S-1 - STOP SIGN
- S-2 - DO NOT ENTER SIGN
- S-3 - ACCESSIBLE SIGN (MOUNTED ON BOLLARD)
- S-4 - DROP OFF ONLY SIGN (MOUNTED ON BOLLARD)
- S-5 - R3-2 SIGN (NO LEFT TURN)

DESIGNED
DRAWN
CHECKED
DATE
SCALE
PROJECT

BAM/KGK
CJC
PDO
04/10/2023
1" = 10'
211026

REAR PATH SITE PLAN
MARTIN'S POINT HEALTHCARE VERANDA CAMPUS
331 VERANDA STREET
PORTLAND, ME 04103
MARTIN'S POINT HEALTH CARE, INC.
PO BOX 8746
PORTLAND, ME 04103

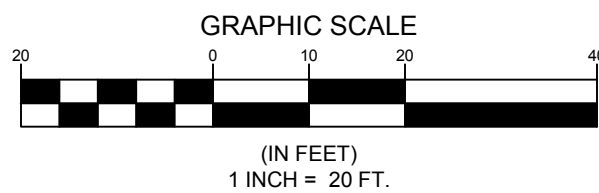
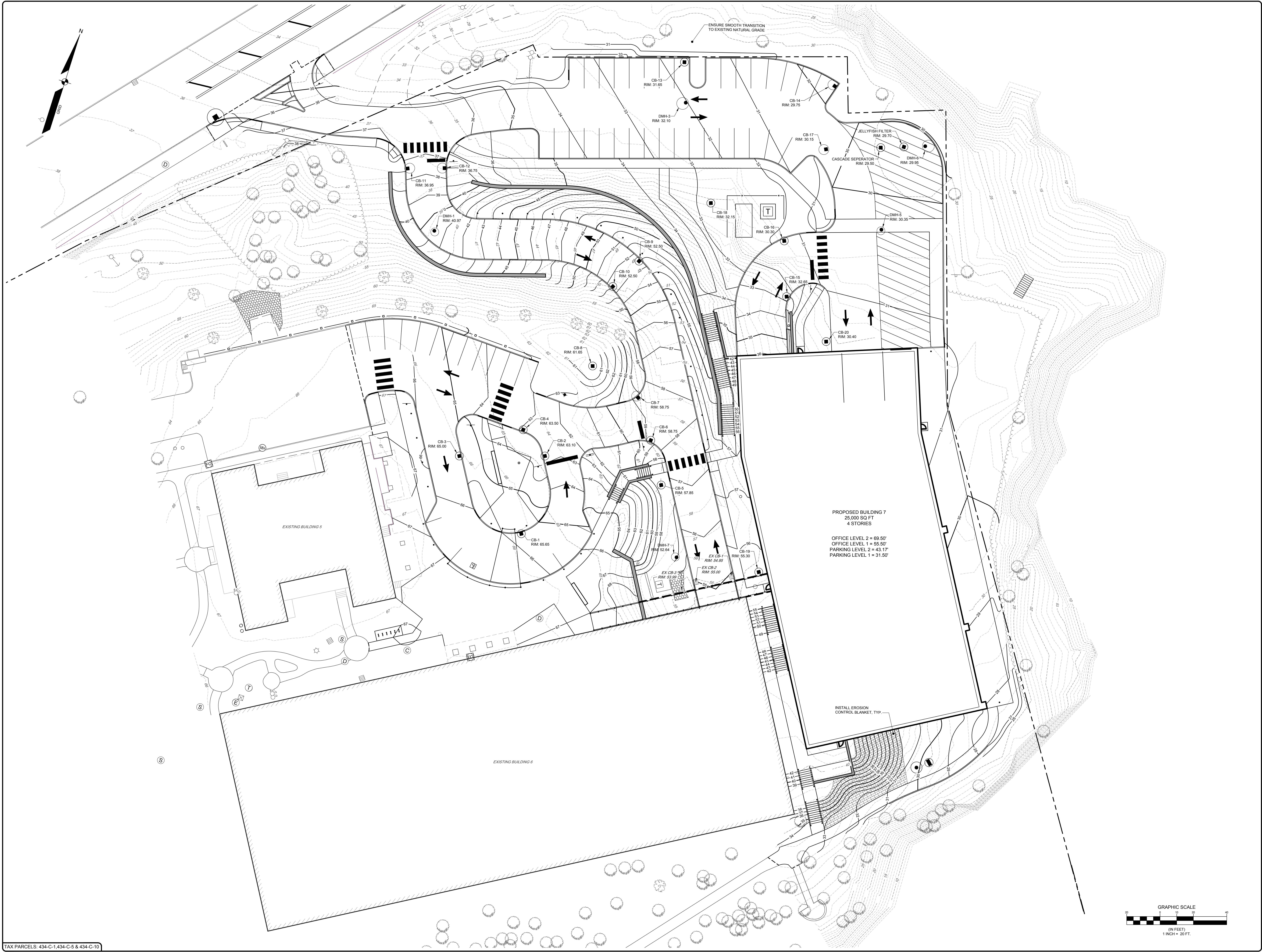
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SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 J. J. Veranda Rd
South Portland, ME 04106
Tel: 207-269-2100

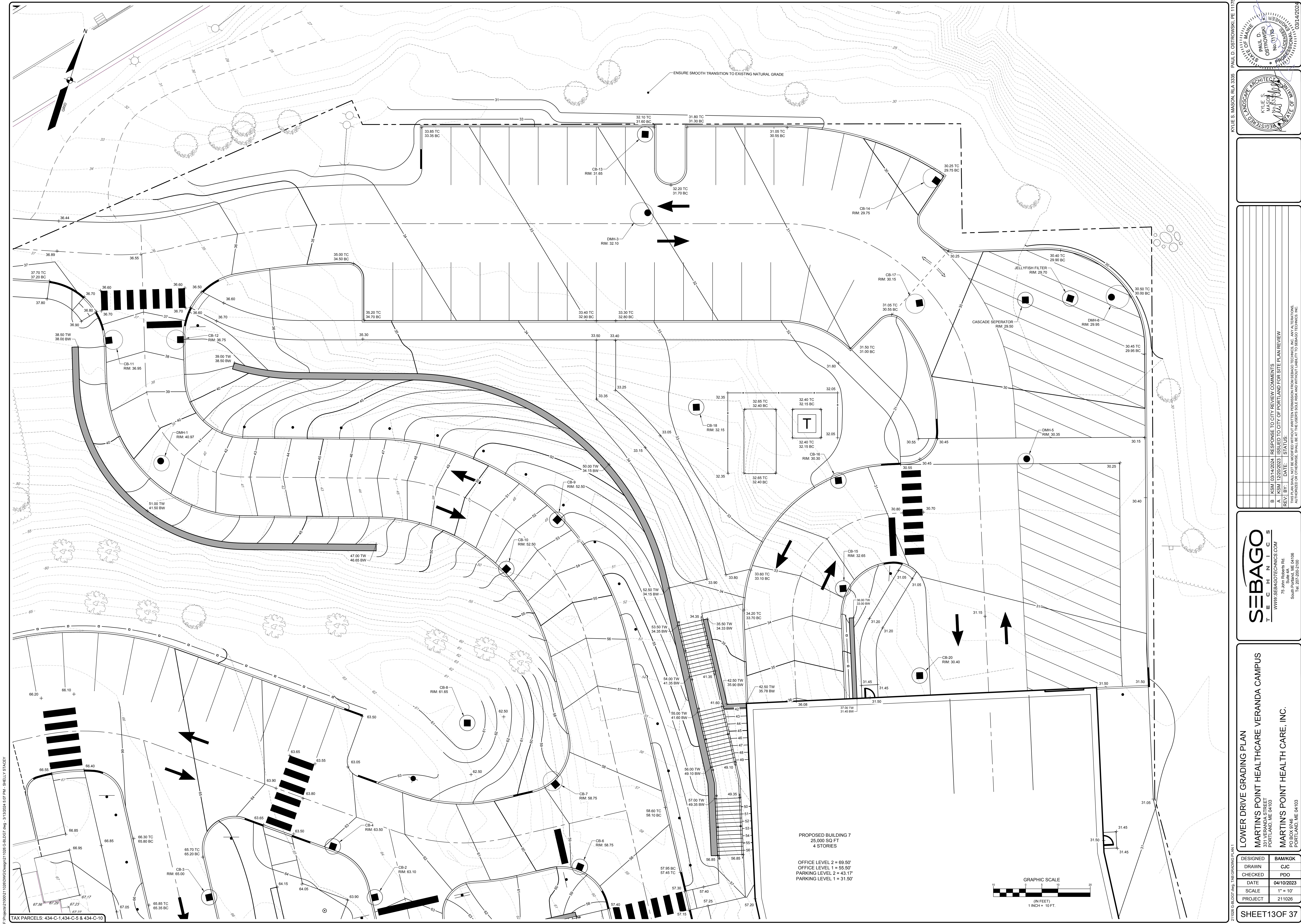
REV. BY: DATE: STATUS: COMMENTS
B KSM 03/14/2024 RESPONSE TO CITY REVIEW COMMENTS
A KSM 12/20/2023 ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS
AUTHORISED OR OTHERWISE SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

PAUL D. OSTROWSKI
REGISTERED PROFESSIONAL ENGINEER
STATE OF MAINE
No. 0178
03/14/2024

KYLE S. MASON RLA 3336
PAUL D. OSTROWSKI P.E. 11175



DESIGNED	BAM/KGK
DRAWN	CJC
CHECKED	PDO
DATE	04/10/2023
SCALE	1" = 20'
PROJECT	211026



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TAX PARCELS: 434-C-1, 434-C-5 & 434-C-10

LOWER DRIVE GRADING PLAN
MARTIN'S POINT HEALTHCARE VERANDA CAMPUS
331 VERANDA STREET
PORTLAND, ME 04103
MARTIN'S POINT HEALTH CARE, INC.
PO BOX 8746
Portland, ME 04103

DESIGNED	BAM/KGK
DRAWN	CJC
CHECKED	PDG
DATE	04/10/2023
SCALE	1" = 10'
PROJECT	211026

SHEET 13 OF 37

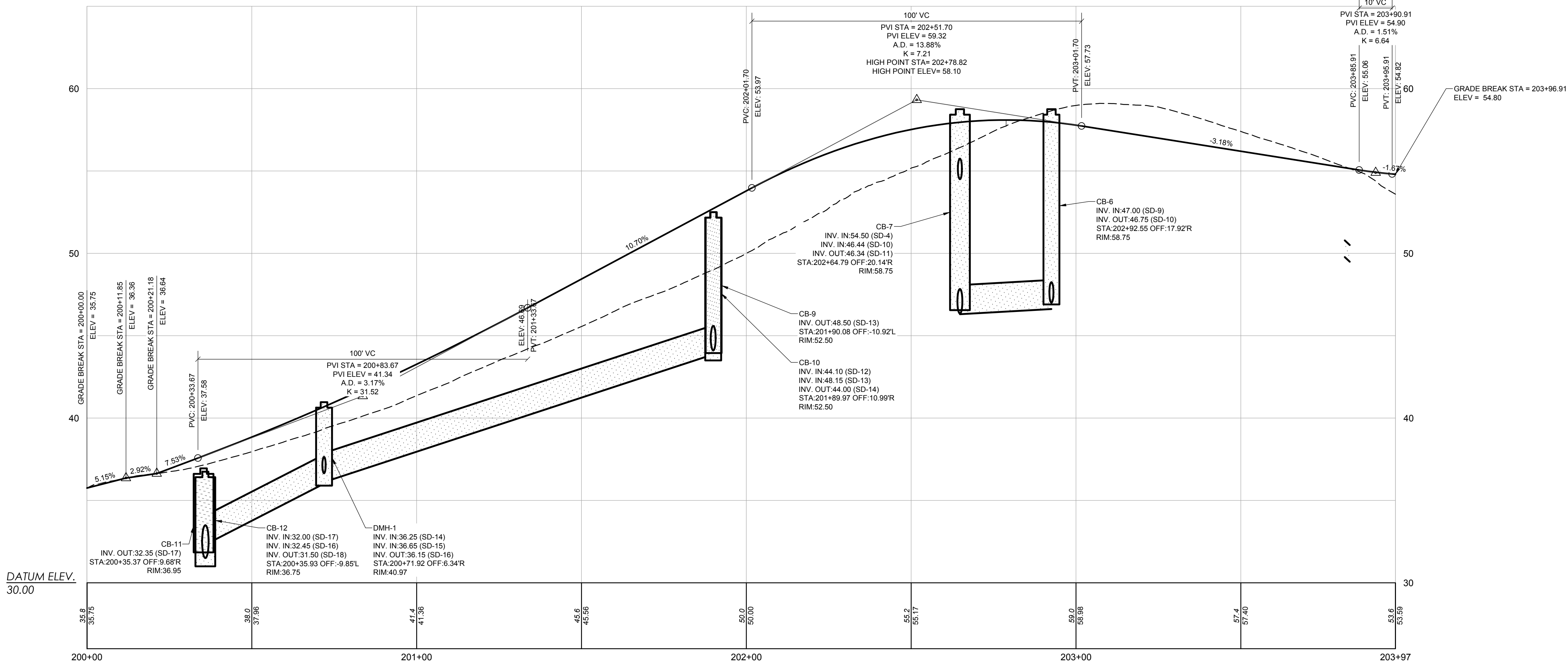
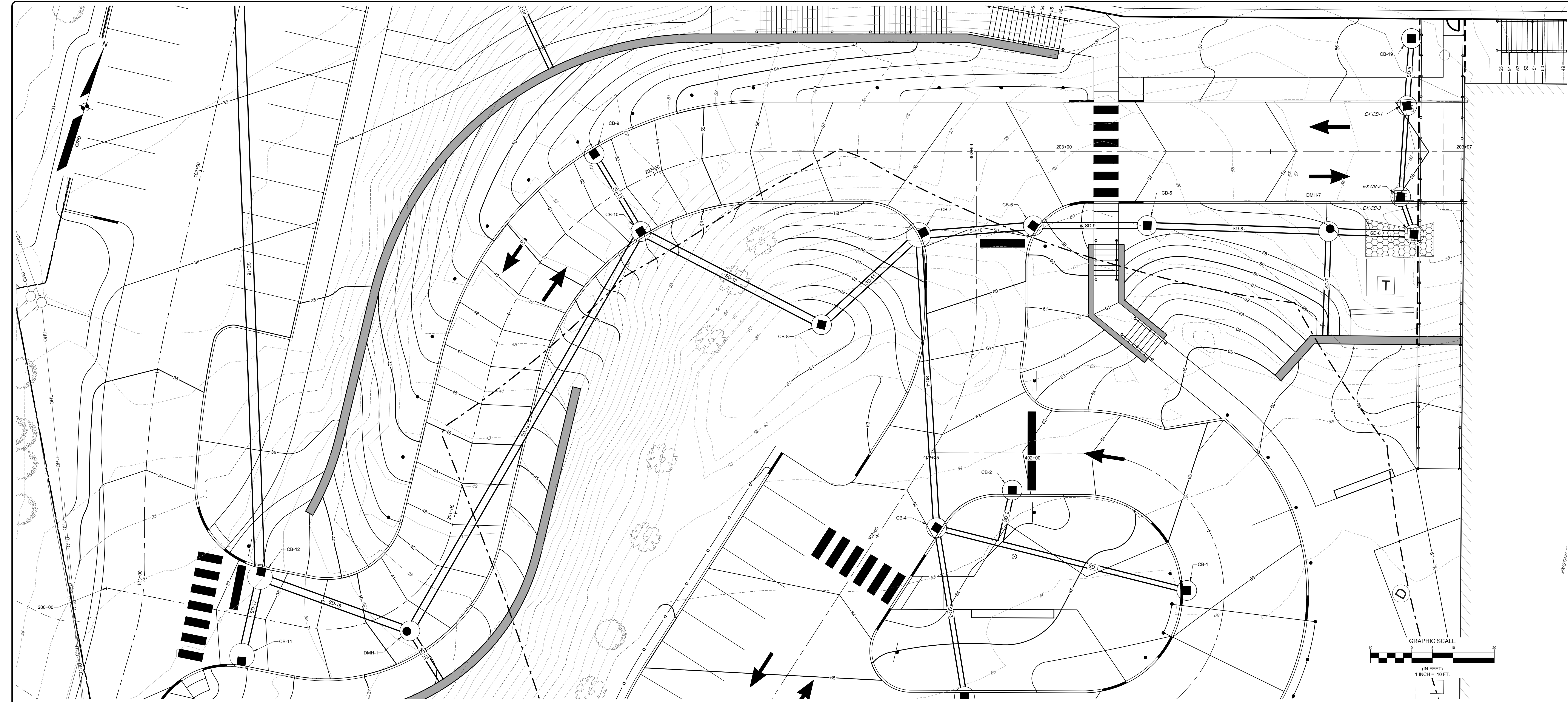
SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 S. Main Rd
South Portland, ME 04106
Tel: 207-267-2100

RESPONSE TO CITY REVIEW COMMENTS	
B	KSM 03/14/2024
A	KSM 12/20/2023
REV.	DATE
STATUS:	

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS
ADJUSTED ON OTHER SHEETS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

PAUL D. OSTROWSKI
REGISTERED PROFESSIONAL ENGINEER
STATE OF MAINE
No. 0171
03/14/2023

KYLE S. MASON RLA 3536
REGISTERED LANDSCAPE ARCHITECT
STATE OF MAINE
No. 1234
03/14/2023



DESIGNED		BAM/KGK
DRAWN		CJC
CHECKED		PDG
DATE		04/10/2023
SCALE		AS NOTED
PROJECT		211026

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 S. VERANDA STREET
SOUTH PORTLAND, ME 04106
Tel: 207-267-2100

MARTIN'S POINT HEALTHCARE VERANDA CAMPUS
331 VERANDA STREET
PORTLAND, ME 04103
MARTIN'S POINT HEALTH CARE, INC.
PORTLAND, ME 04103

UPPER DRIVE PLAN AND PROFILE

REV.	BY:	DATE:	STATUS:
B	KSM	03/14/2024	RESPONSE TO CITY REVIEW COMMENTS
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PAUL D. OSTROWSKI
REGISTERED PROFESSIONAL ENGINEER
STATE OF MAINE
No. 01754
KYLE S. MASON RLA 3336
PAUL D. OSTROWSKI PE 11175
KYLE S. MASON RLA 3336
REGISTERED LANDSCAPE ARCHITECT
STATE OF MAINE
No. 01754

03/14/2023



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TAX PARCELS: 434-C-1, 434-C-5 & 434-C-10

210021-UD-007.dwg: 1: REAR PATH UTILITY PLAN 4

REAR PATH UTILITY PLAN
MARTIN'S POINT HEALTHCARE VERANDA CAMPUS
331 VERANDA STREET
PORTLAND, ME 04103
MARTIN'S POINT HEALTH CARE, INC.
PO BOX 8746
PORTLAND, ME 04103

DESIGNED	BAM/KGK
DRAWN	CJC
CHECKED	PDO
DATE	04/10/2023
SCALE	1" = 10'
PROJECT	211026

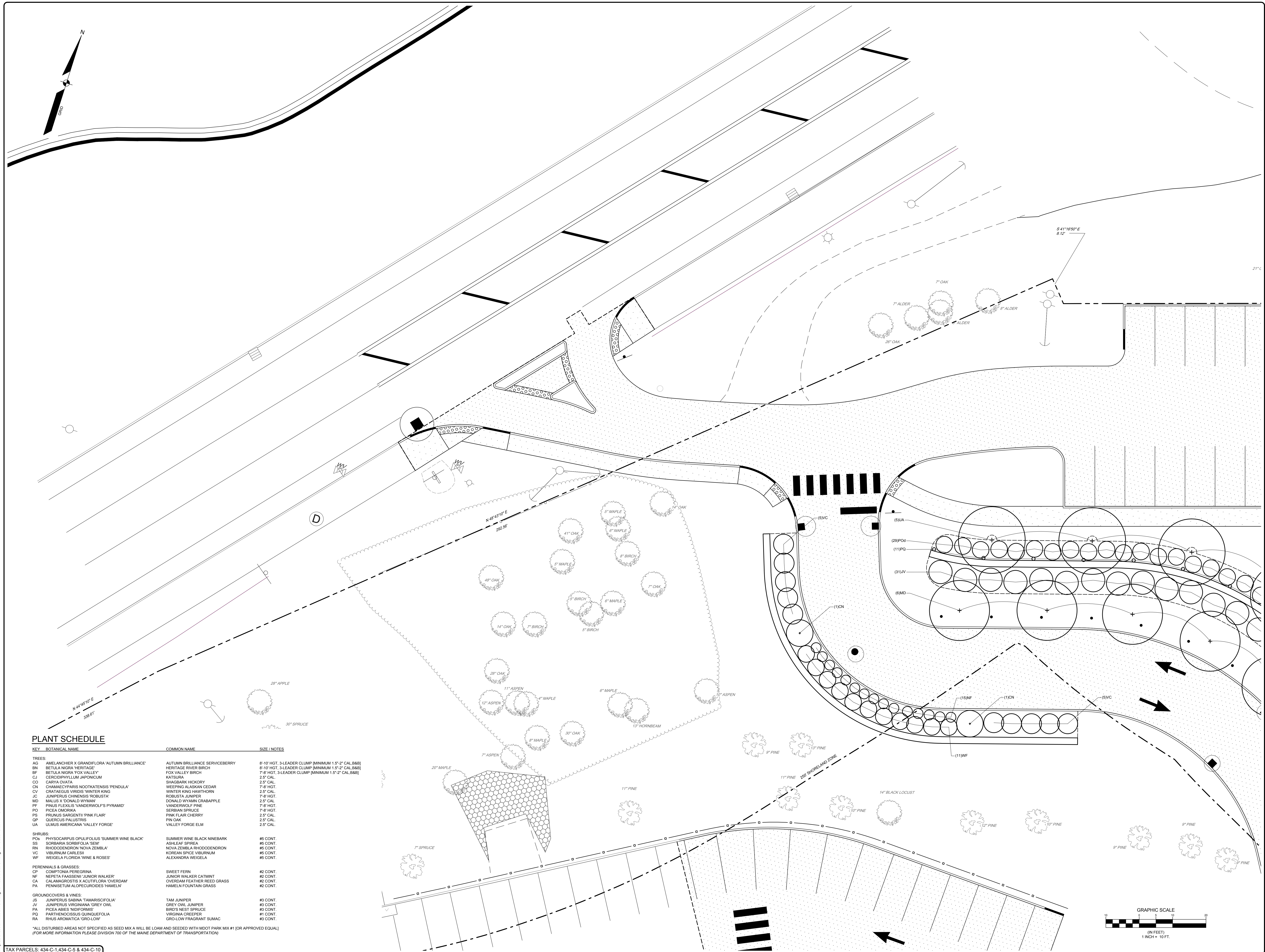
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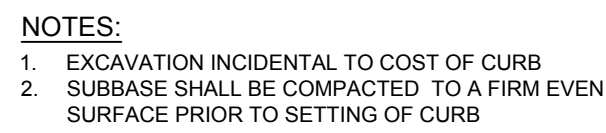
SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 JEFFERSON RD
SOUTH PORTLAND, ME 04106
TEL: 207-269-2100

REV.	BY:	DATE:	STATUS:
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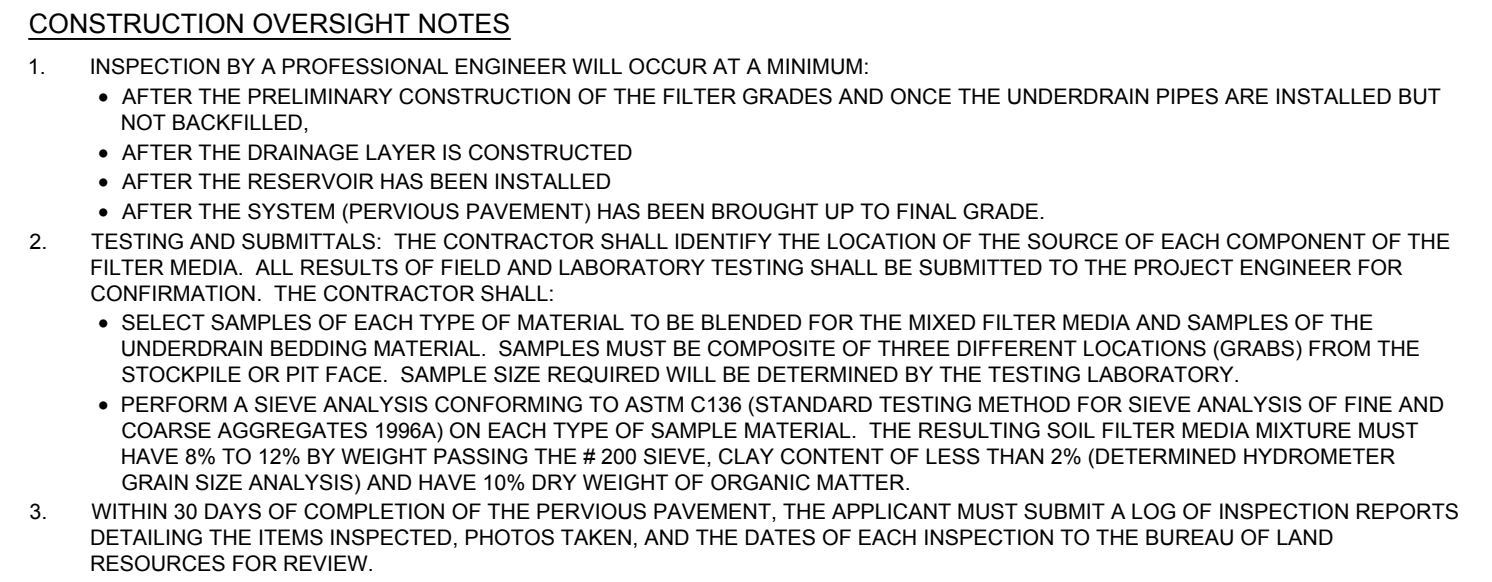
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REGISTERED PROFESSIONAL ENGINEER
KYLE S. MASON
NO. 11111
STATE OF MAINE
PAUL D. OSTROWSKI
NO. 11175
STATE OF MAINE
03/14/2023





VERTICAL GRANITE CURB
NOT TO SCALE



NOTES:

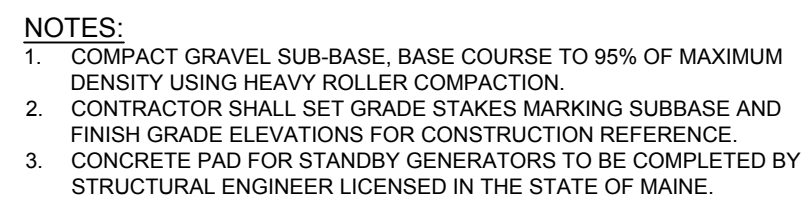
1. PAVERS SHALL BE ECO PROMENADE CONCRETE PAVERS 3" X12"X4" BY UNILOCK
2. BRING TO SUBGRADE AS REQUIRED WITH COMMON BORROW/ COMPACT SUBGRADE TO 95% OF MODIFIED PROCTOR (ASTM D-1557). REFER TO GEOTECHNICAL REPORT.

PERMEABLE PAVERS SECTION

NOT TO SCALE



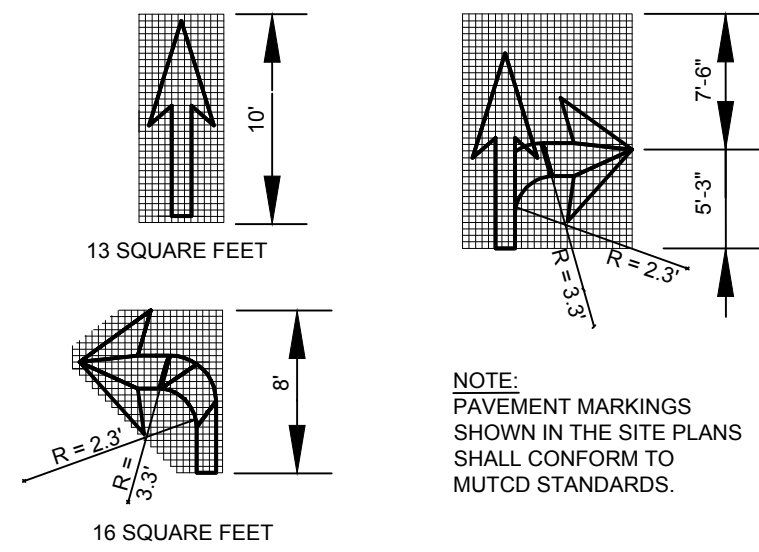
CONCRETE SLAB
NOT TO SCALE



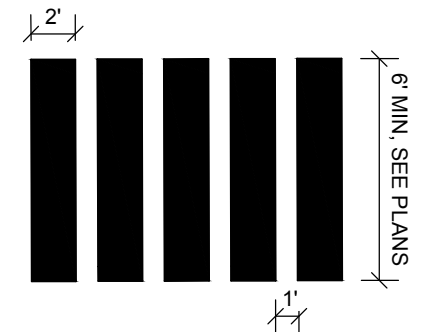
HEAVY DUTY CONCRETE PAD

NOT TO SCALE



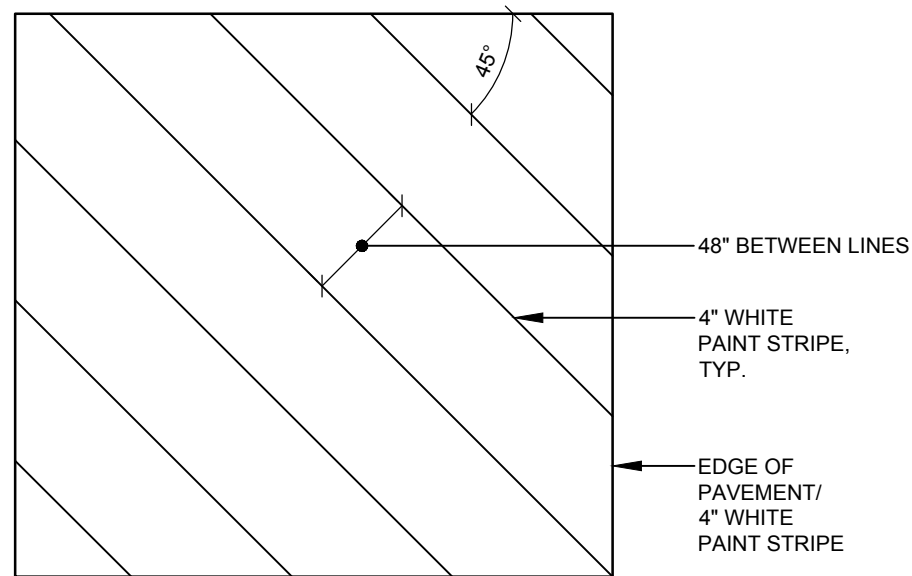


PAVEMENT ARROW DETAILS
NOT TO SCALE

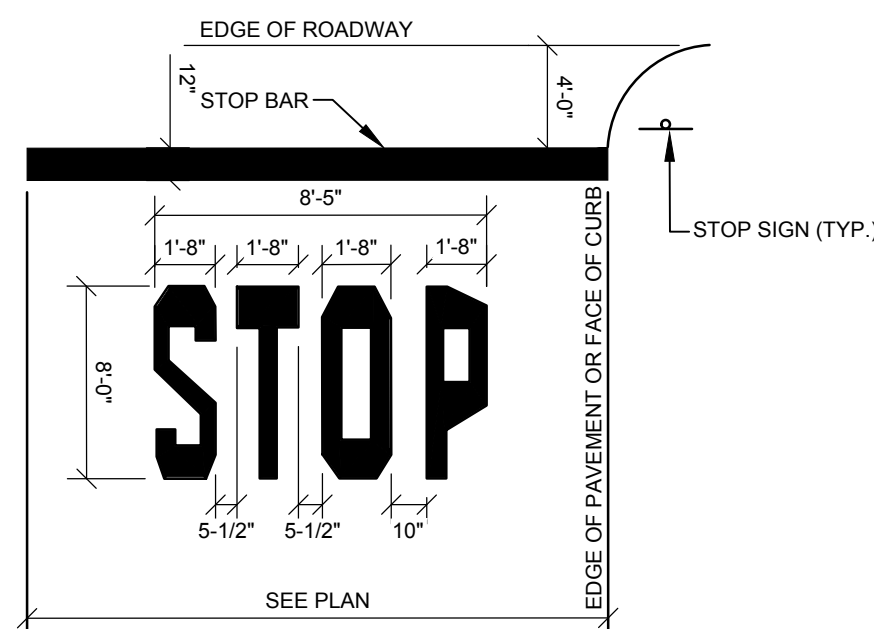


- PAVEMENT MARKING NOTES
1. ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DOT, FHWA, LATEST EDITION.
 2. ALL PAVEMENT MARKING LINES SHALL BE PAINT AND 4" WIDE, EXCEPT FOR:
SWSL - 12"
SYCL - 12"
CROSSWALK BARS - 24"
 3. PAVEMENT WORD AND SYMBOL MARKINGS SHALL BE WHITE PAINT. SOLID WHITE STOP LINE SHALL BE A MINIMUM OF 4' BEHIND THE EDGE OF CROSSWALK.
 4. PAVEMENT MARKING LINES SHALL BE PAINT AND 4" WIDE, EXCEPT FOR:
SWSL - 12"
SYCL - 12"
CROSSWALK BARS - 24"

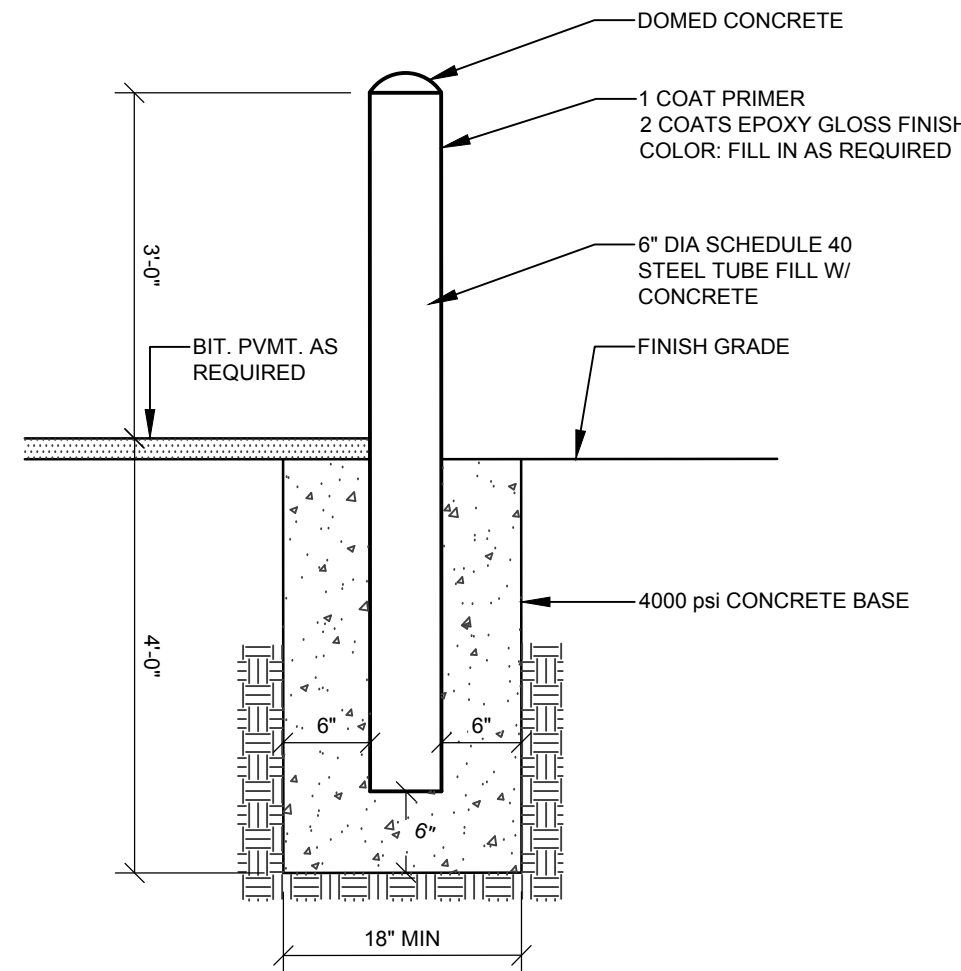
CROSSWALK DETAIL
NOT TO SCALE



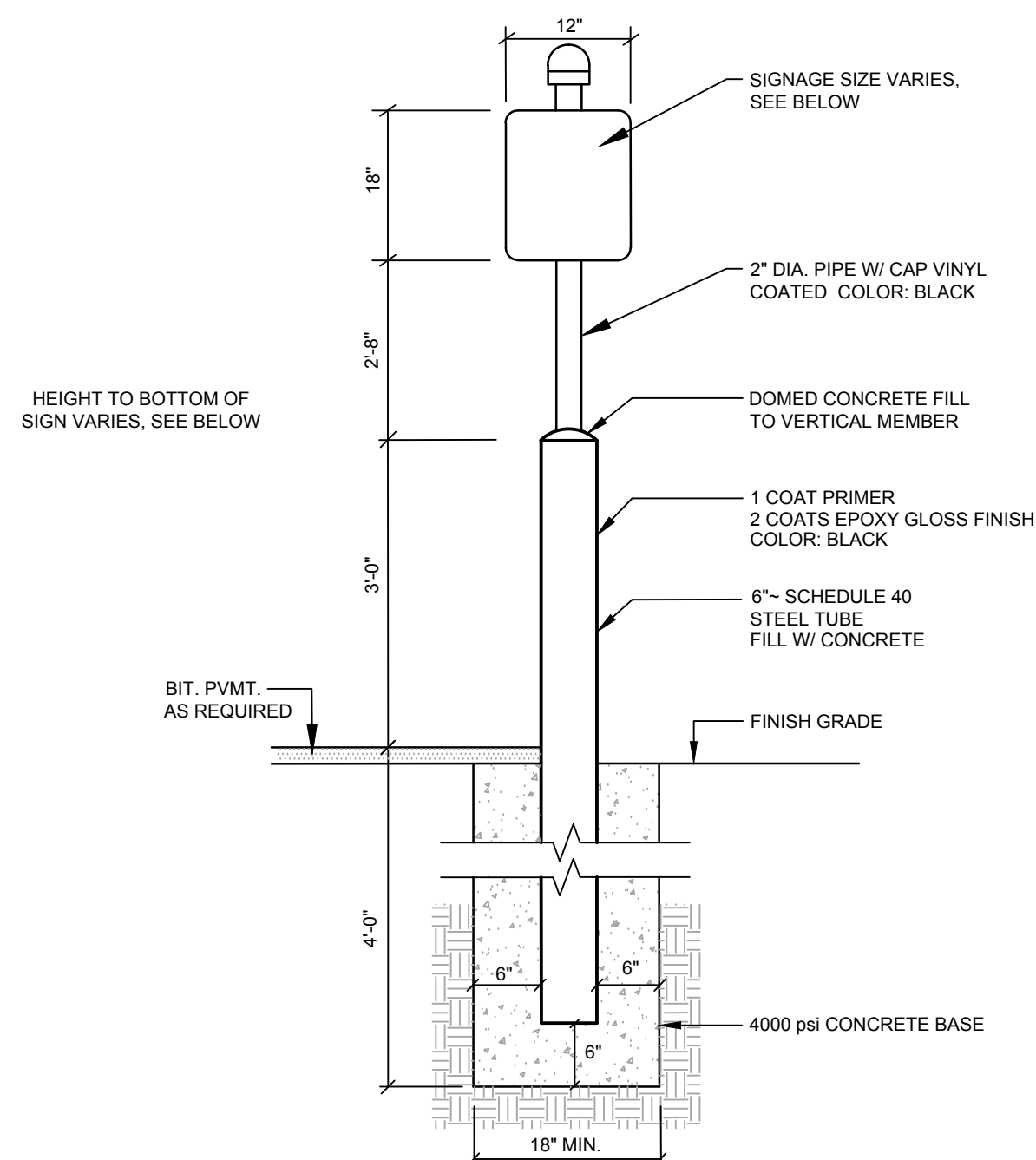
DIAGONAL PAINT MARKINGS
NOT TO SCALE



STOP BAR
NOT TO SCALE

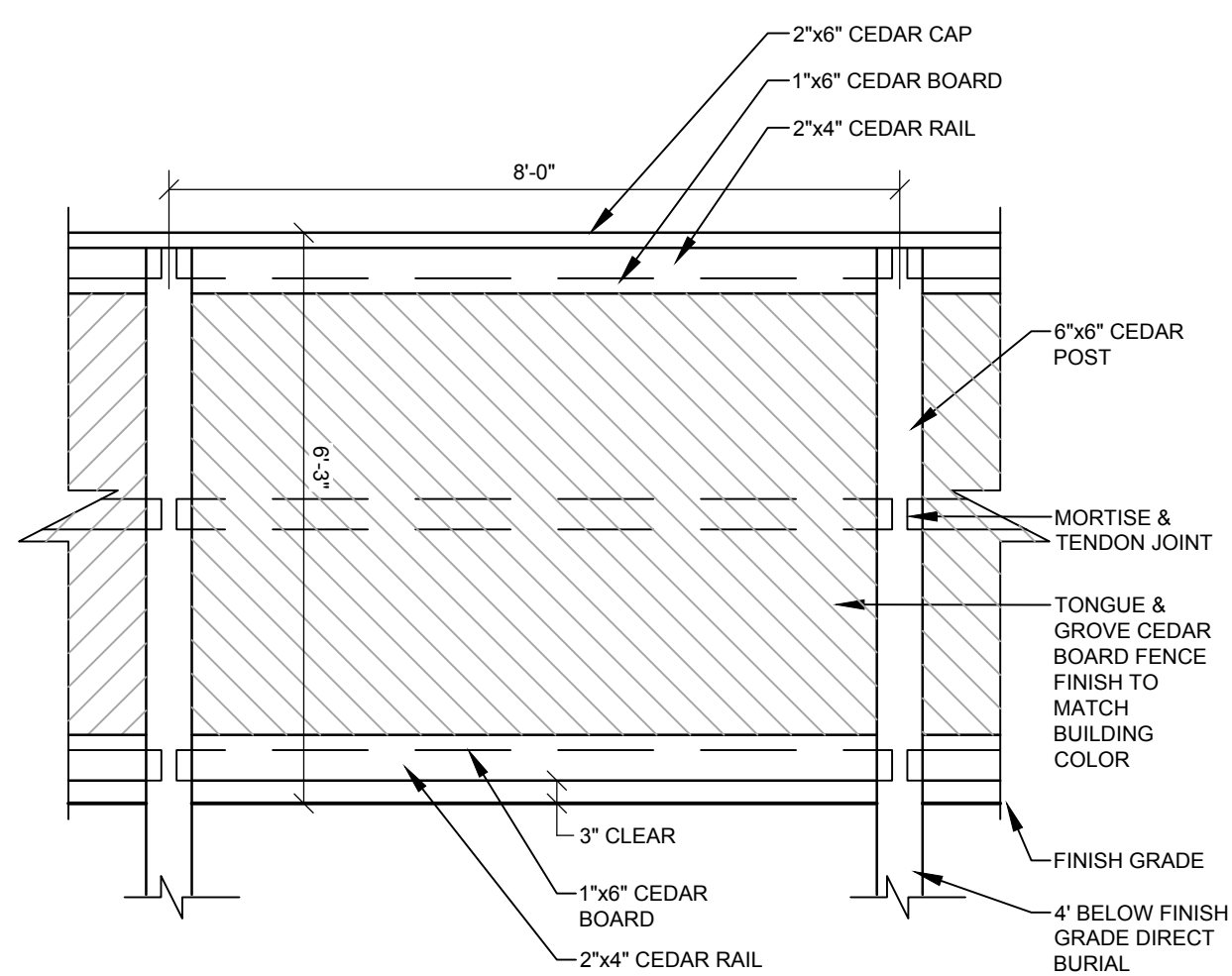


CONCRETE FILLED METAL BOLLARD
NOT TO SCALE

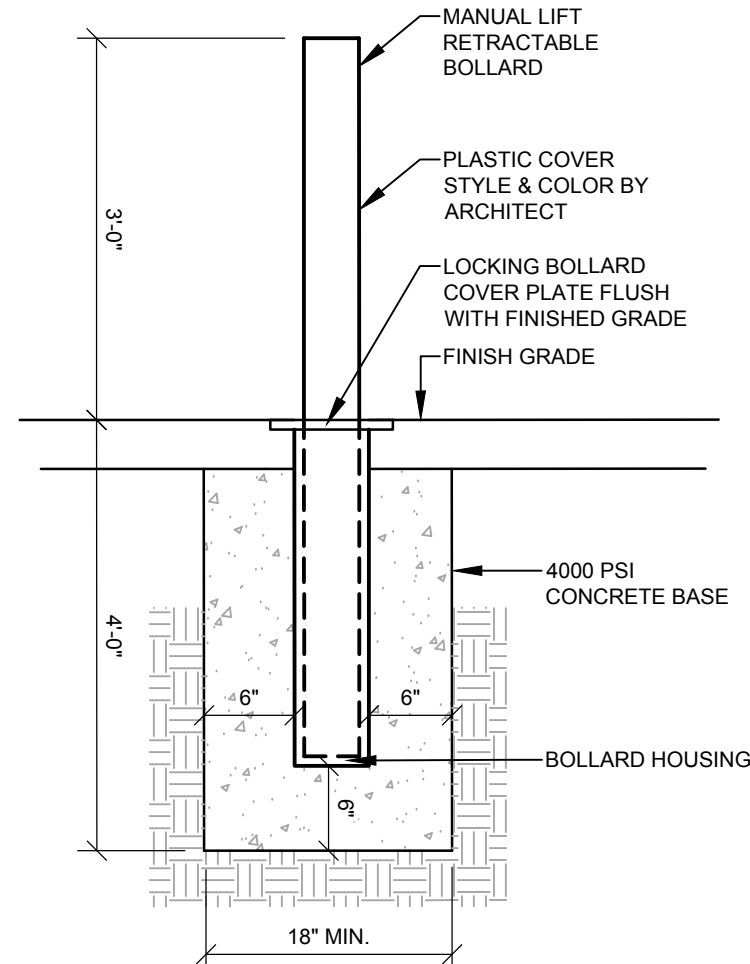


SIGNS ON METAL BOLLARD
NOT TO SCALE

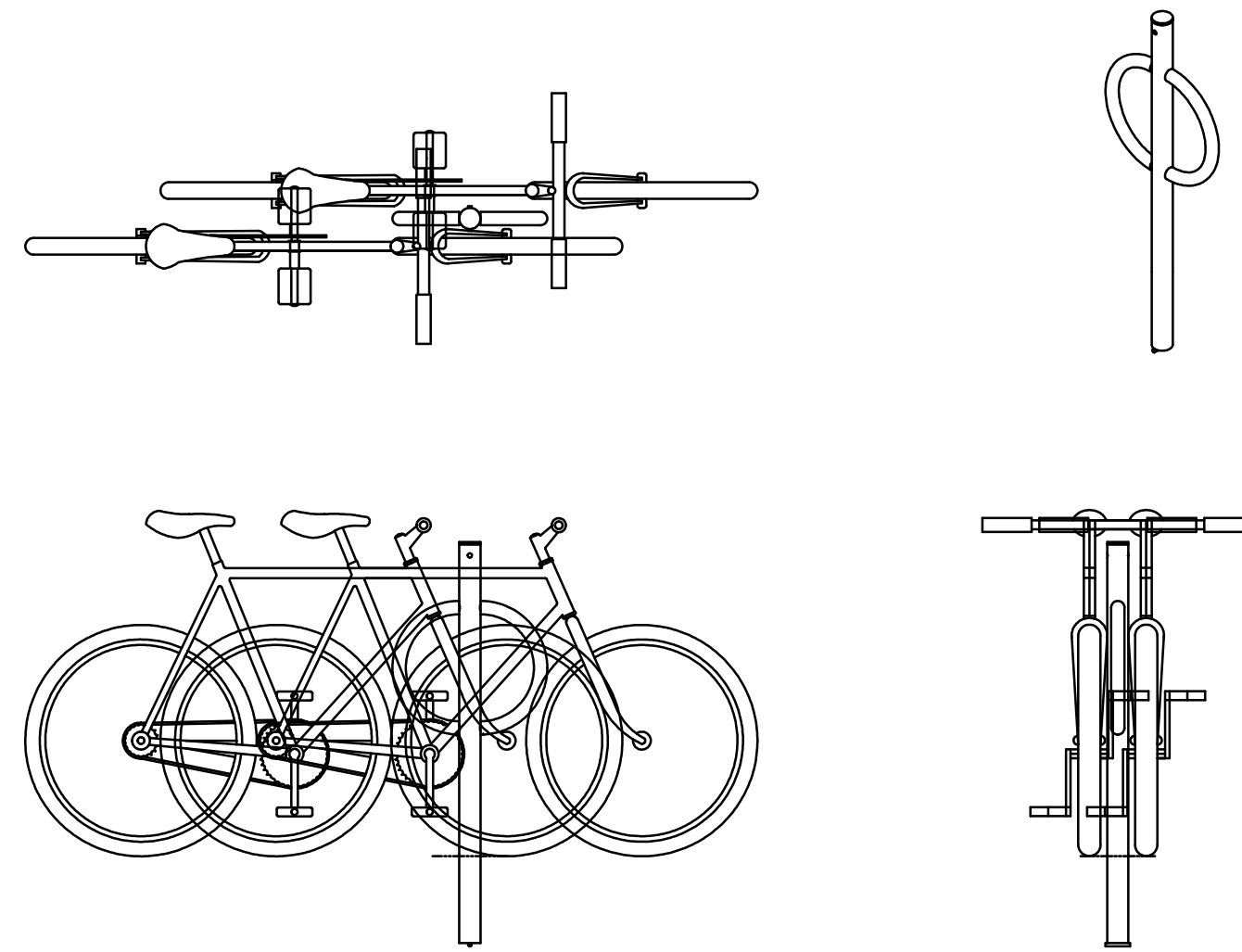
SIGN SIZE	HEIGHT TO BOTTOM OF SIGN
S1 - STOP SIGN: 30" X 30"	S1 - STOP SIGN: 7' - 0"
S2 - DO NOT ENTER: 24" X 24"	S2 - DO NOT ENTER: 7' - 0"
S3 - ACCESSIBLE SIGN: 12" X 18"	S3 - ACCESSIBLE SIGN: 5' - 8"
S4 - DROP OFF ONLY: 12" X 18"	S4 - DROP OFF ONLY: 5' - 8"
S5 - R3-2 SIGN: 24" X 24"	S5 - R3-2 SIGN: 5' - 8"



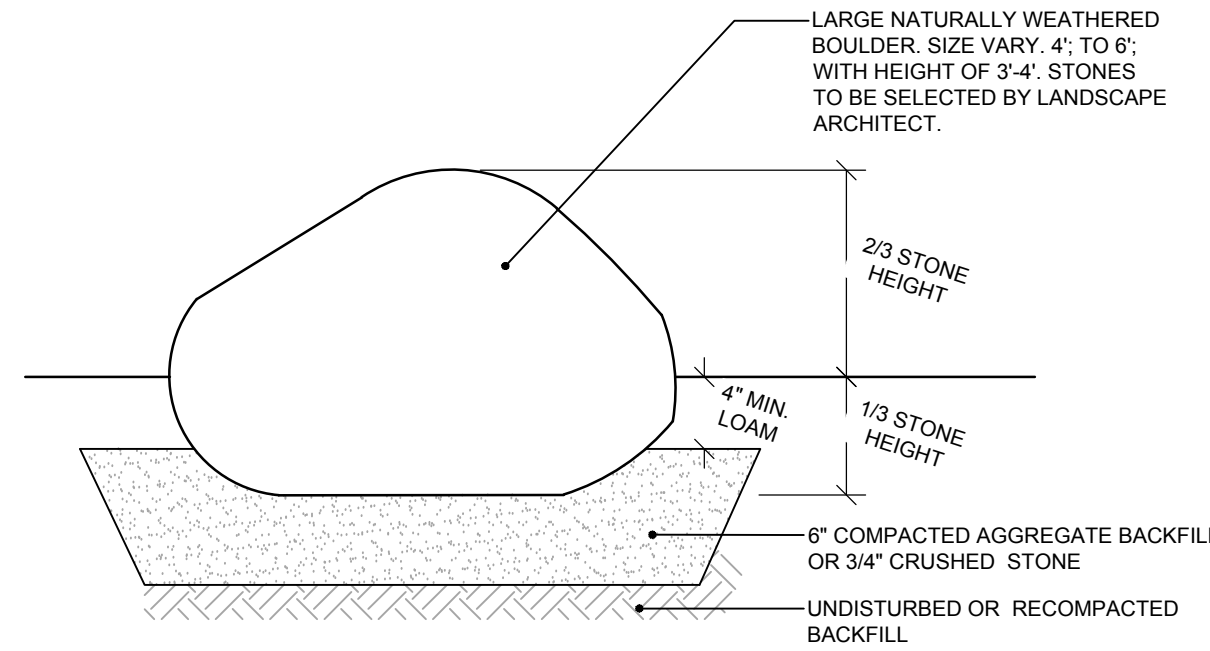
SCREEN FENCE
NOT TO SCALE



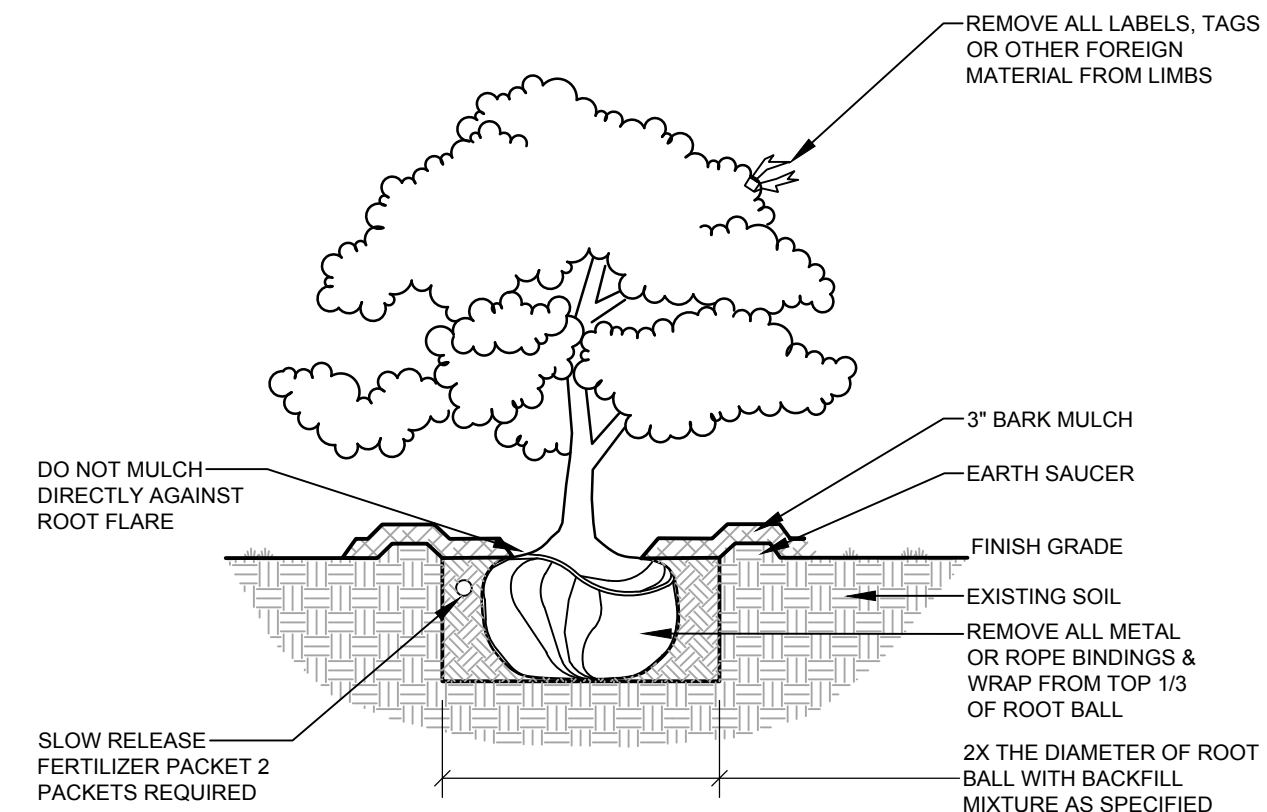
MANUAL LIFT BOLLARD
NOT TO SCALE



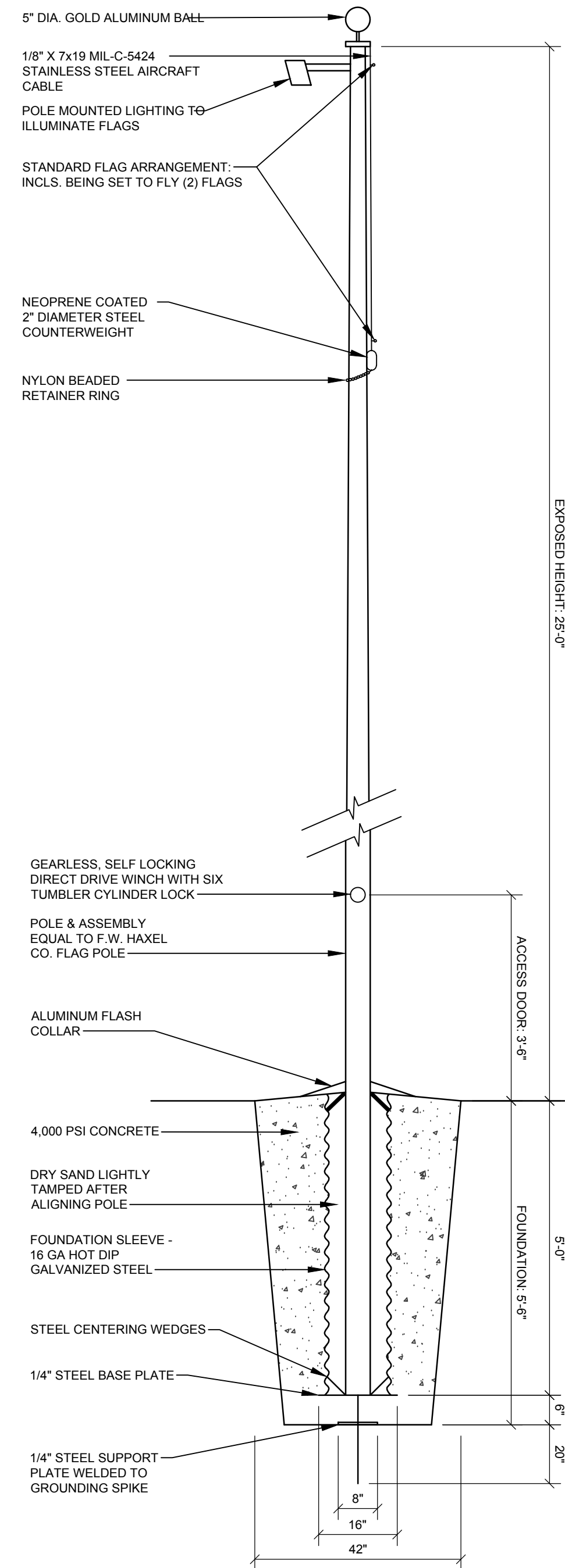
BIKE RACK DETAIL
NOT TO SCALE



BOULDER INSTALLATION
NOT TO SCALE



DECIDUOUS & EVERGREEN SHRUB
NOT TO SCALE



FLAG POLE DETAIL
NOT TO SCALE

PAUL D. OSTROWSKI
REGISTERED PROFESSIONAL ENGINEER
STATE OF MAINE
No. 0171
03/14/2023

KYLE S. MASON RLA 3336
REGISTERED LANDSCAPE ARCHITECT
STATE OF MAINE
No. 0171
03/14/2023

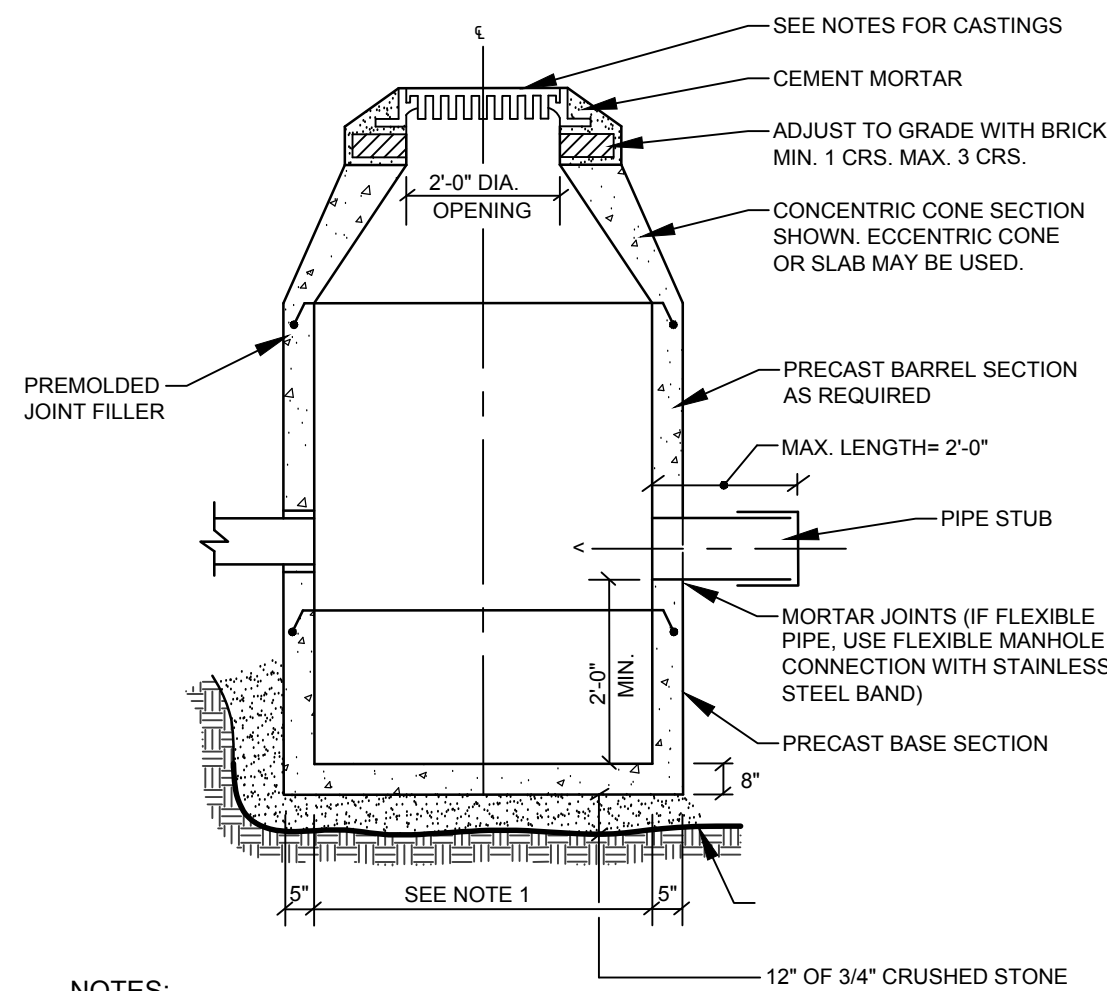
REVISIONS
REV. BY DATE STATUS
B KSM 03/14/2024 RESPONSE TO CITY REVIEW COMMENTS
A KSM 12/20/2023 ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNIQS, INC. ANY ALTERATIONS AUTHORIZED ON OTHER SHEETS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNIQS, INC.

SEBAGO
TECHNIQS
WWW.SEBAGOTECHNIQS.COM
75 Seaboard Rd
South Portland, ME 04106
Tel: 207-267-2100

DETAILS
MARTIN'S POINT HEALTHCARE VERANDA CAMPUS
331 VERANDA STREET
PORTLAND, ME 04103
MARTIN'S POINT HEALTH CARE, INC.
PO BOX 8746
PORTLAND, ME 04103

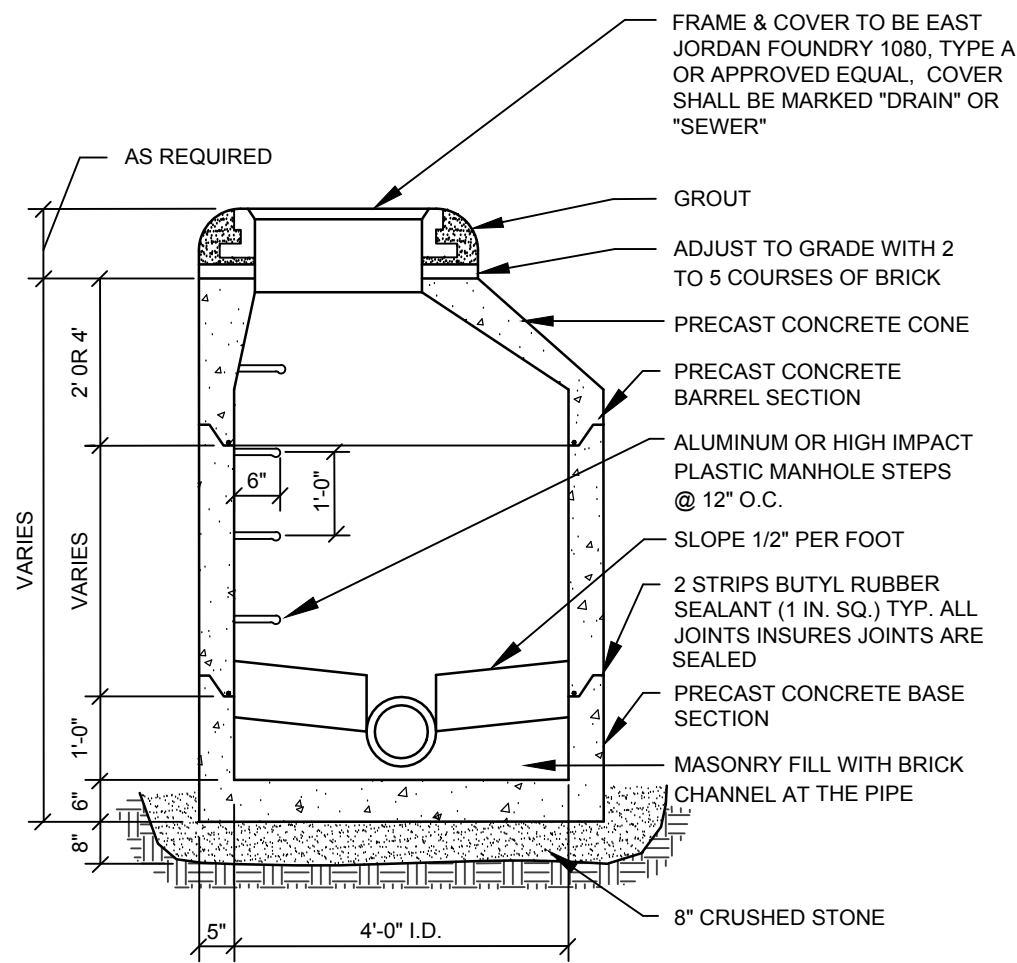
DESIGNED BAM/KGK
DRAWN CJC
CHECKED PDO
DATE 04/10/2023
SCALE NTS
PROJECT 211026

SHEET 34 OF 37



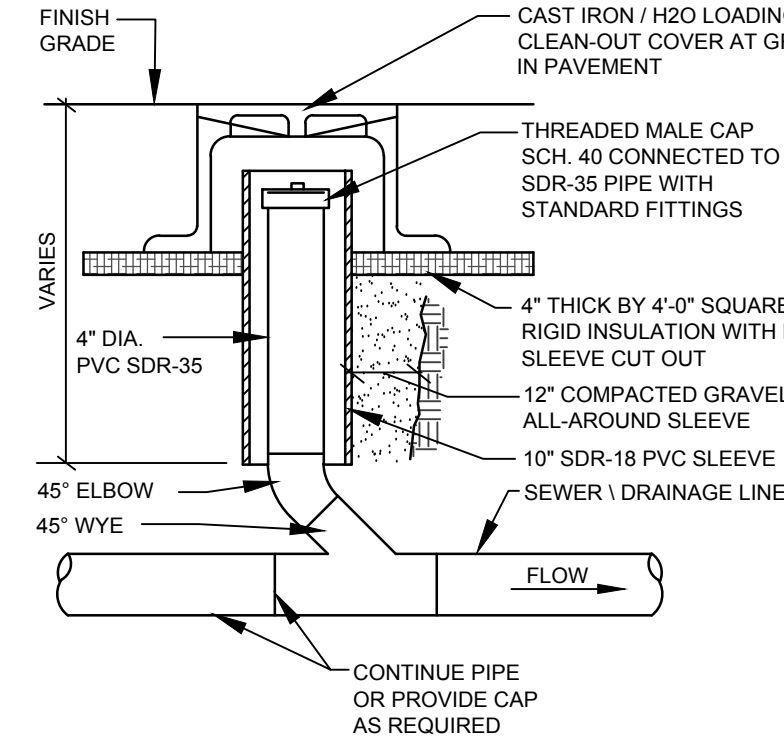
- NOTES:
- 4" I.D. TYPICAL. SOME STRUCTURES MAY REQUIRE LARGER I.D. PROVIDE SHOP DRAWINGS.
 - DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING.
 - PIPE SIZES AND INVERTS AS NOTED ON GRADING AND UTILITY PLANS.
 - CATCH BASIN FRAME AND GRATE SHALL BE EAST JORDAN FOUNDRY 5250, OR APPROVED EQUAL.

TYPICAL CATCH BASIN
NOT TO SCALE

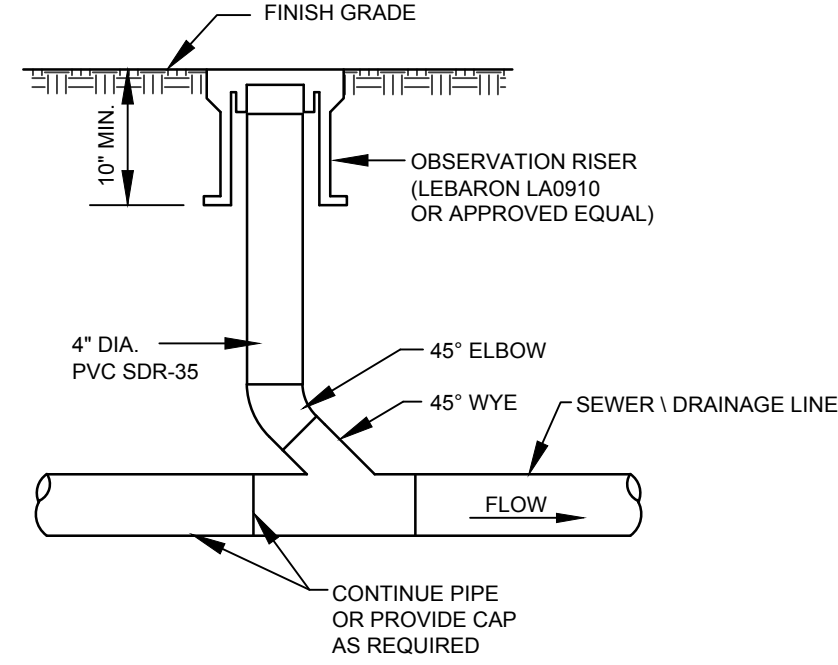


- NOTES:
- PIPE CONNECTIONS SHALL BE WATERTIGHT. FLEXIBLE BOOT CONNECTORS PROVIDES LEAKPROOF CONNECTION.
 - PRECAST SECTIONS TO RECEIVE WATERPROOF COATING PER BRUNSWICK SEWER DISTRICT SPECIFICATIONS.

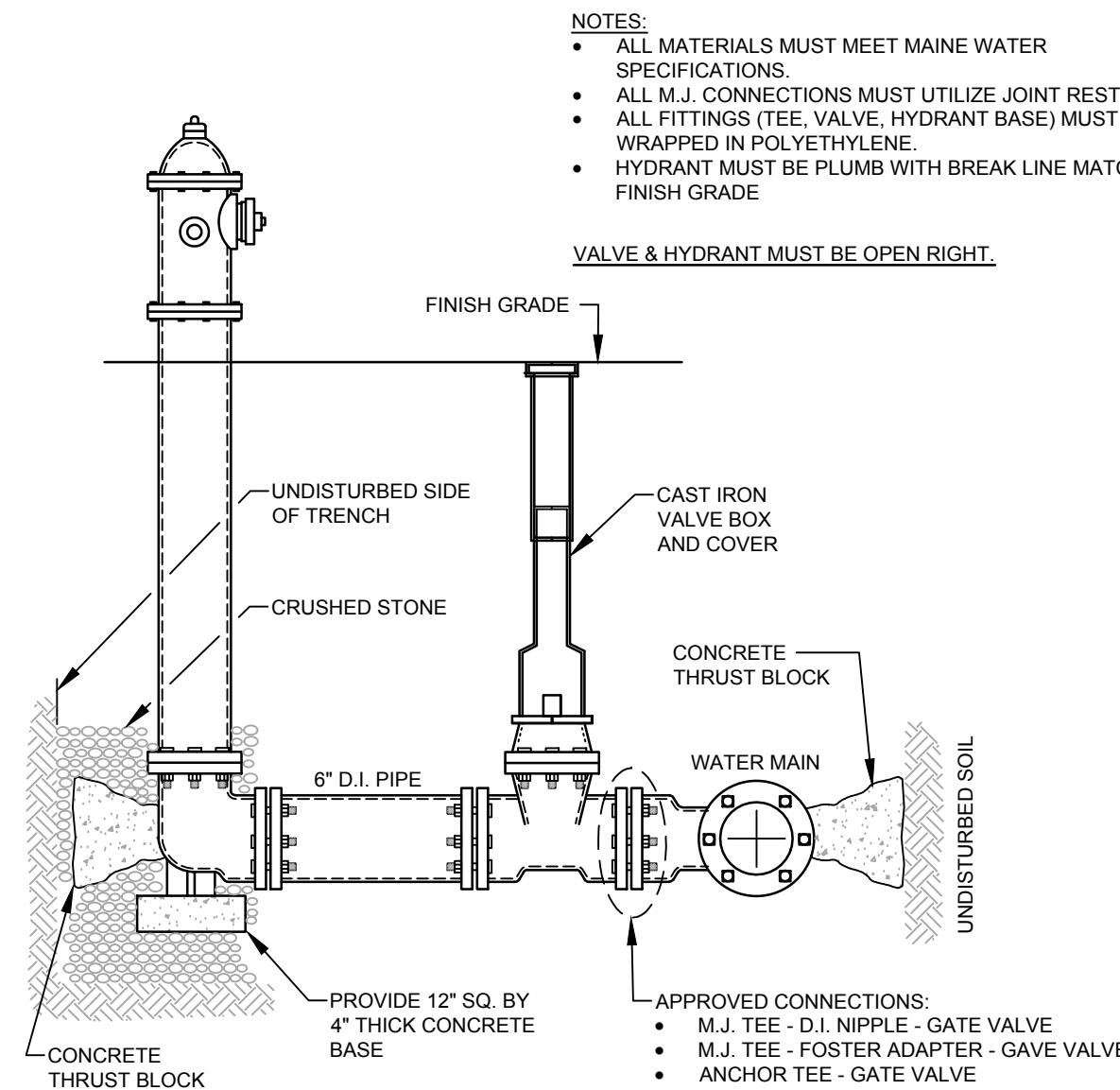
PRECAST SEWER MANHOLE
NOT TO SCALE



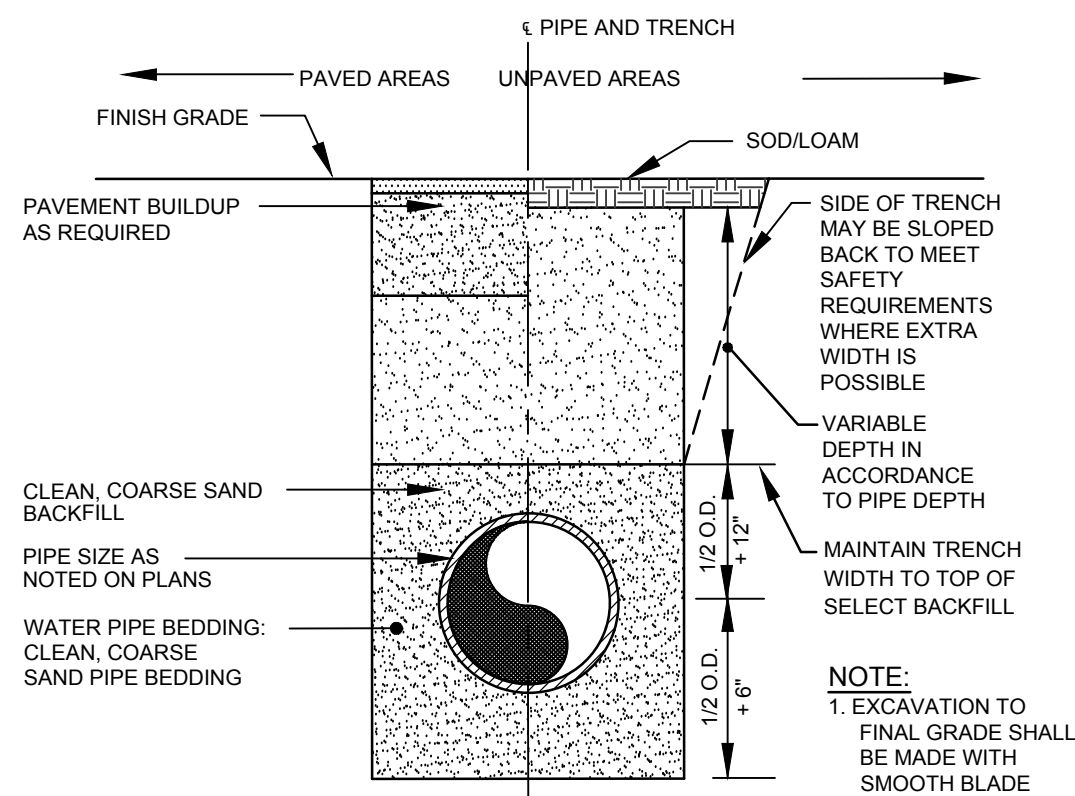
CLEAN-OUT IN PAVEMENT AREAS
NOT TO SCALE



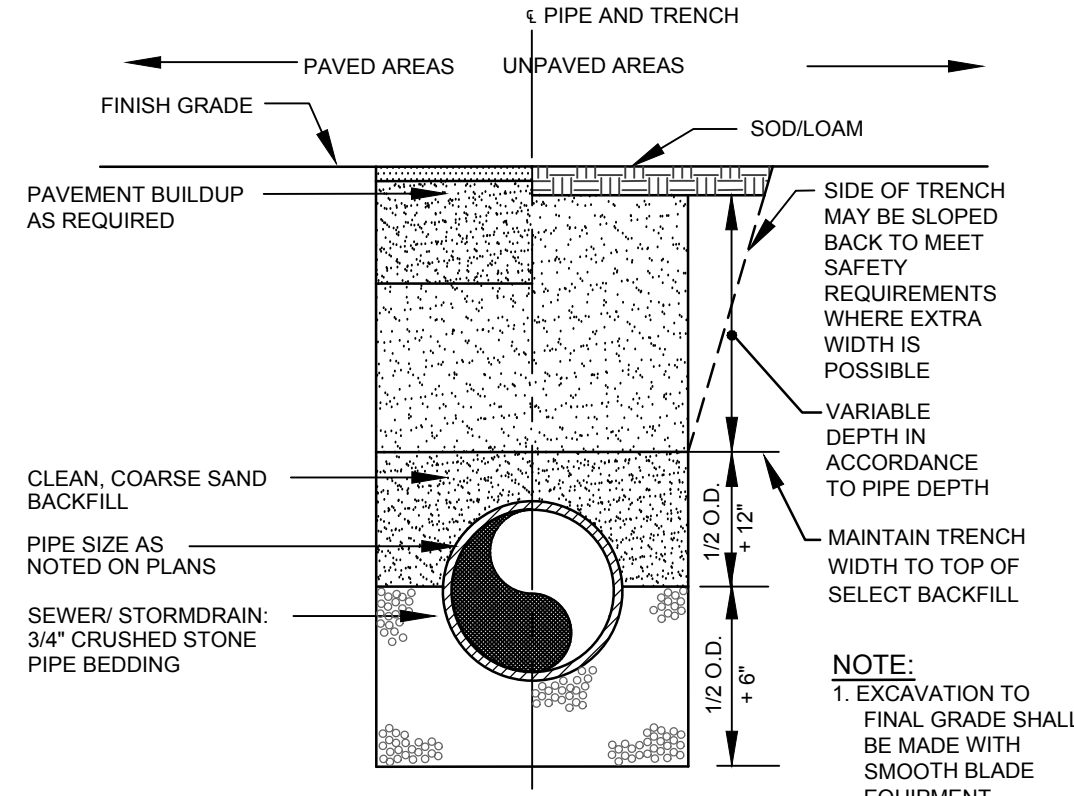
CLEAN-OUT IN GRASSED AREAS
NOT TO SCALE



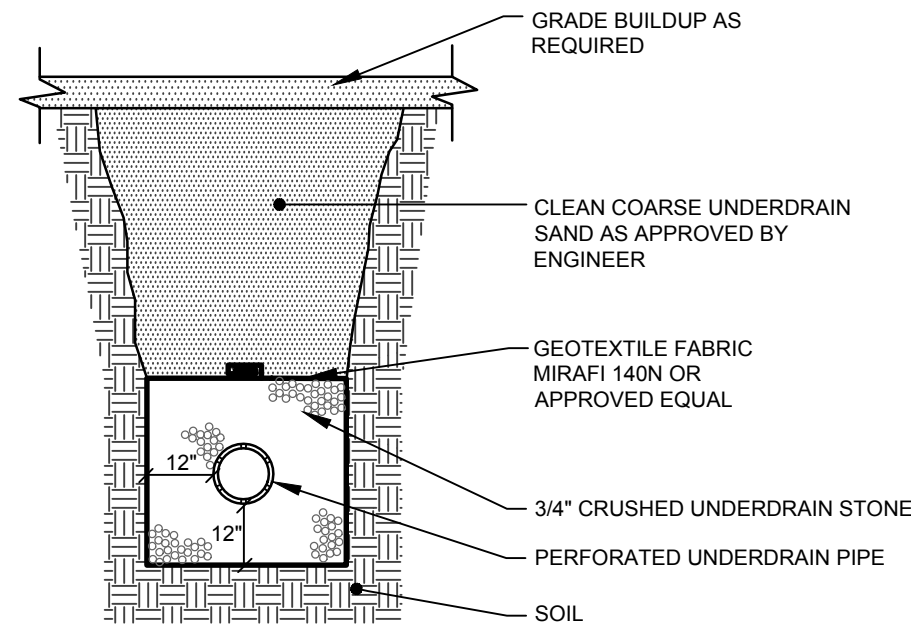
HYDRANT INSTALLATION
NOT TO SCALE



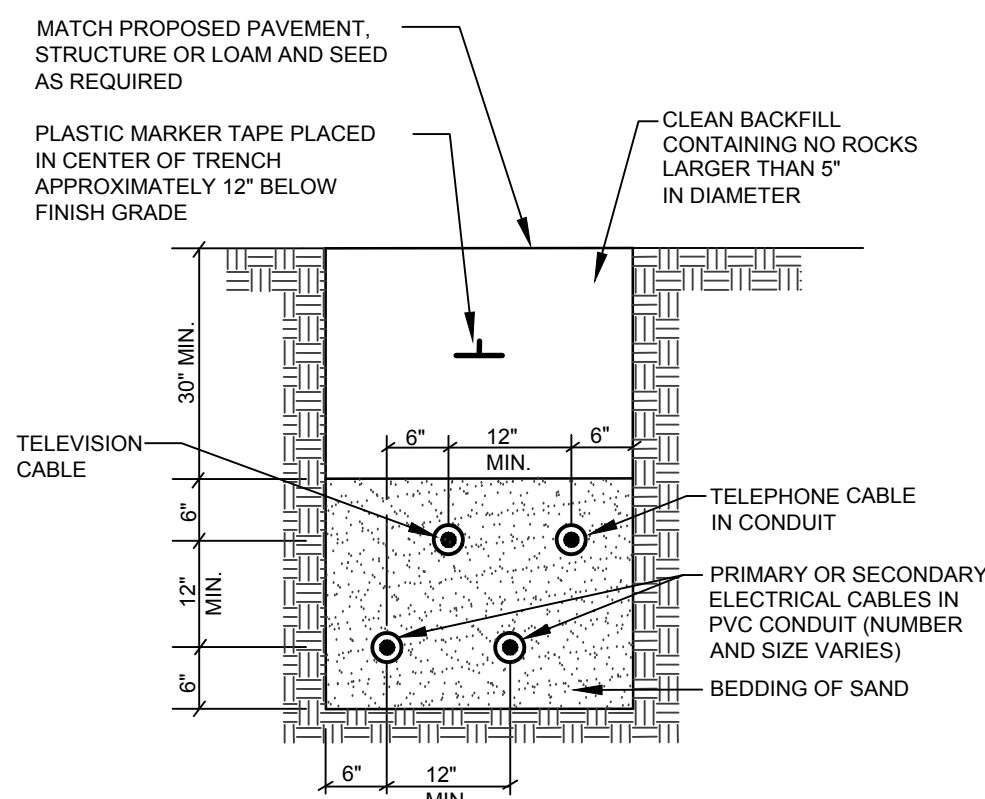
TYPICAL WATER TRENCH SECTION
NOT TO SCALE



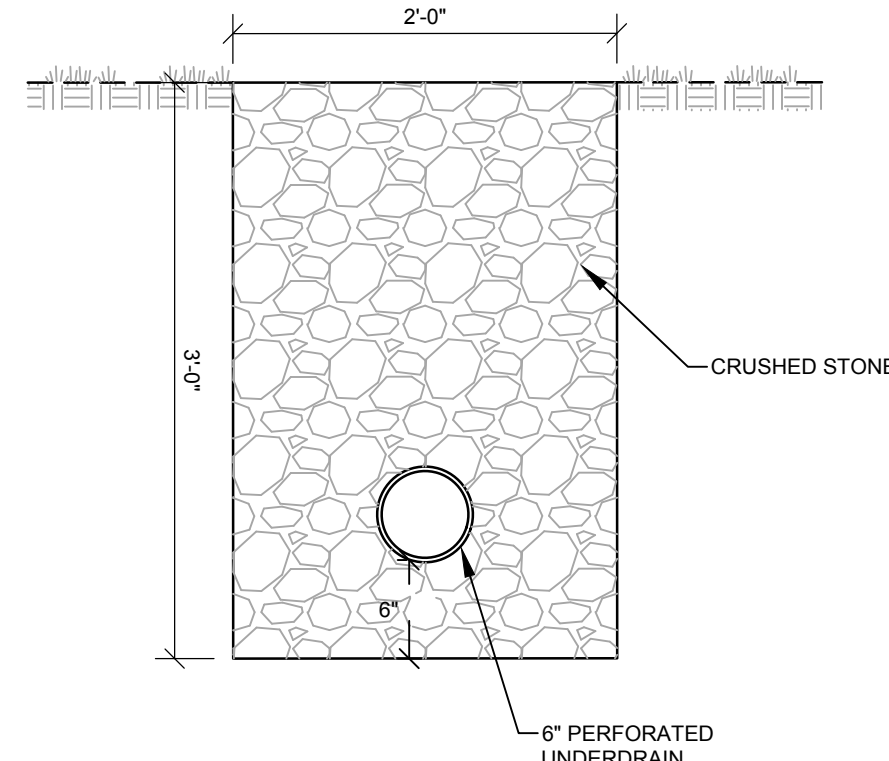
TYPICAL TRENCH SECTION
NOT TO SCALE



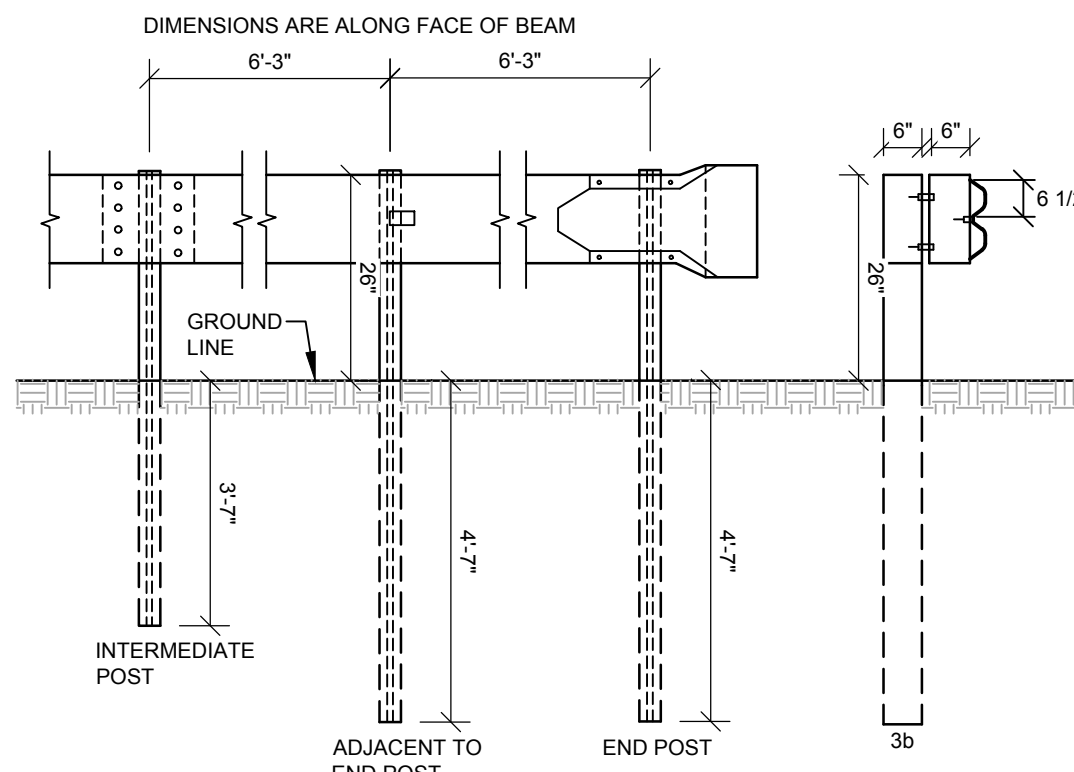
TYP. PERFORATED UNDERDRAIN TRENCH SECTION
NOT TO SCALE



TYPICAL UNDERGROUND CABLE INSTALLATION
NOT TO SCALE

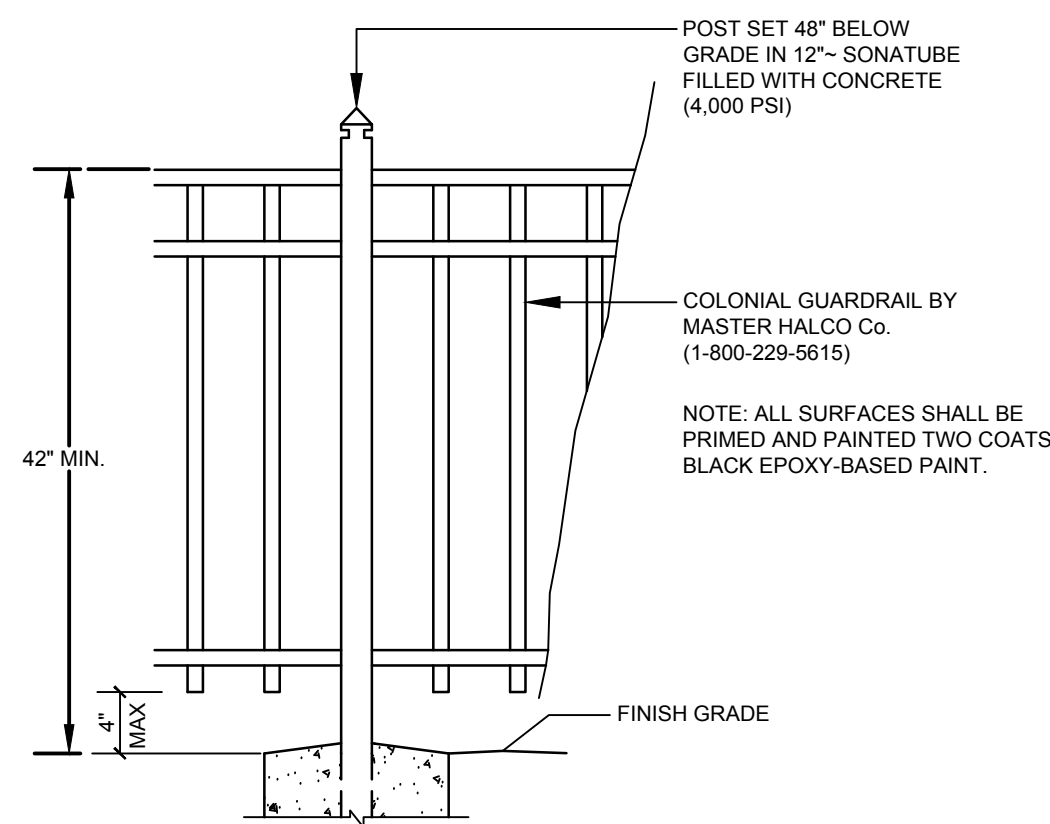


FRENCH DRAIN DETAIL
NOT TO SCALE



- NOTES:
- INTERMEDIATE POST SPACING SHALL BE 6'-3" UNLESS OTHERWISE SHOWN.
 - POSTS AND OFFSET BRACKETS FOR TYPE 3b GUARD RAIL SHALL BE W 6x9.
 - ALL HOLES IN BEAM TO BE SHOP-PUNCHED BEFORE GALVANIZING.

GUARDRAIL TYPE 3b
NOT TO SCALE



PEDESTRIAN GUARDRAIL (ALUMINUM TUBING)
NOT TO SCALE

PAUL D. OSTROWSKI
REGISTERED PROFESSIONAL ENGINEER
STATE OF MAINE
No. 0173
EXPIRATION DATE 11/01/2026

KYLE S. MASON
REGISTERED ARCHITECT
STATE OF MAINE
No. 1234
EXPIRATION DATE 12/31/2025

DESIGNED	BAM/KGK
DRAWN	CJC
CHECKED	PDG
DATE	04/10/2023
SCALE	NTS
PROJECT	211026

DETAILS

MARTIN'S POINT HEALTHCARE VERANDA CAMPUS
331 VERANDA STREET
PORTLAND, ME 04103
MARTIN'S POINT HEALTH CARE, INC.
PO BOX 9746
PORTLAND, ME 04103

WWW.SEBAGOTECHNICS.COM

SEBAGO
TECHNICS
75 S. Main Rd
South Portland, ME 04106
Tel. 207-269-2100

RESPONSE TO CITY REVIEW COMMENTS

ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW

DATE: 03/14/2024
BY: A. KSM
REV: 1.22/2023

STATUS: Awaiting City Review

03/14/2024

PAUL D. OSTROWSKI P.E. 11175



P:\projects\2100021\2026\DWG\Design\210026 NS PRE-BLDG 7.dwg - 3/13/2024 5:10 PM - SHELLEY STACEY

TAX PARCELS: 434-C-1, 434-C-5 & 434-C-10

210026 NS PRE-BLDG 7.dwg, TABS: POST

PAUL D. OSTROWSKI, P.E. 11175

PRE STORMWATER PLAN	
MARTIN'S POINT HEALTHCARE VERANDA CAMPUS	
331 VERANDA STREET PORTLAND, ME 04103	
MARTIN'S POINT HEALTH CARE, INC.	
PO BOX 8746 PORTLAND, ME 04103	
DESIGNED	BAM/KGK
DRAWN	CJC
CHECKED	PDO
DATE	04/10/2023
SCALE	1" = 20'
PROJECT	211026
SHEET 1 OF 2	

SEBAGO
TECHNICS

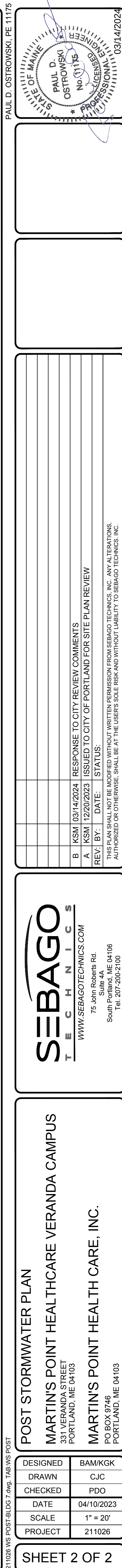
WWW.SEAGOTECHNICS.COM
75 Jackson Rd
South Portland, ME 04106
Tel: 207-269-2100

B	KSM	03/14/2024	RESPONSE TO CITY REVIEW COMMENTS
A	KSM	12/20/2023	ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW
REV.	BY:	DATE:	STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS AUTHORIZED ON OTHER SHEETS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

03/14/2023

PAUL D. OSTROWSKI, P.E. 11175



	≥10" DECIDUOUS TREE TO BE REMOVED	= 18
	≥10" CONIFEROUS TREE TO BE REMOVED	= 5
<u>TOTAL NUMBER OF ≥ 10" TREES TO BE REMOVED</u>		= 23 [19 ARE LOCATED IN THE SHORELAND ZONE]
<u>TOTAL NUMBER OF ≥ 10" TREES TO BE PRESERVED</u>		= 100 [95 ARE LOCATED IN THE SHORELAND ZONE]

RECTANGULAR PLOTS [25' X 50'] MUST MAINTAIN A MINIMUM SCORE OF 16 POINTS:

PLOT #1 28 POINTS MAINTAINED AFTER REMOVAL OF 2 TREES

11" OAK	= 4 POINTS
12" OAK	= 8 POINTS
22" OAK	= 8 POINTS
23" OAK	= 8 POINTS

PLOT #2 10 POINTS MAINTAINED AFTER REMOVAL OF 4 TREES (SEE NOTE 3)

6" HICKORY = 2 POINTS
15" OAK = 8 POINTS

PLOT #3 22 POINTS MAINTAINED AFTER REMOVAL OF 2 TREES

7" HICKORY	= 2 POINTS
9" OAK	= 4 POINTS
10" OAK	= 4 POINTS
19" OAK	= 8 POINTS
23" OAK	= 8 POINTS

NOTES:

1. THE FOLLOWING PLAN WAS PRODUCED IN COMPLIANCE WITH ARTICLE 11, SECTION 4.3 OF THE CITY OF PORTLAND LAND USE ORDINANCE.
2. PLOTS #1 AND #3 SATISFY THE MINIMUM 16 POINT REQUIREMENT.
3. PLOT #2 DOES NOT MEET THE MINIMUM 16 POINT REQUIREMENT; REPLACEMENT TREES WILL BE PROVIDED WITHIN THE PLOT, SEE THE LANDSCAPE PLAN.
4. THE REMOVAL OF TREES IN EACH PLOT CREATES OPENINGS IN THE FOREST CANOPY THAT ARE MORE THAN 250 SQUARE FEET; EIGHT (8) TREES WILL BE PLANTED ALONG THE PROPOSED TRAIL TO OFFSET THE FOREST CANOPY OPENINGS. SEE THE LANDSCAPE PLAN.

SELECTIVE CUTTING OF NOT MORE THAN 40% OF THE VOLUME OF TREES FOUR INCHES OR MORE IN DIAMETER SHALL BE ALLOWED WITHIN ANY TEN YEAR PERIOD.

TOTAL NUMBER OF TREES $\geq 4"$ REMOVED WITHIN THE SHORELAND ZONE = 61 TREES
110 OF THE REMOVED TREES IN THE SHORELAND ZONE ARE $\geq 10"$

TOTAL NUMBER OF TREES $\geq 4"$ PRESERVED WITHIN THE SHORELAND ZONE = 164 TREES

VOLUME CALCULATION [# OF REMOVED TREES / # OF PRESERVED TREES] = 37.2% [61 / 164]

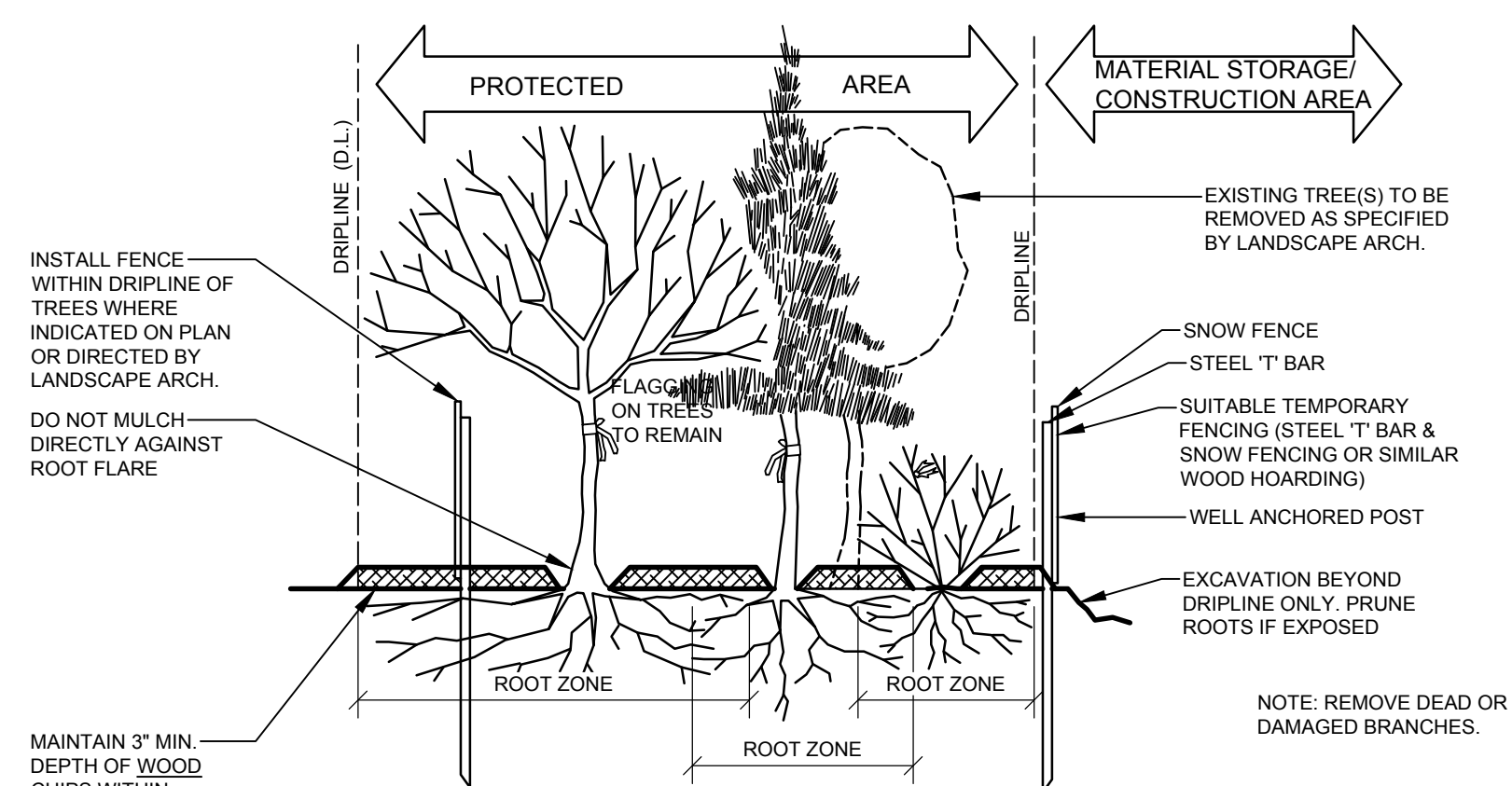
NOTES:

1. THE FOLLOWING PLAN WAS PRODUCED IN COMPLIANCE WITH ARTICLE 11, SECTION 4.3 OF THE CITY OF PORTLAND LAND USE ORDINANCE.
2. THE TOTAL NUMBER OF REMOVED TREES IN THE SHORELAND ZONE DOES NOT EXCEED THE 40% THRESHOLD.
3. ADDITIONAL EXISTING TREES ARE LOCATED ALONG THE SOUTHWESTERN SHORELINE OF MARTIN'S POINT VERANDA CAMPUS. SEBAGO TECHNIQS HAS NOT LOCATED THESE ADDITIONAL TREES, AS THE CURRENT SHORELAND INVENTORY IS IN COMPLIANCE WITH THE 40% REMOVAL THRESHOLD.

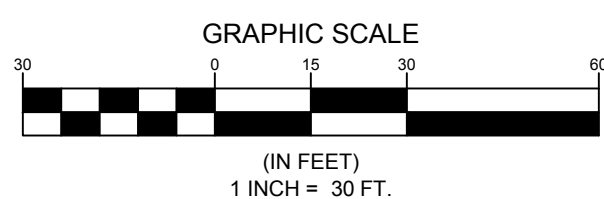
 TREES TO BE PROTECTED THROUGHOUT CONSTRUCTION

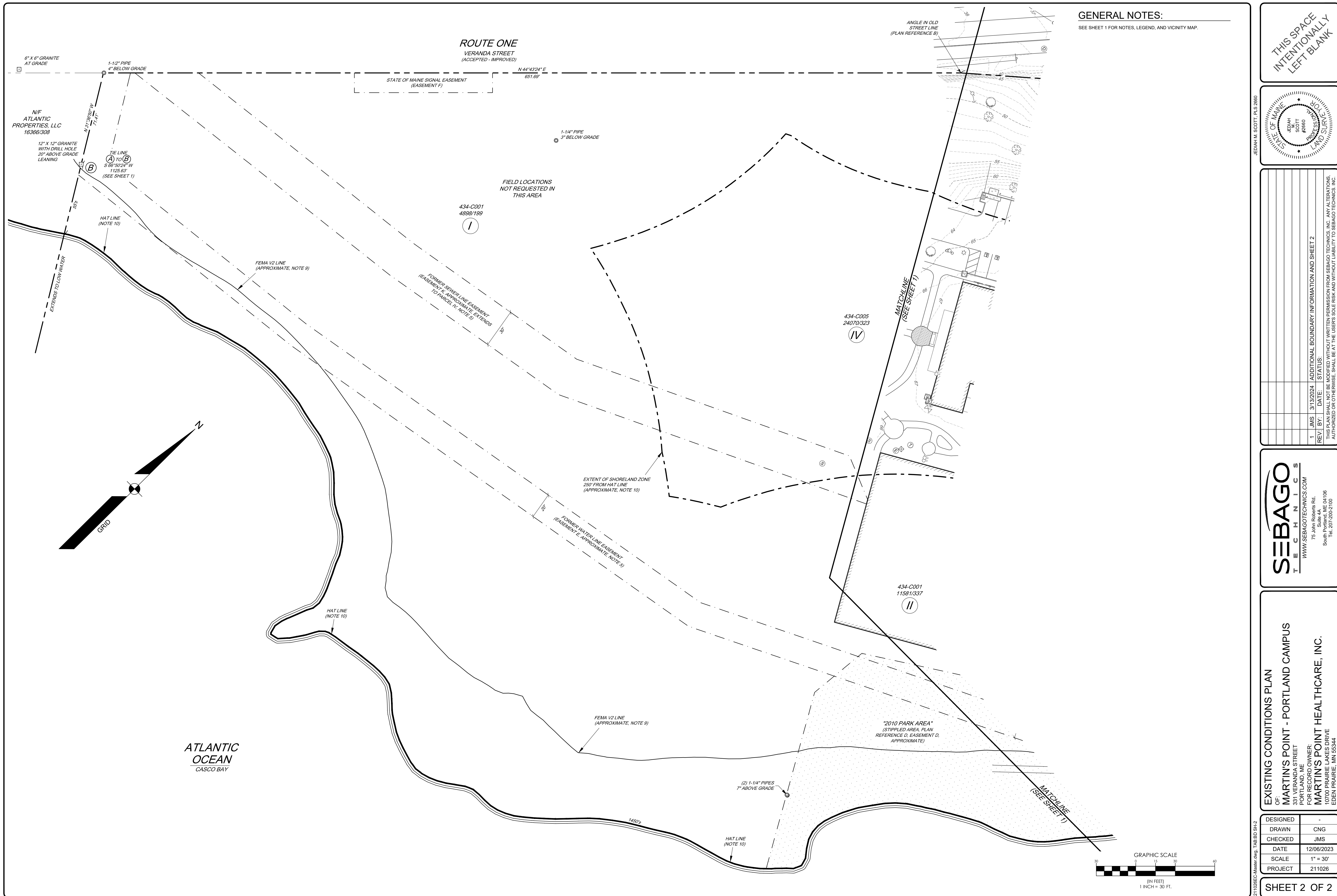
NOTES:

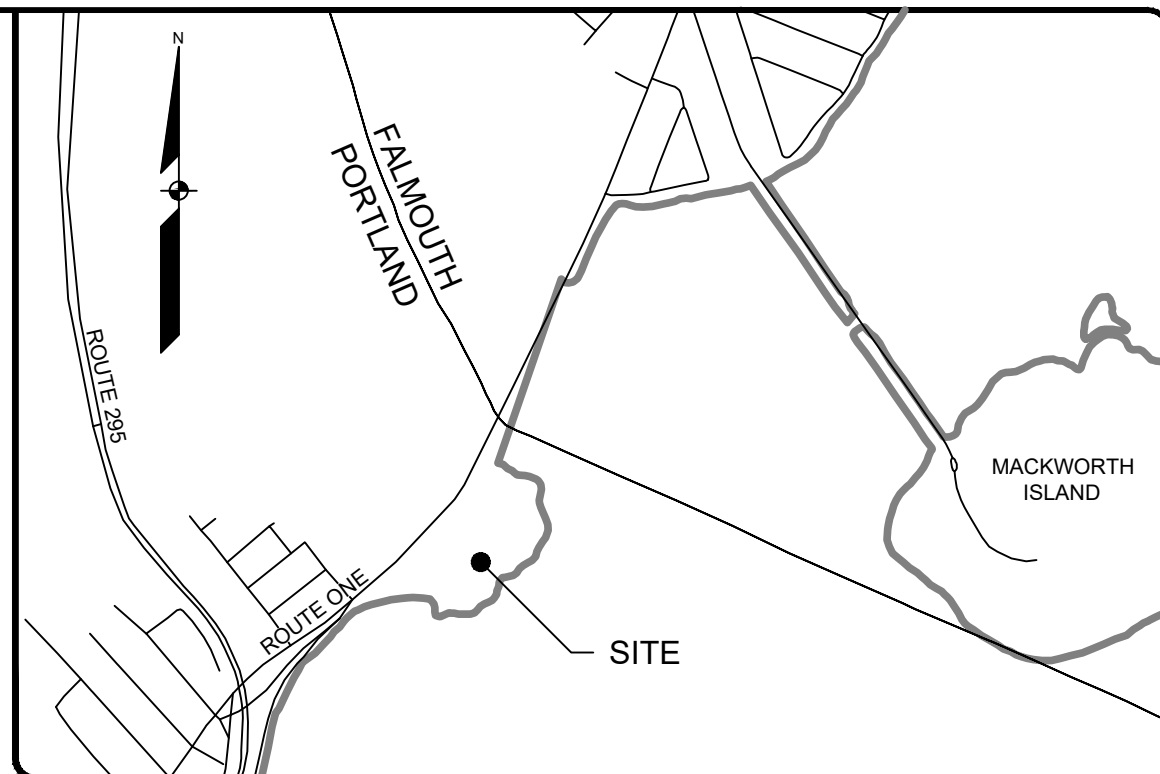
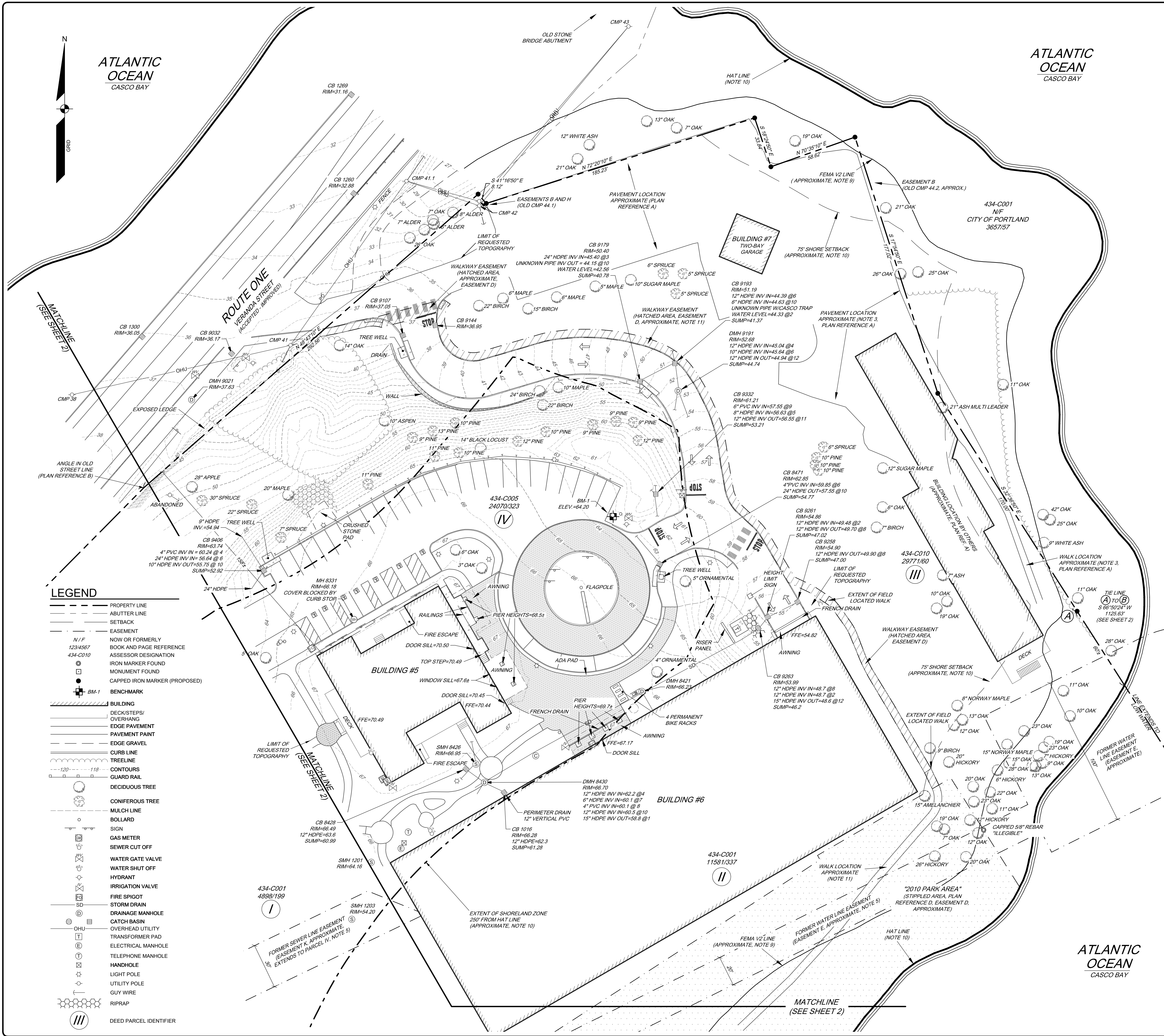
1. THE CONTRACTOR SHALL IDENTIFY THE TREES ON-SITE TO BE PROTECTED PER THE PROVIDED TREE PRESERVATION AND REMOVAL PLAN BY SEBAGO TECHNICS AND COORDINATE PROTECTION MEASURES AS NOTED.
2. TREES OR GROUPS OF TREES TO BE PROTECTED SHALL BE INSPECTED AND APPROVED BY THE CITY ARBORIST OR THEIR DESIGNEE PRIOR TO CONSTRUCTION AND MONITORED BY THE CITY ARBORIST DURING CONSTRUCTION AND POST-CONSTRUCTION.
3. SIGNS SHALL BE POSTED CLEARLY IDENTIFYING THE 'TREE PROTECTION ZONES' (TPZ) OR 'LIMIT OF WORK ZONES' FOR EACH TREE TO BE PRESERVED.
4. PLEASE SEE THE TREE PROTECTION DETAIL BELOW FOR MORE INFORMATION.



NOT TO SCALE CROSS-SECTION OF TYPICAL
PLANT GROUPING



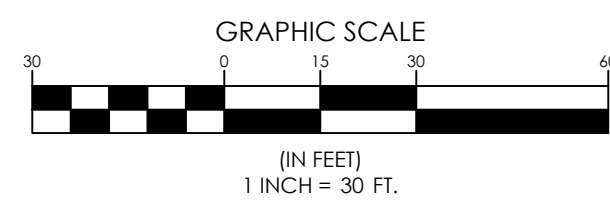




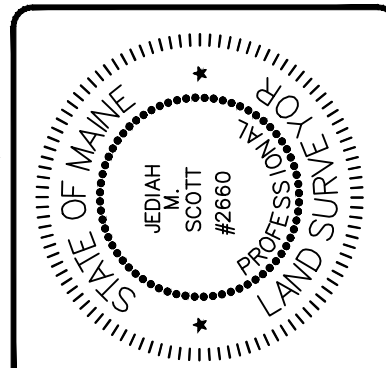
LOCATION MAP N.T.S.

GENERAL NOTES:

- THE RECORD OWNER OF THE PARCEL IS MARTIN'S POINT HEALTH CARE, INC. AS RECORDED IN BOOK 24070, PAGE 323 (PARCEL IV); BOOK 29771, PAGE 60 (PARCEL III); BOOK 11581, PAGE 337 (PARCEL II, HTTA - PENOBSCOT BAY MEDICAL ASSOCIATES, INC.); AND BOOK 4898, PAGE 199 (PARCEL I, HTTA - PENOBSCOT BAY MEDICAL ASSOCIATES, INC.). BOOK AND PAGE NUMBERS ARE REFERENCED TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS UNLESS NOTED OTHERWISE.
- THE PROPERTY IS SHOWN AS LOTS C001, C010, AND C005 ON THE CITY OF PORTLAND TAX MAP 434 AND IS LOCATED IN THE RESIDENTIAL PROFESSIONAL DISTRICT WITH A SHORELAND ZONING OVERLAY. THE TOTAL AREA OF THE PROPERTY UP AND OF THE HIGH ANNUAL TIDE IS APPROXIMATELY 533,000 SQUARE FEET OR 12.23 ACRES, MORE OR LESS.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHINCS, INC. IN 2023-2024 AND INFORMATION COLLECTED BY OWEN HASKELL, INC. IN 2012 (AS NOTED, PLAN REFERENCE A). CERTIFICATION IS LIMITED TO THE AREA OF REQUESTED TOPOGRAPHY.
- PLAN REFERENCES
A. EXISTING CONDITIONS SURVEY MADE FOR MARTIN'S POINT HEALTH CARE CENTER BY OWEN HASKELL, INC. DATED FEBRUARY 22, 2012 AS REVISED THROUGH JULY 3, 2012.
B. SITE PLAN OF MARTIN'S POINT FOR CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS APPROVED JUNE 6, 1974, CITY OF PORTLAND DRAWING NO. 541/21.
C. STANDARD BOUNDARY SURVEY MADE FOR PENOBSCOT BAY MEDICAL ASSOC. BY OWEN HASKELL, INC. DATED JUNE 7, 1994 RECORDED IN PLAN BOOK 194, PAGE 258.
D. CONCEPT PLAN MADE FOR MARTIN'S POINT HEALTH CARE, INC. BY OWEN HASKELL, INC. DATED AUGUST 10, 2010 RECORDED IN PLAN BOOK 210, PAGE 328.
E. CONVEYANCE PLAN MADE FOR MARTIN'S POINT HEALTH CARE, INC. BY OWEN HASKELL, INC. AS REVISED THROUGH JUNE 14, 2008 RECORDED IN BOOK 207, PAGE 364.
F. SOME EASEMENTS SHOWN ON THIS PLAN MAY HAVE BEEN TERMINATED, THOUGH UTILITIES MAY STILL BE PRESENT. CONSULT A TITLE ATTORNEY FOR A LEGAL OPINION OF EASEMENT STATUS.
G. BASIS OF BEARING IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE REFERENCED TO CITY OF PORTLAND DATUM, AS DERIVED FROM A CITY OF PORTLAND BENCHMARK LOCATED ON THE WESTERLY SIDE OF VERANDA STREET AT THE FIRST ANGLE NORTHERLY OF OREGON STREET, BEING A COPPER BOLT IN GRANITE 3-FOOT OFFSET MONUMENT (ELEVATION: 27.014).
H. BENCHMARK:
BM-1 BOX CUT IN BASE OF LIGHT POLE ELEVATION: 64.20' (PORTLAND DATUM)
I. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
J. PORTIONS OF THE PROPERTY AS DEPICTED HEREON FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR PORTLAND, MAINE, CUMBERLAND COUNTY, COMMUNITY-PANEL NUMBER 23005100088, HAVING AN EFFECTIVE DATE OF JULY 17, 1986. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE A2, AREAS OF 100-YEAR FLOOD, BASE ELEVATIONS, (ELEVATION 27' NGVD29) AND FLOOD HAZARD FACTORS DETERMINED. A PORTION OF THE PROPERTY ALSO FALLS WITHIN AN AREA IDENTIFIED AS V2 AREAS OF 100-YEAR COASTAL FLOOD WITH VELOCITY (WAVE ACTION); BASE FLOOD ELEVATIONS, (ELEVATIONS 19', 22' & 27' NGVD29) AND FLOOD HAZARD FACTORS DETERMINED. FEMA V2 LINE SHOWN IS BASED ON ELEVATIONS DERIVED FROM PUBLICLY AVAILABLE LIDAR DATA AND IS APPROXIMATE.
K. THE ELEVATION OF HIGH ASTRONOMICAL TIDE IN PORTLAND IS PUBLISHED AS 6.5 NAVD83 (OR 7.2 NGVD29 - VDATUM NOAA) ACCORDING TO REPORT FROM MAINE DEP (2018). THE MAINE GEOLOGICAL SURVEY REFERENCES MAINE'S MANDATORY SHORELAND ZONING ACT WHICH UTILIZES THE MAINE DEP REPORT (2018). THE HIGH TIDE LINE SHOWN HEREON IS BASED ON ELEVATIONS DERIVED FROM PUBLICLY AVAILABLE LIDAR DATA AND IS APPROXIMATE.
L. SOME FEATURES WERE NOT SURVEYED AND ARE DEPICTED BASED ON PUBLICLY AVAILABLE ORTHO-IMAGERY AND ARE APPROXIMATE (AS NOTED, MAINE GEOLIBRARY2020).
- EASEMENTS (NOTE 5)
A. SUBJECT TO RIGHTS AND RESTRICTIONS RESERVED BY THE UNITED STATES OF AMERICA RECORDED IN BOOK 4898, PAGE 199 (PARCEL I) AND BOOK 3892, PAGE 334 (PARCELS II, III, AND IV).
B. SUBJECT TO UTILITY EASEMENTS GRANTED TO CENTRAL MAINE POWER COMPANY RECORDED IN BOOK 4898, PAGE 64 AND BOOK 4898, PAGE 90 (PARCEL IV).
C. SUBJECT TO A PUBLIC WALKWAY EASEMENT RECORDED IN BOOK 11581, PAGE 344.
D. SUBJECT TO RIGHTS OF PUBLIC ACCESS, UTILITY ACCESS, AND MAINTENANCE AGREEMENT RESERVED BY THE CITY OF PORTLAND AS RECORDED IN BOOK 11581, PAGE 337 (PARCEL II, PLAN REFERENCE C), AND MODIFIED IN BOOK 28114, PAGE 142 (PARCELS II AND IV, PLAN REFERENCE D).
E. AN EASEMENT WAS GRANTED TO THE PORTLAND WATER DISTRICT RECORDED IN BOOK 2254, PAGE 97 (PARCELS I, II, AND III) AND RELEASED BY THE CITY OF PORTLAND IN BOOK 24070, PAGE 323.
F. SUBJECT TO SIGNAL EASEMENT GRANTED TO THE STATE OF MAINE RECORDED IN BOOK 28274, PAGE 60 (PARCEL I).
G. SUBJECT TO UTILITY EASEMENTS GRANTED TO CENTRAL MAINE POWER COMPANY AND NEW ENGLAND TELEPHONE OPERATIONS, LLC RECORDED IN BOOK 27325, PAGES 99 (CMP 37 TO 37.1, 37.2 AND 37.3) AND 100 (CMP 34 TO 34.1).
H. SUBJECT TO UTILITY EASEMENTS GRANTED TO CENTRAL MAINE POWER COMPANY AND VERIZON NEW ENGLAND, INC. RECORDED IN BOOK 24747, PAGE 153 (CMP 42 TO 42.1).
I. SUBJECT TO UTILITY EASEMENT GRANTED TO CENTRAL MAINE POWER COMPANY AND NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY RECORDED IN BOOK 9520, PAGE 192 (CMP 37.1 TO 37.1-12).
J. SUBJECT TO UTILITY EASEMENT GRANTED TO CENTRAL MAINE POWER COMPANY RECORDED IN BOOK 6353, PAGE 34 (CMP 37.3 TO 37.4).
K. A 40-FOOT WIDE ACCESS EASEMENT AND 30-FOOT WIDE SEWER EASEMENT WAS GRANTED TO THE CITY OF PORTLAND IN BOOK 4015, PAGE 160 AND RELEASED BY THE CITY OF PORTLAND IN BOOK 24070, PAGE 323.
L. PROPERTY MAY BE SUBJECT TO RIGHTS AND RESTRICTIONS RESERVED BY THE CITY OF PORTLAND RECORDED IN BOOK 7138, PAGE 247 (PARCELS III AND IV).



