

CITY OF PORTLAND, MAINE

PLANNING BOARD



Sean Dundon, Chair
Brandon Mazer, Vice Chair
Bob Dunfey
David Eaton
David Silk
Austin Smith
Maggie Stanley

AGENDA PORTLAND PLANNING BOARD MEETING

The Portland Planning Board will hold a meeting on Tuesday, October 8, 2019, Room 209, 2nd Floor, City Hall, 389 Congress Street. **Public comments will be taken for each item on the agenda during the estimated allotted time and written comments should be submitted to planningboard@portlandmaine.gov.**

WORKSHOP - 4:30 PM

- i. Master Development Plan; 1 Portland Square; North River IV, LLC., Applicant. (estimated time 4:30 - 5:45 p.m.) The Planning Board will hold a workshop to consider a traffic movement permit associated with a Master Development Plan for the Portland Square properties located at 1 Portland Square. The 6.45 acre site is within the Downtown B-3 zone and is bound by Spring, Commercial, Center, Cotton and Cross Streets. The proposed Master Plan is a phased mixed-use development with the following uses and floor area: offices, 525,542 sf; retail space; 53,269 sf; residential units; 82 one and two-bedroom units; hotel, 135 rooms; and structured parking; 1,236 spaces. The Master Development Plan is subject to review under the City's Site Plan standards.
- ii. Map Amendment; 631 Stevens Avenue; DC Baxter Woods, LLC., Applicant. (estimated time 5:45 - 6:30 p.m.) The Planning Board will hold a workshop to consider a zoning map amendment from R-5 to B-2b for 631 Stevens Avenue. The map amendment is subject to review and recommendation from the Planning Board to the City Council.

PUBLIC HEARING - 7:00 PM

1. **ROLL CALL AND DECLARATION OF QUORUM**
2. **COMMUNICATION AND REPORTS**
3. **REPORT OF ATTENDANCE AT THE MEETING HELD ON SEPTEMBER 24, 2019**
Afternoon and Evening Workshop: Mazer, Smith, Eaton and Stanley present; Dundon, Dunfey and Silk absent.
4. **REPORTS OF DECISIONS AT THE MEETING HELD ON SEPTEMBER 24, 2019**
 - i. There were no public hearing items to report on.
5. **NEW BUSINESS**

- i. Level II Site Plan; 145 Washington Avenue; Akasha 155, LLC., Applicant. (estimated time 7:00 - 8:15 p.m.) The Planning Board will hold a public hearing to consider a Level II Site Plan application for a sauna and hydrotherapy business located at 145 Washington Avenue. The development is a two-story building that will consist of 4,818 sf of commercial space on the first floor and two residential units on the second floor. This item is an appeal of an application previously approved by the Planning Authority in accordance with 14-529(b) of the City of Portland Code of Ordinances.
- ii. Level III Site Plan; 263 Cumberland Avenue; Downtown Lodging, LLC., Applicant. (estimated time 8:15 - 9:30 p.m.) The Planning Board will hold a public hearing to consider a proposal for a five-story, 89-room lodging house with ground floor retail. The proposal would replace an existing 20-room lodging house and associated parking lot. The project is located in the B-2 zone and the proposal is subject to review under the City of Portland site plan standards.

Memorandum
Planning and Urban Development Department
Planning Division



To: Sean Dundon, Chair and Members of the Portland Planning Board
From: Matthew Grooms, AICP, Senior Planner
Date: October 4, 2019
Re: Level III Master Development Plan, Portland Square, North River IV, LLC
Project #: PL-000599-2019
Meeting Date: October 8, 2019

I. INTRODUCTION

North River IV, LLC has submitted a Master Development Plan (MDP) application for a phased mixed-use redevelopment of a two-block area (existing surface parking tied to Portland Square One and Two) in Portland's Downtown and Old Port district. As proposed, the project includes five (5) separate phases, six new buildings (two of which are proposed over the parking garage) and a development scheme consisting of a 135-room hotel, 525,542 square feet of office space, 53,269 square feet of retail space, 82 apartments (one- and two- bedroom) and 1,236 structured parking spaces.



Figure 1: Development Site in context

Review of the Portland Square MDP is anticipated to require multiple Planning Board Workshops, with the first two workshops (May 28 and August 13, 2019) having served as an opportunity to provide a comprehensive overview of the project, necessary infrastructure improvements, phasing and both building and site design. This third workshop will focus on the Traffic Movement Permit (TMP), a state permit for which the City has delegated review authority, required in instances where a development generates greater than 100 peak hour vehicle trips, and the Transportation Demand Management (TDM) Plan, a requirement for new commercial development exceeding 50,000 square feet.

The subsequent memorandum is narrowly focused on the traffic impacts of the project and mitigatory schemes to improve system-wide capacity, implement roadway improvements that reduce potential vehicular conflict and reduce parking demand through the promotion of demand management strategies. For a comprehensive overview of the project, please refer to the memo prepared for the first workshop.

(<https://portlandme.civicclerk.com/Web/Player.aspx?id=564&key=-1&mod=-1&mk=-1&nov=0>)

This development is being referred to the planning board for compliance with the MDP standards of the Land Use Code. A total of 213 notices were sent to property owners within 500 feet of the site and a legal ad ran in the *Portland Press Herald* on September 27th and 28th. A Neighborhood Meeting was held on May 22, 2019.

Applicant: North River IV, LLC, Christopher Flagg

Consultants: Stephen Weatherhead, Winton Scott Architects; Patrick Carroll, Carroll Associates; Barry Sheff, Woodard and Curran; John Swan, Owen Haskell, Jacques Dan, North River Company/Waterfront Maine

II. PROJECT DATA

Existing Zoning	B-3 Downtown Business, DE Overlay, PAD, Old Port Historic District		
Existing Use	Surface Parking Lot (542 spaces)		
Proposed Use	Office Space	525,542 SF	
	Retail Space	53,269 SF	
	Apartments	82 (1- and 2- bedroom units)	
	Hotel	135 Rooms	
	Structured Parking	1,235 spaces	
Property Size	6.45 acres		
	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	42,643 SF	187,833 SF	+ 145,190 SF
Building Floor Area	273,191 SF	1,047,859 SF	+ 774,668 SF
Impervious Surface Area	225,000 SF	300,000 SF	+ 50,000 SF
Parking Spaces	584 spaces	1,236	+ 652
Bicycle Parking Spaces	10	98	+ 88

III. TRAFFIC MOVEMENT PERMIT OVERVIEW (TMP)

As defined under Maine state statute 704—A, a traffic movement permit is required of any project that generates 100 or more passenger car equivalents at peak hour. Any project surpassing this threshold is required to make adequate provision for traffic movement of all types into and out of the project area such that any traffic increase that is attributable to the project will not result in unreasonable congestion or unsafe conditions within the vicinity of the development.

A preliminary step in this process is the ‘scoping meeting’, which is a formal review of the application material to determine the scope of impact evaluation required for the proposed project. A copy of the scoping meeting (May 15, 2019) notes are attached (Attachment 1).

At this meeting, and in subsequent discussions with the applicant, the study area as shown in Figure 3 was established, for which vehicle and pedestrian counts were to be compiled. In addition to the areas identified, the City is also requesting that additional information be provided on Franklin Street, between Middle Street and the I-295 ramp. This supplemental study has not yet been provided.



Figure 2: Proposed site layout plan

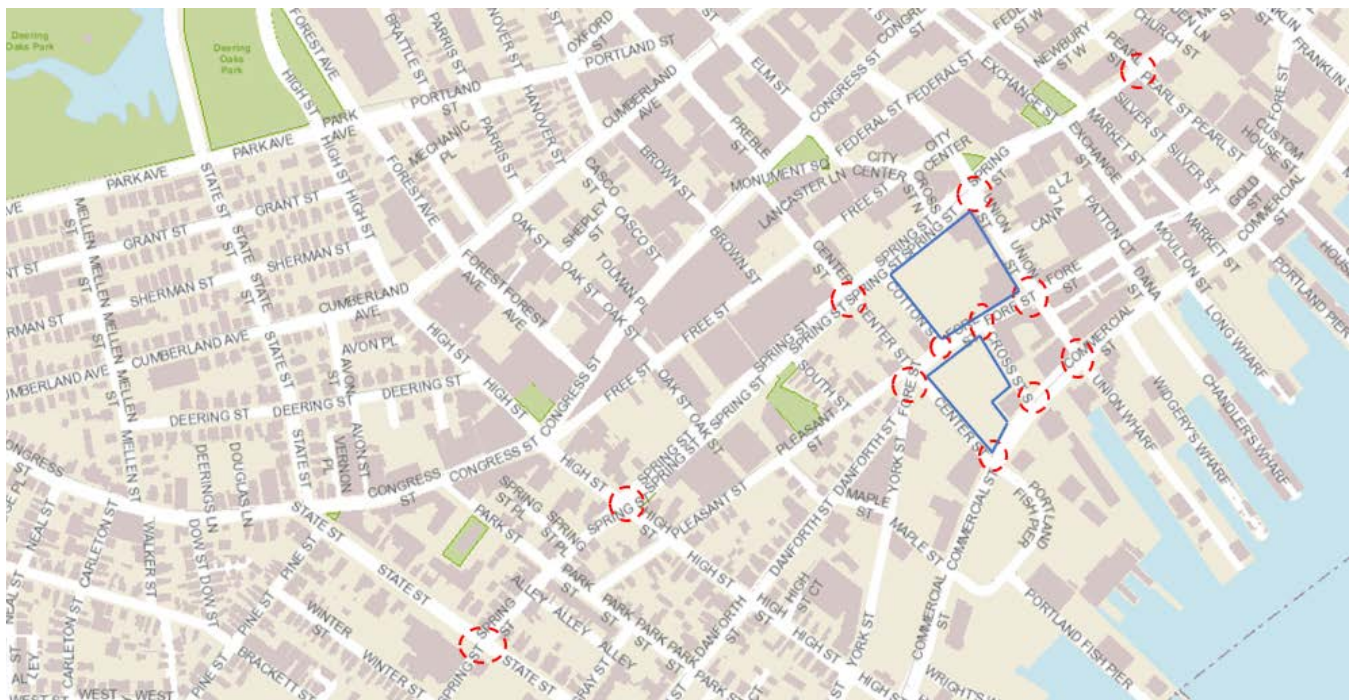


Figure 3: TMP Study Area for Portland Square with site shown outlined in blue. Note, Franklin Arterial is not shown here though is considered part of the study area.

A. Traffic Counts and Adjustments

Vehicle and pedestrian counts were collected on August 22, 2019, with peak hours varying slightly depending on intersection, ranging between 7:45 a.m. – 9:00 a.m. and 4:30 p.m. – 5:45 p.m. These raw traffic volumes are typically adjusted based upon three separate factors not captured by the counts themselves.

Seasonal Variation - Traffic volumes are typically adjusted to approximate the 30th highest hour of the year by a process established by MaineDOT. However, in this particular case, the counts were not adjusted, as the counts were collected during the peak summer period.

Annual Growth - Volumes are also adjusted to account for yearly growth, with an annual adjustment rate of 0.5% per year, a factor previously approved by the City of Portland. With an anticipated full build-out date of 2029, the raw data has been adjusted accordingly, as seen in Figure 3 in Attachment 7A of the Traffic Impact Study (Attachment A).

Accounted for Development – Under this process, a development is required to assess the number of anticipated peak-hour trips based upon type of use and gross square footage. This information is then adjusted using methodology developed by the National Cooperative Highway Research Program (NCHRP) to account for instances of internal trip capture. Internal trip capture estimations assume that a certain number of trips may occur simultaneously without leaving the site, negating the need to account for that trip two separate times. Trip counts may then be further reduced by factoring in other modes of transportation, including the use of transit, biking or walking. Trips generated by residential uses, the hotel use and other non-residential uses were reduced by 50%, 10% and 18% respectively, with reductions based upon recent mode-split data collected in either the 2010 census or 2009-2013 American Community Survey (ACS) five-year estimate. Upon full build-out, the Portland Square development is forecasted to generate 458 AM and 529 PM peak hour trips, taking into account all reductions.

Once the trip generation figures are finalized, they are then assigned as either primary trips or pass-by trips, and then distributed according to existing traffic patterns, identified through annual average daily traffic (AADT) values provided in Maine DOT's MapViewer tool and turning movement counts collected as part of this process.

This process, completed as part of a Traffic Impact Study (TIS) has been similarly undertaken by other recently approved projects within the vicinity of Portland Square, that have not yet been developed. These include the developments at 383 Commercial Street (former Rufus Deering site), Canal Landing (400 W. Commercial Street), 184 Commercial Street, Ocean Gateway Subdivision (Eastern Waterfront TMP) and Portland Company's 58 Fore Street development. The data from these applications have also been included within the applicant's model.

B. Capacity Analysis

A key assessment of the TIS report is whether or not the proposed development would result in roadway Level of Service (LOS) deficiencies warranting mitigation. Similar to an academic ranking system, LOS A represents excellent traffic conditions with little control delay, whereas LOS F represents poor traffic conditions. If the level of service falls below a 'D', then further evaluation of that roadway is required.

Level of Service Criteria for Unsignalized Intersections

Level of Service	Control Delay per Vehicle (s)
A	Less than 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

Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (s)
A	Less than 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	Greater than 80.0

The completed analysis assesses pre- and post-development conditions using the existing intersection geometry. Signal timing and phasing was adjusted slightly for the post-development model to account for Cotton Street connecting through to Spring Street, and to improve overall traffic flow.

Approach	Level of Service			
	2029 AM Pre	2029 AM Post	2029 PM Pre	2029 PM Post
Pleasant / York / Center / Fore (Signalized)				
Pleasant EB	B	B	C	D
Fore WB	A	A	B	B
York NB	B	C	E	D
Center SE	B	B	E	E
Center NW	A	B	F	F

Overall	B	B	E	D
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Of the intersections assessed in the TIS report, only the Gorham's corner intersection (shown above) featured a post-development level of service less than LOS D. For a review of other intersections, please see the Level of Service Summary within the TIS report, under Section X (Attachment A).

As a caveat, the report includes a special note regarding the capacity analysis results, which states that the analysis was completed to isolate and identify the traffic impacts of the proposed development on the intersections. According to this report, there are factors identified outside of the impacts of the proposed development that influence the actual operations of the intersections. One example identified is the congestion that occurs at the intersection of Center and Commercial Street, where significant queuing along Commercial Street in both directions adversely impacts the fluid operation of that intersection. Based on peak hour observations, the intersection operates at LOS F and would continue to do so after the proposed development is complete (though not as a result of the development). By isolating the proposed development, the report attempts to depict impacts directly applicable to the Portland Square development.

C. Queue Analysis

As its name would suggest, a queue analysis assesses the number of vehicles queued within the approaches to a given intersection and the available storage length. Typically, this information is then compared against a projection of the anticipated queuing lengths within the post-development model. To supplement the model, the applicant's traffic consultants also provided qualitative analysis of the various intersections, with most significant queuing observed along Commercial Street, particularly in the approach to the Beech Street ramp. The report identifies exclusive pedestrian crossing phases (Commercial/Center Streets) and left turning movements as exacerbating congestion and queuing. Other notable queue lengths include those along York Street in the approach to Gorham's corner, and along High Street in the approach to Spring Street.

D. Crash History and Accommodation

The report includes crash data (2016-2018) obtained from MaineDOT for an area expanded beyond the study area described above. In assessing crash data, the primary aim is to identify what are defined as High Crash Locations (HCL), which must meet the following criteria to qualify:

- A critical rate factor (CRF) of 1.00 or more for a three-year period. A CRF compares the actual crash rate to the rate for similar intersections in the state. A CRF of less than 1.00 indicates a rate of less than average; and
- A minimum of eight crashes over the same three-year period



Figure 4: View of the expanded crash study area

Based on these criteria, the applicant identified three HCLs:

- Intersection of Park Street with York Street: CRF 1.10, 8 collisions
- Intersection of York Street with High Street: CRF 1.15, 20 collisions
- Commercial Street from Cross Street to Union Street: CRF 1.88, 9 collisions

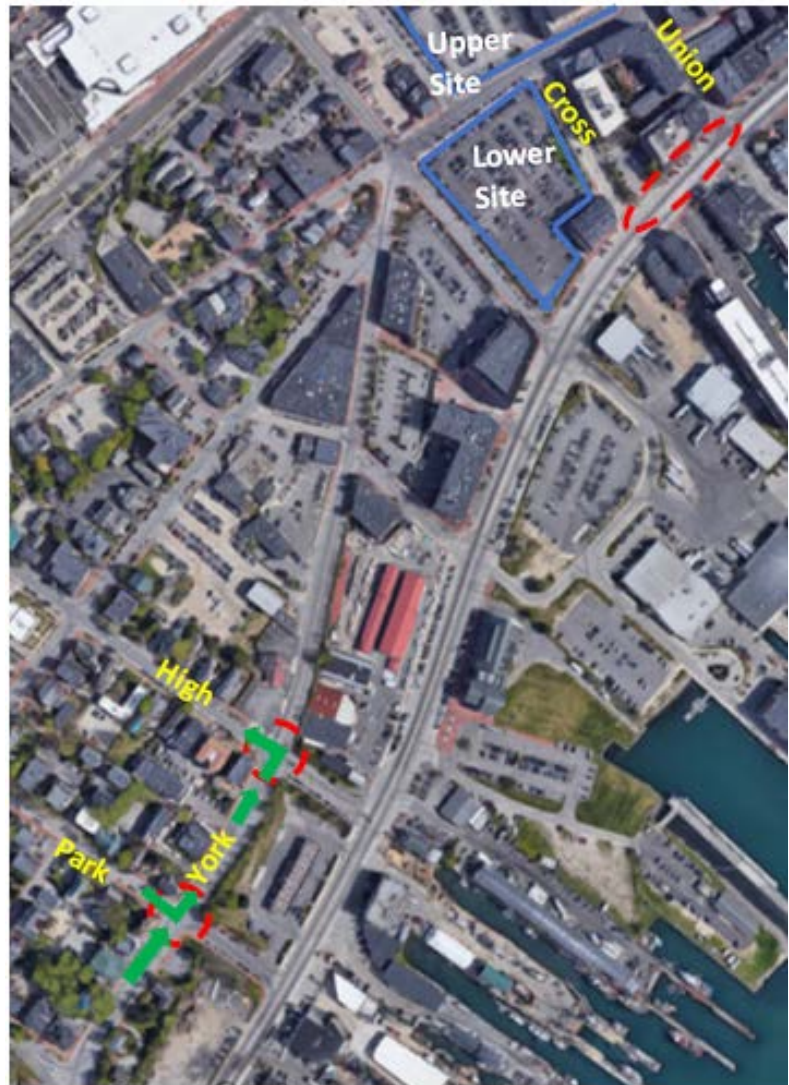


Figure 5: Three HCLs identified. The arrows indicate the prevailing crash patterns at those locations.

The crashes occurring at Park and York, have been attributed to a number of factors, including high vehicle speeds along York Street, inadequate sight distances from Park Street, potential obstruction of sight distances by tree limbs and/or parked vehicles, and potentially poor visibility of the existing stop sign. Meanwhile, the crashes occurring at York and High Street have typically involved rear-end collisions with vehicles attempting to turn left onto High Street. The study also identifies two collisions where pedestrians were involved, wherein pedestrians were struck by vehicles turning left from High Street westbound.

E. Recommendations of the Traffic Impact Study

- Timing changes to the signalized intersections within the study area should occur with any significant development.
- Pedestrian accommodations and geometric improvements to the Pleasant, York, Center and Fore Street intersection (Gorham's Corner).
- Addition of a STOP sign on Park Street at the unsignalized Park, York Street intersection.

F. City Staff Review:

Since the TMP scoping meeting, held on May 15, 2019, city staff have been in regular communication with the applicant and representatives from MaineDOT to coordinate the parameters of the TMP study area, crash assessment area, land-use classifications and trip reduction methodology. Staff held a follow-up meeting with the applicant to finalize the study area on July 30, 2019. Tom Errico, P.E., Traffic Engineering Director with T.Y. Lin has managed review of the TMP, with additional input from Michael Tremblay, P.E. Senior Engineer with the Department of Public Works, Jeremiah Barlett, P.E., Traffic Engineer with the Department of Public Works, and Bruce Hyman, Transportation Program Manager with the Department of Planning and Urban Development. The City of Portland has delegated review authority as granted by MaineDOT.

The following from Mr. Errico, summarizes preliminary comments in conjunction with the Traffic Movement Permit and review of the Traffic Impact Study Section #7 dated September 2019 as prepared by Gorrill Palmer. These comments focus on the traffic volumes, modeling, levels of service and recommendations (Attachment 2). Text in blue identifies actionable items to be taken by the applicant.

- I continue to review existing traffic volumes and will be comparing the data provided in the Study with historical counts to confirm reasonableness. I was surprised that the data indicates the morning peak hour occurred from 8:00-9:00AM, which is later than expected. [The Applicant shall provide the traffic count sheets for review.](#)
- The purpose of collecting actual field-based intersection vehicle queue information was to incorporate some level of calibration to the Synchro/SimTraffic model. While it is not expected that the model will perfectly match existing conditions, the City would like to have a high level of confidence in the model output. [It is unclear if the Applicant used the existing queue data to calibrate the model and if so, documentation should be provided. If not, the Applicant should use the queue data to enhance or confirm the accuracy of the model. A full review of the model will take place after calibration documentation/incorporation occurs.](#)
- The Study noted that Cotton Street is being extended to Spring Street and will be restricted to right-turn in/out movements. At the Cotton Street/Fore Street intersection left-turns from Cotton Street will be prohibited. [The City would like the Study to provide analysis/documentation that led the Applicant to propose these turn restrictions.](#) This will help to provide an informed decision when considering vehicle delays, geometric elements, and full accessibility.
- As the Study notes the level of service conclusions for some of the study intersections do not match actual conditions due to issues outside of the Study area. We do not find the modeling results to be helpful in assessing project impacts when the Study presents a network that is functioning very well with little delay. [We request that the Study/model account for these outside influences so that system operations before and after project completion can be fully understood.](#)
- [The Synchro model at the High Street/Spring Street intersection shall be modified to reflect existing lane configurations on the High Street approach.](#)
- [The Study should document the benefits of changing the pedestrian phasing at the Commercial Street/Center Street intersection. The analysis should also be performed with and without the elimination of the westbound right-turn lane onto Center Street.](#)
- [The Study should identify a menu of suggested mitigation strategies at the Pleasant Street/York Street/Center Street/Fore Street intersection. This will include an Alternatives Analysis and shall include concepts previously provided to the Applicant \(Roundabout and Pedestrian Enhancements Improvements\). This Analysis should include measures including levels of service, multi-modal accommodations, cost, right-of way impacts, etc. The Study documents failing conditions and when viewing the animation feature of SimTraffic vehicle queues will impact adjacent intersections including the Spring Street/Center Street](#)

intersection. I would note that this location abuts the site and would be expected to be significantly impacted from a vehicle and pedestrian/bicycle perspective.

- The Franklin Street analysis portion of the Section #7 is pending, and comments will be provided upon receipt of that information.

Supplemental review comments were provided by Michael Tremblay, P.E. with specific focus on safety and the pedestrian/bicycle realm. Those comments are as follows, with actionable items highlighted in blue (Attachment 3):

- The pedestrian counts in the TIS do not appear to be accurate. We have summertime counts that show thousands of pedestrians crossing Commercial Street during the PM peak hour, for example. During a busy summer morning or afternoon, particularly in the Old Port on the weekend before Labor Day, we would expect these volumes to be much, much higher. DPW suspects that perhaps bicycle volumes were mistakenly used, rather than pedestrian volumes. [Regardless, we ask the Applicant to review these pedestrian volumes to ensure their accuracy, checking with their counting consultant if need be. If the Applicant believes these numbers to be correct, DPW would like to review the raw count numbers from the counting consultant.](#)
- [Assuming the pedestrian volumes are incorrect in the TIS figure, the updated volumes should be factored into the traffic analysis.](#) In many of the study area intersections, pedestrians play a significant factor in operations, as vehicles must stop or yield for pedestrians even if traffic volumes are relatively low. DPW understands that the Applicant shall not be held responsible for poor operations that result from large numbers of pedestrians, but the existing conditions traffic model should be an accurate representation of the existing traffic situation in the study area. [Pedestrians should be coded into the traffic model as "conflicting pedestrians" at stop-controlled and signalized-concurrent phasing intersections, and should be accurately included into the "Ped Calls per Hour" field in all signalized intersection analyses.](#)
- [Existing bicyclist counts should be included in the TIS.](#) It can be combined with the pedestrian figure, if the Applicant prefers, provided that that figure is not too difficult to read. [Bicyclists should also be included in the traffic model, coded under the "Conflicting Bikes" field.](#)
- It is not clear that queue observations were used to calibrate the existing conditions model. Existing queues are provided in the TIS, but only in the form of the Synchro readouts. The Applicant does not discuss whether these queues are in line with what was observed in the field.
- DPW has significant concerns with the "Special Note" on Page 9 of the TIS. The purpose of a traffic study is to determine the effects of a development on the real-world traffic network. The Applicant notes that queuing from downstream intersections is so significant that it causes the study area intersections to operate at failing levels of service. To account for this, the Applicant removed these factors from their model. As a result, the existing conditions traffic analysis of these locations do not reflect the reality of how the street operates. The Applicant provides an example of where these adjustments were made (Commercial Street at Center Street); however, they do not note every location where this was done. It is difficult to truly assess the TIS without knowing the assumptions of the Applicant.

[The most desirable way to accurately model the study area intersections is to model adjacent non-study area intersections, to the best of the Applicant's ability using past traffic studies, the Applicant's knowledge of the area, and sound engineering judgement.](#) It is the Applicant's responsibility to create an accurate existing conditions model to the best of their ability, including modeling non-study area intersections to their traffic model when necessary. The City would be happy to provide any information we can provide for these non-study area locations if it helps the Applicant create a realistic existing conditions model. It may be that the best possible way to improve study area intersections is to make improvements to a downstream non-study area location.

The traffic analysis should be reconstructed and fully calibrated with existing conditions, including queues, pedestrian volumes, and bicycle volumes. Issues should be documented and discussed qualitatively in the TIS, and reflected in the traffic analysis. If an intersection performs poorly due to operations at another location that is not part of the study area, the Applicant should explicitly state this in the TIS for each location. Inclusion of other indicating factors aside from LOS, including average delay per vehicle in seconds (which is how LOS is determined) Volume to Capacity ratio, and 95th percentile queue lengths should be considered. Without an Existing Conditions model that is an accurate representation of the real-world conditions, the true impacts of the project's trips cannot be accurately assessed.

- Suggested mitigation for Gorham's Corner (Fore/Pleasant/Center/York) should be provided in the TIS. This location is the most problematic intersection in the study area (according to this TIS) and is at the Project's front door. It is the responsibility of the Applicant to suggest improvements at locations such as these.
- Existing traffic volumes shown on Pleasant Street EB appear to be very low (31 total vehicles in the AM peak hour; 12 total vehicles in the PM peak hour). This appears to be low. The Applicant should confirm.
- The Applicant should provide more detail in the possible causes of crashes at HCL's, and outline some possible improvements. These will not be considered commitments, but mitigation may include safety improvements at HCL's. At High Street/Park Street, six of the eight crashes involved High Street northbound vehicles, including three angle crashes involving Park Street southbound vehicles; two single vehicle/fixed object crashes, and one rear-end crash involving a turning High Street northbound vehicle. While it is impossible to know the full details of these crashes without more information, all of these crashes may be attributable to the speed of High Street NB vehicles. At High Street/York Street, eight of the 20 crashes were sideswipe crashes involving vehicles turning from York Street EB onto High Street NB, while five crashes were rear-end crashes involving York Street EB vehicles. These are trends that should be explored, and possible mitigation suggested.
- The Applicant should discuss trends for crashes involving pedestrians and bicyclists in more detail. There is a very brief discussion on the number of pedestrian crashes in the study area; however, the crash map provided in Attachment 7D appears to show several distinct clusters, including two pedestrian-involved crashes at York/High; five crashes involving peds/bikes at Fore/Union/Temple; and five crashes involving pedestrians along Middle Street between Temple Street and Franklin Street, including three at Middle/Pearl. The Applicant should look at each of these cluster locations specifically for pedestrian/bicyclist safety issues, and suggest possible changes; again, these are not intended to be commitments to be implemented by the Applicant, but merely a menu of potential improvements that may be considered for mitigation, either by the Applicant, a future development project, or a future City project.

IV. TRANSPORTATION DEMAND MANAGEMENT (TDM) PLAN

In accordance with Portland's site plan ordinance, new commercial development exceeding 50,000 square feet of floor area is required to provide a transportation demand management plan, a document that outlines goals, strategies and monitoring provisions for reducing the number of peak hour vehicle trips and encouraging alternative modes of transportation. Typically, a TDM is required of new site plan applications, though both City staff and members of the Planning Board have encouraged the applicant to develop a TDM framework for the master development plan (MDP) that would govern future phases of the development. The TDM for Portland Square is included as Attachment B.

A. Transportation Context

Downtown Portland in the vicinity of the proposed Portland Square development is considered highly walkable, where daily errands would not require use of a car given the availability of local amenities, access to public transportation and high-quality pedestrian and bicycle infrastructure. From a transit perspective, the project site is proximate to the Casco Bay Lines Ferry terminal with regular service to islands within Casco Bay and within a quarter mile of bus stops serving the following routes:

Greater Portland METRO Local Service

- Husky Line – Portland/Westbrook/Gorham via USM Portland USM Gorham
- Route 1 – Munjoy Hill/Mercy Fore River/Portland Transportation Center via Congress St.
- Route 2 – Riverton via Forest Ave
- Route 4 – Westbrook via Brighton Ave
- Route 5 – Maine Mall – via Portland Jetport/Outer Congress St.
- Route 7 – Falmouth via Route 1
- Route 8 – Peninsula Loop via Casco Bay Ferry Terminal
- Route 9A – North Deering via Stevens Ave
- Route 9B – North Deering via Washington Ave

METRO BREEZ Express Service

- Route B – Yarmouth/Freeport/Brunswick

South Portland Bus Routes

- Route 21 – Willard Square and SMCC/Downtown Portland
- Route 24A – Maine Mall/Downtown Portland via Main St.
- Route 24B – Maine Mall/Downtown Portland via Community Center

ShuttleBus Routes

- ZOOM Turnpike Express – Portland/Biddeford
- Intercity ShuttleBus – Portland/Saco

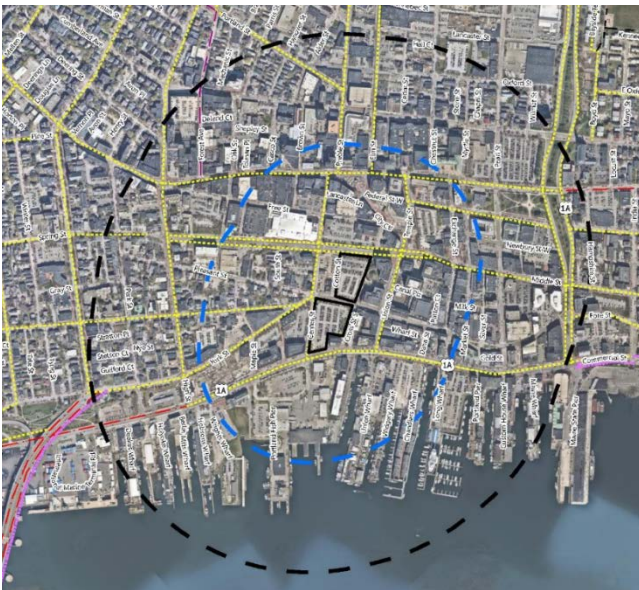


Figure 6: Graphic showing 1/4 and 1/2 mile radius from development site in the context of pedestrian and bicycle infrastructure.



Figure 7: Graphic showing 1/4 and 1/2 mile radius from development site in the context of available bus routes.

Other transportation options include ride-hailing services such as Uber, Lyft or taxis, or carshare, with two UhaulCarShare vehicles located within a quarter mile of the property. The TDM document also lists other resources available as part of a regional TDM program, such as ‘Emergency Ride Home’, carpooling resources, reward programs for those using alternative modes of transportation and more.

B. TDM Coordinator

A TDM Coordinator will be appointed immediately after the first building permit for the first phase of development has been issued and the City will be notified of this appointment within 60 days of that building permit being issued. Responsibilities of the coordinator shall include:

- Develop a TDM report, which will outline the activities to be implemented in the upcoming year and provide an assessment of strategies implemented to date.
- Promote non-SOV transportation choices primarily to employees, residents, and visitors.
- Remain available to property tenants to answer questions about all aspects of the TDM program.
- Hold, at a minimum, an annual TDM meeting with office/hotel/retail tenants and their respective employees and residents, to review the available transit options, changes in transit service, and other relevant transit related topics.
- Recruit and engage participants for any outreach events or campaigns associated with the TDM Program over time.
- Coordinate with Go Maine to obtain support for program implementation. As appropriate, coordination will occur with neighboring developments, as well, to avoid duplication of services.
- Train residential leasing staff/property management on TDM Program elements and information so they can provide these materials to tenants as they move in or use a recruitment tool.
- Coordinate and manage IT efforts associated with the TDM Program.
- Coordinate all monitoring and evaluation activities necessary to measure the effectiveness of the TDM Program in achieving the targets.

C. Transportation Management Association (TMA)

Transportation Management Associations are non-profit, member-controlled organizations that provide transportation services in a particular area, such as a commercial district, mall, medical center or industrial park. Recently, there have been a number of discussions pertaining to the establishment of a Downtown Portland TMA. If this TMA is established, the applicant indicates that they will petition to join as a member, and would coordinate efforts with that group.

D. Trip and Parking Reduction Target and Strategies

The TDM plan identifies a peak parking demand figure of 1,252 parked vehicles during a typical weekday, with the stated goal of reducing that demand to 1,144 parked vehicles through implementation of the TDM strategies listed in the table below. This figure represents a 7.5% reduction in demand.

TDM Strategies	Site-Wide	Office	Retail	Hotel	Residential
Limiting Parking Supply	X				
Pricing and Unbundled Parking for Office and Residential Space	X				
Preferred and Free Carpool Parking Spaces	X				
Implement a Pretax Transit and Vanpool Commuter Benefit for Employees		X	X	X	
Distribute a Commuter Incentive to New Residents					X

Aside from the incentives/disincentives listed above, the developer also expects that improvements to area-wide infrastructure will result in fewer vehicle trips taken. The pedestrian environment for example would be enhanced through the installation of new seating, lighting, and planters. The ground-level built environment would also maintain the visual interest of pedestrians through the use of vegetated screening and storefront framing. The

developer also intends to significantly augment the supply of bicycle storage, with 86 internal spaces located throughout the site, and 12 exterior spaces to be located within plazas and along property frontages.

In addition to site design elements and financial incentives, a selection of informational/communicative strategies, intended to engage tenants and promote the TDM program, have also been evaluated. These include development of a TDM website, installation of electronic displays with relevant information, and promotion of telecommuting.

E. Monitoring and Reporting Plan

Portland Square's TDM Plan establishes several different methodologies for monitoring the effectiveness of the plan in achieving trip reductions. These include peak hour vehicle trip counts, which would be collected via automated systems within the garage. This same system could calculate total parking occupancy counts and the relative availability of off-street parking. The final methodology would be an annually administered commute survey, asking employees/residents about mode of transportation, frequency of usage, reasons for driving unaccompanied, availability of telecommuting/flex time arrangements and incentives that would encourage drivers to use alternative modes.

This data together would then be compiled into an annual report, which would be provided to the City for review. The report would outline what strategies were implemented when, how many individuals participated, lessons learned and how those lessons would translate to future demand management efforts.

F. City Staff Review

The draft TDM plan was submitted on September 10th for review by the City, with the review being managed by Bruce Hyman, Transportation Program Manager with the Department of Planning and Urban Development. The finding of this review is that the TDM Plan is generally comprehensive, satisfying the requirements for a TDM plan as outlined in Section 1 of the Technical Manual. Specific comments are as follows (Attachment 4):

Preliminary Comments:

- Overall the draft plan is generally comprehensive and covers all of the required sections as outlined in the Technical Manual.
- The Traffic Movement Permit is allowed to take multimodal trip reduction credits - Section 4 'Trip and Parking Reduction Target' does not reference these - specific future trip and parking reduction targets are not identified.
- The Traffic Movement Permit has been allowed to take trip reduction credits for multimodal accessibility - Section 4 'Trip and Parking Reduction Target' should reference these reductions specifically so the Monitoring Program (Section 6) are warranted/being met - these are not to be considered the 'trip reduction targets' for the site - additional trip reduction targets are to be identified (see below).
- The Monitoring Schedule (Section 6) addresses 'Pre-Buildout' and 'Post-Buildout' periods - there will likely be a need for monitoring of the site during construction of the Phase 2 garage which will displace a large percentage of the existing surface parking on the overall site.

Requested modifications/enhancements include:

- Other recent plans have introduced 'Tenant Profiles' in their Plans that create a standardized template for TDM program purposes for each larger tenant within a multi-tenant project -- producing these may be premature for full implementation at this MDP stage but the Plan is recommended to include this as a future feature/enhancement as tenants are identified to individualize the TDM strategies and programs for each larger tenant (I've attached the Tenant Profile template being used at Thompson's Point as an example that could be adapted for Portland Square's use)

- The Multimodal Trip Reduction credits that have been allowed as part of the TMP are to be added to Section 4 so that the Survey and Monitoring (Section 6) can track whether these credits are/were warranted
- Specific additional (in percentage and absolute numbers) future trip and parking reduction targets are to be identified in Section 4 for annual monitoring purposes - targets/goals are to be identified by mode and tracked via the survey and monitoring program as outlined in the plan (Section 6) so the Plan can be adjusted accordingly over time as it is implemented and build upon the trip reduction credits allowed under the TMP
- Cycling Savvy could be added as a local resource for bicycling skills classes (<https://cyclingsavvy.org/>)
- Multiple Electronic Transportation Information Displays (p. 21) may be needed throughout to serve such a large site, rather than the one suggested - they should be situated conveniently where common entrances/exits and lobbies are located - the table on p. 23 references Displays
- It is not noted in what form(s) the 'Transportation Access Guide' (p. 21) will be made available and distributed - print, web, app, email, etc?
- The Monitoring Schedule is to be refined to better reflect the multiple phases of the project reflected in Figure 2. (p. 3) - annual monitoring for the foreseeable future is advised.

Some potential corrections:

- There is a climbing (WB) bike lane on Spring Street from Cross Street to High Street.

V. SUPPLEMENTAL SUBMISSION MATERIALS

While the focus of this third workshop is on the traffic impacts of the Portland Square Development, mitigation of those impacts, and review of the Portland Square TDM Plan, staff did want to highlight that additional materials related to site configuration and building design were also received in early September. At this point, we have not undertaken a substantive review of those materials, which would be completed either prior to the next workshop or the public hearing. This includes revised elevations and ground-level building/street interfaces as requested at the last workshop, as well as a comprehensive analysis of parking needs for a full-build-out scenario.

The parking demand memorandum is referenced in both the TIS and TDM, and identifies a peak demand of 1,252 parked vehicles (just exceeding the proposed space count of 1,235 spaces). Through demand management strategies, the applicant states they are comfortable with a practical demand count of 1,144 spaces, which is under that figure.

All of these materials are included as part of this packet as attachments, and staff encourage review and comment on this material in addition to the traffic materials and analyses.

VI. NEXT STEPS

Staff continue to have reservations about the accuracy of traffic impact study and its effectiveness in conveying the future impacts of this development on Portland's roadway capacity. Prior to the workshop on October 8th, city staff will meet with the applicant (October 7th) to discuss review comments and address any concerns that may be addressed before the workshop. From the perspective of staff, outstanding and actionable items include:

Traffic Impact Study (TIS):

- Provide Franklin Street supplemental analysis for staff review.
- Develop mitigation strategies, recommendations and design alternatives for improvements to Gorham's Corner.

- Raw traffic counts, queue lengths and external influences should be calibrated into the Synchro/SimTraffic model to provide an accurate representation of on-the-ground level of service and available/potential roadway capacity. Once calibrated, the model should be submitted for review by City staff.
- Applicant shall evaluate the proposed Cotton/Fore Street intersection left-turn restriction, and provide analysis/documentation in support of this restriction.
- The traffic model should be recalibrated with changes to pedestrian phasing at Commercial/Center Street as described, and as well without elimination of the westbound right-turn lane onto Center Street.
- Pedestrian counts in the TIS appear to be inaccurate. The applicant should confirm the validity of these counts and provide that data to City staff for review. The model should be recalibrated accordingly to account for changing pedestrian counts and should also include bicyclist counts.
- Greater detail should be provided on the possible causes of crashes at HCLs with recommendations on how future crashes may be avoided. This analysis should also be expanded to more comprehensively discuss crashes involving pedestrians and bicyclists.

Transportation Demand Management (TDM) Plan:

- Trip reduction credits discussed in the TIS should be referenced in the TDM plan for purposes of monitoring, and should not be counted towards the TDM's trip reduction targets, which are separate and in addition to available credits.
- The monitoring schedule discusses pre- and post-buildout. Monitoring should be ongoing and occur with each phase of the development. This should be clarified in the report.
- Consider implementing requested modifications/enhancements as described in the staff comment.

At the workshop, staff will seek feedback from the Planning Board as to whether or not a follow-up workshop on traffic is required, or if the MDP may proceed to a public hearing.

VII. ATTACHMENTS

Staff Attachments

1. Scoping Meeting Notes (May 15, 2019)
2. Preliminary TMP Comments (T.Y. Lin)
3. Supplemental TMP Comments (DPW)
4. TDM Comments
5. Public Comment
 - a. PC1: Elizabeth Parsons
 - b. PC2: Lauren Reiter
 - c. PC3: Julie Larry
 - d. PC4: Markos Miller

Applicant's Documents

- A. Traffic Impact Study (TIS)
- B. TDM Plan
- C. Cover Letter Update
- D. Full-Build Parking Analysis
- E. Design Memo

Plans

- P1. Site Plan
- P2. Upper Level Site Plan

- P3. Plaza Enlargement Plan
- P4. Revised Ground-Level Plan
- P5. Landscape Plan
- P6. Building Section Views
- P7. Building Elevations 1
- P8. Building Elevations 2
- P9. Building Elevations 3
- P10. Building Elevations 4
- P11. Building Elevations 5
- P12. Building Elevations 6
- P13. Corner of Cross and Fore Rendering
- P14. Cotton Street Entrances Rendering
- P15. Fore Street Entrances Rendering
- P16. Spring Street Pedestrian Rendering
- P17. Spring Street Plaza Rendering
- P18. Northeast Aerial View (Setbacks)

TRAFFIC MOVEMENT PERMIT SCOPING MEETING

Permit Category: _____ 100 - 200 PCEs X 200 + PCEs
 _____ New _____ Modification

Attendance:**Date:** May 15, 2019

Tom Errico, Bruce Hyman, Mike Tremblay, Randy Dunton, Matt Grooms, Pat Carroll, Lauren Swett, Jeremiah Bartlett, Barbara Barhydt, Steve Weatherhead, Adam Myers, Lourenco Dantas (via phone)

Meeting Location: Planning Department, City Hall**Project Name:** Portland Square**Address:** _____**Applicant:** North River Company**Address:** _____**Project Engineer:** GPCEI**Address:** South Portland, ME**Portland Traffic Engineer (reviewer):** Tom Errico

Filings: Has the Applicant notified abutters via certified mail at least 7 days prior to this meeting? Will be documented
Has the "Notice of Intent to File" been published in a local newspaper? Paper publish date to be provided

Section 1 - Site and Traffic Information**1A. Site Plan**Size of development parcel (acres): N/ASize of development parcel to be left non-vegetated (acres): N/A

1B. Existing and Proposed Site Uses

Type of development:

<u>USE</u>	<u>SIZE</u>
<u>See application</u>	<u></u>
<u>1- and 2-bedroom apartments</u>	<u></u>
<u>Retail – large space maybe supermarket</u>	<u></u>

1C. Site and Vicinity Boundaries

Yes Boundary or title survey signed and sealed by a professional land surveyor
Yes Vicinity map provided

1D. Proposed Uses in the Vicinity of Proposed Development

Other approved development(s):

As listed in Application. It will be confirmed if other projects should be included. City staff will provide feedback by end of week. 170 Fore Street requires a TMP and may be included.

1E. Trip Generation

Summary tables for each land use code:

ITE (LUC)	Weekday	AM Peak	PM Peak	Saturday Peak
<u>See Application</u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

Trip rates obtained from other sources:

Number of locations where driveway counts taken:

Dates & time periods when driveway counts taken:

Locations where driveway counts where taken:

OTHER:

The applicant shall conduct a trip generation calculation using Shopping Center for peak hour (for retail SF) and compare with Specialty Retail. Additionally, a review using the ITE 10th Edition should be performed. The applicant shall provide a summary for direction on what to use.

The Shared trip assumptions seem reasonable.

The City does not support the 'Other Modes Reductions. Including not accepting the nearly 50% reduction for the residential component nor the other uses (non-residential)

It is recommended that the applicant conduct a trip generation estimate using the ITE 10th Edition and compare that with the ITE 7th Edition to corroborate the trip adjustments used.

The applicant should incorporate Hotel trip reductions factors according to actual data. VHB will see if they have any data or a local study may be required.

1F. Trip Distribution

_____ Stick diagram for each major intersection on either side of the development driveway(s)?
_____ ITE trip generation handbook
_____ Actual survey done? Location? _____
_____ Other. Explain. _____

Comments: _____

1G. Trip Assignment

_____ Stick diagram for each major intersection on either side of the development driveway(s)?
Percent primary trips _____
Percent passer-by trips _____
Percent diverted trips _____

Basis for using above-listed percentages:

_____ Existing traffic patterns of adjacent street
_____ Zip code survey
_____ Gravity model
_____ Other. Explain. _____

Comments: The study should assume that Cotton Street is two-way connection. And confirm that from a traffic study perspective no problems are identified.
The assignment of project trips shall utilize the Streetlight program.

Section 2 - Traffic Crashes

_____ Year(s) of MDOT crash records for study area
_____ Number of high crash locations
_____ Collision diagrams provided

Mitigation provided for each high crash location: _____

Other traffic problems: _____

Comments: _____

The study shall increase coverage area to reflect the study area according to peak hour trip thresholds. The crash analysis should also look for large numbers and not just HCL's. It should also include a review of locations that have high levels of injuries and/or fatalities.

Section 3 - Development Entrances and Exits

3A. Entrance and Exit Locations

X Number, width and surface of each proposed entrance/exit

Names of intersecting road	See Site Plan
----------------------------	---------------

Entrance/Exit Sight Distance:	Left	Right

- | | |
|-------|---|
| _____ | Lighting |
| _____ | Driveway spacing and corner clearance (Access Management) |
| _____ | Adequate sight distance for vehicles exiting development |
| _____ | Entrance grade (see fact sheet) |
| _____ | Entrance/exit widths less than 42 feet (12.8 meters) |
| _____ | Left turn lane |
| _____ | Right turn lane |
| _____ | Signal warranted |
| _____ | Lane encroachment |
| _____ | Separation islands (see fact sheet) |
| _____ | Drainage study using 50 year storm for culverts and to connect to MDOT system |
| _____ | Capacity Analysis |
| _____ | Queuing Analysis |
| _____ | Study to be submitted to MDOT Division Engineer |

- | | |
|----------|--|
| <u>x</u> | Title, right or interest in project site |
| <u>x</u> | Title, right or interest in entrance/exits |
| <u>x</u> | Title, right or interest in drainage easement affecting MDOT |

- | | |
|---|---|
| x | Location and width of proposed streets, easements and other public or private rights-of-way |
| x | No signs, structures or pavement connected to the entrance |

Project schedule: **See Application**

Traffic Movement Permit Scoping Meeting

Project Name: Portland Square

Further study items required (**\$500.00 additional fee**):

Section 7 - Full Traffic Study

_____ **\$1,500.00 additional fee required**

Build-out year (Phase 1): _____

Build-out year (Full Occupancy): X

FS 1. Time Period(s) for Traffic Engineering Analysis

- X AM weekday peak hour of adjacent street.
_____ Noontime weekday peak hour of adjacent street
 X PM weekday peak hour of adjacent street.
_____ Noontime Saturday peak hour of adjacent street.
_____ Other. Explain. _____

AM and PM peak hours are expected to be between 7-9AM and 4-6PM but should be confirmed. Counts shall be 2-years or newer.
New current counts – Bruce to check on available data and will provide

FS 2. Background Annual Traffic Growth Rate

Type of counts taken:

- _____ Peak hour
_____ AADT
_____ Base counts less than 2 years old?

The applicant will review historical AADT for determination of growth rate

FS 3. Study Area to Include the Following Intersections

The applicant will need to revise the trip assignment for determination of study area. This shall be provided to City before proceeding.

Additional intersection(s) required if one hour volumes from development are:

- 25 vehicles in left turn only lane
- 35 vehicles in through, right turn lane or combined through and right turn
- 35 vehicles (multiplying the left turn volume by 1.5) in a combined left turn and through lane, or a combined left turn, through and right turn lane

FS 4. Intersection Capacity Analysis

- _____ Isolated
 X Interconnected. Intersection(s) Where appropriate

Software package (isolated): SimTraffic but base model should be calibrated to existing conditions. The City noted that the model shall include local calibration to reflect observed vehicle queue lengths and include the influence pedestrians have on vehicle mobility.

Software package (interconnected): _____



Matthew Grooms <mgrooms@portlandmaine.gov>

Portland Square Traffic Movement Permit - Preliminary Comments

Tom Errico <thomas.errico@tylin.com>

Thu, Oct 3, 2019 at 2:46 PM

To: Matthew Grooms <mgrooms@portlandmaine.gov>

Cc: Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Michael Tremblay <mtremblay@portlandmaine.gov>, Bruce Hyman <bhyman@portlandmaine.gov>

Hi Matt – the following summarizes preliminary comments in conjunction with the Traffic Movement Permit and review of the Traffic Impact Study Section #7 dated September 2019 as prepared by Gorrill Palmer. These comments focus on the traffic volumes, modeling, levels of service and recommendations. Mike Tremblay will be providing comments as it relates to pedestrian/bicycle modes and safety analysis.

- I continue to review existing traffic volumes and will be comparing the data provided in the Study with historical counts to confirm reasonableness. I was surprised that the data indicates the morning peak hour occurred from 8:00-9:00AM, which is later than expected. The Applicant shall provide the traffic count sheets for review.
- The purpose of collecting actual field-based intersection vehicle queue information was to incorporate some level of calibration to the Synchro/SimTraffic model. While it is not expected that the model will perfectly match existing conditions, the City would like to have a high level of confidence in the model output. It is unclear if the Applicant used the existing queue data to calibrate the model and if so, documentation should be provided. If not, the Applicant should use the queue data to enhance or confirm the accuracy of the model. A full review of the model will take place after calibration documentation/incorporation occurs.
- The Study noted that Cotton Street is being extended to Spring Street and will be restricted to right-turn in/out movements. At the Cotton Street/Fore Street intersection left-turns from Cotton Street will be prohibited. The City would like the Study to provide analysis/documentation that led the Applicant to propose these turn restrictions. This will help to provide an informed decision when considering vehicle delays, geometric elements, and full street accessibility.
- As the Study notes the level of service conclusions for some of the study intersections do not match actual conditions due to issues outside of the Study area. We do not find the modeling results to be helpful in assessing project impacts when the Study presents a network that is functioning very well with little delay. We request that the Study/model account for these outside influences so that system operations before and after project completion can be fully understood.
- The Synchro model at the High Street/Spring Street intersection shall be modified to reflect existing lane configurations on the High Street approach.
- The Study should document the benefits of changing the pedestrian phasing at the Commercial Street/Center Street intersection. The analysis should also be performed with and without the elimination of the westbound right-turn lane onto Center Street, as suggested in the Commercial Street Operations Study. The Study does note that movements from Center Street will have failing conditions in the future.
- The Study should identify a menu of suggested mitigation strategies at the Pleasant Street/York Street/Center Street/Fore Street intersection (Gorham's Corner). This will include an Alternatives Analysis and shall include concepts previously provided to the Applicant (Roundabout and Pedestrian Enhancements Improvements). This

Analysis should include measures including levels of service, multi-modal accommodations, cost, right-of way impacts, etc. The Study documents failing conditions and when viewing the animation feature of SimTraffic vehicle queues will impact adjacent intersections including the Spring Street/Center Street intersection. I would note that this location abuts the site and would be expected to be impacted from a vehicle and pedestrian/bicycle perspective.

- The Franklin Street analysis portion of the Section #7 is pending, and comments will be provided upon receipt of that information.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

TYLIN INTERNATIONAL

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Matthew Grooms <mgrooms@portlandmaine.gov>

Portland Square TIS comments

Mike Tremblay <mtremblay@portlandmaine.gov>

Wed, Oct 2, 2019 at 3:41 PM

To: Matthew Grooms <mgrooms@portlandmaine.gov>

Cc: Jeremiah Bartlett <jbartlett@portlandmaine.gov>, Tom Errico <thomas.errico@tylin.com>, Bruce Hyman <bhyman@portlandmaine.gov>

Matt,

I have the following comments on the Portland Square MDP TIS. Note that some of these comments will be redundant with Tom's and Bruce's, though Tom's will focus on the traffic analysis specifically and Bruce's will focus more on the TDM. My comments will focus primarily on safety and pedestrian/bicycle realm, some of which relates to traffic and TDM.

- The pedestrian counts in the TIS do not appear to be accurate. We have summertime counts that show thousands of pedestrians crossing Commercial Street during the PM peak hour, for example. During a busy summer morning or afternoon, particularly in the Old Port on the weekend before Labor Day, we would expect these volumes to be much, much higher. DPW suspects that perhaps bicycle volumes were mistakenly used, rather than pedestrian volumes. Regardless, we ask the Applicant to review these pedestrian volumes to ensure their accuracy, checking with their counting consultant if need be. If the Applicant believes these numbers to be correct, DPW would like to review the raw count numbers from the counting consultant.
- Assuming the pedestrian volumes are incorrect in the TIS figure, the updated volumes should be factored into the traffic analysis. In many of the study area intersections, pedestrians play a significant factor in operations, as vehicles must stop or yield for pedestrians even if traffic volumes are relatively low. DPW understands that the Applicant shall not be held responsible for poor operations that result from large numbers of pedestrians, but the existing conditions traffic model should be an accurate representation of the existing traffic situation in the study area. Pedestrians should be coded into the traffic model as "conflicting pedestrians" at stop-controlled and signalized-concurrent phasing intersections, and should be accurately included into the "Ped Calls per Hour" field in all signalized intersection analyses.
- Existing bicyclist counts should be included in the TIS. It can be combined with the pedestrian figure, if the Applicant prefers, provided that that figure is not too difficult to read. Bicyclists should also be included in the traffic model, coded under the "Conflicting Bikes" field.
- It is not clear that queue observations were used to calibrate the existing conditions model. Existing queues are provided in the TIS, but only in the form of the Synchro readouts. The Applicant does not discuss whether these queues are in line with what was observed in the field.
- DPW has significant concerns with the "Special Note" on Page 9 of the TIS. The purpose of a traffic study is to determine the effects of a development on the real-world traffic network. The Applicant notes that queuing from downstream intersections is so significant that it causes the study area intersections to operate at failing levels of service. To account for this, the Applicant removed these factors from their model. As a result, the existing conditions traffic analysis of these locations do not reflect the reality of how the street operates. The Applicant provides an example of where these adjustments were made (Commercial Street at Center Street); however, they do not note every location where this was done. It is difficult to truly assess the TIS without knowing the assumptions of the Applicant.

The most desirable way to accurately model the study area intersections is to model adjacent non-study area intersections, to the best of the Applicant's ability using past traffic studies, the Applicant's knowledge of the area, and sound engineering judgement. It is the Applicant's responsibility to create an accurate existing conditions model to the best of their ability, including modeling non-study area intersections to their traffic model when necessary. The City would be happy to provide any information we can provide for these non-study area locations if it helps the Applicant create a realistic existing conditions model. It may be that the best possible way to improve study area intersections is to make improvements to a downstream non-study area location.

The traffic analysis should be reconstructed and fully calibrated with existing conditions, including queues, pedestrian volumes, and bicycle volumes. Issues should be documented and discussed qualitatively in the TIS, and reflected in the traffic analysis. If an intersection performs poorly due to operations at another location that is not part of the study area, the Applicant should explicitly state this in the TIS for each location. Inclusion of other indicating factors aside from LOS, including average delay per vehicle in seconds (which is how LOS is determined) Volume to Capacity ratio, and 95th

percentile queue lengths should be considered. Without an Existing Conditions model that is an accurate representation of the real-world conditions, the true impacts of the project's trips cannot be accurately assessed.

- Suggested mitigation for Gorham's Corner (Fore/Pleasant/Center/York) should be provided in the TIS. This location is the most problematic intersection in the study area (according to this TIS) and is at the Project's front door. It is the responsibility of the Applicant to suggest improvements at locations such as these.

- Existing traffic volumes shown on Pleasant Street EB appear to be very low (31 total vehicles in the AM peak hour; 12 total vehicles in the PM peak hour). This appears to be low. The Applicant should confirm.

- The Applicant should provide more detail in the possible causes of crashes at HCL's, and outline some possible improvements. These will not be considered commitments, but mitigation may include safety improvements at HCL's. At High Street/Park Street, six of the eight crashes involved High Street northbound vehicles, including three angle crashes involving Park Street southbound vehicles; two single vehicle/fixed object crashes, and one rear-end crash involving a turning High Street northbound vehicle. While it is impossible to know the full details of these crashes without more information, all of these crashes may be attributable to the speed of High Street NB vehicles. At High Street/York Street, eight of the 20 crashes were sideswipe crashes involving vehicles turning from York Street EB onto High Street NB, while five crashes were rear-end crashes involving York Street EB vehicles. These are trends that should be explored, and possible mitigation suggested.

- The Applicant should discuss trends for crashes involving pedestrians and bicyclists in more detail. There is a very brief discussion on the number of pedestrian crashes in the study area; however, the crash map provided in Attachment 7D appears to show several distinct clusters, including two pedestrian-involved crashes at York/High; five crashes involving peds/bikes at Fore/Union/Temple; and five crashes involving pedestrians along Middle Street between Temple Street and Franklin Street, including three at Middle/Pearl. The Applicant should look at each of these cluster locations specifically for pedestrian/bicyclist safety issues, and suggest possible changes; again, these are not intended to be commitments to be implemented by the Applicant, but merely a menu of potential improvements that may be considered for mitigation, either by the Applicant, a future development project, or a future City project.

Please feel free to reach out if you have any questions.

-Mike

Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov
P. 207.874.8881 F. 207.874.8852





Matthew Grooms <mgrooms@portlandmaine.gov>

Portland Square MDP: DRAFT TDM Plan Comments

Bruce Hyman <bhyman@portlandmaine.gov>

Thu, Oct 3, 2019 at 11:24 AM

To: Matthew Grooms <mgrooms@portlandmaine.gov>, Tom Errico <thomas.errico@tylin.com>, Michael Tremblay <mtremblay@portlandmaine.gov>, Jeremiah Bartlett <jbartlett@portlandmaine.gov>

Cc: Helen Donaldson <hcd@portlandmaine.gov>, James Rather <jrather@portlandmaine.gov>, Christine Grimando <cdg@portlandmaine.gov>

[My comments for review by the group for hoped for distribution later today to the applicant - they have requested these..]

Good afternoon, Matt,

My preliminary comments on the draft TDM Plan (dated September 10, 2019) for the Portland Square MDP are as follows:

- Overall the draft plan is generally comprehensive and covers all of the required sections as outlined in the Technical Manual
- The Traffic Movement Permit is allowed to take multimodal trip reduction credits - Section 4 'Trip and Parking Reduction Target' does not reference these - specific future trip and parking reduction targets are not identified
- The Traffic Movement Permit has been allowed to take trip reduction credits for multimodal accessibility - Section 4 'Trip and Parking Reduction Target' should reference these reductions specifically so the Monitoring Program (Section 6) are warranted/being met - these are not to be considered the 'trip reduction targets' for the site - additional trip reduction targets are to be identified (see below)
- The Monitoring Schedule (Section 6) addresses 'Pre-Buildout' and 'Post-Buildout' periods - there will likely be a need for monitoring of the site during construction of the Phase 2 garage which will displace a large percentage of the existing surface parking on the overall site

Requested modifications/enhancements include:

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- Specific additional (in percentage and absolute numbers) future trip and parking reduction targets are to be identified in Section 4 for annual monitoring purposes - targets/goals are to be identified by mode and tracked via the survey and monitoring program as outlined in the plan (Section 6) so the Plan can be adjusted accordingly over time as it is implemented and build upon the trip reduction credits allowed under the TMP
- Cycling Savvy could be added as a local resource for bicycling skills classes (<https://cyclingsavvy.org/>)
- Multiple Electronic Transportation Information Displays (p. 21) may be needed throughout to serve such a large site, rather than the one suggested - they should be situated conveniently where common entrances/exits and lobbies are located - the table on p. 23 references Displays
- It is not noted in what form(s) the 'Transportation Access Guide' (p. 21) will be made available and distributed - print, web, app, email, etc?
- The Monitoring Schedule is to be refined to better reflect the multiple phases of the project reflected in Figure 2. (p. 3) - annual monitoring for the foreseeable future is advised.

Some potential corrections:

There is a climbing (WB) bike lane on Spring Street from Cross Street to High Street.

Please do not hesitate to contact me if you or the applicant have any questions.

Best regards,

Bruce

--

Bruce Hyman
Transportation Program Manager

Department of Planning & Urban Development
[389 Congress Street](#)
[Portland, Maine 04101](#)
(207) 874-8717 phone

bhyman@portlandmaine.gov
<http://www.portlandmaine.gov/1363/Transportation-Division>
<http://www.portlandmaine.gov>

Yes! Transportation's Good Here



Google Groups

Public Comment on Plan Number PL-000599-2019 1 Portland Square

Elizabeth Parsons <ecparsons33@hotmail.com>

May 2, 2019 10:14 AM

Posted in group: **Planning Board**

As a West Ender and climate activist who's recently been told by DPW staff about how storm water runoff from this part of town is causing manhole covers on Commercial Street to blow and who follows the work of GMRI regarding sea level rise, I am mystified as to why city officials continue to approve large construction projects of this sort in this part of town. Perhaps there's information to which I am not privy, but from my vantage point it seems that short term interests are being valued over long term ones.

Elizabeth Parsons

44 Winter Street

Portland

**Matthew Grooms** <mgrooms@portlandmaine.gov>

one Portland square master plan

Lauren Reiter <laurenjreiter@yahoo.com>

Sun, May 5, 2019 at 7:31 PM

Reply-To: Lauren Reiter <laurenjreiter@yahoo.com>

To: "mgrooms@portlandmaine.gov" <mgrooms@portlandmaine.gov>

Cc: Jeff Levine <jlevine@portlandmaine.gov>, Deb Andrews <dga@portlandmaine.gov>, Caitlin Cameron <ccameron@portlandmaine.gov>

Dear Mr. Grooms, as a Portland architect and near neighbor to the proposed development of One Portland Square, I support the development of these lots and the introduction of structured parking in lieu of all the on-grade parking. And I am also pleased to see that a fair amount of green roof is proposed.

However, I think the master plan's landscaping at the perimeters of the development is disappointingly sparse and unimaginative. It appears that the zoning-dictated-minimum of street trees is what is planned, and nothing more. These megalithic blocks, particularly along Spring and Center Streets, would do well to have some intervening landscaped areas that give a nod to the pedestrians moving around and through the area, and would provide much needed cooling, shade and stormwater mitigation.

I do hope that the plan as it currently exists will be further refined to provide a far more sensitive street life that includes vegetation, and perhaps even some amount of public art.

sincerely,
Lauren Reiter

Reiter Architecture & Design

Lauren J. Reiter, RA, LEED AP

laurenjreiter@yahoo.com

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6 South St., Portland, ME 04101

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Google Groups

1 Portland Square PL-000606-2019

Julie Larry <jlarry@portlandlandmarks.org>

May 28, 2019 3:42 PM

Posted in group: **Planning Board**

Members of the Planning Board,

The Portland Square buildout is an important project for the city and Greater Portland Landmarks is pleased that the applicant and their team have considered their project's impact on the adjacent historic districts and the Tracey-Causser Building, a local historic landmark. They have utilized various design options, stepping down in height and breaking down the mass of the development, near the Tracey-Causser building and the historic Richardson Block on Commercial Street. In addition, the proposed residential and retail uses proposed near the Tracey-Causser building will help to make the development sympathetic to the historic resource through similar fenestration patterns, material use, and scale.

We understand that there will be a preliminary workshop with the Historic Preservation Board in June. We look forward to understanding more about the project as it develops, including understanding how the temporary condition of the proposed garage on the upper lot would appear without the office towers proposed in the applicant's phased approach. In the meantime, we are pleased to support the master development plan project as we believe the massing and uses seem to be sympathetic to the surrounding historic resources.

Thank you for considering our comments in your workshop this evening.

Julie Larry

Director of Advocacy

Greater Portland Landmarks

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Google Groups

One Portland Square

Markos Miller <markossmiller@hotmail.com>

May 28, 2019 6:11 PM

Posted in group: **Planning Board**

Chair Dundon and Members of the Planning Board,

I was hoping to attend this evening's review of the proposed development at One Portland Square, but at the last minute I am unable to attend. I offer these comments.

1. The hotel proposed for the lower lot respects its context. The request for parking relief aligns with local goals of reducing auto-dependency and should be granted.
2. The larger building proposed for the upper lot provides an excessive amount of parking. Contrary to Portland goals, this excessive parking will attract excessive traffic, which will bring congestion and increased wear to local streets, increasing future maintenance costs and demands to further widen streets. This excessive traffic will also contribute to environmental hazards including air and water quality, and climate change.
3. The excessive parking provided does not align with the intention to provide a Traffic Demand Management regimen. Either you manage the demand or you don't. You can not do both.
4. The project exposes 3 levels of parking directly onto Spring Street. The City of Portland has a vision to create a dynamic, active streetscape on Spring St. To achieve this new construction must provide active engagement of the street with active entrances windows, and other place making features. Parking, if provided, should be wrapped with active uses, buried at least 60' into the building.
5. Portland's Spring Street streetscape plan <https://www.portlandmaine.gov/DocumentCenter/View/2202/Spring-Street---Free-Street-Area-Streetscape-Plan?bidId=> calls for the narrowing of Spring Street at this location. When JB Brown purchased the parking lot on the north side of Spring St. a few years ago and this issue was raised. City staff said at that time that the narrowing of the street would be more appropriate on the south side of the street. We are now at that point. The narrowing of Spring Street must be addressed in the context of this project, with the developer playing a role in achieving this City goal.
6. The reconnection of Cotton St. is another important feature of the Spring St. plan and should not be discarded.

Thank you for your service,

Markos Miller

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Relationships.
Responsiveness.
Results.



Traffic Impact Study
Section #7
Portland Square
Portland, Maine

PREPARED FOR:
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September 2019

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Section 7
Traffic Impact Study
Portland Square Redevelopment
Portland, Maine
September 2019

Table of Contents

<i>Section</i>	<i>Description</i>	<i>Page</i>
I.	Introduction	1
II.	Existing Traffic Volumes	1
III.	Adjusted Volumes	2
IV.	Other Developments in the Vicinity of the Site	2
V.	Predevelopment Traffic Volumes	3
VI.	Trip Generation	3
VII.	Trip Distribution	7
VIII.	Trip Composition and Assignment	7
IX.	Postdevelopment Traffic Volumes	8
X.	Capacity Analysis	8
XI.	Queue Analysis	12
XII.	Updated Crash History	13
XIII.	Pedestrian Accommodations	15
XIV.	Traffic Impact Fee	15
XV.	Recommendations	16
XVI.	Conclusions	16

Attachment 7A

Site Location Map
Turning Movement Figures

Attachment 7B

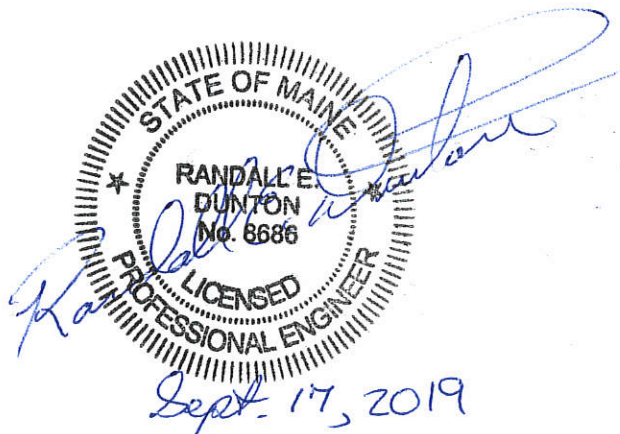
Trip Generation Calculations

Attachment 7C

Capacity and Queue Analyses

Attachment 7D

Updated Node Map
Updated Crash Report
Collision Diagrams
Pedestrian and Bicycle Collisions
Safety Review Area



I. Introduction

This Traffic Impact Study is provided as Section 7 to supplement the previously submitted Sections 1-6 of the MaineDOT Traffic Movement Permit (TMP) application, and reflects comments received at the project Scoping Meeting that was held on May 15, 2019.

This study examines the impact of the proposed mixed-use development in Portland, Maine. The development is bounded by Spring Street to the north, Center Street to the west, Commercial Street to the south, and Cross Street to the east. The existing site is located on two surface parking lots, and is referred to as Lot 2 (Upper Lot), Lot 3 (Lower Lot) and Lot 4 (Hotel).

The existing site uses are discussed in more detail in Section I of the previously submitted MaineDOT TMP Application. Since the previously submitted TMP Application was submitted, the sizes of the proposed site uses have changed slightly. The following summarizes the updated proposed site uses and sizes:

- Lot 2 (Upper Lot):
 - o 182,501 sf office
 - o 5,565 sf retail
 - o 24 residential units
- Lot 3 (Lower Lot):
 - o 82,700 sf office
 - o 29,649 sf retail
 - o 58 residential units
- Hotel:
 - o 135 room hotel
 - o 4,855 sf retail

It should be noted that the above development represents full buildout of the project with a postdevelopment design year of 2029. The above development is anticipated to occur in phases and is not expected to occur all at once. It is our expectation that this master plan study will set the approved overall trip generation for the project as a benchmark in which incremental phases will be compared and that full traffic studies for individual phases will not be required.

The site location is shown on the attached Figure I in Attachment 7A. Additionally, an updated site plan has been included in Attachment 7A.

II. Existing Traffic Volumes

The applicant worked closely with the City in identifying the study area intersections for this project. Based on that effort, there were numerous intersections identified to be included in the study for analysis purposes. To ensure the study had recent data, turning movement counts were completed by Accurate Counts at the following intersections on August 22, 2019 from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM.

- Fore Street / Cotton Street
- Cross Street / Fore Street
- Cross Street / Commercial Street
- Spring Street / State Street
- Spring Street / High Street
- Spring Street / Center Street
- Temple Street / Union Street / Middle Street / Spring Street
- Middle Street / Pearl Street
- Center Street / Pleasant Street / Fore Street / York Street
- Fore Street / Union Street
- Union Street / Commercial Street
- Center Street / Commercial Street

The results of the counts are shown on the attached Figure 2 in Attachment 7A. It should be noted that these intersections were previously approved to be the study area for this project by the City of Portland. A portion of Franklin Street is also being requested and is discussed in more detail in Section X.

In addition to collecting vehicle volumes, pedestrian crossing volumes were also recorded at each of the study area intersections and used in the capacity analysis. Those volumes are shown in Attachment 7A.

III. Adjusted Volumes

Traffic volumes are typically seasonally adjusted to approximate the 30th highest hour of the year using the weekly group mean factors published by the MaineDOT. The factors are specific to the classification of the roadway; urban, arterial, recreational, or a mixture of the three. However, since the counts were completed during peak summer months, no seasonal adjustment is required.

In addition to seasonally adjusting the traffic volumes, they are also increased by a yearly growth to approximate the build out year of the project. The proposed full build of the project is anticipated to be completed in 2029 and an annual adjustment of 0.5% per year was applied. It should be noted that this annual growth rate was previously approved by the City of Portland. The 2029 seasonally and annually adjusted volumes are shown on Figure 3 in Attachment 7A.

IV. Other Developments in the Vicinity of the Site

Approved projects that have been constructed but are not yet occupied as well as projects for which applications have been filed and are ahead of this application in the approval process are required to be included in the predevelopment traffic volumes for this project. Based on conversations with Portland City Staff, there are several projects in the vicinity of the site that should be considered. The trip generation for the following projects have been included in background traffic for this project:

- 383 Commercial Street
- Canal Landing
- 184 Commercial Street (Potential)
- Eastern Waterfront TMP
- 58 Fore Street

The traffic generated by these developments that is anticipated to impact the project study area is shown on the attached Figure 4 in Attachment 7A.

V. Predevelopment Traffic Volumes

The Adjusted Volumes shown on Figure 3 have been combined with the Other Development volumes on Figure 4 to yield the 2029 Predevelopment Design Hour Volumes (DHV) on the attached Figure 5 in Attachment 7A.

VI. Trip Generation

The trip generation for the site was calculated using the Institute of Transportation Engineers' (ITE) publication, *Trip Generation*, Seventh Edition. More recent editions of ITE are available; however, the Seventh Edition is the most recent edition accepted by MaineDOT. The trip generation for the upper and lower lots combined have been based on the following uses and sizes:

- Lot 2 (Upper Lot):
 - o 182,501 sf office
 - o 5,565 sf retail
 - o 24 residential units
- Lot 3 (Lower Lot):
 - o 82,700 sf office
 - o 29,649 sf retail
 - o 58 residential units
- Hotel:
 - o 135 room hotel
 - o 4,855 sf retail

The following summarizes the ITE Land Use Codes (LUCs) used to calculate the trip generation for the proposed site:

- LUC 710 – General Office Building
- LUC 820 – Shopping Center (for the Retail component)
- LUC 220 – Apartment
- LUC 310 – Hotel

The use of shopping center for the retail component for this study was a requirement of the City. The trip generation calculations are included in Attachment 7C. The following tables summarize the ITE trip generation for the proposed site:

ITE Trip Generation Summary

Building Use	Size	ITE Trip Generation				
		AM Adj St	PM Adj St	AM Gen	PM Gen	Sat Gen
Lot 2						
General Office	182,501 sf	304	292	304	292	80
Retail	5,565 sf	6	21	6	21	28
Apartment	24 Units	12	15	13	16	12
Subtotal		322	328	323	329	120
Lot 3						
General Office	82,700 sf	161	155	161	155	43
Retail	29,649 sf	31	111	31	111	147
Apartment	58 Units	30	36	32	39	30
Subtotal		222	302	224	305	220
Hotel						
Retail	4,855 sf	5	18	5	18	24
Hotel	135 Rooms	76	80	70	82	97
Subtotal		81	98	75	100	121
Site Total		625	728	622	734	461

As shown in the table, the combined site is forecast to generate 625 trip ends during the AM peak hour of adjacent street and 728 trip ends during the PM peak hour of adjacent street. A trip end is a trip into or out of the site, thus a round trip is equal to two trip ends.

Shared Use Reduction

The National Cooperative Highway Research Program (NCHRP) 684 Internal Capture Estimation Tool has been used to estimate the traffic that will visit more than one destination without leaving the site. The use of the NCHRP methodology was previously approved by the City. The NCHRP 684 spreadsheet uses the ITE forecast trip generation for each type of land use (office, retail, residential, and hotel) and estimates the trips that will travel between two uses without leaving the site. This yields an internal trip capture percentage, which is the percentage of trip ends that will travel between two uses. The following tables summarize the AM and PM peak hour internal trip capture percentages for the proposed site:

AM Peak Hour Adjacent Street NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	419	46	5%	17%	19	8	27
Retail	24	18	38%	28%	9	5	14
Residential	8	34	0%	3%	0	1	1
Hotel	45	31	0%	45%	0	14	14
Total	496	129	6%	22%	28	28	56

*These values are taken directly from the NCHRP spreadsheets (Attachment 1C), which may not match exact calculations due to rounding in the spreadsheet.

PM Peak Hour Adjacent Street NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	67	380	4%	2%	3	7	10
Retail	75	75	21%	28%	16	21	37
Residential	33	18	48%	56%	16	10	26
Hotel	44	36	11%	6%	5	2	7
Total	219	509	18%	8%	40	40	80

*These values are taken directly from the NCHRP spreadsheets (Attachment 1C), which may not match exact calculations due to rounding in the spreadsheet.

AM Peak Hour Generator NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	419	46	5%	17%	19	8	27
Retail	24	18	38%	28%	9	5	14
Residential	14	31	0%	3%	0	1	1
Hotel	39	31	0%	45%	0	14	14
Total	496	16	6%	22%	28	28	56

*These values are taken directly from the NCHRP spreadsheets (Attachment 1C), which may not match exact calculations due to rounding in the spreadsheet.

PM Peak Hour Generator NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	67	380	4%	2%	3	7	10
Retail	75	75	21%	28	16	21	37
Residential	33	22	48%	45%	16	10	26
Hotel	49	33	10%	6%	5	2	7
Total	224	510	18%	8%	40	40	80

*These values are taken directly from the NCHRP spreadsheets (Attachment 1C), which may not match exact calculations due to rounding in the spreadsheet.

The NCHRP 684 spreadsheet does not have information for the Saturday peak hour of the generator. To estimate a reduction for a Saturday, the AM and PM trip capture percentages were averaged and applied to the Saturday peak hour of the generator. This resulted in a Saturday internal trip capture of approximately 10% of total trips which results in a reduction of 46 trip ends (24 entering and 22 exiting).

The following table summarizes the reduced trip generation for the proposed site due to shared use trips:

Reduced Trip Generation Summary

Building Use	Trip Generation				
	AM Adj St	PM Adj St	AM Gen	PM Gen	Sat Gen
ITE Total	625	728	622	734	461
Shared Use Reduction	-56	-80	-56	-80	-46
Reduced Site Total	569	648	566	654	415

As shown in the table, the proposed site with the shared use reduction is forecast to generate 569 trip ends and 648 trip ends during the AM and PM peak hours of adjacent street respectively.

Other Modes of Transportation Reduction

Since the site is located in an urban environment, it is expected that a portion of site traffic will use alternative modes of transportation to get to and from the site. These other modes could include options such as transit, biking, or walking. A trip generation reduction due to other modes of transportation has been applied to the proposed site trip generation with the shared use reduction. The other modes reduction has been evaluated separately for the non-residential site uses and the proposed hotel. This methodology was previously approved by the City.

Residential (approximately 4-7% of the total trips): The other modes reduction for residential land uses is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract for the City of Portland. Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, used this data to create maps (attached) that show the estimated percentage of workers living in each Census Tract in the Greater Portland area that use each mode of transportation to travel to work. The site is located in Census Tract 3, so the reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work by the estimated total number of working people in Census Tract 3. This calculation yields a reduction of approximately 50%. This reduction was previously approved by the City.

Non-Residential (approximately 93-96% of the total trips): The other modes reduction for non-residential land uses was based on 2010 Consensus Transportation Planning Products (CTPP) means of transportation to work data for Census Tract 3, where the site is located. This data indicates that the ratio of cars to workers is 82% in the area (calculations attached), indicating that approximately 18% of employees use modes of transportation other than a car to commute to work. A reduction of approximately 18% was applied to the non-residential uses. This reduction was previously approved by the City.

Hotel: There is limited data available for hotels, so a conservative reduction of 10% was used for the hotel trip generation. This reduction was previously approved by the City.

The following table summarizes the other modes of transportation reduction for the site trip generation:

Other Modes of Transportation Reduction Summary

Trip Generation	AM Adj St	PM Adj St	AM Gen	PM Gen	Sat Gen
Site Trip Generation (After Shared Use Reduction)					
Residential Trip Gen	41	25	44	29	38
Non-Residential Trip Gen	466	550	466	550	289
Hotel Trip Gen	62	73	56	75	88
Subtotal	569	648	566	654	415
Other Modes Reduction					
Residential Reduction	20	12	21	14	18
Non-Residential Reduction	84	100	84	100	52
Hotel Reduction	7	7	6	7	8
Total Reduction	111	119	111	121	79
Reduced Trip Generation	458	529	455	533	336

As shown in the table, the forecast trip generation for the proposed site that will be added to the adjacent roadway network, is 458 trip ends during the AM peak hour of adjacent street and 529 trip ends during the PM peak hour of adjacent street.

VII. Trip Distribution

The trip distribution for the site has been based on ITE, NCHRP 684 Internal Capture reduction, and other modes of transportation reduction. The following summarizes the forecast trip distribution for the site:

- AM Peak Hour Adjacent Street: 384 in / 74 out
- PM Peak Hour Adjacent Street: 144 in / 385 out
- AM Peak Hour Generator: 382 in / 73 out
- PM Peak Hour Generator: 149 in / 384 out
- Saturday Peak Hour Generator: 177 in / 159 out

VIII. Trip Composition and Assignment

Based on ITE's *Trip Generation Handbook*, the trip composition anticipated for the site is approximately 35% pass by for the retail. All other uses are assumed to be primary. Primary trips are made with the sole purpose of going to or from the site, while pass-by trips occur when drivers stop at the site on their way to or from another destination.

The trip assignment has been based on the location of the site driveways as well as how many parking spaces within the parking garages they access, existing traffic patterns identified from a combination of AADT values provided in MaineDOT's MapViewer tool and turning movement counts completed at the intersections in the vicinity of the site and then adjusted to design hour volumes (DHV). The trip assignment also includes consideration for the valet recirculation for

the proposed hotel. The general trip assignment was determined based on conversations with City Staff and was approved prior to the completion of this study.

The trip assignment is shown on the attached Figures 8-16 in Attachment 7A.

IX. Postdevelopment Traffic Volumes

The 2020 Predevelopment DHV shown in Figure 6 have been combined with the Total Trip Assignment shown on Figure 16 to yield the 2029 Postdevelopment DHV shown on the attached Figure 17 in Attachment 7A.

X. Capacity Analysis

Capacity analyses have been completed for the study area intersections using Synchro/SimTraffic computer analysis software (Version 10). Level of service rankings are similar to the academic ranking system where an 'A' is good with little control delay and an 'F' represents poor traffic conditions. If the level of service falls below a 'D', an evaluation should be made to determine if mitigation is warranted. The following tables summarize the relationship between control delay per vehicle and level of service:

Level of Service Criteria for Unsignalized Intersections

Level of Service	Control Delay per Vehicle (s)
A	Less than 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

Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (s)
A	Less than 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	Greater than 80.0

The results have been based on the average of five SimTraffic runs. The analyses were completed using the existing intersection geometry, with existing timing (provided by the City) and phasing in the predevelopment conditions and minor adjustments to timing and phasing in the postdevelopment conditions. The analysis also includes existing peak hour factors, pedestrian usage, and truck percentages. The minor adjustments to timing and phasing are why

some of the postdevelopment conditions are better than the predevelopment conditions for some movements.

Site accesses – The site is proposed to be accessed via the following driveways:

- Lower Lot: Full movement onto Center Street (service access) and right-in / right-out onto Cross Street (one-way)
- Upper Lot: Full movement onto Spring Street, full movement onto Cotton Street, full movement onto Cross Street
- As part of the full buildout master plan, Cotton Street is proposed to be extended to Spring Street terminating at Spring Street with a right-in / right-out only. At the Cotton Street / Fore Street intersection, left turns off Cotton Street are proposed to be prohibited.

The number and placement of the driveways helps to reduce the congestion on the adjacent roadway network by diluting the traffic and reducing the turning movements at the adjacent signalized intersections. This helps to improve the operation of the intersections.

Special Note Regarding Capacity Analysis Results: The capacity analysis provided below was completed to isolate and identify the traffic impacts of the proposed development on the intersections. Based on field observations that were conducted during the turning movement counts, there are factors identified outside of the impacts of the proposed development that influence the actual operations of the intersections. An example of this can be seen at the intersection of Center / Commercial. Based on observations during the AM and PM peak hours, there is significant queuing along Commercial Street in both directions that impacts the operations of the intersection. This queuing is so significant that the intersection operates at a failing level of service during the peak hours. This failing level of service, although identifying how the intersection actually operates in the field, does not appropriately identify the impacts created by the proposed development. Therefore, the capacity analysis below does not include these factors so that it can more appropriately identify the direct impact of the development. See also the Queuing Section of this study for additional discussion on observations of the intersections and surrounding roadway network.

The following tables summarize the capacity analysis results for existing intersection geometry and proposed improvement conditions. The detailed analyses are included in Attachment 7B.

Level of Service Summary

Approach	Level of Service			
	2029 AM Pre	2029 AM Post	2029 PM Pre	2029 PM Post
State / Spring (S)				
State SE	A	A	B	B
Spring NE	C	C	C	C
Spring SW	C	C	C	C
Overall	B	B	B	B

Approach	Level of Service			
	2029 AM Pre	2029 AM Post	2029 PM Pre	2029 PM Post
High / Spring (S)				
High NW	B	C	C	C
Spring NE	C	C	C	C
Spring SW	B	B	B	B
Overall	B	C	C	C
Center / Spring (S)				
Center SE	A	A	B	B
Center NW	A	A	B	B
Spring NE	A	A	B	C
Spring NW	A	A	B	A
Overall	A	A	B	B
Cotton / Spring (U)				
Cotton SW	N/A	A	N/A	A
Spring NE	N/A	A	N/A	A
Spring SW	N/A	A	N/A	A
Garage Access / Spring (U)				
Garage NB	N/A	A	N/A	A
Spring NE	N/A	A	N/A	A
Spring SW	N/A	A	N/A	A
Temple / Middle / Spring / Union (S)				
Spring EB	B	B	C	C
Middle WB	B	B	B	C
Union NB	B	B	B	B
Temple SB	B	B	B	B
Overall	B	B	B	C
Middle / Pearl (U)				
Middle EB	A	A	A	B
Middle WB	A	A	A	A
Pearl NB	A	A	A	A
Pearl SB	A	A	A	A
Garage Access / Cotton (U)				
Garage WB	N/A	A	N/A	A
Cotton SE	N/A	A	N/A	A
Cotton NW	N/A	A	N/A	A
Pleasant / York / Center / Fore (S)				
Pleasant EB	B	B	C	D
Fore WB	A	A	B	B
York NB	B	C	E	D
Center SE	B	B	E	E

Approach	Level of Service			
	2029 AM Pre	2029 AM Post	2029 PM Pre	2029 PM Post
Center NW	A	B	F	F
Overall	B	B	E	D
Cotton / Fore (U)				
Fore EB	A	A	A	A
Fore WB	A	A	A	A
Cotton SE	A	A	A	B
Fore / Cross (U)				
Fore EB	A	A	A	A
Fore WB	A	A	A	A
Cross SB	A	A	A	A
Fore / Union (S)				
Fore EB	A	A	A	A
Fore WB	A	A	B	B
Union NB	A	A	B	B
Union SB	A	A	B	B
Overall	A	A	B	B
Garage Access / Cross (U)				
Garage WB	N/A	A	N/A	A
Cross SE	N/A	A	N/A	A
Cross NW	N/A	A	N/A	A
Center / Commercial (S)				
Commercial NB	A	A	D	A
Commercial SB	A	A	C	B
Center SE	B	B	B	B
Center NW	B	B	F	B
Overall	A	A	D	B
Cross / Commercial (U)				
Cross SB	A	A	C	D
Commercial NE	A	A	A	A
Commercial SW	A	A	A	A
Union / Commercial (S)				
Union SE	B	A	B	B
Union NW	A	A	B	B
Commercial NE	A	A	B	A
Commercial SW	A	A	D	A
Overall	A	A	C	B

S=Signalized Intersection, U=Unsignalized

As shown in the table, based on the computer modeling the proposed project is forecast to have relatively minor traffic impacts to the signalized intersections within the study area. The intersection of Pleasant Street / Center Street / Fore Street / York Street is forecast to operate at an overall level of service 'E' during the predevelopment conditions with existing timing. During the postdevelopment conditions, the overall intersection level of service is forecast to be a 'D'; however, the northwest Center Street approach is forecast to operate at a failing level of service. These low levels of service may be improved by additional adjustments to signal timing; however low levels of service in a downtown area are not uncommon. This intersection may also be further impacted depending on any pedestrian improvements required as mitigation to the intersection.

The unsignalized intersections and garage accesses are forecast to operate at acceptable levels of service during both the predevelopment and postdevelopment conditions.

Franklin Street Analysis: As part of the approval process for this project, the City is requesting that a computer model and analysis be completed for Franklin Street from Middle Street to the I-295 ramps. AM and PM turning movement counts for that section of Franklin Street have been already been completed and are being processed. Once processed, a computer model will be created and a supplemental study will be provided that evaluates the operations of that section of Franklin Street. This supplemental study will be submitted to the City for review and comment.

XI. Queue Analysis

A conventional queue analysis was completed using the same Synchro/SimTraffic computer analysis software that was used for the capacity analysis. The queue analysis involves comparing the postdevelopment 95th percentile queue lengths of the approaches to the intersections and available storage lengths. The detailed reports are included in Attachment 7B.

In a conventional queue analysis using the results of the computer modeling, a comparison table is provided that compares the available queue lengths to forecast queues. That information is available from the attached computer printouts if desired. However, in a downtown area such as this, unique factors create situations and circumstances that a computer model does not replicate.

To better identify queuing / congestion issues, GP had two people circulating through the study area in a vehicle on a continuous basis during both the AM and PM peak hours. Each person observed the operations at the intersections. A summary of the locations that were observed to have unique challenges is as follows:

- **Commercial Street** – Commercial Street was identified as the worst location throughout the study area with the most significant queues. This street is significantly over capacity during the peak hours. It was observed that the exclusive pedestrian phase at Center Street / Commercial Street is fairly active during the peak hours which exacerbates an already over capacity corridor. Conversion of the exclusive pedestrian phase to a concurrent pedestrian phase would improve the capacity of the intersection. At locations such as Commercial / Union where left turns are permitted only, because of the high volume of opposing traffic,

left turns have very minimal opportunity to take a left turn. Much of the queuing for outbound traffic appeared to be associated with the intersection of Commercial / Beech Street, which is outside of the study area of this project.

- York Street – The York Street approach to Gorham’s Corner appeared to have long queues in the AM peak hour but not in the PM peak hour.
- Center Street – The Center Street corridor (both directions) from Commercial Street to Fore Street was congested during the PM peak hour but not during the AM peak hours. Much of this congestion was due to the capacity issues at the two ends of that corridor.
- Fore Street – Fore Street appeared to have queuing issues from the intersection with Gorham’s Corner to Cotton Street during the PM peak hours but not during the AM peak hours.
- Spring Street – This street had sporadic queuing issues from approximately High Street to west of Center Street. The issues appeared in the PM peak hour but not during the AM peak hour.
- High Street – The High Street approach to the Spring Street intersection had significant queuing in the PM peak hour. Based on observations, the end of the queue could not even be seen at certain times.

Conclusion: There are numerous locations within the study area that currently experience significant queuing / congestion issues. Because the opportunity to expand intersections physically is limited within any downtown area, this is not a unique situation and not unexpected by drivers who expect lower levels of service and queuing within the middle of the City.

XII. Updated Crash History

Gorrill Palmer obtained crash data from MaineDOT for an expanded area that was determined by City Staff (see Attachment 7D). The crash data is for the period of 2016-2018, the most recent period available at the time this study was prepared.

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor (CRF) of 1.00 or more for a three year period. A CRF compares the actual crash rate to the rate for similar intersections in the state. A CRF of less than 1.00 indicates a rate of less than average and:

2. A minimum of eight crashes over the same three year period.

Based on the crash data provided by MaineDOT, there are three HCLs in the crash evaluation area:

- Intersection of Park Street with York Street: CRF 1.10, 8 collisions
- Intersection of York Street with High Street: CRF 1.15, 20 collisions
- Commercial Street from Cross Street to Union Street: CRF 1.88, 9 collisions

MaineDOT provided collision diagrams for the three locations. The following summarizes each location in more detail:

Park Street / York Street

Based on a review of the collision diagram, there is a pattern (3 crashes) of northeast bound York Street vehicles colliding with southeast bound Park Street vehicles. Park Street is one-way toward Commercial Street and the approach to York Street is STOP controlled. It is not clear if the vehicles are failing to stop at the STOP sign because the sign is not visible, or if the sight distance is inadequate. There are small landscaping trees along York Street that have the potential to block sight distance. It is also possible that a parked car on York Street could have blocked sight distances for one or more of the crashes. It is also possible that a parked large vehicle on Park Street blocked the visibility of the STOP sign. Unfortunately, MaineDOT no longer provides the individual police reports so a more detailed evaluation could not be completed and more specific mitigation identified. Mitigation may include the installation of an additional STOP sign on the left side of Park Street (recommended), oversize the stop signs, add additional warning signs (STOP Ahead), or remove the lower limbs of the landscaping trees on York Street.

York Street / High Street

Based on a review of the collision diagram, there is a pattern (3 crashes) of rear end collisions on York Street northbound. This is a signalized intersection. What is interesting about the 3 crashes is that they all occurred in the first three months of 2016. Since none of the crashes occurred in 2017 or 2018, we suspect these were a result of something going on in the area at that time. No mitigation is recommended.

Additionally, there were two collisions that involved pedestrians in the crosswalk being struck by vehicles turning left from High Street westbound. Although details of the collisions are not available, this may be improved with additional crosswalk lighting or a leading pedestrian interval.

Commercial Street from Cross Street to Union Street

Based on a review of the collision diagram, this link did not appear to have any correctable crash patterns.

Pedestrian and Bicyclist Collisions

In addition to high crash locations, GP also explored bicycle and pedestrian collisions in the crash analysis area using the MaineDOT Maine Public Crash Query Tool. As shown on the

attached aerial, there were seven collisions involving bicyclists and 12 collisions involving pedestrians within the designated area. Details of the collisions cannot be obtained using the Tool, but additional lighting, signage, and identification of clear crash patterns should be considered.

XIII. Pedestrian Accommodations

Figure 3 in Attachment 7A shows pedestrian crossing volumes that were collected at the same time as the turning movement volumes. These volumes were input into the computer modeling to reflect actual usage of the pedestrian actuations.

It is our understanding from previous discussions with City Staff that the most significant concern for pedestrians in the immediate area is negotiating the five legged signalized intersection of Pleasant Street / Center Street / York Street / Fore Street. Because this intersection has five legs, the geometry is unique and can create challenges for pedestrians trying to maneuver through the intersection. Since this intersection is one of the corners of the development and would be expected to experience an increase in pedestrian activity, we recommend the intersection be further discussed with the City for potential upgrades to the intersection proportional to the increase in pedestrian use by the development.

As shown on the site plan in Attachment 7A, in addition to new sidewalks along the edges of the development to improve and upgrade pedestrian accommodations, the proposed development includes significant landscaped pedestrian ways through both the upper and lower site. These pedestrian ways will help enhance the pedestrian experience and welcome pedestrians into the area that are now just parking lots.

XIV. Traffic Impact Fee Calculations

The City has recently adopted a new Transportation Impact Fee (Chapter 14, Section 14-485) *“...to ensure that new development in the City of Portland bears a proportional or reasonably-related share of the cost of new, expanded, or replacement infrastructure necessary to service that development through:*

- (a) The payment of impact fees dedicated to funding improvements made necessary by development; or*
- (b) The construction of improvements as provided for herein.”*

This project will need to work with the City on addressing this portion of the ordinance. Since the impact fee is intended to be proportional to the development, we would expect that the fee would be assessed as development occurs and not all up front for the full buildout. It would also seem reasonable that any costs for improvements to the area completed by the project that benefits more than just the project itself be subtracted from the Transportation Impact Fee.

XV. Recommendations

It should be emphasized that this study is for a master plan, and that the development will occur over many years and will not be constructed all at once. Therefore, any potential mitigation should also be phased appropriately and proportionately to the development being proposed at the time. Based on this study, we recommend the following potential improvements to the area timed with the respective development.

- Timing Changes to the signalized intersections within the study area should occur with any significant development
- Pedestrian accommodations / geometric improvements to the Pleasant Street / York Street / Center Street / Fore Street intersection
- Addition of a STOP sign on Park Street at the unsignalized Park Street / York Street
- Payment of the Transportation Impact Fee proportional to the development proposed at any specific time.

Per the request of the City, a supplemental study is currently being completed for the Franklin Street corridor from Middle Street to the I-295 ramps. This analysis may identify impacts to the system that are a direct result of the proposed development.

XVI. Conclusions

The following is a summary of the study's Findings:

1. The proposed development is forecast to generate 458 trip ends during the AM peak hour of adjacent street and 529 trip ends during the PM peak hour of adjacent street, which requires a MaineDOT TMP (delegated review authority given to the City).
2. The capacity analysis results indicate that most intersections are not significantly impacted by this project. The intersection of York Street / Pleasant Street / Center Street / Fore Street is anticipated to experience low levels of service during the PM peak hours; however, this is not uncommon for intersections in a dense downtown area.

In addition to the analysis completed as part of this submittal, a supplemental Franklin Street study is also in the process of being completed. This supplemental study includes Franklin Street from Middle Street to the I-295 ramps.

3. To capture the unique operational aspects of the adjacent roadway network during the peak hours, observers circulated throughout the study area during the AM and PM peak hours. Based on those observations, several locations were identified as having existing queuing / congestion challenges.
4. The crash data indicates that there are three HCLs within the crash evaluation area; the intersection of Park Street / York Street, the intersection of High Street / York Street, and Commercial Street from Cross Street to Union Street. Additionally, there were seven collisions involving bicyclists and twelve collisions involving pedestrians in the crash evaluation area.