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INTENTIONALLY
LEFT BLANK



REV.	BY	DATE	STATUS	ADDITIONAL BOUNDARY INFORMATION AND SHEET 2
1	JMS	3/13/2024	STATUS	

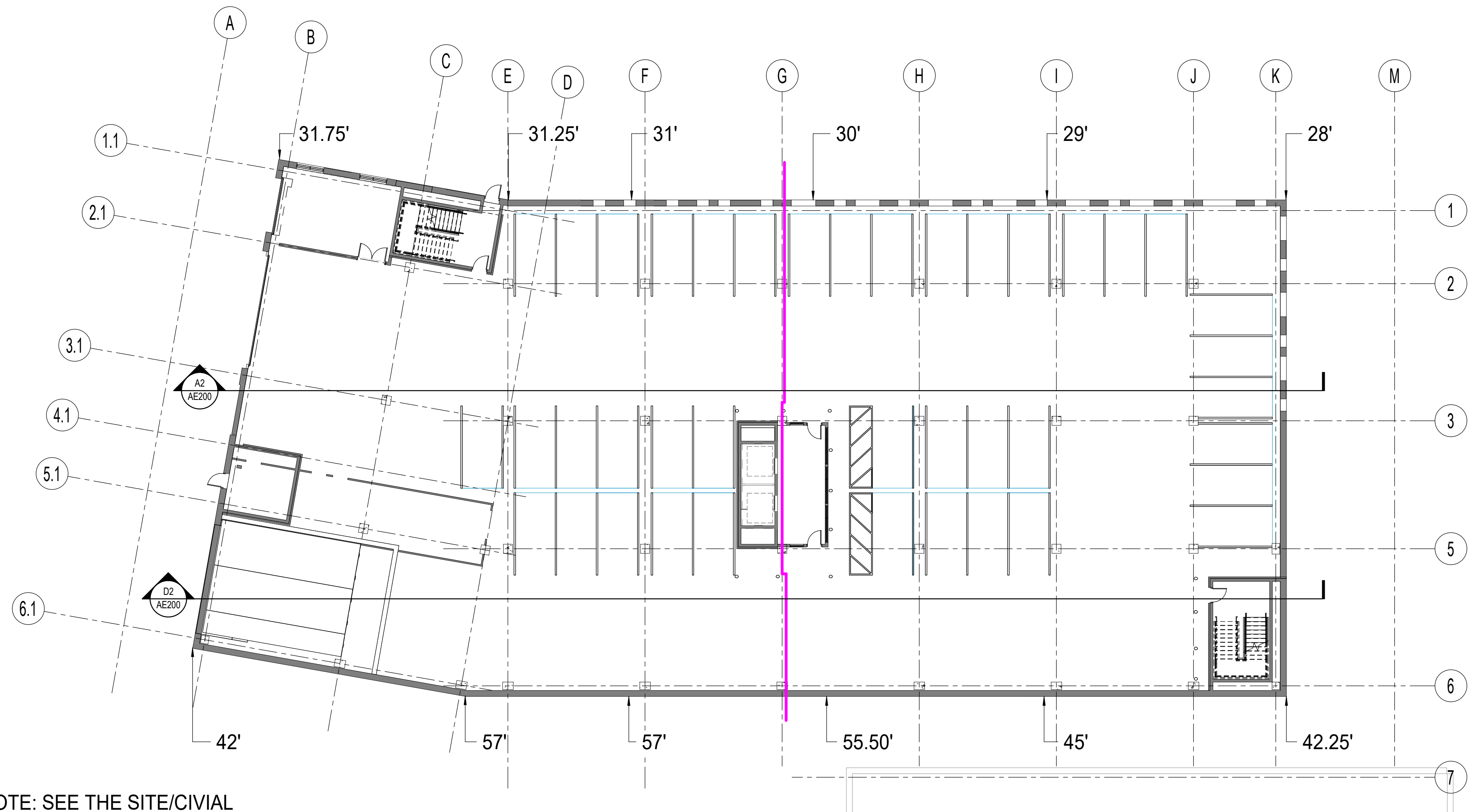
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHINCS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHINCS, INC.

SEBAGO
TECHINCS
WWW.SEBAGOTECHINCS.COM
75 John Roberts Rd.
Sullivan, ME 04106
South Portland, ME 04106
Tel. 207-200-2100

EXISTING CONDITIONS PLAN
OF:
MARTIN'S POINT - PORTLAND CAMPUS
333 VERANDA STREET
PORTLAND, ME
FOR RECORD OWNER:
MARTIN'S POINT HEALTHCARE, INC.
10700 PRAIRIE LAKES DRIVE
EDEN PRAIRIE, MN 55344

DESIGNED	-
DRAWN	CNG
CHECKED	JMS
DATE	12/06/2023
SCALE	1" = 30'
PROJECT	211026

SHEET 1 OF 2



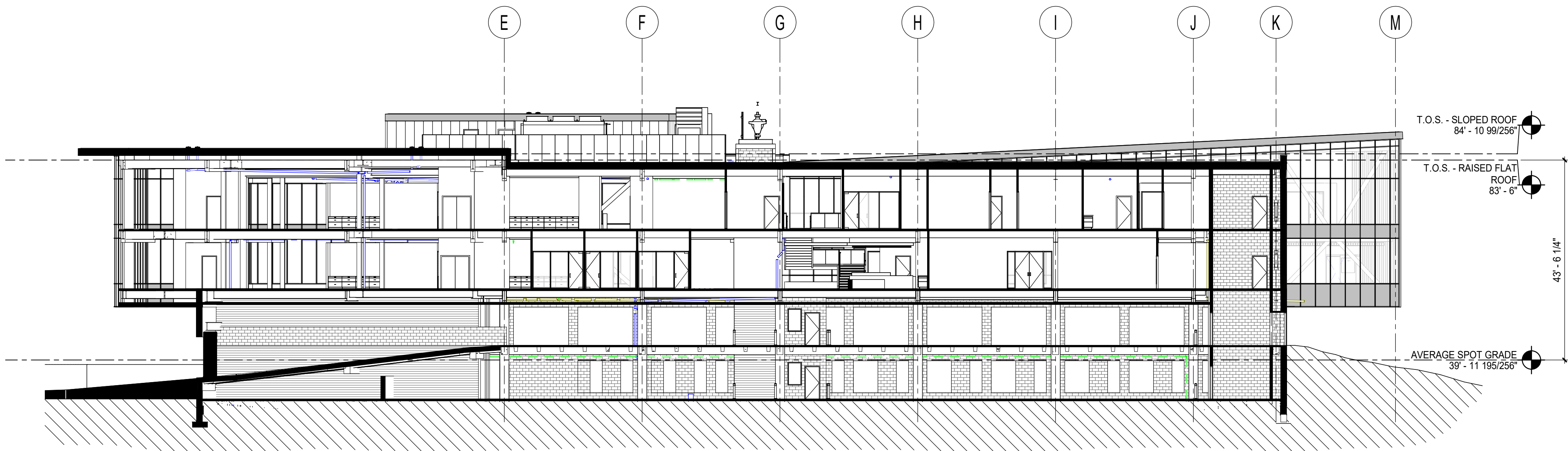
SPOT GRADES:	31.75'
	31.25'
	31.00'
	30.00'
	29.00'
	28.00'
	42.25'
	45.00'
	55.50'
	57.00'
	57.00'
	42.00'
	+

SUM: 479.75'
/ 12.00

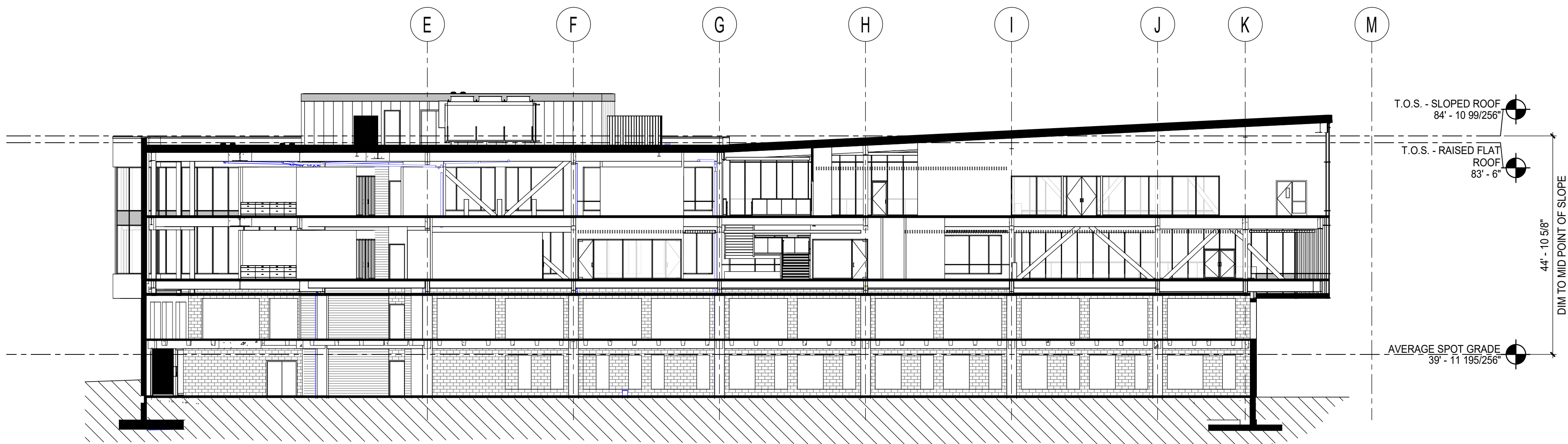
AVERAGE SPOT GRADE: 39.98'

NOTE: SEE THE SITE/CIVIL
OVERALL GRADING PLAN FOR SPOT
POINT REFERENCE.

BUILDING PLAN
1/16" = 1'-0" (H2)



BUILDING SECTION
1/16" = 1'-0" (D2)



BUILDING SECTION
1/16" = 1'-0" (A2)

REV	DESCRIPTION	DATE

BUILDING HEIGHT ANALYSIS
02-29-24

CURRENT ISSUE STATUS:

SMRT SMRT Architects and Engineers
75 Washington Ave., Suite 3A
Portland, Maine 04101
1.877.700.7678
www.smrtinc.com

Martin's Point Health Care
Building 7 - OFFICE BUILDING

BUILDING HEIGHT ANALYSIS

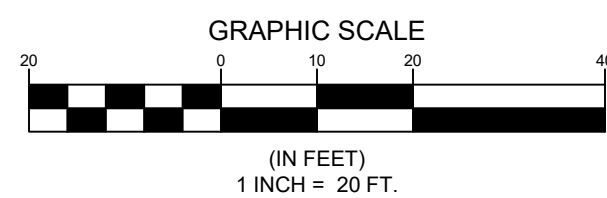
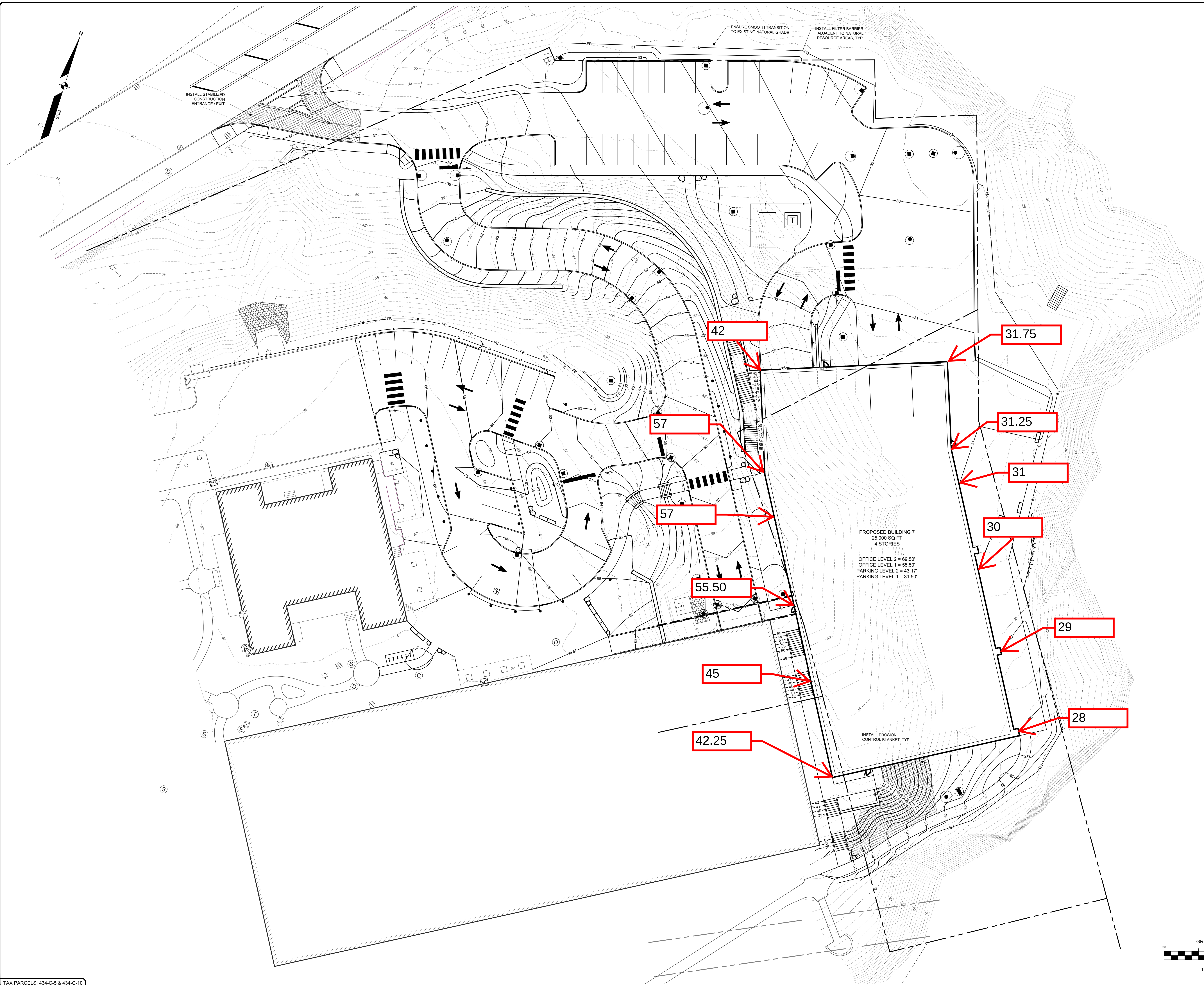
SHEET TITLE:

SCALE: AS NOTED	PROJECT NO: 23033
PROJECT MANAGER: Approver	DESIGNER: AE200
A/E OF RECORD: Designer	CHECKER: AE200
JOB CAPTAIN: Checker	AUTHOR: AE200
DRAWN BY: Author	SMRT FILE: AE200-23033
SHEET No. 02-29-24	

NOT FOR CONSTRUCTION

P:\Projects\2100021\1026\DWG\Grading\21 1026 G-BLDG7.dwg - 12/20/2023 3:07 PM - CALVIN COMANT

TAX PARCELS: 434-C-5 & 434-C-10



211026 G-BLDG7.dwg 1/48 OVERALL GRADING PLAN

OVERALL GRADING PLAN

MARTIN'S POINT HEALTHCARE VERANDA CAMPUS
331 VERANDA STREET
PORTLAND, ME 04103

MARTIN'S POINT HEALTH CARE, INC.
PO BOX 8746
PORTLAND, ME 04103

DESIGNED	BAM/KGK
DRAWN	CJC
CHECKED	PDO
DATE	04/10/2023
SCALE	1" = 20'
PROJECT	211026

SHEET 11 OF 37

SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 JEFFERSON RD
SOUTH PORTLAND, ME 04106
TEL: 207-266-2100

REV.	DATE	BY	STATUS
A	12/20/2023	BY	ISSUED TO CITY OF PORTLAND FOR SITE PLAN REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS AUTHORIZED ON OTHER SHEETS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

KYLE S. MASON RLA 3336 PAUL D. OSTROWSKI PE 11175
KYLE S. MASON
PAUL D. OSTROWSKI
REGISTERED PROFESSIONAL ENGINEER
STATE OF MAINE

84 Auburn Street
Major Site Plan
PL-002298-2022
Mike Pride, Applicant

Submitted to:	Portland Planning Board	Prepared By:	Maya Balassa
Public Hearing Date:	April 9, 2024	Date:	April 5, 2024

I. INTRODUCTION

MSP Properties 94 Auburn LLC and 84 Auburn, LLC have submitted a Major Site Plan application and Traffic Movement Permit (TMP) application to facilitate the construction of a coffee shop with a drive-through at 84 Auburn Street (CBL: 375 Ao26001). The coffee shop is proposed to have 2,250 square feet of interior floor area, including a dine-in area. Other site features are proposed include site landscaping, a concrete patio, and a crosswalk with a raised pedestrian island connecting the site across Auburn Street to the adjacent North Gate Shopping Plaza. A total of 16 parking spaces are proposed for 84 Auburn Street, 14 spaces are proposed in the inner parking lot for customers and two parallel spaces are proposed for staff along the southern edge of the drive through. Four parking spaces are proposed to be reconfigured on the adjacent property at 94 Auburn Street for the use by the tenants at 94 Auburn Street, which is under common ownership.

The city has delegated review of the TMP application and received a complete application on September 18, 2023.

Land Use Code Table 14-A related to site plan classifications specifies that developments that include drive-through facilities are to be reviewed as major site plans. The application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Site Plan Standards, section 14.6, as well as the Supplemental Use Standards, Section 6.4.7.

The Planning and Urban Development Department mailed 84 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the March 30 and April 2, 2024 editions of the *Portland Press Herald*.

The Planning Board held a workshop on September 26, 2023.

Applicant: Mike Pride, MSP Commercial Realty, LLC
Applicant Acorn Engineering, Inc., Ryan Senatore Architecture, Owen Haskell, Inc.,
Representatives: Barton & Lodgicide

II. REQUIRED REVIEWS

<i>Review</i>	<i>Applicable Standards</i>
Major Site Plan	Land Use Code Section 14.6
Supplemental Use Standards for Commercial Uses in the B-1/B-1b Zones	Land Use Code Section 6.4.6

<i>Waiver Requests</i>	<i>Applicable Standards</i>
------------------------	-----------------------------

The applicant is requesting to construct driveways on site with spacing less than 100 feet.	Technical Manual Section 1.5.1.c Along arterial and collector streets with posted speeds of 35 miles per hour or less driveways shall be spaced at 100 feet or greater. <i>Staff are supportive.</i>
---	--

III. PROJECT DATA

<i>Subject</i>	<i>Data</i>
Existing Zoning	B-1 Neighborhood Business
Property Size	28,445 square feet (0.65 ac)
Existing Use	Vacant
Proposed Use	Coffee Shop with Drive-Through

<i>Subject</i>	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	0	2,250 sf	+2,250 sf
Building Floor Area	0	2,250 sf	+2,250 sf
Impervious Surface Area	32%	66%	+34%
Parking Spaces	0	16	+16
Bicycle Parking Spaces	0	4	+4
EV Charging Stations	0	4	+4

IV. BACKGROUND AND EXISTING CONDITIONS

The property at 84 Auburn Street is an approximately 0.65-acre parcel located in the North Deering neighborhood across from the North Gate Shopping Plaza and just north of Allen's Corner intersection.

The site is currently an undeveloped vacant lot that includes two curb cuts leading to impervious surface areas, as well as trees and other vegetation located at the edges of the property. The site was previously occupied by a gas station prior to its demolition in 2011. Since that time the site has remained undeveloped. Due to its previous use as a gas station, which resulted in significant soil contamination, a restrictive covenant was placed on the property by the Environmental Protection Agency (EPA), which greatly restricts future use of the site (Report Attachment 5). Under this covenant, restricted uses include both residences and hotels, though other commercial uses, such as retail, restaurants, and offices, which are permitted within the B-1 zone, are not restricted. Per Section 6.6.2.D of the Land Use Code, commercial uses with drive-through facilities are not a permitted use within the B-1 zone, and are considered conditional accessory uses in the B-2, B-3, B-6 and B-7 zones, with numerous zone-specific accessory use standards. Only the B-4 zone permits drive-throughs by right.



Figure 1 Google Earth view of the site

Though drive-through facilities are not permitted in the B-1 zone, the applicant is able to proceed with this application as they were granted a Hardship Variance by the Zoning Board of Appeals (ZBA). This variance was first granted in 2020. The applicant again sought and was granted a variance by the ZBA in 2023 to build a drive-through facility. (Report Attachment 3)

In addition, the ZBA granted the applicant a second variance of 6.4.6(A) to allow the proposed business as a retail drive through to be permitted to have more than 100 peak hour trips on July 20, 2023. (Report Attachment 4)

V. PROPOSED DEVELOPMENT

The proposed development at 84 Auburn Street involves the construction of a 2,250 square foot coffee shop with a drive-through and associated landscape and pedestrian improvements. The site is proposed to have two curb cuts off of Auburn Street. The applicant, after coordination with DPW, is proposing the northern curb cut be the sole ingress to the parking lot and the drive through lane. Both of the curb cuts allow for right-only egress. The proposal includes one lane for the drive-through, as well as a by-pass lane. The drive-through window is located on the south facing portion of the building, near to the vehicular exit of the site, while the dine-in area is accessed on the north side of the building, adjacent to the parking area.

Other site features include six street trees, and buffer landscaping located along the perimeter of the property and parking lot. A concrete patio is proposed for outdoor dining, while an interior area will be provided for dine-in service. The application includes a crosswalk with raised pedestrian island connecting the site across Auburn Street to the adjacent North Gate Shopping Plaza. An internal crosswalk is proposed in the southwest corner of the lot across the drive through and passing lane. This is largely to provide a connection to the dumpster for staff. A total of 16 parking spaces are proposed for 84 Auburn Street, including two parallel spaces designated for staff. Four parking spaces are proposed to be reconfigured on

the adjacent property at 94 Auburn Street, which is under common ownership. Stormwater management features include FocalPoint BMPs, as well as pervious pavers for a portion of the parking area.

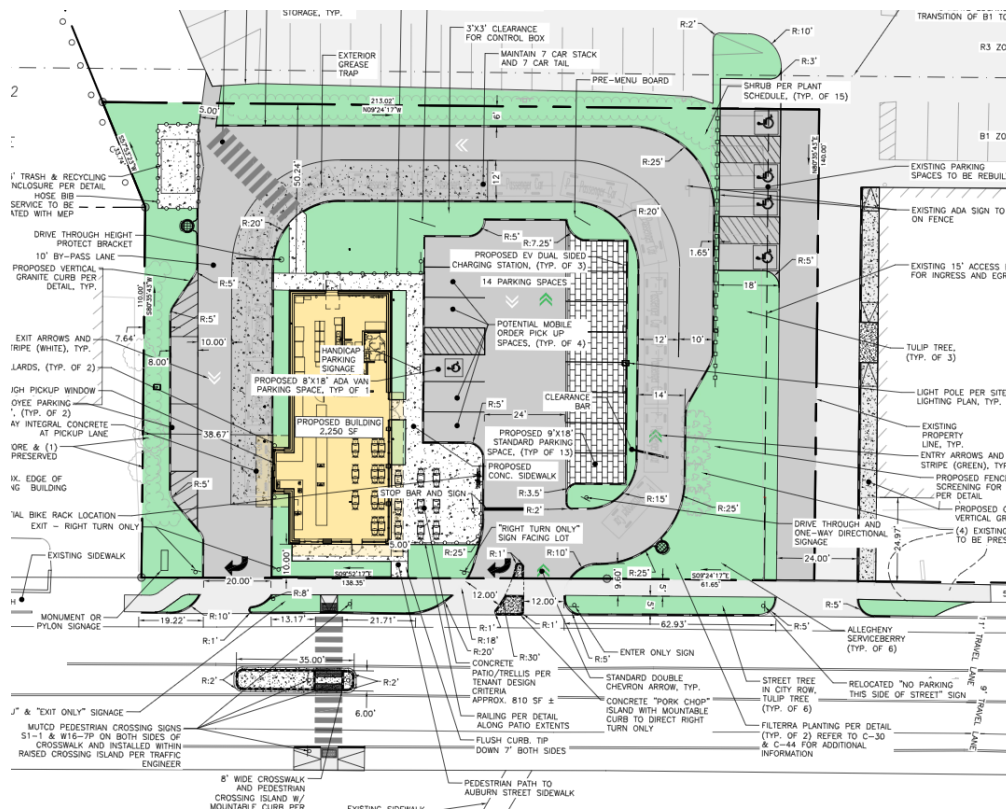


Figure 2 Site Plan

VI. PREVIOUS WORKSHOPS

The Planning Board held a workshop for this project in September of 2023. During the meeting, staff raised concerns over the landscaping, parking count, and traffic movement out of the site. The Board asked whether the conditional use standards, generally applicable to drive-throughs in other zones where drive-throughs are permitted as conditional uses, would be applicable in this instance, given that drive-throughs are not permitted within the B-1 zone, and therefore, there are no conditional use standards listed. In response to this concern, the applicant has submitted a response which details the project's compliance with the drive-through conditional use standards (Applicant Submittal DD). The applicant has responded to DPW's requests to restrict left turn movements from the site and to add a crosswalk with a raised median. The landscaping plan has been updated to preserve seven trees and add multi-story landscaping. The parking number, space allocation, and parking study waiver were discussed during the workshop. After clarification and site plan updates, the project is proposing 16 spaces onsite, and to repave and reconfigure four existing spaces on the abutting property due to regrading required for the development. From the proposed building square footage, the site is required to provide a minimum of 15 parking spaces. The applicant is not required to submit a Parking Study, as they are proposing less than 10% over the required minimum.

VII. RIGHT, TITLE, & INTEREST

The property at 84 Auburn Street and the adjacent property at 94 Auburn Street are under the common ownership of Mike Pride, though through two separate limited liability corporations (MSP Properties 94

Auburn LLC.; 84 Auburn, LLC.). The applicant has provided right, title, and interest in the form of a Quitclaim Deed for 84 Auburn LLC., and a Warranty Deed for MSP Properties 94 Auburn LLC.

VIII. FINANCIAL & TECHNICAL CAPACITY

The applicant has provided financial capacity confirmation from Katahdin Trust Company. Technical capacity in the form of background information related to successful projects completed by Acorn Engineering, Architect Ryan Senatore, and owner and developer Mike Pride. Acorn engineering has successfully designed and permitted more than twenty residential, mixed use, and commercial properties in the City of Portland. Ryan Senatore has designed projects both for private developers and public housing authorities, while Mike Pride has been a real estate investor, property manager, and developer since 1996.

IX. ZONING ANALYSIS

The property at 84 Auburn Street (CBL: 375 Ao26001), is located in the B-1 Neighborhood Business zone. The B-1 dimensional standards are described in Table 7-E of the Land Use Code. Restaurants are listed as a permitted use in the B-1 zone as described in Table 6-C of the Land Use Code.

As mentioned above, drive-through facilities are not a permitted accessory use in the B-1 zone. Drive-through facilities are permitted as an accessory use in the B-4 zone, and reviewed as conditional accessory uses in the B-2/B-2b/B-2c zones, B3/B-3b/B-3c zones, B-6 zone, and B-7 zone. Given that this property is located within the B-1 zone, standards of Land Use Code Section 6.6.2 (D) 1 – 5 are not applicable. However, the applicant has voluntarily submitted a narrative detailing the project's compliance with the drive-through conditional use standards.

Article 6 Section 6.6.2.D: Drive throughs

- a. Review Authority: The Zoning Board of Appeals granted a Hardship Variance to allow a drive-through for the proposed project on May 4, 2023.
- b. Placement of Drive-Through Components: The drive-up window and menu board is located on the side and rear of the principal building, respectively. The site layout does not meet the standard of being 40 feet from an adjoining property in a residential zone. The rear lot is largely in a residential zone, but the use is a parking lot for the commercial uses in 94 Auburn Street. The window is located 30 feet from the right-of-way and the menu board are located 34 feet from the right-of-way.
- c. Vehicle Stacking Capacity: The site has a queuing capacity of 14 vehicles. The traffic study submitted by the applicant observed a maximum que of 12 cars at other locations in Portland.
- d. Speakers and Intercom Systems: Prerecorded messages will be not used in the drive through speakers. The speakers will not exceed 55 dB and will not be detectible above ambient noise level at the property line.
- e. Site and Vehicular Lighting Impacts: The site lighting proposed meets Technical Manual standards for trespass, foot-candle, full-cutoff and curfew standards. A photometric plan shows lighting proposed around the building and parking lot. The foot candles along the property line do not exceed the standard maximum and the landscaping proposed around the perimeter of the site provide added light buffer to adjacent uses.
- f. Queuing Impacts on Adjacent Residential Property: Fencing or vegetated buffers are proposed along rear and side property lines.
- g. Pedestrian Impacts: The driveways and traffic movement have been designed to minimize pedestrian impact along Auburn Street.

- h. **Hours of Operation:** The hours of operation for the drive through coffee shop will be between 6 am and 11 pm, with no deliveries or services between 10 pm and 7 am.

Drive-through facilities are reviewed as major site plan applications subject to Land Use Code Section 14.6. Additionally, commercial Uses in the B-1/B-1b Zones are reviewed according to supplemental use standards of Land Use Code Section 6.4.6.

Per Article 19, Table 19-A, the minimum off-street parking requirement is calculated as one space per 150 square feet of floor area. As the proposed floor area totals 2,250 square feet, the minimum parking requirement is 15 parking spaces at 84 Auburn Street, however, new development located within a quarter mile of fixed public transit is exempt from providing new off-street parking.

In addition to vehicular parking, the applicant proposes to provide four bicycle parking spaces.

The following table shows the dimensional requirements of the B-1 zone which are met by this proposal:

Standard	B-1 Zoning Requirement	84 Auburn Street	Finding
Minimum Street Frontage	20 feet	200 feet	Standard Met
Minimum Lot Size	10,000 square feet	28,279.71 square feet	Standard Met
Maximum Front Setback	10 feet	10 feet	Standard Met
Minimum Rear Setback	None, except 10 ft. if abutting a residential zone	50.24 feet	Standard Met
Minimum Side Setback (>2.5 stories)	None, except 5 ft. if abutting residential zone	38.67 feet (L) 125.93 feet (R)	Standard Met
Maximum Floor Area	10,000 square feet	2,250 square feet	Standard Met
Maximum Structure Height	35 feet	22 feet	Standard Met
Impervious Surface Ratio	90%	66%	Standard Met
Minimum Off-Street Parking	15 (none with proximity to transit exemption)	16	Standard Met
Minimum Off-Street Bicycle Storage	2 bike parking spaces per 10 vehicular spaces	4	Standard Met

X. SUPPLEMENTAL USE STANDARDS

This project has been reviewed by staff for conformance with the relevant review standards of Portland's Land Use Code Section 6.4.6 Supplemental Use Standards for Commercial uses in the B-1/B-1b zones. Staff comments are below:

1. Supplemental Use Standards for Commercial Uses in the B-1/B-1b Zones (6.4.6)

- A. Commercial uses shall be permitted provided that such uses generate less than 100 peak hour vehicle trips per 2,000 square feet of floor area and less than 100 peak hour vehicle trips in total.**

Within the submitted Traffic Movement Permit Application, the applicant has shown that the proposed coffee shop is expected to generate 228 trips during weekday AM peak hours. This number exceeds the amount permitted by this standard. However, the applicant was granted a variance and relief from this standard by the Zoning Board of Appeals on July 20, 2023.

- B. Retail and restaurant uses shall not operate between the hours of 11 p.m. and 6 a.m., and shall not accept deliveries or services between the hours of 10 p.m. and 7 a.m. For restaurants, food service and consumption shall be the primary function.**

The applicant has attested to not accept deliveries between the hours of 10 pm and 7 am and limit hours of operations to between 6 am and 11 pm.

- C. No beverage container redemption centers shall be permitted. Beverage dealers shall be permitted as a retail use provided that the maximum total floor area for redemptions as an accessory use, including the storage of spent containers, shall be no greater than 500 square feet or 10% of the total floor area of the facility, whichever is less.**

Not applicable. The applicant is not proposing a beverage container redemption center or a beverage dealer.

XI. TRAFFIC MOVEMENT PERMIT.

The proposed development triggers traffic movement permit (TMP) review as it will generate over 100 peak hour passenger car equivalents, and the City of Portland has delegated review of this permit. The applicant has submitted a TMP application that includes both trip data and crash data. The study predicts 228 weekday AM peak hour trips and 194 weekday PM peak hour trips. The City's consulting traffic engineer, Tom Errico, P.E. with TY. Lin, has managed the review of the traffic movement permit application, and held the required scoping meeting with the applicant team on February 17, 2023. At this meeting, the City and the applicant confirmed the scope of review, with the City requesting: a synchro analysis at the site driveway, a crosswalk connection between the property and Northgate Plaza, turning movements and queue lengths and spill data at Forest Avenue and Poland Street Coffee shop locations during the AM peak hour, parking analysis at the 94 Auburn Street location, and the inclusion of other nearby proposed development trips, notably the Lambert Woods project into the applicant's model. Following this scoping meeting, the applicant prepared their Section 7 Report, which details the requested information, and which proposes various mitigation strategies, such as the addition of a crosswalk with a raised median across Auburn Street, and one-way, right-only egress proposed for users of 84 Auburn Street. The City has reviewed the applicant's Section 7 report, and has found that the methodology, findings, and proposed mitigation are acceptable and is recommending that the Planning Board approve the traffic movement permit.

XII. SITE PLAN STANDARDS (Section 14.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 14.6. Staff comments are below.

1. Transportation Standards (Section 14.6.1)

A. Impact on surrounding street systems

The proposed project is located on Auburn Street, which is a major arterial street and prominent gateway into Portland for communities such as Falmouth and Gray. The property is also proximate to Allen's Corner, which is a major node and intersection within the City. The property contains two existing curb cuts, which are proposed to remain under this application.

In preliminary comments, City staff requested that the applicant provide a direct pedestrian connection from their site to the Northgate Shopping Plaza across Auburn Street. The applicant is proposing to construct both a crosswalk as well as a raised median, that would restrict left turn movements out of the southern driveway. The applicant is proposing to reconstruct the sidewalk along the Auburn Street frontage, as well as a five-foot transition into adjacent properties to the north and south to connect the sidewalk. The standards are being met.

WAIVER REQUEST

The applicant is requesting one waiver for this project.

1. Technical Manual, Section 1.5.1.C. Driveway Separation: The applicant has requested a waiver of the Driveway Design standard 1.5.1.C. that requires 100 feet of spacing between driveways along arterial and collector street with posted speeds of 35 mph or less. The applicant is proposing three driveway spacing widths that fall below the 100 feet required. The driveway spacing between the 94 Auburn Street driveway and the ingress is approximately 60 feet, the spacing between the two curb cuts on site is approximately 50 feet, and the spacing between the southern egress and 72 Auburn Street is approximately 20 feet. Staff are supportive of the waiver due to the site constraints and existing proximity of the abutting driveways. Staff and DPW have worked with the applicant to restrict left turn movement from the site and for the addition of a crosswalk to manage traffic impacts and pedestrian safety with the proposed changes. Staff are further supportive of the waiver request due to the low turnover from the abutting southern driveway and the right-turn only out of the site.

B. Access and circulation

The site is proposed to be accessed from a driveway at the northern portion of the property, with a concrete pork chop island. Customers will have the ability to either maneuver straight into a parking area, or right into the drive-through lane or the adjacent by-pass lane. These lanes wrap around the site toward the drive-through window before exiting at the southerly, egress only, driveway. Users in the parking lot can exit from the northern driveway. All users must exit to the right on Auburn Street. Left turning is restricted with signage and physical barriers.

The sidewalk along Auburn Street is proposed to be reconstructed, five-feet wide, with a five-foot transition zone to connect to the existing sidewalk continuing north and south. Additionally, a crosswalk is proposed with raised pedestrian island providing access across Auburn Street.

The applicant has submitted a traffic study looking at queue lengths and spill over data from the other national coffee shops in the area. From the study, the maximum queue length observed was 12 cars. The site plan shows the drive through lane has capacity for 14 cars in the queue from the drive-up window to where the queuing lane begins.

Staff, DPW, and the third-party traffic-engineer find the standards to be met.

C. Public transit access

Not applicable. However, for context, the property at 84 Auburn Street is located 315 feet from the nearest bus stop along the west side of Auburn Street, and 492 feet from the nearest stop on the east side of the street, servicing Greater Portland METRO Routes 9A and 9B.

D. Parking

Table 19-A in the Land Use Code specifies that the minimum number of parking spaces to be provided is one space per 150 square feet of floor area. As the building is proposed to be 2,250 square feet, a total of 15 spaces are required.

The application proposes 14 parking spaces to be used by patrons and two parking spaces to be used by employees. One ADA parking space is proposed in the parking lot and three spaces are proposed to have EV charging stations, which meets the electric vehicle (EV) standard.

The applicant is proposing two parallel parking spaces along the southern edge of the property, which would measure 8 feet wide by 18 feet long, with a striped transition zone on either end. Staff and City's traffic engineer have proposed a condition of approval for the applicant to reduce the painted transition on either side as these spaces are low-turnover parking spaces.

The applicant is proposing four bicycle parking spaces, which meets the standard.

E. Transportation demand management (TDM)

Not applicable. A TDM is not required for this project.

2. Environmental Quality Standards (Section 14.6.2)

A. Preservation of significant natural features

There are no Significant Natural Features located on or near the site.

B. Landscape preservation

The site has existing mature tree canopy along three sides. There are no setback requirements in the B-1 zone and the lot is not abutting a residential zone, therefore, the 30% landscape preservation requirement does not apply. However, site plan standards require that development be designed to incorporate, limit disturbance to, and limit removal of existing trees. The applicant has responded to previous comments regarding this standard, and seven trees are now proposed to be preserved.

Though seven trees (three on southern edge and four on the northern edge) are proposed to be preserved, the plans show significant root disturbance within the critical root zones and structural root zones. Staff have proposed a condition that would require the applicant to update the construction management plan, notes and/or details to demonstrate a viable tree preservation plan, despite proposed regrading and paving within the tree's drip line.

C. Site landscaping and buffers

3. The project is subject to the street tree and parking lot landscaping requirements. The applicant is proposing 24 trees onsite, as well as shrubs and herbs around the perimeter, and internal green spaces on the site. The proposed landscaping serves to buffer adjacent properties. The tree species include Shadbush, American Hornbeam, Tulip tree, Austrian Pine, and Zelkova.

The street tree standard requires that the project provide street trees spaced between 25 and 35 feet on center, along the right of way. The site has 200 feet of frontage which requires between six and eight trees. As the applicant is proposing six street trees, this standard is considered met. The parking lot landscaping standard requires two trees per five parking spaces, requiring six trees or three trees and nine shrubs. The plan proposes three trees and ten shrubs around the parking lot, which meets this standard.

Recycling and trash are proposed to be buffered by a fenced enclosure, as well as shrubs and landscaping.

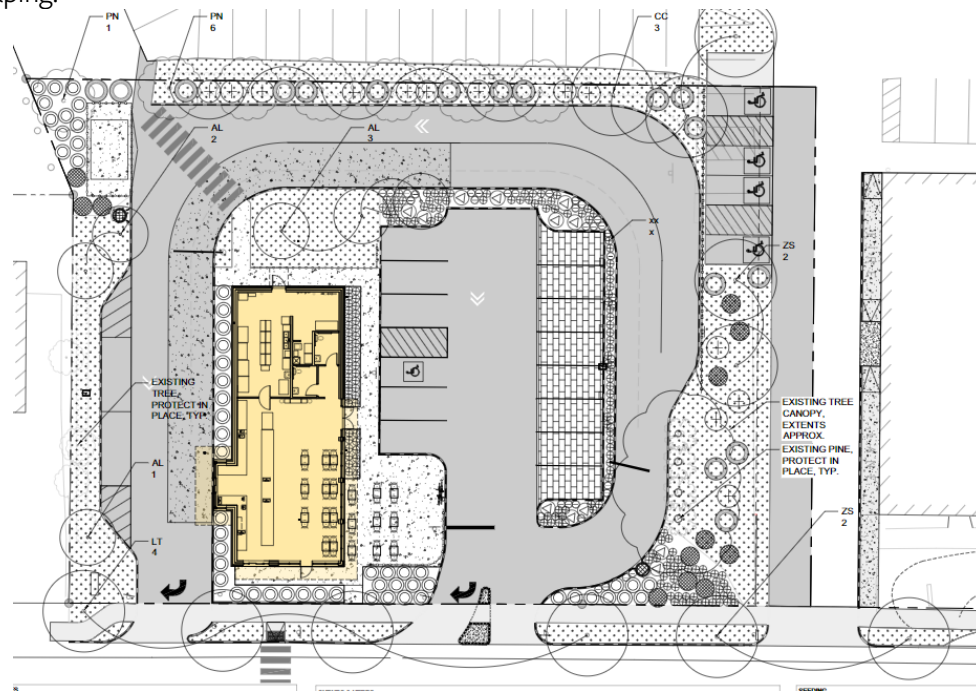


Figure 3 Landscaping Plan

A. Water quality/storm water management/erosion control

The applicant has provided a stormwater management report noting that roof and foundation drains will be routed directly to the storm drain network located within Auburn Street. The proposal also calls for areas of the site to be surfaced with pervious pavers, and the inclusion of two FocalPoint

stormwater BMPs with catch basin overflows. The applicant has provided an analysis to confirm there will not be an increase in peak flow into the City's storm drain as a result of the project. The standard is being met.

4. Public Infrastructure and Community Safety Standards (Section 14.6.3)

A. Public safety and fire prevention

The applicant has provided a letter describing their compliance with Public Safety standards of the Portland Technical Manual. A fire hydrant is located directly across Auburn Street from the project site, approximately 50 feet away.

The Fire Department has no site plan concerns regarding this proposal, and therefore, this standard is considered met.

B. Availability and capacity of public utilities

The applicant has provided ability to serve confirmation from the Portland Water District and CMP.

5. Site Design Standards (Section 14.6.4)

A. Massing, ventilation, and wind impact

This development constitutes a single-story building that is being constructed on a currently vacant parcel, and is designed to be fully in compliance with the B-1 dimensional requirements. Therefore, this development is not anticipated to have an impact on massing, ventilation, or wind, and this standard is considered met.

B. Shadows

Not applicable. As no publicly accessible open space or parks are in the vicinity of 84 Auburn Street, and the proposed building is well under 45 feet in height, this development is not anticipated to result in any shadow impacts on publicly accessible open spaces.

C. Snow and ice loading

Snow and ice are anticipated to be stored on site and the owner will be responsible for the maintenance and management of snow and ice removal from the site.

D. View corridors

Not applicable.

E. Historic resources

Not applicable. The site is not within an established historic district, nor within 100 feet of a historic landmark.

F. Exterior lighting

The applicant has submitted an exterior site lighting plan and cut sheets that demonstrate compliance of the project with applicable site lighting standards. There are 18 lights proposed around the building and two around the parking lot to the north and south.

G. Noise and vibration

All heating, ventilation and air conditioning equipment (HVAC), air handling units (AHU), emergency generators, and similar equipment meet state and federal emissions requirements. The site does not abut a residential use or zone.

H. Signage and wayfinding

The applicant has provided elevations to show signage, in accordance with design standards. Circulation signage is proposed, including one-way egress signage for patrons. Staff find the signage and wayfinding proposed to meet the standards.

I. Zoning-related design standards

The design of this structure has been reviewed according to standards of the Portland Design Manual section D) Neighborhood Business Zone and Appendix 2. The proposed design is meeting the relevant standards (Report Attachment 2).

NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant held a neighborhood meeting, as required as part of this application, on March 15, 2023 with six members of the public in attendance.

Nine public comments have been received by the Planning Department as of April 1, 2024.

There have been several comments submitted in favor of the development. Several comments have also raised concerns over having a drive-through at this parcel. One comment had concerns around noise and air pollution impacts to the neighborhood from having a drive-through.

XIII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Department staff recommends to that the Planning Board that the site plan PI-002298-2022 at 84 Auburn Street to construct a drive-through restaurant meets the applicable standards of Portland's Land Use Code.

XIV. PROPOSED MOTIONS

A. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on April 9, 2024 for application PI-002298-2024 at 84 Auburn Street relevant to the Site Plan Standards of the Land Use Code and Portland's Technical and Design Standards, and other regulations, and testimony presented at the Planning Board public hearing:

1. Driveway Separation

The Planning Board [**finds/does not find**] based upon the City's Review, that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard Section 1.5.1.C. which requires 100 feet of spacing between driveways along arterial and collector street with posted speeds of 35 mph or less, that substantial justice and the public interest are secured with the proposed variation in this standard, and that variation is consistent with the intent of the ordinance. The Planning Board [**waives/does not waive**] the Technical Manual standard Section 1.5.1.C. to allow for driveway separation of 62.9, 48.5, and 19.22 feet.

B. SITE PLAN REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on April 9, 2024 for application PL-002298-2022 at 84 Auburn Street relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** that the plan is in conformance with the site plan standards of the land use code subject to the following conditions of approval:

PRIOR TO APPLYING FOR A BUILDING PERMIT

1. The applicant shall update the site plan to reduce the transition zone and provide additional vegetated area on either side of the parallel parking spaces along the southerly property boundary. The revised site plan shall be reviewed and approved by the Planning Authority.
2. The applicant shall update the construction management plan and details to outline how existing trees that are proposed to be preserved on-site will be adequately protected during the course of construction. Tree preservation plans and details shall be reviewed and approved by the Planning Authority and Parks.

C. TRAFFIC MOVEMENT PERMIT

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on April 9, 2024 for application PL-002298-2022 at 84 Auburn Street relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** that the plan is in conformance with 23 M.R.S. §704-A and Chapter 305 Rules and Regulations pertaining to Traffic Movement Permits.

D. PLANNING BOARD DECISION

On the basis of the findings, conclusions and recommendations contained in the Planning Board report for the public hearing on April 9, 2024 related to application PL-002298-2022 for 84 Auburn Street, which is attached to the draft approval letter and incorporated therein, the Planning Board **[adopts/does not adopt]** the approval letter as drafted as the Planning Board's decision for application PL-002298-2022, and authorizes the Planning Board Chair to sign the approval letter as drafted.

XV. ATTACHMENTS**Applicant's Submittal**

- A. Cover Letter
- B. Major Site Plan Application Checklist
- C. Right, Title, & Interest
- D. Zoning Assessment
- E. Site Plan Standards Assessment
- F. Easements
- G. Waivers
- H. Financial Capacity
- I. Technical Capacity
- J. Stormwater Management Report
- K. Erosion and Sedimentation Control Report
- L. Fire Department Letter

- M. Lighting
- N. Wastewater Capacity
- O. Utilities
- P. Construction Management Plan
- Q. Solid Waste Disposal
- R. Transportation & Parking
- S. Parking Demand Memo
- T. TMP Application
- U. TMP Section 7
- V. Neighborhood meeting Certification
- W. Neighborhood Meeting Minutes
- X. Neighborhood Meeting Sign in
- Y. Drive-Through Variance Approval
- Z. Recorded Certificate of Variance Approval
- AA. Comment Response Letter- 3-27-23
- BB. Comment Response Letter-12-18-23
- CC. Comment Response Letter 3-12-24
- DD. Drive through Accessory Use Standards Assessment
- EE. Utilities-Ability to Serve

Applicant Plans

- Plan 1. Cover Sheet & Legend
- Plan 2. General Notes
- Plan 3. Boundary & Topographic Study
- Plan 4. Demolition, Construction Management, ESC, Plan
- Plan 5. Site Plan
- Plan 6. Utility Plan
- Plan 7. Grading Plan
- Plan 8. Site Details
- Plan 9. Site Details 2
- Plan 10. Utility Details
- Plan 11. Utility Details 2
- Plan 12. Utility Details 3
- Plan 13. Drainage Details
- Plan 14. Erosion & Sedimentation Control Notes & Details
- Plan 15. Landscape Plan
- Plan 16. First Floor Plan
- Plan 17. Roof Plan
- Plan 18. Elevations
- Plan 19. Elevations
- Plan 20. Landscaping Exhibit
- Plan 21. Site Turning Exhibit
- Plan 22. Fire and Delivery Turning Exhibit
- Plan. 23 Perspective Images 1-6
- Plan 24. Survey

Report Attachments

1. 84 Auburn Street – Staff Review Comments 3.24.23
2. 84 Auburn Street – Design Review Memo 9.11.23
3. ZBA Approval Recorded 05/19/2023
4. ZBA Approval Recorded 07/31/2023
5. 2012 Auburn Street Recorded Covenant
6. 84 Auburn Street – Staff Review Comment 3.7.24
7. Approval Letter

Public Comment

PC1. Devon Murph

PC2. Edward Greeley

PC3. Gretchen Greenberg

PC4. Heather Powers

PC5. Joan Twin (3)

PC6. Julie Bishop

PC7. Stephen Donohoe

PC8. Jeff Tidd

PC9. Kevin Kaserman



Review Criteria:

The proposed drive-through building and associated site improvements located at 84 Auburn Street (PL-002298-2022) was reviewed against Chapter 14 of the City of Portland Land Use Code, as well as the City of Portland Technical Manual. Please find below, comments from Planning & Urban Development Department staff and site plan peer-reviewers.

GENERAL

- Please provide more information on the parking area at Plan-Right (north of the drive-thru property). Will this be used as parking for the coffee shop? If not, it would be preferable to landscape this area as there is no connection between it and the new business, and the adjacent property has ample parking.
- Please provide more information on the proposed walkway/cut-thru at the southwest corner of the property, connecting to the adjacent parking lot. This area should be formalized as a walkway meeting the elevation of the sidewalk it is connecting to. (Technical Manual Sec. 1.7.2)
- A tree survey should be conducted showing the location of trees 10" DBH and above to determine if tree-replacement standards need to be met. (Technical Manual Sec. 4.3.1)
- Please provide the location of overhead utility lines and fire hydrants in the vicinity of the site. (Technical Manual Sec. 3.2.1)
- The ADA parking space should be located closer to the front door. Please depict curb-stops and ramps on plans, as well as striping for the area adjacent to ADA spaces.

ZONING

- The applicant needs to provide a copy of the recorded Certificate of Variance with the Book and Page and the date it was recorded for the Zoning Board of Appeals approved Hardship Variance, 11/19/20, to allow a drive-through at this property.

TRANSPORTATION

- The pedestrian access route (through the driveway) shall be designed and constructed to meet the elevation of the adjacent sidewalk. The driveway apron shall ramp up to the grade of the Sidewalk (pedestrian access route). The proposed driveway shall be redesigned to meet these requirements. See technical standards for further details on Commercial Aprons.
- Proposed driveway widths are to be 20ft as required.
- The pedestrian access portion of the proposed driveways shall be constructed in concrete.
- The proposed mid-block crosswalk shall be constructed with a raised median island in the roadway, in a manner similar to other recent City pedestrian crossing projects, such as Forest Avenue at Poland Street.
- The proposed arrows currently shown on the proposed driveway shall not be placed in the ROW. Revise the plan to show the proposed pavement markings in the drive aisles outside of the ROW.
- Please revise the plans to include one way circulation markings.
- DPW has concerns with the circulation of the parking lot. Consider a one way circulation through the parking lot exiting on the west end onto the exit lane. At a minimum the entrance driveway shall be modified to prohibit exiting the site from that driveway. In addition, the current exit

configuration from the internal parking area back to the circulation lanes shall be adjusted to reduce potential conflict with traffic entering the site from Auburn Street.

- The striping depicted on the center lane of Auburn Street is not correct. The applicant shall revise the plan sheets to depict the current existing striping for Auburn Street.
- The plan should include dimensions of the drive/parking aisle at 94 Auburn Street.
- The waiver request documentation shall be updated to reflect current driveway conditions.
- The plan shall include the Northgate Shopping Center pedestrian connector to ensure the crosswalk location is appropriately aligned. Utility poles in this area shall also be depicted to avoid conflicts during construction.
- The plan should note if the existing two-way center left-turn lane arrows will need modification given the introduction of the crosswalk.

LANDSCAPING & ENVIRONMENTAL QUALITY

- If a fence is going up on those pull-in spaces, what relationship do those spaces have to the proposed business, and why are they being included in this plan or scope of work? If possible, eliminate proposed spaces that are shown adjacent to the drive through area on the property and replace them with landscape areas for plantings that meet IV-6B and section 4 landscaping standards. If some parking is required to be done, use parallel parking layout to enable a more generous bed for screening plants to be installed with a fence.
- Consider Liriodendron Tulipifera species in place of proposed red maple, per recommendation from city forestry supervisor.
- Is the proposed 40' width appropriate for property drive entrance / egress?
- Ensure all parking area planting bed widths comply with IV-6a and section 4 landscaping standards in technical manual.
- Trash and recycling enclosure should have shrubs or other understory screening plant materials to better blend and scale fence and bins into landscape. Per IV-7, section 4 of technical manual.
- Interior parking areas should attempt to include landscaping materials around furnishings and to provide interior screening / planting elements as recommended in section IV5, 4 of the technical manual, where plantings will not conflict with safe sight lines or operational use of furnishings for drive through equipment.
- Ensure all shrub and planting materials around drive through areas, parking spaces, or at entrance and egress locations should be selected with consideration for mature heights, widths, and growth habits that will not interrupt sightlines or block views of pedestrians, including children.

Design Review

Planning and Urban Development Department



Subject: 84 Auburn Street
Zone: B1
Date of Review: Monday, September 11, 2023
Reviewer(s): Sean King (Urban Designer), Maya Balassa (Planner), Bruce Hyman (Transportation Program Manager)
Project ID: PL-002298-2022

I. INTRODUCTION

The development project at 84 Auburn Street is subject to the site design review standards, Land Use Code section 14.6.4.I Design standards.

The proposed development project is located in the North Deering neighborhood and within the B-1 Neighborhood Business zone. A new single-story commercial building with a drive-thru and surface parking and is subject to the design standards of the City of Portland *Design Manual – (d) B-1 Neighborhood Business Zone & Appendix 2*.

II. DESIGN REVIEW COMMENTS: **bold** text denotes recent updates met, **red** text denotes standards not met and require resubmission.

(d) B-1 DESIGN STANDARDS

- a. *Urban street wall: In the B-1 zone, it shall be required that buildings shall be located to create and preserve an urban street wall.*

Staff comment: The context of the surrounding buildings does not reinforce an urban street wall due to variations in slopes to the street, parking in front setback and prevailing residential character found within the adjacent neighborhood. Staff finds the ten-foot front setback to be appropriate to the context and finds architectural elements such as suspended canopy, building entrance facing street and material selection to activate the front building elevation that engages with the street.

- b. *Mixed Uses:* Not applicable as the proposed development is within the B-1 Neighborhood Business zone.
- c. *Building entrances: In the B-1 zone building entrances shall be oriented toward, located adjacent to, and directly accessible from, a sidewalk in a public right-of-way.*

Staff comment: The proposed development includes a building entrance and pick-up window oriented towards and directly accessible from the sidewalk along Auburn Street for pedestrians that staff finds appropriate. In addition, an alternative building entrance is located along the north elevation with a continuation of overhead canopy that is easily accessible from the site's interior parking lot.

- d. *Windows: In the B-1 zone windows shall be required along the street frontage of a building. Windows shall be transparent (with visible transmittance (VT) of .7 or greater) and installed at a height to allow views into the building by passerby.*

Staff comment: The proposed building design indicates windows visible from the public way as indicated on east and north elevations that staff finds is well organized as a storefront window type.

Staff is requesting additional documentation to meet this design standard for visible transmittance (VT) of .7 or greater.

- e. *Façade character: In the B-1 zone, active and public portions of the buildings (e.g. doors, windows, entries retail displays) shall be oriented to and, where possible, be located adjacent to the public sidewalk to create an active presence along the sidewalk.*

Staff comment: The proposed development indicates building entrances and storefront windows oriented towards and accessible from the public way to create an active presence along the sidewalk.

- f. *Building design: B-1 commercial buildings shall be designed to be compatible with their residential and commercial neighbors. In the B-1 zone, building scale, roof pitch, and fenestration shall be designed to complement surrounding residential structures.*

Staff comment: The proposed building design is compatible with the commercial neighboring properties that include examples of one-two story buildings with flat roof forms and large windows arranged in a symmetrical pattern.

- g. *Building materials: Façade materials of buildings located in the B-1 zone shall be compatible with those materials of surrounding residential and commercial use.*

Staff comment: The proposed building design indicates proposed façade materials that staff finds is appropriate to enhance the residential character of the neighborhood. In particular, the use of wood plank siding and brick assists in integrating the proposed commercial building with adjacent residential style buildings along Auburn Street. **Staff is requesting rendered elevations or 3-dimensional drawings to illustrate the materials proposed.**

- h. *Building scale: In the B-1 zone building scale must relate and be compatible with surrounding residential structures.*

Staff comment: The proposed building is compatible with the residential scale with a proposed structure height of 22 feet and includes a flat roof form that staff finds appropriate for commercial use.

- i. *Landscaping and buffers: In the B-1, B-1b, B-2 and B-2b zones buildings and associated parking areas must be screened to buffer abutting properties. A densely planted landscape buffer and/or fencing will be required to protect neighboring properties from the impacts associated with the development, including lighting, parking, traffic, noise, odor, smoke, or other incompatible uses. Where buildings are setback from the street, a landscaped area must be planted along the front yard street line.*

Staff comment: The proposed development includes landscape buffers along the perimeter of the property to include vegetation and fencing for screening. **Staff recommends the applicant provide**

plant selection (trees, shrubs and groundcover) and fence detail to indicate height and materiality at the property perimeter for screening of parking and adjacent properties for staff review.

(d) B-1 DESIGN GUIDELINES

Please refer to Appendix 2 of this manual, The B-1, B-1b, B-2, B-2b Design Guidelines, for applicable design guidelines for the B-1 and B-2 zones.

(Appendix 2) B-1 DESIGN GUIDELINES

1. Building location and form

Urban street wall: Buildings shall be located near the street so as to create an urban street wall.

Staff comment: Applicant should refer to (d) B-1 DESIGN STANDARDS – a. Urban Street Wall in this design review memo that meets this design guideline in Appendix 2 of the City’s Design Manual.

Building form, including height, bulk, and massing, contribute to the development of a street wall.

Staff comment: Applicant should refer to (d) B-1 DESIGN STANDARDS – a. Urban Street Wall in this design review memo that meets this design guideline in Appendix 2 of the City’s Design Manual.

In the B-2b zone, buildings adjacent to streets should approach 1:2 height to street width, with a minimum of 1:3.

Staff comment: Not applicable, proposed development is located in the B-1 zone.

2. Building function

Staff comment: The proposed development is a commercial business with a drive-thru, the location of the building and entrance facing Auburn Street provides an activated street-facing façade that staff finds appropriate.

3. Orientation of buildings and their entrances to the street

Building entrances: Major building entries shall be designed and located to provide the primary building access oriented to the public street and sidewalk.

Staff comment: Applicant should refer to (d) B-1 DESIGN STANDARDS – c. Building Entrances in this design review memo that meets this design guideline in Appendix 2 of the City’s Design Manual.

4. Windows

Windows: Windows shall be located in all building facades visible from the public way, especially on building facades along the major public street.

Staff comment: Applicant should refer to (d) B-1 DESIGN STANDARDS – d. Windows in this design review memo to address this design guideline in Appendix 2 of the City’s Design Manual.

5. Building character, detail, scale and graphic qualities

Façade character: Building design will include various architectural and graphic amenities to provide a strong presence along a street and relate a building to its community.

Staff comment: The proposed building design indicates proposed façade materials that staff finds is appropriate to enhance the residential character of the neighborhood. In particular, the use of wood plank siding and brick assists in integrating the proposed commercial building with adjacent residential style buildings along Auburn Street. Staff finds the architectural light fixtures mounted to the blank façade walls provide sufficient visual interest that staff finds is appropriate. **Staff requests that the lighting plan include the architectural light fixtures mounted to the blank facade walls at north and south elevations.**

6. Signage and building entrances

Building entrances and building signage in the B-1 zone will be designed and constructed at the pedestrian scale.

Staff comment: Staff finds the proposed building entrances and building signage are at a pedestrian scale.

7. Development relationship to street

Building facade: Building facades and site amenities shall form a cohesive wall of enclosure along a street.

Staff comment: Applicant should refer to (d) B-1 DESIGN STANDARDS – a. Urban Street Wall in this design review memo that meets this design guideline in Appendix 2 of the City’s Design Manual.

8. Parking lots

Parking lots shall be screened from view of the public way.

Staff comment: Staff finds that the parking lot is sufficiently screened from view of Auburn Street at the esplanade by new street trees.

Parking lots shall be screened from neighboring properties.

Staff comment: Staff finds that parking lots include landscape screening and fencing from neighboring properties. **Staff is requesting additional information on plant selection and fence detail to indicate height and materiality for staff review.**

Crosswalks shall be provided within parking lots and across entrance driveways, directing pedestrians to building entrances.

Staff comment: Staff is requesting the Applicant indicate a crosswalk to meet the City's technical manual standards from the adjacent property across the drive lane to access the sidewalk at the west side of the proposed building.

Street trees shall be planted along property frontage 25 feet on center.

Staff comment: Staff finds the addition of street trees along the property frontage to be appropriate. Staff recommends the Applicant indicate the street tree species for staff review.

9. *Transit connections*

Development proposed along established transit corridors must design uninterrupted access from the proposed development to the transit stop.

Staff comment: The applicant has proposed to replace the existing sidewalk in kind and maintain pedestrian connection to bus service on Auburn Street.

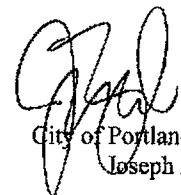


**CITY OF PORTLAND, MAINE
CERTIFICATE OF VARIANCE APPROVAL**

I, Joseph Zamboni, the duly appointed Chair of the Board of Appeals for the City of Portland, Cumberland County and State of Maine, hereby certify that on the 4th day of May, 2023, the following variance was granted pursuant to the provisions of 30-A M.R.S.A. Section 4353(5) and the City of Portland's Code of Ordinances.

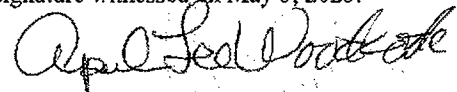
1. **Current Property Owner: 84 Auburn, LLC**
2. **Property: 84 Auburn Street, Portland Maine CBL: 375 A026**
Cumberland County Registry of Deeds, **Book: 37890 Page: 331**
Last recorded deed in chain of Title: **3/4/2021**
3. **Variance and Conditions of Variance:**
To grant relief from section 6.6.2.D, Chapter 14 of the City of Portland Code of Ordinances to allow a drive-through at the proposed retail establishment on the subject property.

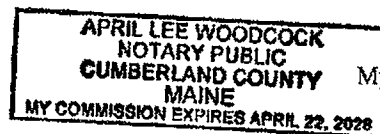
IN WITNESS WHEREOF, I have hereto set my hand and seal this 5th day of May, 2023

 , Chair of
City of Portland Zoning Board,
Joseph Zamboni

STATE OF MAINE
Cumberland, ss.

Then personally appeared the above-named Joseph Zamboni and acknowledged the above certificate to be his free act and deed in his capacity as Chair of the Portland Zoning Board of Appeals, with his signature witnessed on May 5, 2023.





Notary Public
April Woodcock

PURSUANT TO 30-A M.R.S.A. SECTION 4353(5), THIS CERTIFICATE MUST BE RECORDED BY THE PROPERTY OWNER IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS WITHIN 90 DAYS FROM FINAL WRITTEN APPROVAL FOR THE VARIANCE TO BE VALID. FURTHERMORE, THIS VARIANCE IS SUBJECT TO THE LIMITATIONS SET FORTH IN SECTION 14-474 OF THE CITY OF PORTLAND'S CODE OF ORDINANCES.

07/31/2023, 08:18:17A

Register of Deeds Jessica M. Spaulding E-RECORDED

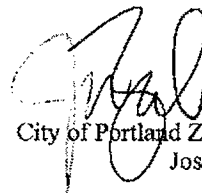


CITY OF PORTLAND, MAINE CERTIFICATE OF VARIANCE APPROVAL

I, Joseph Zamboni, the duly appointed Chair of the Board of Appeals for the City of Portland, Cumberland County and State of Maine, hereby certify that on the 20th day of July, 2023, the following variance was granted pursuant to the provisions of 30-A M.R.S.A. Section 4353(5) and the City of Portland's Code of Ordinances.

1. **Current Property Owner: 84 Auburn, LLC**
2. **Property: 84 Auburn Street, Portland Maine CBL: 375 A026**
Cumberland County Registry of Deeds, **Book: 37890 Page: 331**
Last recorded deed in chain of Title: 3/4/2021
3. **Variance and Conditions of Variance:**
To grant relief from section 6.4.6(A), Chapter 14 of the City of Portland Code of Ordinances to allow the proposed business as a retail drive through to be permitted to have more than 100 peak hour trips.

IN WITNESS WHEREOF, I have hereto set my hand and seal this 21st day of July, 2023


 , Chair of
 City of Portland Zoning Board,
 Joseph Zamboni

STATE OF MAINE
Cumberland, ss.

Then personally appeared the above-named Joseph Zamboni and acknowledged the above certificate to be his free act and deed in his capacity as Chair of the Portland Zoning Board of Appeals, with his signature witnessed on July 21, 2023.




 Notary Public
 Alyssa Wilson
 My term expires

PURSUANT TO 30-A M.R.S.A. SECTION 4353(5), THIS CERTIFICATE MUST BE RECORDED BY THE PROPERTY OWNER IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS WITHIN 90 DAYS FROM FINAL WRITTEN APPROVAL FOR THE VARIANCE TO BE VALID. FURTHERMORE, THIS VARIANCE IS SUBJECT TO THE LIMITATIONS SET FORTH IN SECTION 14-474 OF THE CITY OF PORTLAND'S CODE OF ORDINANCES.

389 Congress St Portland, Maine 04101 (207) 874-8730 FAX 874-8949 TTY 874-8936

DECLARATION OF ENVIRONMENTAL COVENANT

This DECLARATION is made as of this 15th day of December, 2011 by **ALLIANCE ENERGY LLC**, a Massachusetts limited liability company, successor by statutory conversion to Alliance Energy Corp., a Massachusetts corporation, hereinafter referred to as the "Declarant" having as a mailing address 404 Wyman Street, Suite 425, Waltham Massachusetts 02451, and the **MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION** ("DEP"). This Declaration is an environmental covenant executed pursuant to the Maine Uniform Environmental Covenants Act ("UECA"), 38 M.R.S.A. §§3001-3013.

WITNESSETH:

WHEREAS, Declarant is the owner of certain property located on or about 84 Auburn Street, further designated as Lot 26 on Portland Tax Map 375, in the City of Portland, Cumberland County, Maine, a description of which property is set forth in Exhibit A attached hereto and described in a deed recorded in the Cumberland County Registry of Deeds in Book 22165, Page 274 (said property to be referred to as "Protected Parcel");

WHEREAS, the Protected Parcel had been utilized by Declarant and predecessors for storage of petroleum products;

WHEREAS, in anticipation of the decommissioning of the petroleum facility on the Protected Parcel, Declarant submitted to the DEP environmental site assessments report prepared by St. Germain Collins ("the Report");

WHEREAS, Declarant has caused the underground tanks and related piping to be removed;

WHEREAS, the DEP has issued a "Commissioner's Certification of Completion of Remedial Actions under a Voluntary Response Action Plan" dated October 27, 2011 to Declarant which requires that Declarant prepare and record a Declaration of Environmental Covenant consistent with the VRAP Certificate of Completion and the Maine Uniform Environmental Covenants Act ("UECA"), 38 M.R.S.A. § 3001 et seq.; and

WHEREAS, the DEP has determined in accordance with 38 M.R.S.A. § 1301 et seq. and the UECA that the environmental covenants set forth in this Declaration are necessary to prevent the installation of ground water wells, to address future soils excavation, to require commercial use and to require vapor protection for any structures, and to protect the public health and safety, which covenants shall run with the land.

NOW, THEREFORE, the Declarant for and in consideration of the facts above recited

and the covenants herein contained, and intending to create and be legally bound by a perpetual covenant running with the land, subject to the terms hereof, hereby declares, covenants and agrees as follows:

1. Declaration of Covenant. This instrument is an Environmental Covenant executed pursuant to the UECA.

2. Ground Water. No groundwater extraction wells shall be installed in or on the Protected Parcel and no other extraction or use of groundwater shall be permitted in or on the Protected Parcel, without express written permission of the DEP, its successors or assigns (the "Holder").

3. Residential Use Prohibited. Residential use of the Protected Property is prohibited without the express written permission of the Holder.

4. Agency and Holder. DEP is the environmental agency with enforcement authority pursuant to the UECA, and is also the only Holder of the Environmental Covenant granted by Declarant in this Declaration.

5. Notice to Tenants and Others. The Declarant or future owners of the Property shall provide notice of this Environmental Covenant to any tenants or lessees, or to any person conducting any activities on the Property that could result in disturbance of soil or groundwater, or any activity that would be otherwise prohibited by this Covenant.

6. Perpetuity of Covenant. This Environmental Covenant and each and every covenant herein shall be a covenant running with the land in perpetuity, and shall bind the Protected Parcel, all persons or entities having any right, title, or interest in and to the Protected Parcel or any portion thereof, and their respective heirs, personal representatives, successors, and assigns, and all those acting by, through or under any of them forever. Any present or future owner of the Protected Parcel or any interest therein, by the acceptance of a deed of conveyance of all or any part of the Protected Parcel or any interest therein, whether or not the deed shall so express, shall be deemed to have accepted the Protected Parcel subject to the restrictions contained herein and shall be deemed bound by, obligated to comply with, and otherwise subject to the restrictions herein and this Covenant.

7. Representation of Ownership and Encumbrances. By its execution hereof, Declarant warrants that it is the sole owner of the Protected Parcel and that there are no mortgages, easements, or other encumbrances on the Protected Parcel that would materially adversely affect the effectiveness or enforceability of this Environmental Covenant.

8. Access. The Declarant, its successors and assigns, and all future owners and land users shall provide, without cost, access to the Protected Parcel to the DEP, including its authorized employees, agents, representatives, and independent contractors, upon presentation of credentials, for purposes of monitoring and enforcing this Environmental Covenant.

9. Notice of Noncompliance. The Declarant and all future owners shall provide written notice to the DEP within ten working days of discovery of any noncompliance with the terms of this Environmental Covenant.

10. Enforcement. This Environmental Covenant shall be enforceable as authorized by the UECA. Any forbearance as to the enforcement of any of the terms hereof shall not be deemed a waiver of the right to seek and obtain enforcement at any time thereafter as to the same violation or as to any other violations.

11. Amendment or Termination by Consent. The terms and conditions herein may not be amended or terminated except by a written instrument duly executed by the Declarant, the current owner of the Protected Parcel at the time of the amendment or termination, and DEP, or its successor in legal function, which instrument is duly recorded in the Cumberland County Registry of Deeds, pursuant to the UECA. Declarant waives its right to consent in the event that it no longer owns the Protected Property. See 38 M.R.S.A. § 3010(1)(C).

12. Notice Pursuant to Covenant. Any notice or other communication required pursuant to this Environmental Covenant shall be in writing and shall be sent by certified mail, return receipt requested and shall be sent to the following addresses, or such other addresses as the Declarant and the DEP may designate from time to time in a written notice to other entities: (a) if to the Declarant to the address set forth above, attention General Counsel; if to DEP, 17 State House Station, Augusta, Maine 04333-0017, to the attention of Director, Bureau of Remediation & Waste Management (or successor in position).

13. Recording. Declarant shall cause this Declaration to be duly recorded in the Cumberland County Registry of Deeds within ten (10) days of the execution of this Declaration by the last signatory, and shall, within thirty (30) days of the recording of the Declaration, notify the DEP of the book and page at which it is recorded, and submit to DEP a copy of the signed Declaration date-stamped by the Register of Deeds.

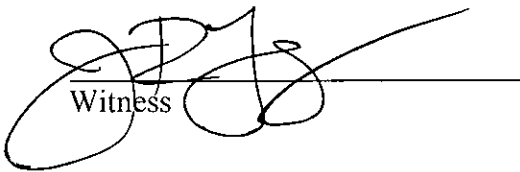
14. Administrative Record. The administrative record relating to the Protected Parcel is located at the main office of DEP, whose mailing address is 17 State House Station, Augusta, ME 04333-0017, with a street address of Ray Building, 28 Tyson Drive, Augusta, Maine.

15. Governing Law. This Environmental Covenant shall be governed and interpreted in accordance with the laws of the State of Maine.

16. Liberal Construction. It is intended that this Environmental Covenant be construed liberally to protect the health and welfare of the public and the quality of the environment from the risk of adverse effects of exposure to hazardous substances.

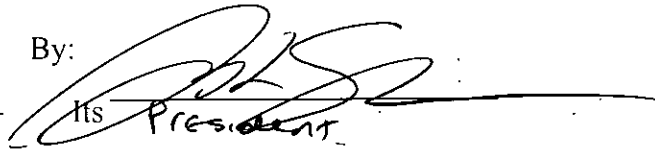
17. Invalidity. If any part of this Environmental Covenant shall be decreed to be invalid by any court of competent jurisdiction, all of the other provisions hereof shall not be affected thereby and shall remain in full force and effect.

IN WITNESS WHEREOF, the Declarant has caused this Declaration to be signed and sealed in its limited liability company name by its duly authorized manager as of the day and year first above written.


Witness

ALLIANCE ENERGY LLC

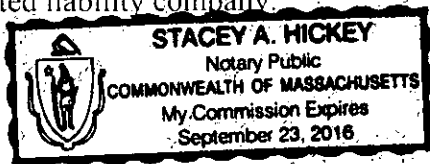
By:

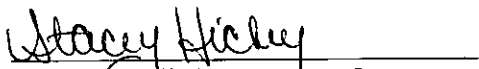

Its President

Commonwealth of Massachusetts
Middlesex, ss

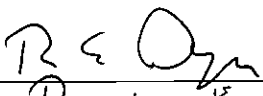
December 15, 2011

Then personally appeared before me the above-named Andrew Slifka in his said capacity and acknowledged the foregoing to be his free act and deed and the free act and deed of said limited liability company.




Notary Public/Attorney at Law
Print Name:

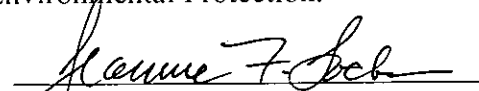
ACKNOWLEDGED AND AGREED TO BY:
MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

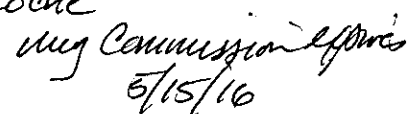
By: 
Name: Ron E. Dyer
Title: Director, BLM

State of Maine
Kennebec, ss

December 21, 2011

Then personally appeared before me the above-named Ron Dyer in his/her said capacity and acknowledged the foregoing to be his/her free act and deed and the free act and deed of said the Maine Department of Environmental Protection.


Notary Public/Attorney at Law
Print Name: Jeanne F. Locke


My Commission Expires
5/15/16

Received
 Recorded Register of Deeds
 Jan 10, 2012 03:18:28P
 Cumberland County
 Pamela E. Lovley

EXHIBIT A
PROPERTY DESCRIPTION

A certain lot or parcel of land with the buildings and improvements thereon, situated in Portland, County of Cumberland, and State of Maine, bounded and described as follows: Beginning on the westerly side of said Auburn Street at the northeasterly corner of Lot 23 as shown on a Plan of Highland Park recorded in the Cumberland County Registry of Deeds in Plan Book 8, page 139; thence westerly by the northerly line of said Lot 23 and its extension westerly by the northerly line of said Lot 23 and its extension westerly one hundred forty (140) feet to a point; thence southerly by land now or formerly of Canteen Co. of Maine on a course parallel with the westerly or rear lot lines of Lots 23, 22, 21, and 20 as shown on said Plan, and maintaining an uniform distance of thirty (30) feet westerly therefrom, a distance of two hundred ten (210) feet, more or less, to the southerly boundary line of land now or formerly of Canteen Co. of Maine and land now or formerly of Clarence S. Cressey, et al; thence northeasterly and easterly by said Cressey land and the southerly line of Lot 20 on said Plan one hundred forty-five (145) feet, more or less, to Auburn Street; thence northerly by Auburn Street two hundred (200) feet to the point of beginning; being lots 20 through 23 on said Plan and a portion of Lot 42 on said Plan. Being a portion of the premises conveyed by Canal National Bank as executor of the Estate of Augustus G. Hecker to Canteen Company of Portland, Inc. by deed dated July 20, 1962, recorded in the Cumberland County Registry of Deeds, Book 2689, Page 108; and the Grantee hereof is the corporate successor to said Canteen Company of Portland, Inc. as owner of said premises. There is also conveyed hereby any structures or buildings which may be situated partly on adjacent land at the westerly boundary line of the within described premises. Also known as and more particularly described as: That parcel of land situated on the westerly side of Auburn Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows: Beginning at a nail set at the northeasterly corner of the premises in the westerly sideline of Auburn Street at land now or formerly of Spinelli Co., Inc.; thence S 10°00' 00" E by the westerly sideline of Auburn Street a distance of sixty and thirteen hundredths feet (60.13') to a point in the westerly sideline of Auburn Street; thence S 10°29'00" E by the westerly sideline of Auburn Street a distance of one hundred thirty-nine and eighty-seven hundredths feet (139.87') to a pipe at land now or formerly of John F. LeFevre; thence S 80°00' 00" W by land now or formerly of John F. LeFevre a distance of one hundredths ten and no hundredths (110.00') to a point at land now or formerly of Charles T. Riddle; thence S 61°30' 45" W by land now or formerly of Charles T. Riddle a distance of thirty-one and fifty-four hundredths feet (31.54') to a pipe at land now or formerly of Spinelli Co., Inc.; thence N 10°20' 45" W by land now or formerly of Spinelli Co., Inc. a distance of two hundred ten and no hundredths feet (210.00') to a nail at land now or formerly of Spinelli Co., Inc.; thence N 80°00' 00" E by land now or formerly of Spinelli Co., Inc., a distance of one hundred forty and no hundredths feet (140.00') to the point of beginning. The above described parcel of land contains an area of 28,111 S. F. or .65 acres, more or less.

The locus parcel is subject to an easement which is recorded in 3312/16 in the Cumberland Registry of Deeds, for the purpose of ingress and egress, by foot or motor vehicle.

LESS AND EXCEPT any condemnations, takings or declarations of record.

UNDER AND SUBJECT to agreements, easements, rights of way, covenants, conditions, and restrictions of record.



Att. 6

Dear Applicant,

We have completed our review of your application (PL-002378-2023) proposing to develop a 2,250 square foot building with a drive-through window and 16 on-site parking spaces in the B-1 Business zone. This development triggers major site plan review, and is subject to the following regulations:

- Site Plan – Article 14.6
- Zoning – Table 6C, and Table 7E

An overview of the City’s review can be viewed in the attached project review worksheets and peer review comments.

Next Steps

Please review all feedback and reach out to the project review manager if you have any questions or would like to discuss this feedback in more detail. In order to proceed, the applicant shall prepare a written response to all feedback, and shall update plans, documents and other materials as necessary to address the above listed comments. The applicant shall notify the project review manager when a resubmission is uploaded to ProjectDox. Once received, the project review manager will notify the applicant of their scheduled review timeline for this resubmission.

Sincerely,

Maya Balassa
Planner

Attachments

1. Site Plan Worksheet
2. Zoning Worksheet
3. Design Review

City Staff and Third-Party Peer Reviewers have completed the latest review of this application based off of the most recent submissions. Comments below have been provided to the Planning & Urban Development Department from the Department of Public Works, Water Resources, Zoning, and Third-Party Consulting Engineers (Stormwater + Traffic).

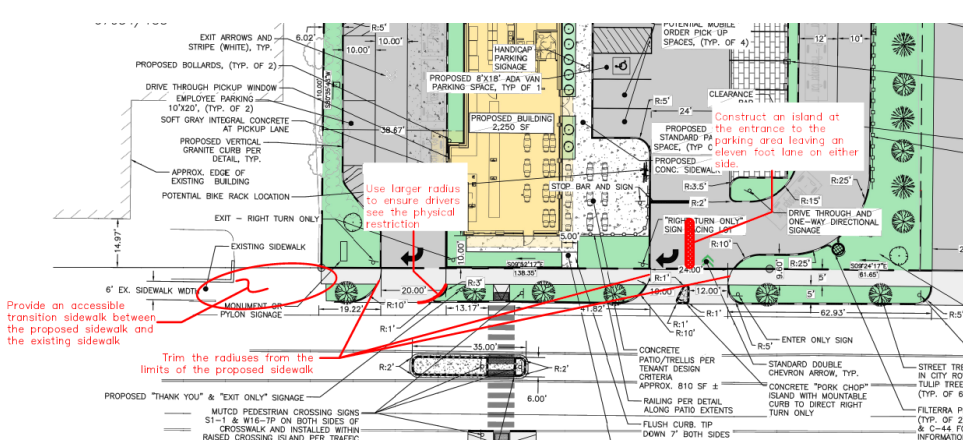
Please submit a written response to the comments below and upload the response, revised submissions, and new material to Project Dox (make sure all submissions maintain the same file naming format to allow for versioning). Once uploaded, please send an email to mbalassa@portlandmaine.gov notifying the planner of the resubmission.

Be advised that additional comments may be forthcoming and other changes may still be required if the comments are not addressed adequately. If you have any questions, please do not hesitate to ask.

General Review Comments		
Review	Discussion	Status
RTI	<u>Overview:</u> The property at 84 Auburn Street and the adjacent property at 94 Auburn Street are under the common ownership of Mike Pride, though through two separate limited liability corporations (MSP Properties 94 Auburn LLC.; 84 Auburn, LLC.). The applicant has provided right, title, and interest in the form of a Quitclaim Deed for 84 Auburn LLC., and a Warranty Deed for MSP Properties 94 Auburn LLC.	Met
Financial & Technical Capacity	<u>Overview:</u> The applicant has provided financial capacity confirmation from Katahdin Trust Company. Technical capacity in the form of background information related to successful projects completed by Acorn Engineering, Architect Ryan Senatore, and owner and developer Mike Pride. Acorn engineering has successfully designed and permitted more than twenty residential, mixed use, and commercial properties in the City of Portland. Ryan Senatore has designed projects both for private developers and public housing authorities, while Mike Pride has been a real estate investor, property manager, and developer since 1996.	Met
Permits / Other Requirements	<u>Overview:</u> The project triggers a traffic movement permit (TMP), a state permit for which the City has delegated review authority. The TMP will be considered by the Planning Board at the time of the public hearing for the site plan application.	Discussed under the Transportation Section
Zoning	<u>Overview:</u> The applicant has received two ZBA variances to allow for a drive-through and for over 100 peak hour trips. The site is located in the B-1 business zone. <u>Comments:</u>	Met

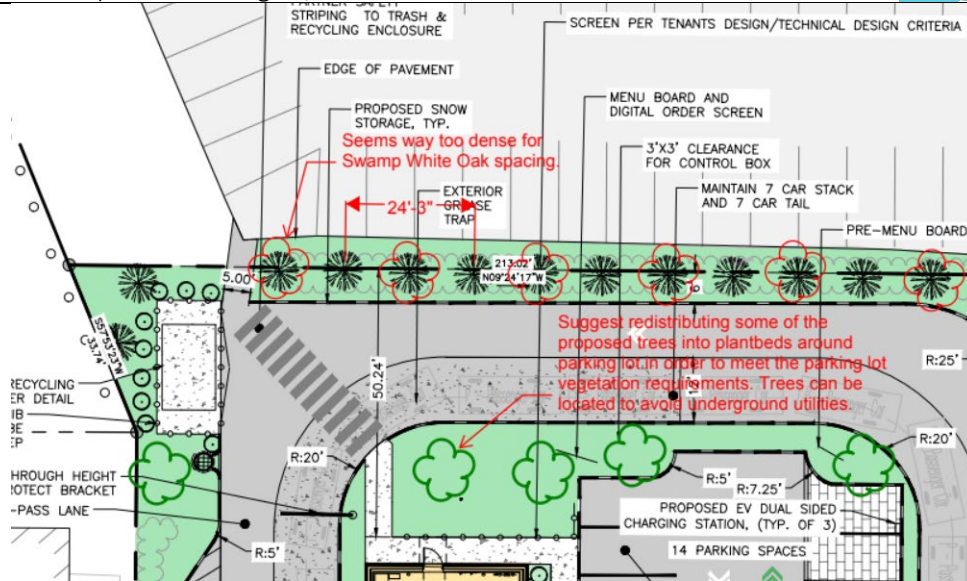
14.6.1: Transportation Standards

Standard	Discussion	Status
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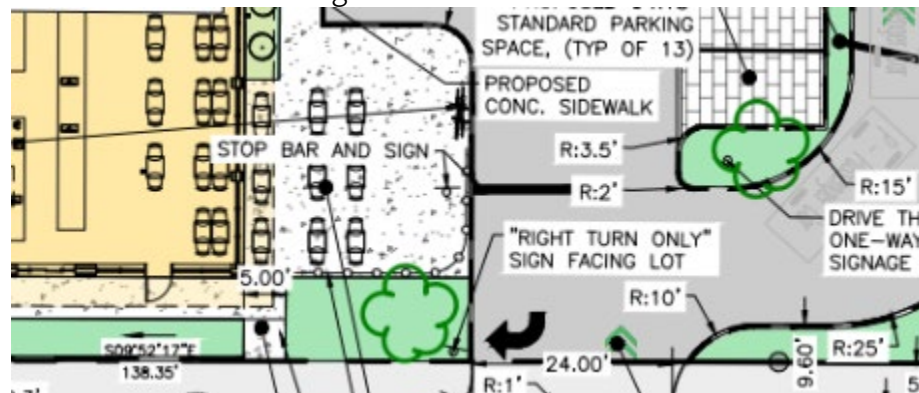
Impact on Surrounding Street Systems	Overview: The proposed project is located on Auburn Street, which is a major arterial street and prominent gateway into Portland for communities such as Falmouth and Gray. The property is also proximate to Allen's Corner, which is a major node and intersection within the City. Based upon input from the City, the applicant is proposing two curb cuts. The northern curb cut will be an entrance, and will also allow for right-turn only exiting. The second, southerly curb cut will be right-exit only. Comments: •	Met
Access and Circulation	Overview: The site is proposed to be accessed from a one-way, twenty-foot, curb cut at the northern portion of the property. Customers will have the ability to either maneuver straight into a parking area, or right into the drive-through lane or the adjacent by-pass lane. These lanes wrap around the site toward the drive-through window before exiting at the southerly curb cut. Pedestrian access from the sidewalk along Auburn Street is provided via a five-foot wide walkway. Additionally, a crosswalk is proposed with raised pedestrian island providing access across Auburn Street. Comments: ▪ Construct an island at the entrance to the parking area to prevent vehicles from crossing into the entrance. ▪ Design a transition from the proposed sidewalk to the existing sidewalk.  	Not Met Update plans based upon City comments

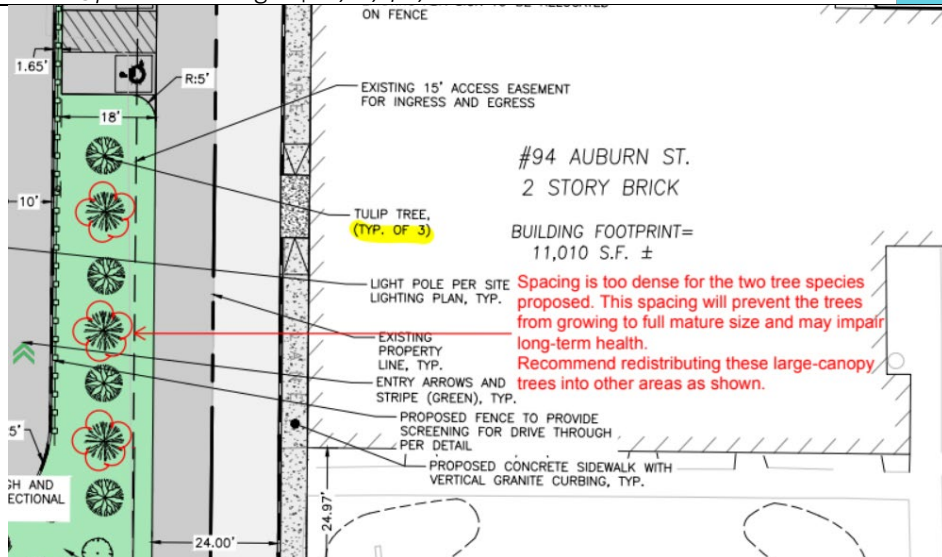
Public Transit Access	Overview: The property at 84 Auburn Street is located 315 feet from the nearest bus stop along the west side of Auburn Street, and 492 feet from the nearest stop on the east side of the street, servicing Greater Portland METRO Routes 9A and 9B.	
Parking	Overview: Table 19-A in the Land Use Code specifies that the minimum number of parking spaces to be provided is one space per 150 square feet of floor area. As the building is proposed to be 2,250 square feet, a total of 15 spaces are required. Comments: Staff are still suggesting that the applicant eliminate the two employee parking spaces and utilize the neighboring parking lot to accommodate employee parking.	Met City recommends that the parking configuration be changed to improve compliance with other review standards
Transportation Demand Management	Overview: Based upon the type and characteristics of the proposed use, a TDM plan is not required.	Met

14.6.2: Environmental Quality Standards		
Standard	Discussion	Status
Preservation of Significant Natural Features	Overview: The site contains many mature trees, though none of the existing trees on-site are considered significant natural features as defined in Sec. 14.6.2.	Met
Landscape Preservation	Overview: The site is vegetated with mature trees around the perimeter. The project is subject to the landscape preservation requirement, stating that "Site development shall be designed to incorporate, limit disturbance to, and limit removal of existing trees." Comments: - The City's landscape preservation standards (Sec. 14.6.2.B) requires that site development be designed to incorporate, limit disturbance to and removal of existing trees. - Staff are in support of the four trees proposed to be preserved on northern edge. - The tree fund amount will be calculated at the time of the final landscaping and removals plan to account for removals, street trees, and parking lot landscaping.	Not Met Provide additional information and update plans
Site Landscaping and Buffers	Overview: The site is proposed to be buffered from adjacent properties by trees, shrubs, and landscaped areas. The applicant has provided a plant schedule consisting of tulip trees, swamp white oaks, purple willow shrubs, and dappled willow shrubs. Recycling and trash are proposed to be buffered by a fenced enclosure, as well as shrubs and landscaping. Comments:	Not Met Provide additional information and update plans



- The swamp oaks are too close to become mature, please space out the oaks to around 24 feet, with shrubs or other lower canopy vegetation between the trees.
- Some of those trees could be redistributed closer to the parking lot to better meet the parking lot landscaping requirement. Some suggested locations for that are shown in the images above and below.





- The planting schedule does not match the plan, please adjust them to match.

PLANT SCHEDULE					
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SYMBOL
TREES					
LT	LIRIODENDRON TUIPIFERA	TULIP TREE	10	2" CAL.	
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	18	2" CAL.	
SHRUBS					
SP	SALIX PURPUREA "NANA"	PURPLE WILLOW	15	6 on plan 3 GAL.	
SI	SALIX INTEGRA "HAKURO NISHIKI"	DAPPLED WILLOW	21	0 on plan 3 GAL.	
CX	CALAMAGROSTIS X ACUTIFLORA "KARL FOERSTER"	FEATHERED REED GRASS	18	9 on plan	

Plant schedule does not agree with the planting design shown on the site plan and some notes on the plan appear outdated/refer to a previous design.

Water Quality, Stormwater Management and Erosion Control

Overview: The applicant has provided a stormwater management report noting that roof and foundation drains will be routed directly to the storm drain network located within Auburn Street. The proposal also calls for areas of the site to be surfaced with pervious pavers, and the inclusion of two FocalPoint stormwater BMPs with catch basin overflows.

Comments:

- Please be advised that stormwater maintenance agreement will be required to cover the pervious pavers, Focal Points, and R-tank systems.
- Staff are supportive of shifting the pipe of the focal point to the north (plan right), if that allows for less disturbance for any tree preservation efforts along that edge.

Met

Standard	Discussion	Status
Public Safety and Fire Prevention	Overview: The applicant has provided a letter describing their compliance with Public Safety standards of the Portland Technical Manual. A fire hydrant is located directly across Auburn Street from the project site, approximately 50 feet away.	Met
Public Utilities	Overview: The applicant has provided utility ability to serve confirmation from the Portland Water District. No gas main is located within Auburn Street and gas service is not proposed to be utilized on site.	Met

14.6.4: Site Design Standards		
Standard	Discussion	Status
Massing, Ventilation and Wind Impact	Overview: As an infill development on a currently vacant parcel that is meeting applicable dimensional requirements, this development is not anticipated to have an impact on massing, ventilation, or wind.	Met
Shadow	Overview: As no publicly accessible open space or parks are in the vicinity of 84 Auburn Street; this development is not anticipated to adversely impact publicly accessible open spaces.	Met
Snow and Ice Loading	Overview: Snow and ice are anticipated to be stored on site and the owner will be responsible for the maintenance and management of snow and ice removal from the site.	Met
View Corridors	Overview: Not applicable.	Met
Historic Resources	Overview: Not applicable.	Met
Exterior Lighting	Overview: Applicants have submitted an exterior site lighting plan and cut sheets. 18 lights are proposed around the building and two around the parking to the north and south. Comments: - Please update the photometric plan with the proposed foot-candle during closed hours or add a note with the percentage they will be reduced by. - Please update the photometric plan to reduce the brightness or remove the lights proposed for the walk-up window that has been removed to meet the maximum foot candle of 5.	Not met Provide updated plans

Noise and Vibration	Overview: All heating, ventilation and air conditioning equipment (HVAC), air handling units (AHU), emergency generators, and similar equipment will be required to meet state and federal emissions requirements.	Met
Signage and Wayfinding	Overview: See design memo.	Met.
Design Standards	Overview: See design memo.	Met.

Zoning Use Review (Article 6)

Use Permissions (Table 6-A – Table 6-F)

Proposed Use	Permitted, Conditional or Accessory Use	Zone	Use Std
Restaurant	Permitted	B-1	
Drive through	Permitted based upon ZBA Variance Granted (5.19.23)	B-1	Sec. 6.6.2.D*

Zoning Dimensional Review (Article 7)

Dimensional Standards (Table 7-A – Table 7-H)

Standard	Requirement 1	Requirement 2	Proposed	Finding
Lot Size (SF)	10,000 SF		28,279.71 SF	Met
Street Frontage	20 feet		200 feet	Met
Front Setback (Max)	10 feet		23.09 feet (averaged adjacent setbacks)	Met
Rear Setback	10 feet		43.15 feet	Met
Side Setback	None			Met
Building Height	35 feet		22 feet	Met
Impervious Surface Ratio	90%		78.41%	Met
Floor area (max)	Restaurants (public area): 2,000 SF		2,250 SF total	Met.

CITY OF PORTLAND, MAINE

PLANNING BOARD

Brandon Mazer, Chair
 Justin Barker, Vice Chair
 Marpheen Chann
 Sean Murphy
 David Silk
 Austin Smith
 Maggie Stanley

April 9, 2024

Mike Pride
 MSP Commercial Realty, LLC
 7 Heather Lane
 Falmouth, ME 04105

Mike Triglione
 Acorn Engineering, Inc.
 65 Hanover Street 1
 Portland, ME 04101

Project Name:	Major Site Plan	Project ID:	PL-002298-2022
Address:	84 Auburn Street	CBL:	375 A026001, 375 A023001
Applicant:	Mike Pride		
Planner:	Maya Balassa		

Dear Mike Pride:

On April 9, the Planning Board approved a major site plan for the development of a 2,250 square foot buildings with a drive through, 16 parking spaces and associated site changes in the B-1 Business zone. The project consists of the developing a coffee shop building, wrap around drive through, bypass lane, 16 parking spaces, site landscaping, stormwater treatment system, and adding a crosswalk across Auburn Street with a raised median. The decision is based upon the application, documents and plans as submitted. The Planning Board reviewed the proposal for conformance with the standards of the Site Plan Ordinance, Ch. 14, Article 14, Section 14.6. Based on the information provided to the Board in the application, plans, reports, through testimony and other information submitted by the applicant, the Planning Board adopted the findings, conclusions and recommendations contained in the Planning Board Report for the public hearing on April 9, 2024, which is attached hereto and incorporated herein by reference. Based upon those findings, conclusions and recommendations, the Planning Board found that the application met all relevant standards and voted **[add vote]** to approve the application with the following waivers and conditions as presented below.

Waivers

The Planning Board voted **[add vote]**, to waive the following City of Portland Technical standards:

1. The Planning Board waives the Technical Standard, 1.5.1.C. requiring 100 feet of separation between driveways along arterial and collector street with posted speeds of 35 mph or less to allow for

driveway separations of 62.9, 48.5, and 19.22 feet.

Site Plan Review

The Planning Board voted **[add vote]**, to find that the plan is in conformance with the site plan standards of the Land Use Code, subject to the following conditions of approval:

PRIOR TO APPLYING FOR A BUILDING PERMIT

1. The applicant shall update the site plan to reduce the transition zone and provide additional vegetated area on either side of the parallel parking spaces along the southerly property boundary. The revised site plan shall be reviewed and approved by the Planning Authority.
2. The applicant shall update the construction management plan and details to outline how existing trees that are proposed to be preserved on-site will be adequately protected during the course of construction. Tree preservation plans and details shall be reviewed and approved by the Planning Authority and City Arborist.

The approval is based on the submitted plans and findings related to site plan as contained in the Planning Board report dated 04/05/2024 for application PL-002298-2022 which is attached.

Standard Procedures

Note: The following standard procedures and requirements apply to all approved site plans:

1. Site Plan Expiration The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.
2. Separate Building Permits Are Required This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspections Department.
3. Performance Guarantee and Inspection Fees A performance guarantee covering the site improvements and an inspection fee payment of 2.0% of the guarantee amount and three (3) final sets of plans must be submitted to and approved by the Planning and Urban Development Department and Public Works Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans.
4. Construction Management Plans The applicant, contractor and subcontractors are required to conform to the approved Construction Management Plan, and all conditions contained within the project's approval, for the entire duration of the project. Any amendments to the approved Construction Management Plan shall be reviewed and approved by the Department of Public Works prior to the execution. The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan. The applicant shall coordinate the project's construction schedule with the timing of nearby construction activities

to avoid cumulative impacts on a neighborhood and prevent unsafe vehicle and pedestrian movements. Accordingly, nearby construction activities could involve a delay in the commencement of construction.

5. Preconstruction Meeting Prior to the release of a building permit and scheduling of a preconstruction meeting, a hard copy set of approved plans shall be submitted to the Development Review Coordinator. A pre-construction meeting shall be held at the project site with the contractor, Development Review Coordinator, Public Works representative, and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan and the approved Construction Management Plan. The site/building contractor shall provide one (1) copy of a detailed construction schedule to the attending City representative. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
6. Department of Public Works Permits If work or obstructions will occur within the public right-of-way, such as utilities, curb, sidewalk, driveway construction, site deliveries and equipment siting, a Street Opening and/or Occupancy Permits are required for your site. Please contact the Department of Public Works Permit Clerk at (207) 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)
7. Develop Site According to Plan The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Any modifications of an approved site plan or alteration of a parcel, or of any approved exterior elevations, which were the subject of site plan approval after May 20, 1974, shall require the prior approval of an amended site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
8. Stormwater Management The owner/operator of an approved stormwater management system, and all assigns shall comply with the conditions of Chapter 32, Stormwater including Article III, Post Construction Stormwater Management, which specifies the annual inspections and reporting requirements.

A maintenance agreement for the stormwater drainage system, as attached, or in substantially the same form, shall be submitted for review by Corporation Counsel. Once approved, the document shall be signed and recorded at the Cumberland County Registry of Deeds prior to the issuance of a building permit. Final copies shall be submitted to both the Department of Planning and Urban Development and the Department of Public Works.

9. Third Party Inspections For all sites with one acre or greater of disturbance, the applicant shall retain the services of a third-party inspector for the duration of construction until final site stabilization is in place. The inspection is required in order to ensure that all construction and stabilization activities comply with the approved drawings and specifications; that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations; and that any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan is communicated to the City of Portland for additional review and approval.

The inspector will submit weekly written reports to the Stormwater Coordinator(s) in the Water Resources Division of Public Works. Reports must include: project ID, project address, the date(s) and time(s) of inspection(s), site photographs of areas under construction, and the date(s) and approximate duration(s) of any rainfall events. The report will identify and describe any erosion problems or discharge of pollutants and what actions will be taken to address these issues and repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.

10. Defect Guarantee A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
11. As-Built Final Plans Final sets of as-built plans shall be submitted digitally to the Planning and Urban Development Department, on a CD or DVD, in AutoCAD format (.dwg), release AutoCAD 2005 or greater. Please provide one hard copy of the mylar.
12. Mylar Copies Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to Public Works prior to the issuance of a certificate of occupancy.
13. Impact Fees New development or changes of use that result in net new residential dwelling units, non- residential building square footage, or water meters, are subject to the City of Portland's impact fee ordinance (Chapter 14, Article XVII). Impact fees are calculated at the time of building permit and must be paid prior to the certificate of occupancy. For more information, visit <https://www.portlandmaine.gov/2409/Impact-Fees>

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning and Urban Development Department at DRC@portlandmaine.gov. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Maya Balassa at (207)847-8718 or via email at mbalassa@portlandmaine.gov.

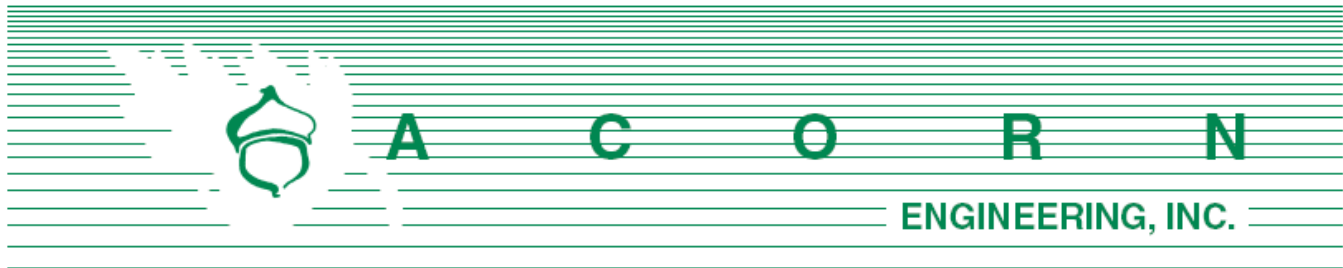
Sincerely,

Brandon Mazer, Planning Board Chair

Attachments:

1. Planning Board Report
2. Portland City Code: Chapter 32

3. Sample Stormwater Maintenance Agreement
4. Performance Guarantee Packet



Planning and Urban Development Department, Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

January 6, 2023

Subject: Major Site Plan Application
Redevelopment of 84 & 94 Auburn Street, Portland, Maine

To Whom it may concern:

On behalf of MSP Properties 94 Auburn LLC and 84 Auburn, LLC (c/o Mike Pride), Acorn Engineering, Inc. (Acorn) is pleased to submit the accompanying package of materials related to the proposed project located at 84 & 94 Auburn Street (Map 375, Block A, Lot 26 (84 Auburn Street)) and Lots 23/24/25/35 (94 Auburn Street)), within the (B1) Neighborhood Business Zoning District in Portland, Maine. The proposed development intends to construct a single-story building to be utilized as a national coffee franchise with associated drive through, patio space, parking, and associated infrastructure improvements. The project will also include site improvements to the shared access drive and parking area located on both 84 and 94 Auburn Street, including a sidewalk adjacent to the existing 94 Auburn Street building. Due to the proposed drive through facility, the project will require a Major Site Plan Application review from the City of Portland Planning Board. Please also refer to the Right, Title, and Interest attachment which includes a Certificate of Variance Approval, dated November 23, 2020, from the City of Portland Permitting and Inspection Department, which eliminates the prohibition on drive through sales for retail establishments on the 84 Auburn Street property.

The design team looks forward to your review and working with you on this exciting project. If you have any questions regarding these materials or the completeness of the application materials, please do not hesitate to contact us.

Sincerely,

Peter F. Heil, P.E.
Project Manager
Acorn Engineering, Inc.



The following documents and drawings will be uploaded onto the City's electronic submission site per the procedure outlined in the application:

Documents:

- Section A: Cover Letter
- Section B: Major Site Plan Application & Checklist
- Section C: Right, Title and Interest
- Section D: Zoning Assessment
- Section E: Site Plan Standards Assessment
- Section F: Easements
- Section G: Waivers
- Section H: Financial Capacity
- Section I: Technical Capacity
- Section J: Stormwater Management Report
- Section K: Erosion & Sedimentation Control Report
- Section L: Fire Department Letter
- Section M: Lighting
- Section N: Utility Cover
- Section O: Construction Management Plan
- Section P: Solid Waste Disposal
- Section Q: Transportation & Parking
- Section R: Parking Demand Memo
- Section S: Traffic Movement Permit Application

Drawings:

- Civil Site Plan Set, Dated 1/4/2023
- Architectural Plan Set, Dated 1/4/23



CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

Please submit each document as a separate PDF file.
Please confirm by electronically checking the boxes in the left-hand column.

**** PLEASE FILL OUT AND UPLOAD THE ZONING ASSESSMENT TABLE
AND WAIVER TABLE SEPARATELY AS NOTED BELOW ****

**At the time of application submission, please contact the Department of Public Works regarding E-911
addressing for your project.**

GENERAL APPLICATION DOCUMENTS

☒	NA	Project Description Cover letter with detailed project description
☒	NA	Completed Checklist (this document)
☒	NA	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sales agreements
Yes	☒	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
☒	NA	Zoning Assessment (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
☒	NA	Site Plan Standards Assessment (see Section 14.6 of the land use code) Summary of project compliance with site plan standards of the land use code
☒	NA	Summary of Existing and/or Proposed Easements or Covenants, applicable. Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way
Yes	☒	Waiver Requests (see Waiver Table) Written request for waiver describing request and compliance with applicable waiver standards
☒	NA	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
☒	NA	Technical Capability Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

MAJOR SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.
Please submit each document as a separate PDF file.

TRANSPORTATION		
Yes	NA	Impact on Surrounding Street Systems (14-14.6.1(A)) Describe incremental volume of traffic impacts and mitigation measures. If needed
Yes	NA	Access and Circulation (14-14.6.1(B)) Identify and describe the following: - Site access and internal circulation, including ADA access - Drive-up features, if applicable - Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable - Sidewalks and condition along street frontages and internal walkways - Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)
Yes	NA	Public Transit (14-14.6.1(C)), if applicable Identify and describe the following: Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter
Yes	NA	Off-Street Parking (14-14.6.1(D)), if applicable Identify and describe the following: - Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code - Curb cut separation and parking layout (Technical Manual, Section 1) - Construction details for bicycle racks - Management plan for snow storage and removal
Yes	NA	Transportation Demand Management (TDM) (14-14.6.1(E)), if applicable Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements

ENVIRONMENTAL		
Yes	NA	Preservation of Significant Natural Features (14-14.6.2(A)), if applicable Identify and describe the following: • High and moderate value waterfowl and wading habitat • Aquifers (for Casco Bay Islands) • Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) • Proposed preservation areas and protection measures • Documentation from environmental compliance consultants and determinations from applicable state and federal agencies
Yes	NA	Landscape Preservation (14-14.6.2(B)) Identify and describe the following: • Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4) • Measures to protect existing vegetation during construction
Yes	NA	Site Landscaping and Buffers (14-14.6.2(C)) Identify and describe the following: • Overall landscaping approach and consistency with standards • The use of screening and buffering of service areas and between non-residential and residential uses • Existing Heritage or Feature Trees on site and measures to preserve • Compliance with street tree requirements
Yes	NA	Water Quality, Stormwater Management, and Erosion Control (14-14.6.2(D)) Identify and describe the following: • Erosion and sedimentation control plan and measures • Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater law, as applicable • Subsurface sanitary sewage disposal and groundwater protection measures

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY		
Yes	NA	Consistency with City Master Plans (14-14.6.3(A)) Describe proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes	NA	Public Safety and Fire Prevention (14-14.6.3(B)) Identify and describe the following: - Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3) - Emergency vehicle access - Consistency with public safety standards (Technical Manual, Section 3)
Yes	NA	Availability and Adequacy of Public Utilities (14-14.6.3(C)) (Technical Manual, Sections 2 & 9) Identify and describe the following: - Electrical services, including providing underground services - Existing and proposed connections for public utilities and required public utility upgrades - Sewer line connections
SITE DESIGN		
Yes	NA	Massing, Ventilations and Wind Impact (14-14.6.4(A)) Identify and describe the following: - Wind and ventilation impacts on adjoining structures and/or adjacent public spaces, including wind study, if applicable - Bulk, location, or height impacts on adjoining structures
Yes	NA	Shadows (14-14.6.4(B)), if applicable Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes	NA	Snow and Ice Loading (14-14.6.4(C)) Describe building design measures to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes	NA	View Corridors (14-14.6.4(D)), if applicable Describe any protection of designated view corridors (Portland Design Manual, Appendix. 1)
Yes	NA	Historic Resources (14-14.6.4(E)), if applicable Identify and describe the following: - The site's status as a designated landmark, within a historic district or historic landscape district, or within 100 feet of any designated landmark, historic district, or historic landscape district - Compliance with standards for preservation and documentation of archaeological resources

Yes	NA	Exterior Lighting (14-14.6.4(F)) Describe how the proposed site lighting will adhere to photometrics requirements as it relates to light trespass and full cutoff fixture design, pursuant to Technical Manual Section 12
Yes	NA	Noise and Vibration (14-14.6.4(G)) Provide data on noise levels for HVAC and other mechanical equipment, such as design specifications, to demonstrate consistency with state and federal noise emissions requirements as well as City code
Yes	NA	Signage and Wayfinding (14-14.6.4(H)), if applicable - Provide signage plan showing the location, dimensions, height and setback of all existing and proposed signs - Provide drawings of all commercial and directional signage on site
Yes	NA	Zone-Related Design Standards (14-14.6.4(I)) Address any applicable design review standards by zone, including compliance with Design Manual

MAJOR SITE PLAN DRAWINGS CHECKLIST

Please upload the following DRAWINGS with the listed details into e-Plan as separate pdfs.

All drawings must be submitted in a 24 x 36 sheet size.

BOUNDARY SURVEY (stamped by a Maine Licensed Surveyor and drawn as per Technical Manual Sec. 13)

SITE PLAN(S) (stamped by a Maine Licensed Professional Engineer) including:

All sheets – Include a title block with project title and the following information:

- Project street address
- Name and address of property owner & applicant
- Licensed design professional, incl firm that produced plans
- North arrow
- Date of preparation and revision history block
- Tax parcel (chart, block, and lot) number

Existing Conditions Plan with the following:

- Existing structures, with distance from primary building façade(s) to the property line
- Approximate location of structures on abutting properties
- All streets and intersections adjacent to the site
- Existing driveways, pedestrian ways, and bicycle infrastructure, including dimensions and materials
- Existing public transit infrastructure
- Existing vehicle & bicycle parking areas
- Existing utilities on site and within adjacent rights-of-way
- Existing grades (two-foot contours preferred)
- Location of water courses, wetlands, and vegetation, or other significant natural features
- Existing soil conditions and location of test pits and borings
- Zoning boundary lines, including overlays
- Location of all existing easements and rights-of-way

Proposed Site Plan with the following:

- Proposed structures, including distance from primary building façade(s) to property lines
- Ground floor area, and finished floor elevations for all buildings
- Any proposed geometric modifications to streets and intersections adjacent to site
- Location, dimensions and materials of all proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines
- Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas
- Location and dimensions of proposed loading areas, including turning templates
- Proposed transit infrastructure with dimensions/ engineering specifications
- Location of vehicle and bicycle parking with dimensions and engineering specifications
- Location of all snow storage areas
- Exterior lighting (please see Technical Manual Sec. 12 for photometrics requirements)
- Location of fire hydrants

• Location of solid waste management receptacles • Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable • Location of proposed easements and rights-of-way, including dimensions • Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed
UTILITY PLAN including:
• Proposed electrical infrastructure • Location, sizing and directional flows of all proposed sewer and stormwater infrastructure • Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site • Electric utility infrastructure
GRADING AND DRAINAGE PLAN including:
• Proposed grades • Proposed stormwater management measures meeting Technical Manual (Section 5) standards • Any proposed alteration of a watercourse or wetlands • Any groundwater protection measures • Proposed buffers and preservation measures for wetlands or significant natural features
LANDSCAPE PLAN including:
• Existing vegetation to be preserved and preservation measures • Proposed landscaping, screening, and street trees, including caliper widths for trees • Planting schedule, including street trees
ARCHITECTURAL PLANS AND RENDERINGS including:
• Exterior building elevations, color renderings, illustrations of all sides • Axonometric and street-level views for structures greater than three stories in height • Provide context drawings, if applicable (Design Manual, page 1) • Floor plans
CONSTRUCTION MANAGEMENT PLAN including:
• Specifics on traffic control, sidewalk sheds, and pedestrian rerouting • Include a drawing and written narrative
OTHER
• Details and cross-sections, as necessary

Right, Title, and Interest

Please refer to the attached Quitclaim Deed for 84 Auburn LLC and Warranty Deed for MSP Properties 94 Auburn LLC for the Applicant's Right, Title, Interest. Also attached is the Certificate of Variance Approval, dated November 23, 2020, from the City of Portland Permitting and Inspection Department, which eliminates the prohibition on drive through sales for retail establishments on the 84 Auburn Street property.



MAINE REAL ESTATE TAX-Paid

DLN#1002140134495

QUITCLAIM DEED

KNOW ALL PERSONS BY THESE PRESENTS, that, **Adam Mitchell** of 16 Yale Street, Portland, ME 04103, for consideration paid, grants to **84 Auburn, LLC**, a Maine Limited Liability Company with a mailing address of 7 Heather Lane, Falmouth ME 04105, with QUITCLAIM COVENANTS, the premises in the City of Portland, County of Cumberland, and State of Maine, bounded and described as follows:

See Exhibit A attached hereto

IN WITNESS WHEREOF, the said **Adam Mitchell** has caused this instrument to be signed this 4 day of March, 2020. *AM*


Witness


Adam Mitchell

STATE OF MAINE
COUNTY OF CUMBERLAND

On this day, March 4, 2020, personally appeared before me the above-named **Adam Mitchell** and acknowledged the foregoing to be his free act and deed.

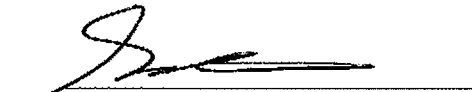

Notary Public/Attorney
Name: **Scott Herrick**
My commission expires: **Attorney at Law**
Scott Herrick
Attorney at Law

EXHIBIT A

A certain lot or parcel of land, with the buildings thereon, situated in Portland, County of Cumberland and State of Maine, bounded and described as follows:

A certain lot or parcel of land with the buildings and improvements thereon, situated in Portland, County of Cumberland, and State of Maine, bounded and described as follows:

Beginning on the westerly side of said Auburn Street at the northeasterly corner of Lot 23 as shown on a Plan of Highland Park recorded in the Cumberland County Registry of Deeds in Plan Book 8, Page 139; thence

Westerly by the northerly line of said Lot 23 and its extension westerly by the northerly line of said Lot 23 and its extension westerly one hundred forty (140) feet to a point; thence

Southerly by land now or formerly of Canteen Co. of Maine on a course parallel with the westerly or rear lot lines of Lots 23, 22, 21, and 20 as shown on said Plan, and maintaining a uniform distance of thirty (30) feet westerly therefrom, a distance of two hundred ten (210) feet, more or less, to the southerly boundary line of land now or formerly of Canteen Co. of Maine and land now or formerly of Clarence S. Cressey, et al; thence

Northeasterly and Easterly by said Cressey land and the southerly line of Lot 20 on said Plan one hundred forty-five (145) feet, more or less, to Auburn Street; thence

Northerly by Auburn Street two hundred (200) feet to the point of beginning; being lots 20 through 23 on said Plan and a portion of Lot 42 on said Plan.

There is also conveyed hereby any structures or buildings which may be situated partly on adjacent land at the westerly boundary line of the within described premises. Also known as and more particularly described as:

That parcel of land situated on the westerly side of Auburn Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at a nail set at the northeasterly corner of the premises in the westerly sideline of Auburn Street at land now or formerly of Spinelli Co., Inc.; thence

S 10° 00' 00" E by the westerly sideline of Auburn Street a distance of sixty and thirteen hundredths feet (60.13') to a point in the westerly sideline of Auburn Street; thence

S 10° 29' 00" E by the westerly sideline of Auburn Street a distance of one hundred thirty-nine and eighty-seven hundredths feet (139.87') to a pipe at land now or formerly of John F. LeFevre; thence

S 80° 00' 00" W by land now or formerly of John F. LeFevre a distance of one hundred ten and no hundredths (110.00") to a point at land now or formerly of Charles T. Riddle; thence

S 61° 30' 45" W by land now or formerly of Charles T. Riddle a distance of thirty-one and fifty-four hundredths feet (31.54') to a pipe at land now or formerly of Spinelli Co., Inc.; thence

N 10° 20' 45" W by land now or formerly of Spinelli Co., Inc. a distance of two hundred ten and no

hundredths feet (210.00') to a nail at land now or formerly of Spinelli Co., Inc., thence

N 80° 00' 00" E by land now or formerly of Spinelli Co., Inc., a distance of one hundred forty and no hundredths feet (140.00') to the point of beginning.

This conveyance is made expressly subject to all conditions, restrictions, easements, covenants and exceptions as set forth on Deed to Adam Mitchell from Alliance Energy LLC dated March 9, 2017 and recorded in the Cumberland County Registry of Deeds in Book 33873, Page 153.

DLN 1001940049599

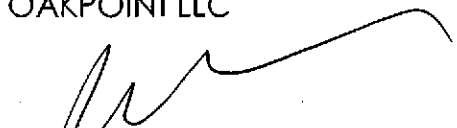
WARRANTY DEED
Maine Statutory Short Form

KNOW ALL PERSONS BY THESE PRESENTS, That **OAKPOINT LLC**, a Maine Limited Liability Company located in Brunswick, County of Cumberland and State of Maine, for consideration paid, grants to **MSP PROPERTIES 94 AUBURN LLC**, a Maine Limited Liability Company with a mailing address of 7 Heather Lane, Falmouth, ME 04105 with **WARRANTY COVENANTS**, the real property situated in Portland, County of Cumberland and State of Maine more particularly described in Exhibit A attached hereto and incorporated herein by reference.

IN WITNESS WHEREOF, **OAKPOINT LLC** has caused this instrument to be executed by B. Catherine Carton, its sole member thereunto duly authorized, this 1 day of February, 2019


Witness only R.E. Daulton

OAKPOINT LLC


By: B. Catherine Carton
Its: Sole Member

State of Maine
County of Cumberland

February 1, 2019

Personally appeared before me the above named B. Catherine Carton, sole member of OAKPOINT LLC, and acknowledged the foregoing instrument to be her free act and deed in her said capacity and the free act and deed of said OAKPOINT LLC.



Notary Public Maine Atty at LawPrint Name: Nicholas R. Loucks

My Commission Expires: _____

Exhibit A

A certain lot or parcel of land, with the buildings thereon, situated on the westerly side of Auburn Street, near Allen's Corner in the City of Portland, County of Cumberland and State of Maine, and being Lots No. 24 and 25 on Plan of land marked "Highland Park", recorded in the Cumberland County Registry of Deeds in Plan Book 8, Page 139, each of said Lots having Fifty (50) feet on said Auburn Street and extending back from said street line One Hundred Ten (110) feet as shown on plan, to which plan reference is hereby made.

Also a certain lot or parcel of land, with the buildings thereon, situated on the westerly side of Auburn Street, near Allen's Corner, in the City of Portland, County of Cumberland and State of Maine, and being lot numbered 26 on a Plan of Land marked "Highland Park" recorded in the Cumberland County Registry of Deeds in Plan Book 8, Page 139, said lot being Fifty (50) feet in width on said Auburn Street and extending back from said Street line of said Auburn Street One Hundred Ten (110) feet, holding said width of Fifty (50) feet.

Also, a certain lot or parcel of land with the buildings thereon, situated westerly of but not adjacent to Auburn Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at the southwesterly corner of Lot 24 as shown on said Plan of Highland Park, recorded in the Cumberland County Registry of Deeds in Plan Book 8, Page 139; thence westerly by the westerly extension of the southerly side line of said Lot 24 thirty (30) feet to a point; thence southerly on a course parallel with the westerly or rear lot lines of Lots 23, 22, 21 and 20 as shown on said Plan, and maintain a uniform distance of Thirty (30) feet westerly therefrom, a distance of Two Hundred Ten (210) feet, more or less, to land now or formerly of Clarence S. Cressey, et al.; thence southwesterly by said Cressey land One Hundred Six (106) feet, more or less, to the southeasterly corner of Lot 5 as shown on said Plan; thence northwesterly by the easterly boundary lines of Lots 5, 6, 7, 8, 9, 10 & 11 as shown on said Plan Three Hundred (300) feet, more or less, to the southwesterly corner of Lot 37 on said Plan; thence northeasterly by Lots 37, 38, 39, 40 and 41 Two Hundred Thirty-One (231) feet, more or less, to the westerly sideline of Lot 26 as shown on said Plan; thence southerly by Lots 26, 25, and 24 a distance of One Hundred Twenty-four (124) feet, more or less, to the point of beginning.

To the extent that same is applicable, this conveyance is subject to the restrictions, consideration and limitations provided in a deed by C. Rollin Nelson, et al, to G. Walther Passmore dated March 23, 1932, recorded in the Cumberland County Registry of Deeds in Book 1393, Page 334 and the exception from this conveyance of any property excluded from the conveyance in a deed by Canteen Co., to Jacob A. Webb and Veronica A. Webb date October 28, 1970, recorded in Book 3148, Page 377 [sic]. This conveyance is also subject to the restriction set forth in the deed from C. Rollin Nelson, et al., to Earl E. Shapland, dated August 8, 1921 and recorded in Cumberland County Registry of Deeds in Book 1085, Page 97.

Together with all of Grantor's right, title and interest in and to a certain Easement and Indenture dated September 29, 1972, between Jacob H. Webb and Veronica A. Webb and Kernco, Inc., which is recorded in Cumberland County Registry of Deeds in Book 3312, Page 16.

Meaning and intending to convey and hereby conveying the same premises as set forth in deed from 94 Auburn LLC to Oakpoint, LLC dated September 29, 2008 and recorded in the Cumberland County Registry of Deeds in Book 26367, Page 319.



CITY OF PORTLAND
Permitting and Inspections Department

CERTIFICATE OF VARIANCE APPROVAL

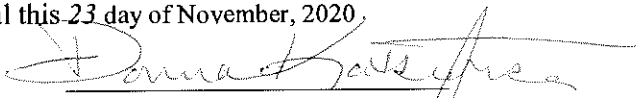
I, Donna Katsiaficas, the duly appointed Chair of the Board of Appeals for the City of Portland, Cumberland County and State of Maine, hereby certify that on the 19th day of November, 2020, the following variance was granted pursuant to the provisions of 30-A M.R.S.A. Section 4353(5) and the City of Portland's Code of Ordinances.

1. **Current Property Owner: Adam Mitchell**
2. **Property: 84 Auburn Street, Portland, ME** **CBL: 375 A026**
Cumberland County Registry of Deeds, Book: 33873 Page: 153
Last recorded deed in chain of Title: 3/10/2017.

Variance and Conditions of Variance:

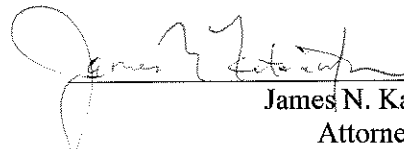
To grant relief from section 14-162(a)(2)(e) of the Land Use Zoning Ordinance to eliminate the prohibition on drive through sales for retail establishments.

IN WITNESS WHEREOF, I have hereto set my hand and seal this 23 day of November, 2020.


Donna Katsiaficas,
Chair of City of Portland Zoning Board

STATE OF MAINE
Cumberland, ss.

Then personally appeared the above-named and acknowledged the above certificate to be her free act and deed in her capacity as Chair of the Portland Board of Appeals, with her signature witnessed on 11/23/2020.


James N. Katsiaficas
Attorney at Law
Bar#3029

PURSUANT TO 30-A M.R.S.A. SECTION 4353(5), THIS CERTIFICATE MUST BE RECORDED BY THE PROPERTY OWNER IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS WITHIN 90 DAYS FROM FINAL WRITTEN APPROVAL FOR THE VARIANCE TO BE VALID. FURTHERMORE, THIS VARIANCE IS SUBJECT TO THE LIMITATIONS SET FORTH IN SECTION 14-474 OF THE CITY OF PORTLAND'S CODE OF ORDINANCES.



CITY OF PORTLAND
Permitting and Inspections Department



ZONING ANALYSIS Relevant Zone(s) B1

All Projects:

	Required	Proposed
Lot Size	10,000 SF	28,279.71 SF
Area Per Dwelling Unit	1,000 SF	28,279.71 SF
Minimum Street Frontage	20'	200'
Front Yard Minimum	NONE	0'
Front Yard Maximum	10'	23.09'*
Rear Yard	10'	43.15'
Yard Right	5'	125.93'
Yard Left	5'	39.48'
Side Street Setback	NONE	114.95'
Step Back	15'	NONE
Maximum Lot Coverage	N/A	N/A
Minimum Lot Coverage	N/A	N/A
Maximum Height	35'	<35'
Open Space	NONE	21.59%
Maximum Impervious Area	90%	78.41%
Pavement Setback	NONE	N/A
Floor Area Ratio	2,000 SF	2,250SF
Off Street Parking Spaces	NONE	14
Loading Bays	N/A	NONE
Other 1		
Other 2		
Other 3		

*Average Street Wall setback from adjacent properties

Planned Residential Unit Developments (PRUD) Requirements

	Required	Proposed
Minimum Lot Size		
Minimum Lot Area per Dwelling		
Maximum # Units per Building		
Maximum Building Length		
Maximum Accessory Building Length		
Minimum Setbacks		
Minimum Building Separation		
Minimum Open Space		

Affordable Housing Density Bonuses (if applicable)

	Bonus Increase or Decrease	Maximum Allowable With Bonus	Proposed
Density			
Height			
Setback Reduction			
Recreation Space			
Maximum Accessory Building Length			
Minimum Setbacks			
Minimum Building Separation			
Minimum Open Space			
Explanatory Text 1 (optional):			
Explanatory Text 2 (optional):			
Explanatory Text 3 (optional):			

Site Plan Standards Assessment

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use. Specifically, Article 14 Section 6 Site Plan Review Standards.

OVERVIEW

The proposed project has been designed to conform to City standards where possible as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

- a. A Traffic Movement Permit will be obtained as part of the project. This permit will address the impact on surrounding street systems. Please refer to Section S for a copy of the application.

2. Access and Circulation:

a. Site Access and Circulation:

This project conforms with the design standards of Section 14.6.1.B as demonstrated in the following narrative:

- (i) All site access and internal circulation will be designed in accordance with the standards set forth in Section 1 of the Technical Manual.
- (ii) A crosswalk will connect the Auburn Street sidewalk to the proposed internal sidewalk along the building, giving pedestrian foot access to the proposed building. The interior sidewalk also gives access to the parcel to the rear of the proposed project.
- (iii) The main entrance is directly adjacent to the parking area. The drive-through lane is separated from the parking lot to avoid conflicts with moving traffic.
- (iv) The drive-through is a total of 270' in length which provides adequate length to stack at least 15 cars in that lane. A bypass lane will be provided alongside the drive through lane. The drive through lane is separate from the customer parking area to avoid conflicts.

b. Loading and Servicing:

- (i) Access and adequate turning/backing space for delivery and service is provided through the development in the outer drive through bypass lane.



c. Curb and Sidewalks:

- (i) The project proposes to consolidate the two existing curb cuts into one proposed curb cut as requested by DPW. The proposed curb cut is 40' wide; a waiver is being sought to increase the 24' maximum specified in Chapter 1 of the Portland Technical Manual. Sidewalks will be constructed along the majority of the project frontage in accordance with the street design standards of the Technical Manual.
- (ii) Any disturbance of the existing sidewalk to accommodate the site will be rebuilt in conformance with Chapter 25 of the City's Code of Ordinances and the applicable design standards in the City's Technical Manual.
- (iii) Not applicable.
- (iv) Not applicable.

3. Public Transit Access:

- a. The project consists of less than 20,000 square feet of gross floor area, therefore no public transit plan will be provided. There are existing METRO bus stop locations adjacent to the project, including a stop in front of 110 Auburn Street on the project side of the road, and across Auburn Street opposite 64 Auburn Street / in front of Shaw's grocery store.
- b. Not applicable.
- c. Not applicable.

4. Parking:

- a. Vehicular parking:
 - (i) Off street parking will be provided as required per Section 19 Off-Street Parking & Loading, Table 19-A. 1 space/ dwelling unit. A total of 17 spaces will be provided 1 of which are ADA compliant.
 - (ii) A parking study is not required.
 - (iii) The project is proposing a waiver to the requirement of a parking study to exceed the 94 Auburn Street parking requirements by over 10%. See attached to this application parking demand memo and waiver requests.
 - (iv) Parking spaces will be of typical parking stall dimensions: 9' wide and 18' deep.



- b. Bicycle parking
 - (i) The proposed retail development will provide secure bicycle parking near the entrance of the building. Please refer to the Site Plan for locations.
 - c. Snow Storage:
 - (i) A snow storage area will be provided at the eastern and southern edges of the parcel, as shown on the Site Plan.
 - (ii) Snow storage shall not be located where it interferes with pedestrian walkways or stormwater management systems.
 - d. Electric Vehicle (EV) charging
 - (i) Three (3) dual sided electric vehicle charging stations (total 6 spaces) will be provided on the site, and remaining spaces will be served by sufficient conduit, wiring, and electrical service to allow for future installation, per the Technical Manual.
5. Transportation Demand Management (TDM):
- a. A Transportation Demand Management plan is not required for this project.
 - b. Not applicable.

(b) Environmental Quality Standards

- 1. Preservation of Significant Natural Features:
 - a. There are no significant natural features on site.
 - b. Not applicable.
 - c. Not applicable.
- 2. Landscaping Preservation:
 - a. Existing vegetation and trees will be preserved to the maximum extent practicable.
 - b. Existing vegetation and trees will be preserved to the maximum extent practicable.
 - c. Not applicable – the project is only subject to a front setback which has no existing trees 10 inches or greater DBH.



- d. Where adequate space is available, replacement trees shall be planted as substitution for trees removed in accordance with table 14-D of Portland's land use code. See Sheet C-10, Site Plan, for a planting schedule. The client shall be willing to contribute to the City of Portland Tree Fund for an amount proportionate to the cost of trees removed and not replaced.
 - e. The client shall be willing to contribute to the City of Portland Tree Fund for an amount proportionate to the cost of trees removed and not replaced.
3. Site landscaping and buffers.
- a. Landscaping
 - (i) Plantings will be incorporated into landscaped areas were available to meet the requirement of six plantings per 30 linear feet of all frontages. Please refer to the attached site plan for the plant schedule.
 - b. Buffers
 - (i) The on-site dumpster will be located to the back of the parking lot and will be enclosed to obscure the view.
 - (ii) Not applicable.
 - (iii) Not applicable
 - c. Parking and vehicle display lot landscaping.
 - (i) At least two trees (or one tree and three shrubs) per five parking spaces will be planted where adequate space is available.
 - (ii) Not applicable.
 - (iii) The client shall be willing to contribute to the City of Portland Tree Fund for an amount proportionate to the cost of required parking lot trees.
 - d. Street trees
 - (i) Street trees of a species identified on the City of Portland Recommended Tree List will be provided at a spacing of 30 to 45 feet apart on center in the City right of way along the street frontage.
 - (ii) Not applicable.
4. Water Quality, Stormwater Management and Erosion Control:
- a. Stormwater
 - (i) The drainage patterns will be maintained as they currently exist. No offsite stormwater drains are located on site in the existing conditions.



- (ii) Any stormwater that flows onto adjacent lots will not exceed the pre-development flows.
- (iii) The runoff from the site into the public way will not increase from the pre-development condition.
- b. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including standards of MEDEP Chapter 500. Please refer to the Stormwater Management Report for this information.
- c. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The project will be serviced by a public wastewater system.

(c) Public Infrastructure and Community Safety Standards

1. Consistency with City Master Plans:
 - a. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure.
 - b. Not applicable.
2. Public Safety and Fire Prevention:
 - a. Public Safety Design
 - (i) The proposed site has long viewing aisles and minimal spaces obscured from view, which provides natural surveillance of the public spaces.
 - (ii) No access control is proposed at this time.
 - (iii) This area will promote natural surveillance to the furthest extent practicable for a public-facing business.
 - b. Emergency Access
 - (i) The proposed site design allows for adequate emergency vehicle access to the site. Emergency vehicles will be able to access the site from Auburn Street & circumnavigate the site via the drive-through lane and the parking area.
3. Public Utilities:
 - a. Ability to Serve letters have been sent to the respective companies. Responses are forthcoming and will be provided upon receipt.
 - b. The electrical service connection shall be underground via a riser pole on pole #8 on Auburn Street.



- c. The sewer and stormwater infrastructure will comply with Chapter 2 of the Technical Manual, Sanitary Sewer and Storm Drain Design Standards.
- d. The project will be served by connection to the public sewer system within Auburn Street.
- e. Spaces allocated for solid waste storage can be seen on the Site Plan. The solid waste containers will be fully enclosed and screened from the public view.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:
 - a. The bulk, location, and height of the building will not have an impact on ventilation to abutting structures or changes to the existing wind climate that would result in unsafe wind conditions.
 - b. The bulk, location and height of the proposed building will not have a substantial diminution in the value or utility of neighboring structures.
 - c. HVAC mechanisms shall direct exhaust away from public spaces.
2. Shadows:
 - a. Not applicable.
3. Snow and Ice Loading:
 - a. The building addition will not cause significant snow and/or ice to fall on any adjacent properties or public ways.
4. View Corridors:
 - a. Not applicable.
5. Historic Resources:
 - a. The development is not located in any historic or historic landscape districts.
 - b. The development is not located near any historic landmarks or buildings.
 - c. There are no known archaeological resources on the site.
6. Exterior Lighting:
 - a. Site Lighting.



- (i) Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual. See Lighting section of this application for additional information.
 - (ii) Any lighting that may adversely impact the abutting residential properties will feature house-side shielding.
 - b. Architectural and Specialty Lighting.
 - (i) No architectural or specialty lighting is proposed.
 - (ii) No up-lighting is proposed.
 - c. Street Lighting.
 - (i) No new street lights are proposed as part of the project.
7. Noise and Vibration:
- a. The HVAC system will meet the applicable state and federal emissions requirements and will also be screened and directed away from abutters.
8. Signage and Wayfinding:
- a. Signage
 - (i) Signage will not conceal any architectural features from view.
 - (ii) Signage will be designed and sized to fit the scale and proportions of the building and features where they are affixed.
 - (iii) Freestanding signs will not adversely affect visibility at intersections or access drives. The proposed monument of pylon signage will be located about 75 feet south of the proposed access drive. Drive through menu screens & signs will be located along the drive through lane, away from the proposed parking and access drive.
 - (iv) Sign lighting will be downwardly directed, internally-illuminated, and/or shielded to avoid glare and light spillover towards the sky.
 - (v) No signs will be affixed to rooftop mechanicals, mechanical penthouses or other rooftop appurtenances unless those appurtenances have been screened and integrated into the architecture of the development.
 - b. Wayfinding
 - (i) Wayfinding signage will be provided to separate drive-through and parking traffic. All street and wayfinding signage shall meet the requirements of the



Manual on Uniform Traffic Devices (MUTCD) and Chapter 25 of the City Code.

9. Design Standards:

- a. The project has been designed to meet the standards set forth in the B-1 zone. Please refer to the Site Plan for more information on the Space & Bulk Standards.



Summary of Written Easements

Existing

There are two easements as identified by the Surveyor:

- 15' reciprocal easement for ingress & egress 3312/16. Located on the north side of lot 26.

Proposed

A parking easement is proposed from 84 Auburn for parking of 13 parking spaces along the shared access drive to benefit 94 Auburn Street.



Waivers

See the attached waiver table for the waiver requests.



Standard to be Waived: Cite Ordinance or Technical Manual Standard	Cite Standard Language: Cite specific language of applicable Ordinance or Technical Manual Standard	Waiver Being Sought: Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20' feet.	Justification for Waiver: Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Portland Technical Manual Chapter 1 Section 1.5.1.C	100 feet driveway spacing along arterial and collector streets with posted speeds of 35 mph or less	Waiver is being sought to have driveway spacing < 100 feet	Two curb cuts exist on site, modification proposed per direction from City DPW on driveway curb cuts into/out of site. See C-10 for specific dimensional information.
Portland Land Use Code, Chapter 14, Section 14.6.2, B.3.	All development subject to zoning setbacks shall preserve a minimum of 30% of existing trees 10 inches DBH or greater within the required setback area unless trees are non-native invasive species, or deemed as unsalvageable.	Waiver is being sought to forego preservation of existing trees in order to provide proposed site layout and replacement trees.	Existing trees 10 inches DBH or greater within the setbacks fall within the proposed drive aisle for the drive through, which is essential to the function of the site & use. Replacement landscaping is specified on plans.

Financial Capacity

A letter from the Applicant's bank confirming financial capacity is attached to this section.





City of Portland

Planning Department

389 Congress St., 4th floor

Portland, ME 04101

Re: 84 Auburn LLC - Proposed development at 84 Auburn St., Portland

To Whom it May Concern;

84 Auburn LLC and principal Mike Pride have an established relationship with this bank. We have reviewed plans and discussed the project with Mr. Pride. They are considered financial capable of completing the proposed project referenced above.

Sincerely

A handwritten signature in black ink, appearing to read 'A Cannan', is written over a light blue horizontal line.

Aaron Cannan

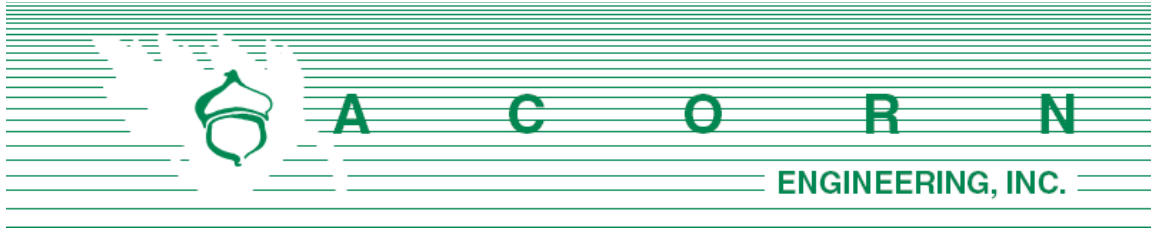
Sr. Vice President

Technical Capability

Acorn Engineering specializes in providing urban redevelopment, civil/site design, environmental services, municipal consulting, and construction administration. Together, Acorn Engineering, Inc. has successfully designed and permitted more than 20 medium to large residential, mixed use, and commercial projects in Portland during the past 7 years, including: 200 Federal St, Munjoy Heights, East Bayside Lofts, The Hiawatha, and 70 Anderson, and the Mercy Hospital Redevelopment.

Ryan Senatore Architecture has designed several important multifamily residential projects in Southern and Central Maine, including the nine-story, 139-unit, concrete and steel framed high-rise apartment building known as the Hiawatha (for Redfern Properties). RSA's residential clients include private developers as well as public housing authorities, and completed projects include both new construction and adaptive reuse of existing historic structures.

Mike Pride has a degree in Marine Engineering and retired as a Chief Engineer from the Merchant Marines in 2016. He's also an experienced commercial real estate investor, property manager and developer dating back to 1996. He currently owns and operates several commercial properties throughout Greater Portland and in 2021 designed and developed Pride Storage Solutions, an 82,000 ft² state of the art self-storage facility in the Innovation District at The Downs in Scarborough. He's currently working on a 31,000 ft² self-storage development in Gray, Maine.



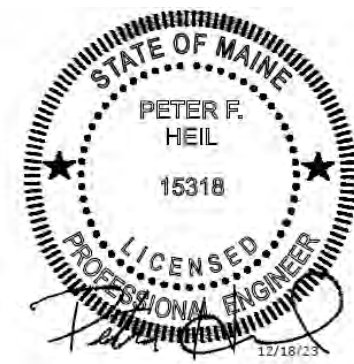
STORMWATER MANAGEMENT REPORT

Prepared For:

**84 Auburn, LLC
7 Heather Lane
Falmouth, Maine 04105**

Prepared By:

**Acorn Engineering, Inc.
P.O. Box 3372
Portland, Maine 04104**



**January 2023
Revised December 2023**

INTRODUCTION

Acorn Engineering, Inc. has been retained by 84 Auburn, LLC to provide civil engineering services for the proposed project located at 84 Auburn Street, Portland, ME. The site is currently comprised of mostly gravel that is being utilized as a parking lot. The project proposes to build a single story building to be utilized as a national coffee franchise with associated drive through, patio space, and parking. The project will also include site improvements to the abutting property located at 94 Auburn Street, including improvements to the shared drive and a sidewalk adjacent to the existing building.

A stormwater analysis has been prepared to demonstrate that the project will meet the following requirements of the City of Portland (the City):

- City of Portland Land Use Ordinance Chapter 14 Section 14.6.2.D. Required Approvals and Applicability (F) Major Site Plan Review.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.

EXISTING CONDITIONS

The proposed project site is located at 84 Auburn Street in Portland. A Boundary & Topographic Survey has been prepared by Owen Haskell, Inc. dated April 29, 2021.

The existing property is covered by approximately 43% impervious surfaces, which consists of about 6,573 sf of pavement & 5,697 sf of gravel. The site slopes gradually to the east, towards Auburn Street, at an average of 1.5%. There are two existing curb cuts on Auburn Street. The rear and perimeter of the parcel is generally lightly vegetated.

The project team is not aware of the presence of any existing significant natural features located on the site. Given the urban setting and existing impervious surfaces as well as previous development, a field inventory of significant natural features was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream.

PROPOSED DEVELOPMENT

As part of the proposed project, one building will be constructed with associated infrastructure on the lot. The building has an associated parking area, drive-through lane, and sidewalks. In addition, site improvements for the abutting property at 94 Auburn Street will be built, including a row of parking.

Utilities to serve the new development will be underground from Auburn Street. Roof & foundation drains will be routed directly to the storm drain network in Auburn Street. Stormwater will be captured on site by pervious pavers in the parking area and two FocalPoint Proprietary Stormwater BMPs with catch basin overflows.



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

BASIC STANDARDS – EROSION & SEDIMENT CONTROL

The project proposes measures to meet the basic standards requirements as outlined in Chapter 500. Please refer to Section 4: Erosion and Sedimentation Control Report.

GENERAL STANDARDS - WATER QUALITY

The development shall provide water quality treatment for no less than 50% of the redeveloped impervious area, per City of Portland Technical Manual Chapter 5 II.D. Redevelopment Projects. Water quality treatment shall be provided through the use of pervious pavers in the parking area and two focal points, which utilize “R Tanks” for water quality storage.

The stormwater treatment system is sized to meet or exceed the requirements set forth within the MDEP Volume III: BMPs Technical Design Manual. These BMPs have been shown to be very effective at removing a wide range of pollutants from stormwater runoff. See attached to this report a design letter from Ferguson Waterworks regarding the design of the focal points.

The treatment of the impervious surfaces is as follows:

Table 1 – Redeveloped Impervious Treatment Area Table			
Redeveloped Impervious Area (SF)	50% Redeveloped Impervious Area (SF) Required	Proposed Impervious Area with Treatment (SF)	Impervious Area Treated
21,237	10,619	10,878	51.2%

As shown above, the project anticipates meeting and exceeding the required treatment for redeveloped impervious area.

FLOODING STANDARDS - WATER QUANTITY

Per Section J of the Maine DEP Chapter 500 Stormwater Standards, it is required to provide an analysis to determine if there is going to be an increase in peak flows into the City's storm drain as a result of this project.

The proposed project was modeled using HydroCAD to verify that the post-development conditions do not exceed the pre-development conditions. A 24-hour SCS Type III storm distribution for the 2,10, and 25-year storm events were used. The corresponding rainfall amounts for these storms are about 3.10”, 4.60”, and 5.80” respectively.

Pre-development Calculations

The pre-development model was broken into two subcatchments:

- Subcatchment 1.1 – This tributary includes the north side of the site, which flows to the existing catch basin in Auburn Street and routed to the city storm drain system going north down Auburn Street.
- Subcatchment 2.1 – This tributary is analyzed at the gutter line of Auburn St flowing south, which ultimately also enters the city's storm drain system through a catch basin further south on Auburn Street.



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A pre-development watershed map developed for this project can be viewed in Attachment A and a copy of the HydroCAD calculations is included within Attachment C of this report.

Peak flow rates for the storm are as follows:

Table 3 – Pre-Development Peak Stormwater Flows			
Drainage Area	2 – Year Storm Event (cfs)	10 – Year Storm Event (cfs)	25 – Year Storm Event (cfs)
Total Runoff	1.4	2.3	3.0

Post-development Calculations

The post-development model was broken into two subcatchments:

- Subcatchment 1.1 – This tributary includes southeast portion of the site that flows to a catch basin in the south driveway.
- Subcatchment 1.2 – This tributary includes the southwest portions of the site that flows to Focal Point 1.
- Subcatchment 1.3 – This tributary includes the roof of the proposed building, which is routed from a roof drain to the proposed site storm drain system.
- Subcatchment 1.4 – This tributary is the middle portion of the site which surface flows to the pervious paver BMP.
- Subcatchment 1.5 – This tributary includes the norther portion of the drive-thru lane which flows to Focal Point 2.
- Subcatchment 1.6 – This tributary includes the northernmost portion of the site, which surface flows to the existing catch basin in Auburn Street.
- Subcatchment 2.1 – This tributary is analyzed at the gutter line of Auburn St flowing south, which ultimately also enters the city’s storm drain system through a catch basin furth south on Auburn Street. The tributary consists of the southernmost portion of the site.

The post-development calculations include changes to the land use, and the compensation provided by the stormwater BMP. The following table represents a comparison of pre-development and post-development condition peak runoff rates for the proposed development and tributary area.

Table 4 – Comparison of Peak Flows						
Drainage Area	2 – Year Storm Event (cfs)		10 – Year Storm Event (cfs)		25 – Year Storm Event (cfs)	
Total Runoff	Pre	Post	Pre	Post	Pre	Post
	1.4	1.4	2.3	2.2	3.0	2.9

As shown in Table 4 the net impact of the post development peak flows will remain at or below the predevelopment levels. A post-development watershed map developed for this project can be viewed in Attachment B, and a copy of the HydroCAD calculations is included within Attachment C of this report.

SOILS

Onsite soil information includes the following:



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➤ Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

Given the soils information, listed above, no onsite wastewater is proposed, deep fills/cuts the applicant does not intend to perform a more intense hydric soil boundary delineation because of the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11;12/8/20 are met.

The area within and surrounding the project includes soils types listed in the table below. The susceptibility of soils to erosion is indicated on a relative “K” scale of values over a range of 0.02 to 0.69. Higher “K” values indicate more erodible soils.

Table 5 - “K” Value		
Soils Type	Subsurface	Substratum
Deerfield loamy fine sand	.17	.17

The soil “K” values for the soils, listed above, show a low susceptibility to erosion. The site’s susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil “K” values for the soils show a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance.

PHOSPHOROUS STANDARD

As the project is not located in a watershed of a lake most-at-risk, or a proposing development of any other lake watershed, the Phosphorous Standard does not apply to this project.

URBAN IMPAIRED STREAM STANDARD

As the project is not located in an urban impaired stream watershed, the Urban Impaired Stream Standard does not apply to this project.

Conclusion

The proposed project does not anticipate creating erosion, drainage or runoff problems for the development, the City, or abutting properties. The project will meet the Stormwater Management Standards of the City of Portland for redevelopment projects.

Attachments

Attachment A: Pre Development Watershed Map
Attachment B: Post Development Watershed Map
Attachment C: HydroCAD Calculations



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Attachment A: Pre Development
Watershed Map



20 0 20 40

SCALE: 1" = 20'

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

PROJECT NAME: AUBURN
84 AUBURN & 94 AUBURN STREET REDEVELOPMENT
 84 & 94 AUBURN STREET, PORTLAND ME 04104
 CLIENT/OWNER: MSP PROPERTIES 94 AUBURN LLC, & 84 AUBURN LLC.
 7 HEATHER LANE FALMOUTH, ME 04105

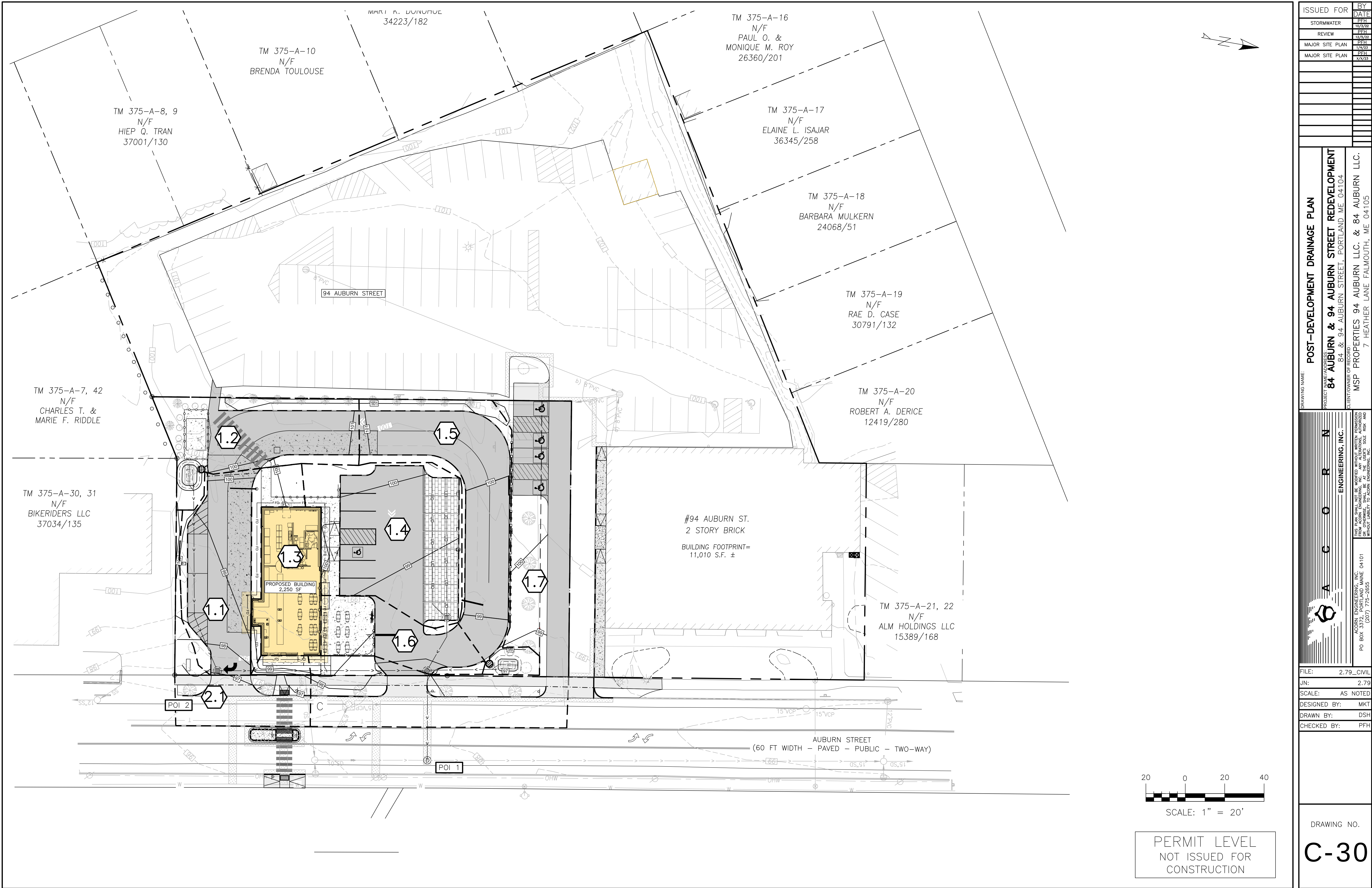

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IN:	2.79
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	DSH
CHECKED BY:	PFH

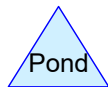
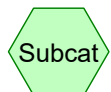
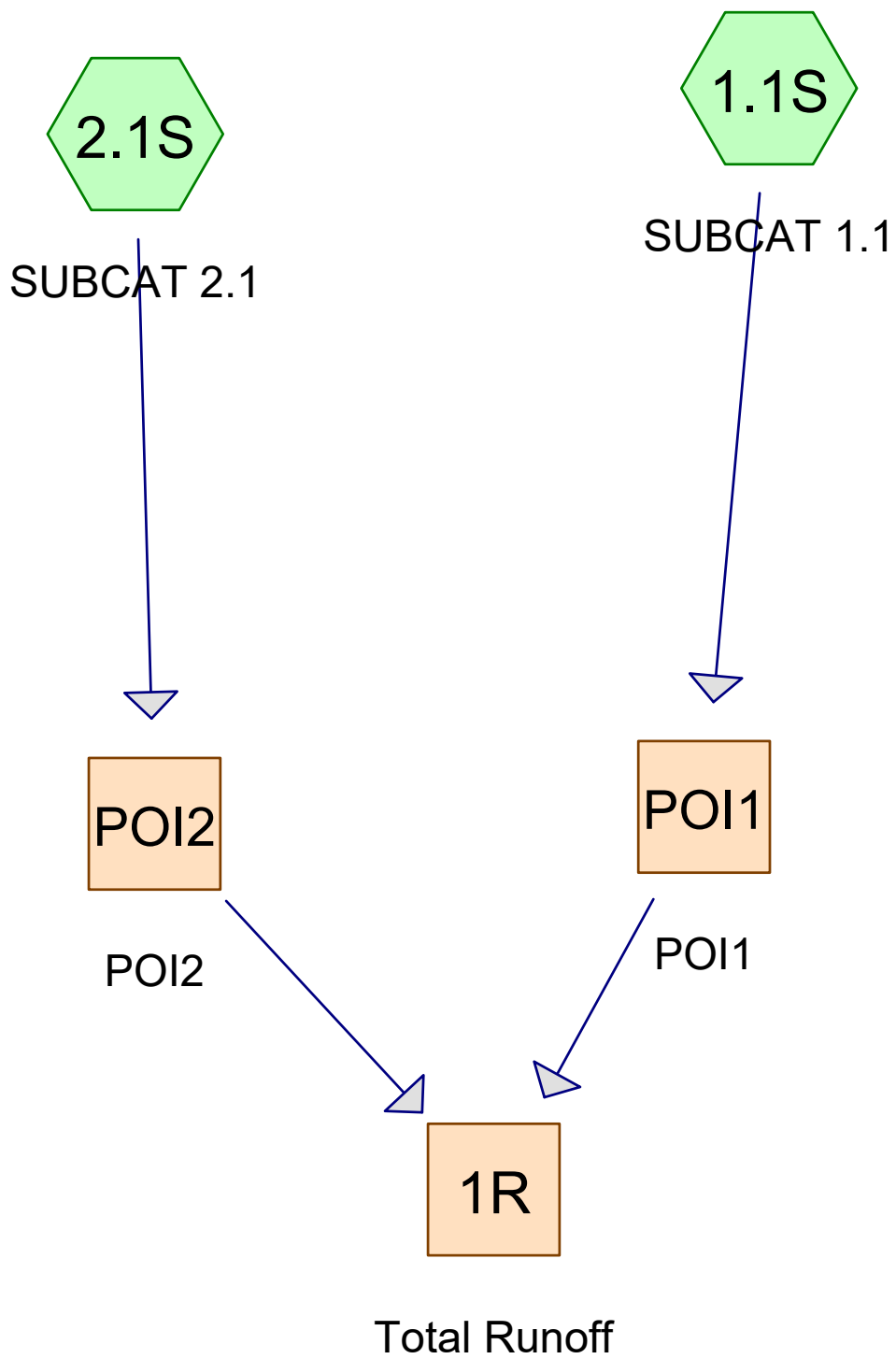
DRAWING NO.

C-03

Attachment B: Post Development
Watershed Map



Attachment C: HydroCAD Calculations



Routing Diagram for HydoCAD_PreDev - 12-7-23
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.162	84	50-75% Grass cover, Fair, HSG D (1.1S, 2.1S)
0.085	80	>75% Grass cover, Good, HSG D (1.1S)
0.131	96	Gravel surface, HSG D (1.1S, 2.1S)
0.253	98	Paved parking, HSG D (1.1S, 2.1S)
0.119	86	Woods/grass comb., Poor, HSG D (1.1S, 2.1S)
0.749	91	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.749	HSG D	1.1S, 2.1S
0.000	Other	
0.749		TOTAL AREA

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.162	0.000	0.162	50-75% Grass cover, Fair	1.1S, 2.1S
0.000	0.000	0.000	0.085	0.000	0.085	>75% Grass cover, Good	1.1S
0.000	0.000	0.000	0.131	0.000	0.131	Gravel surface	1.1S, 2.1S
0.000	0.000	0.000	0.253	0.000	0.253	Paved parking	1.1S, 2.1S
0.000	0.000	0.000	0.119	0.000	0.119	Woods/grass comb., Poor	1.1S, 2.1S
0.000	0.000	0.000	0.749	0.000	0.749	TOTAL AREA	

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1.1S: SUBCAT 1.1

Runoff Area=25,019 sf 31.59% Impervious Runoff Depth>2.03"
Flow Length=257' Tc=14.9 min CN=91 Runoff=1.09 cfs 0.097 af

Subcatchment2.1S: SUBCAT 2.1

Runoff Area=7,601 sf 41.02% Impervious Runoff Depth>2.03"
Flow Length=155' Tc=12.4 min CN=91 Runoff=0.35 cfs 0.030 af

Reach 1R: Total Runoff

Inflow=1.43 cfs 0.127 af
Outflow=1.43 cfs 0.127 af

Reach POI1: POI1

Inflow=1.09 cfs 0.097 af
Outflow=1.09 cfs 0.097 af

Reach POI2: POI2

Inflow=0.35 cfs 0.030 af
Outflow=0.35 cfs 0.030 af

Total Runoff Area = 0.749 ac Runoff Volume = 0.127 af Average Runoff Depth = 2.03"
66.21% Pervious = 0.496 ac 33.79% Impervious = 0.253 ac

Summary for Subcatchment 1.1S: SUBCAT 1.1

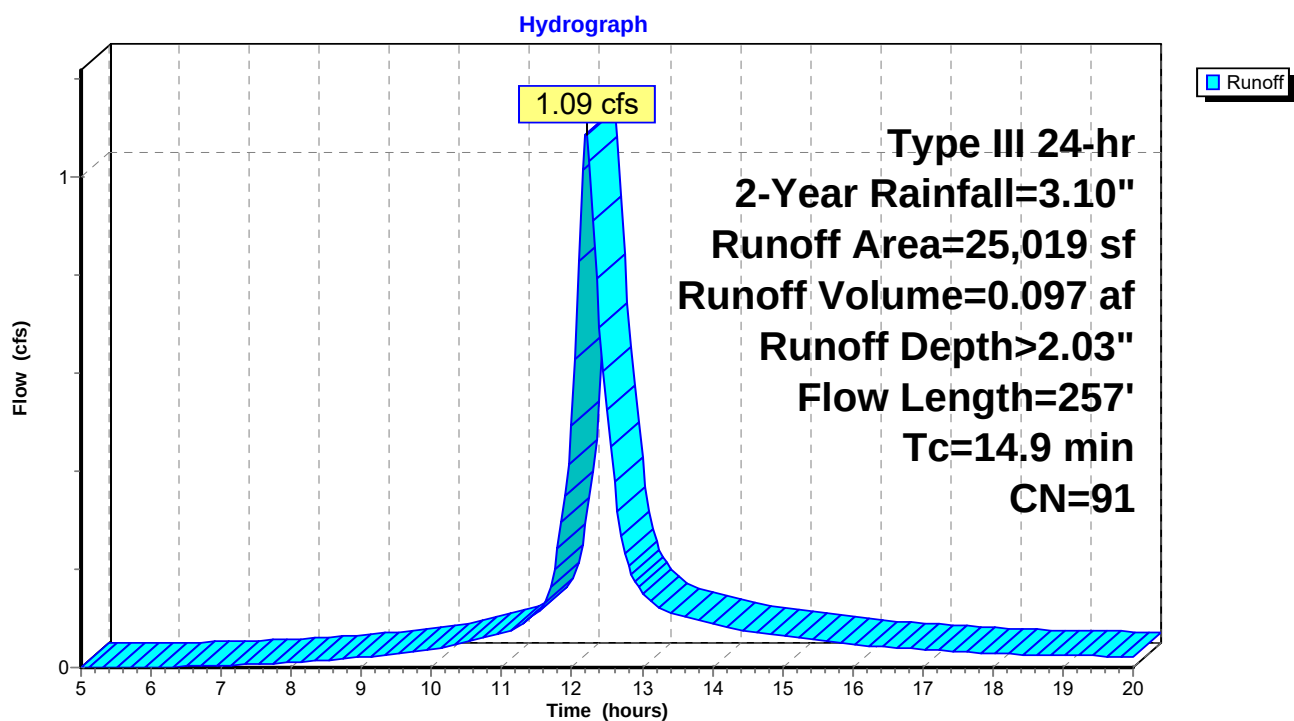
Runoff = 1.09 cfs @ 12.20 hrs, Volume= 0.097 af, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.10"

Area (sf)	CN	Description
7,787	98	Paved parking, HSG D
117	98	Paved parking, HSG D
5,126	96	Gravel surface, HSG D
1,377	80	>75% Grass cover, Good, HSG D
2,096	80	>75% Grass cover, Good, HSG D
3,218	86	Woods/grass comb., Poor, HSG D
5,088	84	50-75% Grass cover, Fair, HSG D
210	80	>75% Grass cover, Good, HSG D
25,019	91	Weighted Average
17,115		68.41% Pervious Area
7,904		31.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	150	0.0200	0.18		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.10"
1.1	107	0.0100	1.61		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
14.9	257	Total			

Subcatchment 1.1S: SUBCAT 1.1



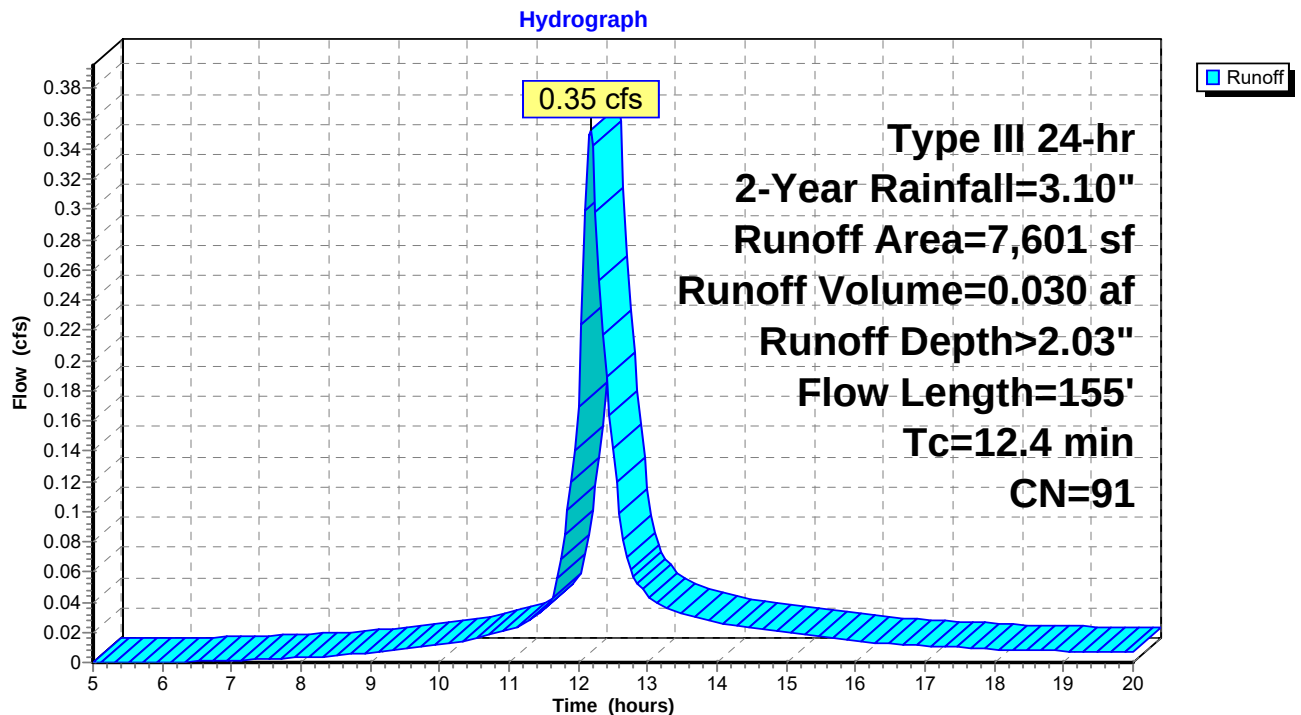
Summary for Subcatchment 2.1S: SUBCAT 2.1

Runoff = 0.35 cfs @ 12.17 hrs, Volume= 0.030 af, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.10"

Area (sf)	CN	Description
3,118	98	Paved parking, HSG D
569	96	Gravel surface, HSG D
332	84	50-75% Grass cover, Fair, HSG D
1,624	84	50-75% Grass cover, Fair, HSG D
1,958	86	Woods/grass comb., Poor, HSG D
7,601	91	Weighted Average
4,483		58.98% Pervious Area
3,118		41.02% Impervious Area

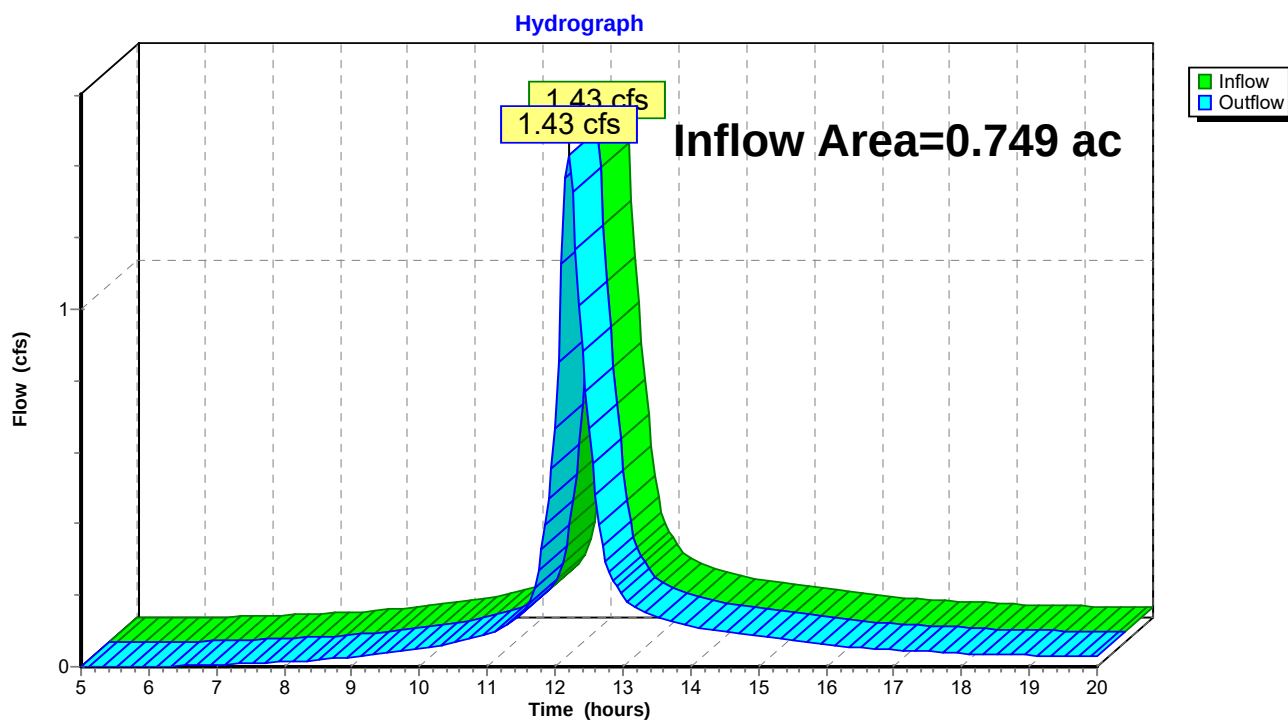
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	65	0.0380	0.09		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.10"
0.4	90	0.0280	3.40		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
12.4	155	Total			

Subcatchment 2.1S: SUBCAT 2.1

Summary for Reach 1R: Total Runoff

Inflow Area = 0.749 ac, 33.79% Impervious, Inflow Depth > 2.03" for 2-Year event
Inflow = 1.43 cfs @ 12.19 hrs, Volume= 0.127 af
Outflow = 1.43 cfs @ 12.19 hrs, Volume= 0.127 af, Atten= 0%, Lag= 0.0 min

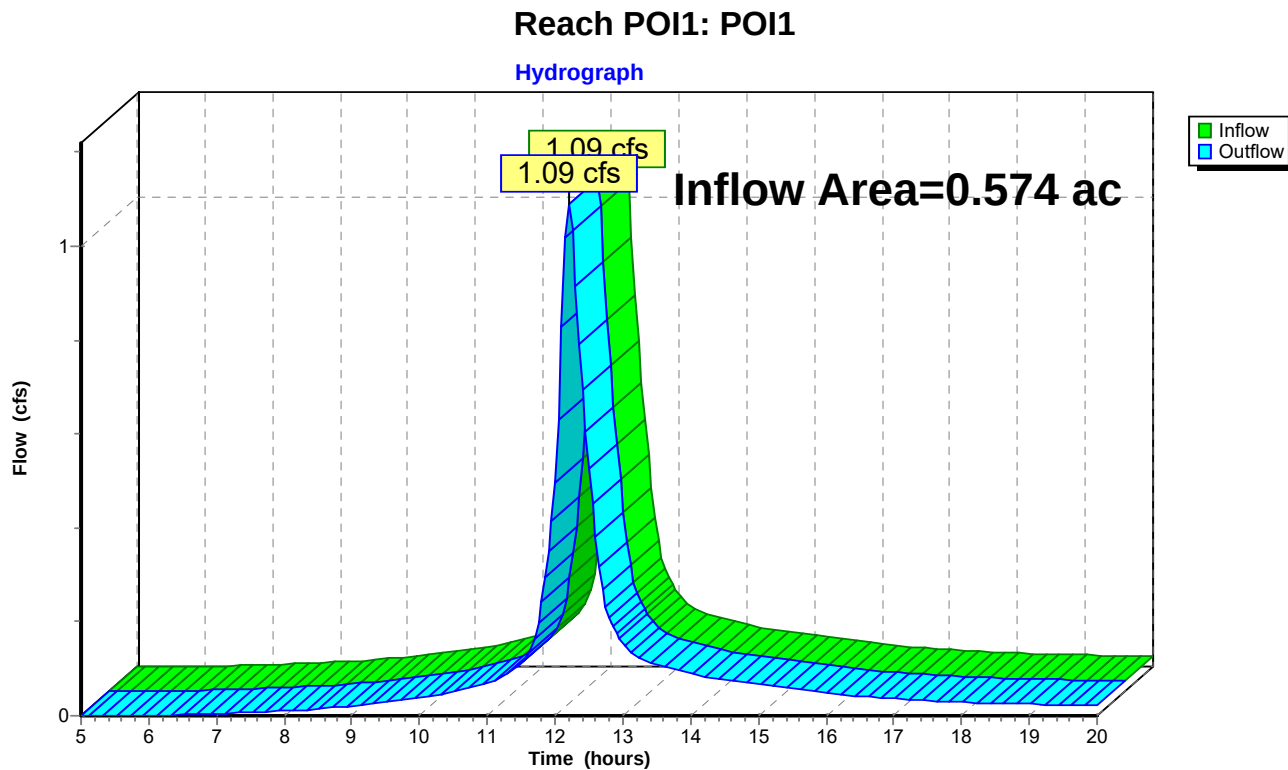
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 1R: Total Runoff

Summary for Reach POI1: POI1

Inflow Area = 0.574 ac, 31.59% Impervious, Inflow Depth > 2.03" for 2-Year event
Inflow = 1.09 cfs @ 12.20 hrs, Volume= 0.097 af
Outflow = 1.09 cfs @ 12.20 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.0 min

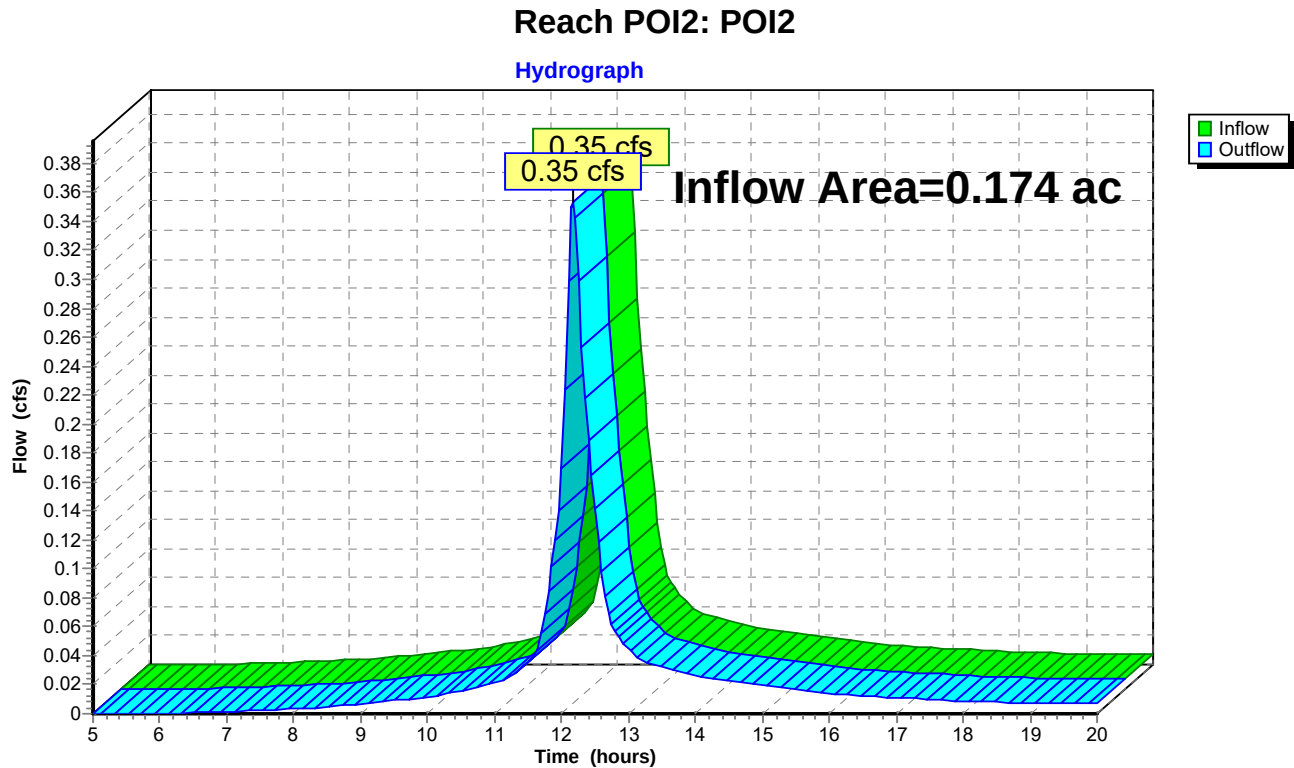
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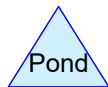
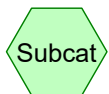
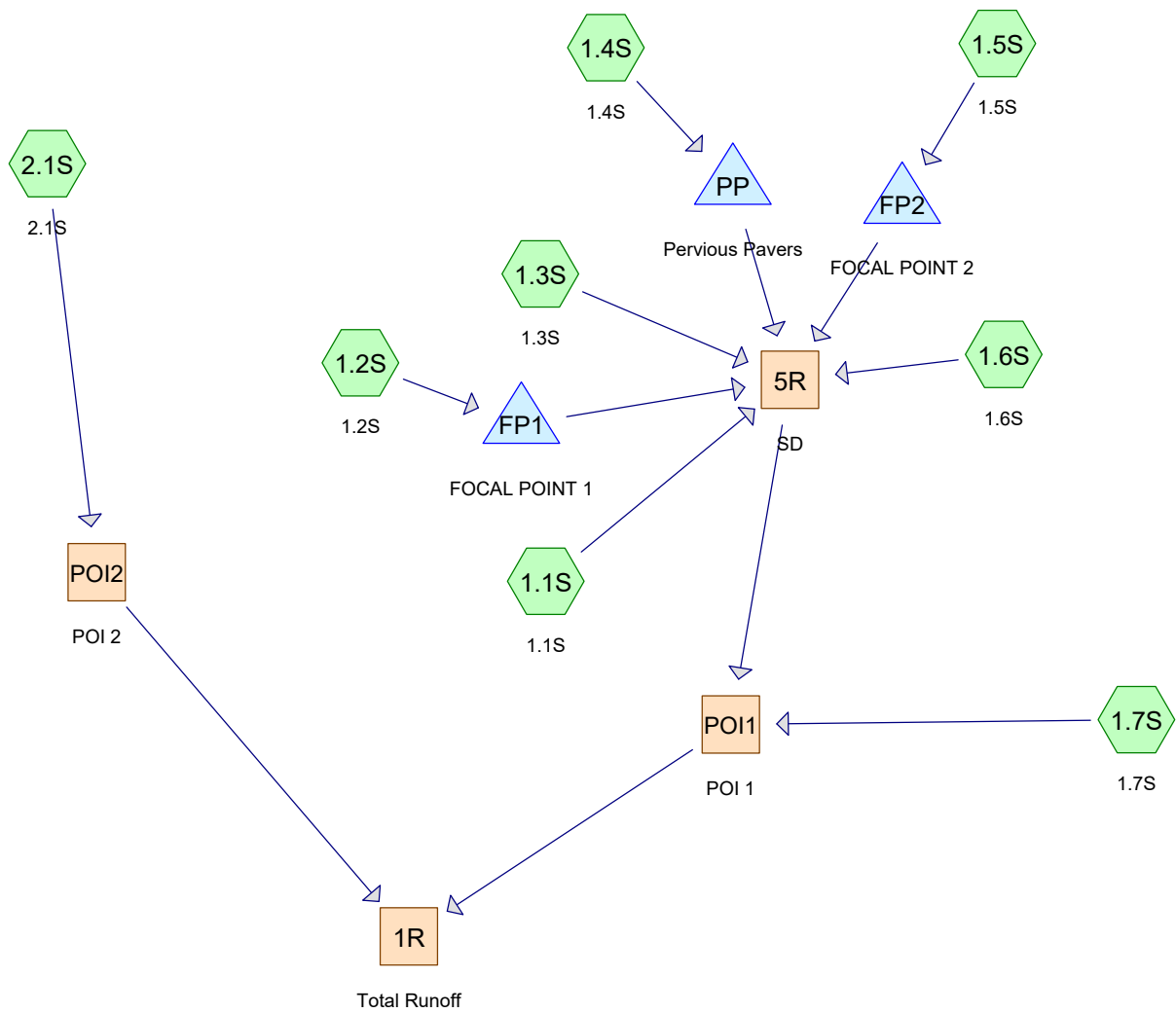


Summary for Reach POI2: POI2

Inflow Area = 0.174 ac, 41.02% Impervious, Inflow Depth > 2.03" for 2-Year event
Inflow = 0.35 cfs @ 12.17 hrs, Volume= 0.030 af
Outflow = 0.35 cfs @ 12.17 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs





Routing Diagram for HydroCAD_PostDev - 12-8-23 acorn
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.177	80	>75% Grass cover, Good, HSG D (1.1S, 1.2S, 1.4S, 1.5S, 1.6S, 1.7S, 2.1S)
0.535	98	Paved parking, HSG D (1.1S, 1.2S, 1.4S, 1.5S, 1.6S, 1.7S, 2.1S)
0.054	98	Roofs, HSG D (1.3S)
0.766	94	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.766	HSG D	1.1S, 1.2S, 1.3S, 1.4S, 1.5S, 1.6S, 1.7S, 2.1S
0.000	Other	
0.766		TOTAL AREA

HydoCAD_PostDev - 12-8-23 acorn

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Page 4

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.177	0.000	0.177	>75% Grass cover, Good	1.1S, 1.2S, 1.4S, 1.5S, 1.6S, 1.7S, 2.1S
0.000	0.000	0.000	0.535	0.000	0.535	Paved parking	1.1S, 1.2S, 1.4S, 1.5S, 1.6S, 1.7S, 2.1S
0.000	0.000	0.000	0.054	0.000	0.054	Roofs	1.3S
0.000	0.000	0.000	0.766	0.000	0.766	TOTAL AREA	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	FP1	94.06	92.08	99.0	0.0200	0.010	8.0	0.0	0.0
2	FP2	92.38	92.23	40.0	0.0037	0.010	8.0	0.0	0.0
3	PP	95.35	95.10	25.0	0.0100	0.010	12.0	0.0	0.0

Time span=1.00-24.00 hrs, dt=0.01 hrs, 2301 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1.1S: 1.1S	Runoff Area=4,090 sf 77.46% Impervious Runoff Depth>5.09" Tc=6.0 min CN=94 Runoff=0.52 cfs 0.040 af
Subcatchment1.2S: 1.2S	Runoff Area=3,738 sf 62.81% Impervious Runoff Depth>4.76" Tc=6.0 min CN=91 Runoff=0.45 cfs 0.034 af
Subcatchment1.3S: 1.3S	Runoff Area=2,363 sf 100.00% Impervious Runoff Depth>5.56" Tc=6.0 min CN=98 Runoff=0.31 cfs 0.025 af
Subcatchment1.4S: 1.4S	Runoff Area=5,405 sf 85.00% Impervious Runoff Depth>5.21" Flow Length=105' Slope=0.0200 '/' Tc=4.1 min CN=95 Runoff=0.74 cfs 0.054 af
Subcatchment1.5S: 1.5S	Runoff Area=5,148 sf 76.46% Impervious Runoff Depth>5.09" Tc=6.0 min CN=94 Runoff=0.65 cfs 0.050 af
Subcatchment1.6S: 1.6S	Runoff Area=2,158 sf 91.47% Impervious Runoff Depth>5.32" Tc=6.0 min CN=96 Runoff=0.28 cfs 0.022 af
Subcatchment1.7S: 1.7S	Runoff Area=8,011 sf 69.32% Impervious Runoff Depth>4.87" Tc=6.0 min CN=92 Runoff=0.99 cfs 0.075 af
Subcatchment2.1S: 2.1S	Runoff Area=2,446 sf 70.56% Impervious Runoff Depth>4.98" Tc=6.0 min CN=93 Runoff=0.31 cfs 0.023 af
Reach 1R: Total Runoff	Inflow=2.86 cfs 0.302 af Outflow=2.86 cfs 0.302 af
Reach 5R: SD	Inflow=1.65 cfs 0.204 af Outflow=1.65 cfs 0.204 af
Reach POI1: POI 1	Inflow=2.56 cfs 0.279 af Outflow=2.56 cfs 0.279 af
Reach POI2: POI 2	Inflow=0.31 cfs 0.023 af Outflow=0.31 cfs 0.023 af
Pond FP1: FOCAL POINT 1	Peak Elev=98.82' Storage=227 cf Inflow=0.45 cfs 0.034 af Outflow=0.33 cfs 0.034 af
Pond FP2: FOCAL POINT 2	Peak Elev=97.66' Storage=308 cf Inflow=0.65 cfs 0.050 af Outflow=0.48 cfs 0.050 af
Pond PP: Pervious Pavers	Peak Elev=96.57' Storage=1,384 cf Inflow=0.74 cfs 0.054 af Outflow=0.03 cfs 0.033 af

Total Runoff Area = 0.766 ac Runoff Volume = 0.323 af Average Runoff Depth = 5.06"
23.07% Pervious = 0.177 ac 76.93% Impervious = 0.589 ac

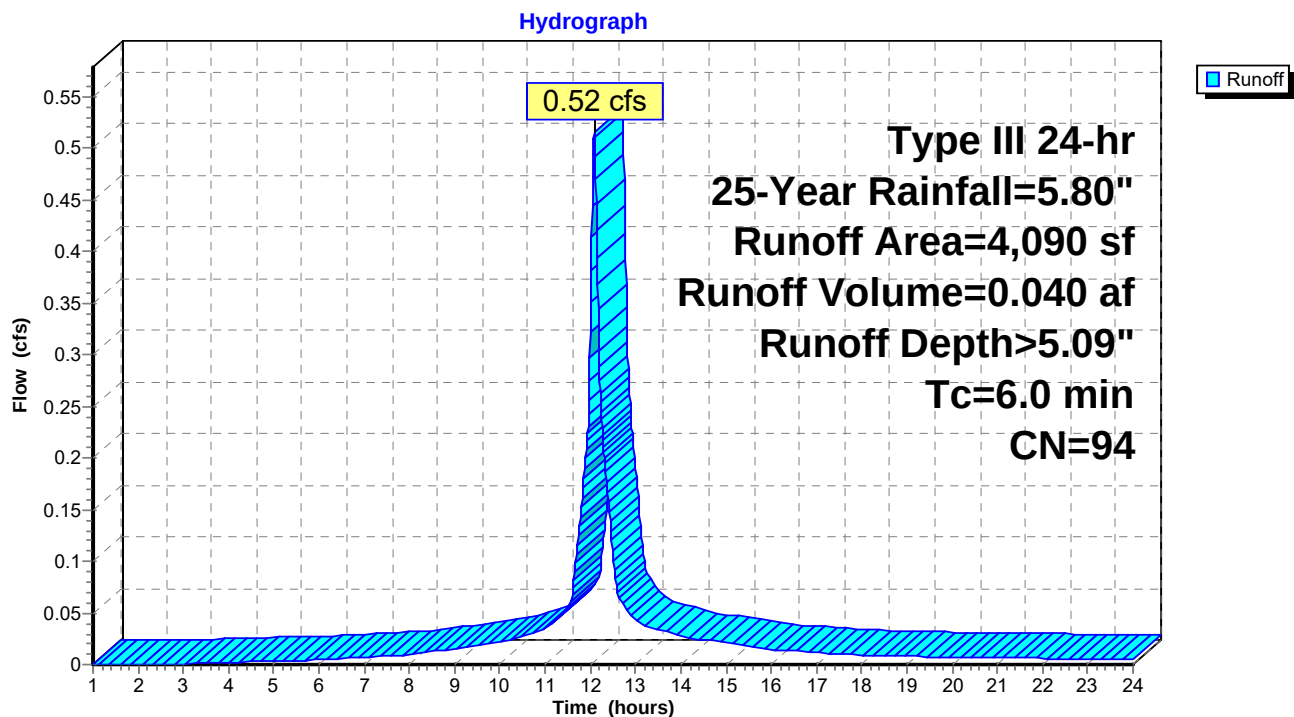
Summary for Subcatchment 1.1S: 1.1S

Runoff = 0.52 cfs @ 12.08 hrs, Volume= 0.040 af, Depth> 5.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
3,168	98	Paved parking, HSG D
922	80	>75% Grass cover, Good, HSG D
4,090	94	Weighted Average
922		22.54% Pervious Area
3,168		77.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Direct

Subcatchment 1.1S: 1.1S

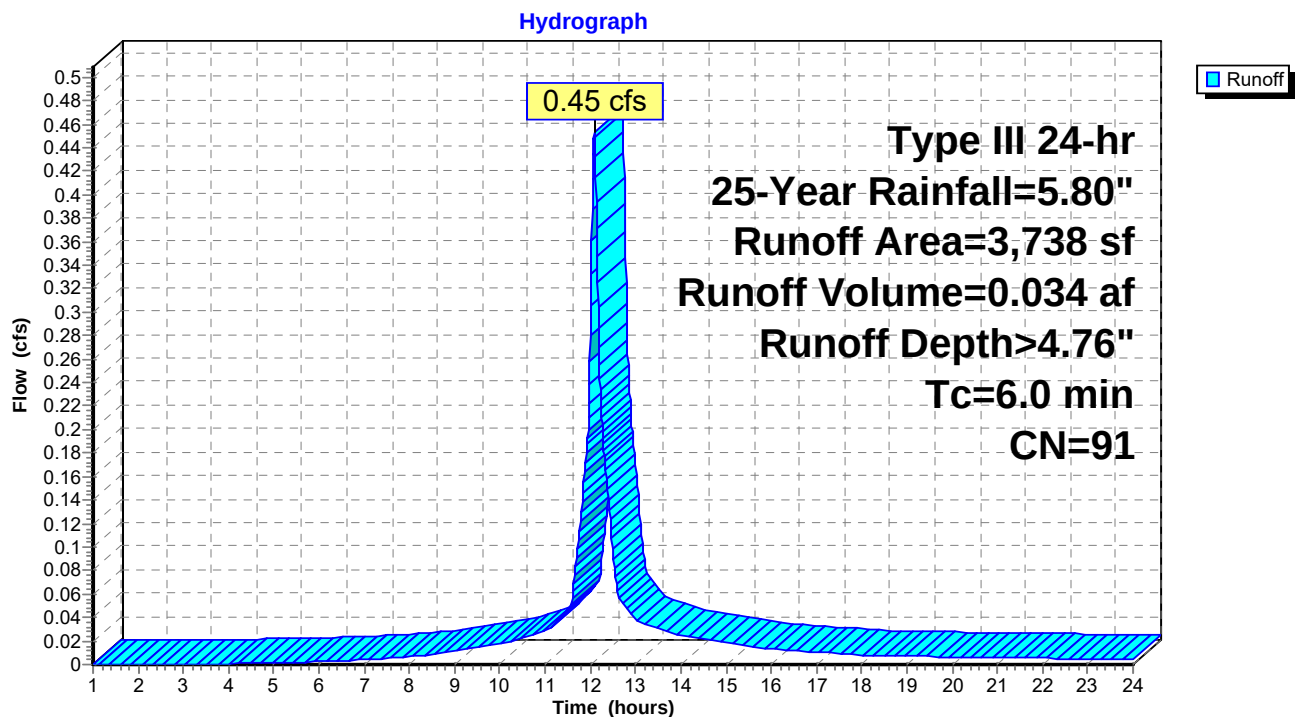
Summary for Subcatchment 1.2S: 1.2S

Runoff = 0.45 cfs @ 12.08 hrs, Volume= 0.034 af, Depth> 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
2,348	98	Paved parking, HSG D
1,390	80	>75% Grass cover, Good, HSG D
3,738	91	Weighted Average
1,390		37.19% Pervious Area
2,348		62.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, First

Subcatchment 1.2S: 1.2S

Summary for Subcatchment 1.3S: 1.3S

Runoff = 0.31 cfs @ 12.08 hrs, Volume= 0.025 af, Depth> 5.56"

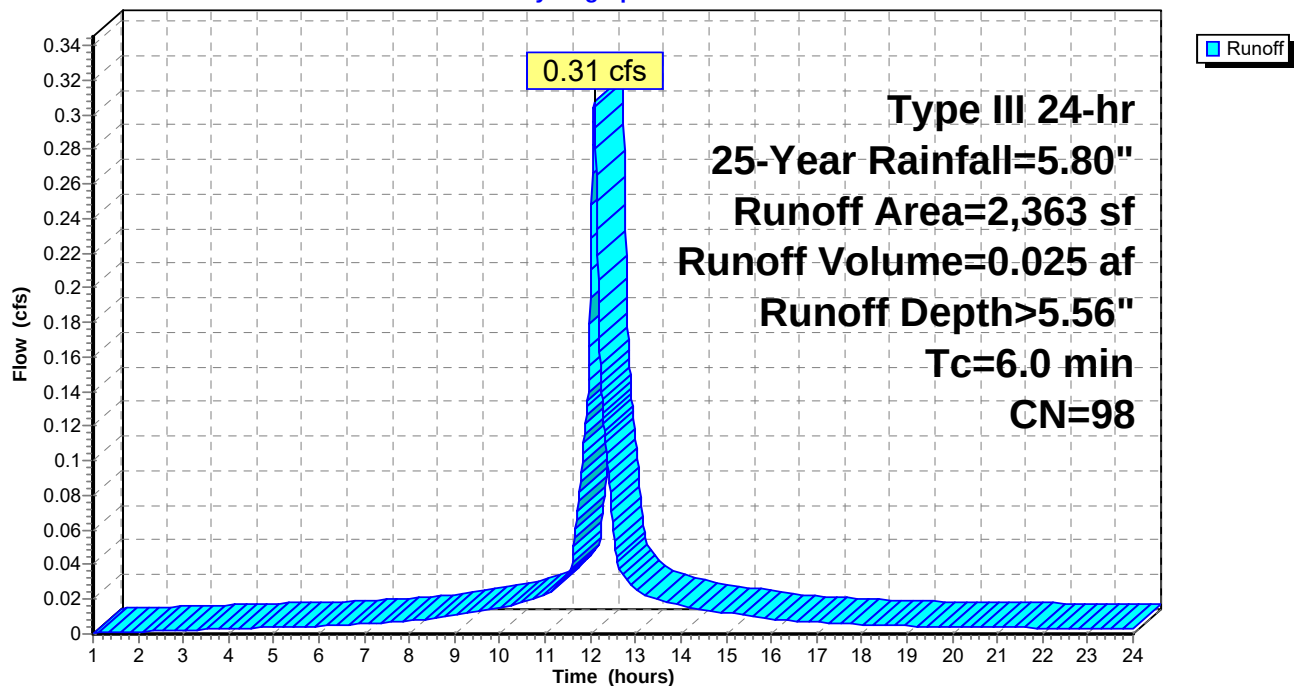
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
2,363	98	Roofs, HSG D
2,363		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, First

Subcatchment 1.3S: 1.3S

Hydrograph



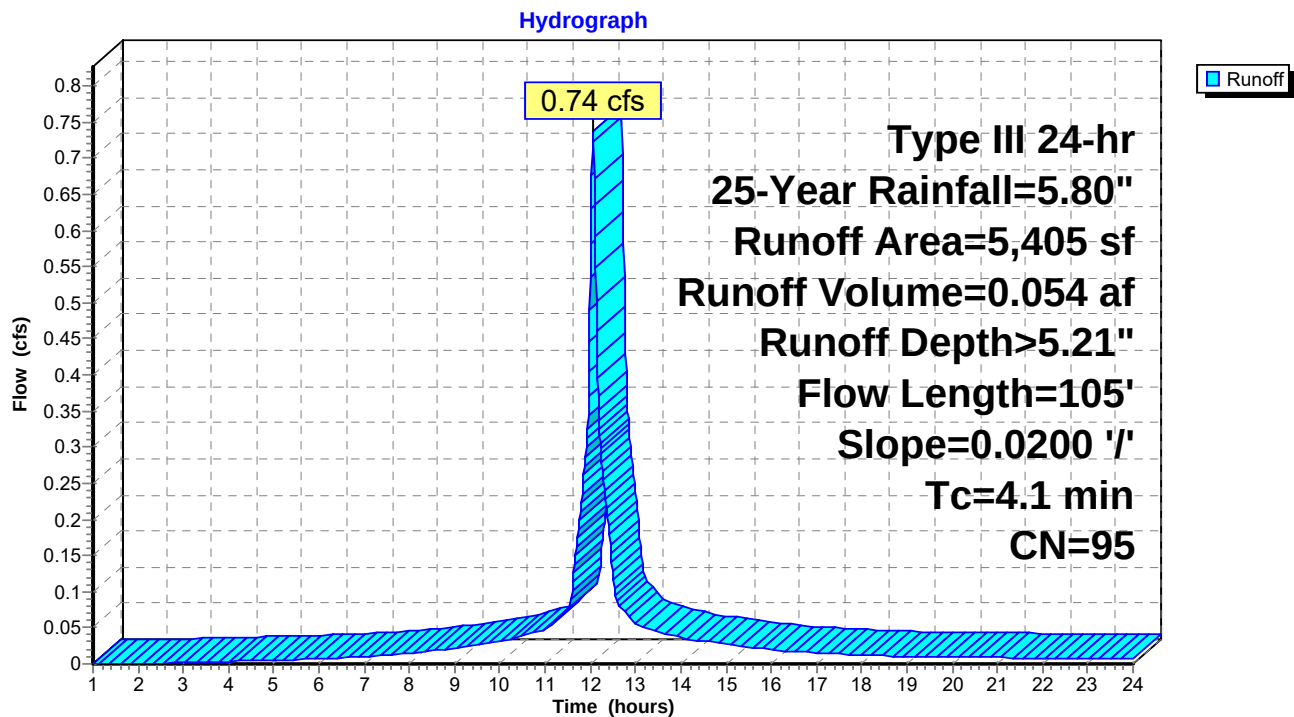
Summary for Subcatchment 1.4S: 1.4S

Runoff = 0.74 cfs @ 12.06 hrs, Volume= 0.054 af, Depth> 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
4,594	98	Paved parking, HSG D
811	80	>75% Grass cover, Good, HSG D
5,405	95	Weighted Average
811		15.00% Pervious Area
4,594		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	22	0.0200	0.12		Sheet Flow, Sheet Flow
					Grass: Short n= 0.150 P2= 3.10"
1.1	83	0.0200	1.30		Sheet Flow, Sheet Flow B-C
					Smooth surfaces n= 0.011 P2= 3.10"
4.1	105	Total			

Subcatchment 1.4S: 1.4S

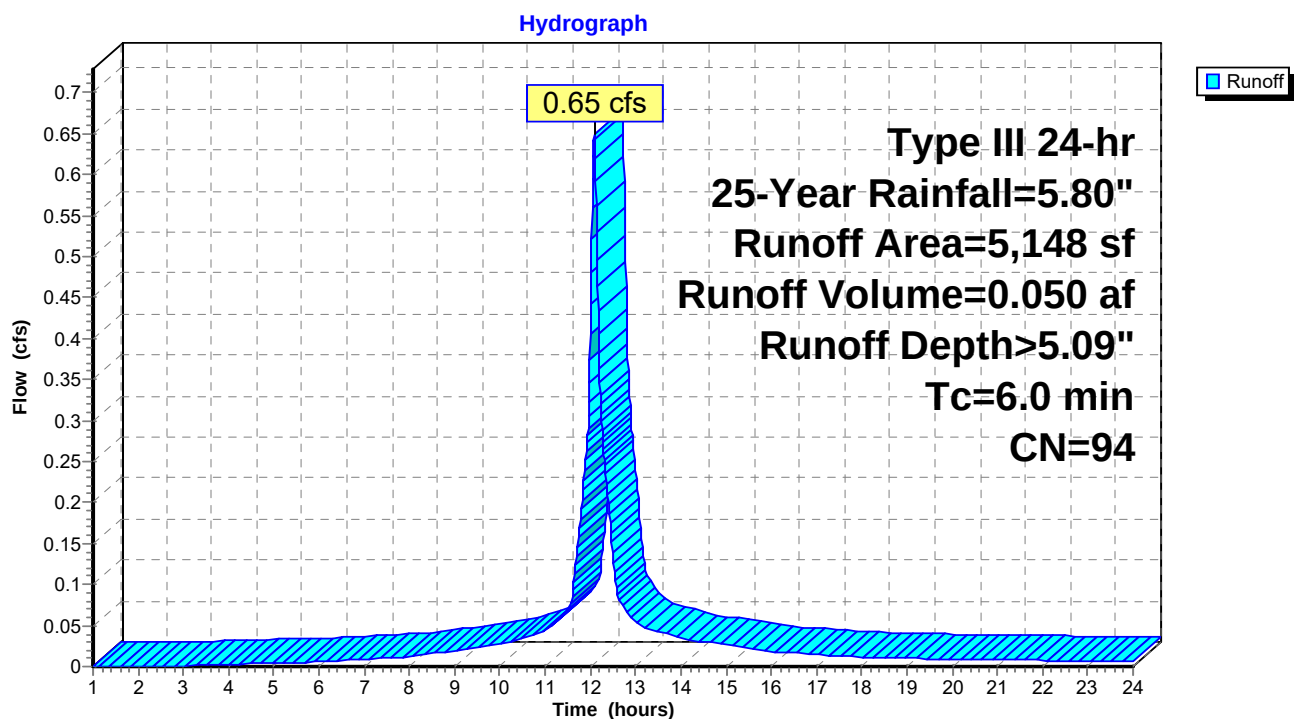
Summary for Subcatchment 1.5S: 1.5S

Runoff = 0.65 cfs @ 12.08 hrs, Volume= 0.050 af, Depth> 5.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
3,936	98	Paved parking, HSG D
1,212	80	>75% Grass cover, Good, HSG D
5,148	94	Weighted Average
1,212		23.54% Pervious Area
3,936		76.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, First

Subcatchment 1.5S: 1.5S

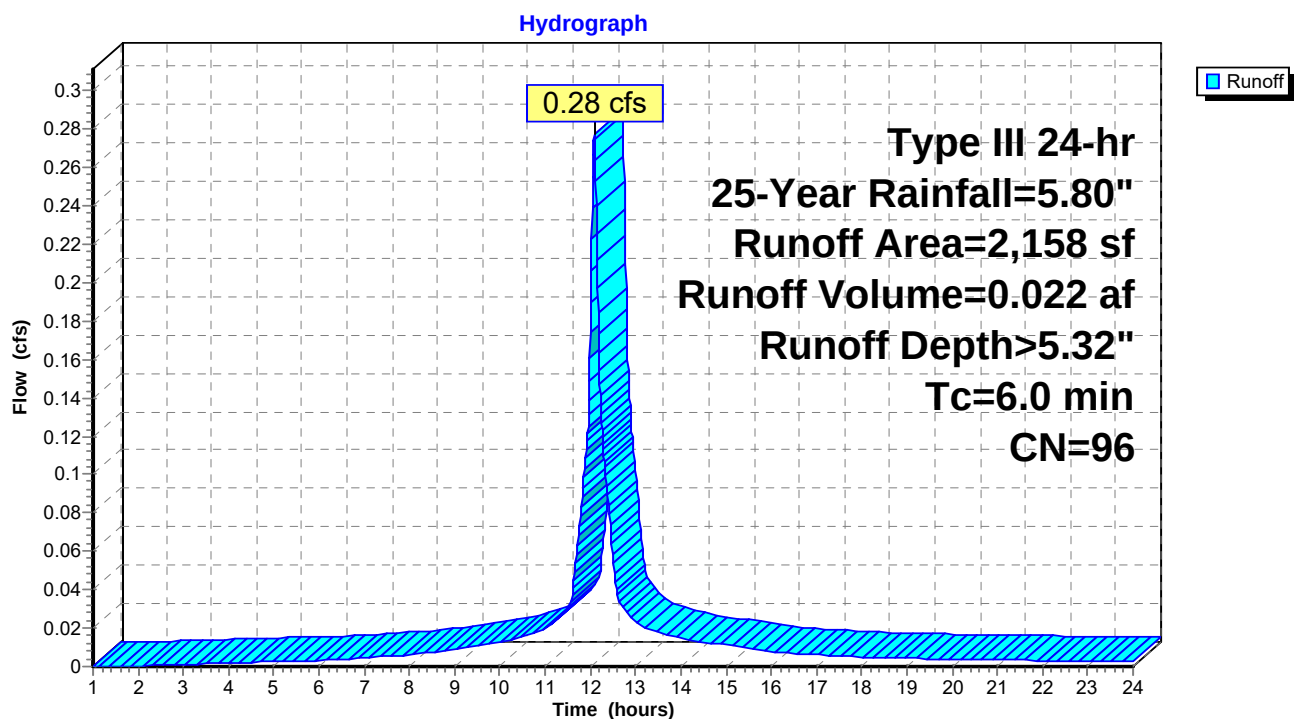
Summary for Subcatchment 1.6S: 1.6S

Runoff = 0.28 cfs @ 12.08 hrs, Volume= 0.022 af, Depth> 5.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
1,974	98	Paved parking, HSG D
184	80	>75% Grass cover, Good, HSG D
2,158	96	Weighted Average
184		8.53% Pervious Area
1,974		91.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 1.6S: 1.6S

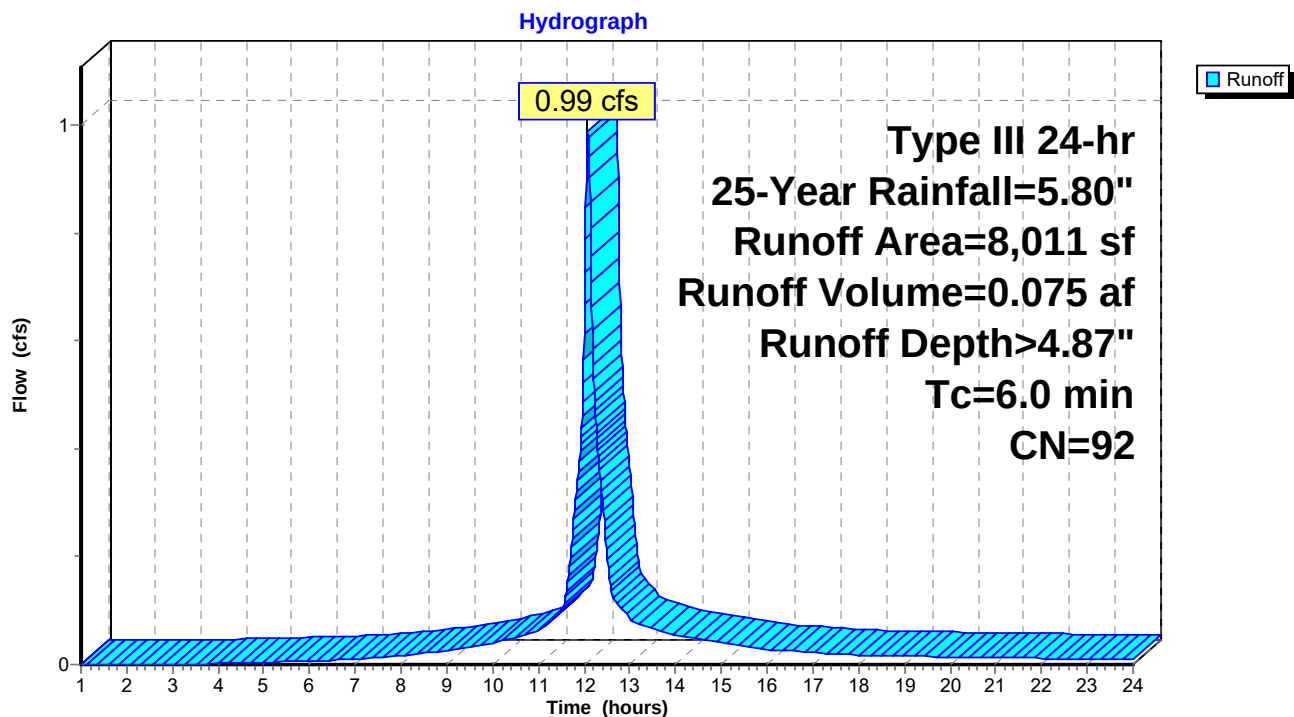
Summary for Subcatchment 1.7S: 1.7S

Runoff = 0.99 cfs @ 12.08 hrs, Volume= 0.075 af, Depth> 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
5,553	98	Paved parking, HSG D
2,458	80	>75% Grass cover, Good, HSG D
8,011	92	Weighted Average
2,458		30.68% Pervious Area
5,553		69.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Direct Entry

Subcatchment 1.7S: 1.7S

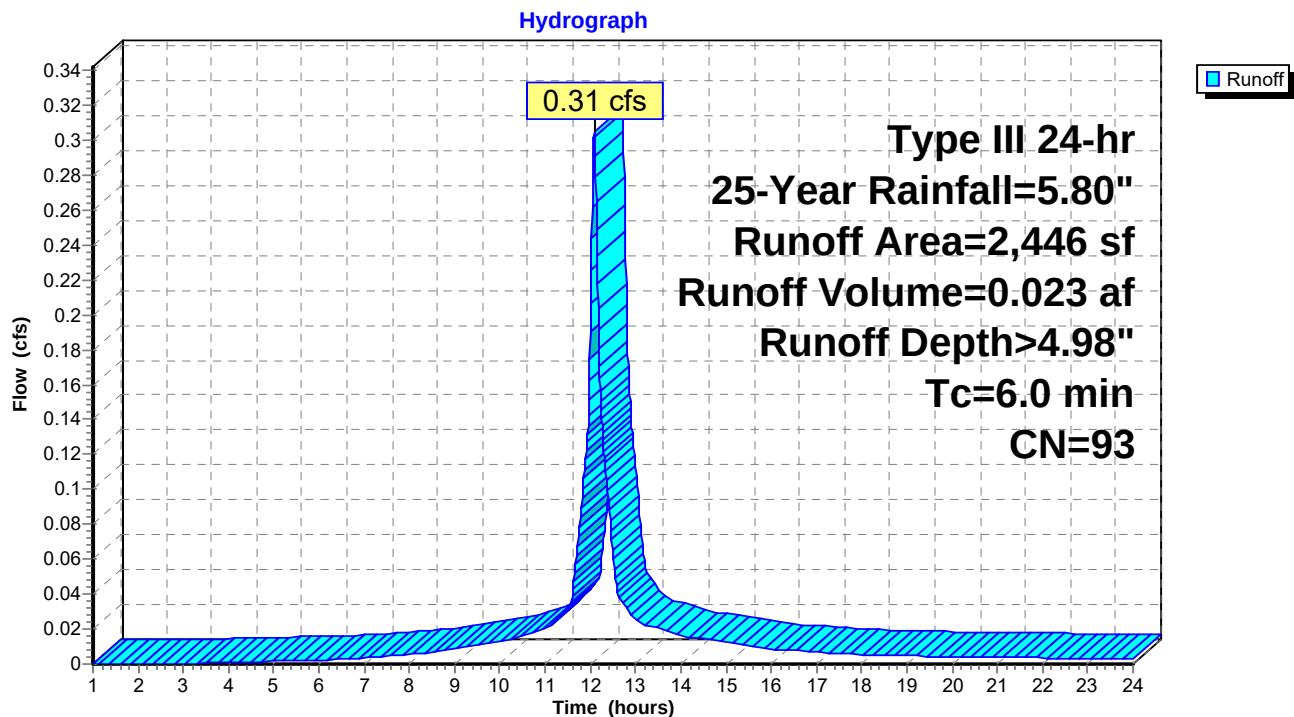
Summary for Subcatchment 2.1S: 2.1S

Runoff = 0.31 cfs @ 12.08 hrs, Volume= 0.023 af, Depth> 4.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
1,610	98	Paved parking, HSG D
720	80	>75% Grass cover, Good, HSG D
116	98	Paved parking, HSG D
2,446	93	Weighted Average
720		29.44% Pervious Area
1,726		70.56% Impervious Area

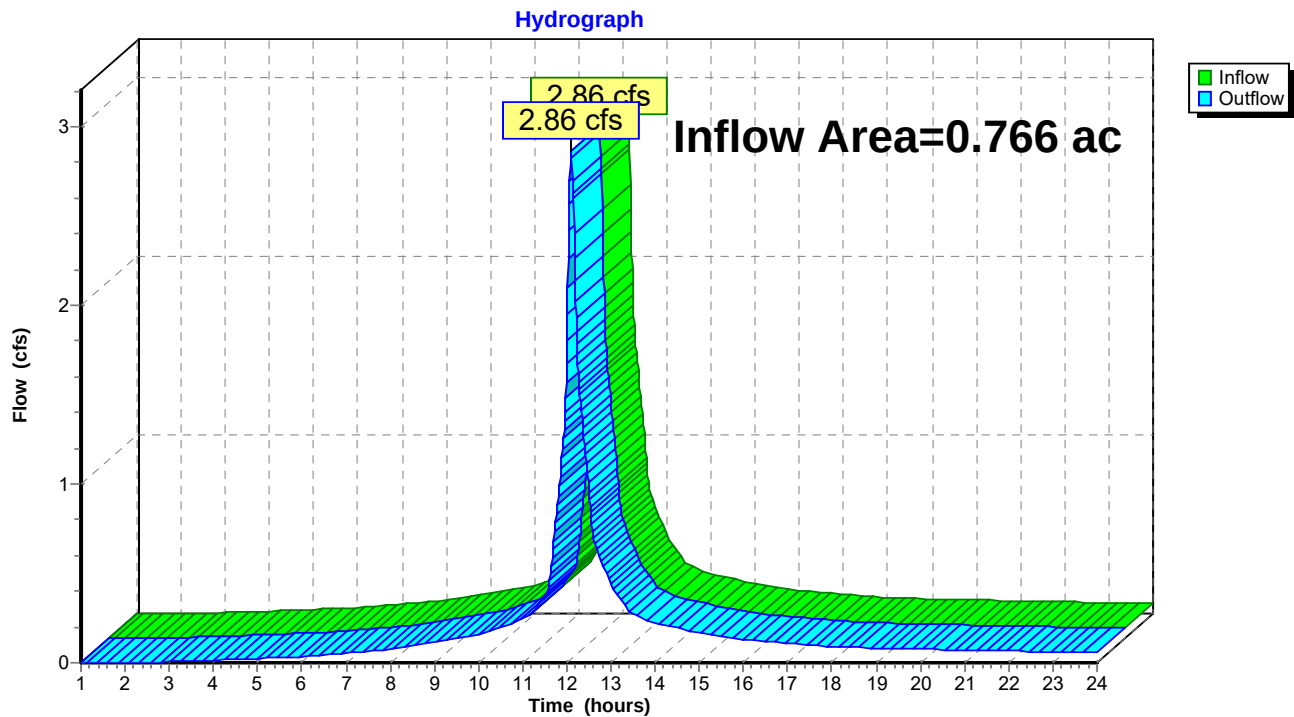
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, First

Subcatchment 2.1S: 2.1S

Summary for Reach 1R: Total Runoff

Inflow Area = 0.766 ac, 76.93% Impervious, Inflow Depth > 4.74" for 25-Year event
Inflow = 2.86 cfs @ 12.09 hrs, Volume= 0.302 af
Outflow = 2.86 cfs @ 12.09 hrs, Volume= 0.302 af, Atten= 0%, Lag= 0.0 min

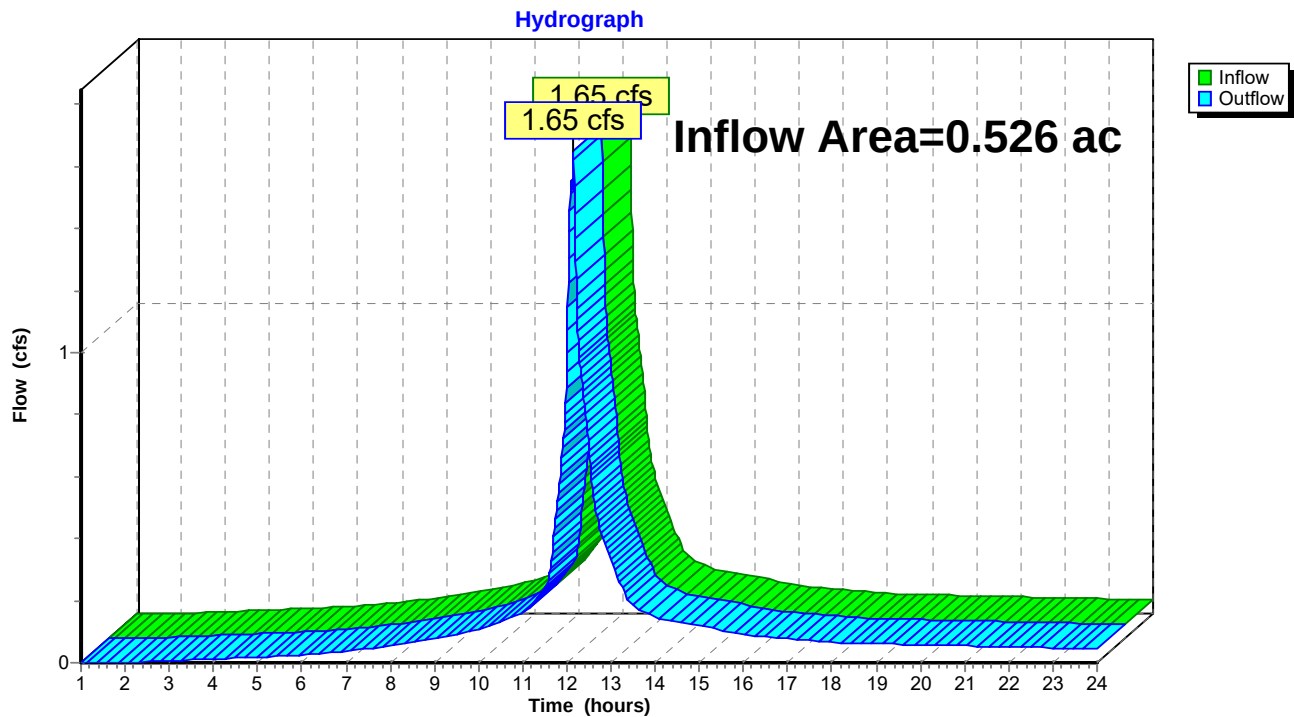
Routing by Stor-Ind+Trans method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Reach 1R: Total Runoff

Summary for Reach 5R: SD

Inflow Area = 0.526 ac, 80.27% Impervious, Inflow Depth > 4.67" for 25-Year event
Inflow = 1.65 cfs @ 12.15 hrs, Volume= 0.204 af
Outflow = 1.65 cfs @ 12.15 hrs, Volume= 0.204 af, Atten= 0%, Lag= 0.0 min

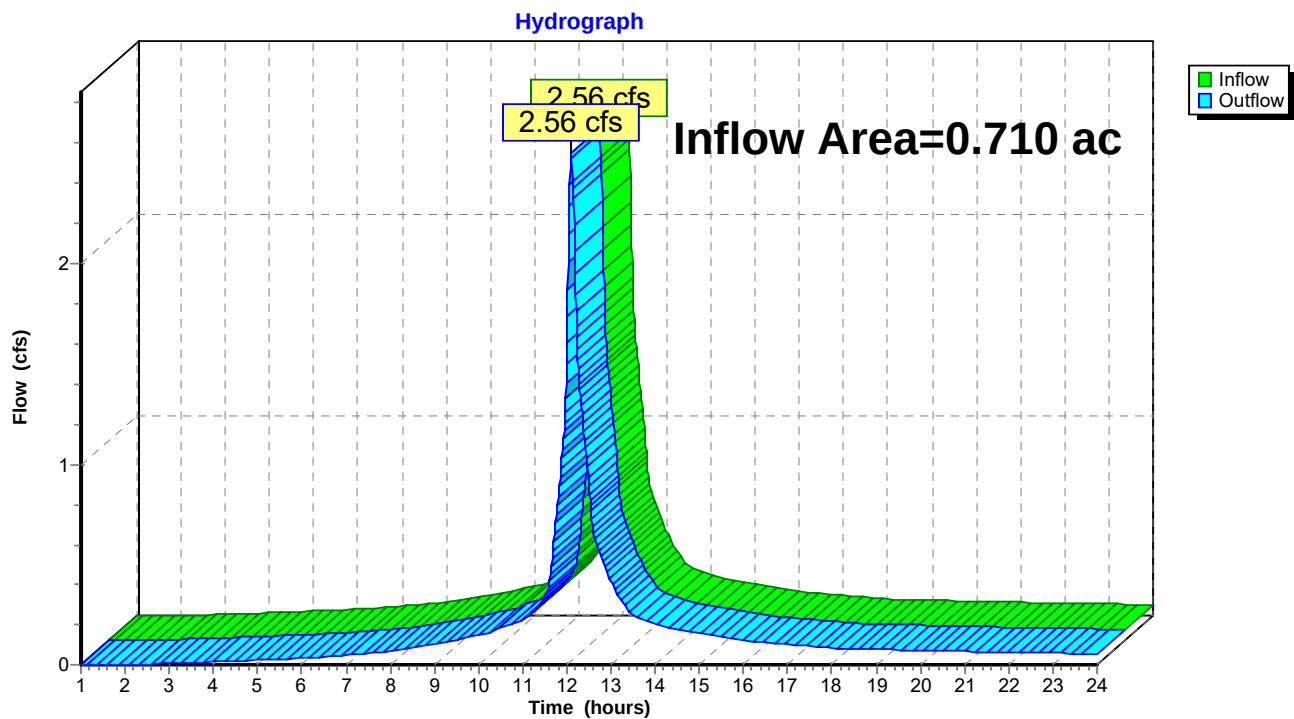
Routing by Stor-Ind+Trans method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Reach 5R: SD

Summary for Reach POI1: POI 1

Inflow Area = 0.710 ac, 77.43% Impervious, Inflow Depth > 4.72" for 25-Year event
Inflow = 2.56 cfs @ 12.09 hrs, Volume= 0.279 af
Outflow = 2.56 cfs @ 12.09 hrs, Volume= 0.279 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Reach POI1: POI 1

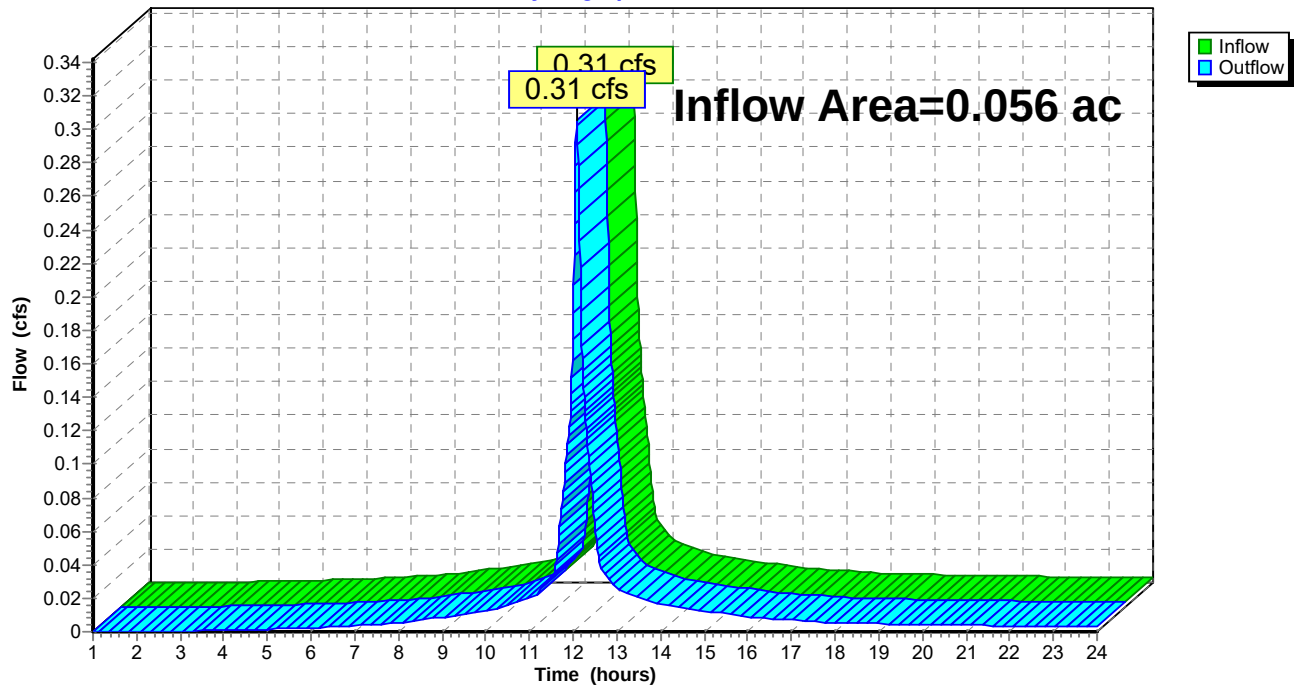
Summary for Reach POI2: POI 2

Inflow Area = 0.056 ac, 70.56% Impervious, Inflow Depth > 4.98" for 25-Year event
Inflow = 0.31 cfs @ 12.08 hrs, Volume= 0.023 af
Outflow = 0.31 cfs @ 12.08 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Reach POI2: POI 2

Hydrograph



Summary for Pond FP1: FOCAL POINT 1

Inflow Area = 0.086 ac, 62.81% Impervious, Inflow Depth > 4.76" for 25-Year event
 Inflow = 0.45 cfs @ 12.08 hrs, Volume= 0.034 af
 Outflow = 0.33 cfs @ 12.16 hrs, Volume= 0.034 af, Atten= 27%, Lag= 4.6 min
 Primary = 0.33 cfs @ 12.16 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 98.82' @ 12.16 hrs Surf.Area= 429 sf Storage= 227 cf

Plug-Flow detention time= 9.5 min calculated for 0.034 af (100% of inflow)
 Center-of-Mass det. time= 8.9 min (790.4 - 781.5)

Volume	Invert	Avail.Storage	Storage Description
#1	94.06'	89 cf	Crushed Stone (Prismatic) Listed below (Recalc) 298 cf Overall - 75 cf Embedded = 222 cf x 40.0% Voids
#2	94.56'	72 cf	1.31'W x 2.35'L x 1.44'H R-Tank x 17 Inside #1 75 cf Overall x 95.0% Voids
#3	96.50'	37 cf	18" Media above stone (Prismatic) Listed below (Recalc) 183 cf Overall x 20.0% Voids
#4	98.00'	3 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 31 cf Overall x 10.0% Voids
#5	98.25'	88 cf	Ponding (Prismatic) Listed below (Recalc)
		288 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
94.06	122	0	0
96.50	122	298	298

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
96.50	122	0	0
98.00	122	183	183

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
98.00	122	0	0
98.25	122	31	31

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
98.25	33	0	0
99.00	72	39	39
99.50	122	49	88

Device	Routing	Invert	Outlet Devices
#1	Primary	94.06'	8.0" Round 6" storm drain L= 99.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 94.06' / 92.08' S= 0.0200 1' Cc= 0.900 n= 0.010, Flow Area= 0.35 sf

#2	Device 1	94.00'	1.9" Vert. Orifice/Grate	C= 0.600
#3	Device 1	98.75'	8.0" Horiz. Overflow Grate	C= 0.600

Limited to weir flow at low heads

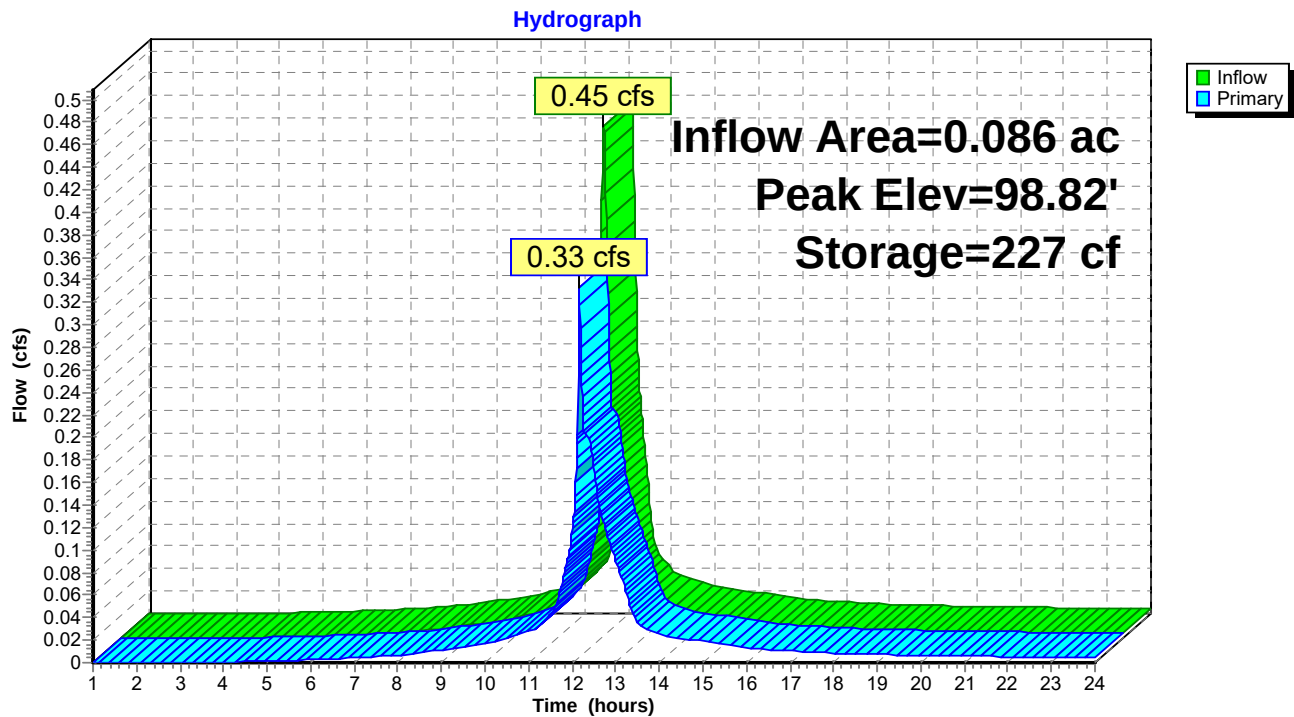
Primary OutFlow Max=0.32 cfs @ 12.16 hrs HW=98.82' (Free Discharge)

1=6" storm drain (Passes 0.32 cfs of 2.79 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.21 cfs @ 10.48 fps)

3=Overflow Grate (Weir Controls 0.12 cfs @ 0.84 fps)

Pond FP1: FOCAL POINT 1



Summary for Pond FP2: FOCAL POINT 2

Inflow Area = 0.118 ac, 76.46% Impervious, Inflow Depth > 5.09" for 25-Year event
 Inflow = 0.65 cfs @ 12.08 hrs, Volume= 0.050 af
 Outflow = 0.48 cfs @ 12.16 hrs, Volume= 0.050 af, Atten= 26%, Lag= 4.3 min
 Primary = 0.48 cfs @ 12.16 hrs, Volume= 0.050 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 97.66' @ 12.16 hrs Surf.Area= 582 sf Storage= 308 cf

Plug-Flow detention time= 7.6 min calculated for 0.050 af (100% of inflow)
 Center-of-Mass det. time= 7.4 min (776.2 - 768.8)

Volume	Invert	Avail.Storage	Storage Description
#1	92.44'	126 cf	Crushed Stone (Prismatic) Listed below (Recalc) 368 cf Overall - 53 cf Embedded = 315 cf x 40.0% Voids
#2	92.88'	51 cf	1.31'W x 2.35'L x 1.44'H R-Tank x 12 Inside #1 53 cf Overall x 95.0% Voids
#3	94.82'	45 cf	18" Media above stone (Prismatic) Listed below (Recalc) 227 cf Overall x 20.0% Voids
#4	96.32'	4 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 38 cf Overall x 10.0% Voids
#5	96.57'	106 cf	Ponding (Prismatic) Listed below (Recalc)
		332 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
92.44	151	0	0
94.88	151	368	368

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
94.82	151	0	0
96.32	151	227	227

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
96.32	151	0	0
96.57	151	38	38

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
96.57	26	0	0
97.57	117	72	72
97.83	151	35	106

Device	Routing	Invert	Outlet Devices
#1	Primary	92.38'	8.0" Round 6" storm drain L= 40.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 92.38' / 92.23' S= 0.0037 '/' Cc= 0.900 n= 0.010, Flow Area= 0.35 sf

#2	Device 1	92.35'	2.2" Vert. Orifice/Grate	C= 0.600
#3	Device 1	97.57'	8.0" Horiz. Overflow Grate	C= 0.600

Limited to weir flow at low heads

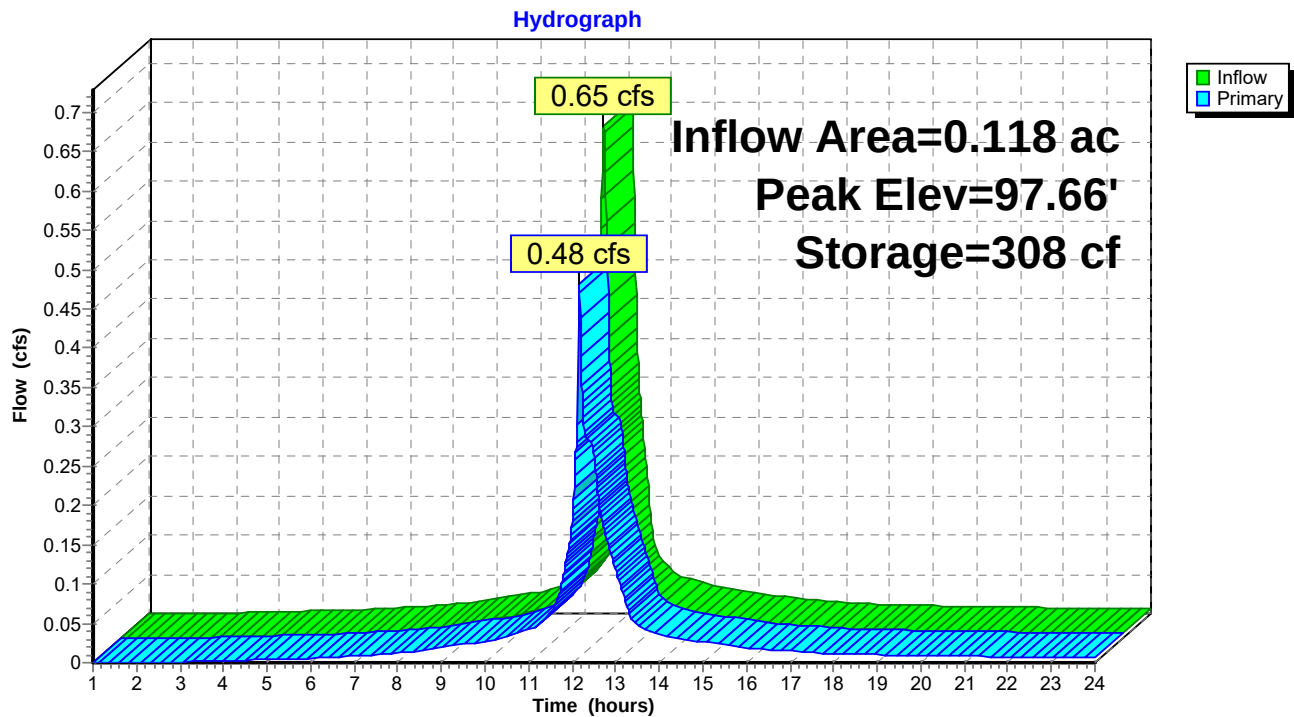
Primary OutFlow Max=0.47 cfs @ 12.16 hrs HW=97.66' (Free Discharge)

1=6" storm drain (Passes 0.47 cfs of 2.95 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.29 cfs @ 11.00 fps)

3=Overflow Grate (Weir Controls 0.18 cfs @ 0.98 fps)

Pond FP2: FOCAL POINT 2



Summary for Pond PP: Pervious Pavers

Inflow Area = 0.124 ac, 85.00% Impervious, Inflow Depth > 5.21" for 25-Year event
 Inflow = 0.74 cfs @ 12.06 hrs, Volume= 0.054 af
 Outflow = 0.03 cfs @ 14.82 hrs, Volume= 0.033 af, Atten= 96%, Lag= 165.7 min
 Primary = 0.03 cfs @ 14.82 hrs, Volume= 0.033 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 96.57' @ 14.82 hrs Surf.Area= 1,298 sf Storage= 1,384 cf

Plug-Flow detention time= 310.8 min calculated for 0.033 af (62% of inflow)
 Center-of-Mass det. time= 207.5 min (969.8 - 762.3)

Volume	Invert	Avail.Storage	Storage Description
#1	95.75'	113 cf	12.0" Round Pipe Storage x 2 Inside #5 L= 72.0' S= 0.0025 '/'
#2	98.33'	348 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 870 cf Overall x 40.0% Voids
#3	97.83'	195 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 649 cf Overall x 30.0% Voids
#4	97.00'	108 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 1,077 cf Overall x 10.0% Voids
#5	95.50'	1,834 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 1,947 cf Overall - 113 cf Embedded = 1,834 cf
		2,597 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
98.33	1,298	0	0
99.00	1,298	870	870

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
97.83	1,298	0	0
98.33	1,298	649	649

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
97.00	1,298	0	0
97.83	1,298	1,077	1,077

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
95.50	1,298	0	0
97.00	1,298	1,947	1,947

Device	Routing	Invert	Outlet Devices
#1	Primary	95.35'	12.0" Round Culvert L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 95.35' / 95.10' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

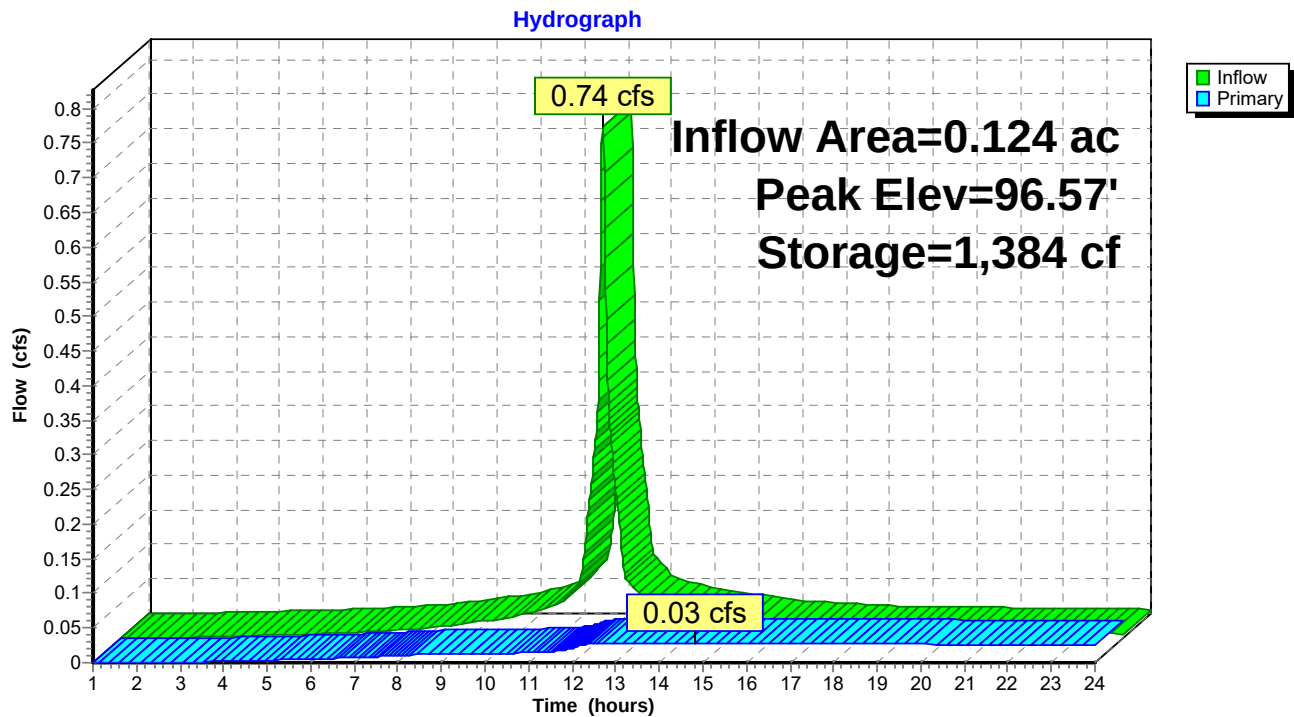
#2	Device 1	95.30'	1.0" Vert. Orifice/Grate	C= 0.600
#3	Primary	97.00'	10.0" Horiz. Overflow (Top of standpipe)	C= 0.600

Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 14.82 hrs HW=96.57' (Free Discharge)

1=Culvert (Passes 0.03 cfs of 2.53 cfs potential flow)
2=Orifice/Grate (Orifice Controls 0.03 cfs @ 5.31 fps)
3=Overflow (Top of standpipe) (Controls 0.00 cfs)

Pond PP: Pervious Pavers



Ferguson Waterworks
94 Pleasant Ave
South Portland, ME 04106



Mike Triglione,
PROJECT ENGINEER
Acorn Engineering, Inc.
PO Box 3372
Portland, ME 04104

December 9th, 2022

SUBJECT: 84 Auburn Street Redevelopment– Portland, ME
Design Review – FocalPoint Biofiltration Systems and SWM Systems

Dear Mike,

Thank you for forwarding the Plans and design information for the Redevelopment project located at 94 Auburn Street in Portland, Maine to Ferguson Waterworks for review. Our team has reviewed Plan Sheets C-30, C-45 with most recent revision date of December 5th, 2022 which shows the following FocalPoint systems each with an 8" dia. domed overflow structure with filter insert:

- FocalPoint System 1 – 23 SF w/ 17 R-Tank^{HD} Single Treatment Row modules and Rain Guardian Turret structure for pre-treatment
- FocalPoint System 2 – 20 SF w/ 12 R-Tank^{HD} Single Treatment Row modules and Rain Guardian Turret structure for pre-treatment

System Review:

- The FocalPoint systems are set in recessed vegetated 'bowl' areas.
- Runoff flows from the surrounding pavement and developed areas and enters the FocalPoint mulch bed areas via Rain Guardian Turret pre-treatment structures.
- The typical FocalPoint section appears to consist of 3" mulch, 18" media, 6" bridging stone and R-Tank^{HD} Treatment module underdrain.
- 8" dia. domed overflow risers with filter inserts are specified to convey larger storm events – essentially as a bypass.
- The HydroCAD modeling demonstrates the runoff WQV from a 0.95" rain event is processed via the FocalPoint biofilter media prior to activation of the overflow bypass device (WQ goal met).
- The FocalPoint systems are placed in-line with subsurface R-Tank Treatment rows as required by the MEDEP FocalPoint design guidance and is sized to treat peak flowrate from the 1-year 24-hr storm events.

- The FocalPoint specified plantings are a critical component to the effectiveness of the biofilter and are included on the plans. Please include a note calling out specified FocalPoint Plantings per the FocalPoint Planting guide. A planting list and instructions will be provided by Ferguson during the Submittal review process.

Overall, Ferguson takes no exceptions to the location and application of the FocalPoint system for this project to provide WQ treatment.