Attachment 7A

Site Location Map
Turning Movement Figures



Portland Square

Master Development Plan

Portland, Maine

Owner / Developers
NORTH RIVER, LLC
New York, NY

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 Commercial St, Suite 200
Portland, ME 04101
207.772.1552
www.carroll-assoc.com

WINTON SCOTT
ARCHITECTS, PA
5 Milk Street
Portland, ME 04101
774-4811
www.wintonscott.com

BECKER STRUCTURAL
ENGINEERS, INC.
75 York Street, Suite 3
Portland, ME 04101
207.879.1838
www.beckerstructural.com

WOODARD & CURRAN
41 Hutchins Dr.
Portland, ME 04101
207.558.3785
www.woodardcurran.com

HALEY & ALDRICH, INC.
75 Washington Ave, Suite 1A
Portland, ME 04101
207.482.4609
www.haleyaldrich.com

GORRILL PALMER
707 Sable Oaks Drive, Suite 30
South Portland, ME 04106
207.239.7470
www.gorrillpalmer.com

Revisions	MDP SUBMISSION TO CITY	
	MDP SUBMISSION TO CITY	REV. MDP SUBMISSION TO CITY
1	4.5.19	
2	7.30.19	

Drawing Title: Scale: 1"=40'-0"

SITE PLAN

Date: JULY 30, 2019

Phase: Permitting



0 20 40 80
SCALE in FEET
1"=40'

Site Location

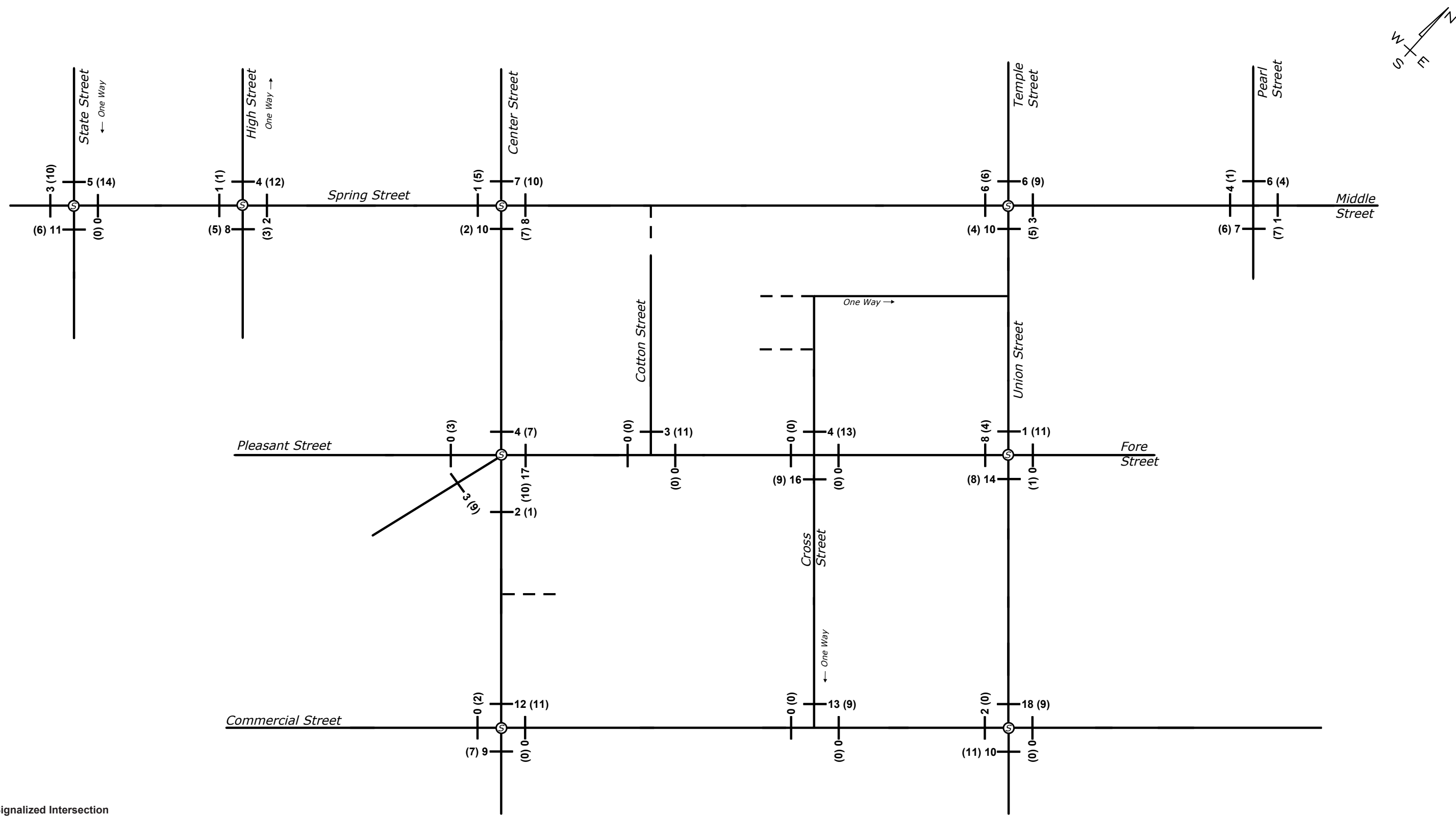


PORTLAND SQUARE
PORTLAND, MAINE

Figure No. 2

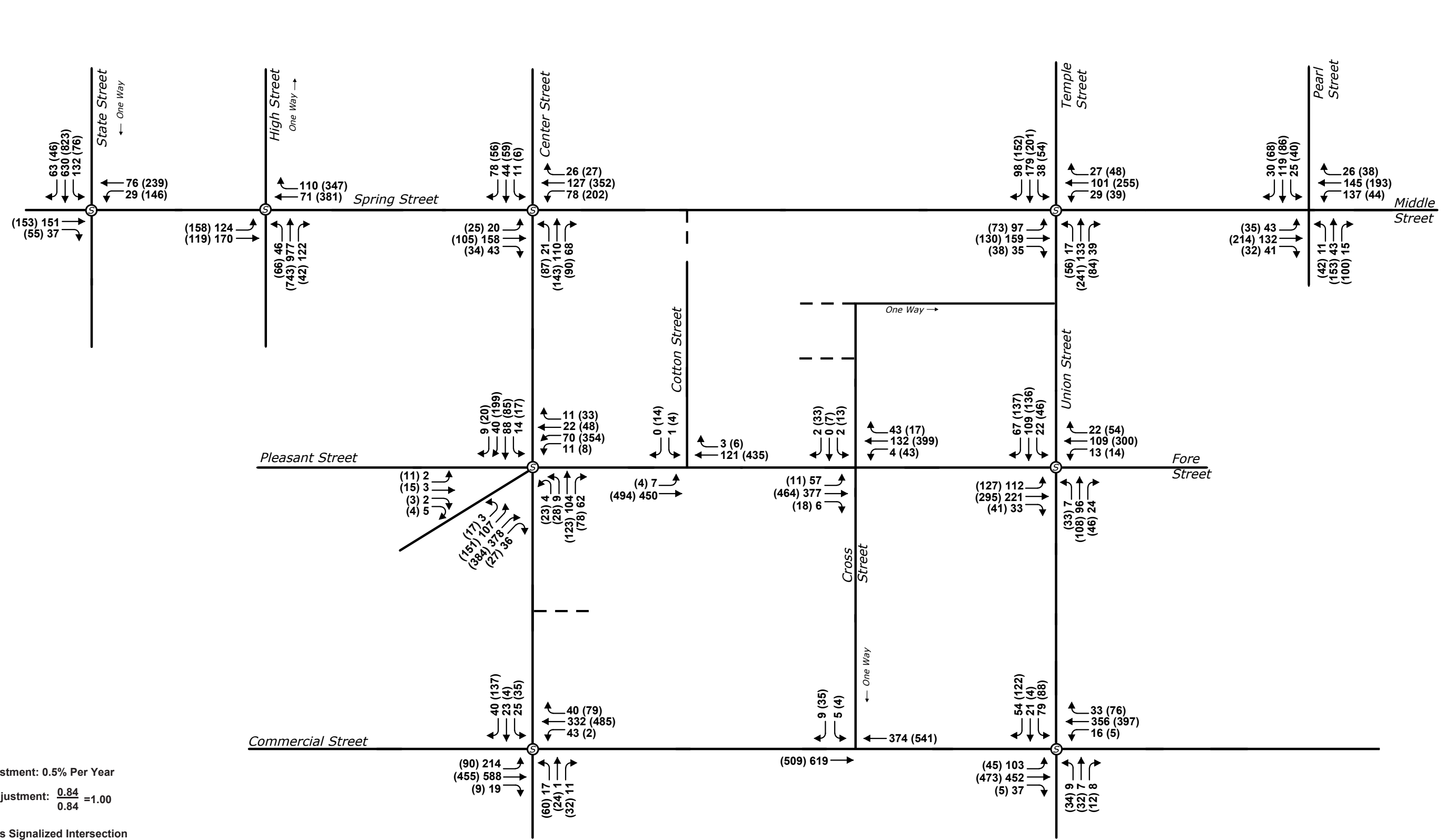


Pedestrian Volumes



2029 Adjusted Volumes

Figure No. 4



Annual Adjustment: 0.5% Per Year

Seasonal Adjustment: $\frac{0.84}{0.84} = 1.00$

Ⓢ Denotes Signalized Intersection

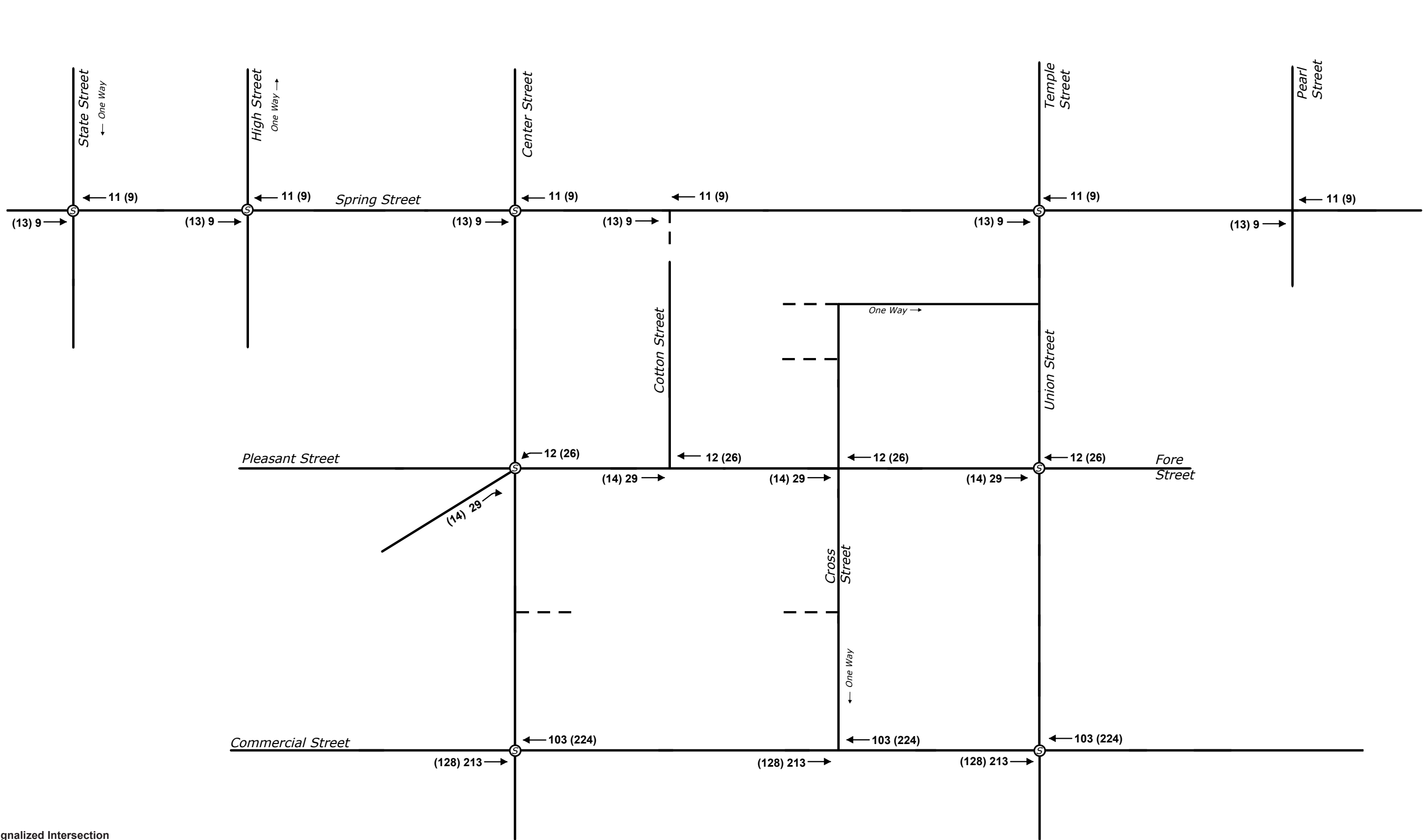
XX = AM Peak Hour

(XX) = PM Peak Hour

Design: MC
Draft: DATE: AUGUST 29, 2019
Checked: EAL File Name: 3020.01 - Figures

PORTLAND SQUARE
PORTLAND, MAINE

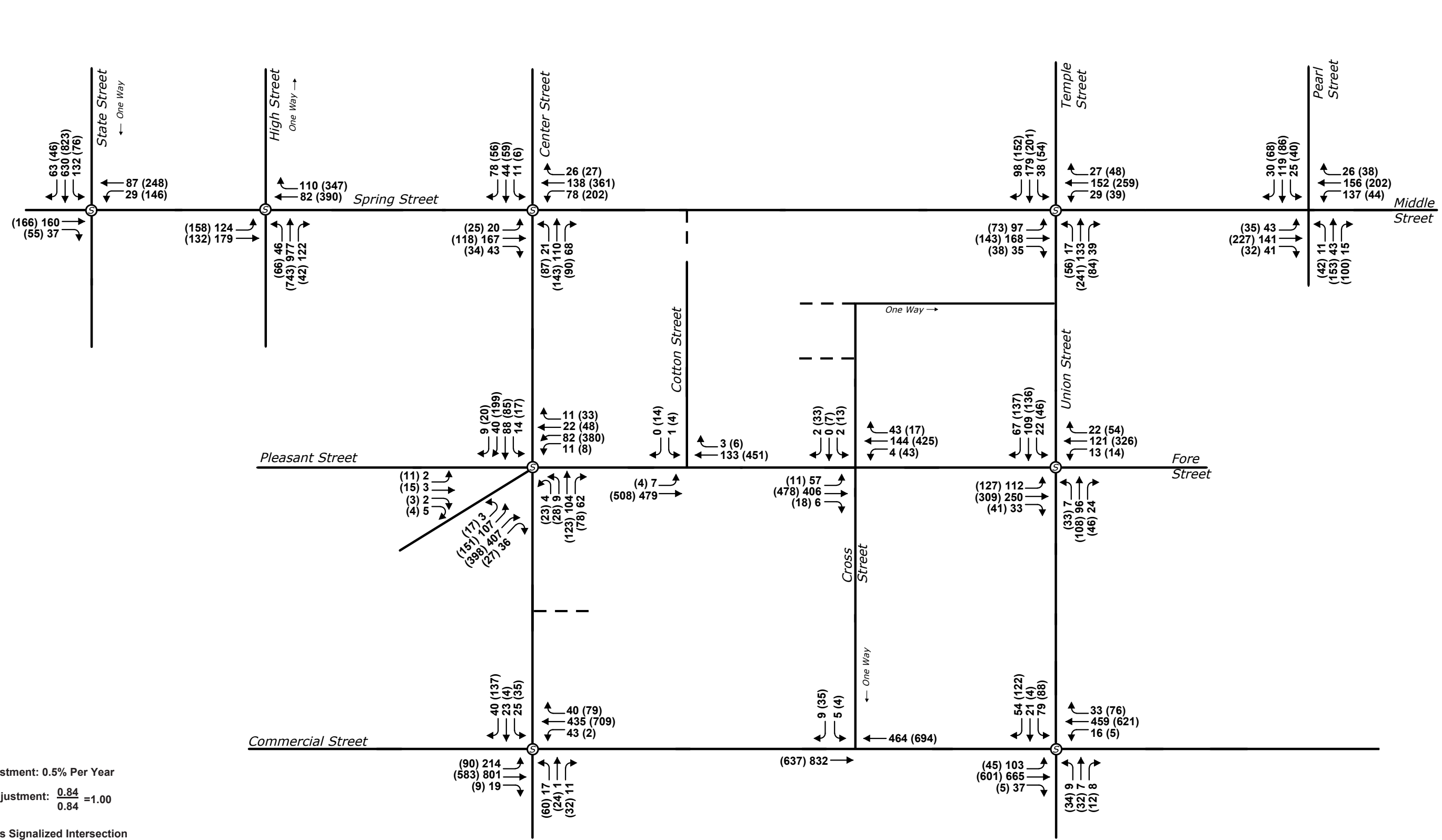
Other Development



Ⓢ Denotes Signalized Intersection
XX = AM Peak Hour
(XX) = PM Peak Hour

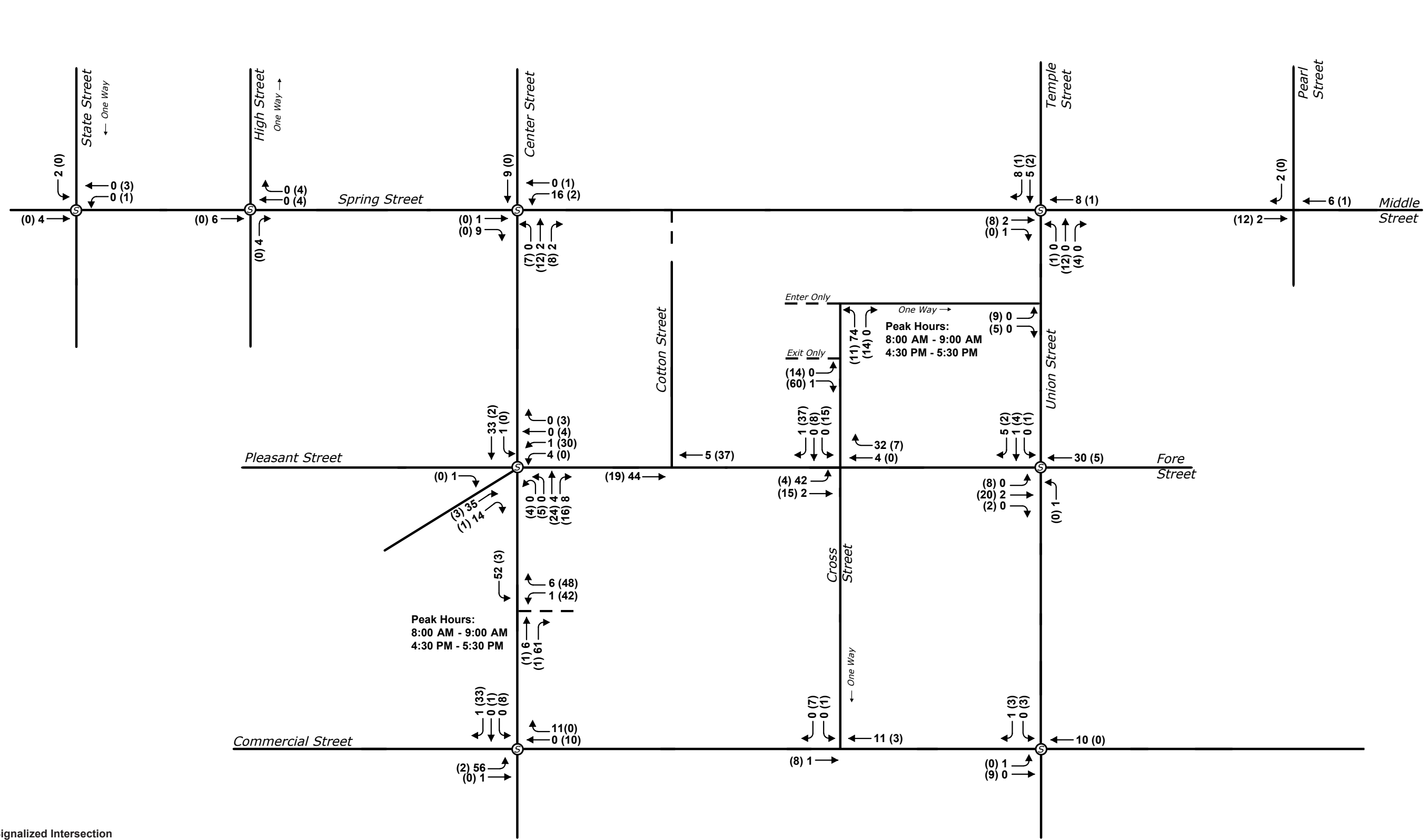
2029 Predevelopment Volumes

Figure No. 6



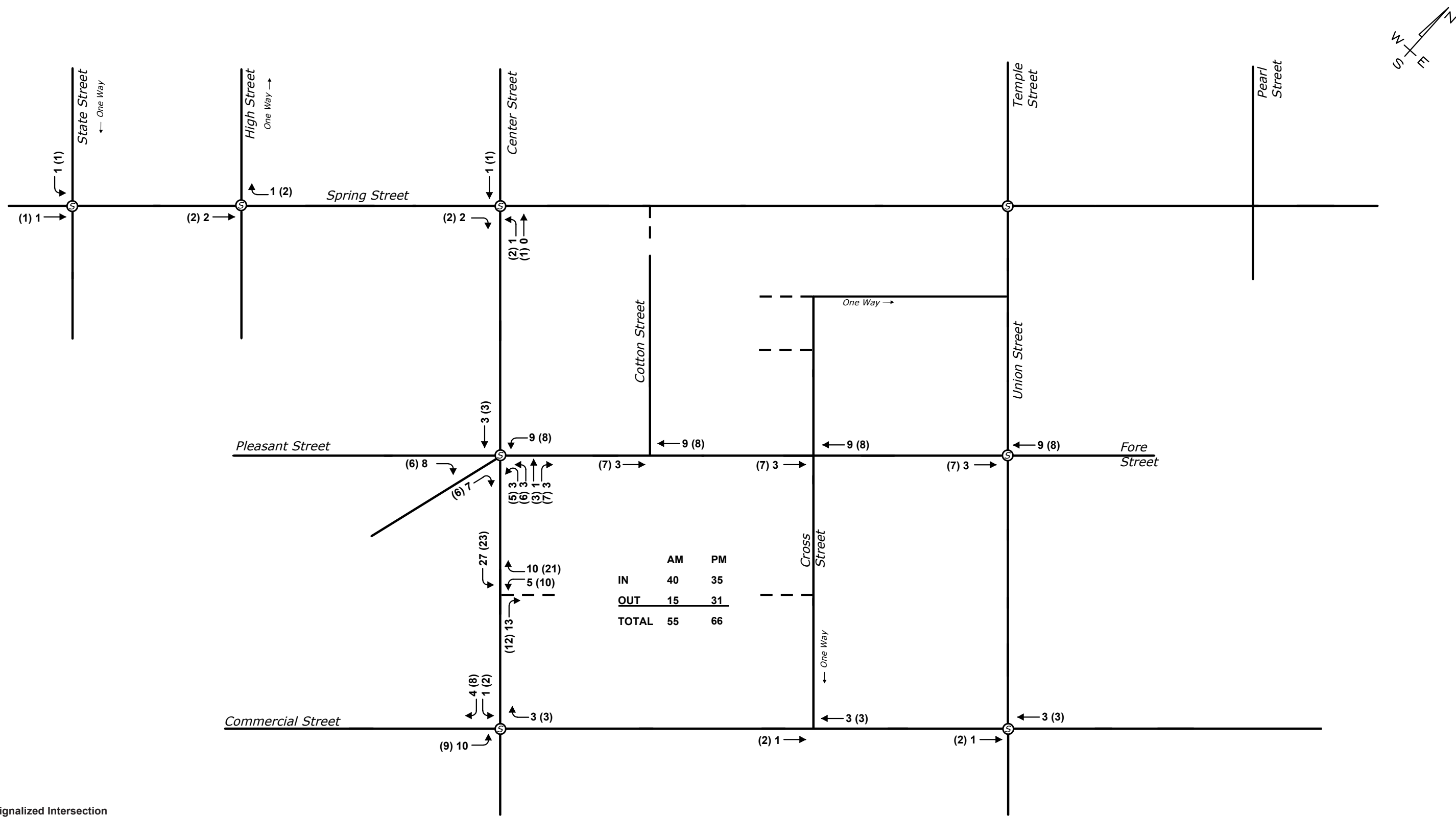
Existing Driveway Volumes

Figure No. 7



Hotel Trip Assignment

Figure No. 8



Ⓢ Denotes Signalized Intersection
XX = AM Peak Hour
(XX) = PM Peak Hour

Hotel Valet Recirculation

Figure No. 9

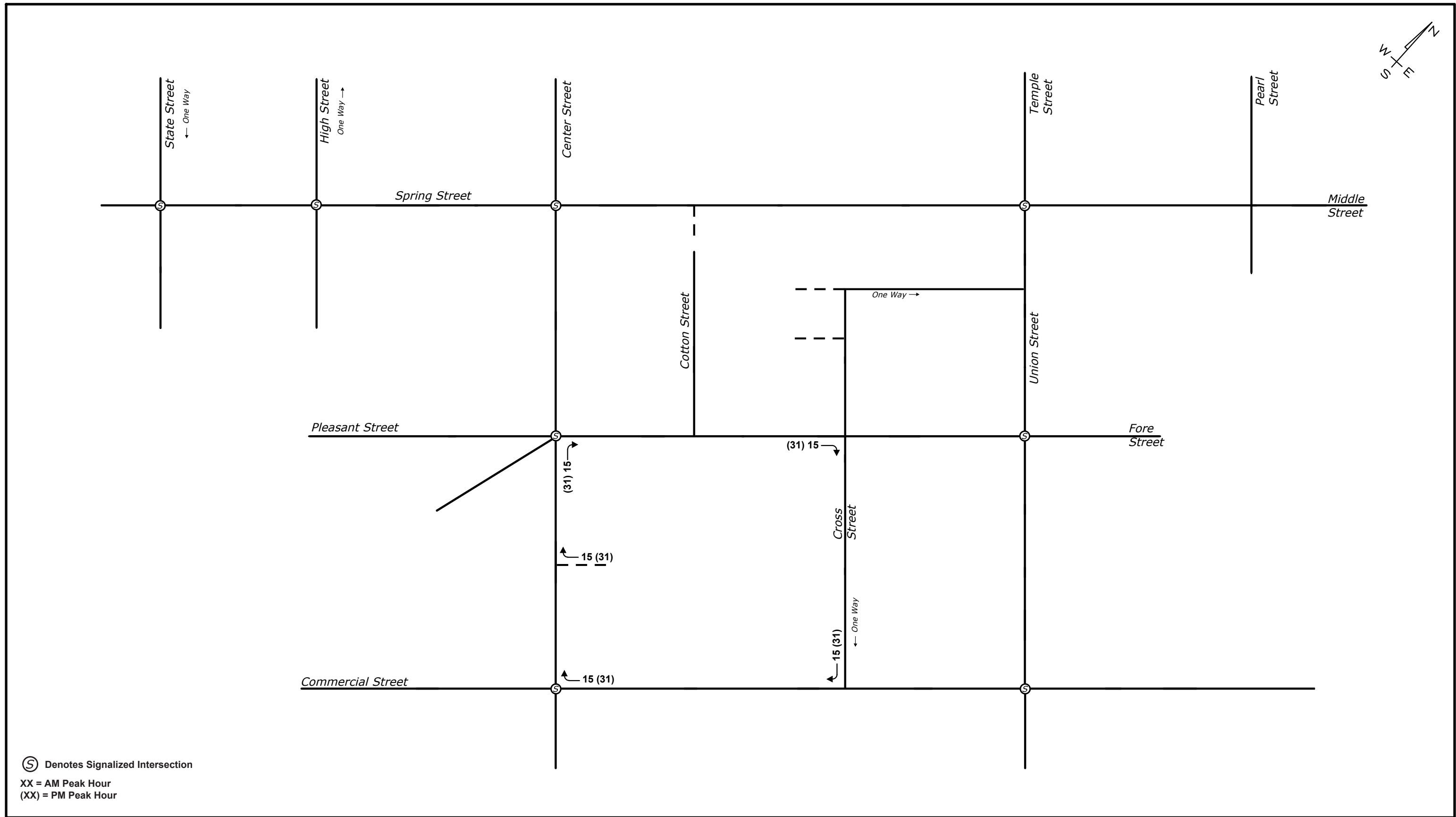
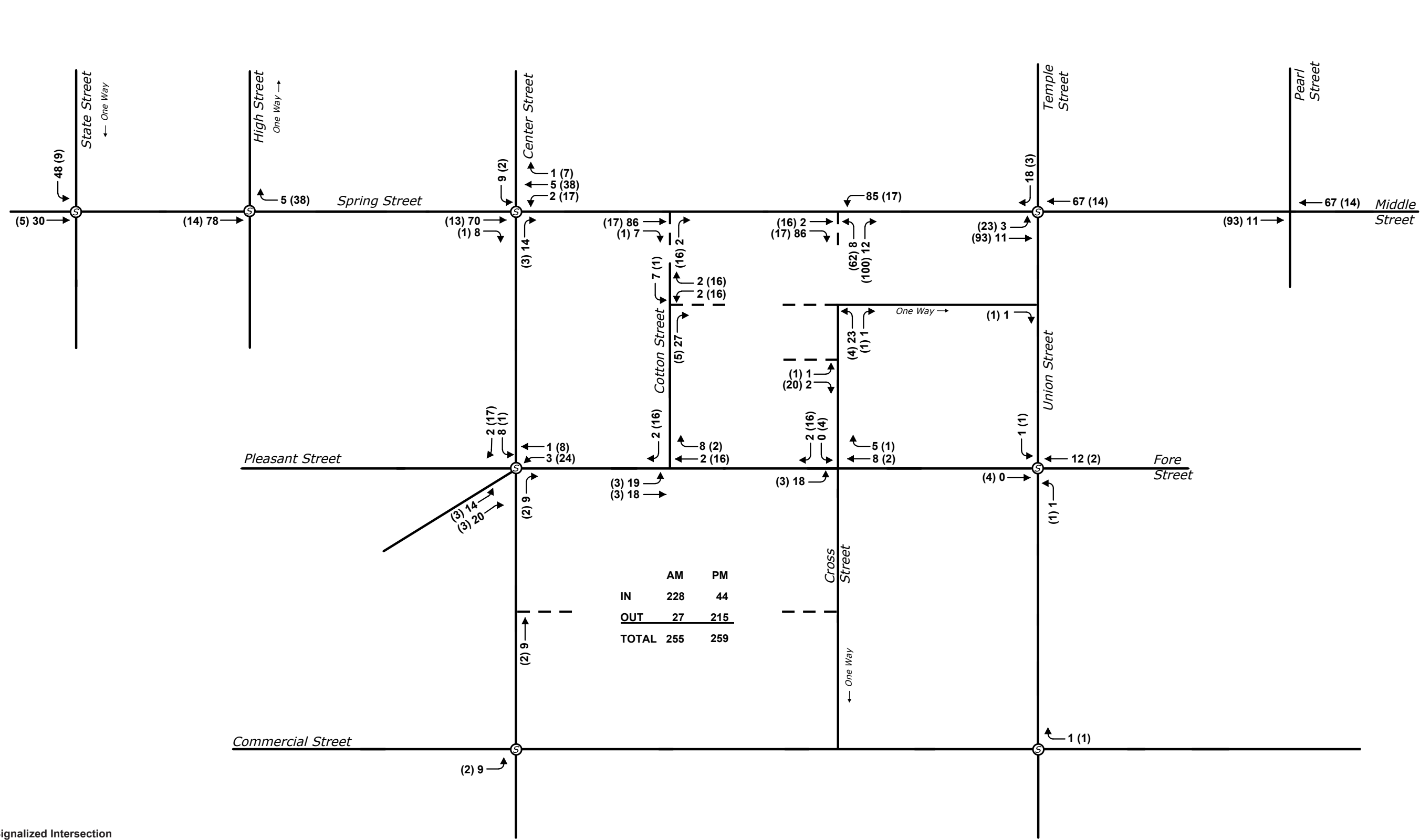


Figure No. 11



Upper Lot Primary Trip Assignment

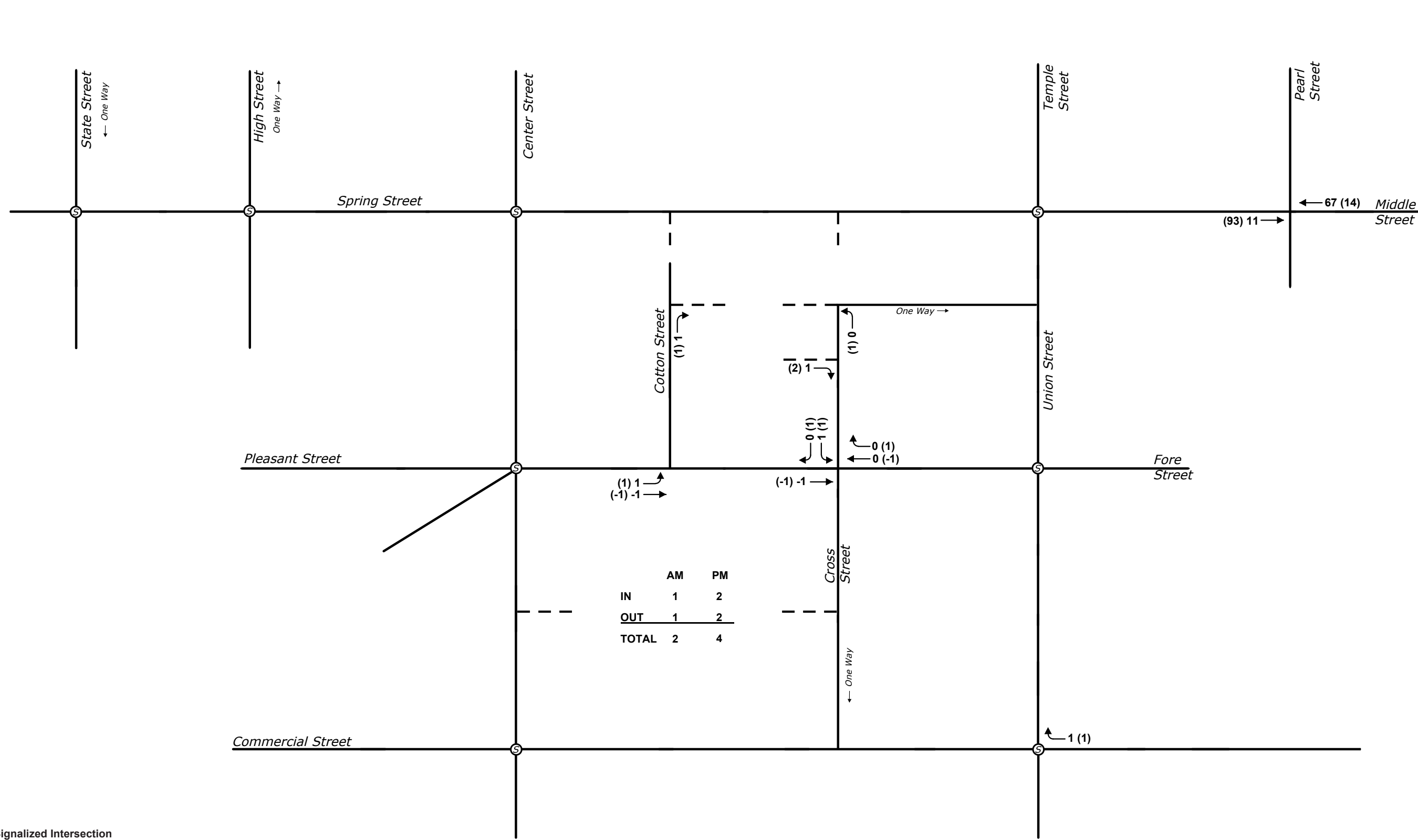
Figure No. 12



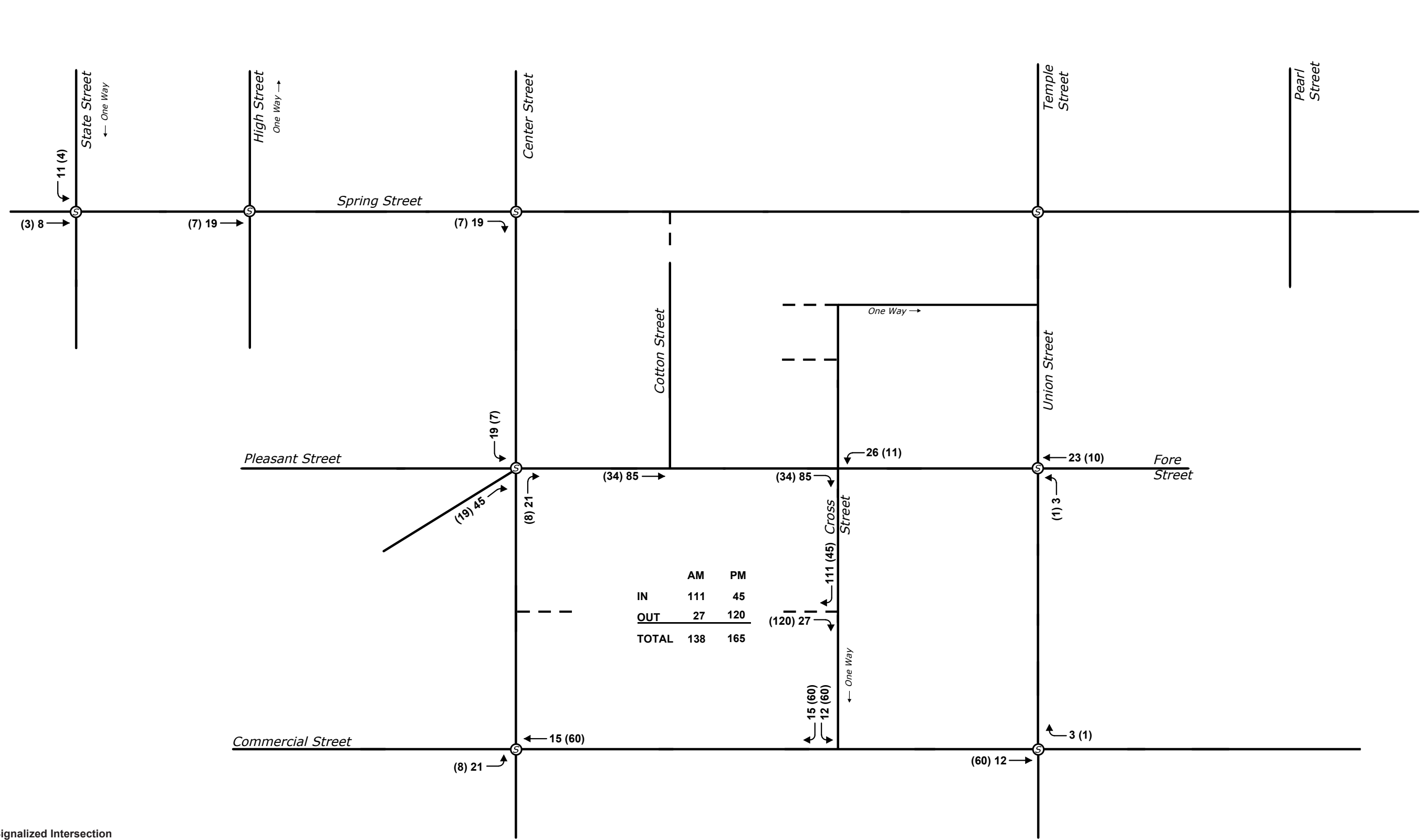
Ⓢ Denotes Signalized Intersection
XX = AM Peak Hour
(XX) = PM Peak Hour

Upper Lot Pass-By Trip Assignment

Figure No. 13

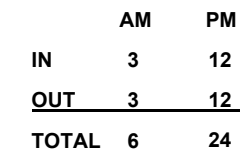


Lower Lot Primary Trip Assignment

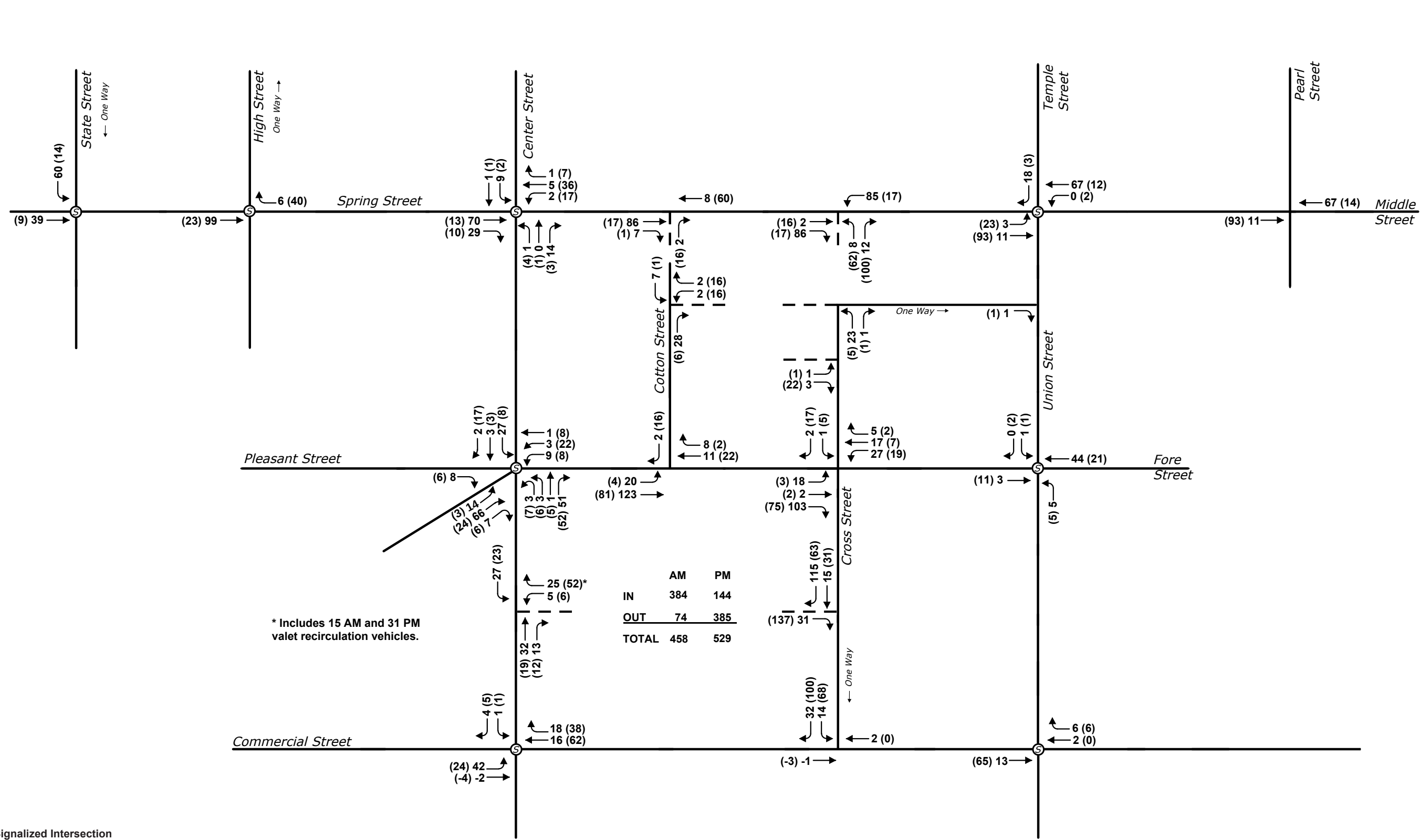


Ⓢ Denotes Signalized Intersection
XX = AM Peak Hour
(XX) = PM Peak Hour

Figure No. 15

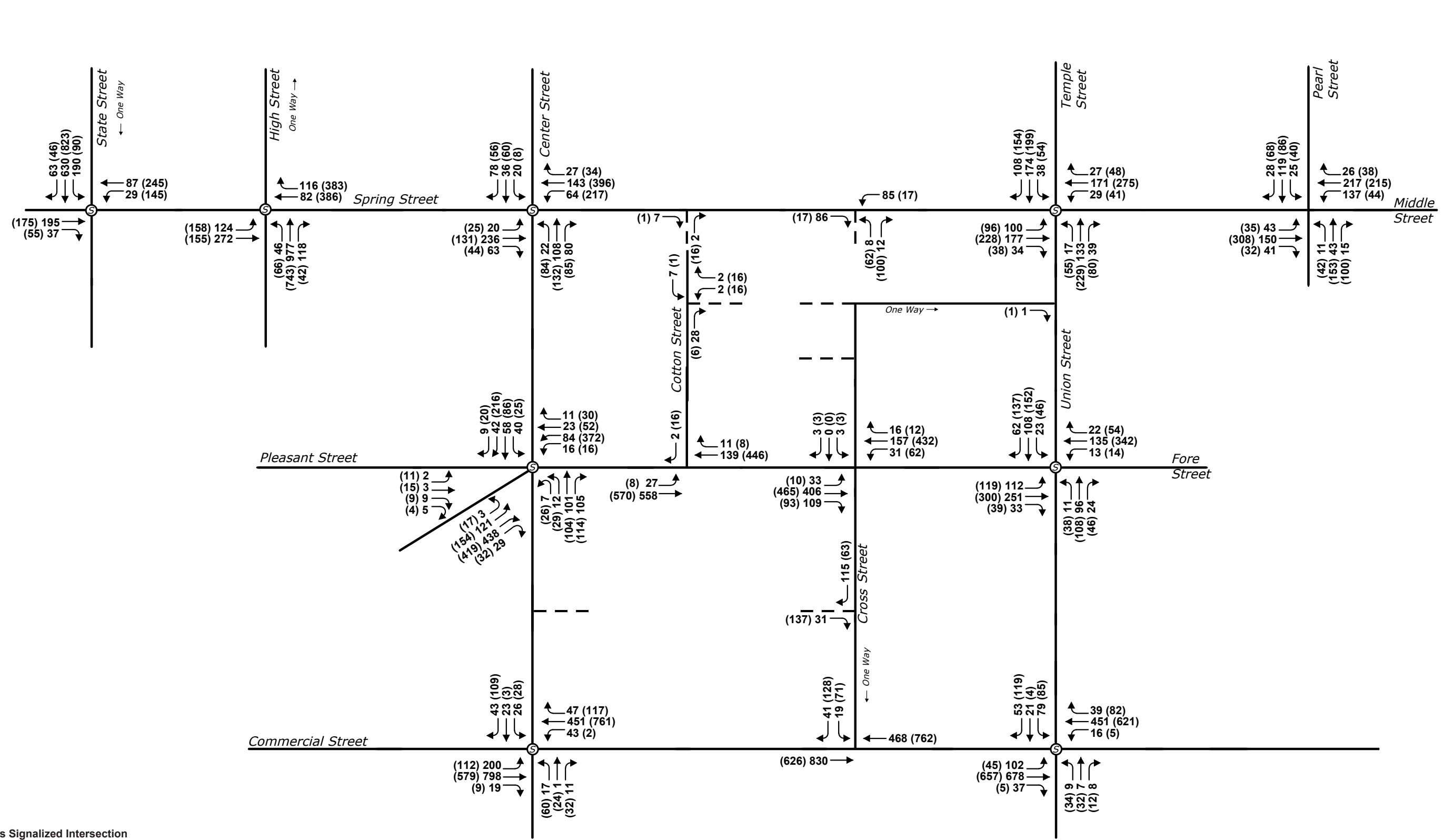


Total Trip Assignment



2029 Postdevelopment Volumes

Figure No. **17**



Attachment 7B

Trip Generation Calculations

JN: 3020.01
Project Description: Portland Square
Project Location: Portland, ME
Date: August 22, 2019
Computed By: MC
Checked By:

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

General Office Building
Land Use Code (LUC) 710

Square Feet **Lot 2**
 182,501

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	Ln (T) = 0.77 Ln (X) + 3.65	2120	78	50%	50%	1060	1060	0.80
AM Peak Hour	Ln (T) = 0.80 Ln (X) + 1.55	304	217	90%	10%	274	30	0.83
PM Peak Hour	T = 1.12 (X) + 78.81	283	235	15%	85%	42	241	0.82
Saturday	T = 2.14 (X) + 18.47	409	17	50%	50%	205	204	0.66
Peak Hour of Generator	Ln (T) = 0.81 Ln (X) - 0.12	60	10	55%	45%	33	27	0.59

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 11.01 (X)	2009	78	50%	50%	1005	1004	---
AM Peak Hour	T = 1.55 (X)	283	217	90%	10%	255	28	---
PM Peak Hour	T = 1.49 (X)	272	235	15%	85%	41	231	---
Saturday	T = 2.37 (X)	433	17	50%	50%	217	216	---
Saturday Peak Hour of Gen.	T = 0.41 (X)	75	10	50%	50%	38	37	---

* Percentages rounded to nearest 5%

PM Peak Hour:	T = 1.49/1.55 (AM Peak)	292	15%	85%	44	248
Saturday Peak Hour:	T = 0.41/1.55 (AM Peak)	80	55%	45%	44	36

Shopping Center

Land Use Code (LUC) 820

Gross Leasable Area (ft²):

Lot 2
5,565

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Rate of Source	Directional Split * INOUT	Directional Distribution INOUT	R ²
Weekday	Ln(T) = 0.65 Ln(X) + 5.83	1039	302	50%50%	520519	0.78
AM Peak Adjacent Street	Ln(T) = 0.60 Ln(X) + 2.29	28	98	60%40%	1711	0.52
PM Peak Adjacent Street	Ln(T) = 0.66 Ln(X) + 3.40	93	407	50%50%	4746	0.81
Saturday	Ln(T) = 0.63 Ln(X) + 6.23	1497	123	50%50%	749748	0.82
Saturday Peak Hour of Gen.	Ln(T) = 0.65 Ln(X) + 3.77	132	124	50%50%	6666	0.84

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Rate of Source	Directional Split * INOUT	Directional Distribution INOUT	R ²
Weekday	T = 42.94 (X)	239	302	50%50%	119120	N/A
AM Peak Adjacent Street	T = 1.03 (X)	6	98	60%40%	33	N/A
PM Peak Adjacent Street	T = 3.75 (X)	21	407	50%50%	1011	N/A
Saturday	T = 49.97 (X)	278	123	50%50%	139139	N/A
Saturday Peak Hour of Gen.	T = 4.97 (X)	28	124	50%50%	1414	N/A

* Percentages rounded to nearest 5%

JN: 3020.01
Project Description: Portland Square
Project Location: Portland, ME
Date: August 22, 2019
Computed By: MC
Checked By:

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Apartment
Land Use Code (LUC) 220

Dwelling Units:		Lot 2						
		24						
Average Rate								
Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.72 (X)	86	161	50%	50%	81	80	N/A
AM Peak Hour of Adj. Street Traffic	T = 0.51 (X)	78	12	20%	80%	2	10	N/A
PM Peak Hour of Adj. Street Traffic	T = 0.62 (X)	90	15	65%	35%	10	5	N/A
AM Peak Hour of Generator	T = 0.55 (X)	81	13	30%	70%	4	9	N/A
PM Peak Hour of Generator	T = 0.67 (X)	83	16	60%	40%	10	6	N/A
Saturday	T = 6.39 (X)	15	153	50%	50%	77	76	N/A
Saturday Peak Hour of Gen.	T = 0.52 (X)	14	12	**	50%	6	6	N/A

* Percentages rounded to nearest 5%
** Not Available (Assumption)

Fitted Curve Equation								
Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.01 (X) + 150.35	86	295	50%	50%	147	148	0.88
AM Peak Hour of Adj. Street Traffic	T = 0.49 (X) + 3.73	78	15	20%	80%	3	12	0.83
PM Peak Hour of Adj. Street Traffic	T = 0.55 (X) + 17.65	90	31	65%	35%	20	11	0.77
AM Peak Hour of Generator	T = 0.53 (X) + 4.21	81	17	30%	70%	5	12	0.82
PM Peak Hour of Generator	T = 0.60 (X) + 17.52	83	32	60%	40%	19	13	0.80
Saturday	T = 7.85 (X) - 256.19	15	-68	50%	50%	-34	-34	0.85
Saturday Peak Hour of Gen.	T = 0.41 (X) + 19.23	14	29	**	50%	15	14	0.56

* Percentages rounded to nearest 5%
** Not Available (Assumption)

JN: 3020.01
Project Description: Portland Square
Project Location: Portland, ME
Date: August 22, 2019
Computed By: MC
Checked By:

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

General Office Building
Land Use Code (LUC) 710

Square Feet Lot 3
82,700

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	Ln (T) = 0.77 Ln (X) + 3.65	1153	78	50%	50%	577	576	0.80
AM Peak Hour	Ln (T) = 0.80 Ln (X) + 1.55	161	217	90%	10%	145	16	0.83
PM Peak Hour	T = 1.12 (X) + 78.81	171	235	15%	85%	26	145	0.82
Saturday	T = 2.14 (X) + 18.47	195	17	50%	50%	98	97	0.66
Peak Hour of Generator	Ln (T) = 0.81 Ln (X) - 0.12	32	10	55%	45%	18	14	0.59

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 11.01 (X)	911	78	50%	50%	456	455	---
AM Peak Hour	T = 1.55 (X)	128	217	90%	10%	115	13	---
PM Peak Hour	T = 1.49 (X)	123	235	15%	85%	18	105	---
Saturday	T = 2.37 (X)	196	17	50%	50%	98	98	---
Saturday Peak Hour of Gen.	T = 0.41 (X)	34	10	50%	50%	17	17	---

* Percentages rounded to nearest 5%

PM Peak Hour:	T = 1.49/1.55 (AM Peak)	155	15%	85%	23	132
Saturday Peak Hour:	T = 0.41/1.55 (AM Peak)	43	55%	45%	24	19

JN: 3020.01
Project Description: Portland Square
Project Location: Portland, ME
Date: August 22, 2019
Computed By: MC
Checked By:

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Shopping Center
Land Use Code (LUC) 820

Gross Leasable Area (ft²): Lot 3
29,649

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	# of Sources	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	Ln(T) = 0.65 Ln(X) + 5.83	3081	302	50%	50%	1541	1540	0.78
AM Peak Adjacent Street	Ln(T) = 0.60 Ln(X) + 2.29	75	98	60%	40%	45	30	0.52
PM Peak Adjacent Street	Ln(T) = 0.66 Ln(X) + 3.40	281	407	50%	50%	141	140	0.81
Saturday	Ln(T) = 0.63 Ln(X) + 6.23	4296	123	50%	50%	2148	2148	0.82
Saturday Peak Hour of Gen.	Ln(T) = 0.65 Ln(X) + 3.77	393	124	50%	50%	197	196	0.84

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	# of Sources	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 42.94 (X)	1273	302	50%	50%	637	636	N/A
AM Peak Adjacent Street	T = 1.03 (X)	31	98	60%	40%	18	13	N/A
PM Peak Adjacent Street	T = 3.75 (X)	111	407	50%	50%	56	55	N/A
Saturday	T = 49.97 (X)	1482	123	50%	50%	741	741	N/A
Saturday Peak Hour of Gen.	T = 4.97 (X)	147	124	50%	50%	74	73	N/A

* Percentages rounded to nearest 5%

Apartment
Land Use Code (LUC) 220

Dwelling Units:		Lot 3						
		58						
Average Rate								
Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.72 (X)	86	390	50%	50%	195	195	N/A
AM Peak Hour of Adj. Street Traffic	T = 0.51 (X)	78	30	20%	80%	6	24	N/A
PM Peak Hour of Adj. Street Traffic	T = 0.62 (X)	90	36	65%	35%	23	13	N/A
AM Peak Hour of Generator	T = 0.55 (X)	81	32	30%	70%	10	22	N/A
PM Peak Hour of Generator	T = 0.67 (X)	83	39	60%	40%	23	16	N/A
Saturday	T = 6.39 (X)	15	371	50%	50%	186	185	N/A
Saturday Peak Hour of Gen.	T = 0.52 (X)	14	30	**	50%	15	15	N/A

* Percentages rounded to nearest 5%
** Not Available (Assumption)

Fitted Curve Equation								
Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.01 (X) + 150.35	86	499	50%	50%	249	250	0.88
AM Peak Hour of Adj. Street Traffic	T = 0.49 (X) + 3.73	78	32	20%	80%	6	26	0.83
PM Peak Hour of Adj. Street Traffic	T = 0.55 (X) + 17.65	90	50	65%	35%	32	18	0.77
AM Peak Hour of Generator	T = 0.53 (X) + 4.21	81	35	30%	70%	10	25	0.82
PM Peak Hour of Generator	T = 0.60 (X) + 17.52	83	52	60%	40%	31	21	0.80
Saturday	T = 7.85 (X) - 256.19	15	199	50%	50%	100	99	0.85
Saturday Peak Hour of Gen.	T = 0.41 (X) + 19.23	14	43	**	50%	22	21	0.56

* Percentages rounded to nearest 5%
** Not Available (Assumption)

JN: 3020.01
 Project Description: Portland Square
 Project Location: Portland, ME
 Date: August 22, 2019
 Computed By: MC
 Checked By:

Gorrill Palmer
 707 Sable Oaks Drive
 Suite 30
 South Portland, Maine 04106

Hotel
Land Use Code (LUC) 310

Numer of Rooms: **Lot 4**
 135

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	$T = 8.95 (X) - 373.16$	835	50%	50%	418	417
AM Peak Adjacent Street	$\ln(T) = 1.24 \ln(X) - 2.00$	59	60%	40%	35	24
PM Peak Adjacent Street	---	---	55%	45%	---	---
AM Peak hour of Generator	$\ln(T) = 0.87 \ln(X) + 0.02$	73	55%	45%	40	33
PM Peak Hour of Generator	$\ln(T) = 1.00 \ln(X) - 0.58$	76	60%	40%	46	30
Saturday	$T = 9.62 (X) - 294.56$	1004	50%	50%	502	502
Saturday Peak Hour of Gen.	$T = 0.69 (X) + 4.32$	97	55%	45%	53	44

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	$T = 8.17 (X)$	1103	50%	50%	551	552
AM Peak Adjacent Street	$T = 0.56 (X)$	76	60%	40%	45	31
PM Peak Adjacent Street	$T = 0.59 (X)$	80	55%	45%	44	36
AM Peak Hour of Generator	$T = 0.52 (X)$	70	55%	45%	39	31
PM Peak Hour of Generator	$T = 0.61 (X)$	82	60%	40%	49	33
Saturday	$T = 8.19 (X)$	1106	50%	50%	553	553
Saturday Peak Hour of Gen.	$T = 0.72 (X)$	97	55%	45%	53	44

* Percentages rounded to nearest 5%

JN: 3020.01
Project Description: Portland Square
Project Location: Portland, ME
Date: August 22, 2019
Computed By: MC
Checked By:

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Shopping Center
Land Use Code (LUC) 820

Gross Leasable Area (ft²): Lot 4
4,855

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	# of Sources	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	Ln(T) = 0.65 Ln(X) + 5.83	951	302	50%	50%	476	475	0.78
AM Peak Adjacent Street	Ln(T) = 0.60 Ln(X) + 2.29	25	98	60%	40%	15	10	0.52
PM Peak Adjacent Street	Ln(T) = 0.66 Ln(X) + 3.40	85	407	50%	50%	43	42	0.81
Saturday	Ln(T) = 0.63 Ln(X) + 6.23	1374	123	50%	50%	687	687	0.82
Saturday Peak Hour of Gen.	Ln(T) = 0.65 Ln(X) + 3.77	121	124	50%	50%	61	60	0.84

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	# of Sources	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 42.94 (X)	208	302	50%	50%	104	104	N/A
AM Peak Adjacent Street	T = 1.03 (X)	5	98	60%	40%	3	2	N/A
PM Peak Adjacent Street	T = 3.75 (X)	18	407	50%	50%	9	9	N/A
Saturday	T = 49.97 (X)	243	123	50%	50%	121	122	N/A
Saturday Peak Hour of Gen.	T = 4.97 (X)	24	124	50%	50%	12	12	N/A

* Percentages rounded to nearest 5%

Portland Square ITE Raw Trip Generation

Task: Calcualate trip generation

Reference: ITE Publication, Trip Generation 7th Edition
-LUC 220: Apartment
-LUC 310: Hotel
-LUC 710: General Office
-LUC 820: Shopping Center

Assumptions:

Lot 2 (Upper Lot)	Lot 3 (Lower Lot)	Lot 4 (Lower Lot)
-24 Dwelling Apartment Units	-58 Dwelling Apartment Units	-135 Room Hotel (Center Street Hotel)
-182,501 SF General Office	-82,700 SF General Office	-4,855 SF Shopping Center
-5,565 SF Shopping Center	-29,649 SF Shopping Center	

Calculations:

Lot 2 ITE Raw Trip Generation

Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	274	30	304	3	3	6	2	10	12	0	0	0	279	43	322
PM Peak Adjacent Street	44	248	292	10	11	21	10	5	15	0	0	0	64	264	328
AM Peak of Generator	274	30	304	3	3	6	4	9	13	0	0	0	281	42	323
PM Peak of Generator	44	248	292	10	11	21	10	6	16	0	0	0	64	265	329
Saturday Peak Hour of Gen.	44	36	80	14	14	28	6	6	12	0	0	0	64	56	120

Lot 3 ITE Raw Trip Generation

Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	145	16	161	18	13	31	6	24	30	0	0	0	169	53	222
PM Peak Adjacent Street	23	132	155	56	55	111	23	13	36	0	0	0	102	200	302
AM Peak of Generator	145	16	161	18	13	31	10	22	32	0	0	0	173	51	224
PM Peak of Generator	23	132	155	56	55	111	23	16	39	0	0	0	102	203	305
Saturday Peak Hour of Gen.	24	19	43	74	73	147	15	15	30	0	0	0	113	107	220

Lot 4 ITE Raw Trip Generation

Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	0	0	0	3	2	5	0	0	0	45	31	76	48	33	81
PM Peak Adjacent Street	0	0	0	9	9	18	0	0	0	44	36	80	53	45	98
AM Peak of Generator	0	0	0	3	2	5	0	0	0	39	31	70	42	33	75
PM Peak of Generator	0	0	0	9	9	18	0	0	0	49	33	82	58	42	100
Saturday Peak Hour of Gen.	0	0	0	12	12	24	0	0	0	53	44	97	65	56	121

Total Combined Trip Generation

Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	419	46	465	24	18	42	8	34	42	45	31	76	496	129	625
PM Peak Adjacent Street	67	380	447	75	75	150	33	18	51	44	36	80	219	509	728
AM Peak of Generator	419	46	465	24	18	42	14	31	45	39	31	70	496	126	622
PM Peak of Generator	67	380	447	75	75	150	33	22	55	49	33	82	224	510	734
Saturday Peak Hour of Gen.	68	55	123	100	99	199	21	21	42	53	44	97	242	219	461

JN: 3020.01
Project Description: Portland Square
Project Location: Portland, ME
Date: August 22, 2019
Computed By: MC
Checked By:

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Portland Square Trip Generation Reductions

Task: Trip Generation Reductions

Reference: Shared Use Reduction
-NCHRP 684 Internal Trip Capture Percentage Tool

Other Modes Reduction
-Residential: 2009-2013 ACS Five Year Estimate
-Non Residential: 2010 Consensus Transportation Planning Procedures Means of Transportation to Work Data

Assumptions: Lot 2 (Upper Lot) Lot 3 (Lower Lot) Lot 4 (Lower Lot)
-24 Dwelling Apartment Units -58 Dwelling Apartment Units -135 Room Hotel (Center Street Hotel)
-182,501 SF General Office -82,700 SF General Office -4,855 SF Shopping Center
-5,565 SF Shopping Center -29,649 SF Shopping Center

Calculations:

Total Combined Trip Generation															
Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	419	46	465	24	18	42	8	34	42	45	31	76	496	129	625
PM Peak Adjacent Street	67	380	447	75	75	150	33	18	51	44	36	80	219	509	728
AM Peak of Generator	419	46	465	24	18	42	14	31	45	39	31	70	496	126	622
PM Peak of Generator	67	380	447	75	75	150	33	22	55	49	33	82	224	510	734
Saturday Peak Hour of Gen.	68	55	123	100	99	199	21	21	42	53	44	97	242	219	461

NCHRP 684 Reduction																
Time Period	Office			Retail			Residential			Hotel			Total			
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	
AM Peak Adjacent Street	19	8	27	9	5	14	0	1	1	0	14	14	28	28	56	9%
PM Peak Adjacent Street	3	7	10	16	21	37	16	10	26	5	2	7	40	40	80	11%
AM Peak of Generator	19	8	27	9	5	14	0	1	1	0	14	14	28	28	56	9%
PM Peak of Generator	3	7	10	16	21	37	16	10	26	5	2	7	40	40	80	11%
Saturday Peak Hour of Gen.	7	6	13	10	10	20	2	2	4	5	4	9	24	22	46	10%

NCHRP 684 Reduced															
Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	400	38	438	15	13	28	8	33	41	45	17	62	468	101	569
PM Peak Adjacent Street	64	373	437	59	54	113	17	8	25	39	34	73	179	469	648
AM Peak of Generator	400	38	438	15	13	28	14	30	44	39	17	56	468	98	566
PM Peak of Generator	64	373	437	59	54	113	17	12	29	44	31	75	184	470	654
Saturday Peak Hour of Gen.	61	49	110	90	89	179	19	19	38	48	40	88	218	197	415

Other Modes Reduction			18%	18%			48.0%	10%							
Time Period	Enter	Office Exit	Total	Enter	Retail Exit	Total	Enter	Residential Exit	Total	Enter	Hotel Exit	Total	Enter	Total Exit	Total
AM Peak Adjacent Street	72	7	79	3	2	5	4	16	20	5	2	7	84	27	111
PM Peak Adjacent Street	12	67	79	11	10	21	8	4	12	4	3	7	35	84	119
AM Peak of Generator	72	7	79	3	2	5	7	14	21	4	2	6	86	25	111
PM Peak of Generator	12	67	79	11	10	21	8	6	14	4	3	7	35	86	121
Saturday Peak Hour of Gen.	11	9	20	16	16	32	9	9	18	5	4	9	41	38	79

Total Reduced Trip Generation															
Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	328	31	359	12	11	23	4	17	21	40	15	55	384	74	458
PM Peak Adjacent Street	52	306	358	48	44	92	9	4	13	35	31	66	144	385	529
AM Peak of Generator	328	31	359	12	11	23	7	16	23	35	15	50	382	73	455
PM Peak of Generator	52	306	358	48	44	92	9	6	15	40	28	68	149	384	533
Saturday Peak Hour of Gen.	50	40	90	74	73	147	10	10	20	43	36	79	177	159	336

Total Pass-By			35%
Time Period	Enter	Retail Exit	Total
AM Peak Adjacent Street	4	4	8
PM Peak Adjacent Street	17	15	32
AM Peak of Generator	4	4	8
PM Peak of Generator	17	15	32
Saturday Peak Hour of Gen.	26	26	52

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Portland Square and Hotel			Organization:	GP
Project Location:	Portland, Maine			Performed By:	MC
Scenario Description:	Portland Square with Proposed Hotel			Date:	8/22/2019
Analysis Year:				Checked By:	
Analysis Period:	AM Street Peak Hour			Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	265,201	SF	465	419	46
Retail	820	40,069	SF	42	24	18
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential	220	82	Units	42	8	34
Hotel	310	135	Rooms	76	45	31
All Other Land Uses ²				0	0	0
Total				625	496	129

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	0	0	0	0
Retail	5		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	0	0		0
Hotel	13	1	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	625	496	129
Internal Capture Percentage	9%	6%	22%
External Vehicle-Trips ³	569	468	101
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	5%	17%
Retail	38%	28%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	3%
Hotel	0%	45%

¹ Land Use Codes (LUCs) from <i>Trip Generation Informational Report</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
³ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
⁴ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
<i>Estimation Tool Developed by the Texas Transportation Institute</i>

Project Name:	Portland Square and Hotel
Analysis Period:	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips				Table 7-A (O): Exiting Trips	
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Person-Trips*
Office	1.00	419	419		1.00	46
Retail	1.00	24	24		1.00	18
Restaurant	1.00	0	0		1.00	0
Cinema/Entertainment	1.00	0	0		1.00	0
Residential	1.00	8	8		1.00	34
Hotel	1.00	45	45		1.00	31

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		13	29	0	0	0
Retail	5		2	0	3	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	7	0		0
Hotel	23	4	3	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	0	0	0	0
Retail	17		0	0	0	0
Restaurant	59	2		0	0	2
Cinema/Entertainment	0	0	0		0	0
Residential	13	4	0	0		0
Hotel	13	1	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	19	400	419		400	0
Retail	9	15	24		15	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	8	8		8	0
Hotel	0	45	45		45	0
All Other Land Uses ³	0	0	0		0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	8	38	46		38	0
Retail	5	13	18		13	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	33	34		33	0
Hotel	14	17	31		17	0
All Other Land Uses ³	0	0	0		0	0

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Portland Square and Hotel		Organization:	GP	
Project Location:	Portland, Maine		Performed By:	MC	
Scenario Description:	Portland Square with Proposed Hotel		Date:	8/22/2019	
Analysis Year:			Checked By:		
Analysis Period:	PM Street Peak Hour		Date:		

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	265,201	SF	447	67	380
Retail	820	40,069	SF	150	75	75
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential	220	82	Units	51	33	18
Hotel	310	135	Rooms	80	44	36
All Other Land Uses ²				0	0	0
Total				728	219	509

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		6	0	0	1	0
Retail	2		0	0	15	4
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	8	0	0		1
Hotel	0	2	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	728	219	509
Internal Capture Percentage	11%	18%	8%
External Vehicle-Trips ³	648	179	469
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	4%	2%
Retail	21%	28%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	48%	56%
Hotel	11%	6%

¹ Land Use Codes (LUCs) from <i>Trip Generation Informational Report</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
³ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
⁴ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
<i>Estimation Tool Developed by the Texas Transportation Institute</i>

Project Name:	Portland Square and Hotel
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips				Table 7-P (O): Exiting Trips	
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Person-Trips*
Office	1.00	67	67		1.00	380
Retail	1.00	75	75		1.00	75
Restaurant	1.00	0	0		1.00	0
Cinema/Entertainment	1.00	0	0		1.00	0
Residential	1.00	33	33		1.00	18
Hotel	1.00	44	44		1.00	36

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		76	15	0	8	0
Retail	2		22	3	20	4
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	8	4	0		1
Hotel	0	6	24	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		6	0	0	1	0
Retail	21		0	0	15	7
Restaurant	20	38		0	5	31
Cinema/Entertainment	4	3	0		1	0
Residential	38	8	0	0		5
Hotel	0	2	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	3	64	67		64	0
Retail	16	59	75		59	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	16	17	33		17	0
Hotel	5	39	44		39	0
All Other Land Uses ³	0	0	0		0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	7	373	380		373	0
Retail	21	54	75		54	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	10	8	18		8	0
Hotel	2	34	36		34	0
All Other Land Uses ³	0	0	0		0	0

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Portland Square and Hotel			Organization:	GP
Project Location:	Portland, Maine			Performed By:	MC
Scenario Description:	Portland Square with Proposed Hotel			Date:	8/22/2019
Analysis Year:				Checked By:	
Analysis Period:	AM Generator Peak Hour			Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	265,201	SF	465	419	46
Retail	820	40,069	SF	42	24	18
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential	220	82	Units	45	14	31
Hotel	310	135	Rooms	70	39	31
All Other Land Uses ²				0	0	0
Total				622	496	126

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	0	0	0	0
Retail	5		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	0	0		0
Hotel	13	1	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	622	496	126
Internal Capture Percentage	9%	6%	22%
External Vehicle-Trips ³	566	468	98
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	5%	17%
Retail	38%	28%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	3%
Hotel	0%	45%

¹ Land Use Codes (LUCs) from <i>Trip Generation Informational Report</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
³ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
⁴ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
<i>Estimation Tool Developed by the Texas Transportation Institute</i>

Project Name:	Portland Square and Hotel
Analysis Period:	AM Generator Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends							
Land Use	Table 7-A (D): Entering Trips				Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	419	419		1.00	46	46
Retail	1.00	24	24		1.00	18	18
Restaurant	1.00	0	0		1.00	0	0
Cinema/Entertainment	1.00	0	0		1.00	0	0
Residential	1.00	14	14		1.00	31	31
Hotel	1.00	39	39		1.00	31	31

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		13	29	0	0	0
Retail	5		2	0	3	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	6	0		0
Hotel	23	4	3	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	0	0	0	0
Retail	17		0	0	0	0
Restaurant	59	2		0	1	2
Cinema/Entertainment	0	0	0		0	0
Residential	13	4	0	0		0
Hotel	13	1	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)							
Destination Land Use	Person-Trip Estimates				External Trips by Mode*		
	Internal	External	Total		Vehicles ¹	Transit ²	Non-Motorized ²
Office	19	400	419		400	0	0
Retail	9	15	24		15	0	0
Restaurant	0	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0	0
Residential	0	14	14		14	0	0
Hotel	0	39	39		39	0	0
All Other Land Uses ³	0	0	0		0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)							
Origin Land Use	Person-Trip Estimates				External Trips by Mode*		
	Internal	External	Total		Vehicles ¹	Transit ²	Non-Motorized ²
Office	8	38	46		38	0	0
Retail	5	13	18		13	0	0
Restaurant	0	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0	0
Residential	1	30	31		30	0	0
Hotel	14	17	31		17	0	0
All Other Land Uses ³	0	0	0		0	0	0

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Portland Square and Hotel		Organization:	GP	
Project Location:	Portland, Maine		Performed By:	MC	
Scenario Description:	Portland Square with Proposed Hotel		Date:	8/22/2019	
Analysis Year:			Checked By:		
Analysis Period:	PM Generator Peak Hour		Date:		

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	265,201	SF	447	67	380
Retail	820	40,069	SF	150	75	75
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential	220	82	Units	55	33	22
Hotel	310	135	Rooms	82	49	33
All Other Land Uses ²				0	0	0
Total				734	224	510

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		6	0	0	1	0
Retail	2		0	0	15	4
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	8	0	0		1
Hotel	0	2	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	734	224	510
Internal Capture Percentage	11%	18%	8%
External Vehicle-Trips ³	654	184	470
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	4%	2%
Retail	21%	28%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	48%	45%
Hotel	10%	6%

¹ Land Use Codes (LUCs) from <i>Trip Generation Informational Report</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
³ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
⁴ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
<i>Estimation Tool Developed by the Texas Transportation Institute</i>

Project Name:	Portland Square and Hotel
Analysis Period:	PM Generator Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips				Table 7-P (O): Exiting Trips	
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Person-Trips*
Office	1.00	67	67		1.00	380
Retail	1.00	75	75		1.00	75
Restaurant	1.00	0	0		1.00	0
Cinema/Entertainment	1.00	0	0		1.00	0
Residential	1.00	33	33		1.00	22
Hotel	1.00	49	49		1.00	33

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		76	15	0	8	0
Retail	2		22	3	20	4
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	9	5	0		1
Hotel	0	5	22	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		6	0	0	1	0
Retail	21		0	0	15	8
Restaurant	20	38		0	5	35
Cinema/Entertainment	4	3	0		1	0
Residential	38	8	0	0		6
Hotel	0	2	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	3	64	67		64	0
Retail	16	59	75		59	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	16	17	33		17	0
Hotel	5	44	49		44	0
All Other Land Uses ³	0	0	0		0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	7	373	380		373	0
Retail	21	54	75		54	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	10	12	22		12	0
Hotel	2	31	33		31	0
All Other Land Uses ³	0	0	0		0	0

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

Attachment 7C

Capacity and Queue Analysis Results

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
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	5760	5733	5836	5787	5915	5807
Vehs Exited	5798	5722	5807	5772	5893	5802
Starting Vehs	123	104	91	121	101	100
Ending Vehs	85	115	120	136	123	111
Denied Entry After	1	2	4	0	6	2
Travel Distance (mi)	1913	1920	1920	1907	1964	1925
Travel Time (hr)	119.3	118.9	124.0	120.4	125.7	121.7
Total Delay (hr)	37.8	37.2	42.8	39.6	42.4	39.9
Total Stops	6293	6159	6299	6179	6361	6258
Fuel Used (gal)	77.9	77.6	78.5	78.0	80.8	78.6

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	5760	5733	5836	5787	5915	5807
Vehs Exited	5798	5722	5807	5772	5893	5802
Starting Vehs	123	104	91	121	101	100
Ending Vehs	85	115	120	136	123	111
Denied Entry After	1	2	4	0	6	2
Travel Distance (mi)	1913	1920	1920	1907	1964	1925
Travel Time (hr)	119.3	118.9	124.0	120.4	125.7	121.7
Total Delay (hr)	37.8	37.2	42.8	39.6	42.4	39.9
Total Stops	6293	6159	6299	6179	6361	6258
Fuel Used (gal)	77.9	77.6	78.5	78.0	80.8	78.6

2: Commercial & Center Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	1.9	0.1	0.0	0.1	1.2
Total Del/Veh (s)	8.3	9.1	10.4	19.2	8.9
Denied Entry After	0	0	0	0	0

3: York & Center & Pleasant/Fore Performance by approach

Approach	EB	WB	NB	SE	NW	All
Denied Del/Veh (s)	0.1	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	18.5	6.5	16.7	12.2	9.0	13.1
Denied Entry After	0	0	0	0	0	0

4: Pearl Street & Middle Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.1	0.2	0.1
Total Del/Veh (s)	7.1	5.6	5.5	5.9	6.1
Denied Entry After	0	0	0	0	0

5: Union Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.1	0.0	0.1
Total Del/Veh (s)	5.6	8.7	7.8	6.6	6.7
Denied Entry After	0	0	0	0	0

10: Union & Commercial Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.6	0.2
Total Del/Veh (s)	10.4	8.9	8.2	6.1	7.7
Denied Entry After	0	0	0	0	0

12: Cross & Fore Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.9	1.2	2.8	1.0
Denied Entry After	0	0	0	0

14: Commercial & Cross Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.0
Total Del/Veh (s)	9.4	2.0	1.1	1.7
Denied Entry After	0	0	0	0

15: Spring & Center Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	2.5	0.0	0.0	0.0	0.4
Total Del/Veh (s)	6.0	8.6	7.4	7.3	7.4
Denied Entry After	0	0	0	0	0

16: Union/Temple & Spring/Middle Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.3	0.1
Total Del/Veh (s)	16.3	14.5	13.8	13.0	14.4
Denied Entry After	0	0	0	0	0

17: High Street & Spring Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	9.7	0.1	0.0	6.6
Total Del/Veh (s)	19.2	22.2	12.2	18.7
Denied Entry After	2	0	0	2

25: Fore & Cotton Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	0.6	0.2	7.3	0.5
Denied Entry After	0	0	0	0

28: Upper Lot & Cross Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.1
Total Del/Veh (s)	0.5	0.2	2.5	0.5
Denied Entry After	0	0	0	0

33: State Street Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.8	0.2	0.0	0.6
Total Del/Veh (s)	5.5	26.5	25.9	11.4
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	2.5
Total Del/Veh (s)	21.8
Denied Entry After	2

Intersection: 2: Commercial & Center

Movement	NB	NB	SB	SB	SB	SE	NW
Directions Served	L	TR	L	T	R	LTR	LTR
Maximum Queue (ft)	219	432	40	244	77	81	54
Average Queue (ft)	60	148	13	101	14	32	16
95th Queue (ft)	135	295	33	186	54	65	43
Link Distance (ft)		658		242		440	136
Upstream Blk Time (%)		0		1			
Queuing Penalty (veh)		0		3			
Storage Bay Dist (ft)	110		130		130		
Storage Blk Time (%)	0	8		5			
Queuing Penalty (veh)	4	18		4			

Intersection: 3: York & Center & Pleasant/Fore

Movement	EB	WB	WB	NB	NB	SE	NW
Directions Served	LTR>	<L	TR	<L	R>	LTR>	<LTR
Maximum Queue (ft)	34	81	43	101	273	108	107
Average Queue (ft)	10	35	11	43	135	55	45
95th Queue (ft)	31	71	36	86	232	96	89
Link Distance (ft)	317	115		3333	3333	328	440
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			100				
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					

Intersection: 4: Pearl Street & Middle

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	LTR	LTR	LTR
Maximum Queue (ft)	106	55	70	60	98
Average Queue (ft)	57	36	43	31	45
95th Queue (ft)	93	52	64	55	73
Link Distance (ft)	779	287	287	295	195
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: Union

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	LT	R
Maximum Queue (ft)	100	142	119	108	115	75
Average Queue (ft)	34	60	52	43	45	33
95th Queue (ft)	72	113	93	80	88	73
Link Distance (ft)		166	173	244	470	
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)	0	1			5	1
Queuing Penalty (veh)	0	1			3	1

Intersection: 10: Union & Commercial

Movement	SE	NW	NE	NE	SW	SW	SW
Directions Served	LTR	LTR	L	TR	L	T	R
Maximum Queue (ft)	107	42	114	252	42	161	50
Average Queue (ft)	48	16	10	150	11	83	22
95th Queue (ft)	89	41	59	258	34	139	54
Link Distance (ft)	244	129		246	272	272	
Upstream Blk Time (%)			0	1			
Queuing Penalty (veh)			0	7			
Storage Bay Dist (ft)			185				25
Storage Blk Time (%)				5		23	1
Queuing Penalty (veh)				0		8	6

Intersection: 12: Cross & Fore

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	88	33	31
Average Queue (ft)	15	2	4
95th Queue (ft)	57	16	20
Link Distance (ft)	146	166	66
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Commercial & Cross

Movement	SB	SB	NE	SW
Directions Served	L	R	T	T
Maximum Queue (ft)	30	60	182	98
Average Queue (ft)	3	9	19	3
95th Queue (ft)	18	36	92	35
Link Distance (ft)	372	372	242	246
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Spring & Center

Movement	SE	SE	NW	NE	NE	SW	SW
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	71	50	134	28	130	68	95
Average Queue (ft)	28	36	60	11	60	30	44
95th Queue (ft)	63	56	104	33	109	58	82
Link Distance (ft)	262		328		457		633
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		25		85		95	
Storage Blk Time (%)	10	7			2		0
Queuing Penalty (veh)	8	4			0		0

Intersection: 16: Union/Temple & Spring/Middle

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	LT	R	L	TR	L	TR
Maximum Queue (ft)	182	44	163	51	47	156	74	195
Average Queue (ft)	92	15	65	16	11	61	24	81
95th Queue (ft)	160	41	118	43	35	121	57	146
Link Distance (ft)	633	633	779	779	470	470	406	406
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: High Street & Spring

Movement	NW	NW	NW	NE	NE	SW	SW
Directions Served	L	T	R	L	T	T	R
Maximum Queue (ft)	174	474	175	140	190	114	68
Average Queue (ft)	28	370	62	65	71	45	34
95th Queue (ft)	114	548	175	124	140	93	61
Link Distance (ft)		433			810	768	768
Upstream Blk Time (%)		14					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)	150		150	150			
Storage Blk Time (%)		23	0	0	0		
Queuing Penalty (veh)		39	0	1	0		

Intersection: 25: Fore & Cotton

Movement	EB	SE
Directions Served	LT	LR
Maximum Queue (ft)	20	12
Average Queue (ft)	1	1
95th Queue (ft)	18	9
Link Distance (ft)	115	217
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: Upper Lot & Cross

Movement	NB	NE
Directions Served	LT	R
Maximum Queue (ft)	37	28
Average Queue (ft)	2	3
95th Queue (ft)	17	17
Link Distance (ft)	66	107
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 33: State Street

Movement	SE	SE	SE	SE	NE	SW	SW
Directions Served	L	T	T	R	TR	L	T
Maximum Queue (ft)	98	189	162	102	192	74	142
Average Queue (ft)	33	87	49	18	86	25	60
95th Queue (ft)	79	154	110	57	154	64	120
Link Distance (ft)		476	476		310		810
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100			100		50	
Storage Blk Time (%)	0	4	0	0		4	16
Queuing Penalty (veh)	0	5	0	0		4	5

Network Summary

Network wide Queuing Penalty: 123

Intersection: 2: Commercial & Center

Phase	1	2	4	5	6	8	9
Movement(s) Served	NBL	SBTL	SETL	SBL	NBTL	NWTL	Ped
Maximum Green (s)	15.0	40.0	18.0	15.0	40.0	18.0	19.5
Minimum Green (s)	4.0	16.0	6.0	4.0	5.0	6.0	4.0
Recall	None	None	None	None	None	None	None
Avg. Green (s)	10.1	24.4	8.5	6.7	33.2	8.5	0.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	40	15	45	85	16	45	100
Cycles @ Minimum (%)	5	17	25	1	0	25	0
Cycles Maxed Out (%)	9	7	0	0	25	0	0
Cycles with Peds (%)	0	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 3: York & Center & Pleasant/Fore

Phase	1	2	4	6	8	9
Movement(s) Served	WBL	NBL	NWTL	WBTL	SETL	EBTL
Maximum Green (s)	20.0	20.0	20.0	44.0	20.0	12.0
Minimum Green (s)	6.0	10.0	6.0	12.0	6.0	6.0
Recall	None	None	None	None	None	None
Avg. Green (s)	7.5	17.8	13.0	23.3	13.0	6.4
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	57	1	10	4	10	89
Cycles @ Minimum (%)	24	1	6	10	6	7
Cycles Maxed Out (%)	0	52	7	1	7	0
Cycles with Peds (%)	0	18	23	14	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 5: Union

Phase	1	2	4	6	8
Movement(s) Served	EBL	WBTL	NBTL	EBTL	SBTL
Maximum Green (s)	15.0	20.0	20.0	39.0	20.0
Minimum Green (s)	6.0	8.0	6.0	8.0	6.0
Recall	None	None	None	None	None
Avg. Green (s)	8.9	11.6	10.3	14.8	10.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	64	26	19	14	19
Cycles @ Minimum (%)	14	20	20	17	20
Cycles Maxed Out (%)	2	3	3	0	3
Cycles with Peds (%)	0	4	9	7	10

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 10: Union & Commercial

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	16.0	17.0	16.0	17.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	None	None
Avg. Green (s)	8.2	15.6	8.2	15.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	38	1	38	1
Cycles @ Minimum (%)	5	1	5	1
Cycles Maxed Out (%)	3	58	3	58
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 15: Spring & Center

Phase	1	2	4	5	6	8
Movement(s) Served	SWL	NETL	SETL	NEL	SWTL	NWTL
Maximum Green (s)	15.0	25.0	20.0	10.0	30.0	20.0
Minimum Green (s)	5.0	10.0	5.0	5.0	10.0	5.0
Recall	None	None	None	None	None	None
Avg. Green (s)	8.4	13.3	10.6	9.7	15.5	10.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	65	24	19	90	18	19
Cycles @ Minimum (%)	2	30	4	0	31	4
Cycles Maxed Out (%)	1	2	5	4	3	5
Cycles with Peds (%)	0	5	8	0	7	5

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 16: Union/Temple & Spring/Middle

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBT	EBTL	NBL	SBT	WBTL
Maximum Green (s)	15.0	45.0	30.0	15.0	45.0	30.0
Minimum Green (s)	5.0	10.0	5.0	5.0	10.0	5.0
Recall	None	None	None	None	None	None
Avg. Green (s)	8.4	15.3	16.4	7.7	17.0	16.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	70	31	21	85	22	24
Cycles @ Minimum (%)	0	19	0	0	14	0
Cycles Maxed Out (%)	1	0	6	0	0	5
Cycles with Peds (%)	0	10	6	0	7	6

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 17: High Street & Spring

Phase	2	5	6	8
Movement(s) Served	NETL	NEL	SWT	NWTL
Maximum Green (s)	33.0	6.0	22.0	37.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	C-Min	None	C-Min	None
Avg. Green (s)	21.6	6.0	16.7	49.0
g/C Ratio	NA	-0.01	NA	NA
Cycles Skipped (%)	0	55	0	0
Cycles @ Minimum (%)	0	23	2	0
Cycles Maxed Out (%)	100	0	100	61
Cycles with Peds (%)	7	0	2	34

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 33: State Street

Phase	2	4	8
Movement(s) Served	SETL	NET	SWTL
Maximum Green (s)	42.5	26.5	26.5
Minimum Green (s)	10.0	10.0	10.0
Recall	C-Min	None	None
Avg. Green (s)	53.2	15.1	15.1
g/C Ratio	NA	NA	NA
Cycles Skipped (%)	0	0	0
Cycles @ Minimum (%)	0	16	16
Cycles Maxed Out (%)	100	0	0
Cycles with Peds (%)	38	4	7

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
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	5915	5791	5802	5926	5870	5861
Vehs Exited	5924	5771	5789	5915	5886	5857
Starting Vehs	141	109	119	125	129	116
Ending Vehs	132	129	132	136	113	120
Denied Entry After	16	0	2	0	1	3
Travel Distance (mi)	2125	2037	2021	2048	2055	2057
Travel Time (hr)	140.2	132.7	129.0	133.0	134.1	133.8
Total Delay (hr)	49.2	45.7	42.4	45.4	46.2	45.8
Total Stops	7128	6884	6748	7072	6766	6926
Fuel Used (gal)	88.0	84.2	82.7	85.5	85.3	85.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	5915	5791	5802	5926	5870	5861
Vehs Exited	5924	5771	5789	5915	5886	5857
Starting Vehs	141	109	119	125	129	116
Ending Vehs	132	129	132	136	113	120
Denied Entry After	16	0	2	0	1	3
Travel Distance (mi)	2125	2037	2021	2048	2055	2057
Travel Time (hr)	140.2	132.7	129.0	133.0	134.1	133.8
Total Delay (hr)	49.2	45.7	42.4	45.4	46.2	45.8
Total Stops	7128	6884	6748	7072	6766	6926
Fuel Used (gal)	88.0	84.2	82.7	85.5	85.3	85.2

2: Commercial & Center Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	1.8	0.1	0.0	0.1	1.1
Total Del/Veh (s)	9.3	8.7	14.1	17.2	9.5
Denied Entry After	0	0	0	0	0

3: York & Center & Pleasant/Fore Performance by approach

Approach	EB	WB	NB	SE	NW	All
Denied Del/Veh (s)	0.1	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	18.9	8.0	20.6	14.3	12.6	16.5
Denied Entry After	0	0	0	0	0	0

4: Pearl Street & Middle Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.1	0.2	0.1
Total Del/Veh (s)	7.2	6.2	5.3	6.0	6.4
Denied Entry After	0	0	0	0	0

5: Union Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.0	0.0	0.0
Total Del/Veh (s)	5.2	9.3	7.7	6.9	6.7
Denied Entry After	0	0	0	0	0

10: Union & Commercial Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.6	0.2
Total Del/Veh (s)	9.3	8.4	9.6	6.4	8.5
Denied Entry After	0	0	0	0	0

12: Cross & Fore Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	1.1	2.2	4.1	1.4
Denied Entry After	0	0	0	0

Baseline

14: Commercial & Cross Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.0	2.0	1.1	2.1
Denied Entry After	0	0	0	0

15: Spring & Center Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	2.5	0.0	0.0	0.0	0.3
Total Del/Veh (s)	7.4	8.9	7.5	6.2	7.5
Denied Entry After	0	0	0	0	0

16: Union/Temple & Spring/Middle Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.3	0.1
Total Del/Veh (s)	15.0	13.7	13.4	13.6	14.0
Denied Entry After	0	0	0	0	0

17: High Street & Spring Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	10.6	0.1	0.0	6.8
Total Del/Veh (s)	21.0	24.7	12.2	20.6
Denied Entry After	3	0	0	3

24: Spring & Cotton Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	3.2	0.9	0.3	0.6
Denied Entry After	0	0	0	0

25: Fore & Cotton Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.8	0.3	2.4	0.7
Denied Entry After	0	0	0	0

26: Spring & Upper Lot Performance by approach

Approach	NB	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.0
Total Del/Veh (s)	3.9	0.2	1.9	1.1
Denied Entry After	0	0	0	0

28: Upper Lot & Cross Performance by approach

Approach	NB	NE	All
Denied Del/Veh (s)	0.0	0.1	0.0
Total Del/Veh (s)	0.6	2.5	0.8
Denied Entry After	0	0	0

30: Cotton & Upper Lot Performance by approach

Approach	WB	SE	NW	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.0
Total Del/Veh (s)	2.6	1.0	0.2	0.6
Denied Entry After	0	0	0	0

33: State Street Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	1.0	0.3	0.0	0.8
Total Del/Veh (s)	6.2	27.5	27.7	12.2
Denied Entry After	0	0	0	0

34: Lower Lot & Cross Performance by approach

Approach	SB	NE	All
Denied Del/Veh (s)	0.0	0.1	0.0
Total Del/Veh (s)	0.3	2.5	0.7
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	2.7
Total Del/Veh (s)	24.9
Denied Entry After	3

Baseline

Intersection: 2: Commercial & Center

Movement	NB	NB	SB	SB	SB	SE	NW
Directions Served	L	TR	L	T	R	LTR	LTR
Maximum Queue (ft)	219	430	87	237	124	87	64
Average Queue (ft)	63	162	18	103	19	34	18
95th Queue (ft)	146	321	54	201	69	66	46
Link Distance (ft)		658		241		440	136
Upstream Blk Time (%)				0			
Queuing Penalty (veh)				1			
Storage Bay Dist (ft)	110		130		130		
Storage Blk Time (%)	0	10		4			
Queuing Penalty (veh)	0	20		4			

Intersection: 3: York & Center & Pleasant/Fore

Movement	EB	WB	WB	NB	NB	SE	NW
Directions Served	LTR>	<L	TR	<L	R>	LTR>	<LTR
Maximum Queue (ft)	43	94	50	114	300	130	133
Average Queue (ft)	13	38	14	49	153	58	60
95th Queue (ft)	36	74	40	92	274	105	110
Link Distance (ft)	317	110		3333	3333	328	440
Upstream Blk Time (%)		0					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)			100				
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					

Intersection: 4: Pearl Street & Middle

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	LTR	LTR	LTR
Maximum Queue (ft)	106	66	121	54	78
Average Queue (ft)	59	34	55	29	44
95th Queue (ft)	90	52	90	50	70
Link Distance (ft)	780	287	287	295	195
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Baseline**Intersection: 5: Union**

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	LT	R
Maximum Queue (ft)	98	117	133	100	117	71
Average Queue (ft)	36	55	52	45	45	30
95th Queue (ft)	71	101	102	82	88	66
Link Distance (ft)		166	173	244	476	
Upstream Blk Time (%)		0	0			
Queuing Penalty (veh)		0	0			
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)	0	1			5	1
Queuing Penalty (veh)	0	1			3	1

Intersection: 10: Union & Commercial

Movement	SE	NW	NE	NE	SW	SW	SW
Directions Served	LTR	LTR	L	TR	L	T	R
Maximum Queue (ft)	96	50	136	254	88	229	50
Average Queue (ft)	41	12	45	146	16	84	22
95th Queue (ft)	75	37	91	249	57	162	54
Link Distance (ft)	244	129		247	272	272	
Upstream Blk Time (%)				1	0	0	
Queuing Penalty (veh)				6	0	0	
Storage Bay Dist (ft)			185				25
Storage Blk Time (%)				4		23	2
Queuing Penalty (veh)				4		9	8

Intersection: 12: Cross & Fore

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	83	69	31
Average Queue (ft)	11	14	6
95th Queue (ft)	49	48	25
Link Distance (ft)	149	166	66
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Commercial & Cross

Movement	SB	SB	NE	SW
Directions Served	L	R	T	T
Maximum Queue (ft)	47	53	150	41
Average Queue (ft)	15	22	14	1
95th Queue (ft)	42	45	76	25
Link Distance (ft)	127	127	241	247
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Spring & Center

Movement	SE	SE	NW	NE	NE	SW	SW
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	78	50	142	99	200	64	95
Average Queue (ft)	32	36	63	12	78	24	47
95th Queue (ft)	68	58	110	52	158	54	86
Link Distance (ft)	261		328		457	93	93
Upstream Blk Time (%)						0	1
Queuing Penalty (veh)						0	1
Storage Bay Dist (ft)		25		85			
Storage Blk Time (%)	13	7			5		
Queuing Penalty (veh)	10	4			1		

Intersection: 16: Union/Temple & Spring/Middle

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	LT	R	L	TR	L	TR
Maximum Queue (ft)	202	50	148	43	46	149	73	159
Average Queue (ft)	98	15	70	14	12	59	24	85
95th Queue (ft)	164	42	125	40	35	108	57	143
Link Distance (ft)	301	301	780	780	476	476	412	412
Upstream Blk Time (%)	0							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Baseline

Intersection: 17: High Street & Spring

Movement	NW	NW	NW	NE	NE	SW	SW
Directions Served	L	T	R	L	T	T	R
Maximum Queue (ft)	174	469	175	174	263	99	84
Average Queue (ft)	32	392	76	73	122	46	37
95th Queue (ft)	126	547	198	151	216	85	68
Link Distance (ft)		433			810	768	768
Upstream Blk Time (%)		18					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)	150		150	150			
Storage Blk Time (%)		26	0	0	4		
Queuing Penalty (veh)		43	0	1	5		

Intersection: 24: Spring & Cotton

Movement	NW	SW
Directions Served	R	T
Maximum Queue (ft)	30	43
Average Queue (ft)	3	1
95th Queue (ft)	17	17
Link Distance (ft)	136	110
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 25: Fore & Cotton

Movement	EB	WB	SE
Directions Served	LT	TR	R
Maximum Queue (ft)	98	6	24
Average Queue (ft)	8	0	2
95th Queue (ft)	44	4	13
Link Distance (ft)	110	149	166
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 26: Spring & Upper Lot

Movement	NB	NB	NE	NE	SW
Directions Served	L	R	T	TR	LT
Maximum Queue (ft)	27	25	4	13	86
Average Queue (ft)	5	10	0	0	24
95th Queue (ft)	21	30	3	5	62
Link Distance (ft)	107	107	110	110	301
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 28: Upper Lot & Cross

Movement	NE
Directions Served	R
Maximum Queue (ft)	28
Average Queue (ft)	5
95th Queue (ft)	22
Link Distance (ft)	107
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 30: Cotton & Upper Lot

Movement	WB
Directions Served	LR
Maximum Queue (ft)	26
Average Queue (ft)	4
95th Queue (ft)	19
Link Distance (ft)	118
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 33: State Street

Movement	SE	SE	SE	SE	NE	SW	SW
Directions Served	L	T	T	R	TR	L	T
Maximum Queue (ft)	124	204	164	63	215	74	140
Average Queue (ft)	58	92	56	15	103	27	56
95th Queue (ft)	117	167	114	46	179	66	105
Link Distance (ft)		476	476		310		810
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100			100		50	
Storage Blk Time (%)	1	4	1			4	16
Queuing Penalty (veh)	3	7	0			3	5

Intersection: 34: Lower Lot & Cross

Movement	NE
Directions Served	R
Maximum Queue (ft)	52
Average Queue (ft)	18
95th Queue (ft)	42
Link Distance (ft)	139
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 140

Intersection: 2: Commercial & Center

Phase	1	2	4	5	6	8	9
Movement(s) Served	NBL	SBTL	SETL	SBL	NBTL	NWTL	Ped
Maximum Green (s)	15.0	40.0	18.0	15.0	40.0	18.0	19.5
Minimum Green (s)	4.0	16.0	6.0	4.0	5.0	6.0	4.0
Recall	None	None	None	None	None	None	None
Avg. Green (s)	9.3	26.1	9.0	6.2	31.7	9.0	0.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	41	13	43	80	12	43	100
Cycles @ Minimum (%)	2	12	21	2	0	21	0
Cycles Maxed Out (%)	4	7	2	0	25	2	0
Cycles with Peds (%)	0	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 3: York & Center & Pleasant/Fore

Phase	1	2	4	6	8	9
Movement(s) Served	WBL	NBL	NWTL	WBTL	SETL	EBTL
Maximum Green (s)	20.0	20.0	20.0	44.0	20.0	12.0
Minimum Green (s)	6.0	10.0	6.0	12.0	6.0	6.0
Recall	None	None	None	None	None	None
Avg. Green (s)	8.2	18.4	14.4	24.2	14.4	6.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	53	1	3	1	3	88
Cycles @ Minimum (%)	22	1	7	4	7	8
Cycles Maxed Out (%)	0	63	18	0	18	0
Cycles with Peds (%)	0	17	24	21	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 5: Union

Phase	1	2	4	6	8
Movement(s) Served	EBL	WBTL	NBTL	EBTL	SBTL
Maximum Green (s)	15.0	20.0	20.0	39.0	20.0
Minimum Green (s)	6.0	8.0	6.0	8.0	6.0
Recall	None	None	None	None	None
Avg. Green (s)	8.8	11.5	10.5	15.3	10.5
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	64	21	20	13	20
Cycles @ Minimum (%)	13	24	19	17	19
Cycles Maxed Out (%)	2	3	3	1	3
Cycles with Peds (%)	0	6	11	7	10

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 10: Union & Commercial

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	16.0	17.0	16.0	17.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	None	None
Avg. Green (s)	8.2	17.1	8.2	17.1
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	34	1	34	1
Cycles @ Minimum (%)	4	1	4	1
Cycles Maxed Out (%)	2	69	2	69
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Baseline

Intersection: 15: Spring & Center

Phase	1	2	4	5	6	8
Movement(s) Served	SWL	NETL	SETL	NEL	SWTL	NWTL
Maximum Green (s)	15.0	25.0	20.0	10.0	30.0	20.0
Minimum Green (s)	5.0	10.0	5.0	5.0	10.0	5.0
Recall	None	None	None	None	None	None
Avg. Green (s)	8.1	15.0	11.1	10.8	16.3	11.1
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	75	18	15	91	14	15
Cycles @ Minimum (%)	1	24	3	0	25	3
Cycles Maxed Out (%)	0	5	6	3	4	6
Cycles with Peds (%)	0	7	9	0	6	10

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 16: Union/Temple & Spring/Middle

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBT	EBTL	NBL	SBT	WBTL
Maximum Green (s)	15.0	45.0	30.0	15.0	45.0	30.0
Minimum Green (s)	5.0	10.0	5.0	5.0	10.0	5.0
Recall	None	None	None	None	None	None
Avg. Green (s)	9.2	16.2	17.4	7.7	18.1	17.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	69	29	15	82	19	21
Cycles @ Minimum (%)	0	14	0	0	13	0
Cycles Maxed Out (%)	3	0	8	0	0	6
Cycles with Peds (%)	0	13	8	0	13	6

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Baseline**Intersection: 17: High Street & Spring**

Phase	2	5	6	8
Movement(s) Served	NETL	NEL	SWT	NWTL
Maximum Green (s)	33.0	6.0	22.0	37.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	C-Min	None	C-Min	None
Avg. Green (s)	21.3	7.6	15.0	49.4
g/C Ratio	NA	-0.01	NA	NA
Cycles Skipped (%)	0	50	0	0
Cycles @ Minimum (%)	0	16	5	0
Cycles Maxed Out (%)	100	0	100	75
Cycles with Peds (%)	2	0	2	27

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 33: State Street

Phase	2	4	8
Movement(s) Served	SETL	NET	SWTL
Maximum Green (s)	42.5	26.5	26.5
Minimum Green (s)	10.0	10.0	10.0
Recall	C-Min	None	None
Avg. Green (s)	52.5	16.6	16.6
g/C Ratio	NA	NA	NA
Cycles Skipped (%)	0	0	0
Cycles @ Minimum (%)	0	13	13
Cycles Maxed Out (%)	100	0	0
Cycles with Peds (%)	39	4	2

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
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	6741	6794	6756	6702	6664	6735
Vehs Exited	6655	6733	6644	6614	6539	6637
Starting Vehs	189	180	187	182	151	172
Ending Vehs	275	241	299	270	276	271
Denied Entry After	58	34	115	51	178	87
Travel Distance (mi)	2865	2920	2871	2834	2837	2866
Travel Time (hr)	290.6	217.4	263.5	278.4	257.2	261.4
Total Delay (hr)	169.2	93.8	142.0	158.3	136.6	140.0
Total Stops	9700	9302	9695	9675	9613	9592
Fuel Used (gal)	139.7	123.9	133.5	136.6	131.3	133.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	6741	6794	6756	6702	6664	6735
Vehs Exited	6655	6733	6644	6614	6539	6637
Starting Vehs	189	180	187	182	151	172
Ending Vehs	275	241	299	270	276	271
Denied Entry After	58	34	115	51	178	87
Travel Distance (mi)	2865	2920	2871	2834	2837	2866
Travel Time (hr)	290.6	217.4	263.5	278.4	257.2	261.4
Total Delay (hr)	169.2	93.8	142.0	158.3	136.6	140.0
Total Stops	9700	9302	9695	9675	9613	9592
Fuel Used (gal)	139.7	123.9	133.5	136.6	131.3	133.0

2: Commercial & Center Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	65.7	0.0	0.1	3.7	25.9
Total Del/Veh (s)	48.6	21.0	18.7	89.7	35.8
Denied Entry After	37	0	0	1	38

3: York & Center & Pleasant/Fore Performance by approach

Approach	EB	WB	NB	SE	NW	All
Denied Del/Veh (s)	0.1	0.1	0.1	6.2	207.3	32.2
Total Del/Veh (s)	33.0	11.1	78.6	56.7	243.5	75.4
Denied Entry After	0	0	0	0	36	36

4: Pearl Street & Middle Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.3	0.2	0.2
Total Del/Veh (s)	9.5	7.3	8.0	6.1	7.9
Denied Entry After	0	0	0	0	0

5: Union Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.4	0.1	0.7	0.3
Total Del/Veh (s)	7.9	13.8	13.2	15.3	12.0
Denied Entry After	0	0	0	0	0

10: Union & Commercial Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.7	0.1	0.1	10.2	4.7
Total Del/Veh (s)	19.6	17.7	13.4	39.0	25.8
Denied Entry After	0	0	0	8	8

12: Cross & Fore Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.6	0.0
Total Del/Veh (s)	0.9	2.4	6.7	1.9
Denied Entry After	0	0	0	0

14: Commercial & Cross Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	15.2	2.7	7.2	5.6
Denied Entry After	0	0	0	0

15: Spring & Center Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	2.1	0.0	0.0	1.1	0.8
Total Del/Veh (s)	13.7	15.4	19.3	15.3	15.8
Denied Entry After	0	0	0	0	0

16: Union/Temple & Spring/Middle Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.3	0.1
Total Del/Veh (s)	24.0	19.0	18.4	18.5	19.6
Denied Entry After	0	0	0	0	0

17: High Street & Spring Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	4.3	0.5	0.1	2.1
Total Del/Veh (s)	28.8	23.0	17.2	23.3
Denied Entry After	5	0	0	5

25: Fore & Cotton Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	0.9	2.3	7.3	1.7
Denied Entry After	0	0	0	0

28: Upper Lot & Cross Performance by approach

Approach	NB	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	0.2	0.2
Denied Entry After	0	0

33: State Street Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.5	0.3	0.0	0.3
Total Del/Veh (s)	10.7	22.8	29.2	17.5
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	16.3
Total Del/Veh (s)	56.8
Denied Entry After	87

Intersection: 2: Commercial & Center

Movement	NB	NB	SB	SB	SB	SE	NW
Directions Served	L	TR	L	T	R	LTR	LTR
Maximum Queue (ft)	207	587	13	252	180	138	286
Average Queue (ft)	103	270	1	196	86	60	104
95th Queue (ft)	232	656	5	295	201	111	260
Link Distance (ft)		657		242		440	360
Upstream Blk Time (%)		17		11			4
Queuing Penalty (veh)		0		89			0
Storage Bay Dist (ft)	110		130		130		
Storage Blk Time (%)	31	7		26	7		
Queuing Penalty (veh)	182	6		21	50		

Intersection: 3: York & Center & Pleasant/Fore

Movement	EB	WB	WB	NB	NB	SE	NW
Directions Served	LTR>	<L	TR	<L	R>	LTR>	<LTR
Maximum Queue (ft)	66	142	115	383	694	322	456
Average Queue (ft)	22	104	41	123	376	203	364
95th Queue (ft)	52	144	103	317	717	349	562
Link Distance (ft)	317	115		3333	3333	328	440
Upstream Blk Time (%)		7	0			7	35
Queuing Penalty (veh)		34	0			21	67
Storage Bay Dist (ft)			100				
Storage Blk Time (%)		10	0				
Queuing Penalty (veh)		8	1				

Intersection: 4: Pearl Street & Middle

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	LTR	LTR	LTR
Maximum Queue (ft)	149	57	135	140	112
Average Queue (ft)	70	25	58	67	50
95th Queue (ft)	115	49	101	110	82
Link Distance (ft)	779	287	287	295	195
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: Union

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	LT	R
Maximum Queue (ft)	122	180	230	129	258	75
Average Queue (ft)	54	82	114	63	88	50
95th Queue (ft)	108	158	196	111	201	89
Link Distance (ft)		166	422	262	470	
Upstream Blk Time (%)		1			0	
Queuing Penalty (veh)		5			1	
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)	0	4			17	3
Queuing Penalty (veh)	1	5			23	6

Intersection: 10: Union & Commercial

Movement	SE	NW	NE	NE	SW	SW
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	203	115	149	251	84	794
Average Queue (ft)	84	35	36	129	7	307
95th Queue (ft)	169	82	94	255	43	830
Link Distance (ft)	262	821		246		1149
Upstream Blk Time (%)	2			1		9
Queuing Penalty (veh)	4			9		0
Storage Bay Dist (ft)			185		100	
Storage Blk Time (%)			0	5		28
Queuing Penalty (veh)			0	2		1

Intersection: 12: Cross & Fore

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	70	146	48
Average Queue (ft)	10	30	28
95th Queue (ft)	53	100	52
Link Distance (ft)	146	166	
Upstream Blk Time (%)	0	0	0
Queuing Penalty (veh)	0	1	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Commercial & Cross

Movement	SB	SB	NE	SW
Directions Served	L	R	T	T
Maximum Queue (ft)	28	68	169	260
Average Queue (ft)	3	20	19	72
95th Queue (ft)	18	51	114	238
Link Distance (ft)	372	372	242	246
Upstream Blk Time (%)			1	5
Queuing Penalty (veh)			4	41
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Spring & Center

Movement	SE	SE	NW	NE	NE	SW	SW
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	95	50	204	57	204	170	323
Average Queue (ft)	37	31	100	14	72	72	123
95th Queue (ft)	86	61	176	42	151	150	276
Link Distance (ft)	262		328		457		633
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		25		85		95	
Storage Blk Time (%)	19	7		0	8	8	7
Queuing Penalty (veh)	11	5		0	2	32	15

Intersection: 16: Union/Temple & Spring/Middle

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	LT	R	L	TR	L	TR
Maximum Queue (ft)	192	47	229	52	76	241	92	275
Average Queue (ft)	96	17	115	22	28	105	35	114
95th Queue (ft)	167	45	189	47	61	189	70	209
Link Distance (ft)	633	633	779	779	470	470	406	406
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: High Street & Spring

Movement	NW	NW	NW	NE	NE	SW	SW
Directions Served	L	T	R	L	T	T	R
Maximum Queue (ft)	175	459	175	171	208	346	156
Average Queue (ft)	54	362	35	93	56	171	73
95th Queue (ft)	165	525	134	162	136	292	132
Link Distance (ft)		433			810	768	768
Upstream Blk Time (%)		11					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)	150		150	150			
Storage Blk Time (%)	0	32	0	3	0		
Queuing Penalty (veh)	0	34	0	4	0		

Intersection: 25: Fore & Cotton

Movement	EB	WB	SE
Directions Served	LT	TR	LR
Maximum Queue (ft)	83	144	30
Average Queue (ft)	6	40	14
95th Queue (ft)	46	117	38
Link Distance (ft)	115	146	86
Upstream Blk Time (%)	0	0	
Queuing Penalty (veh)	2	1	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Upper Lot & Cross

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

Intersection: 33: State Street

Movement	SE	SE	SE	SE	NE	SW	SW
Directions Served	L	T	T	R	TR	L	T
Maximum Queue (ft)	125	306	242	102	200	75	343
Average Queue (ft)	40	160	109	15	95	63	203
95th Queue (ft)	110	257	213	54	169	93	322
Link Distance (ft)		475	475		530		810
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100			100		50	
Storage Blk Time (%)	0	18	5	0		21	33
Queuing Penalty (veh)	0	14	2	0		53	48

Network Summary

Network wide Queuing Penalty: 804

Intersection: 2: Commercial & Center

Phase	1	2	4	5	6	8	9
Movement(s) Served	NBL	SBTL	SETL	SBL	NBTL	NWTL	Ped
Maximum Green (s)	15.0	40.0	18.0	15.0	40.0	18.0	19.5
Minimum Green (s)	4.0	16.0	6.0	4.0	5.0	6.0	4.0
Recall	None	None	None	None	None	None	None
Avg. Green (s)	11.7	33.4	14.5	0.0	44.6	14.5	0.0
g/C Ratio	-0.01	NA	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	34	0	4	100	2	4	100
Cycles @ Minimum (%)	0	4	8	0	0	8	0
Cycles Maxed Out (%)	36	49	45	0	64	45	0
Cycles with Peds (%)	0	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 3: York & Center & Pleasant/Fore

Phase	1	2	4	6	8	9
Movement(s) Served	WBL	NBL	NWTL	WBTL	SETL	EBTL
Maximum Green (s)	20.0	20.0	20.0	44.0	20.0	12.0
Minimum Green (s)	6.0	10.0	6.0	12.0	6.0	6.0
Recall	None	None	None	None	None	None
Avg. Green (s)	15.5	20.0	19.9	38.7	19.9	8.1
g/C Ratio	-0.01	NA	NA	NA	NA	-0.01
Cycles Skipped (%)	2	0	0	0	0	60
Cycles @ Minimum (%)	4	0	0	0	0	8
Cycles Maxed Out (%)	33	94	96	30	96	2
Cycles with Peds (%)	0	30	40	28	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 5: Union

Phase	1	2	4	6	8
Movement(s) Served	EBL	WBTL	NBTL	EBTL	SBTL
Maximum Green (s)	15.0	20.0	20.0	39.0	20.0
Minimum Green (s)	6.0	8.0	6.0	8.0	6.0
Recall	None	None	None	None	None
Avg. Green (s)	8.4	16.2	14.1	22.0	14.1
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	54	6	5	5	5
Cycles @ Minimum (%)	19	8	8	6	8
Cycles Maxed Out (%)	0	33	24	1	24
Cycles with Peds (%)	0	7	14	9	16

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 10: Union & Commercial

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	35.0	25.0	35.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	14.3	22.7	14.3	22.7
g/C Ratio	-0.01	NA	-0.01	NA
Cycles Skipped (%)	10	0	10	0
Cycles @ Minimum (%)	3	0	3	0
Cycles Maxed Out (%)	4	70	4	70
Cycles with Peds (%)	18	0	16	3

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 15: Spring & Center

Phase	1	2	4	5	6	8
Movement(s) Served	SWL	NETL	SETL	NEL	SWTL	NWTL
Maximum Green (s)	15.0	25.0	20.0	10.0	30.0	20.0
Minimum Green (s)	5.0	10.0	5.0	5.0	10.0	5.0
Recall	None	None	None	None	None	None
Avg. Green (s)	12.3	15.3	14.0	7.9	21.3	14.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	35	27	15	88	7	15
Cycles @ Minimum (%)	1	21	1	0	11	1
Cycles Maxed Out (%)	20	8	22	1	15	22
Cycles with Peds (%)	0	8	12	0	8	11

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 16: Union/Temple & Spring/Middle

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBT	EBTL	NBL	SBT	WBTL
Maximum Green (s)	15.0	45.0	30.0	15.0	45.0	30.0
Minimum Green (s)	5.0	10.0	5.0	5.0	10.0	5.0
Recall	None	None	None	None	None	None
Avg. Green (s)	8.0	22.9	21.0	8.7	23.1	21.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	45	7	9	46	9	4
Cycles @ Minimum (%)	0	7	0	0	5	0
Cycles Maxed Out (%)	2	4	23	4	2	23
Cycles with Peds (%)	0	14	9	0	14	12

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 17: High Street & Spring

Phase	2	5	6	8
Movement(s) Served	NETL	NEL	SWT	NWTL
Maximum Green (s)	43.0	7.0	31.0	37.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	C-Min	None	C-Min	None
Avg. Green (s)	39.2	6.4	32.3	41.0
g/C Ratio	NA	-0.01	NA	NA
Cycles Skipped (%)	0	38	0	0
Cycles @ Minimum (%)	0	23	0	0
Cycles Maxed Out (%)	100	15	100	53
Cycles with Peds (%)	3	0	3	28

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 33: State Street

Phase	2	4	8
Movement(s) Served	SETL	NET	SWTL
Maximum Green (s)	52.5	26.5	26.5
Minimum Green (s)	10.0	10.0	10.0
Recall	C-Min	None	None
Avg. Green (s)	51.5	26.0	26.0
g/C Ratio	NA	NA	NA
Cycles Skipped (%)	0	0	0
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	100	0	0
Cycles with Peds (%)	38	5	5

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Baseline

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
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	7482	7500	7351	7421	7401	7430
Vehs Exited	7454	7449	7313	7410	7391	7405
Starting Vehs	155	165	169	176	169	162
Ending Vehs	183	216	207	187	179	186
Denied Entry After	47	107	46	85	137	85
Travel Distance (mi)	2704	2745	2689	2719	2733	2718
Travel Time (hr)	212.9	242.6	207.8	239.6	272.1	235.0
Total Delay (hr)	96.9	125.0	92.2	123.1	154.7	118.4
Total Stops	10132	10034	9888	9865	9862	9959
Fuel Used (gal)	121.3	127.8	118.3	126.9	134.9	125.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	7482	7500	7351	7421	7401	7430
Vehs Exited	7454	7449	7313	7410	7391	7405
Starting Vehs	155	165	169	176	169	162
Ending Vehs	183	216	207	187	179	186
Denied Entry After	47	107	46	85	137	85
Travel Distance (mi)	2704	2745	2689	2719	2733	2718
Travel Time (hr)	212.9	242.6	207.8	239.6	272.1	235.0
Total Delay (hr)	96.9	125.0	92.2	123.1	154.7	118.4
Total Stops	10132	10034	9888	9865	9862	9959
Fuel Used (gal)	121.3	127.8	118.3	126.9	134.9	125.8

2: Commercial & Center Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	1.2	0.0	0.2	0.2	0.5
Total Del/Veh (s)	8.7	10.8	13.4	18.9	10.7
Denied Entry After	0	0	0	0	0

3: York & Center & Pleasant/Fore Performance by approach

Approach	EB	WB	NB	SE	NW	All
Denied Del/Veh (s)	0.1	0.1	0.1	3.5	475.3	76.6
Total Del/Veh (s)	40.0	12.9	43.9	60.6	81.4	43.0
Denied Entry After	0	0	0	0	85	85

4: Pearl Street & Middle Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.3	0.3	0.2	0.2
Total Del/Veh (s)	13.6	7.5	9.6	7.1	9.8
Denied Entry After	0	0	0	0	0

5: Union Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.6	0.1	0.2	0.2
Total Del/Veh (s)	7.3	11.8	11.4	10.5	10.0
Denied Entry After	0	0	0	0	0

10: Union & Commercial Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.7	0.3
Total Del/Veh (s)	14.6	14.1	9.5	9.4	10.3
Denied Entry After	0	0	0	0	0

12: Cross & Fore Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	1.3	3.1	6.3	2.2
Denied Entry After	0	0	0	0

Baseline

14: Commercial & Cross Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.2	0.0	0.0	0.0
Total Del/Veh (s)	26.4	1.4	2.6	5.0
Denied Entry After	0	0	0	0

15: Spring & Center Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	2.0	0.0	0.0	0.1	0.2
Total Del/Veh (s)	15.2	18.6	20.1	9.4	13.7
Denied Entry After	0	0	0	0	0

16: Union/Temple & Spring/Middle Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.5	0.0	0.1	0.3	0.2
Total Del/Veh (s)	30.2	22.0	19.4	19.8	22.7
Denied Entry After	0	0	0	0	0

17: High Street & Spring Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	2.6	0.4	0.2	1.3
Total Del/Veh (s)	25.6	22.3	18.6	22.3
Denied Entry After	0	0	0	0

24: Spring & Cotton Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	2.8	0.9	3.0	2.5
Denied Entry After	0	0	0	0

25: Fore & Cotton Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.9	3.3	12.8	2.2
Denied Entry After	0	0	0	0

26: Spring & Upper Lot Performance by approach

Approach	NB	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.1	0.1
Total Del/Veh (s)	7.0	0.2	2.2	2.5
Denied Entry After	0	0	0	0

28: Upper Lot & Cross Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.0
Total Del/Veh (s)	0.6	0.2	2.3	1.3
Denied Entry After	0	0	0	0

30: Cotton & Upper Lot Performance by approach

Approach	WB	SE	NW	All
Denied Del/Veh (s)	0.1		0.0	0.1
Total Del/Veh (s)	3.0		0.2	2.1
Denied Entry After	0	0	0	0

33: State Street Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.6	0.3	0.0	0.4
Total Del/Veh (s)	10.2	23.0	29.5	17.2
Denied Entry After	0	0	0	0

34: Lower Lot & Cross Performance by approach

Approach	SB	NE	All
Denied Del/Veh (s)	0.0	0.2	0.1
Total Del/Veh (s)	0.8	4.3	2.4
Denied Entry After	0	0	0

39: Center & Valet Access Performance by approach

Approach	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	1.8	0.6	1.0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	18.4
Total Del/Veh (s)	37.9
Denied Entry After	85

Intersection: 2: Commercial & Center

Movement	NB	NB	SB	SB	SB	SE	NW
Directions Served	L	TR	L	T	R	LTR	LTR
Maximum Queue (ft)	122	250	10	256	180	105	134
Average Queue (ft)	46	112	0	178	67	45	51
95th Queue (ft)	87	201	5	280	182	91	99
Link Distance (ft)		658		240			136
Upstream Blk Time (%)				3			0
Queuing Penalty (veh)				23			0
Storage Bay Dist (ft)	110		130		130		
Storage Blk Time (%)	0	6		15			
Queuing Penalty (veh)	0	6		18			

Intersection: 3: York & Center & Pleasant/Fore

Movement	EB	WB	WB	NB	NB	SE	NW
Directions Served	LTR>	<L	TR	<L	R>	LTR>	<LTR
Maximum Queue (ft)	71	123	110	218	424	344	108
Average Queue (ft)	27	105	36	96	251	228	101
95th Queue (ft)	60	139	97	183	410	360	119
Link Distance (ft)	317	110		3333	3333	328	
Upstream Blk Time (%)		10	0			11	
Queuing Penalty (veh)		45	0			34	
Storage Bay Dist (ft)			100				
Storage Blk Time (%)		14	0				
Queuing Penalty (veh)		11	1				

Intersection: 4: Pearl Street & Middle

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	LTR	LTR	LTR
Maximum Queue (ft)	204	44	112	165	118
Average Queue (ft)	94	25	61	70	51
95th Queue (ft)	168	47	94	126	89
Link Distance (ft)	780	287	287	295	195
Upstream Blk Time (%)				0	0
Queuing Penalty (veh)				0	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: Union

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	LT	R
Maximum Queue (ft)	113	159	188	131	186	76
Average Queue (ft)	44	75	110	61	73	52
95th Queue (ft)	90	140	186	108	148	86
Link Distance (ft)		166	173	259	476	
Upstream Blk Time (%)		0	2			
Queuing Penalty (veh)		1	0			
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)	0	2			12	3
Queuing Penalty (veh)	0	3			17	6

Intersection: 10: Union & Commercial

Movement	SE	NW	NE	NE	SW	SW
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	153	90	118	248	43	290
Average Queue (ft)	73	37	31	138	4	151
95th Queue (ft)	129	75	79	235	22	254
Link Distance (ft)	259	129		247	272	272
Upstream Blk Time (%)		0		0		1
Queuing Penalty (veh)		0		2		0
Storage Bay Dist (ft)			185			
Storage Blk Time (%)				2		
Queuing Penalty (veh)				1		

Intersection: 12: Cross & Fore

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	100	165	35
Average Queue (ft)	9	44	14
95th Queue (ft)	49	122	38
Link Distance (ft)	149	166	66
Upstream Blk Time (%)	0	0	0
Queuing Penalty (veh)	0	2	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Commercial & Cross

Movement	SB	SB	NE	SW
Directions Served	L	R	T	T
Maximum Queue (ft)	114	122	89	194
Average Queue (ft)	45	55	7	32
95th Queue (ft)	87	104	43	129
Link Distance (ft)	127	127	240	247
Upstream Blk Time (%)	0	3		0
Queuing Penalty (veh)	0	3		1
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Spring & Center

Movement	SE	SE	NW	NE	NE	SW	SW
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	131	50	259	49	189	102	105
Average Queue (ft)	41	33	113	14	74	67	80
95th Queue (ft)	91	61	208	40	145	111	114
Link Distance (ft)	261		328		457	93	93
Upstream Blk Time (%)			0			11	6
Queuing Penalty (veh)			0			35	21
Storage Bay Dist (ft)		25		85			
Storage Blk Time (%)	24	7			8		
Queuing Penalty (veh)	14	5			2		

Intersection: 16: Union/Temple & Spring/Middle

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	LT	R	L	TR	L	TR
Maximum Queue (ft)	287	69	279	73	70	215	88	284
Average Queue (ft)	148	17	134	22	31	95	35	134
95th Queue (ft)	255	50	230	54	60	170	70	235
Link Distance (ft)	301	301	780	780	476	476	412	412
Upstream Blk Time (%)	0							0
Queuing Penalty (veh)	1							0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: High Street & Spring

Movement	NW	NW	NW	NE	NE	SW	SW
Directions Served	L	T	R	L	T	T	R
Maximum Queue (ft)	174	453	175	172	210	327	213
Average Queue (ft)	63	339	36	86	55	180	97
95th Queue (ft)	179	513	133	150	126	290	176
Link Distance (ft)		433			810	768	768
Upstream Blk Time (%)		8					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)	150		150	150			
Storage Blk Time (%)		29	0	2	0		
Queuing Penalty (veh)		32	0	2	0		

Intersection: 24: Spring & Cotton

Movement	NW	SW	SW
Directions Served	R	T	T
Maximum Queue (ft)	30	112	110
Average Queue (ft)	11	19	30
95th Queue (ft)	34	83	92
Link Distance (ft)	136	110	110
Upstream Blk Time (%)		5	0
Queuing Penalty (veh)		16	2
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 25: Fore & Cotton

Movement	EB	WB	SE
Directions Served	LT	TR	R
Maximum Queue (ft)	121	156	39
Average Queue (ft)	8	49	14
95th Queue (ft)	50	133	40
Link Distance (ft)	110	149	166
Upstream Blk Time (%)	0	1	
Queuing Penalty (veh)	2	3	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 26: Spring & Upper Lot

Movement	NB	NB	NE	SW	SW
Directions Served	L	R	T	LT	T
Maximum Queue (ft)	73	63	12	133	32
Average Queue (ft)	32	32	1	14	2
95th Queue (ft)	60	54	7	78	18
Link Distance (ft)	107	107	110	301	301
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 28: Upper Lot & Cross

Movement	NE
Directions Served	R
Maximum Queue (ft)	29
Average Queue (ft)	12
95th Queue (ft)	35
Link Distance (ft)	107
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 30: Cotton & Upper Lot

Movement	WB
Directions Served	LR
Maximum Queue (ft)	42
Average Queue (ft)	17
95th Queue (ft)	40
Link Distance (ft)	118
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 33: State Street

Movement	SE	SE	SE	SE	NE	SW	SW
Directions Served	L	T	T	R	TR	L	T
Maximum Queue (ft)	125	283	240	121	224	75	369
Average Queue (ft)	44	151	102	22	90	63	198
95th Queue (ft)	116	247	205	75	165	95	324
Link Distance (ft)		476	476		310		810
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100			100		50	
Storage Blk Time (%)	0	17	5	0		24	33
Queuing Penalty (veh)	0	15	2	0		59	48

Intersection: 34: Lower Lot & Cross

Movement	SB	NE
Directions Served	TR	R
Maximum Queue (ft)	21	90
Average Queue (ft)	2	39
95th Queue (ft)	18	69
Link Distance (ft)	182	139
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 39: Center & Valet Access

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

Network Summary

Network wide Queuing Penalty: 433

Intersection: 2: Commercial & Center

Phase	1	2	4	5	6	8	9
Movement(s) Served	NBL	SBTL	SETL	SBL	NBTL	NWTL	Ped
Maximum Green (s)	4.0	37.0	17.0	4.0	37.0	17.0	4.5
Minimum Green (s)	4.0	16.0	6.0	4.0	5.0	6.0	4.0
Recall	None	None	None	None	None	None	None
Avg. Green (s)	4.4	29.9	11.6	0.0	36.4	11.6	0.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	41	2	12	100	6	12	100
Cycles @ Minimum (%)	59	5	14	0	0	14	0
Cycles Maxed Out (%)	59	38	17	0	48	17	0
Cycles with Peds (%)	0	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 3: York & Center & Pleasant/Fore

Phase	1	2	4	6	8	9
Movement(s) Served	WBL	NBL	NWTL	WBTL	SETL	EBTL
Maximum Green (s)	16.0	27.0	25.0	47.0	25.0	6.0
Minimum Green (s)	6.0	10.0	6.0	12.0	6.0	6.0
Recall	None	None	None	None	None	None
Avg. Green (s)	14.6	26.2	25.3	44.4	25.3	6.0
g/C Ratio	-0.01	NA	NA	NA	NA	-0.01
Cycles Skipped (%)	5	0	0	0	0	49
Cycles @ Minimum (%)	0	0	0	0	0	51
Cycles Maxed Out (%)	58	86	98	53	98	51
Cycles with Peds (%)	0	30	42	28	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 5: Union

Phase	1	2	4	6	8
Movement(s) Served	EBL	WBTL	NBTL	EBTL	SBTL
Maximum Green (s)	6.0	19.0	18.0	29.0	18.0
Minimum Green (s)	6.0	8.0	6.0	8.0	6.0
Recall	None	None	None	None	None
Avg. Green (s)	6.4	14.9	12.8	18.9	12.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	61	5	7	4	7
Cycles @ Minimum (%)	36	9	9	7	9
Cycles Maxed Out (%)	39	28	23	17	23
Cycles with Peds (%)	0	7	10	7	14

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 10: Union & Commercial

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	17.0	33.0	17.0	33.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	12.5	26.7	12.5	26.7
g/C Ratio	-0.01	NA	-0.01	NA
Cycles Skipped (%)	9	0	9	0
Cycles @ Minimum (%)	1	0	1	0
Cycles Maxed Out (%)	17	37	17	37
Cycles with Peds (%)	17	3	17	3

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 15: Spring & Center

Phase	1	2	4	5	6	8
Movement(s) Served	SWL	NETL	SETL	NEL	SWTL	NWTL
Maximum Green (s)	15.0	25.0	20.0	10.0	30.0	20.0
Minimum Green (s)	5.0	10.0	5.0	5.0	10.0	5.0
Recall	None	None	None	None	None	None
Avg. Green (s)	13.1	15.9	14.3	7.0	23.8	14.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	24	26	9	86	5	9
Cycles @ Minimum (%)	0	16	1	0	6	1
Cycles Maxed Out (%)	29	10	25	1	27	25
Cycles with Peds (%)	0	8	11	0	12	14

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 16: Union/Temple & Spring/Middle

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBT	EBTL	NBL	SBT	WBTL
Maximum Green (s)	15.0	45.0	30.0	15.0	45.0	30.0
Minimum Green (s)	5.0	10.0	5.0	5.0	10.0	5.0
Recall	None	None	None	None	None	None
Avg. Green (s)	8.4	24.3	24.6	7.8	24.3	24.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	42	9	2	40	6	2
Cycles @ Minimum (%)	0	6	0	0	2	0
Cycles Maxed Out (%)	2	4	44	2	2	44
Cycles with Peds (%)	0	13	8	0	17	10

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 17: High Street & Spring

Phase	2	5	6	8
Movement(s) Served	NETL	NEL	SWT	NWTL
Maximum Green (s)	34.0	7.0	31.0	37.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	C-Min	None	C-Min	None
Avg. Green (s)	37.4	6.1	31.0	42.2
g/C Ratio	NA	-0.01	NA	NA
Cycles Skipped (%)	0	41	0	0
Cycles @ Minimum (%)	0	26	0	0
Cycles Maxed Out (%)	100	10	100	45
Cycles with Peds (%)	0	0	3	35

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 33: State Street

Phase	2	4	8
Movement(s) Served	SETL	NET	SWTL
Maximum Green (s)	52.5	26.5	26.5
Minimum Green (s)	10.0	10.0	10.0
Recall	C-Min	None	None
Avg. Green (s)	50.1	25.3	25.3
g/C Ratio	NA	NA	NA
Cycles Skipped (%)	0	0	0
Cycles @ Minimum (%)	0	2	2
Cycles Maxed Out (%)	100	2	2
Cycles with Peds (%)	39	2	5

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Attachment 7D

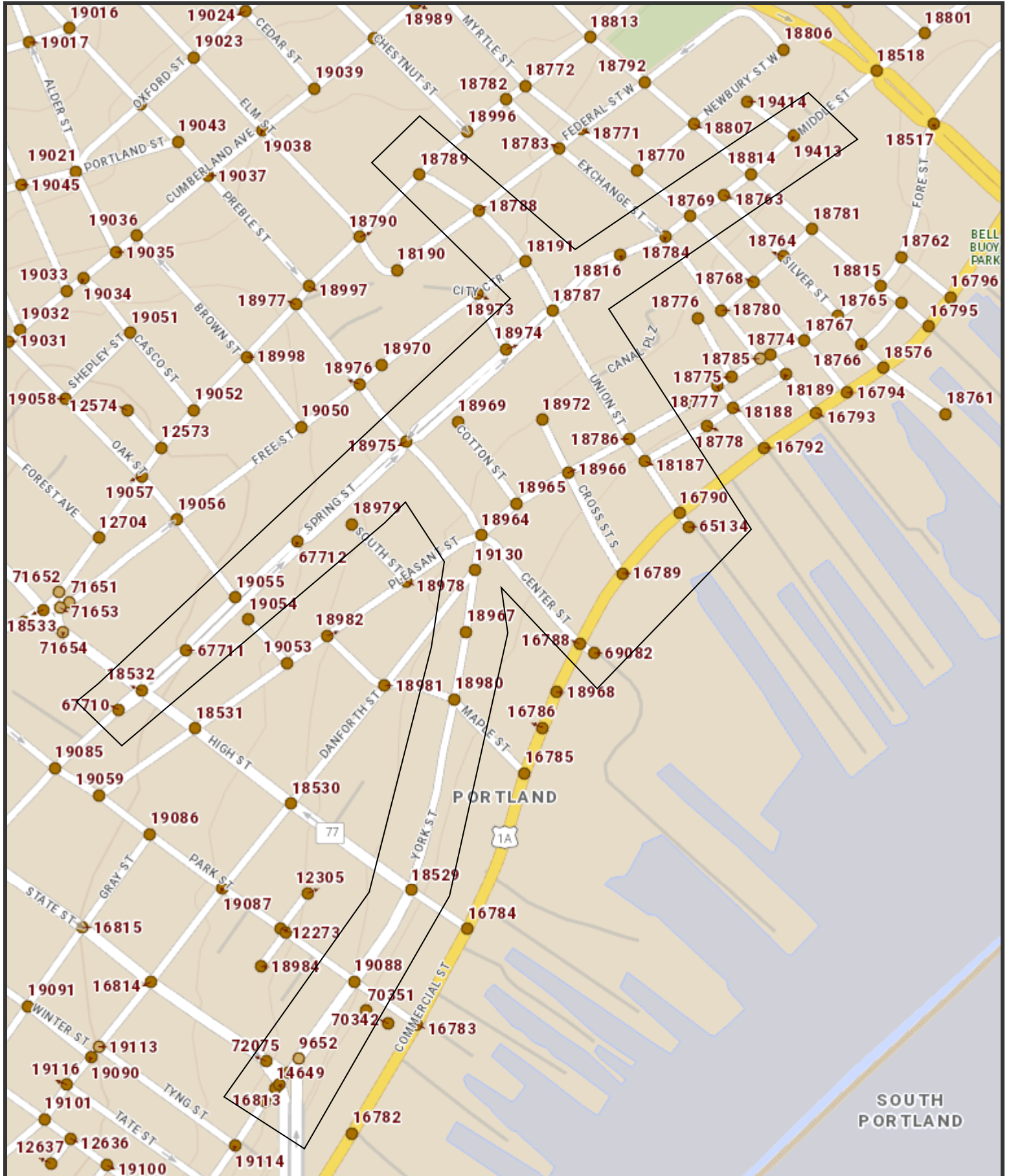
Updated Node Map

Updated Crash Report

Collision Diagrams

Pedestrian and Bicycle Collisions

NODE 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.

0.1
Miles
1 inch = 0.12 miles

Date: 9/9/2019
Time: 1:35:51 PM

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

UPDATED DATA 9/11/19

Portland: Old Port in the area of Spring St/York St/Union St/Center St per map

REPORT PARAMETERS

Year 2016, Start Month 1 through Year 2018 End Month: 12

Route: 3209786	Start Node: 67710 End Node: 18816	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node
Route: 0560505	Start Node: 18816 End Node: 19413	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 0560505	Start Node: 18787 End Node: 18816	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0561208	Start Node: 18787 End Node: 18789	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 0560672	Start Node: 67710 End Node: 18532	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560672	Start Node: 18532 End Node: 67711	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560672	Start Node: 67711 End Node: 67712	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560672	Start Node: 67712 End Node: 18975	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560672	Start Node: 18975 End Node: 18787	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560719	Start Node: 16790 End Node: 18787	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☒ Exclude Last Node
Route: 3201882	Start Node: 16790	Start Offset: 0	☒ Exclude First Node

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

UPDATED DATA 9/11/19

Portland: Old Port in the area of Spring St/York St/Union St/Center St per map

REPORT PARAMETERS

Year 2016, Start Month 1 through Year 2018 End Month: 12

	End Node: 65134	End Offset: 0	☐ Exclude Last Node
Route: 3200508	Start Node: 18964 End Node: 18529	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 0077W	Start Node: 9652 End Node: 18529	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☒ Exclude Last Node
Route: 0560816	Start Node: 16813 End Node: 9652	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☒ Exclude Last Node
Route: 0077X	Start Node: 72075 End Node: 16813	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☒ Exclude Last Node
Route: 3210568	Start Node: 72075 End Node: 72074	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560122	Start Node: 16788 End Node: 18975	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☒ Exclude Last Node
Route: 3209862	Start Node: 16788 End Node: 69082	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 0560286	Start Node: 18786 End Node: 18964	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0561017	Start Node: 16789 End Node: 18966	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0561017	Start Node: 18966 End Node: 18972	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node

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

UPDATED DATA 9/11/19

Portland: Old Port in the area of Spring St/York St/Union St/Center St per map

REPORT PARAMETERS

Year 2016, Start Month 1 through Year 2018 End Month: 12

Route: 0001A	Start Node: 16788 End Node: 16790	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560286	Start Node: 18786 End Node: 18966	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560286	Start Node: 18966 End Node: 18964	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0561016	Start Node: 18965 End Node: 18969	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes														
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury A	Crashes B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
67710	3209786 - 0	Non Int SPRING ST	2	0	0	0	0	0	0	0.0	2.810	0.00	0.43	0.00
												Statewide Crash Rate:	0.15	
18532	3209786 - 0.02	Int of HIGH ST SPRING ST	9	16	0	0	2	3	11	31.3	7.992	0.67	1.16	0.00
												Statewide Crash Rate:	0.73	
67711	3209786 - 0.06	Non Int SPRING ST	2	2	0	0	0	0	2	0.0	2.186	0.31	0.46	0.00
												Statewide Crash Rate:	0.15	
67712	3209786 - 0.17	Non Int SPRING ST	2	0	0	0	0	0	0	0.0	1.865	0.00	0.48	0.00
												Statewide Crash Rate:	0.15	
18975	3209786 - 0.27	Int of CENTER ST SPRING ST	9	8	0	0	1	2	5	37.5	3.362	0.79	1.37	0.00
												Statewide Crash Rate:	0.73	
18787	3209786 - 0.41	Int of SPRING ST TEMPLE ST UNION ST	9	5	0	0	0	1	4	20.0	3.466	0.48	1.36	0.00
												Statewide Crash Rate:	0.73	
18816	3209786 - 0.47	Non Int SPRING ST	2	0	0	0	0	0	0	0.0	2.037	0.00	0.47	0.00
												Statewide Crash Rate:	0.15	
18784	0560505 - 0.09	Int of EXCHANGE ST MIDDLE ST SPRING ST	2	4	0	0	0	1	3	25.0	2.279	0.58	0.46	1.28
												Statewide Crash Rate:	0.15	
18769	0560505 - 0.11	Int of MARKET ST MIDDLE ST	2	2	0	0	0	1	1	50.0	1.760	0.38	0.49	0.00
												Statewide Crash Rate:	0.15	
18763	0560505 - 0.14	Int of MIDDLE ST, SILVER ST	2	1	0	0	0	0	1	0.0	1.196	0.28	0.54	0.00
												Statewide Crash Rate:	0.15	
18814	0560505 - 0.16	Int of MIDDLE ST PEARL ST	9	8	0	0	0	5	3	62.5	2.622	1.02	1.45	0.00
												Statewide Crash Rate:	0.73	
19413	0560505 - 0.20	Int of CHURCH ST MIDDLE ST	2	0	0	0	0	0	0	0.0	1.843	0.00	0.48	0.00
												Statewide Crash Rate:	0.15	
18191	0561208 - 0.04	Int of FREE ST TEMPLE ST	2	2	0	1	0	0	1	50.0	2.274	0.29	0.46	0.00
												Statewide Crash Rate:	0.15	
18788	0561208 - 0.09	Int of FEDERAL ST W TEMPLE ST	2	4	0	0	0	0	4	0.0	3.108	0.43	0.42	1.01
												Statewide Crash Rate:	0.15	
18789	0561208 - 0.14	Int of CONGRESS ST TEMPLE ST	9	4	0	0	0	0	4	0.0	4.658	0.29	1.28	0.00
												Statewide Crash Rate:	0.73	
19055	0560672 - 0.86	Int of OAK ST SPRING ST	2	0	0	0	0	0	0	0.0	1.375	0.00	0.52	0.00
												Statewide Crash Rate:	0.15	
18974	0560672 - 1.12	Int of CROSS ST N SPRING ST	2	0	0	0	0	0	0	0.0	1.576	0.00	0.50	0.00
												Statewide Crash Rate:	0.15	
16790	0560719 - 0	Int of COMMERCIAL ST UNION ST UNION WHARF Z RD	9	11	0	0	0	0	11	0.0	5.891	0.62	1.23	0.00
												Statewide Crash Rate:	0.73	
18187	0560719 - 0.04	Int of UNION ST WHARF ST	2	0	0	0	0	0	0	0.0	1.478	0.00	0.51	0.00
												Statewide Crash Rate:	0.15	
18786	0560719 - 0.06	Int of FORE ST UNION ST	9	9	0	1	0	3	5	44.4	3.149	0.95	1.39	0.00
												Statewide Crash Rate:	0.73	
65134	3201882 - 0.01	End of UNION WHARF Z RD	2	0	0	0	0	0	0	0.0	0.347	0.00	0.65	0.00
												Statewide Crash Rate:	0.15	
19130	3200508 - 0.02	Int of DANFORTH ST YORK ST	9	3	0	0	0	0	3	0.0	2.569	0.39	1.46	0.00
												Statewide Crash Rate:	0.73	

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes															
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF	
18967	3200508 - 0.06	Non Int YORK ST	2	0	0	0	0	0	0	0.0	0.923	0.00	0.57	0.00	
18980	3200508 - 0.10	0509400 POR,MAPLE,YORK ST.	2	1	0	0	0	0	1	0.0	2.063	0.16	0.47	0.00	
18529	3200508 - 0.24	Int of HIGH ST YORK ST	9	20	0	1	1	4	14	30.0	4.491	1.48	1.29	1.15	
A9652	0077W - 1.31	Int of ROUTE 77 NB YORK ST	9	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00	
19088	0077W - 1.38	Int of PARK ST YORK ST	2	8	0	0	1	2	5	37.5	7.080	0.38	0.36	1.05	
P16813	0560816 - 0.19	Int of ROUTE 77 SB STATE ST YORK ST	9	13	0	0	1	4	8	38.5	11.895	0.36	1.08	0.00	
72074	0560816 - 0.20	Int of STATE ST YORK ST	2	1	0	0	0	0	1	0.0	2.564	0.13	0.47	0.00	
72075	0077X - 0.73	Non Int STATE ST	2	0	0	0	0	0	0	0.0	3.895	0.00	0.42	0.00	
16788	0560122 - 0	Int of CENTER ST COMMERCIAL ST ENT TO FISH PIER	9	7	0	0	0	0	7	0.0	5.838	0.40	1.23	0.00	
18964	0560122 - 0.10	Int of CENTER ST, FORE ST, PLEASANT ST, YORK ST	9	10	0	0	0	2	8	20.0	3.988	0.84	1.32	0.00	
69082	3209862 - 0.01	End of ENT TO FISH PIER	2	0	0	0	0	0	0	0.0	0.002	0.00	-77.69	0.00	
18966	0560286 - 0.95	Int of CROSS ST S FORE ST	2	1	0	0	0	1	0	100.0	2.439	0.14	0.45	0.00	
18965	0560286 - 0.99	Int of COTTON ST FORE ST	2	2	0	0	1	0	1	50.0	2.498	0.27	0.45	0.00	
18972	0561017 - 0.12	End of CROSS ST S	2	0	0	0	0	0	0	0.0	0.087	0.00	0.19	0.00	
16789	0001A - 11.41	Int of COMMERCIAL ST CROSS ST S	2	4	0	0	1	1	2	50.0	5.143	0.26	0.39	0.00	
18965	0560286 - 0.99	Int of COTTON ST FORE ST	2	2	0	0	1	0	1	50.0	2.498	0.27	0.45	0.00	
18969	0561016 - 0.07	End of COTTON ST	2	1	0	0	0	0	1	0.0	0.068	4.90	-0.09	0.00	
Study Years: 3.00				NODE TOTALS:	149	0	3	9	30	107	28.2	115.315	0.43	0.54	0.79

Crash Summary I

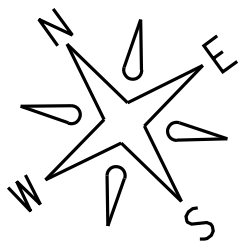
Sections																
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
67710 Non Int	18532 SPRING ST	3417144	0 - 0.02	3209786 - 0 RD INV 3209786	0.02	2	0	0	0	0	0	0.0	0.00014	0.00	662.99	0.00
18532 Int of	67711 HIGH ST	3417145 SPRING ST	0 - 0.04	3209786 - 0.02 RD INV 3209786	0.04	2	2	0	0	0	1	0.0	0.00032	2055.00	758.89	2.71
67711 Non Int	67712 SPRING ST	3417146	0 - 0.11	3209786 - 0.06 RD INV 3209786	0.11	2	1	0	0	0	1	0.0	0.00076	438.81	673.35	0.00
67712 Non Int	18975 SPRING ST	3417147	0 - 0.10	3209786 - 0.17 RD INV 3209786	0.10	2	0	0	0	0	0	0.0	0.00068	0.00	689.03	0.00
18975 Int of	18787 CENTER ST	3417148 SPRING ST	0 - 0.14	3209786 - 0.27 RD INV 3209786	0.14	2	0	0	0	0	0	0.0	0.00134	0.00	590.82	0.00
18787 Int of	18816 SPRING ST	3417149 TEMPLE ST UNION ST	0 - 0.06	3209786 - 0.41 RD INV 3209786	0.06	2	0	0	0	0	0	0.0	0.00063	0.00	697.97	0.00
18784 Int of	18816 EXCHANGE ST	3129296 MIDDLE ST SPRING ST	0 - 0.03	0560505 - 0.06 RD INV 05 60505	0.03	2	3	0	0	0	3	0.0	0.00059	1695.27	706.80	2.40
18769 Int of	18784 MARKET ST	3131695 MIDDLE ST	0 - 0.02	0560505 - 0.09 RD INV 05 60505	0.02	2	0	0	0	0	0	0.0	0.00030	0.00	761.01	0.00
18763 Int of	18769 MIDDLE ST,	3106797 SILVER ST	0 - 0.03	0560505 - 0.11 RD INV 05 60505	0.03	2	0	0	0	0	0	0.0	0.00029	0.00	761.11	0.00
18763 Int of	18814 MIDDLE ST,	3130200 SILVER ST	0 - 0.02	0560505 - 0.14 RD INV 05 60505	0.02	2	1	0	0	1	0	100.0	0.00022	1487.85	751.65	1.98
18814 Int of	19413 MIDDLE ST	3117964 PEARL ST	0 - 0.04	0560505 - 0.16 RD INV 05 60505	0.04	2	2	0	0	0	2	0.0	0.00071	934.93	682.05	1.37
18787 Int of	18816 SPRING ST	3123997 TEMPLE ST UNION ST	0 - 0.06	0560505 - 0 RD INV 05 60505	0.06	2	1	0	0	0	1	0.0	0.00055	609.07	715.85	0.00
18191 Int of	18787 FREE ST	3510778 TEMPLE ST	0 - 0.04	0561208 - 0 RD INV 05 61208	0.04	2	2	0	0	0	2	0.0	0.00067	993.73	690.25	1.44
18191 Int of	18788 FREE ST	3510777 TEMPLE ST	0 - 0.05	0561208 - 0.04 RD INV 05 61208	0.05	2	3	0	0	0	3	0.0	0.00088	1141.79	653.25	1.75
18788 Int of	18789 FEDERAL ST W	3106808 TEMPLE ST	0 - 0.05	0561208 - 0.09 RD INV 05 61208	0.05	2	3	0	0	1	2	33.3	0.00114	878.54	615.17	1.43
18532 Int of	67710 HIGH ST	3417137 SPRING ST	0 - 0.02	0560672 - 0.75 RD INV 05 60672	0.02	2	0	0	0	0	0	0.0	0.00033	0.00	758.63	0.00
18532 Int of	67711 HIGH ST	3417139 SPRING ST	0 - 0.04	0560672 - 0.77 RD INV 05 60672	0.04	2	0	0	0	0	0	0.0	0.00060	0.00	705.09	0.00
67711 Non Int	19055 SPRING ST	3417140	0 - 0.05	0560672 - 0.81 RD INV 05 60672	0.05	2	0	0	0	0	0	0.0	0.00069	0.00	687.02	0.00
67712 Non Int	19055 SPRING ST	3417142	0 - 0.06	0560672 - 0.86 RD INV 05 60672	0.06	2	5	0	0	1	4	20.0	0.00071	2338.77	682.13	3.43
18975 Int of	67712 CENTER ST	3417141 SPRING ST	0 - 0.10	0560672 - 0.92 RD INV 05 60672	0.10	2	2	0	0	0	2	0.0	0.00117	567.76	610.62	0.00

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
18974	18975	3119282	0 - 0.10	0560672 - 1.02	0.10	2	2	0	0	0	2	0.0	0.00158	422.90	567.91	0.00
Int of CROSS ST N SPRING ST				RD INV 05 60672										Statewide Crash Rate: 176.29		
18787	18974	194373	0 - 0.04	0560672 - 1.12	0.04	2	1	0	0	0	0	0.0	0.00041	819.49	745.66	1.10
Int of SPRING ST TEMPLE ST UNION ST				RD INV 05 60672										Statewide Crash Rate: 176.29		
16790	18187	3131647	0 - 0.04	0560719 - 0	0.04	2	0	0	0	0	0	0.0	0.00055	0.00	715.21	0.00
Int of COMMERCIAL ST UNION ST UNION WHARF Z RD				RD INV 05 60719										Statewide Crash Rate: 176.29		
18187	18786	3122284	0 - 0.02	0560719 - 0.04	0.02	2	1	0	0	0	1	0.0	0.00026	1271.57	760.14	1.67
Int of UNION ST WHARF ST				RD INV 05 60719										Statewide Crash Rate: 176.29		
18786	18787	3106806	0 - 0.10	0560719 - 0.06	0.10	2	3	0	0	0	3	0.0	0.00151	662.41	574.12	1.15
Int of FORE ST UNION ST				RD INV 05 60719										Statewide Crash Rate: 176.29		
16790	65134	2783199	0 - 0.01	3201882 - 0	0.01	2	0	0	0	0	0	0.0	0.00007	0.00	1596.14	0.00
Int of COMMERCIAL ST UNION ST UNION WHARF Z RD				RD INV 3201882										Statewide Crash Rate: 404.94		
18964	19130	3106830	0 - 0.02	3200508 - 0	0.02	2	0	0	0	0	0	0.0	0.00051	0.00	724.33	0.00
Int of CENTER ST, FORE ST, PLEASANT ST, YORK ST				RD INV 3200508										Statewide Crash Rate: 176.29		
18967	19130	194651	0 - 0.04	3200508 - 0.02	0.04	2	0	0	0	0	0	0.0	0.00074	0.00	1280.51	0.00
Non Int YORK ST				RD INV 3200508										Statewide Crash Rate: 404.94		
18967	18980	194650	0 - 0.04	3200508 - 0.06	0.04	2	0	0	0	0	0	0.0	0.00074	0.00	1280.51	0.00
Non Int YORK ST				RD INV 3200508										Statewide Crash Rate: 404.94		
18529	18980	194048	0 - 0.14	3200508 - 0.10	0.14	2	1	0	0	0	0	0.0	0.00275	121.34	915.28	0.00
Int of HIGH ST YORK ST				RD INV 3200508										Statewide Crash Rate: 404.94		
9652	19088	3105058	0 - 0.07	0077W - 1.31	0.07	2	4	0	0	1	3	25.0	0.00524	254.26	486.66	0.00
Int of ROUTE 77 NB YORK ST				ST RTE 77W										Statewide Crash Rate: 216.35		
18529	19088	3106684	0 - 0.07	0077W - 1.38	0.07	2	5	0	0	0	5	0.0	0.00406	410.93	518.76	0.00
Int of HIGH ST YORK ST				ST RTE 77W										Statewide Crash Rate: 216.35		
72074	16813	4339081	0 - 0.01	0560816 - 0.19	0.01	2	0	0	0	0	0	0.0	0.00012	0.00	834.37	0.00
Int of STATE ST YORK ST				RD INV 05 60816										Statewide Crash Rate: 216.35		
9652	72074	4339080	0 - 0.01	0560816 - 0.20	0.01	2	0	0	0	0	0	0.0	0.00012	0.00	834.37	0.00
Int of ROUTE 77 NB YORK ST				RD INV 05 60816										Statewide Crash Rate: 216.35		
16813	72075	4339083	0 - 0.02	0077X - 0.73	0.02	2	0	0	0	0	0	0.0	0.00039	0.00	896.88	0.00
Int of ROUTE 77 SB STATE ST YORK ST				ST RTE 77										Statewide Crash Rate: 216.35		
72075	72074	4339085	0 - 0.02	3210568 - 0	0.02	2	0	0	0	0	0	0.0	0.00039	0.00	896.88	0.00
Non Int STATE ST				RD INV 3210568										Statewide Crash Rate: 216.35		
16788	18964	192464	0 - 0.10	0560122 - 0	0.10	2	1	0	0	0	1	0.0	0.00126	265.02	1116.30	0.00
Int of CENTER ST COMMERCIAL ST ENT TO FISH PIER				RD INV 05 60122										Statewide Crash Rate: 404.94		
18964	18975	194643	0 - 0.10	0560122 - 0.10	0.10	2	3	0	0	0	3	0.0	0.00124	804.15	1119.60	0.00
Int of CENTER ST, FORE ST, PLEASANT ST, YORK ST				RD INV 05 60122										Statewide Crash Rate: 404.94		

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	
16788	69082	3506290	0 - 0.01	3209862 - 0	0.01	2	0	0	0	0	0	0.0	0.00000	0.00	-	0.00	
Int of CENTER ST COMMERCIAL ST ENT TO FISH PIER				RD INV 3209862										Statewide Crash Rate: 4066.78	1667.81	56	
18786	18966	3106807	0 - 0.05	0560286 - 0.90	0.05	2	2	0	0	0	1	50.0	0.00116	573.01	611.97	0.00	
Int of FORE ST UNION ST				RD INV 05 60286										Statewide Crash Rate: 176.29	176.29		
18965	18966	3124004	0 - 0.04	0560286 - 0.95	0.04	2	1	0	0	0	1	0.0	0.00095	350.55	641.39	0.00	
Int of COTTON ST FORE ST				RD INV 05 60286										Statewide Crash Rate: 176.29	176.29		
18964	18965	3106829	0 - 0.03	0560286 - 0.99	0.03	2	1	0	0	0	1	0.0	0.00074	447.60	676.10	0.00	
Int of CENTER ST, FORE ST, PLEASANT ST, YORK ST				RD INV 05 60286										Statewide Crash Rate: 176.29	176.29		
16789	18966	192467	0 - 0.08	0561017 - 0	0.08	2	0	0	0	0	0	0.0	0.00033	0.00	1545.45	0.00	
Int of COMMERCIAL ST CROSS ST S				RD INV 05 61017										Statewide Crash Rate: 404.94	404.94		
18966	18972	194648	0 - 0.04	0561017 - 0.08	0.04	2	1	0	0	0	1	0.0	0.00007	4766.40	1600.53	2.98	
Int of CROSS ST S FORE ST				RD INV 05 61017										Statewide Crash Rate: 404.94	404.94		
16788	16789	3120368	0 - 0.06	0001A - 11.35	0.06	2	4	0	0	0	3	0.0	0.00287	463.83	566.39	0.00	
Int of CENTER ST COMMERCIAL ST ENT TO FISH PIER				US 1A										Statewide Crash Rate: 216.35	216.35		
16789	16790	3120311	0 - 0.06	0001A - 11.41	0.06	2	8	0	0	1	7	12.5	0.00280	952.71	570.29	1.67	
Int of COMMERCIAL ST CROSS ST S				US 1A										Statewide Crash Rate: 216.35	216.35		
18786	18966	3106807	0 - 0.05	0560286 - 0.90	0.05	2	2	0	0	0	1	50.0	0.00116	573.01	611.97	0.00	
Int of FORE ST UNION ST				RD INV 05 60286										Statewide Crash Rate: 176.29	176.29		
18965	18966	3124004	0 - 0.04	0560286 - 0.95	0.04	2	1	0	0	0	1	0.0	0.00095	350.55	641.39	0.00	
Int of COTTON ST FORE ST				RD INV 05 60286										Statewide Crash Rate: 176.29	176.29		
18964	18965	3106829	0 - 0.03	0560286 - 0.99	0.03	2	1	0	0	0	1	0.0	0.00074	447.60	676.10	0.00	
Int of CENTER ST, FORE ST, PLEASANT ST, YORK ST				RD INV 05 60286										Statewide Crash Rate: 176.29	176.29		
18965	18969	194647	0 - 0.07	0561016 - 0	0.07	2	1	0	0	0	0	0.0	0.00010	3497.67	1721.81	2.03	
Int of COTTON ST FORE ST				RD INV 05 61016										Statewide Crash Rate: 404.94	404.94		
Study Years:		3.00	Section Totals:		2.59		68	0	0	1	6	56	10.3	0.04655	486.92	325.90	1.49
			Grand Totals:		2.59		217	0	3	10	36	163	22.6	0.04655	1553.86	460.42	3.37



York St

Portland

Node: 18529

Study Period: 2016-2018

of Crashes: 20 / CRF: 1.15

Prepared by Office of Safety (MP 8/27/19)

29518 10-4-17 1:00P D/C
Improper Backing

6711 2-19-18 1:40P D/C
Disregard Traffic Sign

32340 10-28-17 12:30P D/C
Internal Distraction

41173 12-6-18 9:45A D/C
Fail To Keep In Lane

25646 9-3-16 5:04P D/C Improper Turn

18422 7-4-18 6:41P D/C Fail To Keep In Lane
37341 12-4-18 9:55A D/C Fail To Keep In Lane
41184 12-10-18 10:00A D/C Improper Turn
33007 11-5-17 12:25P D/CL Fail To Keep In Lane
14779 5-31-16 12:27P D/C Improper Turn

5431 2-10-17 6:46P W/CL Fail To Keep In Lane
27422 9-13-17 11:26A D/C Fail To Keep In Lane
18753 7-7-16 6:35P D/C Fail To Keep In Lane

10862 3-27-17 6:40P
W/R Fail To Yield

34843 11-13-17 4:40P
W/S Fail To Yield

High St

York St



= Traffic Signal

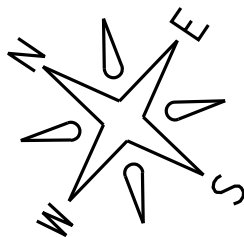
4546 2-10-16 9:06A W/C Follow Close

8348 3-17-16 2:45P D/C
Follow Too Close

28713 10-3-16 10:53P D/C
Improper Backing

1140 1-14-16 3:03P W/C Follow Close

32365 11-5-18 11:16A D/CL
Brakes Failed



York St

Portland

Node: I9088

Study Period: 2016-2018

of Crashes: 8 / CRF: 1.10

Prepared by Office of Safety (MP 9/9/19)



Park St

26789 9-22-16 5:45P
D/C Improper Backing

36915 11-30-17 7:58A D/C Fail To Yield

Stop

22 Park St

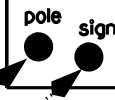


21094 8-3-18 6:15P W/R Fail To Yield
19860 7-20-18 3:42P D/C Fail To Yield
34984 12-2-16 2:18P D/C Fail To Yield

2128 1-12-16 7:20P S/S Too Fast For Conditions

1784 1-18-16 3:03P S/S Road Conditions

29384 10-02-17 3:45P Improper Turn



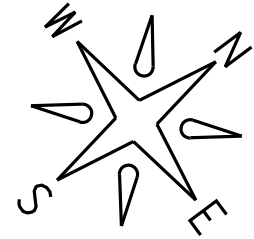
Park St



Portland
Link: I6789-I6790
Element: 3I203II
Study Period: 2016-2018
of Crashes: 8 / CRF: 1.67

Prepared by Office of Safety

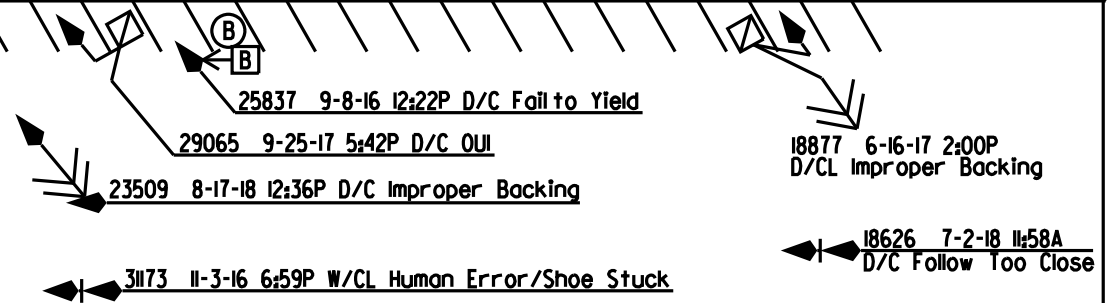
(R.A. - 9/10/19)



I6789

I6790

Commercial St.
Route 1A



22998 8-13-16 11:16A D/CL Fail to Yield

28097 10-3-18 3:41P D/CL Improper Turn

parking lot

parking lot

Portland Square Transportation Demand Management (TDM) Plan

Portland Square

Transportation Demand Management (TDM) Plan for the Master Development

PREPARED FOR

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C O M P A N Y

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September 10, 2019

Table of Contents

1	Introduction	1
	The Portland Square Development	2
2	Transportation Context	4
	Pedestrian Infrastructure	5
	Bicycle Infrastructure.....	5
	Transit Service.....	7
	Other Mobility	11
	Regional TDM Program	11
3	TDM Coordinator (TC)	13
	TDM Coordinator Responsibilities.....	13
	Transportation Management Association	14
4	Trip and Parking Reduction Target	15
	Vehicle Trip Reduction	15
	Parking Reduction.....	16
5	Trip and Parking Reduction Strategies	17
	Infrastructure.....	17
	Incentives.....	18
	Limiting Parking Supply	19
	Pricing and Unbundled Parking for Office and Residential Space.....	19
	Preferred and Free Carpool Parking Spaces	19
	Pretax Transit and Vanpool Benefit Programs – Office/Hotel/Retail Only	19
	Commuter Incentive – Residential Only	20
	Information and Communication	20
	Real-Time Transit Information.....	20
	Electronic Transportation Information Display	21
	Site-based Transportation Access Guide	21
	Live-Work-Play Marketing	21
	Emergency Ride Home Program	22
	Private Bikeshare.....	22
	Telecommute and Flexwork Promotion.....	22
	TDM Program Webpage – Residential Only.....	22
	Implementation of TDM Program	23
6	Monitoring and Reporting Plan	25

Peak Hour Vehicle Trip Counts26

Parking Occupancy Counts26

Commute Survey26

Report27

Monitoring Schedule27

List of Tables

Table No.	Description	Page
Table 1.	Proposed Development Conditions at Portland Square	3
Table 2.	Transit Services Service the District	8
Table 3	Incentive TDM Strategies at Portland Square	18
Table 4	Information and Communication TDM Strategies at Portland Square	20
Table 5	Implementation of TDM Strategies at Portland Square	23
Table 6	Monitoring and Evaluation Schedule.....	28

List of Figures

Figure No.	Description	Page
Figure 1.	Portland Square Development	2
Figure 2.	Portland Square Development Phases	3
Figure 3.	Existing and Planned Bike/Pedestrian Infrastructure in the Vicinity of Portland Square	6
Figure 4.	Bus Transit Services in the Vicinity of Portland Square.....	9
Figure 5.	Regional Extent of Bus Transit Services in the Vicinity of Portland Square	10



1

Introduction

This Transportation Demand Management (TDM) plan provides a cohesive strategy for establishing and implementing a successful TDM program for the full-build of the Portland Square mixed-use development. This plan seeks to enhance multimodal accessibility, ensure the use of non-vehicular modes, and discourage the use of driving through parking management, to achieve and build upon the parking demand reduction goals for the site.

To lay the foundation for the TDM plan, this report follows the City of Portland *TDM Template for Site Plan Review* based on the City of Portland *Technical Manual*. This includes five sections that respond to the following steps:

1. Describe the Transportation Context
2. Appoint a TDM Coordinator
3. Set Trip and Parking Reduction Targets
4. Develop Direct Trip and Parking Reduction Strategies
5. Develop a Monitoring and Reporting Plan

The Portland Square Development

Portland Square is a phased, mixed-use redevelopment of a two-block area (repurposing the existing surface parking lots tied to One and Two Portland Square) in Portland's Downtown and Old Port district. As proposed (Figure 1), the project includes five separate phases, six new buildings (two of which are proposed over a parking garage), and a development scheme consisting of 135-room hotel (with a restaurant/bar), up to 528,300 square feet of office space, approximately 48,100 square feet of retail space (exclusive of the hotel's restaurant/bar), 82 apartments (a mix of one- and two- bedroom units), and 1,235 structured parking spaces.

Figure 1. Portland Square Development



Source: MDP Application 7-30-2019

The graphic below in Figure 2 identifies the five planned development phases.

Figure 2. Portland Square Development Phases

Source: Phasing Plan 4-5-19

The following is the development schedule for what is being proposed on the site.

Table 1. Proposed Development Conditions at Portland Square

Existing Zoning	B-3 Downtown Business, DE Overlay, PAD, Old Port Historic District		
Existing Use	Surface Parking Lot (542 spaces)		
Proposed Use	Office Space	525,542 SF	
	Retail Space	48,153 SF	
	Apartments	82 (1- and 2- bedroom units)	
	Hotel	135 Rooms	
	Structured Parking	1,235 spaces	
Property Size	6.45 acres		
	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	42,643 SF	187,833 SF	145,190 SF
Building Floor Area	273,191 SF	1,047,859 SF	774,668 SF
Impervious Surface Area	225,000 SF	300,000 SF	50,000 SF
Parking Spaces	584 spaces	1,235	651
Bicycle Parking Spaces	10	98	88

Source: Portland Square MDP August 2019. These figures may change for the final application.



2

Transportation Context

The surrounding neighborhood setting consists largely of high intensity commercial development, given the site's location within Portland's central business district. The site is located within one of the best transit-served areas in the city: the heart of the Portland bus transit network, Metro Pulse, is located within less than a quarter mile of the site or about a 3-minute walk. Portland Square employees, visitors, future guests, and residents will be within comfortable walking distance to/from most parts of the Peninsula. Walkscore.com, a real-estate site that evaluates walkability and transportation when choosing where to live, scores Portland Square a 97 out of 100 and considers it a "Walkers Paradise" where daily errands do not require a car. In fact, within a quarter mile, there are over 20 restaurant establishments, 20 coffee shops, 4 bars, and 2 grocery stores—all amenities that entice users of the site to forego their vehicles and conduct their errands by foot.

Pedestrian Infrastructure

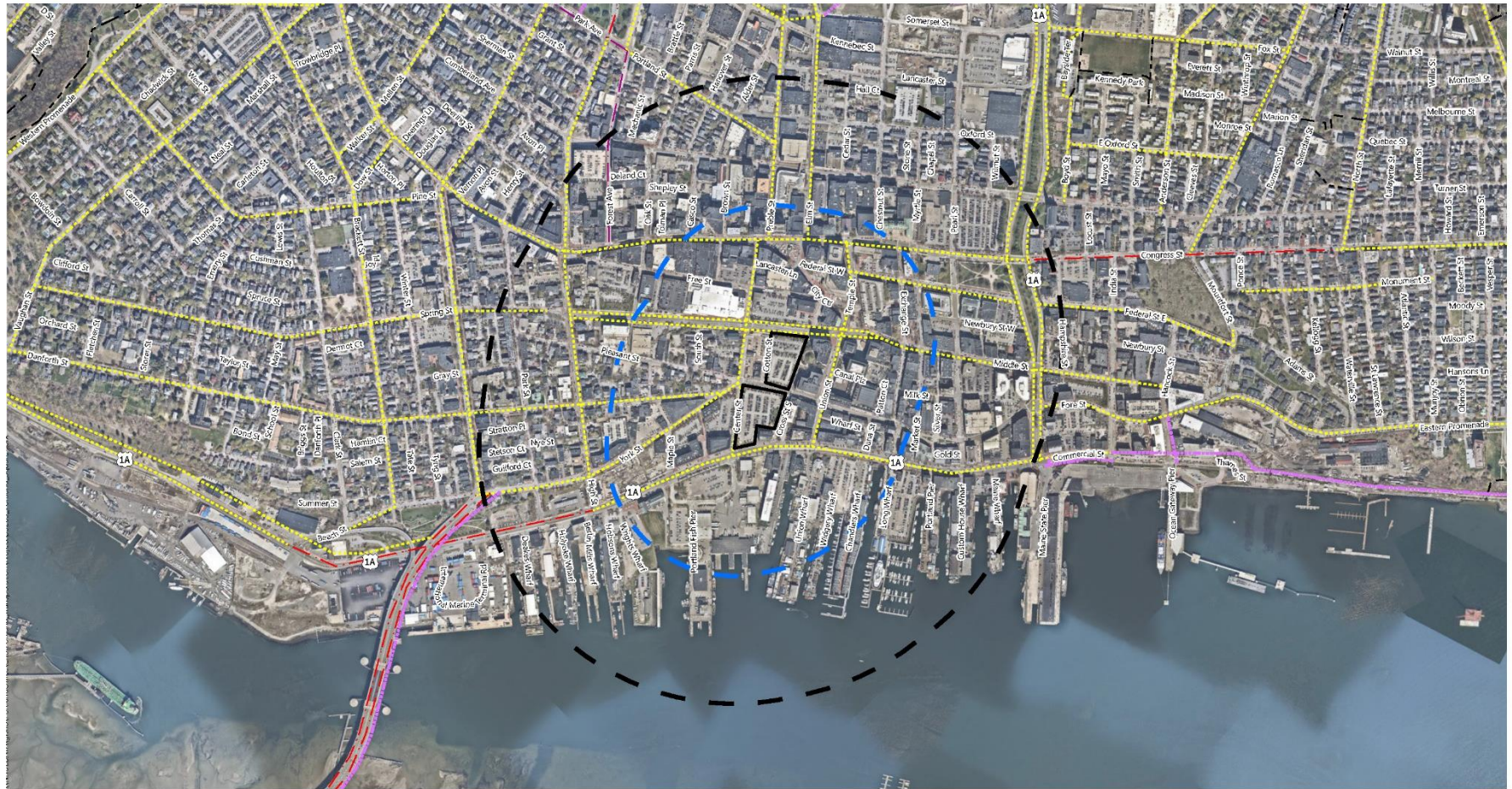
The project site is pedestrian friendly, located within the strong sidewalk network and lower-speed street grid of the downtown Portland peninsula. Crosswalks are present in all nearby intersections.

Portland Square employees, visitors, future guests, and residents will be within comfortable walking distance to/from most parts of the Peninsula, with access to a variety of businesses, retail establishments, restaurants, and entertainment attractions.

Bicycle Infrastructure

While the development is not currently located right on top of the Portland area bicycle path network, the development is located amongst a grid network of lower-speed, bike-friendly streets in the Portland peninsula. The site is also within proximity to bike lanes on Commercial Street, the Casco Bay Bridge, and the Eastern Promenade Trail. (Figure 3)

Figure 3. Existing and Planned Bike/Pedestrian Infrastructure in the Vicinity of Portland Square



- Portland Square Project Area
- 1/2 Mile Buffer from Portland Square
- 1/4 Mile Buffer from Portland Square

- Existing Bike Lane
- Existing Multi-Use Path
- Existing Shared Lane
- Existing Trail
- Planned Bike/Ped Route

Portland Square

Portland, Maine

**Existing and Proposed
Bike/Pedestrian Infrastructure**

Source: GPCOG, MEGIS, VHB, ESRI

Transit Service

From a transit perspective, the site is located within one of the best served areas in the city [Figures 4 and 5]. The heart of the Portland transit network, Metro Pulse, is located within less than a quarter mile of the site or about a 3- to 4-minute walk. The high availability of transit is a great opportunity for TDM and make is more possible for residents, employees, and visitors to rely less on their own personal vehicle.

Routes available within a quarter mile walking distance of the site include:

Greater Portland METRO Local Service

- Husky Line – Portland/Westbrook/Gorham via USM Portland and USM Gorham
- Route 1 – Munjoy Hill/Mercy at the Fore/Portland Transit Center via Congress Street
- Route 2 – Riverton via Forest Avenue
- Route 4 – Westbrook via Brighton Avenue
- Route 5 – Maine Mall – via Portland Jetport/Outer Congress Street
- Route 7 – Falmouth via Route 1
- Route 8 – Peninsula Loop via Casco Bay Ferry Terminal
- Route 9A – North Deering via Stevens Avenue
- Route 9B – North Deering via Washington Avenue

METRO BREEZ Express Service

- Route B – Yarmouth/Freeport/Brunswick

South Portland Bus Routes

- Route 21 – Willard Square and SMCC/Downtown Portland
- Route 24A – Maine Mall/Downtown Portland via Main Street
- Route 24B – Maine Mall/Downtown Portland via Community Center

ShuttleBus Routes

- ZOOM Turnpike Express – Portland/Biddeford
- Intercity ShuttleBus – Portland/Saco

The nearest sheltered bus stops are along Congress Street, including the stops at Congress at Center Street and Congress at Elm Street. These serve multiple bus routes (Table 2).

Portland Square is served by one bus stop on the property and two additional bus stops nearby:

- Union Street near the corner of Fore Street, in front of the Two Portland Square building, which serves the South Portland bus services Route 21, 24A, and 24B.
- York Street near the corner of Pleasant and Center Streets (close to the planned Six Portland Square building), which serves the South Portland bus service Route 21, 24A, and 24B.
- Middle Street, near the corner of Temple/Union Street (closest to One Portland Square), which serves Greater Portland Transit (Metro) Route 8 bus service.

The frequency and span of service for these routes are listed below.

Table 2. Transit Services Service the District

Route	Headways								Span					
	Weekday			Saturday		Sunday			Weekday		Saturday		Sunday	
	Peak	Day	Evening	Day	Evening	Day	Evening	Start	End	Start	End	Start	End	
York Street near the corner of Pleasant Street/Center Street & Union Street at Fore Street (<1 mi)														
21	30	30	45	90	-	-	-	6:30 AM	11:00 PM	6:30 AM	6:30 PM	-	-	
24A	90	90	90	90	-	-	-	5:30 AM	11:00 PM	7:00 AM	6:30 PM	-	-	
24B	120	120	120	-	-	-	-	6:30 AM	9:45 PM	-	-	-	-	
Middle Street near the corner of Temple/Union Street														
8	30	30	-	60	-	60	-	7:00 AM	6:00 PM	8:00 AM	6:00 PM	9:00 AM	4:00 PM	
Metro Pulse (<.25mi)														
Husky	30	30	50	45	45	45	45	6:30 AM	10:30 PM	8:30 AM	11:00 PM	8:00 AM	7:00 PM	
1	30	30	30	30	30	60	60	5:00 AM	11:00 PM	5:00 AM	11:00 PM	8:00 AM	6:30 PM	
2	20	30	60	60	60	60	-	6:00 AM	11:00 PM	6:30 AM	10:30 PM	8:30 AM	4:40 PM	
4	30	30	60	30	60	45	-	5:30 AM	11:30 PM	6:00 AM	11:30 PM	8:30 AM	7:30 PM	
5	30	30	60	30	60	45	-	5:30 AM	10:30 PM	6:00 AM	10:30 PM	8:00 AM	6:30 PM	
7	60	60	-	60	-	60	-	6:30 AM	7:30 PM	6:30 AM	7:30 PM	8:30 AM	4:30 PM	
9A	30	30	60	60	60	60	-	5:30 AM	10:30 PM	7:30 AM	10:30 PM	8:30 AM	4:30 PM	
9B	30	60	60	60	60	60	-	5:30 AM	9:00 PM	8:00 AM	9:00 PM	9:00 AM	5:00 PM	
Breez	60	60	75	120	120	-	-	6:00 AM	10:00 PM	8:00 AM	10:00 PM	-	-	
Zoom Turnpike Express	30	-	-	-	-	-	-	6:00 AM	6:40 PM	-	-	-	-	
Intercity Shuttle Bus	150	150	150					6:30 AM	10:30 PM					

Fares on these services are \$1.50 one way, except for the BREEZ service, which costs \$3.00 one-way. Daily, Ten-ride (\$13.50), and monthly passes (\$45) are also available.

The project site also provides nearby access to several Ferry services that operate regularly to: Peaks Island, Little Diamond Island, Great Diamond Island, Diamond Cove, Long Island, Chebeague Island, Cliff Island, and Bailey Island. In case someone misses their ferry, they have the option to use the on-demand sea taxi.

Figure 4. Bus Transit Services in the Vicinity of Portland Square

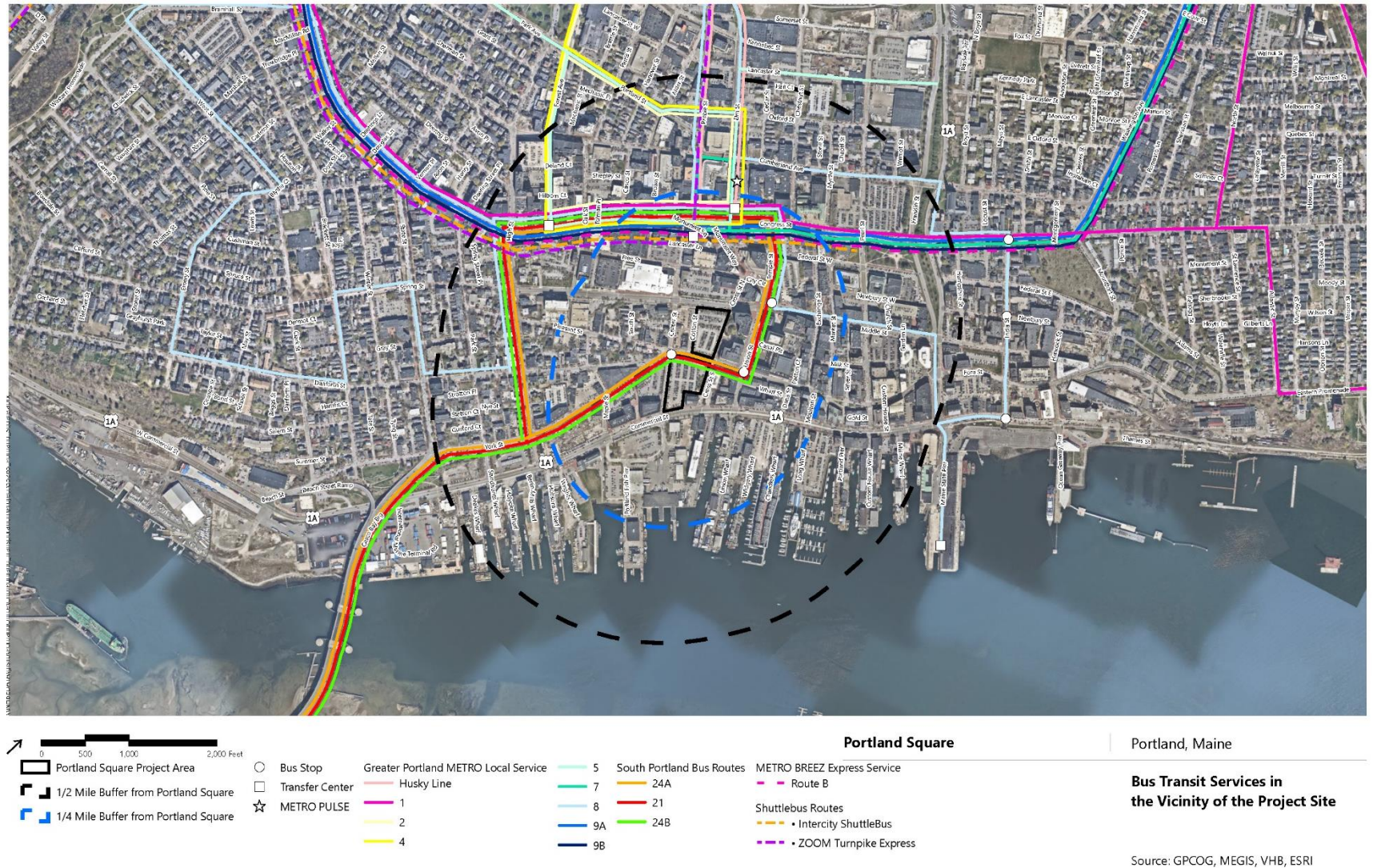
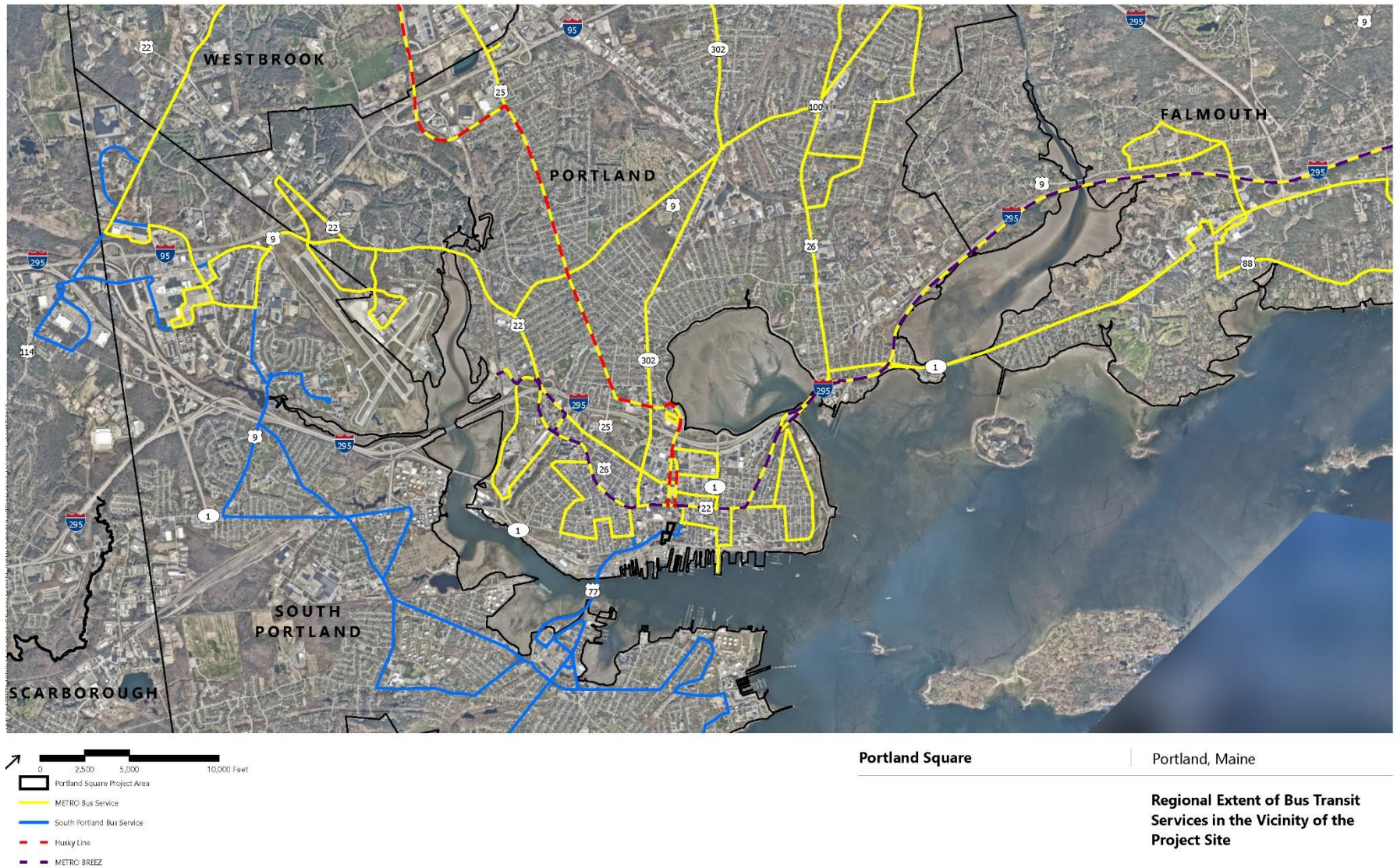


Figure 5. Regional Extent of Bus Transit Services in the Vicinity of Portland Square



Other Mobility

In addition to walking, biking, and riding transit buses, future employees, residents, and visitors of the project can use ride-hailing services Uber, Lyft, or taxi, which are readily available in the peninsula.

In case an individual needs access to a vehicle for a short period of time, they can use carshare by way of UhaulCarShare: two vehicles are located within a quarter mile of the property on Elm Street between Cumberland Avenue and Congress Street. Vehicles can be rented for about \$5 per hour plus \$0.49 per mile driven.

Regional TDM Program

There are several TDM programs at a regional, state, and national level that are intended to support site-based TDM programs like that of the Portland Square property. Potential programs/services that can be used to support the Portland Square's TDM Program include:

Emergency Ride Home: This program essentially serves as "insurance" to provide people an option to get home from work in case of an emergency. GO MAINE (the statewide commuter program) provides a guaranteed ride home using taxi or Enterprise rent-a-car to commuters who carpool, vanpool, take transit, bike or walk at least three days a week. The benefit is available for up to eight times per calendar year.

Way 2 Go Maine: *Way 2 Go Maine* is an annual commuter challenge in October hosted by GO MAINE. The campaign works with local employers to encourage them to use alternative transportation options through an inter-company competition. The competition recognizes companies for their successful participation and distribute prizes such as gift cards and swag to encourage participation.

Vanpool Matching: Vanpooling is a common, long-distance commute option for employees headed to the same general area site consisting of between 5 to 15 commuters. GO MAINE assists to form these vanpools. In August 2019, there were about 5 vanpools arriving or departing from Portland serving Yarmouth and Augusta.

Rewards Program: GO MAINE has a rewards program for individuals who take greener trips, which include walking, biking, telecommuting, carpooling, vanpooling, or taking public transportation. Participants must sign-up and log their commutes daily. Rewards includes gift cards and discounts to various local businesses.

Portland Slow Ride: To get people comfortable with biking, the Bicycle Coalition of Maine offers the "Portland First Friday Slow Ride". These rides are typically done at a relaxed pace and coincide with Portland's "First Friday" art walk event.

Smart Cycling Traffic Skills 101 and Educational Courses: Traffic Skills 101 is hosted by the Bicycle Coalition of Maine and is a course that serves as a way to learn how to ride in traffic. An individual or employer can specifically request a safety workshop.

Discounted Helmets: The Bicycle Coalition of Maine runs a helmet program – when purchased in bulk (8-30 helmets) – the cost is \$7 per helmet.

Bicycle Benefit: As part of this national program, local businesses offer rewards to patrons who arrive at their establishments by bicycle.

Best Employers for Commuters: This membership program provides qualified employers with national recognition and an elite designation for offering outstanding commuter benefits.



3

TDM Coordinator (TC)

TDM program management responsibilities will be designated to a single site representative associated with the property, who may also be responsible for overall site operations and maintenance.

For the Portland Square property, a TDM coordinator for the overall TDM Program will be appointed once the first building permit for the first phase of the development has been issued. Portland Square will notify the City of Portland's TDM Program Manager of this appointment within 60 days of the issuance of the building permit.

This individual will serve as a central point of contact and manage the overall TDM program and report. The location of the TDM Coordinator's office will be publicized broadly within the site, and the manager will be available for consultation during regular office hours.

TDM Coordinator Responsibilities

TDM Coordinator responsibilities include:

- Develop a TDM Report, which will outline the activities to be implemented in the upcoming year and provide an assessment of strategies implemented to date.
- Promote non-SOV transportation choices primarily to employees, residents, and visitors.

- Remain available to property tenants to answer questions about all aspects of the TDM program.
- Hold, at a minimum, an annual TDM meeting with office/hotel/retail tenants their respective employees and residents, to review the available transit options, changes in transit service, and other relevant transit-related topics.
- Recruit and engage participants for any outreach events or campaigns associated with the TDM Program over time.
- Coordinate with Go Maine to obtain support for program implementation. As appropriate, coordination will occur with neighboring developments, as well, to avoid duplication of services.
- Train residential leasing staff/property management on TDM Program elements and information so they can (1) provide these materials to tenants as they move in or (2) use as a recruitment tool.
- Coordinate and manage IT efforts associated with the TDM Program.
- Coordinate all monitoring and evaluation activities necessary to measure the effectiveness of the TDM program in achieving the targets.

Transportation Management Association

Transportation Management Associations (TMAs) are non-profit, member-controlled organizations that provide transportation services in a particular area, such as a commercial district, mall, medical center or industrial park. If a TMA is established for Downtown Portland, Portland Square will petition to join as a member. The TMA, in exchange, may offer to serve as the TDM Coordinator for the site and/or can be appointed to administer certain TDM program activities.



4

Trip and Parking Reduction Target

Goals allow the TDM Program to orient, focus, and prioritize resources to achieve a specific outcome. For Portland Square, the goal will be to meet trip thresholds identified in the traffic impact analysis and to maintain peak parking demand below the functional capacity.

Vehicle Trip Reduction

Based on the Portland Square Traffic Movement Permit Application and its Traffic Impact Study prepared by Gorrill Palmer Consulting Engineers (expected to be submitted to the City of Portland on/around September 13, 2019), the peak hour vehicle trip generation during the AM and PM peak hours should not exceed the following values:

- AM Peak Hour Vehicle Trips: 382 in / 73 out
- PM Peak Hour Vehicle Trips: 149 in / 384 out

These expected values (for a typical weekday) reflect a trip generation that accounts for reductions in vehicle trips resulting from the use of non-vehicle modes of transportation.

Parking Reduction

The full-build of the Portland Square development will provide 1,235 parking spaces. To demonstrate that the TDM Program is contributing to maintaining parking demand at a manageable level below the parking supply, the target shall be 1,144 occupied parking spaces during the peak use (the equivalent of about 92.5 percent of capacity) measured during a typical midweek weekday.

Full Build Parking Demand Analysis for Portland Square (documented in a September 5, 2019 memo by VHB) estimates an expected typical weekday peak demand of 1,252 parked vehicles. Although the estimated peak use is slightly higher than the proposed capacity of the parking supply for the master development, this demonstrates a slightly constrained provision of spaces that accounts for shared/mixed uses. The constraint should encourage use of alternative (non-vehicular) modes of travel to the site and illustrates the need for property management and the tenants to adopt proactive transportation demand management (TDM) incentives.



5

Trip and Parking Reduction Strategies

This section outlines the TDM program to be implemented at Portland Square. The TDM program uses best practices and proven results to encourage greater use of sustainable transportation modes than might otherwise occur at the development.

Infrastructure

Site design features that are supportive of TDM strategies are included as part of the overall design of projects at Portland Square. A complete description of these are provided by the architect in the Portland Square Master Development Plan *Project Design Narrative*. Below is an overview of relevant key features.

Overall, as part of this development, sidewalks that are adjacent to the project will be reconstructed and improved, including the provision of seating and lighting. The design considers that the site fronts pedestrian activity zones (PADs) on Fore Street, Center Street, and Commercial Street and a PAD encouragement zone at Spring Street. Blank façade areas are minimized and where parking faces the pedestrian environment, design features such as benches, planters, vegetated screening, storefront framing, and metal screen panels may be used to add visual interest and variety to façades. The proposed treatments are intended to encourage pedestrian activity by enhancing the pedestrian experience in the area.

Bicycle parking racks/storage for 86 bikes is incorporated into covered areas of the garages on both the upper parcel and lower parcel:

- The upper site garage will have 55 bike spaces in grouped racks located near the main office elevator and residential elevator at the first two parking levels.
- The lower site garage will have a minimum 16-bike storage room dedicated to the apartments located in the garage and accessible from the residential elevator bank.
- Another group of bicycle racks for 15 bikes will be located immediately inside the parking garage entrance.

An additional 12 bicycle parking racks will be provided outside, incorporated into the proposed public spaces and landscaped areas.

Although no showers/locker facilities are planned for the common areas of any of the office buildings, tenants will be encouraged to provide these as part of their fit up.

Finally, as part of the development review process, per Chapter 14 of the City of Portland Code, the property is contributing towards transportation impact fees that will seek to improve traffic operations and transportation infrastructure in and around downtown Portland.

Incentives

Financial incentives, through subsidies, and disincentives, through parking, have been shown to be the most effective type of TDM strategy to encourage travel behavior change. If parking is not available, or costs too much, a traveler may consider using another means of transportation or eliminate his/her trip altogether. Alternatively, an employee may be more open to taking transit to work if they receive a subsidized transit pass.

The Transportation Coordinator (TC) will work with Portland Square tenants to provide the following financial incentives / disincentives. (Table 3 below) A detailed discussion of each strategy follows the table.

Table 3 Incentive TDM Strategies at Portland Square

TDM Strategies	Site-Wide	Office	Retail	Hotel	Residential
Limiting Parking Supply	X				
Pricing and Unbundled Parking for Office and Residential Space	X				
Preferred and Free Carpool Parking Spaces	X				
Implement a Pretax Transit and Vanpool Commuter Benefit for Employees		X	X	X	
Distribute a Commuter Incentive to New Residents					X

Limiting Parking Supply

STRATEGY: PORTLAND SQUARE WILL PROVIDE LESS PARKING THAN REQUIRED BY THE CITY ZONING ORDINANCE.

The City of Portland has recognized the role of parking and its relationship to successful TDM. To that end, they have allowed Portland Square to seek a parking reduction below existing zoning levels. Limiting parking will make it easier for the site to draw upon the great multimodal connectivity of the site and encourage employees, residents, visitors, and guests to utilize non-auto modes of transportation to access the site.

Pricing and Unbundled Parking for Office and Residential Space

STRATEGY: MARKET PERMITTING, PORTLAND SQUARE WILL PROVIDE OFFICE/RESIDENTIAL LEASING EXCLUSIVE OF PARKING.

Market permitting, Portland Square endeavor to lease future office space and residential dwelling units exclusive of parking. This is referred to as unbundled parking.

Portland Square will lease office space exclusive of parking. This would mean that office employees would pay a per diem cost to park and the tenant would be allowed to decide whether to reimburse the employee for driving. By allowing employees to see and pay parking fees daily, employee commuters are consistently and clearly reminded of how much they are spending to drive, which will encourage them to compare their daily commute costs across different modes of transportation.

Residents will have to pay a separate line item for parking. In cases where the market dictates that parking be inclusive of lease costs, the cost of the parking can be presented to the lessee as a line item. These programs have been found to reduce residential parking and associated single occupant vehicle trips, as well as attract residents amicable to alternative modes of transportation.

Preferred and Free Carpool Parking Spaces

STRATEGY: PORTLAND SQUARE WILL PROVIDE CARPOOL SPACES NEAR BUILDING ENTRANCES AND ELEVATOR AND WILL MAKE THESE SPACES FREE TO CARPOOLERS.

Portland Square will guarantee parking spaces for all carpools and vanpools to encourage this behavior. Furthermore, the property will allocate convenient parking spaces near building entrances and garage elevators for carpool use only and adjust their numbers as demand necessitates. Lastly, the property will make parking free for carpools of all sizes.

Pretax Transit and Vanpool Benefit Programs – Office/Hotel/Retail Only

STRATEGY: THE TC WILL PROMOTE FEDERAL PRETAX TRANSIT AND VANPOOL PROGRAMS TO OFFICE/HOTEL/RETAIL TENANTS AND THEIR EMPLOYEES.

Established in 2001 by the United States Internal Revenue Service (IRS), the Section 132(f) transit and vanpool pretax benefit enables commuters to pay for transit passes, vanpool commuting costs, and parking costs through their employer on a pre-tax basis. The limits

vary by mode used and are generally updated annually by the IRS. For the 2019 tax year, the benefit levels are \$265 per month for transit and vanpool services and \$265 per month for parking.

Commuter Incentive – Residential Only

STRATEGY: THE TC WILL PROVIDE A TRANSPORTATION SUBSIDY TO ALL NEW RESIDENTS

Incentives have been shown to be effective at changing people's travel behavior. For this reason, the TC will provide first time residents with a monetary incentive to encourage them to try using alternative forms of transportation for their commute. This incentive can take the form of a weekly or monthly transit pass, a trial bikeshare membership, or other similar form.

Information and Communication

In addition to site design elements and financial incentives, a selection of appropriate strategies has been proposed in order to achieve the trip reduction goals. These strategies are divided into site-wide, office, and residential. A detailed discussion of each strategy follows the table.

Table 4 Information and Communication TDM Strategies at Portland Square

TDM Strategies	Site-Wide	Office	Residential
Promote Real-Time Transit Information	X		
Install Electronic Transportation Displays	X		
Develop a Site-based Transportation Guide	X		
Conduct Live-Work-Play Marketing	X		
Promote Guaranteed Ride Home Program	X		
Provide Private Bikeshare	X		
Promote Telecommute and Flexwork		X	
Develop a TDM Program Webpage			X

Real-Time Transit Information

STRATEGY: THE TC WILL INCORPORATE REAL-TIME TRANSIT INFORMATION INTO VARIOUS PORTALS, AS APPROPRIATE, INCLUDING THE TDM PROGRAM WEBSITE, SMARTPHONE APPS, AND ON-SITE SCREENS.

Southern Maine Transit offers real-time transit information through its website and applications are available for websites, screens and smart phones that allow travelers to access real-time schedule information. Because real-time transit information has been found to decrease perceived wait times and increase rider satisfaction with transit systems, Portland

Square will promote real-time travel information relevant to the site. In addition, the TC can monitor new technology that can be used to increase the use of non-SOV travel modes and implement those strategies when appropriate based on costs and potential benefits. The information provided will include, but not be limited to, the following:

- Traffic conditions, road hazards, construction work zones and road detours.
- Arrival times and delays on local area bus routes.

Electronic Transportation Information Display

STRATEGY: THE TC WILL PROVIDE AN ELECTRONIC INFORMATION DISPLAY TO SHOW REAL-TIME INFORMATION OF TRANSPORTATION SERVICES LOCATED NEAR THE SITE.

An Electronic Information Display will be installed in an area with high resident/office employee/patron foot traffic to show real-time transportation information. Users will be able to check on the status of local transportation options “on-the-go” without requiring a smart phone or an internet connection.

Site-based Transportation Access Guide

STRATEGY: THE TC WILL DEVELOP AND DISTRIBUTE A PORTLAND SQUARE ACCESS GUIDE ON AN ONGOING BASIS.

A local access guide will be made available to all traveler groups to the site, including employees, residents, retail customers and visitors. The guide will provide them with information about how to access transportation options, parking, retail and services, as well as provide them with a sense of amenities and destinations within walking and biking distance. The access guide will be provided to new residents as part of their move-in packet and to new employees in the office, hotel, and retail spaces.

The purpose of the local access guides is to familiarize employees, residents, and visitors with what is available in and around the project site. By doing so, the need to travel off-site is reduced and in some cases, this eliminates the need for a vehicle to run errands. The local access guide will be updated on an annual basis or as needed.

Live-Work-Play Marketing

STRATEGY: THE TC WILL DEVELOP MARKETING CAMPAIGNS AND MESSAGING FOCUSED ON LIVING, WORKING, AND PLAYING IN AND AROUND PORTLAND.

A live-work-play marketing program will be implemented to encourage employees and residents to live, work, shop, and eat in Downtown Portland. Example strategies may include, but not be limited to, discounts or coupons from local, retail and service establishments offered to residents or incentives to local employees to encourage them to live on-site. This marketing encourages residents and employees to shop at, eat at, and visit businesses that are within a short distance of their homes or place of work.

Emergency Ride Home Program

STRATEGY: THE TC WILL PROMOTE THE GUARANTEED EMERGENCY RIDE HOME PROGRAM OFFERED BY GOMAIN.

An Emergency Ride Home Program is a program that provides commuters who rideshare, take transit, bicycle, or use other alternative modes with a way to get home or to another location in the case of an emergency. Although the need for commuters to use a Guaranteed Ride Home is very rare, knowing it is available provides them with the assurance that their needs can be met. The regional standard for number of Emergency Rides Home is up to eight per calendar year. The TC will inform residents and employees of this program and its associated benefits as well as encourage employees through employee tenants to enroll in it.

Private Bikeshare

STRATEGY: PORTLAND SQUARE WILL MAINTAIN A FLEET OF BICYCLES TO BE USED BY RESIDENTS, EMPLOYEES, and GUESTS OF PORTLAND SQUARE.

If a bikeshare provider does not serve the area of the Portland Square development, Portland Square will maintain and make available a fleet of bicycles to allow residents, employees, and guests to make short distance trips in and around Downtown Portland. (At this moment, the City of Portland is reviewing proposals for a bikeshare provider.)

Telecommute and Flexwork Promotion

STRATEGY: THE TC WILL PROMOTE TO EMPLOYEE TENANTS TELECOMMUTE AND FLEXWORK OPPORTUNITIES.

In an effort to sway tenants to allow their employees to telecommute or generate trips outside of peak commuting hours, the TC will provide resources to tenant employees regarding telecommuting and flexwork opportunities. If requested, the TC will also connect tenant employees with a telecommute/flexwork consultant.

TDM Program Webpage – Residential Only

STRATEGY: THE TC WILL DEVELOP AND DEPLOY A WEBSITE FOR THE TDM PROGRAM.

The TC will develop a central webpage as part of the property's website to serve as a hub of transportation-related information for residents and visitors of the site. The webpage will be mobile ready and will contain links to site specific real-time travel information, area transit routes and schedules, rideshare matching systems, and other relevant resources for users to learn more about transportation options.

Implementation of TDM Program

The schedule and detailed steps to implement appropriate TDM program elements described in the following table:

Table 5 Implementation of TDM Strategies at Portland Square

Program Elements	Prior to First New Building Occupancy Permit	Ongoing
Incentives		
Pricing and Unbundling Parking for Office and Residential	X	X
Preferred and Free Carpool Parking Spaces	X	X
Pretax Transit and Vanpool Benefit Programs		X
Distribute a Commuter Incentive		X
Information and Communication		
Promote Real-Time Transit Information		X
Install Electronic Transportation Displays	X	X
Develop a Site-based Transportation Guide	X	X
Conduct Live-Work-Play Marketing		X
Promote Guaranteed Ride Home Program		X
Private Bikeshare		X
Telecommute and Flexwork Promotion		X
Develop a TDM Program Webpage (Residences)	X	X



6

Monitoring and Reporting Plan

Program monitoring and evaluation are important components of any successful TDM Program, because they provide a quantitative benchmark of the program's effectiveness in reducing single occupancy vehicle trips. The Transportation Coordinator can use the information gathered via the monitoring plan to direct the ongoing implementation of the TDM Program, allowing for adjustments and the introduction of new strategies. Furthermore, via regular periodic reports, Portland Square will provide evidence to the City of the applicant's diligence in implementing the program.

To ensure credibility and performance, the monitoring program should first assess whether the goals established in Section 4 are being met. There are different methods for collecting the data necessary to monitor a TDM Program, including surveys, program participation documentation, vehicle counts, and activity logs. Portland Square's TDM program monitoring will use vehicle trip counts, parking occupancy counts, and person surveys in evaluating the effectiveness of the program. Each of these tools is discussed below.

Peak Hour Vehicle Trip Counts

Peak hour vehicle trip counts directly relate to trip reduction goals and provide a very clear snapshot of the traffic impact of the development. Counts should be conducted to count the incoming and outgoing vehicle traffic generated by office and residential uses on site, via the development's garages and driveways. Counts should be conducted during a typical mid-week weekday during AM and PM peak hours, as identified by a traffic engineering analysis. Vehicle counts should be recorded in 15-minute intervals. Automated data collection, through for example gate counts, may be supplemented with manual/field collected turning movement counts at select locations, if necessary. The specifics of the traffic count collection should be coordinated with the City of Portland prior to the initiation of data collection activities.

Parking Occupancy Counts

Parking counts refer to a visual or automated account of occupied and/or empty parking spaces. These data are used to ensure that the amount of parking supply (spaces) on the redevelopment site is appropriate to meet peak hour parking demand (parked vehicles).

Parking counts will be overseen by the TC. In order to determine if parking is sufficient to meet the demands of the site, the TC shall determine, as evidenced by the parking counts, the highest percentage of spaces occupied during each hour in ten-hour period of 8:00 AM to 6:00 PM on a typical mid-week weekday. Prior to the initiation of data collection activities, the TC will confirm with the City of Portland the specifics of the parking data collection effort.

Commute Survey

The Transportation Coordinator will administer a survey of both employees and residents of Portland Square.

Surveys are intended to complement the parking occupancy counts by providing a qualitative understanding of how well TDM and Parking Management program elements are working. The survey will at a minimum ask employees and residents for the type and frequency of modes of transportation used in a typical week, reasons behind driving alone, incentives that would encourage drive alone respondents to use an alternative mode, and whether or not respondents participate in telecommuting and/or flex work hours.

The TC will conduct the surveys in either the spring or fall season of a given year (between April and May or between mid-September and early November), in a period that coincides with the parking occupancy data collection. The survey will be completed during a week without any holidays and when area schools are in session.

The surveys may be conducted by mail (hard copy questionnaire) and/or email (online questionnaire). Regardless of the type of survey ultimately used, a high degree of follow-up is recommended; this is very important to achieving a statistically significant response rate.

Report

Each year that monitoring is conducted, the TC will prepare a report summarizing TDM program status and monitoring results. In addition to reporting the results of the data collection, the report will detail (1) what/when strategies were implemented, (2) how many individuals participated, and (3) the lessons learned regarding the most effective strategies. (Please refer to the next section for the frequency of monitoring.)

The TC will submit the report to the City of Portland's TDM Program Manager (a position currently staffed in the Planning and Transportation Division of the Planning and Urban Development Department).

Monitoring Schedule

The monitoring and reporting schedule will have two phases:

- **Pre-Buildout** – Phase prior to the issuance of the occupancy permit for the development's final property.
- **Post-Buildout** – Phase following the issuance of the final occupancy permit for the development's property (full-build).

Pre-Buildout

Monitoring for the site should begin 12-months after issuance of the last occupancy permit for the first phase of development. Following the transition of each new phase, monitoring will reoccur 12-months after issuance of the last occupancy permit for that phase.

Monitoring should occur in the Spring (April–May) or Fall (September–November) when schools are in session. Following monitoring, the TC will submit results to the city prior to the end of the calendar year. If the monitoring indicates that goals are on track to meeting final goals (relative to the number of permits released), then no additional monitoring responsibility exists during that phase. If the property is not on track to meeting goals, then the TC will meet with the City of Portland Planning Department and discuss changes to the TDM Program. Monitoring would then reoccur within 12 months.

Post-Buildout

Twelve months after the final occupancy permit for the site has been released, monitoring would measure final site performance. If performance goals have been met, then monitoring will reoccur every 5 years. If performance goals have not been met, then the TC will meet with the City of Portland Planning Department and discuss changes to the TDM Program. Monitoring would reoccur within 12 months.

Table 6 summarizes the frequency of monitoring data collection and reporting in Pre-Buildout and Post-Buildout phases.

Table 6 Monitoring and Evaluation Schedule

Tool	Pre-Buildout	Post-Buildout
Peak Hour Vehicle Trip Counts	Within 12 months of the last occupancy permit for that phase. If goal is not met, monitoring is repeated within 12 months.	Within 12 months of the last occupancy permit for the development.
Parking Counts		If goal is not met, monitoring is repeated within 12 months.
Commute Survey		If goal is met, monitoring is repeated every 5 years.
Report	By the end of calendar year when monitoring has occurred.	By the end of calendar year when monitoring has occurred.



September 6, 2019

Mathew Grooms, AICP
Senior Planner
Planning Division
City Hall, 389 Congress Street, 4th Floor
Portland, ME 04101

RE: Portland Square Master Development Plan

Matt:

The North River design team has been busy assembling new materials to be uploaded to the City system today in preparation for our upcoming workshop #3 with the Planning Board on September 24th that will focus primarily on traffic and parking and any other remaining issues needing attention as we move toward scheduling of a public hearing. We are also submitting materials relating to building design based on the feedback we received from the board at our last workshop that was summarized in your 8/29 email to Pat Carroll.

In addition to the materials listed below, the traffic study materials prepared by Gorrill Palmer and the Traffic Demand Management Plan prepared by VHB will be submitted to the city on 9/13 per previous agreement with City staff.

Materials uploaded to the City system today are:

1. Memo prepared by VHB dated September 5, 2019 titled "Portland Square Master Development Plan Parking Analysis: Full Build Parking Demand"
2. Design Memo prepared by WSA dated September 6, 2019.
3. Revised Site Plan - "mdp L1.0 site plan 9.5.2019.pdf"
4. Revised Landscape Plan - "mdp L1.1 Landscape plan 9.5.2019.pdf"
5. Upper Site Plan - "mdp L1.2 Upper Site Plan 9.5.2019.pdf"
6. Plaza Enlargement Plan - "mdp L1.3 Plaza Enlargement Plan 9.5.2019.pdf"
7. Perspective View of Spring Street Plaza - "mdp plaza perspective 9.4.2019.jpg"
8. Rendering of Spring St Pedestrian Environment - "Spring St pedestrian render.pdf"
9. Rendering of Spring Street Plaza - "Spring St Plaza render.pdf"
10. Rendering of revised Building Setbacks - "N.E. Aerial View setbacks.pdf"
11. Rendering of revised Building Corner - "Corner Cross and Fore render.pdf"
12. Rendering of Cotton St Entrances - "Cotton St Entrances render.pdf"
13. Rendering of Fore St Entrances - "Fore St Entrances render.pdf"
14. Revised Ground Floor Plan at Lower Site - "Revised Grnd Plan.pdf"
15. Phase 1 Spring Street Building Elevation - "A2.1 Building Elevations"
16. Phase 1 Cotton St Building Elevation Upper - "A2.2 Building Elevations"
17. Phase 1 Cotton St Building Elevation Lower - "A2.3 Building Elevations"
18. Phase 1 Fore Street Building Elevation - "A2.4 Building Elevations"
19. Phase 1 Upper Cross St Building Elevation Lower - "A2.5 Building Elevations"
20. Phase 1 Upper Cross St Building Elevation Upper - "A2.6 Building Elevations"
21. Revised Building Section w/ Revised Setbacks - A3.1 Building Sections"

As usual, feel free to reach out to Pat or myself should you have any questions about the new materials or wish to discuss the project prior to the next workshop.

Best regards,

Steve

Stephen Weatherhead, Principal
Winton Scott Architects
5 Milk Street
Portland, ME 04101



Memorandum

To: Adam Myers, North River Companies
 Dan Jacques, Waterfront Maine and
 North River Companies
 Patrick Carroll, Carroll Associates

Date: September 5, 2019

Project #: 55265.00

From: Lourenço Dantas, AICP
 Senior Transportation Planner
 Sean Manning, PE
 Director, Transportation Planning
 and Operations

Re: Portland Square Master Development Plan Parking Analysis:
 Full Build Parking Demand

Overview

VHB has estimated the expected parking use of the proposed full-build of the Portland Square master development plan, in support of the Level III MDP review (PL-000599-2019). The planned 1,235 structured parking spaces should reasonably accommodate the expected typical weekday peak demand of 1,252 parked vehicles.

Portland Square is a phased, mixed-use redevelopment of a two-block area (repurposing the existing surface parking lots that currently serve One and Two Portland Square) in Portland's Downtown and Old Port district. As proposed, the project includes five separate phases, six new buildings (two of which are proposed over a new parking garage), and a development scheme consisting of a 135-room hotel (with restaurant/bar), up to 528,300 square feet of office space, approximately 48,100 square feet of retail space (exclusive of the hotel's restaurant/bar), up to 82 apartments (a mix of one- and two- bedroom units), and 1,235 structured parking spaces.

Expected Parking Demand

For estimating weekday parking demand for the proposed full build of the development, we referenced the current *Parking Generation Manual* (5th Edition, January 2019), produced by the Institute of Transportation Engineers (ITE) in collaboration with the National Parking Association (NPA). The manual provides reference data on the rate of parking space use per land use based on travel studies of a wide sample of development projects across various urban areas.

The key to using this manual as a guide is understanding the development type (defined by a land use code) and its setting (the built environment surrounding the development area). We referenced the following settings to represent the proposed development in the downtown/Old Port area of Portland:

- Land use code (LUC) (also applied in the traffic impact analysis, as reviewed by the City of Portland):
 - LUC 710, General Office Building
 - LUC 820, Retail/Shopping
 - LUC 220, Low-Rise Multi-family Residential while also reviewing LUC 221, Mid-Rise Multi-family Residential
 - LUC 310, General Hotel

99 High Street
 10th Floor
 Boston, MA 02110-2354
 P 617.728.7777

- Area type setting / location representing a "General Urban/Suburban" environment, while also reviewing "Dense Multi-Use Urban" environment:
 - a "General Urban/Suburban" setting is characterized by the following:
 - a "fully developed (or nearly so) [area] at low-medium density, with a mix of residential and commercial uses"
 - "Nearly all person trips that enter or exit the development site are by personal passenger or commercial vehicle."
 - a "Dense Multi-Use Urban" setting is characterized by the following:
 - "a fully developed area (or nearly so), with diverse and interacting complementary uses, good pedestrian activity, and convenient and frequent transit" where "the motor vehicle still represents the primary mode of travel to and from the area"
 - "a well-developed urban area outside a major metropolitan downtown or a moderate size urban area downtown"
 - "the land use mix typically includes office, retail, residential, and often entertainment, hotel, and other commercial uses."

Although Portland's Downtown/Old Port area does have characteristics of each of these two area types, the manual tends to have better sample (representation of projects) for land uses in the *General Urban/Suburban* setting. In other words, for many land uses in the *Dense Multi-Use Urban* setting, there are not enough data points for meaningful reference.

The manual presents an expected range of parking demand (rate or ratio) for each combination of land use and setting (area type). Below is a look at these ranges for each of the land use types in the proposed development, by setting (**Table 1**):

Table 1. Weekday Peak Period Parking Demand (Rate) by Land Use Code (LUC)/Area Type

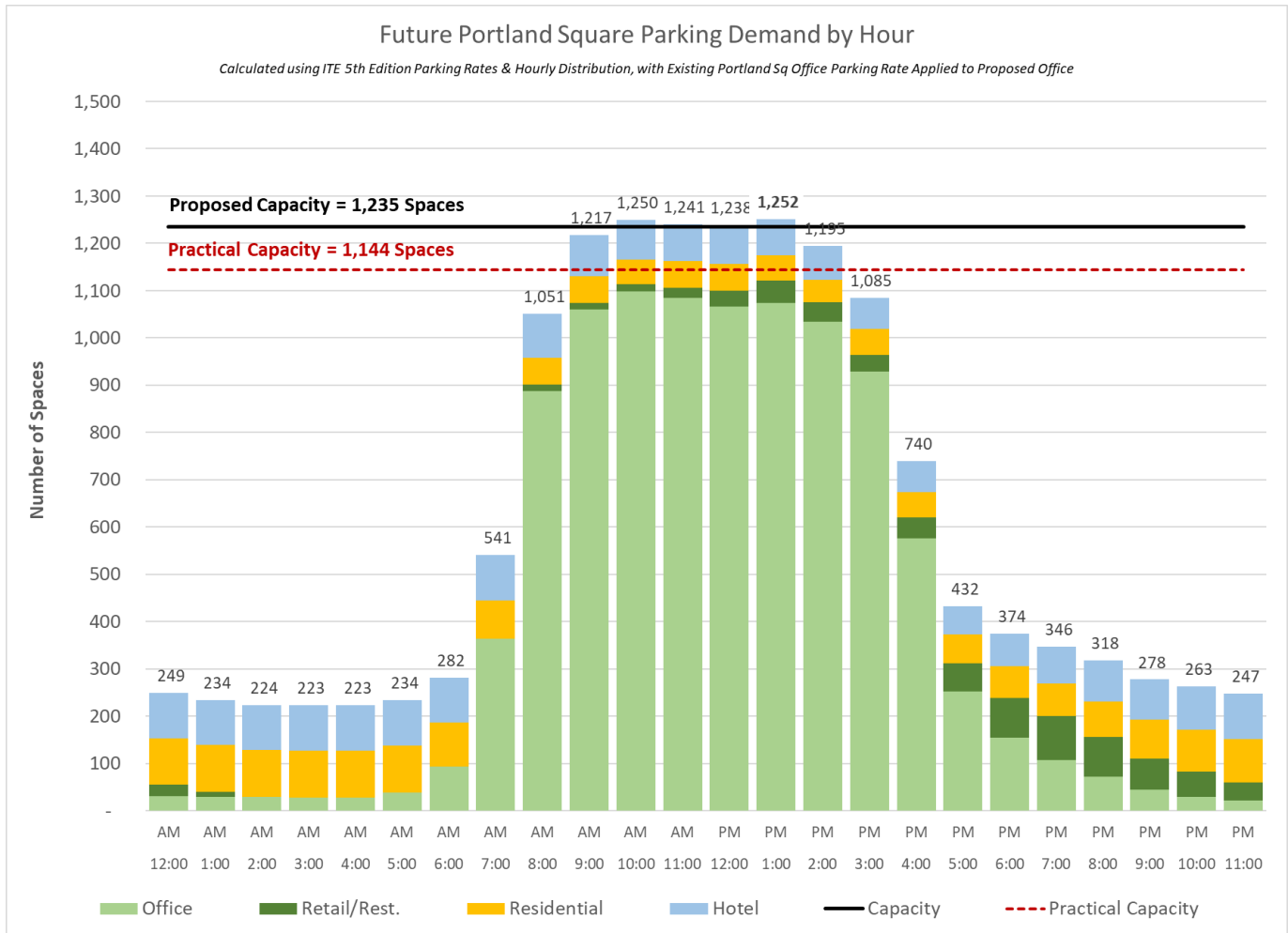
Land Use Code	Office LUC 710 General Office Bldg. <i>rate per ksf</i>	Retail LUC 820 Retail/ Shopping <i>rate per ksf</i>	Residential LUC 221 LUC 220 Mid-Rise Low-Rise Multi-Family Multi-Family <i>rate per unit rate per unit</i>		Hotel LUC 310 Hotel <i>rate per room</i>
General Urban/Suburban					
Average Rate	2.39	1.95	1.31	1.21	0.74
33rd %ile	2.30	1.99	1.13	1.03	0.64
85th %ile	3.30	3.68	1.47	1.52	0.99
Dense Multi-Use Urban					
Average Rate	1.63	<i>low sample</i>	0.90	0.76	<i>low sample</i>
33rd %ile	1.55	<i>low sample</i>	0.63	0.50	<i>low sample</i>
85th %ile	2.14	<i>low sample</i>	1.27	0.96	<i>low sample</i>
Existing Portland Sq. Parking Use (based on 2018-2019 use assessment)	2.08				
Applied Rate	2.08	1.95	1.21		0.72

ksf = one thousand square feet

For this exercise, we used a rate of 2.08 parking spaces per ksf of office, representing the current rate of parking utilization in the lots serving the existing Portland Square office buildings. For the retail and residential uses, we used the average rate for the respective land use in a general urban/suburban setting. For the hotel use, we use a slightly below average rate, based on a blend of hourly use among hotels in the two area types.

This parking use rate represents the peak use occurring during the day, which changes throughout each hour of the day, and thus, needs to be factored accordingly. When combining the peak rate with the percent of use by hour, Portland Square parking areas are expected to be at their fullest utilization, between 9:00 AM and 3:00 PM. At its peak, on a typical busy weekday the development is expected to generate a parking space use of about 1,252 spaces. (These hourly variations are reflected in **Figure 1.**)

Figure 1. Weekday Parking Demand by Hour by Land Use: Full-Build Portland Square



The mix of land uses within the Portland Square development tend to have complimentary parking demands when viewing the parking use by hour of the day. Office spaces are used during normal business hours, whereas residential and hotel spaces are in highest use in the overnight hours. Retail spaces are variable, depending on the type of establishment; the hours of peak use for the retail represented here indicate a greater use in the evening.

Final Remarks

Although the estimated peak use is slightly higher than the proposed capacity of the parking supply for the master development (and about 9 percent higher than the practical capacity), we believe the parking supply that is proposed is appropriate for the expected demand. Parking demand is variable—by day of the week, by time of year, by changes in occupancy of the buildings—thus these estimates are not a predictor of each day's parking use. Furthermore, these demand estimates are representative of demands that will be experienced on peak weekdays during peak activity months (which for office tend to be March, April, September, and October). There will be many weekdays over the course of the year where actual site parking demand conditions will be lower than that represented in Figure 1—and significantly lower than the provided parking supply.

The relatively short periods of time where demands do exceed supply can be proactively managed through the limiting of transient parkers, overall management of travelers through pricing strategies (higher rates reduce demand), and more proactive transportation demand management (TDM) incentives (to encourage commuters to use non-vehicular travel modes). We also believe that long-term parking trends will continue to decrease demand as more traditional work shifts continue to be replaced by other, alternative work schedules (e.g., partial work from home, four-day work weeks, etc.).



Portland Square Master Development Plan

DESIGN MEMO

September 6, 2019

Described below are responses to design issues raised at the Planning Board Workshop # 2 held on August 13th and subsequently summarized in an email from Matt Grooms to Pat Carroll dated August 29, 2019.

I. Provide justification for parking counts to support size of the upper block garage

In materials submitted to the City today is a memo prepared by VHB providing an analysis of anticipated parking needs for the full project build out. The memo indicates that the total number of proposed parking spaces (1,235) are necessary to meet expected peak demand hours generated by the proposed new development program and the two existing buildings on the two sites. It is for this reason that the parking use extends to the street face along Spring St and Cotton St and is not “wrapped” with active uses as the reduction in parking floor plate would significantly reduce parking counts. Active use “wraps” have been included at all streets within PAD zones.

2. Cut Back on the Number Of step backs along Fore St from 4 to 2, to create a simpler roof form.

The email from Matt indicates a reduction from 4 step backs to 2 but our recollection from the planning board workshop discussion is that we discussed that the original design that was submitted had only 2 steps and the resulting setback distance was quite significant causing an abrupt change in building form. It was also discussed that the current design with 4 set backs was too complex. It was our understanding that a middle ground approach of 3 setbacks was agreed to achieve a simpler form while also keeping the transitions between levels from becoming excessively large. A revised building section and rendering have been submitted showing the design change.

3. Eliminate the rounded corner treatment at the lower site office building.

The corner design has been revised to eliminate the rounded form previously submitted. See revised renderings submitted today.

4. Consider adding additional retail space to Spring Street , possibly at the corner as opposed to wrap along the entire frontage.

The design team agreed to further consider this option at the workshop. The structural implications of adding in retail at the corner is significant and it would cause the displacement of a needed exit stair and or building exhaust equipment currently occupying the corners. Those elements would have to be relocated causing additional loss of needed parking spaces. It is

also the applicant's understanding that retail wrap is not a requirement in a PAD encouragement zone. It is our intent to work with the City to find ways to accommodate and encourage food trucks locating along the Spring Street frontage and to provide adequate pedestrian enhancements to make the sidewalk environment inviting and active.

5. Explore whether or not green screen is appropriate treatment for Spring Street, consider as suggested, artistic decorative metal panels screening as an alternative.

Where the parking meets the street, landscaping, planters and green screens have been proposed as recommended by the zoning ordinance in non-PAD areas. The design team is also open to the use of artist designed decorative metal screening panels in conjunction with or in lieu of green screens. It is anticipated that these elements will be further developed and reviewed during the Level III Site Plan review process for the Phase 1 project.

6. Are there opportunities to more formally encourage food truck usage of Spring St? This involves work in the R.O.W. so perhaps may involve broader conversation with DPW, but has received positive feedback from the board.