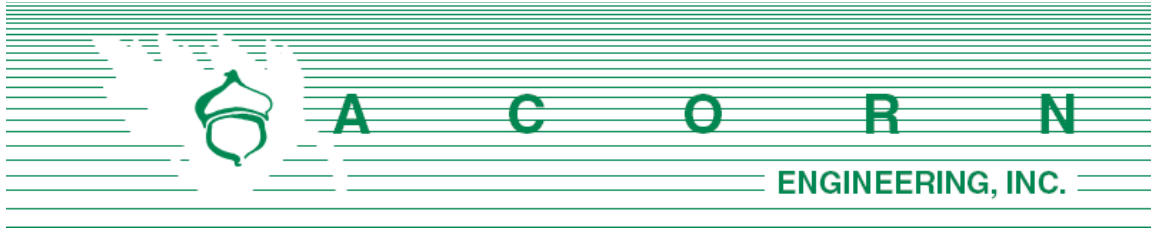
It appears that the systems have been designed in accordance with the design criteria set forth by Maine DEP in the FocalPoint system approval letter and meet the system specifications. With regard to the installation, Ferguson Waterworks will host a preconstruction meeting with the site contractor and will be on-site during installation to ensure that the installation is being conducted in accordance with our standard installation procedures. Ferguson Waterworks will also provide maintenance consultation for the first year following install consisting of typical maintenance procedures and overview of system condition.

Please review and contact me with any questions from your office. We look forward to working with you on this project.

Sincerely,



Loren Joyce,
Stormwater Engineer – Ferguson Waterworks
Cc: Robert J Woodman, Ferguson Waterworks



EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**84 Auburn, LLC
7 Heather Lane
Falmouth, Maine 04105**

Prepared By:

**Acorn Engineering, Inc.
500 Washington Ave, Suite 202
Portland, Maine 04103**



January 2023



INTRODUCTION

The project proposes to develop the existing 84 Auburn Street to construct a single-story building to be utilized as a national coffee franchise with associated drive through, patio space and parking. The project will also include site improvements to the abutting property located at 94 Auburn Street, including improvements to the shared drive and a sidewalk adjacent to the existing building.

The following Erosion and Sedimentation Control Report was developed in accordance with the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended August 12, 2015. This narrative also meets the standards required in the Maine DEP’s Erosion & Sediment Control BMP’s Manual, revised in 2016.

1.0 EXISTING CONDITIONS

The proposed project site is located on Auburn Street. A boundary plan has been prepared by Owen Haskell, LLC, Maine dated April 29, 2021.

Abutting Uses:

- | | |
|-----------------|-----------------|
| ➤ North RP Zone | Retail Services |
| ➤ East B2 Zone | Retail Services |
| ➤ South B1 Zone | Retail Services |
| ➤ West R3 Zone | Office Business |

The existing site is comprised of gravel and paved areas with no buildings. The slope is 3 to 8 percent with grades dropping from Northwest to Southeast.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation because the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11;12/8/20 are met.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative “K” scale of values over a range of 0.02 to 0.69. Higher “K” values indicate more erodible soils.

Table 1 - “K” Value		
Soils Type	Subsurface	Substratum
Deerfield loamy fine sand	0.17	0.17



The soil “K” value for the soil, listed above, shows a low susceptibility to erosion. The site’s susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil “K” values for the soils show a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the sustained slope throughout the site.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

With minimal site work for the proposed project. There are no critical areas.

1.4 Protected Natural Resource

The client is not aware of the presence of any existing significant natural features located on the site as listed in Section 14-526 (b) 1. of the Land Use Code. The project is not located within a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years.

1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five years.

2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 Temporary Erosion Control Measures

The following temporary erosion and sedimentation control measures are planned for the project’s construction period:

- 2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:



- Stone size shall be 2-3 inches or reclaimed or recycled concrete equivalent.
 - The thickness of the entrance stone layer shall be no less than 6 inches.
 - The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
 - Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
 - The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public roadways.
- 2.1.2 Siltation fence or erosion control berm shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.
- 2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.
- 2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.
- 2.1.5 Auburn Street shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.
- 2.1.6 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6 inches below the outer edges of the dam. The contractor shall mulch the side slopes and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.



- 2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be “toed” into the ground.
- 2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached ½ the design height.
- 2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.
- 2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.
- 2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.
- 2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.
- 2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.

2.2 Permanent Erosion Control Measures

The following permanent erosion control measures are intended for post disturbance areas of the project.

- 2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4” of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.
- 2.2.2 All stormwater devices shall be installed, and tributary areas stabilized prior receiving stormwater.
- 2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.



3.0 EROSION AND SEDIMENTATION CONTROL PLAN

3.1 The Erosion and Sedimentation Control Plan is included within the plan set.

4.0 DETAILS AND SPECIFICATIONS

4.1 Erosion Control Details and Specifications are included in the plan set.

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75% mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

5.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.



5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.



5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a “storm event”. A “storm event” shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall inspected in the manner as described.

6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary



check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways.

6.3 Mulched Areas

All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets must be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

6.4 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control.

6.5 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.

6.6 Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information, contact:

Contact: Peter Heil, PE
Telephone: (207) 775-2655



The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.

7.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter silt fence or erosion control berm.
3. Commence installation of drainage infrastructure.
4. Install all other erosion control devices as necessary throughout the remainder of this schedule.
5. Commence earthwork operations, associated with the site construction.
6. Commence installation of utilities.
7. Continue earthwork and grading to subgrade as necessary for construction.
8. Complete installation of drainage infrastructure, as well as other utility work.
9. Complete remaining earthwork operations.
10. Install sub-base and base gravels in paved areas.
11. Install paving, curbing and brickwork.
12. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
13. Once the site is stabilized, 90% catch of grass has been obtained, or mulching of landscape areas is complete, remove all temporary erosion control measures.
14. Touch up areas without a vigorous catch of grass with loam and seed.
15. Complete site signage and striping.
16. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

The above implementation sequence should be generally followed by the site contractor. However, the contractor may construct several items simultaneously. The contractor shall submit to the owner a schedule of the completion of the work. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed areas to those areas in which work is expected to be undertaken during the following 30 days.

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 CONCLUSION

The above erosion control narrative is intended to minimize the development impact by implementing temporary and permanent erosion control measures. The contractor shall also refer to the Maine Erosion and Sediment Control BMP manual for additional information.



9.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan



TEMPORARY SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of temporary seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to temporary seeding and mulching.



PERMANENT SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of permanent seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

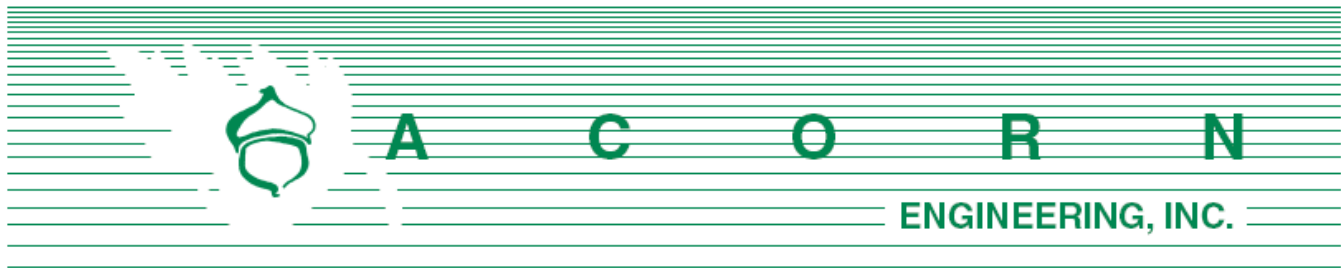
Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to permanent seeding and mulching.





Chief Gautreau
 City of Portland Fire Department
 380 Congress St.
 Portland, ME 04101

January 4, 2023

Subject: 84 Auburn Street – Fire Department Checklist
 Section L of Application

On behalf of 84 Auburn LLC, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of applicant:

84 Auburn LLC
 7 Heather Lane
 Falmouth, Maine 04105
 (207) 310-8922

2. Name address, telephone number of architect:

Ryan Senatore Architecture
 500 Congress Street Floor 2
 Portland, Maine 04101
 207-650-6414

3. Proposed uses of any structures [NFPA and IBC classification]

NFPA: Restaurant / IBC: A-2 (Restaurant)

4. Square footage of all proposed structures, including decks [total and per story]

Existing Building		
1st Floor	Approx. 2,250	sf
Total	Approx. 2,250	sf

5. Elevation of all structures

The proposed 1-story structure's height will be below the allowable 35 feet within the B1 zoning district. Please refer to the building elevations provided by the Architect for additional information.

6. Proposed fire protection of all structures

The building will have a sprinkler system per code. Fire flows and requirements for system storage or booster pumping are subject to the fire designer which will be performed prior the request for a building permit.

7. Hydrant locations

- a. An existing hydrant is located across Auburn Street slightly north of the parcel. Hydrant flow data from the Portland Water District once received may be made available to the Fire Department upon request.

8. Water main size and location

The existing 10" water main within Auburn Street is expected to remain as part of this project.

9. Access to all structures [min. 2 sides]

Access to the structure is provided directly on Auburn Street. Additionally, the site is accessible from the 24' access lane between 84 and 94 Auburn street.

10. The Architect has provided a code summary (attached).

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The project site is located in a heavily developed area and is fronted by a public street. The following pavement street width is currently available:

- Auburn Street: 45 feet

Per NFPA 1 – Chapter 18.2.3.3.1, there will be public street access within 50 feet of at least one exterior door. Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors shall be located not more than 450 feet from a Fire Department access road.

City of Portland Technical Manual – Section 3 Public Safety

3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).

Response: No dead-end roadway is proposed as part of this development.

3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.



Response: The project proposes to provide access to the site directly from Auburn Street. The proposed building will be accessible for Fire Department vehicles on three sides from the drive through lane. The other side of the building will be accessible through the customer parking area.

3.4.3 Building setbacks, where required by zoning, shall be adequate to allow for emergency vehicle access and related emergency response activities and shall be evaluated based on the following factors:

- *Building Height.*
- *Building Occupancy.*
- *Construction Type.*
- *Impediments to the Structures.*
- *Safety Features Provided.*

Response: The proposed development layout has contemplated emergency access conditions and provides for safe and efficient access along the public street & throughout the proposed development for emergency vehicles.

3.4.4. Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure.

Response: The building will be provided with exterior doors that will be within 50' of a Fire Department access route.

3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.

Response: The proposed site maintains the required clearance height of nine feet in all cases.

3.4.6. Elevators shall be sized to accommodate an 80 x 24-inch stretcher.

Response: There will be no elevators as part of this project.

3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

Response: The site addresses are 84 & 94 Auburn Street.

Thank you for your review. Please let me know if you have any additional questions or comments.
Sincerely,

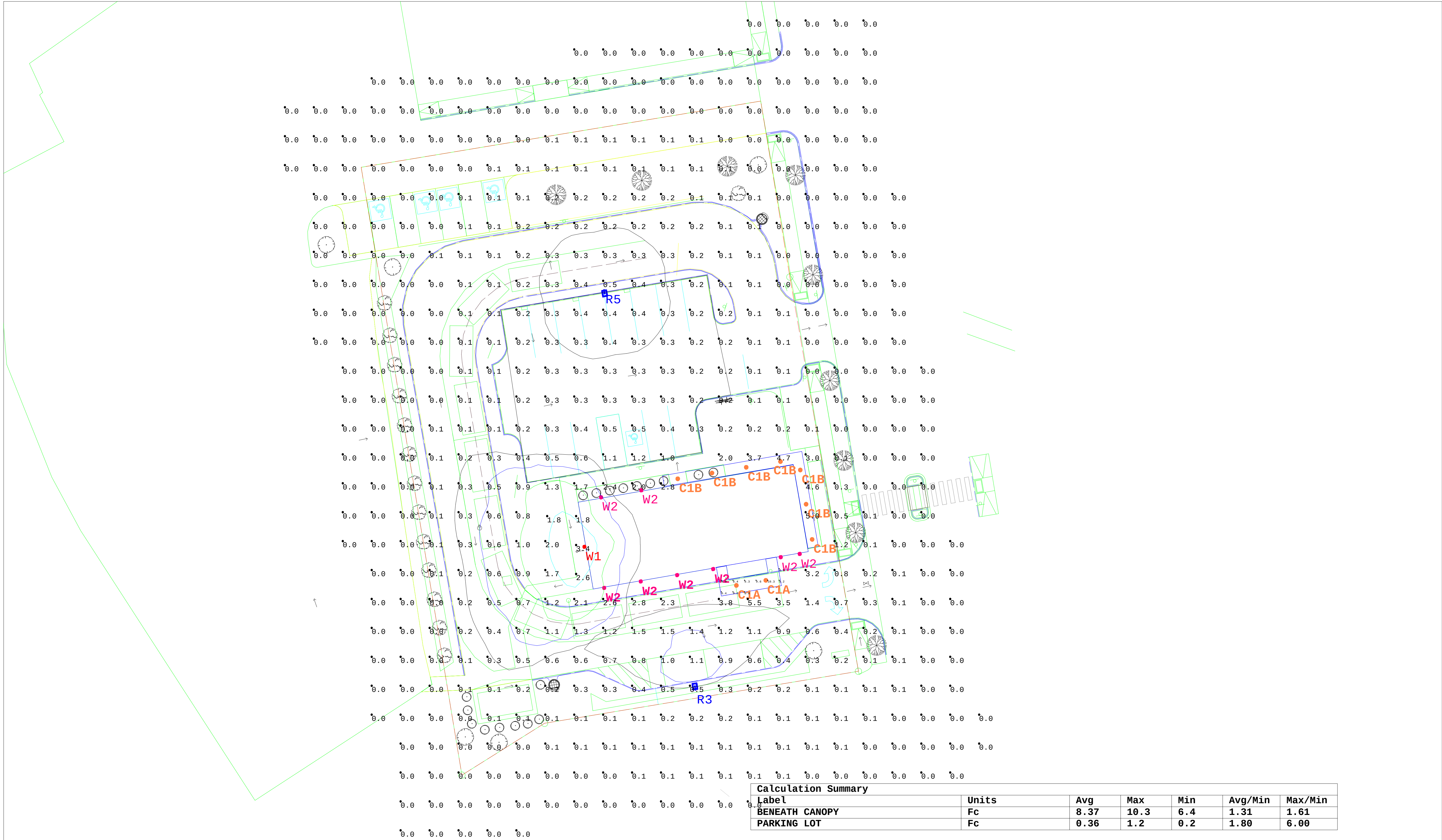


Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.



Lighting

Photometric plans and associated cut sheets can be found attached, prepared by Reflex Lighting, dated 9/28/2023.



NOTE: EXTERIOR LIGHTS TO BE PLACED ON TIMER BY CONTRACTOR
LIGHTS TO BE SCHEDULED TO AT LEAST 50% LIGHTING LEVELS 30 MIN BEFORE AND AFTER OPERATING HOURS

Luminaire Schedule						
Symbol	Qty	Label	Description	Tag	Arrangement	Luminaire Lumens
	2	C1A	COOPER: HC610D010-HM60525830-61WDH	CANOPY RECESSED DOWNLIGHT	Single	1154
	7	C1B	COOPER: HC605D010-HM60525830-61WDH	CANOPY RECESSED DOWNLIGHT	Single	706
	1	R3	NLS: NV-1-T3-16L-35-30K7-UNV-CXX-HSS	MOUNTED ON NLS POLE: SSSP204S1169BCSGL-CXX-3430 (20' AFG)	Single	1134
	1	R5	NLS: NV-1-T5-16L-35-30K7-UNV-ASA-CXX	MOUNTED ON NLS POLE: SSSP204S1169BCSGL-CXX-3430 (20' AFG)	Single	2231
	1	W1	NLS: NV-W-T4-16L-7-30K7-UNV-WM-CXX	WALL MTD 14' AFG	Single	4388
	8	W2	CAMMAN: OW610-48-LN-30K-CLV-MV-PSB	WALL MTD 9' AFG // B.O.F. AT 5' AFG	Single	3431

Calculation Summary						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
BENEATH CANOPY	Fc	8.37	10.3	6.4	1.31	1.61
PARKING LOT	Fc	0.36	1.2	0.2	1.80	6.00



#	Date	Comments
Revisions		

Drawn By: Michael O'Brien
Checked By:
Date: 3/11/2024
Contact: mobrien@charroninc.com
Scale: NTS

Starbucks Site Lighting	84 Auburn Street Portland, ME
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Project		Catalog #		Type	
Prepared by		Notes		Date	



HALO Commercial

HC6 | HM6 | 61 | 61PS

6-inch LED downlight and wall wash

Typical Applications

Office • Healthcare • Hospitality • Institutional • Mixed-Use/Retail

Interactive Menu

- Order Information [page 2](#)
- Product Specifications [page 4](#)
- Photometric Data [page 5](#)
- Energy & Performance Data [page 8](#)
- Connected Systems [page 10](#)
- Product Warranty

Top Product Features

- New construction/remodel series; 500 to 6,000 lumens
- Narrow, Medium and Wide distributions; Wall wash with rotatable linear spread lens
- 2700K, 3000K, 3500K, 4000K, 5000K CCT; 80 or 90 CRI
- Universal voltage 120V-277V; Standard 0-10V driver dims to 1%
- Mounting frame converts to remodel that installs from below the ceiling
- Rapid Response emergency backup mounting frames - fast delivery option

Product Certification



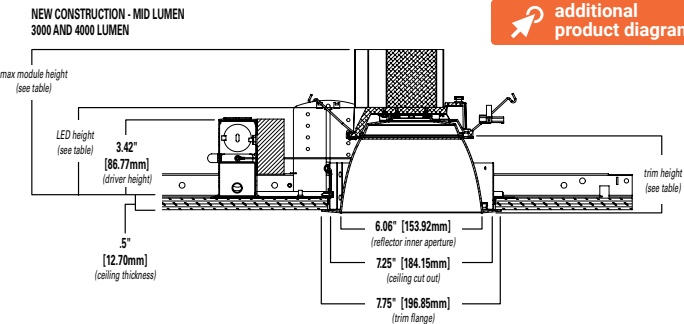
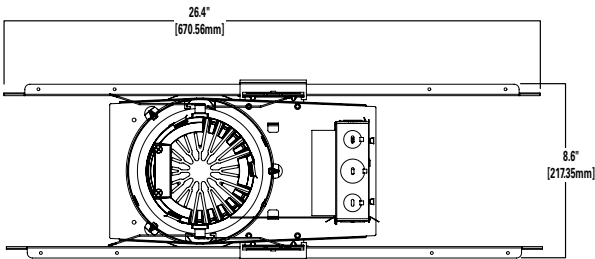
Product Features



Control Compatibility



Dimensional and Mounting Details



additional product diagrams

Distribution	Max. Module Height	Trim Height	LED Height
Narrow	6.6"	3.4"	3.8"
Medium	6.7"	3.5"	3.9"
Wide	6.5"	3.3"	3.7"
Baffle	6.5"	3.3"	3.7"

Mounting Frame Order Information

Sample Number: HC620D010REM7 – HM60525835 - 61MDC

A complete luminaire consists of a housing frame, LED module, and reflector (ordered separately)

Mounting Frame	Lumens	Driver Options	Factory Installed Emergency & Connected Lighting Options	Accessories (Order & Install Separately)
HC6 = 6" new construction downlight housing HC6CP = 6" new construction housing, Chicago Plenum - CCEA compliant	05 = 500 lm 07 = 750 lm 10 = 1000 lm 15 = 1500 lm 20 = 2000 lm 25 = 2500 lm 30 = 3000 lm 35 = 3500 lm 40 = 4000 lm 45 = 4500 lm ⁽⁷⁾ 50 = 5000 lm ⁽⁷⁾ 55 = 5500 lm ⁽⁷⁾ 60 = 6000 lm ⁽⁷⁾	D010 =UNV 120-277V, 50/60Hz, 0-10V 1%-100% dimming at 120-277V on 0-10V controls Canada Option 500-5000 lumens: D010347 = 347VAC 50/60Hz 0-10V 1%-100% dimming. For 500, 750, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000lm models only ⁽¹⁾ Canada Option 5500-6000 lumens: D010X347 = step down transformer factory installed (with standard "D010" 120V-277V LED driver). For 5500, 6000lm models only ⁽¹⁾ DLV = Distributed Low Voltage dimming driver 1%-100%, 1000-4000 lumens only. For use with DLVP system only, refer to DLVP specifications for details. ⁽¹⁾	REM7 = 7 watt emergency battery pack with remote test / indicator light, use with D010 only ^{(1) (2) (6)} REM14 = 14 watt emergency battery pack with remote test / indicator light, use with D010 only ^{(1) (2) (6)} IEM7 = 7 watt emergency battery pack with integral test / indicator light, use with D010 only ^{(1) (2) (6)} IEM14 = 14 watt emergency battery pack with integral test / indicator light, use with D010 only ^{(1) (2) (6)} BOD7ST = 7.5 watt Bodine self-test emergency battery pack with remote test / indicator light, use with D010 only ^{(1) (2) (6)} WTA = Factory WaveLinx Tilemount Sensor Kit ⁽⁴⁾ WTK = Factory WaveLinx LITE Commercial Tilemount Sensor Kit ⁽⁵⁾ WPN = WaveLinx PRO Wireless Node without sensor ⁽⁹⁾ REM7 = 7 watt emergency battery pack with remote test / indicator light, use with DLV only ^{(1) (2) (3) (6)} REM14 = 14 watt emergency battery pack with remote test / indicator light, use with DLV only ^{(1) (2) (3) (6)} IEM7 = 7 watt emergency battery pack with integral test / indicator light, use with DLV only ^{(1) (2) (3) (6)} IEM14 = 14 watt emergency battery pack with integral test / indicator light, use with DLV only ^{(1) (2) (3) (6)}	HB128APK = L channel hanger bar, 26", pair (replacement) RMB22 = Adjustable wood joist mounting bars, pair, extend to 22" long HSA6 = Slope Adapter for 6" Aperture Housings, Specify Slope (refer to instructions for installing housing and trim) H347 = 347 to 120V step down transformer, 75VA H347200 = 347 to 120V step down transformer, 200VA WTA = Field WaveLinx Tilemount Sensor Kit ⁽⁴⁾ WTK = Field WaveLinx LITE Commercial Tilemount Sensor Kit ⁽⁵⁾
Notes	Notes	Notes	Notes	Notes
	(7) Marked Spacing: Center to Center of Adjacent Luminaires = 36" Center of Luminaire to Building Member = 18" Minimum overhead = 0.5	(1) Not available with CP models	(1) Not available with CP models (2) Not available with D010347 (347V models) (3) ULus for U.S. only (4) WTA = WaveLinx tilemount sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with D010 only (Refer to WaveLinx specifications) (5) WTK = WaveLinx LITE tilemount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinx LITE specifications) (6) Emergency battery backup options are Non-IC only, and rated for a minimum starting temperature of 0°C (9) WPN = WaveLinx PRO wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only.	(4) WTA = WaveLinx tilemount sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with D010 only (Refer to WaveLinx specifications) (5) WTK = WaveLinx LITE tilemount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinx LITE specifications)

Rapid Response Emergency Mounting Frame Order Information

Sample Number :

Rapid Response Emergency Mounting Frame: RR-HC620D010REM7

LED module and reflectors are ordered separately.

Order separately: LED Module: HM60525835 | Reflector: 61MDC

Select from the Rapid Response Mounting Frame ordering information to receive the **Fast Delivery** option for the frame.

RR Code	Mounting Frame	Lumens	Driver Options	Factory Installed Emergency & Connected Lighting Options	Accessories (Order & Install Separately)
RR = East Region BRR = West Region	HC6 = 6" new construction downlight housing	10 = 1000 lm 15 = 1500 lm 20 = 2000 lm 30 = 3000 lm 40 = 4000 lm	D010 =UNV 120-277V, 50/60Hz, 0-10V 1%-100% dimming at 120-277V on 0-10V controls	REM7 = 7 watt emergency battery pack with remote test / indicator light, use with D010 only ^{(2) (6)} REM14 = 14 watt emergency battery pack with remote test / indicator light, use with D010 only ^{(2) (6)} IEM7 = 7 watt emergency battery pack with integral test / indicator light, use with D010 only ^{(2) (6)} IEM14 = 14 watt emergency battery pack with integral test / indicator light, use with D010 only ^{(2) (6)}	HB128APK = L channel hanger bar, 26", pair (replacement) RMB22 = Adjustable wood joist mounting bars, pair, extend to 22" long
Notes	Notes	Notes	Notes	Notes	Notes
				(2) Not available with D010347 (347V models) (6) Emergency battery backup options are Non-IC only, and rated for a minimum starting temperature of 0°C	

LED Module Order Information

LED Module	Lumens	CRI/CCT	
HM6 = 6" LED Modules For use with HC6 - HC6CP New Construction housings only	0525 = 500 - 2500 lumen 3040 = 3000-4000 lumen 4560 = 4500-6000 lumen	827 = 80CRI, 2700K 830 = 80CRI, 3000K 835 = 80CRI, 3500K 840 = 80CRI, 4000K 850 = 80CRI, 5000K	927 = 90CRI, 2700K 930 = 90CRI, 3000K 935 = 90CRI, 3500K 940 = 90CRI, 4000K 950 = 90CRI, 5000K
Notes	Notes	Notes	

Trim Order Information

Reflector	Distribution ⁽⁸⁾	Finish	Flange	Accessories
61 = 6" conical reflector	ND = narrow 55° beam angle 0.97 SC MD = medium 60° beam angle 1.10 SC WD = wide 65° beam angle 1.28 SC RWW = rotatable wall wash with linear spread lens	C = Specular clear H = Semi-specular clear W = White	Blank = Polished flange standard with C & H reflectors Blank = White flange standard with W reflector WF = White flange option available with C & H reflectors	61RWWPK = Replacement part kit - wall wash lens insert - for use with 61RWW* only.
Notes	Notes (8) Values are nominal, with specular clear reflector, other finishes and field results may vary.	Notes	Notes	Notes

Baffle	Distribution ⁽⁸⁾	Finish	Flange	Accessories
61 = 6" baffle reflector	WD = wide 65° beam angle 1.28 SC (nominal) RWW = rotatable wall wash with linear spread lens	BB = Black baffle WB = White baffle	Blank = White flange standard with BB, & WB BF = Black flange option available with BB	61RWWPK = Replacement part kit - wall wash lens insert - for use with 61RWW* only.
Notes	Notes (8) Values are nominal, with specular clear reflector, other finishes and field results may vary.	Notes	Notes	Notes

Reflector	Distribution ⁽⁹⁾	Finish	Flange
61PS = 6" non-conductive polymer 'dead front' conical reflector ⁽⁹⁾	MD = medium 60° beam angle 1.10 SC (nominal)	W = White	Blank = White flange standard with W reflector
Notes (9) 61PS is 1000-2000 lumens Non-IC rated. 500 & 750 lumens IC rated. 61PS is not for use over 2000lm in Non-IC or over 750lm in IC.	Notes (8) Values are nominal, with specular clear reflector, other finishes and field results may vary.	Notes	Notes

IEM Reflector	Distribution ⁽⁸⁾	Finish	Flange	Integral Emergency
61 = 6" IEM reflector for integral emergency only	ND = narrow 55° beam angle 0.97 SC MD = medium 60° beam angle 1.10 SC WD = wide 65° beam angle 1.28 SC	C = Specular clear H = Semi-specular clear W = White	Blank = Polished flange standard with C & H reflectors Blank = White flange standard with W reflector WF = White flange option available with C & H reflectors	IEM = Reflector for use with integral emergency housings only. Provides access hole for integral emergency test switch.
Notes	Notes (8) Values are nominal, with specular clear reflector, other finishes and field results may vary.	Notes	Notes	Notes

IEM Baffle	Distribution ⁽⁸⁾	Finish	Flange	Integral Emergency
61 = 6" IEM baffle reflector for integral emergency only	WD = wide 65° beam angle 1.28 SC (nominal)	BB = Black baffle WB = White baffle	Blank = White flange standard with BB, & WB BF = Black flange option with BB	IEM = Reflector for use with integral emergency housings only. Provides access hole for integral emergency test switch.
Notes	Notes (8) Values are nominal, with specular clear reflector, other finishes and field results may vary.	Notes	Notes	Notes

Product Specifications

Housing Frame

- Boat shaped galvanized steel plaster frame with adjustable plaster lip
- Accommodates 1/2" to 1-1/2" thick ceilings
- Installs in new construction or from below the finished ceiling (non-accessible) for remodeling (with mounting bars removed)
- Provided with two remodel clips to secure the frame to the ceiling

Universal Mounting Bracket

- Adjusts 2" vertically from above and below the ceiling
- Use with the included mounting bars or with 1/2" Electric Metallic Tube (EMT)
- Removable to facilitate remodeling installation from below the finished ceiling

Mounting Bars

- Captive pre-installed No Fuss™ mounting bars lock to T-grid with screwdriver or pliers
- Centering detents allow for consistent positioning of fixtures

LED Module

- Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation
- Available in 80 or 90 color rendering index (CRI)
- Color accuracy within 3 SDCM provides color consistency and uniformity
- 90 CRI option: R9>50 (refer to chromaticity information for details)
- Available in 2700K, 3000K, 3500K, 4000K and 5000K correlated color temperature (CCT)
- Lumen options include 500, 750, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000 lumens (nominal)
- Passive thermal management achieves 60,000 hours at 70% lumen maintenance (L70) in insulated ceilings (IC) and non-IC applications
- Integral diffuse lens provides visual shielding
- Integral connector allows quick connection to housing flex

Reflector

- Self-flanged aluminum reflectors available in narrow, medium or wide distribution patterns
- Medium distribution polymer non-conductive matte white reflector may be used to meet local codes for 'dead front' applications (500 & 750 lumen max. in IC and 2000 lumen max. in Non-IC)
- Wall wash reflector features a rotatable linear spread lens for alignment of vertical illumination
- Reflectors attach to LED module with three speed clamps
- Available in multiple painted or plated finishes

Reflector/Module Retention

- Reflector/module assembly is securely retained in the housing with two torsion springs

Driver

- Field-replaceable constant current driver provides low noise operation
- Universal 120-277VAC 50/60Hz input standard
- Continuous, 1% to 100% dimming with 0-10V analog control
- Optional low-voltage DC driver for use with Distributed Low Voltage Power (DLVP) system
- Distributed Low Voltage Power (DLVP) system combines power, lighting and controls with ease of installation (refer to DLVP Design Guide at www.cooperlighting.com for details)

Canada Options

- 347VAC 50/60Hz; 1% dimming on 0-10V analog control, for 500, 750, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000 lumen models only
- 347V step down transformer factory installed with the standard "D010" 120V-277V, LED driver on 5500, 6000 lumen models only

Emergency Option

- Provides 90 minutes of standby lighting, meeting most life safety codes for egress lighting
- Available with integral or remote charge indicator and test switch
- Available Self-Test (self-diagnostic) with remote charge indicator and test switch
- Rapid Response emergency ordering option for quick-turn projects

Connected Lighting System

Two WaveLinX connected solutions to choose from. Refer to WaveLinX system specifications and application guides for details.

WaveLinX PRO Tilemount Sensor Kit

- WaveLinX WTA tilemount sensor kit offers daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning; and optional RLTS - Real Time Location Services available.

WaveLinX PRO Wireless Node

- WaveLinX PRO wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only.

WaveLinX LITE Tilemount Sensor Kit

- WaveLinX LITE WTK tilemount sensor kit offers daylight dimming and PIR motion sensing, scene and grouping configuration.

WaveLinX Tilemount Kits Application

- The WTA and WTK tilemount kits include a control module mounted on the luminaire junction box via 1/2" knock-out, and a tilemount sensor on 54-inch whip; for ceiling installation by direct-mount spring clips or via mounting bracket in octagon ceiling boxes.
- The WTA and WTK tilemount kits may be ordered as factory installed on the luminaire, or ordered separately as a field installed accessory kit.

Junction Box

- Galvanized steel junction box
- 20 in³ internal volume excluding voltage barrier
- 25 in³ internal total volume
- Voltage barrier for 0-10V dimming wires (occupies one 1/2" pry-out space)
- Listed for eight #12 AWG (four in, four out) 90°C conductors and feed-thru branch wiring
- Three 1/2" and two 3/4" trade size pry-outs available
- Three 4-port push wire nuts for mains voltage with 1-port for fixture connection

Compliance

- cULus Certified to UL 1598 / C22.2 No. 250.0, suitable for damp locations and wet locations in covered ceilings only
 - Emergency options provided with UL Listed emergency drivers to UL 924 / C22.2 No. 141, suitable for indoor/damp locations
 - IP20 - Above finished ceiling; IP65 - Below finished ceiling
 - Non-Insulated ceiling (Non-IC) rated for 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000 lumen models (insulation must be kept 3" from top and sides)
 - Insulated ceiling (IC) rated for 500, 750, 1000, 1500, 2000 lumen models and suitable for direct contact with air permeable insulation* (IC models are also suitable for Non-IC installations)
 - Non-IC marked spacing required for 4500, 5000, 5500, 6000 lumen models
 - Marked Spacing Center to Center of Adjacent Luminaires = 36"
 - Center of Luminaire to Building Member = 18"
 - Minimum overhead = 0.5"
 - Airtight per ASTM-E283-04
 - Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
 - EMI/RFI emissions FCC CFR Title 47 Part 15 Class A at 120/277V
 - Contains no mercury or lead and RoHS compliant
 - Photometric testing completed in accordance of IES LM-79-08
 - Lumen maintenance projection in accordance of IES LM-80-08 and TM-21-11
 - 500, 750, 1,000, 1,500 and 2,000 lumen, 90 CRI, ICAT models may be used to comply with State of California Title 24 residential code, per JA8 certification standards
 - May be used to comply with State of California Title 24 non-residential code as a dimmable LED luminaire
 - ENERGY STAR® certified, reference certified light fixtures database
- *Not for use in direct contact with spray foam insulation, consult NEMA LSD57-2013

Warranty

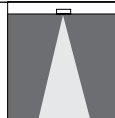
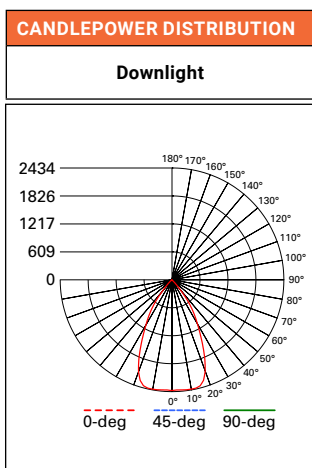
- Five year limited warranty, consult website for details. www.cooperlighting.com/legal

Photometric Data

 View IES files

NARROW DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

NARROW (55° BEAM*)	
Test Number	P581878
Housing	HC620D010
Module	HM60525835
Reflector	61NDC
Lumens	2228 Lm
Efficacy	111.4 Lm/W
SC	0.93
UGR	11.7

CONE OF LIGHT



MH	FC	L	W
5.5'	80.2	5	5
7'	49.5	6.4	6.4
8'	37.9	7.4	7.4
9'	30	8.2	8.2
10'	24.3	9.2	9.2
12'	16.9	11	11

CANDELA TABLE

Degrees Vertical	Candela
0	2427
5	2422
15	2405
25	1621
35	761
45	118
55	12
65	3
75	2
85	0
90	0

ZONAL LUMEN SUMMARY

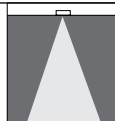
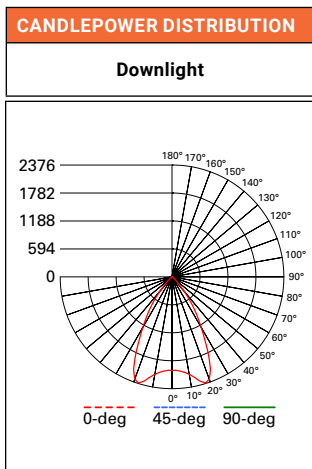
Zone	Lumens	% Fixture
0-30	1636	73.4
0-40	2098	94.2
0-60	2223	99.8
0-90	2228	100
90-180	0	0
0-180	2228	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	9187
55	1118
65	376
75	318
85	0

MEDIUM DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

MEDIUM (60° BEAM*)	
Test Number	P581875
Housing	HC620D010
Module	HM60525835
Reflector	61MDC
Lumens	2307 Lm
Efficacy	115.3 Lm/W
SC	1.06
UGR	11.8

CONE OF LIGHT



MH	FC	L	W
5.5'	68.7	5.6	5.6
7'	42.4	7.2	7.2
8'	32.5	8.2	8.2
9'	25.7	9.4	9.4
10'	20.8	10.4	10.4
12'	14.4	12.4	12.4

CANDELA TABLE

Degrees Vertical	Candela
0	1998
5	2022
15	2307
25	1842
35	796
45	126
55	15
65	4
75	2
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1671	72.4
0-40	2163	93.8
0-60	2301	99.7
0-90	2307	100
90-180	0	0
0-180	2307	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	9753
55	1395
65	571
75	318
85	0

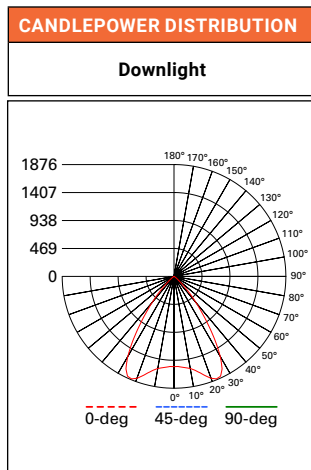
Note: Refer to IES files for more product data.

Photometric Data

[View IES files](#)

WIDE DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

WIDE (65° BEAM*)	
Test Number	P581885
Housing	HC620D010
Module	HM60525835
Reflector	61WDC
Lumens	2359 Lm
Efficacy	118 Lm/W
SC	1.28
UGR	11.6



CONE OF LIGHT			
MH	FC	L	W
5.5'	50.5	7	7
7'	31.2	8.8	8.8
8'	23.9	10.2	10.2
9'	18.8	11.4	11.4
10'	15.3	12.8	12.8
12'	10.6	15.4	15.4

CANDELA TABLE	
Degrees Vertical	Candela
0	1526
5	1540
15	1685
25	1861
35	1027
45	252
55	32
65	6
75	2
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1461	61.9
0-40	2105	89.2
0-60	2351	99.6
0-90	2359	100
90-180	0	0
0-180	2359	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	19506
55	3078
65	765
75	318
85	0

*Value are nominal with specular clear reflectors, other finishes and field results may vary.
SC = Spacing Criteria
UGR = Unified Glare Rating

Photometric Multipliers (Nominal Lumen Values)

500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen
0.33	0.44	0.54	0.74	1.00	1.12	1.46	1.76

4000 Lumen	4500 Lumen	5000 Lumen	5500 Lumen	6000 Lumen
1.81	2.17	2.28	2.38	2.65

Multipliers for relative lumen values with other series models.

Color Finish Multipliers

Finish code	C	H	W/WB	BB
Finish	Specular Clear	Semi-Specular	Matte White White Baffle	Black Baffle
Multiplier	1.00	0.92	0.91	0.82

Multipliers for relative lumen values with other color finishes.

CCT Multipliers – 80CRI

2700K	3000K	3500K	4000K	5000K
0.92	0.98	1.00	1.03	1.03

Multipliers for relative lumen values with other series color temperatures.

CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K	5000K
0.77	0.84	0.89	0.90	0.90

Multipliers for relative lumen values with other series color temperatures.

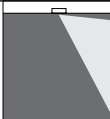
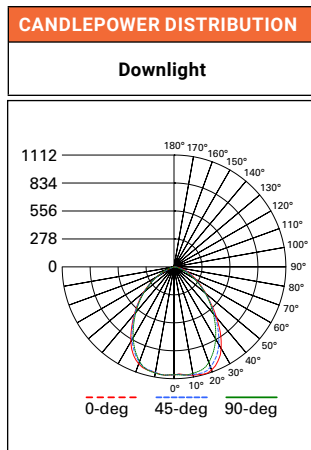
Note: Refer to IES files for more product data.

Photometric Data

 View IES files

WALL WASH DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

WALL WASH	
Test Number	P581882
Housing	HC620D010
Module	HM60525835
Reflector	61RWWC
Lumens	2179 Lm
Efficacy	109 Lm/W
SC	1.15

CANDELA TABLE	
Degrees Vertical	Candela
0	1080
5	1081
15	1112
25	1034
35	800
45	514
55	319
65	184
75	85
85	12
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	849	39
0-40	1313	60.2
0-60	1978	90.8
0-90	2179	100
90-180	0	0
0-180	2179	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	39810
55	30479
65	23907
75	17983
85	7359

SC = Spacing Criteria, nominal for specular clear reflector, other finishes and field results may vary.

SINGLE UNIT FOOTCANDLES

2.5' from wall (distance from fixture along wall)							
1	19.3	13.8	6.1	2.2	0.7	0.3	0.1
2	29.1	22.6	12.3	5.7	2.5	1.2	0.6
3	27.6	22.5	13.8	7.3	3.7	1.9	1
4	21	18.2	12.4	7.4	4.2	2.4	1.4
5	14.4	13.1	9.9	6.6	4.1	2.5	1.6
6	9.7	9.1	7.5	5.5	3.7	2.5	1.6
7	6.7	6.4	5.5	4.3	3.2	2.2	1.5
8	4.7	4.6	4.1	3.4	2.7	2	1.4
9	3.4	3.3	3.1	2.7	2.2	1.7	1.3
10	2.5	2.5	2.4	2.1	1.8	1.4	1.1

MULTIPLE UNIT FOOTCANDLES

2.5' from wall (Distance from fixture along wall)				2.5' from wall (Distance from fixture along wall)		
1	21.5	19.1	21.5	20	12.1	20
2	34.7	34.4	34.7	31.6	24.6	31.6
3	34.9	36	34.9	31.3	27.6	31.3
4	28.4	30.7	28.4	25.2	24.8	25.2
5	21	23.2	21	18.6	19.8	18.6
6	15.2	16.8	15.2	13.4	15	13.4
7	11	12	11	9.9	11	9.9
8	8.1	8.7	8.1	7.4	8.2	7.4
9	6.1	6.5	6.1	5.6	6.2	5.6
10	4.6	4.9	4.6	4.3	4.7	4.3

Photometric Multipliers (Nominal Lumen Values)

500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen
0.33	0.44	0.54	0.74	1.00	1.12	1.46	1.76

4000 Lumen	4500 Lumen	5000 Lumen	5500 Lumen	6000 Lumen
1.81	2.17	2.28	2.38	2.65

Multipliers for relative lumen values with other series models.

Color Finish Multipliers

Finish code	C	H	W/WB	BB
Finish	Specular Clear	Semi-Specular	Matte White White Baffle	Black Baffle
Multiplier	1.00	0.92	0.91	0.82

Multipliers for relative lumen values with other color finishes.

CCT Multipliers – 80CRI

2700K	3000K	3500K	4000K	5000K
0.92	0.98	1.00	1.03	1.03

Multipliers for relative lumen values with other series color temperatures.

CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K	5000K
0.77	0.84	0.89	0.90	0.90

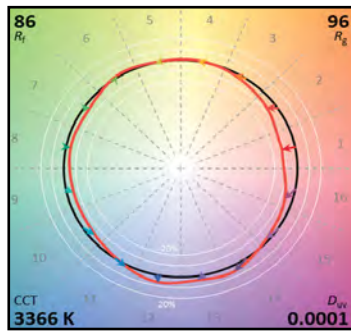
Multipliers for relative lumen values with other series color temperatures.

Note: Refer to IES files for more product data.

Energy & Performance Data

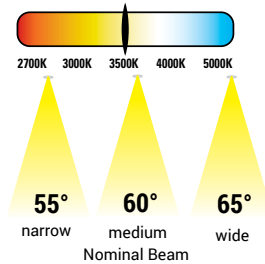
COLOR METRICS - TM-30-15 & CRI/CIE (3500K)

80 CRI Color Metric Summary - 3500K*

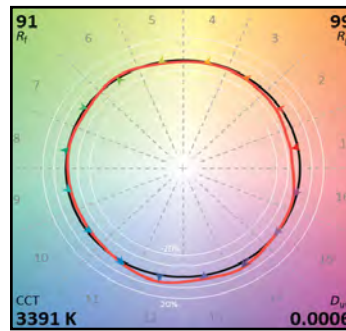


— Reference Illuminant — Test Source

TM-30-15	Rf = 86
	Rg = 95.5
CRI/CIE	Ra = 83.8
	R9 = 10.3

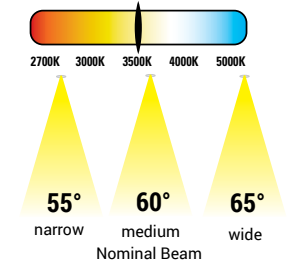


90 CRI Color Metric Summary - 3500K*



— Reference Illuminant — Test Source

TM-30-15	Rf = 91.1
	Rg = 99
CRI/CIE	Ra = 92.4
	R9 = 55.1



* Color values are based on 61WDWB reflector, other finishes and field results may vary.

ENERGY DATA

Series	500 lumen		750 lumen		1000 lumen		1500 lumen		2000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.051	0.026	0.067	0.036	0.083	0.039	0.119	0.053	0.171	0.077
Input Power (W)	6.1	6.5	7.9	8.3	10	10.4	14.5	14.5	20.9	20.6
In-rush (A)	1.9	8.4	2	8.4	2.2	8.5	2.7	8.5	2.1	9.7
Inrush duration (µs)	251	135	237	133	250	134	250	139	245	131
THD (%)	6.2	13.5	7.4	8.8	5.4	10.3	10	6.7	6.5	7.9
PF	≥ 0.99	≥ 0.9	≥ 0.98	≥ 0.92	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.97	≥ 0.99	≥ 0.96

Series	2500 lumen		3000 lumen		3500 lumen		4000 lumen		4500 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.23	0.103	0.24	0.107	0.292	0.152	0.351	0.159	0.384	0.172
Input Power (W)	27.5	27.5	28.6	28.5	34.6	35.1	42.1	42.1	45.9	45.6
In-rush (A)	2.5	5.6	2.5	11.6	3.4	13.9	3.1	14.7	3.1	14.8
Inrush duration (µs)	232	123	216	111	183	95	200	98	202	100
THD (%)	6.5	8.1	7.8	8.3	5.6	10	4.1	9.5	4.5	8.5
PF	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.93	≥ 0.99	≥ 0.94	≥ 0.99	≥ 0.95

Series	5000 lumen		5500 lumen		6000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V
Input Current (A)	0.419	0.186	0.457	0.201	0.489	0.214
Input Power (W)	50.1	49.5	54.6	53.7	58.4	57.4
In-rush (A)	3.1	15	3.2	14.8	3.4	14.8
Inrush duration (µs)	202	117	196	131	192	121
THD (%)	5.5	7.6	7	7.2	8.1	7.2
PF	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.97

Minimum starting temperature -30°C (-22°F)*
(Nominal input 120-277VAC & 100% of rated output power)

Sound Rating: Class A standards

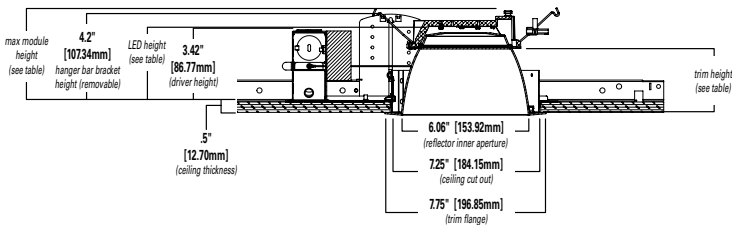
Notes:

* Emergency Battery packs are rated for a minimum starting temperature of 0°C.

Dimensional and Mounting Details

NEW CONSTRUCTIONS - LOW LUMEN 500 – 2500 LUMENS

NEW CONSTRUCTION - LOW LUMEN
500 – 2500 LUMENS



Low Lumen (500 – 2500 Lumens)*

Distribution	Max. Module Height	Trim Height	LED Height
Narrow	4.5"	3.4"	3.8"
Medium	4.6"	3.5"	3.9"
Wide	4.4"	3.3"	3.7"
Baffle	4.4"	3.3"	3.7"

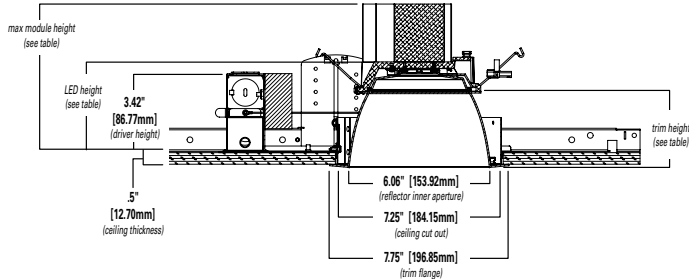
*Max. height w/removable hanger bar bracket 4.2"



Low Lumen Module

NEW CONSTRUCTIONS - MID LUMEN 3000 – 4000 LUMENS

NEW CONSTRUCTION - MID LUMEN
3000 AND 4000 LUMEN



Mid Lumen (3000 – 4000 Lumens)

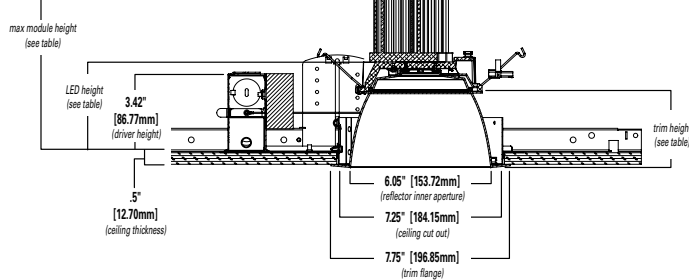
Distribution	Max. Module Height	Trim Height	LED Height
Narrow	6.6"	3.4"	3.8"
Medium	6.7"	3.5"	3.9"
Wide	6.5"	3.3"	3.7"
Baffle	6.5"	3.3"	3.7"



Mid Lumen Module

NEW CONSTRUCTIONS - HIGH LUMEN 4500 – 6000 LUMENS

NEW CONSTRUCTION - HIGH LUMEN
4500 – 6000 LUMEN



High Lumen (4500 – 6000 Lumens)

Distribution	Max. Module Height	Trim Height	LED Height
Narrow	6.9"	3.4"	3.8"
Medium	7.0"	3.5"	3.9"
Wide	6.8"	3.3"	3.7"
Baffle	6.8"	3.3"	3.7"



High Lumen Module

Connected Solutions

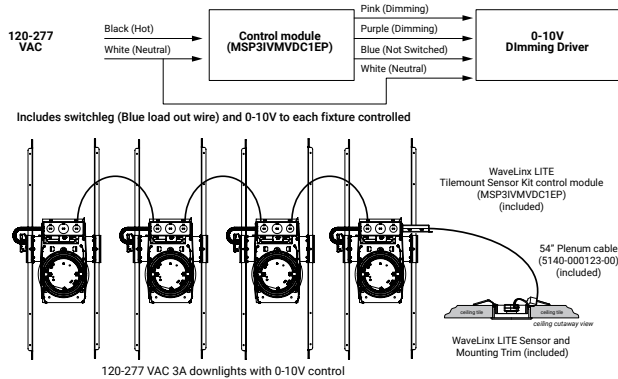
WaveLinx LITE - WTK Tilemount Sensor



- Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx LITE Bluetooth network)
- Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- Automatic occupancy or vacancy, sensor sensitivity, daylight dimming, etc. configurable through the app
- Refer to the WaveLinx system specifications for details



WaveLinx LITE WTK Tilemount Wiring Diagram



WaveLinx LITE Bluetooth Enabled System

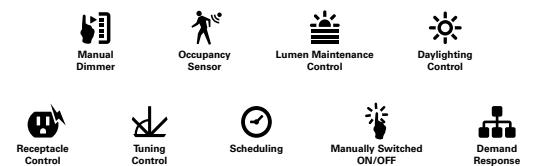


WaveLinx PRO – WTA Tilemount Sensor

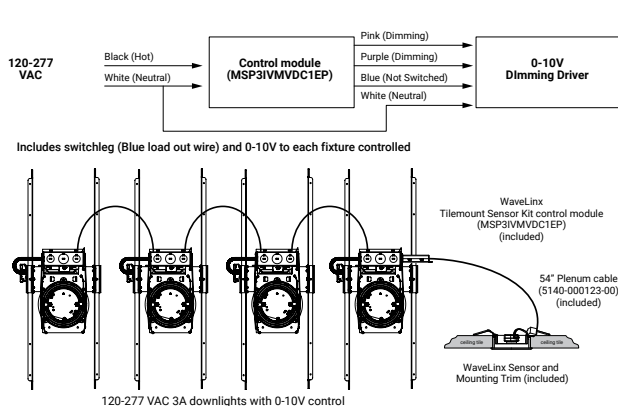


- WaveLinx PRO tilemount functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations

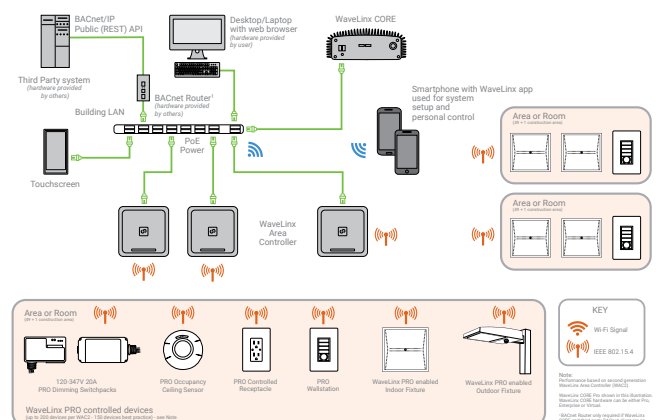
WaveLinx mobile app settings



WaveLinx WTA Tilemount Wiring Diagram



WaveLinx CORE Building Management Integration



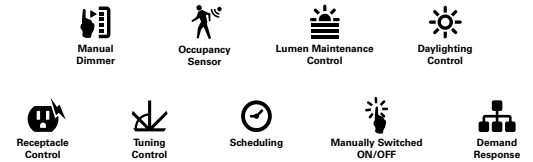
Connected Solutions

WaveLinX PRO Wireless Node - WPN

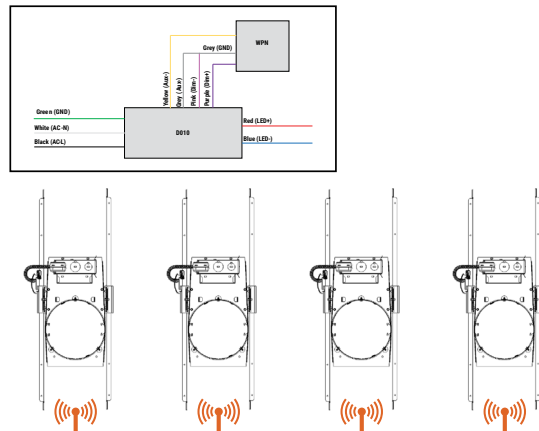
- WaveLinX Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with WaveLinX Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations



WaveLinX mobile app settings

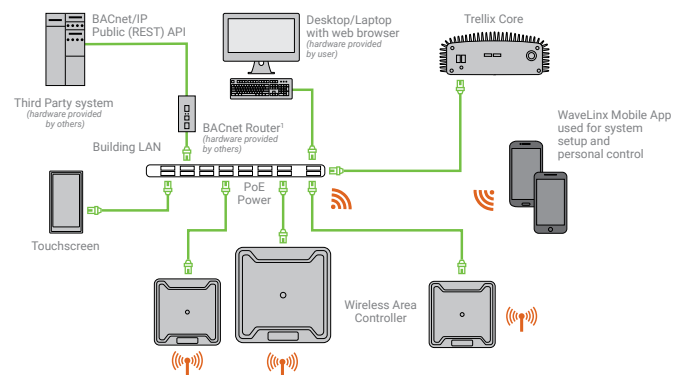


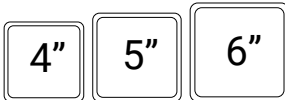
WaveLinX PRO Wireless Node (WPN) Wiring Diagram



120-277 VAC 3A downlights with 0-10V control

WaveLinX CORE Building Management Integration





Height

10' - 35'

Pole Shaft

The pole shaft material is a weldable grade hot rolled commercial quality carbon steel tubing with a minimum yield of 46,000 psi. Conforms to ASTM A500 Grade B Standards. Poles have ground lug welded inside hand-hole opposite side of the hand-hole. Pole shaft is welded to base plate on top and bottom of base plate.

Base Plate

The Base Plate is manufactured from structural hot rolled steel that meets or exceeds a minimum yield strength of 36,000 psi, conforms the ASTM-A36 standards. Base Plate vary in size from 1" thick for poles 21 feet and over, 3/4" thick for poles 10 to 20 feet.

Anchor Bolts

All anchor bolts are hot dipped galvanized steel and come with two galvanized nuts and washers per bolt. Minimum yield strength 55,000 psi. Anchor bolts are not included for Custom Bolt Circle.

Base Cover

All base covers are fabricated two-piece 6063 aluminum and powder coated to match the pole.

Hand-Hole

A reinforced hand-hole is 12" on center from the base plate and is constructed of 3"x 5" rectangular steel tubing which is welded to pole shaft for added strength. The hand-hole covers are provided with internal bridge support and powder coated to match pole finish.

Pole Cap

All poles come with a removable polymer pole cap installed. All pole caps are black finish. Aluminum Pole Cap option is painted to match pole.

Finish

All poles are treated with shot blast media for a near white finish, power blasted with 100 psi prior to powder coat application. Electrostatically applied polyester powder coat with a 3 to 5 mil thickness for maximum adherence.

Marine Grade Finish

All poles are washed through a 5-stage cleaning system with a deionized rinse, a 3 to 5 mils zinc rich durable polyester primer powder coat, followed by a 3 to 5 mils super durable polyester powder coat finish.

Galvanized Finish

All poles are Hot Dipped Galvanized in a multi stage process. Galvanizing Specification, Zinc (Hot Dipped Galvanized) per ASTM A 123/A 123M - 02

Zinc coatings on threaded materials shall conform to specification A 153 /A 153M. The coating shall be continuous and reasonably smooth and uniform in thickness and in weight.

Galvanizing Adherence - The Zinc coating shall withstand handling consistent with the nature and thickness of the coating and normal use of the article without peeling or flaking.

Galvanized Under Powder

Galvanized Under Powder (GUP) adheres to above galvanized specification, and the second stage is a light sand blast on the outside of the pole, third stage is a 3-5 mils polyester powder coat finish for maximum adherence.

Vibration Dampener

The Vibration Dampener is factory installed. The Vibration Dampener consists of a rugged galvanized chain coated with heavy duty polyester tubing that is factory secured at the bottom 2-3rds of the pole and field secured by contractor at the base during installation.

Buy American

To ensure the latest BAA/TAA/BABA Standards are being met, please select BAA, TAA, or BABA in the options section. Please contact the factory before placing an order for any NLS products requesting BAA (Buy American Act), TAA (Trade American Act), or BABA (Build America, Buy America).

Project Name:

Type:

SSSP ORDERING GUIDE

Cat#	Height	Pole Dimension	Gauge	Base Pattern
Square Straight Steel Pole (SSSP)	10' (10) 12' (12) 14' (14) 15' (15) 16' (16) 18' (18) 20' (20) 22' (22) 24' (24) 25' (25) 28' (28) 30' (30) 32' (32) 35' (35)	4" Square (4S) 5" Square (5S) 6" Square (6S)	.120 Wall Thickness (11G) .180 Wall Thickness (7G)	(10'-20') 9"- 10 3/8" Bolt Circle (9BC) (22'-35') 11 1/2"- 14" Bolt Circle (12BC) Custom Bolt Circle (CBC) * Consult Factory
Mounting	Color	Bolts	Options	
Single (SGL)	Bronze Textured (BRZ)	3/4" x 30" (3430)	GFI Kit (GFI20A) 20 Amp Weather Proof Receptacle	
Double (D-90) (D-180)	White Textured (WHT)	1" x 36" (136)	GFI Provision Only (PROV)	
Triple (T-90)	Smooth White Gloss (SWT)	Less Anchor Bolts (LAB)	Galvanized (GLV)	
Quad (QD)	Silver (SVR)		Galvanized Under Powder (GUP)	
No Drill (ND) *Tenon Option	Green Textured (GRN)		1/2" Coupling (COUP) * Specify Location	
Tenon	Hunter Green Textured (HGN)		Vibration Dampener (VD)	
2 3/8" Round (T2R)	Black Textured (BLK)		Extra Hand Hole (XHH) * Specify Location	
3" Round (T3R)	Smooth Black Gloss (SBK)		Marine Grade Finish (MGF)	
3 1/2" Round (T312R)	Graphite Textured (GPH)		UL Certified with label (UL) ①	
4 1/2" Round (T412R)	Grey Textured (GRY)		Aluminum Pole Cap (APC) ②	
3 1/2" Square (T312S)	Custom (CS)		Buy American (BAA) ②	
4 1/2" Square (T412S)			Trade American (TAA) ②	
5 1/2" Square (T512S)			Build America Buy American (BABA) ②	

Notes:

- ① Aluminum Pole Cap must be selected for UL Certified Pole Option
- ② Consult Factory

NLS
LIGHTING

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nlsighting.com

Max. allowable EPA - SSSP poles (per AASHTO LRFDLTS-1)																														
Catalog Number	Shaft Length, ft	Wall thickness, in.	Shaft dia., in.	Base Plate, in.	Bolt Circle, in.	Bolts	80 mph	Max. wt. (lb)	90 mph	Max. wt. (lb)	100 mph	Max. wt. (lb)	110 mph	Max. wt. (lb)	115 mph	Max. wt. lb	120 mph	Max. wt. lb	130 mph	Max. wt., lb	140 mph	Max. wt., lb	150 mph	Max. wt., lb	160 mph	Max. wt., lb	170 mph	Max. wt. lb	180 mph	Max. wt., lb
SSSP-10-4S-11G-9BC-3430	10	0.120	4	9" sq.	9	3/4"x30"	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	17.8	250	15.6	250	13.2	250	11.4	250
SSSP-12-4S-11G-9BC-3430	12	0.120	4	9" sq.	9	3/4"x30"	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	19.5	250	16.3	250	13.7	250	11.9	250	10.1	250	8.7	218
SSSP-14-4S-11G-9BC-3430	14	0.120	4	9" sq.	9	3/4"x30"	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	19.3	250	15.9	250	13.1	250	10.9	250	9.1	227	7.3	183	6.3	158
SSSP-15-4S-7G-9BC-3430	15	0.188	4	9" sq.	9	3/4"x30"	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	17.7	250	14.7	250	11.9	250	9.9	248	8.3	208	6.9	173
SSSP-16-4S-11G-9BC-3430	16	0.120	4	9" sq.	9	3/4"x30"	20.0	250	20.0	250	20.0	250	18.1	250	16.1	250	14.7	250	11.9	250	9.7	242	7.9	198	6.1	153	5.1	128	4.1	103
SSSP-18-4S-11G-9BC-3430	18	0.120	4	9" sq.	9	3/4"x30"	20.0	250	20.0	250	19.2	250	15.2	250	13.2	250	12.0	250	9.2	230	7.2	180	5.6	140	4.6	115	3.2	80	2.2	60
SSSP-20-4S-11G-9BC-3430	20	0.120	4	9" sq.	9	3/4"x30"	20.0	250	20.0	250	16.1	250	12.3	250	10.7	250	9.7	242	7.1	178	5.3	133	3.9	98	2.7	68	1.7	60	0.9	60
SSSP-20-4S-7G-9BC-3430	20	0.188	4	9" sq.	9	3/4"x30"	20.0	250	20.0	250	20.0	250	15.7	250	14.1	250	12.5	250	9.5	238	7.7	193	5.7	143	4.3	108	3.1	78	2.1	60
SSSP-20-5S-11G-9BC-3430	20	0.120	5	9" sq.	9	3/4"x30"	20.0	250	20.0	250	20.0	250	19.3	250	16.9	250	15.0	250	11.6	250	9.0	226	6.9	172	5.1	128	3.7	92	2.5	63
SSSP-20-5S-7G-9BC-3430	20	0.188	5	9" sq.	9	3/4"x30"	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	17.9	250	14.4	250	11.6	250	9.3	232	7.4	184	5.8	144
SSSP-22-4S-11G-12BC-136	22	0.120	4	12" sq.	12	1"x36"	20.0	250	16.7	250	12.4	250	9.2	231	7.9	198	6.8	169	4.9	123	3.4	85	2.2	60	1.2	60	0.4	60	0.0	-
SSSP-22-4S-7G-12BC-136	22	0.188	4	12" sq.	12	1"x36"	20.0	250	20.0	250	19.2	250	14.8	250	13.0	250	11.5	250	8.9	223	6.8	171	5.2	130	3.8	96	2.7	68	1.8	60
SSSP-22-5S-11G-12BC-136	22	0.120	5	12" sq.	12	1"x36"	20.0	250	20.0	250	19.3	250	14.6	250	12.7	250	11.0	250	8.2	206	6.0	151	4.2	106	2.8	71	1.6	60	0.6	60
SSSP-22-5S-7G-12BC-136	22	0.188	5	12" sq.	12	1"x36"	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	20.0	250	15.9	250	12.6	250	10.0	250	7.9	197	6.1	152	4.6	116
SSSP-24-4S-11G-12BC-136	24	0.120	4	12" sq.	12	1"x36"	19.6	250	14.0	250	10.4	250	7.2	180	6.0	150	5.2	130	3.2	80	1.8	60	1.0	60	0.0	-	0.0	-	0.0	-
SSSP-24-4S-7G-12BC-136	24	0.188	4	12" sq.	12	1"x36"	20.0	250	20.0	250	16.4	250	12.4	250	10.8	250	9.4	234	7.0	175	5.1	128	3.6	90	2.4	60	1.4	60	0.5	60
SSSP-24-5S-11G-12BC-136	24	0.120	5	12" sq.	12	1"x36"	20.0	250	20.0	250	16.2	250	11.9	250	10.1	250	8.6	215	6.1	152	4.1	101	2.4	61	1.1	60	0.0	-	0.0	-
SSSP-24-5S-7G-12BC-136	24	0.188	5	12" sq.	12	1"x36"	20.0	250	20.0	250	20.0	250	20.0	250	19.1	250	16.9	250	13.1	250	10.1	250	7.7	192	5.8	144	4.1	103	2.7	68
SSSP-25-4S-11G-12BC-136	25	0.120	4	12" sq.	12	1"x36"	18.2	250	13.2	250	9.4	235	6.6	165	5.4	135	4.4	110	2.8	70	1.2	60	0.4	60	0.0	-	0.0	-	0.0	-
SSSP-25-4S-7G-12BC-136	25	0.188	4	12" sq.	12	1"x36"	20.0	250	20.0	250	15.1	250	11.3	250	9.8	244	8.4	210	6.1	153	4.3	108	2.9	71	1.7	60	0.7	60	0.0	-
SSSP-25-5S-11G-12BC-136	25	0.120	5	12" sq.	12	1"x36"	20.0	250	20.0	250	14.7	250	10.6	250	9.0	224	7.5	188	5.1	127	3.1	78	1.6	60	0.3	60	0.0	-	0.0	-
SSSP-25-5S-7G-12BC-136	25	0.188	5	12" sq.	12	1"x36"	20.0	250	20.0	250	20.0	250	20.0	250	17.6	250	15.4	250	11.8	250	8.9	223	6.7	166	4.7	118	3.2	80	1.9	60
SSSP-26-4S-11G-12BC-136	26	0.120	4	12" sq.	12	1"x36"	17.2	250	11.8	250	8.4	210	5.4	135	4.6	115	3.4	85	1.8	60	0.8	60	0.0	-	0.0	-	0.0	-	0.0	-
SSSP-26-4S-7G-12BC-136	26	0.188	4	12" sq.	12	1"x36"	20.0	250	19.0	250	14.0	250	10.3	250	8.8	220	7.5	187	5.3	133	3.6	89	2.2	60	1.0	60	0.1	60	0.0	-
SSSP-26-5S-11G-12BC-136	26	0.120	5	12" sq.	12	1"x36"	20.0	250	18.8	250	13.4	250	9.5	237	7.8	196	6.5	161	4.1	103	2.3	60	0.8	60	0.0	-	0.0	-	0.0	-
SSSP-26-5S-7G-12BC-136	26	0.188	5	12" sq.	12	1"x36"	20.0	250	20.0	250	20.0	250	18.6	250	16.2	250	14.1	250	10.6	250	7.9	196	5.6	141	3.8	95	2.3	60	1.0	60
SSSP-28-4S-7G-12BC-136	28	0.188	4	12" sq.	12	1"x36"	20.0	250	16.4	250	11.8	250	8.4	210	7.0	175	5.8	144	3.8	94	2.2	60	0.9	60	0.0	-	0.0	-	0.0	-
SSSP-28-5S-11G-12BC-136	28	0.120	5	12" sq.	12	1"x36"	20.0	250	16.0	250	11.0	250	7.3	182	5.8	144	4.5	112	2.3	60	0.6	60	0.0	-	0.0	-	0.0	-	0.0	-
SSSP-28-5S-7G-12BC-136	28	0.188	5	12" sq.	12	1"x36"	20.0	250	20.0	250	20.0	250	15.7	250	13.5	250	11.6	250	8.4	209	5.8	145	3.7	93	2.0	60	0.6	60	0.0	-
SSSP-28-6S-7G-12BC-136	28	0.188	6	12" sq.	12	1"x36"	20.0	250	20.0	250	20.0	250	19.8	250	17.0	250	14.6	250	10.6	250	7.4	185	4.9	121	2.7	68	1.0	60	0.0	-
SSSP-30-5S-11G-12BC-136	30	0.120	5	12" sq.	12	1"x36"	19.9	250	13.4	250	8.7	218	5.3	132	3.9	98	2.7	67	0.6	60	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
SSSP-30-5S-7G-12BC-136	30	0.188	5	12" sq.	12	1"x36"	20.0	250	20.0	250	18.2	250	13.2	250	11.1	250	9.3	233	6.3	157	3.9	98	2.0	60	0.4	60	0.0	-	0.0	-
SSSP-30-6S-7G-12BC-136	30	0.188	6	12" sq.	12	1"x36"	20.0	250	20.0	250	20.0	250	16.6	250	14.0	250	11.8	250	8.0	201	5.1	126	2.7	66	0.7	60	0.0	-	0.0	-
SSSP-32-5S-7G-12BC-136	32	0.188	5	12" sq.	12	1"x36"	20.0	250	20.0	250	17.5	250	13.0	250	11.2	250	9.6	239	6.9	173	4.8	119	3.1	77	1.7	60	0.6	60	0.0	-
SSSP-32-6S-7G-12BC-136	32	0.188	6	12" sq.	12	1"x36"	20.0	250	20.0	250	20.0	250	16.4	250	14.1	250	12.1	250	8.8	219	6.2	154	4.0	101	2.3	60	0.9	60	0.0	-
SSSP-35-5S-7G-12BC-136	35	0.188	5	12" sq.	12	1"x36"	20.0	250	19.3	250	13.8	250	9.6	240	8.0	199	6.5	162	4.1	102	2.1	60	0.6	60	0.0	-	0.0	-	0.0	-
SSSP-35-6S-7G-12BC-136	35	0.188	6	12" sq.	12	1"x36"	20.0	250	20.0	250	17.3	250	12.2	250	10.1	250	8.3	207	5.3	132	2.9	72	1.0	60	0.0	-	0.0	-	0.0	-
SSSP-40-5S-7G-12BC-136	40	0.188	5	12" sq.	12	1"x36"	20.0	250	13.2	250	8.4	210	4.8	120	3.3	83	2.0	60	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
SSSP-40-6S-7G-12BC-136	40	0.188	6	12" sq.	12	1"x36"	20.0	250	16.7	250	10.7	250	6.2	155	4.4	110	2.8	70	0.1	60	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
*Pole Assemblies With EPA>9.0 Require Specific Review																														

*Pole Assemblies With EPA>9.0 Require Specific Review

CAUTION: Installation of poles without luminaire(s) will compromise pole strength. Any accessories attached to the pole, or other modifications done in the field, will compromise the pole strength and may result in pole failure. Wind load evaluations and provisions for appendages such as banner arms, signage, cameras, etc., must be evaluated and approved by the factory prior to placing an order. Additional evaluation and approval should be performed by the customer's local structural engineer on the project.

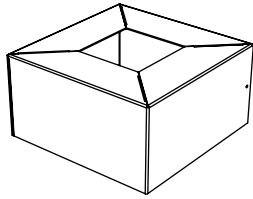
***Anchor Bolts are NOT included with Custom Bolt Circle.
*Do NOT pour concrete referencing this drawing. Consult Factory.**

***All wind loading calculations are based on sustained wind force plus an additional 1.3 gust.**

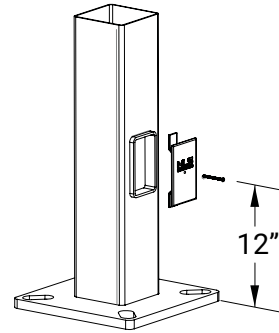


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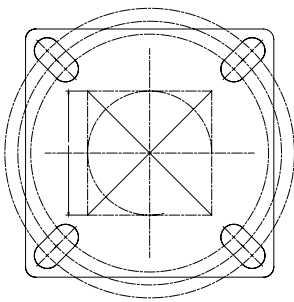
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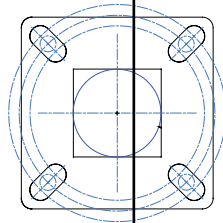
Base Cover



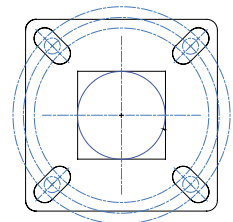
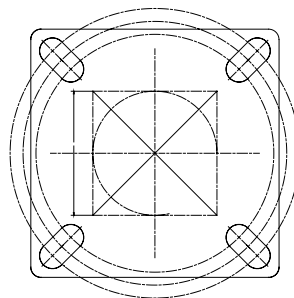
Base Detail



12" Base Detail



9" Base Detail



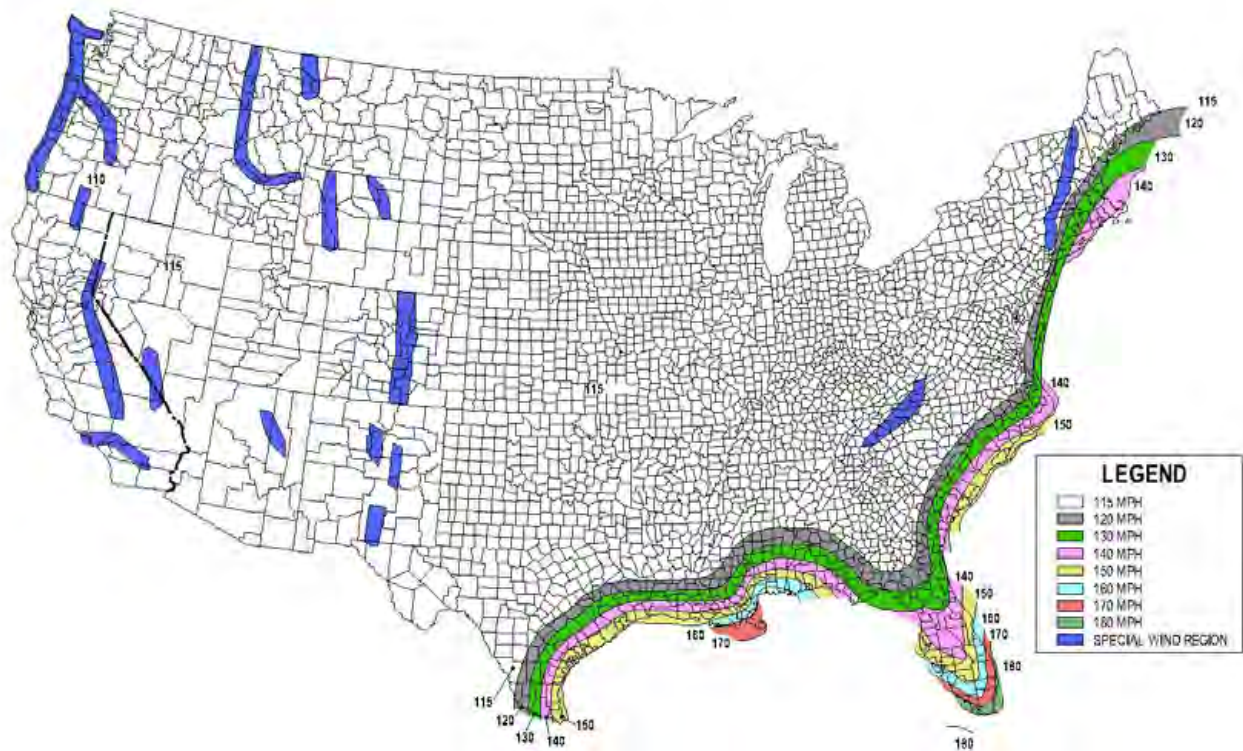


FIG. 3.8-1b - 700-Year MRI Basic Wind Speed, mph (AASHTO LRFDLTS-1)

- 1) All wind load calculations are based on sustained wind force plus and additional 1.3 gust
- 2) Wind Map is to be used as a reference only. Please coordinate with local agencies for further review.
- 3) Wind Map values are based on a 50 year mean recurrence. These values do not account for severe conditions, such as hurricanes, tornadoes, etc...
- 4) For review of poles with additional configurations (arms, banners, shorter/longer pole lengths, etc...), please contact factory.

BUY AMERICAN OPTION

While all of the NLS Lighting products listed in this document qualify for the Buy America(n) Act of 1933, we reserve the right to change our listings without notice.

The information provided above is for general informational purposes only. We encourage you to consult legal professionals for advice particular to your projects concerning BAA, TAA, BABA or Buy America.

Additional NLS Products that meet BAA, TAA standards can be found at the following link:

[https://nslighting.com/wp-content/uploads/cs/NLS_BuyAmerica\(n\).pdf](https://nslighting.com/wp-content/uploads/cs/NLS_BuyAmerica(n).pdf)

MOUNTING CONFIGURATION



Single
(SGL)



Double
(D-90)



Double
(D-180)



Triple
(T-90)



Quad
(QD)

AREA, SITE & ROADWAY

FORM AND FUNCTION

- Sleek, low profile housing
- Spec grade performance
- Engineered for optimum thermal management
- Low depreciation rate
- Reduces energy consumption and costs up to 65%
- Exceeds IES foot candle levels utilizing the least number of poles and fixtures per project
- Optical system designed for:
 - Parking Lots
 - Auto Dealerships
 - General Area Lighting

CONSTRUCTION

- Die Cast Aluminum
- External cooling fins
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP65 seal for electronics compartment
- One-piece Optics Plate™ mounting silicone Micro Optics
- Two-piece silicone Micro Optic system ensures IP67 level seal around each PCB
- Grade 2 Clear Anodized Optics Plate™ standard

FINISH

- 3-5 mils electrostatic powder coat.
- NLS' standard high-quality finishes prevent corrosion, protects against extreme environmental conditions

WARRANTY

Five-year limited warranty for drivers and LEDs.



BUY AMERICAN

To ensure the latest BAA/TAA/BABA Standards are being met, please select BAA, TAA, or BABA in the options section. Please contact the factory before placing an order for any NLS products requesting BAA (Buy American Act), TAA (Trade American Act), or BABA (Build America, Buy America).



LED WATTAGE CHART

	16L	32L	48L	64L
400 milliamps	21w	-	-	-
530 milliamps	28w	-	-	-
700 milliamps	36w	71w	104w	136w
1050 milliamps	56w	106w	156w	205w

Project Name:

Type:

Cat#	Light Dist.	# of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
NV-1 (NV-1)	Type 2 (T2)	16 (16L)	400 (40)	Amber 585-600nm (AMBER) ⑥ ⑩	120-277 (UNV)	Architectural Sweep Arm (ASA)	Bronze Textured (BRZ)	Bird Spikes (BS)
	Type 3 (T3)	32 (32L)	530 (53)	2700K, 70 CRI (27K7) ⑥	347-480 (HV)	Direct Pole 3" Arm Single, D180 (DPS3) ②	White Textured (WHT)	Marine Grade Finish (MGF)
	Type 4 (T4)	48 (48L)	700 (7)	2700K, 80 CRI (27K8) ⑥ ⑥		Direct Pole 7" Arm D180, D90, T90, T120, Quad (DPS7) ②	Smooth White Gloss (SWT)	Optic Plate Painted to Match Fixture (OPP)
	Type 5 (T5)	64 (64L)	1050 (1)	3000K, 70 CRI (30K7) ⑥		Knuckle Mount (KM)	Silver (SVR)	Nema 7-Pin Receptacle (PE7)
	Nema 3 30° Narrow Beam (N3)			3000K, 80 CRI (30K8) ⑥ ⑥		Wall Mount (WM)	Black Textured (BLK)	Photocell + Receptacle (PCR)
Notes: ① Consult Factory for Lead Time. Consult Factory for 90 CRI Requests. ② For Round Pole Specify RPA4 or RPA5 ③ Standard finish is stainless steel. Can be painted to match fixture ④ Universal Voltage 120-277 ⑤ HSS not applicable with Nema 2 and Nema 3 Optics ⑥ 3000K or lower, with fixed mounting options only, must be selected to meet International Dark-Sky Association certification. ⑦ Glass Lens: Low iron glass, fully tempered per ANSI C1047 (QCH-2201-37) ⑧ HAL Lens: Clear Soda-Lime-Silica Float Glass, Yellow (Spectrum Yellow Smooth 161S), Annealed, 1/8" ⑨ Please contact Factory for Custom Control Integration requests (nLight, NX, WaveLinX, Crestron, DMX/RDM, Synapse, Casambi, Dali II, Avi-On, or other control systems) ⑩ Turtle Safe ⑪ Consult factory for all BAA/TAA/BABA requests				3500K, 80 CRI (35K8)		Tennis Arm Mount (TA)	Smooth Black Gloss (SBK)	FSP-211 with Motion Sensor (FSP-20) ⑨ 9'-20" Heights (FSP-40) ⑨ 21'-40" Heights
				4000K, 70 CRI (40K7)		Trunnion Mount (TM) ⑥	Graphite Textured (GPH)	Quick Mount Bracket (QMB)
				4000K, 80 CRI (40K8) ⑥		Mast Arm Mount (MA)	Grey Textured (GRY)	Retrofit Mount Bracket (RQMB)
				5000K, 70 CRI (50K7)			Green (GRN)	Round Pole Adaptor 3"- 4" Pole (RPA4)
				5000K, 80 CRI (50K8) ⑥			Hunter Green (HGN)	Round Pole Adaptor 5"- 6" Pole (RPA5)
							Custom (CS)	Rotated Optic Left (ROL)
								Rotated Optic Right (ROR)
								Automotive House Side Shield (AHS)
								House Side Shield (HSS) ⑥
								Black Hardware (BH)
				Black Optic Frame (BOF)				
				Glass Lens (GL) ⑧				
				HAL Lens (HAL) ⑧				
				Buy American (BAA) ⑪				
				Trade American (TAA) ⑪				
				Build America Buy American (BABA) ⑪				
				Custom Controls Integration (CCI) ⑨				

PRODUCT SPECIFICATIONS

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver
- Driver power factor at maximum load is $\geq .95$, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 50°C to 55°C and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All internal wiring UL certified for 600 VAC and 105°C
- All drivers, controls, and sensors housed in enclosed IP65 compartment
- CRI 70, 80 or 90 (Contact factory for 90 CRI)
- Color temperatures: Amber, 2700K, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20KVA supplied as standard.

CONSTRUCTION

- Die Cast Aluminum
- External cooling fins
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP65 seal for electronics compartment
- One-piece Optics Plate™ mounting silicone Micro Optics
- Two-piece silicone Micro Optic system ensures IP67 level seal around each PCB
- Grade 2 Clear Anodized Optics Plate™ standard

OPTIONS

- BIRD SPIKES (BS) - Offers a practical and humane deterrent for larger bird species and provides a cost-effective long-term solution to nuisance bird infestations and protects your property.
- MARINE GRADE FINISH (MGF) - A multi-step process creating protective finishing coat against harsh environments. Chemically washed in a 5 stage cleaning system. Pre-baked, Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- OPTIC PLATE PAINTED TO MATCH FIXTURE (OPP) - Optic plate is clear anodized as standard. The optic plate can be powder coated to match the finish of the fixture.
- QUICK MOUNT BRACKET (QMB) - Optional Cast Aluminum Bracket designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures. Has a 2"x4" Drill Pattern.
- RETROFIT MOUNT BRACKET - Optional Cast Aluminum Bracket designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures. Drill Pattern is adjustable from 2"x4" to 2"x6".
- ROUND POLE ADAPTER (RPA) - When using round poles, specify Round Pole Adapter (RPA). Specify RPA4 when installing on 3"-4" round poles, and RPA5 when installing on 5"-6" round poles.
- ROTATED OPTICS (ROL) (ROR) - Rotated optics are designed for perimeter lighting for auto dealerships.
- SHIELDS (HSS, AHS) - House Side Shield (HSS) is designed for full property line cut-off. Automotive House Side Shield (AHS) is a single-sided shield allowing partial cut-off on either side or front of luminaire.
- BLACK HARDWARE (BH) - Optional black, zinc coated steel hardware.
- BLACK OPTIC FRAME (BOF) - Optional black optic frame. Standard is white.
- GLASS LENS (GL) - Low Iron Glass, fully tempered.
- HIGH PERFORMANCE AMBER LENS (HAL) -

CONTROL OPTIONS

- FSP-211 (FSP-X) - Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
- All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
- FSP-20 mounting heights 9-20 feet
- FSP-40 mounting heights 21-40 feet.
- Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.
- FSIR-100 commissioning remote is required to change sensor settings. Please contact factory for ordering.
- NEMA 7-PIN RECEPTACLE (PE7)—An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.
- PHOTOCCELL + RECEPTACLE (PCR)—7-Pin Receptacle and Electronic Twist Lock Photocell for dusk to dawn operation.
- RECEPTACLE + SHORTING CAP (PER)—7-Pin Receptacle and Shorting Cap.
- Controls Agnostic: Please contact factory for your preferred controls option. (nLight, NX, WaveLinx, Crestron, DMX/RDM, Synapse, Casambi, DALI II, Avi-On, or other control systems)

FINISH

- 3-5 mils electrostatic powder coat.
- NLS Light's standard high-quality finishes prevent corrosion protects against and extreme environmental conditions

WARRANTY

Five-year limited warranty for drivers and LEDs.

OPTICS

Silicone optics high thermal stability and light output provide higher powered LEDs with minimized lumen depreciation. UV stability with scratch resistance increases exterior application durability. Silicone optics do not yellow, crack or brittle over time

LISTINGS

- Certified to UL 1598
- UL 8750
- CSA C22.2 No. 250.0
- DesignLights Consortium® (DLC)
- DesignLights Consortium Premium® (DLCP)
- IP65/ IP67 Rated
- 3G Vibration Rated per ANSI C136.31-2010
- IDA Dark Sky Approved
- IK10 Rated

BUY AMERICAN OPTION

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The information and specifications on this document are subject to change without any notification. All values are design, nominal, typical or prorated values when measured under internal and external laboratory conditions.

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LUMENS

PART NUMBER	N3	LM/W	T2	LM/W	T3	LM/W	T4	LM/W	T4 AHS	LM/W	T5	LM/W	W
NV-1-16L-40-27K7			2324	111	2342	112	2307	110			2360	112	21
NV-1-16L-40-27K8			2176	104	2193	104	2160	103			2210	105	21
NV-1-16L-40-30K8			2333	111	2351	112	2316	110			2369	113	21
NV-1-16L-40-30K7			2513	120	2532	121	2494	119			2552	122	21
NV-1-16L-40-35K8			2333	111	2351	112	2316	110			2369	113	21
NV-1-16L-40-40K8			2513	120	2532	121	2494	119			2552	122	21
NV-1-16L-40-40K7			2715	129	2736	130	2695	128			2757	131	21
NV-1-16L-40-50K8			2513	120	2532	121	2494	119			2552	122	21
NV-1-16L-40-50K7			2715	129	2736	130	2695	128			2757	131	21
NV-1-16L-53-30K7	3136	112	3192	114	3220	115	3119	113	2016	72	3248	116	28
NV-1-16L-53-40K7	3248	116	3472	124	3472	124	3444	123	2128	76	3500	125	28
NV-1-16L-53-50K7	3360	120	3612	129	3640	130	3584	128	2240	80	3668	131	28
NV-1-16L-7-30K7	4032	112	3960	110	3960	110	3973	109	2592	72	3996	111	36
NV-1-16L-7-40K7	4176	116	4428	123	4284	119	4212	117	2736	76	4320	120	36
NV-1-16L-7-50K7	4320	120	4644	129	4500	125	4428	123	2880	80	4500	125	36
NV-1-16L-1-30K7	6272	112	6160	110	6384	114	6232	112	4032	72	6440	115	56
NV-1-16L-1-40K7	6496	116	6832	122	6888	123	6776	121	4256	76	6944	124	56
NV-1-16L-1-50K7	6720	120	7168	128	7224	129	7112	127	4480	80	7280	130	56
NV-1-32L-7-30K7	7952	112	7810	110	7810	110	7739	109	5112	72	7881	111	71
NV-1-32L-7-40K7	8236	116	9017	127	8449	119	8307	117	5396	76	8520	120	71
NV-1-32L-7-50K7	8520	120	9159	129	8875	125	8733	123	5680	80	8946	126	71
NV-1-32L-1-30K7	11872	112	11660	110	12084	114	11820	112	7632	72	12190	115	106
NV-1-32L-1-40K7	12296	116	12932	122	13038	123	12826	121	8056	76	13144	124	106
NV-1-32L-1-50K7	12720	120	13568	128	13674	129	13462	127	8480	80	13780	130	106
NV-1-48L-7-30K7	11648	112	11440	110	11440	110	11336	109	7488	72	11544	111	104
NV-1-48L-7-40K7	12064	116	13208	127	12376	119	12168	117	7904	76	12480	120	104
NV-1-48L-7-50K7	12480	120	13520	130	13000	125	12792	123	8320	80	13104	126	104
NV-1-48L-1-30K7	17472	112	17160	110	17784	114	17472	112	11232	72	17940	115	156
NV-1-48L-1-40K7	18096	116	19032	122	19188	123	18876	121	11856	76	19344	124	156
NV-1-48L-1-50K7	18720	120	19968	128	20124	129	19812	127	12480	80	20280	130	156
NV-1-64L-7-30K7	15232	112	14960	110	14960	110	14824	109	9792	72	15096	111	136
NV-1-64L-7-40K7	15776	116	17272	127	16184	119	15912	117	10336	76	16320	120	136
NV-1-64L-7-50K7	16320	120	17680	130	17000	125	16728	123	10880	80	17136	126	136
NV-1-64L-1-30K7	22960	112	22550	110	23370	114	22960	112	14760	72	23575	115	205
NV-1-64L-1-40K7	23780	116	25010	122	25215	123	24805	121	15580	76	25420	124	205
NV-1-64L-1-50K7	24600	120	26240	128	26445	129	26035	127	16400	80	26650	130	205

3000K or lower, with fixed mounting options only, must be selected to meet International Dark-Sky Association certification.

Lumen Maintenance Data

Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%
	1050mA	48,000	143,000	94.3%	89.5%	87.2%	78.5%
*Reported extrapolations per IESNA TM-21				**Projected extrapolations per IESNA TM-21			



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BUG RATINGS

PART NUMBER	T2	T3	T4	T5
NV-1-16L-40-27K7				
NV-1-16L-40-27K8				
NV-1-16L-40-30K8				
NV-1-16L-40-30K7				
NV-1-16L-40-35K8				
NV-1-16L-40-40K8				
NV-1-16L-40-40K7				
NV-1-16L-40-50K8				
NV-1-16L-40-50K7				
NV-1-16L-53-30K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
NV-1-16L-53-40K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
NV-1-16L-53-50K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
NV-1-16L-7-30K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	B3-U0-G1
NV-1-16L-7-40K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	B3-U0-G1
NV-1-16L-7-50K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	B3-U0-G1
NV-1-16L-1-30K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	B3-U0-G1
NV-1-16L-1-40K7	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2
NV-1-16L-1-50K7	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2
NV-1-32L-7-30K7	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2
NV-1-32L-7-40K7	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2
NV-1-32L-7-50K7	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2
NV-1-32L-1-30K7	B2-U0-G2	B2-U0-G2	B2-U0-G2	B4-U0-G2
NV-1-32L-1-40K7	B2-U0-G2	B2-U0-G2	B3-U0-G2	B4-U0-G2
NV-1-32L-1-50K7	B2-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G2
NV-1-48L-7-30K7	B2-U0-G2	B2-U0-G2	B2-U0-G2	B4-U0-G2
NV-1-48L-7-40K7	B2-U0-G2	B2-U0-G2	B2-U0-G2	B4-U0-G2
NV-1-48L-7-50K7	B2-U0-G2	B3-U0-G3	B2-U0-G2	B4-U0-G2
NV-1-48L-1-30K7	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
NV-1-48L-1-40K7	B3-U0-G3	B3-U0-G3	B3-U0-G3	B5-U0-G3
NV-1-48L-1-50K7	B3-U0-G3	B3-U0-G3	B3-U0-G3	B5-U0-G3
NV-1-64L-7-30K7	B2-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G2
NV-1-64L-7-40K7	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
NV-1-64L-7-50K7	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
NV-1-64L-1-30K7	B3-U0-G3	B3-U0-G3	B3-U0-G3	B5-U0-G3
NV-1-64L-1-40K7	B3-U0-G3	B3-U0-G3	B3-U0-G4	B5-U0-G3
NV-1-64L-1-50K7	B3-U0-G3	B3-U0-G3	B3-U0-G4	B5-U0-G3

LUMENS HSS

PART NUMBER	T2 HSS	LM/W	BUG	T3 HSS	LM/W	BUG	T4 HSS	LM/W	BUG	W
NV-1-16L-40-27K7										21
NV-1-16L-40-27K8										21
NV-1-16L-40-30K8										21
NV-1-16L-40-30K7										21
NV-1-16L-40-35K8										21
NV-1-16L-40-40K8										21
NV-1-16L-40-40K7										21
NV-1-16L-40-50K8										21
NV-1-16L-40-50K7										21
NV-1-16L-530-27K7	1837	66	B0-U0-G0	1771	63	B0-U0-G0	1780	64	B0-U0-G1	28
NV-1-16L-530-27K8	1720	61	B0-U0-G0	1658	59	B0-U0-G0	1666	60	B0-U0-G0	28
NV-1-16L-530-30K8	1844	66	B0-U0-G0	1777	63	B0-U0-G0	1787	64	B0-U0-G1	28
NV-1-16L-530-30K7	1986	71	B0-U0-G0	1914	68	B0-U0-G1	1924	69	B0-U0-G1	28
NV-1-16L-530-35K8	1844	66	B0-U0-G0	1777	63	B0-U0-G0	1787	64	B0-U0-G1	28
NV-1-16L-530-40K8	1986	71	B0-U0-G0	1914	68	B0-U0-G0	1924	69	B0-U0-G1	28
NV-1-16L-530-40K7	2146	77	B0-U0-G0	2068	74	B0-U0-G1	2079	74	B0-U0-G1	28
NV-1-16L-530-50K8	1986	71	B0-U0-G0	1914	68	B0-U0-G0	1924	69	B0-U0-G1	28
NV-1-16L-530-50K7	2146	77	B0-U0-G0	2068	74	B0-U0-G1	2079	74	B0-U0-G1	28
NV-1-16L-700-27K7	2426	67	B0-U0-G1	2338	65	B0-U0-G1	2350	65	B0-U0-G1	36
NV-1-16L-700-27K8	2272	63	B0-U0-G1	2190	61	B0-U0-G1	2201	61	B0-U0-G1	36
NV-1-16L-700-30K8	2436	68	B0-U0-G1	2348	65	B0-U0-G1	2360	66	B0-U0-G1	36
NV-1-16L-700-30K7	2623	73	B0-U0-G1	2528	70	B0-U0-G1	2541	71	B0-U0-G1	36
NV-1-16L-700-35K8	2436	68	B0-U0-G1	2348	65	B0-U0-G1	2360	66	B0-U0-G1	36
NV-1-16L-700-40K8	2623	73	B0-U0-G1	2528	70	B0-U0-G1	2541	71	B0-U0-G1	36
NV-1-16L-700-40K7	2835	79	B0-U0-G1	2732	76	B0-U0-G1	2746	76	B0-U0-G1	36
NV-1-16L-700-50K8	2623	73	B0-U0-G1	2528	70	B0-U0-G1	2541	71	B0-U0-G1	36
NV-1-16L-700-50K7	2835	79	B0-U0-G1	2732	76	B0-U0-G1	2746	76	B0-U0-G1	36
NV-1-16L-1050-27K7	3639	65	B0-U0-G1	3508	63	B0-U0-G1	3526	63	B0-U0-G1	56
NV-1-16L-1050-27K8	3408	61	B0-U0-G1	3284	59	B0-U0-G1	3301	59	B0-U0-G1	56
NV-1-16L-1050-30K8	3654	65	B1-U0-G1	3521	63	B0-U0-G1	3539	63	B0-U0-G1	56
NV-1-16L-1050-30K7	3935	70	B1-U0-G1	3792	68	B0-U0-G1	3812	68	B0-U0-G1	56
NV-1-16L-1050-35K8	3654	65	B1-U0-G1	3521	63	B0-U0-G1	3539	63	B0-U0-G1	56
NV-1-16L-1050-40K8	3935	70	B1-U0-G1	3792	68	B0-U0-G1	3812	68	B0-U0-G1	56
NV-1-16L-1050-40K7	4252	76	B1-U0-G1	4098	73	B0-U0-G1	4119	74	B0-U0-G1	56
NV-1-16L-1050-50K8	3935	70	B1-U0-G1	3792	68	B0-U0-G1	3812	68	B0-U0-G1	56
NV-1-16L-1050-50K7	4252	76	B1-U0-G1	4098	73	B0-U0-G1	4119	74	B0-U0-G1	56
NV-1-32L-700-27K7	4853	68	B1-U0-G1	4677	66	B0-U0-G1	4701	66	B0-U0-G1	71
NV-1-32L-700-27K8	4544	64	B1-U0-G1	4379	62	B0-U0-G1	4402	62	B0-U0-G1	71
NV-1-32L-700-30K8	4872	69	B1-U0-G1	4695	66	B0-U0-G1	4719	66	B0-U0-G2	71
NV-1-32L-700-30K7	5247	74	B1-U0-G1	5057	71	B0-U0-G1	5083	72	B1-U0-G2	71
NV-1-32L-700-35K8	4872	69	B1-U0-G1	4695	66	B0-U0-G1	4719	66	B0-U0-G2	71
NV-1-32L-700-40K8	5247	74	B1-U0-G1	5057	71	B0-U0-G1	5083	72	B1-U0-G2	71
NV-1-32L-700-40K7	5669	80	B1-U0-G1	5464	77	B0-U0-G2	5492	77	B1-U0-G2	71
NV-1-32L-700-50K8	5247	74	B1-U0-G1	5057	71	B0-U0-G1	5083	72	B1-U0-G2	71
NV-1-32L-700-50K7	5669	80	B1-U0-G1	5464	77	B0-U0-G2	5492	77	B1-U0-G2	71
NV-1-32L-1050-27K7	7279	69	B1-U0-G2	7015	66	B1-U0-G2	7051	67	B1-U0-G2	106
NV-1-32L-1050-27K8	6816	64	B1-U0-G2	6569	62	B1-U0-G2	6602	62	B1-U0-G2	106
NV-1-32L-1050-30K8	7307	69	B1-U0-G2	7043	66	B1-U0-G2	7079	67	B1-U0-G2	106
NV-1-32L-1050-30K7	7870	74	B1-U0-G2	7585	72	B1-U0-G2	7624	72	B1-U0-G2	106
NV-1-32L-1050-35K8	7307	69	B1-U0-G2	7043	66	B1-U0-G2	7079	67	B1-U0-G2	106
NV-1-32L-1050-40K8	7870	74	B1-U0-G2	7585	72	B1-U0-G2	7624	72	B1-U0-G2	106
NV-1-32L-1050-40K7	8504	80	B1-U0-G2	8196	77	B1-U0-G2	8238	78	B1-U0-G2	106
NV-1-32L-1050-50K8	7870	74	B1-U0-G2	7585	72	B1-U0-G2	7624	72	B1-U0-G2	106
NV-1-32L-1050-50K7	8504	80	B1-U0-G2	8196	77	B1-U0-G2	8238	78	B1-U0-G2	106
NV-1-48L-700-27K7	7279	70	B1-U0-G2	7015	67	B1-U0-G2	7051	68	B1-U0-G2	104
NV-1-48L-700-27K8	6816	66	B1-U0-G2	6569	63	B1-U0-G2	6602	63	B1-U0-G2	104
NV-1-48L-700-30K8	7307	70	B1-U0-G2	7043	68	B1-U0-G2	7079	68	B1-U0-G2	104
NV-1-48L-700-30K7	7870	76	B1-U0-G2	7585	73	B1-U0-G2	7624	73	B1-U0-G2	104
NV-1-48L-700-35K8	7307	70	B1-U0-G2	7043	68	B1-U0-G2	7079	68	B1-U0-G2	104
NV-1-48L-700-40K8	7870	76	B1-U0-G2	7585	73	B1-U0-G2	7624	73	B1-U0-G2	104
NV-1-48L-700-40K7	8504	82	B1-U0-G2	8196	79	B1-U0-G2	8238	79	B1-U0-G2	104
NV-1-48L-700-50K8	7870	76	B1-U0-G2	7585	73	B1-U0-G2	7624	73	B1-U0-G2	104
NV-1-48L-700-50K7	8504	82	B1-U0-G2	8196	79	B1-U0-G2	8238	79	B1-U0-G2	104
NV-1-48L-1050-27K7	10918	70	B1-U0-G2	10523	67	B1-U0-G2	10577	68	B1-U0-G2	156
NV-1-48L-1050-27K8	10223	66	B1-U0-G2	9853	63	B1-U0-G2	9903	63	B1-U0-G2	156
NV-1-48L-1050-30K8	10961	70	B1-U0-G2	10564	68	B1-U0-G2	10618	68	B1-U0-G2	156
NV-1-48L-1050-30K7	11805	76	B1-U0-G2	11377	73	B1-U0-G2	11436	73	B1-U0-G2	156
NV-1-48L-1050-35K8	10961	70	B1-U0-G2	10564	68	B1-U0-G2	10618	68	B1-U0-G2	156
NV-1-48L-1050-40K8	11805	76	B1-U0-G2	11377	73	B1-U0-G2	11436	73	B1-U0-G2	156
NV-1-48L-1050-40K7	12755	82	B1-U0-G2	12293	79	B1-U0-G2	12356	79	B1-U0-G2	156
NV-1-48L-1050-50K8	11805	76	B1-U0-G2	11377	73	B1-U0-G2	11436	73	B1-U0-G2	156
NV-1-48L-1050-50K7	12755	82	B1-U0-G2	12293	79	B1-U0-G2	12356	79	B1-U0-G2	156
NV-1-64L-700-27K7	9705	71	B1-U0-G2	9354	69	B1-U0-G2	9402	69	B1-U0-G2	136
NV-1-64L-700-27K8	9087	67	B1-U0-G2	8758	64	B1-U0-G2	8803	65	B1-U0-G2	136
NV-1-64L-700-30K8	9743	72	B1-U0-G2	9390	69	B1-U0-G2	9438	69	B1-U0-G2	136
NV-1-64L-700-30K7	10493	77	B1-U0-G2	10113	74	B1-U0-G2	10165	75	B1-U0-G2	136
NV-1-64L-700-35K8	9743	72	B1-U0-G2	9390	69	B1-U0-G2	9438	69	B1-U0-G2	136
NV-1-64L-700-40K8	10493	77	B1-U0-G2	10113	74	B1-U0-G2	10165	75	B1-U0-G2	136
NV-1-64L-700-40K7	11338	83	B1-U0-G2	10927	80	B1-U0-G2	10983	81	B1-U0-G2	136
NV-1-64L-700-50K8	10493	77	B1-U0-G2	10113	74	B1-U0-G2	10165	75	B1-U0-G2	136
NV-1-64L-700-50K7	11338	83	B1-U0-G2	10927	80	B1-U0-G2	10983	81	B1-U0-G2	136
NV-1-64L-1050-27K7	14558	71	B1-U0-G2	14031	68	B1-U0-G2	14103	69	B1-U0-G3	205
NV-1-64L-1050-27K8	13631	66	B1-U0-G2	13137	64	B1-U0-G2	13205	64	B1-U0-G3	205
NV-1-64L-1050-30K8	14615	71	B1-U0-G2	14085	69	B1-U0-G2	14157	69	B1-U0-G3	205
NV-1-64L-1050-30K7	15740	77	B1-U0-G2	15170	74	B1-U0-G3	15248	74	B1-U0-G3	205
NV-1-64L-1050-35K8	14615	71	B1-U0-G2	14085	69	B1-U0-G2	14157	69	B1-U0-G3	205
NV-1-64L-1050-40K8	15740	77	B1-U0-G2	15170	74	B1-U0-G3	15248	74	B1-U0-G3	205
NV-1-64L-1050-40K7	17007	83	B2-U0-G2	16391	80	B1-U0-G3	16475	80	B1-U0-G3	205
NV-1-64L-1050-50K8	15740	77	B1-U0-G2	15170	74	B1-U0-G3	15248	74	B1-U0-G3	205
NV-1-64L-1050-50K7	17007	83	B2-U0-G2	16391	80	B1-U0-G3	16475	80	B1-U0-G3	205

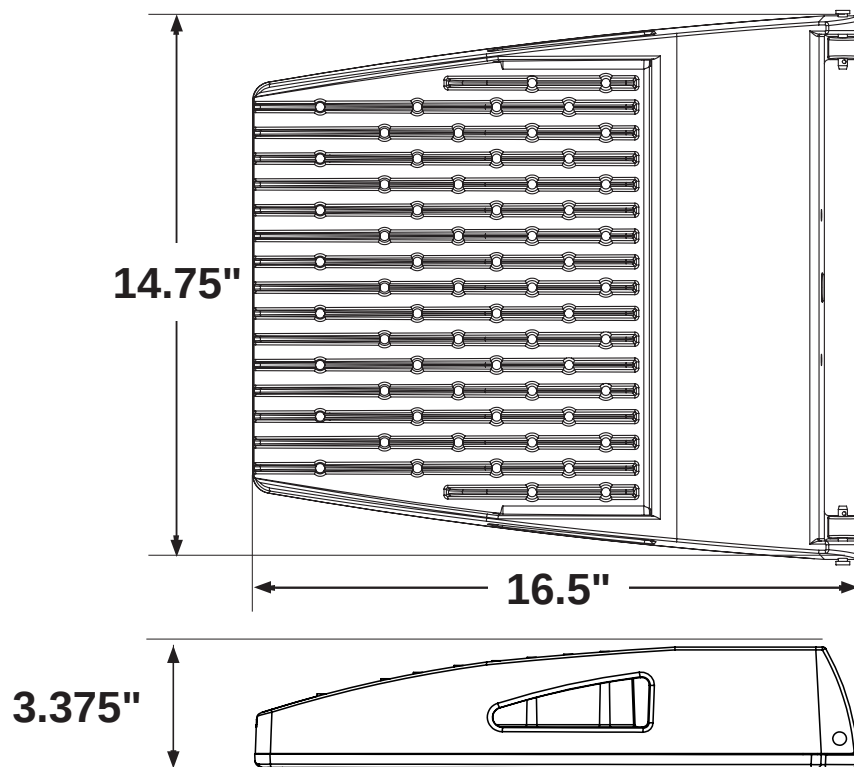
3000K or lower, with fixed mounting options only, must be selected to meet International Dark-Sky Association certification.



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PRODUCT SPECIFICATIONS

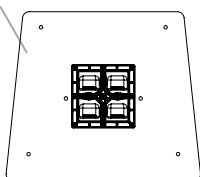


Weight: 24 lbs

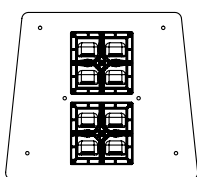
OPTICAL CONFIGURATIONS

Rotatable Optics (ROR) Rotated Right, (ROL) Rotated Left options available. Optics field and factory rotatable.

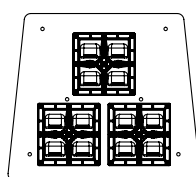
(OPP)



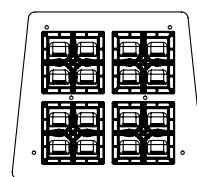
NV-1 / 16L



NV-1 / 32L

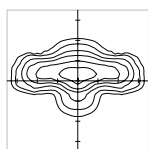


NV-1 / 48L

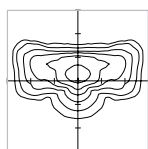


NV-1 / 64L

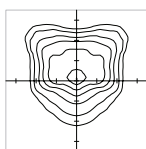
*** OPTIC PLATE PAINTED TO MATCH FIXTURE FINISH (OPP)**– Optic Plate standard clear anodized, Grade 2. When (OPP) specified, Optic Plate finish will match fixture finish.



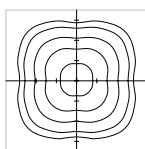
TYPE II (T2)



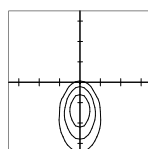
TYPE III (T3)



TYPE IV (T4)



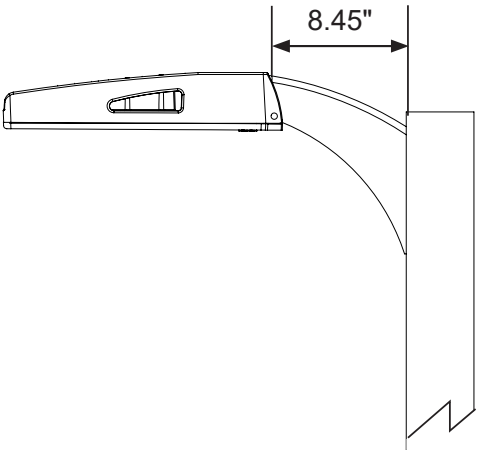
TYPE V (T5)



MOUNTING OPTIONS

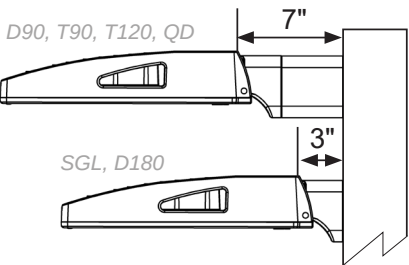
ARCHITECTURAL SWEEP ARM (ASA)

Cast Sweep Arm includes (as standard)
Internal Quick Mount Bracket.



DIRECT POLE (DP)

Standard mounting arm is extruded
aluminum in lengths of 3" and 7".
**Arm lengths may vary depending on configuration*

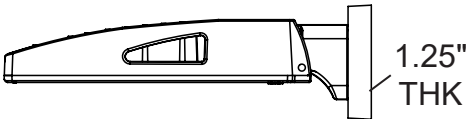


DPX ARM LENGTH

DPX ARM LENGTH	SGL	D90	D180	D180	T90	T120	QD
NV-1	3"	7"	3"	7"	7"	7"	7"

WALL MOUNT (WM)

Cast Aluminum Plate for direct wall
mount. 3" extruded aluminum arm
mounts directly to a cast wall mount box.



EPA

EPA	SGL	D90	D180	T90	T120	QD
NV-1-DP3	0.46		0.92			
NV-1-DP7		1.14	1.05	1.34	1.37	1.34
NV-1-KM	0.54	N/A	1.08	N/A	N/A	N/A
NV-1-ASA	0.75	1.29	1.50	1.99	2.05	1.99

MOUNTING
CONFIGURATION

Single (SGL)

Double (D-90)

Double (D-180)

Triple (T-90)

Triple (T-120)

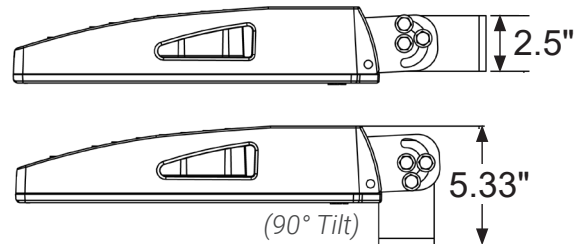
Quad (QD)

MOUNTING OPTIONS

TRUNNION MOUNT (TM)

Steel, bolt-on-mounting for adjustable installation with a maximum uplift of 90 degrees.

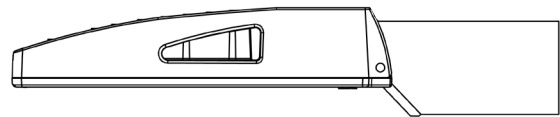
**Unpainted stainless steel is standard*



TENNIS ARM (TA)

Steel fitter slips over 3.5" x 1.5" rectangular arm.

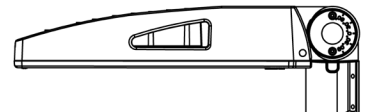
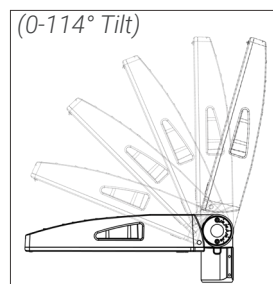
**See Tennis Arm Spec Sheet for details*



KNUCKLE MOUNT (KM)

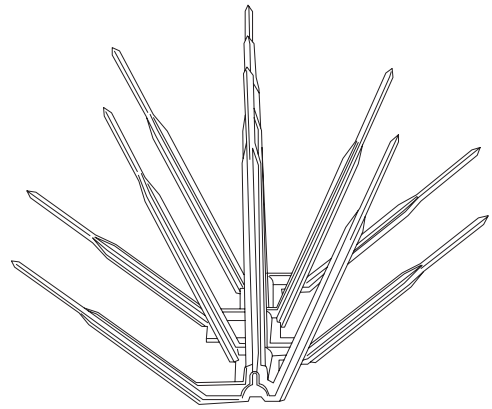
Die Cast Knuckle great for adjustable installation on 2-3/8" OD vertical or horizontal tenon.

- Max Up-tilt of 90 degrees
- Adjustable in 6 degree increments
- 1.5G Vibration Rated per ANSI C136.31-2010



BIRD SPIKES (BS)

Bird Spikes offers effective and humane deterrent for larger bird species and provides cost-effective long-term solution to nuisance bird infestations and protect your property.



MARINE GRADE FINISH (MGF)



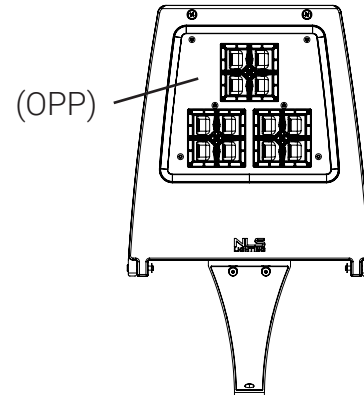
Powder Coat Finish
3-5mm Powder Coat

Primer Layer
3-5mm Zinc Rich
Super Durable Polyester Primer

Prepared Casting
Chemically washed in multi Step 5 stage
cleaning process

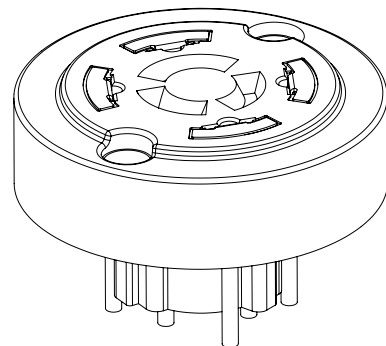
OPTIC PLATE PAINTED TO MATCH (OPP)

Optic plate is clear anodized as standard. The optic plate can be powder coated to match the finish of the fixture.



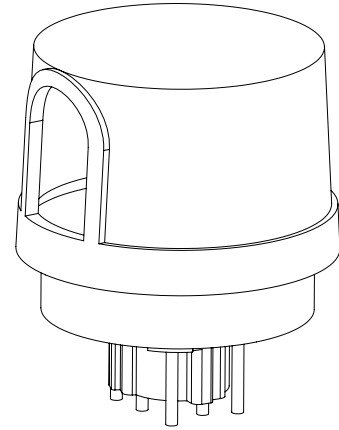
NEMA 7-PIN RECEPTACLE (PE7)

An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.



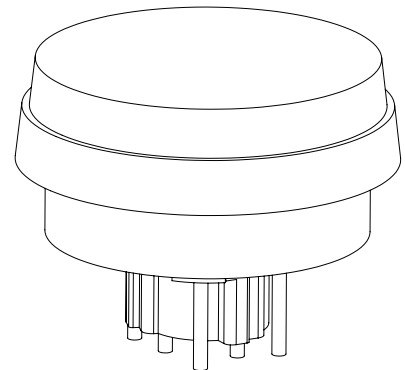
PHOTOCELL + RECEPTACLE (PCR)

7-Pin Receptacle and Electronic Twist Lock Photocell for dusk to dawn operation.



RECEPTACLE + SHORTING CAP (PER)

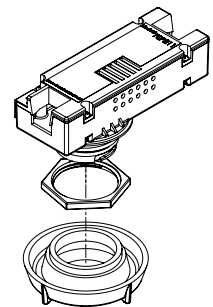
7-Pin Receptacle and Shorting Cap.



FSP-211 WITH MOTION SENSOR (FSP-XX)

- FSP-211 (FSP-X)—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
- All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
- FSP-20 mounting heights 9-20 feet
- FSP-40 mounting heights 21-40 feet.
- Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.

FSP-211



QUICK MOUNT BRACKET (QMB)

Optional Cast Aluminum Bracket designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures. Has a 2"x4" Drill Pattern.



RETROFIT MOUNT BRACKET (RQMB)

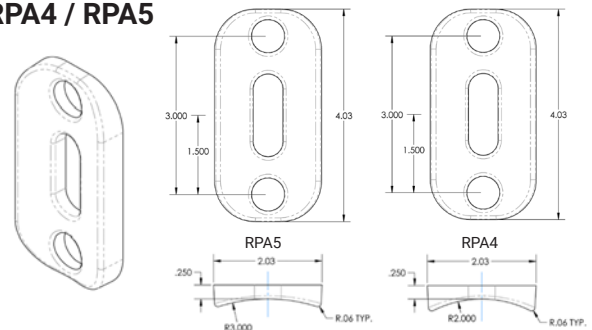
Optional Cast Aluminum Bracket designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures. Drill Pattern is adjustable from 2"x4" to 2"x6".



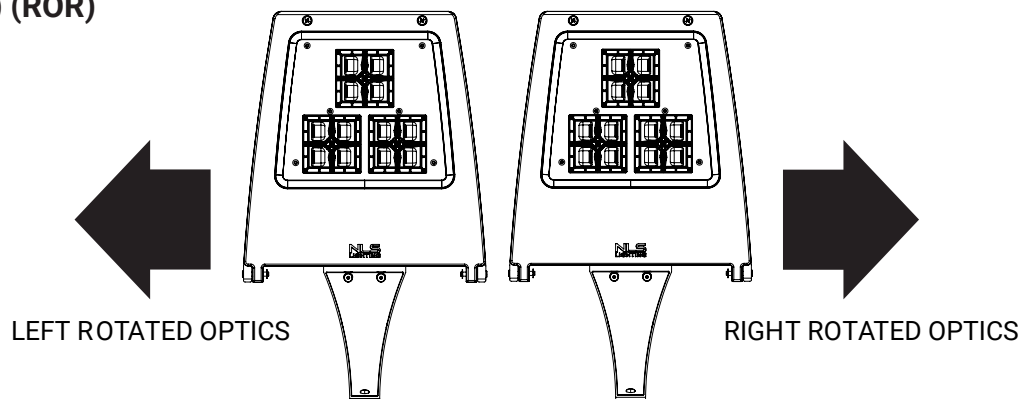
ROUND POLE ADAPTER OPTIONS (RPA4) (RPA5)

When using round poles, specify Round Pole Adapter (RPA). Specify RPA4 when installing on 3"-4" round poles, and RPA5 when installing on 5"-6" round poles.

RPA4 / RPA5



ROTATED OPTICS (ROL) (ROR)

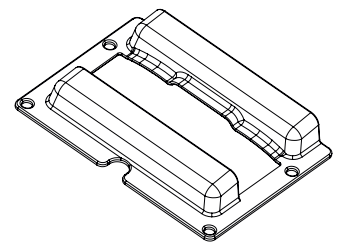
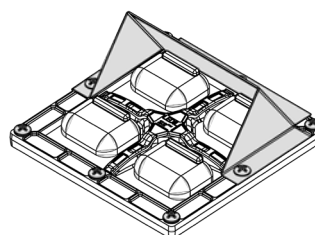


SHIELDING OPTIONS (AHS) (HSS)

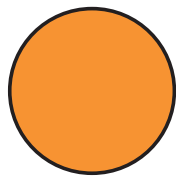
SHIELDS (HSS, AHS)—House Side Shield (HSS) is designed for full property line cut-off. Automotive House Side Shield (AHS) is a single-sided shield allowing partial cut-off on either side or front of luminaire.

AUTOMOTIVE
HOUSE SIDE SHIELD

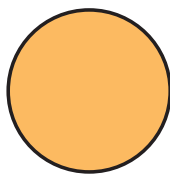
HOUSE SIDE SHIELD



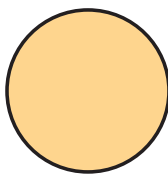
LED KELVIN RANGE



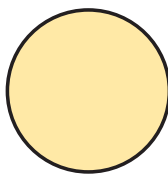
AMBER
585-600 nm



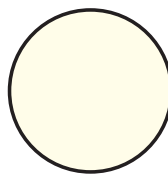
2700K 70 CRI



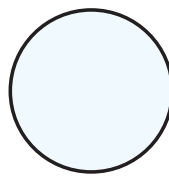
3000K 70 CRI



3500K 80 CRI



4000K 70 CRI

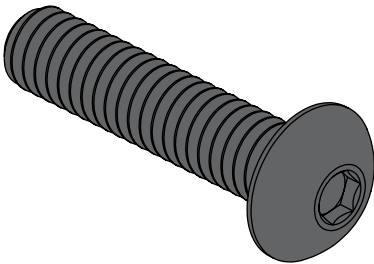


5000K 70 CRI

Color	Dominant or Peak Wavelength Range (nm)	
	Minimum	Maximum
Amber	585	600

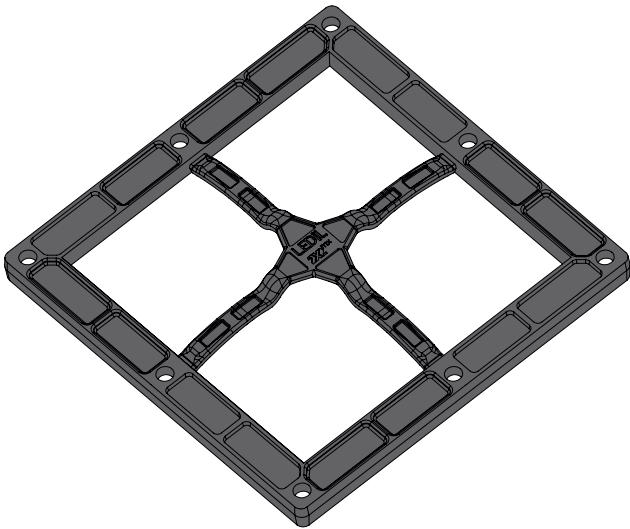
BLACK HARDWARE

Optional black, zinc coated steel hardware.