As stated above, the applicant is very supportive of working with the City to find optimal solutions to encouraging food truck activity. The team will initiate discussion with appropriate city staff and departments to determine what is possible as a shared effort during the Level III site plan process.

7. Ensure consistency between floor plans/renderings/site plan regarding entrances, corner treatments, etc.

The renderings have been updated to coordinate with the previously submitted plans in terms of entrance locations. A revised ground level plan for the lower block has been submitted that shows entrances and corner treatments that correspond with the renderings.

8. Will the lower block corridor be consistent with CPTED principles?

All proposed public spaces including the lower block plaza, the Spring Street plaza, and the existing spaces behind 1 & 2 Portland Square will be designed in conformance with CPTED principles including proper lighting, surveillance elements, and landscaping that does not provide hiding places and isolated spaces that are not visible to the surrounding area. More specific descriptions of how the standards will be met will be addressed during the Level III Site Plan Review process.

Relationships.
Responsiveness.
Results.



REVISED
Traffic Permit
Application
Request for
Scoping Meeting
Mixed-Use
Development
Portland, Maine

PREPARED FOR:
North River Company
224 12th Avenue
New York, NY 10001

April 2019

SUBMITTED BY:
Gorrill Palmer
707 Sable Oaks Drive
Suite 30
So. Portland, ME 04106
207.772.2515



707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

April 2, 2019

Mr. Matthew Grooms
City of Portland Planner
389 Congress Street, 4th Floor
Portland, Maine 04101

RE: Application for Traffic Movement Permit
Portland Square
Portland, Maine

Dear Matthew,

On behalf of North River Company (applicant), Gorrill Palmer (GP) is pleased to submit this Traffic Movement Permit Application for a mixed use project located in the Portland Square area in downtown Portland.

We have attached the following information in support of this application:

- Sections 1-6
- Signed Application Form
- Notice of Intent to File
- List of Abutters
- \$1500 application fee

We look forward to scheduling a Scoping Meeting in the near future.

Sincerely,

Gorrill Palmer

Randy Dunton, PE, PTOE
Project Manager

Copy: Adam Myers, North River Company
Patrick Carroll, Carroll Associates
Steve Weatherhead, Winton Scott Architects
Randy Illian, MaineDOT

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE
ID# _____

12/99

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 (check all that apply):

Traffic 100-200 PCE's ☐

Traffic 200 + PCE's ☒

Name of Applicant: Mr. Adam K Myers, North River Company

Address: 224 12th Avenue New York, NY 10001

Telephone: _____

Name of local contact or agent: Randy Dunton – Gorrill Palmer

Address: 707 Sable Oaks Drive, South Portland, ME 04106

Telephone: (207) 772-2515

Name and type of development: The development consists of 287,786 sf of office space, 35,613 sf of retail, 76 dwelling apartment units, and a 135 room hotel.

Location of development including road, street, or nearest route number: The upper lot is located on the block bounded by Spring Street, Cross Street, Fore Street, and Cotton Street. The lower lot is located on the block bounded by Fore Street, Cross Street, Commercial Street, and Center Street.

City/Town/Plantation: Portland County: Cumberland Tax Maps: 38 Lots: B001, B002, B003, G001, G003, G005, and G007

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)? No

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 _____ 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?

None Known

Existing DEP or MDOT permit number (if applicable): None Known

Name(s) DOT staff person(s) contacted concerning this application _____

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applicants: _____

N/A

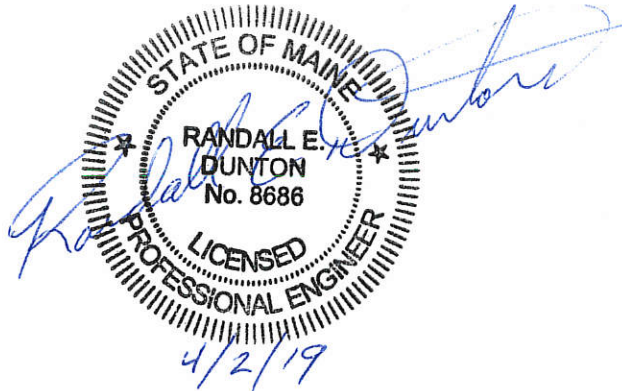
Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE
ID# _____
Total Fees: _____
Date Received: _____

CERTIFICATION

This person responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the applicant for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: *Randall E. Dunton* Re/Cert/Lic No.: _____
Name (print): **Randall E. Dunton** Engineer: **Maine PE # 8686**
Date: *April 2, 2019* Other: _____



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."

Signature of applicant

Date

NOTICE OF INTENT TO FILE

Please take notice that:

Mr. Adam K Myers
North River Company
224 12th Avenue
New York, NY 10001

is intending to file a MaineDOT Traffic Movement Permit application with the City of Portland, who has delegated review authority to administer the application, pursuant to the provisions of 23 M.R.S.A. §704 – A on or about April 5, 2019.

This application is for:

The development of three proposed mixed use buildings in Portland, Maine. The site is located on two blocks, the upper lot and the lower lot. The proposed development is to include two multi-level parking garages, one on each lot, 287,786 sf of office space, 35,613 sf retail space, 76 dwelling apartment units, and a 135 room hotel. The hotel is under different ownership than the rest of the site, but was owned by the same owner within the last ten years and has been included in this application due to common scheme of development. The project is forecast to generate 850 and 787 AM and PM weekday peak hour of the generator trip ends respectively. The entire project is expected to be phased with full completion of all phases by end of 2029.

At the following location:

The upper lot is located on the block bounded by Spring Street, Cross Street, Fore Street, and Cotton Street and the lower lot is located on the block bounded by Fore Street, Cross Street, Commercial Street, and Center Street in Portland, Maine.

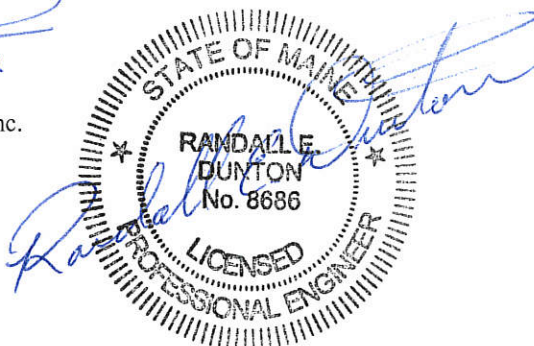
A request for a public hearing must be received by the City, in writing no later than 20 days after the application is found by the City to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the Department of Transportation's office in Scarborough (Region 1) during normal working hours. A copy of the application may also be seen at the municipal offices in Portland, Maine.

Written public comments may be sent to the following address: Attention Matthew Grooms, Planning Department, City of Portland, 389 Congress Street, Portland, ME 04101.



Randall Dunton, P.E., PTOE
Gorrill-Palmer Consulting Engineers, Inc.



4-2-19



Portland Square List of Direct Abutters

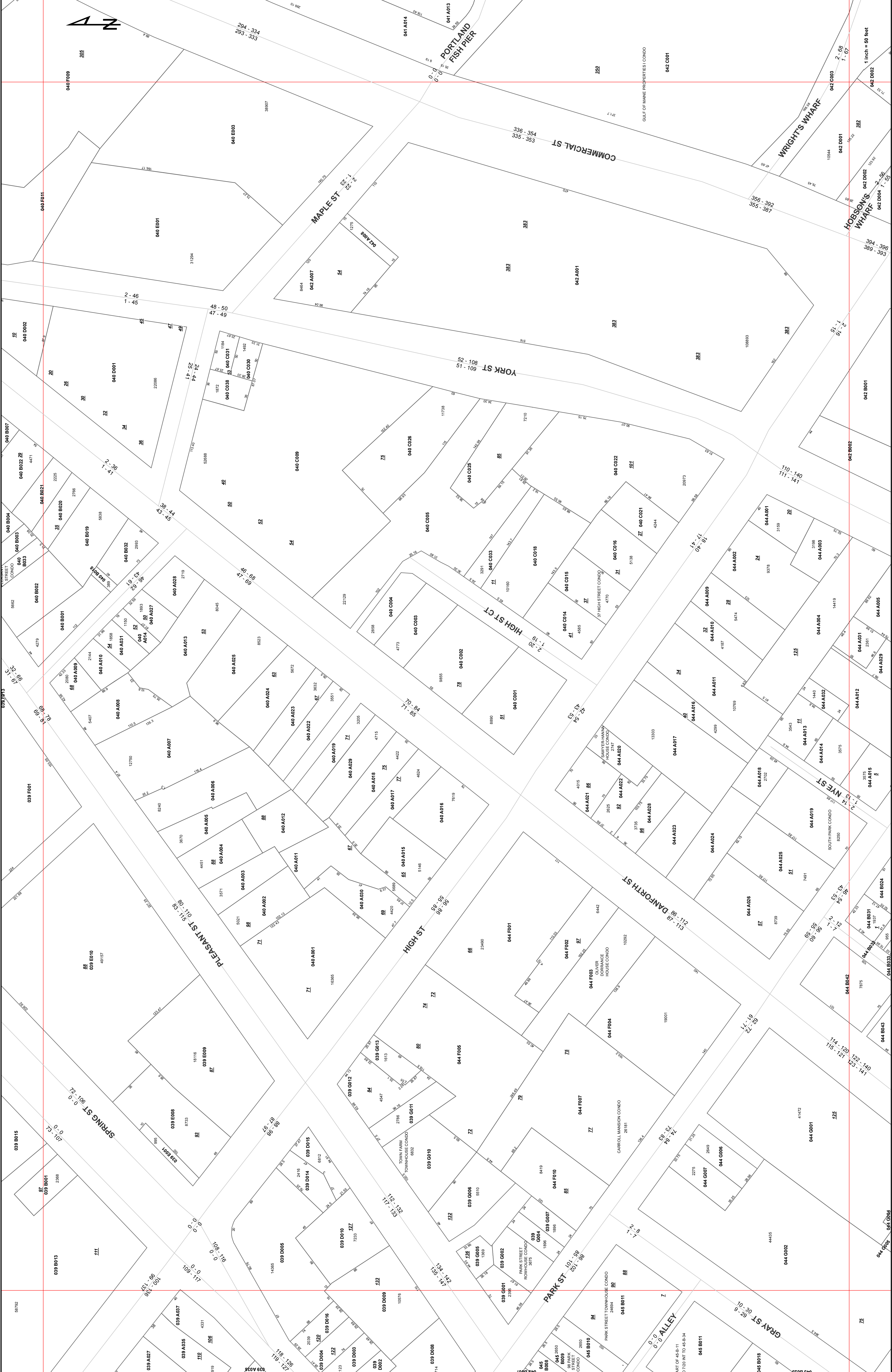
Tax Map	Address	Name	Mailing Address
032 I 007001	0 Canal Plaza	Cow Plaza 1 LLC	100 Commercial St, Portland, ME 04101
032 I 033001	2 Canal Plaza	Cow Plaza 1 LLC	100 Commercial St, Portland, ME 04101
032 I 036001	1 Canal Plaza	Cow Plaza 1 LLC	100 Commercial St, Portland, ME 04101
032 I 039001	40 Union St	Central Maine Power Co	One City Center, 4 th Floor, Portland, ME 04101
032 I 040	44 Exchange Street	Cow Plaza 1 LLC	100 Commercial St, Portland, ME 04101
032 P 001001	2 City Center	Two City Center LLC	157 Deer Street, Portsmouth, NH 03801
032 P 003001	4 City Center	Four City Center Properties, LLC	4 Milk Street, Ste 103, Portland, ME 04101
032 P 005	0 Spring Street	City of Portland	389 Congress St, Portland, ME 04101
038 B 001001	1 Portland Square	North River IV, LLC	221 12 th Ave, NY, NY 10001
038 B 001007	1 Portland Square	PS One Realty, LLC	One City Center, 4 th Floor, Portland, ME 04101
038 B 002	2 Portland Square	North River IV, LLC	221 12 th Ave, NY, NY 10001
038 C 008	28 Cotton Street	City of Portland	389 Congress St, Portland, ME 04101
038 C 009	24 Cotton Street	Casco View Holdings II, LLC	PO Box 1137, Portland ME 04101
038 C 010, 011, 012	8 Cotton Street	Casco View Holdings II, LLC	PO Box 1137, Portland ME 04101
038 C 016, 017, 034	8 Cotton Street	Casco View Holdings II, LLC	PO Box 1137, Portland ME 04101
038 E 019	52 Center Street	MH & RB LLC	100 Commercial St, Portland, ME 04101
038 F 008	470 Fore Street	Dictar Associates II	470 Fore St, St 400, Portland, ME 04101
038 F 019, 020	Cross Street	Casco View Holdings II, LLC	PO Box 1137, Portland ME 04101
038 G 00202A	269 Commercial St, Unit 2A	Eugene J and Diane H Gosselin	269 Commercial St, Unit 2A, Portland, ME 04101
038 G 00202B	269 Commercial St, Unit 2B	Maxwell Poe	269 Commercial St, Unit 2B, Portland, ME 04101
038 G 00202C	269 Commercial St, Unit 2C	Paul Schneider	269 Commercial St, Unit 2C, Portland, ME 04101
038 G 00202D	269 Commercial St, Unit 2D	Jean S and Virgil Cumming	269 Commercial St, Unit 2D, Portland, ME 04101
038 G 00202E	269 Commercial St, Unit 2E	Jacques K Devillier	269 Commercial St, Unit 2E, Portland, ME 04101
038 G 00202F	269 Commercial St, Unit 2F	Anne-Marie and Steven McKenzie	6 Serendipity Lane, North Yarmouth, ME 04097
038 G 00203A	269 Commercial St, Unit 3A	Peter J. Albee	1885 Chinook Trail, Wonalancet, NH 03897
038 G 00203B	269 Commercial St, Unit 3B	Lee P Rice	5224 Sunnysdale Cir S, Sarasota, FL 34233
038 G 00203C	269 Commercial St, Unit 3C	Charles H Norchi	269 Commercial St, Unit 3C, Portland, ME 04101
038 G 00203D	269 Commercial St, Unit 3D	Wilfred R Hudson	PO Box 718, Wells, ME 04090
038 G 00203E	269 Commercial St, Unit 3E	Henry C Conklin	PO Box 219, Islesboro, ME 04848
038 G 00203F	269 Commercial St, Unit 3F	Harold W Tucker III	41 Mallett Dr, Topsham, ME 04086
038 G 00204A	269 Commercial St, Unit 4A	Susan Sernoffsky	269 Commercial St, Unit 4A, Portland, ME 04101

038 G 00204B	269 Commercial St, Unit 4B	269 Commercial St, LLC	PO Box 8211, Lewiston, ME 04240
038 G 00204C	269 Commercial St, Unit 4C	John J McDevitt IV	269 Commercial St, Unit 4C, Portland, ME 04101
038 G 00204D	269 Commercial St, Unit 4D	Sue Ellen Kimball	269 Commercial St, Unit 4D, Portland, ME 04101
038 G 00204E	269 Commercial St, Unit 4E	Kate Lowry	8 Bowdoin Drive, Falmouth, ME 04105
038 G 00204F	269 Commercial St, Unit 4F	Rocket Wong and Acuna M Lilliana	269 Commercial St, Unit 4F, Portland, ME 04101
038 G 00205A	269 Commercial St, Unit 5A	Eric O Berg, Jr/ Eric O Berg Revocable Trust	1190 Mountain Laurel Drive, Watkinsville, GA 30677
038 G 00205B	269 Commercial St, Unit 5B	Jeffery H Tarbox	269 Commercial St, Unit 5B, Portland, ME 04101
038 G 00205C	269 Commercial St, Unit 5C	Robert A Caldwell	269 Commercial St, Unit 5C, Portland, ME 04101
038 G 00205D	269 Commercial St, Unit 5D	Brenna L Muehle	269 Commercial St, Unit 5D, Portland, ME 04101
038 G 00205E	269 Commercial St, Unit 5E	Christopher F Flaherty	PSC 851 Box 490, FPO AE 09834
038 G 00205F	269 Commercial St, Unit 5F	Anthony W. Foster	269 Commercial St, Unit 5F, Portland, ME 04101
038 G 002267	269 Commercial St	267 Commercial Street, LLC	1297 Broadway, South Portland, ME 04106
038 G 002271	269 Commercial St	JKC LLC	267 Warren Ave, Portland, ME 04103
040 B 017	4 Pleasant Street	Archie S and Matilda M Giobbi	1184 Washington Ave, Portland, ME 04103
040 F 009	305 Commercial St	Baxter Place, LLC	723 Riverside St, Portland, ME 04103
040 F 011	14 York St	J B Brown and Sons	PO Box 207, Portland, Me 04102
041 A 012, 014	280 Commercial St	City of Portland	384 Congress St, Portland, ME 04101
041 A 0121	284 Commercial St	Freedom Fish, LLC	450 Commercial St, Portland, ME 04101

E9NW

E9NE

E10NW



E9SW

O7NE

D9NW

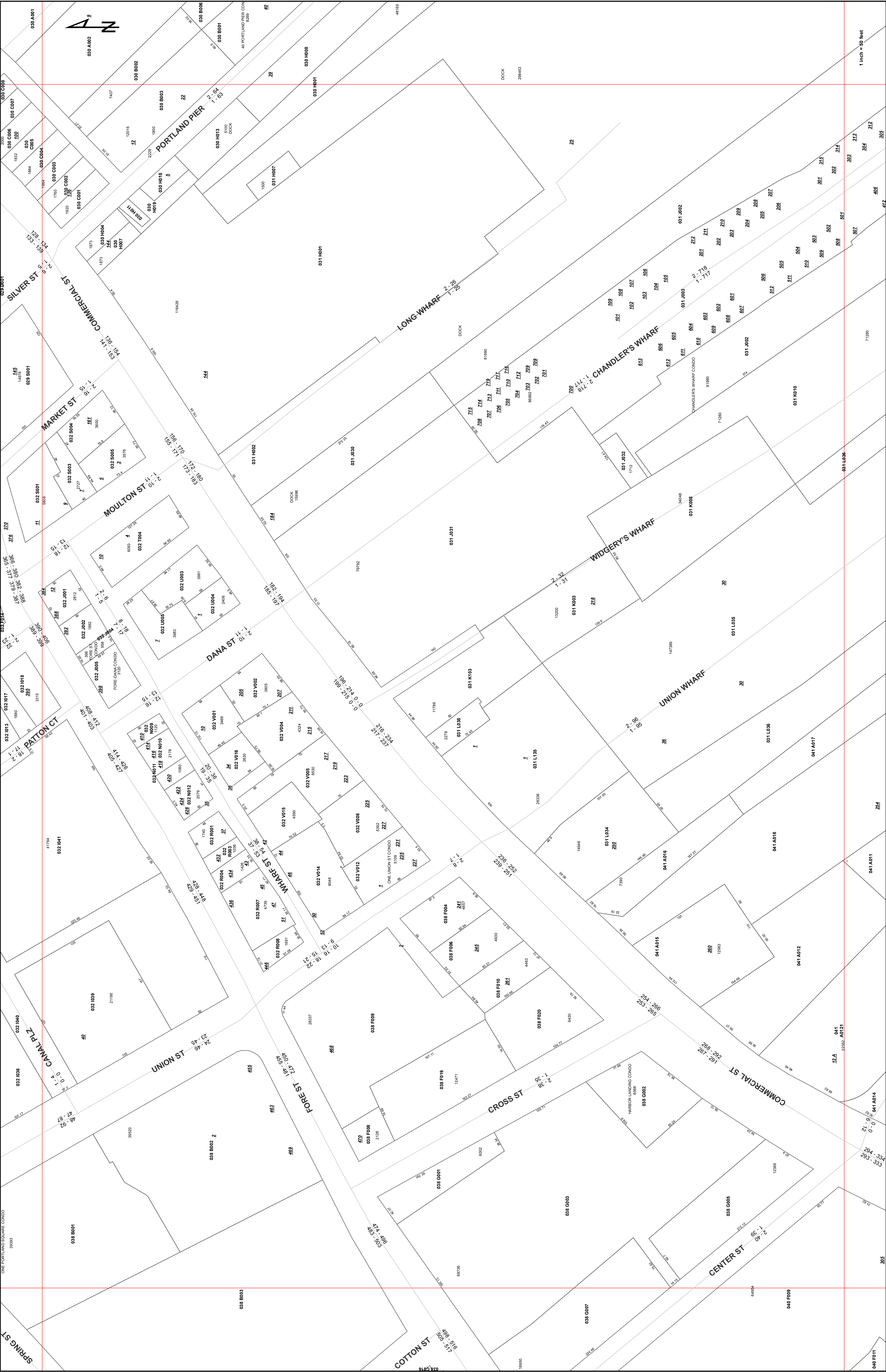
D9NE

Index Number - E9SE

Tax Map Index: <http://www.portlandassessors.com/taxmaps.htm>

April 1 2012 fy 2013

F05E F10SW F10SE



ESSE ES10W ES10NE Index Number - E10NW Tax Map Index: <http://www.portlandassessors.com/taxmaps.htm> April 1 2012 fy 2013

Section I Site and Traffic Information

I.A. Site Description and Site Plan

The site is located on two adjacent blocks, referred to as the upper lot and lower lot, located in Portland, Maine. The upper lot is located on the block bounded by Spring Street, Cross Street, Fore Street, and Cotton Street. The lower lot is located on the block bounded by Fore Street, Cross Street, Commercial Street, and Center Street. The aggregate site is identified on City Tax Map 38, Lots B001, B002, B003, G001, G003, G005, and G007. The proposed site plan is included in Attachment IA.

It should be noted that the lower lot includes the parcel for the proposed Center Street Hotel. The lower lot was subdivided and the Center Street Hotel parcel is under different ownership than the rest of the site; however, since the block was subdivided within the last five years, the proposed Center Street Hotel is required to be included in this application due to common scheme of development.

I.B. Existing and Proposed Site Uses

The following describes the existing and proposed uses in each lot:

Upper Lot

The existing upper lot is accessed through an enter only driveway at the end of Cross Street and an exit only driveway onto Cross Street to the south of the existing entrance. The existing upper lot is currently a 205 space surface parking lot that is proposed to be eliminated.

The upper lot is proposed to include a multi-level parking garage with approximately 1,125 parking spaces and the following land uses:

- Office: 205,086 sf
- Retail: 5,964 sf
- Apartments: 18 Dwelling Units

The upper lot is proposed to be accessed via four full movement accesses onto the site; one full movement into the parking garage and one service access one onto Cross

Street, one full movement into the parking garage onto Cotton Street, and one full movement into the parking garage onto Spring Street.

Lower Lot

The existing lower lot has one full movement access on Center Street and is a 306 space parking lot that is proposed to be eliminated.

The redevelopment is proposed to include a multi-level parking garage with approximately 194 spaces and the following land uses:

- Office: 82,700 sf
- Retail: 29,649 sf
- Apartments: 58 Dwelling Units
- Center Street Hotel: 135 Rooms

The lower lot is proposed to include three site accesses; one full movement into the parking garage, one potential minor passenger vehicle access onto Cross Street, and one service access onto Center Street.

I.C. Site and Vicinity Boundaries

A site location map showing the development area is included in Attachment IB. The site is bounded by Spring Street to the north, Center Street to the west, Commercial Street to the south, and Cross Street to the east.

I.D. Proposed Uses in the Vicinity of the Proposed Development

Projects that have been approved but are not yet occupied as well as projects for which applications have been filed and are ahead of this application in the approval process are required to be included in the predevelopment traffic volumes for this project. Based on conversations with Portland City Staff, there are several projects in the vicinity of the site that should be considered. The trip generation for the following projects will need to be included in background traffic for this project:

- 383 Commercial Street
- Canal Landing
- 184 Commercial Street (Potential)
- Eastern Waterfront TMP

The trip generation for these projects will be included in the Traffic Impact Study, to be completed after the scoping meeting is held.

I.E. Trip Generation

The trip generation for the site was calculated using the Institute of Transportation Engineers' (ITE) publication, *Trip Generation*, Seventh Edition. More recent editions of ITE are available; however, the Seventh Edition is the most recent edition accepted by MaineDOT. The trip generation for the upper and lower lots combined have been based on the following uses and sizes:

- Office: 287,786 sf
- Retail: 35,613 sf
- Apartments: 76 Dwelling Units
- Hotel: 135 Rooms

The following summarizes the ITE Land Use Codes (LUCs) used to calculate the trip generation for the proposed site:

- LUC 710 – General Office Building
- LUC 814 – Specialty Retail
- LUC 220 – Apartment
- LUC 310 – Hotel

The trip generation calculations are included in Attachment IC. The following table summarizes the ITE trip generation for the site:

ITE Trip Generation Summary

Building Use	Size	ITE Trip Generation				
		AM Adj St	PM Adj St	AM Gen	PM Gen	Sat Gen
Upper Lot						
General Office	205,086 sf	333	320	333	320	88
Specialty Retail	5,964 sf	4	16	41	30	21
Apartment	18 Units	9	11	10	12	9
Subtotal		346	347	384	362	118
Lower Lot						
General Office	82,700 sf	161	155	161	155	43
Specialty Retail	29,649 sf	22	80	203	149	106
Apartment	58 Units	30	36	32	39	30
Hotel	135 Rooms	76	80	70	82	97
Subtotal		289	351	466	425	276
Site Total		635	698	850	787	394

As shown in the table, the combined site is forecast to generate 850 trip ends during the AM peak hour of the generator and 787 trip ends during the PM peak hour of the generator. A trip end is a trip into or out of the site, thus a round trip is equal to two trip ends. The site is forecast to generate over 99 trip ends during a peak hour, so a MaineDOT Traffic Movement Permit (TMP) is required. Additionally, since the site is forecast to generate greater than 199 trip ends during a peak hour, Section 7 (Traffic Impact Study) is required. A Traffic Impact Study will be completed and submitted after the Scoping Meeting is held.

I.E. Trip Generation Reductions

Although the proposed project requires a MaineDOT TMP based on the ITE trip generation of 850 trip ends and 787 trip ends during the AM and PM peak hours of the generator, respectively, the traffic that is forecast to impact the adjacent roadway network is anticipated to be lower than the ITE trip generation. Since the project is a mixed use development with complementary uses and it is located in a downtown area, a shared use reduction and an “other modes” reduction can be applied to the ITE trip generation. The following summarizes these reductions and their impact on the trip generation.

Shared Use Reduction

The National Cooperative Highway Research Program (NCHRP) 684 Internal Capture Estimation Tool has been used to estimate the traffic that will visit more than one

destination without leaving the site. The NCHRP 684 spreadsheet uses the ITE forecast trip generation for each type of land use (office, retail, residential, and hotel) and estimates the trips that will travel between two uses without leaving the site. This yields an internal trip capture percentage, which is the percentage of trip ends that will travel between two uses. The following tables summarize the AM and PM peak hour internal trip capture percentages for the proposed site:

AM Peak Hour Adjacent Street NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	445	49	4%	10%	17	5	22
Retail	15	11	40%	27%	6	3	9
Residential	8	31	0%	3%	0	1	1
Hotel	45	31	0%	45%	0	14	14
Total	513	122	4%	19%	23	23	46

*These values are taken directly from the NCHRP spreadsheets (Attachment 1C), which may not match exact calculations due to rounding in the spreadsheet.

PM Peak Hour Adjacent Street NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	71	404	3%	1%	2	4	6
Retail	43	53	19%	34%	8	18	26
Residential	30	17	50%	35%	15	6	21
Hotel	44	36	9%	3%	4	1	5
Total	188	510	15%	6%	29	29	58

*These values are taken directly from the NCHRP spreadsheets (Attachment 1C), which may not match exact calculations due to rounding in the spreadsheet.

AM Peak Hour Generator NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	445	49	7%	29%	32	14	46
Retail	123	121	15%	15%	18	18	36
Residential	13	29	0%	3%	0	1	1
Hotel	39	31	0%	55%	0	17	17
Total	620	230	8%	22%	50	50	100

*These values are taken directly from the NCHRP spreadsheets (Attachment 1C), which may not match exact calculations due to rounding in the spreadsheet.

PM Peak Hour Generator NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	71	404	4%	2%	3	9	12
Retail	99	80	19%	25%	19	20	39
Residential	30	21	50%	52%	15	11	26
Hotel	49	33	10%	6%	5	2	7
Total	249	538	17%	8%	42	42	84

*These values are taken directly from the NCHRP spreadsheets (Attachment 1C), which may not match exact calculations due to rounding in the spreadsheet.

The NCHRP 684 spreadsheet does not have information for the Saturday peak hour of the generator. To estimate a reduction for a Saturday, the AM and PM trip capture percentages were averaged and applied to the Saturday peak hour of the generator. This resulted in a Saturday internal trip capture of approximately 10% of total trips which results in a reduction of 38 trip ends (20 entering and 18 exiting).

The following table summarizes the reduced trip generation for the proposed site due to shared use trips:

Reduced Trip Generation Summary

Building Use	Trip Generation				
	AM Adj St	PM Adj St	AM Gen	PM Gen	Sat Gen
ITE Total	635	698	850	787	394
Shared Use Reduction	-46	-58	-100	-84	-38
Reduced Site Total	589	640	750	703	356

As shown in the table, the proposed site with the shared use reduction is forecast to generate 750 trip ends and 703 trip ends during the AM and PM peak hours of the generator respectively.

Other Modes of Transportation Reduction

Since the site is located in an urban environment, it is expected that a portion of site traffic will use alternative modes of transportation to get to and from the site. These other modes could include options such as transit, biking, or walking. A trip generation reduction due to other modes of transportation has been applied to the proposed site trip generation with the shared use reduction. The other modes reduction has been evaluated separately for the non-residential site uses and the proposed hotel.

Residential: The other modes reduction for residential land uses is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract for the City of Portland. Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, used this data to create maps (attached) that show the estimated percentage of workers living in each Census Tract in the Greater Portland area that use each mode of transportation to travel to work. The site is located in Census Tract 3, so the reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work by the estimated total number of working people in Census Tract 3. This calculation yields a reduction of 49.7%.

Non-Residential: The other modes reduction for non-residential land uses was based on 2010 Consensus Transportation Planning Products (CTPP) means of transportation to work data for Census Tract 3, where the site is located. This data indicates that the ratio of cars to workers is 82% in the area (calculations attached), indicating that approximately 18% of employees use modes of transportation other than a car to commute to work. A reduction of 18% was applied to the non-residential uses

Hotel: There is limited data available for hotels, so a conservative reduction of 10% was used for the hotel trip generation.

The following table summarizes the other modes of transportation reduction for the site trip generation:

Other Modes of Transportation Reduction Summary

Trip Generation	AM Adj St	PM Adj St	AM Gen	PM Gen	Sat Gen
Site Trip Generation (After Shared Use Reduction)					
Residential Trip Gen	38	26	41	25	35
Non-Residential Trip Gen	489	539	656	603	233
Hotel Trip Gen	62	75	53	75	88
Subtotal	589	640	750	703	356
Other Modes Reduction					
Residential Reduction	19	12	20	12	17
Non-Residential Reduction	88	96	118	108	42
Hotel Reduction	7	7	5	7	9
Total Reduction	114	115	143	127	68
Reduced Trip Generation	475	525	607	576	288

As shown in the table, the forecast trip generation for the proposed site that will be added to the adjacent roadway network, is 607 trip ends during the AM peak hour of the generator and 576 trip ends during the PM peak hour of the generator.

I.F Trip Distribution

Based on ITE's *Trip Generation*, the NCHRP 684 Internal Capture, and the other modes of transportation reduction, the following trip distribution is anticipated for the site trip generation that is forecast to be added to the adjacent roadway network:

- AM Peak Hour Adjacent Street: 402 in / 73 out
- PM Peak Hour Adjacent Street: 130 in / 395 out
- AM Peak Hour Generator: 467 in / 140 out
- PM Peak Hour Generator: 170 in / 406 out
- Saturday Peak Hour Generator: 153 in / 135 out

I.G. Trip Composition and Assignment

Based on ITE's *Trip Generation Handbook*, the trip composition anticipated for the site is approximately 35% pass by for the retail. All other uses are assumed to be primary. Primary trips are made with the sole purpose of going to or from the site, while pass-by trips occur when drivers stop at the site on their way to or from another destination.

The trip assignment has been based on the location of the site driveways, existing traffic patterns identified from a combination of AADT values provided in MaineDOT's MapViewer tool and turning movement counts completed at the intersections in the vicinity of the site and then adjusted to design hour volumes (DHV). The adjustments from raw volumes to adjusted volumes are shown on the attached figures.

The preliminary AM and PM Trip Assignment is shown on Figure 6 in Attachment IB.

I.H. Attachments

Attachment IA – Site Survey, Proposed Site Plan

Attachment IB – Site Location Map, Trip Assignment Diagrams

Attachment IC – Trip Generation Calculations

Attachment 1A

Site Survey

Proposed Site Plan

1. ALTA/ACSM LAND TITLE SURVEY FOR PORTLAND SQUARE LIMITED PARTNERSHIP, TWO PORTLAND SQUARE, CITY OF PORTLAND, COUNTY OF CUMBERLAND, STATE OF MAINE, BY STEVENS, MORTON, ROSE & THOMPSON DATED DEC. 11, 1989. REVISED THROUGH DEC. 11, 1992.
2. SURVEY FOR ATBRO CORP. DATED JULY 1981 BY H.I. & E.C. JORDAN.

12. ALTA/ACSM LAND TITLE SURVEY ON FORE STREET PORTLAND, MAINE, MADE FOR MGI, ONE PORTLAND SQUARE PORTLAND, MAINE, BY OWEN HASKELL, INC. DATED APRIL 14, 1999. REF. 7

13. ALTA/ACSM LAND TITLE SURVEY ON FORE STREET PORTLAND, MAINE, MADE FOR THIMOTHY OWEN, DATED APRIL 14, 1999. REF. 7

14. ALTA/ACSM LAND TITLE SURVEY, BOIA PROJECT, ONE PORTLAND SQUARE, TWO PORTLAND SQUARE AND PORTLAND SQUARE PARKING, PORTLAND, MAINE, SHEETS 1 & 2, DATED SEPT. 30, 2005. LAST REVISED FEB. 7, 2006 AND MARCH 3, 2006 BY OWEN HASKELL, INC. DATED APRIL 14, 1999. REF. 7

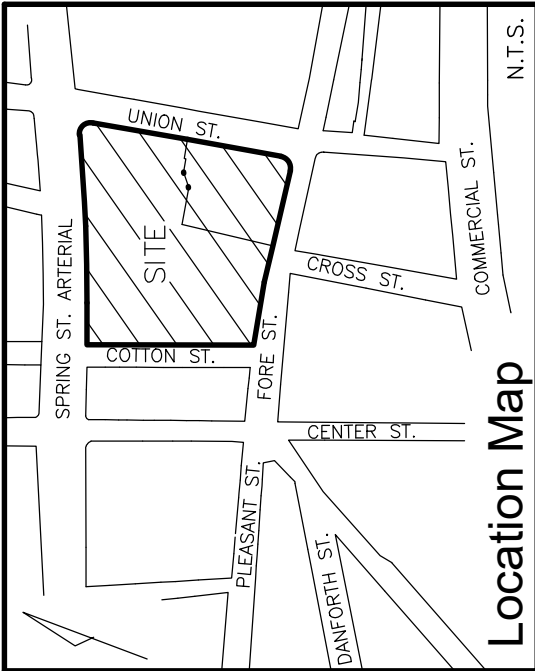
15. ALTA/ACSM LAND TITLE SURVEY, BOIA PROJECT, ONE PORTLAND SQUARE AND PORTLAND SQUARE AND PORTLAND SQUARE PARKING, PORTLAND, MAINE, MADE FOR NORTH RIVER IV LLC FEBRUARY 12, 2015 BY OWEN HASKELL, INC.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPREHEND ALL UTILITIES. 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 EXCAVATED ANY OF THE UTILITIES SHOWN. AT LEAST ONE OF THE THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION, THE SURVEYOR SHALL BE VERIFIED PRIOR TO ANY CONSTRUCTION. THE SURVEYOR SHALL BE VERIFIED PRIOR TO ANY CONSTRUCTION.

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 230051 0013, WHICH BEARS AN EFFECTIVE DATE OF JULY 17, 1986 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

1. OWNER OF RECORD: NORTH RIVER IV LLC, 224 12TH AVENUE, NEW YORK, NY 10001 C.C.R.D. BOOK 32163 PAGE 33

3. THE LOCUS IS SHOWN AS LOT 1, 3, 5 BLOCK G ON THE CITY OF PORTLAND ASSESSORS MAP 38.



	IRON PIPE OR ROD FOUND
	GRANITE MONUMENT FOUND
	WATER VALVE
	HYDRANT
	VALVE
	UTILITY POLE
	LIGHT POLE
	MANHOLE
	CATCH BASIN
	BORING
	DEDICIOUS TREE
	CONFEROUS TREE
	CURB
	SANITARY SEWER
	STORM DRAIN
	SECURITY LIGHT
	ELECTRIC
	PNEUMATIC TUBE
	WATER LINE
	TELEPHONE LINE
	COMMUNICATION CABLE
	1" CONTOUR
	NOW OR FORMERLY
	DEED BOOK/PAGE
	CONCRETE

FORE STREET, CROSS STREET, COMMERCIAL STREET
& CENTER STREET, PORTLAND, MAINE

Drawn By	RLW	Date	DECEMBER 5, 2016	Job No.	2016-129 P
Trace By	JWS	Scale	1" = 30'	Drwg. No.	2
Check By	JWS	Book No.	FILE		

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

JOHN W. SWAN, PLS NO. 1038

DATE _____ JOHN W. SWAN, PLS NO. 1038

Plan References:

1. ALTA/ACSM LAND TITLE SURVEY FOR PORTLAND SQUARE LIMITED PARTNERSHIP, PORTLAND SQUARE, CITY OF PORTLAND, COUNTY OF CUMBERLAND, STATE OF MAINE, DATED FEBRUARY 11, 1992, BY H.I. & E.C. JORDAN.
2. SURVEY FOR ATRCO CORP. DATED JULY 1981 BY H.I. & E.C. JORDAN.
3. LAND TITLE SURVEY FOR NORTHLAND REALTY DATED NOV. 26, 1985 BY H.I. & E.C. JORDAN.
4. HUNTER, BARR ASSOCIATES ON FILE WITH THE CITY OF PORTLAND DEPT. OF PLANNING AND URBAN DEVELOPMENT.
5. STANDARD BOUNDARY SURVEY FOR PORTLAND SQUARE LIMITED PARTNERSHIP, NORTHLAND REALTY CORP. DATED OCT. 26, 1987 BY STEVENS, MORTON, ROSE & THOMPSON, INC. RECORDED IN C.C.R.D. 164.
6. LAND TITLE SURVEY FOR FORE STREET, PORTLAND, MAINE MADE FOR TWO PORTLAND SQUARE LIMITED PARTNERSHIP DATED FEB. 21, 1996 BY OWEN HASKELL, INC. RECORDED IN PLAN BOOK 186, PAGE 60.
7. ALTA/ACSM LAND TITLE SURVEY OF ONE PORTLAND SQUARE DATED MAY 16, 1996 BY LEWIS & WASHNA, INC. UPDATED TO JUNE 24, 1996 IN PLAN BOOK 196, PAGE 220.
8. PLAN BOOK 196, PAGE 220, BUSINESS CONDOMINIUM OCTOBER 29, 1987 PLAN BOOK 186, PAGE 44.
9. JORDAN DATED NOV. 15, 1989 REVISED TO JUNE 26, 1996 IN PLAN BOOK 196, PAGE 86 AND 219.
10. LAND TITLE SURVEY FOR MGI TWO PORTLAND SQUARE, INC., FORE STREET, PORTLAND, MAINE, JUNE 25, 1996 BY OWEN HASKELL, INC. IN PLAN BOOK 196, PAGE 220.
11. PLAN OF PROPERTY IN PORTLAND MAINE MADE FOR PORTLAND SQUARE LIMITED PARTNERSHIP DATED NOV. 15, 1989 BY H.I. AND E.C. JORDAN.
12. ALTA/ACSM LAND TITLE SURVEY ON FORE STREET PORTLAND, MAINE MADE FOR ONE PORTLAND SQUARE LIMITED APRIL 14, 1999 BY OWEN HASKELL, INC.
13. ALTA/ACSM LAND TITLE SURVEY ON FORE STREET PORTLAND, MAINE MADE FOR TIMOTHY O'NEIL DATED APRIL 14, 1999 REV. 7 3/23/04 BY OWEN HASKELL, INC.
14. ALTA/ACSM LAND TITLE SURVEY, BOA PROJECT, ONE PORTLAND SQUARE, TWO PORTLAND SQUARE AND PORTLAND SQUARE PARKING, PORTLAND, MAINE, SHEETS 1 AND 2, DATED SEPT. 30, 2005 LAST REVISED FEB. 7, 2006 AND MARCH 3, 2006 BY OWEN HASKELL, INC.
15. ALTA/ACSM LAND TITLE SURVEY, PORTLAND SQUARE TWO PORTLAND SQUARE AND PORTLAND SQUARE PARKING, PORTLAND, MAINE, MADE FOR NORTH RIVER IV LLC FEBRUARY 12, 2015 BY OWEN HASKELL, INC.

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 BASED ON THE INFORMATION PROVIDED AND FIELD SURVEY DATA. 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.

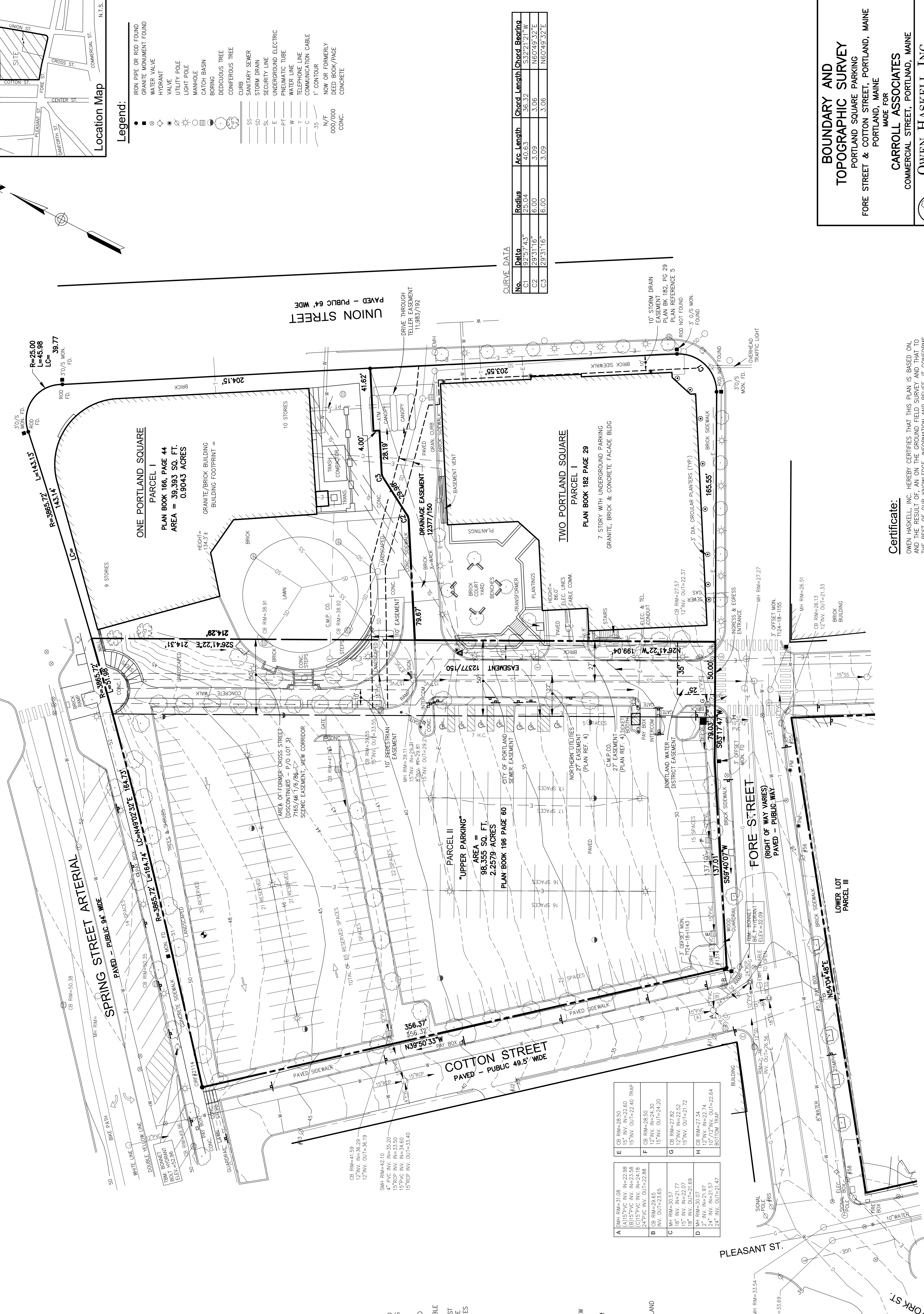
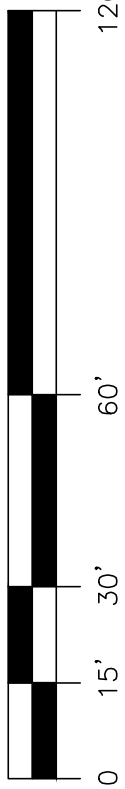
Flood Zone Note:

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 230051 0013 B, WHICH BEARS AN EFFECTIVE DATE OF JULY 17, 1986 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

Notes:

1. OWNER OF RECORD, NORTH RIVER IV LLC, 224 12TH AVENUE, NEW YORK, NY 10001 C.C.R.D. BOOK 32163 PAGE 33
2. BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM MAINE WEST NAD83, CITY POINT T124-18-1143 N:299542.1747 E:2928944.1068 AND T124-18-1155 N:299607.6956 E:2929152.2276 HELD.
3. ELEVATIONS ARE BASED ON CITY DATUM.
4. THE LOCUS IS SHOWN AS LOT 3 BLOCK B ON THE CITY OF PORTLAND ASSESSORS MAP 38.

GRAPHIC SCALE



Certificate:

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSES FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

DATE _____ JOHN W. SWAN, PLS NO. 1038

BOUNDARY AND TOPOGRAPHIC SURVEY

PORTLAND SQUARE PARKING

FORE STREET & COTTON STREET, PORTLAND, MAINE

PORTLAND, MAINE

MADE FOR

CARROLL ASSOCIATES

COMMERCIAL STREET, PORTLAND, MAINE

OWEN HASKELL, INC.

PROFESSIONAL LAND SURVEYORS

390 U.S. ROUTE ONE, FALMOUTH, ME 04103 (207) 774-0424

Drawn By: RS

Trace By: J.L.W.

Check By: J.W.S.

Book No.: FILE

Date

DECEMBER 5, 2016

Job No.

2016-129 P

Scale

1" = 30'

Drwg. No.

1

Portland Square

Master Development Plan

Portland, Maine

Owner / Developers
NORTH RIVER, LLC
New York, NY

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 Commercial St. Suite 200
Portland, ME 04101
207.772.1952
www.carroll-assoc.com

WINTON SCOTT
ARCHITECTS, PA
5 Milk Street
Portland, ME 04101
774-4811
www.wintonscott.com

BECKER STRUCTURAL
ENGINEERS, INC.
75 York Street, Suite 3
Portland, ME 04101
207.879.1838
www.beckerstructural.com

WOODARD & CURRAN
41 Hutchins Dr.
Portland, ME 04101
207.588.3785
www.woodardcurran.com

HALEY & ALDRICH, INC.
75 Washington Ave. Suite 1A
Portland, ME 04101
207.482.4609
www.haleyaldrich.com

GORRILL PALMER
707 Sable Oaks Drive, Suite 30
South Portland, ME 04106
207.285.7470
www.gorripalmer.com

Revisions
1 4.5.19 MDP SUBMISSION TO CITY

Drawing Title: Scale: 1"=40'-0"

SITE PLAN

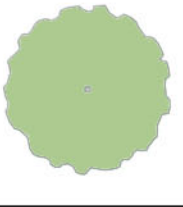
Date: MARCH 4, 2019
Phase: Permitting

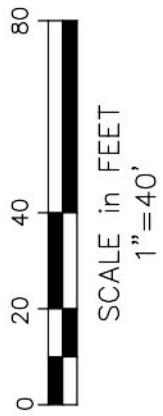
LOT CONFIGURATION & DENSITY			
OVERALL LOT AREA	103,620 SF	2.38 AC	
LOT 1	79,829 SF	1.83 AC	
LOT 2	23,791 SF	0.55 AC	
LOT 3	98,355 SF	2.26 AC	

LEGEND (PROPOSED IMPROVEMENTS)			
---	PROPERTY LINE		
 	PROPOSED BUILDINGS "PORTLAND SQUARE"		
 	EXISTING BUILDING "PORTLAND SQUARE"		
 	PROPOSED BUILDING "CENTER STREET BOUTIQUE HOTEL"		
 	BRICK PAVING		
 	CONCRETE PAVING		
 	BITUMINOUS CONCRETE PAVING		
 	SPECIAL PAVING		
 	GREEN ROOF		
●	PROPOSED TREE		
□	TREE GRATE		
▭	TREE PLANTER (RAISED)		
▬	VERTICAL GRANITE CURB		
▬	TRANSITION OR FLUSH CURB		
▬	CROSS WALK		
▬	ADA CURB RAMP		

BUILDING USE DENSITY			
LOT 1			
- OFFICE SPACE	82,700 SF		
- RETAIL SPACE	26,649 SF		
- RESIDENTIAL	72,298 SF		58 UNITS
- STRUCTURED PARKING	88,750 SF		194 SPACES
LOT 2			
- HOTEL	97,828 SF		135 ROOMS
- BAR / RESTAURANT	4,172 SF		
*INCLUDES ROOFTOP BAR			
LOT 3 (EXISTING - PORTLAND SQ. 132)			
- OFFICE SPACE	298,341 S.F.		18 UNITS
- RETAIL SPACE	12,538 S.F.		
- STRUCTURED PARKING	15,425 S.F.		31 SPACES
LOT 3 (PROPOSED NEW DEVELOPMENT)			
- OFFICE SPACE	205,086 S.F.		
- RETAIL SPACE	5,964 S.F.		
- RESIDENTIAL	38,756 S.F.		18 UNITS
- STRUCTURED PARKING	408,880 S.F.		1,125 SPACES



PLANT SCHEDULE - STREET TREES				
SYM.	BOTANICAL NAME	COMMON NAME	APPROPRIATE LOCATION	MATURE SIZE (APPROX. SPAN)
	GLEDITSIA TRIACANTHOS VAR. INERMIS	THORNLESS HONEYLOCUS	STREET TREE / FULL SUN	50' X 35'
	ZELKOVA SERBETA 'GREEN VASE'	GREEN VASE ZELKOVA	STREET TREE / FULL SUN	70' X 35'
	QUERCUS PALUSTRIS	PIN OAK	STREET TREE / FULL SUN	50' X 40'
	GINKGO BILOBA	GINKGO	STREET TREE / PART SHADE	60' X 30'
	ACER RUBRUM 'KARPICK'	RED MAPLE	STREET TREE / PART SHADE	40' X 15'
				YES



Attachment 1B

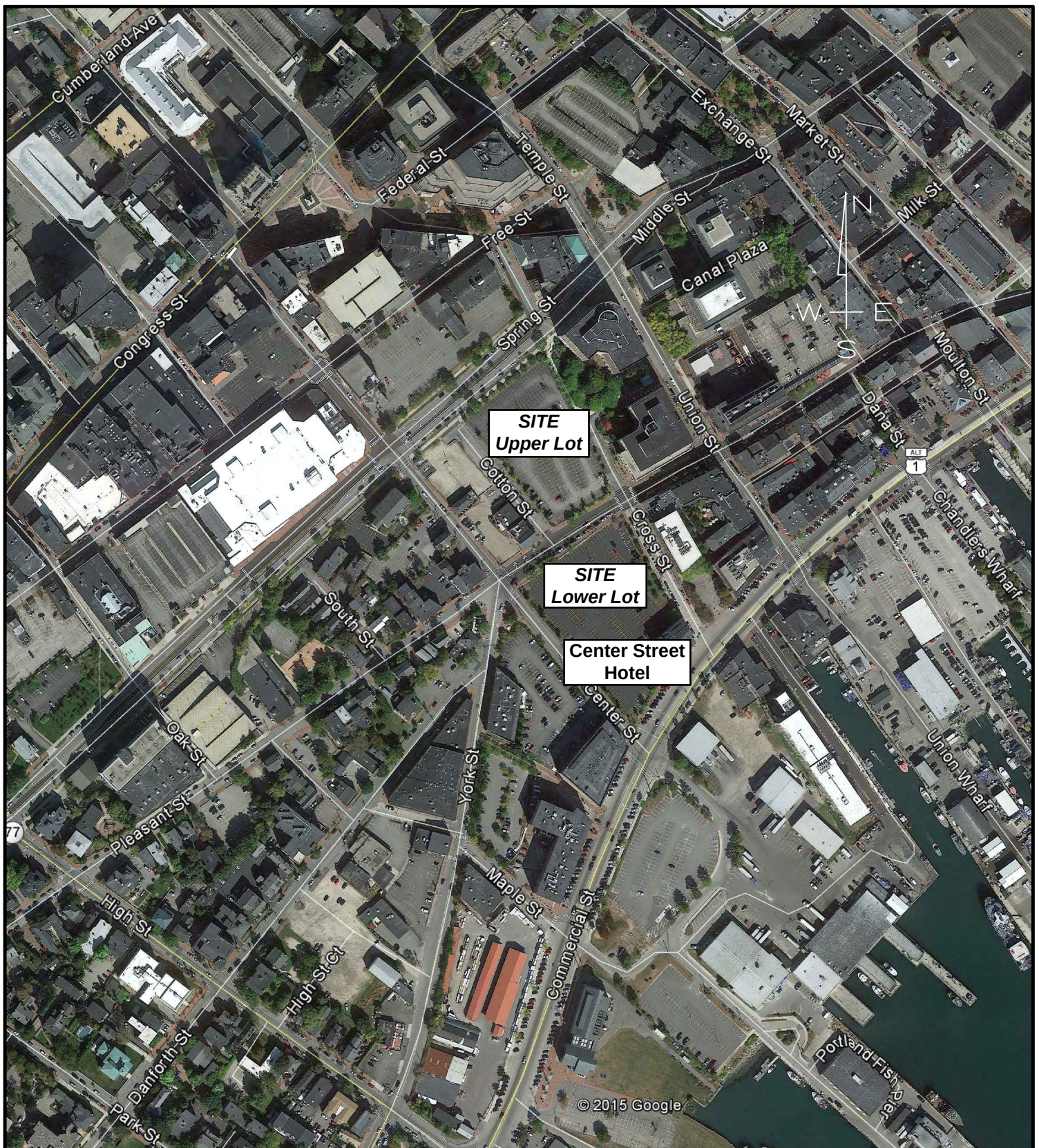
Site Location Map

Trip Assignment Diagram

Location Map

Figure No.

1



PORTLAND SQUARE PORTLAND, MAINE

Design: MC
Draft: MAY 2, 2019
Checked: EAL
Scale: NONE
Date: MAY 2, 2019
File Name: 3020.01_Figures



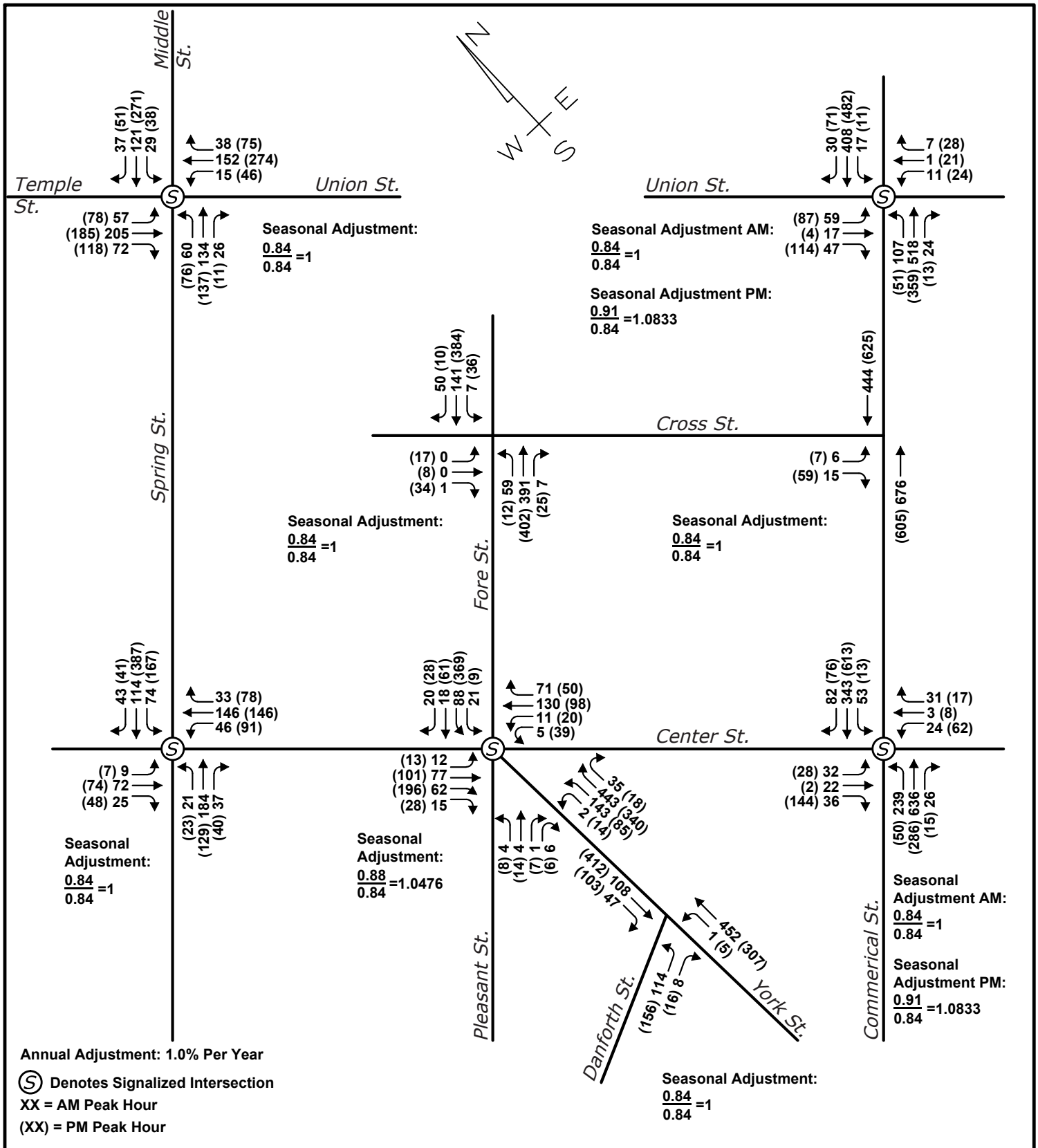
**GORRILL
PALMER**

Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

2029 Adjusted Volumes

Figure No.

3



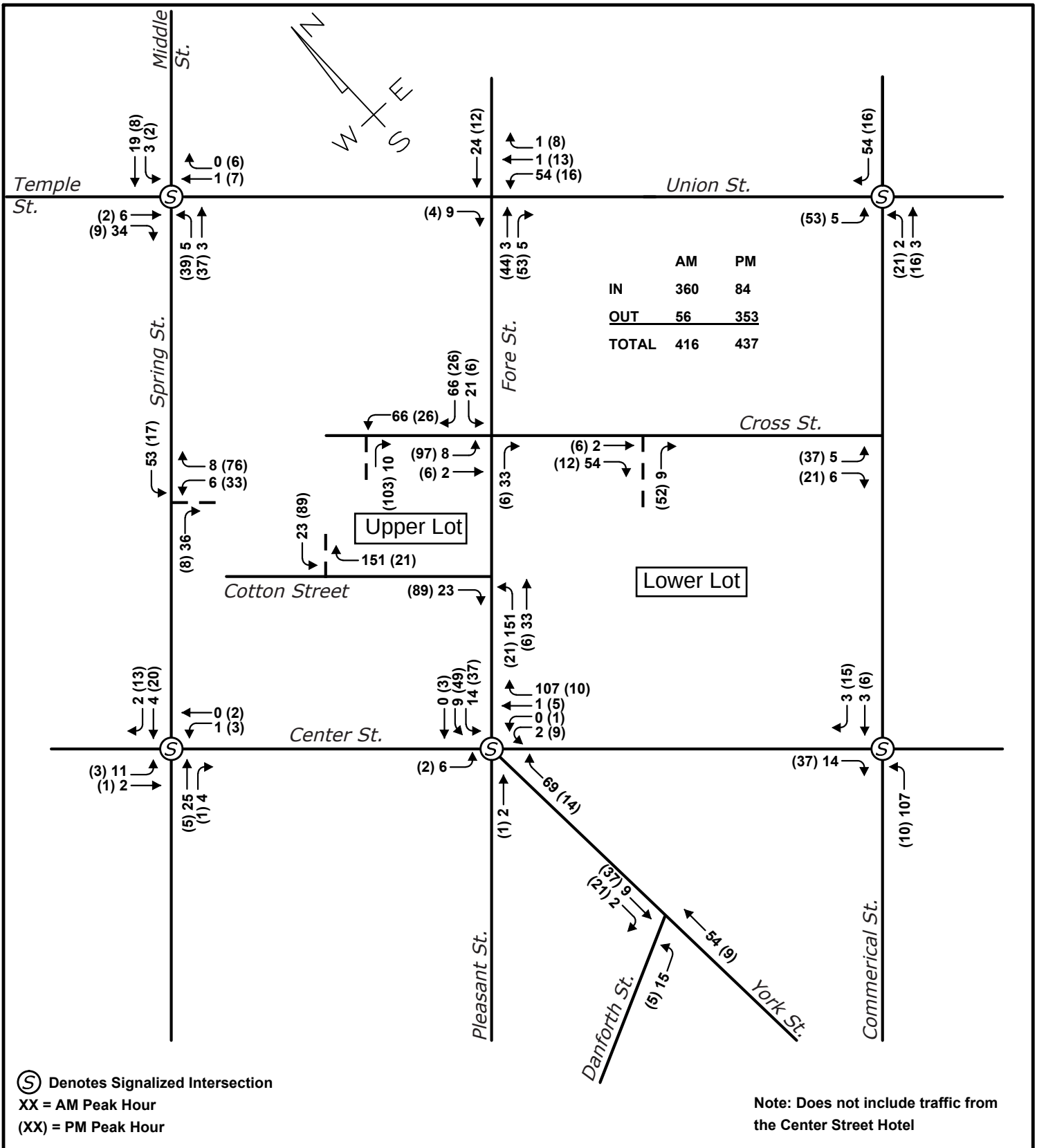
PORTLAND SQUARE PORTLAND, MAINE



Portland Square Primary Trip Assignment

Figure No.

4



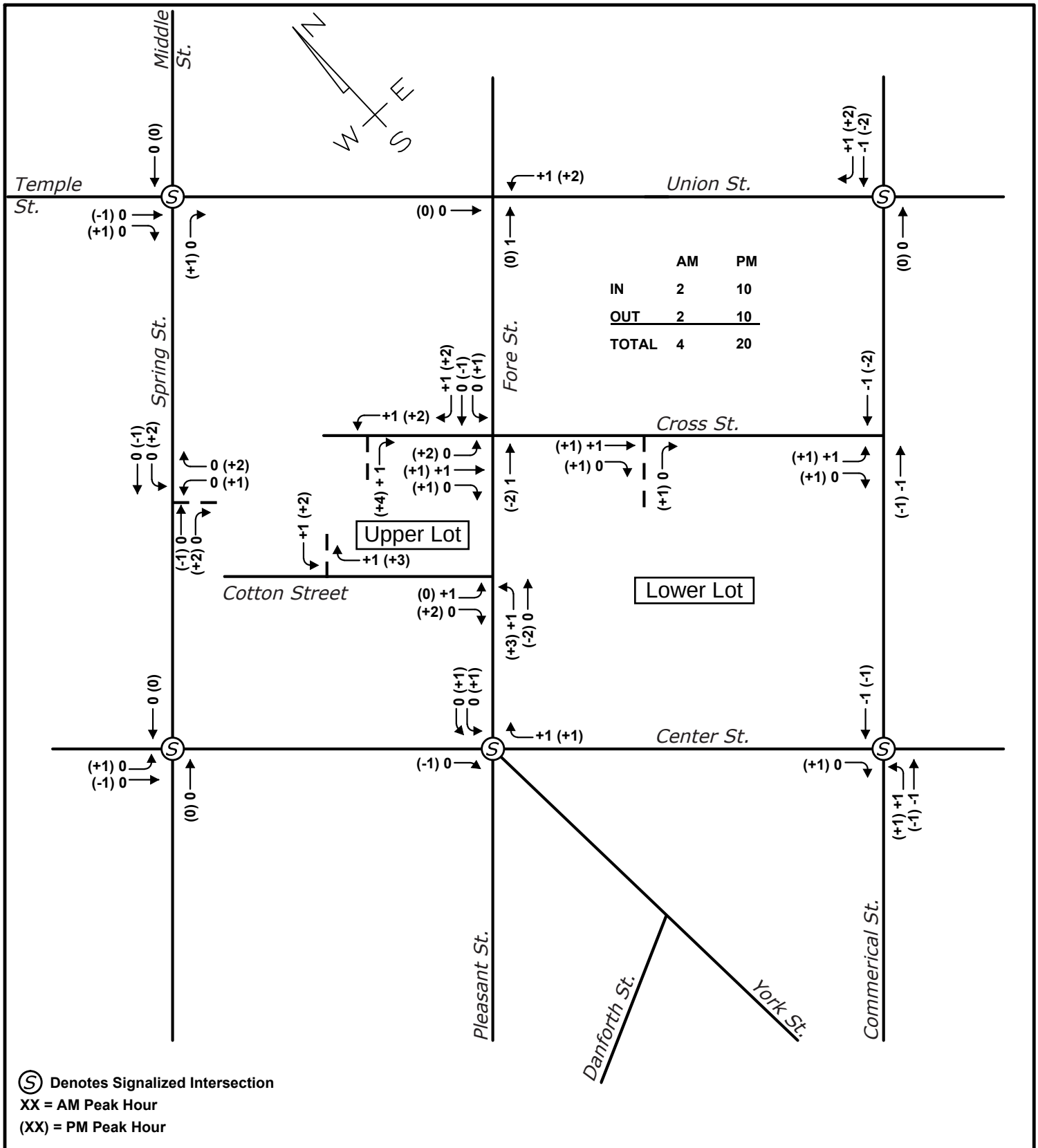
PORTLAND SQUARE PORTLAND, MAINE



Portland Square Pass-By Trip Assignment

Figure No.

5



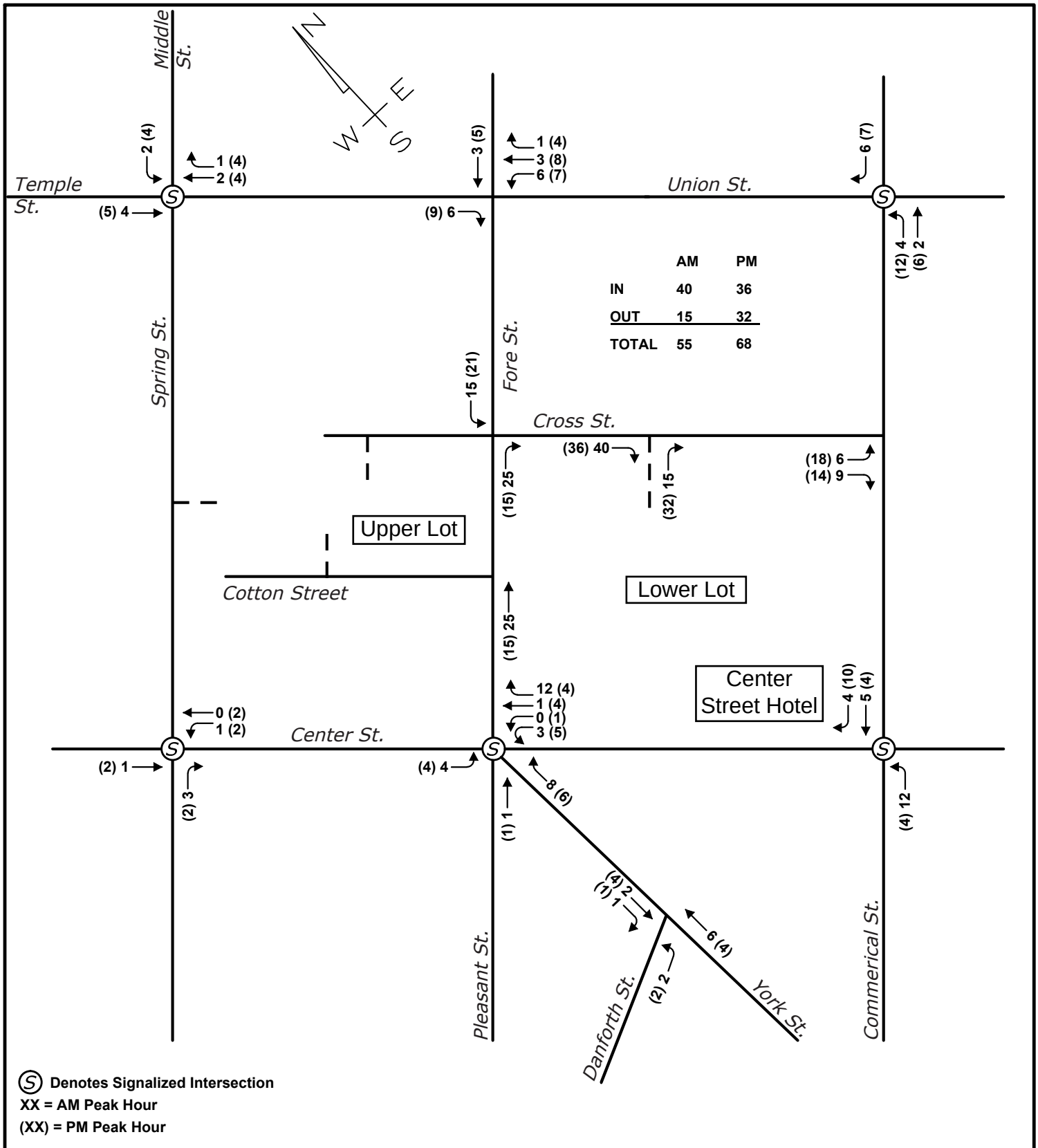
PORTLAND SQUARE PORTLAND, MAINE



Center Street Hotel Primary Trip Assignment

Figure No.

6



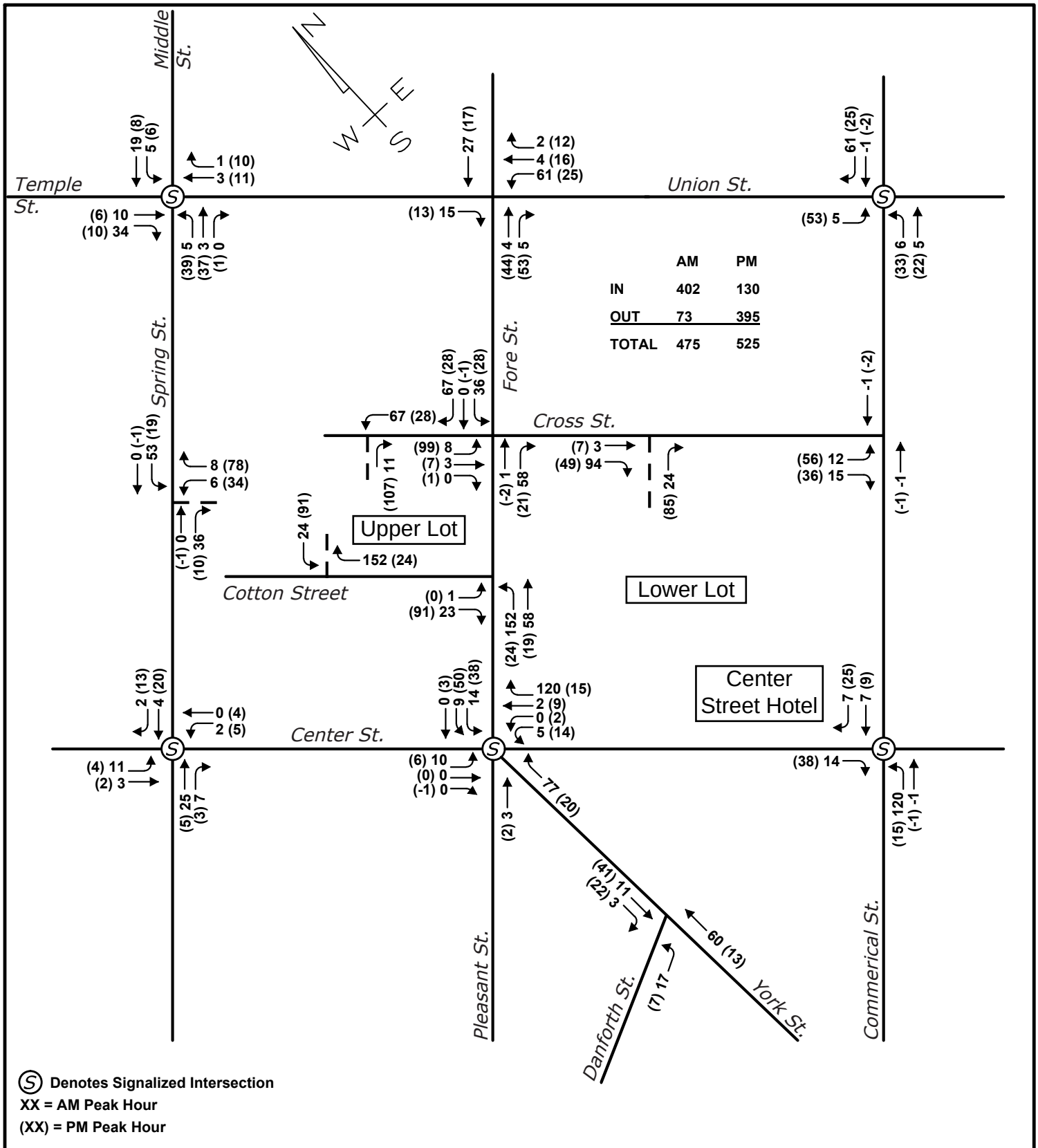
**PORTLAND SQUARE
PORTLAND, MAINE**



Total Trip Assignment

Figure No.

7



PORTLAND SQUARE PORTLAND, MAINE

Design: MC
Draft: Date: MAY 2, 2019
Checked: EAL File Name: 3020.01_Figures



**GORRILL
PALMER**

Relationships. Responsiveness. Results.
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207.772.2515

Attachment 1C

Trip Generation Calculations

NCHRP 684 Spreadsheets

Other Modes Reduction Calculations

JN: 3020.01
Project Description: Portland Square
Project Location: Portland, ME
Date: March 14, 2019
Computed By: MC
Checked By: EAL

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

General Office Building
Land Use Code (LUC) 710

Square Feet
Upper Lot
205,086

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	Ln (T) = 0.77 Ln (X) + 3.65	2319	78	50%	50%	1160	1159	0.80
AM Peak Hour	Ln (T) = 0.80 Ln (X) + 1.55	333	217	90%	10%	300	33	0.83
PM Peak Hour	T = 1.12 (X) + 78.81	309	235	15%	85%	46	263	0.82
Saturday	T = 2.14 (X) + 18.47	457	17	50%	50%	229	228	0.66
Peak Hour of Generator	Ln (T) = 0.81 Ln (X) - 0.12	66	10	55%	45%	36	30	0.59

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 11.01 (X)	2258	78	50%	50%	1129	1129	---
AM Peak Hour	T = 1.55 (X)	318	217	90%	10%	286	32	---
PM Peak Hour	T = 1.49 (X)	306	235	15%	85%	46	260	---
Saturday	T = 2.37 (X)	486	17	50%	50%	243	243	---
Saturday Peak Hour of Gen.	T = 0.41 (X)	84	10	50%	50%	42	42	---

* Percentages rounded to nearest 5%

PM Peak Hour:	T = 1.49/1.55 (AM Peak)	320	15%	85%	48	272
Saturday Peak Hour:	T = 0.41/1.55 (AM Peak)	88	55%	45%	48	40

JN:
Project Description:
Project Location:
Date:
Computed By:
Checked By:

3020.01
Portland Square
Portland, ME
March 14, 2019
MC
EAL

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Specialty Retail Center
Land Use Code (LUC) 814

Gross Floor Area (ft²):

Upper Lot
5,964

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * INOUT	Directional Distribution INOUT	R ²
Weekday	T = 44.32 (X)	264	4	50%50%	132132	---
Peak Hour of Adjacent Street Traffic 7-9 AM**	---	---	---	---	---	---
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.71 (X)	16	5	45%55%	79	---
AM Peak Hour of Generator	T = 6.84 (X)	41	4	50%50%	2120	---
PM Peak Hour of Generator	T = 5.02 (X)	30	3	55%45%	1713	---
Saturday	T = 42.04 (X)	251	3	50%50%	126125	---
Saturday Peak Hour of Gen.***	---	---	---	---	---	---

AM Peak of Adjacent Street 7-9 AM***
Saturday Peak Hour***

T = 0.275 (PM Peak Hour)
T = 1.325 (PM Peak Hour)

4
21

60%40%
50%50%

22
1110

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center
***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * INOUT	Directional Distribution INOUT	R ²
Weekday	T = 42.78 (X) + 37.66	293	4	50%50%	147146	0.69
Peak Hour of Adjacent Street Traffic 7-9 AM	---	---	---	---	---	---
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.40 (X) + 21.48	36	5	45%55%	1620	0.98
AM Peak Hour of Generator	T = 4.91 (X) + 115.59	145	4	50%50%	7372	0.90
PM Peak Hour of Generator	---	---	---	---	---	---
Saturday	---	---	---	---	---	---
Saturday Peak Hour of Gen.	---	---	---	---	---	---

AM Peak of Adjacent Street 7-9 AM***
Saturday Peak Hour***

T = 0.275 (PM Peak Hour)
T = 1.325 (PM Peak Hour)

10
48

60%40%
50%50%

64
2424

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center
***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

* Percentages rounded to nearest 5%
(---) Not Given

JN: 3020.01
Project Description: Portland Square
Project Location: Portland, ME
Date: March 14, 2019
Computed By: MC
Checked By: EAL

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Apartment
Land Use Code (LUC) 220

Dwelling Units:		Upper Lot 18						
Average Rate								
Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.72 (X)	86	121	50%	50%	61	60	N/A
AM Peak Hour of Adj. Street Traffic	T = 0.51 (X)	78	9	20%	80%	2	7	N/A
PM Peak Hour of Adj. Street Traffic	T = 0.62 (X)	90	11	65%	35%	7	4	N/A
AM Peak Hour of Generator	T = 0.55 (X)	81	10	30%	70%	3	7	N/A
PM Peak Hour of Generator	T = 0.67 (X)	83	12	60%	40%	7	5	N/A
Saturday	T = 6.39 (X)	15	115	50%	50%	58	57	N/A
Saturday Peak Hour of Gen.	T = 0.52 (X)	14	9	**	50%	5	4	N/A

* Percentages rounded to nearest 5%
** Not Available (Assumption)

Fitted Curve Equation								
Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.01 (X) + 150.35	86	259	50%	50%	129	130	0.88
AM Peak Hour of Adj. Street Traffic	T = 0.49 (X) + 3.73	78	13	20%	80%	3	10	0.83
PM Peak Hour of Adj. Street Traffic	T = 0.55 (X) + 17.65	90	28	65%	35%	18	10	0.77
AM Peak Hour of Generator	T = 0.53 (X) + 4.21	81	14	30%	70%	4	10	0.82
PM Peak Hour of Generator	T = 0.60 (X) + 17.52	83	28	60%	40%	17	11	0.80
Saturday	T = 7.85 (X) - 256.19	15	-115	50%	50%	-57	-58	0.85
Saturday Peak Hour of Gen.	T = 0.41 (X) + 19.23	14	27	**	50%	13	14	0.56

* Percentages rounded to nearest 5%
** Not Available (Assumption)

JN: 3020.01
 Project Description: Portland Square
 Project Location: Portland, ME
 Date: March 14, 2019
 Computed By: MC
 Checked By: EAL

Gorrill Palmer
 707 Sable Oaks Drive
 Suite 30
 South Portland, Maine 04106

**Hotel
 Land Use Code (LUC) 310**

Numer of Rooms: Upper Lot
 0

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Directional Split * IN	OUT	Directional Distribution IN	OUT
Weekday	T = 8.95 (X) - 373.16	-373	50%	50%	-187	-186
AM Peak Adjacent Street	Ln(T) = 1.24 Ln(X) - 2.00	#NUM!	60%	40%	#NUM!	#NUM!
PM Peak Adjacent Street	---	---	55%	45%	---	---
AM Peak hour of Generator	Ln(T) = 0.87 Ln(X) + 0.02	#NUM!	55%	45%	#NUM!	#NUM!
PM Peak Hour of Generator	Ln(T) = 1.00 Ln(X) - 0.58	#NUM!	60%	40%	#NUM!	#NUM!
Saturday	T = 9.62 (X) - 294.56	-295	50%	50%	-148	-147
Saturday Peak Hour of Gen.	T = 0.69 (X) + 4.32	4	55%	45%	2	2

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Directional Split * IN	OUT	Directional Distribution IN	OUT
Weekday	T = 8.17 (X)	0	50%	50%	0	0
AM Peak Adjacent Street	T = 0.56 (X)	0	60%	40%	0	0
PM Peak Adjacent Street	T = 0.59 (X)	0	55%	45%	0	0
AM Peak Hour of Generator	T = 0.52 (X)	0	55%	45%	0	0
PM Peak Hour of Generator	T = 0.61 (X)	0	60%	40%	0	0
Saturday	T = 8.19 (X)	0	50%	50%	0	0
Saturday Peak Hour of Gen.	T = 0.72 (X)	0	55%	45%	0	0

* Percentages rounded to nearest 5%

JN: 3020.01
Project Description: Portland Square
Project Location: Portland, ME
Date: March 14, 2019
Computed By: MC
Checked By: EAL

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

General Office Building
Land Use Code (LUC) 710

Square Feet
Lower Lot
82,700

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	Ln (T) = 0.77 Ln (X) + 3.65	1153	78	50%	50%	577	576	0.80
AM Peak Hour	Ln (T) = 0.80 Ln (X) + 1.55	161	217	90%	10%	145	16	0.83
PM Peak Hour	T = 1.12 (X) + 78.81	171	235	15%	85%	26	145	0.82
Saturday	T = 2.14 (X) + 18.47	195	17	50%	50%	98	97	0.66
Peak Hour of Generator	Ln (T) = 0.81 Ln (X) - 0.12	32	10	55%	45%	18	14	0.59

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 11.01 (X)	911	78	50%	50%	456	455	---
AM Peak Hour	T = 1.55 (X)	128	217	90%	10%	115	13	---
PM Peak Hour	T = 1.49 (X)	123	235	15%	85%	18	105	---
Saturday	T = 2.37 (X)	196	17	50%	50%	98	98	---
Saturday Peak Hour of Gen.	T = 0.41 (X)	34	10	50%	50%	17	17	---

* Percentages rounded to nearest 5%

PM Peak Hour:	T = 1.49/1.55 (AM Peak)	155	15%	85%	23	132
Saturday Peak Hour:	T = 0.41/1.55 (AM Peak)	43	55%	45%	24	19

JN:
Project Description:
Project Location:
Date:
Computed By:
Checked By:

3020.01
Portland Square
Portland, ME
March 14, 2019
MC
EAL

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Specialty Retail Center
Land Use Code (LUC) 814

Gross Floor Area (ft²):

Lower Lot
29,649

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 44.32 (X)	1314	4	50%	50%	657	657	---
Peak Hour of Adjacent Street Traffic 7-9 AM**	---	---	---	---	---	---	---	---
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.71 (X)	80	5	45%	55%	36	44	---
AM Peak Hour of Generator	T = 6.84 (X)	203	4	50%	50%	102	101	---
PM Peak Hour of Generator	T = 5.02 (X)	149	3	55%	45%	82	67	---
Saturday	T = 42.04 (X)	1246	3	50%	50%	623	623	---
Saturday Peak Hour of Gen.***	---	---	---	---	---	---	---	---

AM Peak of Adjacent Street 7-9 AM***	T = 0.275 (PM Peak Hour)	22	60%	40%	13	9
Saturday Peak Hour***	T = 1.325 (PM Peak Hour)	106	50%	50%	53	53

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center

***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 42.78 (X) + 37.66	1306	4	50%	50%	653	653	0.69
Peak Hour of Adjacent Street Traffic 7-9 AM	---	---	---	---	---	---	---	---
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.40 (X) + 21.48	93	5	45%	55%	42	51	0.98
AM Peak Hour of Generator	T = 4.91 (X) + 115.59	261	4	50%	50%	131	130	0.90
PM Peak Hour of Generator	---	---	---	---	---	---	---	---
Saturday	---	---	---	---	---	---	---	---
Saturday Peak Hour of Gen.	---	---	---	---	---	---	---	---

AM Peak of Adjacent Street 7-9 AM***	T = 0.275 (PM Peak Hour)	26	60%	40%	16	10
Saturday Peak Hour***	T = 1.325 (PM Peak Hour)	123	50%	50%	62	61

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center

***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

JN: 3020.01
Project Description: Portland Square
Project Location: Portland, ME
Date: March 14, 2019
Computed By: MC
Checked By: EAL

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Apartment
Land Use Code (LUC) 220

Dwelling Units: Lower Lot
58

Average Rate

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.72 (X)	86	390	50%	50%	195	195	N/A
AM Peak Hour of Adj. Street Traffic	T = 0.51 (X)	78	30	20%	80%	6	24	N/A
PM Peak Hour of Adj. Street Traffic	T = 0.62 (X)	90	36	65%	35%	23	13	N/A
AM Peak Hour of Generator	T = 0.55 (X)	81	32	30%	70%	10	22	N/A
PM Peak Hour of Generator	T = 0.67 (X)	83	39	60%	40%	23	16	N/A
Saturday	T = 6.39 (X)	15	371	50%	50%	186	185	N/A
Saturday Peak Hour of Gen.	T = 0.52 (X)	14	30	**	50%	15	15	N/A

* Percentages rounded to nearest 5%

** Not Available (Assumption)

Fitted Curve Equation

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.01 (X) + 150.35	86	499	50%	50%	249	250	0.88
AM Peak Hour of Adj. Street Traffic	T = 0.49 (X) + 3.73	78	32	20%	80%	6	26	0.83
PM Peak Hour of Adj. Street Traffic	T = 0.55 (X) + 17.65	90	50	65%	35%	32	18	0.77
AM Peak Hour of Generator	T = 0.53 (X) + 4.21	81	35	30%	70%	10	25	0.82
PM Peak Hour of Generator	T = 0.60 (X) + 17.52	83	52	60%	40%	31	21	0.80
Saturday	T = 7.85 (X) - 256.19	15	199	50%	50%	100	99	0.85
Saturday Peak Hour of Gen.	T = 0.41 (X) + 19.23	14	43	**	50%	22	21	0.56

* Percentages rounded to nearest 5%

** Not Available (Assumption)

JN: 3020.01
 Project Description: Portland Square
 Project Location: Portland, ME
 Date: March 14, 2019
 Computed By: MC
 Checked By: EAL

Gorrill Palmer
 707 Sable Oaks Drive
 Suite 30
 South Portland, Maine 04106

**Hotel
 Land Use Code (LUC) 310**

Numer of Rooms: Lower Lot
 135

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	$T = 8.95 (X) - 373.16$	835	50%	50%	418	417
AM Peak Adjacent Street	$\ln(T) = 1.24 \ln(X) - 2.00$	59	60%	40%	35	24
PM Peak Adjacent Street	---	---	55%	45%	---	---
AM Peak hour of Generator	$\ln(T) = 0.87 \ln(X) + 0.02$	73	55%	45%	40	33
PM Peak Hour of Generator	$\ln(T) = 1.00 \ln(X) - 0.58$	76	60%	40%	46	30
Saturday	$T = 9.62 (X) - 294.56$	1004	50%	50%	502	502
Saturday Peak Hour of Gen.	$T = 0.69 (X) + 4.32$	97	55%	45%	53	44

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	$T = 8.17 (X)$	1103	50%	50%	551	552
AM Peak Adjacent Street	$T = 0.56 (X)$	76	60%	40%	45	31
PM Peak Adjacent Street	$T = 0.59 (X)$	80	55%	45%	44	36
AM Peak Hour of Generator	$T = 0.52 (X)$	70	55%	45%	39	31
PM Peak Hour of Generator	$T = 0.61 (X)$	82	60%	40%	49	33
Saturday	$T = 8.19 (X)$	1106	50%	50%	553	553
Saturday Peak Hour of Gen.	$T = 0.72 (X)$	97	55%	45%	53	44

* Percentages rounded to nearest 5%

JN:
Project Description:
Project Location:
Date:
Computed By:
Checked By:

3020.01
Portland Square
Portland, ME
March 14, 2019
MC
EAL

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Portland Square Trip Generation

Task:

Reference:

Calculations:

Calcuulate trip generation

ITE Publication, Trip Generation 7th Edition

Upper Lot ITE Raw Trip Generation

Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	300	33	333	2	2	4	2	7	9	0	0	0	304	42	346
PM Peak Adjacent Street	48	272	320	7	9	16	7	4	11	0	0	0	62	285	347
AM Peak of Generator	300	33	333	21	20	41	3	7	10	0	0	0	324	60	384
PM Peak of Generator	48	272	320	17	13	30	7	5	12	0	0	0	72	290	362
Saturday Peak Hour of Gen.	48	40	88	11	10	21	5	4	9	0	0	0	64	54	118

Lower Lot ITE Raw Trip Generation

Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	145	16	161	13	9	22	6	24	30	45	31	76	209	80	289
PM Peak Adjacent Street	23	132	155	36	44	80	23	13	36	44	36	80	126	225	351
AM Peak of Generator	145	16	161	102	101	203	10	22	32	39	31	70	296	170	466
PM Peak of Generator	23	132	155	82	67	149	23	16	39	49	33	82	177	248	425
Saturday Peak Hour of Gen.	24	19	43	53	53	106	15	15	30	53	44	97	145	131	276

Total Combined Trip Generation

Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	445	49	494	15	11	26	8	31	39	45	31	76	513	122	635
PM Peak Adjacent Street	71	404	475	43	53	96	30	17	47	44	36	80	188	510	698
AM Peak of Generator	445	49	494	123	121	244	13	29	42	39	31	70	620	230	850
PM Peak of Generator	71	404	475	99	80	179	30	21	51	49	33	82	249	538	787
Saturday Peak Hour of Gen.	72	59	131	64	63	127	20	19	39	53	44	97	209	185	394

NCHRP 684 Reduction

Time Period	Office			Retail			Residential			Hotel			Total			
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	
AM Peak Adjacent Street	17	5	22	6	3	9	0	1	1	0	14	14	23	23	46	7%
PM Peak Adjacent Street	2	4	6	8	18	26	15	6	21	4	1	5	29	29	58	8%
AM Peak of Generator	32	14	46	18	18	36	0	1	1	0	17	17	50	50	100	12%
PM Peak of Generator	3	9	12	19	20	39	15	11	26	5	2	7	42	42	84	11%
Saturday Peak Hour of Gen.	7	6	13	6	6	12	2	2	4	5	4	9	20	18	38	10%

NCHRP 684 Reduced

Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	428	44	472	9	8	17	8	30	38	45	17	62	490	99	589
PM Peak Adjacent Street	69	400	469	35	35	70	15	11	26	40	35	75	159	481	640
AM Peak of Generator	413	35	448	105	103	208	13	28	41	39	14	53	570	180	750
PM Peak of Generator	68	395	463	80	60	140	15	10	25	44	31	75	207	496	703
Saturday Peak Hour of Gen.	65	53	118	58	57	115	18	17	35	48	40	88	189	167	356

Other Modes Reduction

Time Period	18% Office			18% Retail			49.7% Residential			10% Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	77	8	85	2	1	3	4	15	19	5	2	7	88	26	114
PM Peak Adjacent Street	12	72	84	6	6	12	7	5	12	4	3	7	29	86	115
AM Peak of Generator	74	6	80	19	19	38	6	14	20	4	1	5	103	40	143
PM Peak of Generator	12	71	83	14	11	25	7	5	12	4	3	7	37	90	127
Saturday Peak Hour of Gen.	12	10	22	10	10	20	9	8	17	5	4	9	36	32	68

Total Reduced Trip Generation

Time Period	Office			Retail			Residential			Hotel			Total		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
AM Peak Adjacent Street	351	36	387	7	7	14	4	15	19	40	15	55	402	73	475
PM Peak Adjacent Street	57	328	385	29	29	58	8	6	14	36	32	68	130	395	525
AM Peak of Generator	339	29	368	86	84	170	7	14	21	35	13	48	467	140	607
PM Peak of Generator	56	324	380	66	49	115	8	5	13	40	28	68	170	406	576
Saturday Peak Hour of Gen.	53	43	96	48	47	95	9	9	18	43	36	79	153	135	288

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Portland Square and Hotel		Organization:	GP	
Project Location:	Portland, Maine		Performed By:	MC	
Scenario Description:	Portland Square with Proposed Hotel		Date:	3/15/2019	
Analysis Year:			Checked By:	EAL	
Analysis Period:	AM Street Peak Hour		Date:	3/19/2019	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	287,786	SF	494	445	49
Retail	814	35,613	SF	26	15	11
Restaurant				0		
Cinema/Entertainment				0		
Residential	220	76	Units	39	8	31
Hotel	310	135	Rooms	76	45	31
All Other Land Uses ²				0		
Total				635	513	122

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		5	0	0	0	0
Retail	3		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	0	0		0
Hotel	13	1	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	635	513	122
Internal Capture Percentage	7%	4%	19%
External Vehicle-Trips ³	589	490	99
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	4%	10%
Retail	40%	27%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	3%
Hotel	0%	45%

¹ Land Use Codes (LUCs) from <i>Trip Generation Informational Report</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
³ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
⁴ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
<i>Estimation Tool Developed by the Texas Transportation Institute</i>

Project Name:	Portland Square and Hotel
Analysis Period:	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips				Table 7-A (O): Exiting Trips	
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Person-Trips*
Office	1.00	445	445		1.00	49
Retail	1.00	15	15		1.00	11
Restaurant	1.00	0	0		1.00	0
Cinema/Entertainment	1.00	0	0		1.00	0
Residential	1.00	8	8		1.00	31
Hotel	1.00	45	45		1.00	31

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		14	31	0	0	0
Retail	3		1	0	2	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	6	0		0
Hotel	23	4	3	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		5	0	0	0	0
Retail	18		0	0	0	0
Restaurant	62	1		0	0	2
Cinema/Entertainment	0	0	0		0	0
Residential	13	3	0	0		0
Hotel	13	1	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	17	428	445		428	0
Retail	6	9	15		9	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	8	8		8	0
Hotel	0	45	45		45	0
All Other Land Uses ³	0	0	0		0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	5	44	49		44	0
Retail	3	8	11		8	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	30	31		30	0
Hotel	14	17	31		17	0
All Other Land Uses ³	0	0	0		0	0

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Portland Square and Hotel		Organization:	GP	
Project Location:	Portland, Maine		Performed By:	MC	
Scenario Description:	Portland Square with Proposed Hotel		Date:	3/15/2019	
Analysis Year:			Checked By:	EAL	
Analysis Period:	PM Street Peak Hour		Date:	3/19/2019	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	287,786	SF	475	71	404
Retail	814	35,613	SF	96	43	53
Restaurant						
Cinema/Entertainment						
Residential	220	76	Units	47	30	17
Hotel	310	135	Rooms	80	44	36
All Other Land Uses ²						
Total				698	188	510

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		3	0	0	1	0
Retail	1		0	0	14	3
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	4	0	0		1
Hotel	0	1	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	698	188	510
Internal Capture Percentage	8%	15%	6%
External Vehicle-Trips ³	640	159	481
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	3%	1%
Retail	19%	34%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	50%	35%
Hotel	9%	3%

¹ Land Use Codes (LUCs) from <i>Trip Generation Informational Report</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
³ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
⁴ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
<i>Estimation Tool Developed by the Texas Transportation Institute</i>

Project Name:	Portland Square and Hotel
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips				Table 7-P (O): Exiting Trips	
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Person-Trips*
Office	1.00	71	71		1.00	404
Retail	1.00	43	43		1.00	53
Restaurant	1.00	0	0		1.00	0
Cinema/Entertainment	1.00	0	0		1.00	0
Residential	1.00	30	30		1.00	17
Hotel	1.00	44	44		1.00	36

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		81	16	0	8	0
Retail	1		15	2	14	3
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	7	4	0		1
Hotel	0	6	24	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		3	0	0	1	0
Retail	22		0	0	14	7
Restaurant	21	22		0	5	31
Cinema/Entertainment	4	2	0		1	0
Residential	40	4	0	0		5
Hotel	0	1	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	2	69	71		69	0
Retail	8	35	43		35	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	15	15	30		15	0
Hotel	4	40	44		40	0
All Other Land Uses ³	0	0	0		0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	4	400	404		400	0
Retail	18	35	53		35	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	6	11	17		11	0
Hotel	1	35	36		35	0
All Other Land Uses ³	0	0	0		0	0

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Portland Square and Hotel		Organization:	GP	
Project Location:	Portland, Maine		Performed By:	MC	
Scenario Description:	Portland Square with Proposed Hotel		Date:	3/15/2019	
Analysis Year:			Checked By:	EAL	
Analysis Period:	AM Generator Peak Hour		Date:	3/19/2019	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	287,786	SF	494	445	49
Retail	814	35,613	SF	244	123	121
Restaurant						
Cinema/Entertainment						
Residential	220	76	Units	42	13	29
Hotel	310	135	Rooms	70	39	31
All Other Land Uses ²						
Total				850	620	230

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		14	0	0	0	0
Retail	18		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	0	0		0
Hotel	13	4	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	850	620	230
Internal Capture Percentage	12%	8%	22%
External Vehicle-Trips ³	750	570	180
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	7%	29%
Retail	15%	15%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	3%
Hotel	0%	55%

¹ Land Use Codes (LUCs) from <i>Trip Generation Informational Report</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
³ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
⁴ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
<i>Estimation Tool Developed by the Texas Transportation Institute</i>

Project Name:	Portland Square and Hotel
Analysis Period:	AM Generator Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends							
Land Use	Table 7-A (D): Entering Trips				Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	445	445		1.00	49	49
Retail	1.00	123	123		1.00	121	121
Restaurant	1.00	0	0		1.00	0	0
Cinema/Entertainment	1.00	0	0		1.00	0	0
Residential	1.00	13	13		1.00	29	29
Hotel	1.00	39	39		1.00	31	31

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		14	31	0	0	0
Retail	35		16	0	17	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	6	0		0
Hotel	23	4	3	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		39	0	0	0	0
Retail	18		0	0	0	0
Restaurant	62	10		0	1	2
Cinema/Entertainment	0	0	0		0	0
Residential	13	21	0	0		0
Hotel	13	5	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)							
Destination Land Use	Person-Trip Estimates				External Trips by Mode*		
	Internal	External	Total		Vehicles ¹	Transit ²	Non-Motorized ²
Office	32	413	445		413	0	0
Retail	18	105	123		105	0	0
Restaurant	0	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0	0
Residential	0	13	13		13	0	0
Hotel	0	39	39		39	0	0
All Other Land Uses ³	0	0	0		0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)							
Origin Land Use	Person-Trip Estimates				External Trips by Mode*		
	Internal	External	Total		Vehicles ¹	Transit ²	Non-Motorized ²
Office	14	35	49		35	0	0
Retail	18	103	121		103	0	0
Restaurant	0	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0	0
Residential	1	28	29		28	0	0
Hotel	17	14	31		14	0	0
All Other Land Uses ³	0	0	0		0	0	0

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Portland Square and Hotel		Organization:	GP	
Project Location:	Portland, Maine		Performed By:	MC	
Scenario Description:	Portland Square with Proposed Hotel		Date:	3/15/2019	
Analysis Year:			Checked By:	EAL	
Analysis Period:	PM Generator Peak Hour		Date:	3/19/2019	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	287,786	SF	475	71	404
Retail	814	35,613	SF	179	99	80
Restaurant						
Cinema/Entertainment						
Residential	220	76	Units	51	30	21
Hotel	310	135	Rooms	82	49	33
All Other Land Uses ²						
Total				787	249	538

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	0	0	1	0
Retail	2		0	0	14	4
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	9	0	0		1
Hotel	0	2	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	787	249	538
Internal Capture Percentage	11%	17%	8%
External Vehicle-Trips ³	703	207	496
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	4%	2%
Retail	19%	25%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	50%	52%
Hotel	10%	6%

¹ Land Use Codes (LUCs) from <i>Trip Generation Informational Report</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
³ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
⁴ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
<i>Estimation Tool Developed by the Texas Transportation Institute</i>

Project Name:	Portland Square and Hotel
Analysis Period:	PM Generator Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips				Table 7-P (O): Exiting Trips	
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Person-Trips*
Office	1.00	71	71		1.00	404
Retail	1.00	99	99		1.00	80
Restaurant	1.00	0	0		1.00	0
Cinema/Entertainment	1.00	0	0		1.00	0
Residential	1.00	30	30		1.00	21
Hotel	1.00	49	49		1.00	33

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		81	16	0	8	0
Retail	2		23	3	21	4
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	9	4	0		1
Hotel	0	5	22	0	1	

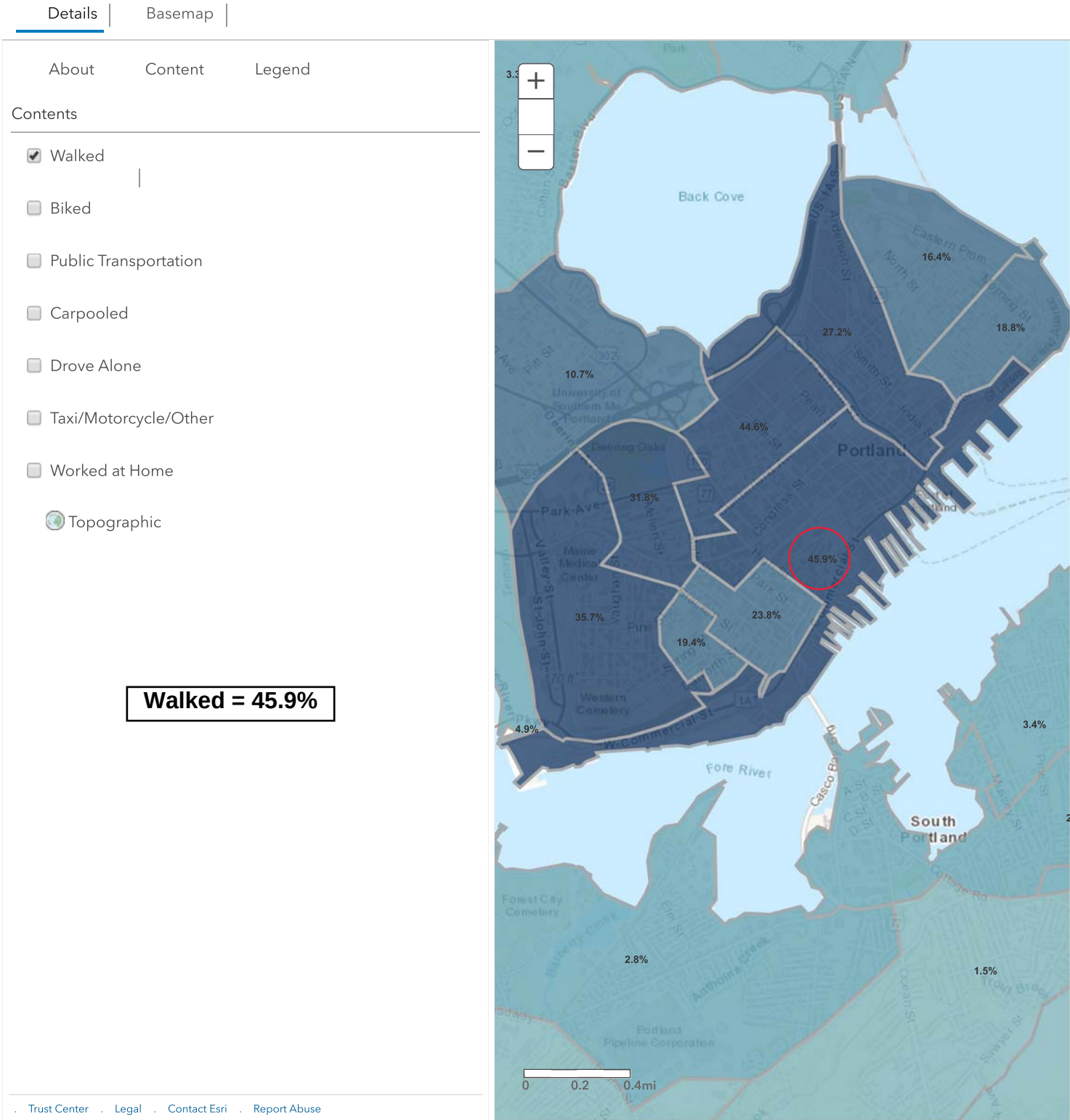
Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	0	0	1	0
Retail	22		0	0	14	8
Restaurant	21	50		0	5	35
Cinema/Entertainment	4	4	0		1	0
Residential	40	10	0	0		6
Hotel	0	2	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	3	68	71		68	0
Retail	19	80	99		80	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	15	15	30		15	0
Hotel	5	44	49		44	0
All Other Land Uses ³	0	0	0		0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	9	395	404		395	0
Retail	20	60	80		60	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	11	10	21		10	0
Hotel	2	31	33		31	0
All Other Land Uses ³	0	0	0		0	0

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

ArcGIS ▾ Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

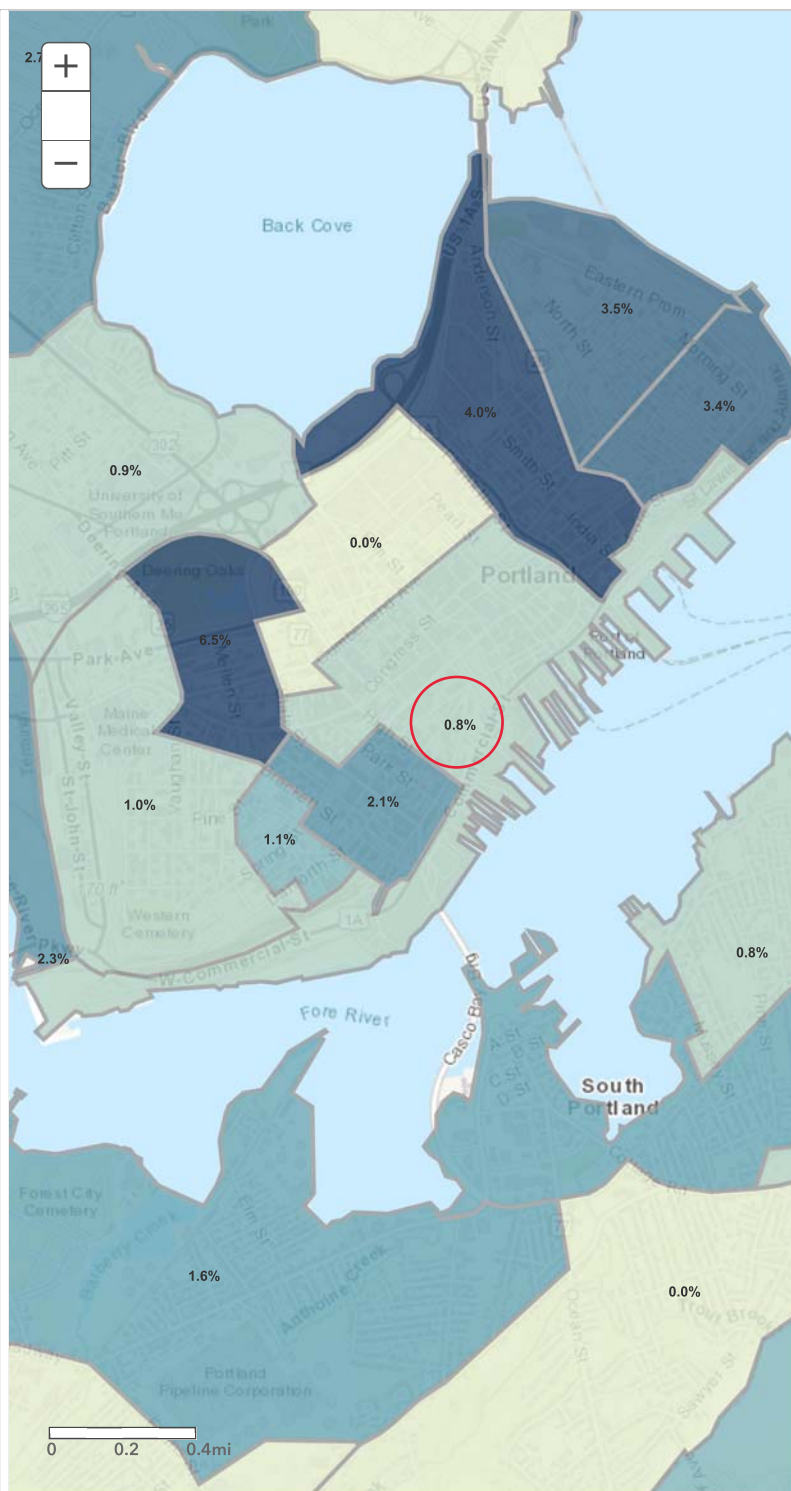


Basemap

Legend

 Topographic

Biked = 0.8%



ArcGIS ▾ Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Details

Basemap

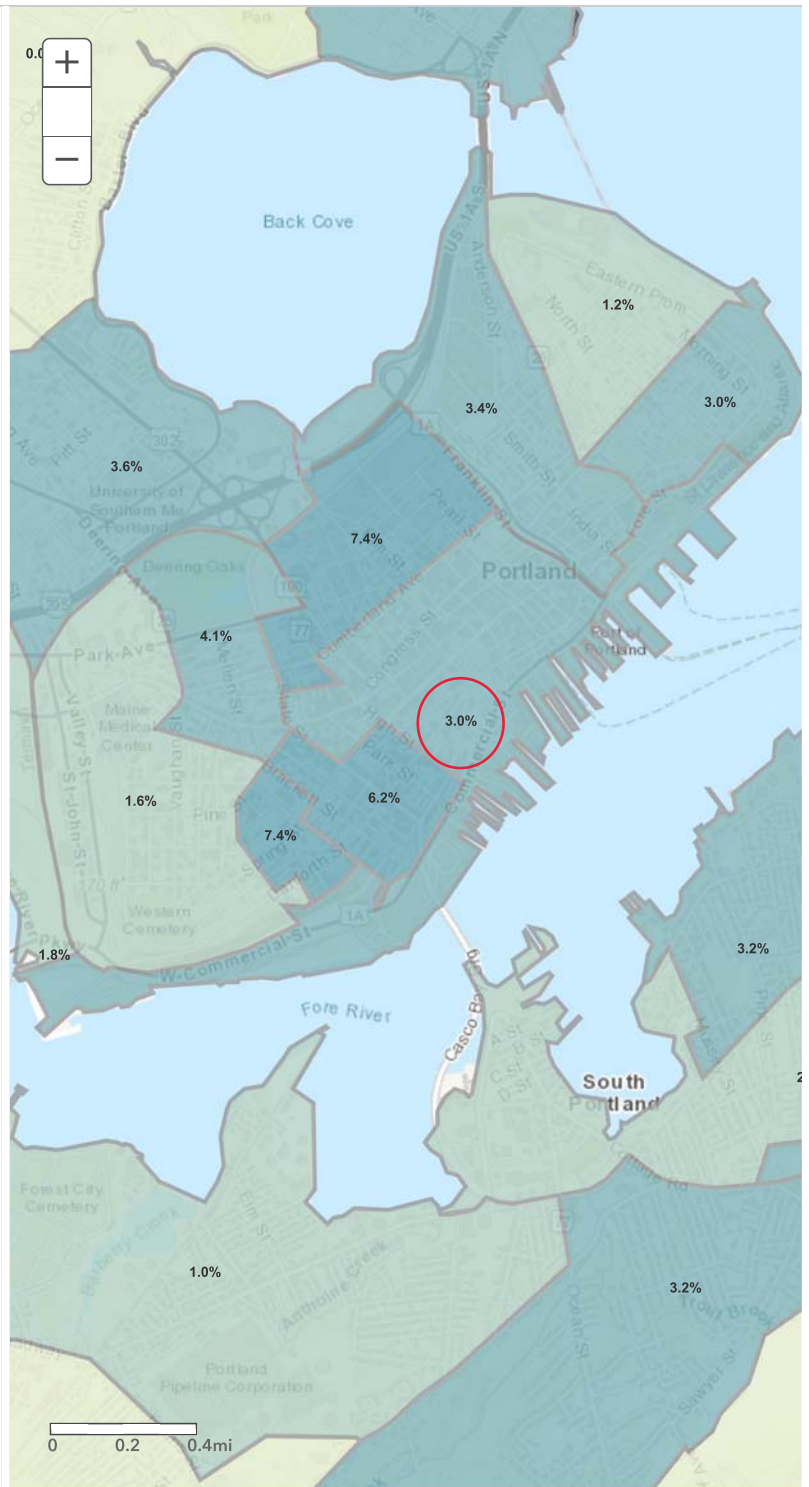
About

Content

Legend

Contents

- ☐ Walked
- ☐ Biked
- ☒ Public Transportation
- ☐ Carpooled
- ☐ Drove Alone
- ☐ Taxi/Motorcycle/Other
- ☐ Worked at Home
-  Topographic

Public Transit = 3.0%**Walked + Biked + Public Transit
= 45.9% + 0.8% + 3.0% = 49.7%**[Trust Center](#) [Legal](#) [Contact Esri](#) [Report Abuse](#)

Section 2 Traffic Crashes

2.A. Crash Summary Data

Gorrill Palmer obtained the crash data from MaineDOT for the period of 2015-2017, the most recent period available (Attachment 2A).

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor (CRF) of 1.00 or more for a three year period. A CRF compares the actual crash rate to the rate for similar intersections in the state. A CRF of less than 1.00 indicates a rate of less than average **and**:
2. A minimum of eight crashes over the same three year period.

Based on the crash data provided by MaineDOT, there are no HCLs in the immediate vicinity of the site. However, there have been three crashes involving bicyclists and five crashes involving pedestrians during the most recent three year period.

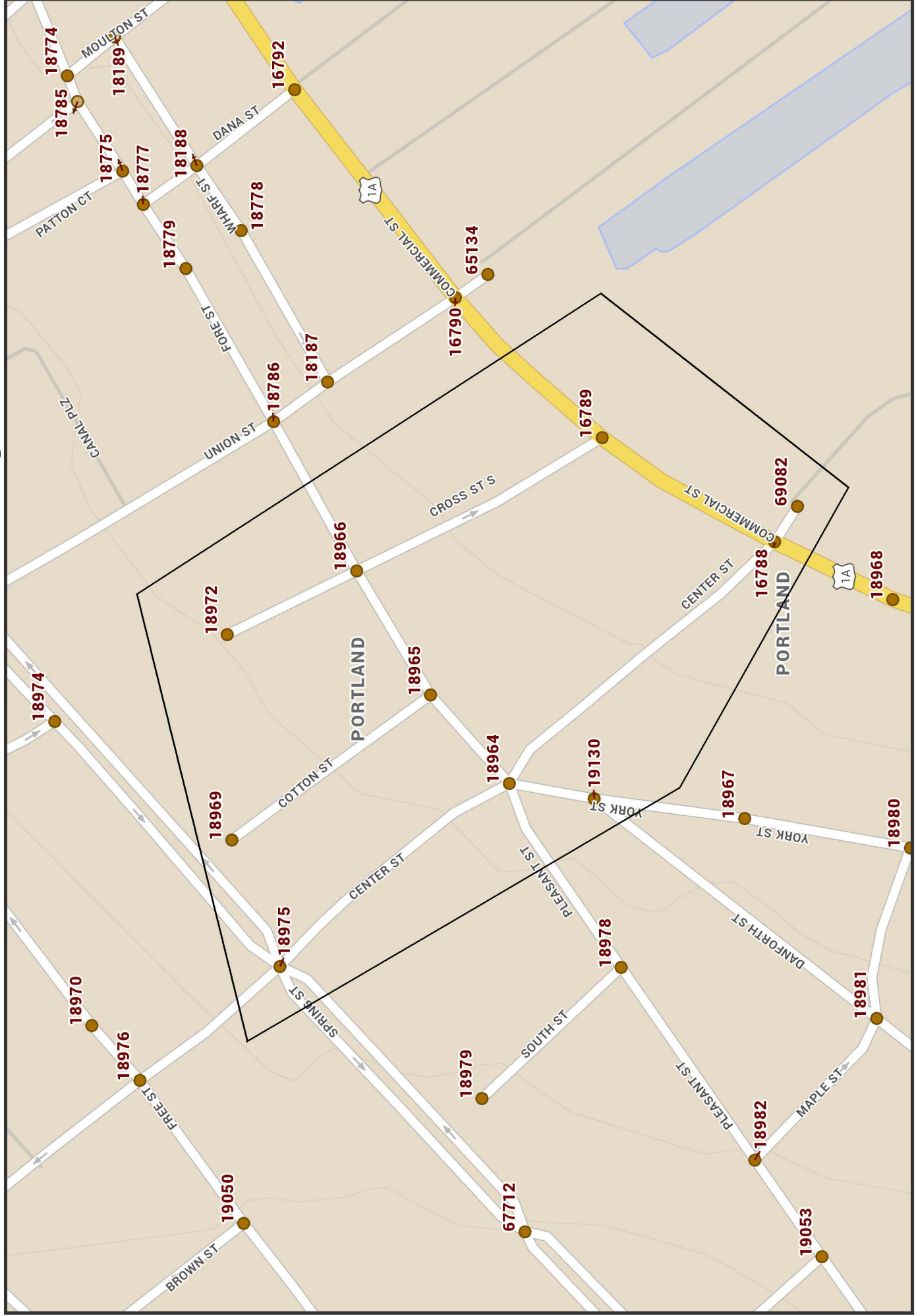
2.B. Attachments

Attachment 2A – Node Map, Crash Summary Report

Attachment 2A

Node Map
Crash Report

NODE MAP - PORTLAND SQUARE



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.

0.07 Miles
1 inch = 0.05 miles

Date: 3/14/2019
Time: 11:58:08 AM

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 - intersections and entering links in the area of Center St where it intersects with Fore St and Commercial St

REPORT PARAMETERS

Year 2015, Start Month 1 through Year 2017 End Month: 12

Route: 0001A	Start Node: 18968 End Node: 16790	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560286	Start Node: 18786 End Node: 18964	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 0560584	Start Node: 18978 End Node: 18964	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 3209862	Start Node: 16788 End Node: 69082	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560122	Start Node: 16788 End Node: 18964	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560122	Start Node: 18964 End Node: 18975	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 3200508	Start Node: 18964 End Node: 18967	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560191	Start Node: 19130 End Node: 18981	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0561017	Start Node: 18966 End Node: 18972	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 0561017	Start Node: 16789 End Node: 18966	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node

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 - intersections and entering links in the area of Center St where it intersects with Fore St and Commercial St

REPORT PARAMETERS

Year 2015, Start Month 1 through Year 2017 End Month: 12

Route: 0561016	Start Node: 18965 End Node: 18969	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 3209786	Start Node: 67712 End Node: 18975	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560672	Start Node: 18975 End Node: 18974	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560122	Start Node: 18975 End Node: 18976	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 Injury			Crash Rate	Critical Rate	CRF
					A	B	C	PD						
16789	0001A - 11.41	Int of COMMERCIAL ST CROSS ST S	2	4	0	0	1	1	2	50.0	5.107	0.26	0.39	0.00
												Statewide Crash Rate: 0.16		
16788	0001A - 11.35	Int of CENTER ST COMMERCIAL ST ENT TO FISH PIER	9	6	0	0	0	0	6	0.0	5.797	0.34	1.24	0.00
												Statewide Crash Rate: 0.74		
18966	0560286 - 0.95	Int of CROSS ST S FORE ST	2	1	0	0	0	1	0	100.0	2.423	0.14	0.45	0.00
												Statewide Crash Rate: 0.15		
18964	0560286 - 1.02	Int of CENTER ST, FORE ST, PLEASANT ST, YORK ST	9	11	0	0	1	2	8	27.3	3.961	0.93	1.34	0.00
												Statewide Crash Rate: 0.74		
18965	0560286 - 0.99	Int of COTTON ST FORE ST	2	2	0	0	1	0	1	50.0	2.481	0.27	0.45	0.00
												Statewide Crash Rate: 0.15		
18975	0560122 - 0.20	Int of CENTER ST SPRING ST	9	12	0	0	2	4	6	50.0	3.338	1.20	1.39	0.00
												Statewide Crash Rate: 0.74		
19130	3200508 - 0.02	Int of DANFORTH ST YORK ST	9	2	0	0	1	0	1	50.0	2.551	0.26	1.48	0.00
												Statewide Crash Rate: 0.74		
18972	0561017 - 0.12	End of CROSS ST S	2	0	0	0	0	0	0	0.0	0.087	0.00	0.11	0.00
												Statewide Crash Rate: 0.14		
18969	0561016 - 0.07	End of COTTON ST	2	1	0	0	0	0	1	0.0	0.068	4.94	-0.19	0.00
												Statewide Crash Rate: 0.14		
Study Years: 3.00														
NODE TOTALS:				39	0	0	6	8	25	35.9	25.813	0.50	0.71	0.71

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Injury Percent	Annual HMVM	Crash Rate	Critical Rate	CRF
16788	18968	3119256	0 - 0.04	0001A - 11.31 US 1A	0.04	2	3	0	0	2	1	66.7	0.00223	447.73	608.83 Statewide Crash Rate: 218.39	0.00
16788	16789	3120368	0 - 0.06	0001A - 11.35 US 1A	0.06	2	7	0	0	0	5	0.0	0.00285	817.38	571.37 Statewide Crash Rate: 218.39	1.43
16789	16790	3120311	0 - 0.06	0001A - 11.41 US 1A	0.06	2	7	0	0	1	5	28.6	0.00278	839.47	575.31 Statewide Crash Rate: 218.39	1.46
18786	18966	3106807	0 - 0.05	0560286 - 0.90 RD INV 05 60286	0.05	2	1	0	0	0	1	0.0	0.00116	288.50	609.06 Statewide Crash Rate: 174.81	0.00
18965	18966	3124004	0 - 0.04	0560286 - 0.95 RD INV 05 60286	0.04	2	1	0	0	0	1	0.0	0.00094	352.98	638.21 Statewide Crash Rate: 174.81	0.00
18964	18965	3106829	0 - 0.03	0560286 - 0.99 RD INV 05 60286	0.03	2	0	0	0	0	0	0.0	0.00074	0.00	672.52 Statewide Crash Rate: 174.81	0.00
18964	18978	194644	0 - 0.07	0560584 - 0.26 RD INV 05 60584	0.07	2	5	0	0	1	4	20.0	0.00031	5299.07	1571.45 Statewide Crash Rate: 407.82	3.37
16788	69082	3506290	0 - 0.01	3209862 - 0 RD INV 3209862	0.01	2	0	0	0	0	0	0.0	0.00000	0.00	- Statewide Crash Rate: 407.82	0.00
16788	18964	192464	0 - 0.10	0560122 - 0 RD INV 05 60122	0.10	2	2	0	0	0	1	0.0	0.00125	533.75	1124.22 Statewide Crash Rate: 407.82	0.00
18964	18975	194643	0 - 0.10	0560122 - 0.10 RD INV 05 60122	0.10	2	4	0	0	1	3	25.0	0.00124	1079.48	1127.47 Statewide Crash Rate: 407.82	0.00
18964	19130	3106830	0 - 0.02	3200508 - 0 RD INV 3200508	0.02	2	0	0	0	0	0	0.0	0.00050	0.00	719.91 Statewide Crash Rate: 174.81	0.00
18967	19130	194651	0 - 0.04	3200508 - 0.02 RD INV 3200508	0.04	2	0	0	0	0	0	0.0	0.00073	0.00	1289.57 Statewide Crash Rate: 407.82	0.00
18981	19130	3106832	0 - 0.10	0560191 - 0 RD INV 05 60191	0.10	2	4	0	0	0	2	0.0	0.00075	1787.17	671.33 Statewide Crash Rate: 174.81	2.66
18966	18972	194648	0 - 0.04	0561017 - 0.08 RD INV 05 61017	0.04	2	1	0	0	0	1	0.0	0.00007	4796.44	1612.40 Statewide Crash Rate: 407.82	2.97
16789	18966	192467	0 - 0.08	0561017 - 0 RD INV 05 61017	0.08	2	0	0	0	0	0	0.0	0.00033	0.00	1556.43 Statewide Crash Rate: 407.82	0.00
18965	18969	194647	0 - 0.07	0561016 - 0 RD INV 05 61016	0.07	2	1	0	0	0	0	0.0	0.00009	3526.03	1733.84 Statewide Crash Rate: 407.82	2.03
67712	18975	3417147	0 - 0.10	3209786 - 0.17 RD INV 3209786	0.10	2	0	0	0	0	0	0.0	0.00067	0.00	685.28 Statewide Crash Rate: 174.81	0.00

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18974	18975	3119282 Int of CROSS ST N SPRING ST	0 - 0.10	0560672 - 1.02 RD INV 05 60672	0.10	2	1	0	0	0	1	0.0	0.00157	212.93	565.33	0.00
18975	18976	194658 Int of CENTER ST SPRING ST	0 - 0.04	0560122 - 0.20 RD INV 05 60122	0.04	2	0	0	0	0	0	0.0	0.00039	0.00	1504.36	0.00

Study Years: 3.00 Section Totals: 1.15 37 0 0 1 5 25 16.2 0.01861 662.79 411.40 1.61

Grand Totals: 1.15 76 0 0 7 13 50 26.3 0.01861 1361.41 554.84 2.45

Section 3 Development Entrances and Exits

3.A. Entrance and Exit Locations

The site is located on two adjacent blocks, referred to as the upper lot and lower lot, located in Portland, Maine.

The existing upper lot is accessed through an enter only driveway at the end of Cross Street and an exit only driveway onto Cross Street to the south of the existing entrance. The upper lot is proposed to be accessed via four full movement accesses onto the site; one full movement into the parking garage from Cross Street, one full movement into the parking garage from Cotton Street, one full movement into the parking garage from Spring Street, and one service access onto Cross Street.

The existing lower lot has one full movement access on Center Street. The existing site is being used as a public parking lot. The lower lot is proposed to include three site accesses; one full movement into the parking garage and one potential minor access onto Cross Street, and one service access onto Center Street.

3.B. Plan View

Attachment 1A of Section I shows the proposed site plan.

- Frontage Roads – Center Street, Cross Street, Cotton Street, and Spring Street.
- Posted Speed Limit – Unposted on Center Street, Cross Street, Cotton Street, and Spring Street, so assumed to be 25 mph.
- Sight Lines – A speed limit of 25 mph requires a MaineDOT and City of Portland sight distance of 200 feet. Sight distance is measured as follows:

The MaineDOT evaluation method is as follows:

Driveway observation point:	10 feet from traveled way
Height of eye at driveway:	3 ½ feet above ground
Height of approaching vehicle:	4 ¼ feet above ground

Based on a field review, it appears the sight distances at all accesses, including service accesses, can be accomplished. However, on-street parking would need to be removed adjacent to the driveways along several streets in order to achieve the recommended sight distances. It should be noted that limited available sight distance due to on-street parking is extremely common throughout the City. The following tables summarize sight distances if parking spaces were not a factor:

Sight Distance Summary Upper Lot

Approach	Sight Distance (ft)			
	Portland Required	MaineDOT Required ¹	Looking Left	Looking Right
Cross Street (Exit)	200	200	170 ¹	30 ¹
Cross Street (Service Access)	200	200	N/A	N/A
Spring Street (Exit)	200	200	200 ¹	200 ¹
Cotton Street (Exit)	200	200	170 ¹	170 ¹

¹ = Road ended or went to next intersection

Sight Distance Summary Lower Lot

Approach	Sight Distance (ft)			
	Portland Required	MaineDOT Required ¹	Looking Left	Looking Right
Cross Street (Exit)	200	200	115 ¹	-- ²
Cross Street (Potential Access)	200	200	200	-- ²
Center Street (Service Access)	200	200	200	200 ¹

¹ = Road ended or went to next intersection

² = One-way street

This will need to be discussed in more detail at the Scoping Meeting and then in Section 7, Traffic Impact Study.

Section 4

Title, Right, or Interest

4.A. Evidence of Title, Right, or Interest

A copy of the Deeds are included in Attachment 4A.

4.B. Attachments

Attachment 4A – Deeds

Attachment 4A

Deeds

QUITCLAIM WITH COVENANT DEED

DLN:1001540002732

RREEF AMERICA REIT III-Z4 LLC, a Delaware limited liability company with a place of business in 222 South Riverside Plaza, Chicago, Illinois 60606-5808 for consideration paid, grants to North River IV LLC, a Delaware limited liability company with a place of business at 224 12th Avenue, New York, NY 10001, with **QUITCLAIM COVENANT**, the land, together with all improvements thereon and all rights and easements appurtenant thereto, located at or near Union street and Fore street consisting of unites 1-6 One Portland Square, a Business Condominium, the building known as Two Portland Square and certain related parcels, Portland, Cumberland County, Maine, more particularly described on **Exhibit A** attached hereto.

IN WITNESS WHEREOF, RREEF America REIT III-Z4 LLC, has caused this deed to be executed by James E. Toney, Assistant Vice President its duly authorized Assistant Vice President, this 26th day of March, 2015.

RREEF AMERICA REIT III-Z4 LLC,
a Delaware limited liability company,

By: RREEF AMERICA REIT III-Z LLC,
a Delaware limited liability company, its manager,

James E. Toney
By: James E. Toney

Its duly authorized Assistant Vice President

Witness:

Vanessa C. Ziv

STATE OF ILLINOIS
COUNTY OF COOK

March 26, 2015

Personally appeared before me the above-named James E. Toney, Assistant Vice President of RREEF America REIT III-Z LLC, a Delaware limited liability company, manager of RREEF America REIT III-Z4 LLC, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said company.

Beverly A. Dillon

Notary Public/Attorney at Law

Print name: Beverly A. Dillon



MAINE REAL ESTATE TAX-Paid

EXHIBIT A**Legal Description**

Tract 1:

Parcel One - One Portland Square.

Units No. 1, 2, 3, 4, 5, and 6 of One Portland Square, a business condominium, situated at the corner of Union and Spring Streets in the City of Portland, County of Cumberland and State of Maine, as more particularly described in the Declaration of One Portland Square, a business condominium, dated as of October 27, 1987 and recorded in the Cumberland County Registry of Deeds on October 29, 1987 in Book 8039, Page 37, and in the plats and plans incorporated into the declaration and recorded in the Cumberland County Registry of Deeds in Plan Book No. 166, Page 44 sheets 1 through 13, by virtue of the recording of which declaration, plats and plans, the declarant created the condominium pursuant to the Maine Condominium Act, Title 33 of the Maine Revised Statutes of 1964, as amended, Chapter 31, Sections 1601-101 et seq., as amended.

Parcel Two - Upper Parking

A parcel of land shown as "Lot 3" on a land title survey prepared for Northland Realty Corporation by Lewis & Wasina, Inc. dated April 5, 1995, Project No. 9508 located on the southerly side of Spring Street Arterial, the easterly side of Cotton Street and the northerly side of Fore Street, City of Portland, County of Cumberland, State of Maine, and being more particularly described as follows:

Beginning at a found rebar at the intersection of the northerly right of way line of Fore Street and the easterly right of way line of Cotton Street;

Thence, N24° 18' 44" W along the easterly right of way line of Cotton street a distance of 356.32 feet to a set 5/8 inch rebar with aluminum cap stamped "Lewis & Wasina PLS 2114" at the southerly right of way line of Spring Street Arterial;

Thence, N65° 47' 27" E along the southerly right of way line of Spring Street Arterial a distance of 89.72 feet to a found rebar;

Thence, continuing to follow the southerly right of way line of Spring Street Arterial along a curve to the left having a delta of 3° 11' 35", a radius 3887.30 feet, an arc length of 216.65 feet and a chord bearing and length of N64° 11' 39" E, 216.62 feet to a found drill hole in a concrete sidewalk;

Thence, S11° 09' 10" E following the former easterly right of way line of cross street, now discontinued, along lot 1 and lands conveyed by deed to Two Portland Square limited partnership as shown on said plan a total distance of 413.33 feet to a found rebar on the northerly right of way line of Fore Street;

Thence, S78° 49' 49" W along the northerly right of way line of Fore Street a distance of 79.03 feet to a found rebar;

Thence, S75° 13' 06" W along the northerly right of way line of fore street a distance of 137.10 feet to the point of beginning.

All the above mentioned found rebar are 5/8 inch with aluminum cap stamped "SMRT RLS 1314".

Reference should be made to the plan for further details of the boundary and easements.

The basis of bearing for this description is magnetic North, 1972, as shown on said plan.

Parcel Three - Lower Parking

A certain lot or parcel of land being the majority of the block bounded northerly by Fore Street, easterly by Cross Street, southerly by Commercial Street and westerly by Center Street in the City of Portland, County of Cumberland, and State of Maine and further bounded and described as follows:

Beginning at a drill hole at the intersection of the northwesterly line of Commercial Street and the easterly line of Center Street, said point also being the most southwesterly corner of certain land conveyed to the Atbro Corporation by Deed dated October 3, 1979, and recorded in the Cumberland County Registry of Deeds in Book 4506, Page 48;

Thence North 43° 29' 22.8" East along Commercial Street, a distance of 69.18 feet to a reinforcing rod;

Thence North 46° 50' 30" East along said Commercial Street, a distance of 54.32 feet to a reinforcing rod;

Thence North 52° 30' 11.2" east along said Commercial Street, a distance of 35.64 feet to a drill hole;

Thence North 24° 17' 37.6" West along land formerly of Ari Newman and Lee Beamis, and now Harbor Landing Condominium, see Declaration of Condominium recorded in Book 6505, Page 312, Cumberland County Registry of Deeds, a distance of 93.23 feet to a reinforcing rod;

Thence North 65° 44' 46" East along land now or formerly of said Ari Newman and Lee Beamis, a distance of 109.60 feet to a P.K. spike in the westerly line of Cross Street;

Thence North 13° 21' 13.9" West along said Cross Street, a distance of 287.70 feet to a reinforcing rod, said point being located at the intersection of the westerly line of Cross Street and the southerly line of Fore Street;

Thence South 69° 41' 09.0" West along said Fore Street, a distance of 318.64 feet to a reinforcing rod, said point being located at the intersection of the southerly line of Fore Street and the easterly line of Center Street;

Thence South 24° 16' 16.2" East along said Center Street, a distance of 451.12 feet to the point of beginning.

Excepting from the above described premises those premises taken by the State of Maine by its Department of Transportation set forth in its notice of layout and taking dated August 21, 1991 and recorded in the Cumberland County Registry of Deeds in Book 9688, Page 341.

Tract 2: Two Portland Square.

A certain lot or parcel of land with any buildings thereon situated at the intersection of Fore Street and Union Street in the City of Portland, County of Cumberland, and State of Maine, being Lot 2 on plan for Two Portland Square Subdivision by Stevens Morton Rose & Thompson dated October 22, 1987, revised to September 18, 1989 and recorded in Plan Book 182, Page 29.

Subject to and together with that certain parking easement established in Declaration of Easement by Portland Square limited partnership dated December 18, 1989 and recorded in Book 9028, Page 117, as affected by Subject Property Notice dated December 18, 1989 and recorded in Book 9028, Page 136, and by Permitted Parking Areas Plan dated December 18, 1989 and recorded in Book 9028, Page 141.

Rights, easements, covenants, conditions and restrictions set forth in Declaration of Easement by Portland Square Limited Partnership dated October 30, 1987, recorded at Book 8045, Page 303, as affected by Additional Declaration of Easement dated December 18, 1989, recorded at Book 9028, Page 92, Release of Easement dated December 18, 1989, recorded at Book 9028, Page 97, Subject Property Notice dated December 18, 1989, recorded at Book 9028, Page 102, and Permitted Parking Areas Plan dated December 18, 1989, recorded at Book 9028, Page 112.

Section 5

Public or Private Right-of-Way

5.A. Public or Private Rights-of-Way

The site is proposed to be accessed as described in Section 3. No additional public or private rights of way are proposed.

Section 6

Schedule

6.A. Schedule

The proposed project is planned to be constructed in phases, with the first phase being the hotel. The remaining phases are planned to be completed over the next ten years, with full buildout by end of 2029.



Portland Square

Master Development Plan

Portland, Maine

Owner / Developers
NORTH RIVER, LLC
New York, NY

CARROLL ASSOCIATES
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Revisions	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Drawing Title: Scale: 1"=40'-0"

SITE PLAN

Date: JULY 30, 2019

Phase: Permitting

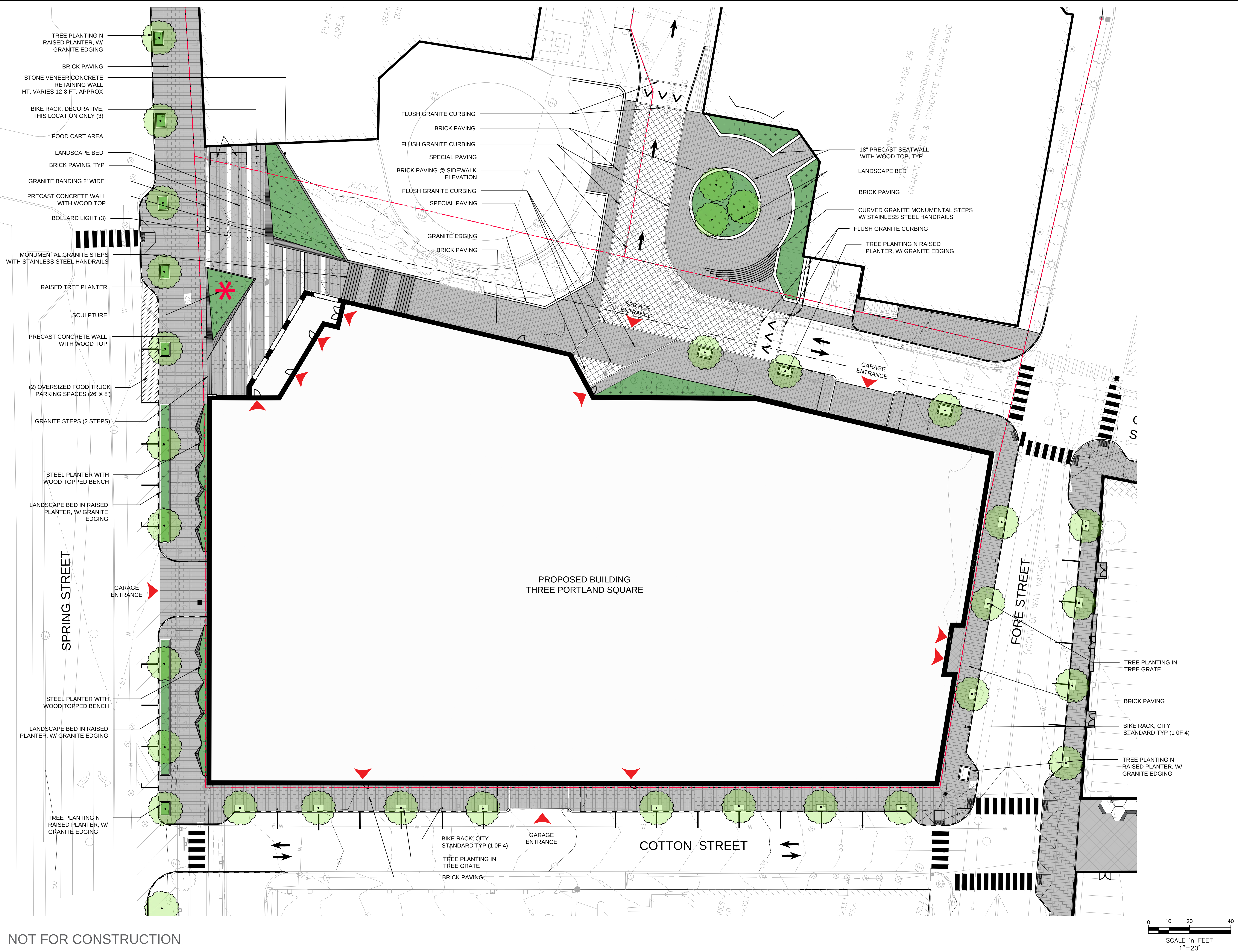
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SCALE in FEET
1"=40'

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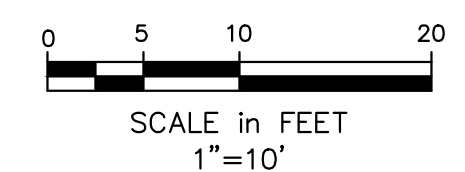
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Drawing Title:	Scale: 1"= 10'-0"
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L1.3



NOT FOR CONSTRUCTION



Portland Square

Master Development Plan

Portland, Maine

Owner / Developers
NORTH RIVER, LLC
New York, NY

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Revisions	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
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	MDP SUBMISSION TO CITY	REV. MDP SUBMISSION TO CITY	REV. MDP SUBMISSION TO CITY																											

Drawing Title: Scale: 1"=40'-0"

CONCEPTUAL LANDSCAPE PLAN

Date:
Phase: Permitting

L1.1



PLANT SCHEDULE - STREET TREES					
SYM.	BOTANICAL NAME	COMMON NAME	APPROPRIATE LOCATION	MATURE SIZE (HEIGHT X SPREAD)	NATIVE
	GLEDTISIA TRIACANTHOS VAR. INERMIS	THORNLESS HONEYLOCUS	STREET TREE / FULL SUN	50' X 35'	NO
	ZELKOVA SERRETA 'GREEN VASE'	GREEN VASE ZELKOVA	STREET TREE / FULL SUN	70' X 35'	NO
	QUERCUS PALUSTRIS	PIN OAK	STREET TREE / FULL SUN	50' X 40'	NO
	GINKGO BILOBA	GINKO	STREET TREE / PART SHADE	60' X 30'	NO
	ACER RUBRUM 'KARPICK'	RED MAPLE	STREET TREE / PART SHADE	40' X 15'	YES

PLANT SCHEDULE - EXTENSIVE GREENROOF					
SYM.	BOTANICAL NAME	COMMON NAME	APPROPRIATE LOCATION	MATURE SIZE (HEIGHT X SPREAD)	NATIVE
	SEDUM REFLEXUM 'BLUE SPRUCE'	STONECROP	FULL SUN	8"	NO
	ALLIUM SCHOENOPRASUM	CHIVES	FULL SUN/PART SHADE	10"	NO
	SEDUM SPURIMUM 'DRAGON'S BLOOD'	TWO ROW STONECROP	FULL SUN	4"	NO
	SEDUM SEXANGULARE	STONECROP	FULL SUN/SHADE	4"	NO
	CAREX PENSYLVANICA	SEDGE	PLANTER / FULL SHADE	6"	YES
	ANEMONE PATENS	PASQUE FLOWER	FULL SUN	6"	YES
	FRAGARIA VIRGINIANA	WILD STRAWBERRY	FULL SUN	6"	YES
	SOLIDAGO PTARMICOIDES	UPLAND WHITE ASTER	FULL SUN	12"	YES

PLANT SCHEDULE - SHRUBS, GROUNDCOVERS & HERBACEOUS					
SYM.	BOTANICAL NAME	COMMON NAME	APPROPRIATE LOCATION	MATURE SIZE (HEIGHT X SPREAD)	NATIVE
	CLETHRA ALNIFOLIA 'COMPACTA'	SUMMERSWEET	PLANTER / PART SHADE	4' X 4'	YES
	RHUS AROMATICA 'GRO-LOW'	FRAGRANT SUMAC	PLANTER / PART SHADE	2' X 6'	YES
	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN	PLANTER / PART SHADE	18" HT.	YES
	ARCTOSTAPHYLOS UVA-URSI	BEARBERRY	PLANTER / PART SHADE	6" X 36"	YES
	PENNISETUM ALOPECUROIDES	DWARF FOUNTAIN GRASS	PLANTER / SUN	24" X 24"	NO
	ILEX GALABRA 'SHAMROCK'	INKBERRY, SHAMROCK	PLANTER / PART SHADE	5' X 5'	NO
	HYDRANGEA ARBORESCENS	SMOOTH HYDRANGEA	PLANTER / PART SHADE	4' X 6'	NO
	AMSONIA HUBRICHTII	BLUESTAR	PLANTER / SUN-PART SHADE	3' X 3'	YES
	CAREX PENSYLVANICA	SEDGE	PLANTER / FULL SHADE	6" X 12"	YES
	ALLIUM SPHAEROCEPHALON	DRUMSTICK ALLIUM	PLANTER / SUN	4" X 24"	NO
	ALLIUM GLOBEMASTER	FLOWERING ONION	PLANTER / SUN	36" X 18"	NO

0 20 40 80
SCALE in FEET
1"=40'

MASTER DEVELOPMENT PLAN

Portland, Maine

Owner / Developers
NORTH RIVER, LLC
New York, NY

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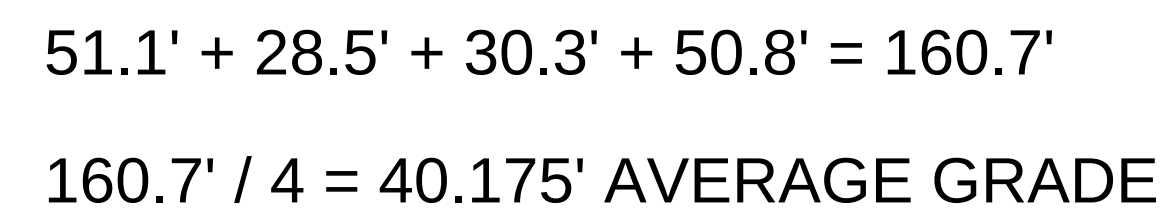
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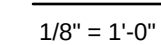


AVERAGE GRADE CALCULATION DIAGRAM

[illegible]

A3.1

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A2.1

Portland Square

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Portland, Maine

Owner / Developers
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New York, NY

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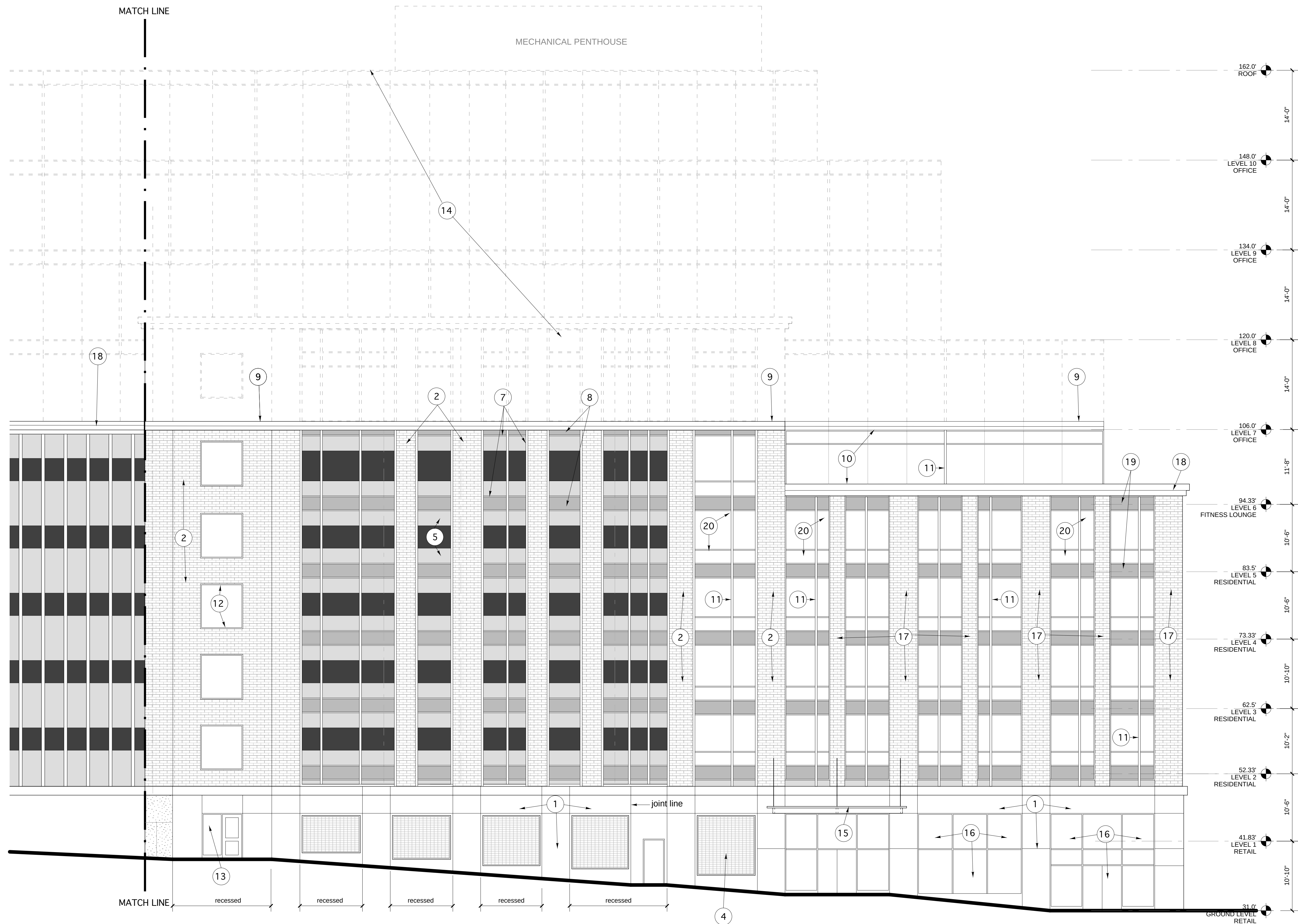
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COTTON STREET ELEVATION (LOWER)

1/8" = 1'-0"

KEYNOTES:

1. Architectural pre-cast cladding.
2. Architectural pre-cast panel with thin brick facing.
3. Architectural pre-cast concrete planters and benches
4. Stainless steel mesh panel in SS Frame.
5. Pre-cast concrete parking structure spandrel panel.
6. Aluminum curtainwall framing verticals @ +/- 3' o.c. (6" Face width x 8" deep) attached with brackets to PC spandrel panels.
7. Aluminum curtainwall framing (no glazing) 2 1/2" sightline, 6" deep horizontals and 10" deep verticals.
8. Pre-finished aluminum faced spandrel panel.
9. Pre-finished aluminum roof edge.
10. Aluminum curtainwall system (thermal break/high efficiency) with butt glazed verticals and 2 1/2" sightline captured glazing at horizontals. Low E tinted glazing with matching spandrel glass at floor structure.
11. 4" sightline x 10" deep vertical aluminum curtainwall feature member - Typical.
12. Heavy Duty Commercial Grade aluminum windows.
13. Heavy Duty Commercial Grade aluminum storefront/entrance system.
14. Curtainwall clad future office building.
15. Steel -framed canopy w/ Tempered Glass supported on SS spider fittings.
16. Aluminum Storefront and Entrances.

17. Brick veneer w/ 1 1/2" cavity over LGMF w/ 2" insulated sheathing and building wrap. Rock wool insulation within stud cavity and GWB finish.
18. Architectural Pre-cast Cornice.
19. Pre-finished aluminum faced insulated spandrel panel.
20. Aluminum curtainwall system (thermal break/high efficiency) 2 1/2" sightline, 8" depth. Low E tinted glazing.
21. Veneer stone panels
22. Pre-cast concrete parking garage structure solid wall panels with punched openings.

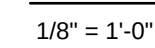
#	Revisions	
	Date	Description

Drawing Title: Scale: 1/16"=1'-0"

UPPER SITE	
BUILDING ELEVATIONS	
Date:	08.22.19
Phase:	Schematic Set for Pricing

A2.3

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17. Brick veneer w/ 1 1/2" cavity over LGMF w/ 2" insulated sheathing and building wrap. Rock wool insulation within stud cavity and GWB finish.
18. Architectural Pre-cast Cornice.
19. Pre-finished aluminum faced insulated spandrel panel.
20. Aluminum curtainwall system (thermal break/high efficiency) 2 1/2" sightline, 8" depth. Low E tinted glazing.
21. Veneer stone panels
22. Pre-cast concrete parking garage structure solid wall panels with punched openings.

Date:	08.22.19
Phase:	Schematic Set for Pricing

A2.4

Portland Square

MASTER DEVELOPMENT PLAN

Portland, Maine

Owner / Developers
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New York, NY

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UPPER CROSS STREET ELEVATION (LOWER)

1/8" = 1'-0"

KEYNOTES:

- Architectural pre-cast cladding.
- Architectural pre-cast panel with thin brick facing.
- Architectural pre-cast concrete planters and benches
- Stainless steel mesh panel in SS Frame.
- Pre-cast concrete parking structure spandrel panel.
- Aluminum curtainwall framing verticals @ +/- 3' o.c. (6" Face width x 8" deep) attached with brackets to PC spandrel panels.
- Aluminum curtainwall framing (no glazing) 2 1/2" sightline, 6" deep horizontals and 10" deep verticals.
- Pre-finished aluminum faced spandrel panel.
- Pre-finished aluminum roof edge.
- Aluminum curtainwall system (thermal break/high efficiency) with butt glazed verticals and 2 1/2" sightline captured glazing at horizontals. Low E tinted glazing with matching spandrel glass at floor structure.
- 4" sightline x 10" deep vertical aluminum curtainwall feature member - Typical.
- Heavy Duty Commercial Grade aluminum windows.
- Heavy Duty Commercial Grade aluminum storefront/entrance system.
- Curtainwall clad future office building.
- Steel -framed canopy w/ Tempered Glass supported on SS spider fittings.
- Aluminum Storefront and Entrances.
- Brick veneer w/ 1 1/2" cavity over LGMF w/ 2" insulated sheathing and building wrap. Rock wool insulation within stud cavity and GWB finish.
- Architectural Pre-cast Cornice.
- Pre-finished aluminum faced insulated spandrel panel.
- Aluminum curtainwall system (thermal break/high efficiency) 2 1/2" sightline, 8" depth. Low E tinted glazing.
- Veneer stone panels
- Pre-cast concrete parking garage structure solid wall panels with punched openings.

Revisions

#

Date

Description

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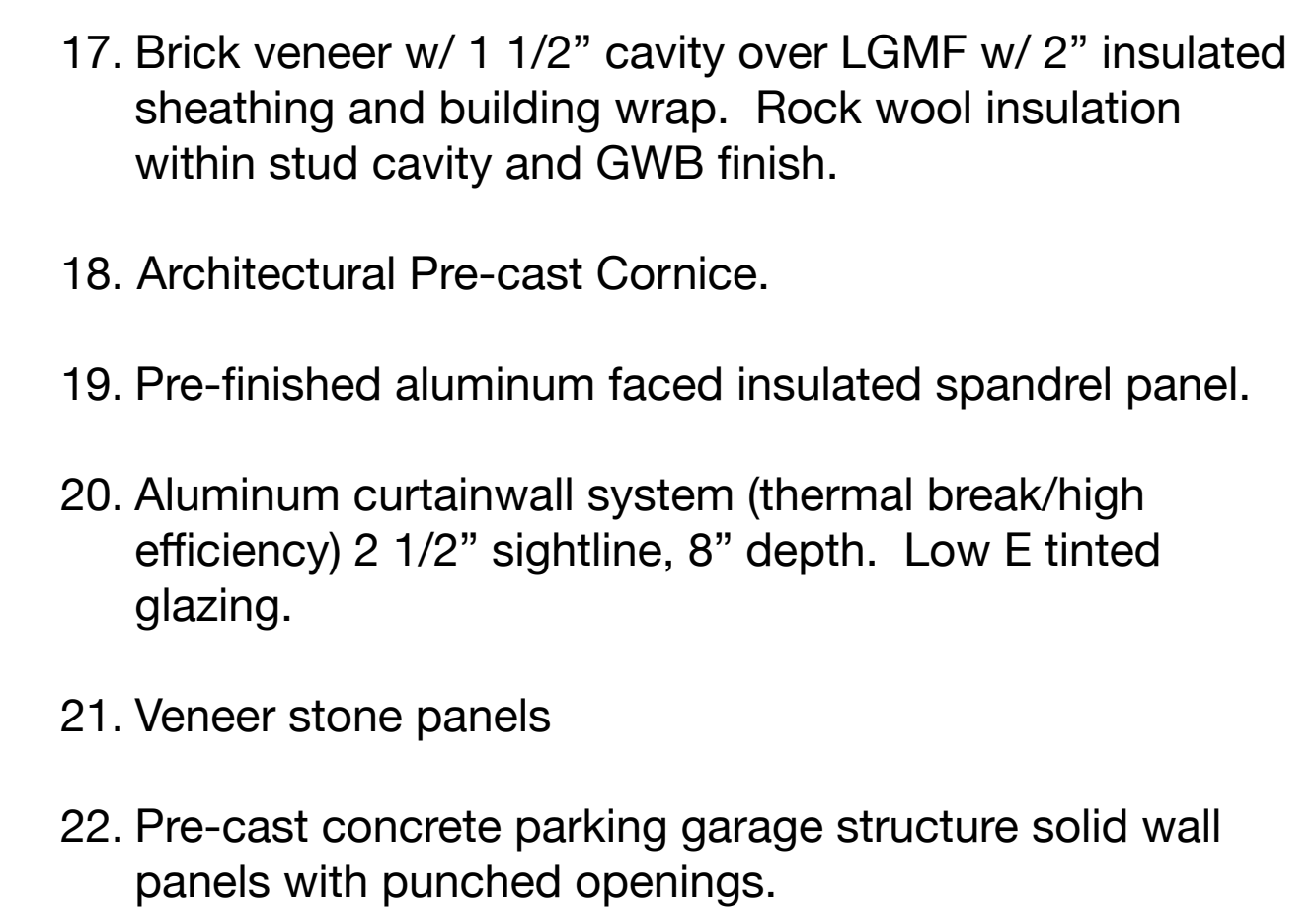
UPPER SITE

BUILDING ELEVATIONS

Date: 08.22.19
Phase: Schematic Set for Pricing

A2.5

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A2.6



REVISED BUILDING CORNER DESIGN AT THE CORNER OF FORE AND CROSS STREETS



VIEW SHOWING RESIDENTIAL ENTRANCE ON COTTON ST AND RETAIL ENTRANCE AT CORNER OF COTTON AND FORE ST.



FORE STREET RETAIL AND OFFICE ENTRANCES



SPRING STREET SIDEWALK PEDESTRIAN ENHANCEMENTS



SPRING STREET PLAZA AND PEDESTRIAN LINK TO PORTLAND SQUARE PARK



N.E. AERIAL VIEW SHOWING REVISED BUILDING SETBACKS AT FORE STREET OFFICE BUILDING

Memorandum

Planning and Urban Development Department

Planning Division



To: Chair Dundon, Members of the Planning Board
From: Christian Roadman, Planner
Date: October 4, 2019
Re: Proposed Rezoning: 631 Stevens Avenue
Meeting: October 8, 2019



The surrounding context of 631 Stevens Avenue, highlighted in teal

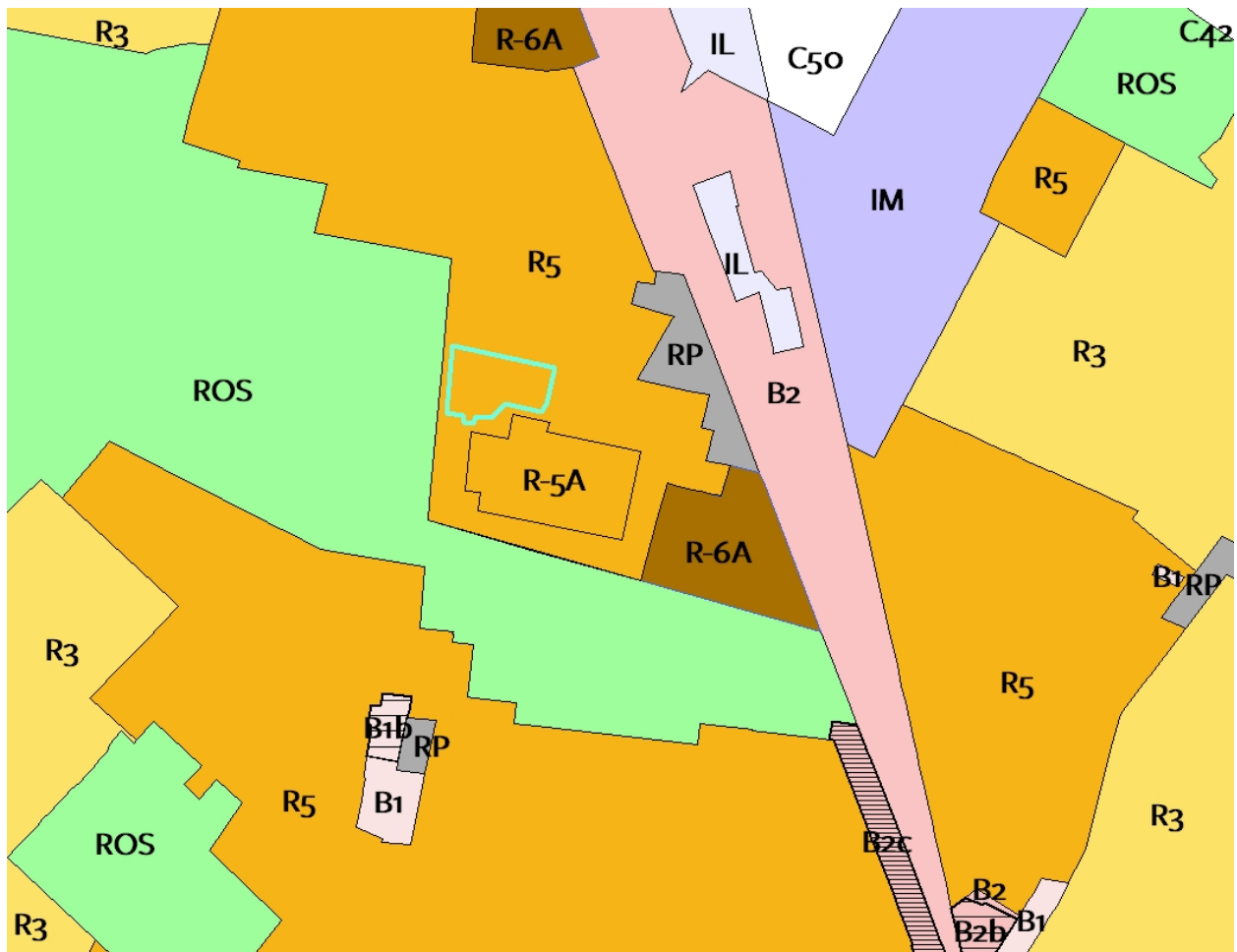
Introduction & Proposal Overview

Developers Collaborative seeks a rezoning of the property at 631 Stevens Avenue, currently zoned R-5 residential, to B-2b community business. The property is located at the corner of Stevens Avenue and Walton Street, across the street from the Evergreen Cemetery, down the road from Baxter Woods, and adjacent to the recently redeveloped Motherhouse apartments (605 Stevens Avenue). 631 Stevens was previously the location of the Maine Girls Academy, which ceased operations in 2018 (though the former

school building recently hosted a winter farmers market and other events). Single family and two family homes sit across from the property on Walton Street.

The current R-5 zoning allows for medium density residential development. The applicant indicated a desire for more flexibility on the site, in part because conversion of the existing former school building to residential use could be difficult. B-2b zoning would permit residential development, live/work spaces, and commercial uses ranging from professional offices and health clubs to breweries, as well as institutional uses like colleges, universities, or trade schools.

The applicant has not laid out a specific development scheme for the property if their desired rezoning is granted. In a presentation to neighbors (**attachment C**) they expressed desire for the property to “be a community building” and noted potential uses for several elements of the building if it is retained (events and athletics in the gymnasium; events and theater groups in the auditorium; office, studios, and retail in the former classrooms; and a health-related business in the pool area). The only prospective tenant currently identified is the health-related business, Health Coaches, Inc.



Zoning context of 631 Stevens Avenue, highlighted in teal

Neighborhood Outreach, Public Comment

The Planning Division mailed 80 notices of this workshop, to property owners within 500 feet of the property. A legal advertisement for the meeting ran on September 27 and September 28. At the time of this writing, the Planning

Department received two public comments against the proposed rezoning (**attachments PC1 and PC2**).

The applicant has not yet held a required neighborhood meeting, though the applicant held an informal meeting in June to introduce the proposed rezoning to neighbors. Their required neighborhood meeting is scheduled.

Zoning and Potential Alternatives

According to the City's zoning code, the R-5 residential zone is intended to:

“provide appropriate areas of the city for medium residential development characterized by single-family and low-intensity multifamily dwellings on individual lots; to ensure the stability of established medium-density neighborhoods by controlling residential conversions; and to provide for planned residential unit development on substantially sized parcels.”

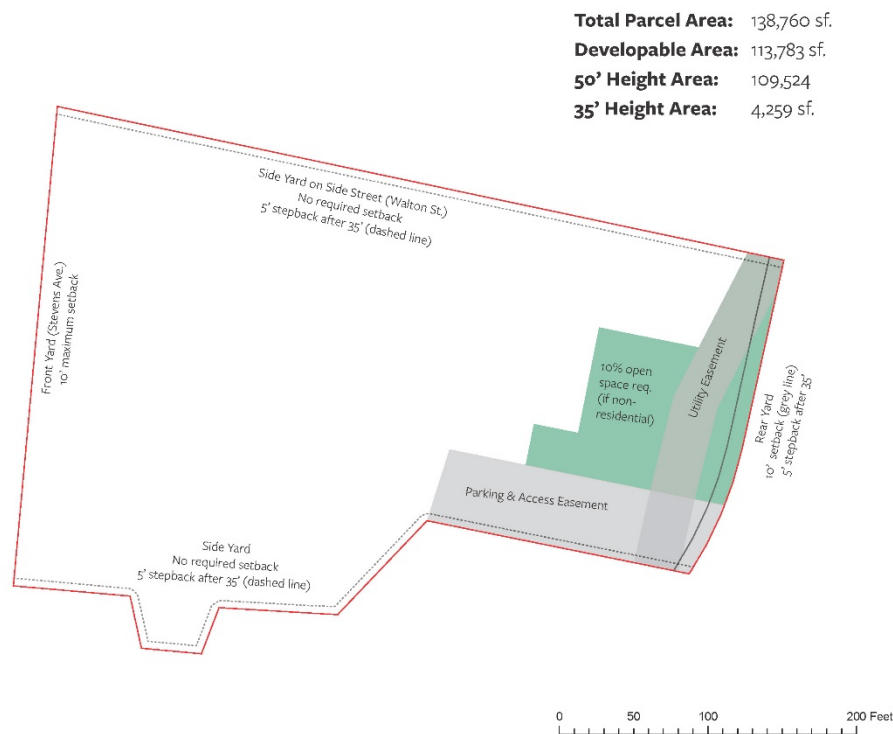
As noted by the applicant, a potential *conditional* use under the R-5 zoning is community hall, which is somewhat in line with their stated vision. Per the zoning code, a community hall is:

“A building or portion of an existing building built for institutional or other non-residential uses and used for social, recreational, artistic, civic, or educational community functions. Such a facility would be open to the public for such functions, which, for example, could include but not be limited to performances, dance, exhibitions, cultural exchange, training programs and workshops, neighborhood meetings or gatherings. As part of these functions and activities, it shall be permissible to serve food, subject to other applicable codes and ordinances.”

In a presentation included in their application materials (**attachment C**), the applicant expressed that the community hall definition feels limiting. As noted above, many more uses are permitted in the B-2b community business zone (including health clubs, which might include the potential health-related tenant identified by the applicant). Per the zoning code:

“The B-2b zone is intended to provide neighborhood and community retail, business and service establishments that are oriented to and built close to the street. The B-2b zone is appropriate in areas where a more compact urban development pattern exists such as on-peninsula or in areas off-peninsula where a neighborhood compatible commercial district is established which exhibits a pedestrian scale and character. Such locations may include the peninsula and other arterials and intersections with an existing urban or neighborhood oriented building pattern.”

Staff note that aspects of this definition are not completely obvious in the proposed rezoning area (“a more compact urban development pattern” and an established “neighborhood compatible commercial district” in particular). Additionally, the potential lot coverage and buildable area under the proposed B-2b rezoning is substantial, as evidenced by a rough estimate by staff (**attachment 1** and reproduced below). If a rezoning is granted, the site could feasibly develop quite differently and more intensely than how it exists today.



Rough buildable area sketch and calculations for the site under B-2b zoning, produced by staff

A separate option, which would introduce flexibility but may fit better with the existing neighborhood context, would be rezoning the property to B-1 neighborhood business zone. Per the zoning code:

“The purpose of the B-1 neighborhood business zone is to provide limited areas for the location of small-scale commercial establishments intended to serve a local market. As a result, uses shall be complimentary, quiet and generally do not disturb the comfort and enjoyment of the adjoining neighborhood environment. Uses shall be designed for the pedestrian scale and will provide convenient access for nearby residents and workers to walk in to purchase goods and services. . . . This zone shall encourage mixed use buildings such as commercial first floor with residential uses above or combined retail/office uses in a multistory structure.”

This description may be better suited to the 631 Stevens Avenue property and its surrounding context. The zone nonetheless allows residential development, live/work spaces, offices, retail establishments, restaurants, and artist studios. The B-1 zone also allows “personal services,” which could likely encompass a fitness-related use of appropriate scale.

Comprehensive Plan

Stevens Avenue is identified as a “priority corridor” in the City’s comprehensive plan, [Portland’s Plan 2030](#), which indicates that a rezoning may be appropriate in the proposed area. As stated in that document:

“Priority corridors are major arterials that often see heavy vehicular traffic, but also have the capacity to improve mobility by capitalizing on their potential for increased walking, bicycling, and transit use. Priority

corridors can also serve as areas of additional mixed-use, higher density growth to take advantage of the transit benefits and services that well-designed, diverse corridors can offer.”

The applicant provided additional analysis of consistency with the comprehensive plan (**attachment B**).

Next Steps

Staff requested traffic generation estimates of the applicant for two scenarios, which have not yet been received as of this writing. The first assumes the existing building re-purposed to serve the potential uses identified earlier (such as events and athletics in the gymnasium; events and theater groups in the auditorium; office, studios, and retail in the former classrooms; and a health-related business in the pool area). The second assumes demolition of the existing building and construction of a new, 60,000 sf. building composed of professional office, with a parking lot for approximately 150 cars. These traffic generation scenarios are intended to help clarify potential impacts to the proposed rezoning.

Staff seek Planning Board feedback regarding whether or not the B-2b community business zone seems appropriate in the proposed area. If not, staff seek Board feedback regarding whether the B-1 neighborhood business zone seems appropriate instead. Any proposed rezoning would need to be recommended by the Planning Board at a future public hearing, then approved by City Council vote.

Report Attachments

1. Potential Buildout Sketch

Public Comment

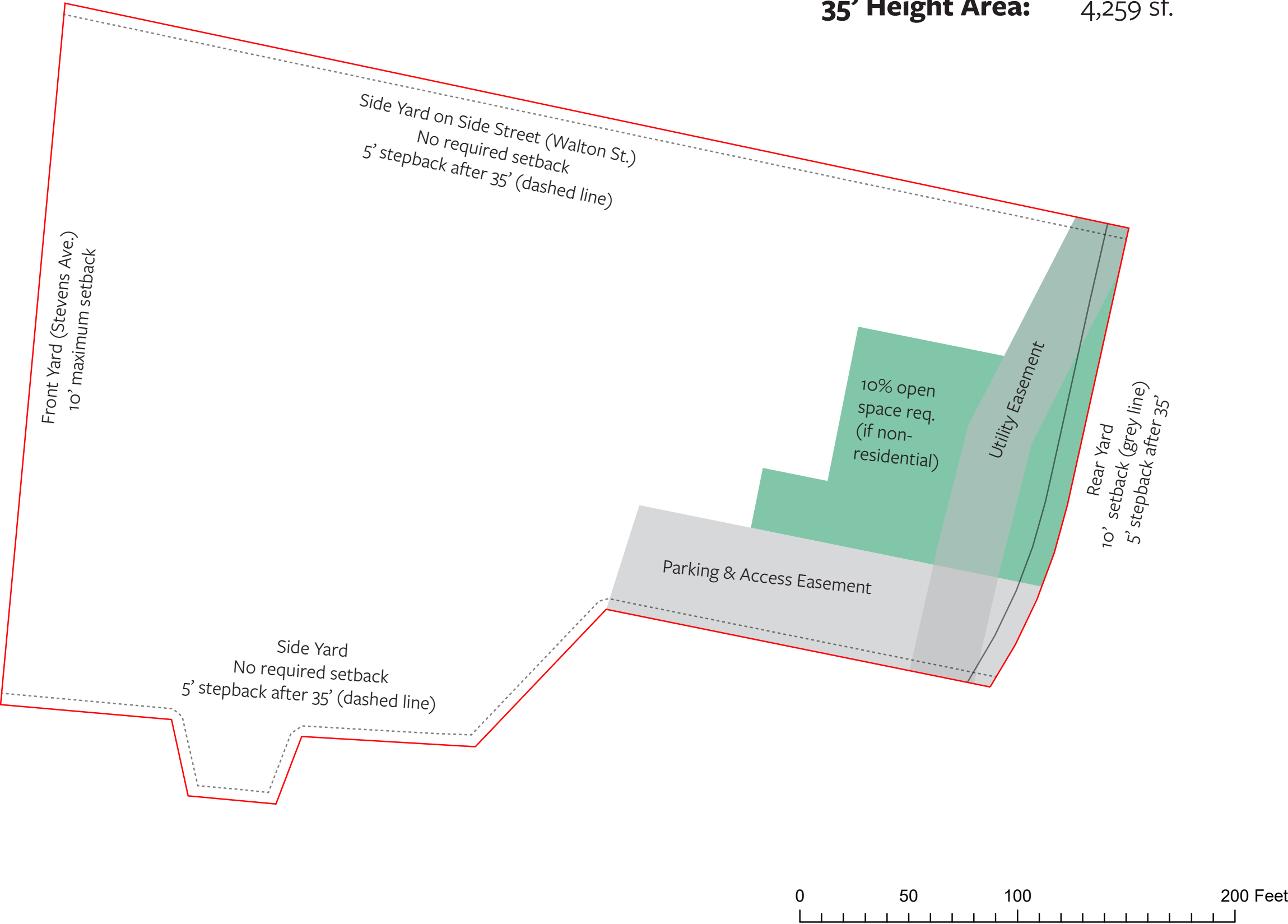
PC1. 10-4-2019

PC2. 10-4-2019

Applicant Submittals

- A. Map Amendment Application Checklist
- B. Consistency with Comprehensive Plan
- C. Proposed Amendment Memo with Attached Presentation
- D. Project Description
- E. Proposed Map Amendment (Illustration)
- F. Right, Title, and Interest
- G. Vicinity Map

Total Parcel Area: 138,760 sf.
Developable Area: 113,783 sf.
50' Height Area: 109,524
35' Height Area: 4,259 sf.



CITY OF PORTLAND
Planning & Urban Development Department

MAP AMENDMENT SUBMISSION CHECKLIST Please submit each document as a separate PDF file Please confirm by electronically checking the boxes to the left	
GENERAL APPLICATION DOCUMENTS	
☒	Project Description Cover Letter with detailed project description
☒	Consistency with Comprehensive Plan Analysis of the consistency of the zone change request with the goals, policies and land use plan of Portland's Comprehensive Plan.
☒	Completed Checklist – Map Amendment Application (this document)
☒	Right, Title and Interest Deeds, leases, or purchase and sales agreements
PLANS	
☒	Vicinity Map
☒	Proposed Map Amendment (please use the Portland zoning map as a reference)
☐	Site Plan (if applicable) Provide a site plan of the property showing existing and proposed improvements, including such features as buildings, parking, driveways, walkways, landscape and property boundaries.

memo

To: Jeff Levine, Planning & Urban Development Director, City of Portland
From: Kevin Bunker, Manager, DC Baxter Woods II LLC
CC: City of Portland Planning & Urban Development Department
Date: July 24, 2019
Re: Proposed Map Amendment for 631 Stevens Avenue
Consistency with the Comprehensive Plan

This application for a Map Amendment to change the land use zone for 631 Stevens Avenue from R-5 (residential) to B2b (mixed-use community business zone) is consistent with the goals, policies, and land use plan of Portland's Comprehensive Plan. On Portland's Future Land Use Plan, 631 Stevens Avenue is located in a residential area, closely surrounded by open space, institutional, and mixed-use/commercial/office areas, and is located along a Priority Corridor (Stevens Avenue). Priority Corridors are "major arterials that often see heavy vehicular traffic, but also have the capacity to improve mobility by capitalizing on their potential for increased walking, bicycling, and transit use. Priority corridors can also serve as areas of additional mixed-use, higher density growth to take advantage of the transit benefits and services that well-designed, diverse corridors can offer." Located on the corner of Stevens Avenue and Walton Street, this site is an ideal location for a community business zone that can provide diverse amenities to the growing residential neighborhood. In addition, the site contains an existing building (the former Maine Girls Academy building) that already has a variety of spaces (e.g. pool, gym, auditorium, classrooms) that can be easily reused to provide amenities that are allowed in the B2b zone, but not the R-5 zone.

This zone change request focuses on creating a more livable neighborhood for residents by providing easy access to diverse businesses, services and cultural amenities, and, as such, is consistent with each of the six themes of Portland's Vision Statement:

Equitable: "We will incorporate the needs of all our residents in planning for our future."

Sustainable: "Portland will grow in order to sustain our community, infrastructure, and economy."

Dynamic: "Vibrant arts and cultural life will be central to our identity."

Secure: "We will strive to create a resilient economy through innovation, investment, and commitment to diversity."

Authentic: "The uniqueness and integrity of our neighborhoods will be maintained and enhanced."

Connected: "We will foster accessible linkages between where we live, work, shop, and play."

This zone change request is also consistent with the following policy goals:

Environment: "Adopt sustainable land use and transportation policies that support connectivity, walkable neighborhoods, and multi-modal transportation."

"Portland's Plan recognizes that strong, complete neighborhoods are fundamental to the city's overall health. Portland's intent for its predominantly residential neighborhoods is one where all residents regardless of age, ability, or income have access to the basic necessities of daily life- high quality and affordable housing, schools and other civic functions, food, open space, other amenities and services – within a walkable, bikeable distance." (p. 79)

Historic: "Promote historic preservation as key economic, sustainability, and community development strategy."

According to a report by the National Trust for Historic Preservation, *The Greenest Building*, reusing an existing building can result in 4 to 46% less environmental impact than new construction, depending on the type of building, location, and level of energy efficiency. The former Maine Girls Academy building lays out well for a variety of commercial and cultural uses and would require minimal renovations for these uses.

Economy: Create economic prosperity by growing Portland's tax and employment base; Value and nurture Portland-based businesses.

More specifically, this zone change is consistent with Economic Strategy #5, Target Areas for Job Growth: "Evaluate zoning and the condition of existing infrastructure in priority areas – downtown, identified neighborhood nodes, and along transit corridors – to ensure that employment and housing growth can be supported." Located along Stevens Avenue, a Priority Corridor, Portland has already identified the need to evaluate zoning on this site to support economic and residential growth.

Transportation: Support livability by improving the quality of life in neighborhoods and improving the public health of residents.

memo

To: Christine Grimando, James Rather, City of Portland Planning & Urban Development Department

From: Kevin Bunker, Manager, DC Baxter Woods II LLC

Date: September 16, 2019

Re: Map Amendment for 631 Stevens Avenue

I am writing to apply for a Map Amendment to change the land use zone for the above referenced property from R-5 to B2b to allow for a variety of commercial and community uses at the site. 631 Stevens Avenue was previously home to the Maine Girls Academy until they suddenly ceased operations in July 2018. The existing building contains about 25,000 square feet of usable classroom space, a gymnasium, indoor pool, and an auditorium. However, the parcel is currently located in the R-5 zone, a residential zone, which only allows the following permitted uses: single and two-family residential dwellings, multiplex development, planned residential unit development (PRUD), parks and other active and passive noncommercial recreation spaces, accessory uses, home occupation, municipal uses, special needs independent living units, and wind energy systems. The R-5 zone also allows the following conditional uses: sheltered care group homes, alteration of a structure not in residential uses to three or more dwelling units, conversion of existing two-family or multiplex structures into lodging houses, use of existing space to accommodate additional dwelling units, institutional uses, off-street parking, utility substations, day care facilities, and temporary wind anemometer towers.

The existing building does not lay out well for a residential conversion, which is primarily what the current zoning allows. Additionally, located on the corner of Stevens Avenue and Walton Street in a growing residential neighborhood (including the adjacent Motherhouse Apartments and Stevens Square Condominiums), 631 Stevens Avenue and the existing building are an ideal location for a neighborhood node to provide commercial and community amenities, such as a fitness center, artist studios, and/or professional offices. However, these uses are not allowed under the current R-5 zone but would be

allowed under the proposed B2b zone. We have a potential fitness center tenant and could attract additional tenants to provide these commercial and community amenities with this proposed map amendment. The B-2b community business zone is “intended to provide neighborhood and community retail, business and service establishments that are oriented to and built close to the street. The B-2b zone is appropriate in areas where a more compact urban development pattern exists such as on-peninsula or in areas off-peninsula where a neighborhood compatible commercial district is established which exhibits a pedestrian scale and character. Such locations may include the peninsula and other arterials and intersections with an existing urban or neighborhood oriented building pattern.” The B-2b zone has a list of allowable uses (attached) that support our vision of the existing building as a node to provide commercial and community amenities for the neighborhood. More specifically, we are most interested in the following permitted uses: general business and professional offices, health clubs and gymnasiums, places of assembly, day care facilities, and studios for artists and craftspeople. This vision of a community business zone is also consistent with the goals, policies, and land use plan of Portland’s Comprehensive Plan, as described in more detail in the attached memo to the City, dated July 24, 2019.

In June 2019, I held a neighborhood meeting at 631 Stevens Avenue to discuss this proposed map amendment (see attached presentation). Between 50 and 60 residents attended the meeting and overall, the proposed reuse of the building was well received and the meeting was very collaborative. Based on this neighborhood support for a reuse of the existing building that requires this zone change, I am submitting this application to amend the zoning map for 631 Stevens Avenue from the R-5 residential zone to the B2-b community business zone. Please let me know what further information I can provide to facilitate the review of this request.

enactment of 44-day extension of moratorium enacted on 7-07-99, effective date 11/01/99 thru 12/15/99; Ord. No. 94-99, 11-15-99; Substitute Ord. No. 189-00, §2, 4-24-00; Ord. No. 151-03/04, 02/23/04; Ord. No. 244-09/10, 6-21-10)

*Editor's Note: Order No. 25, adopted 7-07-99, enacted an emergency 120-day moratorium on drive-through facilities on lots in B-2 Zone adjacent to lots with residential uses effective 7-07-99 through 11-1-99; Ord. No. 94A, adopted 11-01-99 extended the moratorium on said drive-through facilities through December 15, 1999.

Sec. 14-182. Table of uses.

Group ¹	Use	B-2 ²	B-2b	B-2c
R	Single family home	Y	Y	Y
R	Two family home	Y	Y	Y
R	Three family home	Y	Y	Y
R	Multifamily housing	Y	Y	Y
R	Combined live/work spaces provided the living space is at least 33% of the total net floor area	Y	Y	Y
B	General business and professional offices, as defined in section 14-47, and offices of trades	Y	Y	Y
B	Personal services, as defined in section 14-47	Y	Y	Y
B	General retail establishments	Y	Y	Y
B	Pharmacies with retail sales	Y	Y	Y
B	Banking Facilities	Y	Y	Y
B	Restaurants, except that restaurants shall close for all purposes including the service of alcohol no later than 11:00 p.m. unless otherwise authorized by the City Council	Y	Y	Y
B	Drinking establishments, as defined in section 14-47	Y	Y	N
B	Billiard parlors	Y	Y	Y
B	Funeral homes	Y	Y	Y
B	Miscellaneous repair services, excluding motor vehicle repair services	Y	Y	Y
B	Communication studios or broadcast and receiving facilities	Y	Y	Y

Group ¹	Use	B-2 ²	B-2b	B-2c
B	Health clubs and gymnasiums	Y	Y	Y
B	Veterinary hospitals and clinics provided there is no outdoor kennel	Y	Y	Y
B	Theaters and performance halls	Y	Y	Y
B	Hotels, Motels and Inns	Y	Y	Y
B	Bakeries, breweries, distilleries, commercial kitchens and similar uses with a retail component and with a total floor area under 10,000 net sf.	Y	Y	Y
B	Bakeries, breweries, distilleries, commercial kitchens and similar uses with a retail component and with a total floor area of 10,000 net sf. or greater	Y	N	N
B	Expansion of existing dairies	Y	Y	Y
B	Marijuana retail store	Y	C	C
B	Registered dispensary	Y	C	C
B	Small-scale marijuana caregiver	Y	Y	Y
I	Long term, extended and intermediate care facility	Y	Y	Y
I	Clinics, as defined in section 14-47	Y	Y	Y
I	Places of assembly	Y	Y	Y
I	Kindergarten, elementary, middle and secondary schools	Y	Y	Y
I	College, university, trade schools	Y	Y	Y
I	Municipal buildings and uses	Y	Y	Y
O	Lodging houses	Y	Y	Y
O	Day care facilities	Y	Y	Y
O	Accessory uses, as provided in section 14-404 ³	Y	Y	Y
O	Bed and breakfast, subject to the standards of article V (site plan), sections 14-522 and 14-523 notwithstanding. A bed and breakfast may include a meeting facility if for weddings, seminars, receptions, business meetings and the like and if the facility is less than 4,000 net sf.	Y	Y	Y
O	Studios for artists and craftspeople, less than 4,000 net sf.	Y	Y	Y

Group ¹	Use	B-2 ²	B-2b	B-2c
	per space			
W	Wind energy systems, as defined and allowed in Article X, Alternative Energy	Y	Y	Y
U	Utility substations, as defined in section 14-47, subject to the requirements of article V (site plan), sections 14-522 and 14-523 notwithstanding	Y	Y	Y
A	Drive-throughs associated with a permitted or conditional use ⁴	C	N	C
A	Auto service stations	C	N	N
A	Expansion of auto service stations in existence as of November 15, 1999	C	C	C
A	<u>Car washes</u>	C	C	C
A	<u>Automobile dealerships</u>	C	C	C
M	Printing and publishing establishments of 10,000 gross sf. or less	C	C	C
M	Expansion of existing printing and publishing establishments of greater than 10,000 gross sf. in existence since April 4, 1988	C	C	C
M	Wholesale distribution establishments of 10,000 gross sf. or less	C	C	C
M	Research and development and related production establishments of 10,000 gross sf. or less	C	C	C

¹ Uses within the same group lettering may be substituted without being considered a change of use under zoning, provided all dimensional and other requirements of this section are met. Other reviews may be required under City regulations, including but not limited to building permit, subdivision and site plan reviews. However, no additional parking shall be required for changes within the same use group for a change in total floor area up to 10,000 sf, except for the provision of additional housing units.

memo

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Former Maine Girls' Academy update

Developers Collaborative

June 19, 2019

Agenda

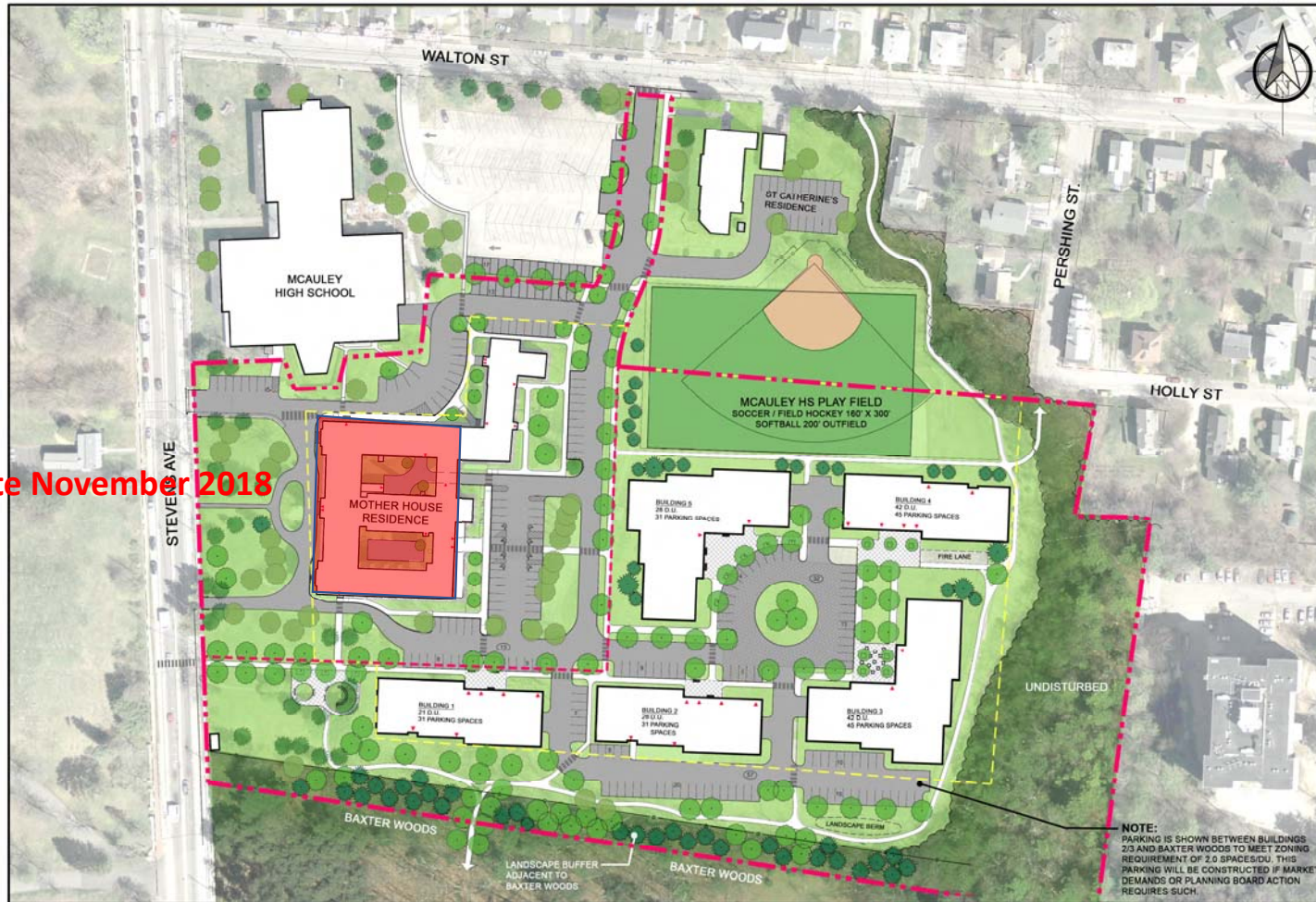
1. Master Plan Update
2. Current status of former MGA
3. Future Plans for MGA
4. Question/Comments/Next Steps

2016 Approved Master Plan



2016 Approved Master Plan

Complete November 2018



Motherhouse Senior Apartments



1. Completed November 2018
2. Approaching full occupancy
3. 66 affordable units; 22 market rate units
4. Winner of MEREDA Notable Project Award
5. Winner of Greater Portland Landmarks' Preservation Award
6. Partnership with UNE's Center for Excellence in Aging and Health

A Special Partnership



UNIVERSITY OF NEW ENGLAND
Center for Excellence
in Aging and Health



Extend Healthspan

Most are familiar with the concept of lifespan. It has been suggested that humans can live to The upper end of the human lifespan is ~120 years. Most living past age 75 can expect a period of months or years of frailty and decline. "Healthspan" is the period of life *before such decline occurs*. Extending healthspan has many benefits for individuals and society.



Engage Solutions

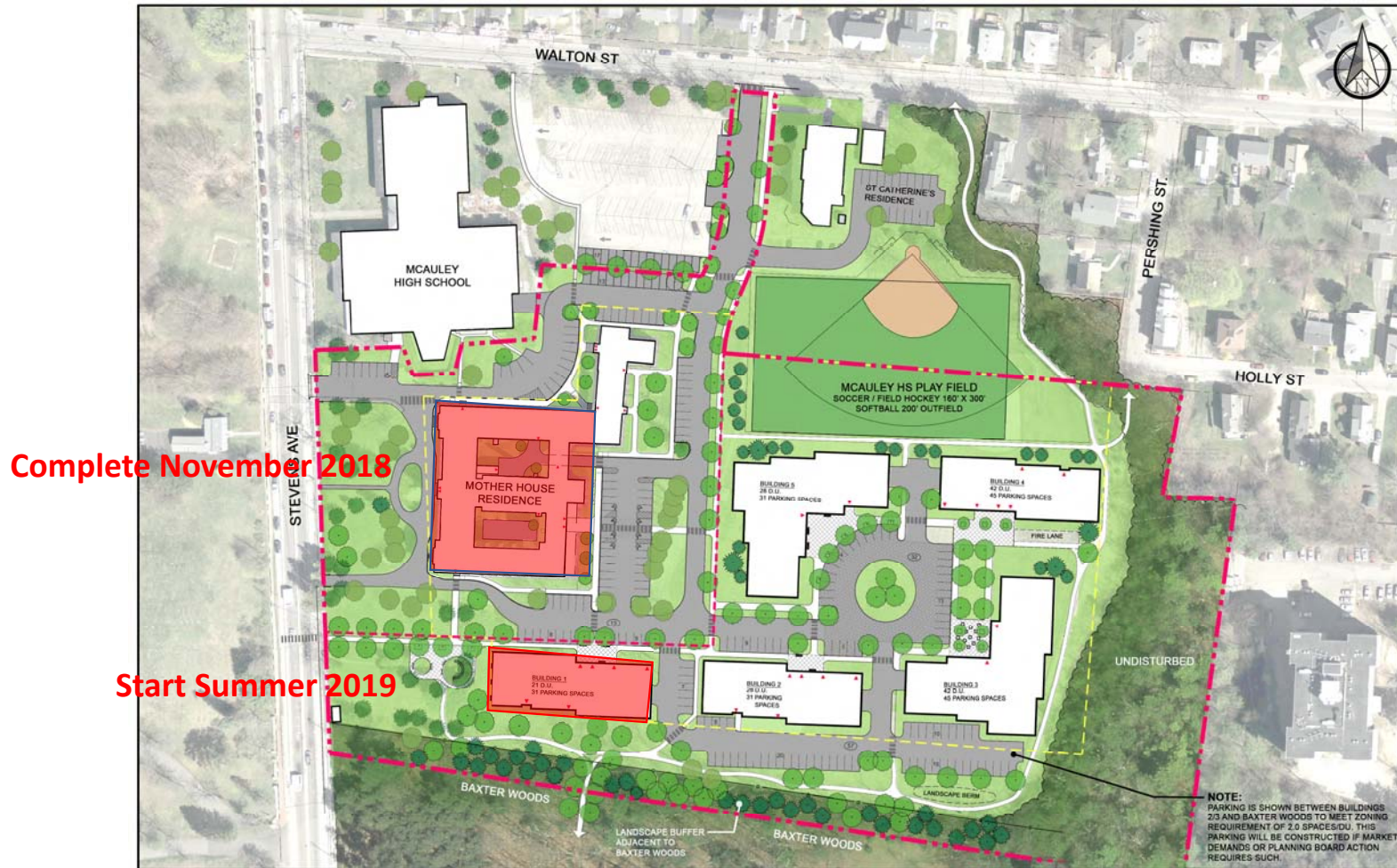
The CEAH maintains a satellite office in the [Motherhouse at Baxter Woods](#) - a celebrated local solution to affordable independent living. Residents engage with UNE students and faculty in shared learning, community building, and participatory research. Many Motherhouse residents are also UNE Legacy Scholars.



Value Elder Voices

The CEAH prioritizes narrative- informed research. Our faculty and students care about what older adults think, feel and believe. Narrative-informed research listens to the perspectives of people in the community. Qualitative interviews enrich and broaden our understanding of quantitative findings.

2016 Approved Master Plan



Stevens Square Condominiums

1. 21 units; market rate; 55+
2. 9 units unreserved
3. Construction this summer

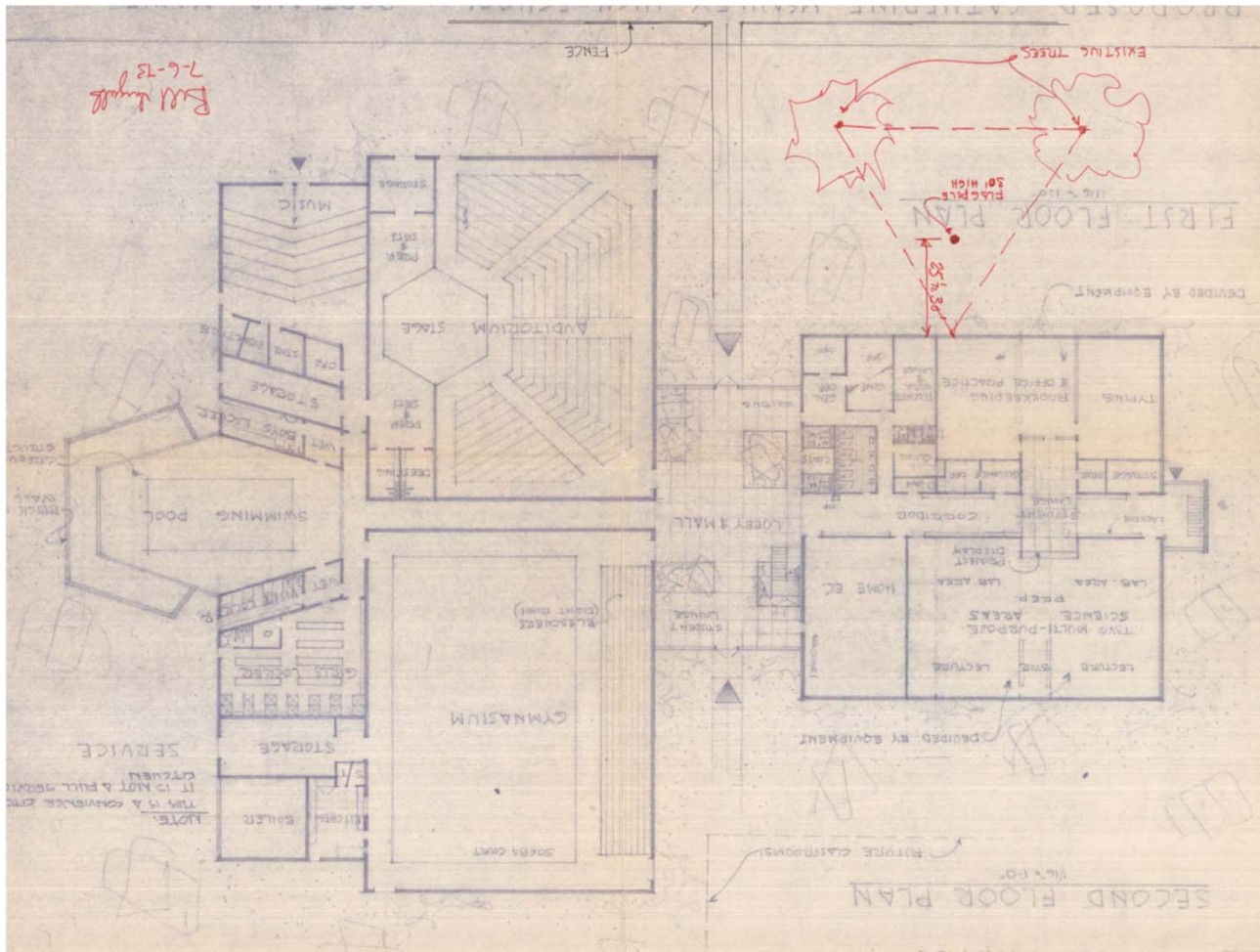


Former MGA



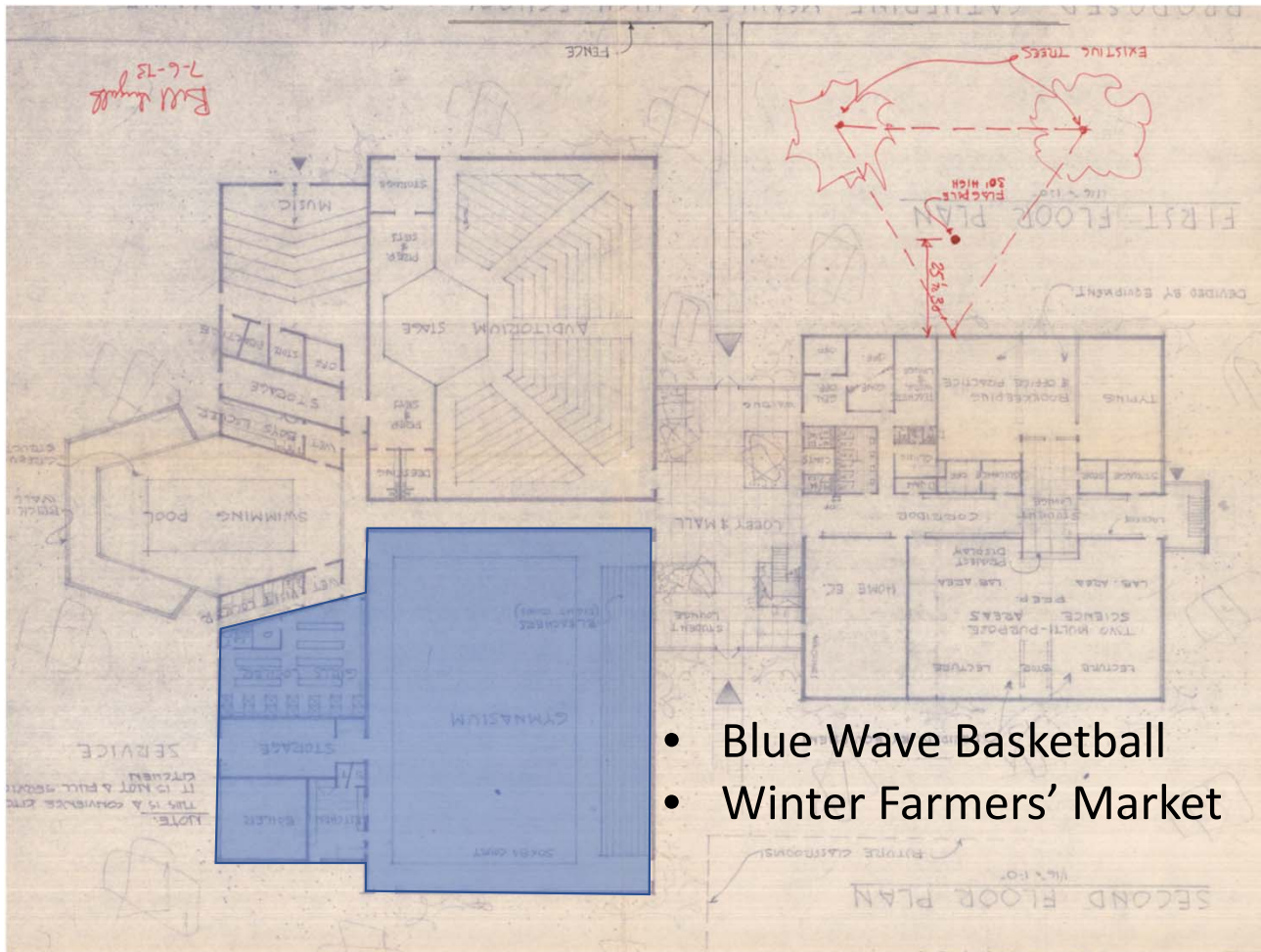
1. MGA closed suddenly last July
2. Never assumed we would have a redevelopment task there so quickly
3. Listed with Malone Commercial Brokers
4. Current zoning R-5
5. Allows a fairly narrow variety of uses

Former MGA



Four major
portions:

Former MGA



Four major portions:

- Gym

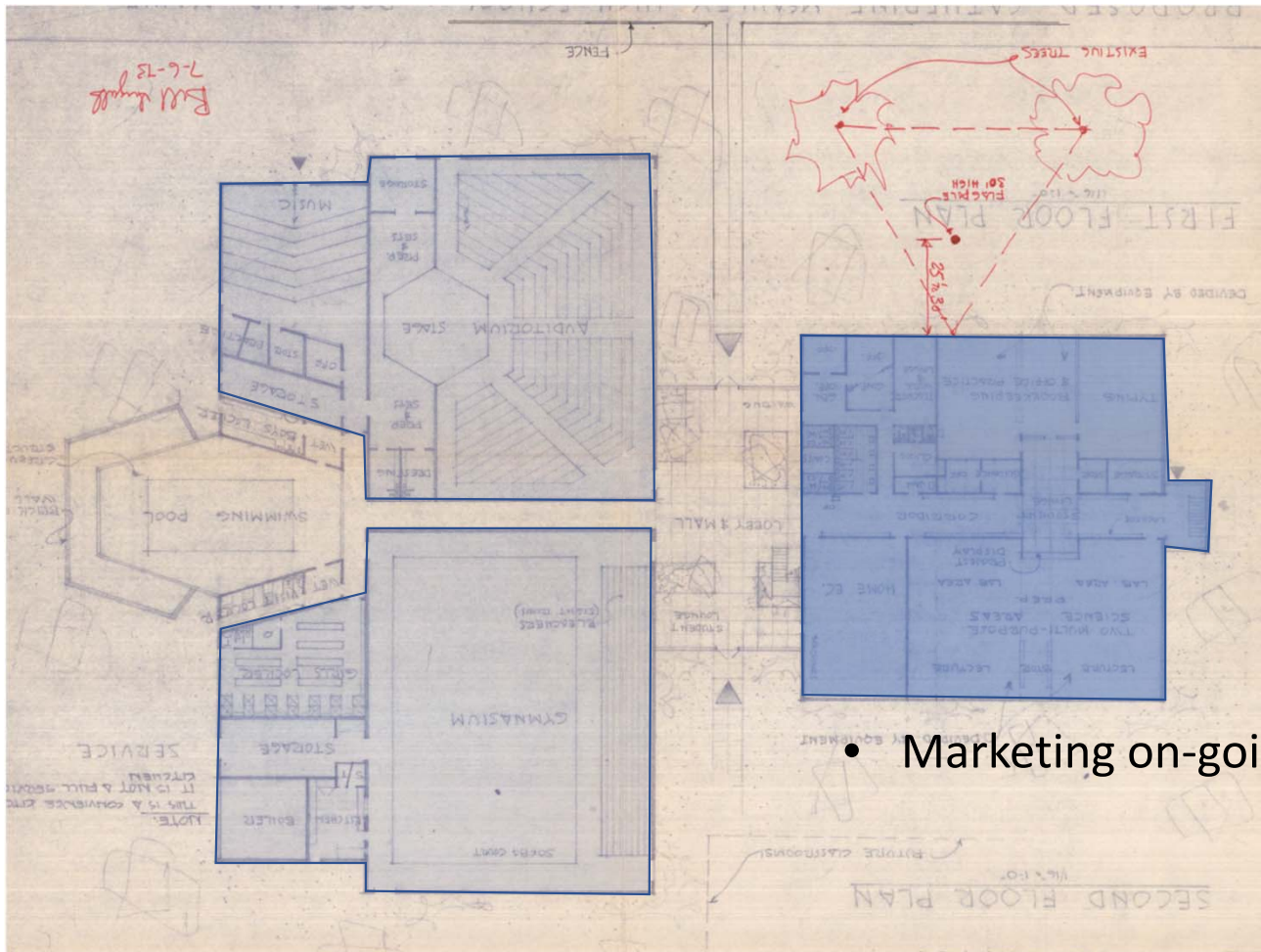
- Blue Wave Basketball
- Winter Farmers' Market

[illegible]

- Gym
- Auditorium

- Marketing on-going

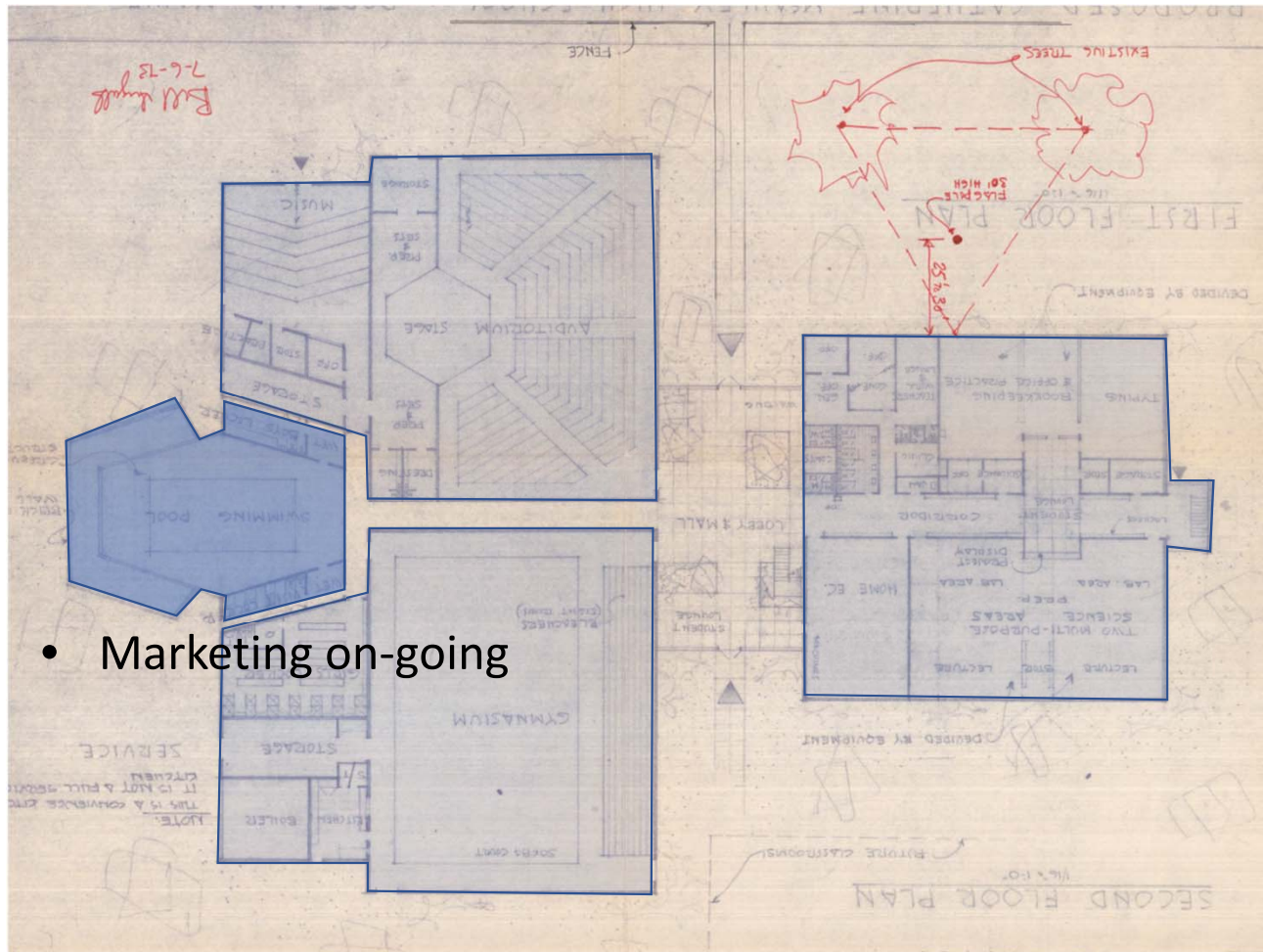
Former MGA



Four major portions:

- Gym
- Auditorium
- Classrooms
- Marketing on-going

Former MGA



Four major portions:

- Marketing on-going

- Gym
- Auditorium
- Classrooms
- Pool

R-5 zone

“To provide appropriate areas of the city for medium-density residential development characterized by single-family and low-intensity multifamily dwellings on individual lots; to ensure the stability of established medium-density neighborhoods by controlling residential conversions; and to provide for planned residential unit development on substantially sized parcels. Such PRUD development shall respond to the physical qualities of a site and complement the scale, character and style of the surrounding neighborhood.”

R-5 zone

Allowable **permitted** uses: (sample list):

- Single and multi-family (& PRUD);
- Parks & municipal;
- Special needs independent living; and
- Wind energy systems

R-5 zone

Allowable **conditional** uses: (sample list):

- Group homes & lodging houses; day cares
- Institutional:
 - Schools
 - Long term & extended care
 - Universities
 - Places of assembly (includes community halls)
 - Hospitals

Community Hall

“A building or portion of an existing building built for institutional or other non-residential uses and used for social, recreational, artistic, civic, or educational community functions.”

Vision for the MGA Property

- In many ways, “community hall” encompasses our vision.
- The MGA property is the best opportunity on-campus to engage the public directly so the site is not entirely private.
- However, the R-5 zone and definition of community hall feels limiting.

DC Philosophy of Public and Private Space

- We feel public access enhances our projects (Reed School, Nathan Clifford)
- Baxter Woods \$ support and trail access points
- Public use of sports fields
- Winter Farmers' Market
- Police & Fire training
- Non-profit group meetings – chapel and MGA

Vision for the MGA Property

- However, MGA gives us an opportunity to engage with the public on a deeper level.
- We intend for it to be a community building, an amenity for both the campus, the neighborhood, and the city.
- We will struggle to do that with current zoning.

B-2b Zone

“The B-2b zone is intended to provide neighborhood and community retail, business and service establishments that are oriented to and built close to the street. The B-2b zone is appropriate in areas where a more compact urban development pattern exists such as on-peninsula or in areas off-peninsula where a neighborhood compatible commercial district is established which exhibits a pedestrian scale and character. Such locations may include the peninsula and other arterials and intersections with an existing urban or neighborhood oriented building pattern.”

B-2b zone

Allowable **permitted** uses: (sample list):

- Single and multi-family
- Business and professional office
- Personal Services
- Retail, Banking, Restaurants
- Communication / Broadcast studios
- Health Clubs
- Theaters
- Hotels
- Bakeries & Breweries
- Artist studios, live/work

B-2b zone

Allowable **conditional** uses: (sample list):

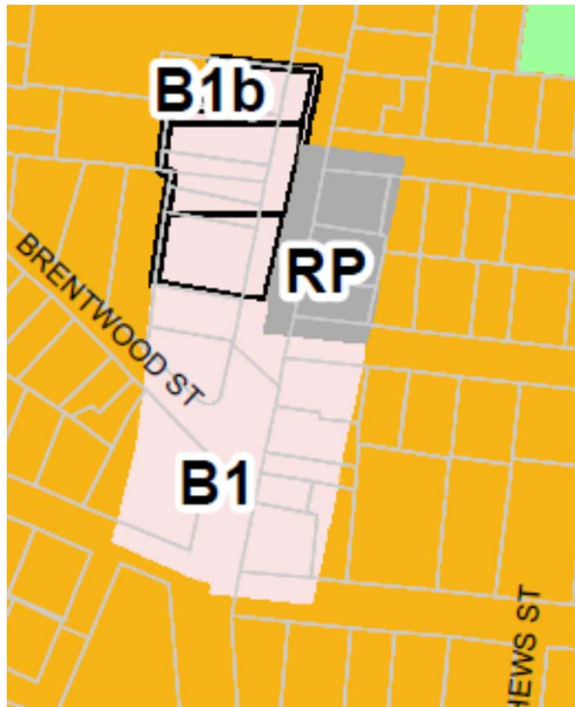
- Marijuana / Dispensary
- Auto dealers
- Printing & Publishing
- R&D
- Wholesale distribution

B-2b zone

While this list contains some uses not contemplated or even appropriate for the site, the existing building will not make a good housing conversion, making the R-5 not a good fit. The uses within the B-2b zone make more sense for the property's location and characteristics, an existing building along a neighborhood artery.