BLACK OPTIC FRAME

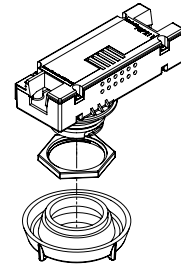
Optional Black Optic Frame. Standard is white.



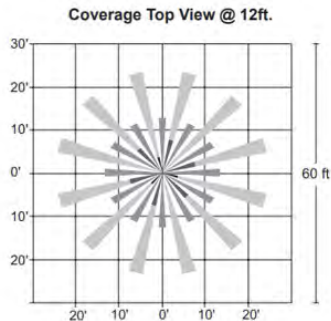
PRODUCT SPECIFICATIONS

CONTROLS

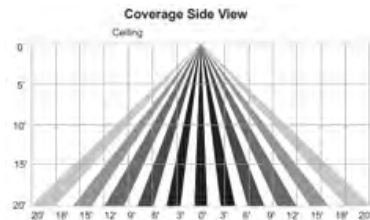
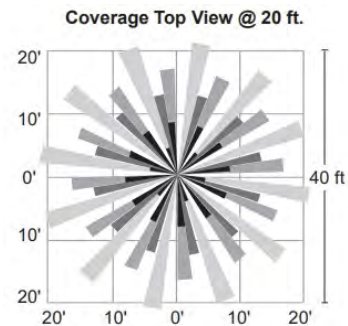
- **DIMMING CONTROL (FSP)**—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
- All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
- FSP-8 mounting heights 8 feet and below
- FSP-20 mounting heights 9-20 feet
- FSP-40 mounting heights 21-40 feet.
- Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.



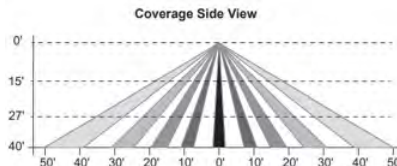
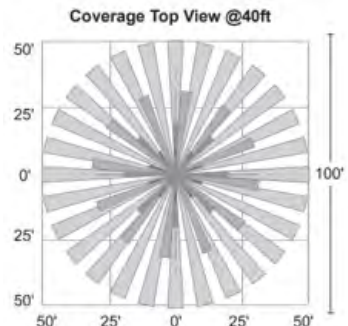
FSP-8



FSP-20



FSP-40



ARCHITECTURAL HIGH PERFORMANCE FULL CUTOFF WALL PACK

KEY FEATURES

- Ideal for Exterior Walls, Entryways, Pathways, New Construction and Renovation, Warehouse and Receiving Docks, Court Yards, and School Playgrounds
- Sleek Minimalistic Design of the the NV-W (up to 11,000 Lumens, 12"W x 9"D x 5.5"H) Compliments the Design of the NV-W2 (up to 24,000 Lumens, 18"W x 9.38"D x 5"H)
- Amber, 2700K, 3000K, 3500K, 4000K, 5000K CCT Multichip High Power 70 & 80 CRI LEDs
- IP65 Rated Against Dust & Water Ingress, IK10 Rated for Tamper/ Vandalism/Impact Protection
- 20kA Surge Protection (120V - 480V) Cold Weather Integrated Battery Back-Up Safety Options
- Silicone Optics providing 96% Clarity and Heat Resistant up to 150°C
- 9 Standard Finishes, Custom Finish and Marine Grade Finish Available
- Controls Agnostic, Compatible with Most Control Systems and Sensors
- Environmentally Friendly Product Which Reduces Energy Consumption, L70 > 100,000 hours
- IDA qualified for 3000K CCT and Lower for Down-light Application, Reducing Light Pollution and Trespass
- Buy America(n) Option Available, Quick Mount for Easy Installation
- Cost Competitive and Short Shipping Lead Times in Days & Weeks



BUY AMERICAN

To ensure the latest BAA/TAA/BABA Standards are being met, please select BAA, TAA, or BABA in the options section. Please contact the factory before placing an order for any NLS products requesting BAA (Buy American Act), TAA (Trade American Act), or BABA (Build America, Buy America).



LED WATTAGE CHART

	16L	32L
400 milliamps	21w	-
530 milliamps	29w	-
700 milliamps	37w	71w
1000 milliamps	-	100w
1050 milliamps	56w	

Project Name:

Type:

Cat#	Light Dist.	# of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Controls	Options
NV-W (NV-W)	Type 2 (T2)	16 (16L)	400 (40)	Amber 585-600nm (AMBER) ^{⑦ ⑩}	120-277 (UNV)	Wall Mount (WM)	Bronze Textured (BRZ)	FSP-211 with Motion Sensor (FSP-8) ^③ *8' Heights and below (FSP-20) ^③ *9'-20' Heights	Marine Grade Finish (MGF)
	Type 3 (T3)	32 (32L)	530 (53)	2700K, 70 CRI (27K7) ^⑦	347-480 (HV)		White Textured (WHT)	Nema 7-Pin Receptacle (PE7) ^② Button Photo Cell (PC) ^③	Vanity Plate 22"x16" (VP)
	Type 4 (T4)		700 (7)	2700K, 80 CRI (27K8) ^{① ⑦}			Smooth White Gloss (SWT)		Housing Extension (HE)
			1000 (1A) ^⑤	3000K, 70 CRI (30K7) ^⑦			Silver (SVR)		Surge Protector (20KA)
			1050 (1) ^⑥	3000K, 80 CRI (30K8) ^{① ⑦}			Black Textured (BLK)		Emergency Battery 4w (EM4) ^{② ③ ④}
Notes: ① Consult Factory for Lead Time. Consult Factory for 90 CRI Requests. ② Requires Housing Extension ③ Universal Voltage 120-277 ④ All Emergency Battery Options Certified CA Title 20 ⑤ (1A) 32L only ⑥ (1) 16L only ⑦ 3000K or lower, with fixed mounting options only, must be selected to meet International Dark-Sky Association certification. ⑧ Glass Lens: Low iron glass, fully tempered per ANSI C1047 (QCH-2201-37) ⑨ HAL Lens: Clear Soda-Lime-Silica Float Glass, Yellow (Spectrum Yellow Smooth 161S), Annealed, 1/8" ⑩ Please contact Factory for Custom Control Integration requests (nLight, NX, WaveLinX, Crestron, DMX/RDM, Synapse, Casambi, Dalí II, Avi-On, or other control systems) ⑪ Turtle Safe ⑫ Consult factory for all BAA/TAA/BABA requests				3500K, 80 CRI (35K8)				Emergency Battery 8w (EM8) ^{② ③ ④}	
				4000K, 70 CRI (40K7)			Smooth Black Gloss (SBK)		Emergency Cold Pk Battery 14w (EMCP) ^{② ③ ④}
				4000K, 80 CRI (40K8) ^①			Graphite Textured (GPH)		Black Hardware (BH)
				5000K, 70 CRI (50K7)			Grey Textured (GRY)		Black Optic Frame (BOF)
				5000K, 80 CRI (50K8) ^①			Custom (CS)		Glass Lens (GL) ^⑧
						HAL Lens (HAL) ^⑨			
						Buy American (BAA) ^⑫			
						Trade American (TAA) ^⑫			
						Build America Buy American (BABA) ^⑫			
						Custom Controls Integration (CCI) ^⑩			

PRODUCT SPECIFICATIONS

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver
- Driver power factor at maximum load is $\geq .95$, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 50°C to 55°C and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All internal wiring UL certified for 600 VAC and 105°C
- All drivers, controls, and sensors housed in enclosed IP66 compartment
- CRI 70, 80, 90
- Color temperatures: 2700K, 3000K, 3500K, 4000K, 5000K

CONSTRUCTION

- Die Cast Aluminum
- Internal cooling fins
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP65 seal for electronics compartment
- Two-piece silicone Micro Optic system ensures IP67 level seal around each PCB
- Silicone Micro Optics: Recessed, full cutoff, vandal resistant and non-yellowing
- Dark Sky Approved

OPTIONS

MARINE GRADE FINISH (MGF) - A multi-step process creating protective finishing coat against harsh environments. Chemically washed in a 5 stage cleaning system. Prebaked, Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.

VANITY PLATE (VP) - Optional Vanity Plate was designed to cover the unsightly remains on a wall where a larger HID wallpack was removed. The aluminum Vanity Plate will be painted to match the finish of the NV-W2, custom finishes are available, please consult factory. The standard Vanity Plate is 22"W x 16"H.

20KA SURGE PROTECTOR (20KA) - protects the complete system against nominal surges of up to 20KA. Protection against power surges, storms and lightning strikes.

EMERGENCY BATTERY BACKUP

EMERGENCY COLD PACK BATTERY (EMPC) - Emergency cold pack battery system available in 14w output.

BLACK HARDWARE (BH) - Black stainless steel hardware.

BLACK OPTIC FRAME (BOF) - Black optic frame. Standard is white.

GLASS LENS (GL) - Low Iron Glass, fully tempered.

HIGH PERFORMANCE AMBER LENS (HAL) -

CONTROL OPTIONS

- FSP-211 (FSP-X)—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
- All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
- FSP-8 Mounting heights 8 feet and below
- FSP-20 mounting heights 9-20 feet
- Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field. Programmable remote must be purchased separately.
- FSIR-100 commissioning remote is required to change sensor settings. Please contact factory for ordering.
- Controls Agnostic: Please contact factory for your preferred controls option.

NEMA 7-PIN RECEPTACLE (PE7)—An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.

BUTTON PHOTOCELL—Dusk to dawn optional Button Photocell.

FINISH

3-5 mils electrostatic powder coat.
NLS Lighting's standard high-quality finishes prevent corrosion, and protects against extreme environmental conditions.

WARRANTY

Five-year limited warranty for drivers and LEDs.

OPTICS

Silicone optics high thermal stability and light output provide higher powered LEDs with minimized lumen depreciation. UV stability with scratch resistance increases exterior application durability. Silicone optics do not yellow, crack or brittle over time.

LISTINGS

- Certified to UL 1598
- UL 8750
- CSA C22.2 No. 250.0
- DesignLights Consortium® (DLC)
- DesignLights Consortium Premium® (DLCP)
- IP65 Rated Fixture / IP67 Rated Optics
- IK10 Rated
- IDA Dark Sky Approved

BUY AMERICAN OPTION

While all of the NLS Lighting products listed in this document qualify for the Buy America(n) Act of 1933, we reserve the right to change our listings without notice.

The information provided above is for general informational purposes only. We encourage you to consult legal professionals for advice particular to your projects concerning BAA, TAA, BABA or Buy America.

Additional NLS Products that meet BAA, TAA standards can be found at the following link:

[https://nslighting.com/wp-content/uploads/cs/NLS_BuyAmerica\(n\).pdf](https://nslighting.com/wp-content/uploads/cs/NLS_BuyAmerica(n).pdf)



The information and specifications on this document are subject to change without any notification. All values are design, nominal, typical or prorated values when measured under internal and external laboratory conditions.



701 Kingshill Place, Carson, CA 90746
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nslighting.com

PRODUCT SPECIFICATIONS

LUMENS							
PART NUMBER	T2	LM/W	T3	LM/W	T4	LM/W	WATTS
NV-W-16L-40-27K7	2561	122	2591	123	2561	122	21
NV-W-16L-40-27K8	2398	114	2426	116	2398	114	21
NV-W-16L-40-30K8	2571	122	2601	124	2571	122	21
NV-W-16L-40-30K7	2769	132	2801	133	2769	132	21
NV-W-16L-40-35K8	2571	122	2601	124	2571	122	21
NV-W-16L-40-40K8	2769	132	2801	133	2769	132	21
NV-W-16L-40-40K7	2992	142	3027	144	2992	142	21
NV-W-16L-40-50K8	2769	132	2801	133	2769	132	21
NV-W-16L-40-50K7	2992	142	3027	144	2992	142	21
NV-W-16L-53-30K7	3544	122	3579	123	3544	122	29
NV-W-16L-53-40K7	3756	130	3794	131	3756	130	29
NV-W-16L-53-50K7	3756	130	3794	131	3756	130	29
NV-W-16L-7-30K7	4388	119	4432	120	4388	119	37
NV-W-16L-7-40K7	4651	126	4698	127	4651	126	37
NV-W-16L-7-50K7	4651	126	4698	127	4651	126	37
NV-W-16L-1-30K7	5970	107	6029	108	5970	107	56
NV-W-16L-1-40K7	6328	113	6391	114	6328	113	56
NV-W-16L-1-50K7	6328	113	6391	114	6328	113	56
NV-W-32L-53-30K7	X	X	X	X	6,821	126	54
NV-W-32L-7-30K7	9010	127	9100	128	9010	127	71
NV-W-32L-7-40K7	9550	135	9646	136	9550	135	71
NV-W-32L-7-50K7	9550	135	9646	136	9550	135	71
NV-W-32L-1A-30K7	10871	109	10983	110	10871	109	100
NV-W-32L-1A-40K7	11426	114	11544	115	11426	114	100
NV-W-32L-1A-50K7	11426	114	11544	115	11426	114	100
3000K or lower, with fixed mounting options only, must be selected to meet International Dark-Sky Association certification.							

EMERGENCY BATTERY BACK-UP LUMENS							
PART NUMBER	T2	LM/W	T3	LM/W	T4	LM/W	WATTS
EM4-30K7	520	130	524	131	516	129	4
EM4-40K7	544	136	548	137	540	135	4
EM4-50K7	560	140	564	141	556	139	4
EM8-30K7	1040	130	1048	131	1032	129	8
EM8-40K7	1088	136	1096	137	1080	135	8
EM8-50K7	1120	140	1128	141	1112	139	8
EM14-30K7	2080	130	2096	131	2064	129	16
EM14-40K7	2176	136	2192	137	2160	135	16
EM14-50K7	2240	140	2256	141	2224	139	16
EMCP-30K7	1820	130	1834	131	1806	129	14
EMCP-40K7	1904	136	1918	137	1890	135	14
EMCP-50K7	1960	140	1974	141	1946	139	14



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PRODUCT SPECIFICATIONS

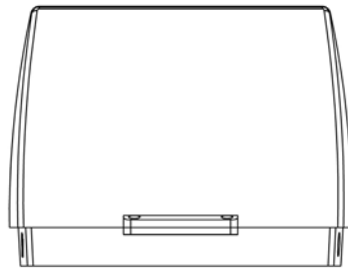
BUG RATINGS BUG RATINGS

PART NUMBER	T2	T3	T4	WATTS
NV-W-16L-35-30K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	21
NV-W-16L-35-40K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	21
NV-W-16L-35-50K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	21
NV-W-16L-53-30K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	29
NV-W-16L-53-40K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	29
NV-W-16L-53-50K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	29
NV-W-16L-7-30K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	37
NV-W-16L-7-40K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	37
NV-W-16L-7-50K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	37
NV-W-16L-1-30K7	B1-U0-G1	B1-U0-G2	B1-U0-G2	56
NV-W-16L-1-40K7	B1-U0-G1	B1-U0-G2	B1-U0-G2	56
NV-W-16L-1-50K7	B1-U0-G1	B1-U0-G2	B1-U0-G2	56
NV-W-32L-7-30K7	B1-U0-G2	B2-U0-G2	B2-U0-G2	71
NV-W-32L-7-40K7	B1-U0-G2	B2-U0-G2	B2-U0-G2	71
NV-W-32L-7-50K7	B1-U0-G2	B2-U0-G2	B2-U0-G2	71
NV-W-32L-1A-30K7	B2-U0-G2	B2-U0-G2	B2-U0-G2	100
NV-W-32L-1A-40K7	B2-U0-G2	B2-U0-G2	B2-U0-G2	100
NV-W-32L-1A-50K7	B2-U0-G2	B2-U0-G2	B2-U0-G2	100

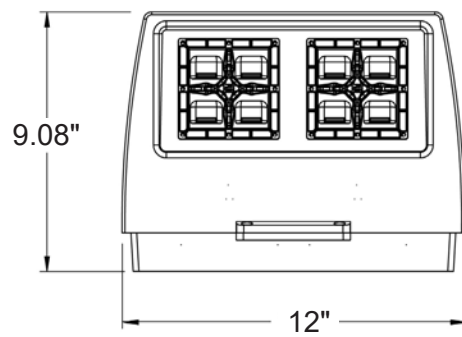
Lumen Maintenance Data

Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%
	1050mA	48,000	143,000	94.3%	89.5%	87.2%	78.5%
*Reported extrapolations per IESNA TM-21				**Projected extrapolations per IESNA TM-21			

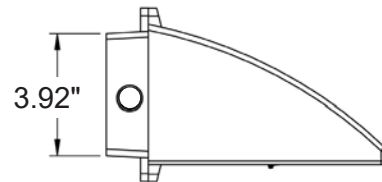
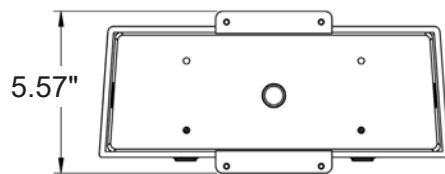
PRODUCT SPECIFICATIONS



TOP VIEW

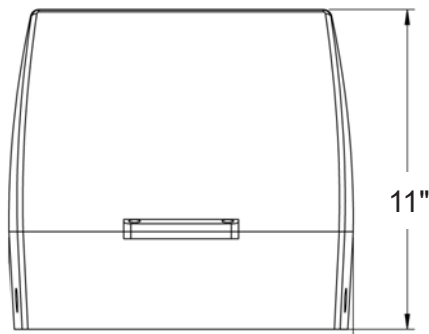


BOTTOM VIEW

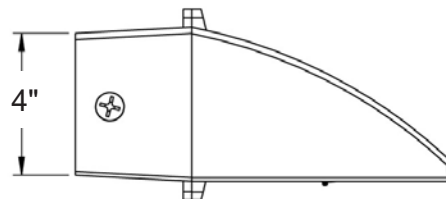


Weight: 9.1 lbs

EMERGENCY BATTERY AND 7-PIN EXTENSION BOX DIMENSIONS



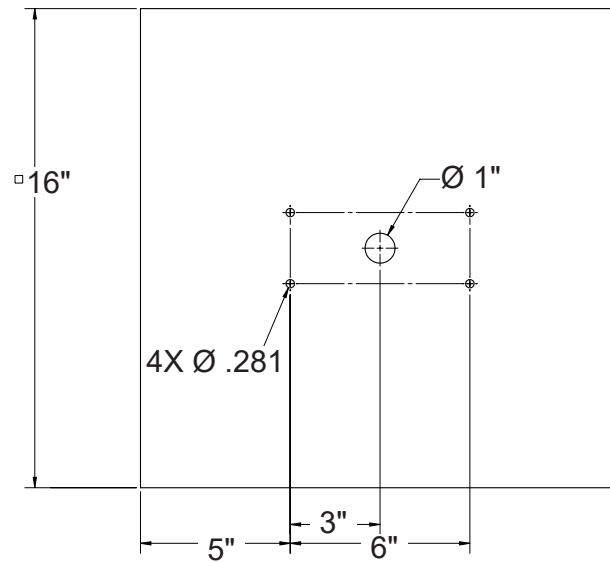
TOP VIEW



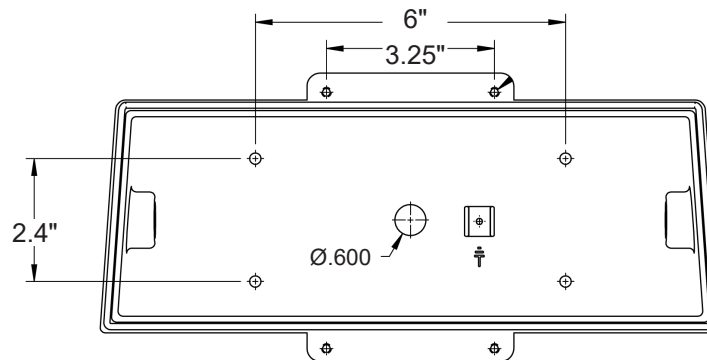
Weight: 13.3 lbs

PRODUCT SPECIFICATIONS

VANITY PLATE (VP)



MOUNTING HOLE

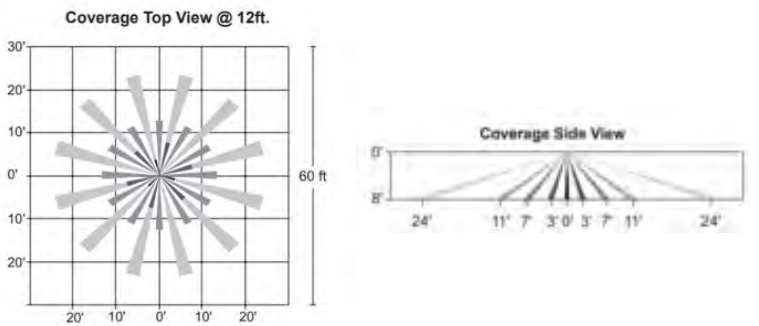


* 3 Conduit access points on either side or center back.

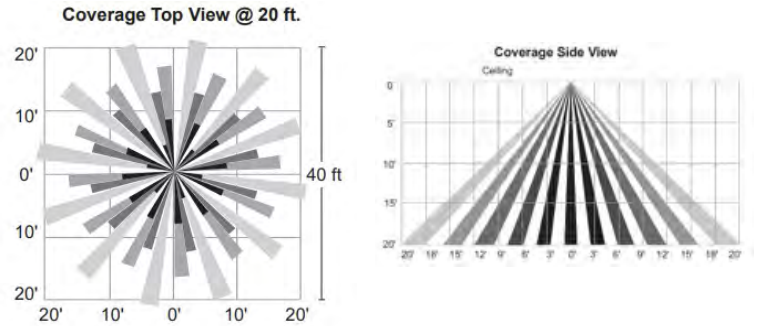
MOTION SENSOR PLACEMENT



FSP-8



FSP-20



Fixture Number				
Project Title		Type		Qty
Comments				



- Metal Body with Indirect Lighting
- Wet Location
- ADA

Dimensions and Lamping:

OW610-24	2.75" A x 24" B x 3" D x 12" MCWeight: 7 lbs. LN LED: Nominal 20W, 1400 Delivered Lumens
OW610-36	2.75" A x 36" B x 3" D x 18" MCWeight: 8.5 lbs. LN LED: Nominal 30W, 2400 Delivered Lumens
OW610-48	2.75" A x 48" B x 3" D x 24" MCWeight: 10 lbs. LN LED: Nominal 40W, 3400 Delivered Lumens
OW610-60	2.75" A x 60" B x 3" D x 30" MCWeight: 11.5 lbs. LN LED: Nominal 50W, 4400 Delivered Lumens

LED Color Temperature:

35K	3500K	30K	3000K	40K	4000K
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Control:

CLV Integral Power Supply, 0-10V Dimming to 1%

Voltage:

1	120V	2	277V	MV	Multi-Volt
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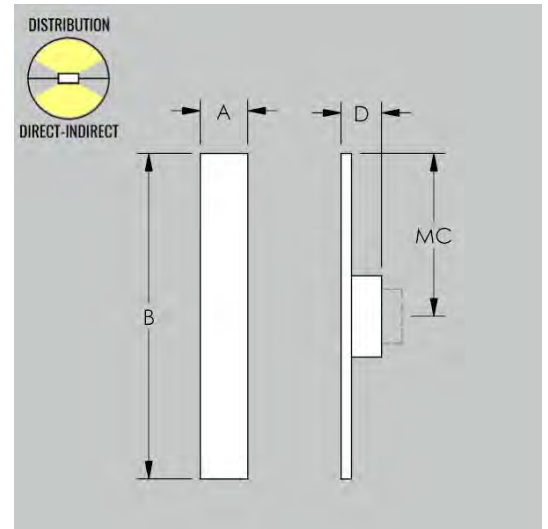
Standard Finishes:

PAL Aluminum	PBB Brushed Brass	POR Pure Orange (RAL 2004)
PNL Nickel	PAB Antique Brass	PYL Traffic Yellow (RAL 1023)
PBR Bronze	PHB Hammered Bronze	PGR Emerald Green (RAL 6001)
PLB Light Bronze	PHC Hammered Copper	PBL Signal Blue (RAL 5005)
PMB Medium Bronze	PHS Hammered Silver	STBD To Be Determined
PDB Dark Bronze	PSG Satin Gold	
PSB Satin Black	PPA Patina	
PMW Matte White	PRD Traffic Red (RAL 3020)	

Other Options:

REM Remote Emergency Power Supply

OW610 | Carlisle



Notes:

- Custom sizes and finishes available upon request.
- Camman reserves the right to make design changes without prior notice.
- Mounting is to a 2 x 4 inch rectangular junction box.
- Photometric information is available at cammanlighting.com



Additional Information

Color Temperature Adjustment	
Color Temperature	Multiplier
2700K	.967
3000K	.984
3500K	1.000
4000K	1.032

LED Performance	
Color Rendering Index	80CRI Standard (90CRI Available)
L70 (Projected):	>72,000 hours

Warranty	5 years (electrical components retain the component manufacturer warranty).
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Camman Plus Customizations



Camman **Standard Plus** products provide an extra degree of freedom to customize most standard products, including dimensions, finish, performance, and adding or removing details. Visit www.cammanlighting.com/plus to learn more about the Plus program, and visit this fixture to see what specific options might be available.

Standard Finishes

MODERN



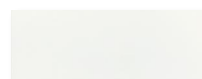
PAL Aluminum



PNL Nickel



PSB Satin Black



PMW Matte White

NEUTRAL



PAB Antique Brass



PBB Brushed Brass



PSG Satin Gold



PLB Light Bronze



PMB Medium Bronze



PBR Bronze



PDB Dark Bronze

TEXTURES



PHS Hammered Silver



PHB Hammered Bronze



PHC Hammered Copper



PPA Patina

COLORS



PRD Traffic Red
(RAL 3020)



POR Pure Orange
(RAL 2004)



PYL Traffic Yellow
(RAL 1023)



PGR Emerald Green
(RAL 6001)



PBL Signal Blue
(RAL 5005)

- Colors are for reference only and may vary per monitor.
- See cammanlighting.com/resources for more information, or contact your local rep for finish samples.



Calculation of Wastewater Flowrate for 84 Auburn Street, Portland, Maine

The project proposes to develop the existing 84 Auburn Street to construct a single-story building to be utilized as a national coffee franchise with associated drive through, patio space and parking. The project will also include potential site improvements to the abutting property located at 94 Auburn Street, including improvements to the shared drive and a sidewalk adjacent to the existing building. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following daily flows:

Estimate of Anticipated Daily Flows			
Development	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow			
Open Lot	-	-	0
Total Gallons per Day (Existing)			0
Proposed Flow			
84 Auburn National Coffee Franchise	2 Public Restrooms + 5 Employees	325/ toilet plus 12 gpd/employee	710
Total Gallons per Day (Proposed)			710
Net Change			+710 GPD

As seen above, the project anticipates an increase in daily flow of approximately 710 gallons. A request for ability to serve has been requested to City of Portland DPW, Water Resources. Their response will be forwarded to the planning department upon receipt.



Utilities

The proposed project anticipates utilizing the existing utilities to the existing structure.

Water:

A proposed 6" fire suppression line will be installed within Auburn Street. The project will continue to utilize the existing 2" domestic water service at the site and extend to the proposed building

Sewer:

A proposed 6" sewer lateral from the proposed building will connect with an existing 15" VCP within Auburn Street.

Stormwater:

There are currently two drainage grates on site and four within Auburn Street. Sizes of the existing storm drains are unknown at this time, and the onsite drains appear to outlet into the municipal system within Auburn Street. Stormwater runoff from the project will be conveyed to either the pervious pavers located within the parking area or the proposed FocalPoint water quality treatment systems which ultimately discharge into the existing 10" stormwater main installed within Auburn Street.

UGE/T/C:

A proposed UGE/T/C line will be installed along the East face of the proposed building and will connect to an existing telecommunications line within Auburn Street.

Gas:

There is currently no gas main located within Auburn Street in front of the parcel and no current proposal to run a new main or connect a service to serve the development.

Ability to serve letters have been sent out to the respective utility companies in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(7). Responses from the utility companies can be found attached to this section.





January 5, 2023

Peter F. Heil, PE, CPESC
Acorn Engineering, Inc

Re: 84 Auburn Street, Portland
Ability to Serve with PWD Water

Dear Mr. Heil:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on December 20, 2022. Based on the information provided per plans dated January 5, 2023, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed and is valid for eighteen (18) months after the date of issue. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 6-inch fire service may be installed from the water main in Auburn Street. The service should enter through the property's frontage on Auburn Street at least 10-feet from any side property lines.
- Our records show that the property is currently served with a 2-inch domestic water service. A 3/4-inch meter will be required to meet the peak demand of the site. The service will be required to be flushed and sampled prior to meter installation.
- An approved backflow prevention device (testable double check valve assembly) must be installed on each service line directly after the meter and before the sprinkler riser prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.
- The Portland Water District does not have record of any other existing infrastructure in public roads and recommends a survey and test pitting be performed by the development team prior to construction. Any conflicts that arise during construction are at the risk of the developer and may result in job shutdown until new plans are submitted by the developer and reviewed and approved by PWD.
- The Portland Water District does not manage sewer collection in this area.

Prior to construction, the owner or contractor will need to complete a Service Application and pay all necessary fees for each proposed service. When the project is ready for construction, an Application for each service can be requested by contacting the MEANS Group at MEANS@pwd.org or 207-774-5961 ext. 3199. Once a completed Application has been submitted with payment, please allow seven (7) days for processing.

Existing Site Service

According to District records, the project site does currently have existing water service. A 2-inch diameter copper domestic service line provides water service to the site. Please refer to the “Conditions of Service” section of this letter for requirements related to the use of this service.

Water System Characteristics

According to District records, there is an 12-inch diameter cast iron water main in Auburn Street and a public fire hydrant located approximately 100 feet from the site. The estimated static pressure in the area is 73 psi.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District’s Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

A handwritten signature in black ink, appearing to read 'Robert A. Bartels', written in a cursive style.

Robert A. Bartels, P.E.
Senior Project Engineer



August 31, 2022

Peter Heil, P.E.
Project Manager
Acorn Engineering

RE: May Serve Letter by Charter Communications or an affiliated to provide service
("Spectrum")

Subject: 84 Auburn Street Redevelopment
Portland, ME

Dear Peter:

Thank you for your interest in receiving Spectrum service. The development, on behalf of 84 AUBURN LLC, of 84 AUBURN STREET REDEVELOPMENT, PORTLAND, is within an area where Spectrum may lawfully provide video, internet and voice services.

However, this letter is not a commitment to provide service to the Property. Prior to any determination as to whether service can or will be provided to the Property, Spectrum will conduct a survey of the Property and will need the following information from you:

- Exact site address and legal description
- Is this an existing building or new construction?
- Site plans, blue prints, plat maps or any similar data
- The location of any existing utilities or easements
- [Other as required] _____

Please forward this information to me. Upon receipt, I will be assigned to you to work through the process. Ultimately, a mutually acceptable service agreement for the Property will be required and your cooperation in the process is appreciated.

Sincerely,

Steven Holmes
MDU, Account Executive
Spectrum Community Solutions
444 Perry Road
Bangor, ME 04401
(207) 631-1618 | steven.holmes@charter.com

Construction Management Plan

Project Address: 84 & 94 Auburn Street, Portland, ME

Project Description:

The project proposes to develop the existing 84 Auburn Street to construct a single-story building to be utilized as a national coffee franchise with associated drive through, patio space and parking. The project will also include site improvements to the abutting property located at 94 Auburn Street, including improvements to the shared drive and a sidewalk adjacent to the existing building.

Project Team Summary:

Owner:	84 Auburn, LLC
General Contractor:	TBD
Civil Engineer:	Acorn Engineering, Inc.
Architect:	Ryan Senatore Architecture
Structural Engineer:	TBD

The Owner/GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize any project impacts.

The GC will remain responsible for enforcement of all compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The GC shall review all permits and conditions associated with the project. The GC will prepare a Construction Management Plan their means and methods to be taken during construction.

The following outline has been developed in accordance with the City of Portland Construction Management Plan General Template and shall be referenced by the GC during construction.

A. Construction Management Principles

The control of noise, vibrations, ground movement, truck traffic, and other construction related factors will be of utmost importance. Care shall be taken to minimize these effects in the best interest of neighbors and the general public. GC to ensure that work hours conform to the City of Portland's Ordinance.

B. Development Review of Construction Management Plan

Logistics and safety program shall be submitted at or prior to the preconstruction meeting by the GC with all pertinent information required by the Maine Department of



Transportation's Traffic Control Plan Standard Specification 652.3.3.

C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Guarantees and fees will be paid at the time of the respective application. Sections 14-530 and 13-532 will be complied with all necessary permits will be obtained prior to work.

1. Street Opening and Street Occupancy Permits:

Required permits regarding street opening and occupancy will be obtained from the Department of Public Works. The requests shall conform to the approved Construction Management Plan.

2. Blasting:

Although not anticipated, if blasting occurs, it shall conform to Article VIII. In Chapter 14 of the City Code and Section 3.7 in the City's Technical Manual.

3. Building Code:

Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

The Contractor will work closely with adjacent abutters, businesses, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. Communication in order to comply with all agreements, ordinances, and special permits will be of the utmost importance. Contractor contact information shall be posted on a sign on the construction fence along Auburn Street frontage. Additional signage necessary for communication shall be provided but will be temporary and removed upon completion of the project. The contact information for the project personnel is:

Mike Pride
84 Auburn, LLC
(207) 310-8922

GC and Subcontractor information will be posted along Auburn Street frontage once contracted.

E. Construction Schedule

The GC shall submit a construction timeline at or prior to the preconstruction meeting. Construction may occur during the daytime hours as defined in Section 17-18 of the Construction Activities for Building permit and City Code Section 25-129, Noise, dust and debris. Between September 1 and May 31, the following year, no person shall engage in construction activities generating noise exceeding 50 decibels, between the hours of 7 pm and 7 am of the following day within 500 feet of any buildings. From June 1 to August 31, construction activity may continue until 8 pm. No construction activity shall begin before 8



**A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104**

am on a Saturday, Sunday, or legal holiday. Extended hours or night work may be requested for special circumstances and street utility work if needed. These requests will be subject to approval by the Public Works Authority.

Due to the limited space within the project parcel, deliveries will need to be stored in an alternate location or deliveries must be small enough to fit within the property. Deliveries will be scheduled between 7 am and 5 pm.

The estimated timeframe of the proposed project is outlined below:

<u>Project Start Date:</u>	Spring 2023
<u>Project End Date:</u>	Spring 2024

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security & Public Safety

1. The GC will provide all fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrances per detail shall be installed.
2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations*.
3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
 - o Good Housekeeping
 - o On-site security
 - o Installation of new fire protection systems as construction progresses
 - o Preservation of existing systems during demolition
 - o Organization and training of an on-site fire brigade
 - o Development of a pre-fire plan with the local fire department
 - o Rapid communication
 - o Consideration of special hazards resulting from previous occupancies
 - o Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations.
4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.
5. Temporary security lighting shall be shown on the Construction Management Plan, and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets



Construction activity in the public right-of-way shall be compliant with Chapter 25 Article VII of the City Code. At no time will it be permissible for construction activity including delivery vehicle to close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.

2. Sewer and Stormwater

Sewer and stormwater system connections are controlled by Chapters 24 and 32 of the City code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual. This will apply to the new connections within Auburn Street.

3. Traffic Control Plans

Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. The contractor shall submit a satisfactory "Maintenance of Traffic" (MOT) plan prior to any street opening permit approval. This document shall contain all pertinent information from the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

The MOT will address the work required for utility connections in Auburn Street. Traffic will be channelized utilizing drums and cones. Proper signage will be installed prior to the through work zone. Alternating traffic will be controlled with flaggers. Trenches will be patched with pavement daily.

The MOT plan shall provide for the safe passage of the public through or along the construction work zone. It may be permissible to close a portion of Auburn Street during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic.
- Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
- Flaggers will be utilized when necessary.

All existing modes of travel in the work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.



- Traffic control bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

Use of public parking spaces on Auburn Street shall not be permissible. The blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

1. Regular trash and debris shall be managed appropriately, and its removal shall comply with all local, state, and federal regulations.
2. Street cleaning and sweeping shall be followed as outlined in the erosion and sedimentation control notes and report. Damage to the street shall be avoided and shall be the responsibility of the contractor.
3. Dust shall be controlled and shall comply with Section 25-129 and the erosion and sedimentation control notes, plan, and details.
4. Noise shall be controlled and shall comply with Section 17-18 and Section 25-129.
5. Rodent Control shall be provided, if applicable, by a professional exterminator and shall be consistent with Chapter 22 of the City Code.
6. Snow and Ice Removal shall be provided. Pursuant to Section 25-173, the Contractor shall ensure a safe means of travel within the work zone by the following steps:
 - a. Snow/ice removal or commence automatically from 1" or greater of snow or ice
 - b. Remove snow as needed within the work zone, including parking spaces. Driveways and site lines shall not be blocked by piles of snow.
 - c. Clear all walks and ramps within the work zone
 - d. Sand or salt as needed
 - e. Clear all basin or drainage to help snow melt
 - f. The above steps shall be carried out Sunday-Saturday including holidays.

I. Erosion Control and Preservation of Trees

1. The Contractor shall install all erosion and sedimentation controls as outlined in the plan set, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection by the City. The Contractor shall regularly inspect the control measures, no less than weekly and after storm events (0.5" or more in 24 hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these



documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.

2. Due to the existing sparse landscaping on site, no protection during construction will be necessary.
3. Stored materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Contractor shall submit a plan with locations depicted for the location of material staging areas, the location of on-site temporary construction trailers, the location of on-site truck delivery holding areas, the location of on-site truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. This plan shall be submitted at or prior to the pre-construction meeting. Any open storage areas shall be shown on the plan.
2. Delivery Truck Holding Areas On-Site: The majority of materials delivered to the site will be scheduled such that they are able to be off-loaded immediately. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of trucks until they can be unloaded. Once at the site all vehicles will be brought within the fence line and will make every attempt to avoid queuing on public streets. If, for any reason, on-site holding of trucks is not feasible, an off-site location must be designated and shown on the submitted plan referenced above in J.1.
3. All deliveries for materials shall comply with the City's noise requirements.

K. Parking During Construction

1. Adequate parking for construction workers shall be provided on site or arrangements for off-street parking at an off-site location shall be provided.
2. Truck Routes and Volumes: The following quantities are estimated as part of the reconstruction:
 - Gravel & Stone – Approx. 10 CY. Earthwork subcontractor(s) pit to project site.
 - Hot Mix Asphalt – Approx. 20 tons. Paving subcontractor(s) pit to project site.

L. Dewatering Plans

1. A basic dewatering plan for any construction work is required and shall be submitted by the Contractor. The plan must cover construction sites where groundwater is not expected but the impact of rainwater may require dewatering. The plan must include operating procedures, equipment to be used, including filters, erosion and sediment control measures, or other methods of removing sediment from approved discharges.
2. For construction work that will require frequent dewatering of groundwater from site, a dewatering plan must be prepared by the Contractor and approved by the Department



of Public Works. Groundwater and/or soil testing may be required to determine course of action if treatment is necessary. Approval for all discharges to City infrastructure is required. The proposed plan must address the following:

- Project duration, discharge location, storage equipment on-site, dewatering schematic, and emergency contact.
- General requirements include trained staff on-site for all approved discharges and required site log for documentation of all discharges.
- Storage and/or treatment process should include proper settling time and maintain proper use of filtering medium as required.
- Contingency/maintenance plan for all dewatering equipment devices and filtration mediums.

Any water that is removed from an excavation must be pumped from a perforated device buried in crush stone prior discharge and/or prior to storage and treatment. There will be no discharge allowed during precipitation events.

M. Special Measures as Necessary

No special measures are necessary for the proposed reconstruction.



Solid Waste Disposal

The property management company or Owner shall be responsible for locating the solid waste and recyclable material to the space allocated for solid waste storage as noted on the Site Plan (C-10).

The solid waste containers will be enclosed and screened from the public view. A private hauler will be contracted with for removal.



Transportation & Parking

Public Transit:

There are existing METRO bus stop locations adjacent to the project, including a stop in front of 110 Auburn Street on the project side of the road, and across Auburn Street opposite 64 Auburn Street / in front of Shaw's grocery store.

Transportation:

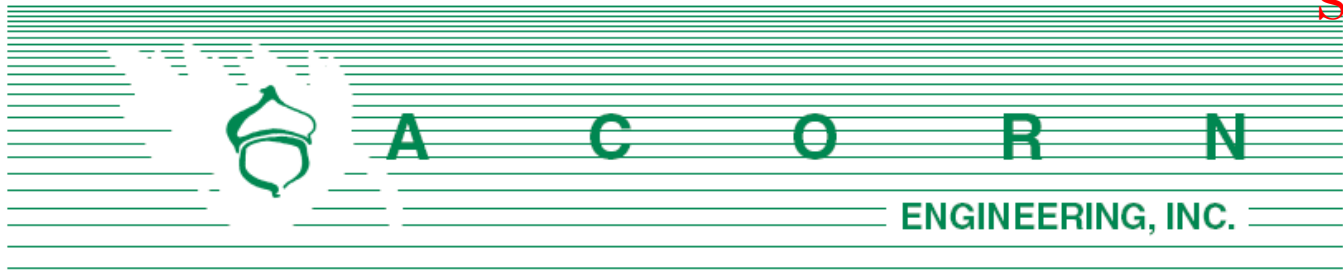
Please refer to the attached Traffic Movement Permit application.

Parking:

Per Land Use Code Section 19 Off Street Parking Table 19-A Off-Street Parking Minimums. Parking Minimums for restaurants and bars: 1 space/150 sf of floor area. The proposed building at 84 Auburn Street is 2,250 sf. This makes off-street parking requirement 15 spaces. 17 spaces are provided on site.

The project proposes to create an additional 8 parking spaces for the existing development at the abutting 94 Auburn Street. This is greater than 10% of the minimum parking requirements. A waiver is being sought to forego a parking study for this portion of the project. See as part of this application the Parking Demand Memo which outlines a justification for this increase in parking & waiver.





Parking Demand Memo

The proposed development at 84 & 94 Auburn Street is proposing a new commercial retail building on the 84 Auburn Street parcel. As part of the project, there are proposed improvements to the drive aisle & parking lot that serves the 94 Auburn Street building. The drive aisle is shared between the 84 & 94 Auburn Street parcels. The project proposes 8 new parking spaces along this drive aisle intended to serve the 94 Auburn Street building.

Based upon the applicant's research and current usage at the 94 Auburn Street property, there is demand for expanded parking associated with this site. 56 parking spaces are required by the City of Portland Chapter 14: Land Use Code Table 19-A. The building is approximately 22,020 sf and is made up of general office space. There are 93 existing parking spaces associated with the building. There are 101 proposed parking spaces that will service the building with the proposed changes to the site. As the existing tenants are currently underserved by the existing parking, the parking expansion will be utilized & take an unnecessary load off of other public parking spaces in the surrounding area that may be currently utilized used by commuters to the 94 Auburn Street building. There is no existing on-street parking in this area of Auburn Street, so commuters who do cannot fit in the existing spaces at 94 Auburn may be pushed to nearby residential areas.

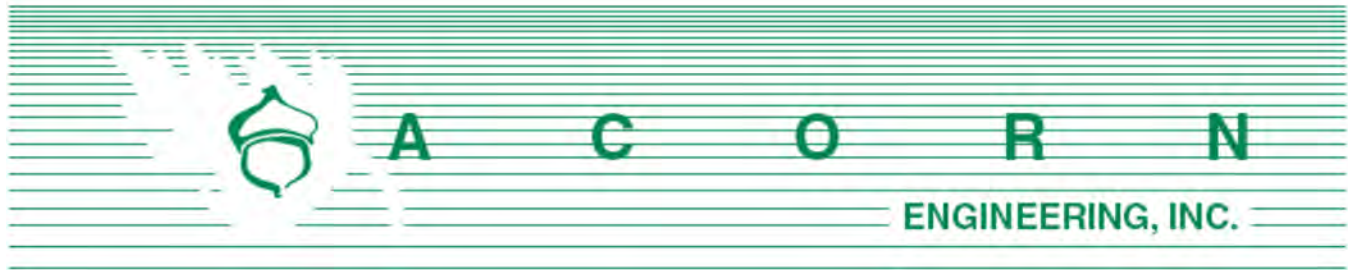
Given the existing demand of the development and lack of available on street parking, the applicant respectfully requests the Planning Board allow the applicant to exceed the minimum parking standard.

Please let me know if you have any additional questions or comments.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Peter F. Heil'.

Peter F. Heil, P.E.
Project Manager
Acorn Engineering, Inc.



Austen Torres Davis – City Planner
 City of Portland
 Planning & Urban Development Department
 389 Congress Street, 4th Floor
 Portland, ME 04101

June 1, 2023

Subject: Comment Response Letter – PL-002298-2022
 84/94 Auburn Street Redevelopment, Portland Maine

Austen,

On behalf of MSP Properties 94 Auburn LLC and 84 Auburn, LLC (c/o Mike Pride), we are pleased to respond to the Staff Comments, dated 3/24/22, for the 84 & 94 Auburn Street redevelopment project.

Please find responses to the comments received thus far below.

GENERAL

Comment – *Please provide more information on the parking area at Plan-Right (north of the drive-thru property). Will this be used as parking for the coffee shop? If not, it would be preferable to landscape this area as there is no connection between it and the new business, and the adjacent property has ample parking.*

Response – This area is an existing parking area benefiting 94 Auburn Street, within a shared easement. The proposal is to reconstruct the area to provide additional ADA accessible spaces closer to the main entry into 94 Auburn Street and add in a new landscaped island. As part of the lease agreement with the proposed coffee shop, the future tenant does have an agreement to park within spots in the 94 Auburn Street parking area, but not the area directly in front of the 94 Auburn Street building entrance. The previous additional parking spots have been removed to have the current total number of parking spots at 94 Auburn Street remain unchanged.

Comment – *Please provide more information on the proposed walkway/cut-thru at the southwest corner of the property, connecting to the adjacent parking lot. This area should be formalized as a walkway meeting the elevation of the sidewalk it is connecting to. (Technical Manual Sec. 1.7.2)*

Response – The walkway is intended to provide a connection from the rear parking lot to the proposed coffee shop for the employees as included within the lease agreement. The elevations of the walkway are to meet the elevation of the sidewalk, as there is a tipdown at the curbline.

Comment – *A tree survey should be conducted showing the location of trees 10" DBH and above to determine if tree-replacement standards need to be met. (Technical Manual Sec. 4.3.1)*

Response – Please find the attached updated survey, showing the locations of existing trees 10" DBH and above, as well as the planting schedule on Plan Sheet C-10 for new landscaping and trees proposed.

Comment – *Please provide the location of overhead utility lines and fire hydrants in the vicinity of the site. (Technical Manual Sec. 3.2.1)*

Response – Please refer to C-20 for the locations of the overhead utility lines and the existing fire hydrants within the vicinity of the site, across Auburn Street from the project.

Comment – *The ADA parking space should be located closer to the front door. Please depict curb-stops and ramps on plans, as well as striping for the area adjacent to ADA spaces.*

Response – The ADA parking space has been relocated to be closer to the front door and ADA striping shown. Please refer to C-30 for the location of the curb tipdowns and ramps.

ZONING

Comment – *The applicant needs to provide a copy of the recorded Certificate of Variance with the Book and Page and the date it was recorded for the Zoning Board of Appeals approved Hardship Variance, 11/19/20, to allow a drive-through at this property.*

Response – Please find the attached recorded new Certificate of Variance, recorded within the Cumberland County Registry of Deeds on May 19, 2023, Book: 40136 / Page: 300.

TRANSPORTATION

Comment – *The pedestrian access route (through the driveway) shall be designed and constructed to meet the elevation of the adjacent sidewalk. The driveway apron shall ramp up to the grade of the Sidewalk (pedestrian access route). The proposed driveway shall be redesigned to meet these requirements. See technical standards for further details on Commercial Aprons.*

Response – Understood, please refer to C-30 for the grading of the sidewalk and driveway apron to meet the City's technical standards.

Comment – *Proposed driveway widths are to be 20ft as required.*

Response – Understood, the driveway widths have been revised to show 20 feet wide each.

Comment – *The pedestrian access portion of the proposed driveways shall be constructed in concrete.*



Response – Per the City’s sidewalk and driveway apron material policy map, this portion of Auburn Street is designated as bituminous asphalt and matches the existing sidewalk material along Auburn Street. The pedestrian access portion of the driveway has been left bituminous asphalt in compliance with the City’s sidewalk policy.

Comment – *The proposed mid-block crosswalk shall be constructed with a raised median island in the roadway, in a manner similar to other recent City pedestrian crossing projects, such as Forest Avenue at Poland Street.*

Response – A crosswalk with raised median island has been added to provide crossing of Auburn Street. Please refer to Sheet C-10 for additional information on the detailing, signage and rapid flashing beacons and C-30 for the spot grade information for the island and proposed new crosswalk ramps.

Comment – *The proposed arrows currently shown on the proposed driveway shall not be placed in the ROW. Revise the plan to show the proposed pavement markings in the drive aisles outside of the ROW.*

Response – The attached plans have been revised to move the proposed arrow markings within the private property.

Comment – *Please revise the plans to include one way circulation markings.*

Response – Please refer to C-10 for the one-way circulation pavement markings around the site bypass lane, along with drive through and one-way directional signage as vehicles enter the site off Auburn Street.

Comment – *DPW has concerns with the circulation of the parking lot. Consider a one way circulation through the parking lot exiting on the west end onto the exit lane. At a minimum the entrance driveway shall be modified to prohibit exiting the site from that driveway. In addition, the current exit configuration from the internal parking area back to the circulation lanes shall be adjusted to reduce potential conflict with traffic entering the site from Auburn Street.*

Response – Exiting to the west from the parking area would eliminate an additional car queue, which we understand is the priority for the drive through based on the TMP scoping meeting. The parking configuration remains the same, however additional one-way and do not enter signage has been shown to prohibit exiting the site from the northern driveway. Exiting from the internal parking area does not conflict the traffic entering from Auburn Street, and allows for vehicles to free enter the order/bypass lane or parking area. A new stop sign and stop bar has been added exiting the parking area to add additional safety measures. Based on the Planning and DPW call on 5/30/23, it was generally understood that the current designs provide adequate circulation, while avoid potential conflicts with queuing and vehicles entering the site.

Comment – *The striping depicted on the center lane of Auburn Street is not correct. The applicant shall revise the plan sheets to depict the current existing striping for Auburn Street.*



Response – The striping in the Auburn Street center turn lane has been revised to reflect current existing striping conditions.

Comment – *The plan should include dimensions of the drive/parking aisle at 94 Auburn Street.*

Response – The 24' wide drive/parking aisle dimension to the 94 Auburn Street driveway has been added to C-10.

Comment – *The waiver request documentation shall be updated to reflect current driveway conditions.*

Response – Please refer to the attached updated waiver request.

Comment – *The plan shall include the Northgate Shopping Center pedestrian connector to ensure the crosswalk location is appropriately aligned. Utility poles in this area shall also be depicted to avoid conflicts during construction.*

Response – Please refer to Sheets C-10 & C-20, which show the Northgate Shopping Center pedestrian connection and utility poles, which avoid conflicts to the new crosswalk ramp.

Comment – *The plan should note if the existing two-way center left-turn lane arrows will need modification given the introduction of the crosswalk.*

Response – The existing center left turn lane arrow pointing east (towards the shopping plaza) is to be removed to avoid conflicts the crosswalk and raised median. Please refer to C-10 for additional information.

LANDSCAPING & ENVIRONMENTAL QUALITY

Comment – *If a fence is going up on those pull-in spaces, what relationship do those spaces have to the proposed business, and why are they being included in this plan or scope of work? If possible, eliminate proposed spaces that are shown adjacent to the drive through area on the property and replace them with landscape areas for plantings that meet IV-6B and section 4 landscaping standards. If some parking is required to be done, use parallel parking layout to enable a more generous bed for screening plants to be installed with a fence.*

Response – The proposed parking has been revised to match the existing number of parking spaces currently serving the 94 Auburn Site. The spaces will be rebuilt as part of the proposed project. As part of the lease agreement with the proposed coffee shop, the future tenant does have an agreement to park within these spots.

Comment – *Consider Liriodendron Tulipifera species in place of proposed red maple, per recommendation from city forestry supervisor.*



Response – The planting schedule has been revised to specify *Liriodendron Tulipifera* in place of the previously proposed red maple.

Comment – *Is the proposed 40' width appropriate for property drive entrance / egress?*

Response – We believe this comment may be referring to the previous plan single curb cut layout, and not the current two curb cut / one way layout.

Comment – *Ensure all parking area planting bed widths comply with IV-6a and section 4 landscaping standards in technical manual.*

Response – All parking area planting beds are in compliance with the technical manual landscaping standards.

Comment – *Trash and recycling enclosure should have shrubs or other understory screening plant materials to better blend and scale fence and bins into landscape. Per IV-7, section 4 of technical manual.*

Response – Additional shrubs have added around the dumpster enclosure. Please refer to C-10 for the updated layout and planting schedule.

Comment – *Interior parking areas should attempt to include landscaping materials around furnishings and to provide interior screening / planting elements as recommended in section IV5, 4 of the technical manual, where plantings will not conflict with safe sight lines or operational use of furnishings for drive through equipment.*

Response – Plantings are proposed around the perimeter of the site to provide interior screening and planting elements. Please refer to C-10 for additional information.

Comment – *Ensure all shrub and planting materials around drive through areas, parking spaces, or at entrance and egress locations should be selected with consideration for mature heights, widths, and growth habits that will not interrupt sightlines or block views of pedestrians, including children.*

Response – Understood, all plantings will be designed to not interrupt sightlines or in conflict with safe pedestrian access.

DESIGN MANUAL – B-1 DESIGN STANDARDS

1. Building Location and Form

- The building is located at the max. 10' setback, as the adjacent existing buildings are setback greater than 10' (approx. 15' and 25' respectively).
- The building form is in general conformance with the surrounding buildings and neighborhood.



2. *Building Function*

- The proposed coffee shop uses provides a commercial / pedestrian oriented use within the Business district to promote a variety of uses and in general conformance with the existing intensity of the area.

3. *Orientation of Buildings and their Entrances to the Street*

- The building's primary façade is oriented towards Auburn Street, with an entrance and pedestrian connectivity, including patio, directly from Auburn Street. Windows, signage, and walkways are proposed oriented towards the street.

4. *Windows*

- Windows are proposed on all building facades visible from the public way, including a walk-up order window facing Auburn Street.

5. *Building Character, Detail, Scale, and Graphic Qualities*

- Please refer to the provided architectural renderings showing compliance with the buildings character, detail, scale, and graphic qualities proposed.

6. *Signage and Building Entrances*

- The proposed coffee shop use encourages pedestrian use and the entrance and signage will be of a pedestrian scale. A separate sign permit application will be applied for along with the future building permit application.

7. *Development Relationship to Street*

- The location of the building was placed by trying to create a pattern of the adjacent buildings, while also meeting the required 10' max setback from the ROW. New sidewalks and patios, along with new landscaping and street trees are proposed along the frontage to provide a sense of definition.

8. *Parking Lots*

- The parking lot is proposed to be setback from the edge of ROW approx. 30', with new landscaping and street trees to provide some screening from the public ROW. The perimeter of the site also provides additional landscaping to provide additional buffer from adjacent properties.

9. *Transit Connections*

- Existing Metro bus stops are located approx. 500' to the south and 350' to the north on the same side of Auburn Street as the project.

Please let us know if you have any additional questions or comments.

Sincerely,



Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.



TRAFFIC MOVEMENT PERMIT APPLICATION

FOR PROPOSED

**National Coffee
Shop**

84 Auburn Street, Portland, Maine

PREPARED FOR: 84 Auburn, LLC

PREPARED BY: Barton and Loguidice, LLC

Date: January 10, 2023

Provisionally Adopted 1/10/00

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE 1/2000
ID #
Total Fees:
Date: Received

**PERMIT APPLICATION – TRAFFIC
TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. § 704 – A**

Please type or print:

This application is for: Traffic 100-200 PCE's _____
Traffic 200 + PC-E's X

Name of Applicant: 84 Auburn, LLC

Address: 7 Heather Lane, Falmouth, ME. 04105 Telephone: (207) 310-8922

Name of local contact or agent: William J. Bray, P.E., Barton Loguidice, LLC

Address: 383 US Route 1, Suite 2A, Box 4, Scarborough, Maine 04074

Telephone: (207) 400-6890

Name and type of development: Branch of a National Coffee Shop

Location of development including road, street, or nearest route number: 84 Auburn Street, Portland, ME 04103

City/Town/Plantation: Portland, County: Cumberland, Tax Map 375-A Lot # 26

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)? Yes _____ No X

Was this development started prior to obtaining a traffic permit? No

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30 – A, chapter 187)?

Yes, X No _____

Is this project located within a compact area of an urban compact municipality? Yes, X No _____

Is this development or any portion of the site currently subject to state or municipal enforcement action? No

Existing DEP or MDOT permit number (if applicable): N/A

Name(s) of DOT staff person(s) contacted concerning this application: N/A

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applications: _____

NOTICE OF INTENT TO FILE
Traffic Movement Permit

Please take notice that

84 Auburn, LLC

is intending to file a Traffic Movement Permit application with the Maine Department of Transportation pursuant to the provisions of 23 M.R.S.A. § 704 - A on or about

January 10, 2023

The application is for

Development of a 2,250 square-foot National Coffee Shop with counter and drive-through window service. The proposed project is expected to generate the following peak hour trips:

Weekday AM Peak Hour of Site	= 228 trips
Weekday AM Peak Hour of Street	= 194 trips

At the following location: **84 Auburn Street, Portland, Maine 04103**

A request for a public hearing must be received by the City, in writing, no later than 20 days after the application is found by the City to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

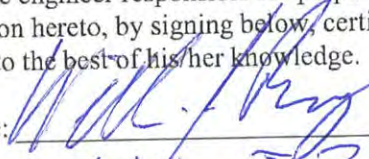
The application will be filed for public inspection at the City of Portland's Planning and Urban Development office, during normal work hours.

Written public comments concerning congestion or safety only, may be sent to the Department of Transportation, State Traffic Engineer, 16 State House Station, Augusta, Maine 04333.

1/2000

CERTIFICATION

The traffic engineer responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the application for traffic approval is complete and accurate to the best of his/her knowledge.

Signature:  Re/Cert/Lic No.: _____

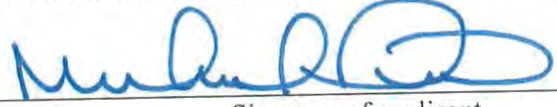
Name (print): William J. Bray

Date: 1-10-2023



If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

 12/10/2022
Signature of applicant Date

B4AUBURN LLC, ITS MANAGER

MSP PROPERTIES 94 AUBURN LLC
7 Heather Ln
Falmouth, ME 04105

627

52-239/112

FRALDARNOR

12-10-2022

PAY TO THE ORDER OF City of Portland
Fifteen hundred

\$1,500 -
1500 DOLLARS

Security features
are included.
Details on back.

Katahdin Trust Company

84 AUBURN

FOR TRAFFIC MOVEMENT Pay to Shawn G. L.

⑆011202392⑆ 1048 098 3⑈ 0627

Abutting Parcels

1.

375 A030001
BIKERIDERS LLC
91 BRENTWOOD ST
PORTLAND, ME 04103

2.

375 A007001
RIDDLE CHARLES T & MARIE F JTS
1483 WASHINGTON AVE
PORTLAND, ME 04103

3.

375 A023001
MSP PROPERTIES 94 AUBURN LLC
7 HEATHER LANE
PORTLAND, ME 04105

4.

375 C001001
A & D REALTY LLC
80 HAYDEN AVE
LEXINGTON, MA 02421

Section 1

SECTION 1

A. SITE PLAN

84 Auburn, LLC, is proposing development of a 2,250 square-foot (sf) National Coffee Shop on a vacant 28,280sf parcel located at 84 Auburn Street in the City of Portland. The site has frontage on Auburn Street. The proposed development connects directly to the western side of Auburn Street approximately 650-feet north of the signalized intersection at Auburn Street and Northgate Shopping Plaza.

The proposed National Coffee Shop features a drive-through lane, exterior pick-up window service and indoor counter service area with seating. The proposed drive-through lane circulates in a counterclockwise direction *“front to back”* around the proposed facility and parking lot. The proposed site plan features a 12-foot drive-through lane with stacking for 11 total vehicles. The proposed exterior window service is located within a protected area found on the southern side of the proposed National Coffee Shop building.

The proposed project re-configures 5 existing parking spaces and proposes 25 new parking spaces, two (2) of which are signed and marked as ADA. Fourteen (14) of the parking spaces are located within a reserved area in the center of the lot adjacent to the proposed National Coffee Shop.

The site will be accessed via a proposed full-access 40-foot-wide entrance directly onto Auburn Street. Secondary access will be provided through the adjacent driveway to the north of the site which offers pedestrian access from the rear parking lot on the western side of the lot to the National Coffee Shop via a proposed 5-foot-wide sidewalk.

SECTION 1

B. EXISTING AND PROPOSED SITE USES

Existing: The existing parcel is presently vacant. The existing site is provided access through two (2) paved driveway entrances directly onto Auburn Street, a 36-foot driveway on the south of the lot and a 42-foot driveway on the north edge of the lot.

Auburn Street in the vicinity is a 3-lane bi-directional roadway, which provides 1 lane northbound, one lane southbound and a two-way center turn lane. Auburn Street features a bicycle lane between the edge of the travel lane and sidewalk on both sides of the road.

Proposed: 84 Auburn, LLC, is proposing development of a 2,250 square-foot (sf) National Coffee Shop on a vacant 28,280sf parcel located at 84 Auburn Street in the City of Portland. The site has frontage on Auburn Street. The proposed development connects directly to the western side of Auburn Street approximately 650-feet north of the signalized intersection at Auburn Street and Northgate Shopping Plaza.

The proposed National Coffee Shop features a drive-through lane, exterior pick-up window service and indoor counter service area with seating. The proposed drive-through lane circulates in a counterclockwise direction “*front to back*” around the proposed facility and parking lot. The proposed site plan features a 12-foot drive-through lane with stacking for 11 total vehicles. The proposed exterior window service is located within a protected area found on the southern side of the proposed National Coffee Shop building.

The proposed project re-configures 5 existing parking spaces and proposes 25 new parking spaces, two (2) of which are signed and marked as ADA. Fourteen (14) of the parking spaces are located within a reserved area in the center of the lot adjacent to the proposed National Coffee Shop.

The site will be accessed via a proposed full-access 40-foot-wide entrance directly onto Auburn Street. Secondary access will be provided through the adjacent driveway to the north of the site which offers pedestrian access from the rear parking lot on the western side of the lot to the National Coffee Shop via a proposed 5-foot-wide sidewalk.

SECTION 1

C. SITE AND VICINITY BOUNDARIES

The attached vicinity map on the following page depicts the location of the proposed development site. The proposed Coffee Shop is located on the western side of Auburn Street, approximately 650-feet north of the signalized intersection at Auburn Street and Washington Avenue/Northgate Shopping Plaza. The site is approximately 415-feet south of the signalized intersection of Auburn Street at Sanborn Street/Northgate Shopping Plaza.

SECTION 1

D. PROPOSED USES IN THE GENERAL VICINITY OF THE PROPOSED DEVELOPMENT

Traffic generated by projects that have been approved by the Local Planning Board and/or the Maine Department of Transportation, yet are not opened, must be included in the estimate of pre-development traffic. We will request this data at the Traffic Movement Permit Scoping meeting if required by the City Consulting Traffic Engineer.

SECTION 1

E. TRIP GENERATION

Site Trip Generation: Trip generation for the proposed 2,250sf National Coffee Shop was estimated based upon the latest edition (11th) of the Institute of Transportation Engineer's (ITE) Trip Generation Manual (TGM). The expected trip generation for the proposed National Coffee Shop was estimated using the following land use code (LUC) from the TGM: LUC #937 – Coffee/Donut Shop with Drive-Through Window.

Trip generation of LUC #937 for the proposed National Coffee Shop was calculated by using the average trip rate per 1,000sf. Table 1.1 presents trip generation for the proposed development.

Table 1.1 ITE Trip Generation Calculations						
Land Use	Coffee/Donut Shop with Drive-Through Window - LUC 937					
Time Period	Sq. Footage (1k)	Avg. Trip Generation Rate (Trips Per 1k Sf)	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	2.25	533.57	1201	50% / 50%	601	600
AM Weekday Peak Hour (Street)	2.25	85.88	194	51% / 49%	99	95
PM Weekday Peak Hour (Street)	2.25	38.99	88	50% / 50%	44	44
AM Weekday Peak Hour (Generator)	2.25	101.27	228	50% / 50%	114	114
PM Weekday Peak Hour (Generator)	2.25	43.65	99	50% / 50%	50	49

As shown in the preceding table, the proposed development is forecasted to generate 194 trips during the morning peak hour of the (street) and 228 trips during the morning peak hour of the (generator). The trips generated in the evening peak hour are significantly lower with 88 trips during the peak hour of the site and 99 trips during the peak hour of the generator.

The remaining trip generation detail in SECTION 1 is presented exclusively for the morning peak hour of the street given this is the highest trip generation time period.

SECTION 1

F. TRIP COMPOSITION

The Institute of Transportation Engineers (ITE) Trip Generation Handbook publication defines three types of trips potentially generated by a Coffee/Donut Shop with Drive-Through Window and No Indoor Seating (“pass-by”, “primary” and “diverted-link”).

A 2007 study conducted by Gorrill-Palmer for the Dunkin Donuts Corporation, established on average approximately 15% of the total trips generated by a Dunkin Donuts coffee shop site are primary or new trips to the area; 70% are pass-by trips, vehicle trips already on the roadway system, and 15% are diverted-link trips, existing trips on adjacent roadways that shift travel patterns. This application assumes both the primary and diverted link trips are new trips to the roadway system.

Similar trip composition values have been applied and approved by MaineDOT for other Coffee Shop applications.

Table 1.2 below, provides the expected trip composition values for the morning peak hour:

Table 1.2 ITE Trip Composition Calculations			
Land Use	National Coffee Shop Trips		
Time Period	Total Trips	Primary/Diverted-Link Trips	Pass-By Trips
AM Peak Hour (Street)	194	58	136

Overall, the proposed National Coffee Shop generates **58** primary/diverted-link trips and **136** pass-by trips during the morning peak hour.

SECTION 1

G. SITE TRIP DISTRIBUTION

Primary vehicle trips generated during the noted weekday morning peak hour for LUC # 937 were assigned to/from the proposed development based upon the trip distribution rates presented in the eleventh edition of the Institute of Transportation Engineers Trip Generation Manual. The trip distribution rates for primary and diverted link trips entering and exiting the site are shown below in Table 1.3.

Table 1.3 ITE Trip Distribution For LUC 934	
Time Period	Primary Trips Distribution Entering/Exiting
AM Peak Hour (Street)	51% / 49%

Pass-by vehicle trips were assigned to/from the proposed site based upon an equal split between both entry and exiting trips.

Table 1.4, below, presents the entering and exiting site trips for primary/diverted-link and pass-by trips.

Table 1.4 Site Trip Distribution			
Primary/Diverted-Link		Pass-By	
Enter	Exit	Enter	Exit
30	28	68	68

During the morning peak hour of the proposed Coffee Shop, 30 primary trips will enter the site and 28 primary trips will exit the site. The number of pass-by trips entering and exiting the site is greater, with 68 trips for both movements.

SECTION 1

H. TRIP ASSIGNMENT

Vehicle trip assignment models were prepared for the proposed development utilizing existing traffic distribution data collected at the intersections of Auburn Street at Sanborn Street/North Gate Shopping Plaza, and Auburn Street at Washington Avenue/Northgate Shopping Plaza. Site generated trips, both primary/diverted-link and pass-by trips, occurring in the morning street peak hour were appropriately assigned through the proposed site driveway based upon existing travel patterns recorded at the two noted signalized intersections. Additionally, the primary site trips were assigned through the signalized intersections located both north and south of the site based on recorded travel patterns at each intersection.

The manual traffic movement counts collected at the intersections at Auburn Street at Sanborn Street/North Gate Shopping Plaza, and Auburn Street at Washington Avenue/Northgate Shopping Plaza were collected during the first week of August in 2022. Copies of the traffic data are attached at the end of Section 1 for reference.

The traffic data summary reports for provide the following directional travel patterns for both the primary and pass-by trips generated by the proposed project:

Primary/Diverted-Link Trip Percent Distribution Patterns

Approach	Weekday AM Peak Hour
Auburn Street SB	55%
Sanborn Street and Washington Avenue SB ¹	6%
Auburn Street NB	37%
Northgate Shopping Plaza (South Entrance)	2%

1. We have made the assumption that 6% of vehicles will arrive from the Sanborn Street/Washington Avenue neighborhoods

Pass-By

Trip Distribution to Site Entrance

Approach	Weekday PM Peak Hour
Auburn Street SB	59%
Auburn Street NB	41%

Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

Portland Auburn St & Shaw's
August 3, 2022 AM
Sunny
Count by Jen Gilbert

File Name : Portland Auburn St & Shaw's Plaza 8-3-22 AM
Site Code : 00803221
Start Date : 8/3/2022
Page No : 1

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

Start Time	Auburn St From North				Shaw's Plaza From East				Auburn St From South				Sanborn St From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
06:30 AM	0	92	2	94	2	1	0	3	0	49	0	49	1	1	0	2	148
06:45 AM	0	98	4	102	3	0	1	4	0	58	1	59	0	0	0	0	165
Total	0	190	6	196	5	1	1	7	0	107	1	108	1	1	0	2	313
07:00 AM	0	109	5	114	3	2	0	5	1	57	2	60	1	2	1	4	183
07:15 AM	0	96	12	108	6	2	0	8	0	68	1	69	3	2	0	5	190
07:30 AM	3	150	8	161	6	3	0	9	1	65	1	67	1	5	2	8	245
07:45 AM	3	139	14	156	14	5	1	20	0	73	4	77	1	8	4	13	266
Total	6	494	39	539	29	12	1	42	2	263	8	273	6	17	7	30	884
08:00 AM	2	141	18	161	5	5	2	12	1	80	3	84	3	8	3	14	271
08:15 AM	4	128	17	149	13	3	1	17	1	74	5	80	4	5	2	11	257
08:30 AM	6	131	20	157	12	1	2	15	2	81	2	85	2	0	1	3	260
08:45 AM	10	127	22	159	17	5	1	23	3	93	3	99	6	7	8	21	302
Total	22	527	77	626	47	14	6	67	7	328	13	348	15	20	14	49	1090
09:00 AM	3	121	12	136	13	8	4	25	4	65	2	71	3	4	7	14	246
09:15 AM	5	110	9	124	9	5	3	17	4	69	6	79	4	2	2	8	228

Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

File Name : Portland Auburn St & Shaw's Plaza 8-3-22 AM

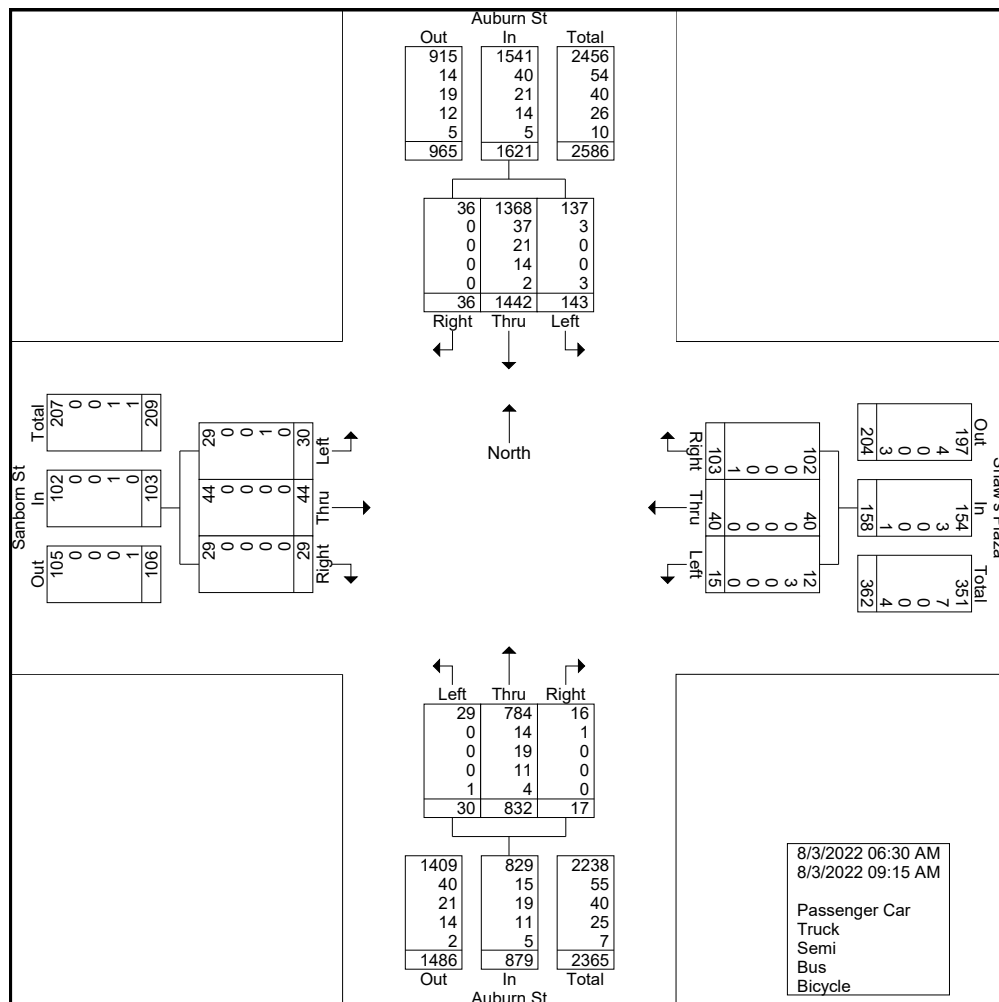
Site Code : 00803221

Start Date : 8/3/2022

Page No : 2

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	Auburn St From North				Shaw's Plaza From East				Auburn St From South				Sanborn St From West				
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Grand Total	36	1442	143	1621	103	40	15	158	17	832	30	879	29	44	30	103	2761
Apprch %	2.2	89	8.8		65.2	25.3	9.5		1.9	94.7	3.4		28.2	42.7	29.1		
Total %	1.3	52.2	5.2	58.7	3.7	1.4	0.5	5.7	0.6	30.1	1.1	31.8	1.1	1.6	1.1	3.7	
Passenger Car	36	1368	137	1541	102	40	12	154	16	784	29	829	29	44	29	102	2626
% Passenger Car	100	94.9	95.8	95.1	99	100	80	97.5	94.1	94.2	96.7	94.3	100	100	96.7	99	95.1
Truck	0	37	3	40	0	0	3	3	1	14	0	15	0	0	0	0	58
% Truck	0	2.6	2.1	2.5	0	0	20	1.9	5.9	1.7	0	1.7	0	0	0	0	2.1
Semi	0	21	0	21	0	0	0	0	0	19	0	19	0	0	0	0	40
% Semi	0	1.5	0	1.3	0	0	0	0	0	2.3	0	2.2	0	0	0	0	1.4
Bus	0	14	0	14	0	0	0	0	0	11	0	11	0	0	1	1	26
% Bus	0	1	0	0.9	0	0	0	0	0	1.3	0	1.3	0	0	3.3	1	0.9
Bicycle	0	2	3	5	1	0	0	1	0	4	1	5	0	0	0	0	11
% Bicycle	0	0.1	2.1	0.3	1	0	0	0.6	0	0.5	3.3	0.6	0	0	0	0	0.4



Traffic Solutions

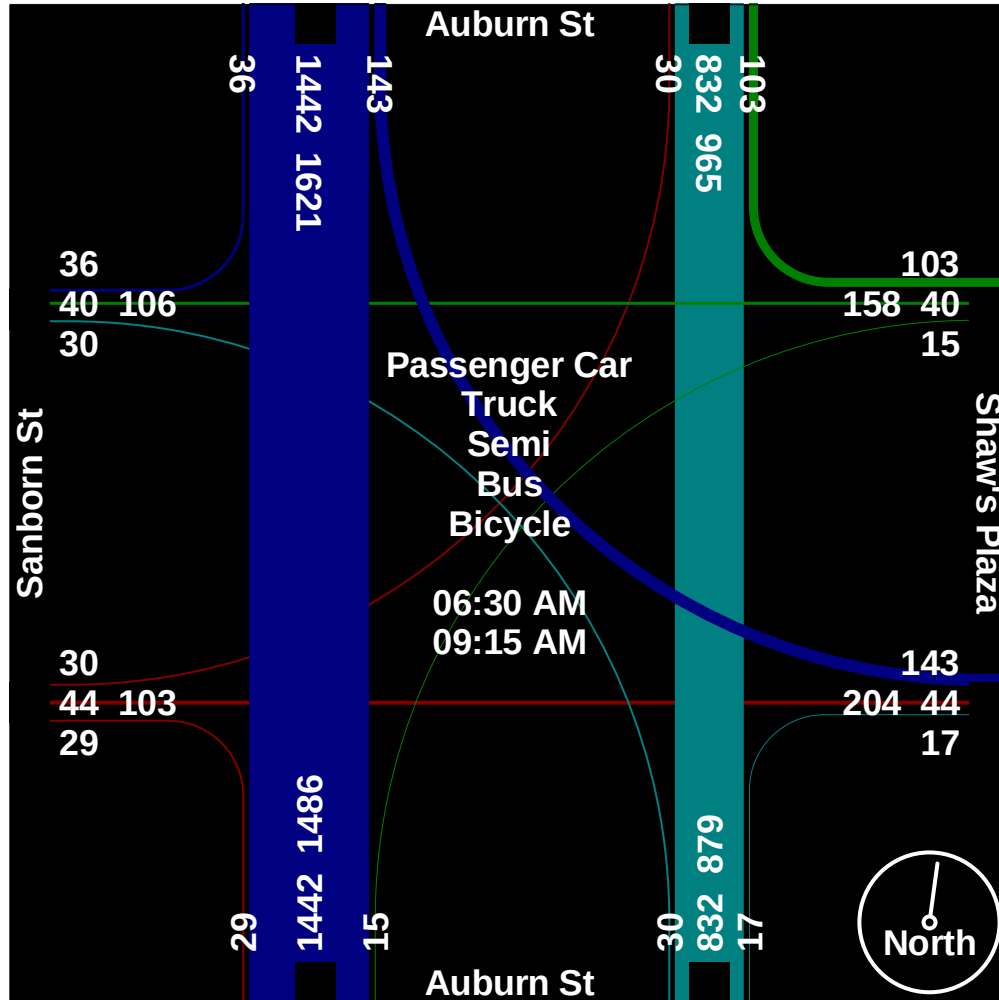
17 Mount View Dr
Gorham, ME 04038

File Name : Portland Auburn St & Shaw's Plaza 8-3-22 AM

Site Code : 00803221

Start Date : 8/3/2022

Page No : 3



Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

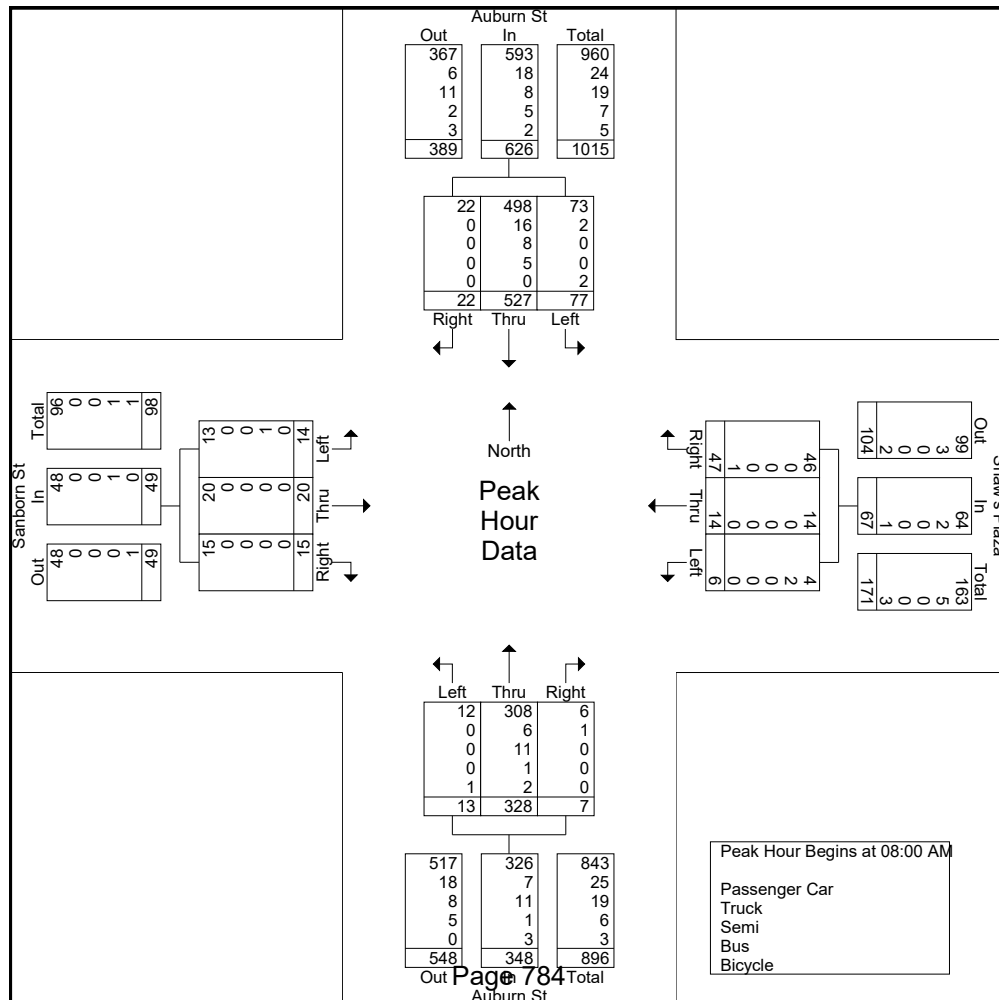
File Name : Portland Auburn St & Shaw's Plaza 8-3-22 AM

Site Code : 00803221

Start Date : 8/3/2022

Page No : 4

	Auburn St From North				Shaw's Plaza From East				Auburn St From South				Sanborn St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	2	141	18	161	5	5	2	12	1	80	3	84	3	8	3	14	271
08:15 AM	4	128	17	149	13	3	1	17	1	74	5	80	4	5	2	11	257
08:30 AM	6	131	20	157	12	1	2	15	2	81	2	85	2	0	1	3	260
08:45 AM	10	127	22	159	17	5	1	23	3	93	3	99	6	7	8	21	302
Total Volume	22	527	77	626	47	14	6	67	7	328	13	348	15	20	14	49	1090
% App. Total	3.5	84.2	12.3		70.1	20.9	9		2	94.3	3.7		30.6	40.8	28.6		
PHF	.550	.934	.875	.972	.691	.700	.750	.728	.583	.882	.650	.879	.625	.625	.438	.583	.902
Passenger Car	22	498	73	593	46	14	4	64	6	308	12	326	15	20	13	48	1031
% Passenger Car	100	94.5	94.8	94.7	97.9	100	66.7	95.5	85.7	93.9	92.3	93.7	100	100	92.9	98.0	94.6
Truck	0	16	2	18	0	0	2	2	1	6	0	7	0	0	0	0	27
% Truck	0	3.0	2.6	2.9	0	0	33.3	3.0	14.3	1.8	0	2.0	0	0	0	0	2.5
Semi	0	8	0	8	0	0	0	0	0	11	0	11	0	0	0	0	19
% Semi	0	1.5	0	1.3	0	0	0	0	0	3.4	0	3.2	0	0	0	0	1.7
Bus	0	5	0	5	0	0	0	0	0	1	0	1	0	0	1	1	7
% Bus	0	0.9	0	0.8	0	0	0	0	0	0.3	0	0.3	0	0	7.1	2.0	0.6
Bicycle	0	0	2	2	1	0	0	1	0	2	1	3	0	0	0	0	6
% Bicycle	0	0	2.6	0.3	2.1	0	0	1.5	0	0.6	7.7	0.9	0	0	0	0	0.6



Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

File Name : Portland Auburn St & Shaw's Plaza 8-3-22 AM

Site Code : 00803221

Start Date : 8/3/2022

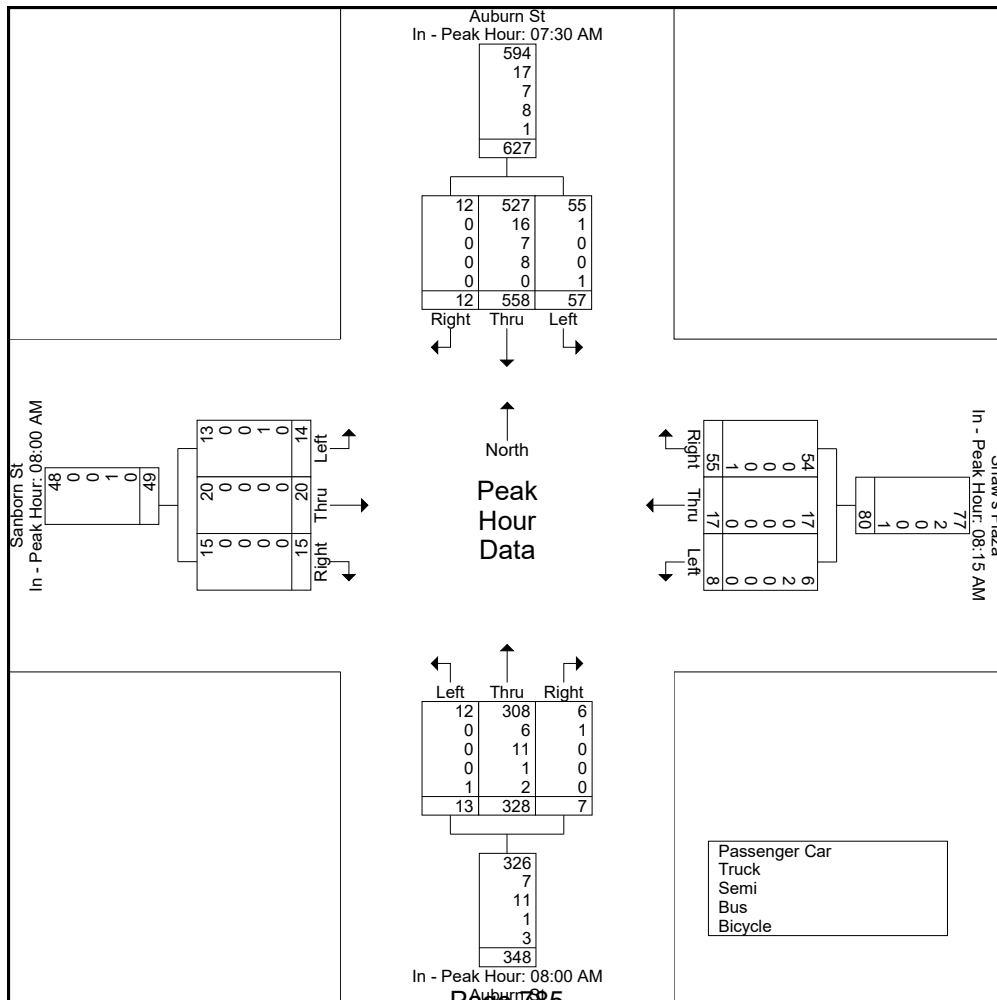
Page No : 5

	Auburn St From North				Shaw's Plaza From East				Auburn St From South				Sanborn St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total

Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				08:15 AM				08:00 AM				08:00 AM				
+0 mins.	3	150	8	161	13	3	1	17	1	80	3	84	3	8	3	14	
+15 mins.	3	139	14	156	12	1	2	15	1	74	5	80	4	5	2	11	
+30 mins.	2	141	18	161	17	5	1	23	2	81	2	85	2	0	1	3	
+45 mins.	4	128	17	149	13	8	4	25	3	93	3	99	6	7	8	21	
Total Volume	12	558	57	627	55	17	8	80	7	328	13	348	15	20	14	49	
% App. Total	1.9	89	9.1		68.8	21.2	10		2	94.3	3.7		30.6	40.8	28.6		
PHF	.750	.930	.792	.974	.809	.531	.500	.800	.583	.882	.650	.879	.625	.625	.438	.583	
Passenger Car	12	527	55	594	54	17	6	77	6	308	12	326	15	20	13	48	
% Passenger Car	100	94.4	96.5	94.7	98.2	100	75	96.2	85.7	93.9	92.3	93.7	100	100	92.9	98	
Truck	0	16	1	17	0	0	2	2	1	6	0	7	0	0	0	0	
% Truck	0	2.9	1.8	2.7	0	0	25	2.5	14.3	1.8	0	2	0	0	0	0	
Semi	0	7	0	7	0	0	0	0	0	11	0	11	0	0	0	0	
% Semi	0	1.3	0	1.1	0	0	0	0	0	3.4	0	3.2	0	0	0	0	
Bus	0	8	0	8	0	0	0	0	0	1	0	1	0	0	1	1	
% Bus	0	1.4	0	1.3	0	0	0	0	0	0.3	0	0.3	0	0	7.1	2	
Bicycle	0	0	1	1	1	0	0	1	0	2	1	3	0	0	0	0	
% Bicycle	0	0	1.8	0.2	1.8	0	0	1.2	0	0.6	7.7	0.9	0	0	0	0	



Traffic Solutions

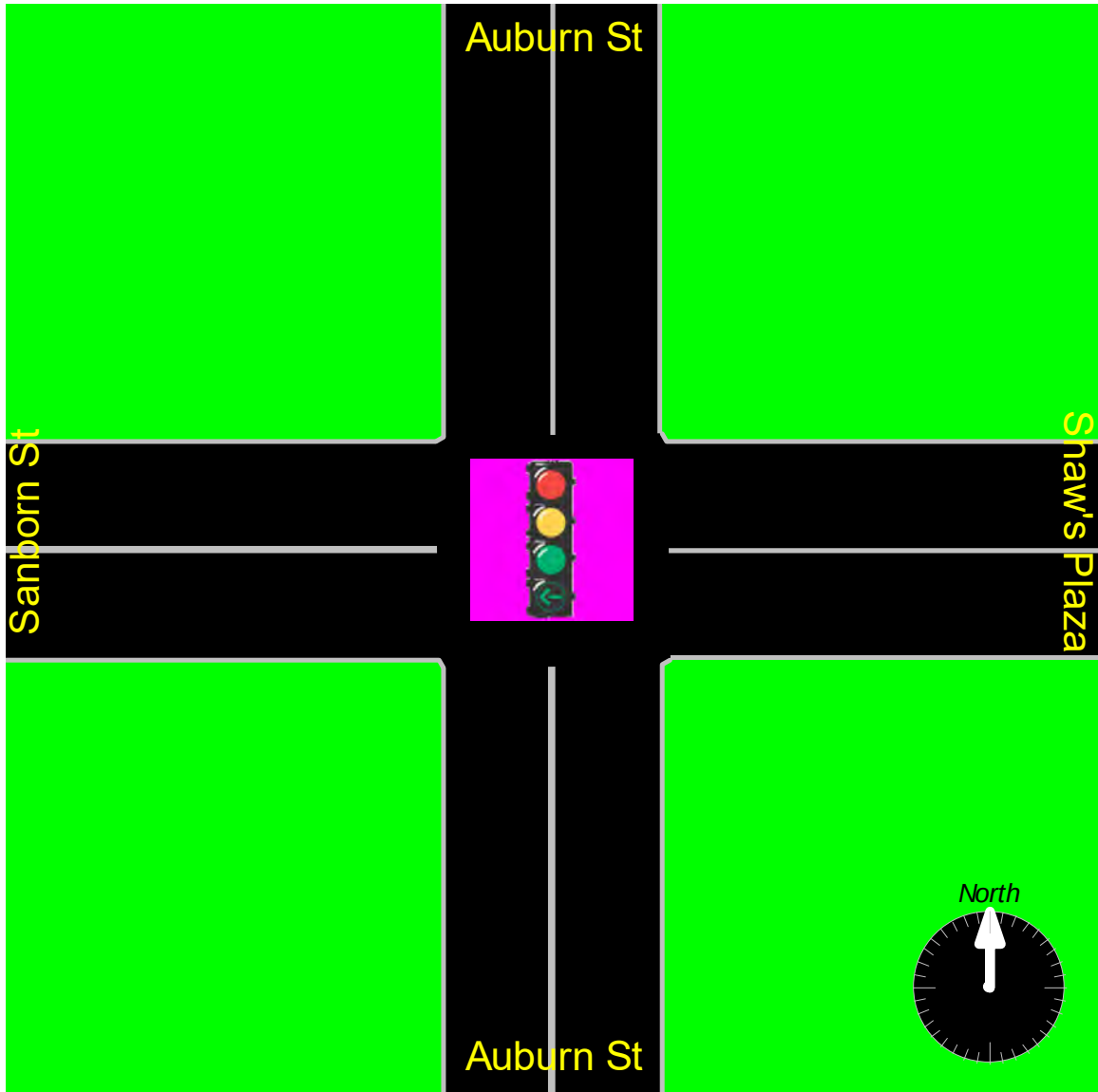
17 Mount View Dr
Gorham, ME 04038

File Name : Portland Auburn St & Shaw's Plaza 8-3-22 AM

Site Code : 00803221

Start Date : 8/3/2022

Page No : 6



Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

Portland Auburn St & Washington Ave File Name : Portland Auburn St & Washington Ave 8-4-22 AM
August 4, 2022 AM Site Code : 00804221
Sunny Start Date : 8/4/2022
Count by Jen Gilbert Page No : 1

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

Start Time	Auburn St From North				Shaw's Plaza From East				Auburn St From South				Washington Ave From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
06:30 AM	0	85	1	86	1	1	3	5	5	43	8	56	1	5	1	7	154
06:45 AM	0	91	3	94	1	0	4	5	8	39	11	58	1	4	1	6	163
Total	0	176	4	180	2	1	7	10	13	82	19	114	2	9	2	13	317
07:00 AM	0	98	0	98	1	2	10	13	11	40	20	71	4	5	0	9	191
07:15 AM	0	127	0	127	3	0	7	10	11	67	18	96	6	7	1	14	247
07:30 AM	0	138	1	139	0	1	12	13	20	63	23	106	9	2	0	11	269
07:45 AM	6	124	5	135	5	3	14	22	21	81	44	146	12	6	2	20	323
Total	6	487	6	499	9	6	43	58	63	251	105	419	31	20	3	54	1030
08:00 AM	0	144	4	148	3	3	14	20	14	78	49	141	14	4	1	19	328
08:15 AM	3	141	0	144	4	3	17	24	19	78	25	122	9	9	1	19	309
08:30 AM	2	128	4	134	6	4	17	27	26	94	37	157	8	9	2	19	337
08:45 AM	3	138	1	142	6	4	22	32	21	103	28	152	7	10	0	17	343
Total	8	551	9	568	19	14	70	103	80	353	139	572	38	32	4	74	1317
09:00 AM	1	130	7	138	2	2	19	23	15	92	31	138	5	5	1	11	310
09:15 AM	0	126	5	131	5	1	18	24	21	69	25	115	4	0	0	4	274

Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

File Name : Portland Auburn St & Washington Ave 8-4-22 AM

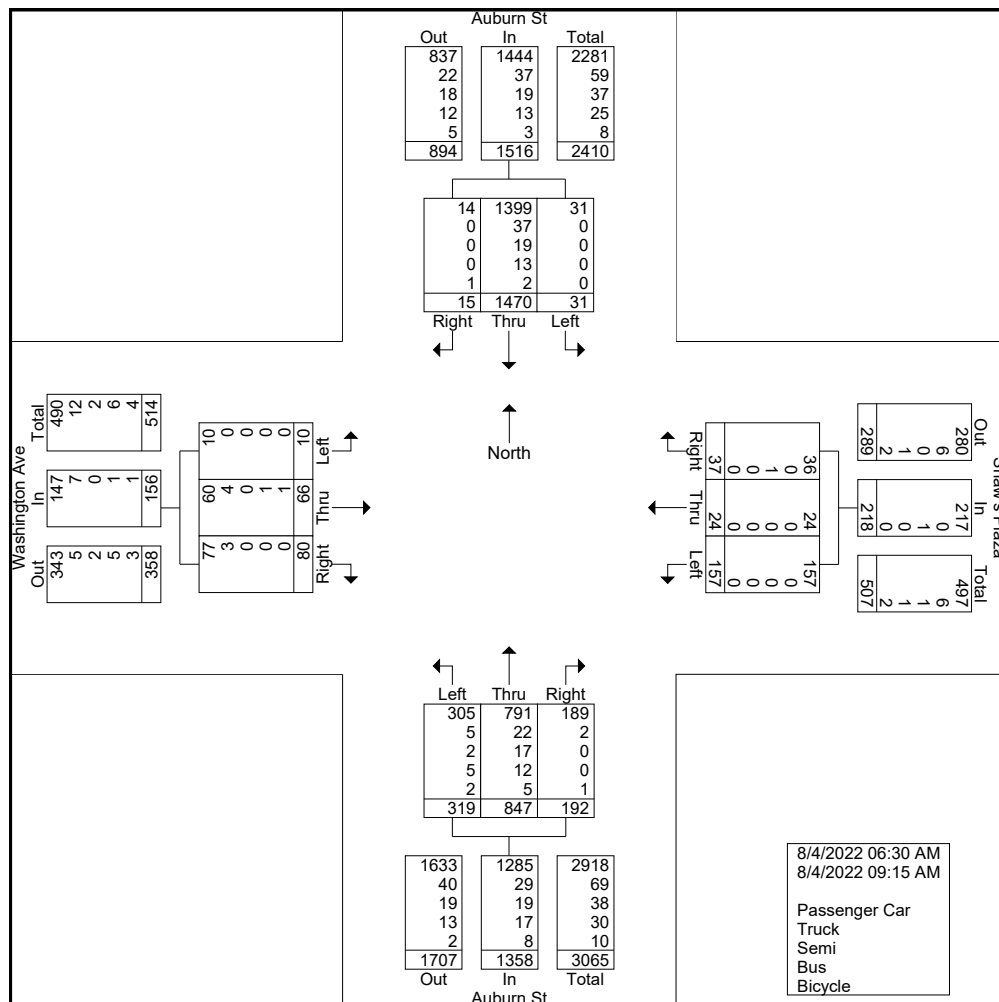
Site Code : 00804221

Start Date : 8/4/2022

Page No : 2

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	Auburn St From North				Shaw's Plaza From East				Auburn St From South				Washington Ave From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Grand Total	15	1470	31	1516	37	24	157	218	192	847	319	1358	80	66	10	156	3248
Apprch %	1	97	2		17	11	72		14.1	62.4	23.5		51.3	42.3	6.4		
Total %	0.5	45.3	1	46.7	1.1	0.7	4.8	6.7	5.9	26.1	9.8	41.8	2.5	2	0.3	4.8	
Passenger Car	14	1399	31	1444	36	24	157	217	189	791	305	1285	77	60	10	147	3093
% Passenger Car	93.3	95.2	100	95.3	97.3	100	100	99.5	98.4	93.4	95.6	94.6	96.2	90.9	100	94.2	95.2
Truck	0	37	0	37	0	0	0	0	2	22	5	29	3	4	0	7	73
% Truck	0	2.5	0	2.4	0	0	0	0	1	2.6	1.6	2.1	3.8	6.1	0	4.5	2.2
Semi	0	19	0	19	1	0	0	1	0	17	2	19	0	0	0	0	39
% Semi	0	1.3	0	1.3	2.7	0	0	0.5	0	2	0.6	1.4	0	0	0	0	1.2
Bus	0	13	0	13	0	0	0	0	0	12	5	17	0	1	0	1	31
% Bus	0	0.9	0	0.9	0	0	0	0	0	1.4	1.6	1.3	0	1.5	0	0.6	1
Bicycle	1	2	0	3	0	0	0	0	1	5	2	8	0	1	0	1	12
% Bicycle	6.7	0.1	0	0.2	0	0	0	0	0.5	0.6	0.6	0.6	0	1.5	0	0.6	0.4



Traffic Solutions

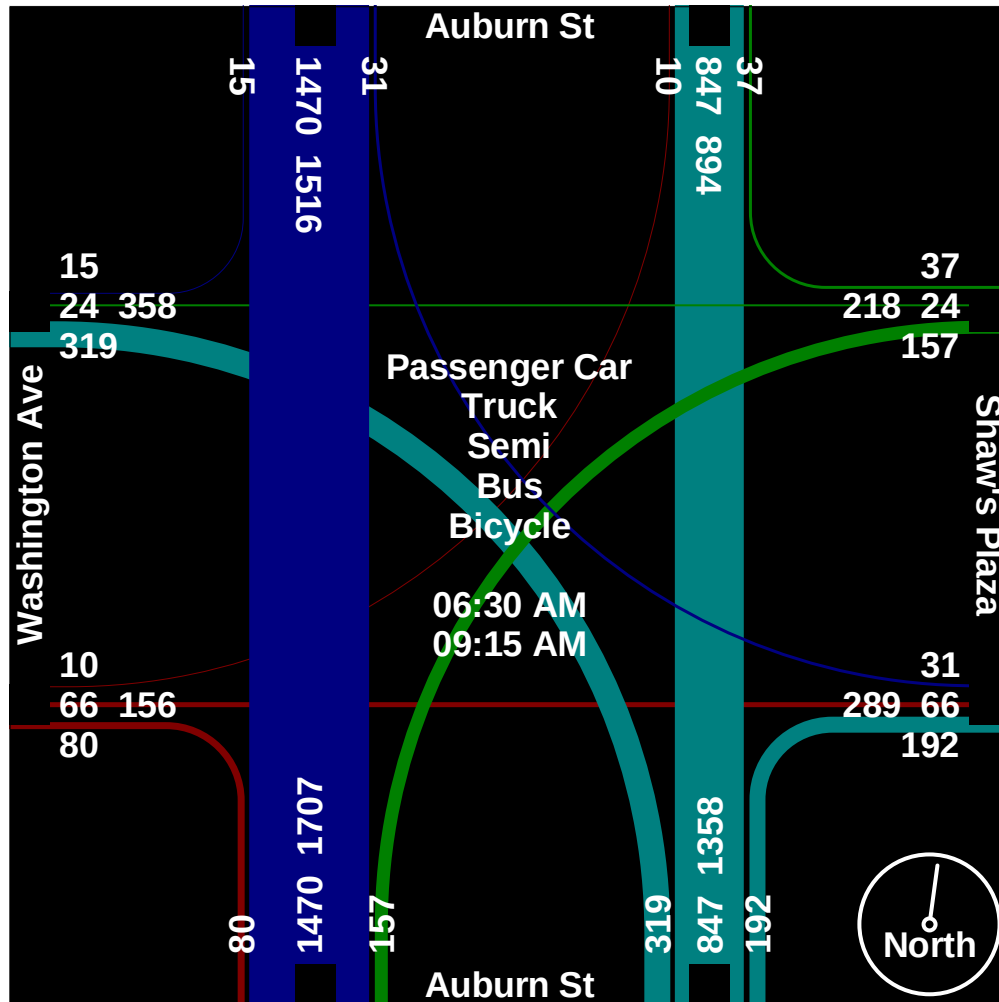
17 Mount View Dr
Gorham, ME 04038

File Name : Portland Auburn St & Washington Ave 8-4-22 AM

Site Code : 00804221

Start Date : 8/4/2022

Page No : 3



Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

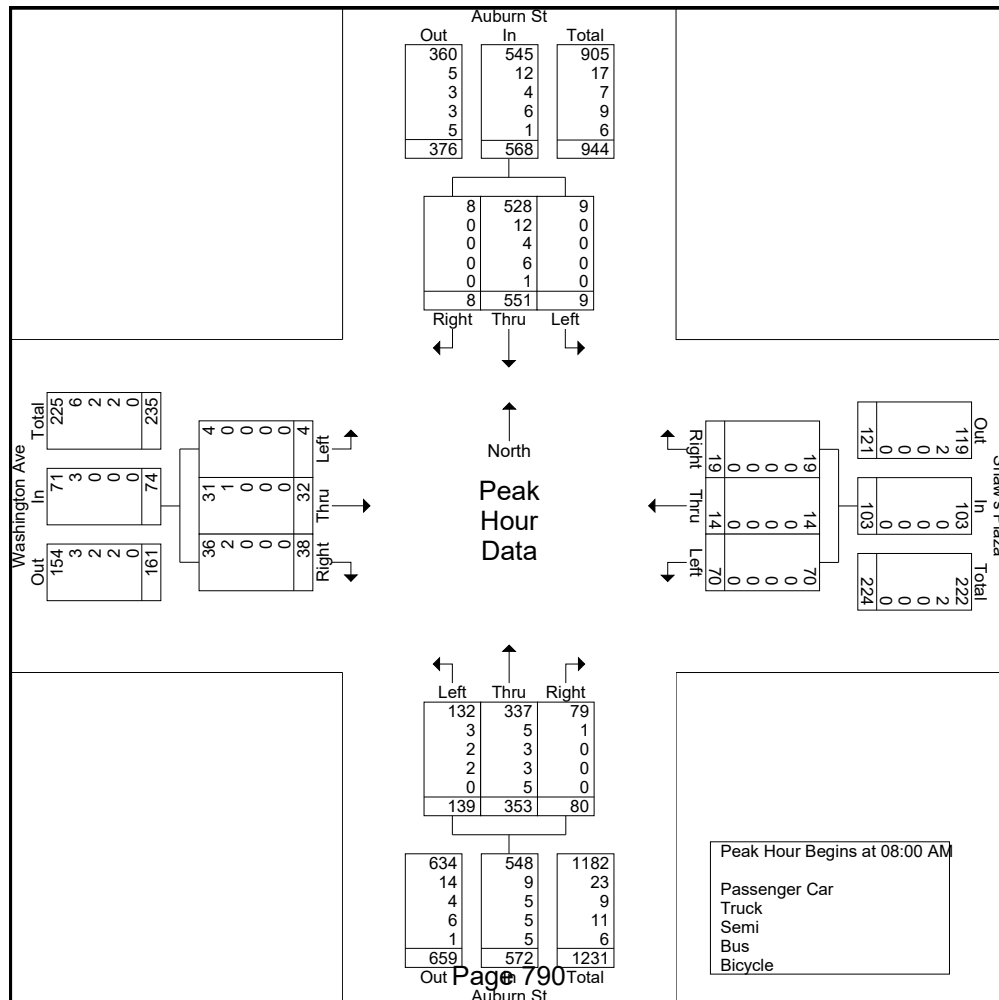
File Name : Portland Auburn St & Washington Ave 8-4-22 AM

Site Code : 00804221

Start Date : 8/4/2022

Page No : 4

	Auburn St From North				Shaw's Plaza From East				Auburn St From South				Washington Ave From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	144	4	148	3	3	14	20	14	78	49	141	14	4	1	19	328
08:15 AM	3	141	0	144	4	3	17	24	19	78	25	122	9	9	1	19	309
08:30 AM	2	128	4	134	6	4	17	27	26	94	37	157	8	9	2	19	337
08:45 AM	3	138	1	142	6	4	22	32	21	103	28	152	7	10	0	17	343
Total Volume	8	551	9	568	19	14	70	103	80	353	139	572	38	32	4	74	1317
% App. Total	1.4	97	1.6		18.4	13.6	68		14	61.7	24.3		51.4	43.2	5.4		
PHF	.667	.957	.563	.959	.792	.875	.795	.805	.769	.857	.709	.911	.679	.800	.500	.974	.960
Passenger Car	8	528	9	545	19	14	70	103	79	337	132	548	36	31	4	71	1267
% Passenger Car	100	95.8	100	96.0	100	100	100	100	98.8	95.5	95.0	95.8	94.7	96.9	100	95.9	96.2
Truck	0	12	0	12	0	0	0	0	1	5	3	9	2	1	0	3	24
% Truck	0	2.2	0	2.1	0	0	0	0	1.3	1.4	2.2	1.6	5.3	3.1	0	4.1	1.8
Semi	0	4	0	4	0	0	0	0	0	3	2	5	0	0	0	0	9
% Semi	0	0.7	0	0.7	0	0	0	0	0	0.8	1.4	0.9	0	0	0	0	0.7
Bus	0	6	0	6	0	0	0	0	0	3	2	5	0	0	0	0	11
% Bus	0	1.1	0	1.1	0	0	0	0	0	0.8	1.4	0.9	0	0	0	0	0.8
Bicycle	0	1	0	1	0	0	0	0	0	5	0	5	0	0	0	0	6
% Bicycle	0	0.2	0	0.2	0	0	0	0	0	1.4	0	0.9	0	0	0	0	0.5



Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

File Name : Portland Auburn St & Washington Ave 8-4-22 AM

Site Code : 00804221

Start Date : 8/4/2022

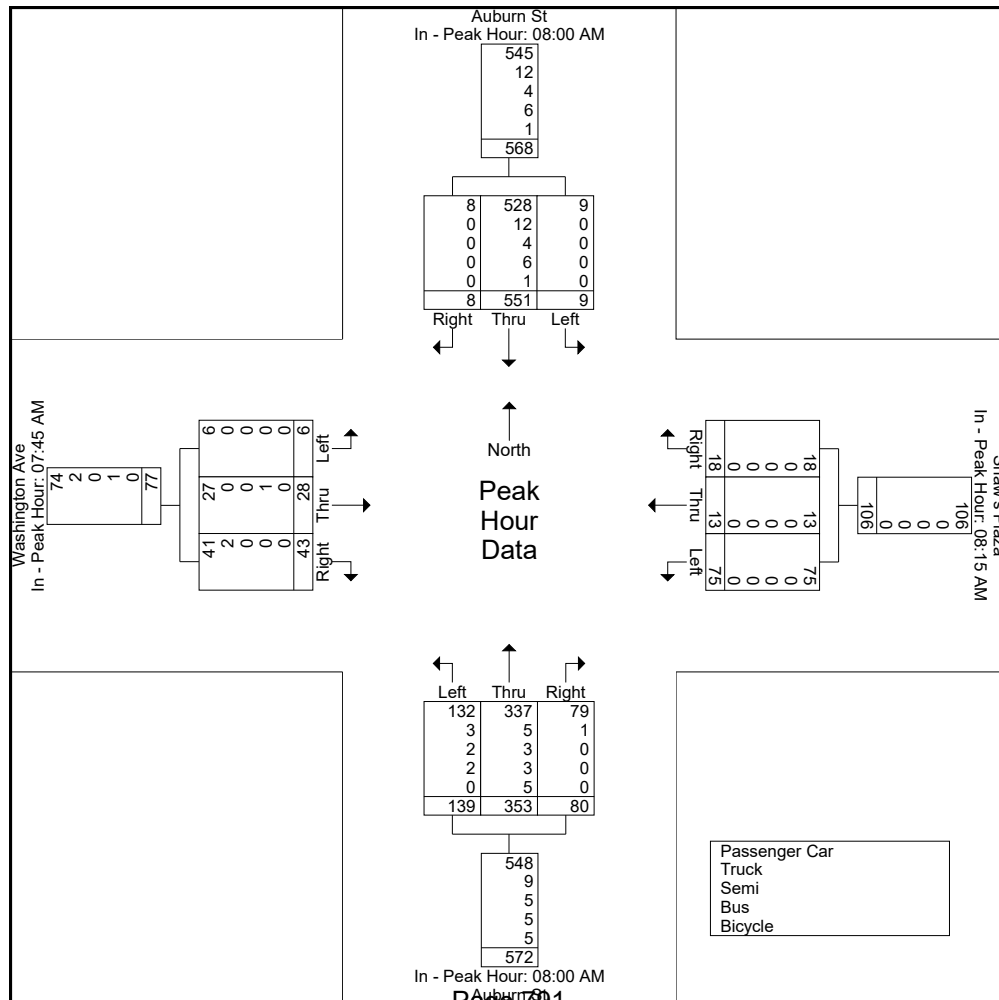
Page No : 5

	Auburn St From North				Shaw's Plaza From East				Auburn St From South				Washington Ave From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total

Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM				08:15 AM				08:00 AM				07:45 AM			
+0 mins.	0	144	4	148	4	3	17	24	14	78	49	141	12	6	2	20
+15 mins.	3	141	0	144	6	4	17	27	19	78	25	122	14	4	1	19
+30 mins.	2	128	4	134	6	4	22	32	26	94	37	157	9	9	1	19
+45 mins.	3	138	1	142	2	2	19	23	21	103	28	152	8	9	2	19
Total Volume	8	551	9	568	18	13	75	106	80	353	139	572	43	28	6	77
% App. Total	1.4	97	1.6		17	12.3	70.8		14	61.7	24.3		55.8	36.4	7.8	
PHF	.667	.957	.563	.959	.750	.813	.852	.828	.769	.857	.709	.911	.768	.778	.750	.963
Passenger Car	8	528	9	545	18	13	75	106	79	337	132	548	41	27	6	74
% Passenger Car	100	95.8	100	96	100	100	100	100	98.8	95.5	95	95.8	95.3	96.4	100	96.1
Truck	0	12	0	12	0	0	0	0	1	5	3	9	2	0	0	2
% Truck	0	2.2	0	2.1	0	0	0	0	1.2	1.4	2.2	1.6	4.7	0	0	2.6
Semi	0	4	0	4	0	0	0	0	0	3	2	5	0	0	0	0
% Semi	0	0.7	0	0.7	0	0	0	0	0	0.8	1.4	0.9	0	0	0	0
Bus	0	6	0	6	0	0	0	0	0	3	2	5	0	1	0	1
% Bus	0	1.1	0	1.1	0	0	0	0	0	0.8	1.4	0.9	0	3.6	0	1.3
Bicycle	0	1	0	1	0	0	0	0	0	5	0	5	0	0	0	0
% Bicycle	0	0.2	0	0.2	0	0	0	0	0	1.4	0	0.9	0	0	0	0



Traffic Solutions

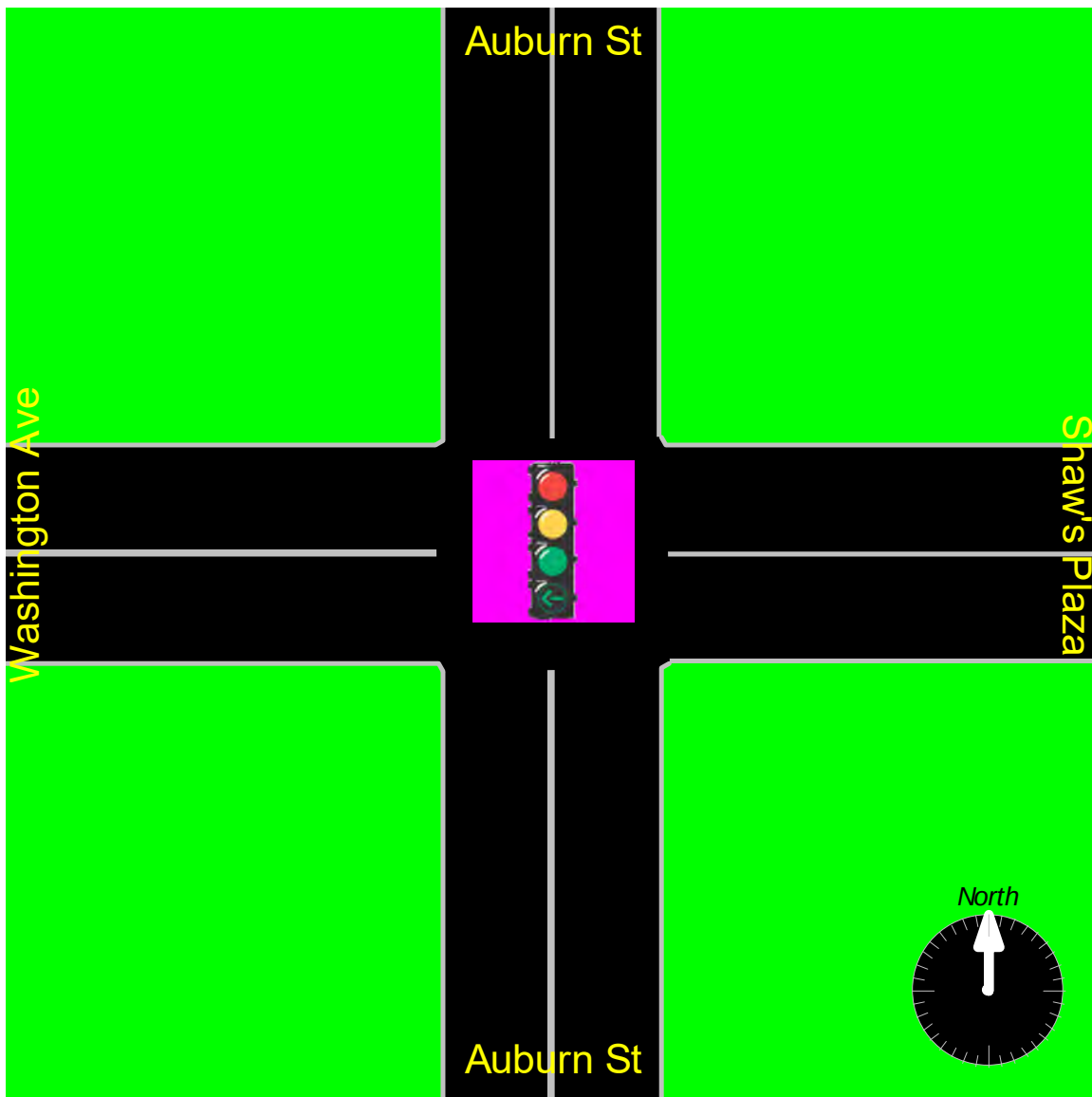
17 Mount View Dr
Gorham, ME 04038

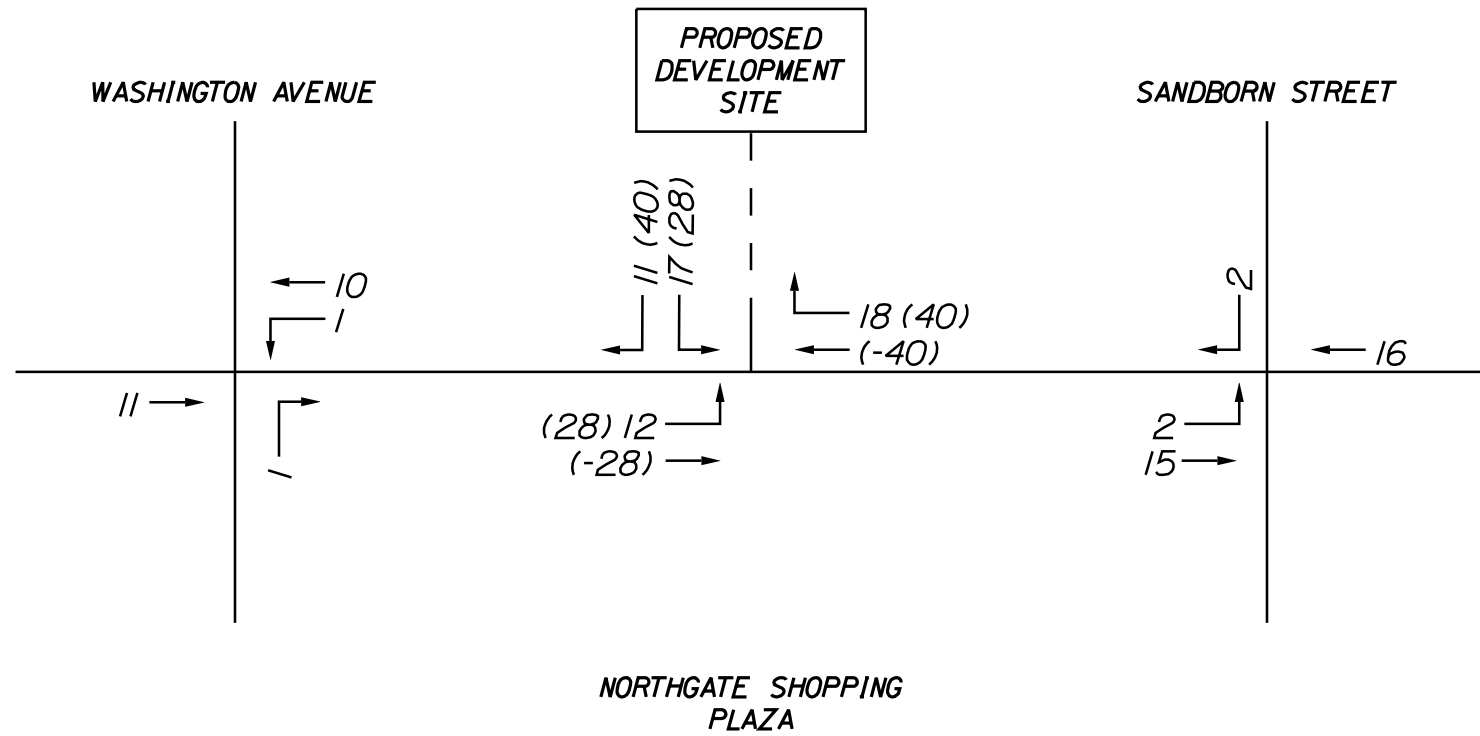
File Name : Portland Auburn St & Washington Ave 8-4-22 AM

Site Code : 00804221

Start Date : 8/4/2022

Page No : 6





LEGEND

XX - PRIMARY TRIPS
(XX) - PASS-BY TRIPS

SITE TRIP ASSIGNMENT
AM PEAK HOUR
FIGURE 1

84 AUBURN STREET
COFFEE SHOP
PORTLAND, MAINE

DATE: SEPT., 2022

Barton
& Loguidice

Section 2

SECTION 2

TRAFFIC ACCIDENTS

2019 -2021 Crash Report Summary (Auburn Street – Sanborn Street to Washington Avenue/Northgate Shopping Plaza)

<u>Location</u>	<u>Total Crashes</u>	<u>Critical Rate Factor</u>
1. Auburn Street @ Sanborn Street/Northgate Shopping Plaza Entrance	9	0.57
2. Auburn Street @ Northgate Shopping Plaza /Washington Avenue Connector	12	0.63
3. Auburn Street btw. Washington Street/ Northgate Shopping Plaza Entrance and Sanborn Street/ Northgate Shopping Plaza Entrance	5	0.56

The MDOT considers any roadway intersection or segment a high crash location if both of the following criteria are met:

- ***8 or more accidents and,***
- ***A Critical Rate Factor greater than 1.00***

As the data presented in the chart shows, there are no identified high crash locations within the defined study area.



Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ **Crash Summary I** ☐ **Section Detail** ☒ **Crash Summary II** ☐ **1320 Public** ☐ **1320 Private** ☐ **1320 Summary**

REPORT DESCRIPTION

Bangor
Auburn St Rt 26 from Sanborn St to Washington Ave Connection

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: **0026X**

Start Node: **63327**

Start Offset: **0**

☐ **Exclude First Node**

End Node: **17064**

End Offset: **0**

☐ **Exclude Last Node**

Crash Summary I

Nodes																
Node	Route - MP	Node Description			U/R	Total Crashes	K	Injury Crashes			PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
17064	0026X - 3.64	Int of AUBURN ST	ENT NORTHGATE N	SANBORN ST	9	9	0	0	1	3	5	44.4	4.462	0.67	1.18	0.57
63327	0026X - 3.44	Int of AUBURN ST	NORTHGATE SHOPPING CENTER RD II		9	12	1	0	1	3	6	45.5	5.672	0.71	1.12	0.63
Study Years: 3.00		NODE TOTALS:				21	1	0	2	6	11	42.9	10.134	0.69	1.01	0.68

Statewide Crash Rate: 0.65

Statewide Crash Rate: 0.65

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF	
63327	17064	3943914	0 - 0.20	0026X - 3.44	0.20	2	5	0	0	0	1	4	20.0	0.00737	226.14	401.45	0.00
Int of AUBURN ST		NORTHGATE SHOPPING		ST RTE 26	Statewide Crash Rate: 187.10												
CENTER RD INV 3201489		RD INV 3209640															
Study Years:		3.00		Section Totals:		0.20	5	0	0	0	1	4	20.0	0.00737	226.14	401.45	0.56
				Grand Totals:		0.20	26	1	0	2	7	15	38.5	0.00737	1175.93	545.51	2.16

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes				Crash Report	Crash Date	Crash Mile Point	Injury Degree
							A	B	C	PD				
63327	17064	3943914	0 - 0.20	0026X - 3.44	5	0	0	0	1	4	2021-21991	08/20/2021	3.47	PD
											2020-30443	12/04/2020	3.53	PD
											2021-102	01/01/2021	3.56	PD
											2021-22973	08/31/2021	3.59	C
											2021-13277	05/29/2021	3.61	PD
											Totals:			

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	AM											Hour of Day											PM											Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11											
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
MONDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1								
TUESDAY	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	2	2	0	2	0	0	0	0	0	0	0	9								
WEDNESDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2								
THURSDAY	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2								
FRIDAY	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	1	0	0	6								
SATURDAY	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	0	0	6								
Totals	0	1	0	0	0	0	0	1	1	0	1	1	3	1	1	4	3	1	3	1	2	0	0	2	0	26									

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	24	23-Bicyclist	0
2-(Sport) Utility Vehicle	16	24-Witness	4
3-Passenger Van	4	25-Other	0
4-Cargo Van (10K lbs or Less)	1	26-Construction	0
5-Pickup	3	27-Farm Vehicle	0
6-Motor Home	0	Total	54
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	1		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	1		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Maine Department Of Transportation - Office of Safety, Crash Records Section

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	3	17	4	0	0	0	24
Ran Off Roadway	3	0	0	0	0	0	3
Failed to Yield Right-of-Way	5	0	0	0	0	0	5
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	0	0	0	0	0	0	0
Improper Turn	0	1	0	0	0	0	1
Improper Backing	0	0	0	0	0	0	0
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	9	1	0	0	0	0	10
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	0	0	0	0	0	1
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	3	1	0	0	0	0	4
Unknown	0	0	0	0	0	0	0
Total	24	20	4	0	0	0	48

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	19	19	4	0	0	0	42
Physically Impaired	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	2	0	0	0	0	0	2
Ill (Sick)	1	0	0	0	0	0	1
Asleep or Fatigued	2	1	0	0	0	0	3
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total	24	20	4	0	0	0	48

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	2	0	0	0	0	2
20-24	3	0	0	0	0	3
25-29	2	0	0	0	0	2
30-39	9	0	0	0	0	9
40-49	9	0	0	0	0	9
50-59	7	0	0	0	0	7
60-69	9	0	0	0	0	9
70-79	3	0	0	0	0	3
80-Over	3	0	0	0	0	3
Unknown	3	0	0	0	0	3
Total	50	0	0	0	0	50

Crash Summary II - Characteristics

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	1
2-Fire / Explosion	0	39-Unknown	3
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	49
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	42		
14-Parked Motor Vehicle	0		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	1		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	1		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post, Pole, or Support	1		

Traffic Control Devices		
Traffic Control Device	Total	
1-Traffic Signals (Stop & Go)	21	
2-Traffic Signals (Flashing)	0	
3-Advisory/Warning Sign	0	
4-Stop Signs - All Approaches	0	
5-Stop Signs - Other	0	
6-Yield Sign	0	
7-Curve Warning Sign	0	
8-Officer, Flagman, School Patrol	0	
9-School Bus Stop Arm	0	
10-School Zone Sign	0	
11-R.R. Crossing Device	0	
12-No Passing Zone	0	
13-None	5	
14-Other	0	
Total	26	

Injury Data		
Severity Code	Injury Crashes	Number Of Injuries
K	1	1
A	0	0
B	2	2
C	7	12
PD	15	0
Total	25	15

Road Character	
Road Grade	Total
1-Level	26
2-On Grade	0
3-Top of Hill	0
4-Bottom of Hill	0
5-Other	0
Total	26

Light	
Light Condition	Total
1-Daylight	19
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	7
5-Dark - Not Lighted	0
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	26

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2019	2020	2021	Total
JANUARY	0	0	2	2
FEBRUARY	0	0	1	1
MARCH	1	0	0	1
APRIL	0	0	1	1
MAY	1	0	1	2
JUNE	0	0	0	0
JULY	1	1	0	2
AUGUST	1	0	3	4
SEPTEMBER	2	1	0	3
OCTOBER	1	1	0	2
NOVEMBER	2	0	0	2
DECEMBER	3	3	0	6
Total	12	6	8	26

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics**Crashes by Crash Type and Type of Location**

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End - Sideswipe	3	0	0	11	0	0	0	0	0	0	0	0	0	0	14
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	1	0	0	4	0	0	0	0	0	1	0	0	0	0	6
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	0	0	21	0	0	0	0	0	1	0	0	0	0	26

Maine Department Of Transportation - Office of Safety, Crash Records Section

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	6	1	0	0	0	0	0	0	0	0	0	7
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	13	0	0	0	0	0	0	0	0	0	1	14
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	2	0	0	0	0	0	0	0	0	0	1	3
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	2	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	21	1	0	0	0	0	0	0	0	0	4	26

Section 3

SECTION 3

A. ENTRANCE/EXIT LOCATION

The proposed development connects directly to the western side of Auburn Street approximately 650-feet north of the signalized intersection at Auburn Street and Northgate Shopping Plaza. The proposed National Coffee Shop features a drive-through lane, exterior pick-up window service and an indoor counter service area with seating. The proposed drive-through circulates in a counterclockwise direction “*front to back*” around the proposed facility and parking lot. The proposed site plan features a 12-foot drive-through lane with stacking for 11 total vehicles. The proposed exterior window service is located within a protected area found on the south side of the proposed National Coffee Shop building. The proposed site plan and design are illustrated on the plan titled “*84 Auburn Street Redevelopment*” prepared by Acorn Engineering, signed and stamped on October 26, 2022, enclosed herein in the plan “*jacket*” found in the Application.

B. ENTRANCE AND EXIT PLAN VIEW

The site will be accessed via a proposed full-access 40-foot-wide entrance directly onto Auburn Street. Secondary access will be provided for pedestrians through the adjacent driveway to the north of the site which offers access from the parking lot on the western side of the lot to the National Coffee Shop via a proposed 5-foot-wide sidewalk.

Sight distance field measurements recorded at the proposed site entrance looking left and right directionally onto Auburn Street indicate that current sight distances exceed the requirements based on a posted speed limit of 30mph. Looking left, we observed an unobstructed sight distance through the signalized intersection at Sanborn Street, a measurement in excess of 425-feet. Looking Right, an unobstructed sight distance was observed through the signalized intersection at Washington Avenue Connector and Auburn Street, for a distance greater than 650-feet.

C. ENTRANCE/EXIT DESIGN

The proposed project, including any required off-site improvements, will be designed, and constructed as directed by the City of Portland.

Section 4

SECTION 4

TITLE, RIGHT OR INTEREST

A QUITCLAIM DEED, signed and dated March 4th, 2021 provides documentation of 84 Auburn, LLC's ownership of the property located at 84 Auburn Street in the City of Portland.

MAINE REAL ESTATE TAX-Paid

DLN#1002140134495

QUITCLAIM DEED

KNOW ALL PERSONS BY THESE PRESENTS, that, **Adam Mitchell** of 16 Yale Street, Portland, ME 04103, for consideration paid, grants to **84 Auburn, LLC**, a Maine Limited Liability Company with a mailing address of 7 Heather Lane, Falmouth ME 04105, with QUITCLAIM COVENANTS, the premises in the City of Portland, County of Cumberland, and State of Maine, bounded and described as follows:

See Exhibit A attached hereto

IN WITNESS WHEREOF, the said **Adam Mitchell** has caused this instrument to be signed this 4 day of March, 2020. *AM*


Witness


Adam Mitchell

STATE OF MAINE
COUNTY OF CUMBERLAND

On this day, March 4, 2020, personally appeared before me the above-named **Adam Mitchell** and acknowledged the foregoing to be his free act and deed.

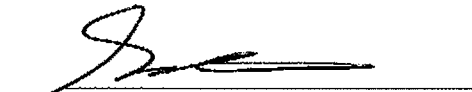

Notary Public/Attorney
Name: **Scott Herrick**
My commission expires: **Attorney at Law**
Scott Herrick
Attorney at Law

EXHIBIT A

A certain lot or parcel of land, with the buildings thereon, situated in Portland, County of Cumberland and State of Maine, bounded and described as follows:

A certain lot or parcel of land with the buildings and improvements thereon, situated in Portland, County of Cumberland, and State of Maine, bounded and described as follows:

Beginning on the westerly side of said Auburn Street at the northeasterly corner of Lot 23 as shown on a Plan of Highland Park recorded in the Cumberland County Registry of Deeds in Plan Book 8, Page 139; thence

Westerly by the northerly line of said Lot 23 and its extension westerly by the northerly line of said Lot 23 and its extension westerly one hundred forty (140) feet to a point; thence

Southerly by land now or formerly of Canteen Co. of Maine on a course parallel with the westerly or rear lot lines of Lots 23, 22, 21, and 20 as shown on said Plan, and maintaining a uniform distance of thirty (30) feet westerly therefrom, a distance of two hundred ten (210) feet, more or less, to the southerly boundary line of land now or formerly of Canteen Co. of Maine and land now or formerly of Clarence S. Cressey, et al; thence

Northeasterly and Easterly by said Cressey land and the southerly line of Lot 20 on said Plan one hundred forty-five (145) feet, more or less, to Auburn Street; thence

Northerly by Auburn Street two hundred (200) feet to the point of beginning; being lots 20 through 23 on said Plan and a portion of Lot 42 on said Plan.

There is also conveyed hereby any structures or buildings which may be situated partly on adjacent land at the westerly boundary line of the within described premises. Also known as and more particularly described as:

That parcel of land situated on the westerly side of Auburn Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at a nail set at the northeasterly corner of the premises in the westerly sideline of Auburn Street at land now or formerly of Spinelli Co., Inc.; thence

S 10° 00' 00" E by the westerly sideline of Auburn Street a distance of sixty and thirteen hundredths feet (60.13') to a point in the westerly sideline of Auburn Street; thence

S 10° 29' 00" E by the westerly sideline of Auburn Street a distance of one hundred thirty-nine and eighty-seven hundredths feet (139.87') to a pipe at land now or formerly of John F. LeFevre; thence

S 80° 00' 00" W by land now or formerly of John F. LeFevre a distance of one hundred ten and no hundredths (110.00") to a point at land now or formerly of Charles T. Riddle; thence

S 61° 30' 45" W by land now or formerly of Charles T. Riddle a distance of thirty-one and fifty-four hundredths feet (31.54") to a pipe at land now or formerly of Spinelli Co., Inc.; thence

N 10° 20' 45" W by land now or formerly of Spinelli Co., Inc. a distance of two hundred ten and no

hundredths feet (210.00') to a nail at land now or formerly of Spinelli Co., Inc., thence

N 80° 00' 00" E by land now or formerly of Spinelli Co., Inc., a distance of one hundred forty and no hundredths feet (140.00') to the point of beginning.

This conveyance is made expressly subject to all conditions, restrictions, easements, covenants and exceptions as set forth on Deed to Adam Mitchell from Alliance Energy LLC dated March 9, 2017 and recorded in the Cumberland County Registry of Deeds in Book 33873, Page 153.

Section 5

SECTION 5

PUBLIC OR PRIVATE RIGHTS-OF-WAY

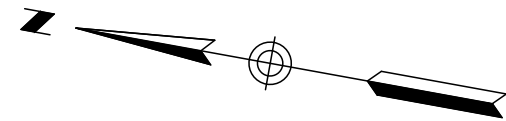
On the northern side of the lot exists a 15-foot easement for ingress and egress.

Section 6

SECTION 6

SCHEDULE

84 Auburn, LLC, is anticipating start of construction during early to mid-spring 2023 with a late 2023 completion.

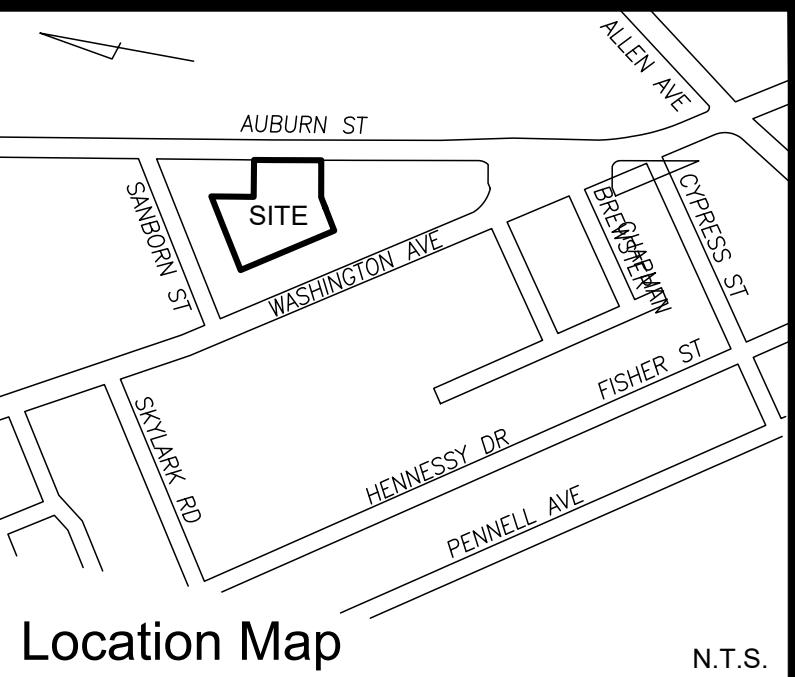


Utility Note

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

Flood Zone Note

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE X, AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN, OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 230051 0002C, WHICH BEARS AN EFFECTIVE DATE OF DECEMBER 8, 1998 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.



Legend

- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- UTILITY POLE
- MANHOLE
- ELECTRIC/GAS METER
- SIGN
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- LIGHT POLE
- 6" ROOF DRAIN
- CURB
- FENCE
- OHW
- OVERHEAD WIRES
- E
- UNDERGROUND POWER
- W
- WATER LINE
- T
- TELEPHONE
- C
- COMMUNICATION
- SD
- STORM DRAIN
- SS
- SANITARY SEWER
- 100
- 1' CONTOUR
- N/F
- NOW OR FORMERLY
- 000/000
- DEED BOOK / PAGE
- IRF/IRF
- IRON PIPE OR ROD FOUND
- GMF
- GRANITE MONUMENT FOUND
- L/S
- LANDSCAPE

General Notes

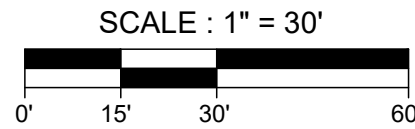
- OWNERS OF RECORD:

TAX MAP 375 BLOCK A LOT 26:
ADAM MITCHELL, 16 YALE STREET, PORTLAND, MAINE
CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 33873 PAGE 153

TAX MAP 375 BLOCK A LOTS 23, 24, 25, 35:
MSP PROPERTIES 94 AUBURN LLC
7 HEATHER LANE, FALMOUTH, MAINE
CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 35441 PAGE 126
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM MAINE WEST NAD83. CITY 3D/S MONUMENT USED: 2ND ANGLE ON EASTERLY SIDE OF AUBURN STREET N 317149.10 E 2920315.21 AND 3' O/S MONUMENT EASTERLY SIDE OF AUBURN STREET AT #3 AUBURN STREET N 316452.20 E 2920446.79.
- ELEVATIONS ARE BASED ON NGVD29 CITY BENCH MARK: 3'0/S MONUMENT ON EASTERLY SIDE OF AUBURN STREET AT THE SECOND ANGLE NORTHERLY OF ALLEN AVENUE ELEVATION 95.80.
- PROPERTY IS LOCATED IN THE CITY OF PORTLAND R3 AND B1 ZONES.

Plan References

- PLAN OF "HIGHLAND PARK" RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 8, PAGE 139.
- "PLAN OF LAND ON AUBURN STREET, PORTLAND, MAINE MADE FOR JAKE WEBB-GREATER REALTY, H.I. & E.C. JORDAN SURVEYORS, PORTLAND, ME. MARCH 1973"
- "STANDARD BOUNDARY SURVEY & TOPOGRAPHICAL SURVEY, 94 AUBURN STREET, PORTLAND, MAINE, CUMBERLAND COUNTY, PORTLAND, MAINE 11-21-86 REV. 1 12/15/86" BY ALBERTI, LAROCHELLE & HODSON ENGINEERING CORPORATION, INC.
- "AUBURN ST. AND WASHINGTON AVE. SEWER SEPARATION, AUBURN STREET EXISTING CONDITIONS, AS-BUILT JUNE 18, 2015, CITY OF PORTLAND, MAINE PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION OCTOBER 2011" BY GORRILL-PALMER CONSULTING ENGINEERING, INC.
- CITY OF PORTLAND BLUE SHEETS FOR AUBURN STREET, SANBORN STREET AND WASHINGTON AVE.
- "LAND TITLE SURVEY AT SITE #15797, 84 AUBURN STREET, PORTLAND, MAINE MADE FOR EXXON MOBIL OIL CORP. OCTOBER 25, 2004" BY OWEN HASKELL, INC.
- "ALTA/ACSM LAND TITLE SURVEY FOR PENNBROOK PROPERTIES IV LLC AT 84 AUBURN STREET, PORTLAND, CUMBERLAND COUNTY, MAINE DECEMBER 19, 2011" BY OWEN HASKELL, INC.
- "PROJECT NAME: GLOBAL, 84 AUBURN STREET, PORTLAND, MAINE, MKA PROJECT NO. 5930-12-2404:088 OCTOBER 25, 2004" PREPARED BY OWEN HASKELL, INC.



1. BITUMINOUS SIDEWALK CONCRETE CURB AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO THE CITY OF PORTLAND STANDARDS.
2. PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND AND MUTCD STANDARDS.
3. ASPHALT TO BE REFINED SLOWLY TO BE REFINED AND PROPERLY DISPOSED OFFSITE.
4. CURB TO BE REMOVED, STOPPED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL TO BE TO BE PERM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT WITH A MAXIMUM RISE OF 30".
6. SITE SIGNAGE SHALL COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE REMOVAL OF EXCESS MATERIALS AND DEBRIS.
8. PAVEMENT JOINTS MUST BE SAWCUT & TACK COATED PRIOR TO PAVING TO PROVIDE A DURABLE & UNIFORM JOINT.
9. PAVEMENT JOINTS WITH SECTION 14.6.1 OF THE CITY OF PORTLAND LAND USE CODE, SECTION 1.17 OF THE PORTLAND TECHNICAL MANUAL, NEW PARKING LOTS WITH FIVE OR MORE SPACES SHALL INCLUDE ENERGIZED ELECTRICAL OUTLETS OR INSTALLED CHARGERS CAPABLE OF PROVIDING LEVEL 2 CHARGING. VEHICLE CHARGING STATIONS SHALL BE PROVIDED WITH ELECTRICAL SERVICE AND MUST BE SERVED BY SUFFICIENT CONDUIT, WIRING, AND ELECTRICAL SERVICE TO ALLOW FOR FUTURE INSTALLATION OF ELECTRIC VEHICLE EQUIPMENT.
10. THE AMOUNT OF SPACE TO BE DETERMINED BASED ON CHAPTER 14, TABLE 19-A OF THE PORTLAND TECHNICAL MANUAL: SPACE / 50SF OF RESTAURANT OR BAR FLOOR AREA AND 1 SPACE / 400 SF OF GENERAL OFFICE FLOOR AREA.

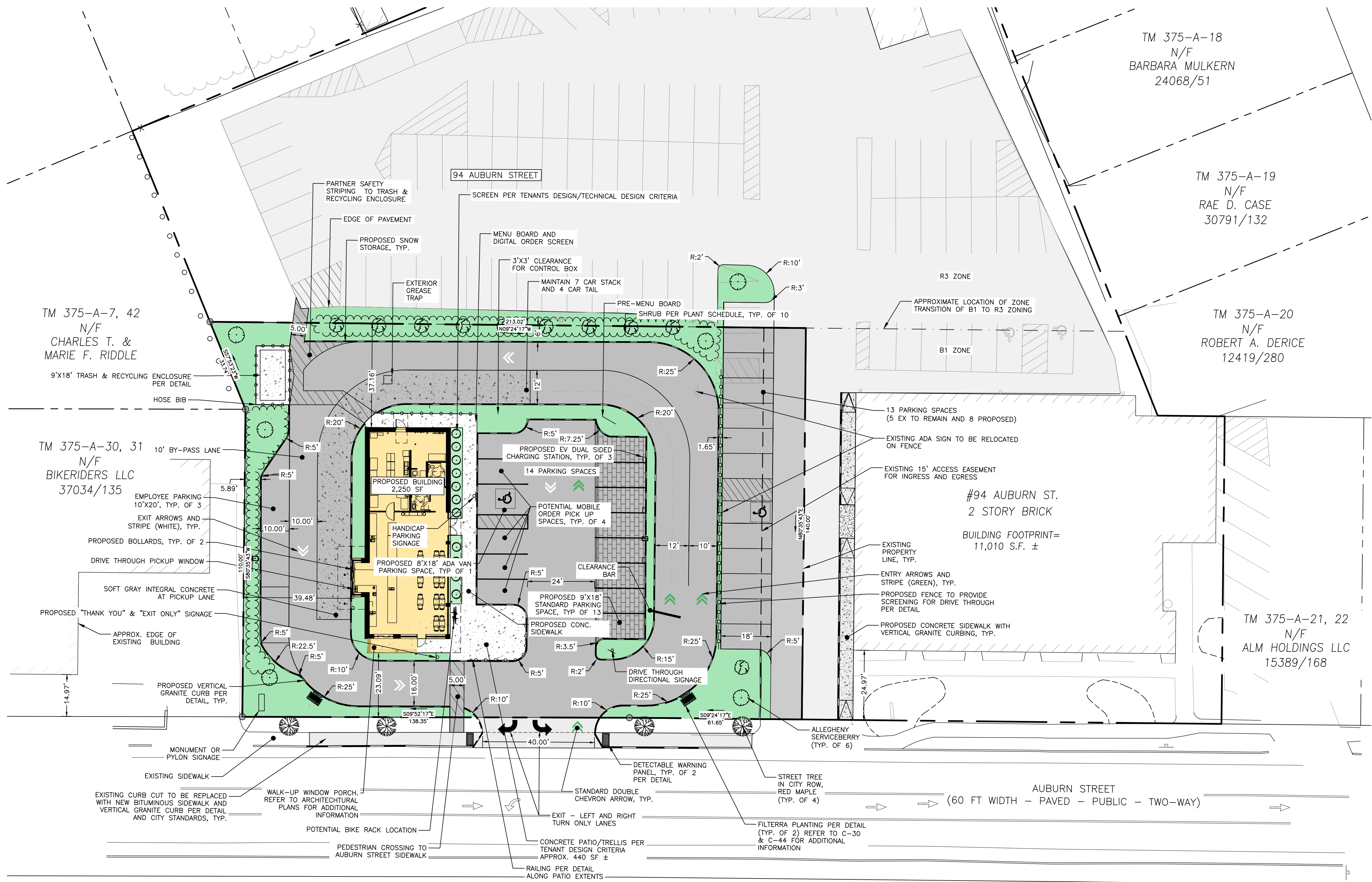
SPACE AND BULK STANDARDS				
ZONE: B1 – NEIGHBORHOOD BUSINESS	REQUIRED	EXISTING	PROPOSED – 84 AUBURN	PROPOSED – 94 AUBURN
BUILDING (PRINCIPAL): MAX. FRONT SETBACK	10'*	N/A	23.09'	24.97'
BUILDING MIN. SIDE SETBACK	NONE, EXCEPT 5' IF ABUTTING A RESIDENTIAL ZONE	N/A	39.48'	2.74'
BUILDING MIN. REAR SETBACK	NONE, EXCEPT 10' IF ABUTTING A RESIDENTIAL ZONE	N/A	43.22'	186.65'
SIDE STEPPBACK (ABOVE 35' ABUTTING RESIDENTIAL ZONE)	10'	N/A	N/A	N/A
REAR STEPPBACK (ABOVE 35' ABUTTING RESIDENTIAL ZONE)	15'	N/A	N/A	N/A
FLOOR AREA (NON–RESIDENTIAL)	MAX 10,000 SF	N/A	2,250 SF	11,010 SF
STREET FRONTAGE	MIN. 20'	200'	200'	150'
LOT COVERAGE	N/A	0%	8%	18%
BUILDING HEIGHT (OFF–PENINSULA)	MAX. 35'	N/A	<35'	<35'
IMPERVIOUS SURFACE RATIO	90%	32%	79%	77%
PARKING SETBACK	10' FROM ANY STREET LINE	N/A	24.91'	125.32'
PARKING SPACES REQUIRED	*SEE NOTE 9	N/A	17	56
PARKING SPACES PROVIDED	*SEE NOTE 9	N/A	17	101

* PORTLAND DESIGN MANUAL SECTION D.1.A. B1 & B1b NEIGHBORHOOD BUSINESS STANDARDS READS: URBAN STREET WALL IN THE B1, B1b, AND B2b ZONE IT SHALL BE REQUIRED THAT BUILDINGS SHALL BE LOCATED TO CREATE AND PRESERVE AN URBAN STREET WALL.

1. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING INSTALLATION.
2. CONTRACTOR TO BE RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS AS NECESSARY.
3. APPROVAL TO BE INSTALLED UNTIL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. SUBSTITUTIONS TO THE PLANTING SCHEDULE ARE TO BE REVIEWED FOR APPROVAL BY THE CITY ARBORIST OR PUBLIC WORKS & TOWN ARBORIST (OR OTHER APPLICABLE TOWN OFFICIAL).
5. ALL PROPOSED GREEN SPACES AND ASSOCIATED PLANT SPECIES ARE TO COMPLY WITH THE CITY ARBORIST RESPONSES FOR RARE SPECIES. IT WILL BE REVIEWED FOR APPROVAL BY THE CITY ARBORIST (OR OTHER APPLICABLE CITY OFFICIAL).
6. CONTRACTOR TO VERIFY UTILITIES ON PROPERTY AND TO PROTECT DURING EXCAVATION FOR PLANTING.
7. CONTAINER MATERIAL TO BE GROWN IN CONTAINER MINIMUM OF 6 MONTHS. MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.
8. CONTRACTOR SHALL REPAIR DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO ADDITIONAL COST TO OWNER.
9. THE CONTRACTOR SHALL OWN AND MAINTAIN THE CONTINUED CARE AND MAINTENANCE OF THE LANDSCAPED AREA. PLANTINGS THAT SHOW SIGNS OF CONSTRUCTION DAMAGE WITHIN A ONE YEAR PERIOD FOLLOWING INSTALLATION SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
10. THE ENGINEER MAY TAG ALL PLANTS AT THE NURSERY AND INSPECT THEM TO VERIFY THEY ARE THE SPECIES ORDERED. THE TAGS SHALL BE INSPECTED BY THE ENGINEER ON SITE PRIOR TO INSTALLATION.

PLANT SCHEDULE						
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SYMBOL	
TREES						
AR	ACER RUBRUM	RED MAPLE	4	2" CAL.		
AL	AMELANCHIER LAEVIS	ALLEGHENY SERVICEBERRY	6	5'		
SHRUBS						
SP	SALIX PURPUREA 'NANA'	PURPLE WILLOW	5	3 GAL.		
SI	SALIX INTEGRA 'HAKURO NISHIKI'	DAPPLED WILLOW	5	3 GAL.		

PARKING SUMMARY				
	EXISTING 84 AUBURN STREET	EXISTING 94 AUBURN STREET	PROPOSED 84 AUBURN STREET	PROPOSED 94 AUBURN STREET
9'X18'	0	91	16	98
ADA (8'X18')	0	2	1	3
TOTAL REQUIRED SPACES	N/A	56	1 SPACE/150 SF FLOOR AREA = 17	56
TOTAL SPACES	0	93	17	101



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

SITE PLAN

84 AUBURN STREET REDEVELOPMENT

84 AUBURN STREET, PORTLAND ME 04104

MSP PROPERTIES 94 AUBURN IIC

DRAWING NAME:

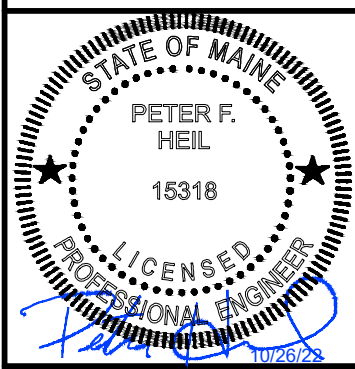
PROJECT NAME/ADDRESS:

CLIENT/OWNER OF RECORD



A C O R N
ENGINEERING, INC.

FILE:	2.79_CIVIL
JN:	2.79
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	DSH
CHECKED BY:	PFH



DRAWING NO

C-10

SECTION 7 – REQUESTED TRAFFIC STUDY

TRAFFIC MOVEMENT PERMIT APPLICATION

FOR PROPOSED

National Coffee Shop

84 Auburn Street, Portland, Maine

PREPARED FOR: 84 Auburn, LLC

PREPARED BY: Barton and Loguidice, LLC

Date: September 15, 2023



Section 7 Requested Traffic Study: 84 Auburn Street National Coffee Shop

On February 17, 2023 a Scoping Meeting was held for the Traffic Movement Permit Application. At the meeting the following items were requested:

1. Forward the proof that the NOI was published in the newspaper to Tom Errico
2. Synchro Analysis at the site driveway (no need to look at the signalized intersections)
 - a. Analysis of the AM Peak Hour
 - b. Include driveway adjacent to site – Collect AM counts
3. Crosswalk connecting site to Northgate Shopping Plaza with RRFB
 - a. A median in the center turn lane would be accepted – may not work given turning movements
 - i. Example: crosswalk north of the intersection of Poland Street and Forest Avenue
4. Collect site turning movement counts, queue lengths and spill data at Forest Avenue and Poland Street Coffee Shop during the AM peak hour.
 - a. Determine AM time period to count
5. Perform parking analysis at the 94 Auburn Street location – project increases number of parking spots
6. Include other development trips from the Lambert Woods project on Washington Ave Extension, north of this project.

Following is our response to the requested information from the Scoping Meeting.

1. Proof of NOI being published.

The Notice of Intent was published in the Press Herald and a copy of the NOI is enclosed in the appendix along with a receipt of payment dated January 18, 2023.

2. Synchro/Simtraffic Analysis at Site Driveway

Traffic operations analysis has been performed utilizing the proposed current site plan layout prepared by Acorn Engineering, which utilizes an exit only entrance at the south end of the site, with an enter only entrance at the north end of the site adjacent to the existing full-access entrance to #94 Auburn Street. #94 Auburn Street has been included in the analysis. In addition, the City has requested a mid-block crosswalk on Auburn Street with a median between the two proposed #84 site

Section 7 Requested Traffic Study: 84 Auburn Street National Coffee Shop

entrances, this is shown on the current site plan in the Appendix. With the mid-block crosswalk on Auburn Street, this leaves about 60 ft. of storage in the center turn lane on Auburn Street for vehicles turning left into the proposed coffee shop. Our traffic analysis will focus on reviewing this storage length and its capacity to handle predicted vehicles queues, in addition to reviewing delay and queueing at both site entrances on Auburn Street.

To perform the requested traffic analysis, we performed traffic counts while school was still in session on May 23, 2023. This time period was important to also capture the morning school traffic in addition to the typical morning commuter traffic. Accordingly, we used these traffic volumes for our analysis and adjusted them by 1% annually to account for a 2024 Post Development Build year. In addition, Other Development trips were accounted for as requested, for the recently approved but not yet built, Lambert Woods project on Washington Avenue Extension, north of this project. These traffic volumes and the site expected trip generation were utilized for analysis and are shown in traffic figures at the end of this report.

Our traffic analysis centers on the 2024 AM Peak Hour Post Development Condition, and involves unsignalized analysis of the proposed coffee shop entrances and the adjacent #94 Auburn Street entrance.

We utilized Synchro/Simtraffic modeling software to perform the analysis for delay, level of service (LOS) and Queueing. Levels of Service rankings are similar to the academic grading system, where an “A” is very good with little delay and “F” represents poor conditions with delay.

The following tables presents the relationship between delay and Level of Service for an unsignalized intersection:

Level of Service Criteria for Unsignalized Intersections

<u>Level of Service</u>	<u>Total Control Delay (sec/veh)</u>
A	Up to 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

Table 1, below summarizes the results of the capacity analysis performed for the study intersections on Auburn Street for the proposed Coffee Shop and #94 Auburn Street. Table 1 on the next page shows the results determined for the 2024 weekday AM Peak Hour Post-Development Conditions.

Section 7 Requested Traffic Study: 84 Auburn Street National Coffee Shop

Table 1

Level of Service & Queueing Summary
2024 Post-Development Conditions

Proposed Coffee Shop (#84 Auburn St) at Auburn Street

<u>Movement</u>	<u>Delay (sec/veh)</u>	<u>LOS</u>	<u>Average Q</u>	<u>95th Percentile Q</u>
Coffee Shop Eastbound L.T.	11.6	B	28'	57'
Coffee Shop Eastbound R.T.	5.3	A	27'	53'
Auburn St Northbound L.T.	5.8	A	20'	46'
Auburn St Northbound Thru	0.30	A	3'	27'
Auburn St Southbound Thru	0.40	A	2'	14'
Auburn St Southbound R.T.	0.10	A	shared lane with thru movement	

Existing #94 (Auburn St) Entrance at Auburn St

#94 Eastbound L.T.	9.4	A	9'	32'
#94 Eastbound R.T.	5.0	A	shared lane with L.T	
Auburn St Northbound L.T.	3.8	A	3'	19'
Auburn St Northbound Thru	0.10	A	3'	27'
Auburn St Southbound Thru	0.90	A	2'	14'
Auburn St Southbound R.T.	0.10	A	shared lane with thru movement	

The results of the 2024 Weekday AM Peak Hour Post Development condition indicates that all of the movements will operate a LOS "B" or better and there are no issues with predicted queueing and storage lengths. The critical storage length of 50 ft. for the northbound Auburn Street left-turn lane into the proposed coffee shop does not exceed its storage length (approx.. 55 ft.), with an average queue of 20 ft. and 95th queue of 46 ft. The on-site queues at the proposed coffee shop exit left-turn and right-turns include 28 ft. and 27 ft. for the average and 57 ft and 53 ft. for the 95th queues. There also are no issues with queues for the #94 Auburn Street site entrance. Additional detail on the analysis and Synchro/Simtraffic reports can be found in the appendix.

3. Crosswalk connecting site to Northgate Shopping Plaza with RRFB

This proposed crosswalk has been prepared as requested by the City and is consistent with the City's direction of its design with a raised island and RRFBs. This is presented on the Acorn Engineering Site Plan in the Appendix.

4. Collect site turning movement counts, queue lengths and spill data at Forest Avenue and Poland Street Coffee Shop during the AM peak hour.

Collected Data: Traffic Data was collected at a similar existing national coffee shop on Forest Avenue in Portland. The data was collected on June 8, 2023 between the hours of 630 AM and 930 AM. This time period was chosen as it was the beginning of the summer when traffic volumes tend to increase while at the same time the Portland Schools were still open and the school traffic was also on the roads during the data collection time period. The queues on site were observed for this three-hour time period in the morning when the coffee shop is at its busiest and on-site queue lengths were recorded every 2 minutes starting at 630 AM. In total 91 data points were collected.

Section 7 Requested Traffic Study: 84 Auburn Street National Coffee Shop

The data indicates that during the time period queue lengths varied from 0 (no cars) to a max of 12 cars. The 12 car maximum queue was only observed one time during the three-hour period and that was at 8:12 AM. An 11 car queue was only observed twice during the time period and that was at 8:18 and 8:28. A 10 vehicle queue was observed eight time during the time period at 8:02, 8:04, 8:10, 8:14, 8:16, 8:20, 8:24, and 8:28. The period of time that 10 or more vehicle queues were observed was localized during the time period between 8:12 and 8:38. During a majority of the time period the observed queues were 5 to 6 vehicles or less. For further detail, this data is presented in the appendix.

Proposed Site Comparison: This data compares favorably to the proposed coffee shop site at 84 Auburn Street. A review of the site layout indicates that there is approximately 330 ft. from the pick-up window on the south side of the site to the curblin on Auburn Street at the site entrance. Based on vehicle storage requirements of 20 to 25 ft. per vehicle, this equates to the site having storage capacity of 13.2 to 16.5 vehicles.

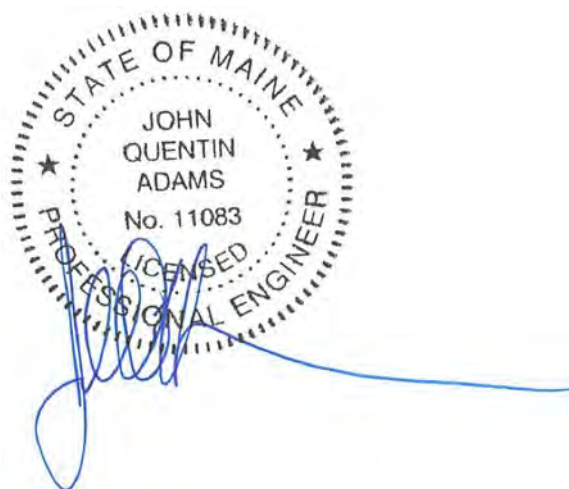
Based on this analysis, the proposed site layout should be able to handle and process drive-thru customers utilizing the proposed storage on-site without spillback onto Auburn Street.

5. Perform parking analysis at the 94 Auburn Street location – project increases number of parking spots.

Excess parking is no longer being pursued by the Applicant, so therefore a response to this comment is no longer required.

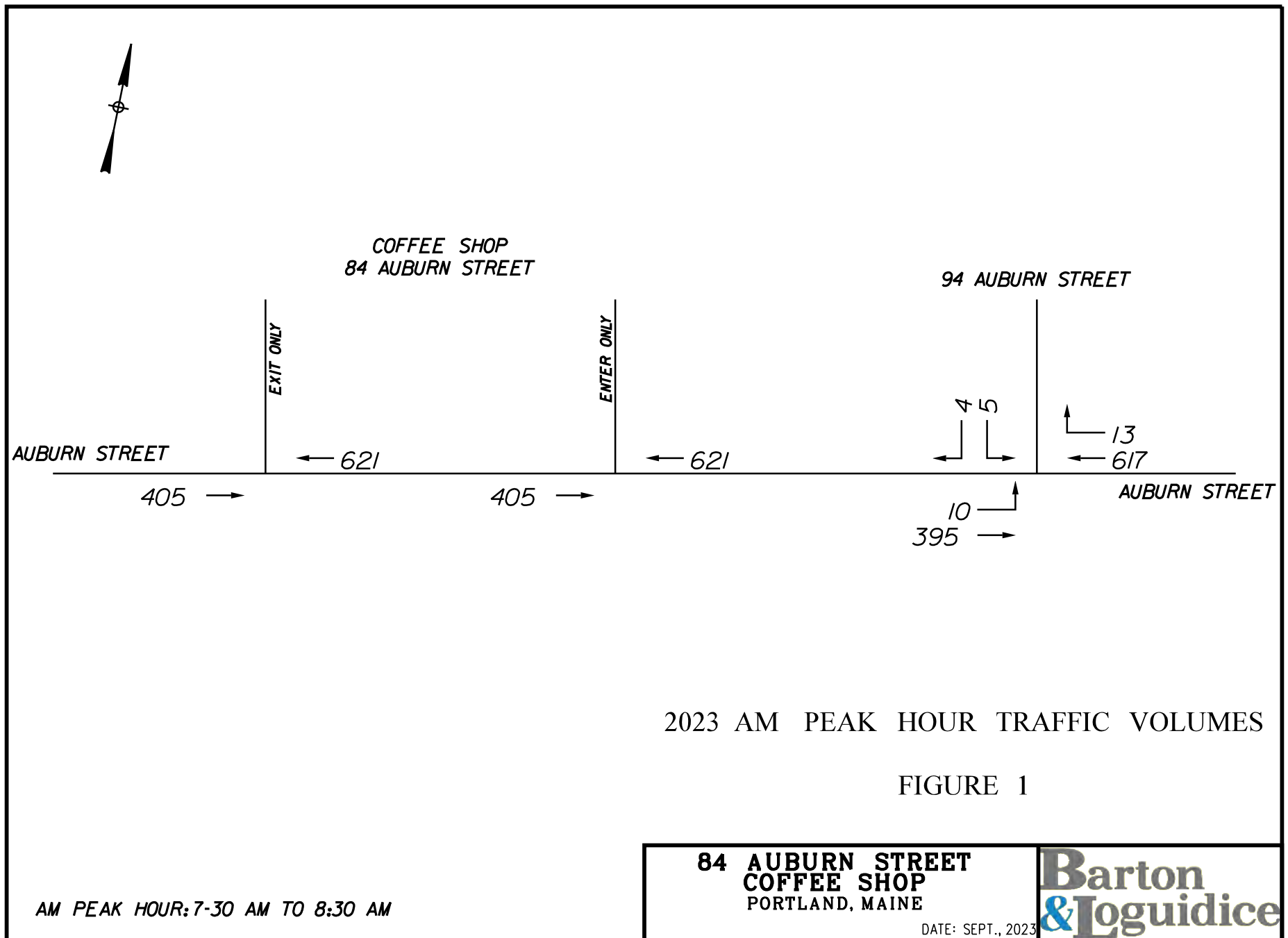
6. Include other development trips from the Lambert Woods project on Washington Ave Extension, north of this project.

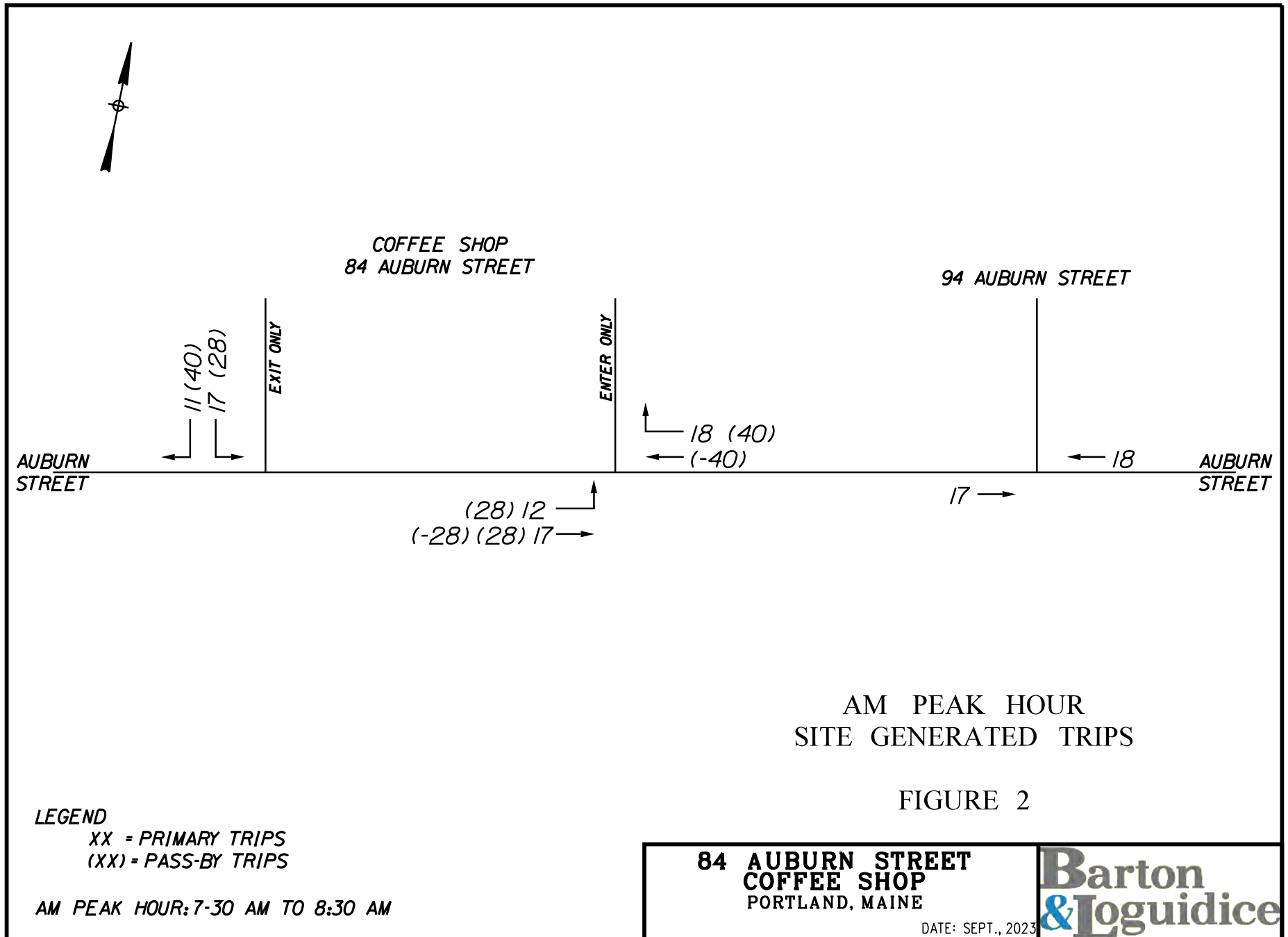
Based on direction we received at the project Scoping Meeting on February 17, 2023, the Lambert Woods project was the only other development trips we needed to account for and we have done this and these trips are shown in Figure 3 and the end of this report and have been included in the AM Peak Hour Post Development analysis.

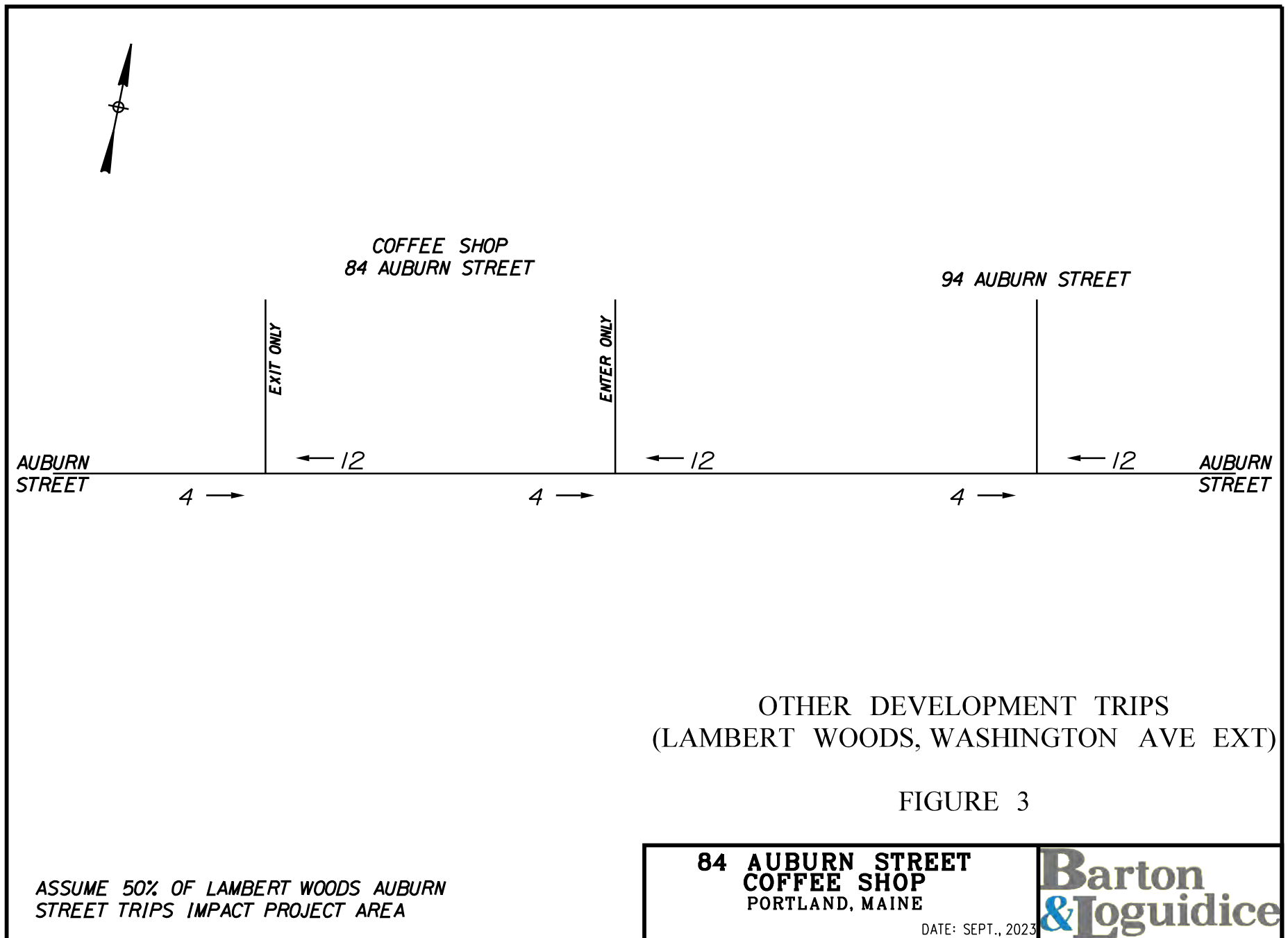


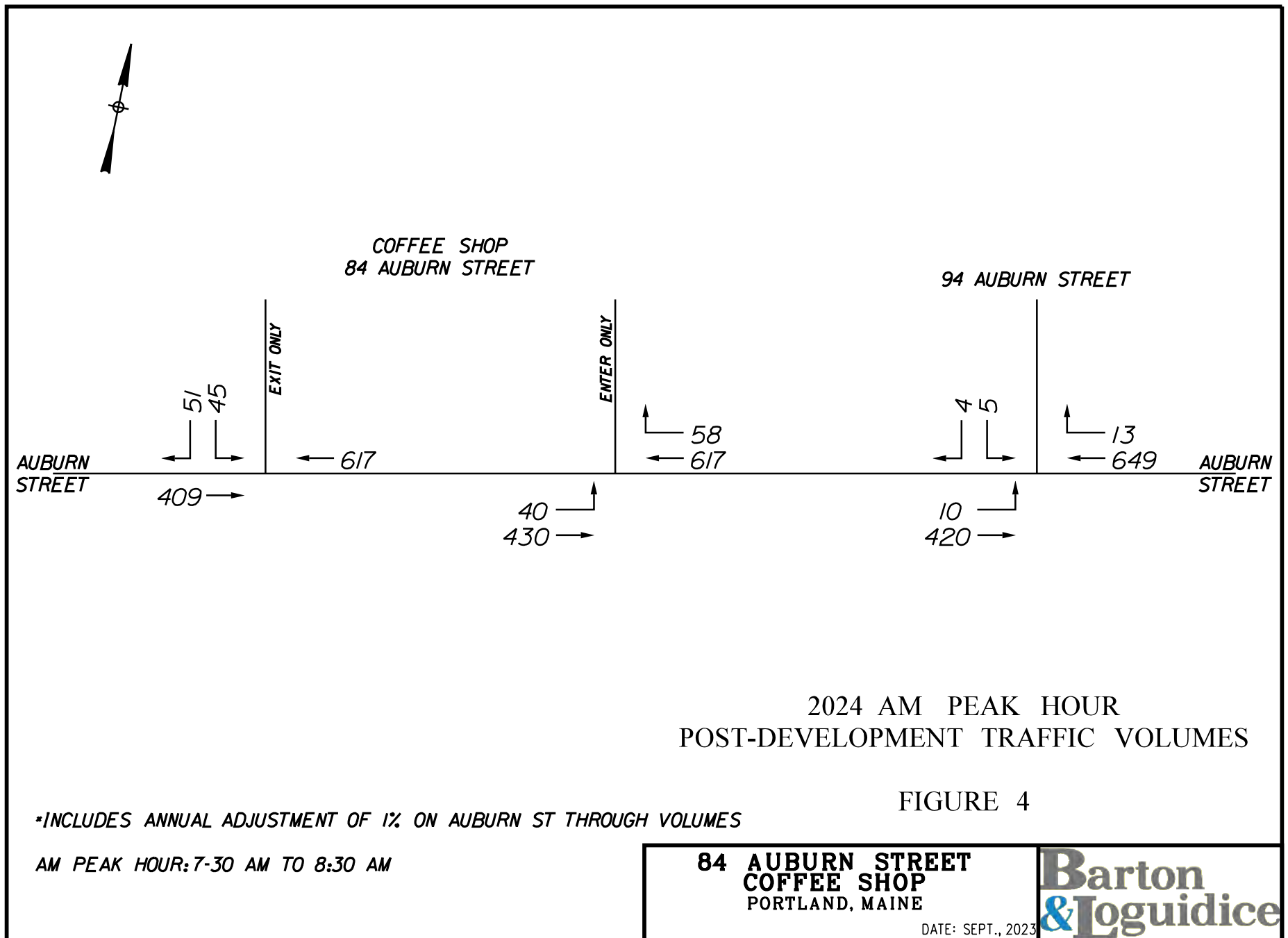
John Q. Adams, PE, PTOE, Date: 09/15/2023

TRAFFIC FIGURES









APPENDIX

1. Site Plan, 84 Auburn St, by Acorn Engineering, 5/30/23
2. Proof of NOI Publishing
3. Synchro/Simtraffic Reports 2024 AM Post Development
4. Queueing Observations Data from Coffee Shop Forest Ave

SITE NOTES:

1. BITUMINOUS SIDEWALK, CONCRETE CURB AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO THE CITY OF PORTLAND STANDARDS.
2. PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND AND MUTCD STANDARDS.
3. ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMP TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT WITH A MAXIMUM RISE OF 30".
6. SITE SIGNAGE SHALL COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.
8. PAVEMENT JOINTS MUST BE SAWCUT & TACK COATED PRIOR TO PAVING TO PROVIDE A DURABLE & UNIFORM JOINT.
9. IN ACCORDANCE WITH SECTION 14.6.1 OF THE CITY OF PORTLAND LAND USE CODE, AND SECTION 1.17 OF THE PORTLAND TECHNICAL MANUAL, NEW PARKING LOTS WITH FIVE OR MORE SPACES SHALL INCLUDE ENERGIZED ELECTRICAL OUTLETS OR INSTALLED CHARGERS CAPABLE OF PROVIDING LEVEL 2 ELECTRIC VEHICLE CHARGING OR HIGHER TO 20% OF PARKING SPACES. REMAINING SPACES MUST BE SERVED BY SUFFICIENT CONDUIT, WIRING, AND ELECTRICAL SERVICE TO ALLOW FOR FUTURE INSTALLATION OF ELECTRIC VEHICLE SUPPLY EQUIPMENT.
10. THE AMOUNT OF PARKING SPACES WAS DETERMINED BASED ON CHAPTER 14, TABLE 19-A OF PORTLANDS TECHNICAL MANUAL: 1 SPACE / 150SF OF RESTURANT OR BAR FLOOR AREA AND 1 SPACE / 400 SF OF GENERAL OFFICE FLOOR AREA.

SPACE AND BULK STANDARDS				
ZONE: B1 - NEIGHBORHOOD BUSINESS	REQUIRED	EXISTING	PROPOSED - 84 AUBURN	PROPOSED - 94 AUBURN
BUILDING (PRINCIPAL): MAX. FRONT SETBACK	10'*	N/A	10.00'	24.97'
BUILDING MIN. SIDE SETBACK	NONE, EXCEPT 5' IF ABUTTING A RESIDENTIAL ZONE	N/A	38.67'	2.74'
BUILDING MIN. REAR SETBACK	NONE, EXCEPT 10' IF ABUTTING A RESIDENTIAL ZONE	N/A	50.24'	186.65'
SIDE STEPBACK (ABOVE 35' ABUTTING RESIDENTIAL ZONE)	10'	N/A	N/A	N/A
REAR STEPBACK (ABOVE 35' ABUTTING RESIDENTIAL ZONE)	15'	N/A	N/A	N/A
FLOOR AREA (NON-RESIDENTIAL)	MAX 10,000 SF	N/A	2,250 SF	11,010 SF
STREET FRONTAGE	MIN. 20'	200'	200'	150'
LOT COVERAGE	N/A	0%	8%	18%
BUILDING HEIGHT (OFF-PENINSULA)	MAX. 35'	N/A	<35'	EXIST <35'
IMPERVIOUS SURFACE RATIO	90%	32%	66%	77%
PARKING SETBACK	10' FROM ANY STREET LINE	N/A	24.94'	125.32'

* PORTLAND DESIGN MANUAL SECTION D.1.A. B1 & B1b NEIGHBORHOOD BUSINESS STANDARDS READS: URBAN STREET WALL IN THE B1, B1b, AND B2b ZONE IT SHALL BE REQUIRED THAT BUILDINGS SHALL BE LOCATED TO CREATE AND PRESERVE AN URBAN STREET WALL.

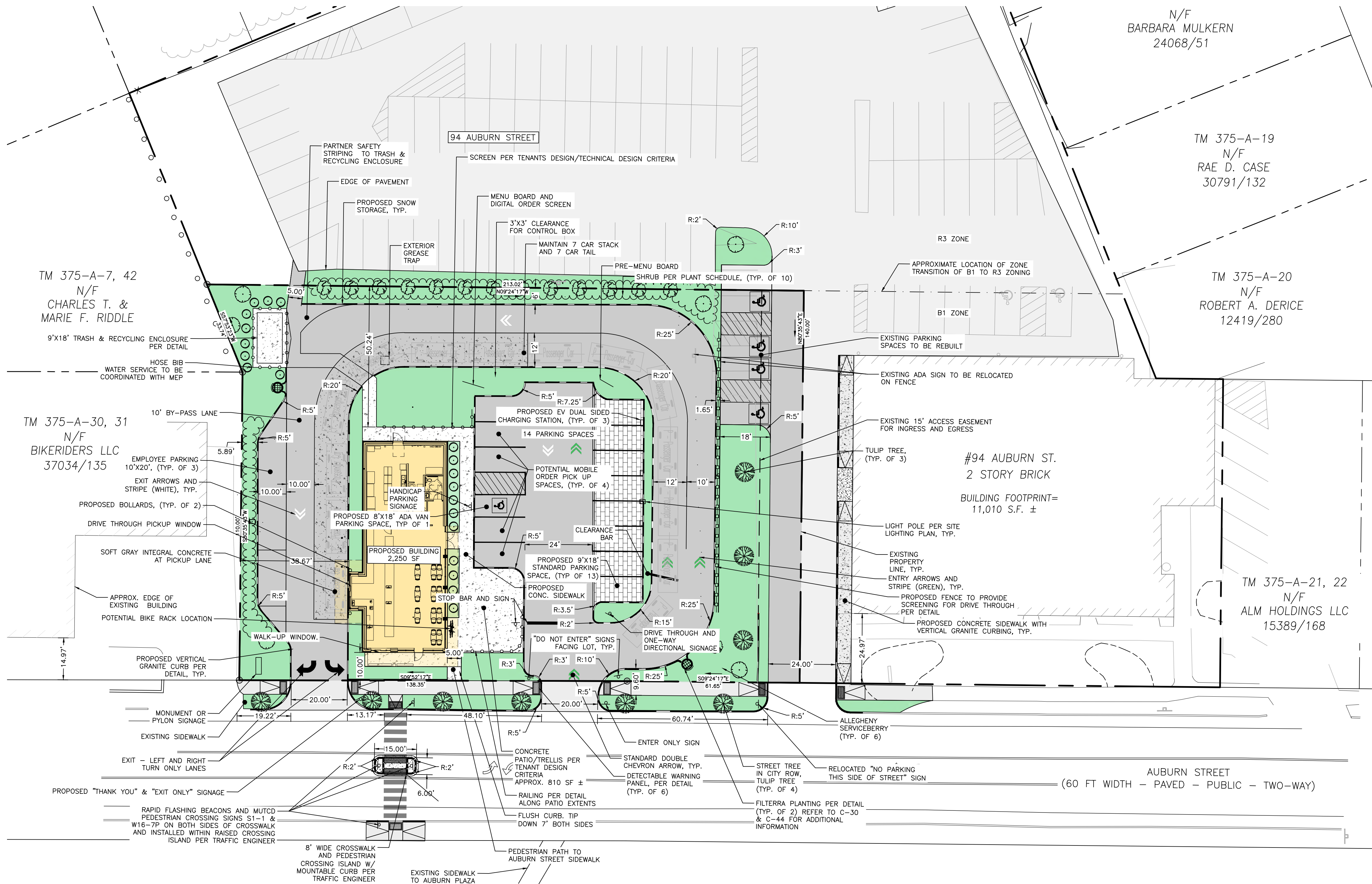
LANDSCAPE NOTES:

1. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING INSTALLATION.
2. CONTRACTOR TO BE HELD RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS AS NECESSARY.
3. NO PLANTING TO BE INSTALLED UNTIL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. SUBSTITUTIONS TO THE PLANTING SCHEDULE ARE TO BE REVIEWED FOR APPROVAL BY THE TOWN'S DEPARTMENT OF PUBLIC WORKS & TOWN ARBORIST (OR OTHER APPLICABLE TOWN OFFICIAL).
5. ALL PROPOSED GREEN SPACES AND ASSOCIATED PLANT SPECIES ARE TO COMPLY WITH THE CITY OF PORTLAND STANDARDS. ANY SUBSTITUTIONS WILL BE REVIEWED FOR APPROVAL BY THE CITY ARBORIST (OR OTHER APPLICABLE CITY OFFICIAL).
6. CONTRACTOR TO VERIFY UTILITIES ON PROPERTY AND TO PROTECT DURING EXCAVATION FOR PLANTS.
7. CONTAINER MATERIAL TO BE GROWN IN CONTAINER MINIMUM OF 6 MONTHS.
8. MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN.
9. CONTRACTOR SHALL REPAIR DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO ADDITIONAL COST TO OWNER.
10. THE PROPERTY OWNER IS RESPONSIBLE FOR THE CONTINUED CARE AND MAINTENANCE OF THE LANDSCAPED AREA. PLANTINGS THAT SHOW SIGNS OF CONSTRUCTION DAMAGE WITHIN A ONE YEAR PERIOD FOLLOWING CONSTRUCTION SHALL BE REJECTED AND REPLACED PRIOR TO ANY DEFECT GUARANTEE AT NO ADDITIONAL COST TO THE OWNER.
11. THE ENGINEER MAY TAG ALL PLANTS AT THE NURSERY AND INSPECT THEM AFTER DELIVERY TO THE SITE; ALL PLANT MATERIALS SHALL BE INSPECTED BY THE ENGINEER ON SITE PRIOR TO INSTALLATION.

PLANT SCHEDULE					
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SYMBOL
TREES					
LT	LIRODENDRON TUPIFERA	TULIP TREE	7	2" CAL.	
AL	AMELANCHIER LAEVIS	ALLEGHENY SERVICEBERRY	6	5'	
SHRUBS					
SP	SALIX PURPUREA 'NANA'	PURPLE WILLOW	13	3 GAL.	
SI	SALIX INTEGRAL 'HAKURO NISHIKI'	DAPPLED WILLOW	21	3 GAL.	

PARKING SUMMARY				
	EXISTING 84 AUBURN STREET	EXISTING 94 AUBURN STREET	PROPOSED 84 AUBURN STREET	PROPOSED 94 AUBURN STREET
9'x18'	0	91	16	87
ADA (8'x18')	0	2	1	6
TOTAL REQUIRED SPACES	N/A	55	1 SPACE/150 SF FLOOR AREA = 17	55
TOTAL SPACES	0	93	17	93

*THE AMOUNT OF PARKING SPACES WAS DETERMINED BASED ON CHAPTER 14, TABLE 19-A OF PORTLAND MAINE LAND USE CODE: 1 SPACE/150 SF OF RESTAURANT OR BAR FLOOR AREA AND 1 SPACE/400 SF OF GENERAL OFFICE FLOOR AREA.



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR

BY

DATE

PFH

8/26/22

TMP

PFH

12/1/22

CSS

PFH

12/1/22

MAJOR SITE PLAN

PFH

12/1/22

CITY COMMENTS

PFH

12/28/22

SITE PLAN

PROJECT NAME/ADDRESS

84 AUBURN & 94 AUBURN STREET REDEVELOPMENT

84 & 94 AUBURN STREET, PORTLAND ME 04104

CLIENT/OWNER OF RECORD

MSP PROPERTIES 94 AUBURN LLC. & 84 AUBURN LLC.

7 HEATHER LANE FALMOUTH, ME 04105

DRAWING NAME:

ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.

PO BOX 3372, PORTLAND MAINE 04101

(207) 775-2655

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE THE SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE:

2.79_CIVIL

JN:

2.79

SCALE:

AS NOTED

DESIGNED BY:

MKT

DRAWN BY:

DSH

CHECKED BY:

PFH

STATE OF MAINE

PETER F. HEIL

15318

LICENSED PROFESSIONAL ENGINEER

DRAWING NO.

C-10

NOTICE OF INTENT TO FILE

Please take notice that:

4 Auburn, LLC

Is intending to file a Maine Department of Transportation Traffic Movement Permit application with the City of Portland under their delegated review authority pursuant to the provisions of 23 M.R.S.A. § 704-A on or about

January 10, 2023

The application is for:

Development of a 2,250 square-foot National Coffee Shop with counter and drive-through window service. The proposed project is expected to generate the following peak hour trips:

Weekday AM Peak Hour of Site = 228 trips

Weekday AM Peak Hour of Street = 194 trips

At the following location: **84 Auburn Street, Portland, Maine 04103**

A request for a public hearing must be received by the City, in writing, no later than 20 days after the application is found by the City to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the City of Portland's Planning and Urban Development office, during normal working hours.

Written public comments may be sent to the Department of Transportation, Traffic Engineering Division, 16 State House Station, Augusta, Maine 04333.

SUN JOURNAL | FORECASTER GROUP

Advertiser Democrat | American Journal
Bethel Citizen | Franklin Journal | Lakes Region Weekly
Livermore Falls Advertiser | Penobscot Times
Rangeley Highlander | Rumford Falls Times



part of the masthead maine network / masthead.me

PAYMENT RECEIPT

TRAFFIC SOLUTIONS
WILLIAM BRAY
235 BANCROFT ST
PORTLAND, ME 04102

Thank you for your Payment

Account Number: S48140

Payment Amount: \$ 600.25

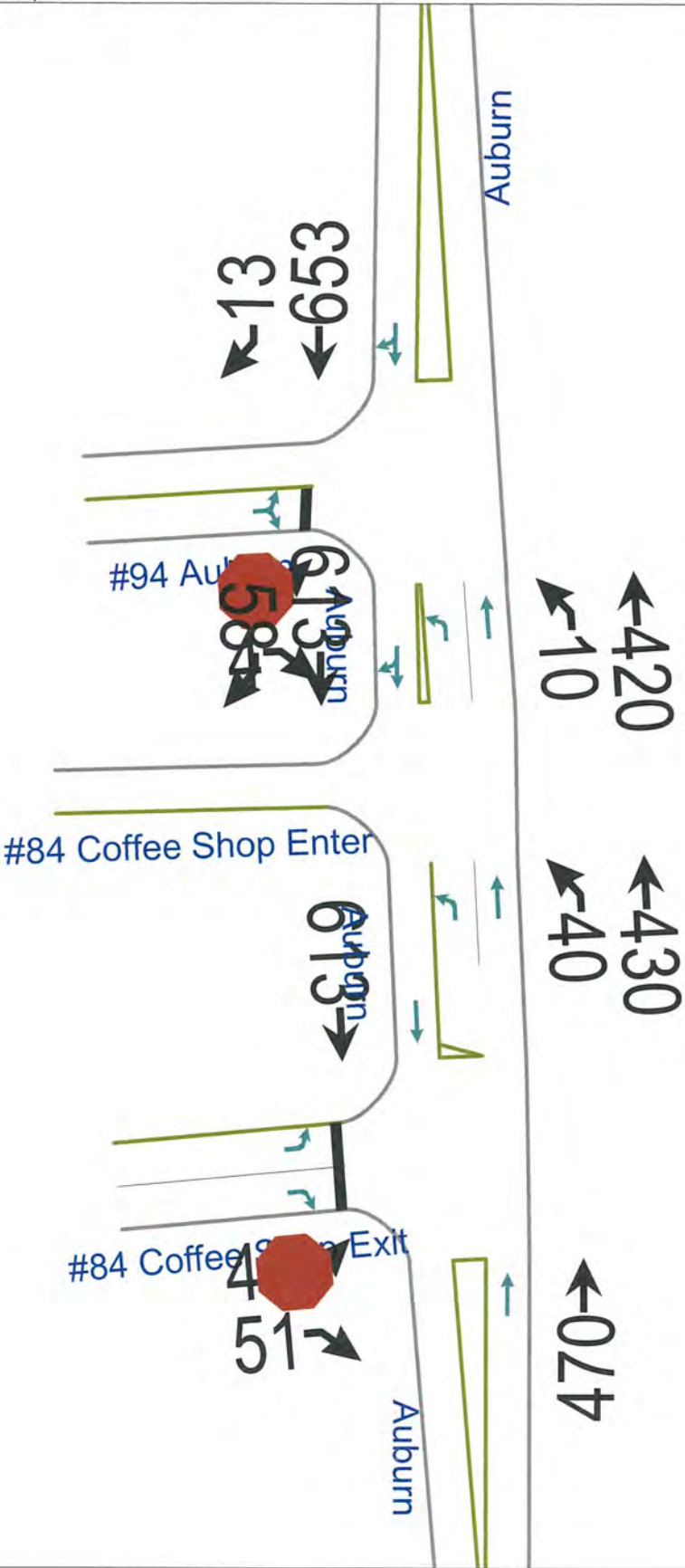
Description: 0405864. Payment Received on 18-JAN-2023

Payment Method: Gemstone CC (SMG) **Credit Card #:** xxxx3660

Payment Date: 01/18/23

Thank you,
Finance Department

(207)791- 6696
Monday-Friday 8am-5pm
billing@mainetoday.com



Summary of All Intervals

Run Number	1	3	4	5	7	Avg
Start Time	7:25	7:25	7:25	7:25	7:25	7:25
End Time	8:30	8:30	8:30	8:30	8:30	8:30
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1248	1251	1257	1270	1263	1257
Vehs Exited	1249	1256	1253	1265	1266	1257
Starting Vehs	5	7	5	1	6	4
Ending Vehs	4	2	9	6	3	3
Travel Distance (mi)	105	105	105	106	106	105
Travel Time (hr)	4.7	4.8	4.7	4.7	4.7	4.7
Total Delay (hr)	0.9	1.0	1.0	0.9	0.9	0.9
Total Stops	129	138	121	107	143	128
Fuel Used (gal)	5.2	5.3	5.3	5.3	5.3	5.3

Interval #0 Information Seeding

Start Time	7:25
End Time	7:30
Total Time (min)	5
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:30
End Time	8:30
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	3	4	5	7	Avg
Vehs Entered	1248	1251	1257	1270	1263	1257
Vehs Exited	1249	1256	1253	1265	1266	1257
Starting Vehs	5	7	5	1	6	4
Ending Vehs	4	2	9	6	3	3
Travel Distance (mi)	105	105	105	106	106	105
Travel Time (hr)	4.7	4.8	4.7	4.7	4.7	4.7
Total Delay (hr)	0.9	1.0	1.0	0.9	0.9	0.9
Total Stops	129	138	121	107	143	128
Fuel Used (gal)	5.2	5.3	5.3	5.3	5.3	5.3

1: Auburn & #94 Auburn Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.5	0.7	0.3
Total Del/Veh (s)	9.4	5.0	3.8	0.1	0.9	0.1	0.7

2: Auburn & #84 Coffee Shop Exit Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Del/Veh (s)	0.1	0.1	0.4	0.0	0.2
Total Del/Veh (s)	11.6	5.3	0.7	0.3	1.1

5: Auburn & #84 Coffee Shop Enter Performance by movement

Movement	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.8	0.3	0.4	0.1	0.6

Total Network Performance

Movement	All
Denied Del/Veh (s)	0.5
Total Del/Veh (s)	2.2

Intersection: 1: Auburn & #94 Auburn

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	34	31
Average Queue (ft)	9	3
95th Queue (ft)	32	19
Link Distance (ft)	61	33
Upstream Blk Time (%)	0	1
Queuing Penalty (veh)	0	1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Auburn & #84 Coffee Shop Exit

Movement	EB	EB	NB
Directions Served	L	R	T
Maximum Queue (ft)	67	56	17
Average Queue (ft)	28	27	1
95th Queue (ft)	57	53	9
Link Distance (ft)	62	62	110
Upstream Blk Time (%)	0	0	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Auburn & #84 Coffee Shop Enter

Movement	NB	NB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	41	55	21
Average Queue (ft)	20	3	2
95th Queue (ft)	46	27	14
Link Distance (ft)		54	33
Upstream Blk Time (%)	0	0	0
Queuing Penalty (veh)	0	1	0
Storage Bay Dist (ft)	50		
Storage Blk Time (%)	1	0	
Queuing Penalty (veh)	2	0	

Network Summary

Network wide Queuing Penalty: 5

Volume
1: Auburn & #94 Auburn

2024 AM Post Development

09/15/2023

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	5	4	10	420	653	13
Future Volume (vph)	5	4	10	420	653	13
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.85	0.85	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	5	4	12	494	726	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	9	0	12	494	740	0
Intersection Summary						

Volume
2: Auburn & #84 Coffee Shop Exit

2024 AM Post Development
09/15/2023

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	45	51	0	470	613	0
Future Volume (vph)	45	51	0	470	613	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.85	0.90	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	49	55	0	553	681	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	55	0	553	681	0
Intersection Summary						

Volume
5: Auburn & #84 Coffee Shop Enter

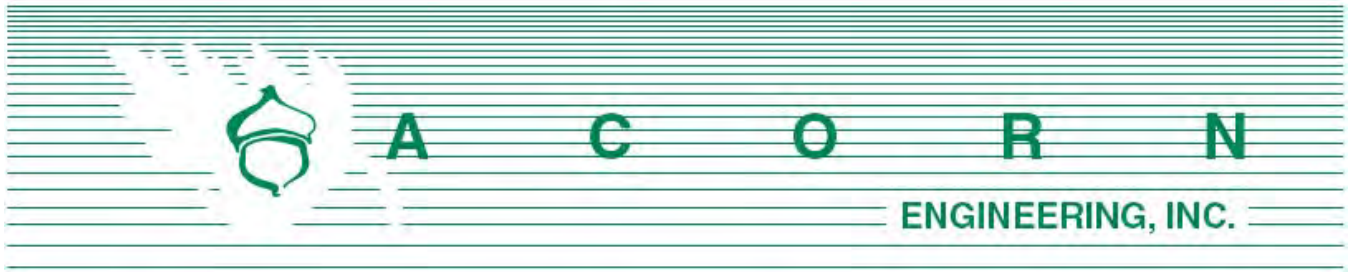
2024 AM Post Development
09/15/2023

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	0	0	40	430	613	58
Future Volume (vph)	0	0	40	430	613	58
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.85	0.85	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	0	47	506	681	64
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	47	506	745	0
Intersection Summary						

Starbucks Stacking Cue - Forest Avenue Site June 08, 2023

Time	Stacking Cue
6:30	3
6:32	4
6:34	2
6:36	2
6:38	1
6:40	0
6:42	1
6:44	3
6:46	4
6:48	3
6:50	2
6:52	1
6:54	2
6:56	0
6:58	2
7:00	2
7:02	1
7:04	2
7:06	7
7:08	4
7:10	5
7:12	6
7:14	4
7:16	3
7:18	4
7:20	6
7:22	6
7:24	5
7:26	4
7:28	3
7:30	0
7:32	1
7:34	0
7:36	3
7:38	4
7:40	8
7:42	7
7:44	6
7:46	5
7:48	7
7:50	4
7:52	6
7:54	9
7:56	8

7:58	7
8:00	8
8:02	10
8:04	10
8:06	8
8:08	9
8:10	10
8:12	12
8:14	10
8:16	10
8:18	11
8:20	10
8:22	9
8:24	10
8:26	9
8:28	11
8:30	8
8:32	8
8:34	7
8:36	7
8:38	10
8:40	5
8:42	8
8:44	8
8:46	5
8:48	5
8:50	6
8:52	8
8:54	5
8:56	3
8:58	2
9:00	0
9:02	1
9:04	3
9:06	2
9:08	4
9:10	4
9:12	4
9:14	6
9:16	7
9:18	5
9:20	3
9:22	4
9:24	3
9:26	4
9:28	3
9:30	2



Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

March 20, 2023

Subject: 84 & 94 Auburn Street Neighborhood Meeting

I, Mike Triglione, hereby certify that a neighborhood meeting was held on March 15, 2023 at 94 Auburn Street at 5:30 pm.

I also certify that on March 3rd, 2023, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the “interested parties” list.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mike Triglione'.

Mike Triglione, P.E.
Project Engineer
Acorn Engineering, Inc.

Included with this certification are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes

Mike Triglione

From: Dumont, Katherine <Katherine.Dumont@cmpco.com>
Sent: Monday, October 2, 2023 8:24 AM
To: Pete Heil
Subject: CMP Three Phase Service Process and Ability to Serve Letter -84 Auburn ST Portland, ME.
Attachments: Easement_Information_Worksheet.doc; Standard Easement Sample.pdf; blank W9.pdf; August 2022 EDET.xlsx

Peter F. Heil, PE, CPESC
 Acorn Engineering, Inc.

RE: Starbucks
 84 Auburn St.
 Portland, ME

SAP **TBD**

Project Description: Provide new electrical service to new Starbucks facility located at 84 Auburn St. Portland, ME. CMP currently has 3 phase power located at the street and has the ability to serve power to your project.

CMP has the ability to serve the proposed project located at 84 Auburn St Portland, ME in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Handbook of Standard Requirements. If you have any questions on the process, or need help in completion of the documents, please contact CMP at 800-565-3181.

Here is our typical process for getting your three phase or CT rated single phase service installed. If you have any questions, please let us know. The underlined links will redirect you to the appropriate site for additional information.

Service Milestones for Three Phase Services and CT Rated Single Phase Services. There are additional requirements for primary metered Solar Service Installations listed in the Chapter 324 Interconnections section below. Please refer to [CMP Installation Checklists](#) for other installations.

- Call 800-750-4000 option 4 to establish a new account (if needed) and an SAP work order. Please provide both of these to me.
- Submit Load information. Please complete the attached EDET (excel file) using load information. Please complete this and email back to me. If the loads are over 500 kw, more in depth load studies may be required with our Distribution Planning and Transmission Planning Departments. Be advised that these will involve more detailed load information, a load study agreement (signed contract), as well as other items. This additional study process may add up to two additional months to completion of the job.
- Submit the easement information worksheet, including where any CMP structures may be on ANY private property (Poles, Wires, Anchors). You are responsible for obtaining all information for all required easements. Please complete this form and either email or fax back to me.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections.
- For Primary Metered installations (including PV), please have the access road in for pole staking.
- Preliminary meetings with CMP Advisor and Engineer to determine details of job (I will need to schedule with your electrician/contractor-please let me know who this is)

- Field planner design appointment scheduled once the preliminary information is complete. This will allow us to cost out the job and develop a CMP Invoice. The invoice is typically generated 5-6 weeks after the design appointment. This expires after 90 days from the invoice date.
- Submit completed W9 so that your bill can be properly processed. This is a new CMP process.
- CMP submits invoice to the customer for payment (typically via email). Payment received from customer.
- Easements (based on easement information worksheet) sent out, signed and originals returned to CMP.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer or materials delivery, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

As you may be aware, there are global supply chain issues impacting the utility industry. CMP is closely monitoring and managing their inventory in order to serve our customers. Larger padmount transformers may not be readily available for the date that you will need to be energized. Please consider this as part of your construction plan. The energy service advisor will continue to work closely with you and let you know as soon as the transformer becomes available. Should you have any questions or concerns throughout this process, please do not hesitate to contact your ESA directly at the number or email provided.

Please complete the attached forms (the specific instructions are on each form) and email them back to me at your earliest convenience.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements: [CMP Handbook of Standard Requirements](#) An additional resource is our Distribution Construction Standards: CMP Distribution Construction Standards [CMP Distribution Construction Standards](#).

You will be responsible for installing the customer connections, conduits, and metering in accordance with the [CMP Handbook of Standard Requirements](#) The transformer will be sized based on your submitted load sheets.

Your deposit amount will be typically based on an estimated two month bill, calculated from your completed load sheet unless otherwise determined by CMP.

In addition, we have recently added on an online map that shows single phase and three phase power locations within CMP. Here is that link: [CMP ArcGIS Information](#)

Metering:

All metering (including locations) must be preapproved by CMP. If you have any questions, please consult the [CMP Handbook of Standard Requirements](#)

Chapter 324 Interconnections:

Please be advised that if you plan to install solar/wind/hydro generation, you must complete an application under the MPUC mandated Chapter 324 Interconnection Standards. If you go to [Chapter 324 Interconnection Standards](#) and follow the instructions for the Small Generator Interconnection Procedures, CMP can do this work in parallel to your service request that will be handled by me. If your project is under 660 KW You will be able to have a Customer Net Energy Billing contract. Information concerning Customer Net Energy Billing can be accessed thru the Chapter 324 website or by clicking here: [Net Energy Billing](#)

Reallocation/Line Extensions:

Recently, changes were made to the three-phase construction policy, which require CMP to reallocate construction costs paid by customers. If applicable, those projects identified as “developments” do not qualify for reallocation of funds. Please see this document at our website for details about the reallocation conditions. Any reallocation charges will be specifically denoted on your invoice. The website address for this is: [PolyphaseLineExtension](#).

This line extension will be part of Central Maine Power’s distribution system. In the event the property served under this Agreement is sold or otherwise conveyed, all rights and obligations of the Agreement shall stay with the property. Please note that if you rent or lease this property to another and you want to receive the reimbursement payments, you must make special arrangements with the Central Maine Power Company. Otherwise, any reimbursement payments will be sent to the “Customer” taking service at the service location.

Electricity Supplier Information:

Central Maine Power Company (CMP) will provide your facility with electric delivery service. If you don’t already have a provider, you will need to make arrangements with a competitive electricity provider in order to receive electricity supply for your facility. In the event you fail to choose a competitive electricity provider, you will receive Standard Offer service arranged by the Maine Public Utilities Commission. If you wish to be served by a competitive electricity provider immediately upon establishment of delivery service, you must arrange for this service directly through your chosen competitive electricity provider, who must enroll your account no later than 5 PM on the business day prior initiation of delivery service by CMP. An up-to-date list of competitive suppliers can be found at the:

1. Maine Public Utilities Commission (MPUC) web site- [Maine PUC](#)
2. By calling the MPUC at (207) 287-3831

Attachments:

Excel Load Sheet (EDET)
Easement Worksheet and Sample Standard Easement
W9



Katherine Dumont
Energy Service Specialist
162 Canco Rd
Portland, ME 04103

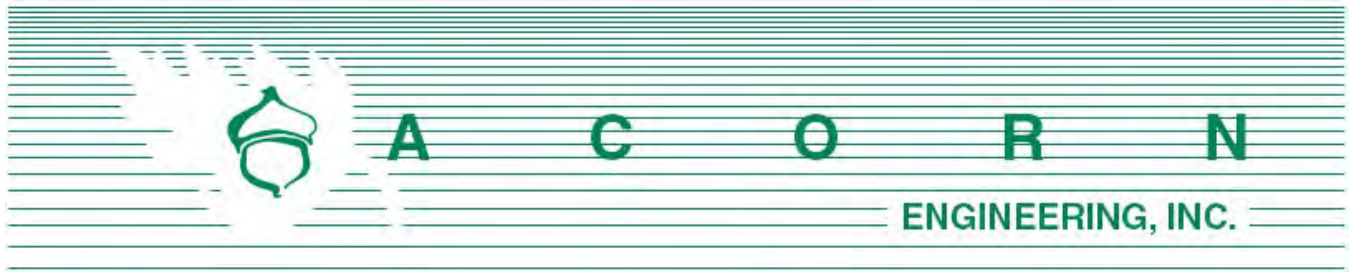
207-242-5744
katherine.dumont@cmpco.com



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84-94 Auburn St Major Site Plan

Neighborhood Meeting Minutes

March 15, 2023 / 5:30 pm
94 Auburn Street, Portland, ME

Project Team Attendees:

Peter Heil (PH): Civil Engineer/Presenter (Acorn Engineering)
Mike Triglione (MT): Civil Engineer/Note Taker (Acorn Engineering)
Mike Pride (MP): Developer/Applicant (84 Auburn, LLC)
Bill Bray (BB): Transportation Engineer (Barton & Loguidice)

Meeting started at approximately 5:30 pm.

Presentation:

Peter Heil:

- Neighborhood meeting housekeeping
- Team introduction
- High level neighborhood overview
- Zooming in to focus on site improvements – 94 Auburn parking improvements & new coffee shop with drive through
- Design has recently been revised from one curb cut to two
- Architectural elevations
- Next steps: Planning board workshop 4/11/23

Comments, Questions & Answers:

Please note that the following questions and answers were not recorded verbatim and aim to represent and summarize the actual questions, answers, and discussion that took place at the meeting.

Neighbor: What coffee chain will it be? There is preference for a local company as opposed to national chain.

- **PH:** Cannot state at this time.

Neighbor: This is not a good place for a drive through. This section of Washington Ave is too crowded. There are concerns about queuing backing up into the street. Will there be a traffic study?

- **PH:** There will be a traffic study associated with a Traffic Movement Permit that is reviewed and approved by the City.

Neighbor: Agree with previous comment, concerns about the use of coffee shop with a drive through. Forest Ave Starbucks backs up into the roadway. Also showing support for local coffee business.

- **PH:** The City Board of Appeals had previously approved a drive through for this site a few years ago.

Neighbor: Is there a space for hanging out reading books, working on laptop, etc. planned for new building?

- **PH:** There is seating planned for both indoors and outdoors.

Neighbor: What does the traffic study look for?

- **BB:** The study is required to obtain a Traffic Movement Permit (TMP) due to trip generation. The City has delegated review authority. Scoping meeting gives instructions to traffic engineer on what needs to be studied for project. In general: trip generation, amount of traffic in/out of 94 Auburn Street, directional flow of traffic in and out of proposed coffee shop, crash information, sight distance, looking at crosswalk across Auburn St, etc. .

Neighbor: Several years ago the traffic light at Sanborn and Auburn Street was changed to flashing yellow, which had a negative effect. Sped up traffic, could not exit street in the morning. It has since changed back to regular stoplight. Will this light be changed due to this project?

- **BB:** While I am unaware of the specifics of that traffic light, it is unlikely that it will be impacted and unlikely the city will remove that traffic light.

Neighbor: What is intended to happen with the Mobil Station up the street?

- **PH:** Can't comment on other projects. The TMP will look at existing & future uses that have filed a TMP ahead of our submission.

Neighbor: What is the opening date for the new coffee shop?

- **PH:** Anticipated approximately 2 years out

Neighbor: The proposed crosswalk looks like an accident waiting to happen.

Neighbor: Where will the workshop be?

- **PH:** It is hosted online, the zoom link will be posted the City agenda center online.

Neighbor: Where can other public comments be directed?

- **PH:** Austen Torres-David, City Planner, austentd@portlandmaine.gov



Meeting concluded at approximately 6:00 pm.

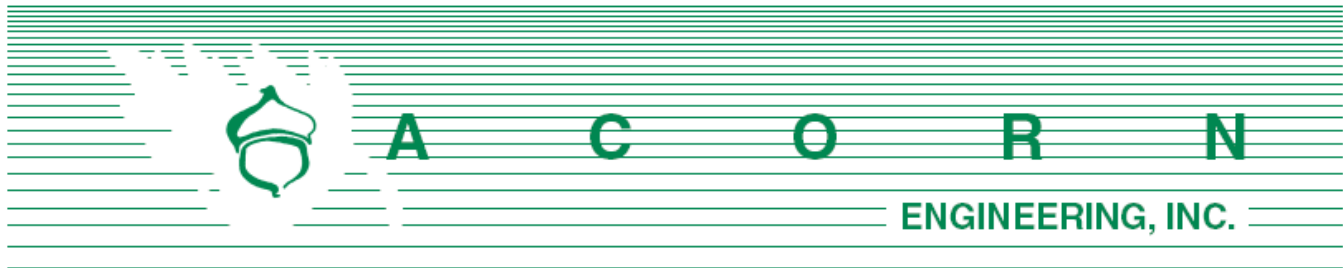
The abovementioned material was as interpreted and recorded from handwritten notes. Please note and relay any discrepancies or disputed information in the recorded minutes to the below address so that they can be reviewed, revised, and resubmitted, as necessary.

Recorded by,



Mike Triglione, PE
Project Engineer, Acorn Engineering, Inc.
mtriglione@acorn-engineering.com





Maya Balassa – City Planner
 City of Portland
 Planning & Urban Development Department
 389 Congress Street, 4th Floor
 Portland, ME 04101

February 7, 2024

Subject: Comment Response Letter – PL-002298-2022
 84/94 Auburn Street Redevelopment, Portland Maine

Maya,

On behalf of MSP Properties 94 Auburn LLC and 84 Auburn, LLC (c/o Mike Pride), we are pleased to respond to the Project Review Letter, dated 1/30/24 for the 84 & 94 Auburn Street redevelopment project.

Please find responses to the comments received thus far below. Below responses provide additional information and clarify documents request as outlined in the Staff memos. Any items not specifically addressed in this comment response letter are understood to have met the required City standards.

DESIGN REVIEW COMMENTS

Comment – *Impact on Surrounding Street Systems: Please dimension existing conditions in the ROW in addition to proposed improvements on the plan view sheets. For example ROW, street, lanes, sidewalk, esplanade driveways (and other improvements) widths as well as when a width changes.*

Response – Existing and proposed dimensions in the ROW are shown on Sheet C-10.

Comment – *Impact on Surrounding Street Systems: If sidewalk grades are not compliant at the property line, then the limits of sidewalk replacement shall be extended to include a 5-foot minimum transition zone from the proposed 2% to the existing pavement slope.*

Response – On the north limit of the proposed limit of sidewalk construction, a transition zone is provided. On the south limit of the proposed limit of sidewalk construction, the sidewalk abuts the driveway to the neighboring lot, and is less than 2% at the sidewalk terminus.

Comment – *Access and Circulation: The median island shall be extended south to physically prevent left-turn movements from the site.*

Response – The median has been extended an additional 10' south to prevent left-turn movements from the site.

Comment – *Access and Circulation: Remove the proposed beacon from the center island in Auburn Street.*

Response – The proposed beacon has been removed from the plan.

Comment – *Access and Circulation: Incorporate geometric modifications to the driveways to restrict the potential left turn movement out of the driveways (as shown below).*

Response –  Curb cut geometries have been revised per guidance included in the city comments.

Comment – *Landscape Preservation: The City's landscape preservation standards (Sec. 14.6.2.B) requires that site development be designed to incorporate, limit disturbance to and removal of existing trees. The current proposal involves the removal of 94% of the existing trees by basal area, or 90% of the existing trees by count, and would additionally require a waiver from the 30% preservation requirement along the West property line setback. A waiver is acceptable under the following conditions:*

- *The applicant replants 18 trees in addition to the required street trees.*
 - o *Please replace the proposed Alaska Cedar, along the wester (rear) property line, with a shade tree to replace a larger percentage of the substantial amount of mature tree canopy lost as a direct result of this development.*
- *There are 2 feature mature trees in the rear setback area (30" and 24" white pines) that incur an additional penalty of \$100/diameter inch less \$400 for replanting*
 - o $(30 \times \$100) + (24 \times \$100) - (2 \times \$400) = \4600 contribution to the tree fund
- *There are 3 other feature mature trees (Two 24" white pines along the north property line and a 48" Walnut along the south property line)*
 - o $(2 \times 24 \times \$100) + (48 \times \$100) = \$9600$
- *Waiver summary: Total contribution of \$14,200 to the tree fund and replanting 18 trees on the site (additional to the required street trees along Auburn)*
- *The 12" tree of unknown species on the adjacent parcel to the south is not a candidate for removal and needs to be preserved.*
 - o *The applicant will need to positively ID the species and include tree protection boundaries on the plans.*
- *Provide the tree protection boundaries for the other 3 trees to be preserved along the south property line on the plans*
- *Provide tree preservation notes on plans detailing specific tree protection measures be instituted during construction*

Response – Alaska Cedar trees have been revised to be Red Oak. Understood on the tree removal penalties. The 12" tree on the adjacent parcel will not be removed as part of the project and not under review as part of the proposed application. Tree protection measures for this tree and other trees to be preserved have been added to sheet C-03 & a tree protection detail and has been added to sheet C-43.

Comment – *Site landscaping and Buffers: The project is not meeting surface parking lot landscaping requirements. 2 trees (or 1 tree and 3 shrubs) are required for every 5 parking spots.*



Response – 16 parking spaces are proposed to be installed as part of the development. This would require 6 trees (or 3 trees and 9 shrubs). 18 trees are required for tree replacement standards, and 6 street trees are required. 28 trees and 54 shrubs are proposed for the development. The 4 trees and 54 shrubs planted outside of tree replacement & street tree requirements exceed the requirements for parking lot landscaping.

Comment – *Site Landscaping and Buffers: Please update landscape plan with alternative species to Alaska Cedar and provide accurate counts in the plant schedule.*

Response – The Alaska Cedar trees have been revised to be Swamp White Oaks. Fourteen (14) are proposed throughout the site, as shown on the plan and plant schedule.

Comment – *Water Quality, Stormwater Management and Erosion Control: The applicant should ensure that the final Stormwater Management Report includes the design confirmation letter that was originally provided by Ferguson.*

Response – The final design confirmation letter by Ferguson has been attached to the final Stormwater Management Report.

Comment – *Water Quality, Stormwater Management and Erosion Control: Please be advised that stormwater maintenance agreement will be required to cover the pervious pavers, Focal Points, and R-tank systems.*

Response – A stormwater maintenance agreement will be recorded for the proposed project upon completion of construction prior to a certificate of occupancy.

Comment – *Public Utilities: Once available, the applicant will need to provide evidence of utility capacity from Central Maine Power.*

Response – Central Maine Power has confirmed their ability to serve. A copy of the determination is included with this submission.

Comment – *Public Utilities: The general sanitary sewer line and grease trap sewer line should converge into an access manhole, not a tee/wye as depicted on the plans – please update. The comment response indicates that sizing information and details were included in the most recent submission – staff could not locate.*

Response – The design has been revised to provide a sewer manhole where the sewer lines converge. The grease trap will be located internal to the building and will be sized consistent with building codes and standards.

Comment – *Exterior Lighting: Please update the plan to meet lighting curfew standards.*

Response – Lighting controls provided in the previously submitted cut sheets provide the ability to program lighting to meet curfew standards.



Comment – *Noise and Vibration: Clarification on where this equipment will be located and how it will be shielded from view should be included in final submissions.*

Response – As shown on the previously submitted architectural plans, the mechanical equipment will be located on the roof of the building and shielded from view with a parapet.

Comment – *At the September 26, 2023 workshop, the Planning Board requested that the applicant design their adhere to the general accessory use standards (Sec. 6.6.2.D.1) for drive-through facilities, to which the applicant agreed. The applicant should prepare a written narrative outlining compliance with Sec. 6.6.2.D.a (a-h) and ensure that application plans and documents support the project's consistency with these accessory use standards.*

Response – A narrative addressing these standards has been prepared is provided as an attachment to this comment response.

Comment – *Please clarify what square footage is proposed for the public.*

Response – The proposed public portion of the building is 785 sf.

Please let us know if you have any additional questions or comments.

Sincerely,



Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.



Sign-in Sheet

Name	Email
Gretchen Greenberg	Gretch1949@gmail.com
Ed Jaczuk	Ed.jackzuk@gmail.com
Alexis Worn	Alexisworn@gmail.com
Elain Isajar	Elainisajar@gmail.com
Joan Tstsonis	Joantwin2jean@gmail.com
Ed Wolak	Ed9914@AOL.com
Project Team	
Mike Pride – Owner/Applicant	pridemike@hotmail.com
Peter F. Heil, P.E.	pheil@acorn-engineering.com
Michael Triglione, P.E.	mtriglione@acorn-engineering.com
David Horne, E.I.	dhorne@acorn-engineering.com
Bill Bray, P.E.	trafficsolutions@maine.rr.com



CITY OF PORTLAND
Permitting and Inspections Department

CERTIFICATE OF VARIANCE APPROVAL

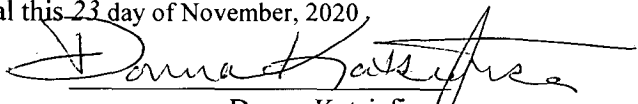
I, Donna Katsiaficas, the duly appointed Chair of the Board of Appeals for the City of Portland, Cumberland County and State of Maine, hereby certify that on the 19th day of November, 2020, the following variance was granted pursuant to the provisions of 30-A M.R.S.A. Section 4353(5) and the City of Portland's Code of Ordinances.

1. **Current Property Owner: Adam Mitchell**
2. **Property: 84 Auburn Street, Portland, ME** **CBL: 375 A026**
Cumberland County Registry of Deeds, **Book: 33873 Page: 153**
Last recorded deed in chain of Title: **3/10/2017.**

Variance and Conditions of Variance:

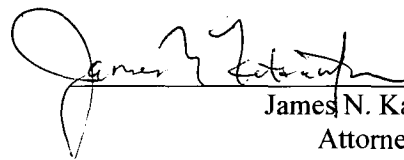
To grant relief from section 14-162(a)(2)(e) of the Land Use Zoning Ordinance to eliminate the prohibition on drive through sales for retail establishments.

IN WITNESS WHEREOF, I have hereto set my hand and seal this 23 day of November, 2020.


Donna Katsiaficas
Chair of City of Portland Zoning Board

STATE OF MAINE
Cumberland, ss.

Then personally appeared the above-named and acknowledged the above certificate to be her free act and deed in her capacity as Chair of the Portland Board of Appeals, with her signature witnessed on 11/23/2020.


James N. Katsiaficas
Attorney at Law
Bar#3029

PURSUANT TO 30-A M.R.S.A. SECTION 4353(5), THIS CERTIFICATE MUST BE RECORDED BY THE PROPERTY OWNER IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS WITHIN 90 DAYS FROM FINAL WRITTEN APPROVAL FOR THE VARIANCE TO BE VALID. FURTHERMORE, THIS VARIANCE IS SUBJECT TO THE LIMITATIONS SET FORTH IN SECTION 14-474 OF THE CITY OF PORTLAND'S CODE OF ORDINANCES.



CITY OF PORTLAND
Permitting and Inspections Department

Received
Recorded Register of Deeds
Dec 03, 2020 07:57:27A
Cumberland County
Nancy A. Lane

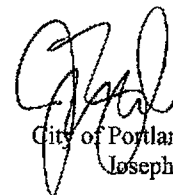


**CITY OF PORTLAND, MAINE
CERTIFICATE OF VARIANCE APPROVAL**

I, Joseph Zamboni, the duly appointed Chair of the Board of Appeals for the City of Portland, Cumberland County and State of Maine, hereby certify that on the 4th day of May, 2023, the following variance was granted pursuant to the provisions of 30-A M.R.S.A. Section 4353(5) and the City of Portland's Code of Ordinances.

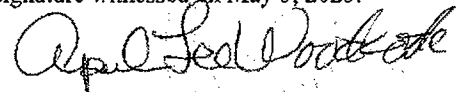
1. **Current Property Owner: 84 Auburn, LLC**
2. **Property: 84 Auburn Street, Portland Maine CBL: 375 A026**
Cumberland County Registry of Deeds, **Book: 37890 Page: 331**
Last recorded deed in chain of Title: **3/4/2021**
3. **Variance and Conditions of Variance:**
To grant relief from section 6.6.2.D, Chapter 14 of the City of Portland Code of Ordinances to allow a drive-through at the proposed retail establishment on the subject property.

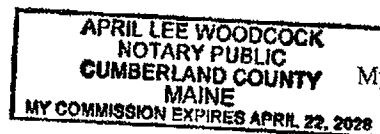
IN WITNESS WHEREOF, I have hereto set my hand and seal this 5th day of May, 2023

 , Chair of
City of Portland Zoning Board,
Joseph Zamboni

STATE OF MAINE
Cumberland, ss.

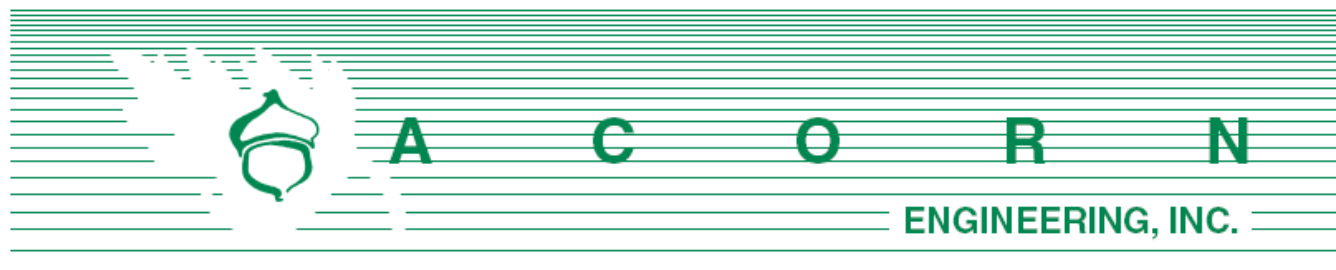
Then personally appeared the above-named Joseph Zamboni and acknowledged the above certificate to be his free act and deed in his capacity as Chair of the Portland Zoning Board of Appeals, with his signature witnessed on May 5, 2023.





Notary Public
April Woodcock

PURSUANT TO 30-A M.R.S.A. SECTION 4353(5), THIS CERTIFICATE MUST BE RECORDED BY THE PROPERTY OWNER IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS WITHIN 90 DAYS FROM FINAL WRITTEN APPROVAL FOR THE VARIANCE TO BE VALID. FURTHERMORE, THIS VARIANCE IS SUBJECT TO THE LIMITATIONS SET FORTH IN SECTION 14-474 OF THE CITY OF PORTLAND'S CODE OF ORDINANCES.



Austen Torres Davis – City Planner
 City of Portland
 Planning & Urban Development Department
 389 Congress Street, 4th Floor
 Portland, ME 04101

March 27, 2023

Subject: Comment Response Letter – PL-002298-2022
 84/94 Auburn Street Redevelopment, Portland Maine

Austen,

On behalf of MSP Properties 94 Auburn LLC and 84 Auburn, LLC (c/o Mike Pride), we are pleased to respond to the Staff Comments, dated 3/24/22, for the 84 & 94 Auburn Street redevelopment project.

Please find responses to the comments received thus far below.

GENERAL

Comment – *Please provide more information on the parking area at Plan-Right (north of the drive-thru property). Will this be used as parking for the coffee shop? If not, it would be preferable to landscape this area as there is no connection between it and the new business, and the adjacent property has ample parking.*

Response – This area is an existing parking area benefiting 94 Auburn Street, within a shared easement. The proposal is to expand this parking area by (7) new spaces and provide additional ADA accessible spaces closer to the main entry into 94 Auburn Street. As part of the lease agreement with the proposed coffee shop, the future tenant does have an agreement to park within these spots.

Comment – *Please provide more information on the proposed walkway/cut-thru at the southwest corner of the property, connecting to the adjacent parking lot. This area should be formalized as a walkway meeting the elevation of the sidewalk it is connecting to. (Technical Manual Sec. 1.7.2)*

Response – The walkway is intended to provide a connection from the rear parking lot to the proposed coffee shop, if additional parking is needed in the rear. The elevations of the walkway to meet the elevation of the sidewalk, as there is a tipdown at the curbline.

Comment – *A tree survey should be conducted showing the location of trees 10" DBH and above to determine if tree-replacement standards need to be met. (Technical Manual Sec. 4.3.1)*

Response – The applicant is coordinating the tree survey to locate any trees 10” DBH or greater with the projects Land Surveyor and will continue coordinate with Staff and the City’s Forester on replacement requirements, if any.

Comment – *Please provide the location of overhead utility lines and fire hydrants in the vicinity of the site. (Technical Manual Sec. 3.2.1)*

Response – Please refer to C-20 for the locations of the overhead utility lines and the existing fire hydrants within the vicinity of the site across Auburn Street from the project.

Comment – *The ADA parking space should be located closer to the front door. Please depict curb-stops and ramps on plans, as well as striping for the area adjacent to ADA spaces.*

Response – The ADA parking space has been relocated to be closer to the front door and ADA striping shown. Please refer to C-30 for the location of the curb tipdowns and ramps.

ZONING

Comment – *The applicant needs to provide a copy of the recorded Certificate of Variance with the Book and Page and the date it was recorded for the Zoning Board of Appeals approved Hardship Variance, 11/19/20, to allow a drive-through at this property.*

Response – Please find the attached recorded Certificate of Variance, recorded within the Cumberland County Registry of Deeds on December 3, 2020, Book: 37521 / Pages: 215-216.

TRANSPORTATION

Comment – *The pedestrian access route (through the driveway) shall be designed and constructed to meet the elevation of the adjacent sidewalk. The driveway apron shall ramp up to the grade of the Sidewalk (pedestrian access route). The proposed driveway shall be redesigned to meet these requirements. See technical standards for further details on Commercial Aprons.*

Response – Understood, please refer to C-30 for the grading of the sidewalk and driveway apron to meet the City’s technical standards.

Comment – *Proposed driveway widths are to be 20ft as required.*

Response – Understood, the driveway widths have been revised to show 20 feet wide each.

Comment – *The pedestrian access portion of the proposed driveways shall be constructed in concrete.*

Response – Per the City’s sidewalk and driveway apron material policy map, this portion of Auburn Street is designated as bituminous asphalt and matches the existing sidewalk material along Auburn Street. The pedestrian access portion of the driveway has been left bituminous asphalt in



compliance with the City's sidewalk policy.

Comment – *The proposed mid-block crosswalk shall be constructed with a raised median island in the roadway, in a manner similar to other recent City pedestrian crossing projects, such as Forest Avenue at Poland Street.*

Response – The applicant and design and traffic engineers disagree with the appropriateness of a raised crossing in this location due to safety and center lane queueing concerns. If necessary, we would request a separate meeting with the City's transportation engineer to further discuss in more detail.

Comment – *The proposed arrows currently shown on the proposed driveway shall not be placed in the ROW. Revise the plan to show the proposed pavement markings in the drive aisles outside of the ROW.*

Response – The attached plans have been revised to move the proposed arrow markings within the private property.

Comment – *Please revise the plans to include one way circulation markings.*

Response – Please refer to C-10 for the one-way circulation pavement markings around the site bypass lane, along with drive through and one-way directional signage as vehicles enter the site off Auburn Street.

Comment – *DPW has concerns with the circulation of the parking lot. Consider a one way circulation through the parking lot exiting on the west end onto the exit lane. At a minimum the entrance driveway shall be modified to prohibit exiting the site from that driveway. In addition, the current exit configuration from the internal parking area back to the circulation lanes shall be adjusted to reduce potential conflict with traffic entering the site from Auburn Street.*

Response – Exiting to the west from the parking area would eliminate an additional car queue, which we understand is the priority for the drive through based on the TMP scoping meeting. The parking configuration remains the same, however additional one-way and do not enter signage has been shown to prohibit exiting the site from the northern driveway. Exiting from the internal parking area does not conflict the traffic entering from Auburn Street, and allows for vehicles to free enter the order/bypass lane or parking area. A new stop sign and stop bar has been added exiting the parking area to add additional safety measures.

Comment – *The striping depicted on the center lane of Auburn Street is not correct. The applicant shall revise the plan sheets to depict the current existing striping for Auburn Street.*

Response – The striping in the Auburn Street center turn lane has been revised to reflect current existing striping conditions.

Comment – *The plan should include dimensions of the drive/parking aisle at 94 Auburn Street.*



Response – The 24' wide drive/parking aisle dimension to the 94 Auburn Street driveway has been added to C-10.

Comment – *The waiver request documentation shall be updated to reflect current driveway conditions.*

Response – Please refer to the attached updated waiver request.

Comment – *The plan shall include the Northgate Shopping Center pedestrian connector to ensure the crosswalk location is appropriately aligned. Utility poles in this area shall also be depicted to avoid conflicts during construction.*

Response – Please refer to Sheets C-10 & C-20, which show the Northgate Shopping Center pedestrian connection and utility poles, which avoid conflicts to the new crosswalk ramp.

Comment – *The plan should note if the existing two-way center left-turn lane arrows will need modification given the introduction of the crosswalk.*

Response – Please refer to the above response requesting a meeting with the City's transportation engineer regarding the raised center median. With the addition of the requested raised median, it would prohibit cars queueing in the center turn lane from the south turning into the 94 Auburn Street driveway and potentially cause traffic backups within the northbound through lane. The applicants design and traffic engineer do not believe this is an appropriate location for a raised median. If no median was installed, the existing two-way center left turn lane arrows would not need to be modified.

LANDSCAPING & ENVIRONMENTAL QUALITY

Comment – *If a fence is going up on those pull-in spaces, what relationship do those spaces have to the proposed business, and why are they being included in this plan or scope of work? If possible, eliminate proposed spaces that are shown adjacent to the drive through area on the property and replace them with landscape areas for plantings that meet IV-6B and section 4 landscaping standards. If some parking is required to be done, use parallel parking layout to enable a more generous bed for screening plants to be installed with a fence.*

Response – This area is an existing parking area benefiting 94 Auburn Street, within a shared easement. The proposal is to expand this parking area by (7) new spaces and provide additional ADA accessible spaces closer to the main entry into 94 Auburn Street. As part of the lease agreement with the proposed coffee shop, the future tenant does have an agreement to park within these spots.

Comment – *Consider Liriodendron Tulipifera species in place of proposed red maple, per recommendation from city forestry supervisor.*

Response – The planting schedule has been revised to specify *Liriodendron Tulipifera* in place of the previously proposed red maple.



Comment – *Is the proposed 40' width appropriate for property drive entrance / egress?*

Response – We believe this comment may be referring to the previous plan single curb cut layout, and not the current two curb cut / one way layout.

Comment – *Ensure all parking area planting bed widths comply with IV-6a and section 4 landscaping standards in technical manual.*

Response – All parking area planting beds are in compliance with the technical manual landscaping standards.

Comment – *Trash and recycling enclosure should have shrubs or other understory screening plant materials to better blend and scale fence and bins into landscape. Per IV-7, section 4 of technical manual.*

Response – additional shrubs have added around the dumpster enclosure. Please refer to C-10 for the updated layout and planting schedule.

Comment – *Interior parking areas should attempt to include landscaping materials around furnishings and to provide interior screening / planting elements as recommended in section IV5, 4 of the technical manual, where plantings will not conflict with safe sight lines or operational use of furnishings for drive through equipment.*

Response – Plantings are proposed around the perimeter of the site to provide interior screening and planting elements. Please refer to C-10 for additional information.

Comment – *Ensure all shrub and planting materials around drive through areas, parking spaces, or at entrance and egress locations should be selected with consideration for mature heights, widths, and growth habits that will not interrupt sightlines or block views of pedestrians, including children.*

Response – Understood, all plantings will be designed to not interrupt sightlines or in conflict with safe pedestrian access.

DESIGN MANUAL – B-1 DESIGN STANDARDS

1. Building Location and Form

- The building is located at the max. 10' setback, as the adjacent existing buildings are setback greater than 10' (approx. 15' and 25' respectively).
- The building form is in general conformance with the surrounding buildings and neighborhood.

2. Building Function

- The proposed coffee shop uses provides a commercial / pedestrian oriented use within the Business district to promote a variety of uses and in general conformance with the existing intensity of the area.



3. *Orientation of Buildings and their Entrances to the Street*
 - The building's primary façade is oriented towards Auburn Street, with an entrance and pedestrian connectivity, including patio, directly from Auburn Street. Windows, signage, and walkways are proposed oriented towards the street.
4. *Windows*
 - Windows are proposed on all building facades visible from the public way, including a walk-up order window facing Auburn Street.
5. *Building Character, Detail, Scale, and Graphic Qualities*
 - Please refer to the provided architectural renderings showing compliance with the buildings character, detail, scale, and graphic qualities proposed.
6. *Signage and Building Entrances*
 - The proposed coffee shop use encourages pedestrian use and the entrance and signage will be of a pedestrian scale. A separate sign permit application will be applied for along with the future building permit application.
7. *Development Relationship to Street*
 - The location of the building was placed by trying to create a pattern of the adjacent buildings, while also meeting the required 10' max setback from the ROW. New sidewalks and patios, along with new landscaping and street trees are proposed along the frontage to provide a sense of definition.
8. *Parking Lots*
 - The parking lot is proposed to be setback from the edge of ROW approx. 30', with new landscaping and street trees to provide some screening from the public ROW. The perimeter of the site also provides additional landscaping to provide additional buffer from adjacent properties.
9. *Transit Connections*
 - Existing Metro bus stops are located approx. 500' to the south and 350' to the north on the same side of Auburn Street as the project.

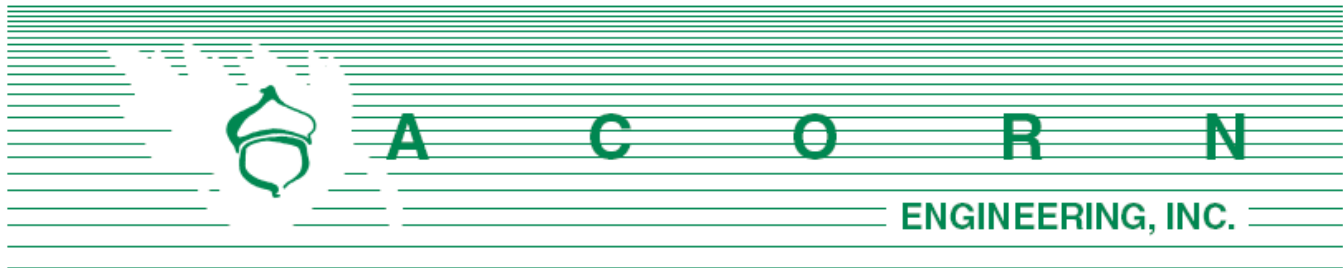
Please let us know if you have any additional questions or comments.

Sincerely,



Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.





Maya Balassa – City Planner
 City of Portland
 Planning & Urban Development Department
 389 Congress Street, 4th Floor
 Portland, ME 04101

December 18, 2023

Subject: Comment Response Letter – PL-002298-2022
 84/94 Auburn Street Redevelopment, Portland Maine

Maya,

On behalf of MSP Properties 94 Auburn LLC and 84 Auburn, LLC (c/o Mike Pride), we are pleased to respond to the Design Review memo, dated 9/11/23, the Planning Board Staff Report, dated 9/26/23, and the Staff Review Comments – Round 2 memo, dated 10/13/23 for the 84 & 94 Auburn Street redevelopment project.

Please find responses to the comments received thus far below. Below responses provide additional information and clarify documents request as outlined in the Staff memos. Any items not specifically addressed in this comment response letter is understood to have met the required City standards.

DESIGN REVIEW COMMENTS

Comment – Windows: *In the B-1 zone windows shall be required along the street frontage of a building. Windows shall be transparent (with visible transmittance (VT) of .7 or greater) and installed at a height to allow views in the building by passerby. The proposed building indicates windows visible from the public way as indicated on east and north elevations that staff finds is well organized as a storefront window. **Staff is requesting additional documentation to meet this design standard for visible transmittance (VT) of .7 or greater.***

Response – Notes have been added to elevations plans to ensure that the design standard for visible transmittance is met. Please refer to the attached revised elevation plans prepared by RSA.

Comment – Building materials: *Façade materials of buildings located in the B-1 zone shall be compatible with those materials of surrounding residential and commercial use. The proposed building design indicates proposed façade materials that staff finds is appropriate to enhance the residential character of the neighborhood. In particular, the use of wood plank siding and brick assists in integrating the proposed commercial building with adjacent residential style buildings along Auburn Street. **Staff is requesting rendered elevations or 3-dimensional drawings to illustrate the materials proposed.***

Response – Rendered elevations and 3-dimensional drawings have been added to the architectural plan set. Please refer to the attached plans prepared by RSA.

Comment – *Landscaping and buffers: In the B-1, B-1b, B-2 and B-2b zones buildings and associated parking areas must be screened to buffer abutting properties. A densely planted landscape buffer and/or fencing will be required to protect neighboring properties from the impacts associated with the development, including lighting, parking, traffic, noise, odor, smoke, or other incompatible uses. Where buildings are setback from the street, a landscaped area must be planted along the front yard street line. The proposed development includes landscape buffers along the perimeter of the property to include vegetation and fencing for screening. Staff recommends the applicant provide plant selection (trees, shrubs, and groundcover) and fence detail to indicate height and materiality at the property perimeter for screening of parking and adjacent properties for staff review.*

Response – The planting schedule is provided on Sheet C-10, Site Plan and fencing detail provided on sheet C-41, Site Details – 2.

Comment – *Façade character: Building design will include various architectural and graphic amenities to provide a strong presence along a street and relate a building to its community. The proposed building design indicated proposed façade materials that staff finds is appropriate to enhance the residential character of the neighborhood. In particular, the use of wood plank siding and brick assists in integrating the proposed commercial building with adjacent residential style buildings along Auburn Street. Staff finds the architectural light fixtures mounted to the blank face walls provide sufficient visual interest that staff finds is appropriate. Staff requests that the lighting plan include the architectural light fixtures mounted to the blank façade walls at north and south elevations.*

Response – Please refer to the attached photometric plan showing the architectural light fixtures, as well as the updated architectural elevation plans.

Comment – *Parking lots shall be screened from neighboring properties. Staff finds that parking lots include landscape screening and fencing from neighboring properties. Staff is requesting additional information on plant selection and fence detail to indicate height and materiality for staff review.*

Response – Alaska Cedar trees are proposed to be planted on the west side of the property, adjacent to the drive-through lane. These conifer trees provide adequate buffer screening. Please refer to the planting schedule provided on Sheet C-10, Site Plan and fencing detail provided on sheet C-41, Site Details – 2 for additional information.

Comment – *Crosswalks shall be provided within parking lots and across entrance driveways, directing pedestrians to building entrances. Staff is requesting the applicant to indicate a crosswalk to meet the city's technical manual standards from the adjacent property across the drive lane to access the sidewalk at the west side of the proposed building.*

Response – A crosswalk has been added to the proposed site plan to the adjacent property to the sidewalk. Please refer to Sheet C-10 Site Plan for additional information.



Comment – *Street trees shall be planted along property frontage 25 feet on center. Staff finds the addition of street trees along the property frontage to be appropriate. Staff recommends the applicant indicate the street tree species for staff review.*

Response – Please refer to Sheet C-10 Site Plan, which provides the location and species of the street trees which are proposed as tulip trees.

PLANNING BOARD REPORT & BOARD COMMENTS RECEIVED DURING MEETING

Comment – *B1 dimensional space & bulk table identifies 21 total proposed spaces within the 84 Auburn parcel.*

Response – The 21 total spaces identified in the table included both the 84 & 94 Auburn Street parcel parking spots. As discussed during the Planning Board Meeting, the existing parking count for 94 Auburn Street will remain the same (with reclassification of existing spaces to additional ADA spaces and associated ADA access aisles). The 94 Auburn Street parking spaces are not associated with the 84 Auburn Street project and remain entirely separate, providing parking for the existing 94 Auburn Street building tenants. The total proposed number of parking spaces on the 84 Auburn Street parcel will be 16. Please refer to the Parking Summary table on Sheet C-10 Site Plan for additional information.

Comment – *Retail and restaurant uses shall not operate between the hours of 11 pm and 6 am, and shall not accept deliveries or services between the hours of 10 pm and 7 am. For restaurants, food service and consumption shall be the primary function. Information on the hours of operation of the proposed coffee shop has not been provided in application materials. Staff response: the applicant shall provide information on the hours the coffee shop will be open to the public, as well as information on proposed delivery schedules for review.*

Response – As discussed during the Board meeting, we can confirm the hours of operations shall be within the permitted 6 am to 11 pm window, and deliveries shall be between 7 am and 10 pm.

Comment – *Staff have requested that a traffic study be undertaken at businesses with similar configuration and use. This information is forthcoming. Additionally, staff find that stacking in the drive-through lane may conflict with turning movements of the customer parking area.*

Response – Site turning movement counts, queue lengths, and spill data were studies at Forest Avenue and Poland Street coffee shops during the AM peak hour, and this data is included in the latest TMP Section 7 Traffic Study uploaded to the project's ePlan folder on 9/18/23. Regarding drive-thru conflicts with the customer parking area, the site has been designed to maintain the longest possible parking queue without spilling into Auburn Street and meets the State's requirements for drive-thru queue length. The applicant suggested allowing a right-turn out only from the customer parking area to limit turning movement conflicts with the queue, however, City Staff indicated a preference to restrict the northern entrance to entering traffic only and require exiting vehicles circulate around the site within the bypass lane.



Comment – *The site plan shows the southerly driveway as having the option for left and right turning movements. The option to turn left at this point should be eliminated to avoid conflicts with the proposed pedestrian traffic island.*

Response – As requested by City Staff, the left turn out has been eliminated and only right turn exits only permitted. Additional curb extensions have been provided to direct traffic to right out only, as well as an extension of the proposed traffic median raised island to limit potential left turns out as requested by Staff. See attached to this response a turning template that shows the roadway has adequate room to avoid any conflict with the traffic island.