The B2b zone will also help us attract users/tenants who will draw the public into the building and the site, in a way the “community hall” does not.

Business zones on Stevens Ave.



- 510 Stevens Ave. – rezoned to B1-b in 2017
- Ours is a similar idea; the major difference being that we have a large existing building to activate vs. development of a small parcel
- With UNE immediately to the north, B2-b at 605 Stevens is a good compromise between the mixed residential context and the redevelopment needs of the existing building

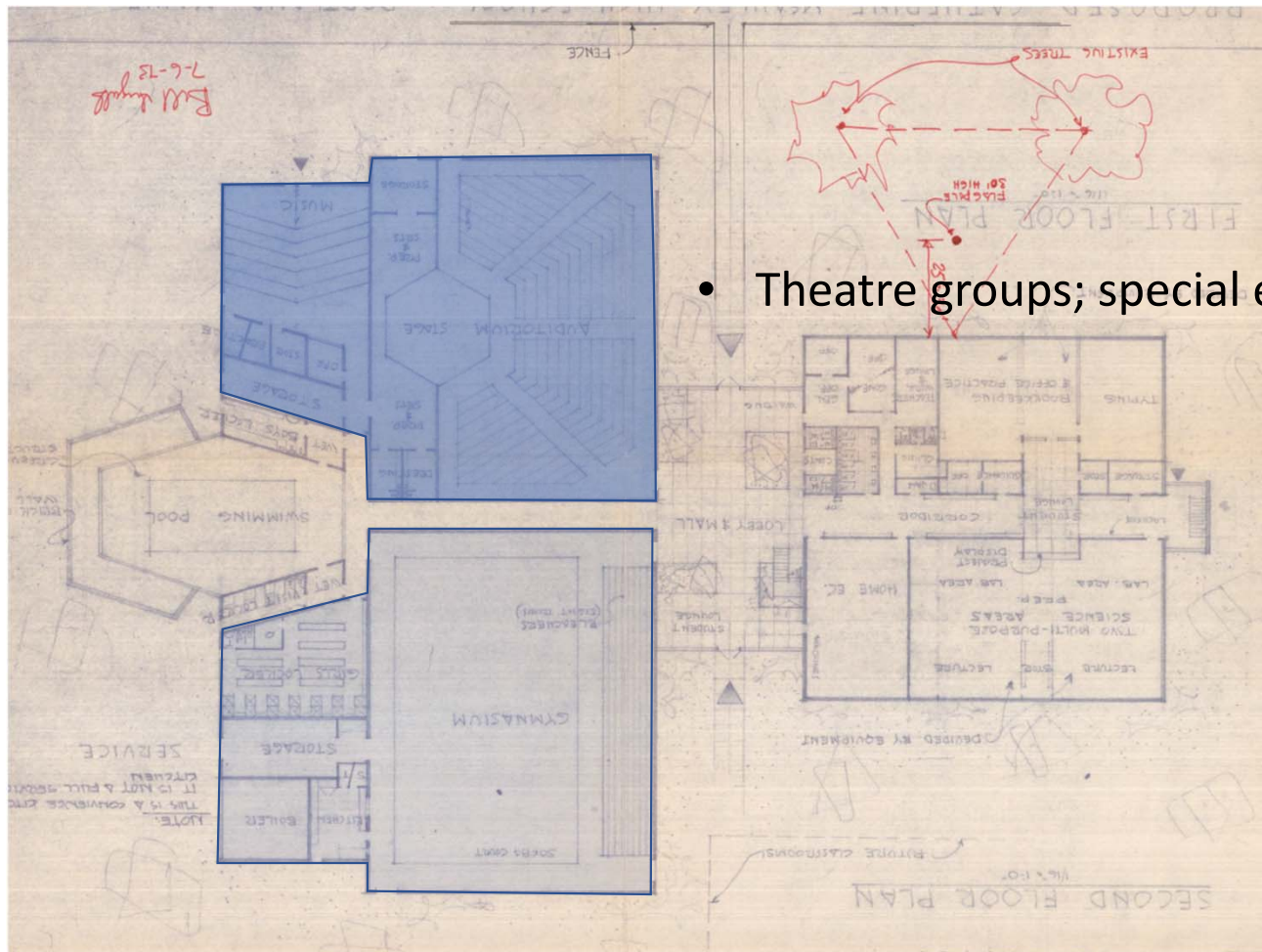
Architectural floor plan of the first floor of a building. The plan shows various rooms including a large central hall, a swimming pool, a gymnasium, and several smaller rooms. A blue rectangular area is highlighted in the lower right, labeled "Blue Wave Basketball" and "Winter Farmers' Market". Red dashed lines and arrows indicate a path or area of interest, with a note "EXISTING TREES" and "30' HIGH".

- Blue Wave Basketball
- Winter Farmers' Market

- Gym

- Blue Wave Basketball
- Winter Farmers' Market

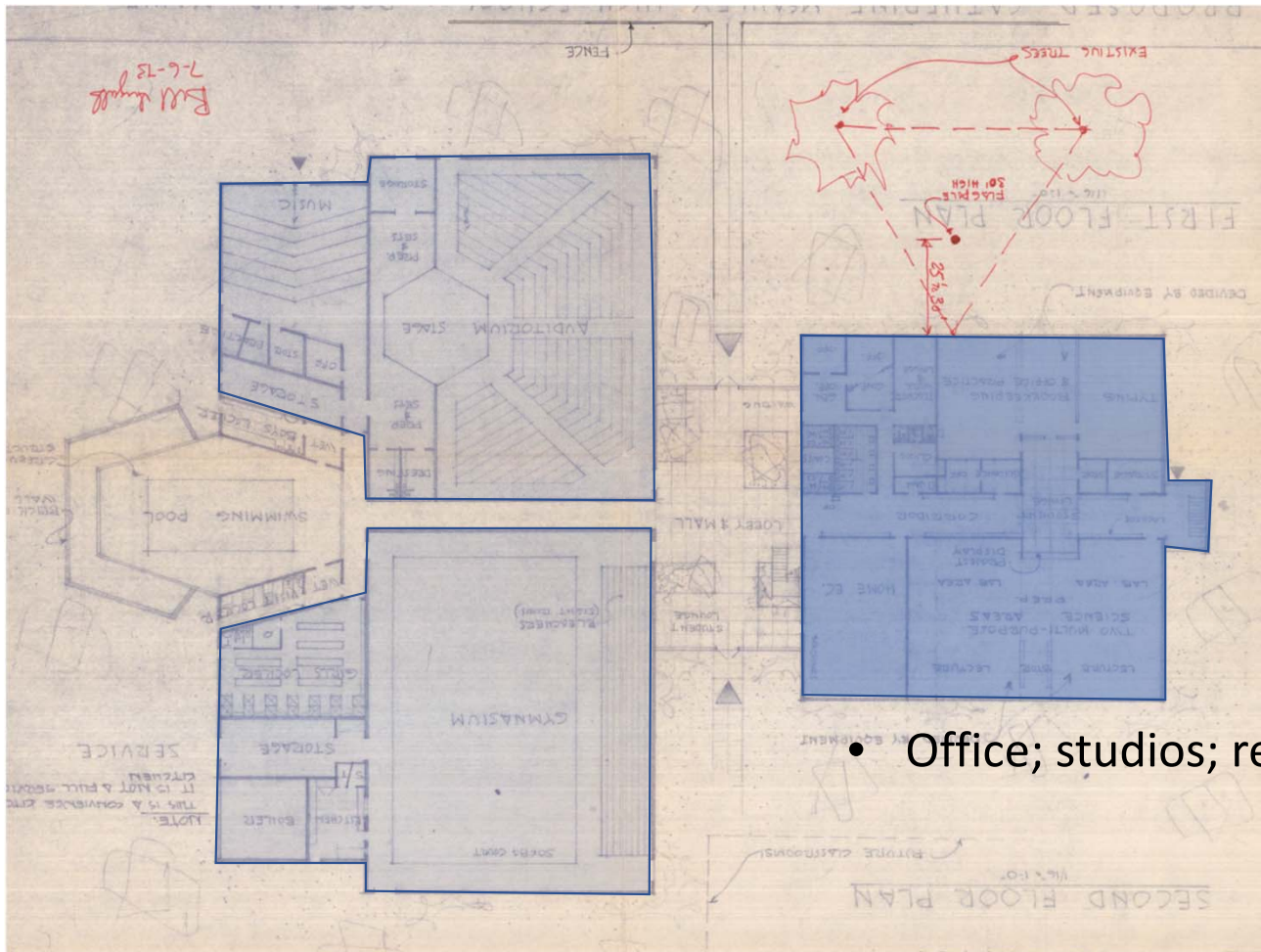
Future Vision



Four major portions:

- Theatre groups; special events
- Gym
- Auditorium

Future Vision



Four major portions:

- Gym
- Auditorium
- Classrooms
- Office; studios; retail; others?

Architectural floor plan of the first floor of a building. The plan shows various rooms including a Gymnasium, Auditorium, Music room, and a Swimming Pool. A red dashed line indicates a path from the top right towards the center, with a red arrow pointing to a '30' HIGH' area. A red note in the top left corner reads 'Bull wings 7-6-73'. The plan is labeled 'FIRST FLOOR PLAN' and 'DEVELOPED BY EQUIPMENT'.

- Gym
- Auditorium
- Classrooms
- Pool

- Gym/fitness

Health Coaches, Inc.

- Long-time local business
- Run by Mark Holmes
- Combination of wellness, massage, yoga, classes, personal training, and fitness
- Would occupy current pool area

Health Coaches, Inc.



Questions/Comments

- Next steps would include a formal re-zone application to the City of Portland



July 24, 2019

Jeff Levine
Planning & Urban Development Director
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

Re: 631 Stevens Avenue

Dear Jeff,

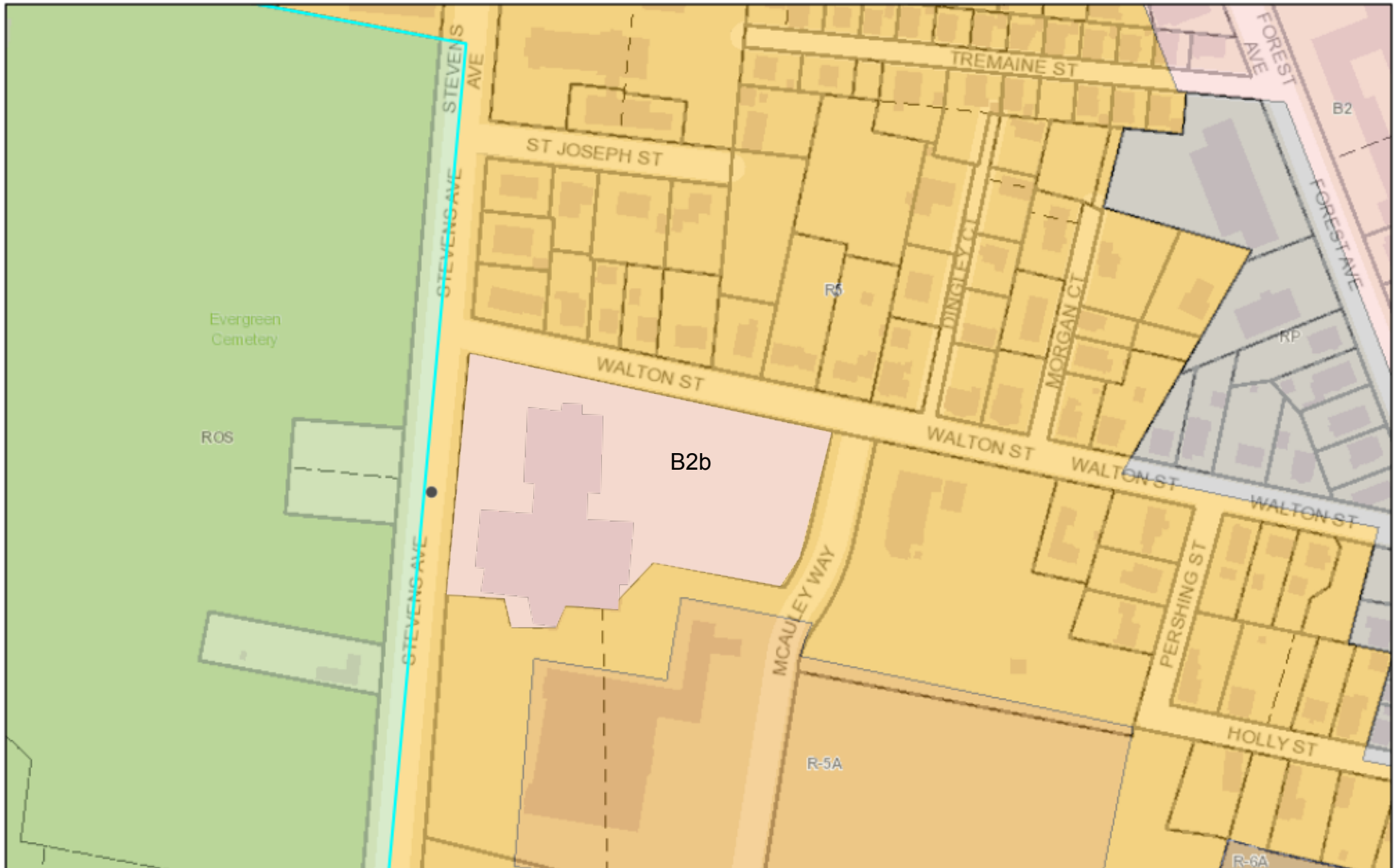
I am writing to apply for a Map Amendment to change the land use zone for the above referenced property from R-5 to B2b to allow for a variety of commercial and community uses at the site. 631 Stevens Avenue currently contains the former Maine Girls Academy building, about 25,000 square feet of usable classroom space, a gymnasium, indoor pool, and an auditorium. Located on the corner of Stevens Avenue and Walton Street, this site and the existing building are an ideal location for a neighborhood node, providing commercial amenities, such as a fitness center, artist studios, or professional offices, for the growing residential population in the neighborhood.

Sincerely,

A handwritten signature in black ink, appearing to read 'KB', is written above the typed name.

Kevin Bunker, Manager
DC Baxter Woods II LLC

631 Stevens Avenue Proposed Map Amendment

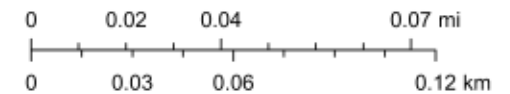


7/24/2019, 10:57:36 AM

Zoning

IR-1 Island Residential	IR-3 Island Residential	R1 Residential	R4 Residential	R6 Residential
IR-2 Island Residential	I-B Island Business	R2 Residential	R5 Residential	R-6A Residential
I-TS Island Transfer Station	R3 Residential	R-5A Residential		

1:2,243



City of Portland, DPS

DLN: 1001840035642

**QUITCLAIM DEED
(With Covenant)**

KNOW ALL PERSONS BY THESE PRESENTS, that Sea Coast at Baxter Woods Associates, LLC, a Maine limited liability company, in consideration of One Dollar and other valuable consideration paid by **DC BAXTER WOODS II LLC**, a Maine limited liability company, whose mailing address is 100 Commercial Street, Suite 414, Portland, Maine 04101 ("Grantee"), the receipt whereof is hereby acknowledged, do hereby GRANT, TRANSFER, BARGAIN, SELL AND CONVEY unto the said DC BAXTER WOODS II LLC, its successors and assigns forever, the following described real estate:

Lot 2: A certain lot or parcel of land together with all buildings and improvements thereon located in the City of Portland, County of Cumberland and State of Maine, being Lot #2 as shown on the Overall Subdivision Plan 605 Stevens Avenue, Stevens Avenue and Walton Street, Portland, Maine, made for Sea Coast at Baxter Woods Associates, LLC by Titcomb Associates, dated June 24, 2015, as revised through June 15, 2016, and recorded in the Cumberland County Registry of Deeds, Plan Book 216, Page 433, as amended by the First Amended Overall Subdivision Plan 605 Stevens Avenue, Stevens Avenue and Walton Street, Portland, Maine, made for Sea Coast at Baxter Woods Associates, LLC by Titcomb Associates, dated April 10, 2017, and recorded in the Cumberland County Registry of Deeds, Plan Book 217, Page 151.

Lot 2 is conveyed subject to and with the benefit of:

1. Title to and rights of the public and others entitled thereto in and to those portions of the insured premises lying within the bounds of Stevens Avenue and Walton Street.
2. Such state of facts as shown on the Overall Subdivision Plan 605 Stevens Avenue, Stevens Avenue and Walton Street, Portland, Maine, made for Sea Coast at Baxter Woods Associates, LLC by Titcomb Associates, dated June 24, 2015, as revised through June 15, 2016, and recorded in the Cumberland County Registry of Deeds, Plan Book 216, Page 433, as amended by the First Amended Overall Subdivision Plan, 605 Stevens Avenue, Stevens Avenue and Walton Street, Portland, Maine, made for Sea Coast at Baxter Woods Associates, LLC by Titcomb Associates, dated April 10, 2017, and recorded in the Cumberland County Registry of Deeds, Plan Book 217, Page 151, and on the Plan of Lot 3 Sectional Subdivisional Plat Motherhouse-88 Units made for Motherhouse Associates LP by Titcomb Associates, dated June 24, 2015 recorded in the Cumberland County Registry of Deeds in Plan Book 216, Page 434, as amended by the First Amended Plan of Lot 3 Sectional Subdivision Plat Motherhouse-88 Units made for Motherhouse Associates LP by Titcomb Associates, dated April 10, 2017 recorded in the Cumberland County Registry of Deeds in Plan Book 217, Page 152, and on the ALTA/NSPS Land Title Survey 605 Stevens Avenue, made for Sea Coast at Baxter Woods Associates LLC by Titcomb Associates, dated March 24, 2016, as revised through March 16, 2017.
3. City of Portland Certificate of Subdivision Waiver Approval, dated September 8, 2015 and recorded in the Cumberland County Registry of Deeds, Book 32584, Page 153.

MAINE REAL ESTATE TAX PAID

4. Rights and easements excepted and reserved by St. Joseph's Convent and Hospital in its deed to Sea Coast at Baxter Woods Associates, LLC, dated December 16, 2016 and recorded in the Cumberland County Registry of Deeds, Book 33698, Page 187.

5. Rights, covenants and easements set forth in the Stormwater Drainage System Maintenance Agreement from Sea Coast at Baxter Woods Associates, LLC to the City of Portland, dated December 23, 2016 and recorded in the Cumberland County Registry of Deeds, Book 33752, Page 170, as amended by an Addendum, dated June 1, 2017 and recorded in said Registry, Book 34050, Page 80.

6. Rights, easements and covenants set forth or references in the Declaration of Covenants and Easements dated May 5, 2017 and recorded in the Cumberland County Registry of Deeds, Book 33992, Page 172.

TO HAVE AND TO HOLD, the same, together with all the privileges and appurtenances thereunto belonging, to the said DC Baxter Woods II LLC, its successors and assigns forever, to use and behoof forever.

AND the undersigned does **COVENANT** with the said Grantee, its successors and assigns forever, that the undersigned will **WARRANT AND FOREVER DEFEND** the premises to the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons claiming by, through, or under it.

IN WITNESS WHEREOF, the said Sea Coast at Baxter Woods Associates, LLC, by John B. Wasileski, its Manager has hereunto set his hand and seal this 15th day of August, 2018.

WITNESS:

[Signature]

Sea Coast at Baxter Woods Associates, LLC

By: [Signature]
John B. Wasileski, its Manager

STATE OF MAINE
Cumberland, ss.

August 15, 2018

Then personally appeared the above-named John B. Wasileski, Manager of Sea Coast at Baxter Woods Associates, LLC as aforesaid and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of said limited liability company.

Before me,

[Signature]
Notary Public/Attorney-at-Law
Print Name: Ronald Epstein
My Commission Expires: _____



Map data ©2019 Google 500 ft



631 Stevens Ave

Portland, ME 04103



Directions



Save



Nearby



Send to your
phone



Share

Google Groups

Zone change 631 Stevens Avenue

Bobbi Cope <bcope@maine.rr.com>

Oct 4, 2019 11:40 AM

Posted in group: **Planning Board**

City of Portland Planning Board:

Re: zone change request for 631 Stevens Avenue/old McAuley High School

Unfortunately I will not be able to attend the workshop which is scheduled for next week, so I'm submitting these written comment and questions.

I am a lifelong resident of Deering Center. I have some concerns about changing the zone from R5 to B2b on this property.

This is a large lot, more than 3 acres in the midst of an area which is virtually surrounded by parks/green space/historic properties (Evergreen Cemetery, Baxter Woods, the Motherhouse). There are no businesses on properties which are contiguous to it. Deering Center and Morrill's Corner on either end of this quiet section of Stevens Avenue have businesses which feels appropriate. And of course, Forest Avenue is populated all up and down with businesses.

Do city planners have a long range view for Stevens Avenue? We have a special place here. Although it is not specifically designated as a "historic zone", it seems to me that city planners would want to protect this area which is unique in Portland, if not the state, enhancing and retaining the feeling of it - without introducing a commercial zone.

What would the maximum possible build-out of this property look like in B2b?

What are the set backs in B2b?

What heights are allowed in B2b?

Are "drive-thrus" allowed in B2b?

Could the property be divided into smaller lots?

Please protect this special area from changing from the existing R5 to B2b.

Thank you.

Bobbi Cope
172 Concord Street

Sent from my iPhone

Google Groups

Oppose zone change

lorigribbs13 <lorigribbs13@gmail.com>

Oct 4, 2019 8:46 AM

Posted in group: **Planning Board**

I live at 16 Crosby Street, which is very near Baxter Woods and Evergreen Cemetery. I have been here for 24 years.

I oppose the proposed zone change from R5 to B2b at the Maine Girls Academy property/631 Stevens Avenue. I hope this special section of Stevens Avenue can be preserved without allowing a business zone in the heart of it.

It would end up being a stand-alone business zone with no other businesses contiguous to it. This is a huge parcel of land, more than 3 acres. Most of the properties in Deering Center and Morrill's Corner that have businesses, are on much smaller parcels. The potential business development there is just too big.

Does the city really want Stevens Avenue to become more like Forest Avenue? With all of our schools, churches and parks on Stevens, why can't we preserve this unique area?

I am worried that changing it to B2b, which allows building to the sidewalk with no setbacks on the front of the property, and means they could build right up to the sidewalk, provides an opportunity for too much commercial expansion. The current owner of the property could have no intention of altering the existing school building, but they may not always own it.

Under the B2b would selling small lots be possible? If so, how many lots could be allowed?

What is a worst case scenario that a future owner could do to maximize what is allowed in B2b?

Are drive-throughs allowed in B2b?

It seems inconsistent with the description of the B2b intention, which states 'The B2b zone is appropriate in areas where a more compact urban development pattern exists'. How does this match up with the surrounding neighborhood? Do you consider this a compact, urban neighborhood with Evergreen Cemetery across the street and Baxter Woods adjacent? I don't think there's anything particularly 'urban' about this area. If anything, it's one of the more 'rural' neighborhoods within the city, populated with schools, churches, the largest park in Portland (Evergreen Cemetery), Baxter Woods, the Motherhouse property and a few houses.

I am picturing the property expanded to the sidewalks and the parcel filled to capacity with commercial businesses. I don't think that imagery fits well directly across the street from historic Evergreen Cemetery.

Also, I am concerned about additional traffic congestion. We already have an awful lot of parking on Stevens Avenue, largely from UNE students, and even though there is a parking lot behind the former Maine Girls Academy, I worry about all the additional traffic that could be generated. When it was a school, the parking and traffic was limited to busy times only twice a day, coming in the morning and leaving in the afternoon, along with all of the other schools on the Avenue. It was part of the culture of the community. With all-day comings and goings it could potentially be very busy all day long. Having said that, there is a rumor going around the neighborhood that the Burbank Branch Library is looking for a new location. Could this be allowed in the existing building in the current R5? Even though it would create traffic, if it is already allowed in R5, maybe it would be a solution.

I like having the business districts separate from what we currently have here, where we have great parks and green space. Please do not support this proposed zone change.

Lori Gribbin
16 Crosby Street

Sent from my U.S.Cellular® Smartphone



PLANNING BOARD REPORT PORTLAND, MAINE

Appeal of Level II Site Plan Approval
Washington Baths; Sauna and Hydrotherapy
145 Washington Avenue
Level II Site Plan Review
PL-000361-2018
Akasha 155 LLC, Applicant

Appellants: 1. Michele Perejda of 141 Washington Avenue
2. Matthew Perejda of 143 Washington Avenue

Submitted to: Portland Planning Board: Public Hearing Date: October 8, 2019	Prepared by Shukria Wiar Date: October 4, 2019
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I. INTRODUCTION

On July 31, 2019, the Planning Authority approved a Level II Site Plan application for the development of a two-story mixed-use building containing a ground-floor personal service use and an upper-floor residential use at 145 Washington Avenue called the Washington Baths. On July 31, 2019 an approval letter was issued with six conditions of approval ([Attachment 8](#)).

In a letter dated August 30, 2019, Mr. Matthew Perejda and Ms. Michele Perejda, abutters to the subject property and residents of 143 and 141 Washington Avenue, respectively, requested an appeal of this project's administrative approval to the Planning Board. The appeal letter, submitted jointly by the abutters, is included as [Attachment 7](#). In the letter, dated August 30, 2019, the appellants raise a series of concerns that include drainage impacts to their properties, parking impacts, the sufficiency of the geotechnical analysis, and an encroachment issue.

Fig. 1: Aerial View of the Subject Property (before the demo of the single-family home as the rear side)



Under Section 14-529 of the Portland City Code, an appeal of an administrative site plan decision is heard by the Planning Board as a *de novo* review. The provisions for an appeal of an administrative decision under the Site Plan Ordinance are as follows:

Section 14-529. Appeals (a)

When the planning authority has approved with conditions or denied a site plan, any person aggrieved may appeal the decision to the planning board within thirty (30) days of the date of the written decision or the planning authority. Upon the take of such an appeal, the application shall be reviewed as a new application.

Accordingly, and consistent with the language of Section 529(a), the Planning Board will consider this Level II Site Plan application in its entirety, as though it were a new application, and the following report has been prepared for the Planning Board's consideration. This proposal is being reviewed as a final plan under the following Land Use Code provisions:

- Site Plan Ordinance, Article V
- B-1 Neighborhood Business Zone
- B-1 Business Zone Design

A legal ad for the Board public hearing was posted on the City's web page and appeared in the *Portland Press Herald* on September 27th and 28th, 2019. Notices were also sent to a hundred and eighty (180) property owners within 500 feet of the site and to the interested citizen list.

Applicant: Asher Woodworth, Akasha 155, LLC
Consultants: Will Savage, Acorn Engineering;

II. BACKGROUND

The applicant has submitted a Level II Site Plan Application to facilitate the construction of a two-story mixed-use building containing a ground-floor sauna and hydrotherapy business and upper-story residences at 145 Washington Avenue. A boundary plan has been prepared by R.W. Eaton Associates, dated March 4, 2016. The subject property is surrounded by a mixture of residential and commercial uses that includes duplexes, small multifamily apartment buildings, and neighborhood-scale retail and restaurant uses within R-6, B-1, B-1b, and B-2b zones. The subject property previously contained a single-family home and is currently vacant. The majority (approximately 66%) of the site is impervious in the form of gravel or pavement.

The proposed development is a two-story building that will include 4,818 square-feet of personal service uses on the first floor, a small portion of commercial uses on the second floor, and two residential units, both of which would be located on the second floor. The program

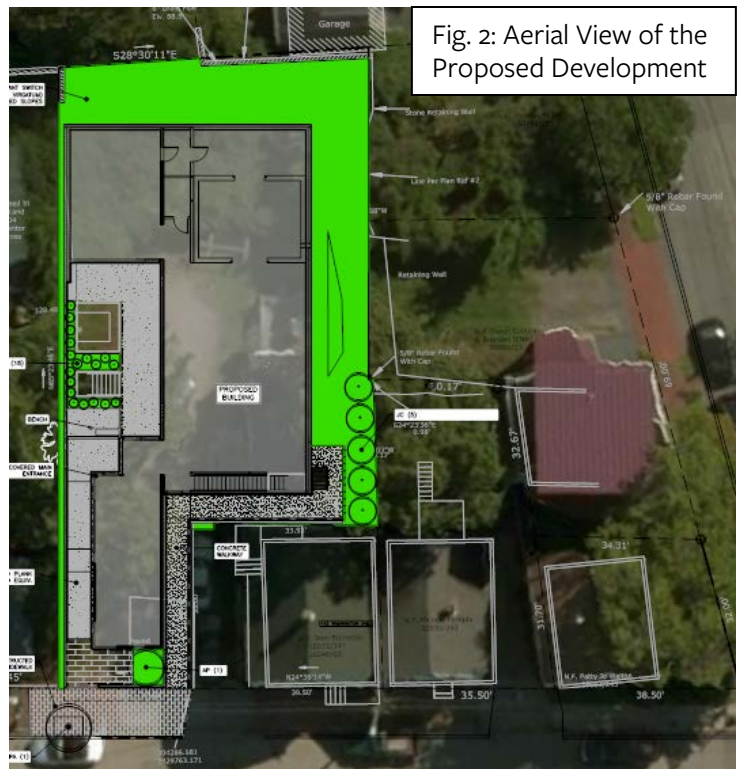


Fig. 3: Street View of the Subject Property



associated with the sauna and hydrotherapy business includes showers, two wood-fired saunas, a lounge with a small retail area for food service, two massage therapy rooms, and resting areas in the interior of the building. Locker rooms will be provided for customer use. The exterior open-air courtyard will include a large, heated soaking tub, a cold plunge pool, and resting areas. Pedestrian access to the site will be provided via Washington Avenue. The subject property is located within walking distance of METRO Bus Routes 7, 9A, and 9B.

The development will be served by Portland Water District, Department of Public Works (sewer and storm), Unutil (natural gas), CMP (electric), Charter (cable), and Consolidated (telephone). All utilities will be routed underground.

III. PROJECT DATA

Existing Zoning	B-1 Neighborhood Business Zone
Existing Use	Residential
Proposed Use	Personal services and residential
Proposed Development Program	First Floor: Sauna, hydrotherapy, and meditation space Second Floor: Two private massage therapy rooms and two residential units
Parcel Size	7,168 SF

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	0 SF	3,936 SF	+3,936 SF
Building Floor Area	0 SF	6,376 SF	+6,376 SF
Impervious Surface Area	4,755 SF	4,293 SF	-462 SF
Parking Spaces (on site)	0	0*	0
Bicycle Parking Spaces	0	4	+4

* The applicant will pay the fee-in-lieu for the required 10 parking spaces.

IV. PUBLIC COMMENT

Staff have received correspondence from the appellants via email and via the letter dated August 30, 2019 containing the concerns on which their appeal is based. Those arguments and staff responses thereto are outlined in more detail below. The Planning Authority has also received two (2) additional public comments for the project as well, in support of the project. Both public comments claim that the applicant has been working with them and have been transparent through the project, Attachment 9d and 9e.

V. RIGHT, TITLE, & INTEREST AND FINANCIAL & TECHNICAL CAPACITY

- The owner of the property is Akasha 155, LLC. The applicant has provided a copy of a warranty deed, recorded at the Cumberland County Registry of Deeds (Book 32671 Page 104), which demonstrates their right, title and interest in the property.
- The applicant has submitted a letter from Machias Savings Bank, dated October 10, 2018, as demonstration of their financial and technical capacity to complete the proposed development.

VI. ZONING ANALYSIS

The proposed development complies with the use requirements of the B-1 Neighborhood Business Zone, which allows personal services and residential uses. Under the B-1 zone all of the dimensional requirements are being met. For off street parking, Division 20 requires two parking spaces per unit for residential uses in the B-1 zone. As for the parking requirement for the personal service use, Ann Machado, the Zoning Administrator states:

The use for this new building had been determined to be personal service but some of the employees providing the service may be licensed professionals. The section does not specifically list the use of personal service. When a use is not specifically listed, it is the practice of the Zoning Administration to see which listed use is most similar to the use being proposed. We have determined that the specific use proposed for this new building falls under sub section (j) Offices, professional and public buildings.

Since there will be licensed professionals and the building will be open to the public, it fits the second half of this subsection "professional and public buildings". The parking requirement for the new building is one off-

street parking space for each 400 square feet of floor area.

Therefore, a total of ten parking spaces are required per zoning. No on-site parking will be provided, and the applicant will pay the fee-in-lieu for the required ten (10) parking spaces, which meets the zoning requirement.

VII. SITE PLAN REVIEW

Staff reviewed the final set of site plans and finds them acceptable with conditions of approval. Below are the review comments for final plan review:

1. Transportation Standards

a. Impact on Surrounding Street Systems and Access and Circulation

There is an existing curb cut on Washington Avenue that serves the site that the applicant is proposing to close. The applicant will pay the fee-in-lieu for the required ten parking spaces and therefore no parking is proposed on site. Tom Errico, P.E. Third-Party Traffic Engineer, reviewed the proposal's details including the access, parking, and vehicle circulation and the proposed project is not anticipated to cause unreasonable traffic congestion.

b. Public Transit Access

This does not apply to this project.

c. Parking

The development is required to have ten (10) parking spaces for the proposed uses. The applicant is not proposing parking on site and will pay the fee-in-lieu for the required ten parking spaces.

d. Transportation Demand Management (TDM)

This does not apply to this project.

2. Environmental Quality Standards

a. Preservation of Significant Natural Features

There are no known significant natural features on the site.

b. Landscaping and Landscape Preservation

One street tree with a shallow root system is proposed as part of the development. The applicant is proposing landscaping along the front of the building. Section 14-166, Other requirements, states:

All nonresidential uses in B-1 and B-1b zones shall meet the requirements of Division 25 (space and bulk regulations and exceptions) of this article in addition to the following requirements: (a) Landscaping and screening: The site shall be suitably landscaped for parking, surrounding uses and accessory site elements, including storage and solid waste receptacles where required by Article IV (subdivisions) and Article V (site plan).

Since the proposed project would include both a residential use and the ground-floor bathhouse use, an evergreen buffer is being proposed along the R-6 zoning district divide, this would include the property line between the subject property and 143 and 141 Washington Avenue.

c. Water Quality, Storm Water Management and Erosion Control

The majority (approximately 66%) of the site is impervious and is expected to decrease the impervious area by approximately 200 square feet. The increased landscaping and green roof will help retain and filter stormwater on site, reducing the demand on the City's combined sewer/storm system. Due to the reduction in impervious area, stormwater management features for quality control that meets Maine

DEP's Chapter 500 General Standards is not required and has not been designed. Ms. Swett reviewed it and offers the following comments:

- o Basic Standards: They are providing erosion & sedimentation control in accordance with the basic standards.
- o General/Redevelopment Standards: They are reducing impervious surface on the site and they are not resulting in 5,000 SF or more of non-roof redeveloped impervious area, so they are not required to provide stormwater treatment measures. They are replacing surface impervious areas with rooftop, which is considered to be a lower impact impervious surface.
- o Flooding Standards: They are reducing impervious surface, so they are not required to meet the flooding standards. They are collecting roof runoff using a drip edge installed around the building, so less runoff to neighboring properties is anticipated.
- o The Applicant has responded adequately to all of my prior comments.

3. Public Infrastructure and Community Safety Standards

a. Public Safety and Fire Prevention

The site has been designed to promote safe and inviting public access. Emergency vehicles will be able to access one side of the building on Washington Avenue. Chief Robert Thompson, of the Fire Department has reviewed the project finds it acceptable with a condition, see below:

After further review, the Fire Department will approve this project, as submitted, with the condition that the building will be protected throughout by a complete, monitored, fire alarm system.

A fire hydrant is located across the street from the intersection of Washington Ave. and East Cove St and is approximately 115 feet from the corner of the proposed building.

b. Availability and Adequate Capacity of Public Utilities

The project will be served by connection to the utilities within Washington Ave. All new electrical service will be underground. There is currently no natural gas servicing the property. It is proposed to install a gas service off of the gas main within East Cove Street. The public utilities in the vicinity of the site have capacity to serve the project. Ability to Serve letters have been submitted from Portland Water District, Central Maine Power, and Department of Public Works.

The facility is not expected to create a large volume of solid waste, and it will be handled by a private company. Solid waste will be housed internally within the building.

4. Site Design Standards

a. Massing, Ventilation and Wind Impact

This standard does not apply.

b. Shadows

This standard does not apply since the shadows created by the building will not influence public open spaces.

c. Snow and Ice Loading

There is no parking lot associated with this project and the proposed structure will not distribute snow and ice onto adjacent properties.

d. View Corridors

The project site is located outside the Downtown Vision View Corridor Protection Plan.

e. Historic Resources

The development is not located in a historic district, historic landscape district or City designated landmark and is not located adjacent to designated landmarks, historic district, or historic landscape district. There are no known archaeological resources on the site.

f. Exterior Lighting

The applicant has submitted a lighting and photometric plan meets the lighting standards. There is no lighting trespass at the property lines and the proposed lighting fixtures meets standards. Any lighting that may adversely impact the abutting residential properties will feature house-side shielding.

g. Noise and Vibration

No HVAC or mechanical equipment is proposed at this time.

h. Signage and Wayfinding

All street and wayfinding signage will meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

i. Zoning Related Design Standards

The project at 145 Washington Avenue was reviewed according to the City of Portland Design Manual standards by Planning and Urban Development staff against the B1 Commercial Business Zones Standards (Section (d) of the Design Manual). The vertical wood rain screen on the residential portion of the building is considered appropriate if it has a solid stain or is painted to relate to the painted wood found in the clapboard vernacular nearby. Staff recommend a condition of approval that the elevation shall reflect the wood siding with either a solid stain or painted finish.

VIII. APPELLANTS' CONCERNS

Staff's analysis as outlined above is substantially the same as the analysis that supported the initial Administrative Approval of the application. Because Appellants have challenged that analysis and the determination that the application complies with the City's Code, the Board should be made aware of the Appellants' arguments as it considers this application. A letter submitted by legal counsel to the appellants dated August 30, 2019 focuses on the drainage impacts, parking impacts, the geotechnical analysis, the technical capacity of the applicant, and the encroachment of a portion of the abutting 143 Washington Avenue property onto the subject property. The applicant has addressed the appellants' concerns in a cover letter, Attachment 7. Staff have also provided analysis and below are comments addressing each of the appellant's concerns:

1. Drainage/ Ordinance/ Site Plan Section 14-523

The Applicant has summarized drainage information without benefit of complete engineering report and data. The lot as it now exists, following demolition sits below surrounding properties and the new structure will occupy 66% impervious of what is now a site that is 90-100% pervious surfaces. The project, and the location represent a significant drainage issue and potential subsidence issues, as well (see soils and geotechnical below). Detailed drainage engineering and calculations should be required from the applicant before proceeding.

Comment Response: The majority (approximately 66%) of the site is impervious in the form of gravel or pavement. The proposed project is expected to decrease the impervious area by approximately 200 square feet. The increased landscaping and green roof will help retain and filter stormwater on site, reducing the demand on the City's combined sewer/storm system. Due to the reduction in impervious area, stormwater management features for quality control that meets Maine DEP's Chapter 500 General Standards is not required and has not been designed. However, the green roof will provide some quality and quantity control. In addition to the green roofs, stormwater will be managed

by implementing a series of underdrains, infiltration trenches, field inlets, and storm drains. The Stormwater Management Plan submitted by the Applicant satisfies our requirements. Additional engineer and calculations are not required or necessary due to the reduction of impervious area on the site, refer to Paragraph VII (2)(c) for a complete analysis.

2. Geotechnical Matters

The project location sits at the foot of the hill near the corner of Washington Avenue and Walnut Street. The existing retaining wall to the rear of the property is crumbling and must be replaced. The near hill to the north is covered in overgrowth and topped with multi-unit structures. Both hillsides appear unstable and the application provides no information relative to the danger to abutting structures or the need for retaining walls to hold the hillsides during construction or following completion.

The location of the property and neighboring projects (Munjoy Heights; corner of Sheridan and Walnut Streets) required detailed geotechnical studies and soils analysis. Even smaller projects have experienced subsidence in the East End (for example, Fox Street for which the City recently issued a stop work order after a hillside collapse). The Applicant should be required to present evidence that his retaining walls are sufficiently anchored so as to avoid damage to neighboring properties. Also, see encroachment under paragraph #4. The conservation service medium intensity soil survey and USDOA web soil survey data have been shown to be inadequate for soils data on the peninsula and the East End in particular. The applicant should submit his soils data for peer review before a permit issues.

Comment Response: Lauren Swett, Consultant Engineer, Woodard and Curran, has reviewed the submitted geotechnical evaluation and states the following, “They have provided a geotechnical evaluation for the proposed site as well as a letter documenting the visual evaluation of retaining walls around the site. Both reports have been stamped by Professional Engineers in the State of Maine. I have no further comments on these reports”.

Because the materials submitted by the Applicant satisfy the City’s submittal requires as well as the requirements of the Site Plan Ordinance as outlined in detail above, additional data and “peer review” are not necessary or required.

3. Parking

The bathhouse use in the Zone will create significant traffic to the site. Zoning requires 8' off-street vehicle parking spaces as noted. The parking replacement solution for an 8-car minimum use is inadequate and the incremental addition of replacement parking, but there is no parking garage on Washington Avenue in a residential neighborhood undesirable at best. The parking replacement concept is nothing more than a Band-Aid on a hemorrhage in this neighborhood. That said, the Applicant can legally exploit the parking replacement provision in the ordinance. It is incumbent upon the City to see to it that parking replacement actually happens.

The Perejdas are concerned that the \$5,000 annual contribution is unsecured. As with any other commercial project, the Applicant should be required to post a letter of credit or performance bond to secure the obligation.

Any information that planning staff may have on a parking replacement or garage in the neighborhood should be shared with all concerned abutters.

Comment Response: The project consists of personal services (classified as an office space use for parking

¹ Please note that as per zoning requirements, 10 off-street spaces, or payment of a fee-in-lieu, are required for this project.

calculation purposes) and two residential units. The total office space (approximately 2,228 SF) requires six (6) parking spaces for the sauna/bathhouse use based upon the 1 space per 400 sf requirement. Additionally, four total parking spaces are required for the two second residences, bringing the total to ten (10) spaces. Since the property only has 27.5' of street frontage, the site is not ideal for on-site parking, there is no parking proposed. The City's ordinance permits payment of a fee in lieu of providing the ten (10) parking spaces that would otherwise be required. The applicant has opted to pay the fee-in-lieu, as it is entitled to do. That fee will be in the amount of amount of \$64,700 (\$6,470 per space), which needs to be paid prior to issuance of a building permit.

4. Site Plan Comments

Until just recently the project area has been zoned residential. The sidewalk placement for the project fails to take into account the potential for nuisance the project represents as it abuts the neighboring residential zone and is surrounded by individual residents to the North and East. Many residential properties in the R-6 share a gangway with cross easements and still neighbors occasionally conflict. This is a commercial use that will invite steady foot traffic to late hours assumed to be 8 P.M. per the application, but more likely to late at night.

The project design can easily accommodate a sidewalk on the westerly and northerly sides if the building footprint is shifted approximately 3 feet to the south and southeast up to the property line of the abutters.

Proper screening and buffering is needed as well.

Comment Response: The site plan shows that there will be two walkways from the new sidewalk on Washington Avenue. The walkway on the northerly side of the parcel, which abuts the B-1 zone, will be utilized by the patrons of Washington Baths. The walkway on the southerly side, which abuts the R-6 zone and residential neighbors, will be used by the residential tenants. This configuration satisfies the City's Code and Technical Manual.

Proposed hours for the sauna/bath business are as follows: Mon, Wed, Thurs, Fri: 2pm - 8pm; Sat, Sun: 12pm - 8pm, Tues: Closed. The B-1 zoning ordinance does not have noise standards for personal service use.

To provide screening and buffering from surrounding properties, the applicant will install a fence and will plant evergreen trees along the property line abutting the R-6 zone to the east.

5. Encroachment/Site Plan.

The easterly property line depicted by the Applicant is incorrect inasmuch of the site plan does not show the northwest property line of Matthew Perejda. The Perejda property structure includes a portion of the foundation extending onto the subject's property line. Given that the foundation is several decades old, Mr. Perejda has a claim to the location of his foundation superseding any rights of the Applicant. The resulting boundary line dispute must be resolved by indenture or suit.

Comment Response: The City's Planning Board does not have the authority to resolve title disputes. Instead, applicants must meet a threshold requirement to demonstrate that they have sufficient right, title and interest in the property such that they have a reasonable expectation of being able to develop the property as proposed. Based on the materials submitted by the Applicant, it is staff's recommendation that that standard has been met for the limited purpose of demonstrating the applicant's standing to apply for approval. Additionally, and as conveyed by the excerpted language from the appellant's letter above, it is the building sited on the property of abutter Matthew Perejda, located at 143 Washington Avenue, that is encroaching the applicant's property. To the extent Mr. Perejda's has a claim to ownership over the area of encroachment, construction or other development are not proposed in that area nor does ownership of that area impact zoning or other determinations in a manner that materially alters

the application's satisfaction of the City's ordinances.

6. Applicant's Technical Capacity

During the permit application the developer has repeatedly failed or refused to take the abutters needs into account. Demolition of the existing structure was undertaken without notice and in a manner that resulted in encroachments on the Matthew Peredja property. Water and sewer lines were cut and resulted in sewage backup in the Perejda property causing thousands of dollars of damage. Concerns expressed about inaccurate survey work (see note 4 above) have gone unheeded. The Perejdas are right to be concerned about the technical and financial capacity of the applicant in light of the mismanagement of the project in its nascent stages.

Comment Response: The site plan standards require that a financial capacity letter be submitted. The applicant has submitted a letter from Machias Savings Bank, dated October 10, 2018, as demonstration of their financial and technical capacity to complete the proposed development.

IX. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Staff recommends that the Planning Board approve the proposed development.

X. PLANNING BOARD MOTIONS

A. SITE PLAN

On the basis of the application, plans, reports, and other information submitted by the applicant, findings and recommendations contained in Planning Board Report for application PL-000361-2018 relevant to the Site Plan Ordinance (which findings are incorporated herein), and other regulations, as well as the Planning Board deliberations and the testimony presented at the Planning Board hearing, the Planning Board finds the plan **[is /is not]** in conformance with the site plan standards and all other applicable provisions of the land use code, subject to the following conditions to be met as noted:

TO BE MET PRIOR TO APPLYING FOR A BUILDING PERMIT:

1. The applicant shall pay into the City's Sustainable Transportation Fund fee-in-lieu for ten parking spaces in the amount of \$64, 700 (\$6,470 per space);

TO BE MET PRIOR TO THE ISSUANCE OF A BUILDING PERMIT:

2. The proposed building shall have a complete, monitored, fire alarm system throughout the building;
3. The developer/contractor/subcontractor must comply with conditions of the construction stormwater management plan and sediment and erosion control plan based on City standards and state guidelines. The owner/operator of the 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. Please submit final copies to both the Department of Planning and Urban Development and the Department of Public Works; and

TO BE MET PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY:

4. The wood rain screen along the façade of the building shall be either be a solid stain or painted finish.

XI. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Traffic Engineer review (memo from Thomas Errico, 11.16.2018)
2. Department of Public Works Engineer review (memo from Mike Tremblay, 10.02.2019)
3. Civil Engineer review (memo from Lauren Swett, 10.03.2019)
4. Fire Prevention Department review (memo from Robert Thompson, 02.26.2019)
5. Design Review (memo from Caitlin Cameron, 10.02.2019)
6. Transportation Review (memo from Bruce Hyman, 10.02.2019)
7. 143 Washington Ave Appeal to Planning Board
8. Approval Letter
9. Public Comments
 - 9a. Michele Perejda 10.29.2018
 - 9b. Michele Perejda 03.13.2019
 - 9c. Response to Matthew Perejda 03.27.2019
10. Zoning Administrator Comments 10.04.2019

APPLICANT'S SUBMITTALS

- A. Cover Letter
- B. Level II Application Checklist
- C. Project Description
- D. Right, Title, Interest
- E. Zoning Assessment
- F. Easements
- G. Waivers
- H. Financial Capacity
- I. Technical Capacity
- J. Conformity with Land Use Ordinance
- K. Stormwater Management Report
- L. Erosion and Sedimentation Control Report
- M. Fire Department Letter
- N. Wastewater Capacity
- O. Lighting
- P. Architectural Design Narrative
- Q. Utility Cover
- R. Construction Management Report
- S. Transportation Analysis
- T. Solid Waste Disposal
- U. Comment Response Letter
- V. Design Review Response Letter
- W. Comment Response Letter 2
- X. Resubmission Cover Letter
- Y. Retaining Wall Letter
- Z. Geotechnical Letter
- AA. Temp Construction Easement W Diving Rock Executed
- BB. Utility Stubs Approval
- CC. Planning Board Letter re_145 Washington Ave. Appeal

PLANS

- Plan 1. Cover Sheet
- Plan 2. Existing Conditions Plan

- Plan 3. Site Plan
- Plan 4. Site Details
- Plan 5. Landscape Plan
- Plan 6. Landscaping Details
- Plan 7. Grading & Drainage Plan
- Plan 8. Erosion Control Details
- Plan 9. Drainage Details
- Plan 10. Photometric Plan
- Plan 11. Utility Plan
- Plan 12. Utility Details - 1
- Plan 13. Utility Details - 2
- Plan 14. Construction Management Plan
- Plan 15. Exterior Elevations 3
- Plan 16. Exterior Elevations - Entry Court and Center Courtyard
- Plan 17. Floor Plan
- Plan 18. Street Facade 1
- Plan 19. Street Facade 2
- Plan 20. Street Facade 3
- Plan 21. Street Facade 4
- Plan 22. Commercial Storefront
- Plan 23. Street Facade Materials
- Plan 24. Commercial Party Walls
- Plan 25. Building Sections



Shukria Wiar <shukriaw@portlandmaine.gov>

143 Washington Street - Traffic Review Comments

Tom Errico <thomas.errico@tylin.com>

Fri, Nov 16, 2018 at 10:23 AM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Cc: Bruce Hyman <bhyman@portlandmaine.gov>, Keith Gray <kgray@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, "Jeff Tarling (JST@portlandmaine.gov)" <JST@portlandmaine.gov>

Hi Shukria – I have reviewed the application materials and offer the following traffic review comments.

- The project is not expected to generate a significant amount of traffic and therefore will not impact traffic congestion and safety. A traffic study or analysis is not required.
- The sidewalk and/or pedestrian movements along the frontage shall be maintained during construction. Additionally, all contractor workers shall be required to park in off-street parking lots.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

TYLIN INTERNATIONAL

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Twitter | Facebook | LinkedIn | Google+

"One Vision, One Company"



Shukria Wiar <shukriaw@portlandmaine.gov>

PL361-2018 143 Washington Ave - Bath House

Mike Tremblay <mtremblay@portlandmaine.gov>

Wed, Oct 2, 2019 at 1:03 PM

To: Bruce Hyman <bhyman@portlandmaine.gov>

Cc: Shukria Wiar <shukriaw@portlandmaine.gov>, Lauren Swett <lszett@woodardcurran.com>, Jeff Tarling <jst@portlandmaine.gov>, Caitlin Cameron <ccameron@portlandmaine.gov>, Robert Thompson <rmt@portlandmaine.gov>

Shukria,

I have reviewed the conditions of approval and the latest site plans and have no further comment.

-Mike

Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov
P. 207.874.8881 F. 207.874.8852



On Wed, Oct 2, 2019 at 11:44 AM Bruce Hyman <bhyman@portlandmaine.gov> wrote:

[Quoted text hidden]



Shukria Wiar <shukriaw@portlandmaine.gov>

143 Washington Ave- Bathe House

Lauren Swett <lszett@woodardcurran.com>
To: Shukria Wiar <shukriaw@portlandmaine.gov>

Thu, Oct 3, 2019 at 9:39 AM

Hi Shukria,

I have reviewed the application again, with specific consideration to the stormwater and geotechnical concerns.

- The Applicant has provided a stormwater management plan in accordance with Maine DEP Chapter 500 and City of Portland Technical Manual Section 5 standards.
 - Basic Standards: They are providing erosion & sedimentation control in accordance with the basic standards.
 - General/Redevelopment Standards: They are reducing impervious surface on the site and they are not resulting in 5,000 SF or more of non-roof redeveloped impervious area, so they are not required to provide stormwater treatment measures. They are replacing surface impervious areas with rooftop, which is considered to be a lower impact impervious surface.
 - Flooding Standards: They are reducing impervious surface, so they are not required to meet the flooding standards. They are collecting roof runoff using a drip edge installed around the building, so less runoff to neighboring properties is anticipated.
- They have provided a geotechnical evaluation for the proposed site as well as a letter documenting the visual evaluation of retaining walls around the site. Both reports have been stamped by Professional Engineers in the State of Maine. I have no further comments on these reports.

The Applicant has responded adequately to all of my prior comments.

If there are any other questions, please let me know.

Thanks,

Lauren

[Quoted text hidden]

Notice: Under Maine law, documents - including e-mails - in the possession of public officials or city employees about government business may be classified as public records. There are very few exceptions. As a result, please be advised that what is written in an e-mail could be released to the public and/or the media if requested.



PLAN CORRECTIONS REPORT PL-000361-2018 FOR CITY OF PORTLAND

PLAN ADDRESS:	143 Washington Ave Portland, Maine 04101	PARCEL:	012 G020001
APPLICATION DATE:	10/10/2018	SQUARE FEET:	6,049.00
EXPIRATION DATE:		VALUATION:	\$900,000.00
		DESCRIPTION:	Construction of a two-story structure. The first floor will feature a hydrotherapy business with saunas and baths. The partial second story will be a single residence.
CONTACTS	Name	Company	Address
Agent/Representative	Will Savage	Acorn Engineering	158 Danforth Portland, ME 04104

Comments & Corrections Required

Fire

Robert Thompson

Comment(s)/ Recommendation(s):

*2/26/19 After further review, the Fire Department will approve this project, as submitted, with the condition that the building will be protected throughout by a complete, monitored, fire alarm system.

The Fire Department is opposed to this proposed project as submitted. Access is limited to a thirty foot (30') section of Washington Avenue on a roughly six thousand square foot (6000sq.ft.) building. Access from the left side of the building will be impeded by another development project, the right side by homes on Walnut Street, and the back is completely inaccessible.

Planning and Urban Development Department Planning Division



Subject: B-1 Design Review – 143 Washington Avenue
Written by: Caitlin Cameron, Urban Designer
Date of Review: Wednesday, July 24, 2019

The revised project at 143 Washington Avenue was reviewed according to the *City of Portland Design Manual* standards by Caitlin Cameron, Urban Designer, Shukria Wiar, Planner, and Matt Grooms, Planner, against the *B1 Commercial Business Zones Standards* (Section (d) of the Design Manual) and *Multiple-Family Standards*.

Design Review Comments: *(questions and unmet standards in red)*

(d) B-1 Commercial Business Zones

Standard (1) a. Urban Street Wall – The project shows a façade wall with extended parapet and the entrance placed at the property line that maintains the desired street wall. The parapet is quite tall compared with the overall building façade composition and size of the opening.

Standard (1) b. Mixed Uses – Building includes commercial and residential uses.

Standard (1) c. Building Entrances – The site includes an entrance through the wall directly at the street – emphasis is provided by special materials, canopy, signage. However, the actual building entrance and active use (lobby) is set back from the street.

Standard (1) d. Windows – Openings with the divided light door provide a sense of transparent frontage provided along street frontage to meet the requirement about active frontage. **The glazing must be transparent or translucent.**

Standard (1) e. Façade Character – Active portion of the building is set back from the street due to the nature of the uses – the front façade introduces a moveable overhead door reminiscent of industrial overhead doors found in this streetscape. This element has transparency and allows for an active frontage along with the entrance to the commercial use. The façade character is contemporary and differs from the traditional storefront and commercial uses found on Washington Avenue – however, the use here is more private and given the small width of building on the street, this variation is acceptable. The visual interest and graphic amenity is provided as required by the standard.

Standard (1) f. Building Design – Building design is set close to the street but is quite narrow. One-story commercial buildings do exist on Washington Avenue and this design creates appropriate height to maintain the street wall. The introduction of the divided light overhead door and the canopy help to bring scale to the façade. The building is a compatible scale with the residential neighbors (1.5 to 2.5 stories). The wood siding, though in vertical orientation, will relate to the clapboard materiality of the residential context.

Standard (1) g. Building Materials – Staff found the revised proposal to use concrete is balanced by the infill of an industrial-style overhead door and metal canopy. Most commercial buildings on Washington are red brick with occasional clapboard; residential buildings are predominantly clapboard. At the street, materials convey the commercial use with a clear entrance, and a small-scale, high-quality material. Articulation, visual interest are provided with a canopy, overhead door and signage, and lighting. There is some change in the surface textures and planes adding more articulation and visual interest. These materials sufficiently relate to the industrial/commercial context. **The vertical wood rain screen on the residential portion of the building is considered appropriate if it has a solid stain or is painted to relate to the painted wood found in the clapboard vernacular nearby. Staff recommend a condition of approval that the elevation shall reflect the wood siding with either a solid stain or painted finish.**

Standard (1) h. Building Scale – Building is only one story at the street but the wall proposed is 22' which is similar in height to the other one-story commercial buildings on this corridor. The existing scale of building on Washington Ave varies in height from one to four stories with the majority of buildings being too short compared with the street width. Staff support new development that is appropriately scaled for the street and for a mixed-use urban corridor – this means more height can be tolerated on this street. The height at the street should be as tall as possible either with tall ceilings, parapet, or additional floors.

Standard (1) i. Landscaping and Buffers – No parking is provided on-site. A large wall surrounds the property as a buffer. There is a landscape edge between the building and the street.



Shukria Wiar <shukriaw@portlandmaine.gov>

PL361-2018 143 Washington Ave - Bath House

Bruce Hyman <bhyman@portlandmaine.gov>

Wed, Oct 2, 2019 at 11:43 AM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Cc: Lauren Swett <lszett@woodardcurran.com>, Michael Tremblay <mtremblay@portlandmaine.gov>, Jeff Tarling <jst@portlandmaine.gov>, Caitlin Cameron <ccameron@portlandmaine.gov>, Robert Thompson <rmt@portlandmaine.gov>

Good morning, Shukria,

The [143 Washington Avenue](#) project as approved meets the applicable standards within the public right-of-way for sidewalk and bike racks design. It is meeting its off-street parking requirements by a contribution to the Sustainable Transportation Fund/fee *in lieu* of parking.

Please don't hesitate to contact me if you have any questions.

Bruce

--

Bruce Hyman

Transportation Program Manager

Department of Planning & Urban Development

[389 Congress Street](#)[Portland, Maine 04101](#)

(207) 874-8717 phone

bhyman@portlandmaine.gov<http://www.portlandmaine.gov/1363/Transportation-Division><http://www.portlandmaine.gov>**Yes! Transportation's Good Here**

JEWELL & BULGER, P.A.

Attorneys at Law

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F: (207) 774-1626

Thomas F. Jewell, Esq.

tjewell@jewellandbulger.com

Paul S. Bulger, Esq.

pbulger@jewellandbulger.com

August 30, 2019

City of Portland
389 Congress Street
Portland, ME 04101

RE: Appeal to the Planning Board
Akasha 155, LLC; 143 Washington Avenue (Rear)
Level II Site Plan Review

Dear Christine Grimando and all others concerned:

I am writing for Michele Perejda and Matthew Perejda, abutters to the above-referenced project, submitted as "Washington Baths" and the permit for the project now pending. Michele resides at 141 Washington Avenue; Matthew owns and resides at 143 Washington Avenue. As you know, the Perejdas have a number of concerns which can be addressed through the Level II Site Plan review. The submission appears to be comprehensive, but the design and the data is inadequate for a commercial project of this scale and the design is insensitive to the needs of the abutting residential users.

Comments can be summarized as follows:

1. Drainage/ Ordinance/ Site Plan Section 14-523

The Applicant has summarized drainage information without benefit of complete engineering report and data. The lot as it now exists, following demolition sits below surrounding properties and the new structure will occupy 66% impervious of what is now a site that is 90-100% pervious surfaces. The project, and the location represent a significant drainage issue and potential subsidence issues, as well (see soils and geotechnical below). Detailed drainage engineering and calculations should be required from the applicant before proceeding.

2. Geotechnical Matters

The project location sits at the foot of the hill near the corner of Washington Avenue and Walnut Street. The existing retaining wall to the rear of the property is crumbling and must be replaced. The near hill to the north is covered in overgrowth and topped with multi-unit structures. Both hillsides appear unstable and the application provides no

information relative to the danger to abutting structures or the need for retaining walls to hold the hillsides during construction or following completion.

The location of the property and neighboring projects (Munjoy Heights; corner of Sheridan and Walnut Streets) required detailed geotechnical studies and soils analysis. Even smaller projects have experienced subsidence in the East End (for example, Fox Street for which the City recently issued a stop work order after a hillside collapse). The Applicant should be required to present evidence that his retaining walls are sufficiently anchored so as to avoid damage to neighboring properties. Also, see encroachment under paragraph #4. The conservation service medium intensity soil survey and USDOA web soil survey data have been shown to be inadequate for soils data on the peninsula and the East End in particular. The applicant should submit his soils data for peer review before a permit issues.

3. Parking.

The bathhouse use in the Zone will create significant traffic to the site. Zoning requires 8 off-street vehicle parking spaces as noted. The parking replacement solution for an 8-car minimum use is inadequate and the incremental addition of replacement parking, but there is no parking garage on Washington Avenue in a residential neighborhood undesirable at best. The parking replacement concept is nothing more than a Band-Aid on a hemorrhage in this neighborhood. That said, the Applicant can legally exploit the parking replacement provision in the ordinance. It is incumbent upon the City to see to it that parking replacement actually happens.

The Perejdas are concerned that the \$5,000 annual contribution is unsecured. As with any other commercial project, the Applicant should be required to post a letter of credit or performance bond to secure the obligation.

Any information that planning staff may have on a parking replacement or garage in the neighborhood should be shared with all concerned abutters.

4. Site Plan Comments.

Until just recently the project area has been zoned residential. The sidewalk placement for the project fails to take into account the potential for nuisance the project represents as it abuts the neighboring residential zone and is surrounded by individual residents to the North and East. Many residential properties in the R-6 share a gangway with cross easements and still neighbors occasionally conflict. This is a commercial use that will invite steady foot traffic to late hours assumed to be 8 P.M. per the application, but more likely to late at night.

The project design can easily accommodate a sidewalk on the westerly and northerly sides if the building footprint is shifted approximately 3 feet to the south and southeast up to the property line of the abutters.

Proper screening and buffering is needed as well.

5. Encroachment/Site Plan.

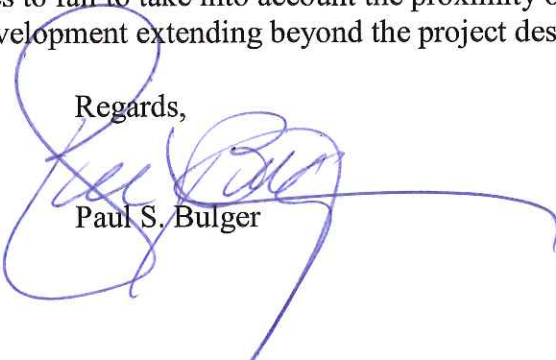
The easterly property line depicted by the Applicant is incorrect inasmuch of the site plan does not show the northwest property line of Matthew Perejda. The Perejda property structure includes a portion of the foundation extending onto the subject's property line. Given that the foundation is several decades old, Mr. Perejda has a claim to the location of his foundation superseding any rights of the Applicant. The resulting boundary line dispute must be resolved by indenture or suit.

6. Applicant's Technical Capacity

During the permit application the developer has repeatedly failed or refused to take the abutters needs into account. Demolition of the existing structure was undertaken without notice and in a manner that resulted in encroachments on the Matthew Peredja property. Water and sewer lines were cut and resulted in sewage backup in the Perejda property causing thousands of dollars of damage. Concerns expressed about inaccurate survey work (see note 4 above) have gone unheeded. The Perejda's are right to be concerned about the technical and financial capacity of the applicant in light of the mismanagement of the project in it's nascent stages.

In conclusion, site development in the newly creating zone abutting residential housing requires a greater sensitivity to the issues a business will create. The design and the engineering (particularly soils) traffic and parking are not adequately and fairly addressed by the application. It would violate good planning practices to fail to take into account the proximity of residential owners and the site location for this development extending beyond the project design itself.

Regards,


Paul S. Bulger

PSB/cmk

Enclosure

cc: Michele Perejda



LEVEL II and LEVEL III APPLICATION SUBMISSION CHECKLIST

Submit each Tab as one PDF file and bookmark the items as noted below

Please confirm by electronically checking the boxes to the left

Tab 1 – General Application Documents

Checklist	Items to be Provided
Yes NA Plan ☒ ☐ ☐	PROJECT DESCRIPTION Cover Letter with detailed project description
Yes NA Plan ☒ ☐ ☐	COMPLETED CHECKLIST – LEVEL II APPLICATION
Yes NA Plan ☒ ☐ ☐	RIGHT, TITLE AND INTEREST Deeds, leases, or purchase and sales agreements
Yes NA Plan ☐ ☒ ☐	EVIDENCE OF STATE OR FEDERAL APPROVALS, if applicable Permits or letters of non-jurisdiction, if applicable
Yes NA Plan ☒ ☐ ☐	ZONING ASSESSMENT Table listing required and proposed uses and dimensional standards <u>Zoning Assessment Table</u>
Yes NA Plan ☒ ☐ ☐	EXISTING &/OR PROPOSED EASEMENTS OR COVENANTS, if applicable Evidence of existing easements and any proposed easements
Yes NA Plan ☒ ☐ ☐	WAIVER REQUESTS Written request for waiver describing request and reason. <u>Waiver Table</u>
Yes NA Plan ☒ ☐ ☐	FINANCIAL CAPABILITY Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes NA Plan ☒ ☐ ☐	TECHNICAL CAPABILITY Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

LEVEL II AND LEVEL III SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.

Submit each Tab as one PDF file and bookmark the items as noted below

Tab 2 - TRANSPORTATION

Check list	Assess/Provide/Document:
Yes NA Plan ☒ ☐ ☐	Transportation Analysis- Traffic Impact (14-526 (a) 1) - Provisions for pedestrian, bicycle, vehicle, and loading circulation and incremental volume of traffic impacts - Traffic Impact Study (Technical Manual, Section 1) if applicable
Yes NA Plan ☒ ☐ ☐	Access and Circulation (14-526 (a) 2 a) - Access and internal circulation, addressing ADA access - Access and egress impacts on traffic flows - Description and use of drive-up features, if applicable
Yes NA Plan ☐ ☒ ☐	Loading and Servicing (14-526 (a) 2 b) - Loading and servicing needs, route and travel way geometrics for deliveries - Turning templates for delivery vehicles, if applicable
Yes NA Plan ☒ ☐ ☐	Sidewalks (14-526 (a) 2 c) - Sidewalks and condition along street frontages and internal walkways - Engineered details for ADA ramps and public sidewalk details meeting sidewalk materials policy and ADA ramp construction details as applicable (Technical Manual, Section 1)
Yes NA Plan ☐ ☒ ☐	Public Transit (14-526 (a) 3), if applicable - Existing available transit services - Proposed site plan design details, such as easement, pad base, and shelter
Yes NA Plan ☒ ☐ ☐	Off-Street Parking: Vehicle & Motorcycle/Scooter) (14-526 (a) 4 a and c) - Expected parking demand, proposed parking supply, ADA parking, and applicable Zoning Requirements - Address Technical Manual standards (Section 1) for curb cut separation and parking lot layout and locate on site plan
Yes NA Plan ☒ ☐ ☐	Bicycle Parking (14-526 (a) 4 b) - Address bicycle parking requirements and identify locations on-site - Construction details for bike racks (Technical Manual, Section 1)
Yes NA Plan ☒ ☐ ☐	Snow Storage (14-526 (a) 4 d) Management plan for snow removal and locate snow storage areas on plan
Yes NA Plan ☐ ☒ ☐	Traffic Demand Management (TDM) (14-526 (a) 5), if applicable Develop TDM with Trip Reduction Targets and Strategies

Tab 3 - ENVIRONMENTAL AND LANDSCAPE FEATURES

Check list	Assess/Provide/Document:
Yes NA Plan ☐ ☒ ☐	Preservation of Significant Natural Features (14-526 (b) 1), if applicable • Trees, plants, habitats listed on State or Federal list of endangered or threatened • High and moderate value waterfowl and wading habitat • Aquifers on Casco Bay Islands • Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) • Proposed preservation areas and protection measures • Documentation from environmental consultants, determinations from applicable state agencies
Yes NA Plan ☒ ☐ ☐	Landscaping and Landscape Preservation (14-526 (b) 2 a) • Preservation of trees and preservation within required zoning setbacks (Technical Manual, Section 4) • Protection measures of existing vegetation during construction • Protection measures within Shoreland Zone, if applicable
Yes NA Plan ☒ ☐ ☐	Site Landscaping (14-526 (b) 2 b) • Screening and buffering of service areas and between non-residential and residential uses • Planting plans with plant schedule and sizes (Technical Manual, Section 4)
Yes NA Plan ☒ ☐ ☐	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable • Landscaped islands within parking areas (Technical Manual, Section 4)
Yes NA Plan ☒ ☐ ☐	Street Trees (14-526 (b) 2 b iii) • Existing Heritage or Feature Trees on site and measures to preserve • Identify street trees on the plan meeting the site plan and Technical Manual standards (Section 4) or identify alternative measures, if applicable

Tab 4 - ENVIRONMENTAL AND STORMWATER

Check list	Assess/Provide/Document:
Yes NA Plan ☒ ☐ ☐	Water Quality, Stormwater Management and Erosion Control (14-526 (b) 3 a) • Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable • Erosion control plan and measures • Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable • Subsurface sanitary sewage disposal and groundwater protection

Tab 5 - PUBLIC INFRASTRUCTURE AND SAFETY

Check list	Assess/Provide/Document:
Yes NA Plan ☒ ☐ ☐	Consistency with City Master Plans (14-526 (c) 1) - Identify consistency with master plans - Proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes NA Plan ☒ ☐ ☐	Public Safety and Fire Prevention (14-526 (c)) - Address Crime Prevention through Environmental Design (CPTED) (Technical Manual, Section 3) - Emergency vehicle access - Address consistency with public safety standards (Technical Manual, Section 3) - Submit a code summary referring NFPA 1 and all Fire Department standards (Technical Manual, Section 3) – Fire Checklist
Yes NA Plan ☒ ☐ ☐	Availability and Adequacy of Public Utilities (14-526 (c) 3) (Technical Manual, Sections 2 & 9) - Electrical services, including providing underground services - Identify existing and proposed connections for public utilities and required public utility upgrades - Sewer line connections are required, if there is a main within 200 feet - Proposed solid waste management facilities on-site and management for the site - Written evidence of the ability to serve from utility companies, as applicable

Tab 6 - SITE DESIGN

Check list	Assess/Provide/Document:
Yes NA Plan ☒ ☐ ☐	Massing, Ventilations and Wind Impact (14-526 (d) 1) - Wind and ventilation impacts on adjoining structures and/or adjacent public spaces. Wind study, if applicable - Bulk, location or height impacts on adjoining structures - Identify and locate HVAC equipment and venting away from public spaces and residential properties - Identify screening and manufacturing specifications for noise, if applicable
Yes NA Plan ☐ ☒ ☐	Shadows (14-526 (d) 2), if applicable Shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes NA Plan ☒ ☐ ☐	Snow and Ice Loading (14-526 (d) 3) Building design to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes NA Plan ☐ ☒ ☐	View Corridors (14-526 (d) 4), if applicable Protection of designated view corridors (Portland Design Manual, Appendix 1)

Yes NA Plan ☐ ☒ ☐	Historic Resources (14-526 (d) 5), if applicable - Identify developments within Historic Districts or affecting Designated Landmarks - Certificate of Appropriateness or other evidence - Identify Developments within 100 feet of Historic Districts or affecting Designated Landmarks. Advisory HP review may be required - Address preservation and documentation of Archaeological Resources
Yes NA Plan ☒ ☐ ☐	Exterior Lighting (14-526 (d) 6) - Cut sheets of on-site light fixtures and any architectural or specialty lights (Technical Manual, Section 12) - Engineered details for any lights proposed in street right-of-way (Technical Manual, Section 10)
Yes NA Plan ☐ ☒ ☐	Noise and Vibration (14-526 (d) 7) Evidence of noise levels for equipment, such as equipment specifications, to demonstrate consistency with zoning requirements
Yes NA Plan ☒ ☐ ☐	Signage and Wayfinding (14-526 (d) 8), if applicable - Signage plan showing the location, dimensions, height and setback of all existing and proposed signs. Signs in Historic Districts are reviewed by Historic Preservation staff - Proposed commercial and directional signage on site
Yes NA Plan ☒ ☐ ☐	Zone Related Design Standards (14-526 (d) 5) - Address Historic Preservation Design Review, if applicable - Address any applicable design review standards by zone - Address submission requirements from Design Manual, page 1, addressing neighborhood context - Description of exterior materials, color, finish, and samples
Tab 7 - Construction Management Plan	
Check list	
Yes NA Plan ☒ ☐ ☐	Construction Management Plan <u>Construction Management Document</u> and Plan

Level II and Level III Site Plan Checklist Please upload the following drawings with the listed details into e-Plan	
☐	RECENT BOUNDARY SURVEY (stamped by Maine Licensed Surveyor)
Must be in compliance with Technical Manual, Section 13	
SITE PLAN(s) (stamped by Maine Licensed Engineer) including:	
☒	Existing Conditions • Approximate location of structures on abutting property • Topography • Locate water courses • Delineate wetlands • Zone lines
☒	Proposed Site Plan • Ground floor area, and grade elevations for all buildings
☒	Access, Circulation, and Parking • Streets and intersections adjacent to site , any proposed geometric modifications • Location, dimensions and materials of all existing and 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 • Existing and proposed transit infrastructure with dimensions/ engineering specifications • Location of vehicle and bicycle parking with dimensions and engineering specifications
☒	Site Considerations • Identify snow storage areas • Location of fire hydrants • Location of solid waste management facilities
☒	UTILITY PLAN including:
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☒ GRADING and DRAINAGE PLAN including:
• Existing grades and drainage • Proposed grades • Proposed stormwater management meeting Technical Manual (Section 5) standards • Location and proposed alteration of a water course • Preservation or alteration of wetlands
☒ EROSION CONTROL
• Must be in compliance with Technical Manual, Section 5
☒ LANDSCAPE PLAN including:
• Existing vegetation to be preserved and preservation measures • Proposed landscaping and buffers • Planting schedule
☐ RECORDING PLAT , if applicable
• IF SUBDIVISION: Must be in compliance with requirements of Section 14-496 (b)
☒ ARCHITECTURAL PLANS & RENDERINGS including:
• Exterior building elevations, color renderings, illustrations of all sides • Location and dimensions of all existing & proposed HVAC & mechanical equipment, all proposed screening • Provide context drawings, if applicable (Design Manual, page 1) • Floor plans



LEVEL II and LEVEL III APPLICATION SUBMISSION CHECKLIST
 Submit each Tab as one PDF file and bookmark the items as noted below
 Please confirm by electronically checking the boxes to the left

Tab 1 – General Application Documents

Checklist	Items to be Provided
Yes NA Plan ☒ ☐ ☐	PROJECT DESCRIPTION Cover Letter with detailed project description
Yes NA Plan ☒ ☐ ☐	COMPLETED CHECKLIST – LEVEL II APPLICATION
Yes NA Plan ☒ ☐ ☐	RIGHT, TITLE AND INTEREST Deeds, leases, or purchase and sales agreements
Yes NA Plan ☐ ☒ ☐	EVIDENCE OF STATE OR FEDERAL APPROVALS, if applicable Permits or letters of non-jurisdiction, if applicable
Yes NA Plan ☒ ☐ ☐	ZONING ASSESSMENT Table listing required and proposed uses and dimensional standards <u>Zoning Assessment Table</u>
Yes NA Plan ☒ ☐ ☐	EXISTING &/OR PROPOSED EASEMENTS OR COVENANTS, if applicable Evidence of existing easements and any proposed easements
Yes NA Plan ☒ ☐ ☐	WAIVER REQUESTS Written request for waiver describing request and reason. <u>Waiver Table</u>
Yes NA Plan ☒ ☐ ☐	FINANCIAL CAPABILITY Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes NA Plan ☒ ☐ ☐	TECHNICAL CAPABILITY Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

LEVEL II AND LEVEL III SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.

Submit each Tab as one PDF file and bookmark the items as noted below

Tab 2 - TRANSPORTATION

Check list	Assess/Provide/Document:
Yes NA Plan ☒ ☐ ☐	Transportation Analysis- Traffic Impact (14-526 (a) 1) - Provisions for pedestrian, bicycle, vehicle, and loading circulation and incremental volume of traffic impacts - Traffic Impact Study (Technical Manual, Section 1) if applicable
Yes NA Plan ☒ ☐ ☐	Access and Circulation (14-526 (a) 2 a) - Access and internal circulation, addressing ADA access - Access and egress impacts on traffic flows - Description and use of drive-up features, if applicable
Yes NA Plan ☐ ☒ ☐	Loading and Servicing (14-526 (a) 2 b) - Loading and servicing needs, route and travel way geometrics for deliveries - Turning templates for delivery vehicles, if applicable
Yes NA Plan ☒ ☐ ☐	Sidewalks (14-526 (a) 2 c) - Sidewalks and condition along street frontages and internal walkways - Engineered details for ADA ramps and public sidewalk details meeting sidewalk materials policy and ADA ramp construction details as applicable (Technical Manual, Section 1)
Yes NA Plan ☐ ☒ ☐	Public Transit (14-526 (a) 3), if applicable - Existing available transit services - Proposed site plan design details, such as easement, pad base, and shelter
Yes NA Plan ☒ ☐ ☐	Off-Street Parking: Vehicle & Motorcycle/Scooter) (14-526 (a) 4 a and c) - Expected parking demand, proposed parking supply, ADA parking, and applicable Zoning Requirements - Address Technical Manual standards (Section 1) for curb cut separation and parking lot layout and locate on site plan
Yes NA Plan ☒ ☐ ☐	Bicycle Parking (14-526 (a) 4 b) - Address bicycle parking requirements and identify locations on-site - Construction details for bike racks (Technical Manual, Section 1)
Yes NA Plan ☒ ☐ ☐	Snow Storage (14-526 (a) 4 d) Management plan for snow removal and locate snow storage areas on plan
Yes NA Plan ☐ ☒ ☐	Traffic Demand Management (TDM) (14-526 (a) 5), if applicable Develop TDM with Trip Reduction Targets and Strategies

Tab 3 - ENVIRONMENTAL AND LANDSCAPE FEATURES

Check list	Assess/Provide/Document:
Yes NA Plan ☐ ☒ ☐	Preservation of Significant Natural Features (14-526 (b) 1), if applicable • Trees, plants, habitats listed on State or Federal list of endangered or threatened • High and moderate value waterfowl and wading habitat • Aquifers on Casco Bay Islands • Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) • Proposed preservation areas and protection measures • Documentation from environmental consultants, determinations from applicable state agencies
Yes NA Plan ☒ ☐ ☐	Landscaping and Landscape Preservation (14-526 (b) 2 a) • Preservation of trees and preservation within required zoning setbacks (Technical Manual, Section 4) • Protection measures of existing vegetation during construction • Protection measures within Shoreland Zone, if applicable
Yes NA Plan ☒ ☐ ☐	Site Landscaping (14-526 (b) 2 b) • Screening and buffering of service areas and between non-residential and residential uses • Planting plans with plant schedule and sizes (Technical Manual, Section 4)
Yes NA Plan ☒ ☐ ☐	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable • Landscaped islands within parking areas (Technical Manual, Section 4)
Yes NA Plan ☒ ☐ ☐	Street Trees (14-526 (b) 2 b iii) • Existing Heritage or Feature Trees on site and measures to preserve • Identify street trees on the plan meeting the site plan and Technical Manual standards (Section 4) or identify alternative measures, if applicable

Tab 4 - ENVIRONMENTAL AND STORMWATER

Check list	Assess/Provide/Document:
Yes NA Plan ☒ ☐ ☐	Water Quality, Stormwater Management and Erosion Control (14-526 (b) 3 a) • Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable • Erosion control plan and measures • Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable • Subsurface sanitary sewage disposal and groundwater protection

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September 17, 2018

Planning Department
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Design Narrative

Washington Baths
143 Washington Avenue

Building Description

The proposed building is a bath house facility on the ground floor, with a residential unit on part of the second floor. The B1-zoned site is atypical in that it provides a relatively narrow frontage relative to a larger portion of the parcel located mid-block at the rear of the site. The site slopes gently from street edge towards the back of the site, then rises more dramatically at the rear of the site. This topographic condition, along with a zero-setback firewall condition on one edge of the site establishes the basic massing of the building. A single parapet datum at the street elevation is a negotiation of the height and massing of adjacent residential and commercial properties as well as the necessary height of the continuous firewall as it extends to the rear of the site and encloses interior spaces that step up with the topography of the site.

The street elevation is primarily a masonry wall to maintain privacy for the bath house but with an oversized entry aperture that provides access to a small entry court, a public amenity "pocket park" within the building perimeter. This street-facing facade maintains the urban street wall edge of the Washington Avenue corridor while providing the urban pocket park within, which together help foster of the calm environment of the bath house facility.

The exterior materials of the building are durable and low maintenance: insulated concrete masonry units at the first- and second stories and a second story glass volume that provides windows for the residence and clerestory windows for the lower level sauna rooms. The exterior envelope design will exceed code standards for insulation. The interior structure of the building will feature mass timber structural and partition components that, as designed integral with the building's energy strategies, will provide a model for low-carbon design. The primary fuel source for the building is Maine-sourced wood pellets that will fuel masonry heaters for the sauna rooms. The intense heat required of this system will be re-used to heat water, condition rooms, and heat the residence above the bath house facility. The roof will be an EPDM membrane, with the possible addition of areas of extensive vegetated roof for storm water management and thermal/albedo control.

Zoning Assessment

The project is designed to meet the B1 zoning ordinance.

Min. Street Frontage: *20 feet* [This site is 32'-0" wide at the street edge.]

Max. Front Yard: *10 feet* [We maintain the street edge (0' setback) per Design Manual requirements.]

Min. Rear yard: *None, except 5 ft. if abutting residential zone.* [At the rear side of the site, we maintain a 16'-8" rear yard setback at one rear corner of the building, and a 22'-2" rear yard setback at the other rear corner of the building.]

Min side yard: *None, except 5 ft. if abutting residential zone.* [On the northwest edge, we abut Business zoning, so the setback is zero on this edge. On all other edges of the site, we abut Residential zoning, so we obey the 5 foot sideyard setback.]

Max. Structure Height: *On-peninsula: 45 ft.* [We maintain a street edge of 19'-4" and 27'-0" at the two story mixed-use portion of the building.]

Max. Floor Area: *Total maximum first floor area for non-residential uses per structure: 10,000 SF.* [This building contains 4,621 square feet of interior space.]

Max. Impervious Surface: *90%* [The site for this project is 63% impervious surface.]

City of Portland Design Manual Standards

The project will be designed to meet the City of Portland design standards.

B-1 guidelines:

- a. **Urban Street Wall:** this building adds to the existing street wall front at its street edge
- b. **Mixed Use:** this building provides a mixture of uses (business and residential)
- c. **Building Entrances:** the entrance to the facility is directly accessible from the Washington Avenue sidewalk edge. From the entry court/pocket park, an accessible ramp leads up to the main interior entrance. The Portland Design Manual guidelines (appendix 2) in our design of an entry court, signage, exterior and interior lighting, and walkways. The major facility entrance is at the sidewalk edge. Exterior lighting and signage emphasize the main facility entrance.
- d. **Windows:** we consider the front façade to have depth that is experienced through the entry sequence. First, at the sidewalk, the street elevation is more solid. Then there is the entry court/pocket park. Then there is the entry façade of the inner building, which is fully glazed with the urban pocket park located between. Between the public use and activity of the pocket park, the fully glazed inner façade and its nighttime illumination, we believe that we are providing a unique type of space and activity at the street edge while protecting the serene atmosphere required of the bath house facility. This entry sequence negotiates the street and the bath house interior.

- e. **Façade Character:** the active, public portion of the narrow street frontage façade contains the primary entrance aperture, and primary/secondary entries to the building to help engender and active presence on the sidewalk. We see the entry court as a primary architectural and urban amenity that provides visual interest and activity along the street and relate the building, and its use, to passersbys while simultaneously maintaining the calm, intimate and private atmosphere of the bath house.
- f. **Building Design:** the massing of the building responds to the rich mixture of residential and commercial structures along this portion of Washington Avenue. The height of the structure responds to the eave height of the residential structure while maintaining the materials and frontage of similar commercial buildings on adjacent blocks of Washington Avenue. We maintain the Portland Design Manual guidelines (appendix 2) of a ratio of 1:2 (building height to street width).
- g. **Building Materials:** the primary envelope material is directly related to that of commercial buildings along the Washington Avenue corridor.
- h. **Building Scale:** the building matches the eave height of the adjacent residential structures on Washington Avenue. Adjacent properties on Walnut Street to the southeast rise rapidly as Walnut Street climbs its topography. As such, we have focused on the relationship of our parapet to that of the adjacent residential structures. Matching the eave height provides continuity to the street elevation and perspective down Washington Avenue, while allowing the pitched roof of the residential structures to be distinct from the commercial structures. This strategy of related massing height and datum lines, combined with variable roof conditions is consistent with the mix of residential and commercial buildings in this section of the Washington Avenue corridor.
- i. **Landscaping and buffers:** the landscaped entry court behind the street façade as well as the landscaped courtyard further back in the building provide vegetation adjacent to the street and adjacent properties while maintaining the street edge. These vegetated areas provide opportunities to help manage storm water but are also essential to the calm and relaxing atmosphere requisite of the bath house typology.

HVAC equipment Specifications

The HVAC equipment for the project will meet or exceed applicable state and federal energy performance criteria and emission requirements. The detailed specifications for the HVAC equipment will be submitted to the City at a future date when those systems are more completely designed and the exact equipment specified. As a bath house/sauna facility, there are unique energy loads associated with the building typology. Thus, there are unique energy and material strategies integral to the conception, planning and operation this building design. It is a decidedly heating-load dominated building, so no air-conditioning units are expected. Rather, most of the strategies associated the temperament of the interior climate deal with how to re-use available energy in the operation of the building.

Code Review

Please see the attached Code Review Summary for the project referencing NFPA 101 2009 and IBC 2009. Regarding the atypical geometry of this site, we have designed the building with occupant egress and first-responder ingress in mind. We provide two means of egress/responder ingress on each edge of the narrow street frontage. On the north/northwest edge of the site, a primary door and path provide access to the main building entry. This also provides egress and access to a gated courtyard that provides exterior access to the depth of the building in an emergency scenario. Given the site configuration, this best meets the requirement for two means of first-responder access to the site. The second path is on the south/southeast edge of the street elevation. This second entry zone is a service entry and an egress path from the residence and egress from the sauna/locker portion of the building.

Signage

Exterior signage is located above the main entry. A separate signage permit application will be filed with the city at the time of building permit.

Exterior Lighting

The exterior lighting for the project will be down lighting at the street edge and egress path from the locker rooms and residence, attached to the building. Please reference the attached cut sheets for the facade lighting as shown on the elevations. The building entry will be lit from soffit-mounted lighting in the overhangs above the entry sequence. The courtyards will also use down lighting.

JEWELL & BULGER, P.A.

Attorneys at Law

511 Congress Street, Suite 502

Portland, ME 04101

T: (207) 774-6665

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Thomas F. Jewell, Esq.

tjewell@jewellandbulger.com

Paul S. Bulger, Esq.

pbulger@jewellandbulger.com

April 17, 2019

City of Portland
389 Congress Street
Portland, ME 04101

RE: Akasha 155, LLC; 143 Washington Avenue (Rear)
Level II Site Plan Review

Dear Christine Grimando and all others concerned:

I am writing for Michele Perejda and Matthew Perejda, abutters to the above-referenced project, submitted as "Washington Baths" Michele resides at 141 Washington Avenue; Matthew owns 143 Washington Avenue. As you know, the Perejdas have a number of concerns which can be addressed through the Level II Site Plan review. The submission appears to be comprehensive, but the design and the data is inadequate for a commercial project of this scale.

Comments can be summarized as follows:

1. Drainage/ Ordinance/ Site Plan Section 14-523

The Applicant has summarized drainage information without benefit of complete engineering report and data. The lot as it now exists, following demolition sits below surrounding properties and the new structure will occupy 66% impervious of what is now a site that is 90-100% pervious surfaces. The project, and the location represent a significant drainage issue and potential subsidence issues, as well (see soils and geotechnical below). Drainage engineering and calculations should be required from the applicant before proceeding.

The location of the property and neighboring projects (Munjoy Heights; corner of Sheridan and Walnut Streets) require detailed geotechnical studies and soils analysis. Even smaller projects have experienced subsidence on the peninsula (for example, Fox Street for which the City recently issued a stop work order after a hillside collapse). The Applicant should be required to present evidence that his retaining walls are sufficiently anchored so as to avoid damage to neighboring properties Also, see encroachment under paragraph #4. The conservation service medium intensity soil survey and USDOA web soil survey data have been shown to be inadequate for soils data on the peninsula and the East End in particular.

2. Parking.

The bathhouse use in the Zone will create significant traffic to the site. Zoning requires 8 off-street vehicle parking spaces as noted. The parking replacement solution for an 8-car minimum use is inadequate and the incremental addition of replacement parking, but there is no parking garage on Washington Avenue in a residential neighborhood undesirable at best. The parking replacement concept is nothing more than a Band-Aid on a hemorrhage in this neighborhood. That said, the Applicant can legally exploit the parking replacement provision in the ordinance. It is incumbent upon the City to see to it that parking replacement actually happens.

Further, the Perejdas are concerned that the \$5,000 annual contribution is unsecured. As with any other commercial project, the Applicant should be required to post a letter of credit or performance bond to secure the obligation.

Any information that planning staff may have on a parking replacement or garage in the neighborhood should be shared with all concerned abutters.

3. Site Plan Comments.

The project area has been zoned residential since 1958 and until recently. The sidewalk placement for the project fails to take into account the nuisance the project represents as it abuts the neighboring residential zone. Many residential properties in the R-6 share a gangway with cross easements and still neighbors occasionally conflict. This is a commercial use that will invite steady foot traffic to late hours assumed to be 8 P.M. per the application.

The project design can easily accommodate a sidewalk on the westerly and northerly sides if the building footprint is shifted approximately 3 feet to the south and southeast up to the property line of the abutters.

Matthew Perejda's parkers will lose the use of a portion of his driveway where opening a car door will become an "encroachment" unless the sidewalk access is moved.

4. Encroachment/Site Plan.

The easterly property line depicted by the Applicant is incorrect inasmuch of the site plan does not show the northwest property line of Matthew Perejda. The Perejda property structure includes a portion of the foundation extending onto the subject's property line. Given that the foundation is several decades old, Mr. Perejda has a claim to the location of his foundation superseding any rights of the Applicant. The resulting boundary line dispute must be resolved by lawsuit or indenture.

April 17, 2019

Page 3

In conclusion, in site development in the newly creating zone abutting residential housing on 3 sides requires a greater sensitivity to the issues a business will create. The design and the engineering (particularly soils) traffic and parking are not adequately and fairly addressed by the application.

Regards,

Paul S. Bulger

PSB/cmk

Enclosure

cc: Michele Perejda



CITY OF PORTLAND
Planning & Urban Development
Christine Grimando, AICP, City Planning Director

August 8, 2019 (Revised)

Asher Woodworth
 Akasha 155, LLC
 PO Box 11546
 Portland, ME 04104

Will Savage
 Acorn Engineering
 158 Danforth Street
 Portland, ME 04104

Project Name:	Washington Baths	Project ID:	PL-000361-2018
Project Address:	145 Washington Avenue	CBL:	012 G020 001
Applicant:	Asher Woodworth, Akasha 155, LLC		
Planner:	Shukria Wiar		

Dear Mr. Woodworth:

On July 31, 2019, the Planning Authority approved a Level II Site Plan application for a sauna and hydrotherapy business located at 145 Washington Avenue. The development is a two-story building that will consist of 4,818 SF of commercial space on the first floor and two residential units on the second floor. The decision is based upon the application, documents and plans as submitted. The proposal was reviewed for conformance with the standards of Portland's Site Plan Ordinance.

Site Plan Review

After a review of the submitted plans for application PL-000361-2018, and for the reasons outlined in the factual findings attached hereto and incorporated herein, the Planning Authority concludes that the plan is in conformance with the site plan standards of the Land Use Code, subject to the following conditions of approval that shall be met in accordance with the following schedule:

PRIOR TO ISSUANCE OF A BUILDING PERMIT

1. The applicant shall pay into the City's Sustainable Transportation Fund fee-in-lieu for ten parking spaces in the amount of \$64,700 (\$6,470 per space):
2. The applicant shall submit a temporary construction easement to the Planning Authority;
3. A sanitary sewer capacity letter from Department of Public Works shall be forwarded to the Planning Division;
4. A revised landscaping plan shall be submitted for review and approval by the Planning Authority that shows an evergreen buffer along the rear of 143 and 141 Washington Avenue properties.
5. The developer/contractor/subcontractor must comply with conditions of the construction stormwater management plan and sediment and erosion control plan based on City standards and state guidelines. The owner/operator of the 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. Please submit final copies to both the Department of Planning and Urban Development and the Department of Public Works.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

6. The wood rain screen along the façade of the building shall be either be a solid stain or painted finish.

Standard Conditions of Approval

Please Note: The following standard conditions of approval and requirements apply to all approved site plans:

PRIOR TO THE ISSUANCE OF A BUILDING PERMIT

1. Subdivision Recording Plat A revised recording plat, listing all conditions of subdivision approval, must be submitted to the Planning and Urban Development Department for review. Once approved, the plat shall be signed by the Planning Board. A performance guarantee must be issued prior to release of the recording plat for recording at the Cumberland County Registry of Deeds. One mylar copy of the recording plat with signatures and the recorded book and page must be returned to the Planning Division.
2. Subdivision Waivers Pursuant to 30-A MRSA section 4406(B)(1), any waiver must be specified on the subdivision plan or outlined in a notice. The plan or notice must be recorded in the Cumberland County Registry of Deeds within two (2) years of the final subdivision approval.
3. 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.
4. Subdivision Expiration The subdivision approval is valid for up to three (3) years from the date of Planning Board approval.
5. 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.
6. Performance Guarantee and Inspection Fees A performance guarantee covering the site improvements and an inspection fee payment of 2.0% of the guarantee amount 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.
7. 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.

8. 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.
9. 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 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY AND ON-GOING CONDITIONS

10. 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, which was 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.
11. Design Review of Exterior Elevations If the project is subject to design review, then the exterior elevations shall be constructed and maintained as depicted on the approved elevation drawings and in the written submission of the applicant. Modification of any approved exterior elevations shall require the approval of the revised plans by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use of the Portland City Code.
12. Defect Guarantee A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
13. 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.
14. 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.
15. 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 874-8632. 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 Shukria Wiar at (207) 756-8083 or via shukriaw@portlandmaine.gov

Sincerely,

A handwritten signature in black ink, appearing to read "Christine Grimando", with a stylized flourish at the end.

Christine Grimando, AICP
City Planning Director

Attachments:

1. Staff Memo, Record of Finding
2. Sample Stormwater Maintenance Agreement
3. Performance Guarantee Packet



Shukria Wiar <shukriaw@portlandmaine.gov>

Washington Avenue Baths - For Public Record by Michele Perejda

Michele Perejda <mperejda@legacysir.com>
To: Shukria Wiar <shukriaw@portlandmaine.gov>

Mon, Oct 29, 2018 at 8:12 PM

Hi Shukria,

- Please note that I give you permission to share this email, any prior written correspondence regarding the proposed Washington Avenue Baths, I do not give permission for you to share. I did not know or understand that any email I sent to you was considered a public record until it was disclosed to me this morning.

Thank-you for meeting with me the other day. Based on that meeting and the card I received last week, it was clear to me that an eminent approval is approaching, and that formalizing my questions and concerns in writing to the planning board is required.

I appreciate that you are very familiar with the house and location, however, I would like to invite you to physically view the site. I have attached my survey, and my son, Matt's survey. He just closed on 143 Washington Avenue, as a first-time home buyer.

Please note, I welcome caring and thoughtful development. I also respect homeowners, who purchase a home, that may be the one and only form of investment and equity they ever have.

The proposed "Washington Avenue Baths" lot abuts 5 residential properties. Asher Woodworth has used impressive credentials for his site evaluation/work and design, however, this project, will impact five homes and families.

Each of my questions and concerns, bear in mind, the ripple effect of this proposed business/project, with regard to the future of my neighborhood, and the impact on residential equity. Here are my list of questions and concerns that I am requesting to have answered and addressed in a community win/win and respectful neighborly manner.

1. What are the proposed business hours for the saunas and hot tubs? – As the plan indicates, there is a walkway that abuts/borders 143 Washington Avenue's sideline, entire back line, and the entire sideline of 141 Washington Avenue's backyard – all zoned residential. Said, backyard is my backyard, and shared with my tenant.

My concern is that late night hours will impact the quiet enjoyment of all the neighbors and their children. There are young children in this neighborhood.

2. What are the required setbacks for the proposed walkways, and why were they not configured to abut the adjacent business zoned and approved office building and Gear Hub? Asher Woodworth used the same engineering group, and my understanding is that he is affiliated with the abutting developers. They collaborated on the abutting property lines, with regard to fencing, landscaping, and the removal of a beautiful tree, prior to the office building approval. It would seem to make sense that the business access abut the business zoned abutter, not private yards and family homes.
3. What type of lighting is proposed along this walkway and how will that impact the abutting homes? Again, these walkways and the lighting for them impact two sides of 143 Washington Avenue and the entry to my upstairs unit and back yard at 141 Washington Avenue. The major concern and question regarding this public walkway is security, traffic, noise, and invasive lighting.
4. A retaining wall and fence is proposed along the "Washington Avenue Baths" walkway system. What is the height of both? Also, please note that the driveway for 143 Washington abuts this walkway, and there are no setbacks proposed and the driveway for 143 is tight at best, and the ability to create a privacy buffer is extremely challenging. The ability to create a privacy buffer is extremely challenging along the back line of 143 Washington Avenue.
5. Parking is another question and concern. The neighbor on Walnut Street parks on Washington Avenue. She does not have a driveway. 141 Washington Avenue is a two unit with a one car driveway. 143 Washington Avenue is a single family home with two cars and a one car driveway that abuts the proposed walkway.
6. What type of analysis was done on the proposed water/sewer usage and connection for the Washington Baths? The property that was demolished on the

site had water and sewer lines that ran through 143 Washington Avenue. Also, 143 and 141 Washington Avenue were not included in the residential sewer upgrades/updates. There are sewer lines in this location are ancient.

7. How will the electrical work be handled? A double telephone pole and commercial grade triple transformers were installed for the Avesta building across the street. They were installed in front of 141 Washington Avenue and 143 Washington Avenue, on the residential side of the street. My understanding is that they had the ability to go underground, and actually dug up the street, then changed direction. I just happened to come home when the pole was being installed and told them they could not install it in front of my two windows. The installer moved it between the two buildings – Chance & Luck.
8. What type of street frontage lighting, signage, and advertising is proposed? The frontage on Washington Avenue is unconventional and abuts a single family home.

I am uncomfortable and concerned. -And I am unable to leave this to chance or luck. As a residential homeowner on Washington Avenue, I have been tossed around in the tide of development, and have done my best to keep my head above the pushing water, and protect my most important asset – my home.

I have a beautiful backyard, and a wonderful tenant. I am unable to blindly accept the approval of this project without making sure I do my best to protect my investment.

I have done my best here to temper all emotion and request that Asher Woodworth and the city work with me, as a “we” to find a win/win for everyone. Thank-you.

With care,

Michele

Michele Perejda

Senior Vice President

Legacy Properties Sotheby's International Realty

Two City Center, Portland Maine 04101

c 207-400-6227 | o 207-780-8900

LegacySIR.com | sothebysrealty.com

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3 attachments



141 Washington Ave.pdf
560K



143 Washington Ave.pdf
288K



143R Washington Ave.pdf
835K

Michele Perejda
141 Washington Avenue
Portland, ME 04101
207-400-6227
michele.perejda@gmail.com

Shukria Wiar, Planner
Planning & Urban Development Department
389 Congress Street, 4th Floor
Portland, ME 04101
207-756-8083

3/13/19

Dear Shukria,

Thank-you, for sending over the revised plans dated 2/27/19.

I believe that one of the bigger issues with this project is somehow being diffused. Three of the five residential abutters are primarily concerned with the height of Asher Woodworth's project, even though their properties are sited significantly above street level. They were all approached early on and assured that their views would not be obstructed.

This assurance provided Asher Woodworth the ability, without further scrutiny, to develop plans suited for his current business proposal, more importantly suited for his primary business which is recreational marijuana dispensaries.

His company, Wellness Theory has two active dispensaries in Massachusetts, with a third sited for opening this year.

Boston.com has a very interesting article featuring Asher's business and about people lined up to purchase "pot," and the dispensaries having to close temporarily because they cannot keep up with the supply for the demand.

The lot density for what is already a small lot at 143 Washington Avenue- Rear is in the rear of the lot, which abuts my property along with four other residential properties. This was also the original site of Maureen Fenton's residential home.

By keeping the height down on the rear of the lot, where there is logical space for more of a building envelope with height, easier access, and better visual esthetics streetwise, Asher has effectively eliminated additional neighborhood examination regarding his future intentions and has shifted the burden to the two street level residential properties, which will be significantly impacted by:

1. The "alleyway" side walk system accessing the second rear building. Sidewalks which are sited on three property lines without significant, and in some areas, no setbacks.
2. Having two structures, one at street site and one in the rear, creating a burden on parking, access, traffic flow, and loitering.

3. A future recreational cannabis dispensary located next door, the business foot traffic, parking, and other implications that go along with this type of business.

Two residential home owners should not bear the majority burden, of a proposed project that has serious and lasting implications regarding the future landscape and esthetic of a diverse and growing neighborhood. -A proposed project, that opens the door and invites a recreational cannabis dispensary into an urban family neighborhood. This corridor of Washington Avenue is changing and developing rapidly. It deserves further analysis and study.

As a footnote: Asher Woodworth had the zoning changed from residential to B1 on that rear lot when he combined the lot with the Gear Hub lot for a project that was not approved by the city. When that failed, he split 143 Washington Ave-Rear from the Gear Hub lot.

Also, not too long ago, this neighborhood had serious issues with heroin drug dealing.

It continues to be a heavily utilized walking/biking route to East End Redemption located at 174 Washington Avenue.

There are also overflow parking issues due to new businesses such as Forage, Maine Craft Distilling, AC Grocery, and Root Wild Kombucha. It is very common to see pedestrians walking from the Northern Burner Supply Co. because there is no parking.

Also, The Gear Hub business remains with its footprint now reduced to accommodate a newly approved office building in front of it.

The commuter traffic from Congress St to Washington Avenue, Walnut Street and the highway is another issue. It is nearly impossible to see over/around parked cars, then add backing out of a single residential driveway, which there are two, one at 141 and 143 Washington Avenue. The visual of that process is clear.

I appreciate your attention to this important and possibly precedent setting project proposal.

I am also going to provide Mayor Strimling, the East Bayside Neighborhood Association, and Suna Shaw from Community Police with a copy of this letter. I believe neighborhood advocacy and the community, should be aware of this proposed project and its potential impact in this diverse and growing neighborhood.

With care,



Michele Perejda
141 Washington Avenue
Portland, ME 04101
207-400-6227
michele.perejda@gmail.com



Shukria Wiar <shukriaw@portlandmaine.gov>

Comment Response Letter 145 Washington Ave - response

Shukria Wiar <shukriaw@portlandmaine.gov>

Wed, Mar 27, 2019 at 4:05 PM

To: Matt Perejda <matt.perejda@gmail.com>, Michele Perejda <mperejda@legacysir.com>

Good Afternoon,

I received your questions regarding the proposal at 143 Washington Avenue. Below are my responses to your questions/concerns:

Setbacks and Dimensional Requirements:

This site, along with five other parcels along Washington Avenue, were rezoned from R-6 zone to B-1 zone in late 2014. The B-1 zone does not require minimum setbacks unless it is abutting a residential zone, then a five-foot setback is required for a principal and an accessory building. The main building for this proposal is meeting the required building setback. Retaining walls are not considered a principal or accessory structure; thus, the setbacks do not apply. Please refer to the chart below for all the dimensional standards for the B-1 zone:

Min. Lot Size	School: 20,000 SF Place of Assembly: 10,000 SF Other Non-Res Uses: None Residential: None
Min. Lot Area per D.U.	On-peninsula: 435 SF Off-peninsula: min. lot area of nearest residential zone, except 1,000 SF in a mixed-use building.
Min. Street Frontage	20 ft.
Min. Lot Width	None
Min. Front Yard	None
Max. Front yard	10 ft., or the maximum front yard setback shall not exceed the average depth of nearest developed lots if that average depth is less than 10 ft.
Min. Rear Yard	Principal: None, except 10 ft. if abutting a residential zone. Accessory: None, except 5 ft. if abutting a residential zone
Min. Side Yard	Principal: None, except 5 ft. if abutting residential zone. Accessory: None, except 5 ft. if abutting a residential zone
Max. Side Yard on Side Street	10 ft., except that this requirement applies to only one side street in cases where a lot has more than one side street
Structure Stepbacks	Portions of a structure above 35 ft shall be no closer than 10 ft from the side property line and no closer than 15 feet from the rear property line when such property line abuts a residential zone.
Max. Structure Height ¹	Off- peninsula: 35 ft., except where abutting R-6, where max. height shall be the max. height of R-6. ² On-peninsula: 45 ft. except 50 ft. along Congress Street if commercial first floor & residential upper floors.
Max. Floor Area	Total maximum first floor area for non-residential uses per structure: 10,000 SF ³

	Total maximum floor area per retail establishment: 5,000 SF
Max. Impervious Surface	90%
<i>1. The commercial first floor uses shall utilize at least 75 percent of the first-floor frontage along Congress Street and shall have an average depth of at least 20 feet.</i>	
<i>2. Except when B-1 properties abut an R-6A zone, the maximum height shall be 45 feet.</i>	
<i>3. Structures which existed prior to date of enactment of the B-1/B-1b zones are exempt.</i>	

Stormwater Management:

The applicant is required to submit a boundary survey, stamped by professional surveyor. We have requested from the applicant as how the wall be built without disturbing abutting properties for review. City staff reviews the site plans against site plan standards, which include stormwater drainage on site. The applicant is required to manage the drainage on the site and not increase the rate of stormwater off of the site onto abutting properties. Below is an excerpt from the stormwater management report:

The site is surrounded by residential uses and the R-6 zone except to the north where an outdoor gear shop exists within the B-1 zone. The majority (approximately 66%) of the site is impervious in the form of

gravel or pavement. 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, a field inventory of significant natural feature was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream.

PROPOSED DEVELOPMENT

The proposed project is a two-story building with a sauna/bathhouse on the ground level and a residence on the second story. Pedestrian access to the site will be provided off Washington Avenue. The development will be served by Portland Water District, Department of Public Works (sewer and storm), Unitil (natural gas), CMP (electric), Charter (cable), and Consolidated (telephone). All utilities will be routed underground. Due to the reduction in impervious area, stormwater management features for quality control that meets Maine DEP's Chapter 500 General Standards is not required and has not been designed. However, the green roof will provide some quality and quantity control. Furthermore, the redeveloped non-roof impervious area has remained well under 5,000 square-feet. Please refer to the attached exhibits which outline the impervious covers. In addition to the green roofs, stormwater will be managed by implementing a series of underdrains, infiltration trenches, field inlets, and storm drains.

Traffic and Parking Concerns

The parking requirements of the Land Use code are below.

Sec. 14-332. Uses requiring off-street parking.

(j) Offices; professional and public buildings: One (1) parking space for each four hundred (400) square feet, or major fraction thereof, of floor area exclusive of cellar not used for bulk storage.

Sec. 14-332.1. Zone specific off-street parking exceptions and modifications.

(k) Residential development on the peninsula and in the R6 and R-6A Zones, including new construction, alterations that increase the number of units, and changes of use: 1. Except as provided below, there shall be one (1) space per unit

The total office space equivalent is shaded in grey and yields 6 required parking spaces for the sauna/bathhouse use based upon the 1 space / 400 sf requirement. Additionally, one parking spaces are required for the second-story residence, bringing the total to 7 spaces. Since parking is not proposed on the site, there are two options for the applicant: 1) lease spaces in the neighborhood, or 2) pay a fee-in-lieu into the Sustainable Transportation Fund. The applicant has requested the latter option and will pay into peninsula fee-in-lieu parking, see standard below:

Sec. 14-345. Peninsula fee-in-lieu of parking. Any major or minor development subject to site plan review located in a non-residential zone or the IS-FBC zone on the Portland Peninsula shall either provide the required parking or pay a fee according to the provisions of (a) and (b) below.

(a) Provide the number of off-street parking spaces according to the provisions of section 14-332 (uses requiring off-street parking) and section 14-334 (offsite parking) of this division; or,

(b) Pay a fee-in-lieu of parking of not less than \$5,000.00 as adjusted annually per (c) below, per space not provided. Fees shall be deposited into the Sustainable Transportation Fund, as established in section 14-346 of this division.

(c) The value of the fee shall be adjusted annually according to the Engineer's News Record construction index as published on January 1st of the current calendar year. The fee adjustment shall be calculated by taking the index amount published on January 1st, of the current year,

divided by the index amount published on January 1, 2010 (8660), multiplied by (the fee amount from (b) above). The base fee, the adjustment index, or the calculation method may be otherwise amended by action of the city council from time to time.

(d) The fee shall be paid on or before the date upon which a certificate of occupancy is issued. Payment shall be secured by a bond at the time the amount of the fee is set.

As discussed in the pre-application meeting on May 2, 2018, the parking requirement was calculated by applying the "Office Use" to the applicable spaces since there is no parking requirement outlined for personal services. Table 1 outlines the first-floor areas and their uses:

Building Description	Land Use for Parking Requirement Calculation	Area (sf)
Exercise Room	Office	572
Front Circulation	Office	406
Office & Reception	Office	214
West Sauna	Office	151
East Sauna	Office	151
East Locker Room	Office	440
West Locker Room	Office	440
Back Circulation	Office	130
Storage Room 1	Storage	54
Storage Room 2	Storage	105
Mechanical Room	Storage	146
Lobby	Retail	318
Total Area		3,127
Total Office Area		2,504

Bicycle Parking:

The applicant is proposing two bicycle racks for a total of 4 spaces. The new sidewalk along the frontage of this property is proposed at 10 feet, which provides for a clear pedestrian path and space for these bicycle racks.

Proposed and Future Business:

The applicant is not requesting marijuana retail or any related uses as part of this project and staff only is reviewing what the applicant has requested.

The City Council passed Order 14-1810, Amendment to City Code Chapter 14 re: Marijuana Medical and Adult Use Regulations on 02.20.2019 and effective date is 03.22.2019. The City is currently developing accompanying licensing regulations. Under the zoning standards, marijuana retail or any related use is not allowed in the B-1 zone and goes further and states the following:

Sec. 14-411. Marijuana Use Regulations. The following standards apply to the following marijuana-related uses: Marijuana cultivation facilities, Marijuana manufacturing facilities, Marijuana product, Marijuana retail store, Marijuana testing facility, Small-scale marijuana caregiver and Registered dispensaries. Marijuana-related uses shall comply with all other applicable local and state requirements in addition to the standards below.

(a) Location Criteria

1. No marijuana cultivation facility, marijuana manufacturing facility, marijuana testing facility, small-scale marijuana caregiver, marijuana store or registered dispensary may be located within 500 feet of a preexisting public school, private school, or a public preschool program, as defined by 20-A M.R.S.A. §1. Distance shall be measured from nearest property line of the respective marijuana-related use and the property line of the lot containing the public school, private school, or public preschool program.

2. No marijuana cultivation facility, marijuana manufacturing facility, or marijuana testing facility may be located within 300 feet of the following residential zones: R-1, R-2, R-3, R-4, R-5, R-5A, R-6, R-6A, or R-7. Distance shall be measured from the nearest outer wall of the building housing the marijuana cultivation, manufacturing, or testing facility to the nearest applicable residential zone boundary. If the marijuana related facility leases a room or suite of rooms within a building, including, without limitation, individual units within a shopping plaza or shopping mall, the nearest outer wall of the room or suite of rooms within which the facility is located shall constitute the nearest outer wall of the building housing that facility.

Character and Intent:

The City's review of any project is based on the applicable site plan standards and Land Use requirements only and not on the applicant's character.

Thank you.

[Quoted text hidden]

Diving Rock, LLC

48 Free Street, 3rd Floor
Portland, ME 04101

September 18, 2019

Christine Grimando
City of Portland
389 Congress Street
Portland, ME 04101

RE: Appeal of 145 Washington Avenue – Washington Baths – Level II Site Plan Approval

Dear Ms. Grimando:

I am writing in support of the Site Plan Approval for 145 Washington Avenue – Washington Baths. As an abutting neighbor, I can attest that the project developer, Asher Woodworth, has been proactive and transparent throughout the design and planning process. He has engaged our firm and our tenant, the Portland Gear Hub, to share his project plans and to discuss the development on multiple occasions. Additionally, he has regularly informed us about the project's design, changes, and updated status.

I have no doubts about Mr. Woodworth's technical and financial capacity to execute the proposed development. We have a positive history of doing business together, and I know him to be responsible, prudent, and honest in his professional dealings. Furthermore, Mr. Woodworth has offered to contribute financially towards our parking lot improvements at 155 Washington Avenue in an effort to make the space more inviting and community-oriented. Similarly, I believe Asher's project will have a positive economic impact on the neighborhood and will help diversify the types of business operating within the corridor.

I am excited about what the development at 145 Washington will bring to the neighborhood, and to the continued growth and development of Washington Avenue.

Sincerely,

A handwritten signature in black ink, appearing to be 'JR' or 'John Ritzo', written in a cursive style.

John Ritzo
Manager of Diving Rock, LLC

City of Portland
389 Congress Street
Portland, ME 04101

RE: Appeal of 145 Washington Avenue – Washington Baths – Level II Site Plan Approval

Dear Christine Grimando,

I am writing in support of the Site Plan Approval for 145 Washington Avenue – Washington Baths. As an abutting neighbor I can attest that the project developer, Asher Woodworth, has been proactive and transparent in our dealings together throughout the design and planning process. He has shared project plans with me on multiple occasions, and has regularly informed me and the other abutting neighbors about the project's design, changes, and updated status.

Regarding the shared retaining walls spanning Mr. Woodworth's property and my own, Mr. Woodworth had the project's structural engineer out to the site to inspect the walls in the fall of 2018. At that time the structural engineer came to the conclusion that the wall at the rear of the site was sound so long as it remained undisturbed. He advised that the footprint of the building be moved away from the wall several feet so as to avoid any such disturbance, or the need for geotechnical shoring. Mr. Woodworth and his design team took this recommendation, and redesigned the building accordingly. Furthermore, the structural engineer advised strongly against shoring or attempting to rebuild said retaining wall, as it would almost surely cause damage to the structure of mine that sits atop it. Mr. Woodworth and I have discussed this matter, and come to an agreement together that is satisfactory from my point of view.

As for the landscaped retaining wall adjacent my lawn and orchard, it is my understanding that Mr. Woodworth and his Contractor intend to shore up and partially rebuild this wall as part of the proposed development, and that these improvements will make the wall significantly more structural than it is in its current state.

Sincerely,

Tom Bloom
95 Walnut Street



Shukria Wiar <shukriaw@portlandmaine.gov>

143 Washington Ave - PL-000361-2018

Ann Machado <amachado@portlandmaine.gov>
To: Shukria Wiar <shukriaw@portlandmaine.gov>

Fri, Oct 4, 2019 at 10:53 AM

Shukria -

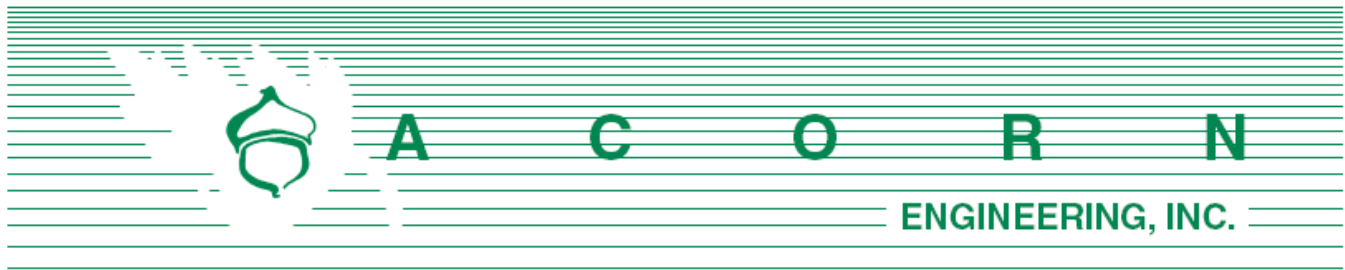
Section 14-332 of Chapter 14 (Land Use Code) of the City Code lists the parking requirements for off-street parking for new construction based on the use. The use for this new building had been determined to be personal service but some of the employees providing the service may be licensed professionals. The section does not specifically list the use of personal service. When a use is not specifically listed, it is the practice of the Zoning Administration to see which listed use is most similar to the use being proposed. We have determined that the specific use proposed for this new building falls under sub section (j) which states:

Offices; professional and public buildings: One (1) parking space for each four hundred (400) square feet, or major fraction thereof, of floor area exclusive of cellar not used for bulk storage.

Since there will be licensed professionals and the building will be open to the public, it fits the second have of this subsection "professional and public buildings". The parking requirement for the new building is one off-street parking space for each 400 square feet of floor area.

Ann Machado
Zoning Administrator

Ann Machado
Zoning Administrator
Permitting and Inspections Department
City of Portland, Maine
(207) 874-8709
amachado@portlandmaine.gov



Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

October 10, 2018

Subject: Level II Final Site Plan Application
Redevelopment of 145 Washington Avenue

To Whom It May Concern:

On behalf of Akasha 155 LLC, we are pleased to submit the accompanying package of submission materials related to the proposed redevelopment to include a first-floor sauna, hydrotherapy, meditation space, and related sauna culture uses at 143R/145 Washington Ave. (CBL 12-G-20). The partial 2nd story will include a dwelling unit. The proposed bathhouse space will vary between open-air courtyards, structure, levels and uses. The project site is located within the City's B-1 zoning district and complies with the permitted uses. This submission package is intended to meet the City's requirements as outlined in the level II Site Plan App. procedures.

The project has been designed with sustainable and low impact practices. This includes the use of timber in the building's construction and the utilization of wood pellet systems for heating. Additionally, stormwater treatment or storage is not required; however, the project anticipates incorporating a green roof on the two lower (single-story) roofs, which will treat and slow the runoff into the City's combined sewer while also improving the aesthetics of the project.

We are pleased to submit this application as the proposal will introduce a service to Portland that is currently not offered while maintaining the dwelling unit on site, paying homage to the State's resources, and implementing sustainable practices. The project will also greatly increase the overall streetscape by implementing an active street wall along the frontage, constructing/reconstructing brick sidewalk, installing a street tree, and reducing the length of the existing curb cut thereby increasing the potential for on-street parking.

Asher Woodworth owner of Akasha 155, LLC has complied a team of leading experts, academics and professionals from the bathhouse industry to complete the design. If you have any questions regarding these materials or the completeness of the application materials, please contact us within the next five (5) days.

Sincerely,

A handwritten signature in black ink, appearing to read 'William H. Savage'.

William H. Savage, P.E.
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: Level II Final Site Plan Application & Checklist
- Section C: Project Description
- Section D: Right, Title, Interest
- Section E: Zoning Assessment
- Section F: Easements
- Section G: Waiver Table
- Section H: Financial Capacity
- Section I: Technical Capacity
- Section J: Conformity with Land Use Ordinance
- Section K: Stormwater Management Report
- Section L: Erosion & Sedimentation Control Report
- Section M: Fire Department Letter
- Section N: Wastewater Capacity Letter
- Section O: Lighting
- Section P: Architectural Design Narrative
- Section Q: Utility Cover
- Section R: Construction Management Plan
- Section S: Transportation Analysis
- Section T: Solid Waste
- Section U: Relationship to Potential Future Development at 151-155 Washington Ave.

Drawings:

- Civil Site Plan Set, Dated 9/28/18
- Architectural Plan Set, Dated 9/18/18



TEMPORARY CONSTRUCTION EASEMENT AGREEMENT

THIS TEMPORARY CONSTRUCTION EASEMENT AGREEMENT ("Agreement") is made and entered into this 8th day of August, 2019, by and between **Akasha 155, LLC**, a Maine limited liability company ("Akasha"), and **Diving Rock, LLC**, a Maine limited liability company ("Diving Rock").

WHEREAS, Akasha is the owner of a parcel of real property ("Akasha Parcel") located in the City of Portland, County of Cumberland and State of Maine, and described in a deed recorded in the Cumberland County Registry of Deeds in Book 32671, Page 104; and

WHEREAS, Diving Rock is the owner of a parcel of real property ("Diving Rock Parcel") located in said Portland, and described in a deed recorded in said registry in Book 34423 Page 221; and

WHEREAS, Akasha is desirous of a temporary easement over the Diving Rock Parcel for the purposes of accessing and performing construction on the Akasha Parcel;

WHEREAS, Diving Rock desires to grant such a temporary easement over a portion of the Diving Rock Parcel to allow construction on the Akasha Parcel, together with and subject to certain terms; and

WHEREAS, the parties have agreed to memorialize their agreement in writing;

NOW THEREFORE, in consideration of the above, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties, intending to be legally bound, agree as follows:

1. Grant of Temporary Construction Easement. Diving Rock hereby agrees to grant and execute to Akasha a temporary, non-exclusive construction easement (the "Construction Easement") for accessing the Akasha Parcel by contractors, construction vehicles and construction equipment, and excavation of a five (5) foot portion of said easement. Said easement shall be a twenty (20) foot wide strip running along the entire southeast boundary of the Diving Rock Parcel, which boundary is also the common boundary between the Diving Rock Parcel and Akasha Parcel. Said Construction Easement shall include identification of the benefited and burdened parcels, easement area, term, access rights, excavation rights, and construction fence construction rights.
2. Easement Term. Said easement shall commence on October 1, 2019, and shall terminate on December 31, 2019. Akasha reserves the right to extend the term of this easement by an additional sixty days for the purpose of completing construction on the Akasha Parcel by providing notice via email to Diving Rock at the email address provided at the bottom of this Agreement.

3. Initial Payment. Prior to commencement of construction, Akasha shall pay fifteen thousand dollars (\$15,000.00) toward a paver project to be installed on the Diving Rock parcel at a later date. Said initial payment shall be made to Diving Rock on or before October 1, 2019.
4. Monthly Payment. In addition to the Initial Payment, Akasha shall pay to Diving Rock two thousand dollars (\$2,000.00) per month for the use of said easement, and which payment shall not be prorated at any time. The first monthly payment shall be due on October 1, 2019 and the first of the month thereafter.
5. Construction Fence. Akasha shall be responsible for constructing a suitable construction fence and other measures to ensure the safe continuation of normal business operations of the Portland Gear Hub ("Gear Hub") on the Diving Rock Parcel, including the testing of bikes and skis in the parking lot. The construction fence shall be placed within 20' of the southeast boundary line and shall not interfere with cars entering the parking lot or accessing the Gear Hub on the Diving Rock Parcel.
6. Snow Removal. Akasha shall be responsible for snow removal and sanding of the easement area during the term of this Agreement.
7. Construction Containers. Akasha shall move Gear Hub's containers and the dumpster to a suitable location designated by Diving Rock/Gear Hub. Within one week of finishing construction, Akasha shall return the containers and dumpster to their original locations, or to another location designated by Diving rock/Gear Hub.
8. Excavation. Akasha shall be permitted to excavate a five (5) foot strip of the Diving Rock Parcel bordering along the common boundary line of the Diving Rock Parcel and Akasha Parcel. Prior to excavating, Akasha shall hire Dig Safe to mark any utility lines or other sub-surface dangers existing in the excavation zone on the Diving Rock parcel. After completion of construction, Akasha shall restore the excavated area to substantially the same condition, grade, and fill as that prior to excavation, and shall pave said excavated area from the northwest boundary of the easement area to a section of pavers to be installed in accordance with an updated site plan, or as otherwise directed by Diving Rock, and shall be completed in such a timely manner as to allow Akasha to comply with this agreement. In addition, Akasha shall seal any seams or borders of the replaced pavement.
9. Escrow. Akasha shall place funds sufficient for moving containers and repairing excavated pavement in a third-party escrow account to be made available to Diving Rock in the event that the repairs are not satisfactory or completed in a timely manner following construction. Prior to beginning excavation on the Diving Rock parcel, Akasha shall furnish Diving Rock with said escrow account information and proof of funds.
10. Engineering and Professional Costs. Akasha shall reimburse Diving Rock for payment by Diving Rock for any services rendered by Acorn Engineering or other professionals, if necessary, to comply with this agreement.
11. Indemnification. Akasha shall indemnify and protect Diving Rock and/or Gear Hub from

any loss or damage resulting from the use of the easement by Akasha or its contractors, including any loss or damage resulting from the excavation as described in Paragraph 7, or any loss or damage otherwise arising from this Agreement.

12. Covenants Running with the Land. The easement granted and the agreements recited herein shall run with the land. Akasha conveys the easement rights with warranty covenants, as set forth in the Maine Short Form Deeds Act. The parties agree that this Agreement shall not be recorded in the Cumberland County Registry of Deeds or elsewhere.
13. Certificates of Insurance. Akasha shall provide Diving Rock with a Certificate of Insurance for a general commercial liability policy naming Diving Rock, LLC as an additional insured with the following coverage limits: \$2,000,000 aggregate, \$1,000,000 per occurrence. Akasha shall maintain said policy with the above coverage limits at all times while this Agreement is in effect.

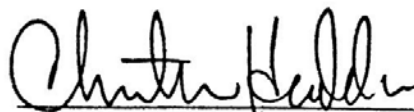
IN WITNESS WHEREOF, the undersigned, who hereby represent that they have full authority to enter into this Easement Agreement, have set their hands and seals below as of the date set forth above.

AKASHA 155, LLC

Witness 


By: Asher Woodworth
Its: Manager

DIVING ROCK, LLC


Witness


By: John Ritzo
Its: Manager
Email: johnny@kingpinecapital.com



LEVEL II and LEVEL III APPLICATION SUBMISSION CHECKLIST
 Submit each Tab as one PDF file and bookmark the items as noted below
 Please confirm by electronically checking the boxes to the left

Tab 1 – General Application Documents

Checklist	Items to be Provided
Yes ☒ NA ☐ Plan ☐	PROJECT DESCRIPTION Cover Letter with detailed project description
Yes ☒ NA ☐ Plan ☐	COMPLETED CHECKLIST – LEVEL II APPLICATION
Yes ☒ NA ☐ Plan ☐	RIGHT, TITLE AND INTEREST Deeds, leases, or purchase and sales agreements
Yes ☐ NA ☒ Plan ☐	EVIDENCE OF STATE OR FEDERAL APPROVALS , if applicable Permits or letters of non-jurisdiction, if applicable
Yes ☒ NA ☐ Plan ☐	ZONING ASSESSMENT Table listing required and proposed uses and dimensional standards <u>Zoning Assessment Table</u>
Yes ☒ NA ☐ Plan ☐	EXISTING &/OR PROPOSED EASEMENTS OR COVENANTS , if applicable Evidence of existing easements and any proposed easements
Yes ☒ NA ☐ Plan ☐	WAIVER REQUESTS Written request for waiver describing request and reason. <u>Waiver Table</u>
Yes ☒ NA ☐ Plan ☐	FINANCIAL CAPABILITY Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes ☒ NA ☐ Plan ☐	TECHNICAL CAPABILITY Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

LEVEL II AND LEVEL III SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.

Submit each Tab as one PDF file and bookmark the items as noted below

Tab 2 - TRANSPORTATION

Check list	Assess/Provide/Document:
Yes NA Plan ☒ ☐ ☐	Transportation Analysis- Traffic Impact (14-526 (a) 1) - Provisions for pedestrian, bicycle, vehicle, and loading circulation and incremental volume of traffic impacts - Traffic Impact Study (Technical Manual, Section 1) if applicable
Yes NA Plan ☒ ☐ ☐	Access and Circulation (14-526 (a) 2 a) - Access and internal circulation, addressing ADA access - Access and egress impacts on traffic flows - Description and use of drive-up features, if applicable
Yes NA Plan ☐ ☒ ☐	Loading and Servicing (14-526 (a) 2 b) - Loading and servicing needs, route and travel way geometrics for deliveries - Turning templates for delivery vehicles, if applicable
Yes NA Plan ☒ ☐ ☐	Sidewalks (14-526 (a) 2 c) - Sidewalks and condition along street frontages and internal walkways - Engineered details for ADA ramps and public sidewalk details meeting sidewalk materials policy and ADA ramp construction details as applicable (Technical Manual, Section 1)
Yes NA Plan ☐ ☒ ☐	Public Transit (14-526 (a) 3), if applicable - Existing available transit services - Proposed site plan design details, such as easement, pad base, and shelter
Yes NA Plan ☒ ☐ ☐	Off-Street Parking: Vehicle & Motorcycle/Scooter) (14-526 (a) 4 a and c) - Expected parking demand, proposed parking supply, ADA parking, and applicable Zoning Requirements - Address Technical Manual standards (Section 1) for curb cut separation and parking lot layout and locate on site plan
Yes NA Plan ☒ ☐ ☐	Bicycle Parking (14-526 (a) 4 b) - Address bicycle parking requirements and identify locations on-site - Construction details for bike racks (Technical Manual, Section 1)
Yes NA Plan ☒ ☐ ☐	Snow Storage (14-526 (a) 4 d) Management plan for snow removal and locate snow storage areas on plan
Yes NA Plan ☐ ☒ ☐	Traffic Demand Management (TDM) (14-526 (a) 5), if applicable Develop TDM with Trip Reduction Targets and Strategies

Tab 3 - ENVIRONMENTAL AND LANDSCAPE FEATURES			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Preservation of Significant Natural Features (14-526 (b) 1), if applicable - Trees, plants, habitats listed on State or Federal list of endangered or threatened - High and moderate value waterfowl and wading habitat - Aquifers on Casco Bay Islands - Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) - Proposed preservation areas and protection measures - Documentation from environmental consultants, determinations from applicable state agencies
Yes	NA	Plan	Landscaping and Landscape Preservation (14-526 (b) 2 a) - Preservation of trees and preservation within required zoning setbacks (Technical Manual, Section 4) - Protection measures of existing vegetation during construction - Protection measures within Shoreland Zone, if applicable
Yes	NA	Plan	Site Landscaping (14-526 (b) 2 b) - Screening and buffering of service areas and between non-residential and residential uses - Planting plans with plant schedule and sizes (Technical Manual, Section 4)
Yes	NA	Plan	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable Landscaped islands within parking areas (Technical Manual, Section 4)
Yes	NA	Plan	Street Trees (14-526 (b) 2 b iii) - Existing Heritage or Feature Trees on site and measures to preserve - Identify street trees on the plan meeting the site plan and Technical Manual standards (Section 4) or identify alternative measures, if applicable
Tab 4 - ENVIRONMENTAL AND STORMWATER			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Water Quality, Stormwater Management and Erosion Control (14-526 (b) 3 a) - Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable - Erosion control plan and measures - Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable - Subsurface sanitary sewage disposal and groundwater protection

Tab 5 - PUBLIC INFRASTRUCTURE AND SAFETY			
Check list		Assess/Provide/Document:	
Yes	NA	Plan	Consistency with City Master Plans (14-526 (c) 1) - Identify consistency with master plans - Proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
☒	☐	☐	
Yes	NA	Plan	Public Safety and Fire Prevention (14-526 (c)) - Address Crime Prevention through Environmental Design (CPTED) (Technical Manual, Section 3) - Emergency vehicle access - Address consistency with public safety standards (Technical Manual, Section 3) - Submit a code summary referring NFPA 1 and all Fire Department standards (Technical Manual, Section 3) – Fire Checklist
☒	☐	☐	
Yes	NA	Plan	Availability and Adequacy of Public Utilities (14-526 (c) 3) (Technical Manual, Sections 2 & 9) - Electrical services, including providing underground services - Identify existing and proposed connections for public utilities and required public utility upgrades - Sewer line connections are required, if there is a main within 200 feet - Proposed solid waste management facilities on-site and management for the site - Written evidence of the ability to serve from utility companies, as applicable
☒	☐	☐	
Tab 6 - SITE DESIGN			
Check list		Assess/Provide/Document:	
Yes	NA	Plan	Massing, Ventilations and Wind Impact (14-526 (d) 1) - Wind and ventilation impacts on adjoining structures and/or adjacent public spaces. Wind study, if applicable - Bulk, location or height impacts on adjoining structures - Identify and locate HVAC equipment and venting away from public spaces and residential properties - Identify screening and manufacturing specifications for noise, if applicable
☒	☐	☐	
Yes	NA	Plan	Shadows (14-526 (d) 2), if applicable Shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
☐	☒	☐	
Yes	NA	Plan	Snow and Ice Loading (14-526 (d) 3) Building design to prevent snow and ice from loading or falling onto adjacent properties or public ways
☒	☐	☐	
Yes	NA	Plan	View Corridors (14-526 (d) 4), if applicable Protection of designated view corridors (Portland Design Manual, Appendix 1)
☐	☒	☐	

Yes NA Plan ☐ ☒ ☐	Historic Resources (14-526 (d) 5), if applicable - Identify developments within Historic Districts or affecting Designated Landmarks - Certificate of Appropriateness or other evidence - Identify Developments within 100 feet of Historic Districts or affecting Designated Landmarks. Advisory HP review may be required - Address preservation and documentation of Archaeological Resources
Yes NA Plan ☒ ☐ ☐	Exterior Lighting (14-526 (d) 6) - Cut sheets of on-site light fixtures and any architectural or specialty lights (Technical Manual, Section 12) - Engineered details for any lights proposed in street right-of-way (Technical Manual, Section 10)
Yes NA Plan ☐ ☒ ☐	Noise and Vibration (14-526 (d) 7) Evidence of noise levels for equipment, such as equipment specifications, to demonstrate consistency with zoning requirements
Yes NA Plan ☒ ☐ ☐	Signage and Wayfinding (14-526 (d) 8), if applicable - Signage plan showing the location, dimensions, height and setback of all existing and proposed signs. Signs in Historic Districts are reviewed by Historic Preservation staff - Proposed commercial and directional signage on site
Yes NA Plan ☒ ☐ ☐	Zone Related Design Standards (14-526 (d) 5) - Address Historic Preservation Design Review, if applicable - Address any applicable design review standards by zone - Address submission requirements from Design Manual, page 1, addressing neighborhood context - Description of exterior materials, color, finish, and samples
Tab 7 - Construction Management Plan	
Check list	
Yes NA Plan ☒ ☐ ☐	Construction Management Plan <u>Construction Management Document</u> and Plan

Level II and Level III Site Plan Checklist Please upload the following drawings with the listed details into e-Plan	
☐	RECENT BOUNDARY SURVEY (stamped by Maine Licensed Surveyor)
Must be in compliance with Technical Manual, Section 13	
SITE PLAN(s) (stamped by Maine Licensed Engineer) including:	
☒	Existing Conditions • Approximate location of structures on abutting property • Topography • Locate water courses • Delineate wetlands • Zone lines
☒	Proposed Site Plan • Ground floor area, and grade elevations for all buildings
☒	Access, Circulation, and Parking • Streets and intersections adjacent to site , any proposed geometric modifications • Location, dimensions and materials of all existing and 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 • Existing and proposed transit infrastructure with dimensions/ engineering specifications • Location of vehicle and bicycle parking with dimensions and engineering specifications
☒	Site Considerations • Identify snow storage areas • Location of fire hydrants • Location of solid waste management facilities
☒	UTILITY PLAN including:
	• Existing utilities on site and within public streets • Location, sizing, and directional flows of all existing and proposed utilities • Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site • Electric utility infrastructure

☒ GRADING and DRAINAGE PLAN including:
• Existing grades and drainage • Proposed grades • Proposed stormwater management meeting Technical Manual (Section 5) standards • Location and proposed alteration of a water course • Preservation or alteration of wetlands
☒ EROSION CONTROL
• Must be in compliance with Technical Manual, Section 5
☒ LANDSCAPE PLAN including:
• Existing vegetation to be preserved and preservation measures • Proposed landscaping and buffers • Planting schedule
☐ RECORDING PLAT , if applicable
• IF SUBDIVISION: Must be in compliance with requirements of Section 14-496 (b)
☒ ARCHITECTURAL PLANS & RENDERINGS including:
• Exterior building elevations, color renderings, illustrations of all sides • Location and dimensions of all existing & proposed HVAC & mechanical equipment, all proposed screening • Provide context drawings, if applicable (Design Manual, page 1) • Floor plans



CITY OF PORTLAND
Planning & Urban Development
Christine Grimando, AICP, City Planning Director

June 19, 2019

Asher Woodworth
AKASHA 155 LLC
PO Box 11546
Portland, ME 04104

Will Savage
Acorn Engineering
158 Danforth Street
Portland, ME 04104

Project Name: Washington Baths
Address: 143 Washington Ave
Applicant: AKASHA 155 LLC
Planner: Shukria Wiar

Project ID: PL-000361-2018
CBL: 012 G02001

Dear Mr. Woodworth:

Thank you for your application dated October 15, 2018 for a two-story bathhouse and two residential units showing the proposed utility connections at 143 Washington Avenue. The application is currently being reviewed by the Planning Division and has not yet been approved. However, it is my understanding that you wish to proceed with the utilities and sidewalk curbing.

The proposed utility stubs are approved and may be installed by your contractor. Any such installation will be at the applicant's risk and does not guarantee that this location will be approved during site plan/subdivision review. Should any subsequent review of the project require modifications to the utility installations, the applicant will be required to meet the applicable standards prior to the issuance of a certificate of occupancy.

Since work or obstructions will occur within the public right-of-way, a Street Opening and/or Occupancy Permit (s) is required for your site. Please contact the Department of Public Works Permit Clerk at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

Sincerely,

Christine Grimando, AICP
City Planning Director

About the Business

The Washington Baths will be a sauna and hydrotherapy business located at 143 Washington Avenue in Portland. A two story building will be built on the site consisting of 4,818 sq ft of commercial space to house the business on the first floor, and a single 1,113 sq ft residence on the second floor.

The business will be modeled off of public bathhouses and saunas found in cities in the US and around the world, whereby visitors pay for use of sauna and hydrotherapy facilities for a duration of time and they largely self-service to create their own experience. The basic elements of a public bath are heat, cold, rest, and sociability.

The program offerings at The Washington Baths will include showers, two wood-fired saunas, resting areas in the interior of the building, resting benches within an open air courtyard, a large, heated soaking tub in the courtyard, a cold plunge in the courtyard, and an interior lounge with a small food service. Modest locker rooms will be provided for men and women. There will also be a small retail footprint. The design will be energy efficient, practical and unfussy with an emphasis on natural materials that relate to Maine and especially the state's timber industry. During non-sauna hours, the interior lounge space will be utilized for drop-in meditation sessions, as well as workshops, lectures, and other cultural events.

About the Customers

Sauna culture is most established in places where it is cold and dark for a considerable portion of the year. Maine has cold, dark winters, but no public sauna culture, yet. Portland is the urban and cultural center of Maine. People in Portland are already familiar with saunas, and they have responded enthusiastically to the suggestion of a public bath in town.

Patrons of this business will draw first and foremost from southern Maine. Portland ME's urbanized area has 204k residents. Based on demographic criteria, 2.8k of these residents are prospective high frequency customers for The Baths. The most common psychographic segments in the Portland area show an affinity towards health, wellness, and recreation, suggesting an openness to spa activities. Wellness in this area has become culturally common; engaging in a regular sauna routine is a complementary practice that integrates into maintaining an optimally healthy lifestyle.

Currently there is no option for a true communal bathing experience in Portland. This makes overall competitive risk for The Washington Avenue Baths very low. There are no spas or bathhouses that offer a similar experience and very few spas that offer substitute experiences in the market. The Baths are intended to be affordable and accessible so that they can become a part of people's everyday life, as opposed to a speciality retreat.



**Bernstein, Shur,
Sawyer & Nelson, P.A.**
100 Middle Street
PO Box 9729
Portland, ME 04104-5029

T (207) 774 - 1200
F (207) 774 - 1127

Mary E. Costigan
(207) 228-7147 direct
mccostigan@bernsteinshur.com

October 1, 2019

Portland Planning Board
389 Congress Street
Portland, ME 04101

Subject: Response to Appeal: 145 Washington Avenue Level II Site Plan

Dear Board Members:

I am writing on behalf of Akasha 155, LLC (the "Applicant"), the owner of property located at 145 Washington Avenue (the "Property"). On July 31, 2019, planning staff approved Akasha 155's application for Level II Site Plan approval for the development of the Property with a two story building that will contain a bath house on the first floor and two residential units on the second floor. The bath house will consist of saunas, hydrotherapy, meditation space, and related uses. On August 30, 2019, the abutting property owners filed an appeal of the site plan approval. This letter is written in response to the appeal.

The Property is referred to by the City as 145 Washington Avenue, as well as the rear lot at 143 Washington Ave. As shown on the Site Plan, the parcel contains approximately 27.5 feet of road frontage on Washington Avenue that will be activated by the construction of an active street wall in a space that was historically a driveway to the rear lot. At approximately mid-block the width of the lot expands by an additional 33.93 feet. The proposed bath house project thoughtfully and efficiently uses the uniquely shaped lot in a manner that results in a building and use of land that is appropriately suited for the site, in accordance with the B-1 design guidelines.

The Property is located in the B-1 Neighborhood Business Zone. This area of Washington Avenue, from 143 to 185, was rezoned from R-6 to B-1 in January of 2015 to encourage small scale commercial development, such as the proposed bath house project. The planning staff correctly determined that the proposed project meets all applicable site plan standards. The Applicant's specific responses to the appeal are as follows:

1. Drainage / Ordinance / Site Plan Section 14-523

As outlined within section K. of the latest Stormwater Management Report, approximately two thirds of the existing site is composed of impervious area. The site is dominated by compacted gravel which is classified as impervious area by the Maine Department of Environmental Protection and features a curve number of 96 meaning the material has little to no infiltration capabilities.

The project proposes to increase the impervious area by a negligible amount – approximately 4% of the site. The project has been designed to collect the stormwater and convey stormwater to engineered systems which includes roof drains, storm drains with inline field inlets, trench drains, foundations drains, and stone infiltration trenches. Furthermore, the site has been designed to drain internally by utilizing grading of surfaces, walls and curbing at the property edges. The collected stormwater will be piped and outlet into the municipal system.

Engineered drainage details have been provided within the plan set which was prepared by a professional engineer licensed in the State of Maine.

2. Geotechnical Matters

In addition to the professional civil/site engineers placing the building footprint as to not interfere with the existing retaining walls, the site has been analyzed by professional engineers who specialize in geotechnical and structural engineering. Please refer to the letter from Summit Geoengineering Services (SGS) dated September 6, 2019 as well as the letter from Structural Integrity Consulting Engineers, Inc. dated September 17, 2019 which outline the redevelopment project from a geotechnical and structural perspective. The conclusion of each letter is that the project is feasible as designed and there are no significant concerns with the existing soils or walls provided best practices are carried out during construction.

SGS has provided soils information for seven sites within 200 feet of the subject parcel for which they have conducted test pits and/or soil borings. As such, the project team has a sound understanding of the native soils. As noted within Acorn Engineering's approved C-02 General Note Plan subsection Special Inspection Notes, the Applicant will be required to engage with a Special Inspections Firm such as SGS to classify disturbed soils during excavation (including adjacent to the existing retaining wall) and perform subgrade inspections. During construction, should the Special Inspection Firm recommend that additional measures be required to protect the existing wall then this will be required of the Contractor as noted within Acorn Engineering's approved C-02 General Note Plan subsection Grading and Drainage Notes.

Lastly, these conditions are a requirement of the Building Permit and documentation will be required of the Applicant to obtain a Certificate of Occupancy from the City of Portland. Ensuring a safe and stable construction and building is certainly a priority, as our new building would be directly affected.

3. Parking

In accordance with Section 14-345, the Applicant has opted to pay a fee of \$64,700 in-lieu of off-street parking. The Applicant is required to submit the payment prior to the issuance of a building permit. Appellants' objections to the fee are objections to the ordinance itself, rather than questioning whether the Applicant complies with the provision. In addition, the City's traffic engineer reviewed the proposal and found that the proposed project is not expected to cause unreasonable traffic congestion.

4. Site Plan Comments

As noted above, the Property and neighboring properties were rezoned from R-6 to B-1 almost five years ago. There are several commercial uses surrounding the residential properties in this section of Washington Avenue. The addition of this business provides a type of business that does not already exist and does not change the character of an already mixed-use street.

The walkway adjacent to the front lot at 143 Washington Ave. that the Appellants appear to be concerned with is not an entrance to the business, but rather a private entryway to the residence above. This walkway will be used by those individuals living on the second floor of the building and their guests only.

Regarding the request for "proper screening and buffering," a condition of the Site Plan Approval requires the installation of an evergreen buffer along the rear of 143 and 141 Washington Ave properties.

5. Encroachment / Site Plan

As set forth in the April 30, 2019 letter from licensed surveyor Richard Eaton, the property was divided in 1926 and the description calls for clearing the westerly side of the house located on the rear lot by 6 inches; total space between the two houses was less than one foot. Following demolition of the house on the rear lot it was discovered that the foundation of the house on the front lot encroaches the rear property by 4.1 inches. Said encroachment is noted on the survey. The 4" encroachment does not impact the development in any way.

October 1, 2019

Page 4

6. Applicant's Technical Capacity

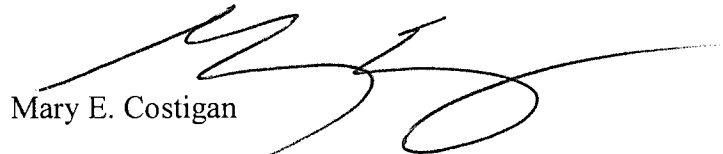
Appellants grossly misrepresent the communications and efforts made with abutters leading up to and during the application process and demolition of the existing building. Regarding the latter point, notice of building demolition was delivered on several occasions, and significant efforts were made to separate water and sewer lines between the properties, to which the Appellants were unresponsive or uncooperative. Please see the attached letters from two abutters that demonstrate the Applicant's proactive and responsive actions in consideration of neighbors.

Regarding technical and financial capacity, the planning staff properly found that the Applicant has demonstrated compliance with both requirements. Local, reputable engineers and contractors with more than sufficient technical capabilities have been engaged on this project.

It is clear from planning staff's thorough Report of Findings that the proposed project meets all applicable site plan standards. Appellants' submission fails to adequately challenge those findings. The appeal should therefore be denied and the staff decision to issue Level II Site Plan approval should be upheld.

Thank you for your time and attention to this matter. Please contact me should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mary E. Costigan', with a long, sweeping horizontal line extending to the right.

Mary E. Costigan

cc: Asher Woodworth
Will Savage



September 6, 2019
SGS #19304

Asher Woodworth
P.O. Box 11546
Portland, Maine 04104

Reference: Geotechnical Evaluation, Proposed Washington Baths
145 Washington Avenue, Portland, Maine

Dear Mr. Woodworth;

Summit Geoengineering Services, Inc. (SGS) has reviewed subsurface information we previously collected in the vicinity of your site. This letter is a summary of this information and includes a geotechnical evaluation of the subject site.

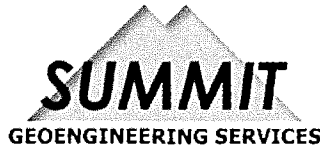
Proposed Building

We understand that the project consists of the construction of a 2-story building with a footprint of approximately 4,500 square feet. The building has a finished elevation of 72.25 feet and is proposed to have a conventional frost wall and slab-on-grade foundation. We understand that the footings are designed using an allowable bearing pressure of 1,500 psf.

The existing ground surface in the majority of the building footprint ranges from elevation 70 feet to elevation 74 feet. The ground surface rises relatively steeply at the east side of the building to elevation 82 feet. Based on this, the majority of the slab will be at or near the existing grade. Up to 10 feet of excavation will be required to construct the eastern corner of the building.

Geotechnical Evaluation

SGS has performed subsurface explorations at numerous sites surrounding the subject property. The attached figure shows the location of 7 sites in the vicinity of the 145 Washington Avenue site. The closest sites are within 200 feet of the subject site. At all 7 sites the soil consisted of variable thickness of fill over a gravelly sand marine nearshore deposit over dense glacial till or fill directly over glacial till. No soft soil or unsuitable fill materials were encountered at any of the sites. SGS recommended conventional spread footing foundations at all sites. Our recommended allowable bearing pressure at the sites ranged from 3,000 psf to 4,000 psf.



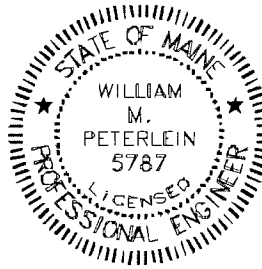
Based on our previous work in the vicinity, we anticipate that the soil at the subject site will likely be consistent with the soil found at the 7 other surrounding sites and is suitable to support a foundation load of 1,500 psf. This opinion should be confirmed by subgrade inspections performed by SGS during the construction.

The above opinion is based on a review of subsurface explorations performed in the vicinity of the site, our experience with geotechnical work in this area, professional judgment, generally accepted principles of geotechnical engineering, and project information provided by others. No other warranty is expressed or implied. The validity of this opinion is contingent on subgrade inspections to be performed by SGS during construction.

If there are any questions, please do not hesitate to contact me.

Respectfully Submitted
Summit Geoengineering Services, Inc.

William M. Peterlein, P.E.
President & Principal Engineer



SUMMIT GEOENGINEERING

SUBSURFACE INVESTIGATION SITES

Legend

145 Washington Ave

Google Earth

400 ft



September 17, 2019

Mr. Asher Woodworth
145 Washington Avenue
Portland, ME 04101

Reference:
Existing Retaining Wall
145 Washington Avenue
Portland, ME 04101
Structural Integrity Job Number: 18-0214

Dear Asher,

I am writing in regards to the existing retaining walls at the above-mentioned location. The opinions and comments contained herein are based on limited visual observations. Physical strength testing and professional instrument-based elevation and location surveys have not been performed. Architectural, mechanical, electrical, and plumbing conditions are not included in this report. No warranty expressed or implied, as to the condition of the complete existing structures, is intended.

Existing retaining walls to remain must be undisturbed during construction. It is our understanding that the latest building design location will move new excavation work far enough from these existing walls, at a distance sufficient to avoid negatively impacting their stability. Additionally, exterior building footings nearest the retaining walls have been raised to reduce the amount of excavation required.

In order to ensure that the excavation does not influence existing soils, we recommend that the contractor creates a work plan indicating the extent of excavation, including slopes and other applicable excavation safety measures nearest the existing retaining walls, developed based on expected soil types in the area. This plan should be reviewed and approved by the Geotechnical Engineer prior to the start of excavation.

Please refer to the Geotechnical Evaluation letter from Summit Geoengineering Services, dated September 6, 2019, which describes the expected soil conditions based on numerous previous evaluations adjacent to the site in question. This information can be used by the contractor to aid in development of the excavation work plan. We also recommend that Summit is onsite during excavation to confirm soil types and advise if alternative excavation methods are required to avoid negatively impacting existing retaining walls. If the planned excavation methods and/or slopes alone are not adequate, then temporary shoring of the soils will be required at the discretion of the Geotechnical Engineer.

Please also refer to Acorn Engineering's civil drawings for grading and other site information, as well as their response to the Jewell & Bulger, P.A. letter dated August 30, 2019, which provides additional insight and recommendations for excavation activities.

Structural Integrity

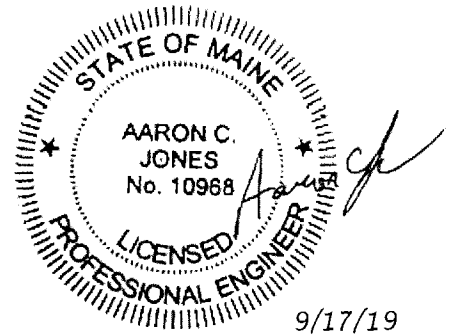
Consulting Engineers, Inc.

Do not hesitate to call with any question, or if I can be of further assistance.

Sincerely,



Aaron C. Jones, P.E.
President





R.W.
EATON
ASSOCIATES
LAND SURVEYING & REAL ESTATE

April 30, 2019

Re: 143 Washington Rear Boundary Line

In 1925 Exchange Real Estate company purchased the property in one deed that included both parcels. In 1926 they divided the property between the front lot and the rear lot. The description calls clearing the westerly side of the house in the rear by 6 inches in both deeds. Total space between the two houses were less than a foot.

In 2015 I surveyed the property and located both houses and set the boundary $\frac{1}{2}$ foot westerly of the rear house.

In 2018 the rear house was torn down and recently it was communicated to me that the front house foundation was included around the bump out and a portion of the foundation may have extended over the property line.

On April 22nd 2019 I went back to the property and located the foundation and revised the survey to show the foundation over the property line up to 0.34' feet or 4.1" inches. It is shown on a detail on the revised map.

The rear property line is the line of record.

Richard Eaton
P.L.S. #2075

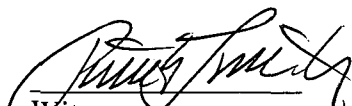
WARRANTY DEED
(Maine Statutory Short Form)

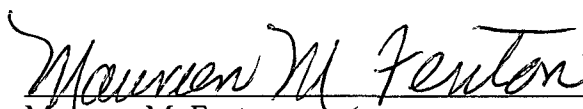
KNOW ALL PERSONS BY THESE PRESENTS, that, Maureen M. Fenton, with a mailing address of 143R Washington Avenue, Portland, Maine, grants to Akasha 155, LLC, a Maine limited liability company whose mailing address is 120 Chadwick Street, Portland, County of Cumberland and State of Maine, with warranty covenants, a certain lot or parcel of land, with any buildings thereon, situated at 143R and 145 Washington Avenue, City of Portland, County of Cumberland and State of Maine, as more fully described in Exhibit A attached hereto.

See Exhibit A

Meaning and intending to describe premises conveyed in a Deed from the United States of America, a corporate sovereign, to Maureen M. Fenton dated August 15, 2003 and recorded in the Cumberland County Registry of Deeds in Book 20151, Page 66.

16th
Witness my hand and seal this ~~15th~~ day of October, 2015.


Witness

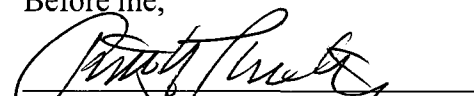

Maureen M. Fenton

STATE OF MAINE
COUNTY OF CUMBERLAND

16
October ~~15~~, 2015

Then personally appeared the above-named, Maureen M. Fenton and acknowledged the foregoing to be her free act and deed in her said capacity.

Before me,


Notary Public/Attorney at Law

PATRICK D. THORNTON
MAINE ATTORNEY AT LAW

MAINE REAL ESTATE TAX PAID

EXHIBIT A

Two certain lots or parcel of land, with the buildings thereon, situated in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Parcel 1:

Beginning on the easterly line of Washington Avenue at a point one hundred nine (109) feet from Walnut Street; thence running northerly by said Washington Avenue thirty-two (32) feet and from these two last named bounds, extending easterly from Washington Avenue at right angles and holding the width of thirty-two (32) feet a distance of one hundred thirty (130) feet, more or less, to line of Lynch Street, it being the northerly part of a lot of land formerly owned by I. R. Lunt and shown on a Plan recorded in the Cumberland County Registry of Deeds, Plan Book 2, Page 53, and being the same premises conveyed to Nora Davin by Michael McCoy, by deed dated November 30, 1906 and being the same premises conveyed by Nora Davin to John F. Proctor by mortgage deed dated November 30, 1906, and recorded in said registry of deeds in Book 794, Page 230, which mortgage and note the said John F. Proctor assigned, transferred and conveyed to the said Israel Luce during his lifetime and was foreclosed by his Executor and the right of redemption has expired.

Parcel 2:

Situated in the rear of number 143 Washington Avenue in said Portland and beginning at a point in the northerly side line of the lot of land conveyed to the Exchange Real Estate Company by Mary C. Bemis by deed dated November 25, 1925, and recorded in the Cumberland County Registry of Deeds, Book 1218, Page 420, which said point is thirty-five (35) feet, more or less, northeasterly from the easterly side line of Washington Avenue and one hundred nine (109) feet from the intersection of the easterly side line of Washington Avenue with the northerly side line of Walnut Street; thence northeasterly ninety-six and twenty-five one hundredths (96.25) feet to appoint; thence southeasterly thirty-two (32) feet, more or less, to a point; thence southwesterly ninety-eight and forty-six one hundredths feet (98.46) feet to a point; thence northwesterly clearing the West side of the building in the rear of number 143 Washington Avenue by six (6) inches, thirty-five (35) feet, more or less, to the point of beginning. Also hereby conveying a right to pass and repass over a strip of land about ten (10) feet wide on the northerly side of adjoining premises to and from Washington Avenue.

Received
Recorded Register of Deeds
Oct 19, 2015 10:31:52A
Cumberland County
Nancy A. Lane

Section E

Zoning Assessment





ZONING ANALYSIS Relevant Zone(s) B-1

All Projects:

	Required	Proposed
Lot Size	None	7,168 sf
Area Per Dwelling Unit	435 sf	7,168 sf
Minimum Street Frontage	20'	27.5'
Front Yard Minimum	N/A	0'
Front Yard Maximum	10'	0'
Rear Yard	10'	16.7'
Yard Right	5'	5.2'
Yard Left	0'	0'
Side Street Setback	N/A	N/A
Step Back	N/A	N/A
Maximum Lot Coverage	90%	55%
Minimum Lot Coverage	N/A	N/A
Maximum Height	45'	23.3'
Open Space	N/A	N/A
Maximum Impervious Area	90%	60%
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	8	0
Loading Bays		
Other 1		
Other 2		
Other 3		

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):			

Section F - Easements

There were no existing easement identified by the Surveyor within the Existing Conditions Plan.

There are no proposed easements at this time.



Section F

Request For Waivers

There are no waiver requests at this time.





Experienced people. Exceptional service.

October 10, 2018

Asher Woodworth
PO Box 11546
Portland, ME 04104

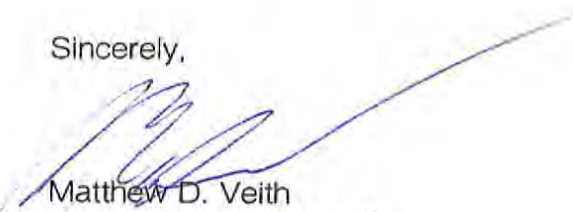
Re: Washington Baths

To whom it may concern:

Per your request, please accept this letter as notification that Asher Woodworth has the financial capacity to apply for financing for the construction and build-out of property located at 143-145 Washington Ave. in Portland, Maine. It is the Bank's commercial policy to not give out pre-qual letters for a commercial loan until fully underwriting the borrower's request.

If I can be of further assistance or if you need any additional information please do not hesitate to contact me at (207) 990-5918 or (207)-271-1738.

Sincerely,



Matthew D. Veith
A.V.P. Business Banker
Business Banking

Section I - Technical Capacity

Acorn Engineering, Inc. has successfully permitted and engineered over 15 level II/III projects in Portland in the past 5 years, many of which have been constructed. Some examples include:

- Eldredge Lumber Expansion
- 127 York Street – Harborview Townhomes
- Munjoy Heights
- 89 Anderson St. – East Bayside Lofts
- 667 Congress St – The Hiawatha
- 121 Washington Ave Redevelopment
- 31 Fore Street Condominiums

Additionally, the rest of the team is outlined below.



Asher Woodworth (Owner/Operator) - Asher Woodworth is an artist and social entrepreneur based in Maine. Mr. Woodworth is Co-Founder and Board of Directors member for Theory Wellness Inc, a vertically integrated Massachusetts cannabis company with two active locations - Bridgewater and Great Barrington, MA. Theory Wellness operates with approx. 50 employees, and over \$12M in sales annually. He has worked as a non-profit business development consultant in Maine's agriculture and energy sectors for the past 5 years. Among the projects and businesses that he has been significantly involved with are: The Maine Rice Project, Sunrise County Economic Development Council, Tide Mill Farm, Thermal Efficiency: Eastport, The Affordable Heat Consortium.

Mr. Woodworth has a background as a professional dancer and has performed and taught nationally and internationally with such notable artists as Dean Moss, Deborah Hay, Hana van Der Kolk, Min Tanaka, Tatsuya Nakatani and Jake Meginsky. Prior to coming to Maine, Mr. Woodworth was a teacher and full-time faculty member at Buxton School, a co-ed boarding and day high school in Williamstown, Massachusetts.

Kiel Moe (Architect) - Kiel Moe is a practicing architect and Associate Professor of Architecture & Energy in the Department of Architecture at Harvard University Graduate School of Design. He is also Director of the Energy, Environments, and Design research unit at the GSD. Mr. Moe is a three-time McDowell Colony Fellow, and a recipient of The Rome Prize in Architecture. Additionally he received the 2013 Boston Design Biennial Award, the 2011 Architecture League of New York Prize, the 2011 AIA National

Young Architect Award, and numerous design awards for individual projects from the AIA, North American Wood Design Awards, and Boston Society of Architects, among others.

He has published 8 books (with one more in press, and another in preparation), amongst them: Thermally Active Surfaces in Architecture (Princeton Architectural Press, 2010), Insulating Modernism. Isolated and Non-Isolated Thermodynamics in Architecture (Birkhäuser, 2014), and Empire, State & Building (Actar, 2017). Mr. Moe was awarded the Fulbright Distinguished Chair in Architecture at Aalto University, Helsinki, Finland in 2016-17, selected for both his research and creative practice related to the thermodynamics and ecology of timber architecture. While in Finland, Moe completed work on his latest book Wood Urbanism: From the Molecular to the Territorial (Actar 2018)

Jacob Mans, David Kennedy, Decentralized Design Lab (Architect Assistant) - Jacob Mans is an architect and an Assistant Professor of Building Technology and Construction at the University of Minnesota and a Co-Founder of Decentralized Design Lab, a group of designers and thinkers focused on finding simple solutions to complex problems at the intersection of social, economic, and environmental forces. David Kennedy is a registered architect in Oregon and Washington, a LEED(™) Accredited Professional, and A Co-Founder of Decentralized design Lab.

Tuomas Toivonen (Advisor) - Tuomas Toivonen is a Helsinki-based architect and sauna business owner. Mr. Toivonen and his wife Nene Tsuboi created an ecologically-designed sauna called Kulttuurisauna in 2013. Mr. Toivonen and Ms. Tsuboi are the Owner/Operators of that establishment. Mr. Toivonen also teaches classes in architecture and urbanism regularly through Aalto University, and the Estonian Academy of Art.

Jessica Kelso (Advisor) - Jessica Kelso is Owner of Loyly, a successful public sauna business with two locations in Portland, Oregon. Ms. Kelso has provided crucial business insights regarding launching and operating a business similar to her own.

Emily Bruce (Advisor) - Emily Bruce is a marketing professional, currently working at LLBean as a Director within Marketing. She has provided a market feasibility study and other research for this project, as well as operating business strategy and planning guidance.

J. Conformity with Land Use Ordinance

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use, Article V Section 14-526 as well as the City of Portland Technical Manual, Chapter 14 Standards for Local Site Location of Development Review.

OVERVIEW

The proposed building with a first floor bathhouse and a partial second story residence has been designed to conform to City standards as well as improve upon existing non-conformities. This project conforms with Portland's Land Use Ordinance Section 14-526 as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The site is located at 145 Washington Avenue which is classified as an arterial and currently supports a high traffic volume. A negligible traffic increase along Washington Ave. is expected for this project due to the target market of commuters within walking/biking distance.

2. Access and Circulation:

a. Site Access and Circulation:

This project conforms with the design standards of Section 14-526 as demonstrated in the following narrative:

- (i) The development will provide safe access and internal circulation for both pedestrians and vehicles as seen on the Site Plan.
- (ii) The existing driveway perpendicular to Washington Ave. that currently serves the site will be closed along the property's frontage. There is no proposed vehicle access to the site.
- (iii) The site does not feature drive up services as mentioned in this requirement.

b. Loading and Servicing:

- (i) The site will have minimal loading for the establishment. Any loading will likely occur during off hours and will be accommodated within the on-street parking adjacent to the site.

c. Sidewalks:

- (i) A brick sidewalk exists along Washington Avenue.
- (ii) The existing brick and bituminous sidewalk will be rebuilt from the neighbor's driveway along the project frontage.
- (iii) Ample access for pedestrians is provided within the site and is continuous with the public sidewalk.



3. Public Transit Access:

- a. Not applicable.
- b. Not applicable.
- c. Not applicable.

4. Parking:

a. Location and Required Number of Vehicle Parking Spaces:

- (i) The proposed project requires eight parking spaces. This is derived based upon the pre-application meeting held May 2, 2018. Because there is no parking requirement outlined for personal services, it was recommended to the team to use Office Space for the calculation. Please see Exhibit S. for more information on the derivation.
- (ii) A parking study is not required.
- (iii) The proposed parking is not 10% or more over the requirement.
- (iv) There are no proposed parking stalls or aisles.
- (v) There is no proposed parking lot.

b. Location and Required Number of Bicycle Parking Spaces:

- (i) The site plan includes one proposed bicycle hitch (to accommodate two bicycles) meeting City standards.

c. Motorcycles and Scooter Parking:

- (i) There are no areas designated for motorcycles or scooters.

d. Snow Storage:

The Owner will have snow removed from the site when necessary.

5. Transportation Demand Management (TDM):

- a. A TDM plan is not required for this project.
- b. A TDM plan is not required for this project.
- c. A TDM plan is not required for this project.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. Not applicable.
- b. Not applicable.



2. Landscaping and Landscaping Preservation:

a. Landscape Preservation.

- (i) The disturbance of trees and vegetation that are not proposed to be removed as part of the project will be limited as much as possible.
- (ii) There are no trees >10" dbh within any required setbacks. Furthermore, the one tree >10" dbh on the site has been approved to be removed as part of the 151 Washington Ave project (#2017-285) approved by the Planning Board.
- (iii) It is not anticipated that the project will necessitate any tree protection.
- (iv) A waiver is not requested.
- (v) Not applicable.

b. Site Landscaping:

(i) Landscaped Buffers:

- a. Solid waste is anticipated to be handled internally.
- b. The project has 27.5 linear feet of frontage along Washington Ave; per requirement, it is required that a minimum of six shrubs or shrub alternatives per 45 feet of frontage are planted. The requirement is met through a combination of landscaping within the setbacks and internally within the site. Please refer to the Site Plan for more information.
- c. Given the residential use paired with the low-impact/quiet bathhouse use as well as the constricted and steep site, an evergreen buffer is not proposed along the zoning district divide.
- d. Not applicable.

(ii) Parking Lot Landscaping:

- a. Not applicable
- b. Not applicable
- c. Not applicable.
- d. Not applicable.
- e. Not applicable.
- f. Not applicable.

(iii) Street Trees:

- a. Street trees are to be provided every 30 to 45 feet along the street frontage. One street tree with a shallow root system and a relatively small mature height is proposed given the existing sewer main and overhead wires.



b. Not applicable.

3. Water Quality, Stormwater Management and Erosion Control:

a. Stormwater:

- (i) The site drainage will not be directed to flow or pond onto adjacent lots. The runoff will be attenuated by infiltration trenches as well as a proposed green roof system.
 - (ii) Any stormwater that flows onto adjacent lots will not exceed the pre-development flows.
 - (iii) The runoff from the site into the City property will not increase from the pre-development condition.
 - (iv) Not applicable.
- b. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including the basic standards of MEDEP Chapter 500. Please refer to sections K and L, the Stormwater Management and Erosion & Sedimentation Control Plans, respectively, for more information.
- c. The project is not located in a watershed of an urban impaired stream as listed by the MEDEP.
- d. Not applicable.
- e. 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.
- f. The development will provide for adequate and sanitary disposal of sewage in accordance with Section 2 of the Technical Manual.

(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. The site has been designed to promote safe and inviting public access.
- b. Adequate emergency access has been provided. An ambulance will be able to access all 4 side of the building and a fire truck will be able to access a minimum of 3 sides.
- c. A fire hydrant is located across the street from the intersection of Washington Ave. and East Cove St and is approximately 115 feet from the corner of the proposed building.



3. Availability and Adequate Capacity of Public Utilities:

- a. Public utilities in the vicinity of the site have capacity to serve the project. Ability to Serve letters have been sent to the respective companies. Responses received thus far have been included in the submission.
- b. The electrical service will be wired underground.
- c. The new sewer and stormwater infrastructure will meet the provisions of the Technical Manual.
- d. The project will be served by connection to the public sewer system within Washington Ave.
- e. The sanitary sewer collection system meets all applicable sections of the Technical Manual. The stormwater management system is designed to meet the basic standards of Chapter 500. Treatment is not required; however, some stormwater will be treated through the green roof and the infiltration trenches.
- f. The facility is not expected to create a large volume of solid waste and will be handled by a private company.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:

- a. Not applicable.
- b. Not applicable.
- c. Not applicable.

2. Shadows:

- a. The shadows created by the building will not influence public open spaces.

3. Snow and Ice Loading:

- a. The structures will not distribute snow and ice onto adjacent properties.

4. View Corridors:

- a. The project site is located outside the Downtown Vision View Corridor Protection Plan.

5. Historic Resources:

- a. The development is not located in a historic district, historic landscape district or City designated landmark.
- b. The development is not located adjacent to designated landmarks, historic district, or historic landscape district.
- 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. A photometric plan has been included with this submission.
- (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.

7. Noise and Vibration:

- a. No HVAC system is currently proposed.

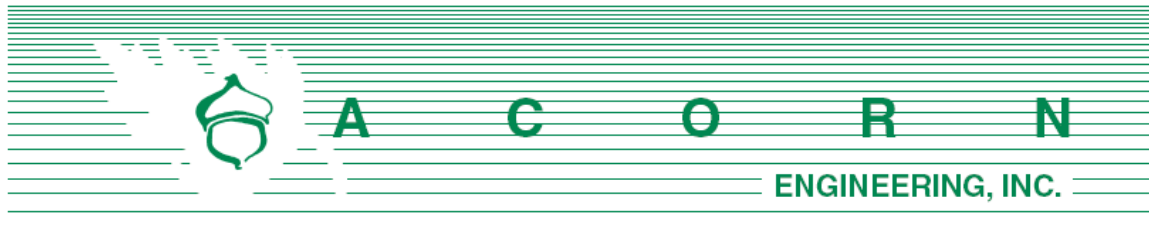
8. Signage and Wayfinding:

- a. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
 - (i) The project is not located in a historic district or subject to Article IX.
 - (ii) Not applicable.
 - (iii) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

9. Zoning Related 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.





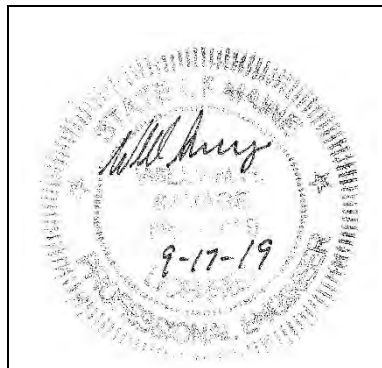
K. STORMWATER MANAGEMENT REPORT

Prepared For:

**Akasha 155 LLC
PO Box 11546
Portland, Maine 04104**

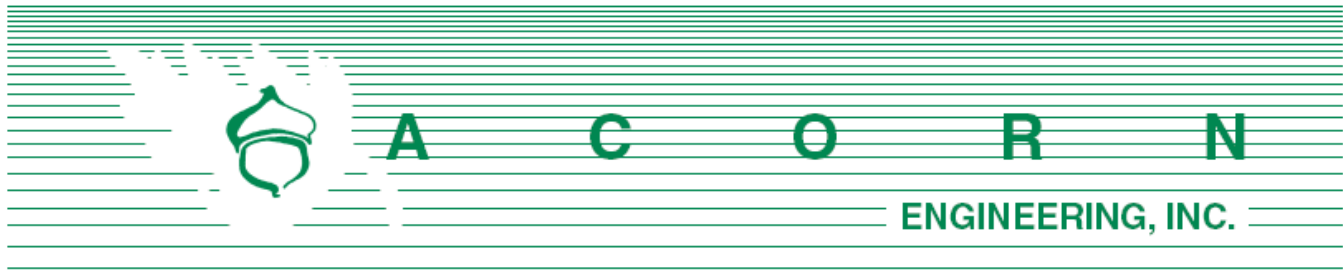
Prepared By:

**Acorn Engineering, Inc.
65 Hanover Street
Portland, Maine 04101**



October 2018

Rev. September 2019



INTRODUCTION

Acorn Engineering, Inc. has been retained by Akasha 155 LLC to provide civil engineering services for the proposed redevelopment of 145 Washington Avenue. The proposed project includes the development of a 2-story building with a sauna/bathhouse on the first floor and two residences within the second story.

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, Article V. Site Plan Section 14-523. Required Approvals and Applicability (E) Level II Site Plan Review.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.

The proposed project is expected to increase the impervious area by approximately 200 square feet, thus the threshold for providing stormwater quality on site is not met.

EXISTING CONDITIONS

The proposed project site is located at 145 Washington Ave. A boundary plan has been prepared by R.W. Eaton Associates of Westbrook, Maine dated March 4, 2016.

The site is surrounded by residential uses and the R-6 zone except to the north where an outdoor gear shop exists within the B-1 zone. The majority (approximately 66%) of the site is impervious in the form of gravel or pavement.

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, a field inventory of significant natural feature was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream.

PROPOSED DEVELOPMENT

The proposed project is a two-story building with a sauna/bathhouse on the ground level and two residences on the second story. Pedestrian access to the site will be provided off Washington Avenue. The development will be served by Portland Water District, Department of Public Works (sewer and storm), Unutil (natural gas), CMP (electric), Charter (cable), and Consolidated (telephone). All utilities will be routed underground.

Due to the reduction in impervious area, stormwater management features for quality control that meets Maine DEP's Chapter 500 General Standards is not required and has not been designed.

Furthermore, the redeveloped non-roof impervious area has remained well under 5,000 square-feet. Please refer to the attached exhibits which outline the impervious covers.

Stormwater will be managed by implementing a series of underdrains, infiltration trenches, field inlets, and storm drains. Please refer to Sheet C-30 for more information.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey

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 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
Hinckley Loamy Sand	0.17	0.17

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 given the sustained slope throughout the site.

Conclusion

The proposed redevelopment was designed to meet the requirements set forth in the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards. The proposed project as designed is anticipated to largely maintain existing drainage patterns while decreasing the overall volume and flowrate of stormwater runoff. The project will not cause flooding or erosion problems within the subject site, abutters’ sites, nor within the right-of-way.

Attachments

- Attachment 1: Existing Impervious Cover
- Attachment 2: Proposed Impervious Cover
- Attachment 3: Soils Report





- | PLANT SCHEDULE | | | | |
|----------------|------------------------------------|-----------------------------------|-----|---------|
| ID | BOTANICAL NAME | COMMON NAME | QTY | SIZE |
| TREES | | | | |
| AP | ACER PALMATUM 'RUSLYN IN THE PINK' | RUSLYN IN THE PINK JAPANESE MAPLE | 1 | 5 GAL. |
| PA | PRUNUS 'ACCOLADE' | CHERRY TREE | 1 | 2" CAL. |
| JC | JUNIPERUS CHINESIS 'BLUE POINT' | BLUE POINT JUNIPER | 5 | 5' |
| PERENNIALS | | | | |
| CB | CALAMAGROSTIS BRACHYTRICHA | KOREAN FEAHER REED GRASS | 18 | 1 GAL. |

10 0 10 20

SCALE: 1" = 10'

[illegible]

LANDSCAPE PLAN

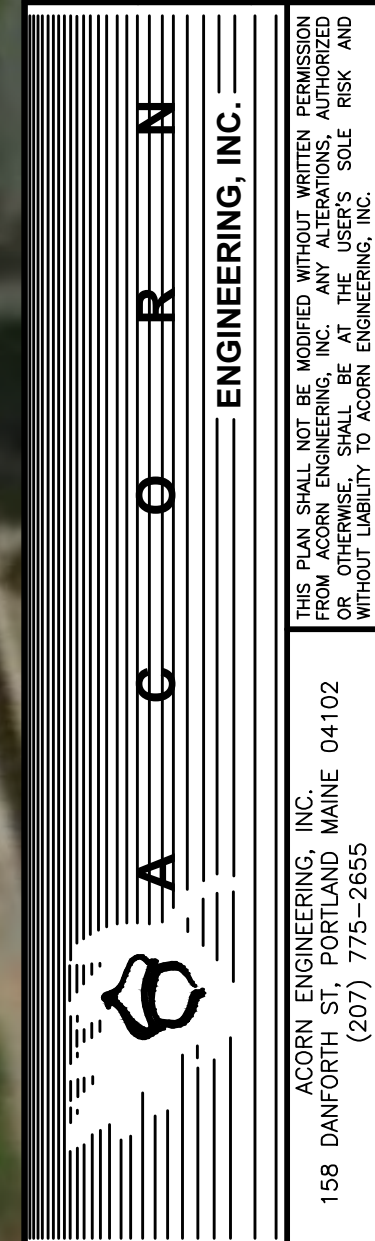
WASHINGTON BATHS

AKASHA 155 LLC
PO BOX 11546, PORTLAND, ME 04104

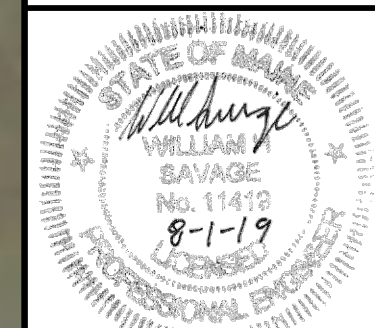
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PROJECT NAME:

CLIENT:



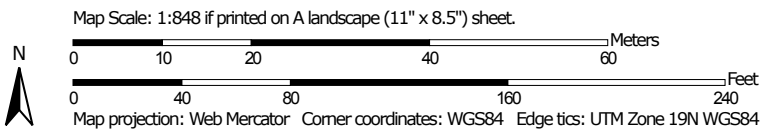
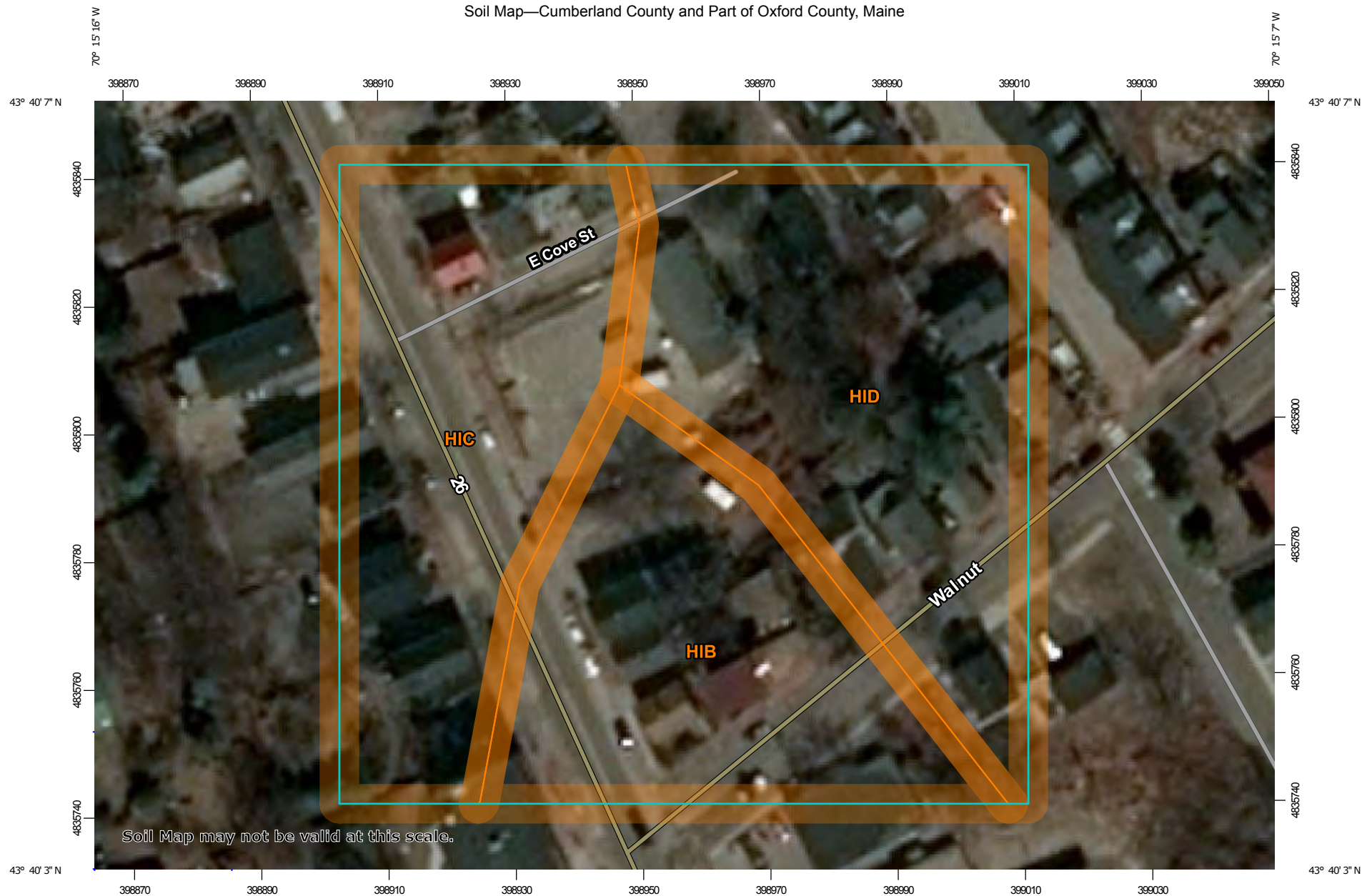
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DESIGNED BY:	SJL
DRAWN BY:	SJL
CHECKED BY:	WHS



DRAWING NO.

L-1

Soil Map—Cumberland County and Part of Oxford County, Maine



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine

Survey Area Data: Version 15, Sep 6, 2018

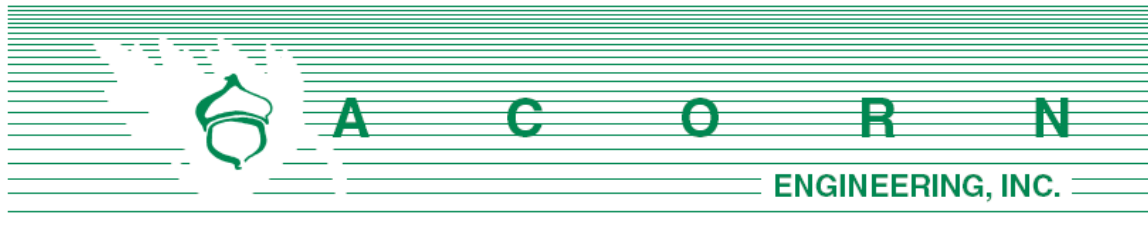
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HIB	Hinckley loamy sand, 3 to 8 percent slopes	0.8	28.9%
HIC	Hinckley loamy sand, 8 to 15 percent slopes	0.9	33.0%
HID	Hinckley loamy sand, 15 to 25 percent slopes	1.0	38.1%
Totals for Area of Interest		2.7	100.0%



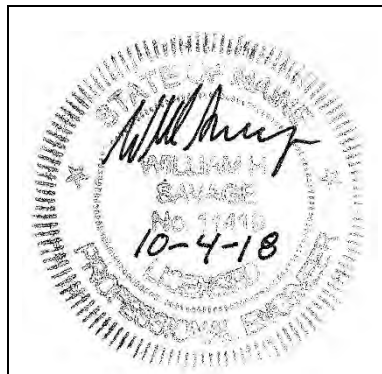
L. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**Akasha 155 LLC
PO Box 11546
Portland, Maine 04104**

Prepared By:

**Acorn Engineering, Inc.
158 Danforth Street
Portland, Maine 04102**



October 2018

INTRODUCTION

Acorn Engineering, Inc. has been retained by Akasha 155 LLC to provide civil engineering services for the proposed redevelopment of 145 Washington Avenue. The proposed project includes the development of a 2-story building with a sauna/bathhouse on the first floor and residence on the second story.

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 at 145 Washington Ave. A boundary plan has been prepared by R.W. Eaton Associates of Westbrook, Maine dated March 4, 2016.

The site is surrounded by residential uses and the R-6 zone except to the north where an outdoor gear shop exists within the B-1 zone. The majority (approximately 66%) of the site is impervious in the form of gravel or pavement.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey

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 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
Hinckley	0.17	0.17

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 given the sustained slope throughout the site.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

Critical areas that would require special attention during construction include, but are not limited to, the existing structures, the drainage system within Washington Avenue, and slope stabilization located within the vicinity during earthwork and foundation construction.

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. However, a shed was demolished within the past year.

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 road ways.
- 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 Washington Avenue 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 $\frac{1}{2}$ 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: Will Savage, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620

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 installation of utilities.
6. Continue earthwork and grading to subgrade as necessary for construction.
7. Complete installation of drainage infrastructure, as well as other utility work.
8. Complete remaining earthwork operations.
9. Install sub-base and base gravels in paved areas.
10. Install paving, curbing and brickwork.
11. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
12. 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.
13. Touch up areas without a vigorous catch of grass with loam and seed.
14. Complete site signage and striping.
15. 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.

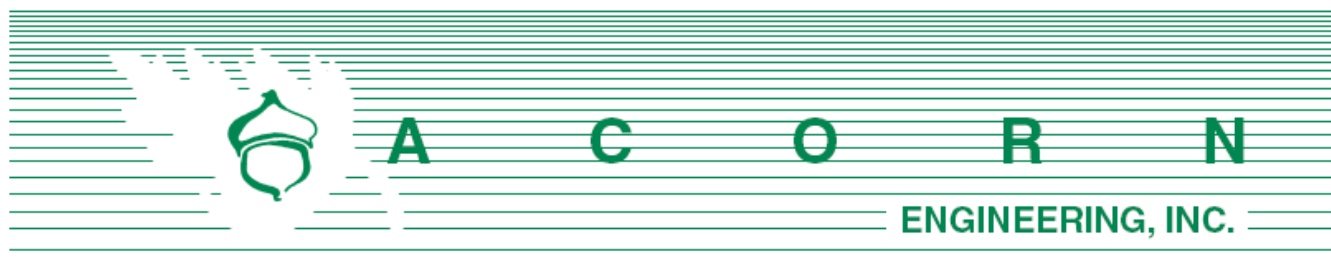
Recommendations

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 Keith Gautreau
 City of Portland Fire Department
 380 Congress St.
 Portland, ME 04101

October 11, 2018

Subject: 145 Washington Ave – Fire Department Checklist
 Section M of Application

On behalf of Akasha 155 LLC, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of applicant

Akasha 155 LLC
 asher.woodworth@gmail.com
 (207) 332-4911

2. Name address, telephone number of architect

Kiel Moe & Decentralized Design Lab
 kielmoe@gmail.com
 (617) 843-5435

3. Proposed uses of any structures [NFPA and IBC classification]

NFPA: Business & Residential / IBC: B & R-2

4. Square footage of all structures, including decks [total and per story]

The existing 2-story single-family building was recently demolished to facilitate the redevelopment.

Proposed Building		
1 st Floor	4,355*	sf
2 nd Floor	2,021**	sf
Total	6,376	sf

*The 1st floor area includes the courtyards which are enclosed by walls, but do not have a roof above.

** The 2nd floor area includes the roof deck.

5. Elevation of all structures

Based upon the average grade plane defined by the IBC, the proposed building height is 23.3 feet. This height is below the allowable 45 feet within the B-1 zone. 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 with additional protection per code. Fire flows and requirements for system storage or booster pumping are subject to the fire professional design which will be performed prior the request for a building permit.

7. Hydrant locations

An existing hydrant is located across the street, approximately 115 feet from the corner of the proposed building. 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 redevelopment will be serviced by the existing water main within Washington Avenue. A 4" fire service line will extend from the existing water main to the building fire suppression system. The building is expected to have internal sprinkler risers and a Fire Department pump connection on the street side of the building.

9. Access to all structures [min. 2 sides]

Access to the structure is provided directly on Washington Avenue. Per discussions in the pre-application meeting on May 2, 2018, the access on 2 sides would not be feasible given the parcel's geometry and the minimal street frontage (27.5'). However, providing a sprinkled building was recommended to compensate for only one side of access. As such, the building has been designed with a sprinkler system.

It should also be noted that in the event of an emergency, the north side of the building would likely be accessible from the adjoining property at 151 Washington Ave.

10. The Architect has provided code summaries (attached).

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The project site is located in a densely developed area and is fronted by a public street. The following pavement street width is currently available:

- Washington Avenue: 44 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: Not applicable

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: As outlined in #9, the parcel's geometry does not allow for two sides of access due to the minimal street frontage. However, the building will be sprinkled upon request at the pre-application meeting.

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 provides for safe and efficient access along the public street 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, namely Washington Avenue.

3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.

Response: There is no vehicle access to the site; however, the building will be directly on the front property line, accessible from Washington Avenue.

3.4.6. Elevators shall be sized to accommodate an 80 x 24-inch stretcher.

Response: There are no proposed elevators.

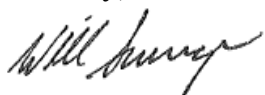
3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.



Response: The applicant will work with the City's Public Works Division to assign street addresses and numbering to meet City Standards.

Thank you for your review. Please let me know if you have any additional questions or comments.

Sincerely,



William H. Savage, P.E.
Principal
Acorn Engineering, Inc.



IBC 2015: CODE DATA

Code Inquiry

Use Group Classification
Type of Construction
Proposed Building Area
Net Usable Area (excluding courts)
Net Usable Area (including courts)
Building Footprint
Lot Area
Proposed Building Height (Stories / Feet)
Building Area Limitation - Sq Ft
Building Height Limitation - Stories
Travel: Common Path Limit (Allowable / Actual)
Travel: Dead-end Limit (Allowable / Actual)
Travel: Exit Access Travel Distance Limit (Allowable / Actual)
Fire Suppression System
Fire Alarm
Smoke and CO Detectors
Number of Required Exits
<i>Exit Access Fire Ratings</i>
Fire Walls / Barriers
Occupancy Separation
Tenant Separation
Party Walls
Stair Enclosures
Exit Access Corridors
<i>Fire Protection of Structure</i>
Columns

Design Response

Reference

Mixed Use (R-3 over B)	IBC 304;310
Floor 1 = Business (3,936 ft2 gross enclosed)	
Floor 2 = Residential Group R3: Single Dwelling Unit (2,021 ft2 gross enclosed)	
Type IV: Cross-laminated Timber Walls and Horizontal Assemblies, CMU Perimeter Walls	IBC 602
5,957	Sq Ft Per IBC Definition: AREA, BUILDING. (Area within perimeter wall, excluding courts but including area under roof)
4,927	Net Usable Area Excluding Courtyards levels 1+2; ft2
6,153	Net Usable Area Including Courtyards levels 1+2; ft2
4,892	ft2
7,168	ft2
2 stories; 27' top of parapet	
B occupancy = 36,000ft2; R-3 Occupancy =UL	Per IBC table 506.2
B occupancy = 65'/6s; R-3 occupancy 60'/4s	Per IBC tables 504.3 + 504.4
75' allowable; 30' actual	Per IBC table 1006.2.1
20' allowable/ none	Per IBC table 1020.4
Allowable 200'/ Actual 90'	IBC - 1017.2
NFPA 13	
NFPA 13	
NFPA 13	
level 1, B occupancy - 2 exits; level 2, R-3 occupancy - 1 exit	1006.3.1.; 1006.3.2
3 hr	IBC table 706.4
2 hr (B/R-3)	IBC table 508.4
2 hr (B/R-3)	IBC table 508.4
3hr	IBC table 706.4
1hr	IBC 1005.3.2
1 hr	IBC 1020.1
HT	IBC 601; 602.4.3

Beams, Girders, Trusses, and Arches
Load Bearing Walls - Exterior
Load Bearing Walls - Interior
Non-load Bearing Walls - Exterior
Non-load Bearing Walls - Interior
Floor Construction
Roof Construction
Shaft Enclosures
Unprotected Openings
Egress Stair
Egress Corridors
Ramps
Sound
Accessibility
Plumbing

HT	IBC 601; 602.4.4; 602.4.5
3hours @ party wall; 2 hours other perimeter walls	IBC table 601
1 hours	IBC table 601
2 hours	IBC 601; 602.4.8.2
1 hours	IBC 601; 602.4.8.1
HT	IBC table 601, 602.4.6.2
HT	IBC table 601, 602.4.5
2 hours	IBC 713.4
There shall be no openings in the party wall; all other elevations shall comply with IBC table 705.8	IBC 705
Occupant load <50; Min width 36"	IBC 1011.2
Handrails shall project more than 4-1/2" into clear space	IBC 1014.8
B Occupancy min width 44"; R-3 Occupancy min width 36"	IBC table 1020.2
Ramps used as part of a means of egress shall not have a slope > 1:12; 8%	IBC 1012.2
Handrails shall project more than 4-1/2" into clear space	IBC 1014.8
Assemblies separating B & R-3 Occupancies shall a min STC rating of 50	IBC 1207.2
Assemblies separating B & R-3 Occupancies shall a min IIC rating of 50	IBC 1207.3
B-Occupancy portion of the building shall be fully ADA accessible	
The Building comply with chapter 11 of the IBC	IBC Chapter 11
4 water closets, 4 lavatories, 2 water fountains - required in B occupancy	IBC table 2902.1

Occupant Load Calculations
Floor 1; B occupancy

Total floor 1 occupant count = 116

Area (sf)	Name	Occupancy	OF	Occu. Load
662	COURTYARD	Outdoor	100	7
572	EXERCISE ROOM	Assembly	11	52
54	STORAGE ROOM 1	Storage	300	1
406	FRONT CIRCULATION	Circulation	100	5
318	LOBBY	Business	100	4

214	OFFICE & RECEPTION	Business	100	3
568	ENTRY COURT	Outdoor	100	6
146	MECH ROOM	Mechanical	300	1
151	WEST SAUNA	Sauna - 12	NA	12
151	EAST SAUNA	Sauna - 12	NA	12
440	EAST LOCKER ROOM	Business	100	5
440	WEST LOCKER ROOM	Business	100	5
130	BACK CIRCULATION	Circulation	100	2
105	STORAGE ROOM 2	Storage	300	1
4355				116

Floor 2; R-3 occupancy =

Total floor 2 occupant count = 9

Area (sf)	Name	Occupancy	OF	Occupant Load
1800	Residence	Residential	200	9

Floor 1 + Floor 2 occupancies =

Total Building = 125

NFPA 1, 101, 220, 221 - Code Data

Code Inquiry

Use Group Classification
Type of Construction
Net Usable Area
Proposed Building Area
Lot Area
Proposed Building Height (Stories / Feet)
Travel: Common Path Limit (Allowable / Actual)
Travel: Dead-end Limit (Allowable / Actual)
Travel: Exit Access Travel Distance Limit (Allowable / Actual)
Fire Suppression System
Fire Alarm
Smoke and CO Detectors
Number of Required Exits
<i>Exit Access Fire Ratings</i>
Fire Walls / Barriers
Occupancy Separation
Tenant Separation
Party Walls
Stair Enclosures
Exit Access Corridors
<i>Fire Protection of Structure</i>
Columns
Beams, Girders, Trusses, and Arches
Load Bearing Walls - Exterior
Load Bearing Walls - Interior
Non-load Bearing Walls - Exterior
Non-load Bearing Walls - Interior
Floor Construction
Roof Construction

Design Response

Reference

Level 1 - Business; Level 2 - Residential	
VI (2HH)	Type IV: Cross-laminated Timber Walls and Horizontal Assemblies, CMU Perimeter Walls
6,153	Net Usable Area Including Courtyards; levels 1+2; ft2
3,554	Sq Ft Per IBC Definition: AREA, BUILDING. (Area within perimeter wall, excluding courts but including area under roof)
7,168	ft2
2 stories/ 27'	
75'/30'	NFPA 101(a) - 38.2.5.3.2
20'/none	NFPA 101(a) - 38.2.5.2.2
200'/90'	NFPA 101(a) - 38.2.6.2
NFPA 13	
NFPA 13	
NFPA 13	
2 exits B-occupancy; 1 exit R-occupancy	NFPA 101(a) - 38.2.4.1
3hr	NFPA 220 - 4.1.1
2hr	NFPA 1 - 6.1.14.4.1(b)
2hr	NFPA 1 - 6.1.14.4.1(b)
3hr	NFPA 221 - Chapter 6
1hr	NFPA 101(b) - Chapter 5
1hr	NFPA 101(b) - 5.1.1.1
H	NFPA 220 - 4.1.1
H	NFPA 220 - 4.1.1
3hr (type I); 2hr (type VI)	NFPA 220 - 4.1.1
2hr (type I); 1hr (type VI)	NFPA 220 - 4.1.1
0hr	NFPA 220 - 4.1.1
0hr	NFPA 220 - 4.1.1
H	NFPA 220 - 4.1.1
H	NFPA 220 - 4.1.1

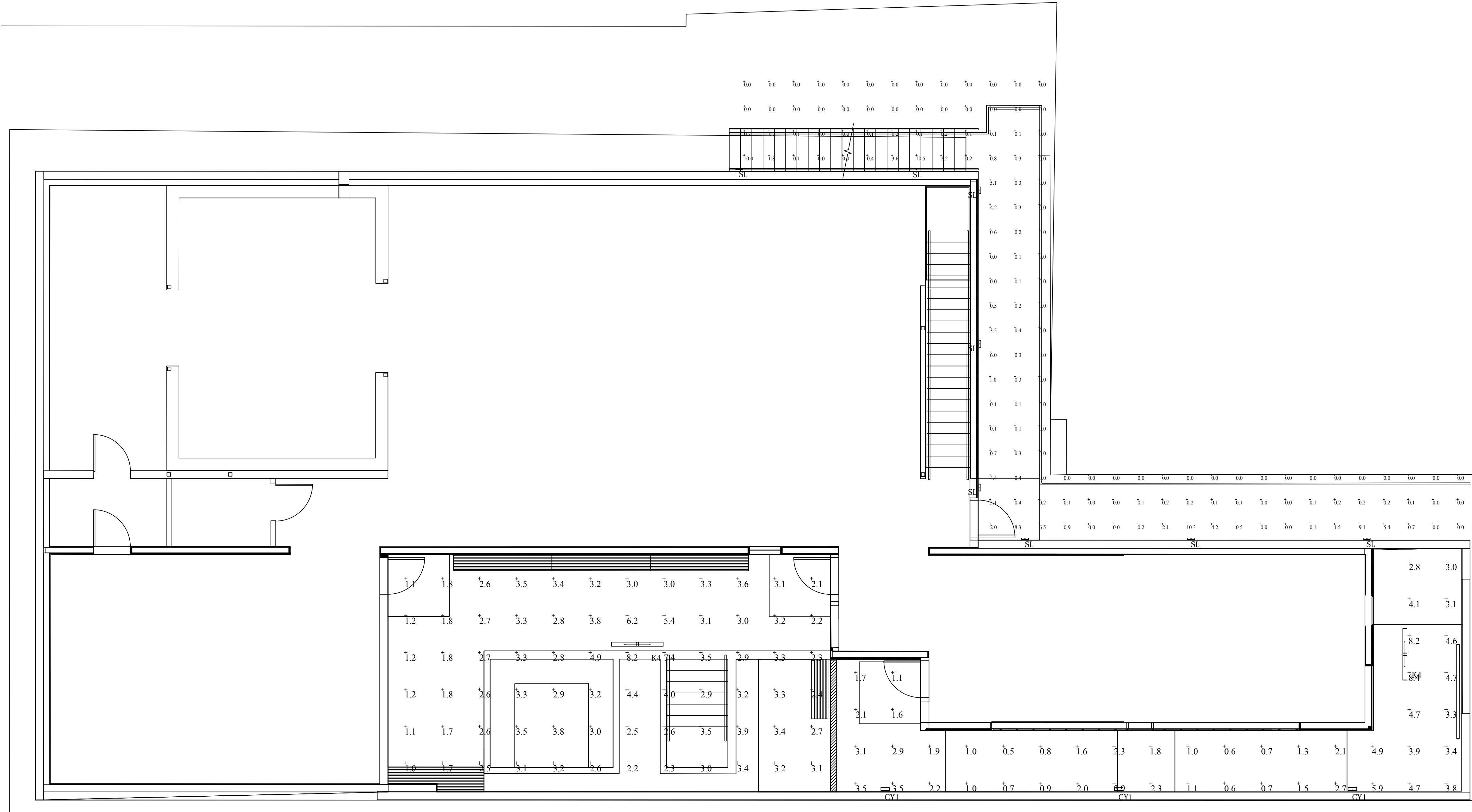
N. Calculation of Wastewater Flowrate for 145 Washington Ave. Redevelopment

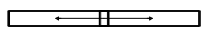
The proposed project will include the development of two stories with a sauna/bathhouse on the first floor and a residence on the second floor. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following daily flows:

Estimate of Design Flows			
Classification of Water Demand	Number of Units	Gallons per Day per unit	Total Gallons per Day
<i>Proposed</i>			
Swimming pool, Bathhouses & Spas	4 (toilets)	250	1,000
Single-Family Residential (1-bedroom)	1 (dwelling unit)	180	180
<i>Existing</i>			
Single-Family Residential (2-bedroom)	1 (dwelling unit)	180	180
Total Proposed			1,180
Total Existing			180
Net Change			+1,000 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition			

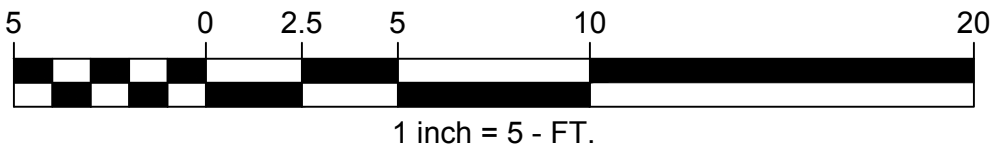
As seen the estimated increase in daily flow is 1,000 gallons. A 6" sewer service is proposed to connect to the main beneath the Washington Ave. sidewalk.





Luminaire Schedule							
Symbol	Label	Qty	Mounting Height	LLF	Watts	Lumens	Description
	K4	2	12' - 0" AFG	0.850	23.5	2562	KM4-T4-2030
	CY1	3	7' - 0" AFG	0.425	17	1547	CY1-15-3K7-2-1D-1D-R
	SL	8	2' - 0" AFG	0.900	5	64	KLV807-3LED-3000K

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Courtyard 1	Illuminance	Fc	3.02	8.2	1.0	3.02	8.20
Courtyard 2	Illuminance	Fc	2.65	8.4	0.5	5.30	16.80
Sidewalk	Illuminance	Fc	0.81	10.5	0.0	N.A.	N.A.



1. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO HUBBELL LIGHTING. 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:

WASHINGTON BATHS
PORTLAND, ME
COURTYARD LIGHTING PLAN

REVISED FROM DRAWING NUMBER(S):

R1: 10/05/18	R5: 04/12/16
R2: 04/02/19	R6: 04/16/19
R3: 04/04/19	R7: 05/13/19
R4: 04/09/19	R8: 05/14/19



Hubbell Lighting, Inc.
701 MILLENNIUM BLVD.
GREENVILLE, SC 29607

DN BY:
DHK

REV BY:
DHK

QUOTE:
N/A

DATE:
10/03/18

DATE:
05/14/19

DRAWING / DESIGN NO.:
1822835R8

CHK BY:
N/A

SCALE:
AS NOTED



Cypher™ – CY1 Accent Scale

TYPE

FEATURES

- Integral Battery Backup Option
- 360° Light Distribution
- RGBW or Static White Luminous Front Option
- IES Type I, II, III & IV Distributions
- Wall Graze, Spot and Pencil Distributions
- Multiple Fascia Options and Finishes
- 0-10V dimming
- IP-66 Housing & Optical System
- 120-277V
- 3000K, 4000K & 5000K CCT
- 10kA Surge Protection
- Fascia Forms F, E and T are ADA compliant for use in low mounting height applications (80 inches or less)
- IDA approved, downlight only, 3000K and warmer CCTs



Downlight only, 3000K and warmer CCTs



ORDERING CODE

1	2	3	4	5	6	7	8	9	10	11	12
Series-Output	CCT/CRI	Model	Main Distribution	Secondary Distribution	Voltage	Housing Finish	Fascia Form	Luminous Front	Fascia Panel	Control Options	Options

SERIES-OUTPUT (Base)

CY1-15	15w, 1500 nominal lumens
CY1-25	25w, 2500 nominal lumens

CCT-CRI

27K8	2700K, 80CRI
3K7	3000K, 70CRI
3K8	3000K, 80CRI
4K7	4000K, 70CRI
4K8	4000K, 80CRI
5K7	5000K, 70CRI

MODEL (Light Engine)

1	DownLight Only
2	50/50 Down/Up, Down/Up distributions must match
3	90/10 Down/Up
4	25/25/25/25 Split, Down/Up/Side distributions must match
5	70/10/10/10 Split, Top/Side distributions must match

Contact factory for custom distributions,
See Distribution Matrix on page 2 for restrictions.

MAIN DISTRIBUTION (Down)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
1D	Type 1 Diffused
2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

SECONDARY DISTRIBUTION (Up, Sides)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
PB*	Pencil Beam
1D	Type 1 Diffused
2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

* PB distribution is available for 90/10 and 70/10/10/10 models only. Not all combinations are recommended.
See Distribution Matrix on page 2 for restrictions.

VOLTAGE

UNV	120-277V
-----	----------

BASE HOUSING FINISH

Standard Colors

AGN	Antique Green
BL	Black
BLT	Matte Black
CRT	Corten
DB	Dark Bronze
DGN	Dark Green
GT	Graphite
LG	Light Grey
MAL	Matte Aluminum
MDB	Metallic Bronze
MG	Medium Grey
TT	Titanium
VBU	Verde Blue
WDB	Weathered Bronze
WH	Arctic White

Premium Colors

SFM	Seafoam
SHK	Shamrock
SPP	Salt and Pepper
WCP	Weathered Copper
RAL	Provide a RAL 4 digit color number
CUSTOM COLOR	Please provide color chip for matching

FASCIA FORM

F	Flat
R	Radius/Curved
T	Triangle/Wedge
E	Rounded Edge
C	Circle/Curved
CB	Cylinder Balanced
CT	Cylinder Tall
CBM	Custom Building Material Mount Ghost Fascia

LUMINOUS FRONT

BLANK	Standard None
RGBW	RGBW Luminous Front
LFSW	Static White Luminous Front

RGBW and LFSW luminous fronts are only available with open, four square and perforated fascia panels

FASCIA PANEL

FPP	Full Panel Painted
FPS	Full Panel Stainless Steel
FPC	Full Panel Copper
OPP	Open Panel Painted
OPS	Open Panel Stainless Steel
OPC	Open Panel Copper
4PP	4-Square Panel Painted
4PS	4-Square Panel Stainless Steel
4PC	4-Square Panel Copper
PPP	Perforated Panel Painted
PPS	Perforated Panel Stainless Steel
PPC	Perforated Panel Copper

Flat and Radius Fascia forms only. Painted panels by default match base housing finish/color. Consult factory for custom panel finishes.

CONTROL OPTIONS

PCU	Universal Button Photocell (120-277V)
-----	---------------------------------------

OPTIONS

EM	Battery Backup Unit -20°C
SF	Single Fuse (120, 277)
DF	Double Fuse (208, 240)

Battery Backup not available with Triangle and Rounded Edge Fascia Forms.