Comment – *Staff are requesting additional information on why the parking spaces provided for the adjacent property are necessary for this development. Additionally, the city is not supportive of a waiver of the parking study requirement, and recommends that the applicant either provide a parking study to justify the additional parking, or reduce the number of parking spaces on-site. The staff would also note that there is a large existing parking lot at 94 Auburn Street which serves the adjacent office building. Staff would encourage the applicant to consider a shared parking arrangement to reduce the number of new parking spaces being developed.*

Response – As discussed during the Planning Board Meeting, the existing parking count for 94 Auburn Street will remain the same (with reclassification of existing spaces to additional ADA spaces and associated ADA access aisles). The total proposed number of parking spaces on the 84 Auburn Street parcel will be 16, with a minimum of 15 spaces required by code. With the proposed spaces <10% of the required minimum, no parking study is required, and the waiver table has been updated to remove this waiver request. Please refer to the Parking Summary table on Sheet C-10 Site Plan for additional information.

Comment – *More information is sought by staff in relation to how the site meets Technical Manual Section 4 and Land Use Code Section 14.6.2.B. The applicant shall provide a tree survey indicating the size and species of all existing trees 10" DBH, and preserve a minimum of 30% of existing trees 10 inches DBH or greater within the required setback area unless trees are non-native invasive species.*

Response – A tree survey has been conducted, identifying trees >10" DBH and species and reflected on the attached updated Sheet C-03 Construction Management Plan. There are 7 trees >16" DBH & 4 trees 10"-16" DBH that will be removed from the rear setback. Therefore, 18 trees will be required to be planted on the site as replacements per Table 14-D: Tree Replacement Requirements. Please refer to C-10 Site Plan for locations of proposed trees and planting schedule identifying the proposed replacements. Note, the replacement tree totals do not include the proposed street trees within the replacement count. Please also refer to the attached updated waiver table to request a waiver for the 30% preservation per the referenced section of the Land Use Code. The parcel is subject to a 10' rear setback due to the B1 abutting a residential zone to the rear and note there are no required setbacks along the side or front property lines, as there are no minimum side or front yard setbacks within the B1

Comment – *Per Maine DEP Chapter 500 Stormwater standards, the applicant will need to provide an analysis to determine if there is going to be an increase in peak flows into the system the City may require the applicant to demonstrate that the system and to provide photo documentation that the*



outfall of the public storm sewer system is being properly maintained. Alternatively, the applicant would be encouraged to provide on-site detention to mitigate potential increases of peak flows into the City's system and avoid the request for further analysis.

Response – Stormwater Management Report has been revised to show pre and post development peak flows for the proposed development. Post development peak flows will be matched or reduced when compared with pre development flows from the site. HydroCAD calculations and pre and post watershed maps are included with the updated Stormwater Management Report.

Comment – *The applicant must provide ability to serve confirmation from other utility providers such as Central Maine Power.*

Response – Please see attached ability to serve determination from CMP.

Comment – *Clarification on where this equipment [heating, ventilation and air conditioning equipment (HVAC), air handling units (AHU), emergency generators, and similar equipment] will be located and how it will be shielded from view should be included in final submissions.*

Response – As discussed during the Planning Board meeting, mechanical equipment is to be located on the roof of the proposed building, as shown on the architectural plans. A parapet is specified to shield the mechanical equipment from view.

REVIEW COMMENTS ROUND 2

Comment – *The applicant conducted a SimTraffic analysis at the site driveway during the AM peak hour and concluded all movements will operate at an acceptable level of service. The city has reviewed conditions including limited left-turn vehicle storage exiting the site that will likely impact drive-through operations and internal queuing; driveway conditions along Auburn Street; the introduction of a pedestrian crossing at the driveway; and the street network system. Accordingly, left turns from the site shall be prohibited and the design of the median shall be modified to reflect this prohibition. Remove all pavement markings and signs related to left turns. Physically restrict this move as the drive aisle approaches the driveway apron.*

Response – As requested by City Staff, the left turn out has been eliminated and only right turn exit only permitted. Additional curb extensions have been provided to direct traffic to right out only, as well as an extension of the proposed traffic median raised island to limit potential left turns out as requested by Staff. Please refer to the update C-10 Site Plan and turning template exhibits for additional information.

Comment – *Turning templates shall be provided documenting the need for a 20-foot-wide entry driveway.*

Response – See Site Entry Turning Exhibit, showing the need for a 20-foot wide entry and exit to accommodate emergency / fire truck access.

Comment – *It is the City's standard to have the sidewalk material continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope. The applicant shall*



depict the proposed sidewalk and driveway on the plans to meet the current City standards. The sidewalk and driveway shall be constructed in accordance with the City's Sidewalk and Driveway Apron Material Policy and the granite curb installed per the current City standards. The applicant shall update the plans and provide spot grades and slopes for the proposed sidewalk. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope per the current City standards.

Response – The Site Plan and Grading plan have been revised to be consistent with the City's standard for continuing the sidewalk through the driveway apron. Please refer to the updated plan set for specifications, locations, and details.

Comment – *A Granite Curb installation detail needs to be included in the plan set. Vertical Granite Curb Figure I-12. CAD files available upon Request*

Response – Vertical granite curb detail per City standards has been added to sheet C-41.

Comment – *ROW sidewalk detail needs to be included in the plan set.*

Response – Bituminous sidewalk detail per City standards, which will be installed in the ROW, is shown on sheet C-41.

Comment – *The applicant shall label or provide spot grades and slopes at grade breaks for any proposed / existing improvements in the right of way such as sidewalks, accessible ramps, driveways and at the end of the limits of the proposed improvements for the property.*

Response – Spot shots and grade break lines are shown on the plans for improvements in the ROW. Spot grades are provided at the end limits of improvements in the ROW. Please refer to Sheet C-30 Grading & Drainage Plan for additional information.

Comment – *Proposed improvements and existing conditions in the City ROW shall be dimensions on the plan view sheets. For example ROW, street, lanes, sidewalk, esplanade, driveways (and other improvements) widths as well as when a width changes.*

Response – Additional dimensions for proposed and existing elements in the ROW have been added to Sheet C-10, Site Plan.

Comment – *The proposed paved areas trench detail is incorrect. (See image 1 at bottom of comments) The proposed trenches shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the Rules and Regulations for Excavation Activity.*

Response – Trench installation detail has been updated as shown on sheet C-42.

Comment – *The proposed Standard Commercial Driveway Apron Layout detail has errors (for example esplanade is shown where sidewalk should be).*

Response – The Standard Commercial Driveway Apron Layout Detail has been revised to City standards on sheet C-41.



Comment – *In addition to signs, physically restrict straight forward movement when leaving the proposed parking area (by installing a raised island that channels vehicles into the desired traffic pattern) to prevent vehicles from trying to exit using the enter-only driveway.*

Response – The curbing along the exit of the parking area has been revised for some additional bump out to physically restrict the entrance and channel cars into the drive through by-pass lane to exit the site. Installing any further physical barrier on the exit of the proposed parking area would interfere with the turning movements of vehicles entering the bypass lane from the parking area.

Comment – *The curb along the driveway shall not extend beyond the esplanade per detail I-9B. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope. Remove the “Curb Tipdown TYP.” note at the driveways. Trim the curb line where it passes through the sidewalk.*

Response – Curbing along driveways has been revised for consistency with Detail I-9B of the City’s Technical Manual.

Comment – *The City’s Technical Manual was updated and approved in 2022. The applicant shall update all proposed details (Site, Sewer, Stormwater, Landscape, details) to meet the requirements of the recently approved technical manual update or add a note to each to the proposed details that states the City standard detail (figure # and name) shall be followed. CAD files can be obtained upon request.*

Response – Details have been reviewed and updated for consistency with the Technical Manual Standards. A note has been added to applicable details to reference figures in the Technical Manual.

Comment – *To support landscaping and tree preservation staff and the third-party traffic engineer support eliminating the three employee parking spaces near the drive-through window and providing employee spaces in the adjacent parking lot to the back of this site. Additionally, we support reducing the 12-foot drive-through lane to 10-foot for similar purposes.*

Response – As outlined above, there are no setbacks along the side property lines within the B1, and therefore no requirements to preserve the existing vegetation along the side yard property lines. Additionally, a reduction in the drive aisle width would reduce the ability for emergency vehicles / fire trucks to circulate the site. See attached turning exhibit with the proposed design vehicle. The applicant does not intend to remove the two employee spaces on the south side of the site.

Comment – *The species of trees is missing from survey, please add them.*

Response – Tree species have been added to Sheet C-03 Construction Management Plan.

Comment – *The plan calls for removing 31 mature trees for a total of 61 square feet of basal area lost with an accompanying loss of ~13000+ ft² of canopy coverage. The plan calls for replacing the 31 mature trees with 15 planted landscape trees; 9 tulip tree and 6 allegheny serviceberry shrub clusters. Even at maturity (≥ 15 yrs after planting) the trees will still not replace the canopy cover lost. Is it possible to preserve and protect all or some of the existing trees on the North and South boundaries of the property (at least 30% of the existing trees 10 inches DBH or greater within the*



setback shall be preserved)? Staff support reducing the drive aisle and relocating the employee parking to the adjacent lot to accomplish this request.

Response – It has been determined that three trees shall be preserved & protected during construction on the south side of the parcel. See attached Sheet C-03 Construction Management Plan for additional information. The plan shows that all trees, except the ones noted as to be preserved & protected, will need to be removed in order for the site to be installed. As specified within the B1 zoning standards, there are no side yard setbacks on these property lines, and therefore the preservation requirements for the side yard property lines are not applicable. Please refer to the additional information provided above identifying the proposed replacement for the rear property line in conformance with the City's Land Use Code.

Comment – *See above comment on site landscaping. Existing trees are a far better buffer than newly planted trees and shrubs.*

Response – See above response. Alaska Cedar trees are to be planted along the west (rear) property line, as these are specified in the technical manual as buffer trees.

Comment – *Per Section J of the Maine DEP chapter 500 stormwater standards (listed below) the applicant will need to provide an analysis to determine if there is going to be an increase in peak flows into the City's storm drain as a result of this project. If the applicant is proposing to increase peak flows into the system the City may require the applicant to demonstrate that the system has adequate capacity for any increases in peak flow rates and volumes to the system and to provide photo documentation that the outfall of the public storm sewer system is being properly maintained. Alternatively the applicant would be encouraged to provide on-site detention to mitigate potential increases of peak flows into the City's system and avoid the request for further analysis. J. Discharges to public storm sewer systems standard. The discharges to public storm sewer systems standard applies as described below. (1) When the discharges to public storm sewer systems standard must be met. A project must meet the discharges to public storm sewer systems standard if runoff from the project site will flow to a publicly-owned storm sewer system.(2) Description of discharges to public storm sewer systems standard. The applicant must obtain authorization from the system's owner to discharge into the system. At its discretion, the Department may require the applicant to demonstrate that the system has adequate capacity for any increases in peak flow rates and volumes to the system and to provide photo documentation that the outfall of the public storm sewer system is being properly maintained.*

Response – Stormwater Management Report has been revised to show pre and post development peak flows for the proposed development. Post development peak flows will be matched or reduced when compared with pre development flows from the site. HydroCAD calculations and pre and post watershed maps are included with the Stormwater Management Report.

Comment – *Sizing information should be provided for the proposed grease trap*

Response – Please find the attached grease interceptor design information and details. Note, the current proposal is to have an internal grease interceptor per the attached information and the utility plan has been revised accordingly and exterior detail removed from the plan set.



Comment – *It's unclear why this project requires multiple private storm drain connections into the Auburn Street storm drain system. It appears that the roof drain and foundation drain lines could be routed to CB-1 consolidating the connection point into the City's system. The applicant should look into this and provide further information.*

Response – The plan has been revised to route the foundation drain/roof drain to the site storm drain network to provide a single connection into the City's system.

Comment – *The plans depict a private 8" storm drain pipe, located on adjacent property to the north, routing in a south-easterly direction towards the proposed site. Is this pipe to remain active? Does it currently connect into the City's drainage system in Auburn Street? Further information should be provided for review. (See image 2 at end of comments)*

Response – The layout of the existing storm drain network on the two parcels is not entirely clear. The contractor is to verify the extents of the storm drain network upon demolition/construction. A note is provided on the plan to ensure that the contractor is aware that the pipe is to remain active. It is assumed that it is connected to the city's drainage system, but it is unclear where the connection is.

Comment – *Sewer and storm Technical manual details should be updated to reflect the most recent version of the City's technical manual, adopted in November of 2022.*

Response – Details have been reviewed and updated per the most recent version of the City's technical manual.

Comment – *The proposed 6" sewer lateral connection into the Auburn Street sewer line shall be made into the sewer main, not the existing manhole, in accordance with tech manual section # 2 standards.*

Response – It has been determined that the building will require an 8" sewer service. Per Technical Manual Standards, 8" service are required to enter sewer manholes.

Comment – *We are still looking for ability to serve confirmation from Central Maine Power.*

Response – The Ability to serve determination from Central Maine Power and Portland DPW (sewer) have been added to the project documents.

Comment – *Please update the plan to meet lighting curfew standards.*

Response – Lighting plan and cutsheets have been updated to meet lighting curfew standards and will be set on a timer to dim lighting levels to 50% 30 minutes before and after operating hours as requested by the Planning Board. Please refer to the attached updated photometric plan for additional information.

Comment – *Clarification on where this equipment (HVAC) will be located and how it will be shielded from view should be included in final submissions.*

Response – Mechanical equipment will be located on the roof and will be screened from view with



a parapet. Please refer to the attached updated architectural plans.

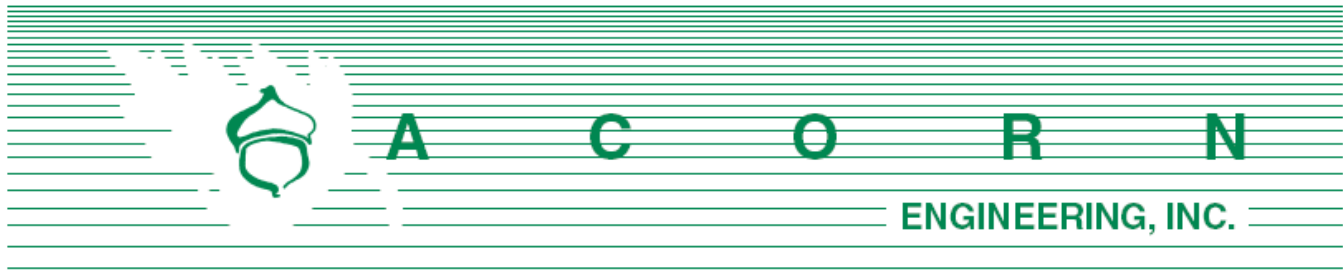
Please let us know if you have any additional questions or comments.

Sincerely,



Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.





Maya Balassa – City Planner
 City of Portland
 Planning & Urban Development Department
 389 Congress Street, 4th Floor
 Portland, ME 04101

March 12, 2024

Subject: Comment Response Letter – PL-002298-2022
 84/94 Auburn Street Redevelopment, Portland Maine

Maya,

On behalf of MSP Properties 94 Auburn LLC and 84 Auburn, LLC (c/o Mike Pride), we are pleased to respond to the Project Review Letter, dated 3/7/24 for the 84 & 94 Auburn Street redevelopment project.

Please find responses to the comments received thus far below. Below responses provide additional information and clarify documents request as outlined in the Staff memos. Any items not specifically addressed in this comment response letter are understood to have met the required City standards.

DESIGN REVIEW COMMENTS

Comment – *Access and Circulation: Construct an island at the entrance to the parking area to prevent vehicles from crossing into the entrance.*

Response – The island at the entrance of the site has been expanded to provide more direction to traffic flows. The geometry does not intend to restrict people from circulating from the parking area to the drive through lane. 12' entrance and exit lanes are provided as they are necessary for emergency and delivery vehicles to enter and exit the site, as are the curb radius geometries at site entrances and exits.

Comment – *Access and Circulation: Design a transition from the proposed sidewalk to the existing sidewalk.*

Response – The proposed sidewalk on the south end of the site has been revised to match the location of the sidewalk on the opposite end of the abutters driveway. A 5' transition will be constructed in the ROW from the proposed ADA sidewalk to the non-conforming pedestrian path in the abutter's driveway apron.

Comment – *Parking: Staff are still suggesting that the applicant eliminate the two employee parking spaces and utilize the neighboring parking lot to accommodate employee parking.*

Response – The two parking spaces on the south side of the site will not be eliminated. The spaces

have been reduced from 10' width to 8' width to provide for better chance for the adjacent existing tree survival during and post-construction. These spaces will also be used as a loading area and drive-through pull off parking when necessary.

Comment – *Landscape Preservation: The city's landscape preservation standards (Sec. 14.6.2.B) requires that site development be designed to incorporate, limit disturbance to and removal of existing trees – Staff are in support of the four trees proposed to be preserved on the northern edge.*

Response – Plans have been updated to preserve (4) existing pines along the northern property line.

Comment – *Landscape Preservation: The tree fund amount will be calculated at the time of the final landscaping and removals plan to account for removals, street trees, and parking lot landscaping.*

Response – Noted. A Landscape Plan, prepared by a Registered Landscape Architect, has been added to the plan set as Sheet L-1 to show proposed plantings and preservations.

Comment – *Site Landscaping and Buffers: The swamp oaks are too close to become mature, please space out the oaks to around 24 feet, with shrubs or other lower canopy vegetation between the trees.*

Response – A Landscape Plan, prepared by a Registered Landscape Architect, has been added to provide landscaping more consistent with City standards and client requirements. Landscape plans have been revised to show more consistent buffer along the northern and western property boundaries via the planting of various shrubs: *Kalmia latifolia*, *Myrica pensylvanica* and *Ilex galbra*. Four existing pine trees are to be preserved along the norther property line, with two *Zolkova serata* trees to be added where pines have been removed. Along the west property line, where existing pines are to be removed due to the proposed development, (3) *Carpinus caroliniana* trees and (7) *Pinus nigra* trees are proposed. Three *Amelanchier* trees, along with shrubs, have been proposed surrounding the trash enclosure. Multi-stem *Amelanchier* trees will be selected for this location to better screen trash and recycling.

Comment – *Site landscaping and Buffers: Some of those trees could be redistributed closer to the parking lot to better meet the parking lot landscaping requirement. Some suggested locations for that are shown in the images above and below.*

Response – See above response.

Comment – *Site Landscaping and Buffers: The planting schedule does not match the plan, please adjust them to match.*

Response – See sheet L-1 Landscape Plan for updated planning schedule.

Comment – *Exterior Lighting: Please update the photometric plan with the proposed foot-candle during closed hours or add a note with the percentage they will be reduced by.*

Response – Note is featured on the proposed lighting plan that lights will be reduced to at least 50% on lighting levels 30 minutes before and after operating hours.



Comment – *Exterior Lighting: Please update the photometric plan to reduce the brightness or remove the lights proposed for the walk-up window that has been removed to meet the maximum foot candle of 5.*

Response – The fixture in this area has been revised to provide lighting per the maximum foot candle requirement. An updated lighting plan and cut sheets are provided as part of this response.

Please let us know if you have any additional questions or comments.

Sincerely,



Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.



Drive Through Accessory Use Standards Assessment

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use. Specifically, Article 6 Section 6.2.D. Drive Throughs.

D. Drive-throughs

The proposed project has been designed to conform to City standards for Drive throughs to the maximum extent possible as demonstrated in the following narrative.

1. In general

- a. The Zoning Board of Appeals granted a Hardship Variance to allow a drive-through for the proposed project at their May 4, 2023 meeting under Section 6.6.2.D.
- b. The drive through service window is located on the south side (side yard) of the building. Menu boards and digital order screen will be located on the west side of the building/parking area (the rear of the site). The stacking lanes will wrap from the side to rear to other side of the proposed site to maximize queueing as identified as a priority by the Department of Public Works during their review of the Traffic Movement Permit. The queueing capacity of the drive through lane is 14 cars. The drive through window is located 30 feet from the right of way. The menu boards are located 34 feet from the rear property line. The stacking lane is located 16 feet from the rear property line. The rear property line acts as the boundary to the R3 residential zone. This does not meet the standard of being 40 feet from an adjoining property in a residential zone. However, the drive-through alignment has been designed to maximize stacking capacity as requested by DPW. In addition, the property to the rear is a commercial parking lot and has common ownership as the parcel with the proposed drive through. The proposed project also provides substantial vegetative buffering between the project and existing parking area. The As part of the Zoning Board of Appeal's approval, the ZBA reviewed and approved the hardship variance to grant the proposed layout for the drive through and associated features.
- c. The stacking lane has capacity for 14 vehicles. The site has been designed to maximize stacking capacity. The parking area will be able to be entered and exited without being blocked by the stacking lane. In addition, a bypass lane is provided to bypass the stacking lane.
- d. Prerecorded messages will not be used on the drive through speakers. Any speakers will not exceed 55 dB and shall not be detectable above ambient noise level at the property line.
- e. Site lighting has been designed to meet technical manual requirements.
- f. Solid fencing is proposed on the north side of the vehicular stacking lane to provide screening to the adjacent building. Vegetative buffering is proposed along the side



and rear property lines to help also provide additional mitigation measures to limit impacts to adjacent properties. The proposed drive through is abutting existing commercial uses to both side and rear of the parcel.

- g. No principal pedestrian lanes cross the proposed drive through. A pedestrian lane crosses the drive through on the southwest side of the site and will be used primarily for employees accessing the trash enclosure.
- h. Hours of operation shall be between the hours of 6 am to 11 pm, and not accept deliveries or services between the hours of 10 pm and 7am as previously requested by City Staff.



Mike Triglione

From: Dumont, Katherine <Katherine.Dumont@cmpco.com>
Sent: Monday, October 2, 2023 8:24 AM
To: Pete Heil
Subject: CMP Three Phase Service Process and Ability to Serve Letter -84 Auburn ST Portland, ME.
Attachments: Easement_Information_Worksheet.doc; Standard Easement Sample.pdf; blank W9.pdf; August 2022 EDET.xlsx

Peter F. Heil, PE, CPESC
 Acorn Engineering, Inc.

RE: Starbucks
 84 Auburn St.
 Portland, ME

SAP **TBD**

Project Description: Provide new electrical service to new Starbucks facility located at 84 Auburn St. Portland, ME. CMP currently has 3 phase power located at the street and has the ability to serve power to your project.

CMP has the ability to serve the proposed project located at 84 Auburn St Portland, ME in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Handbook of Standard Requirements. If you have any questions on the process, or need help in completion of the documents, please contact CMP at 800-565-3181.

Here is our typical process for getting your three phase or CT rated single phase service installed. If you have any questions, please let us know. The underlined links will redirect you to the appropriate site for additional information.

Service Milestones for Three Phase Services and CT Rated Single Phase Services. There are additional requirements for primary metered Solar Service Installations listed in the Chapter 324 Interconnections section below. Please refer to [CMP Installation Checklists](#) for other installations.

- Call 800-750-4000 option 4 to establish a new account (if needed) and an SAP work order. Please provide both of these to me.
- Submit Load information. Please complete the attached EDET (excel file) using load information. Please complete this and email back to me. If the loads are over 500 kw, more in depth load studies may be required with our Distribution Planning and Transmission Planning Departments. Be advised that these will involve more detailed load information, a load study agreement (signed contract), as well as other items. This additional study process may add up to two additional months to completion of the job.
- Submit the easement information worksheet, including where any CMP structures may be on ANY private property (Poles, Wires, Anchors). You are responsible for obtaining all information for all required easements. Please complete this form and either email or fax back to me.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections.
- For Primary Metered installations (including PV), please have the access road in for pole staking.
- Preliminary meetings with CMP Advisor and Engineer to determine details of job (I will need to schedule with your electrician/contractor-please let me know who this is)

- Field planner design appointment scheduled once the preliminary information is complete. This will allow us to cost out the job and develop a CMP Invoice. The invoice is typically generated 5-6 weeks after the design appointment. This expires after 90 days from the invoice date.
- Submit completed W9 so that your bill can be properly processed. This is a new CMP process.
- CMP submits invoice to the customer for payment (typically via email). Payment received from customer.
- Easements (based on easement information worksheet) sent out, signed and originals returned to CMP.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer or materials delivery, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

As you may be aware, there are global supply chain issues impacting the utility industry. CMP is closely monitoring and managing their inventory in order to serve our customers. Larger padmount transformers may not be readily available for the date that you will need to be energized. Please consider this as part of your construction plan. The energy service advisor will continue to work closely with you and let you know as soon as the transformer becomes available. Should you have any questions or concerns throughout this process, please do not hesitate to contact your ESA directly at the number or email provided.

Please complete the attached forms (the specific instructions are on each form) and email them back to me at your earliest convenience.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements: [CMP Handbook of Standard Requirements](#) An additional resource is our Distribution Construction Standards: CMP Distribution Construction Standards [CMP Distribution Construction Standards](#).

You will be responsible for installing the customer connections, conduits, and metering in accordance with the [CMP Handbook of Standard Requirements](#) The transformer will be sized based on your submitted load sheets.

Your deposit amount will be typically based on an estimated two month bill, calculated from your completed load sheet unless otherwise determined by CMP.

In addition, we have recently added on an online map that shows single phase and three phase power locations within CMP. Here is that link: [CMP ArcGIS Information](#)

Metering:

All metering (including locations) must be preapproved by CMP. If you have any questions, please consult the [CMP Handbook of Standard Requirements](#)

Chapter 324 Interconnections:

Please be advised that if you plan to install solar/wind/hydro generation, you must complete an application under the MPUC mandated Chapter 324 Interconnection Standards. If you go to [Chapter 324 Interconnection Standards](#) and follow the instructions for the Small Generator Interconnection Procedures, CMP can do this work in parallel to your service request that will be handled by me. If your project is under 660 KW You will be able to have a Customer Net Energy Billing contract. Information concerning Customer Net Energy Billing can be accessed thru the Chapter 324 website or by clicking here: [Net Energy Billing](#)

Reallocation/Line Extensions:

Recently, changes were made to the three-phase construction policy, which require CMP to reallocate construction costs paid by customers. If applicable, those projects identified as “developments” do not qualify for reallocation of funds. Please see this document at our website for details about the reallocation conditions. Any reallocation charges will be specifically denoted on your invoice. The website address for this is: [PolyphaseLineExtension](#).

This line extension will be part of Central Maine Power’s distribution system. In the event the property served under this Agreement is sold or otherwise conveyed, all rights and obligations of the Agreement shall stay with the property. Please note that if you rent or lease this property to another and you want to receive the reimbursement payments, you must make special arrangements with the Central Maine Power Company. Otherwise, any reimbursement payments will be sent to the “Customer” taking service at the service location.

Electricity Supplier Information:

Central Maine Power Company (CMP) will provide your facility with electric delivery service. If you don’t already have a provider, you will need to make arrangements with a competitive electricity provider in order to receive electricity supply for your facility. In the event you fail to choose a competitive electricity provider, you will receive Standard Offer service arranged by the Maine Public Utilities Commission. If you wish to be served by a competitive electricity provider immediately upon establishment of delivery service, you must arrange for this service directly through your chosen competitive electricity provider, who must enroll your account no later than 5 PM on the business day prior initiation of delivery service by CMP. An up-to-date list of competitive suppliers can be found at the:

1. Maine Public Utilities Commission (MPUC) web site- [Maine PUC](#)
2. By calling the MPUC at (207) 287-3831

Attachments:

Excel Load Sheet (EDET)
Easement Worksheet and Sample Standard Easement
W9



Katherine Dumont
Energy Service Specialist
162 Canco Rd
Portland, ME 04103

207-242-5744
katherine.dumont@cmpco.com



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Date: October 25, 2023

Re: Wastewater Capacity Authorization

Address: 84 Auburn Street

Applicant: 84 Auburn LLC

Planner: Maya Balassa

Estimate of Anticipated Wastewater Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow to Remain				
Vacant				
Proposed Flow				
Eating Place, Takeout - Employees	# Employees	5	12	60
Eating Place, Takeout	# Locations	1	100	100
Public Restrooms	# Toilet	2	325	650
Net Change				+ 810
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

Comments:

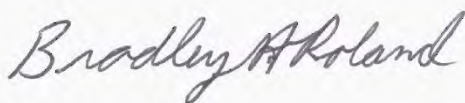
The Department of Public Works, which includes the Water Resource Division, have reviewed and determined that the downstream sewers from the project address have the capacity to convey the estimated dry weather wastewater flows which will be generated from this development.

You are reminded that the sewers you are proposing to connect into convey both sanitary and stormwater (Combined Sewer) and therefore a backflow preventer is suggested.

If the City can be of further assistance, please contact me at 207-874-8840 or

brad@portlandmaine.gov

Sincerely,



Bradley A. Roland, P.E.,
Senior Project Engineer

Heather Powers <contact@salonsynergy.me>

Apr 7, 2023, 11:46:31 AM (2 days ago)



to planning@portlandmaine.gov, Austen Torres Davis

My name is Devon Murph. I own a house and a business in this neighborhood. I didn't get any notice of the last meeting so this is why I am emailing now.

This lot has been empty for as long as I have lived here, 10 years.

I am in full support of a corporate coffee shop going in that lot. It's so much better than it staying empty. I have heard neighbors say they want a local small business to go there. I don't think anyone that says that, actually knows what it takes to open one. I have opened 2 small businesses in my career and there is no way I could have afforded to purchase a piece of land, build a structure and then actually open the business. Hence the reason I still rent.

I hope you let this happen to our neighborhood because if not, it will stay unkept for another 10 years until another corporation is willing to buy.

Thank you for your time.

Devon Murph

Owner Salon Synergy

Possible Starbucks at 84 Auburn St

0 views

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edward.greeley@usphclinic.com <edward.greeley@usphcl...

8:30 AM (10 minutes ago)



to Austen Torres Davis, planning@portlandmaine.gov

Good morning,

I work in Portland on Auburn Street and would really enjoy a drive through Starbucks at 84 Auburn Street to ease my morning routine.

The current Starbucks in the strip mall is inconvenient in the morning and parking is very difficult with all the people pulling in and out at the same time.

Thanks,
Ted

"Ted" Edward S. Greeley II, PT, DPT, CSCS
Clinic Director, Physical Therapist, Certified Strength Coach
[Riverview Physical Therapy](#) - Portland
edward.greeley@usphclinic.com
[207-797-7578](tel:207-797-7578)



Austen Davis <austentd@portlandmaine.gov>

Comments on Washington Ave coffee shop

1 message

Gretchen Greenberg <gretch1949@gmail.com>
To: austentd@portlandmaine.gov

Fri, Mar 17, 2023 at 4:21 PM

To Austen Torres Davis:

My comments below are in regard to the national coffee shop chain that is proposed for 84 Washington Avenue. I attended the informational session so my opinions are likely already documented from that meeting.

- I am opposed to the drive through window at this facility because:
 - This section of Washington Avenue is not wide enough for the stop and turn traffic that will be generated by a drive through window. This spot is a busy area between two traffic lights and a thoroughfare for drivers on their way to downtown Portland. The Starbucks on Forest Avenue is an example of how traffic can be a bottleneck. This will be a particular problem for cars exiting the drive through and turning left on Washington Ave.
- While North Deering is not the most walkable neighborhood, it is a goal among many of us who live in the area. A drive through facility does not lend to a walkable neighborhood.
- It would have been preferable to have a local coffee business at this location to promote our local businesses.
- While I am not a traffic expert, the crosswalk across from #84 seems like a pedestrian accident waiting to happen. What are the benefits of having a crosswalk here? Will there be a flashing light? I admit that I may need to be educated on this point.

I understand that this area was rezoned to include drive through businesses. Is there any way to put a pause on drive through windows or rezone again to exclude them? There is now Dunkin Donuts, Taco Bell, and this will be the third. North Deering has its fill of drive through windows.

Thank you for your time and your service to the city. I look forward to the planning board meeting.

Gretchen Greenberg
165 Delaware Court

Heather Powers <contact@salonsynergy.me>

Apr 8, 2023, 12:08:41 PM (yesterday)



to Austen Torres Davis, planning@portlandmaine.gov

Hello,

I'm writing to you in regards to the last meeting about 84 Auburn st. I own a business in this neighborhood and a resident in Portland. Unfortunately I was made aware of this meeting after it happened. From what I've been told there was a debate of the type of business that may be moving to 84 Auburn st. This lot has been empty longer than the 5years my business has been next door. I've heard that part of this discussion is having a local business vs a corporate chain. Being a small business owner I understand the overwhelming start up expenses of opening a brick and mortar business. Building from the ground up in this market is most likely unattainable for a small, local business. If there is a choice of this space being used for a corporate coffee shop or leaving it unused, I am pro corporate coffee shop. I hope this can happen for our community because if not, it will stay unkept for years until another corporation is willing to buy.

Thank you,

Heather Powers

Co-owner Salon Synergy

94 Auburn st 0 views

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jt2 portland me <joantwin2jean@gmail.com>
to planning@portlandmaine.gov

1:14 PM (1 hour ago)



I hate you people . We don't need a chain coffee shop on auburn st /Washington ave. You have ruined Portland peninsula and now ruining north deering! Stop building! This also with 250 apt on Washington ave extension (killing the last of small forest) I despise you! Stop building!



Austen Davis <austentd@portlandmaine.gov>

94 auburn

1 message

jt2 portland me <joantwin2jean@gmail.com>
To: austentd@portlandmaine.gov

Wed, Mar 15, 2023 at 6:33 PM

Went to meeting today. Well run . Not happy with drive thru. Too much traffic and very dangerous. Stop over building Portland!

84 auburn at 0 views

 Assigned to me



jt2 portland me <joantwin2jean@gmail.co... Jun 25, 2023, 3:07:49 PM (18 hours ago)
to planningboard@portlandmaine.gov



Since I was one of the handful of citizens at the first meeting , I repeat our issues. A drive thru is a horrible idea for busy Washington ave. I live near San born st/auburn. Within the last 5 years two people have died in simple accidents there with cars. There is a Starbucks right across the street and a Dunkin' a little down the street. It's a bad idea, and I oppose it. The owner was in the meeting that day, lucky him owning \$\$ property but it should be a LOCAL business not another chain store!

Proposed Planned Development 84 Auburn Street

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0 views



Julie d Bish <juliedbish@yahoo.com>

7:30 AM (2 hours ago)

☐

☐

☐

to Austen Torres Davis, planning@portlandmaine.gov

Hello,
I would like to support the proposed planned development of a single-story coffee shop with a DRIVE-THRU at 84 Auburn Street. This would be a great addition to the neighborhood and also serve the influx of inbound commuter traffic coming into Portland via Route 26 during the work week. That address has been an eyesore for way toooooo long and Starbucks would be a welcomed improvement!
Thank you for your consideration of this project.
Julie Bishop

STEPHEN DONOHOE <outlook_E72E709327D83B01@outlook.com>
to planningboard@portlandmaine.gov, marylou422, STEPHEN

Feb 7, 2023, 3:14 PM (2 days ago)

Dear Planning Board, I own house at 1495 Washing Street that backs up to proposed drive through and I am concerned about noise and car pollution. Can you explain how this proposed drive through will address noise and if a sound fence will be installed . If no sound fence is proposed I would oppose approving site plan as submitted.

Best Regards
Stephen Donohoe
1495 Washington Ave

84 Auburn Street Development Planning

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0 views

**Jeff Tidd** <tidd.jeffrey@gmail.com>

May 4, 2023, 6:27:21 PM (16 hours ago)



to Austen Torres Davis, planning@portlandmaine.gov, Mike Pride

Good evening, I am offering this mail in support of the proposed plan to develop the property located at 84 Auburn Street Portland from an abandoned lot into a Starbucks Coffee Shop. I am a tenant at 94 Auburn street and have been for several years. I believe that developing this property into an esteemed business would enhance the overall wellbeing of neighbors surrounding this site. It is my hope that this site can improve the community and provide another place for friends and neighbors to meet and share in the prosocial development of new businesses. I am also hoping that this site is not developed into another place of business related to the sales of cannabis products as this site is far too close to a preschool, elementary school, and a middle school. I am hopeful that this proposed development is approved to preserve the safety and wellbeing for members of the surrounding schools and the impacted community at large. Please feel free to contact me with any questions and or concerns pertaining to this letter of support and advocacy for our community.

Regards,

Jeff Tidd, LCPC

84 Auburn St.- Proposed Development

Subscribe ☐

0 views

**Kevin Kaserman** <kkas63@icloud.com>

May 3, 2023, 11:11:34 PM (yesterday)



to Austen Torres Davis, planning@portlandmaine.gov

Dear City Officials,

I am writing to express my support on your choosing to allow a coffee franchise to be constructed at 84 Auburn St.

This lot has been an eyesore for such a long time that I am pleased to see there is a quality property being proposed that is not yet another marijuana sales building.

I am in hopes you look to support businesses that are run in a manner that maintains their site and has proven long term success.

Thank you.



Kevin Kaserman

84 & 94 AUBURN STREET REDEVELOPMENT

MSP PROPERTIES 94 AUBURN LLC, & 84 AUBURN LLC.
PORTLAND, MAINE 04013

LEGEND

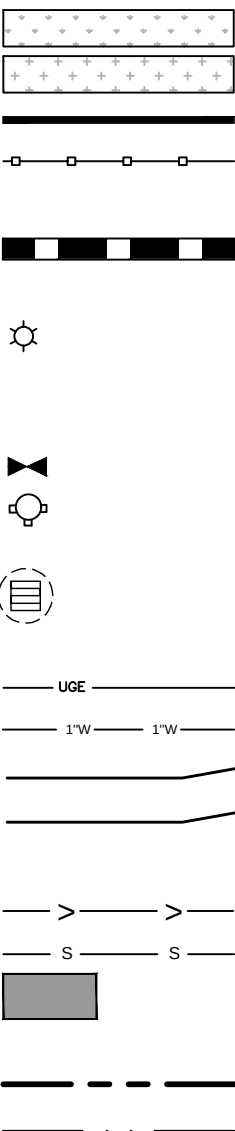
EXISTING

REFER TO THE
EXISTING
CONDITIONS PLAN
FOR ADDITIONAL
INFORMATION



PROPOSED

UNDERDRAIN
GREEN SPACE
UTILITY PAVEMENT CUTS
STRIPING
SEDIMENTATION BARRIER
EDGE OF EX. PAVEMENT
CURB
SIGN
LAMP OR LIGHT POLE
UTILITY POLE
GUY WIRE
WATER VALVE
FIRE HYDRANT
SEWER MANHOLE
CATCH BASIN
DRAIN MANHOLE
UNDERGROUND ELECTRIC LINE
UNDERGROUND WATER LINE
MINOR CONTOURS (1 FT)
MAJOR CONTOURS (5 FT)
GAS LINE
STORM DRAIN LINE
SEWER LINE
EXISTING/PROPOSED BUILDING
OVERHEAD ELECTRICAL/TELEPHONE/CABLE
PROPERTY LINE
SETBACKS



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CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

UTILITIES

SEWER

DEPARTMENT OF PUBLIC WORKS (DPW)
250 CANCO ROAD
PORTLAND, MAINE 04101
CONTACT: BRAD ROLAND, P.E.
(207) 874-8834

WATER

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04104
ATTN: MEANS DIVISION
(207) 774-5961

ELECTRIC

CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: JAMIE COUGH
(207) 828-2882

TELEPHONE

CONSOLIDATED COMMUNICATIONS
(FORMERLY FAIRPOINT)
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: PATRICK MORRISON
(207) 745-9363

CABLE

SPECTRUM CABLE
444 PERRY ROAD
BANGOR, MAINE, 04401
CONTACT: MARK PELLETIER
(207) 631-1618

NATURAL GAS

UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: BRIDGET HARMON
(207) 541-2543

TELECOMMUNICATIONS

FIRSTLIGHT FIBER
PORTLAND, MAINE
CONTACT: MIKE ELLINGWOOD
(888)-832-4976



PROJECT TEAM

DEVELOPER

MSP PROPERTIES 94 AUBURN LLC & 84 AUBURN LLC
CONTACT: MIKE PRIDE
FALMOUTH, MAINE 04105
(207) 310-8922

CIVIL ENGINEER:

ACORN ENGINEERING, INC.
PORTLAND, MAINE
CONTACT: PETER F HEIL, P.E.
(207) 775-2655



ARCHITECT

RYAN SENATORE ARCHITECTURE
PORTLAND, MAINE
ELEC. CONTACT: RYAN SENATORE, R.A.
(207) 650-6414



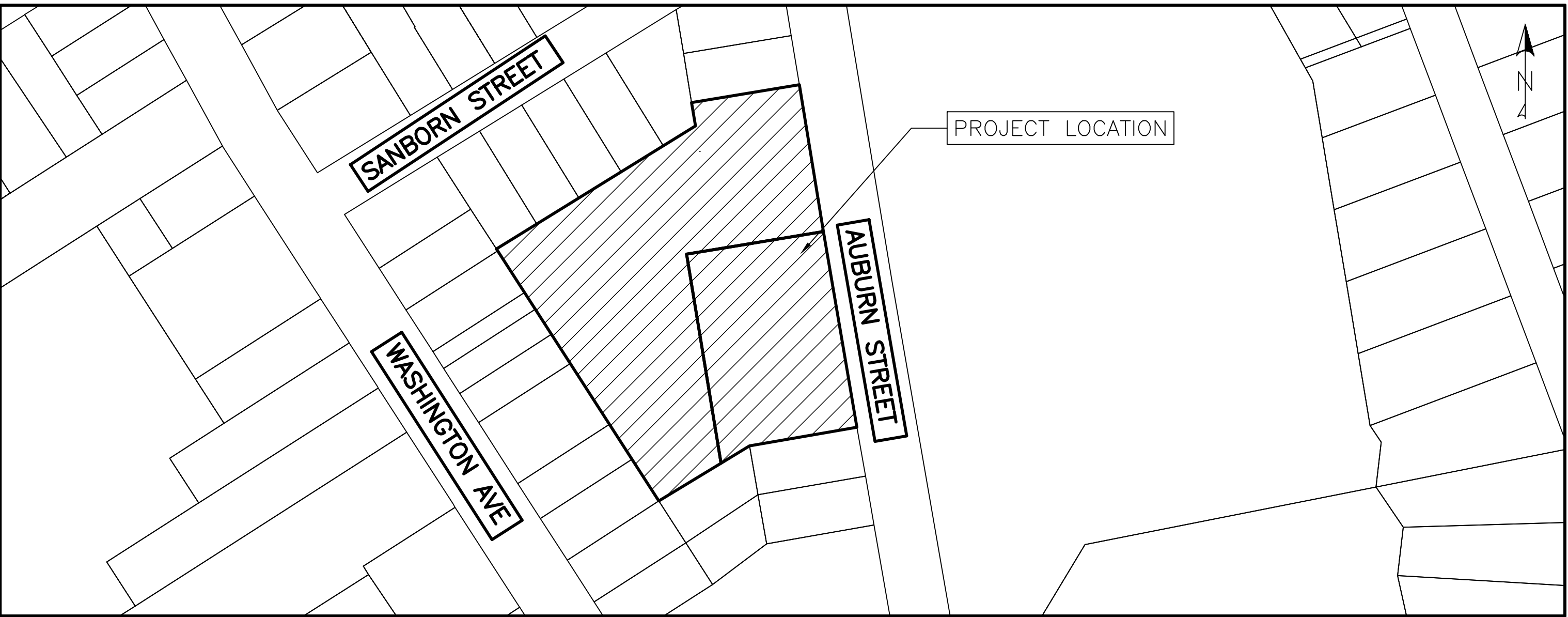
SURVEYOR

OWEN HASKELL, INC.
FALMOUTH, MAINE
CONTACT: ELLEN C. BREWER, P.L.S.
(207) 774-0424



TRAFFIC ENGINEER

BARTON & LODGUIDICE
SCARBOROUGH, MAINE
CONTACT: BILL BRAY, PE
(207) 400-6890



VICINITY MAP

SCALE: 1"=100'

ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE
CONTACT THE ENGINEER FOR ANY CLARIFICATION

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DI	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FT.	FEET
HDPE	HIGH DENSITY POLY ETHYLENE
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDEP	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC
VIF	VERIFY IN FIELD

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR
MAJOR SITE PLAN
COMMENT RESPONSE
COMMENT RESPONSE

BY
DATE
PFH
1/2/23
PFH
12/13/23
PFH
1/12/24

COVER SHEET & LEGEND

DRAWING NAME:
PROJECT NAME/ADDRESS:
84 AUBURN & 94 AUBURN STREET REDEVELOPMENT
84 & 94 AUBURN STREET, PORTLAND ME 04104
CLIENT/OWNER OF RECORD:
MSP PROPERTIES 94 AUBURN LLC, & 84 AUBURN LLC.
7 HEATHER LANE FALMOUTH, ME 04105

ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

THE PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE:
JN:
SCALE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:

2.79_CIVIL
2.79
AS NOTED
MKT
DSH
PFH

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-01

GENERAL NOTES:

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE (IF APPLICABLE), ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.
4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF PORTLAND AND SERVING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.
5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN .DWG FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.
6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL STATE AND FEDERAL WORKER SAFETY AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY. IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.
7. EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED "BOUNDARY & TOPOGRAPHIC SURVEY" PREPARED BY OWEN HASKELL, INC. DATED APRIL 29, 2021
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THROUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.
9. CONSTRUCTION MANAGEMENT PLAN NARRATIVE PREPARED BY ACORN ENGINEERING SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
11. NO HOLES, TRENCHES, OR STRUCTURES SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT IN ANY AREA ACCESSIBLE TO THE PUBLIC OR WITHIN THE PUBLIC RIGHT-OF-WAY.
12. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION SURVEY OF INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILING, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. THIS IS STRONGLY RECOMMENDED FOR STRUCTURES DIRECTLY ACROSS THE SITE ALONG AUBURN STREET. A COPY OF THE SURVEY SHOULD BE PROVIDED TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.
13. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC. (ACORN), IF ANY.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY, REMOVAL AND REPLACEMENT OF WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE WARRANTY PERIOD. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

CIVIL SITE NOTES:

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY ACORN OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.
8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
9. THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.
10. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. PRIOR TO BACKFILLING, CONCRETE SHALL BE CURED PER STRUCTURAL ENGINEER'S SPECIFICATIONS.
11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.
12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.
14. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CFR PART 1926.650-.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
15. ALL TRENCH PAVEMENT REPAIR SHALL BE COMPLETED WITH THE USE OF A STREET PAVEMENT WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

SPECIAL INSPECTION NOTES

1. ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.
2. ALL SITE DRAINAGE-RELATED WORK SHALL BE REVIEWED BY ACORN ENGINEERING.
3. NORMAL REVIEWS TO BE CONDUCTED BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 TO BE CONDUCTED BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

- 5.1. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
- 5.2. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.
- 5.3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION, AS TO THE TESTS OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.
- 5.4. SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER AND COORDINATED BY THE CONTRACTOR.

LAYOUT NOTES:

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.
2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
3. SIGNAGE, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE CITY OF PORTLAND, MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED STRUCTURE CORNERS.
6. CONTRACTOR TO ENSURE THAT ACCESS, INCLUDING BUT NOT LIMITED TO WALKWAYS, DRIVEWAYS, AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND AVAILABLE FOR USE AT ALL TIMES.

PERMITTING NOTES

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF **MAJOR SITE PLAN AND TRAFFIC MOVEMENT PERMIT FROM THE CITY OF PORTLAND.**
2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.
3. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A STREET OPENING PERMIT FROM THE CITY OF PORTLAND. ADDITIONALLY, COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS.

GRADING AND DRAINAGE NOTES:

3. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 0115 OF THE MDOT STANDARD SPECIFICATIONS, MOST RECENT VERSION AND IS FREE OF TRACEABLE AMOUNTS OF CONTAMINANTS) SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY STRIPPED TOPSOIL WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.
2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING. DEWATERING SHALL INCLUDE TREATMENT OF SILT THROUGH THE USE OF A DIRTBAG BY ACF ENVIRONMENTAL OR APPROVED EQUIVALENT. FLOWS FROM DEWATERING ACTIVITIES SHALL NOT BE DISCHARGED INTO SANITARY SEWERS. SEE BORING LOGS FOR ADDITIONAL INFORMATION.
3. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE ADJACENT LAND OWNERS. PRIOR TO THE CONTRACTOR PRICING THE WORK, THEY SHALL PROVIDE ACORN WITH PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE, THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.
4. THE MINIMUM SLOPE SHALL MEET OR EXCEED 0.5% IN ALL CASES WHERE NOT NOTED ON THE GRADING PLAN. SLOPES IDENTIFIED ON THE GRADING PLAN TAKE PRECEDENT. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST GEOTECHNICAL REPORT PREPARED BY THE PROJECT GEOTECHNICAL ENGINEER.
6. NO ADDITIONAL PAYMENT WILL BE MADE FOR UNSUITABLE MATERIALS THAT MAY EXIST ON SITE.
7. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $N=0.012$ OR LESS.
8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
9. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, CONTACT ACORN. THE DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER.
10. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER, IF APPLICABLE.

EROSION CONTROL NOTES:

1. DISTURBED AREAS ARE DEFINED AS THOSE SURFACES WHERE EXISTING VEGETATION OR STRUCTURES HAVE BEEN REMOVED, EXPOSING NATIVE SOIL TO THE ELEMENTS.
2. ALL ROUTINE WORK ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.
3. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.
4. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.
5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S BMP CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.
6. PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.
7. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

UTILITY NOTES:

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
2. CONTRACTOR TO BYPASS EXISTING SEWER FLOW CONTROL AT CONNECTION TO EXISTING SYSTEM AT NO ADDITIONAL COST.
3. CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONDUCT EXPLORATORY EXCAVATIONS AT LOCATIONS WHERE PROPOSED EXCAVATION WILL INTERSECT WITH EXISTING UTILITIES, PRIOR TO THE ORDERING OF STRUCTURES.
4. ALL NEW SANITARY MANHOLES SHALL BE VACUUM TESTED BEFORE BACKFILLING. TESTING SHALL BE COMPLETED IN ACCORDANCE WITH TECHNICAL REPORT #16 (TR-16): GUIDES FOR THE DESIGN OF WASTEWATER TREATMENT WORKS, PREPARED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.
5. SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.
6. CONTRACTOR TO PROVIDE 5.5' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.
7. THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAIN ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN WITHIN THE PLAN SET.
8. WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT DOCUMENT "WATER AND SEWER CONSTRUCTION SPECIFICATIONS AND PROCEDURE", MOST RECENT REVISION.
9. ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH CITY OF PORTLAND, STATE OF MAINE, AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.
10. CONTRACTOR SHALL COORDINATE WORK REGARDING ANY WATER MAIN CONNECTION AND WATER MAIN SHUTDOWN WITH THE PORTLAND WATER DISTRICT AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION.
11. ALL WATER PIPE INSTALLATION SHALL CONFORM WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS AND PROCEDURES, MOST RECENT EDITION.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
13. SEWER, GAS, TELEPHONE, ELECTRICITY, CABLE, WATER AND ANY OTHER UTILITY CONNECTIONS SHALL BE REVIEWED BY PLUMBING, ELECTRICAL, AND MECHANICAL DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.
14. COORDINATE EXIT POINT FOR SECONDARY UTILITY SERVICES WITH THE ARCHITECT/ELECTRICAL ENGINEER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN WITHIN THE UTILITY PLAN.
15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL THE NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES AND STORMDRAINS WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL PRIOR TO ANY WORK.
16. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.
17. ALL PIPE LINES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS OR SAGS IN THE PIPING WILL BE PERMITTED. ALL HORIZONTAL AND VERTICAL BENDS IN PRESSURIZED PIPE LINES SHALL BE SUITABLY RESTRAINED WITH THRUST BLOCKS OR RETAINER GLANDS. RETAINER GLANDS ALLOWED FOR DUCTILE IRON PIPE ONLY. PROVIDE ALL BENDS, HORIZONTAL AND VERTICAL, AS REQUIRED TO MEET THE GRADES AND ALIGNMENTS INDICATED ON THE DRAWINGS.
18. ALL WASTEWATER PIPING, EXCLUDING BUILDING DRAINS, AND ALL PRESSURIZED PIPING, TO INCLUDE WATER MAINS, INSTALLED BENEATH STRUCTURES SHALL BE ENCASED IN CONCRETE.
19. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS AND ADDITIONAL PIPE AS REQUIRED TO ENSURE A COMPLETE AND PROPERLY FUNCTIONING CONNECTION. CONTRACTOR TO VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. ADAPTERS AND FITTINGS ARE INCIDENTAL TO THE PIPE INSTALLATION.
20. WHENEVER POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER LINE SHALL BE MAINTAINED WHERE POSSIBLE. WHERE A WATER LINE CROSSES UNDER THE WASTEWATER LINE, A FULL LENGTH OF WASTEWATER PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE.
21. THE CONTRACTOR SHALL BE ANTICIPATE THAT THE NATIVE SILT AND CLAY SOILS WILL NOT BE SUITABLE FOR PIPE TRENCH BACKFILL IN PAVED AREAS.
22. GROUNDWATER SHALL BE CONTROLLED TO A LEVEL OF AT LEAST ONE FOOT BELOW SUBGRADE OF THE PIPE OR STRUCTURE. THE CONTRACTOR SHALL MAINTAIN THE LOWERED GROUNDWATER LEVEL UNTIL CONSTRUCTION HAS BEEN COMPLETED TO SUCH AN EXTENT THAT THE STRUCTURES OR PIPES WILL NOT BE FLOATED OR OTHERWISE DAMAGED.
23. EXCAVATION TO SUBRADE IN NATIVE SILT AND CLAY SHALL BE COMPLETED WITH A SMOOTH EDGE BUCKET TO MINIMIZE SUBGRADE DISTURBANCE.
24. ALL ADJUSTMENTS TO FINISHED GRADE ARE TO BE COMPLETED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONFIRM STRUCTURES THAT REQUIRE ADJUSTMENT WITH THE ENGINEER OR OWNERS REPRESENTATIVE PRIOR TO ADJUSTING FRAMES.

DEMOLITION NOTES:

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:
 - ROCK AND CONCRETE FOUNDATIONS
 - CONCRETE SLABS
 - BITUMINOUS ASPHALT PAVEMENT
 - CONCRETE PADS AND BLOCKS
 - FENCE POST AND FENCING
 - UNDERGROUND UTILITY LINES
 - ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
 - STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
 - OTHER TRASH & MISCELLANEOUS SOLID WASTES
2. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM DEMOLITION ITEMS SINCE THE LIST IS NOT INCLUSIVE OF THE SITE CONDITIONS WHICH MAY BE ENCOUNTERED
3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTORS SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" DEMONSTRATING PROPER DISPOSAL OF ALL MATERIALS.
4. THE CLIENT REQUESTED A COPY OF A PHASE I* & PHASE II** - ENVIRONMENTAL SITE ASSESSMENT PREPARED BY ST. GERMAIN FOR THE PROPERTY.

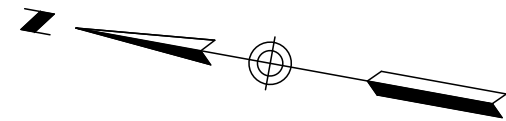
*PHASE I ESA REPORT WRITTEN BY MICHAEL BALLIN, ENVIORNMENTAL SCIENTIST, REVIEWED BY ERIN S. PIKE, SENIOR PROJECT MANAGER, DATED AUGUST 25, 2022. CONTRACTOR TO REVIEW REPORT PRIOR TO START OF CONSTRUCTION, ALTHOUGH THE SITE UNDERWENT REMEDIATION UNDER THE DEP VRAP, RESIDUAL ASH AND CONTAMINATED SOIL REMAIN ON SITE, WHICH WILL REQUIRE HANDLING AND DISPOSAL IN ACCORDANCE WITH DEP REGULATIONS IF EXCAVATED OR DISTURBED IN THE FUTURE.

**CONTRACTOR TO REVIEW VRAP CERTIFICATE OF COMPLETION, DATED OCTOBER 29, 2011 BY WILKES HARPER

***CONTRACTOR TO REVIEW EMMP PREPARED BY ST. GERMAIN, DATED NOVEMBER 18, 2022

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

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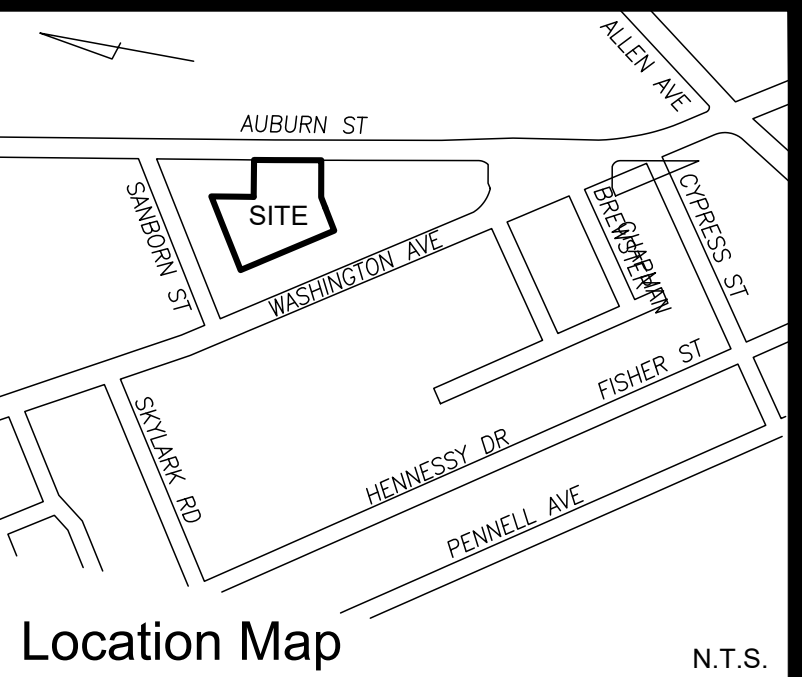


Utility Note

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

Flood Zone Note

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE X, AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN, OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 230051 0002C, WHICH BEARS AN EFFECTIVE DATE OF DECEMBER 8, 1998 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.



Legend

- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- UTILITY POLE
- MANHOLE
- ELECTRIC/GAS METER
- SIGN
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- LIGHT POLE
- 6" ROOF DRAIN
- CURB
- FENCE
- OHW
- OVERHEAD WIRES
- E
- UNDERGROUND POWER
- W
- WATER LINE
- T
- TELEPHONE
- C
- COMMUNICATION
- SD
- STORM DRAIN
- SS
- SANITARY SEWER
- 100
- 1' CONTOUR
- N/F
- NOW OR FORMERLY
- DEED BOOK / PAGE
- IRF
- IRON PIPE OR ROD FOUND
- L/S
- GRANITE MONUMENT FOUND
- LANDSCAPE
- DECIDUOUS TREE
- CONIFEROUS TREE

General Notes

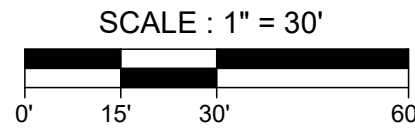
- OWNERS OF RECORD:

TAX MAP 375 BLOCK A LOT 26:
ADAM MITCHELL, 16 YALE STREET, PORTLAND, MAINE
CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 33873 PAGE 153

TAX MAP 375 BLOCK A LOTS 23, 24, 25, 35:
MSP PROPERTIES 94 AUBURN LLC
7 HEATHER LANE, FALMOUTH, MAINE
CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 35441 PAGE 126
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM MAINE WEST NAD83. CITY 3D/S MONUMENT USED: 2ND ANGLE ON EASTERLY SIDE OF AUBURN STREET N 317149.10 E 2920315.21 AND 3' O/S MONUMENT EASTERLY SIDE OF AUBURN STREET AT #3 AUBURN STREET N 316452.20 E 2920446.79.
- ELEVATIONS ARE BASED ON NGVD29 CITY BENCH MARK: 3' O/S MONUMENT ON EASTERLY SIDE OF AUBURN STREET AT THE SECOND ANGLE NORTHERLY OF ALLEN AVENUE ELEVATION 95.80.
- PROPERTY IS LOCATED IN THE CITY OF PORTLAND R3 AND B1 ZONES.

Plan References

- PLAN OF "HIGHLAND PARK" RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 8, PAGE 139.
- "PLAN OF LAND ON AUBURN STREET, PORTLAND, MAINE MADE FOR JAKE WEBB-GREATER REALTY, H.I. & E.C. JORDAN SURVEYORS, PORTLAND, ME. MARCH 1973"
- "STANDARD BOUNDARY SURVEY & TOPOGRAPHICAL SURVEY, 94 AUBURN STREET, PORTLAND, MAINE, CUMBERLAND COUNTY, PORTLAND, MAINE 11-21-86 REV. 1 12/15/86" BY ALBERTI, LAROCHELLE & HODSON ENGINEERING CORPORATION, INC.
- "AUBURN ST. AND WASHINGTON AVE. SEWER SEPARATION, AUBURN STREET EXISTING CONDITIONS, AS-BUILT JUNE 18, 2015, CITY OF PORTLAND, MAINE PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION OCTOBER 2011" BY GORRILL-PALMER CONSULTING ENGINEERING, INC.
- CITY OF PORTLAND BLUE SHEETS FOR AUBURN STREET, SANBORN STREET AND WASHINGTON AVE.
- "LAND TITLE SURVEY AT SITE #15797, 84 AUBURN STREET, PORTLAND, MAINE MADE FOR EXXON MOBIL OIL CORP. OCTOBER 25, 2004" BY OWEN HASKELL, INC.
- "ALTA/ACSM LAND TITLE SURVEY FOR PENNBROOK PROPERTIES IV LLC AT 84 AUBURN STREET, PORTLAND, CUMBERLAND COUNTY, MAINE DECEMBER 19, 2011" BY OWEN HASKELL, INC.
- "PROJECT NAME: GLOBAL, 84 AUBURN STREET, PORTLAND, MAINE, MKA PROJECT NO. 5930-12-2404:088 OCTOBER 25, 2004" PREPARED BY OWEN HASKELL, INC.



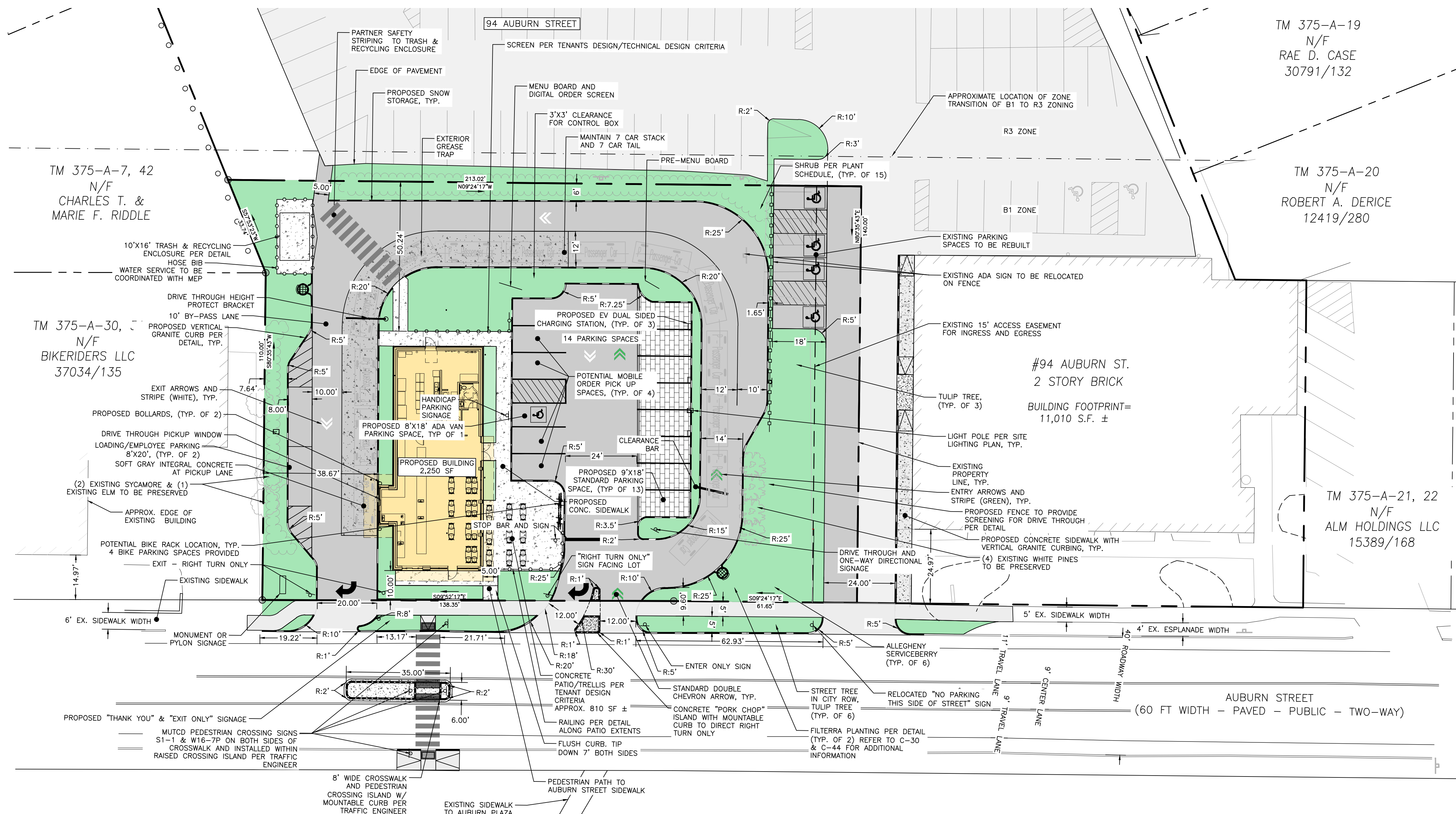
1. BITUMINOUS SIDEWALK, CONCRETE CURB AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO THE CITY OF PORTLAND STANDARDS.
2. PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND AND MUTCD STANDARDS.
3. ASPHALT TO BE REPAVED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT WITH A MAXIMUM RISE OF 30".
6. SITE SIGNS SHALL COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.
8. PAVEMENT JOINTS MUST BE SAWCUT & TACK COATED PRIOR TO PAVING TO PROVIDE A DURABLE & LONG LIFE JOINT.
9. IN ACCORDANCE WITH SECTION 14.6.1 OF THE CITY OF PORTLAND LAND USE CODE, AND SECTION 1.1.7 OF THE PORTLAND TECHNICAL MANUAL, NEW PARKING LOTS WITH FIVE OR MORE SPACES SHALL INCLUDE ENERGIZED ELECTRICAL OUTLETS OR INSTALLED CHARGERS CAPABLE OF PROVIDING LEVEL 2 CHARGING. VEHICLES WITH PLUG-IN HYBRID OR ELECTRIC VEHICLES MUST BE SERVED BY SUFFICIENT CONDUIT, WIRING, AND ELECTRICAL SERVICE TO ALLOW FOR FUTURE INSTALLATION OF ELECTRIC VEHICLE SUPPLY EQUIPMENT.
10. THE AMOUNT OF PARKING SPACES WAS DETERMINED BASED ON CHAPTER 14, TABLE 19-A OF PORTLAND TECHNICAL MANUAL FOR RESTAURANT OR BAR FLOOR AREA AND 1 SPACE / 400 SF OF GENERAL OFFICE FLOOR AREA.
10. CONTRACTOR SHALL COORDINATE WITH DPW AND ENGINEER AT THE TIME OF DRIVEWAY LAYOUT.

SPACE AND BULK STANDARDS				
ZONE: B1 – NEIGHBORHOOD BUSINESS	REQUIRED	EXISTING	PROPOSED – 84 AUBURN	PROPOSED – 94 AUBURN
BUILDING (PRINCIPAL): MAX. FRONT SETBACK	10'	N/A	10.00'	24.97'
BUILDING MIN. SIDE SETBACK	NONE, EXCEPT 5' IF ABUTTING A RESIDENTIAL ZONE	N/A	38.67'	2.74'
BUILDING MIN. REAR SETBACK	NONE, EXCEPT 10' IF ABUTTING A RESIDENTIAL ZONE	N/A	50.24'	186.65'
SIDE STEPBAC (ABOVE 35' ABUTTING RESIDENTIAL ZONE)	10'	N/A	N/A	N/A
REAR STEPBAC (ABOVE 35' ABUTTING RESIDENTIAL ZONE)	15'	N/A	N/A	N/A
FLOOR AREA (NON-RESIDENTIAL)	MAX 10,000 SF	N/A	2,250 SF	11,010 SF
STREET FRONTAGE	MIN. 20'	200'	200'	150'
LOT COVERAGE	N/A	0%	8%	18%
BUILDING HEIGHT (OFF-PENINSULA)	MAX. 35'	N/A	<35'	EXIST <35'
IMPERVIOUS SURFACE RATIO	90%	32%	66%	77%
PARKING SETBACK	10' FROM ANY STREET LINE	N/A	24.94'	125.32'

* PORTLAND DESIGN MANUAL SECTION D.1.A. B1 & B1b NEIGHBORHOOD BUSINESS STANDARDS READS: URBAN STREET WALL IN THE B1, B1b, AND B2b ZONE IT SHALL BE REQUIRED THAT BUILDINGS SHALL BE LOCATED TO CREATE AND PRESERVE AN URBAN STREET WALL.

PARKING SUMMARY				
	EXISTING 84 AUBURN STREET	EXISTING 94 AUBURN STREET	PROPOSED 84 AUBURN STREET	PROPOSED 94 AUBURN STREET
9'X18'	0	91	15	87
ADA (8'X18')		2	1	6
TOTAL REQUIRED SPACES	N/A	55	1 SPACE/150 SF FLOOR AREA = 15	55
TOTAL SPACES	0	93	16	93

*THE AMOUNT OF PARKING SPACES WAS DETERMINED BASED ON CHAPTER 14, TABLE 19-A OF PORTLAND MAINE LAND USE CODE: 1 SPACE/150 SF OF RESTAURANT OR BAR FLOOR AREA AND 1 SPACE/400 SF OF GENERAL OFFICE FLOOR AREA.



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
TMP	PFH 8/30/22
CSS	PFH 12/1/22
MAJOR SITE PLAN	PFH 1/4/23
CITY COMMENTS	PFH 2/28/23
ARCH REVISIONS	PFH 9/7/23
COMMENT RESPONSE	PFH 12/13/23
COMMENT RESPONSE	PFH 2/6/24
ZONING BOUNDARY	PFH 3/4/24
COMMENT RESPONSE	PFH 3/14/24
PLANNING BOARD	PFH 3/28/24

DRAWING NAME:	SITE PLAN
PROJECT NAME/ADDRESS:	84 AUBURN & 94 AUBURN STREET REDEVELOPMENT 84 & 94 AUBURN STREET, PORTLAND ME 04104
CLIENT/OWNER OF RECORD:	MSP PROPERTIES 94 AUBURN LLC. & 84 AUBURN LLC. 7 HEATHER LANE FALMOUTH, ME 04103

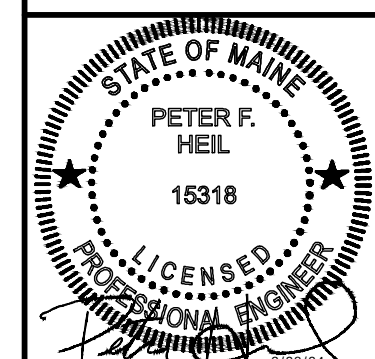

A C O R N

 ENGINEERING, INC.

16000 ENGINEERING, INC.
 PO BOX 3372, PORTLAND, MAINE 04101
 (207) 775-2685

THIS FIRM SHALL NOT BE CONSIDERED WITHOUT ACTIVITY THROUGH
 FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED
 WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE:	2.79_CIVIL
JN:	2.79
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	DSH
CHECKED BY:	PFH



DRAWING NO.
C-10

SITE NOTES:

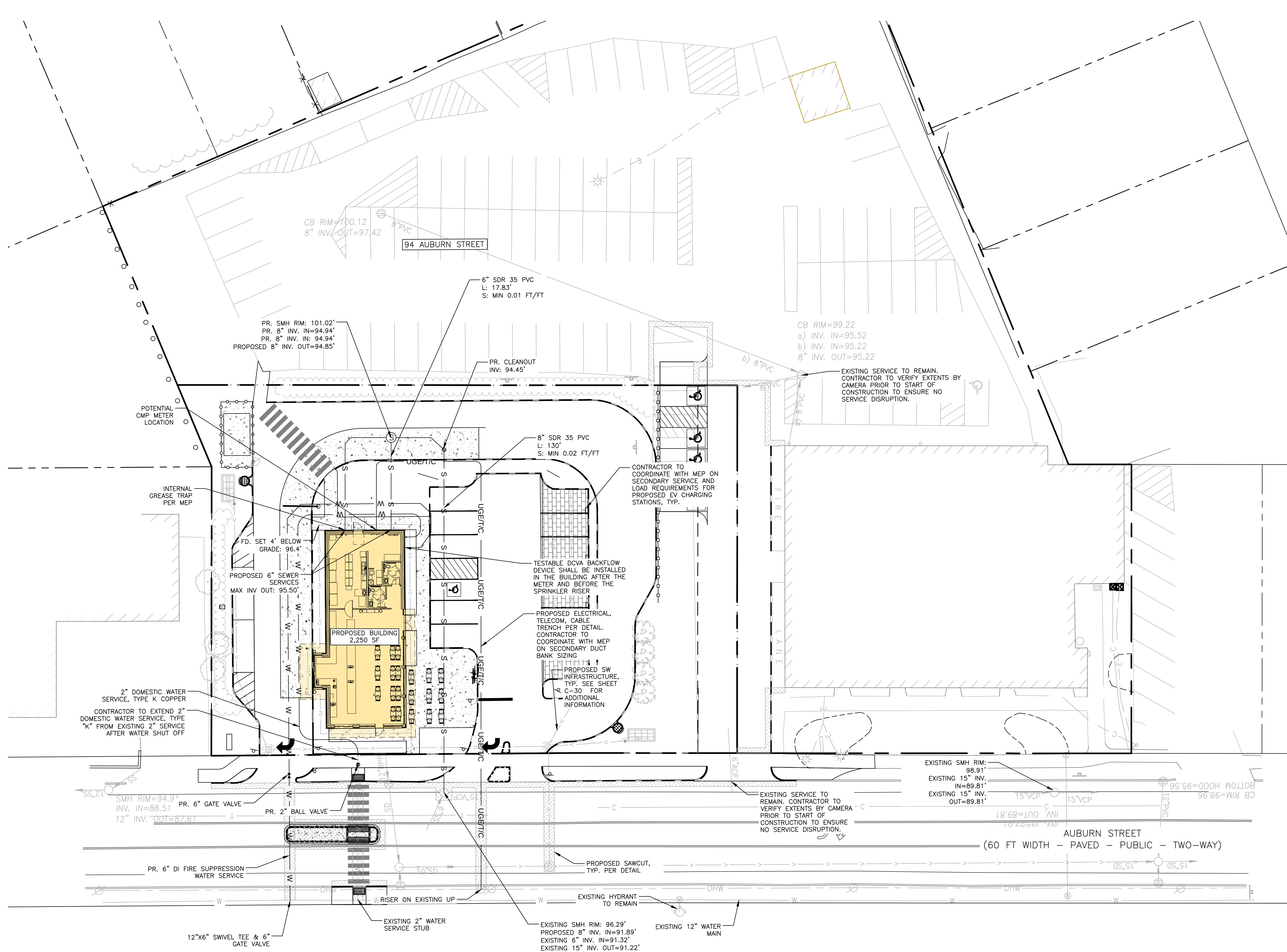
1. BITUMINOUS SIDEWALK, CONCRETE CURB AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF PORTLAND STANDARD.
2. PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND STANDARDS.
3. ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMP TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT WITH A MAXIMUM RISE OF 30".
6. SITE SIGNAGE SHALL COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.
8. PAVEMENT JOINTS MUST BE SAWCUT & TACK COATED PRIOR TO PAVING TO PROVIDE A DURABLE & UNIFORM JOINT.

UTILITY NOTES:

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY WATER RESOURCES DEPARTMENT STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
6. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
7. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
8. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY RESPECTIVE UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.

MINIMUM HORIZONTAL UTILITY SEPARATION					
UTILITY	UGE/T/C	WATER	SEWER	GAS	STORMWATER
UGE/T/C	-	6'	5'	4'	6'
WATER	6'	-	5'	6'	3'
SEWER	5'	5'	-	5'	10'
GAS	4'	6'	5'	-	3'
STORMWATER	6'	3'	10'	3'	-

*PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE; OTHERWISE, 10' OF HORIZONTAL SEPARATION MUST BE MAINTAINED.



ISSUED FOR

BY

DATE

ATS

8/21/22

MAJOR SITE PLAN

MKT

1/2/23

ARCH REVISIONS

1/2/23

COMMENT RESPONSE

PFH

12/2/23

COMMENT RESPONSE

PFH

2/6/24

COMMENT RESPONSE

PFH

3/12/24

UTILITY PLAN

DRAWING NAME:

PROJECT NAME/ADDRESS:

84 AUBURN & 94 AUBURN STREET REDEVELOPMENT

84 & 94 AUBURN STREET, PORTLAND ME 04104

CLIENT/OWNER OF RECORD:

MSP PROPERTIES 94 AUBURN LLC. & 84 AUBURN LLC.

7 HEATHER LANE FALMOUTH, ME 04105

ACORN ENGINEERING, INC.

15318

STATE OF MAINE

REGISTERED PROFESSIONAL ENGINEER

ACORN ENGINEERING, INC.

PO BOX 3372, PORTLAND MAINE 04101

(207) 775-2655

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED BY THE ENGINEER, SHALL BE INDICATED BY A REVISION OR A NOTE TO THE PLAN WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE:

2.79_CIVIL

JN:

2.79

SCALE:

AS NOTED

DESIGNED BY:

MKT

DRAWN BY:

DSH

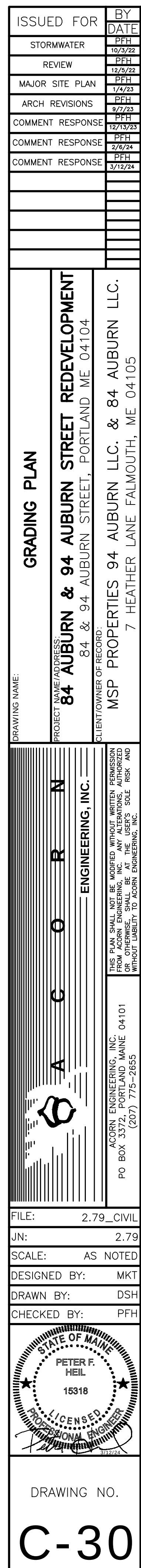
CHECKED BY:

PFH

DRAWING NO.

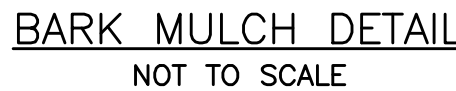
C-20

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONSTRUCTION.
4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES/DOWNGRADE OF ACTIVE CONSTRUCTION.
5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADE OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINE. BARRIERS SHOWN OFF FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.





1. ALL PLANT SELECTION AND INSTALLATION SHALL BE IN COMPLIANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL (SECTION 4).
2. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
3. IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND THE NUMBER OF PLANTS SHOWN IN PLANT LIST (IF ANY), THE NUMBER OF PLANTS SHOWN ON PLAN WILL TAKE PRECEDENCE.
4. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN.
5. ALL DISTURBED AREAS NOT TO BE PAVED OR PLANTED SHALL BE LOAMED AND SEEDED AS SHOWN. THE SEED MIX SPECIFICATIONS ARE AS FOLLOWS: LESCO FINE FESCUE LINKS BLEND OF 35% HARD FESCUE, 35% CREeping RED FESCUE, 20% CHEWING FESCUE AND 5% SHEEP FESCUE. ADD 5% LITTLE BLUESTEM AND 5% NORTHEAST WILDFLOWER SEED MIXTURE BY WEIGHT TO THE LINKS BLEND.
6. FOR PRICING PURPOSES, PROVIDE A PER TREE UNIT COST FOR STAKING AND GUYING. IF STAKING AND GUYING IS REQUIRED, REMOVE TREE WRAP, STAKES, AND GUY WIRES AT END OF FIRST GROWING SEASON.
7. FOR TREE PLANTING IN LAWN AREAS, ANY DISTURBED LAWN SHALL BE LOAMED AND SEEDED AS NECESSARY.
8. NEW TREES TO BE INSTALLED WITH A SLOW RELEASE WATERING BAG.
9. CONTRACTOR TO BE HELD RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS FOR AT LEAST 30 DAYS FOLLOWING INSTALLATION. FOLLOWING THIS PERIOD, THE LANDOWNER OR PROPERTY MANAGEMENT SHALL BE RESPONSIBLE FOR CONTINUED WATERING AND MAINTENANCE. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING FINAL INSTALLATION.
10. ALL PROPOSED PLANTS SHALL BE LOCATED AS SHOWN ON THE PLANS. CONTRACTOR TO NOTIFY ENGINEER WHEN PLANTINGS HAVE BEEN MOBILIZED ON SITE. ENGINEER TO INSPECT AND ACCEPT OR REJECT ANY SPECIMENS ON THE BASIS OF APPARENT HEALTH, HARDINESS, AND CONFORMANCE WITH THE PLANTING SCHEDULE. REJECTED SPECIMENS ARE TO BE REPLACED BY THE CONTRACTOR AT NO ADDED COST TO THE OWNER. ACCEPTANCE DOES NOT WAIVE THE REQUIREMENT FOR ONE YEAR PLANTING WARRANTY.



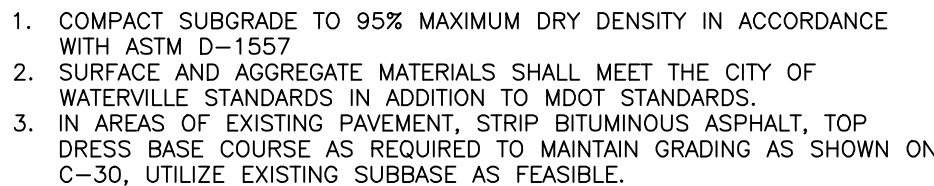
1. DIG HOLE AT LEAST 2 TIMES THE DIAMETER OF THE ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH THE TOP AT DOWNHILL EDGE OF THE HOLE.
2. FILL WITH TOP SOIL. THE TOP SOIL SHOULD BE A MIXTURE OF TOP SOIL AND FRACTIONAL ORGANIC MATTER. THE CHARACTERISTICS OF TOPSOIL IN THE VICINITY WHICH PRODUCE A HEAVY GROWTH. TOPSOIL SHALL CONTAIN NOT LESS THAN 6% NOR MORE THAN 20% ORGANIC MATTER. TOP SOIL SHALL HAVE A pH OF 6.5 TO 7.5.
3. CONTAINER GROWN STOCK - REMOVE CONTAINER PROTECTING THE ROOT BALL. GENTLY COMB OUT THE ROOT BALL.
4. BACKFILL THE HOLE WITH TOPSOIL TO A DEPTH NOT TO EXCEED 8" THEN WATER SUFFICIENTLY TO SETTLE TOPSOIL. REPEAT SOIL BACKFILL, WATER, DRAIN. TOPSOIL SHALL BE TAMPED UNDER EDGES OF THE PLANT. PLACE PLANT IN THE CENTER OF THE HOLE. CREATE AN EARTHEN SAUCER. SOAK PLANTS TWICE WITHIN THE FIRST TWO-FOUR HOURS OF PLANTING.



1. SAWCUT EXISTING PAVEMENT AND REMOVE 2" STRIP OF EXISTING PAVEMENT. CREATE UNIFORM AND RIGID BUTT JOINT AND APPLY BITUMINOUS TACK COAT AT AN APPLICATION RATE OF 0.10 TO 0.14 GALLONS PER SQUARE YARD PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
2. THE NEW PAVEMENT SECTION SHALL MEET PAVEMENT SECTION DETAIL AT A MINIMUM OR THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



PAVEMENT SAWCUT DETAIL
NOT TO SCALE



PRIVATE BITUMINOUS PAVEMENT PROFILE
NOT TO SCALE

CONCRETE PAD DETAIL
NOT TO SCALE

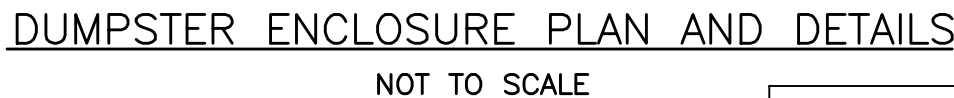


1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF PORTLAND STANDARDS IN ADDITION TO MDOT STANDARDS.
3. PER CITY OF PORTLAND TECHNICAL MANUAL FIGURE I-3

CITY OF PORTLAND ARTERIAL BITUMINOUS PAVEMENT PROFILE
NOT TO SCALE



DETAIL A



DUMPSTER COUNT					
CONC. PAD DIMENSIONS	TOTES	2-YD	4-YD	6-YD	8-YD
4' X 3'	1	0	0	0	0
8' X 5'	4	1	1	0	0
8' X 7'	4	1	1	1	0
8' X 8'	8	2	2	1	1
10' X 12'	12	3	3	2	1
10' X 14'	16	4	4	2	2
10' X 16'	16	4	4	2	2

SITE DETAILS — 1

PROJECT NAME/ADDRESS:
84 AUBURN & 94 AUBURN STREET REDEVELOPMENT
 84 & 94 AUBURN STREET, PORTLAND, ME 04104

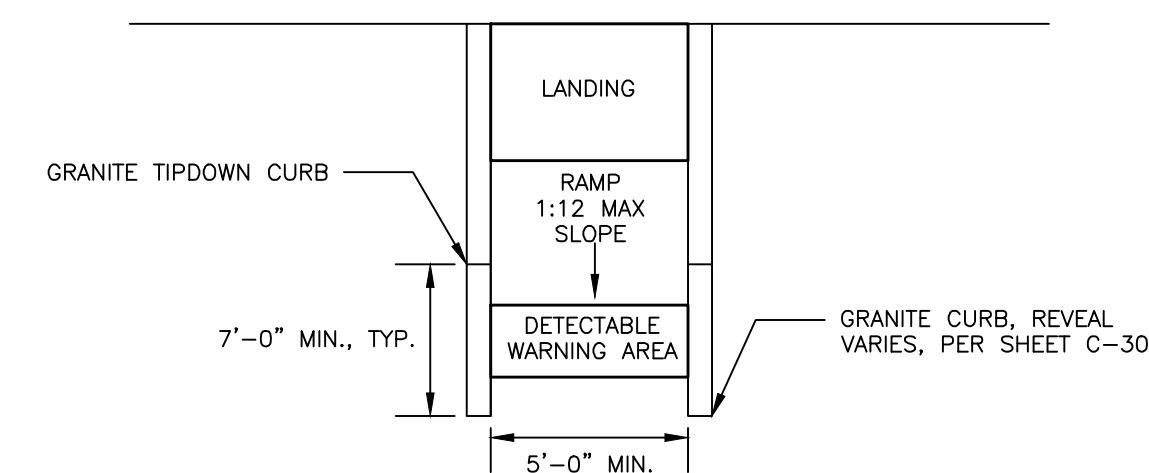
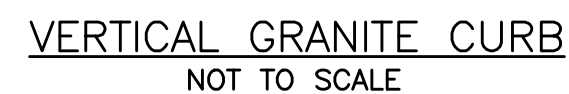
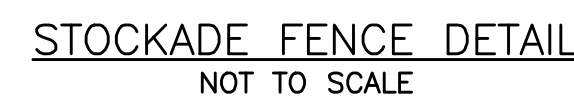
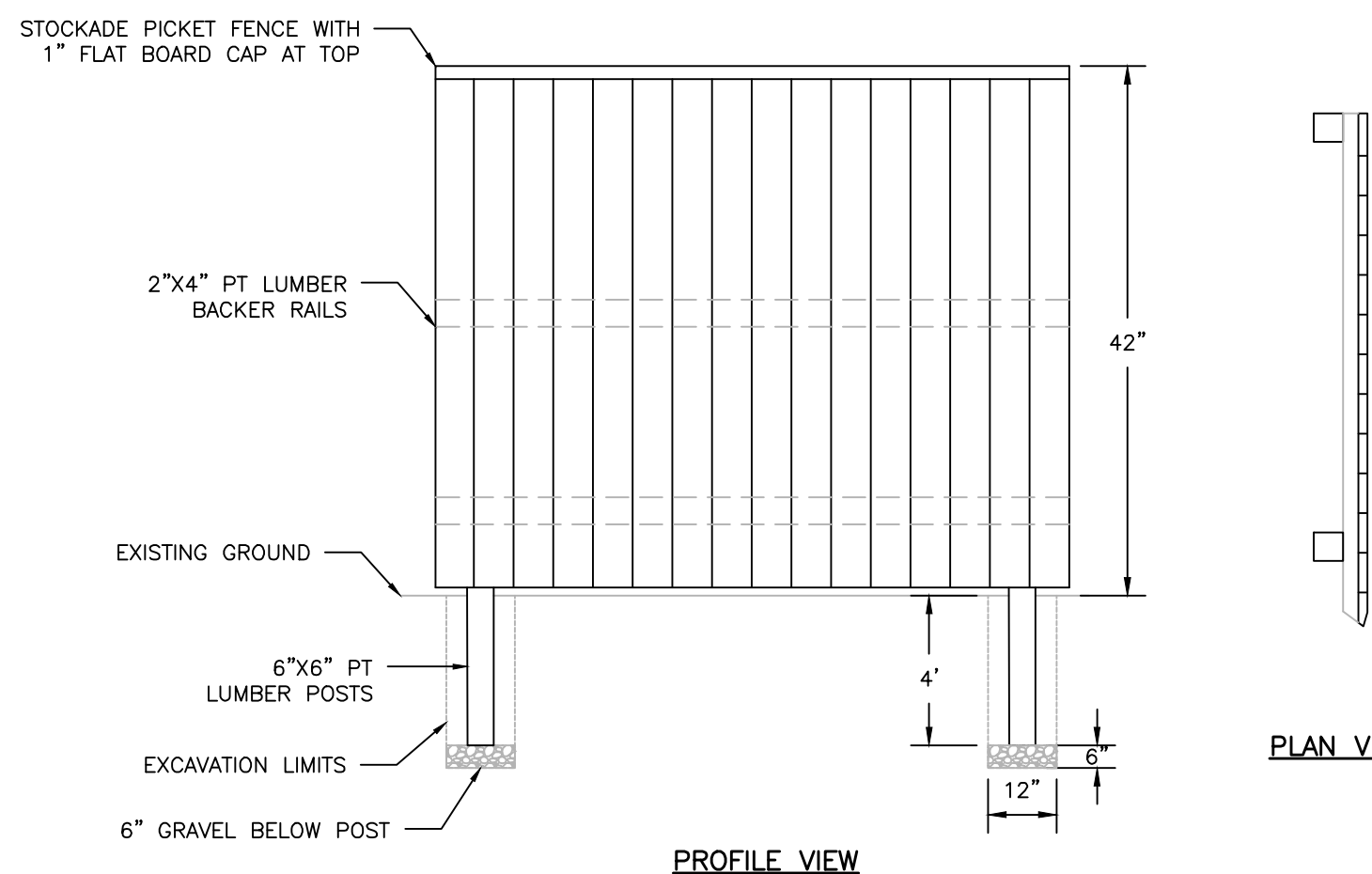
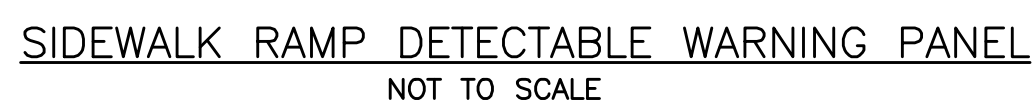
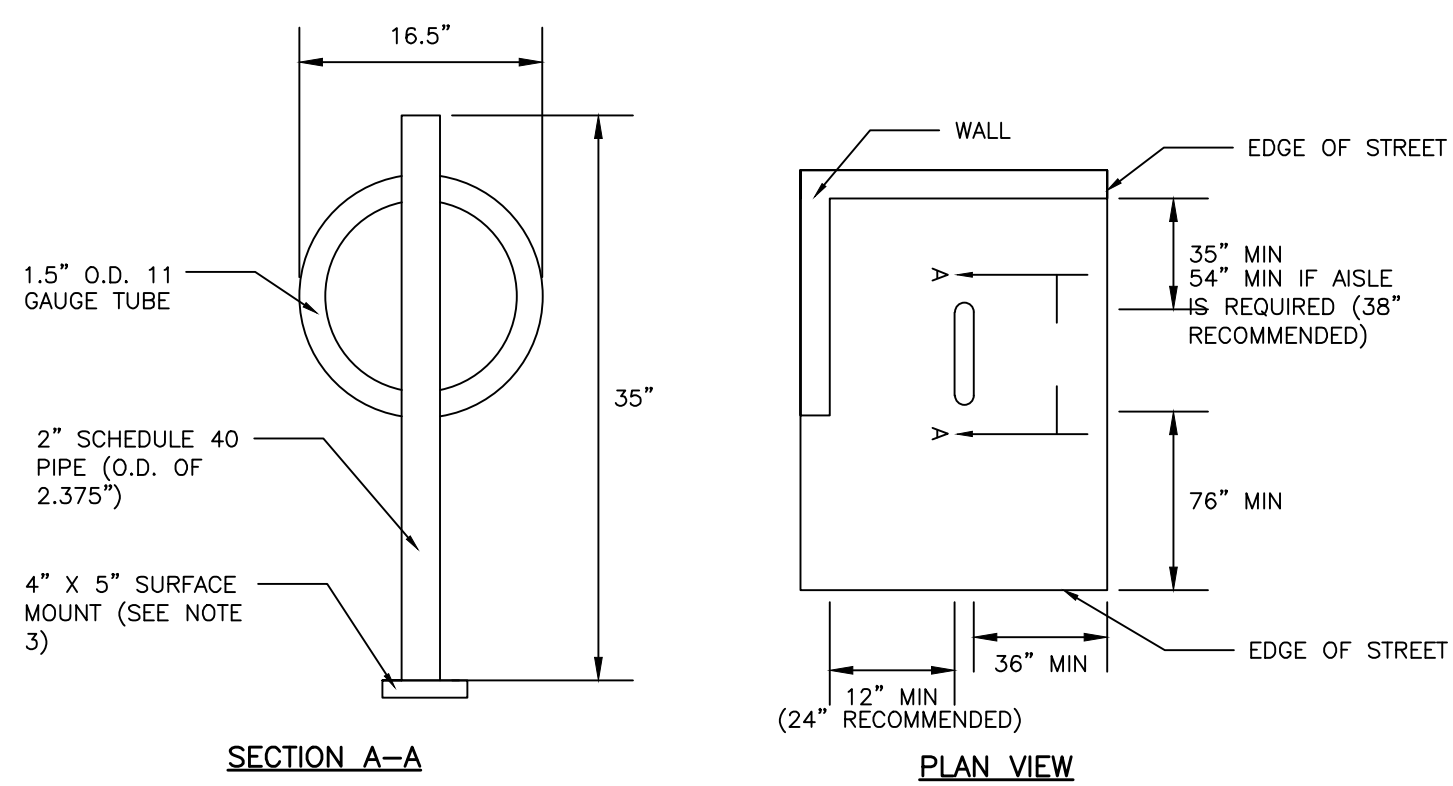
CLIENT/OWNER OF RECORD:
 MSP PROPERTIES 94 AUBURN LLC, & 84 AUBURN LLC.
 7 HEATHER LANE FALMOUTH, ME 04105

[illegible]

STATE OF MAINE
PETER F. HEIL
15318
LICENSED
PROFESSIONAL ENGINEER
12/13/22

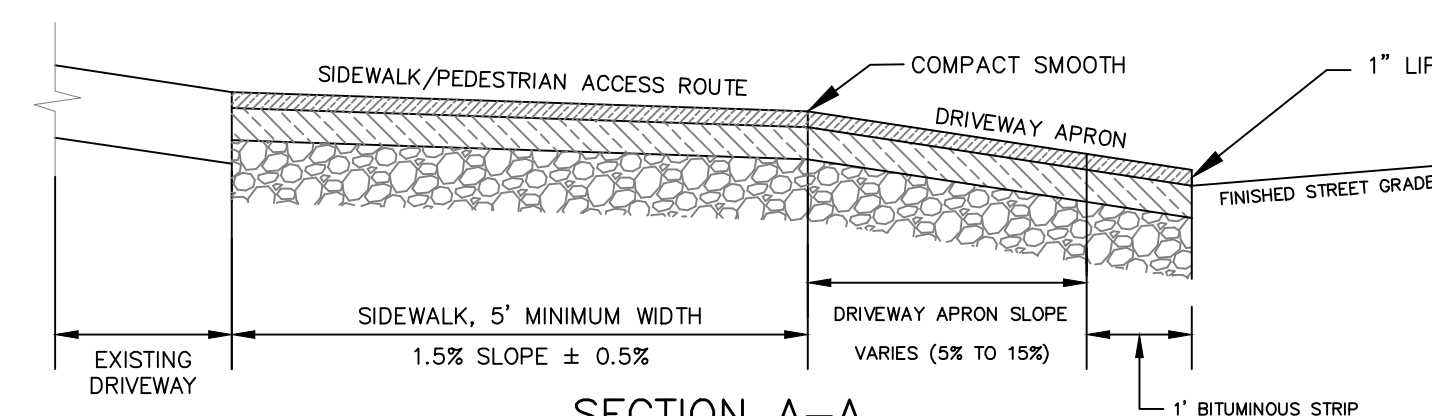
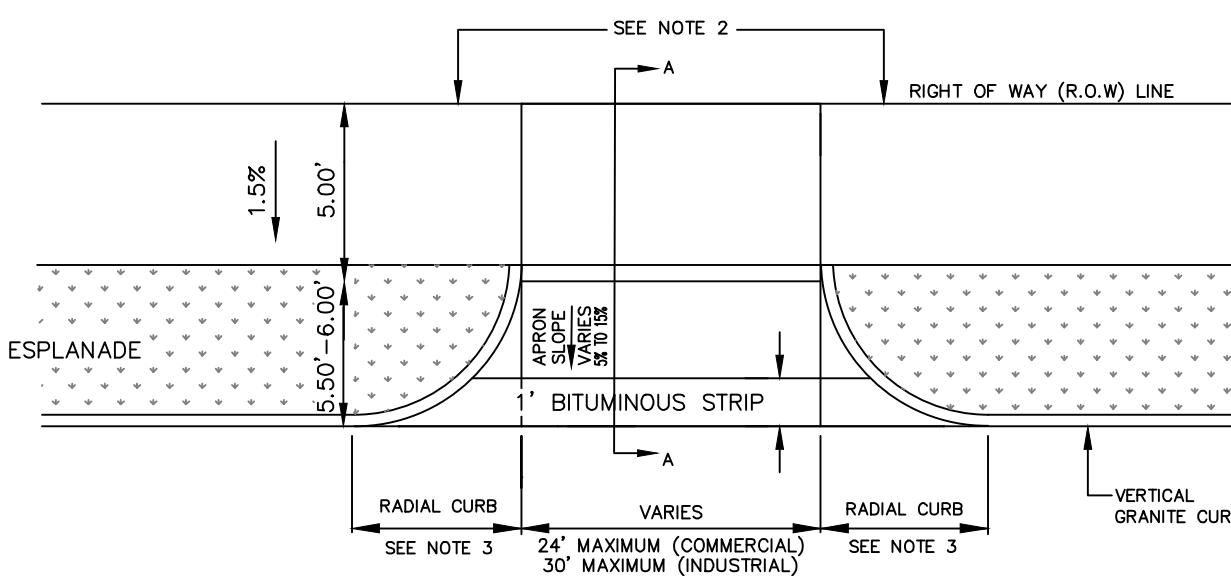
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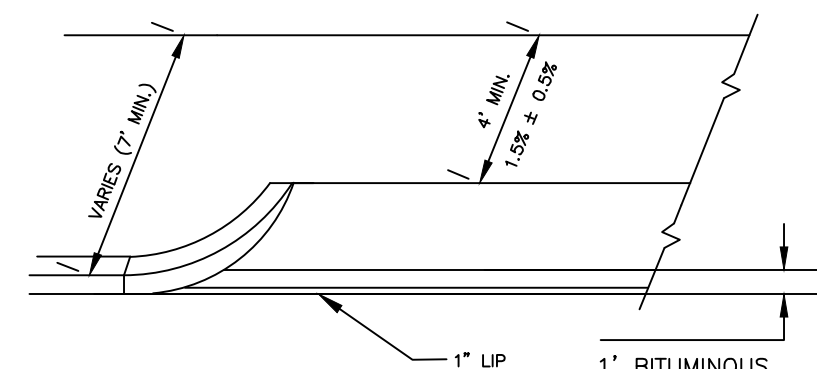


DESIGN ELEMENT	SLOPE IN DIRECTION OF TRAVEL	CROSS SLOPE
APPROACH	8.33% MAX	2%
LANDING	2%	2%
RAMP	8.33% MAX	MATCH STREET GRADE
SIDEWALK	PER C-30	2%

SIDEWALK RAMP LAYOUT
NOT TO SCALE

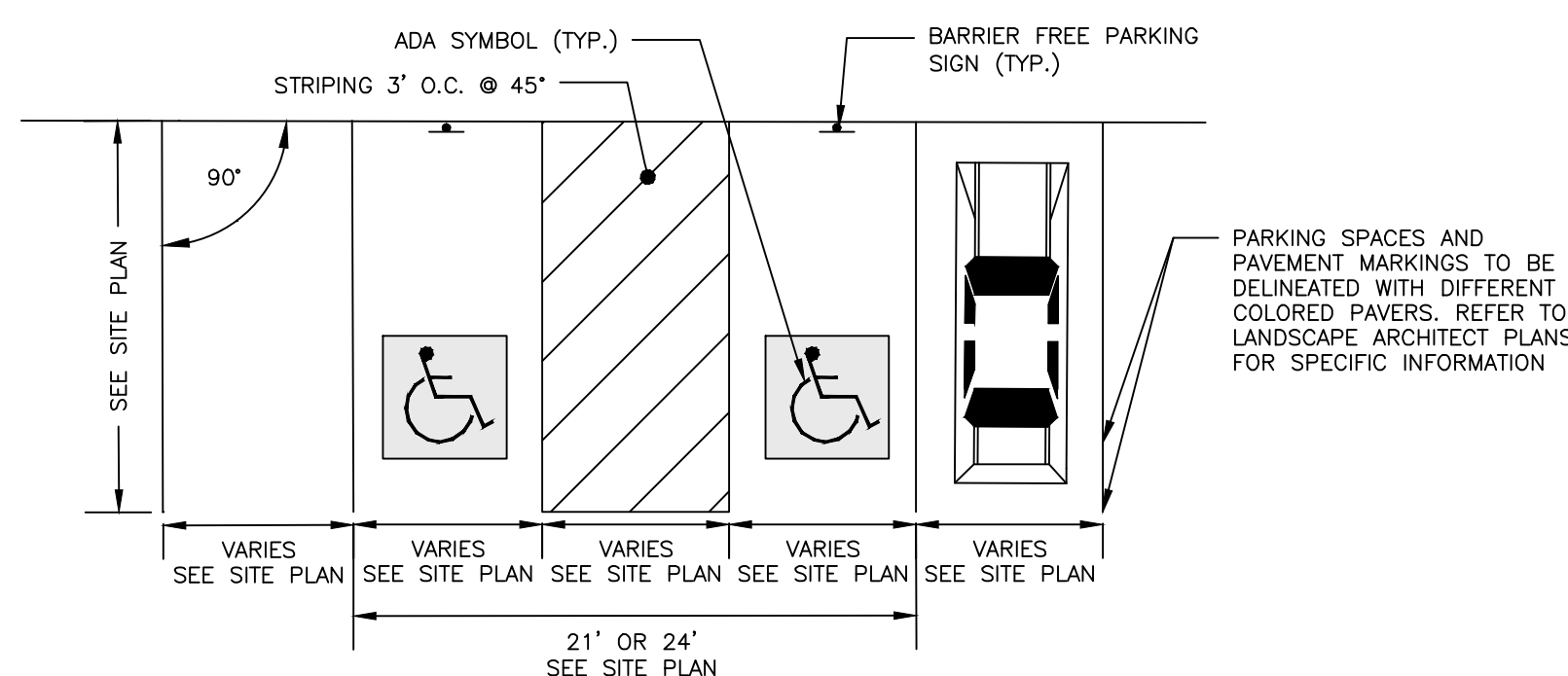


SECTION A-A
NOT TO SCALE



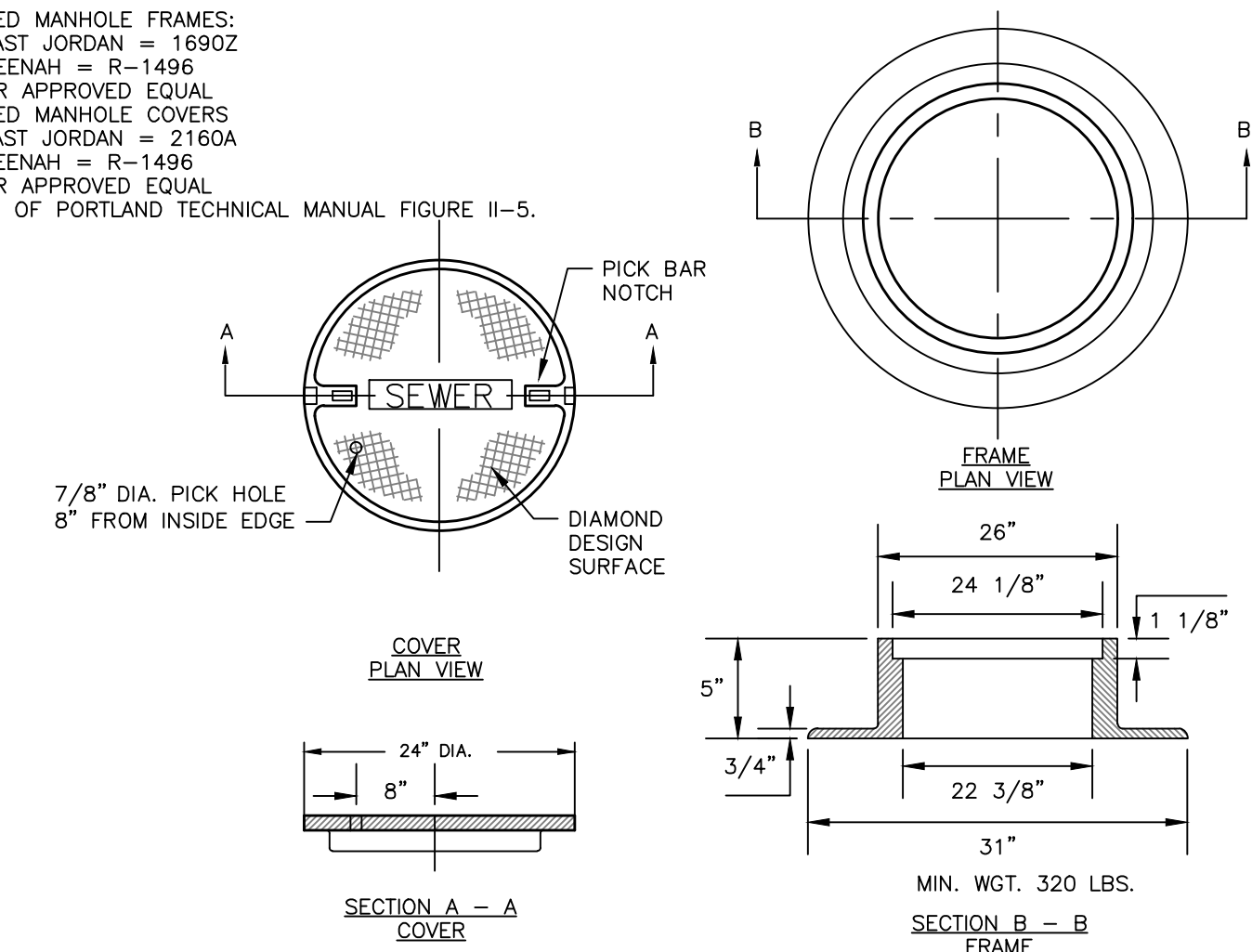
1. MATCH EXISTING GRADE AT R.O.W LINE, WHERE REQUIRED TO MEET A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
2. IF MATCHING THE EXISTING GRADE AT ROW CAUSES APRON SLOPE TO EXCEED RECOMMENDED %, SIDEWALK TRANSITION AREAS MAY BE ADDED, BUT SHALL NOT EXCEED 8.33%.
3. DRIVEWAY CURB RADIUS SHALL NOT BE LARGER THAN REQUIRED BY THE SITE'S DESIGN VEHICLE.
4. ALL MATERIALS IN ROW TO COMPLY WITH CITY'S SIDEWALK & DRIVEWAY MATERIAL POLICY.
5. PER CITY OF PORTLAND TECHNICAL MANUAL FIGURE 1-9B.

STANDARD COMMERCIAL DRIVEWAY APRON LAYOUT
NOT TO SCALE

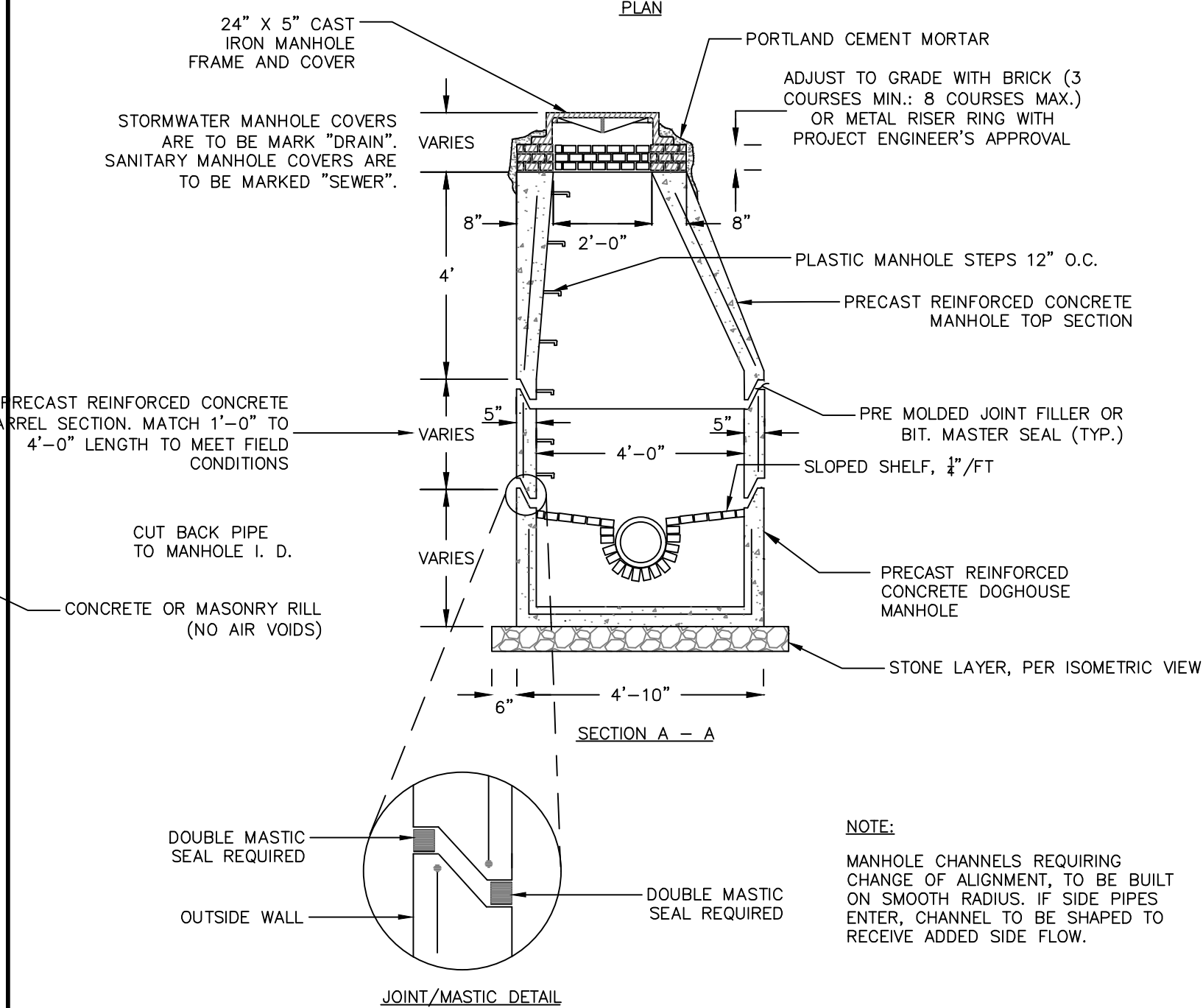
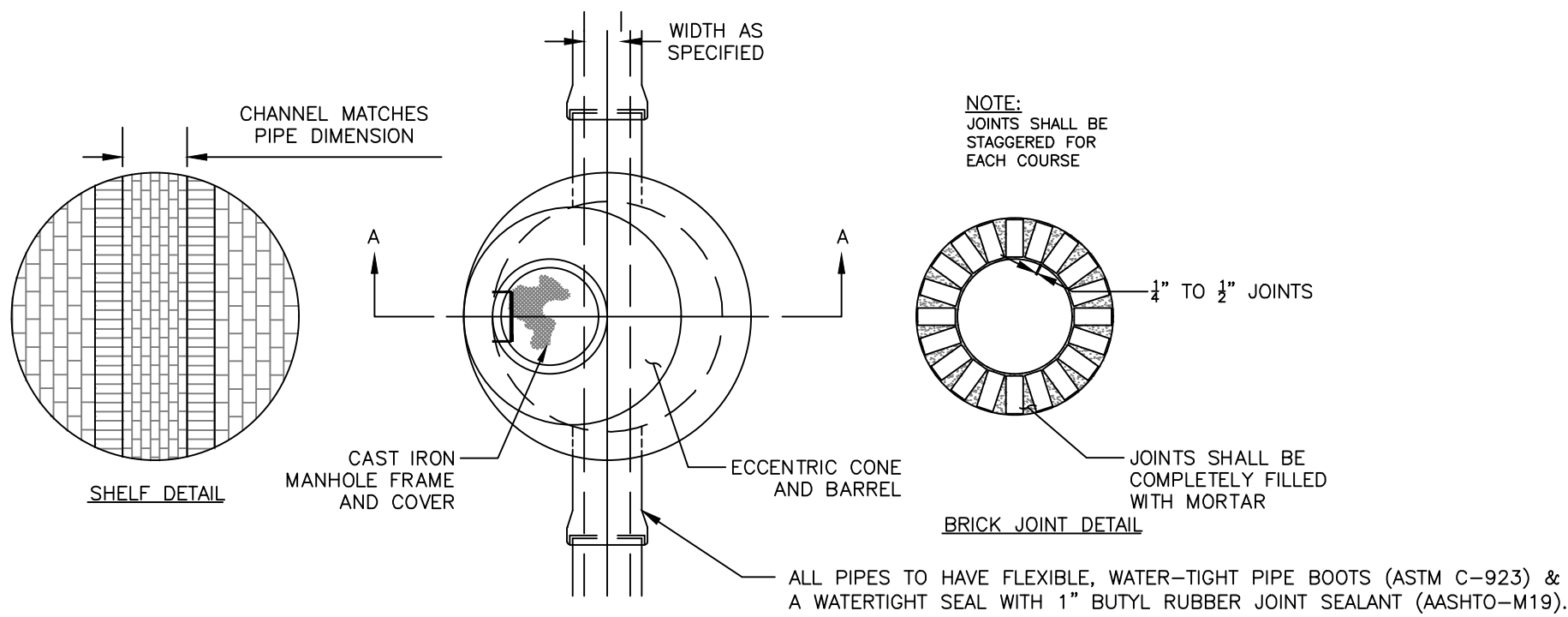


PARKING SPACE DIMENSIONS
NOT TO SCALE

1. ALL MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PUNCH HOLE, LOCATED 8" FROM THE CENTER OF THE COVER.
 2. ALL SANITARY AND STORMWATER/RAIN MANHOLE COVERS SHALL BE 24" x 5".
 3. ALL SANITARY MANHOLE COVERS AND SHALL HAVE "SEWER" CAST INTO THE COVER.
 4. ALL STORMWATER/RAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
 5. APPROVED MANHOLE FRAMES:
 - 5.1. EAST JORDAN = 1690Z
 - 5.2. NEEHAH = E-1496
 - 5.3. OR APPROVED EQUAL
 6. APPROVED MANHOLE COVERS:
 - 6.1. EAST JORDAN = 2160A
 - 6.2. NEEHAH = R-1496
 - 6.3. OR APPROVED EQUAL
- PER CITY OF PORTLAND TECHNICAL MANUAL FIGURE II-5.

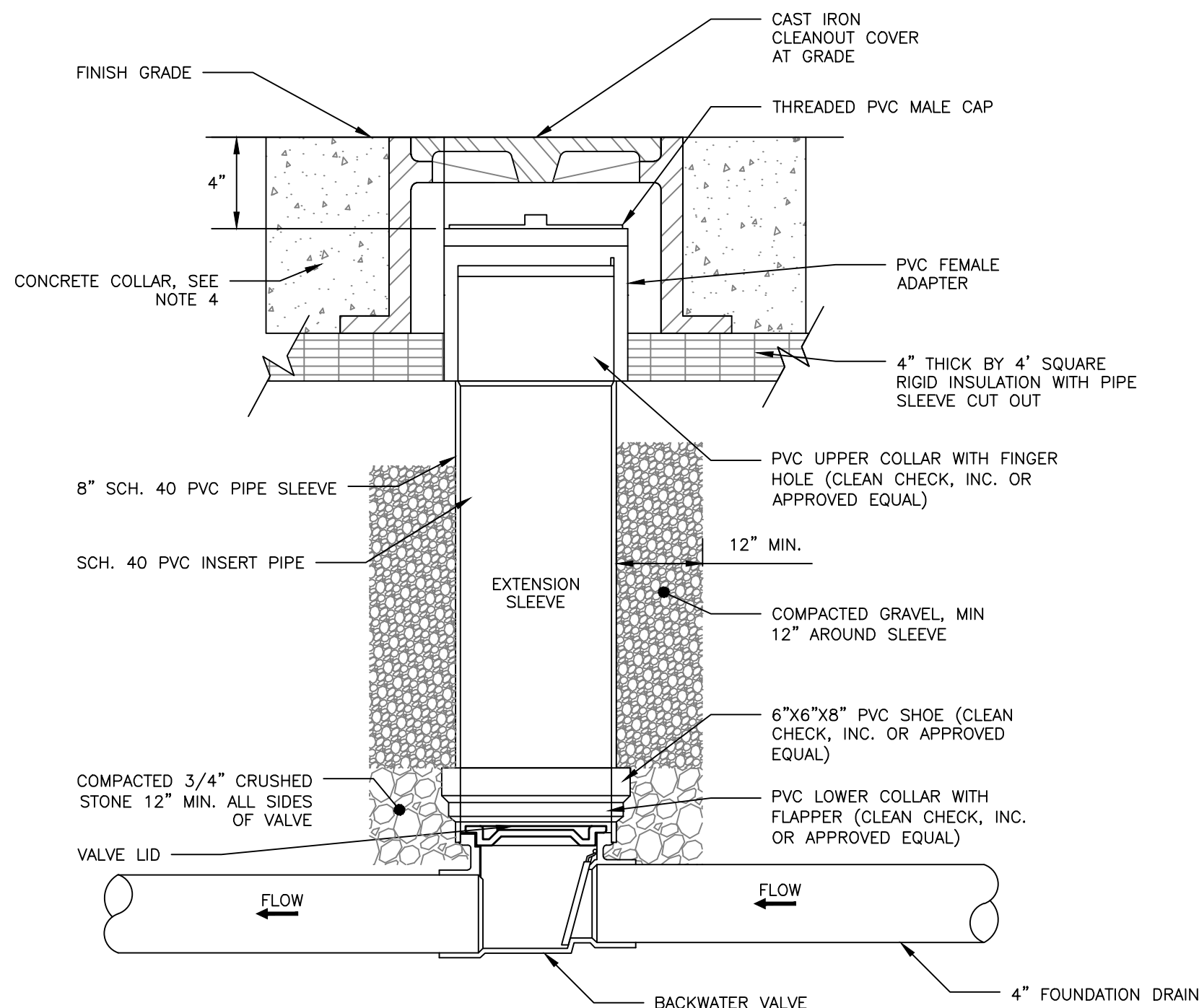


CAST IRON MANHOLE COVER AND FRAME
NOT TO SCALE



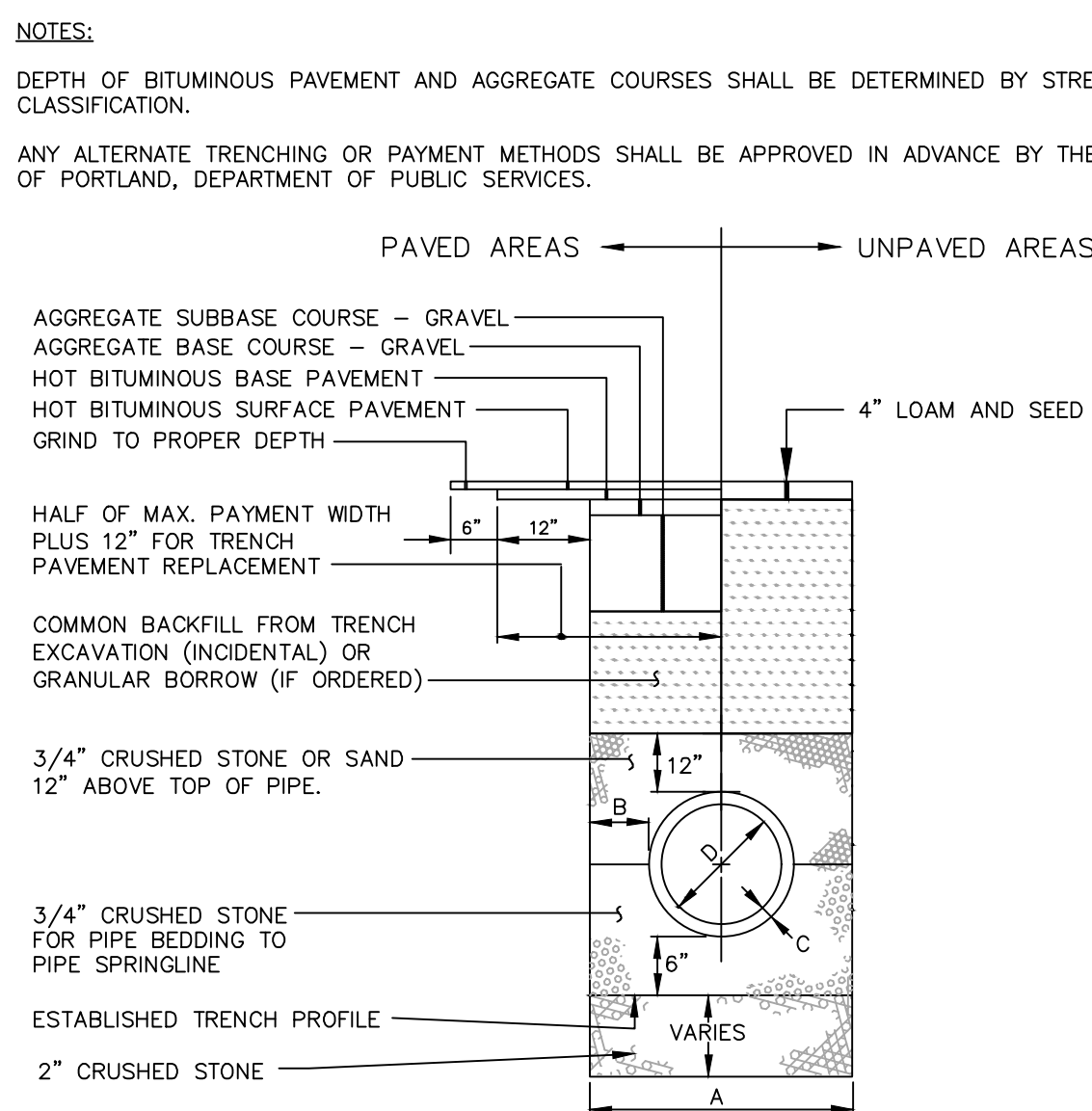
1. UNLESS OTHERWISE SPECIFIED, CONCRETE SHALL BE 4000 PSI @28 DAYS.
2. RECONSTRUCT INTERIOR MANHOLE INVERT AS NECESSARY TO ACCOMMODATE NEW PIPE.
3. THIS DETAIL IS INTENDED TO PROVIDE ADDITIONAL INFORMATION TO THE CONTRACTOR IN REGARDS TO THE CONNECTION OF THE DOGHOUSE MANHOLE BASE TO THE EXISTING SANITARY SEWER SYSTEM.
4. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
5. PRECAST CONCRETE MANUFACTURING SHALL BE PERFORMED BY THE FOLLOWING: C-478.
6. ALL MANHOLE RISERS SHALL BE EITHER 24" OR APPROVAL EQUAL.
7. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE. THE MATERIAL SHALL BE MINWAX FIBROUS BRUSH COAT MADE BY THE MINWAX COMPANY, NEW YORK, NEW YORK, TREMCO 100 FOUNDATION COATING, MADE BY THE TREMCO MANUFACTURING COMPANY, NEW BRUNSWICK, NEW JERSEY, OR THE CAMGER SUPERSEAL WATER-PROOFING CONCRETE COATING PPS-922-2, MADE BY THE CAMGER COATING SYSTEMS, INC., NORFOLK, MASSACHUSETTS OR APPROVED EQUAL.
8. ALL SYSTEMS SHALL CONFORM TO ASTM DESIGNATION D-1557.
9. PER CITY OF PORTLAND, MAINE TECHNICAL MANUAL, FIGURE II-2.

PRECAST CONCRETE MANHOLE – CITY OF PORTLAND
NOT TO SCALE



- NOTES:**
1. BACKFLOW VALVE TO BE PROVIDED BY AGRI DRAIN CORPORATION OR AN APPROVED EQUAL.
 2. VALVE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND COMPLY WITH RULES AND REGULATIONS AS OUTLINED IN SECTION 2 OF THE CITY OF PORTLAND TECHNICAL MANUAL.
 3. VALVE SHALL BE INSTALLED WITH A VALVE BOX AND COVER TO PROVIDE EASY ACCESS AND MAINTENANCE; VALVE COVER SHALL STATE "SEWER" ON FLUSH TO SURFACE. REFER TO VALVE & BOX COVER DETAIL FOR ADDITIONAL INFORMATION.
 4. CONCRETE COLLAR AT A MINIMUM 24-HOUR COMPRESSIVE STRENGTH OF 3,000 PSI.
 5. STRUCTURE TO BE APPLIED WITH DAMP PROOF COATING

BACKFLOW VALVE ASSEMBLY
NOT TO SCALE

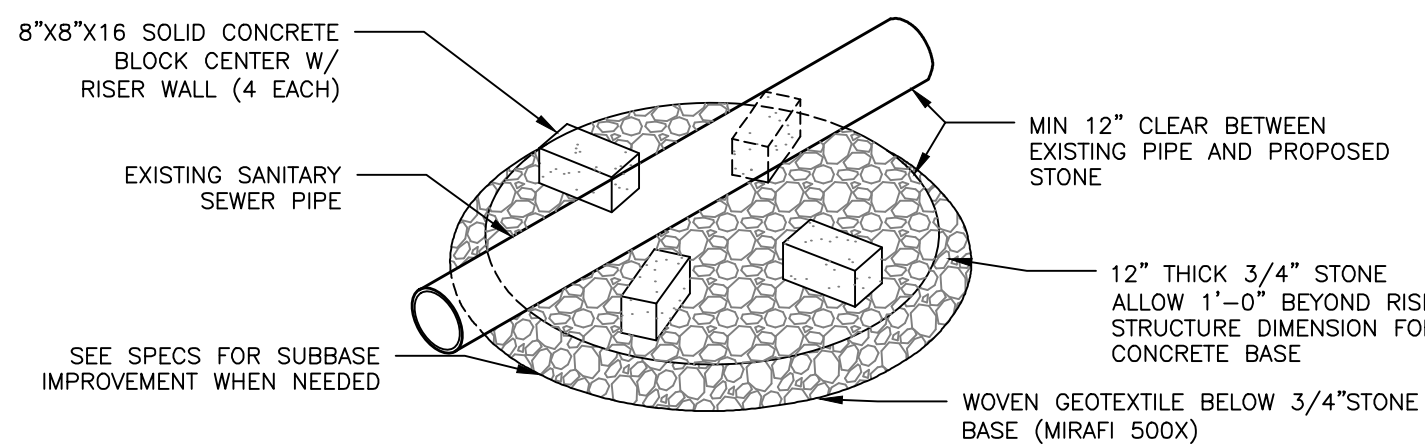


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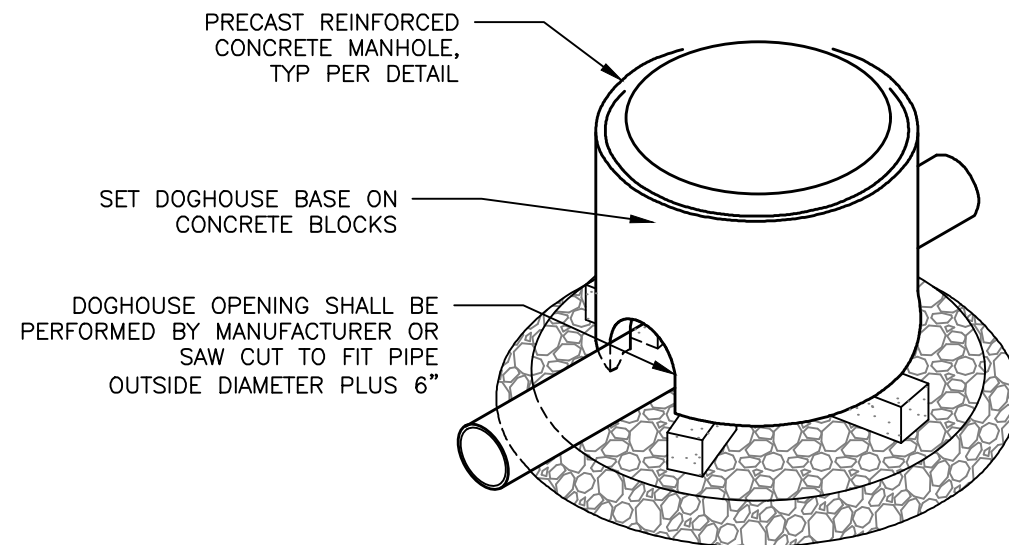
1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. IN PAVED AREAS, DEPTHS OF GRAVEL AND PERMANENT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE PROPOSED PAVEMENT RECONSTRUCTION.
3. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSH STONE BEDDING TO BE PLACED UNDER THE PIPE, BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
4. DIMENSION A IS THE MAXIMUM WIDTH OF THE CRUSHED STONE BEDDING UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND CONCRETE. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE FOLLOWING TABLE.
- SEE PERMANENT TECHNICAL MANUAL, FIGURE II-2.

PIPE DIAMETER, D (INCHES)					MAX. TRENCH WIDTH, A (FEET)
4	—	—	—	—	4.0
6					4.0
8					4.0
10					4.0
12					5.0
15					5.0
18	—	—	—	—	5.0
21					5.0
24					6.0
27					6.0
30					6.0
36	—	—	—	—	6.0
42					7.0
48					7.0

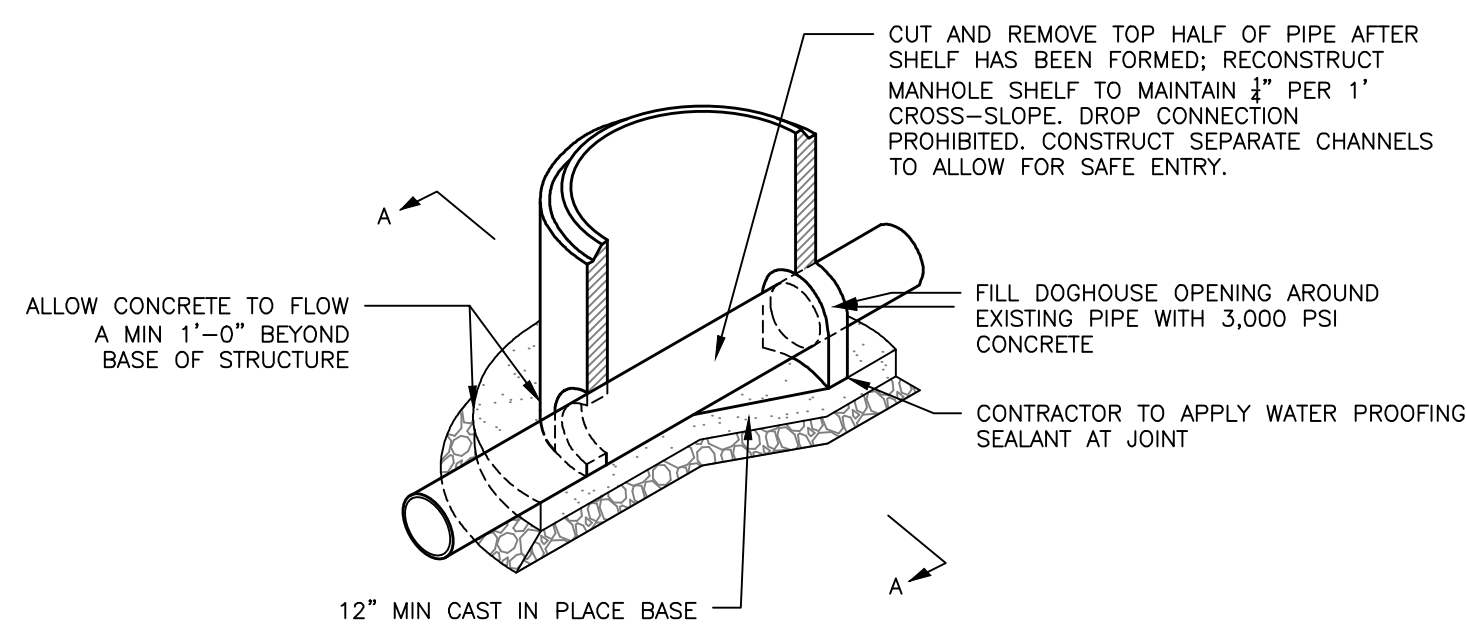
TYPICAL PIPE TRENCH INSTALLATION
NOT TO SCALE



BASE ISOMETRIC VIEW

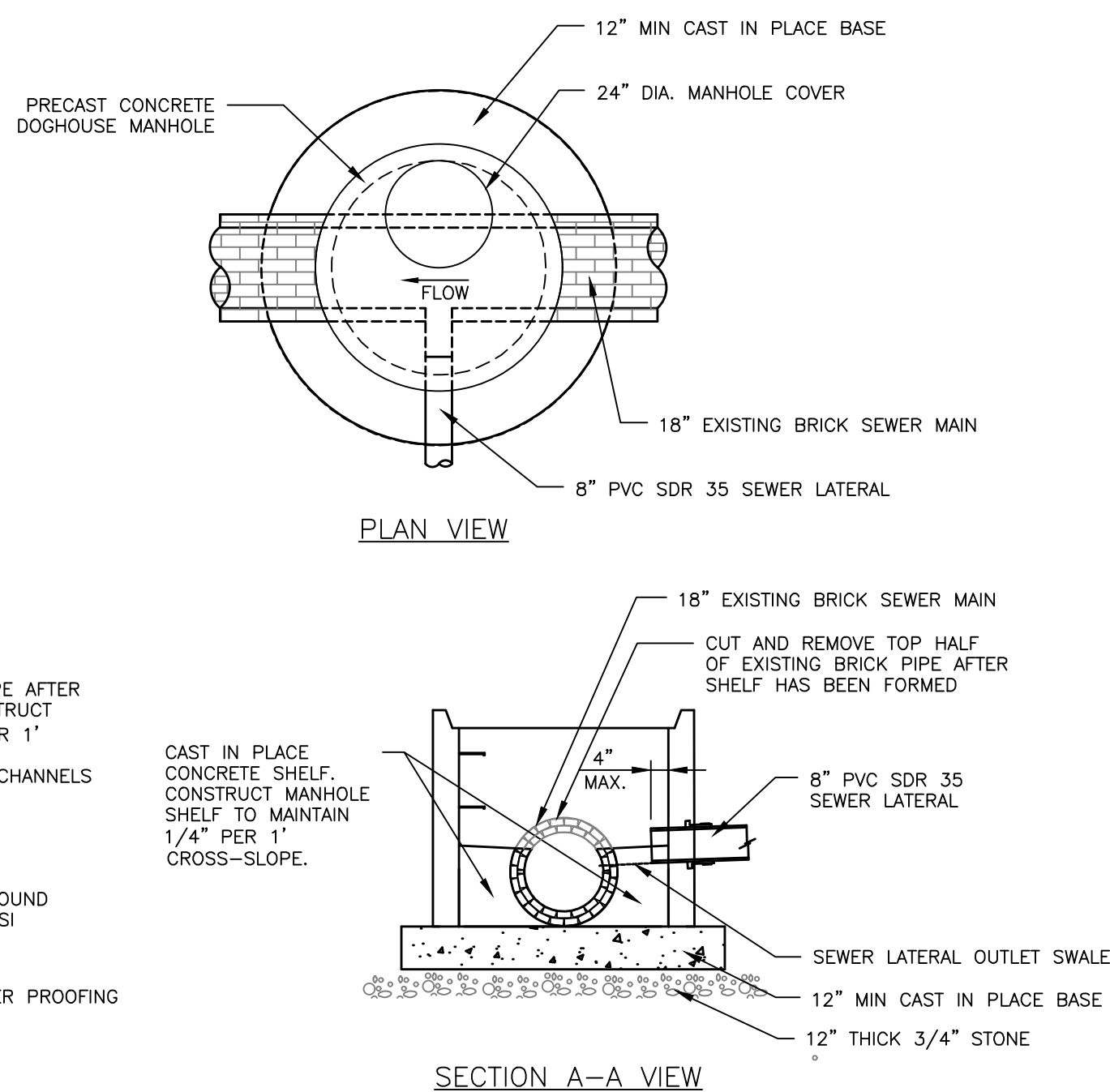


RISER ISOMETRIC VIEW

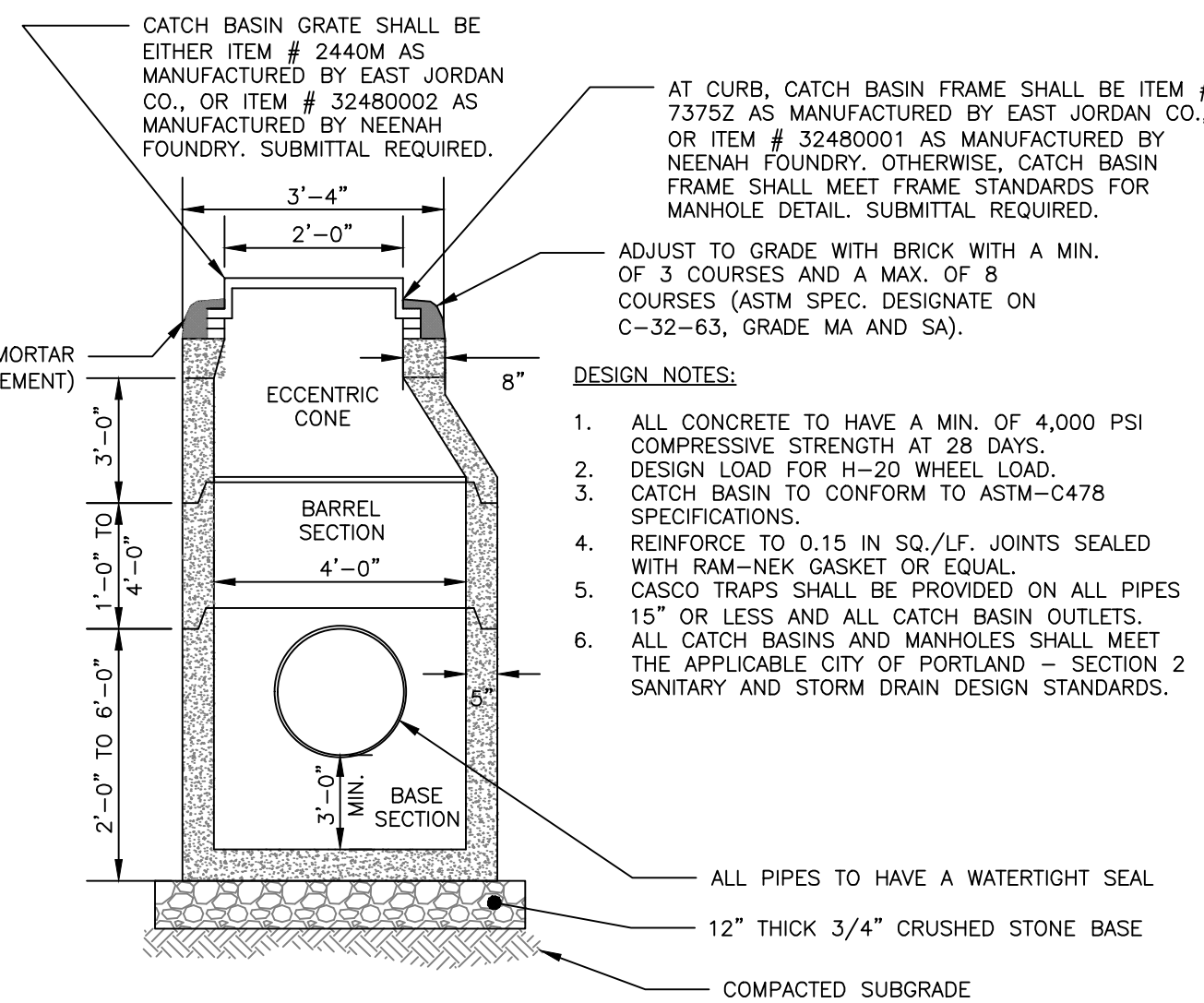


FOUNDATION SECTION VIEW

PRECAST DOGHOUSE MANHOLE DETAIL
NOT TO SCALE



SECTION A-A VIEW



4'-0" DIAMETER PRECAST CATCH BASIN/MANHOLE
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

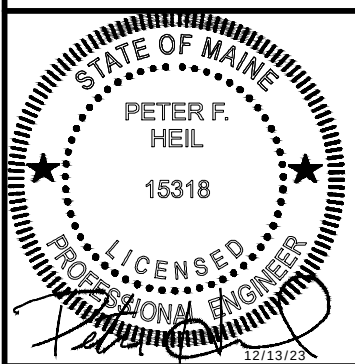
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UTILITY DETAILS - 1
PROJECT NAME/ADDRESS: 84 AUBURN & 94 AUBURN STREET REDEVELOPMENT 84 & 94 AUBURN STREET, PORTLAND, ME 04104
CLIENT/OWNER OF RECORD: MSP PROPERTIES 94 AUBURN LLC. & 84 AUBURN LLC. 7 HEATHER LANE FALMOUTH, ME 04105

ACORN ENGINEERING, INC. PO BOX 3372, PORTLAND, MAINE 04101
 (207) 775-2655

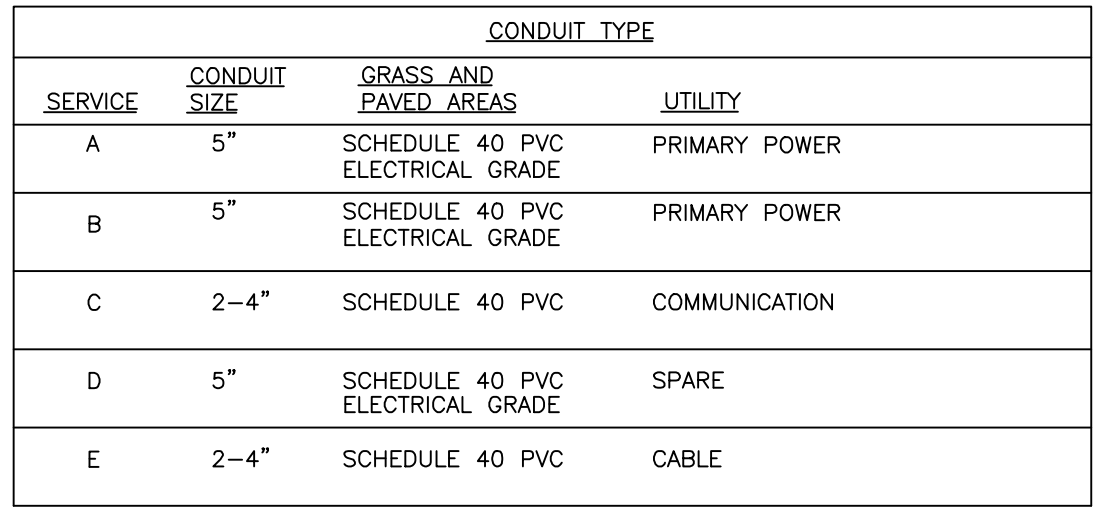
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JN:	2.79
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	DSH
CHECKED BY:	PFH

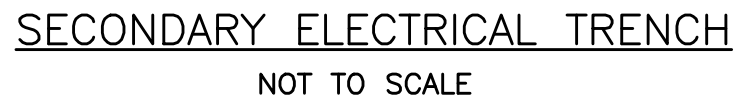


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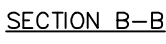
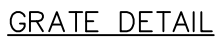
C-42



NOT TO SCALE



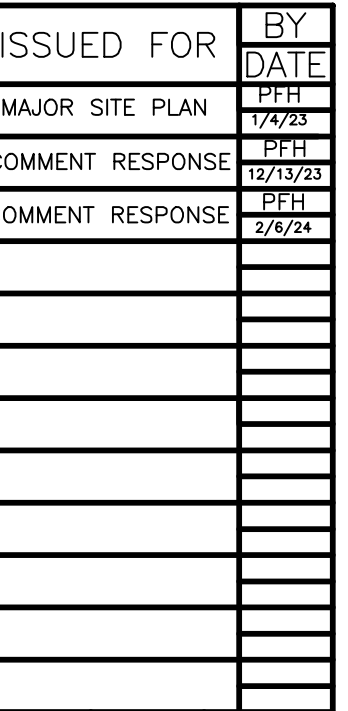
-
- SECTION A-A



CATCH BASIN FRAME & GRATE
NOT TO SCALE



- NOTES:**
1. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY.
 2. INSTALL PROTECTIVE FENCING TO LIMIT OF DRIPLINE ON TREE OR A MINIMUM OF 6' FROM TRUNK WHEN NECESSARY, WITH THE PERMISSION OF LANDSCAPE ARCHITECT.
 3. DO NOT STORE CONSTRUCTION EQUIPMENT, MATERIALS, TOOLS, ETC. WITHIN PROTECTIVE FENCING.
 4. MAINTAIN FENCING IN A NEAT AND ORDERLY FASHION THROUGHOUT CONSTRUCTION PERIOD.



UTILITY DETAILS - 2

UTILITY DETAILS - 2

PROJECT NAME/ADDRESS
84 AUBURN & 94 AUBURN STREET REDEVELOPMENT
 84 & 94 AUBURN STREET, PORTLAND ME 04104

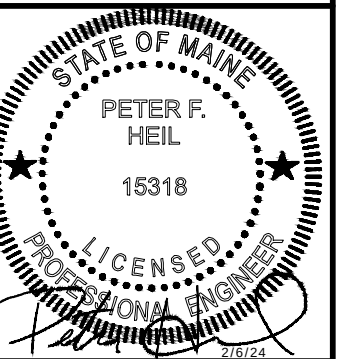
CLIENT/OWNER
MSP PROPERTIES 94 AUBURN LLC. & AUBURN LLC.
 7 HEATHER LANE FALMOUTH, ME 04105

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND, MAINE 04101
(207) 715-2655

A C O R N
ENGINEERING, INC.

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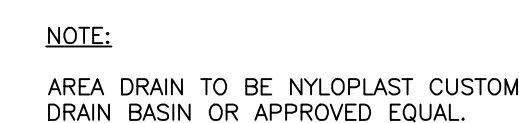
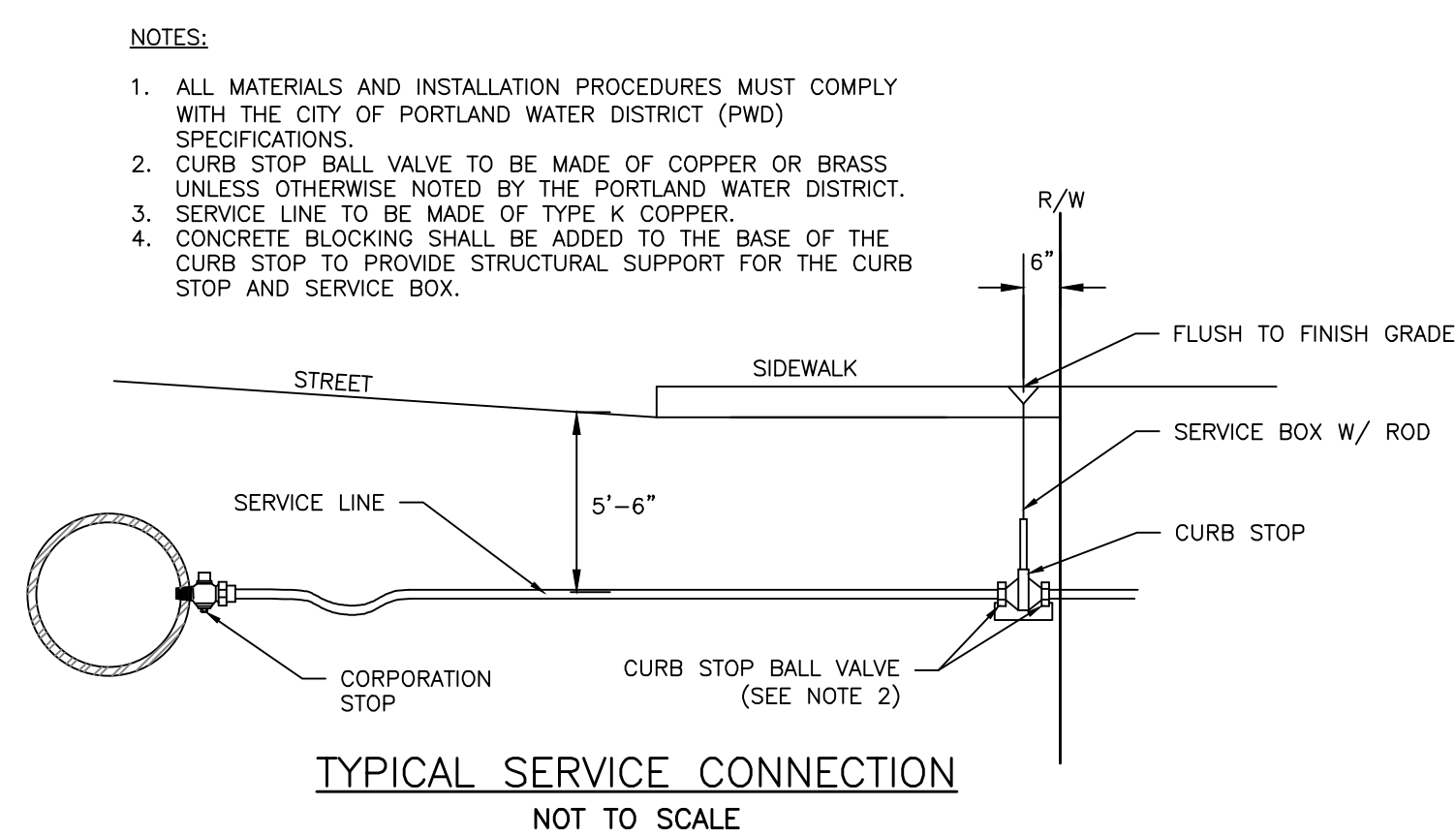
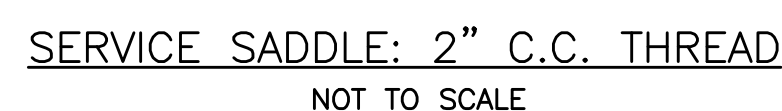
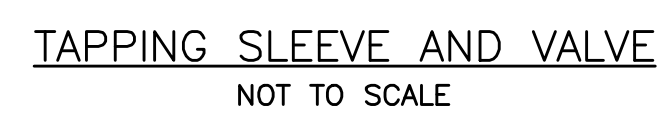
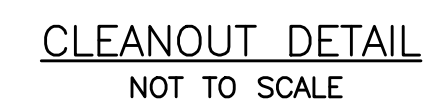
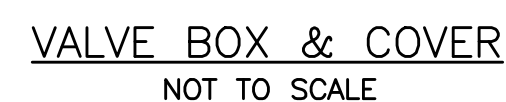
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SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	DSH
CHECKED BY:	PFH



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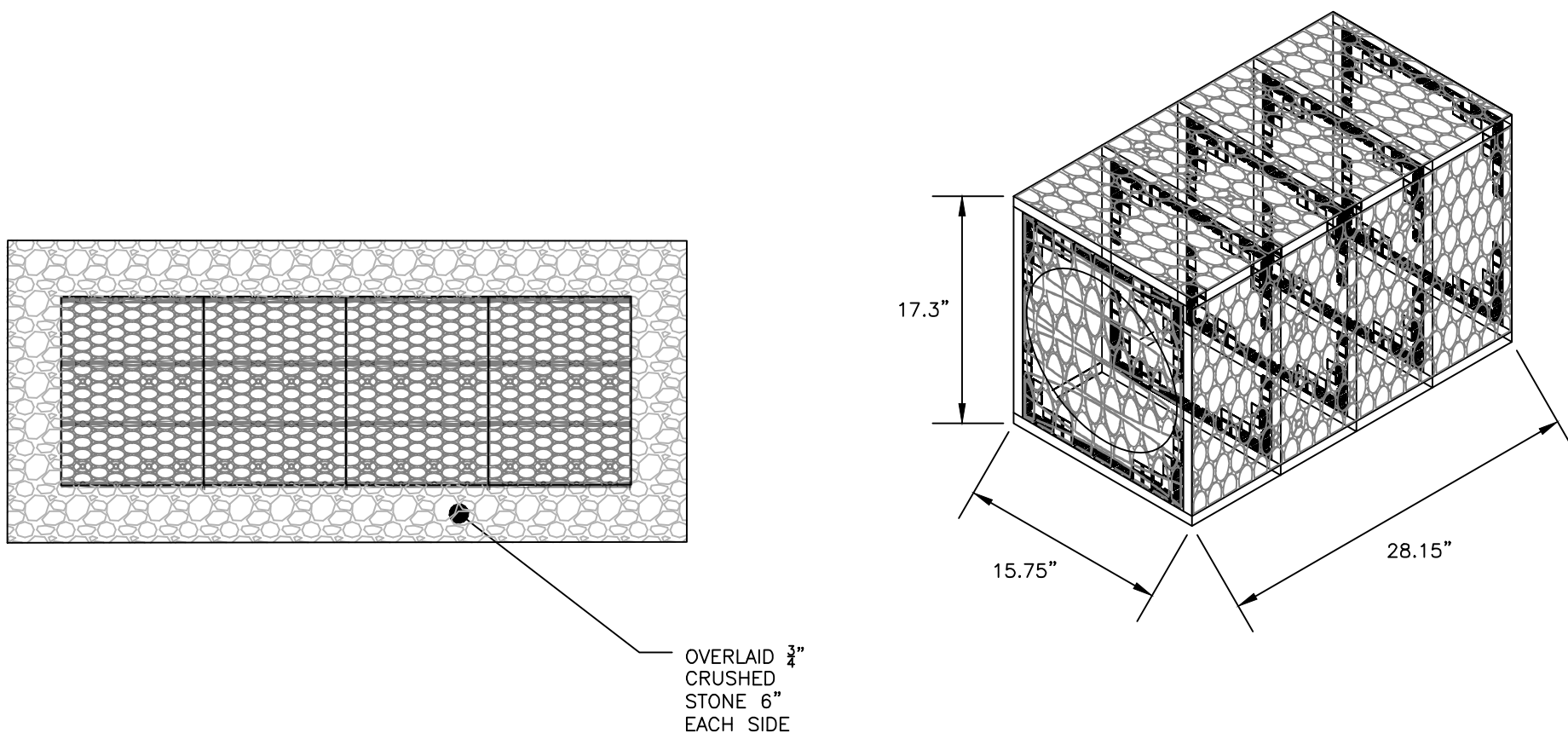
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

C-43



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

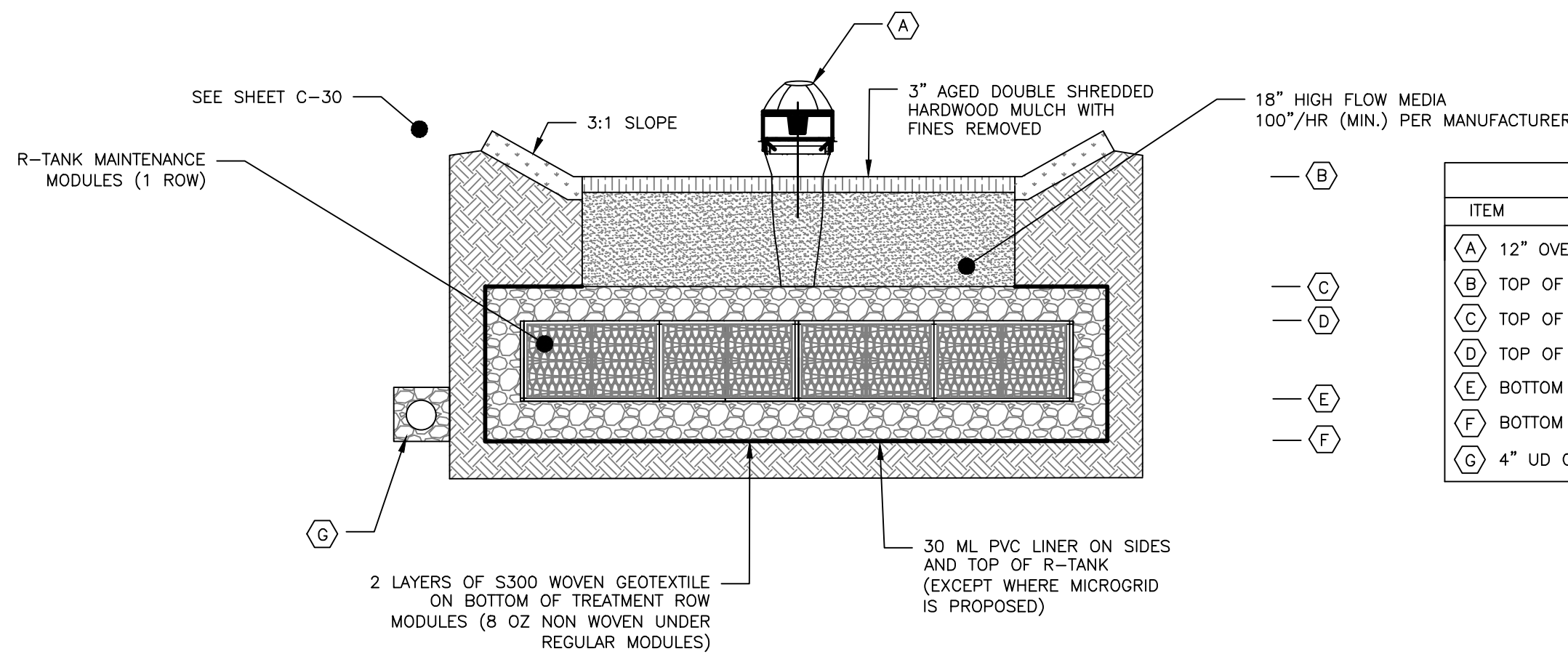
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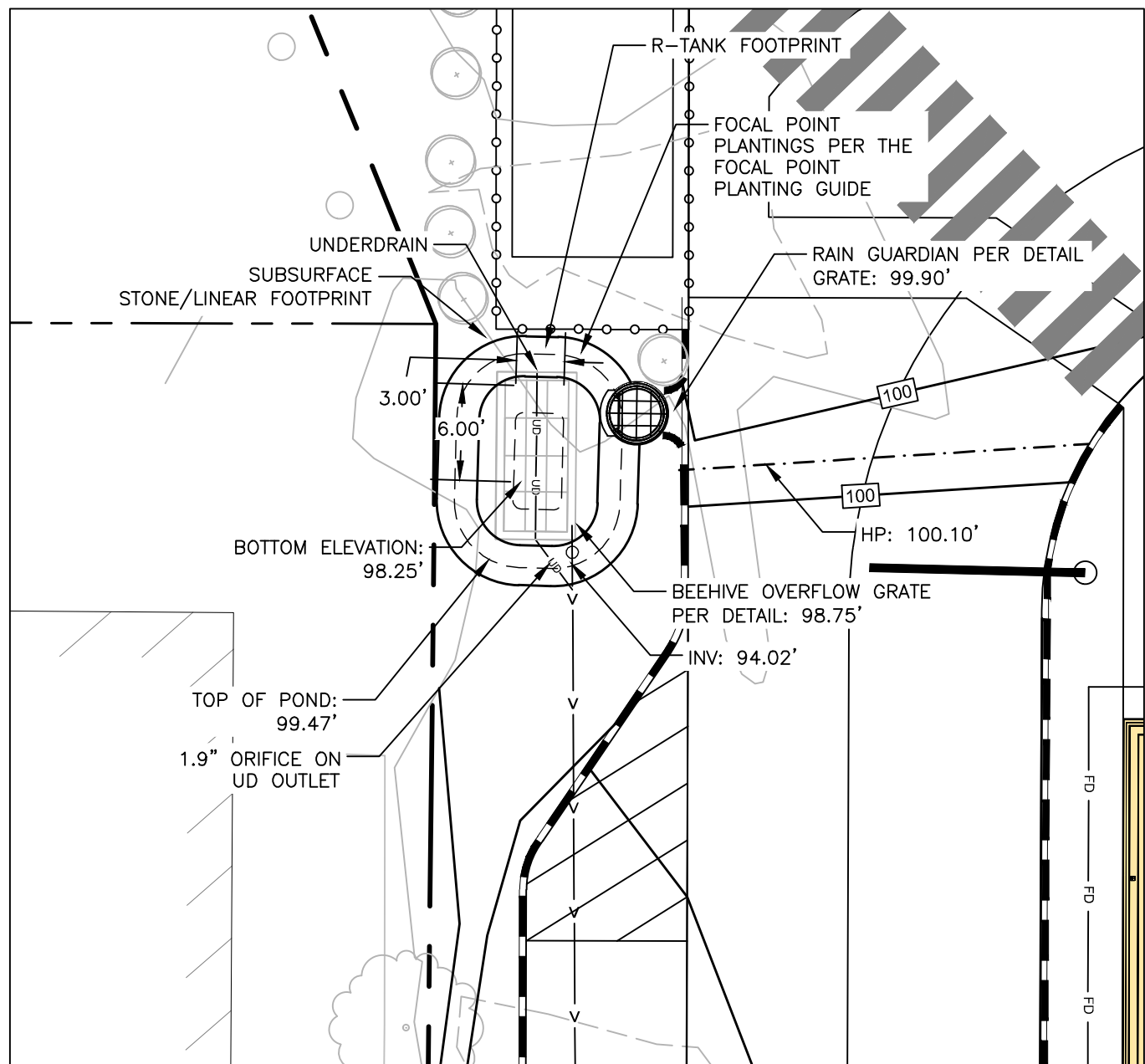
PLAN VIEW

ISOMETRIC VIEW

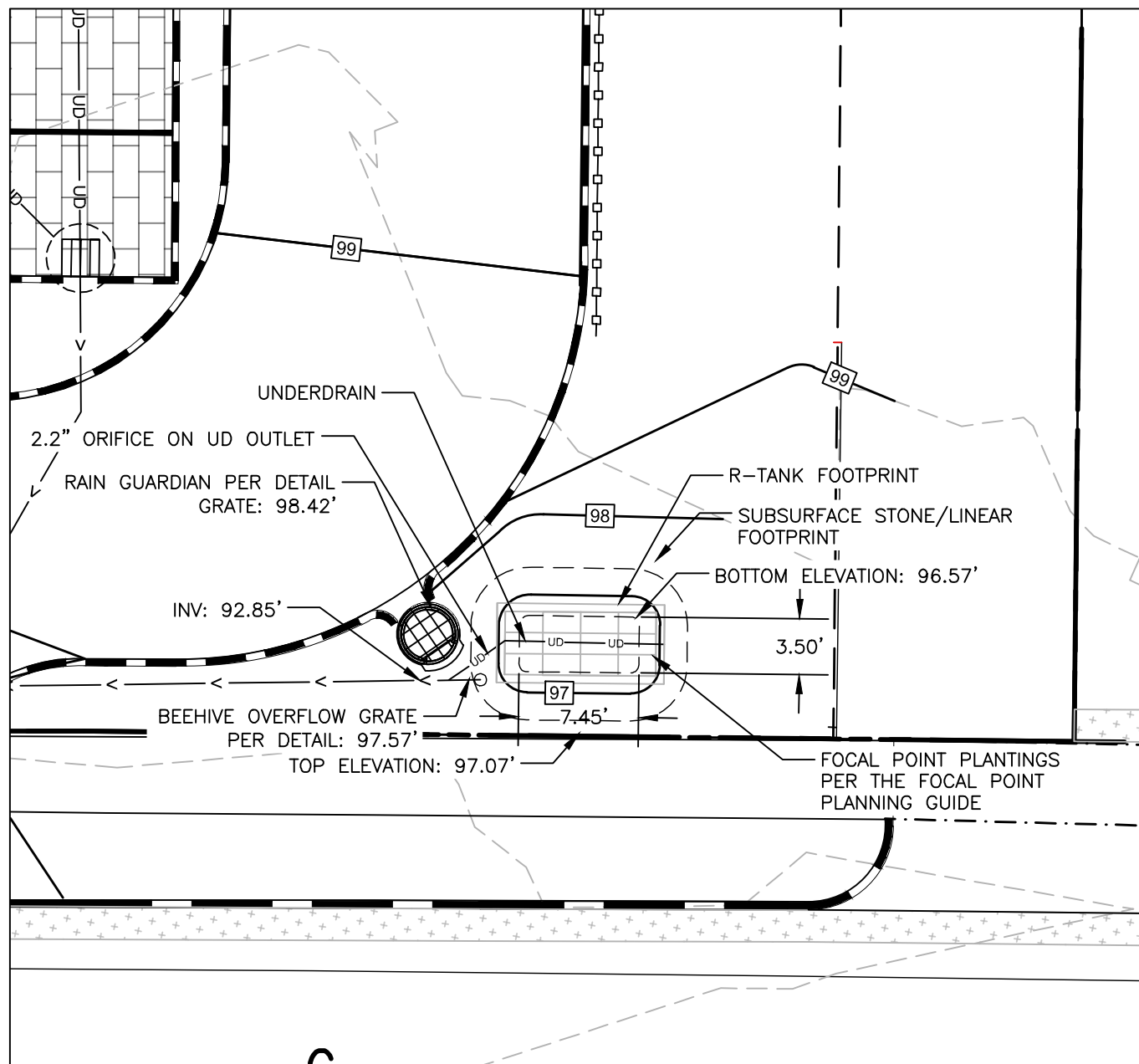
R-TANK MODULE DETAIL
NOT TO SCALE



FOCAL POINT RAIN GARDEN WITH R-TANK TREATMENT ROW
NOT TO SCALE

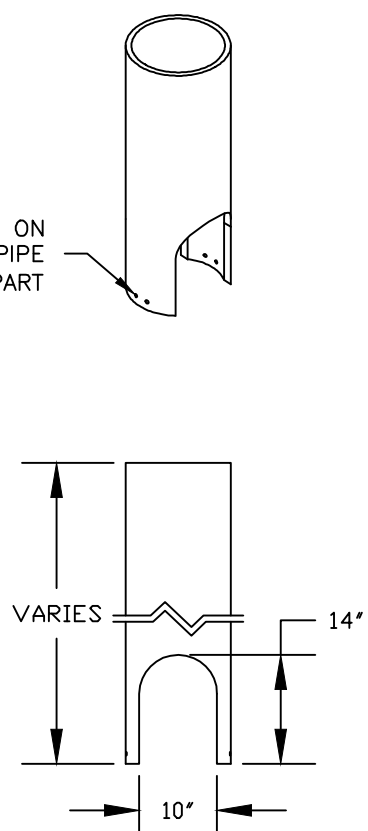


FOCAL POINT 1 INSET
SCALE: 1"=10'

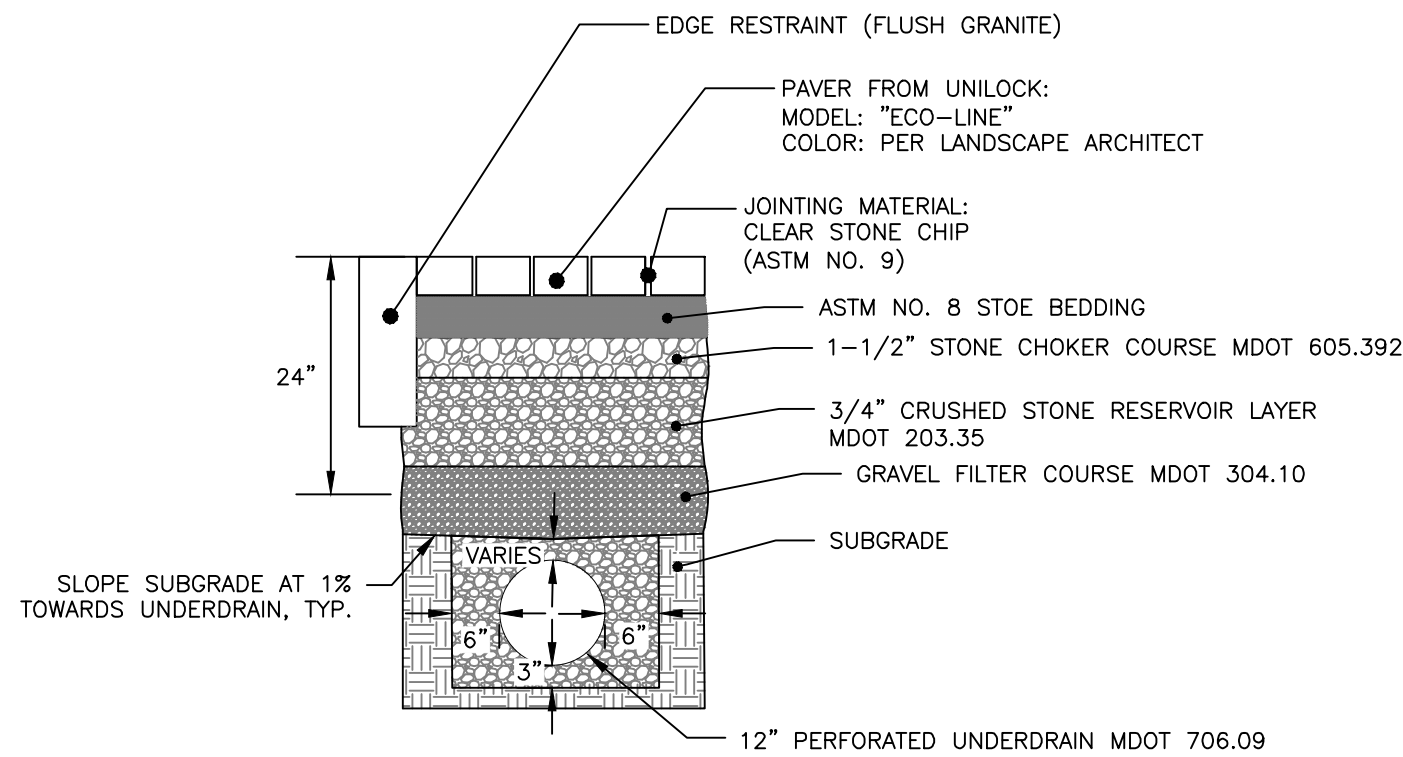
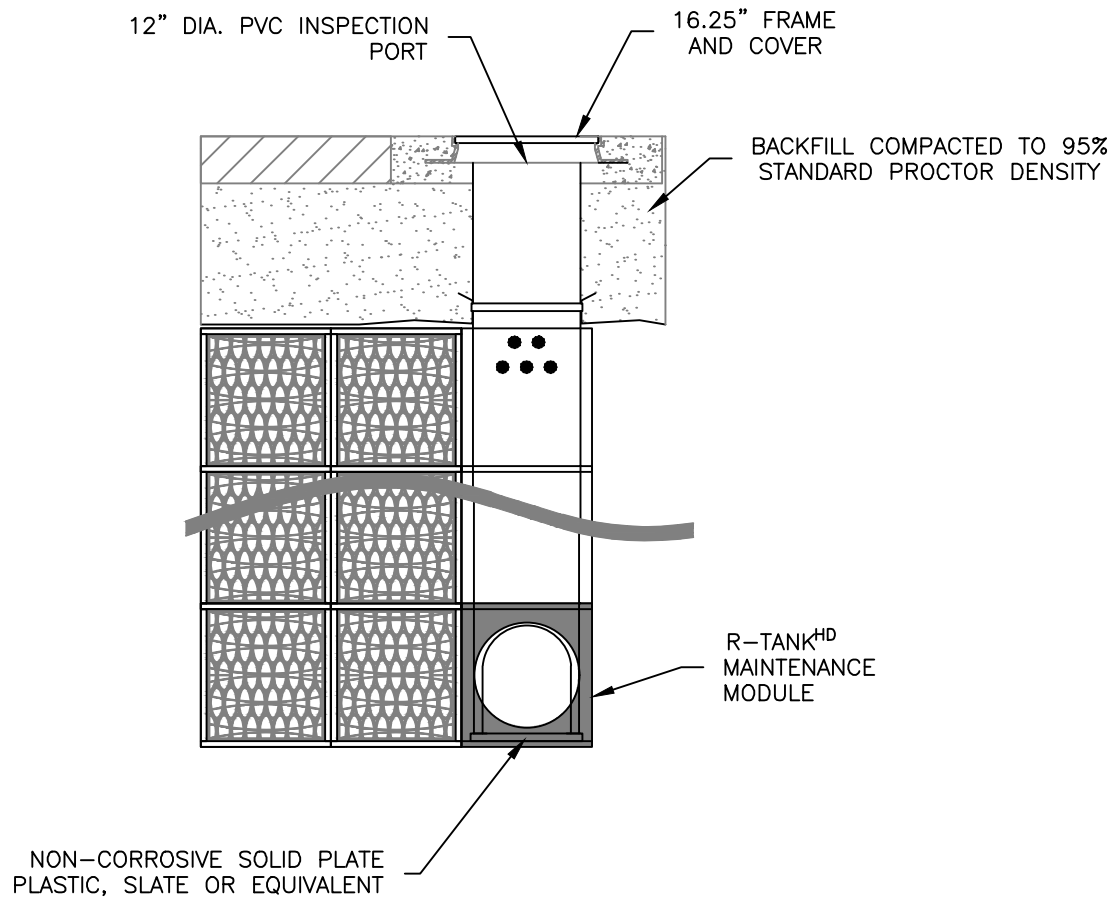


FOCAL POINT 2 INSET
SCALE: 1"=10'

- NOTES
1. THE INSPECTION PORT IS USED IN THE MAINTENANCE MODULE TO INSPECT THE LEVEL OF SEDIMENT ACCUMULATION.
 2. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH MAINTENANCE ROW VIA THE ACCESS STRUCTURE FROM EITHER END AS NEEDED.



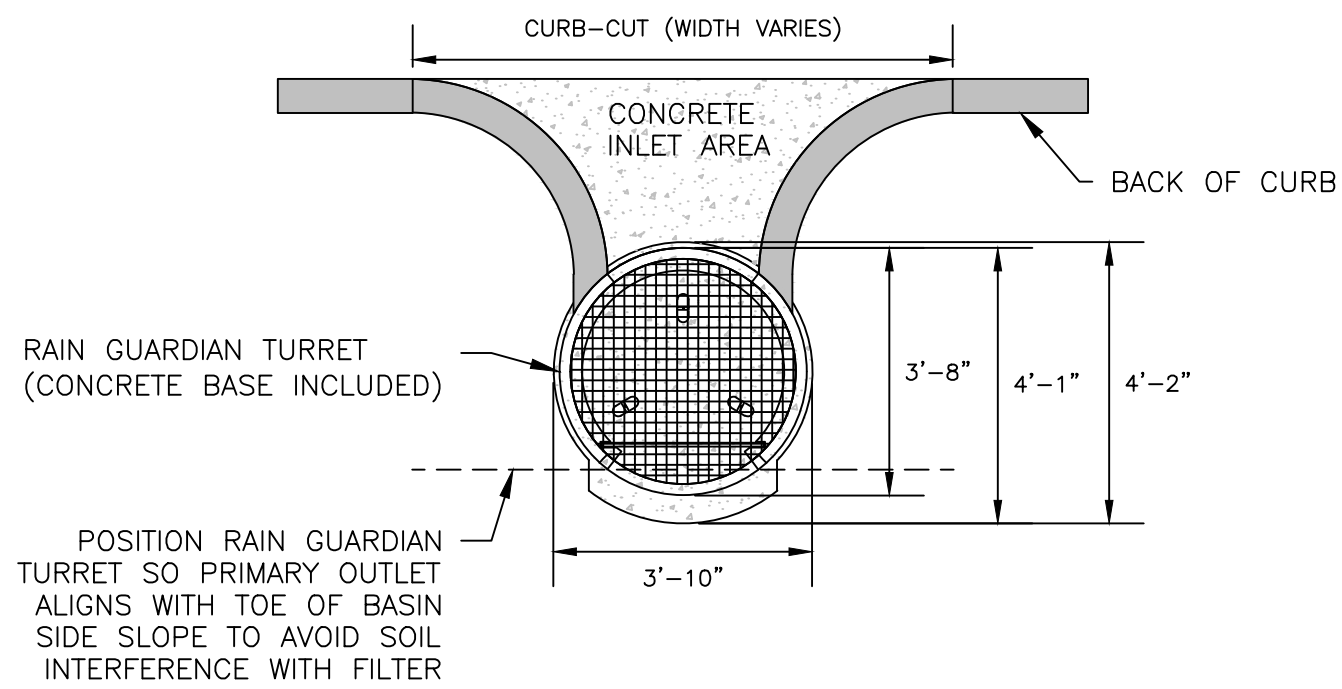
ACCESS PORT WITH SOLID COVER
NOT TO SCALE



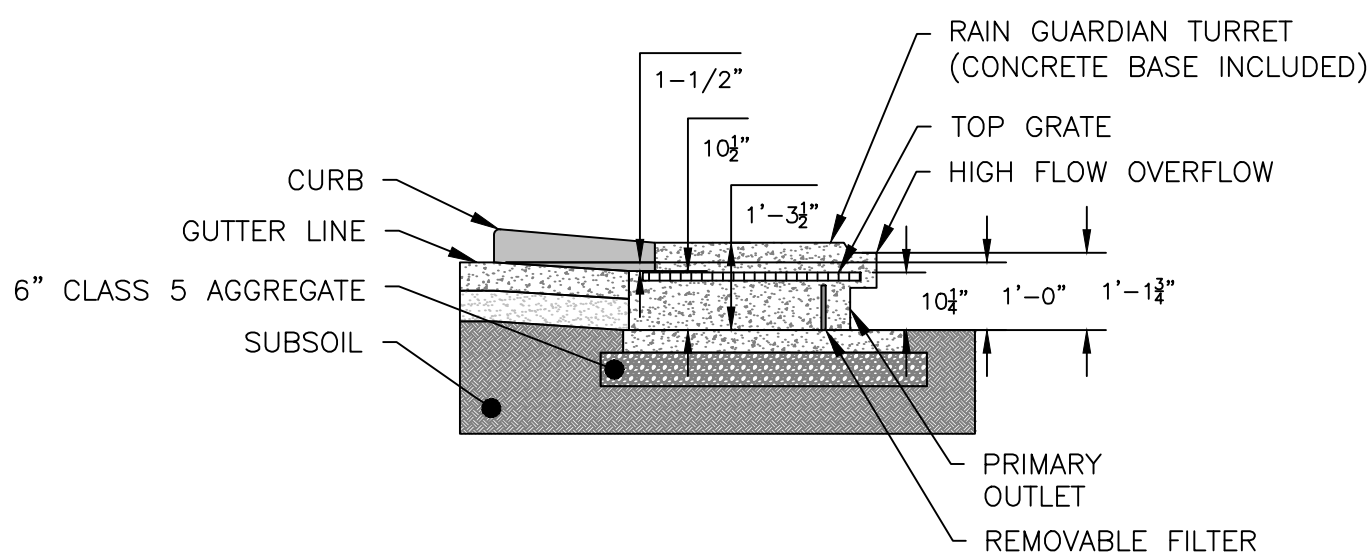
- NOTES:
1. DO NOT COMPACT SUBGRADE.
 2. COMPACT THE GRAVEL FILTER COURSE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557. DO NOT OVER-COMPACT. THE INFILTRATION RATE SHALL BE DETERMINED BY ASTM D-3385 OR AN APPROVED ALTERNATE AT THE DISCRETION OF THE ENGINEER. THE INFILTRATION RATE SHALL BE NO LESS THAN 5-30 FT/DAY OR 50% OF THE HYDRAULIC CONDUCTIVITY (ASTM D-2434) AT 95% STANDARD PROCTOR COMPACTION. FILTER COURSE SHALL HAVE A HYDRAULIC CONDUCTIVITY OF 10-60 FT/DAY (0.0036 TO 0.022 CM/SEC) AT 95% COMPACTION.
 3. PAVING OPERATIONS SHALL BE SUBJECT TO THE MINIMUM REQUIREMENTS OF THE MAINE DOT SECTION 401.19 QUALITY CONTROL METHOD D, UNLESS WAIVED BY THE OWNER.

THICKNESS OF LAYERS	
STANDARD	LAYERS
4"	PERVIOUS PAVER PER MANUFACTURER'S SPECIFICATION
1-1/2"	ASTM NO. 8 STONE BEDDING
2-1/2"	1-1/2" STONE CHOKER COURSE MDOT 605.392
6"	3/4" CRUSHED STONE MDOT 203.35
10"	GRAVEL FILTER COURSE MDOT 304.10 TYPE D

PERVIOUS PAVER PROFILE
NOT TO SCALE



RAIN GUARDIAN TURRET - PLAN VIEW
NOT TO SCALE



RAIN GUARDIAN TURRET - SECTION VIEW
NOT TO SCALE

- NOTES
1. INLET WIDTH AND DISTANCE BETWEEN BACK OF CURB AND RAIN GUARDIAN TURRET MAY VARY WITH SITE CONDITIONS.
 2. CONCRETE BASE EXTENDS BEYOND THE FILTER WALL OF THE RAIN GUARDIAN TURRET TO SERVE AS A SPLASH DISSIPATOR.
 3. THE TOP OF THE CLASS 5 BASE (COMPACTED TO 95% STANDARD PROCTOR) IS PRECISELY 1' 4" BELOW THE GUTTERLINE ELEVATION.
- SPECIFICATIONS
1. STEEL REINFORCED, COLD JOINT SECURED MONOLITHIC CONCRETE STRUCTURE (1,030 LBS). CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS. CONCRETE AIR ENTRAINED (4% TO 8% BY VOLUME). MANUFACTURED AND DESIGNED TO ASTM C858.
 2. THREE-POINT PICK USING RECESSED LIFTING POCKETS WITH A STANDARD HOOK.
 3. TOP GRATE.
- INSTALLATION NOTES
1. INSTALL THE CLASS 5 BASE (COMPACTED TO 95% STANDARD PROCTOR). THE DISTANCE FROM THE BACK OF THE CURB MAY VARY BASED ON SITE CONDITIONS, BUT CONSIDERATIONS SHOULD INCLUDE SLOPE OF THE INLET AND BASIN SIDE SLOPES ADJACENT TO THE RAIN GUARDIAN TURRET. POSITION RAIN GUARDIAN TURRET SO PRIMARY OUTLET ALIGNS WITH TOE OF BASIN SIDE SLOPE TO AVOID SOIL INTERFERENCE WITH REMOVABLE FILTER WALL. EXCAVATE 1' 10" BELOW THE GUTTERLINE ELEVATION (I.E. THE BIoretention OVERFLOW ELEVATION) TO ACCOMMODATE THE 1' PONDING DEPTH, 6" CLASS 5 AGGREGATE, AND 4" RAIN GUARDIAN TURRET BASE (INCLUDED). THEREFORE, THE TOP OF THE CLASS 5 COMPACTED BASE IS PRECISELY 1' 4" BELOW THE GUTTERLINE ELEVATION. THE INLET TO THE RAIN GUARDIAN TURRET WILL BE 10-1/2" ABOVE THE TOP OF THE CONCRETE BASE AND 1-1/2" BELOW THE GUTTERLINE ELEVATION TO ACCOMMODATE A SLOPED INLET FROM THE GUTTER TO THE RAIN GUARDIAN TURRET.
 2. SET RAIN GUARDIAN TURRET ON THE PREPARED CLASS 5 BASE.
 3. INSTALL FRAMING FOR INLET BETWEEN RAIN GUARDIAN TURRET AND BACK OF CURB. TOP ELEVATIONS OF THE FRAMING SHOULD MATCH THE TOP OF THE CURB ON THE STREET SIDE AND THE TOP OF THE RAIN GUARDIAN TURRET ON THE BIoretention SIDE.
 4. INSTALL EXPANSION/CONTRACTION JOINT MATERIAL OR A SHEET OF POLY TO SERVE AS A BOND BREAK BETWEEN RAIN GUARDIAN TURRET AND CONCRETE INLET BEFORE POURING INLET.
 5. SIDE CURBS OF THE POURED INLET MUST HAVE AN INSURMOUNTABLE PROFILE TO PREVENT WATER FLOW FROM OVERTOPPING THE DOWNSTREAM SIDE OF THE INLET.
 6. REMOVABLE FILTER WALL SHOULD BE INSTALLED WITH FILTER FABRIC ON THE INTERIOR SIDE OF THE RAIN GUARDIAN TURRET.

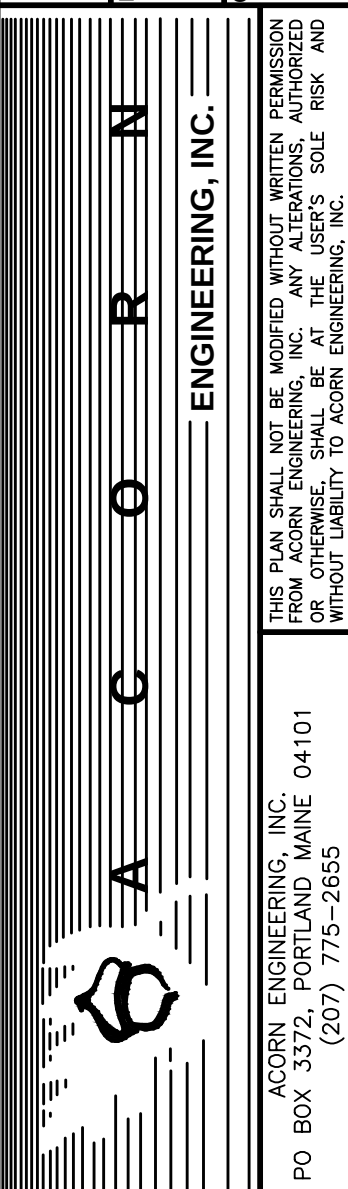
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
STORMWATER	PHH
MAJOR SITE PLAN	PHH
COMMENT RESPONSE	PHH

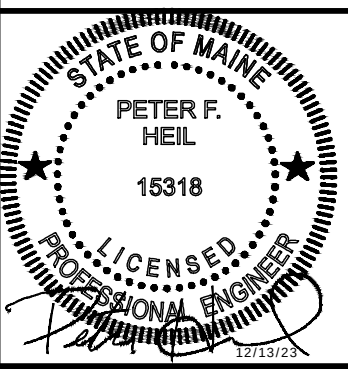
DRAINAGE DETAILS

PROJECT NAME/ADDRESS: **84 AUBURN & 94 AUBURN STREET REDEVELOPMENT**
84 & 94 AUBURN STREET, PORTLAND ME 04104

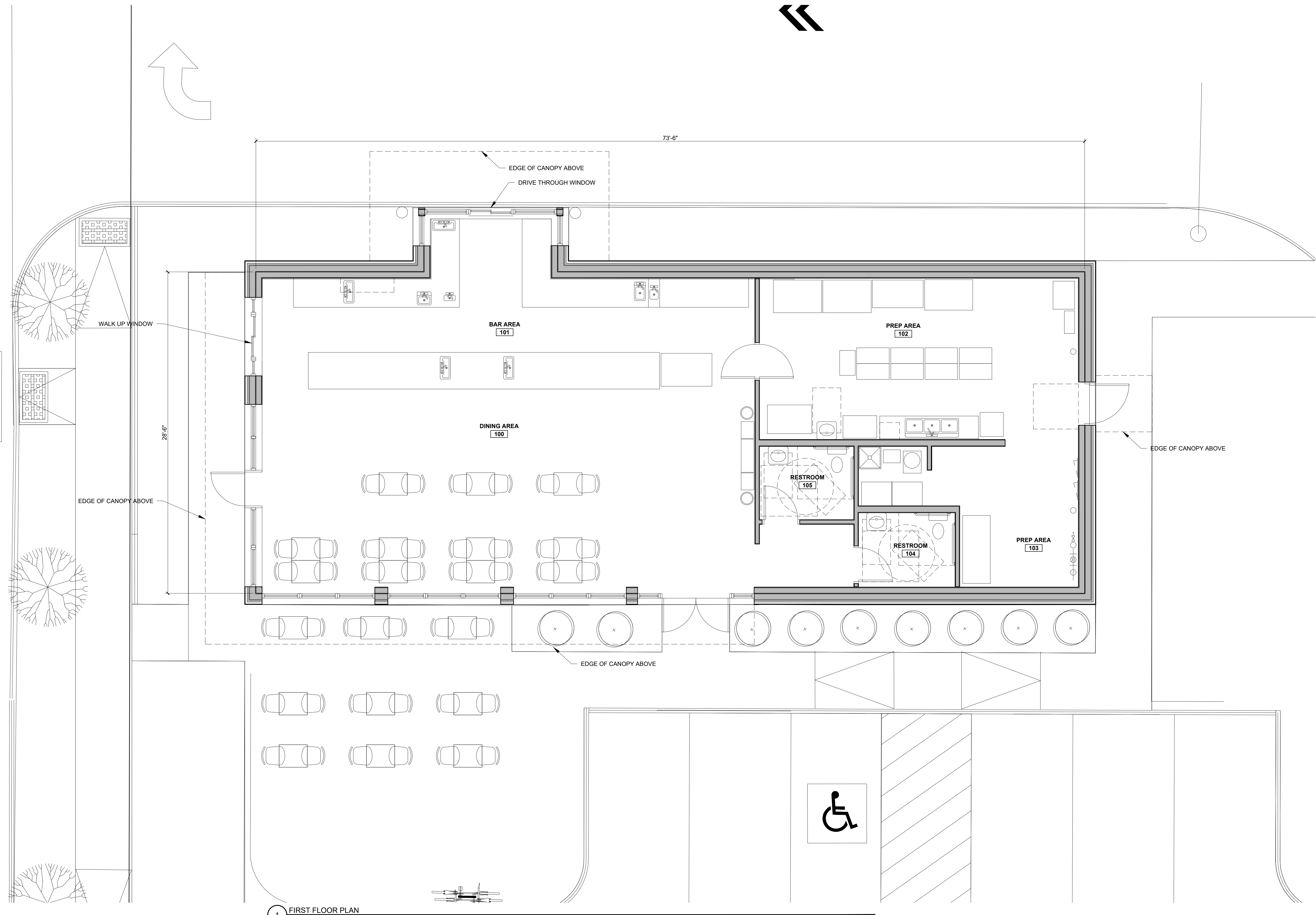
CLIENT/OWNER OF RECORD: **MSP PROPERTIES 94 AUBURN LLC. & 84 AUBURN LLC.**
7 HEATHER LANE FALMOUTH, ME 04105



FILE: 2.79_CIVIL
JN: 2.79
SCALE: AS NOTED
DESIGNED BY: MKT
DRAWN BY: DSH
CHECKED BY: PHH



DRAWING NO.
C-45



1 FIRST FLOOR PLAN
1/4" = 1'-0"

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ARCHITECTURE

NATIONAL COFFEE SHOP
84 AUBURN STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET, SUITE 2
PORTLAND, MAINE 04101
O: 207-747-5159
C: 207-650-6414
senatorearchitecture.com

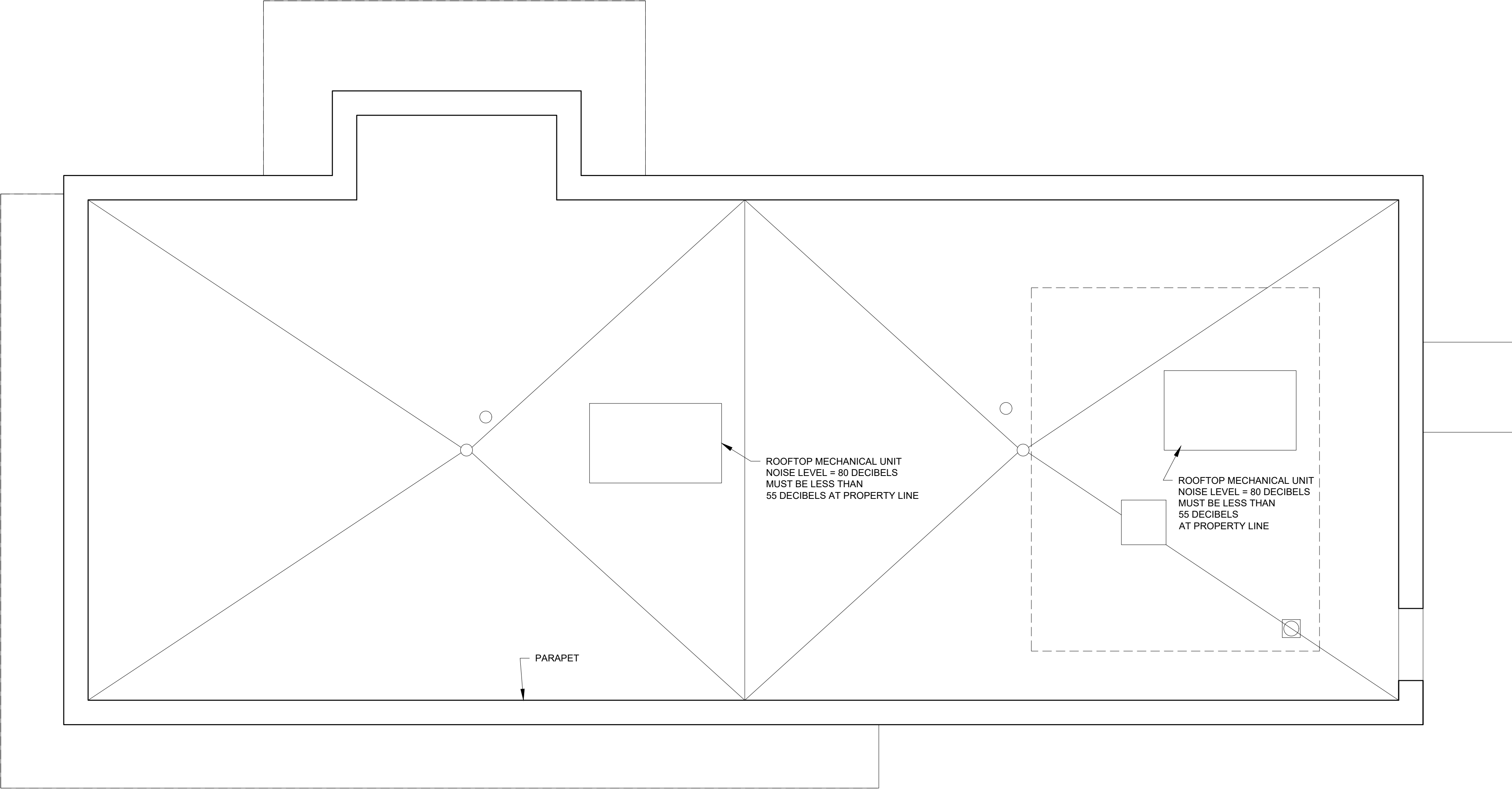
CONSULTANTS:

REVISION
PROGRESS PRINT ONLY
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12-19-23

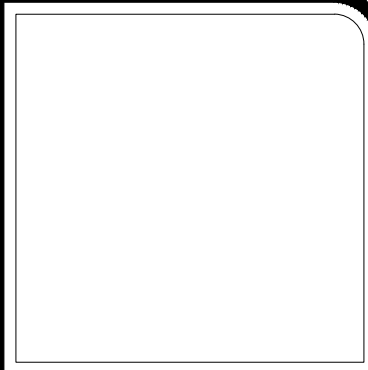
DATE:
PROJECT No. 2051
DRAWN BY: RJS, ES
CHECKED BY: RJS
SCALE: AS NOTED

SHEET TITLE:
FIRST FLOOR
PLAN

A1-1



1 ROOF PLAN
1/4" = 1'-0"



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ARCHITECTURE

NATIONAL COFFEE SHOP
84 AUBURN STREET
PORTLAND, MAINE



RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET, SUITE 2
PORTLAND, MAINE 04101
O: 207-747-5159
C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:

REVISION
PROGRESS PRINT ONLY
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12-19-23

DATE:

PROJECT No. 2051

DRAWN BY: RJS, ES

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
ROOF PLAN

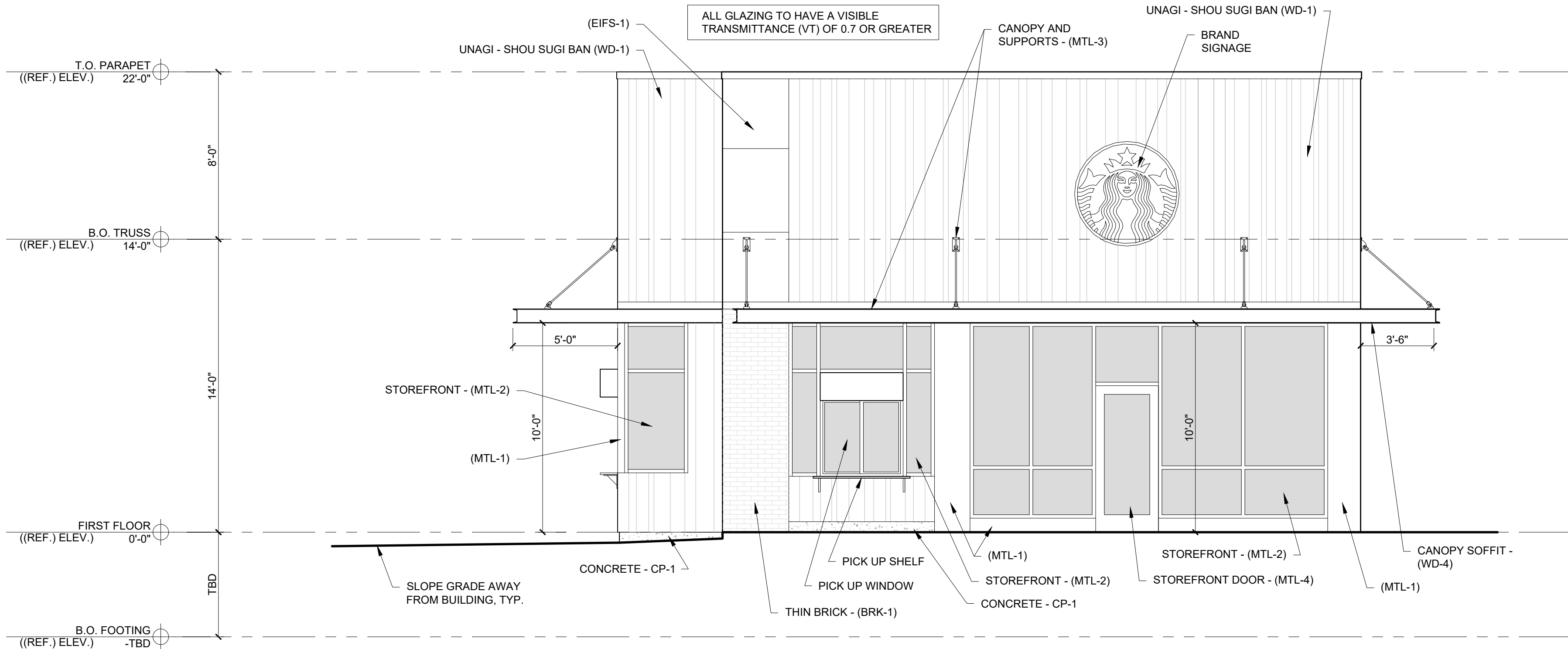
A1-3



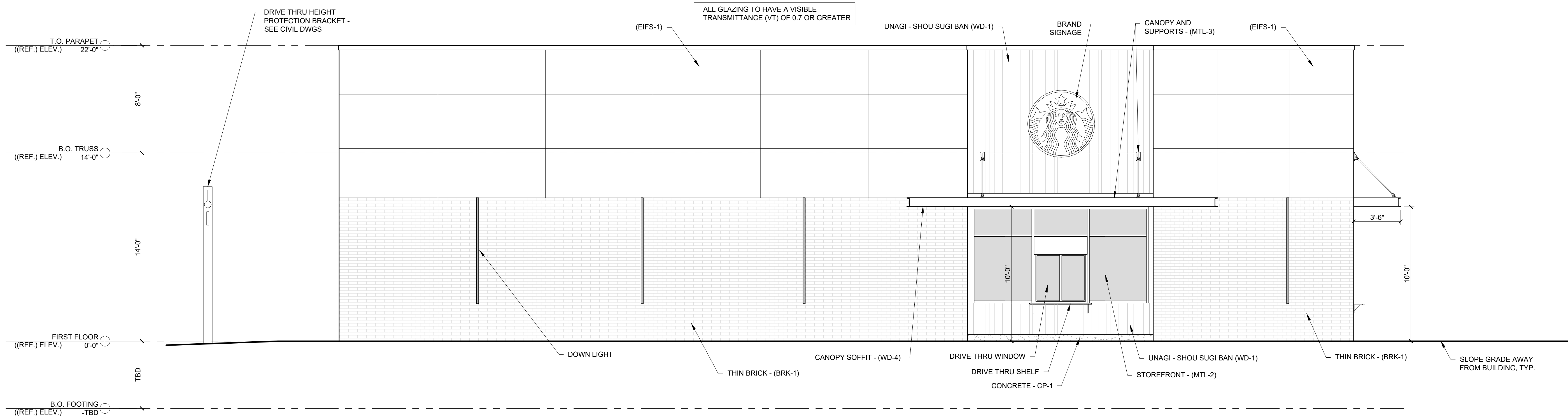
MATERIAL FINISH SCHEDULE				
No.	MATERIAL	MANUFACTURER	COLOR / DESCRIPTION	FINISH / STYLE
BRK-1	BRICK	MORA CERAMICA	SILVER GRAY SMOOTH [MORTAR TO MATCH BRICK]	NORMAN (2 1/4" X 11 3/8") <i>Available in both full bed depth brick or thin brick with tabs system application</i>
WD-1	TONGUE AND GROOVE ACCOYA WOOD SIDING (AT FACADE)	reSAWN TIMBER Co.	UNAGI - Shou Sugi Ban	BURNT ON FACE ONLY. SEALED ON ALL 4 SIDES. SOLID +/- 3/4" THICK x +/- 5 3/8" WIDE x 6'-16' RANDOM LENGTHS
WD-4	E4E EASED EDGE ACCOYA WOOD SIDING (AT CANOPY UNDERSIDE)	reSAWN TIMBER Co.	RAILAY 1C	FINISHED ON FACE ONLY. SEALED ON ALL 4 SIDES. SOLID 3/8" THICK x 5 3/8" WIDE
EIFS-1	EIFS	DRYVIT	STAR - 05 1022 ST	SANDPEBBLE FINE TEXTURE WITH STRATO-TONE COLORANT
PT-1	PAINT	SHERWIN WILLIAMS	SW 7024 - FUNCTIONAL GRAY	
MTL-1	METAL COPING	LOCALLY SOURCED	TO MATCH RAL #7021 MATTE MT0028 - FLAT BLACK	PRE-FINISHED
MTL-2	ALUMINUM STOREFRONT SYSTEM	LOCALLY SOURCED	TO MATCH RAL #7021 MATTE MT0028 - FLAT BLACK	ANODIZED
MTL-3	METAL CANOPY	LOCALLY SOURCED	TO MATCH RAL #7021 MATTE MT0028 - FLAT BLACK	POWDERCOAT
MTL-4	HOLLOW METAL DOOR FRAME	LOCALLY SOURCED	TO MATCH RAL #7021 MATTE MT0028 - FLAT BLACK	PAINTED
CP-1	CONCRETE	INCRETE SYSTEMS	COLOR-CRETE LIQUID SOFT GRAY	CAST IN PLACE

ELEVATION NOTES

- 2.) SEE ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING SPECS
- 3.) FOR EXTERIOR VENT LOCATIONS SEE MECHANICAL PLANS. ALL VENTS AND PENETRATIONS TO BE FLASHED INTO EXISTING FACADE AND PAINTED TO MATCH SIDING THEY ARE MOUNTED WITHIN
- 4.) G.C. TO PROVIDE A PARTIAL FULL SCALE MOCKUP FOR OWNER APPROVAL OF FINISH PRIOR TO CONSTRUCTION



2 EAST ELEVATION
1/4" = 1'-0"

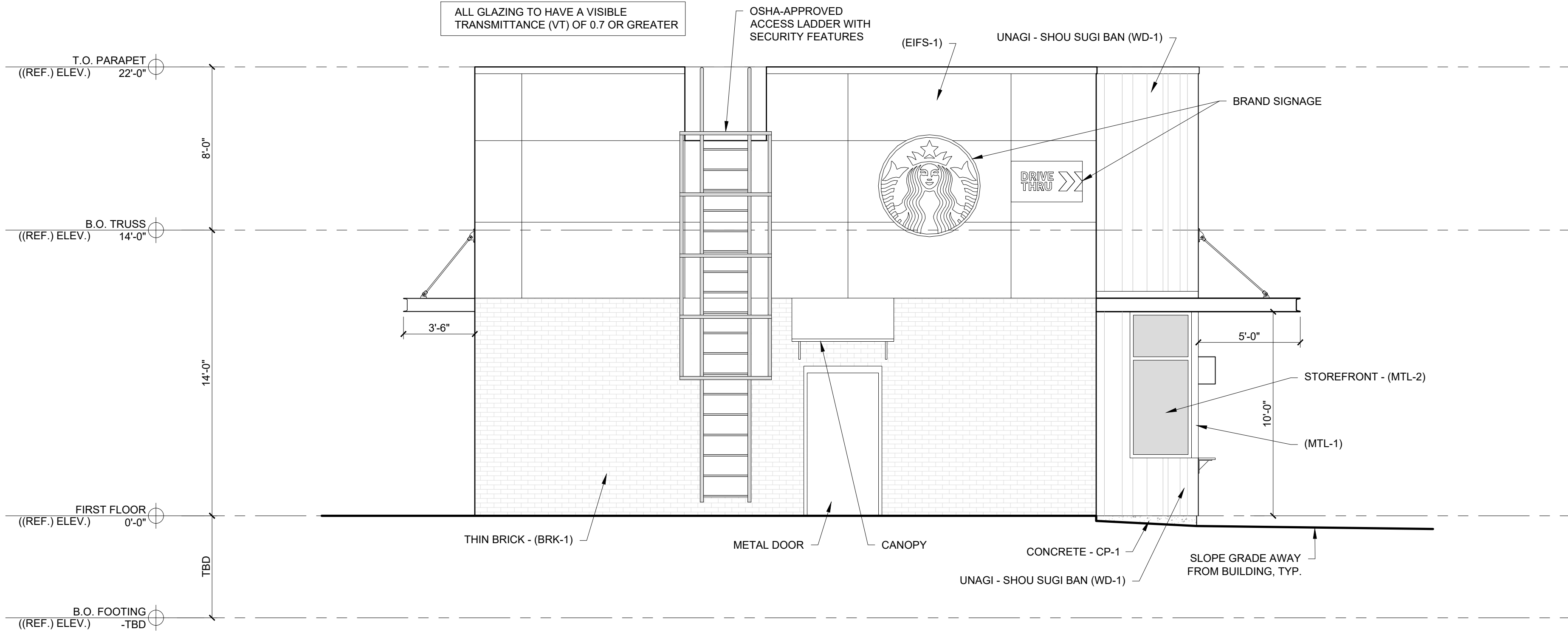


1 SOUTH ELEVATION
1/4" = 1'-0"

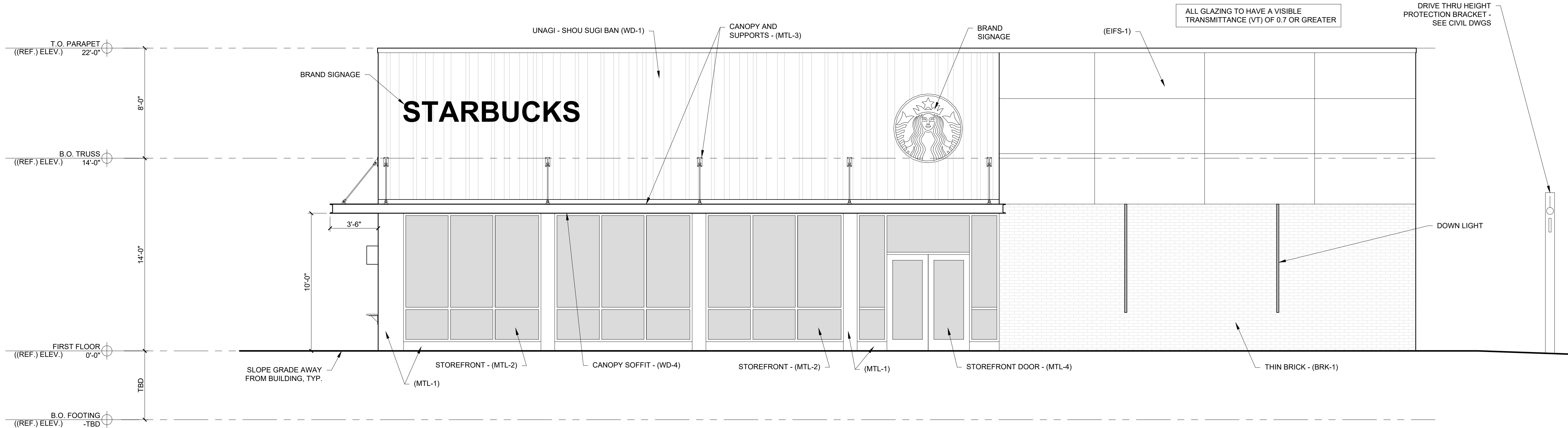


MATERIAL FINISH SCHEDULE				
No.	MATERIAL	MANUFACTURER	COLOR / DESCRIPTION	FINISH / STYLE
BRK-1	BRICK	MORA CERAMICA	SILVER GRAY SMOOTH [MORTAR TO MATCH BRICK]	NORMAN (2 1/4" X 11 5/8") <i>Available in both full bed depth brick or thin brick with tabs system application</i>
WD-1	TONGUE AND GROOVE ACCOYA WOOD SIDING (AT FACADE)	reSAWN TIMBER Co.	UNAGI - Shou Sugi Ban	BURNT ON FACE ONLY. SEALED ON ALL 4 SIDES. SOLID +/- 3/4" THICK x +/- 5 3/8" WIDE x 6'-16' RANDOM LENGTHS
WD-4	E4E EASED EDGE ACCOYA WOOD SIDING (AT CANOPY UNDERSIDE)	reSAWN TIMBER Co.	RAILAY 1C	FINISHED ON FACE ONLY. SEALED ON ALL 4 SIDES. SOLID 5/8" THICK x 5 3/4" WIDE
EIFS-1	EIFS	DRYVIT	STAR - 05 1022 ST	SANDPEBBLE FINE TEXTURE WITH STRATO-TONE COLORANT
PT-1	PAINT	SHERWIN WILLIAMS	SW 7024 - FUNCTIONAL GRAY	
MTL-1	METAL COPING	LOCALLY SOURCED	TO MATCH RAL #7021 MATTE MT0028 - FLAT BLACK	PRE-FINISHED
MTL-2	ALUMINUM STOREFRONT SYSTEM	LOCALLY SOURCED	TO MATCH RAL #7021 MATTE MT0028 - FLAT BLACK	ANODIZED
MTL-3	METAL CANOPY	LOCALLY SOURCED	TO MATCH RAL #7021 MATTE MT0028 - FLAT BLACK	POWDERCOAT
MTL-4	HOLLOW METAL DOOR FRAME	LOCALLY SOURCED	TO MATCH RAL #7021 MATTE MT0028 - FLAT BLACK	PAINTED
CP-1	CONCRETE	INCRETE SYSTEMS	COLOR-CRETE LIQUID SOFT GRAY	CAST IN PLACE

ELEVATION NOTES	
2.)	SEE ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING SPECS
3.)	FOR EXTERIOR VENT LOCATIONS SEE MECHANICAL PLANS. ALL VENTS AND PENETRATIONS TO BE FLASHED INTO EXISTING FACADE AND PAINTED TO MATCH SIDING THEY ARE MOUNTED WITHIN
4.)	G.C. TO PROVIDE A PARTIAL FULL SCALE MOCKUP FOR OWNER APPROVAL OF FINISH PRIOR TO CONSTRUCTION



2 WEST ELEVATION
1/4" = 1'-0"



1 NORTH ELEVATION
1/4" = 1'-0"



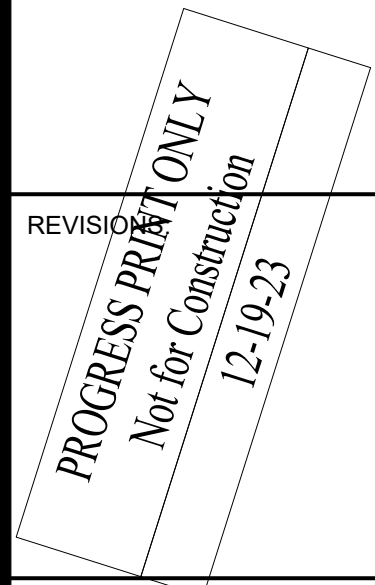
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NATIONAL COFFEE SHOP
84 AUBURN STREET
PORTLAND, MAINE



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O: 207-747-5159
C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:



DATE:	
PROJECT No.	2051
DRAWN BY:	RJS, ES
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
ELEVATIONS

A2-1

5-A-7, 42
N/F
LES T. &
F. RIDDLE

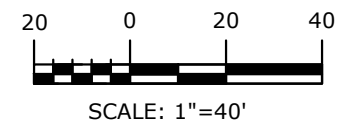
OFFSITE TREE
TO BE
PRESERVED &
PROTECTED
DURING
CONSTRUCTION

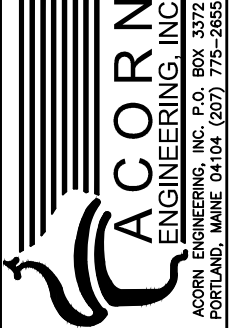
(3) EXISTING
TREES TO BE
PRESERVED &
PROTECTED
DURING
CONSTRUCTION

EXISTING
TREES TO
BE
REMOVED,
TYP.

#9
2
BUIL
1

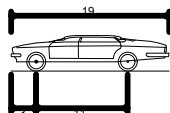
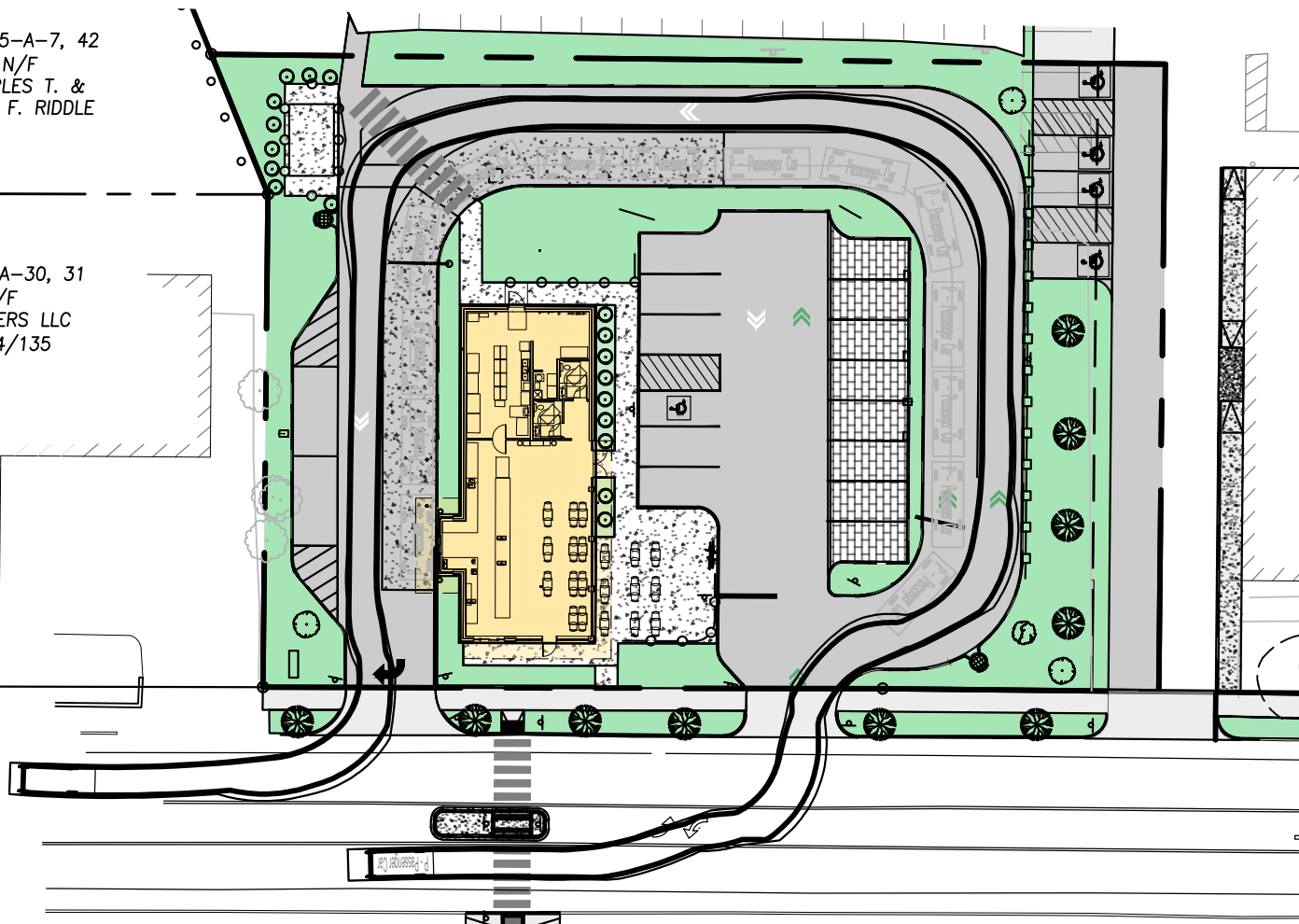
PROPOSED
LANDSCAPING
PER SITE PLAN,
SHEET C-10



ISSUED FOR		BY
COMMENT		DATE
RESPONSE		12/13/22
		REV
		DATE
DRAWING NAME:		
LANDSCAPING EXHIBIT		
PROJECT NAME:		
84 AUBURN STREET REDEVELOPMENT		
CLIENT:		
MSP PROPERTIES 94 AUBURN LLC		
 ACORN ENGINEERING, INC. ACORN ENGINEERING, INC. P.O. BOX 3372 PORTLAND, MAINE 04104 (207) 775-2855		
FILE: 2.79 CIVIL		
DATE: 9/13/2022		
JN: 2.79		
SCALE: 1"=20'		
DESIGN BY: MKT		
DRAWN BY: MKT		
CHECKED BY: PFH		
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.		
DRAWING NO.		
EX-L1		

TM 375-A-7, 42
N/F
CHARLES T. &
MARIE F. RIDDLE

TM 375-A-30, 31
N/F
BIKERIDERS LLC
37034/135



- assenger Car
Overall Length 19.0
Overall Width 7.00
Overall Body Height 4.30
Min Body Ground Clearance 1.1'
Track Width 6.00
Lock-to-lock time 4.00
Max Steering Angle (Virtual) 31.6



SCALE: 1"=40'

ISSUED FOR	BY
COMMENT RESPONSE	DATE
	12/8/23
	REV
	DATE

DRAWING NAME:
SITE TURNING EXHIBIT
PROJECT NAME:
84 AUBURN STREET REDEVELOPMENT
CLIENT:
MSP PROPERTIES 94 AUBURN LLC



FILE: 2.79 CIVIL
DATE: 9/13/2022
JN: 2.79
SCALE: 1"=20'
DESIGN BY: MKT
DRAWN BY: MKT
CHECKED BY: PFF

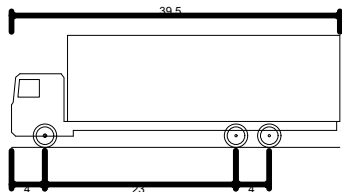
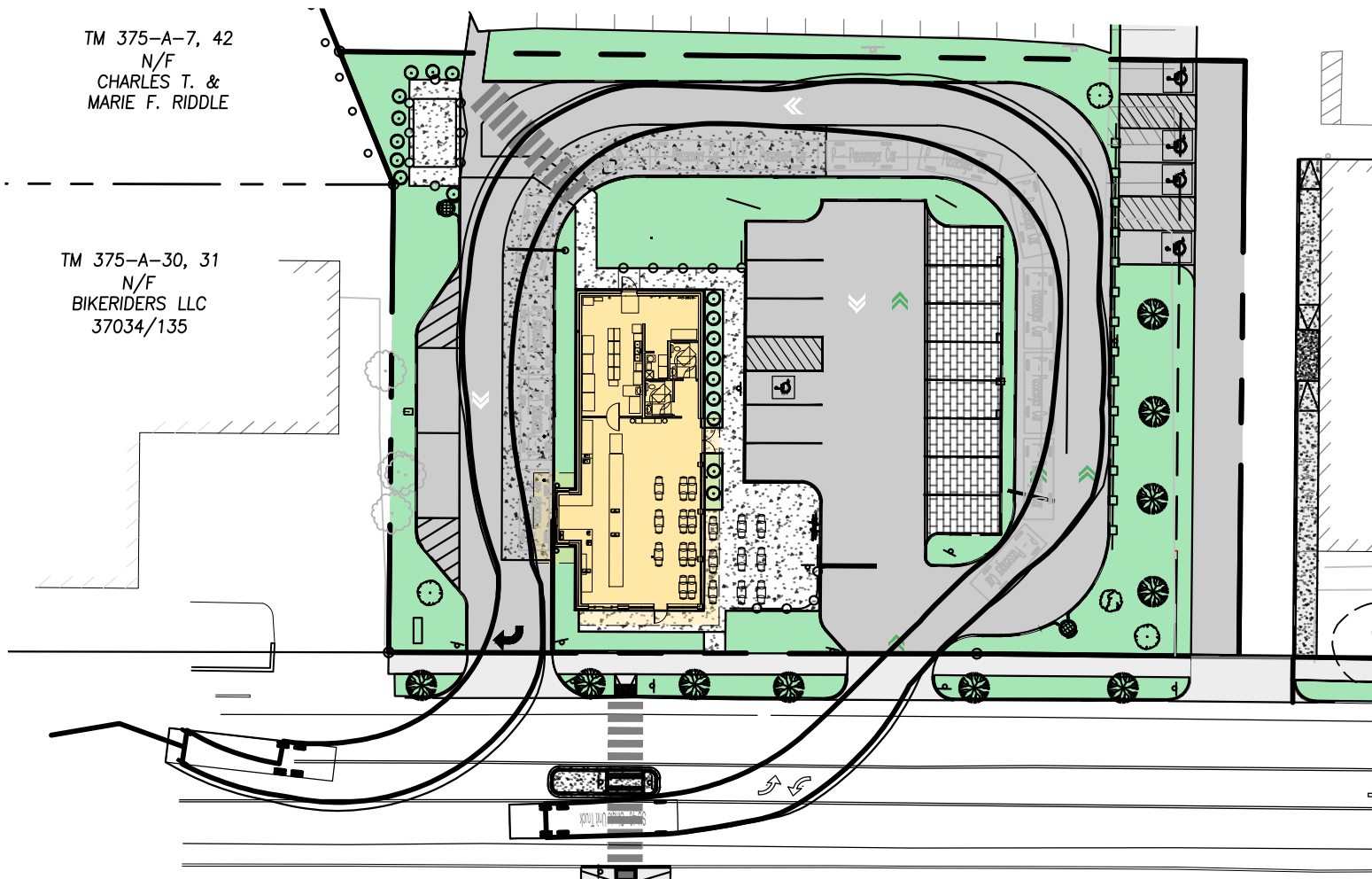
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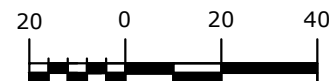
EX-T1

TM 375-A-7, 42
N/F
CHARLES T. &
MARIE F. RIDDLE

TM 375-A-30, 31
N/F
BIKERIDERS LLC
37034/135



SU-40 - Single Unit Truck
Overall Length 39.500ft
Overall Width 8.000ft
Overall Body Height 13.500ft
Min Body Ground Clearance 1.367ft
Track Width 8.000ft
Lock-to-lock time 5.00s
Max Steering Angle (Virtual) 31.80°



SCALE: 1"=40'

ISSUED FOR		BY
COMMENT		DATE
RESPONSE		PFH
		12/8/23
		REV
		DATE
DRAWING NAME: FIRE & DELIVERY TURNING EXHIBIT		
PROJECT NAME: 84 AUBURN STREET REDEVELOPMENT		
CLIENT: MSP PROPERTIES 94 AUBURN LLC		
 ACORN ENGINEERING, INC. ACORN ENGINEERING, INC. P.O. BOX 3372 PORTLAND, MAINE 04104 (207) 775-2855		
FILE:		2.79 CIVIL
DATE:		9/13/2022
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DRAWING NO.		
EX-T2		



1 PERSPECTIVE IMAGE 1
NTS

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NATIONAL COFFEE SHOP
84 AUBURN STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET, SUITE 2
PORTLAND, MAINE 04101
O: 207-747-5159
C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:

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12-19-23

DATE:
PROJECT No. 2051
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CHECKED BY: RJS
SCALE: AS NOTED

SHEET TITLE:
PERSPECTIVE
IMAGE 1

P1



1
NTS

PERSPECTIVE IMAGE 2

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PROJECT No. 2051

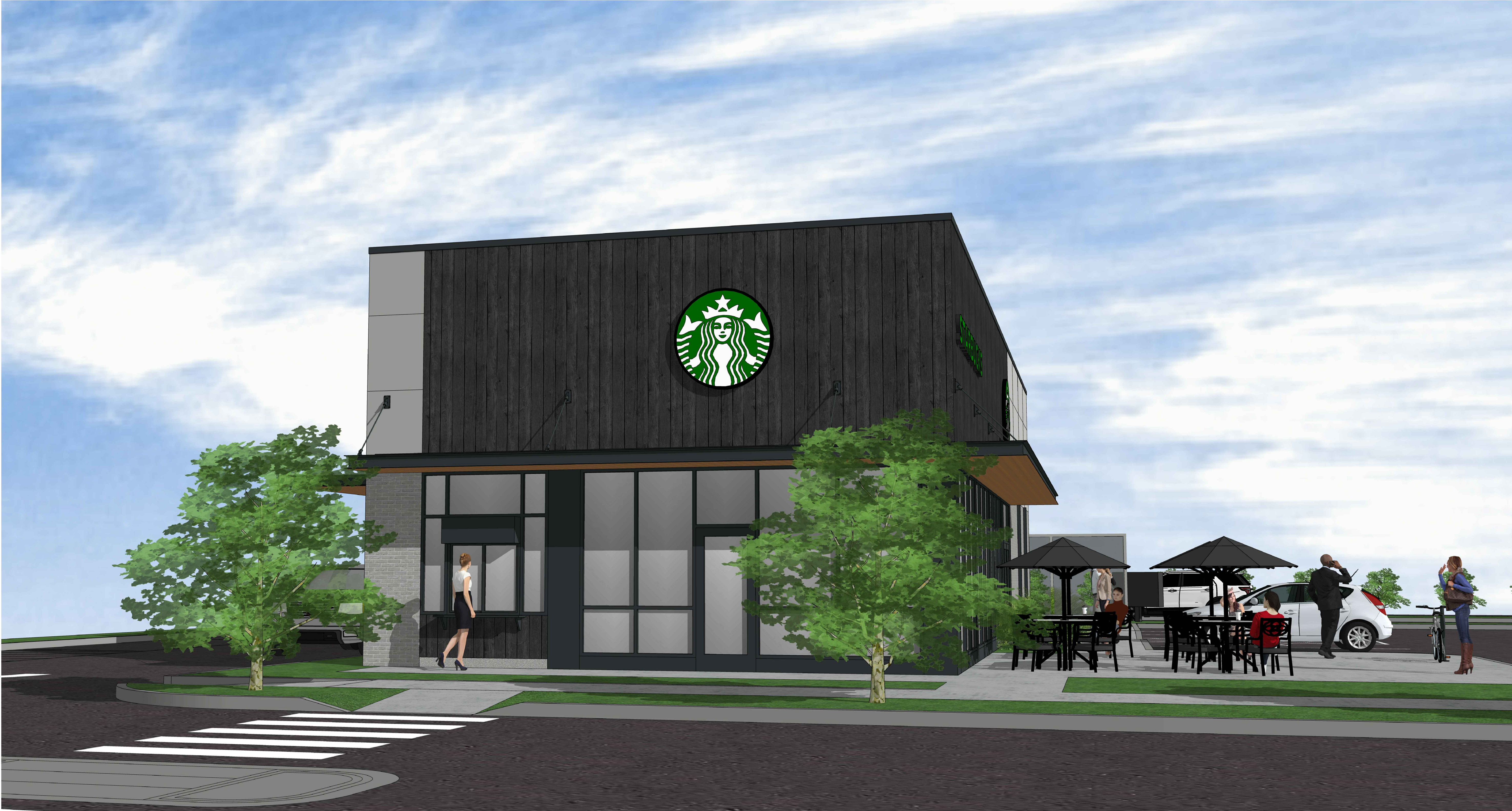
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SHEET TITLE:
PERSPECTIVE
IMAGE 2

P2



1 PERSPECTIVE IMAGE 3
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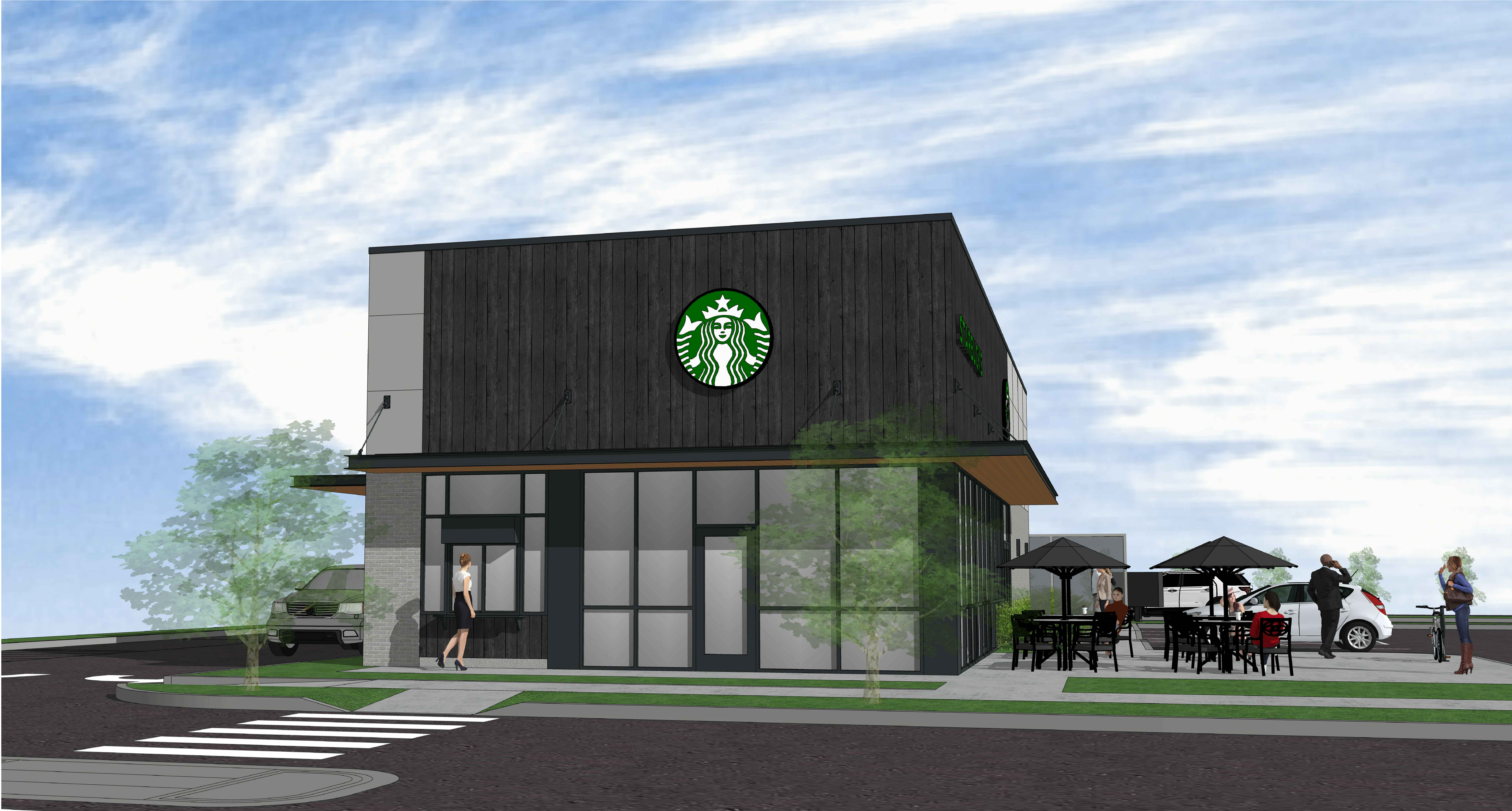
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IMAGE 3

P3



1 PERSPECTIVE IMAGE 3
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SHEET TITLE:
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IMAGE 3

P3



1

PERSPECTIVE IMAGE 4

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SHEET TITLE:
PERSPECTIVE
IMAGE 4

P4



1

PERSPECTIVE IMAGE 5

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PERSPECTIVE
IMAGE 5

P5



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REVISION	DATE
PROGRESS PRINT ONLY Not for Construction	12-19-23

DATE:	
PROJECT No.	2051
DRAWN BY:	RJS, ES
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
PERSPECTIVE
IMAGE 7

P7

1 PERSPECTIVE IMAGE 7
NTS



1 PERSPECTIVE IMAGE 6
NTS

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PROJECT No. 2051
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SCALE: AS NOTED

SHEET TITLE:
PERSPECTIVE
IMAGE 6

P6

1. BITUMINOUS SIDEWALK CONCRETE CURB AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO THE CITY OF PORTLAND STANDARDS.
2. PAINT STRIPING AND MARKINGS SHALL COMPLY TO THE CITY OF PORTLAND AND MUTCD STANDARDS.
3. ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OFFSITE.
4. CURB TO BE REMOVED, STOPPED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL SLOPES SHALL BE IN ACCORDANCE TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED _____ INCH PER FOOT WITH A MAXIMUM RISE OF 30".
6. SITE SIGNAGE SHALL COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL ALL SIGNAGE TO BE COORDINATED WITH THE CITY OF PORTLAND.
7. MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.
8. PAVEMENT JOINTS MUST BE SAWCUT & TACK COATED PRIOR TO PAVING TO PROVIDE A DURABLE & UNIFORM JOINT.
9. ALL WORK SHALL COMPLY WITH SECTION 14.6.1 OF THE CITY OF PORTLAND LAND USE CODE, AND SECTION 1.1.7 OF THE PORTLAND TECHNICAL MANUAL, NEW PARKING LOTS WITH FIVE OR MORE SPACES SHALL INCLUDE ENERGIZED ELECTRICAL OUTLETS OR INSTALLED CHARGERS CAPABLE OF PROVIDING LEVEL 2 CHARGING FOR ELECTRIC VEHICLES. ALL NEW PARKING SPACES SHALL BE SERVED BY SUFFICIENT CONDUIT, WIRING, AND ELECTRICAL SERVICE TO ALLOW FOR FUTURE INSTALLATION OF ELECTRIC VEHICLE EQUIPMENT.
10. ALL AMOUNTS AND DIMENSIONS ARE DETERMINED BASED ON CHAPTER 14, TABLE 19-A OF PORTLANDS TECHNICAL MANUAL: 1 SPACE / 150SF OF RESTAURANT OR BAR FLOOR AREA AND 1 SPACE / 400 SF OF GENERAL OFFICE FLOOR AREA.

SPACE AND BULK STANDARDS				
ZONE: B1 – NEIGHBORHOOD BUSINESS	REQUIRED	EXISTING	PROPOSED – 84 AUBURN	PROPOSED – 94 AUBURN
BUILDING (PRINCIPAL): MAX. FRONT SETBACK	10'*	N/A	10.00'	24.97'
BUILDING MIN. SIDE SETBACK	NONE, EXCEPT 5' IF ABUTTING A RESIDENTIAL ZONE	N/A	38.67'	2.74'
BUILDING MIN. REAR SETBACK	NONE, EXCEPT 10' IF ABUTTING A RESIDENTIAL ZONE	N/A	50.24'	186.65'
SIDE STEPBACK (ABOVE 35' ABUTTING RESIDENTIAL ZONE)	10'	N/A	N/A	N/A
REAR STEPBACK (ABOVE 35' ABUTTING RESIDENTIAL ZONE)	15'	N/A	N/A	N/A
FLOOR AREA (NON-RESIDENTIAL)	MAX 10,000 SF	N/A	2,250 SF	11,010 SF
STREET FRONTAGE	MIN. 20'	200'	200'	150'
LOT COVERAGE	N/A	0%	8%	18%
BUILDING HEIGHT (OFF-PENINSULA)	MAX. 35'	N/A	<35'	<35'
IMPERVIOUS SURFACE RATIO	90%	32%	71%	77%
PARKING SETBACK	10' FROM ANY STREET LINE	N/A	24.94'	125.32'

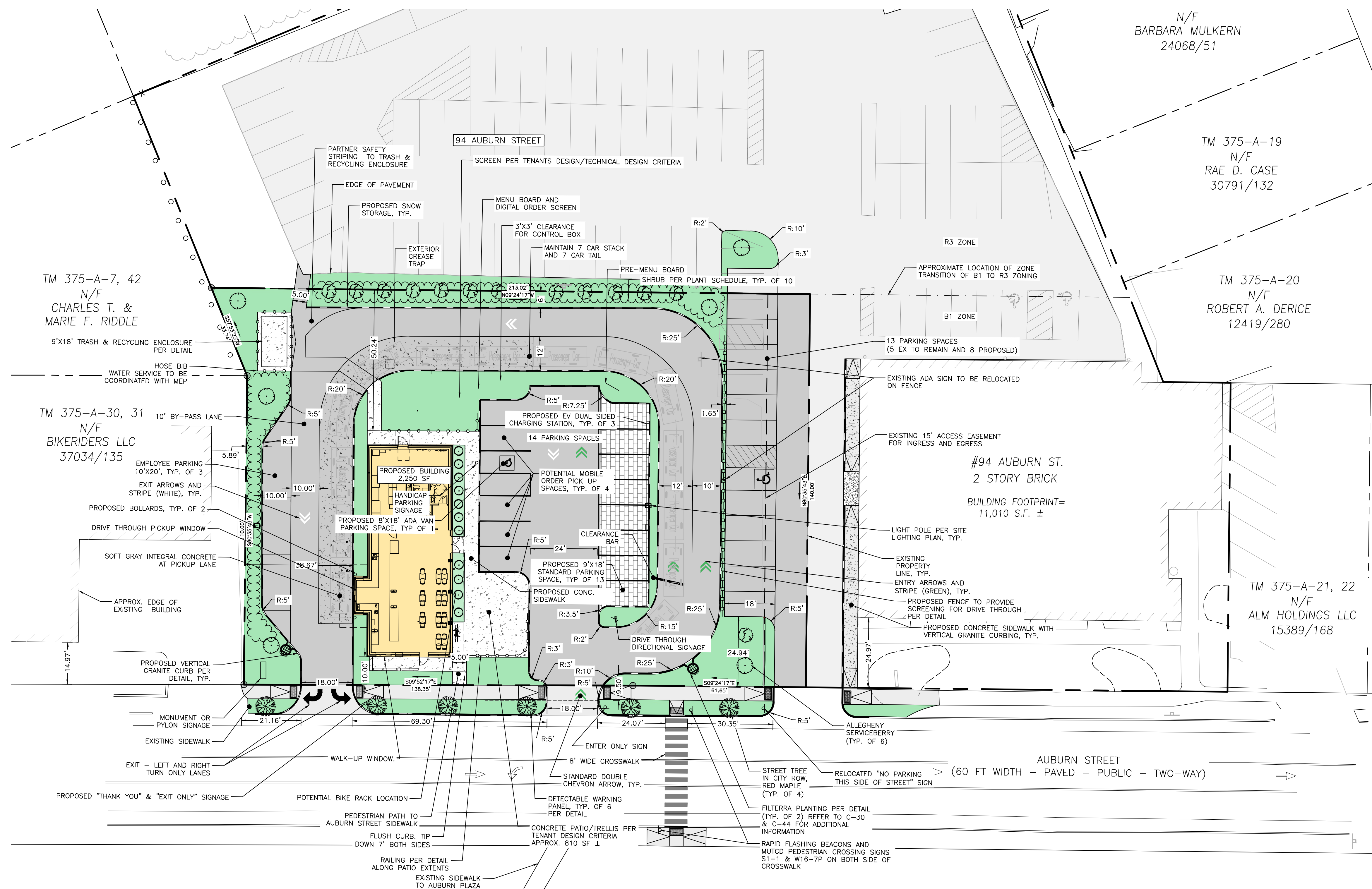
* PORTLAND DESIGN MANUAL SECTION D.1.A. B1 & B1b NEIGHBORHOOD BUSINESS STANDARDS READS: URBAN STREET WALL IN THE B1, B1b, AND B2b ZONE IT SHALL BE REQUIRED THAT BUILDINGS SHALL BE LOCATED TO CREATE AND PRESERVE AN URBAN STREET WALL.

1. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING INSTALLATION.
2. CONTRACTOR TO BE RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS AS NECESSARY.
3. CONTRACTOR TO BE INSTALLED UNTIL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. SUBSTITUTIONS TO THE PLANTING SCHEDULE ARE TO BE REVIEWED FOR APPROVAL BY THE CITY DEPARTMENT OF PUBLIC WORKS & TOWN ARBORIST (OR OTHER APPLICABLE TOWN OFFICIAL).
5. ALL PROPOSED GREEN SPACES AND ASSOCIATED PLANT SPECIES ARE TO BE REVIEWED WITH THE CITY DEPARTMENT OF PUBLIC WORKS & TOWN ARBORIST (OR OTHER APPLICABLE TOWN OFFICIAL).
6. CONTRACTOR TO VERIFY UTILITIES ON PROPERTY AND TO PROTECT DURING EXCAVATION FOR PLANTING.
7. CONTAINER MATERIAL TO BE GROWN IN CONTAINER MINIMUM OF 6 MONTHS. MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640,

PLANT SCHEDULE					
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SYMBOL
TREES					
AR	ACER RUBRUM	RED MAPLE	4	2" CAL.	
AL	AMELANCHIER LAEVIS	ALLEGHENY SERVICEBERRY	6	5"	
SHRUBS					
SP	SAUX PURPUREA "NANA"	PURPLE WILLOW	13	3 GAL.	
SI	SAUX INTEGRA "HAKURO NISHIKI"	DAPPLED WILLOW	5	3 GAL.	

PARKING SUMMARY				
	EXISTING 84 AUBURN STREET	EXISTING 94 AUBURN STREET	PROPOSED 84 AUBURN STREET	PROPOSED 94 AUBURN STREET
9'X18'	0	91	16	98
ADA (8'X18')	0	2	1	3
TOTAL REQUIRED SPACES	N/A	56	1 SPACE/150 SF FLOOR AREA = 17	56
TOTAL SPACES	0	93	17	101

*THE AMOUNT OF PARKING SPACES WAS DETERMINED BASED ON CHAPTER 14, TABLE 19-A OF PORTLAND MAINE LAND USE CODE: 1 SPACE/150 SF OF RESTAURANT OR BAR FLOOR AREA AND 1 SPACE/400 SF OF GENERAL OFFICE FLOOR AREA.



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

DRAWING NAME:	SITE PLAN
PROJECT NAME/ADDRESS:	84 AUBURN & 94 AUBURN STREET REDEVELOPMENT 84 & 94 AUBURN STREET, PORTLAND ME 04104
CLIENT/OWNER OR RECORDING OFFICE:	MSP PROPERTIES 94 AUBURN LLC. & 84 AUBURN LLC. 7 HEATHER LANE FALMOUTH, ME 04103



A C O R N

ENGINEERING, INC.

ACORN ENGINEERS, INC.
 PO BOX 3372, PORTLAND MAINE 04101
 (207) 775-2655

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SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	DSH
CHECKED BY:	PFH

DRAWING NO.

C-10