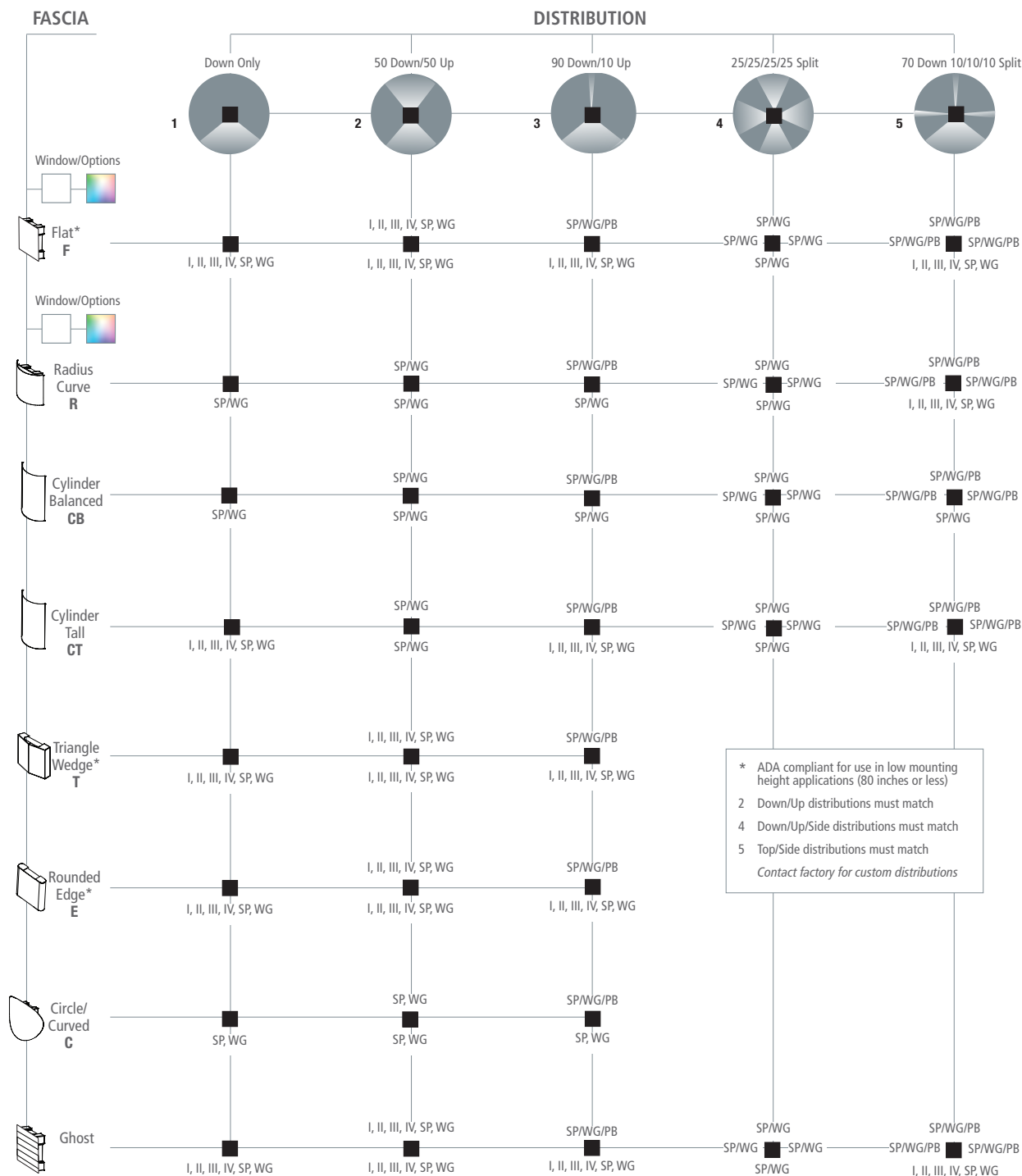


ARCHITECTURAL AREA LIGHTING
17760 Rowland Street | City of Industry | CA 91748
P 626.968.5666 | F 626.369.2695 | www.aal.net
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JOB _____
TYPE _____
NOTES _____

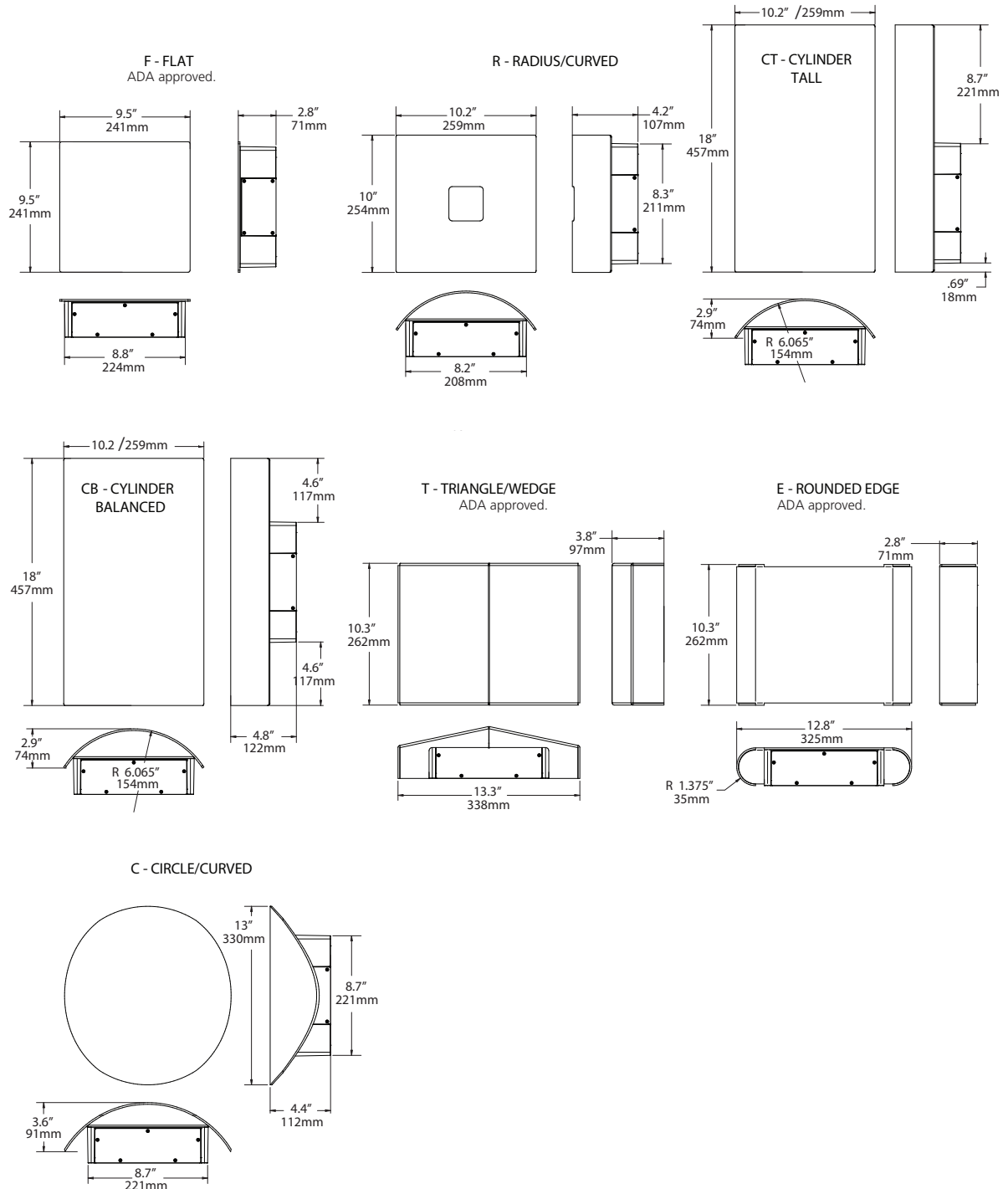

Cypher™ – CY1 Accent Scale

TYPE

Distribution Matrix


Cypher™ – CY1 Accent Scale

TYPE

Drawings


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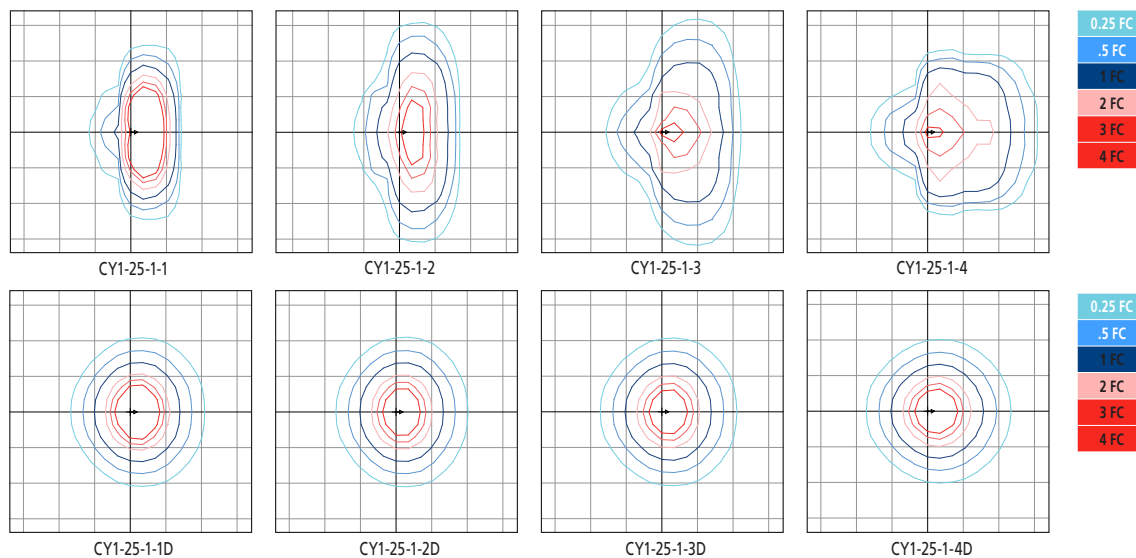
JOB _____
TYPE _____
NOTES _____


Cypher™ – CY1 Accent Scale

TYPE

LUMINAIRE PERFORMANCE

Downlight only			Configuration																	
Nominal Output (Lm)	Average System Wattage	Distribution	Bright White (5000K)						Neutral White (4000K)						Warm White (3000K)					
			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating					
					B	U	G			B	U	G			B	U	G			
			5000K 70 CRI						4000K 70 CRI						3000K 70 CRI					
1,500	17	Type 1	1923	113	0	0	0	1928	113	0	0	0	1825	107	0	0	0			
		Type 2	1726	102	0	0	0	1730	102	0	0	0	1638	96	0	0	0			
		Type 3	1750	100	0	0	1	1755	103	0	0	1	1661	98	0	0	1			
		Type 4	1757	103	0	0	0	1762	104	0	0	0	1668	98	0	0	0			
		Wall Graze	1971	114	1	0	0	1976	116	1	0	0	1871	110	1	0	0			
		Spot/Column	1792	103	2	0	0	1797	106	2	0	0	1701	100	2	0	0			
		Type 1 Diffused	1629	96	1	0	0	1634	96	1	0	0	1547	91	1	0	0			
		Type 2 Diffused	1573	93	1	0	1	1577	93	1	0	0	1493	88	1	0	0			
		Type 3 Diffused	1425	84	1	0	0	1429	84	1	0	0	1353	80	1	0	0			
		Type 4 Diffused	1602	94	1	0	1	1607	95	1	0	0	1521	89	1	0	0			
			5000K 70 CRI						4000K 70 CRI						3000K 70 CRI					
2,500	26	Type 1	2517	96	0	0	0	2524	97	0	0	0	2390	92	0	0	0			
		Type 2	2233	85	1	0	1	2239	86	1	0	1	2120	82	1	0	1			
		Type 3	2229	85	1	0	1	2236	85	1	0	1	2117	80	1	0	1			
		Type 4	2319	88	1	0	1	2325	89	1	0	1	2201	85	1	0	1			
		Wall Graze	2744	104	2	0	0	2752	106	2	0	0	2605	100	2	0	0			
		Spot/Column	2471	94	2	0	0	2478	95	2	0	0	2346	90	2	0	0			
		Type 1 Diffused	2344	89	1	0	1	2350	90	1	0	1	2225	86	1	0	1			
		Type 2 Diffused	2062	79	1	0	1	2068	80	1	0	1	1958	75	1	0	1			
		Type 3 Diffused	2050	78	1	0	1	2056	79	1	0	1	1946	75	1	0	1			
		Type 4 Diffused	2123	80	1	0	1	2129	82	1	0	1	2016	78	1	0	1			

ISOLINE TEMPLATES 10' Mounting Height, 10' Grid Spacing

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 JOB _____
 TYPE _____
 NOTES _____



Job Name:
WASHINGTON BATHS

Catalog Number:

CY1-15-3K7-2-1D-1D-UNV-**-R-FPP

Notes: Specify finish

Type:**CY1**

SLA18-39835

Cypher™ – CY1 Accent Scale

TYPE

ELECTRICAL CHARACTERISTICS

Lumen Package	System Wattage (W)	Line Voltage		Input				Min. Power Factor	Max THD (%)	Dimming Range	Source/Sink Current (mA)		Absolute voltage range on 0-10v (+) Purple	
		VAC	Hz	120	277	347	480				Min.	Max.	Min.	Max.
1,500	17	120	50/60	0.1	0.1	0.0	0.0	>0.9	20	10% to 100%	0 mA	1 mA	0V	10V
2,500	26			0.2	0.1	0.1	0.1							

TM-21 LIFETIME CALCULATION (500mA)

Lumen Package	Ambient Environment °C	Projected Lumen Maintenance (Khrs)						Reported L70
		15	25	50	60 (TM-21)	100		
2,500	25	98%	97%	94%	92%	87%		>60Khrs.
	40	95%	93%	89%	87%	80%		



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JOB _____
TYPE _____
NOTES _____

| 5 |

Submitted by Swaney Lighting	Job Name: WASHINGTON BATHS	Catalog Number: CY1-15-3K7-2-1D-1D-UNV-**-R-FPP	Type: CY1
		Notes: Specify finish	SLA18-39835

Cypher™ – CY1 Accent Scale

TYPE

SPECIFICATIONS

HOUSING

- Main housing shroud shall be of fabricated 5052-H32 aluminum alloy
- Housing mounting interface shall have a stamped silicone gasket.
- Luminaire housing shall be free of any visible heat fins, hardware or fasteners.
- Bracketry and hardware shall be stainless steel.

OPTICAL ARRAY

- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features.
- Optical lenses shall be clear injection molded PMMA acrylic.
- Optical array shall be recessed in order to shield each LED optic across the length of the aperture.
- Optical array shall be sealed for IP66 rating.
- Secondary lens is impact resistant 5/32" tempered glass.

ELECTRICAL

- Drivers shall be in direct contact with the die-cast aluminum housing across the entire surface area of the widest face for maximum thermal transfer.
- "Thermal Shield", primary side, thermister provides protection for the sustainable life of LED module and electronic components.
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- 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. Surge protection device shall be wired in series.
- Drivers shall be U.L. recognized.
- 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 NDTV and NTFTV.
- Integral battery backup provides emergency path of egress lighting for the required 90 minutes for -20°C ambient environments.

SPECIFICATIONS

- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array shall have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Luminaires not configured with a control system shall be provided with 0-10 purple and gray dimming leads.



CONTROLS

- Button photocontrol for dusk to dawn energy savings
- PC12 for 120V, PC20 for 208V, PC24 for 240V, PC27 for 277V
- Photocell is factory installed inside the housing with a fully gasketed sensor on the side wall. For multiple fixture mountings, one fixture is supplied with a photocell to operate the others.

BLUETOOTH®

- RGBW option includes integral Bluetooth module, built into driver, that permits the adjustment of luminous front color when paired with Hubbell Remote App via cellular/tablet device.
- Bluetooth Low Energy (BLE) or Bluetooth Smart compatible for both iOS (iOS8 and forward) and Android (Gingerbread and forward) handheld software applications. Compatible with phones and tablets.
- Free Bluetooth Apps are available for Apple iOS and Google Android mobile devices and are downloadable via the internet at Apple App Store or Google Play.

MOUNTING AND INSTALLATION

- JUNCTION BOX: Standard with zinc-plated, quick-mount junction box plate that mounts directly to 4" J-Box
- Mounting plate features a one-piece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates.
- Fixture attaches by two Allen-head hidden fasteners for tamper resistance.
- Optional mounting arrangements utilize a die-cast mounting adaptor to allow for surface conduit and through branch wiring.

SERVICING

- Housing shall be able to hang freely in an open service position for inspection of internal wire connections. Once in service position, the housing shall be able to be removed for service by lifting the assembly up off the rear mounting plate and disconnecting the wiring plugs.
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal.

FINISH

- 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.

CERTIFICATION

- Luminaire shall be listed with UL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.
- IP66 rated assembly
- IDA approved, 3000K and warmer CCTs only.
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org.
- ANSI C136.31-2010 4G Vibration tested and compliant.
- Complies with "Americans with Disabilities Act" or "ADA" on select versions for low mounting height applications (fixtures extend maximum of 4 inches from wall for mounting heights of 80 inches or less).

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:

[Five year limited warranty \(for more information visit: http://www.hubbellighting.com/resources/warranty/\)](http://www.hubbellighting.com/resources/warranty/)

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| 6 |



Job Name:
WASHINGTON BATHS

Catalog Number:
KM42-T4-MO-2030-WIRED120-277V-
PS412-125-**-SBC-ABT
Notes: Specify finish

Type:

K4

SLA18-39835

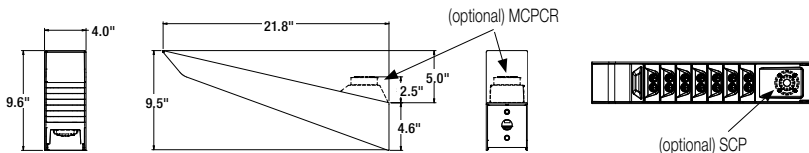
Kick™ – KM4 Kick Mini Small Scale

TYPE

Side Mounted Luminaire(s)

MODEL KM4X-...-SMK

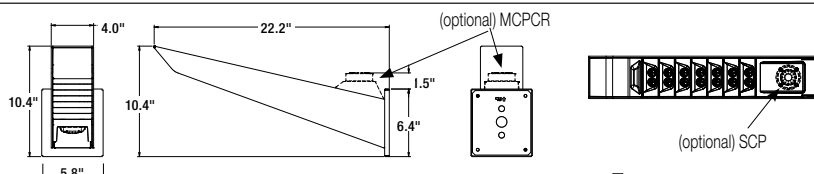
OVERALL HEIGHT	9.6" / 244mm
OVERALL LENGTH	21.8" / 554mm
OVERALL WIDTH	4" / 102mm
WEIGHT	8.95 lbs.
EPA	0.56



Wall Mounted Luminaire(s)

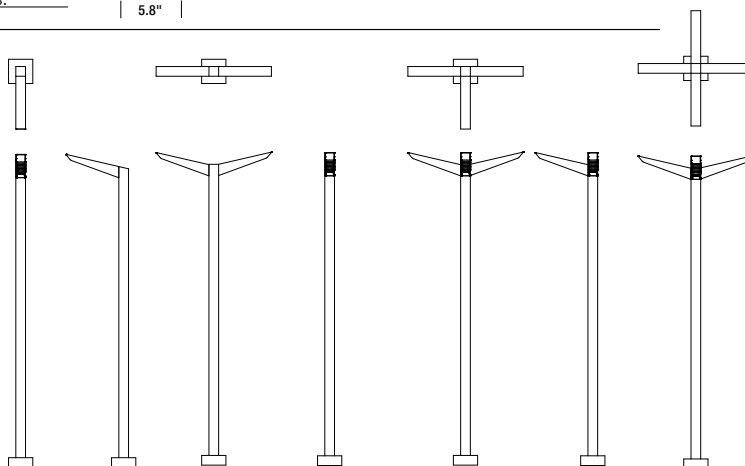
MODEL KM41-...-WMK

OVERALL HEIGHT	10.4" / 264mm
OVERALL LENGTH	22.2" / 564mm
OVERALL WIDTH	5.8" / 147mm
WEIGHT	10 lbs.



Integral Pole Luminaire

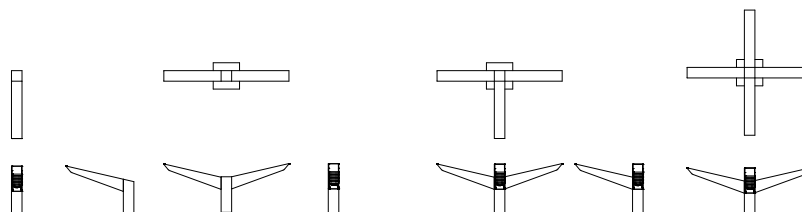
See page 6
for height and
mounting detail
* Weight and
EPA for fixtures
only



MODEL	KM41-...-PS4XX-125	KM42-...-PS4XX-125	KM43-...-PS4XX-125	KM44-...-PS4XX-125
OVERALL LENGTH	25.8" / 655mm	10" / 254mm	25.8" / 655mm	47.5" / 1206mm
OVERALL WIDTH	10" / 254mm	47.5" / 1206mm	47.5" / 1206mm	47.5" / 1206mm
WEIGHT	8.95 lbs.	8.95 lbs.	8.95 lbs.	8.95 lbs.
EPA*	0.56	1.12	1.44	1.44

Tenon Mount Luminaire

Slips over a 2 3/8" / 60mm diameter by 4" / 102mm tall tenon



MODEL	KM41-...-TA23	KM42-...-TA23	KM43-...-TA23	KM44-...-TA23
OVERALL HEIGHT	13.5" / 343mm	13.5" / 343mm	13.5" / 343mm	13.5" / 343mm
OVERALL LENGTH	25.8" / 655mm	10" / 254mm	25.8" / 655mm	47.5" / 1206mm
OVERALL WIDTH	4" / 102mm	47.5" / 1206mm	47.5" / 1206mm	47.5" / 1206mm
WEIGHT	8.95 lbs.	8.95 lbs.	8.95 lbs.	8.95 lbs.
EPA*	0.87	1.44	1.62	1.62



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| 2 |

Kick™ – KM4 Kick Mini Small Scale

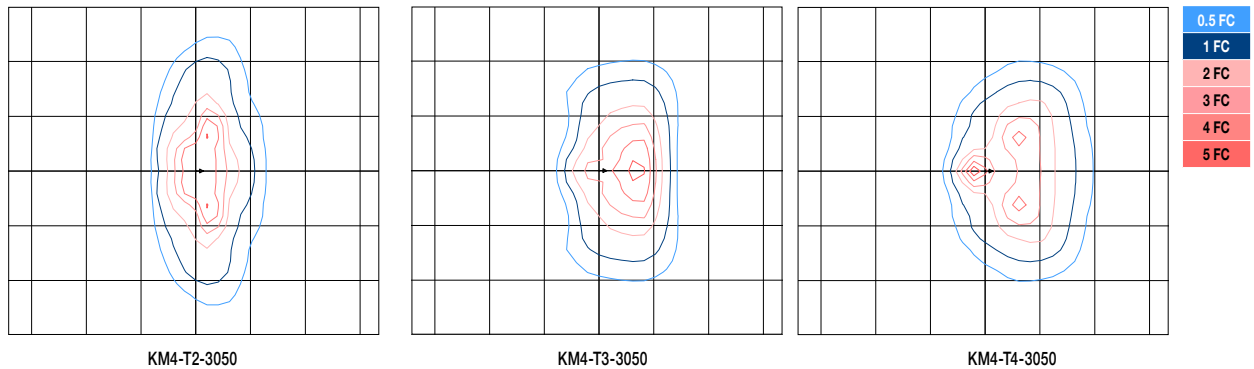
TYPE

LUMINAIRE PERFORMANCE

Configuration				Ordering Code														
Light Engine	Optical Finish	Distribution	Ordering Code	Bright White (5000K)					Neutral White (4000K)					Warm White (3000K)				
				Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating		
				3050					3040					3030				
3000 SERIES	Standard	Type II	T2	3500	106	1	2	1	3455	105	1	2	1	3315	101	1	2	1
		Type III	T3	3423	104	1	2	1	3379	103	1	2	1	3242	99	1	2	1
		Type IV	T4	3576	109	1	1	1	3530	107	1	1	1	3387	103	1	1	1
	Fixture Finish	Type II	T2-FO	2676	81	1	2	1	2716	83	1	2	1	2535	77	1	2	1
		Type III	T3-FO	2706	82	1	2	1	2746	83	1	2	1	2563	78	1	2	1
		Type IV	T4-FO	3047	93	1	1	1	3093	94	1	1	1	2886	88	1	1	1
	Matte Optics	Type II	T2-MO	2676	81	1	0	1	2716	83	1	0	1	2535	77	1	0	1
		Type III	T3-MO	2706	82	1	0	0	2746	83	1	0	0	2563	78	1	0	0
		Type IV	T4-MO	3047	93	1	0	1	3093	94	1	0	1	2886	88	1	0	1
						2050					2040					2030		
2000 SERIES	Standard	Type II	T2	2647	112	1	2	1	2613	111	1	2	1	2507	106	1	2	1
		Type III	T3	2589	110	1	1	1	2555	108	1	1	1	2447	104	1	1	1
		Type IV	T4	2704	115	1	1	1	2670	113	1	1	1	2561	109	1	1	1
	Fixture Finish	Type II	T2-FO	2015	85	1	2	1	2058	87	1	2	1	1909	81	1	2	1
		Type III	T3-FO	2038	86	1	1	1	2061	87	1	1	1	1930	82	1	1	1
		Type IV	T4-FO	2295	97	1	1	1	2343	99	1	1	1	2174	92	1	1	1
	Matte Optics	Type II	T2-MO	2015	85	1	0	0	2058	87	1	0	0	1909	81	1	0	0
		Type III	T3-MO	2038	86	1	0	0	2081	88	1	0	0	1930	82	1	0	0
		Type IV	T4-MO	2295	97	1	0	0	2343	99	1	0	0	2174	92	1	0	0

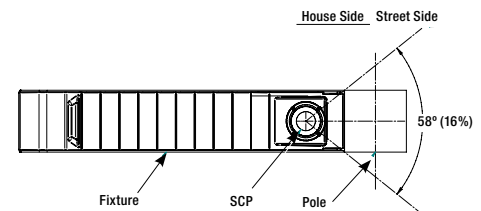
-MO.ies files should be used for -FO configurations in application layouts.

ISOLINE TEMPLATES 14' Mounting Height



SENSOR DETECTION RANGE

		SENSOR MOUNTING HEIGHT											RATIO
		8'	10'	12'	14'	16'	18'	20'	25'	30'	35'	40'	
COVERAGE DIAMETER	SCP	20'	25'	30'	35'	40'	45'	50'	62.5'	75'	87.5'	100'	1:2.5



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Kick™ – KM4 Kick Mini Small Scale

TYPE

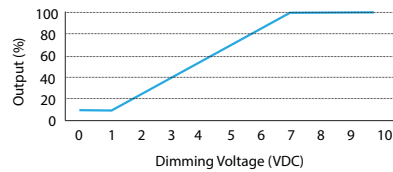
ELECTRICAL CHARACTERISTICS

Ordering Code	LED Current (mA)	System Wattage (W)	Line Input		Input		Min. Power Factor	Max THD (%)	Driver Operating Temp. Range	Inrush Current Peak				Dimming	
					Amps AC					(A)		T@50% (µs)		Dimming Range (V)	Source/ Sink Current (mA)
			VAC	HZ	120	277				120	277	120	277		
30XX	700	33	120-277	50/60	0.3	0.1	0.9	20	-40°C-55°C	65		100		0-10	1
20XX	500	24	120-277		0.2	0.1									

TM-21 LIFETIME CALCULATION

Ambient Environment °C	Projected Lumen Maintenance (Khrs)					Reported L70
	25	50	60 (TM-21)	75	100	
25	98%	95%	94%	93%	90%	>60Khrs.
40	98%	96%	95%	93%	90%	

DIMMING CURVE



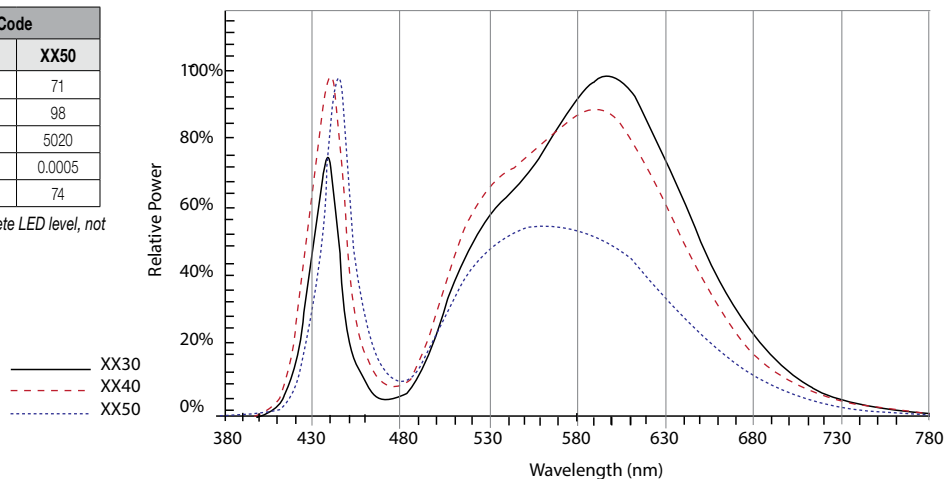
Note: Fixture does not dim to off, fixture dims to 10% minimum output.

COLOR CHARACTERISTICS

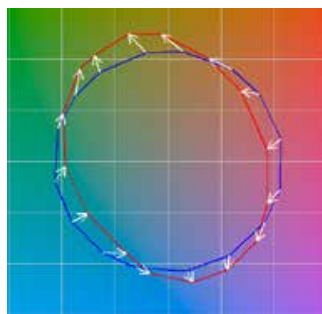
Value	Ordering Code		
	XX30	XX40	XX50
Rf	69	69	71
Rg	99	99	98
CCT(K)	3122	3852	5020
Duv	0.001	0.0004	0.0005
CIE Ra	74	73	74

Note: TM-30 reported at the discrete LED level, not fixture level.

SPECTRAL POWER DISTRIBUTION COMPARISON

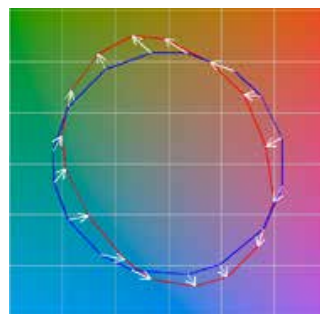


COLOR VECTOR GRAPHIC



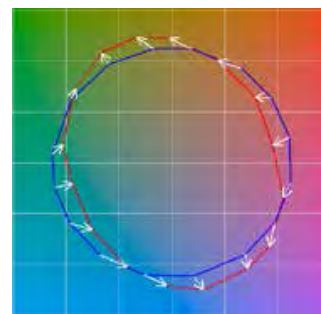
Reference Illuminant
Series3
Series7

XX30



Reference Illuminant
Series3
Series7

XX40



Reference Illuminant
Series3
Series7

XX50



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JOB _____
TYPE _____
NOTES _____

Submitted by Swaney Lighting	 Job Name: WASHINGTON BATHS	Catalog Number: KM42-T4-MO-2030-WIRED120-277V-PS412-125-**-SBC-ABT Notes: Specify finish	Type: K4 SLA18-39835
------------------------------	---	---	--

Kick™ – KM4 Kick Mini Small Scale

TYPE

SPECIFICATIONS

HOUSING

- Housing shroud shall be of fabricated 5052-H32 aluminum alloy with a rear mounting interface that shall be of fabricated 304 stainless steel.
- Housing mounting interface shall have a stamped silicone gasket.
- Luminaire housing shall be free of any visible heat fins, hardware or fasteners.
- Bracketry and hardware shall be stainless steel.

OPTICAL ARRAY

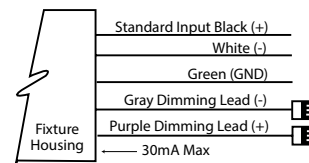
- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features.
- Optical lenses shall be clear injection molded PMMA acrylic.
- Each MCPCB and optic shall be sealed to an extruded 6063-T6 aluminum alloy heat spreader and sealed with a continuous one piece injection molded silicone rubber gasket. IP66.
- Patent Pending design of optical array shall independently shield each LED optic across the length of the aperture.
- Optical surfaces shall be painted white unless the optional fixture finish (FO) or matte black finish (MO) is selected.
- Optional matte black finish optics (MO) are required to meet UO classification with zero percent uplight.
- Optional fixture finish optical surfaces (FO) shall not exceed BUG ratings of the standard white finish and shall be greater than or equal to the delivered lumens of the optional matte black optical surface finish (MO).

ELECTRICAL

- Drivers shall be in direct contact with the aluminum housing across the entire surface area of the widest face for maximum thermal transfer.
- 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. Surge protection device shall be wired in series.
- Drivers shall be U.L. recognized.
- 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.
- Luminaire shall be capable of operating at

100% brightness in a 40°C environment. Both driver and optical array shall have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.

- Luminaires not configured with a control system or ANSI C136 receptacle option shall be provided with 0-10 purple and gray dimming leads.



CONTROLS

- Motion Sensor shall use passive infrared (PIR) sensing technology that reacts to changes in infrared energy (moving body heat) within the coverage area. Careful consideration must be given to obstructions that may block the sensor's line of sight.
- Factory default settings for SCP option shall be:
 - High mode: 10V
 - Low mode: 1V
 - Ramp-up rate: disabled
 - Fade-down rate: disabled
 - Photocell: Off
 - Sensitivity: Full
 - Time Delay: Fade to low: 5 minutes
 - Time Delay: Fade to off: 1 hour

MOUNTING AND INSTALLATION

- Integral pole mount luminaires shall require assembly of fixture(s) to the pole, mounting hardware, anchor bolts and anchor bolt template shall be included. *See page 6 for additional considerations specific to the integral pole.*
- Tenon mount luminaires shall require assembly of fixture(s) to the tenon adapter, mounting hardware shall be included. Tenon adapter shall be secured to the tenon with eight 5/16-18 stainless steel set screws.
- Side mount luminaires shall be supplied with hardware compatible with AAL mountings.
- Twin mounted staggered height fixtures

shall be configured separately.

- Wall mount luminaires shall require assembly of fixture to mounting plate.

SERVICING

- Service access to the optical array and driver assembly shall be via a tool-less internal latch and have an audible click.
- Optical array shall be able to hang freely in an open service position for inspection of internal wire connections. Once in service position, the optical array shall be able to be removed for service by lifting the assembly up off the rear hinge and disconnecting the wiring plugs.
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal.

FINISH

- 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.

CERTIFICATION

- Luminaire shall be listed with UL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.
- ANSI C136.31-2010 4G Vibration tested and compliant.
- IEC 66262 Mechanical Impact Code IK10
- IDA approved, 3000K and warmer CCTs only.

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:
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Kick™ – KM4 Kick Mini Small Scale

TYPE

SPECIFICATIONS**Integral Pole**

MODEL	HEIGHT		SHAFT		MAXIMUM ALLOWABLE EPA (MPH)								
	OVERALL	POLE	SECTION	WT	85	90	100	110	120	130	140	150	
KM4X-PS410-125	10' 7.5" / 3.24m	10'	4" SQ X .125"	28 lbs	15.4	13.5	10.4	8.1	6.4	5.0	4.0	3.1	
KM4X-PS412-125	12' 7.5" / 3.85m	12'	4" SQ X .125"	32 lbs	11.8	10.2	7.6	5.7	4.3	3.2	2.3	1.6	
KM4X-PS414-125	14' 7.5" / 4.46m	14'	4" SQ X .125"	37 lbs	9.1	7.7	5.5	3.9	2.6	1.7	0.95	0.33	
KM4X-PS416-125	16' 7.5" / 5.07m	16'	4" SQ X .125"	42 lbs	6.9	5.7	3.8	2.3	1.3	0.46	-	-	
KM4X-PS418-125	18' 7.5" / 5.68m	18'	4" SQ X .125"	48 lbs	4.9	3.9	2.2	0.95	0.01	-	-	-	
KM4X-PS420-125	20' 7.5" / 6.29m	20'	4" SQ X .125"	53 lbs	3.2	2.2	0.75	-	-	-	-	-	

* - Consult factory for thicker shaft profiles and or custom heights not shown above.

CONSTRUCTION

- Base shall be cast aluminum #356 alloy and be heat treated to a T-6 condition.
- Shaft shall be extruded aluminum 6061 alloy and heat treated to a T-6 condition.
- Anchor bolts shall be hot dip galvanized steel. Eight galvanized hex nuts and flat washers, and a bolt circle template shall be provided. Anchor bolt for poles are 3/4" x 24" x 3".

WARNINGS

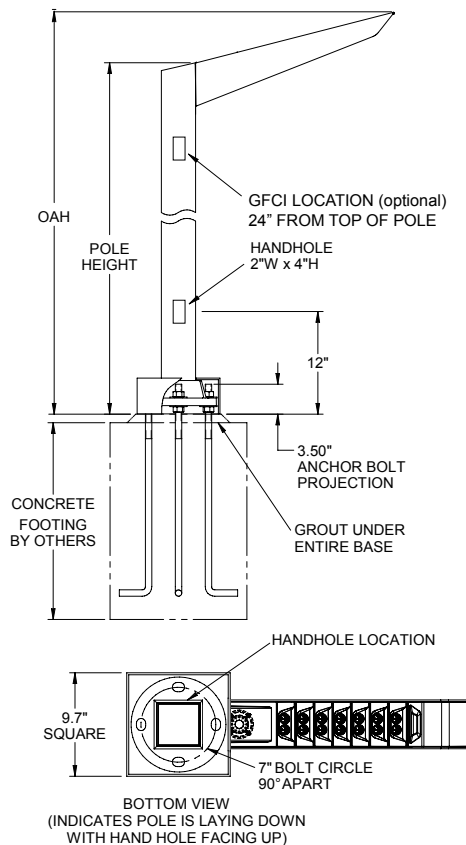
- Caution must be exercised in the selection of a design wind speed when the pole is to be installed in a special wind region (as indicated by the wind map) or in an area where wind speed is unpredictable.
- AAL recommends consulting a local engineer when the pole is to be installed in an area that may be subject to vibration, oscillations, and other fatigue effects which are not covered by the AAL warranty.
- The use of banners or other appendages can severely affect the loading of a pole. No banner or other appendage may be attached to an AAL pole unless approved by AAL.
- If the products are to be used on an existing foundation or on other structures, the customer assumes all responsibility for the structural integrity of the existing foundation, anchorage or structures and all the consequences arising there from.

CAUTION

- Poles should never be erected without the luminaire installed. Warranty is voided if the pole is erected without the luminaire.

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:

<http://www.hubbellighting.com/resources/warranty/>


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**KIM LIGHTING**

Step Light KLV807

12 Volt Die-Cast Aluminum, LED

revision 2/11/15 • kl_klv807_spec.pdf

Type:**Job:****Fixture Catalog number:**

Fixture and Finish

Approvals:**Date:****Page: 1 of 2**

Specifications

Housing: Die-cast low copper alloy aluminum with clear anodized finish. Two 1/2" NPT in sides. Housing mounts into concrete, brick, or masonry (non-combustible materials). Internal splice area provided behind lamp plate.

Lens Frame: Die-cast aluminum, with silicone gasket, attaches to housing with two captive 10-32 stainless steel, hex socket cap screws.

Lens: Tempered prismatic glass with silicone gasket, concealed above lens frame opening.

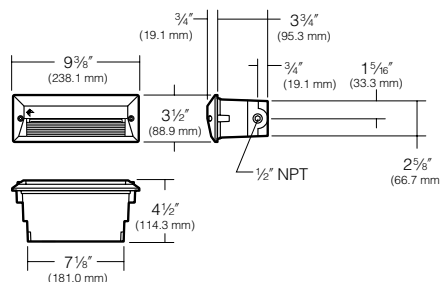
Transformer: Requires remote transformer.

Optical System: A total of 3 LED emitters configured in a rectangular array comprised together as a module. Available in 3000K, 4200K, and 5100K.

Driver: Constant current electronic driver. Available in 12V input. -40°F. starting temperature. All drivers are Underwriters Laboratories recognized.

Finish: Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat finish. Standard colors are Black (**BL**), Dark Bronze (**DB**), and Verde Green (**GR**).

Certification: UL Listed to U.S. and Canadian safety standards for wet locations.



ORDERING INFORMATION

KLV807-3L3K-Specify Finish

Fixture	Source	Finish
☐ KLV807/3L3K/BL	5.3W, 3 LED's, 3000K ¹	Black
☐ KLV807/3L4K/BL	5.3W, 3 LED's, 4200K ¹	
☐ KLV807/3L5K/BL	5.3W, 3 LED's, 5100K ¹	
☐ KLV807/3L3K/DB	5.3W, 3 LED's, 3000K ¹	Dark Bronze
☐ KLV807/3L4K/DB	5.3W, 3 LED's, 4200K ¹	
☐ KLV807/3L5K/DB	5.3W, 3 LED's, 5100K ¹	
☐ KLV807/3L3K/GR	5.3W, 3 LED's, 3000K ¹	Verde Green
☐ KLV807/3L4K/GR	5.3W, 3 LED's, 4200K ¹	
☐ KLV807/3L5K/GR	5.3W, 3 LED's, 5100K ¹	

¹.43 Max Amps.

HUBBELL LIGHTING, INC.



KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.



Step Light **KLV807**

12 Volt Die-Cast Aluminum, LED

revision 2/11/15 • kl_klv807_spec.pdf

Type:**Job:****Page: 2 of 2**

Lumen Data

Spectroradiometric

	3000K	4200K	5100K
Correlated Color Temp. CCT (K)	2800 to 3175K	3800 to 4600K	4600 to 5600K
Color Rendering Index (CRI)	≥75	≥70	≥65

ELECTRICAL - Drive Current @350mA (3 LEDs)

Volts -AC	Amps - AC	System Watts
12	0.44	5.3

Absolute Lumens (3 LEDs)

Temperature	KLV807/3L*K
3000K	61
4200K	71
5100K	78

Lumens Per Watt (3 LEDs)

Temperature	KLV807/3L*K
3000K	11.5
4200K	13.4
5100K	14.7

June 21, 2019

Att. P

Planning Department
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Revised Design Narrative

Washington Avenue Bath House
143 Washington Avenue

Building Description

The proposed building is a bath house facility on the ground floor, with massage program and two residential units on part of the second floor. The B1-zoned site is atypical in that it provide a relatively narrow frontage relative to a larger portion of the parcel located mid-block at the rear of the site. The site slopes gently from street edge towards the back of the site, then rises more dramatically at the rear of the site. This topographic condition, along with a zero-setback firewall condition on one edge of the site establishes the basic massing of the building. A single parapet datum at the street elevation is a negotiation between the height and massing of adjacent residential and commercial properties as well as the necessary height of the continuous firewall as it extends to the rear of the site and encloses interior spaces that step up with the topography of the site.

The street elevation is primarily a cast-in-place concrete wall infilled with masonry-scaled stacked granite screen and slatted wood gate. This elevation provides a strong geometric massing while also providing select views into a small entry court that provides a public amenity “pocket park” within the building perimeter. This entry court maintains an urban street wall edge of the Washington Avenue corridor, while also providing glimpses into the bath house entry and indications of the calm environment of the bath house facility and its more private courtyard located further back in the site.

The exterior materials of the building are durable and low maintenance materials: cast-in-place concrete at the ground level perimeter and wood framed walls on the interior courtyard and second level that are clad with a cedar rainscreen an interrupted with wood windows and wooden storefront glazing. The exterior envelope design will exceed code standards for insulation. The interior of the building features exposed mass timber roof/ceilings in select areas and high-quality wall surfaces on the interior the alternate primarily be wood paneling, exposed concrete, and painted gyp. The coupled, the selection of materials for the buildings combined with the building’s energy strategies, will provide a model for long-lasting and low-carbon design. The primary fuel source for the building is natural gas that will fire masonry heaters for the sauna rooms. The intense energy requirements of this sauna system will be re-used in a

cascade of energy exchanges to heat water, room conditioning, and to heat the residence above the bath house facility. The roof will be an EPDM membrane.

Zoning Assessment

The project is designed to meet the B1 zoning ordinance.

Min. Street Frontage: *20 feet* [This site is 32'-0" wide at the street edge with our design having a 21' 2" urban street wall.]

Max. Front Yard: *10 feet* [We maintain the urban street edge (0' setback), and 8' to the front of the office space in compliance with Design Manual requirements.]

Min. Rear yard: *None, except 5 ft. if abutting residential zone.* [At the rear side of the site, we maintain a 11'-8" rear yard setback at NE rear corner of the building, and a 15'-2" rear yard setback at the SE rear corner of the building.]

Min side yard: *None, except 5 ft. if abutting residential zone.* [On the northwest edge, we abut Business zoning, so the setback is zero on this edge, we maintain a 1' set back. On all other edges of the site, we abut Residential zoning, and we obey the 5 foot sideyard setback in all locations.]

Max. Structure Height: *On-peninsula: 45 ft.* [We maintain a street edge of 18'" and 25'-1" at the two story mixed-use portion of the building.]

Max. Floor Area: *Total maximum first floor area for non-residential uses per structure: 10,000 SF.* [This building contains 3,656 gross square feet of on the first floor.]

Max. Impervious Surface: *90%* [The site for this project is 71% impervious surface.]

City of Portland Design Manual Standards

The project will be designed to meet the City of Portland design standards.

B-1 guidelines:

- a. **Urban Street Wall:** this building adds to the existing street wall front at its street edge. Street wall contains doors, windows and awnings utilizing high quality materials (conc, cedar, wood)
- b. **Mixed Use:** this building provides a mixture of uses (business and residential)
- c. **Building Entrances:** the entrance to the facility is directly accessible from the Washington Avenue sidewalk edge. An accessible ramp leads up to the main interior entrance. We paid special attention to the Portland Design Manual guidelines (appendix 2) in our design of an entry court, display windows, signage, exterior and interior lighting, and walkways. The major facility entrance is at the sidewalk edge. Exterior lighting, signage, and an awning emphasize the main facility entrance. A secondary entrance is located on the south edge of the street wall and utilizes a ramped sidewalk that tracks around the edge of the building toward a set of metal stairs that take residential users up to the second level.

- d. **Windows:** At the street glazed windows are screened behind the urban street wall and provide controlled views into the activity of the bath house entry/lobby/café as well as the public amenity pocket park/entry court. Ample windows at the second level provide views to users. Windows into the main courtyard are screened to selectively restrict views. Floor to Ceiling storefront glazing lines portions of the internal entry and courtyard walls.
- e. **Façade Character:** the active, public portion of the narrow street frontage façade contains a screened wood gate, protruding wood awning, custom granite masonry screen, windows. Both the primary secondary entries to the building are accessed from the sidewalk helping engender an active presence.
- f. **Building Design:** the massing of the building responds to the rich mixture of residential and commercial structures along this portion of Washington Avenue. The building height responds to the eve height of the residential structure while maintaining the materials and frontage of similar commercial buildings on adjacent blocks of Washington Avenue. We maintain the Portland Design Manual guidelines (appendix 2) of a ratio of 1:2 (building height to street width).
- g. **Building Materials:** the primary envelop materials are directly related to that of commercial and residential buildings along the Washington Avenue corridor. The street façade incorporates formal doors and windows and utilizes high quality concrete and cedar rainscreen materials. A portion of the urban street wall is also infilled with a high quality, masonry-scaled, granite screen that adds visual interest.
- h. **Building Scale:** the building matches the eve height of the adjacent residential structures on Washington Avenue. Adjacent properties on Walnut Street to the southeast rise rapidly as Walnut Street climbs its topography. As such, we have focused on the relationship of our parapet to that of the adjacent residential structures. Matching the eve height provides continuity to the street elevation and perspective down Washington Avenue, while allowing the pitched roof of the residential structures to be distinct from the commercial structures. This strategy of related massing height and datum lines, combined with variable roof conditions is consistent with the mix of residential and commercial buildings in this section of the Washington Avenue corridor.
- i. **Landscaping and buffers:** the landscaped entry court behind the street façade as well as the landscaped courtyard further back in the building provide vegetation adjacent to the street and adjacent properties while maintaining the street edge. These vegetated areas provide opportunities to help manage storm water but are also essential to the calm and relaxing atmosphere requisite of the bath house typology.

HVAC equipment Specifications

The HVAC equipment for the project will meet or exceed applicable state and federal energy performance criteria and emission requirements. The detailed specifications for the HVAC equipment will be submitted to the City at a future date when those systems are more completely designed and the exact equipment

specified. As a bath house/sauna facility, there are unique energy loads associated with the building typology. Thus, there are unique energy and material strategies that integral to the conception, planning and operation this building design. It is a decidedly heating-load dominated building, so no air-conditioning units are expected. Rather, most of the strategies associated the temperament of the interior climate deal with how to re-use available energy in the operation of the building.

Code Review

A Code Review Summary for the project referencing NFPA 101 2009 and IBC 2009 was provided in September of 2018. Regarding the atypical geometry of this site, we have intricately designed the building with occupant egress and first-responder ingress in mind. We provide two means of egress/responder ingress on each edge of the narrow street frontage. On the north/northwest edge of the site, a primary door and path provides access to the main building entry. This also provide egress and access to a gated courtyard that provides exterior access to the depth of the building in an emergency scenario. Given the site configuration, this best meets the requirement for two means of first-responder access to the site. The second path is on the south/southeast edge of the street elevation. This second entry zone is a service entry and an egress path from the residence portion of the building and a second egress path from the sauna/locker portion of the building.

Signage

Exterior signage is located above the main entry. A separate signage permit application will be filed with the city at the time of building permit.

Exterior Lighting

The exterior lighting for the project will be down lighting at the street edge and egress path from the locker rooms and residence, attached to the building. Please reference the attached cut sheets for the facade lighting as shown on the elevations. The building entry will be lit from wall mounted lighting lining the entry sequence. The courtyards will utilize a mixture up and down lighting.

Q. Utilities

The proposed project will include installation of multiple utility services to the new building.

Water:

It is our understand the existing water service to the single-family was disconnected during the recent demolition of the building. It is proposed to tap a 4" service off the water main within Washington Ave. The 4" line will serve as the sprinkler line with a 2" child connection for domestic service.

Sewer:

No service card was found for this property. It's believed the front 143 building may have shared a service with the former 145 (or rear 143) building. A new 6" service is proposed to tap into sewer main within the Washington Ave. right-of-way.

Stormwater:

There is currently no drainage infrastructure on site. It is proposed to implement several measures to handle runoff. This includes infiltration trenches to intercept runoff from adjacent properties and the slope behind the building. Field inlets and storm drains will be used within the courtyards and walkways to drain water. Lastly, a portion of the roof area will likely feature green roof trays which will store and filter stormwater.

UGE/T/C:

The aerial lines were recently disconnected prior to demolishing the building. All new services will be routed underground to the proposed building.

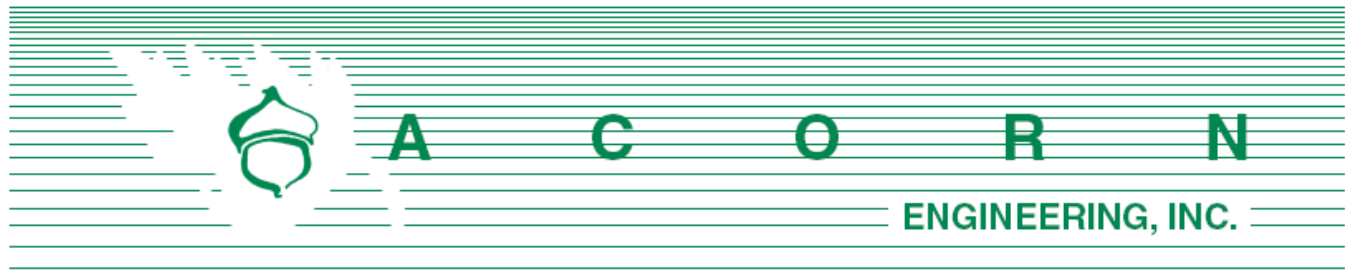
Additionally, it is proposed to drop the neighboring 143 Washington Ave's building services underground upon written agreement.

Gas:

There is currently no natural gas servicing the property. It is proposed to install a gas service off of the gas main within East Cove Street as seen on the Utility Plan, Sheet C-20.

Ability to serve letters have been sent out to the respective utility companies on September 25, 2018 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.





Portland Water District
Attn: MEANS Department
225 Douglass Street
Portland, Maine 04104

September 25, 2018

Subject: 145 Washington Ave. Redevelopment
Re: Ability to Serve

To Whom It May Concern:

On behalf of Akasha 155 LLC, we are pleased to submit the following request for Portland Water District's (PWD) ability to serve the proposed redevelopment project. The project is located at 145 Washington Avenue (Chart, Book, Lots 12-G-9 & 20), within the B-1 Zoning District in Portland, Maine. The project consists of the development of two-story building with a sauna/bathhouse on the first floor and a residence on the second floor. A portion of the building will remain at 1-story and feature green roofs. Utilities for the new building are proposed to be installed from the mains within Washington Ave. The single-family house that used to occupy the property was recently demolished to facilitate the redevelopment. The building that occupies 143 Washington Ave will remain and is not part of the project or under ownership by the Developer.

It is believed that the existing water service was retired during demolition. It is proposed to tap a 4" sprinkler line off the main within Washington Ave with a 2" domestic line splitting off the 4" line just before the property line. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following design flows:

Estimate of Design Flows			
Classification of Water Demand	Number of Units	Gallons per Day per unit	Total Gallons per Day
<i>Proposed</i>			
Swimming pool, Bathhouses & Spas	4 (toilets)	250	1,000
Single-Family Residential (1-bedroom)	1 (dwelling unit)	180	180
<i>Existing</i>			
Single-Family Residential (2-bedroom)	1 (dwelling unit)	180	180
Total Proposed			1,180
Total Existing			180

Net Change	+1,000 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition	

Based on a value of 4 toilets and one single-family residence, the proposed project is anticipated to increase the net water demand by approximately 1,000 gallons per day (GPD). It should be noted that these values were developed using conservative estimates from the State of Maine Subsurface Wastewater Disposal Rules and that the bathhouse/sauna took the higher projected usage (toilets) versus using the establishment's seat count to derive the estimated flowrate.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Washington Ave.
2. Alternative connection locations from the property to the existing system
3. PWD's proposed infrastructure improvements within the project vicinity
4. Flow data for adjacent hydrants
5. PWD's ability to serve the project

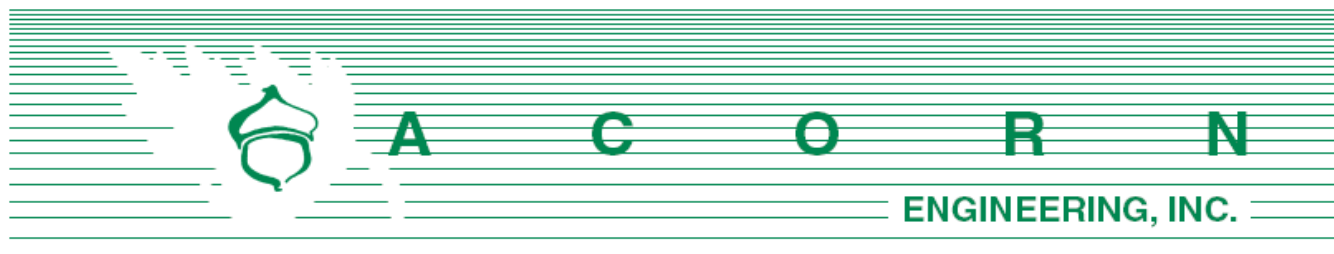
I have attached an existing conditions plan created by R.W. Eaton Associates, the fixture count spreadsheet, and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.





Central Maine Power Company
Attn: Mr. Paul DuPerre
162 Canco Road
Portland, Maine 04103

September 25, 2018

Subject: 145 Washington Ave. Redevelopment
Re: Ability to Serve

Mr. DuPerre:

On behalf of Akasha 155 LLC, we are pleased to submit the following request for Central Maine Power's (CMP) ability to serve the proposed redevelopment project. The project is located at 145 Washington Avenue (Chart, Book, Lots 12-G-9 & 20), within the B-1 Zoning District in Portland, Maine. The project consists of the development of two-story building with a sauna/bathhouse on the first floor and a residence on the second floor. A portion of the building will remain at 1-story and feature green roofs. Utilities for the new building are proposed to be installed from the mains within Washington Ave. The single-family house that used to occupy the property was recently demolished to facilitate the redevelopment. The building that occupies 143 Washington Ave will remain and is not part of the project or under ownership by the Developer.

It is our understanding the aerial lines were removed as part of the demolition. It is proposed to route new conduits underground to the proposed building as seen on the Utility Plan. It is anticipated that the existing transformer on the adjacent pole has sufficient capacity to service this project.

Additionally, upon agreement with the neighbor, it also proposed to reroute the existing overhead lines that run from the utility pole to the abutting house at 143 Washington Ave underground. Overall, the new building is anticipated to maintain 10' of radial separation from the primary lines given its low height.

On behalf of the client, we are requesting the following information:

1. Any easements for overhead services currently crossing the proposed development
2. Alternative connection locations from the property to the existing system
3. CMP's proposed infrastructure improvements within the project vicinity
4. CMP's ability to serve the project
5. Access requirement to the CMP meters

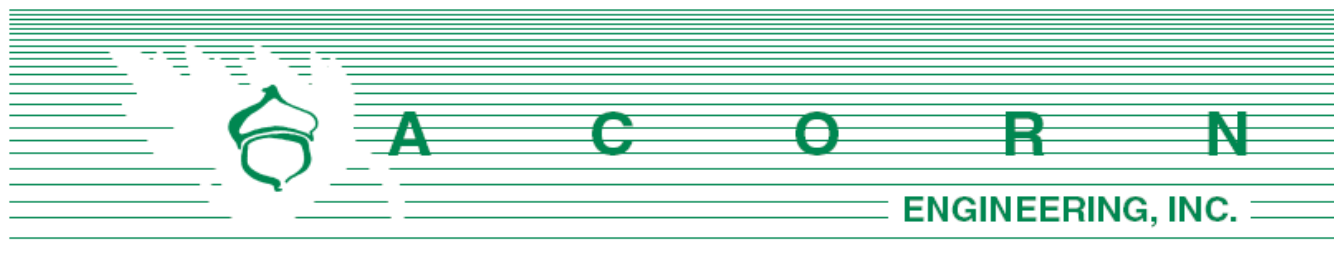
I have attached an existing conditions plan created by R.W. Eaton Associates and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.





Unitil Service Corp.
Attn: Scott Carpenter
376 Riverside Industrial Parkway
Portland, Maine 04103

September 25, 2018

Subject: 145 Washington Ave. Redevelopment
Re: Ability to Serve

Mr. Carpenter:

On behalf of Akasha 155 LLC, we are pleased to submit the following request for Unitil's ability to serve the proposed redevelopment project. The project is located at 145 Washington Avenue (Chart, Book, Lots 12-G-9 & 20), within the B-1 Zoning District in Portland, Maine. The project consists of the development of two-story building with a sauna/bathhouse on the first floor and a residence on the second floor. A portion of the building will remain at 1-story and feature green roofs. Utilities for the new building are proposed to be installed from the mains within Washington Ave. The single-family house that used to occupy the property was recently demolished to facilitate the redevelopment. The building that occupies 143 Washington Ave will remain and is not part of the project or under ownership by the Developer.

It is our understanding that natural gas does not currently serve the property. It is proposed to route a new a service to the building as seen on the Utility Plan.

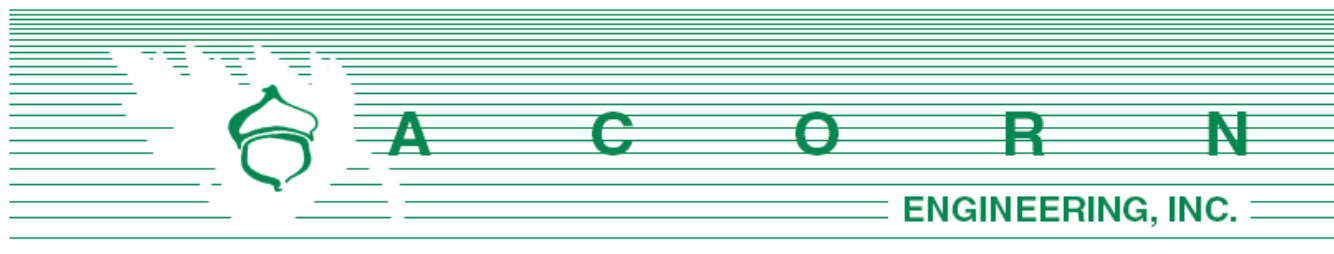
On behalf of the client, we are requesting the following information:

1. Any additional utility mapping.
2. The size of any gas lines and services in the vicinity.
3. Unitil's proposed infrastructure improvements within the project vicinity.
4. Unitil's ability to serve the project.

I have attached an existing conditions plan created by R.W. Eaton Associates and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



Consolidated Communications
5 Davis Farm Road
Portland, Maine 04103

September 25, 2018

Subject: 145 Washington Ave. Redevelopment
Re: Ability to Serve

Pat Morrison:

On behalf of Akasha 155 LLC, we are pleased to submit the following request for Consolidated Communications' ability to serve the proposed redevelopment project. The project is located at 145 Washington Avenue (Chart, Book, Lots 12-G-9 & 20), within the B-1 Zoning District in Portland, Maine. The project consists of the development of two-story building with a sauna/bathhouse on the first floor and a residence on the second floor. A portion of the building will remain at 1-story and feature green roofs. Utilities for the new building are proposed to be installed from the mains within Washington Ave. The single-family house that used to occupy the property was recently demolished to facilitate the redevelopment. The building that occupies 143 Washington Ave will remain and is not part of the project or under ownership by the Developer.

It is our understanding the aerial lines were removed as part of the demolition. It is proposed to route new conduits underground to the proposed building as seen on the Utility Plan. Upon agreement with the neighbor, it also proposed to reroute the existing overhead lines that run from the utility pole to the abutting house at 143 Washington Ave underground.

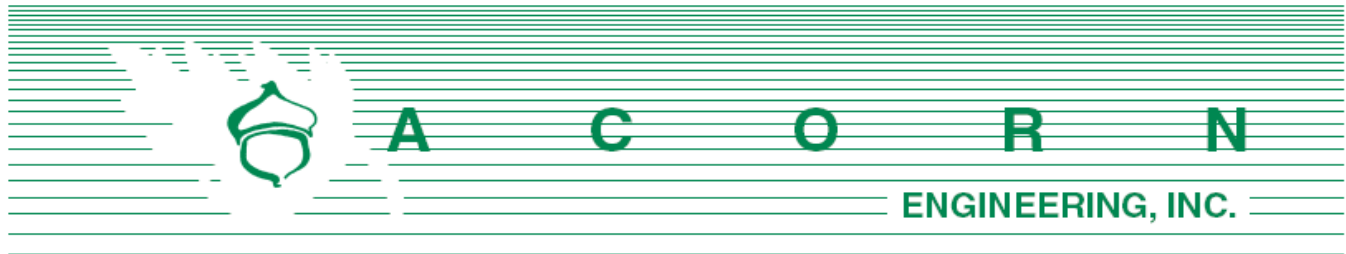
On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Washington Ave.
2. Any easements for overhead services currently crossing the proposed development
3. Alternative connection locations from the property to the existing system
4. Consolidated's proposed infrastructure improvements within the project vicinity
5. Consolidated's ability to serve the project

I have attached an existing conditions plan created by R.W. Eaton Associates and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



Charter Communications
Attn: Mr. Mark Pelletier
118 Johnson Road
Portland, Maine 04102

September 25, 2018

Subject: 145 Washington Ave. Redevelopment
Re: Ability to Serve

Mr. Pelletier:

On behalf of Akasha 155 LLC, we are pleased to submit the following request for Charter's ability to serve the proposed redevelopment project. The project is located at 145 Washington Avenue (Chart, Book, Lots 12-G-9 & 20), within the B-1 Zoning District in Portland, Maine. The project consists of the development of two-story building with a sauna/bathhouse on the first floor and a residence on the second floor. A portion of the building will remain at 1-story and feature green roofs. Utilities for the new building are proposed to be installed from the mains within Washington Ave. The single-family house that used to occupy the property was recently demolished to facilitate the redevelopment. The building that occupies 143 Washington Ave will remain and is not part of the project or under ownership by the Developer.

It is our understanding the aerial lines were removed as part of the demolition. It is proposed to route new conduits underground to the proposed building as seen on the Utility Plan. Upon agreement with the neighbor, it also proposed to reroute the existing overhead lines that run from the utility pole to the abutting house at 143 Washington Ave underground.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Washington Ave.
2. Any easements for overhead services currently crossing the proposed development
3. Alternative connection locations from the property to the existing system
4. Charter's proposed infrastructure improvements within the project vicinity
5. Charter's ability to serve the project

I have attached an existing conditions plan created by R.W. Eaton Associates and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



October 15, 2018

Sam Lebel
Acorn Engineering
158 Danforth Street
Portland, ME 04102

Re: 145 Washington Avenue, PO
Ability to Serve with PWD Water

Dear Mr. Lebel:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on September 26, 2018. Based on the information provided per plans dated September 25, 2018, 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. 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 4-inch fire service and 2-inch domestic service may be installed from the water main in Washington Avenue. The service should enter through the properties frontage on Washington Avenue at least 10-feet from any side property lines. Please note that only one meter and one bill will be associated to each domestic service line. This one master meter would be located in a common space that all tenants could gain access to if necessary.
- Our records show that the property is currently served with an inactive 1-inch domestic water service. The existing service will no longer be used as a result of the development and must be retired per PWD standards which includes shutting the corporation valve and cutting the pipe from the water main.
- 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.
- An approved RPZ backflow preventer must be installed on the domestic service line directly after the meter and testable double check valve backflow preventer installed on the fire service line at the riser prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.



Prior to construction, the owner or contractor will need to make an appointment to complete a service application form and pay all necessary fees. The appointment shall be requested through MEANS@pwd.org or by calling 207-774-5961 ext. 3199. Please allow (3) business days to process the service application paperwork. PWD will guide the applicant through the new development process during the appointment.

Existing Site Service

According to District records, the project site does currently have existing water service. A 1-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 8-inch diameter cast iron water main in Washington Avenue and a public fire hydrant located approximately 110 feet from the site. The most recent static pressure reading was 80 psi on July 3, 2018.

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 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



September 26, 2018

Acorn Engineering, Inc.
C/O Mr. Sam Lebel, E.I.
PO Box 3372
Portland, Maine 04104

RE: 145 Washington Avenue, Portland, Maine

Dear Mr. Lebel,

This letter is to advise you Central Maine Power has sufficient three phase electrical capacity in the area to serve the subject project.

Once the project is accepted by the City of Portland, the owner will need to call our Customer Service Center at 1-800-565-3181 to sign up for a New Account and a SAP Work Request Order so we may provide an actual cost. Transmission and Primary feeders may need to be relocated if this project moves forward.

If you have any questions please feel free to call me at 629-1487.

Sincerely,

Paul DuPerre
Energy Service Specialist

162 Canco Road, Portland, ME 04103
Telephone 800.750.4000, Fax 207.791.1026
cmpco.com



An equal opportunity employer



From: [Pelletier, Mark](#)
To: [Sam Lebel](#)
Subject: RE: 145 Washington Ave - Ability to Serve
Date: Tuesday, September 25, 2018 2:35:46 PM

Sam,

Spectrum Cable can services the new Bldg. We have Coax and Fiber on pole line on Washington Ave. The new bldg U/G services and the relocation of drop from aerial to U/G for #143 are all able to be serviced from the pole with service drops No construction work will be required. Please provide a min of a 1.5 in conduits for each drop with pull strings.

Mark

From: Sam Lebel [mailto:slebel@acorn-engineering.com]
Sent: Tuesday, September 25, 2018 1:35 PM
To: Pelletier, Mark <Mark.Pelletier@charter.com>
Cc: William Savage <wsavage@acorn-engineering.com>
Subject: 145 Washington Ave - Ability to Serve

Hi Mark,

On behalf of our client, Akasha 155 LLC, we are sending a formal ability to serve letter for the proposed redevelopment at 145 Washington Ave. Also attached is an existing conditions plan and the preliminary Utility Plan. Please do not hesitate to reach out should you have any questions.

Thanks,

Sam Lebel, E.I.
Project Engineer

Licensed in Maine

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104
www.acorn-engineering.com

B. 207.775.2655
C. 207.478.4327

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R. Construction Management Plan

Project Address: 145 Washington Ave.

Project Description:

The proposed project includes the development of a 2-story building with a sauna/bathhouse on the first floor and residence on the partial second floor. The single-family home that used to occupy the site has recently been demolished. The building at 143 Washington Ave will remain and is not under ownership by the Developer.

Project Team Summary:

Owner:	Akasha 155 LLC
General Contractor:	TBD
Civil Engineer:	Acorn Engineering, Inc.
Structural Engineer:	Structural Integrity Consulting Engineers, Inc.
Architect:	Kiel Moe & Decentralized Design Lab

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. Refer to the Civil/Site Plan Set, Sheet C-03 Construction Management Plan for visual representation of the measures 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 the Washington Avenue frontage. Additional signage necessary for communication shall be provided, but will be temporary and removed upon completion of the project. The contract information for the project personnel is:

Asher Woodworth
Akasha 155 LLC
(207) 332-4911

GC and Subcontractor information will be posted along the Washington Avenue 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. 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



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>	Winter 2018
<u>Project End Date:</u>	Fall 2019

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. The Construction Management Plan, Sheet C-03, depicts all proposed 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 Washington Avenue.

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 Washington Avenue. 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 Washington Avenue 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 or 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 & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved Construction Management Plan, C-03, 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 along Washington Avenue 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 & Cr. Stone – 125 CY. Earthwork subcontractor(s) pit to project site.

L. Special Measures as Necessary

The neighboring building at 143 Washington Ave. will be subject to a pre and post construction survey to monitor any effects from construction. The surveys shall consist of photographs of the foundation as viewed from outside and inside if granted permission.



Additional coordination with this abutter will include removing the aerial electric and communication lines and installing them underground. Permission shall be granted in writing prior to this action and shall be coordinated with CMP.





A C O R N

ENGINEERING, INC.

S. Transportation Analysis

As discussed in the pre-application meeting on May 2, 2018, the parking requirement was calculated by applying the “Office Use” to the applicable spaces since there is no parking requirement outlined for personal services. The table below outlines the first-floor areas and their uses:

Building Description	Land Use for Parking Requirement Calculation	Area (sf)
Exercise Room	Office	501
Front Corridor	Office	383
Office & Reception	Office	291
South Sauna	Office	75
North Sauna	Office	77
South Locker Room	Office	355
North Locker Room	Office	340
Back Corridor	Office	94
Sauna Foyer	Office	162
Second Level Massage	Office	314
Other enclosed spaces not uniquely for sauna customers	Miscellaneous/Storage/Mech.	364
Lobby	Retail	240
Total Office Area		2592

Per IBC the definition of “Building Area” includes area within the perimeter of the building excluding courts, but including areas under roofs. Measurements were taken from the interior wall partitions.

The total office space equivalent is shaded in grey and yields 6 required parking spaces for the sauna/bathhouse use based upon the 1 space / 400 sf requirement. Additionally, four total parking spaces are required for the two second-story residences, bringing the total to 10.

Because the property only has 27.5’ of street frontage, the site is not conducive to on-site parking. Rather than allowing parking to dictate the site and building design, there is no parking proposed. Overall, the project is expected to attract local clientele that can either walk or bike. Additionally, on-street parking is widely available on Washington Avenue and the surrounding side streets. The Applicant will either pay the fee-in-lieu for the required 10 parking spaces or secure an off-site lease as allowed in the City’s Ordinance.

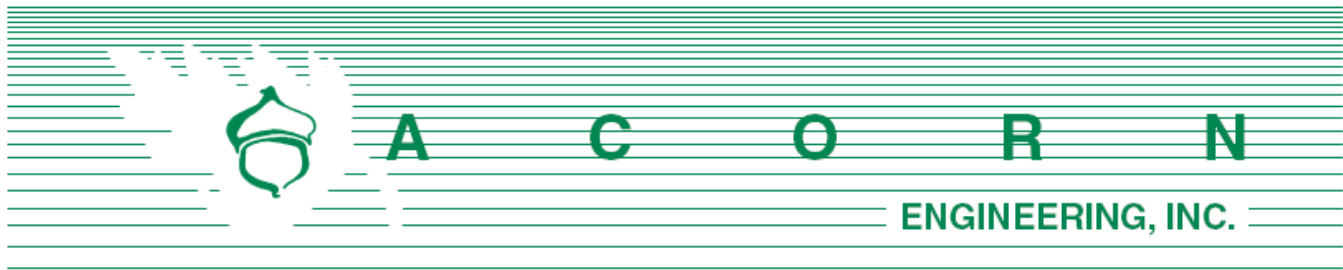
This proposal is in alignment with the City’s Comprehensive Plan in that the site’s proximity to residential housing and office space as well as the building’s amenities such as showers will allow bicyclists and pedestrians to effectively link housing, jobs, and services.

T. Solid Waste Disposal

Att. T

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 within the building. There will not be any external dumpsters or solid waste storage.





Shukria Wiar – City Planner
Planning Division, City of Portland
389 Congress Street
Portland, ME 04101

February 21, 2019

Subject: Comment Response Letter
145 Washington Ave. Redevelopment – Portland, Maine

On behalf of Akasha 155, LLC we are pleased to respond to the comments that we've received thus far.

Shukria Wiar, Planning

Comment – *The project is not meeting the maximum front yard setback since the proposed wall around the building not considered a structure. The building will have to be brought forward, please see Urban Designer comments.*

Response – Please refer to the revised Site Plan, Sheet C-10, which depicts the conformance to this standard. The building is now set back 9.32' from the front property line.

Tom Errico, Traffic

Comment – *The project is not expected to generate a significant amount of traffic and therefore will not impact traffic congestion and safety. A traffic study or analysis is not required.*

Response – Thank you for the review, we are in agreement.

Comment – *The sidewalk and/or pedestrian movements along the frontage shall be maintained during construction. Additionally, all contractor workers shall be required to park in off-street parking lots.*

Response – Provisions for these requirements have been made within the Construction Management Plan, Sheet C-03 as well as the Construction Management Narrative.

Bruce Hyman, Transportation Planning

Comment – *The parking along the frontage should be revisited as part of the project (so it doesn't have to go to council) - I don't think the 15 minute spaces are needed there (per Google street view, anyway) - there is a Washington Ave design project underway (that Tom is part of) that is recommending changes to parking types on the street - Jeremiah may be able to provide details from the design process*

Response – Please provide further guidance on what the City would like to see for signage. In the meantime, a note has been provided on the Site Plan for the Contractor to coordinate with the Traffic Division of the Department of Public Works prior to setting the sign.

Comment – *The tree well and grate should be enlarged to 4'x6' - I think it's shown as 4'x5' now - I think that's the largest grate made*

Response – The tree grate has been increased to a 4'x6' model as specified on the Landscape Details, Sheet C-41.

Comment – *I'd like to see the adjoining driveway done as well (to the south) but I'm not sure the neighbor would agree - it's in poor shape (per Google Street View).*

Response – Discussions will be facilitated with the neighbor to potentially reconstruct their driveway apron; however, it is unknown at this time if they will agree to the work.

Comment – *Two bike hitches (since no on-site parking is provided) should be installed along the frontage.*

Response – Please refer to the revised Site Plan, Sheet C-10, in which two bicycle hitches are now proposed.

Woodard & Curran, Civil Engineering

No comments received.

Fire Department

Please refer to the Architectural Comment Response regarding fire truck access to the site and structure.

Based upon email correspondence on February 11, 2019 with City staff, it is our understanding that the fire department access concerns have been resolved in conjunction with a condition of approval for an early monitoring/detection system for the sprinkler system.

Michele Perejda, Abutter (owner of 141 Washington Ave.)

Comment – *What are the proposed business hours for the saunas and hot tubs? – As the plan indicates, there is a walkway that abuts/borders 143 Washington Avenue's sideline, entire back line, and the entire sideline of 141 Washington Avenue's backyard – all zoned residential. Said, backyard is my backyard, and shared with my tenant.*

My concern is that late night hours will impact the quiet enjoyment of all the neighbors and their children. There are young children in this neighborhood.

Response – Proposed hours for the sauna/bath business are as follows:



Mon, Wed, Thurs, Fri: 2pm – 8pm
 Sat, Sun: 12pm – 8pm
 Tues: Closed

Comment – *What are the required setbacks for the proposed walkways, and why were they not configured to abut the adjacent business zoned and approved office building and Gear Hub? Asher Woodworth used the same engineering group, and my understanding is that he is affiliated with the abutting developers. They collaborated on the abutting property lines, with regard to fencing, landscaping, and the removal of a beautiful tree, prior to the office building approval. It would seem to make sense that the business access abut the business zoned abutter, not private yards and family homes.*

Response – There are no setbacks required for walkways. The walkway along the side of the building will be used only by staff of the business and residents of the single 2nd floor units. On in an emergency will patrons of the bath house be using this walkway.

The walkway will have a three-foot wall delineating the boundary with 143 Washington Ave. A taller 4 – 7.5' retaining wall that steps up as it leads further into the street with delineate the boundary with 141 Washington Ave. A standard 5' cedar fence will be installed at the top of the wall to help with buffering.

Comment – *What type of lighting is proposed along this walkway and how will that impact the abutting homes? Again, these walkways and the lighting for them impact two sides of 143 Washington Avenue and the entry to my upstairs unit and back yard at 141 Washington Avenue. The major concern and question regarding this public walkway is security, traffic, noise, and invasive lighting.*

Response – Per the lighting plan (Document O) the lighting will be downcast towards the sidewalk and not invasive to neighboring properties. Additionally, the walls and fencing will help screen any residual glare.

Comment – *A retaining wall and fence is proposed along the “Washington Avenue Baths” walkway system. What is the height of both? Also, please note that the driveway for 143 Washington abuts this walkway, and there are no setbacks proposed and the driveway for 143 is tight at best, and the ability to create a privacy buffer is extremely challenging. The ability to create a privacy buffer is extremely challenging along the back line of 143 Washington Avenue.*

Response – The wall will be 3' at its lowest point and 6.8' at its highest point where it returns to the proposed building. When the wall exceeds 4', the face will be only be visible from the 145 Washington Ave side. The abutting properties' grade will be met at its existing condition. The fence will be 5' tall.

Comment – *Parking is another question and concern. The neighbor on Walnut Street parks on Washington Avenue. She does not have a driveway. 141 Washington Avenue is a two unit with a one car driveway. 143 Washington Avenue is a single family home with two cars and a one car driveway that abuts the proposed walkway.*

Response – The Applicant may explore leasing options or pay into the City Parking Fund.



Comment – *The What type of analysis was done on the proposed water/sewer usage and connection for the Washington Baths? The property that was demolished on the site had water and sewer lines that ran through 143 Washington Avenue. Also, 143 and 141 Washington Avenue were not included in the residential sewer upgrades/updates. There are sewer lines in this location are ancient.*

Response – The building proposes new water and sewer services directly from the Washington Ave mains. Both services will have a minimal demand.

Comment – *How will the electrical work be handled? A double telephone pole and commercial grade triple transformers were installed for the Avesta building across the street. They were installed in front of 141 Washington Avenue and 143 Washington Avenue, on the residential side of the street. My understanding is that they had the ability to go underground, and actually dug up the street, then changed direction. I just happened to come home when the pole was being installed and told them they could not install it in front of my two windows. The installer moved it between the two buildings – Chance & Luck.*

Response – Power will be supplied from the existing utility pole in front of the proposed development. No additional power upgrades are necessary.

Comment – *What type of street frontage lighting, signage, and advertising is proposed? The frontage on Washington Avenue is unconventional and abuts a single family home.*

Response – The composition of the building façade will prioritize street-level pedestrian engagement. As per the cities design standards and requirements, the façade will include an awning over the door and focused lighting to emphasize the entryway. Signage will be non-illuminated, simple, and at eye-level. Please refer to the revised architectural drawings and renderings for more information.

Please let us know if you have any additional questions or comments.

Sincerely,



William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.



Samuel J. Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.





+ KIEL MOE,
ARCHITECT

February 13, 2019
Re: B-1 Design Review - 143 Washington Avenue

Planning and Urban Development Dept.
Planning Division
City of Portland
389 Congress Street
Portland, ME 04101

Attn: Caitlin Cameron, Urban Designer

Dear Caitlin,

Thank you for your careful review of the proposed project at 143 Washington Avenue. Comments and conversation between our team and your Department's staff have been helpful in developing a project in compliance with the standards set forth in the *City of Portland Design Manual*.

Design Review documents were submitted October 10, 2018, and staff Comments were provided November 16, 2018. Planning comments largely concerned the proposed building's presence on the street, citing geometry, material, and transparency as out of compliance with the *Manual*. At a December 7 follow-up meeting in the Department's Portland offices, the design team and Department staff discussed these issues and their resolution. At that meeting, additional concerns were raised by the Fire Marshall concerning ladder truck access to the proposed structure's highest (second) story roof.

We have made revisions to the project that address the City's concerns raised in both Plan Corrections Report PL-000361-2018 and the December 7 meeting. Included in this resubmission package are a Design Narrative document, Code Analysis document, and illustrative design graphics representative of the project's development. What follows is a summary of said concerns and our design team's modifications in response.

Standard (1) a. Urban Street Wall – The project shows a wall with entrance placed at the property line that maintains the desired street wall. However, this wall is not the building and conceals the building from the street. The building does not appear to meet front yard setback and placement is not consistent with the established street wall.

The wall defining the building's conditioned interior was relocated to meet the 10' setback requirement. In the December 7 meeting, it was agreed that this solves the Department's Urban Street Wall concern.

Standard (1) c. Building Entrances – The site includes an entrance through the wall directly at the street. However, the actual building entrance is set back – more emphasis (lighting, canopy, recess, fenestration, etc.) and direct relationship to the street is required by this standard.

A door was added to formally mark the entry directly at the street edge. In the December 7 meeting, staff members noted that “a canopy of some kind indicating entry” would emphasize the entry location. A canopy over the entry has been added.

Standard (1) d. Windows –Windows are not provided along street frontage as required. VT of 0.7 or greater is required.

In the December 7 meeting, the design team discussed the proposed building’s program, its inherent degree of privacy, and the resulting reluctance to include a traditional glazed storefront. The design team expressed an understanding of the Department’s desire to “convey a sense of activity and presence along the street” and to “provide visual interest along the street and relate the building, and its use, to passersby,” stating that ‘relating the building’s use’ is best achieved through visual obfuscation and selected opportunities for public engagement. In the ensuing discussion, it was determined that the street elevation should have a clearer organization of openings and that they could be ‘screened’ to provide the desired perception of privacy. In the revised project documents, we have increased the size of the door opening (which will remain open during business hours) on the north edge of the facade, increased the overall area of an opening on the south edge of the façade, and have provided vertical slate in that opening to obscure direct views while providing visual interest.

Standard (1) e. Façade Character – Building is set back too far from the street and is completely blocked from view with a wall. The façade at the street should be more active, transparent. If the landscape wall is to remain, it should become shorter, more transparent. Building and entrance should be brought closer to the street.

Per the previous responses, the conditioned building enclosure has been moved closer to the street and the façade’s fenestration modified. Landscaping within the front entry court has been reduced to one tree.

Standard (1) f. Building Design – Building design is difficult to evaluate without more information about the materials. The relationship to the street, height, and materials differ from the established commercial and residential patterns.

We have revised the design to better respond to established commercial and residential patterns. We are responding directly to the adjacent residential buildings with the location and size of the entry awning, the percentage of transparency within the façade, by locating the commercial entry away from existing residential entries, and by approximating the geometry of those structures with a base/middle/top composition and coplanar parapet and eave. We are distinguishing the commercial use from the residential uses with masonry façade materials and a flat roof line.

Standard (1) g. Building Materials – Staff found the proposal for concrete masonry units to not meet the standard of compatibility. Most commercial buildings on Washington are red brick with occasional clapboard; residential buildings are predominantly clapboard. At the street, materials should convey the commercial use with high levels of fenestration, clear entrance, and a small-scale, high-quality material. Articulation, visual interest should also be considered with the material selection, placement, and detailing. Samples, images, examples, or renderings needed to better understand what is proposed.

We have modified the building façade to include either small-scale high-quality masonry units or slate stone shingles. Renderings of this revision were presented at the December 7 meeting and the change was found to be acceptable by the Department.

Standard (1) h. Building Scale – Building is only one story at the street but the wall proposed is 19' which is similar in height to the other one-story commercial buildings on this corridor. The existing scale of building on Washington Ave varies in height from one to four stories with the majority of buildings being too short compared with the street width. Staff support new development that is appropriately scaled for the street and for a mixed-use urban corridor – this means more height can be tolerated on this street. The height at the street should be as tall as possible either with tall ceilings, parapet, or additional floors.

We have modified the façade at Washington Avenue with an increased parapet height to 22' to create a street height-width proportion of approximately 1/3, as specified in Appendix 2 of the City of Portland Technical Standards and Design Guidelines. In the December 7 meeting, the Department noted the façade as being “well-proportioned” and the change was found to be in compliance.

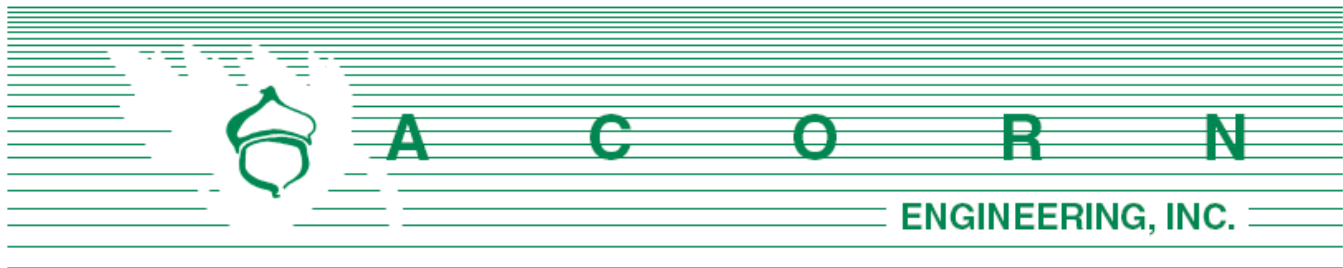
(From Fire Chief Robert Thompson) Ladder truck access is required to reach the building's second story roof. The ladder truck should be able to park outside the structure, fully extend the ladder to the roof, and have personnel and equipment enter the structure at the same point. If that access is from the parking lot of the adjacent property to the North, there must be evidence of an agreement with that property's owner.

We have studied the geometry of the ladder truck and found that access to the second story roof is possible from both the East (Washington Avenue) and the North (the adjacent parking lot). For the former, personnel and equipment access is possible from two building entry points.

Again, thank you and the staff for providing comments and meeting with the design team. We are excited to move this project forward, as we feel it will be a welcome addition to the neighborhood's character and lasting asset to the community.

Sincerely,

David Kennedy, AIA



Shukria Wiar – City Planner
 Planning Division, City of Portland
 389 Congress Street
 Portland, ME 04101

March 22, 2019

Subject: Comment Response Letter
 145 Washington Ave. Redevelopment – Portland, Maine

On behalf of Akasha 155, LLC we are pleased to respond to the second round of comments.

Comment – *Since the project is being built to the property line, who would the construction be on the site and not on abutting sites. We need the applicant to submit construction easements.*

Response – The Applicant is currently working with the abutting property owner at 155 Washington Avenue to secure a temporary construction easement. Easements with other abutters are not anticipated. We are requesting that a condition of approval be drafted which requires that any agreement be submitted to the City for review prior to the issuance of a building permit. Details for the wall construction will be submitted with the building permit application.

Comment – *The applicant will need to submit how the parking is being dealt with and need to see documentations.*

Response – The project will meet the parking requirement of eight spaces by paying the fee-in-lieu.

Comment – *Please confirm that wall along the abutting parcel doesn't create site distance issues for the direct abutting parcel. The wall could be stepped down at the property lines.*

Response – The wall in question which runs along the common property line with 141 Washington Ave. is three feet tall. The typical eye level of a driver is approximately three and a half feet or more so drivers will be able to see above and beyond the top of the wall. However, to provide an additional factor of safety, we have pushed the extent of the wall three feet into the site. Please refer to the revised Site Plan, C-10.

Comment – *Standard (1) g. Building Materials – Staff found the proposal for brick at the street interface to appropriately relate to the context - Most commercial buildings on Washington are red brick with occasional clapboard; residential buildings are predominantly clapboard. **What color of masonry and brick are proposed?** At the street, materials convey the commercial use with a clear entrance, and a small-scale, high-quality material. Articulation, visual interest are provide with a canopy, screen and openings in the wall, signage, and lighting. There is some change in the surface textures and planes adding more articulation and visual interest.*

Response – We propose red brick at the street facade and an unpainted, high-quality, light gray CMU at the building interior.

Please let us know if you have any additional questions or comments.

Sincerely,

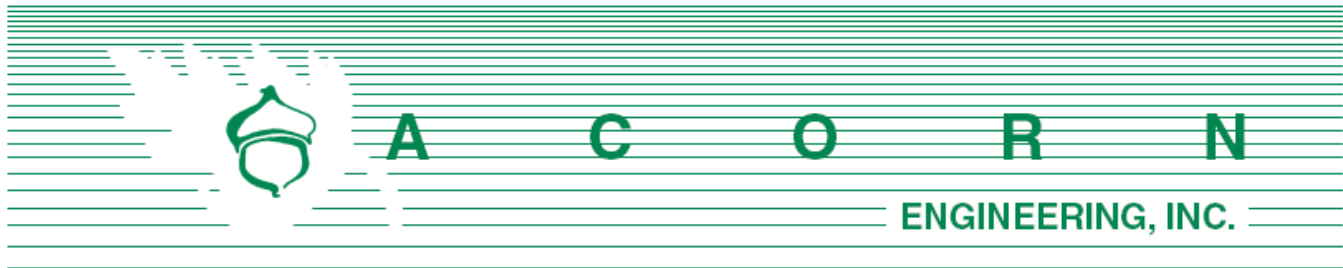


William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.



Samuel J. Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.





Shukria Wiar – City Planner
Planning Division, City of Portland
389 Congress Street
Portland, ME 04101

May 14, 2019

Subject: Resubmission & Comment Response
145 Washington Ave. Redevelopment – Portland, Maine

On behalf of Akasha 155, LLC we are pleased to submit a revised site plan submission for your review. Notable changes include:

- Revision of the second story residence into two residences and two private massage rooms
- Elimination of the southerly walkway and 7-foot retaining wall
- Building face moved 2' feet closer to Washington Ave, resulting in a front setback of 8'
- Slight extension of the building towards the rear
- Slight reduction of the building in width

The updated floor plans and civil/site plans have been uploaded to the e-plan system. We will also follow up with revised elevations and a lighting plan in the coming days. Overall, the programming, façade composition, and street presence is largely unchanged from the previous submission.

In addition to the resubmission, we have responded to the neighbor's concerns regarding the survey. This includes a revised survey which outlines the existing conditions in greater detail and confirms that the property boundaries are not conflicting. RW Eaton Associates has conducted surveys from 155 to 141 Washington which encompasses a total of four contiguous properties.

Comment 1. A portion of the foundation for 143 Washington Avenue-Front is on the boundary line shared by 143 Washington Avenue-Rear - 9 feet.

Response: The plans do not propose to disturb the 143 foundation encroachment onto the subject parcel (145 Washington). The proposed building will maintain approximately six feet of clearance from the existing foundation on 143 Washington.

Comment 2. The basement entry to 143 Washington Avenue-Front is a few inches from the boundary line shared by 143 Washington Avenue-Rear - an additional 5 feet and that the shared back line of 143 Washington Avenue is irregular and problematic. After the 4 foot jog at the driveway back line, the above mentioned 14 feet represents a substantial portion of the remaining 29 feet back line.

Response: There is no proposed work on the abutting parcel.

Comment 3. 143 Washington Avenue-Front loses half of the driveway use because the

driver side doors cannot be opened without encroaching on the entire width of the proposed sidewalk. That scenario does not even allow for the passenger doors to be opened.

Response: There is 12'+ between the existing concrete walkway on the 143 property and the proposed railing on the 145 property. This is an adequate width to park and open a door. As a comparison, stalls in a parking lot measure nine feet wide.

Comment 4. R.W. Eaton confirmed that the driveway access for 143 Washington Avenue-Rear is 13 feet from the curb cut to shared boundary marker.

Response: This appears to be accurate.

Please let us know if you have any additional questions or comments.

Sincerely,



William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.





Att. Y

June 13, 2019

Mr. Asher Woodworth
145 Washington Avenue
Portland, ME 04101

Reference:
Existing Retaining Wall
145 Washington Avenue
Portland, ME 04101
Structural Integrity Job Number: 18-0214

Dear Asher,

I am writing in regards to the existing retaining walls at the above-mentioned location. The opinions and comments contained herein are based on limited visual observations. Physical strength testing and professional instrument-based elevation and location surveys have not been performed. Architectural, mechanical, electrical, and plumbing conditions are not included in this report. No warranty expressed or implied, as to the condition of the complete existing structures, is intended.

Existing retaining walls to remain must be undisturbed during construction. It is our understanding that the latest building design will move new excavation work far enough from these existing walls, at a distance sufficient to avoid negatively impacting their stability. We recommend that this is confirmed on site by a geotechnical engineer during excavation. Any excavation or mobilization which may otherwise negatively impact the stability or performance of the existing walls will require temporary shoring.

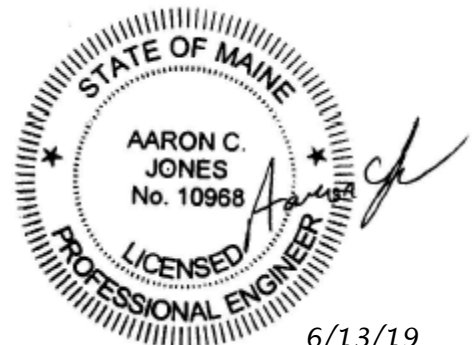
The structural integrity of the retaining walls varies, and is not completely known. Repair of in-place walls is currently outside the scope of this project. However, we are happy to assist on any future repair designs at the owner's discretion.

Do not hesitate to call with any question, or if I can be of further assistance.

Sincerely,

A handwritten signature in green ink that reads "Aaron C. Jones".

Aaron C. Jones, P.E.
President



6/13/19



September 6, 2019
SGS #19304

Asher Woodworth
P.O. Box 11546
Portland, Maine 04104

Reference: Geotechnical Evaluation, Proposed Washington Baths
145 Washington Avenue, Portland, Maine

Dear Mr. Woodworth;

Summit Geoengineering Services, Inc. (SGS) has reviewed subsurface information we previously collected in the vicinity of your site. This letter is a summary of this information and includes a geotechnical evaluation of the subject site.

Proposed Building

We understand that the project consists of the construction of a 2-story building with a footprint of approximately 4,500 square feet. The building has a finished elevation of 72.25 feet and is proposed to have a conventional frost wall and slab-on-grade foundation. We understand that the footings are designed using an allowable bearing pressure of 1,500 psf.

The existing ground surface in the majority of the building footprint ranges from elevation 70 feet to elevation 74 feet. The ground surface rises relatively steeply at the east side of the building to elevation 82 feet. Based on this, the majority of the slab will be at or near the existing grade. Up to 10 feet of excavation will be required to construct the eastern corner of the building.

Geotechnical Evaluation

SGS has performed subsurface explorations at numerous sites surrounding the subject property. The attached figure shows the location of 7 sites in the vicinity of the 145 Washington Avenue site. The closest sites are within 200 feet of the subject site. At all 7 sites the soil consisted of variable thickness of fill over a gravelly sand marine nearshore deposit over dense glacial till or fill directly over glacial till. No soft soil or unsuitable fill materials were encountered at any of the sites. SGS recommended conventional spread footing foundations at all sites. Our recommended allowable bearing pressure at the sites ranged from 3,000 psf to 4,000 psf.



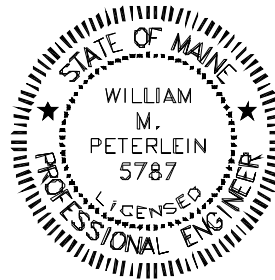
Based on our previous work in the vicinity, we anticipate that the soil at the subject site will likely be consistent with the soil found at the 7 other surrounding sites and is suitable to support a foundation load of 1,500 psf. This opinion should be confirmed by subgrade inspections performed by SGS during the construction.

The above opinion is based on a review of subsurface explorations performed in the vicinity of the site, our experience with geotechnical work in this area, professional judgment, generally accepted principles of geotechnical engineering, and project information provided by others. No other warranty is expressed or implied. The validity of this opinion is contingent on subgrade inspections to be performed by SGS during construction.

If there are any questions, please do not hesitate to contact me.

Respectfully Submitted
Summit Geoengineering Services, Inc.

William M. Peterlein, P.E.
President & Principal Engineer



SUMMIT GEOENGINEERING

SUBSURFACE INVESTIGATION SITES

Legend



AKASHA 155 LLC
PORTLAND, MAINE

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: SCOTT CARPENTER
(207) 541-2543

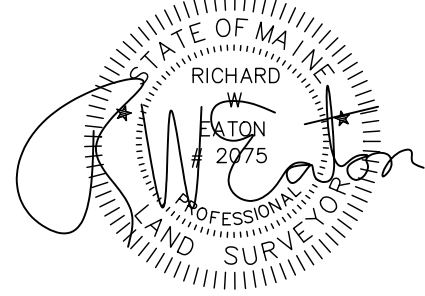
STRUCTURAL INTEGRITY CONSULTING ENGINEERS, INC.
46 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: AARON JONES
(207) 774-4614

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CY	CUBIC YARD
DIP	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
GAL.	GALVANIZED
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
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

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

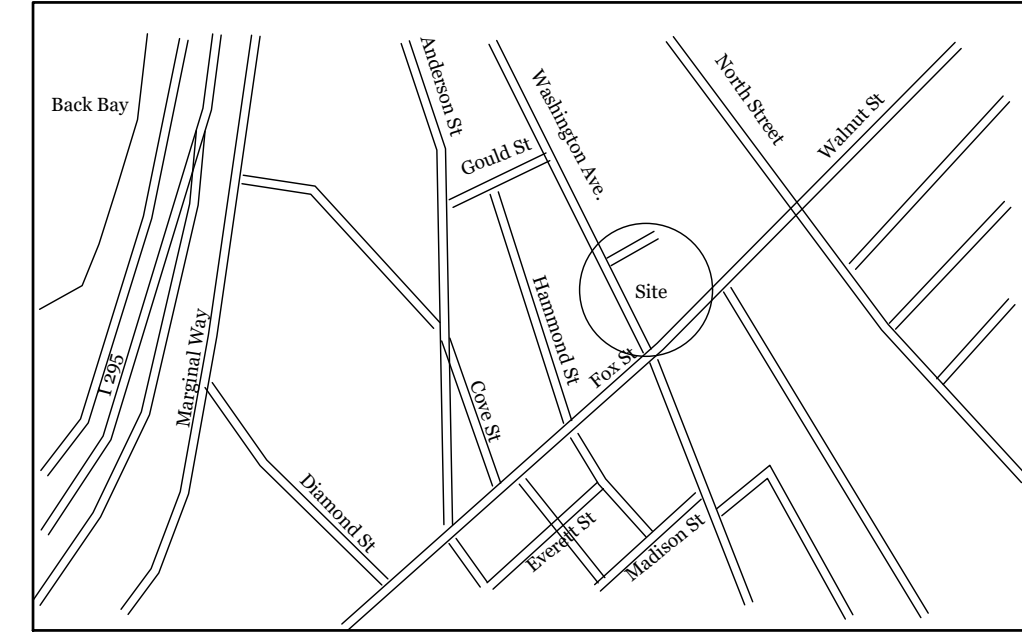
DRAWING NO. C-01		CHECKED BY: WHS DRAWN BY: FRT DESIGNED BY: NJS SCALE: 1/8"=1'-0" TITLE: 1108_DETAILS	158 DANFORTH ST., PORTLAND MAINE 04102 (207) 775-2655 AKASHA ENGINEERS, INC. THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM AKASHA ENGINEERING, INC. ANY REVISIONS, AUTHORIZED WITHOUT LIABILITY TO AKASHA ENGINEERING, INC.	PROJECT NAME: CONSTRUCTION MANAGEMENT PLAN CLIENT: WASHINGTON BATHS ADDRESS: AKASHA 155 LLC ADDRESS: PO BOX 11546, PORTLAND, ME 04104	ISSUED FOR: LEVEL II SITE PLAN DATE: 10/03/18 BY: WHS
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CERTIFICATION

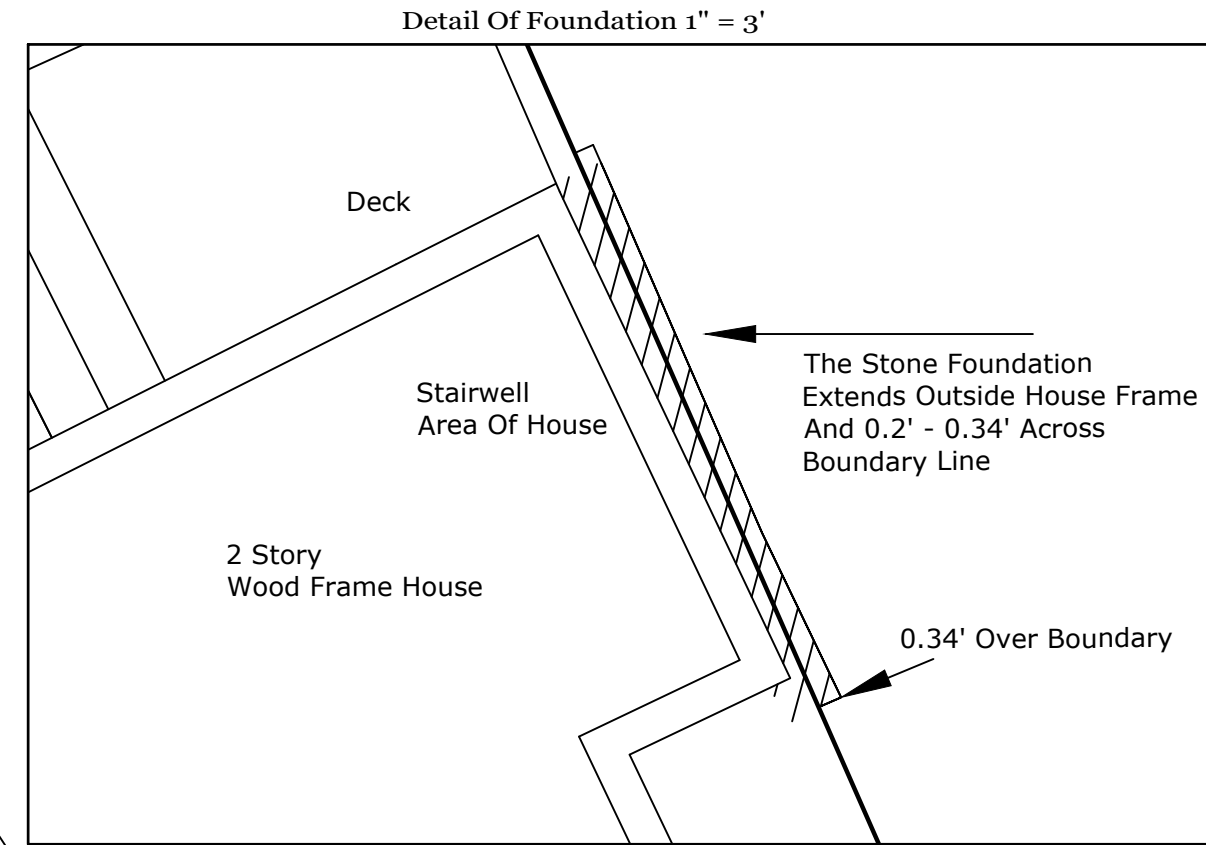


RICHARD W. EATON P.L.S. # 2075

Location



NTS



Space & Bulk Standards:

Zone. B1 Neighborhood Business Zone

Mimum Lot Size 435 S.F.
Minimum Frontage 20'

Minimum Yard Dimensions
Width None
Rear Yard None
Side Yard None

Maximum Impervious Area 90%
Maximum Floor Area 10,000 S.F.
Minimum Lot Width None
Maximum Building Height 45'

PLAN REFERENCE

- 1) Munjoy Heights Subdivision By Nadeau Land Surveys Dated 12/6/2013
Recorded in Plan Book 214 Page 48
- 2) Plan of Property of W H Baxter ESQ By Anderson Bonnell Co. Dated July 1866
Recorded in Plan Book 2 Page 54
- 3) Street Line Sheets From Portland Engineering Office Dated March 1926
- 4) Sewer Plan Washington Ave and East Cove St Dated 1902 on File at Engineering Vault
- 5) Boundary Survey 105 Walnut St. Made For Sarah Coburn By Owen Haskell Dated July 19, 2013
- 6) Boundary Survey of Land of Phillip Rando By Owen Haskell

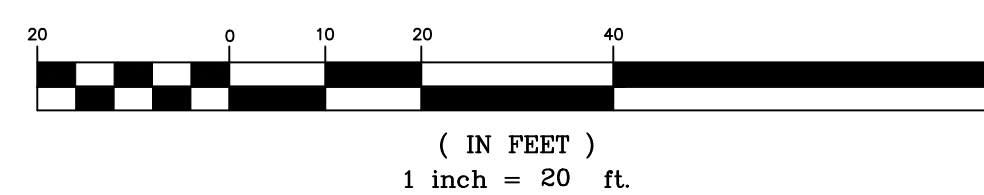
General Notes:

- 1) Area of Subject Parcel 13,111 Square Feet or 0.30 Acres Described in 32168/262
Area of Subject Parcel 7,168 Square Feet or 0.16 Acres Described in 32671/104
- 2) Basis of Bearing, Maine State Plane NAD 1983 1802 West Zone Base Point, Granite Monument
With DH at Walnut Street and North Street T112-18-07, N304585.2090 E2930285.5270
Azimuth Point, Monument on Washinton Ave. L749-76-3000, N305080.3090, E2929308.2410
Azimuth N63-07'-58"W 1095.54' Feet
- 3) Vertical Datum is NGVD 1929 Benchmark is City Monument T112-18-107 Elevation = 145.08'
- 4) Subject Tax Map 012 Block G Lot 001,002,003,008, 009, 020
- 5) East Cove Street an unaccepted street deemed vacated by omission from City Council order #84
- 6) Subject not in Special Flood Hazard Area per FEMA Flood Rate Map Panel # 230051 0013B
and 0014B Dated December 8th, 1998 Parcel in C Zone
- 7) Zoning B-1 Zone
- 8) Boundary Line Calls 6" From House

LEGEND

- 5/8" Rebar Set With Cap
- Rebar/Iron Pipe Found
- Utility Pole
- N.F. Now or Formerly
- 1324/98 Book & Page
- Fence
- ⊕ Water Valve

GRAPHIC SCALE



R. W. EATON ASSOCIATES
LAND SURVEYING & REAL ESTATE

58 PLEASANT STREET, WESTBROOK, MAINE 04092

PHONE: 207-854-2402 FAX: 856-7167 E-MAIL: RWEATON@MAINE.RR.COM

March 31st, 2014 & March 4th, 2016

Boundary Survey
With Existing Conditions

Land Located at: 155 & 143R Washington Ave.
Portland, Maine 04101
Land Owned By: Akasha 155 LLC
Address: PO Box 11546
Portland, Maine 04104
Deed Reference: Book 32671 Page 104

SCALE: 1:20
DRAWN BY: R.W.E.
CHECKED BY: R.W.E.
CAD FILE: 478.DWG
PROJ #: 478
ORIG DATE: 03-31-14
0 REV DATE: 03-04-16
1 REV DATE: 04-23-19
2 REV DATE: 00-00-00
3 REV DATE: 00-00-00

- GENERAL NOTES:
1. GRANITE CURB TO BE REMOVED, STOCKPILED, AND RESET IN ACCORDANCE WITH DETAIL AND CITY STANDARD. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
 2. ALL RAMPING, LANDINGS, HANDRAILS, AND OTHER ACCESS WAYS SHALL MEET ADA REQUIREMENTS.
 3. ANY PROTRUSION OF STRUCTURE INTO THE PUBLIC RIGHT-OF-WAY WILL BE SUBJECT TO A PERMIT FROM THE CITY OF PORTLAND PRIOR TO CONSTRUCTION.

SPACE AND BULK STANDARDS			
ZONE: B-1	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	7,168 SF	7,168 SF
MINIMUM STREET FRONTAGE	20 FT.	27.50 FT.	27.50'
MAXIMUM FRONT YARD SETBACK	10 FT.	0 FT.	8 FT.
MINIMUM REAR YARD SETBACK	10 FT.	51.7 FT.	11.70 FT.
MIN. SIDE YARD SETBACK (SOUTH)	5 FT.	4.3 FT.	5.33 FT.
MIN. SIDE YARD SETBACK (NORTH)	0 FT.	33.7 FT.	0 FT.
MAXIMUM IMPERVIOUS COVERAGE	90%	66%	70%
MAXIMUM BUILDING HEIGHT	45 FT.	< 45 FT.	23.3 FT.
PARKING	1 PER 400 SF OFFICE SPACE + 2 PER DWELLING UNIT = 10	2	0
PERMANENT BICYCLE PARKING	2 PER 10 VEHICLES SPACES = 2	0	4

ISSUED FOR	BY
LEVEL II SITE PLAN	WHS
DATE	10/31/19
COMMENT RESPONSE	WHS
DATE	11/21/19
COMMENT RESPONSE II	WHS
DATE	12/22/19

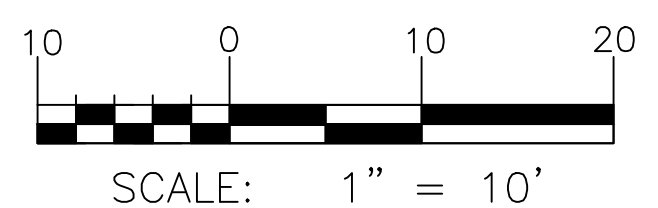
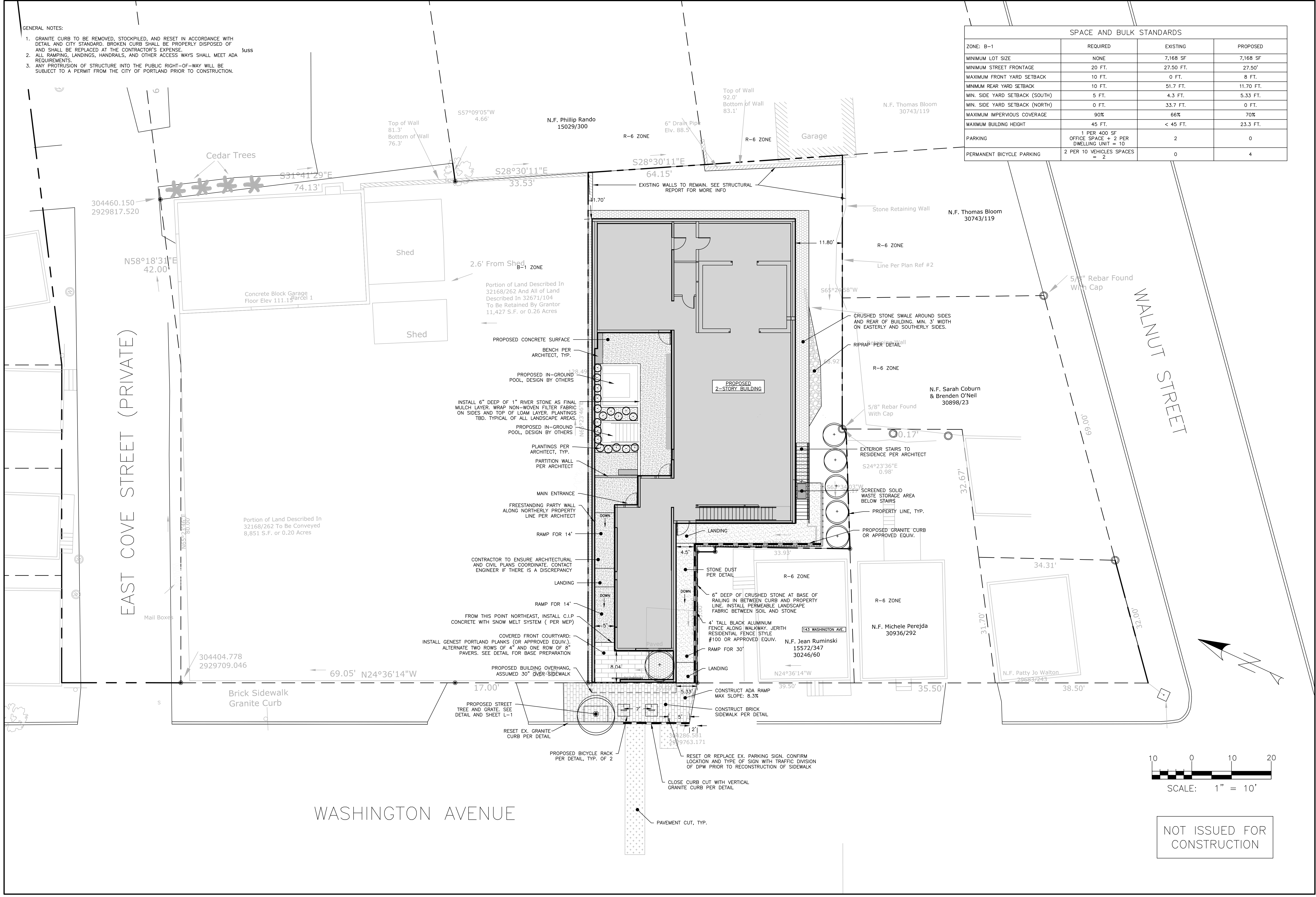
DRAWING NAME	SITE PLAN
PROJECT NAME	WASHINGTON BATHS
CLIENT	AKASHA 155 LLC
	PO BOX 11546, PORTLAND, ME 04104

ACORN ENGINEERING, INC.	ENGINEERING, INC.
158 DANFORTH ST. PORTLAND, MAINE 04102	
(207) 775-2655	

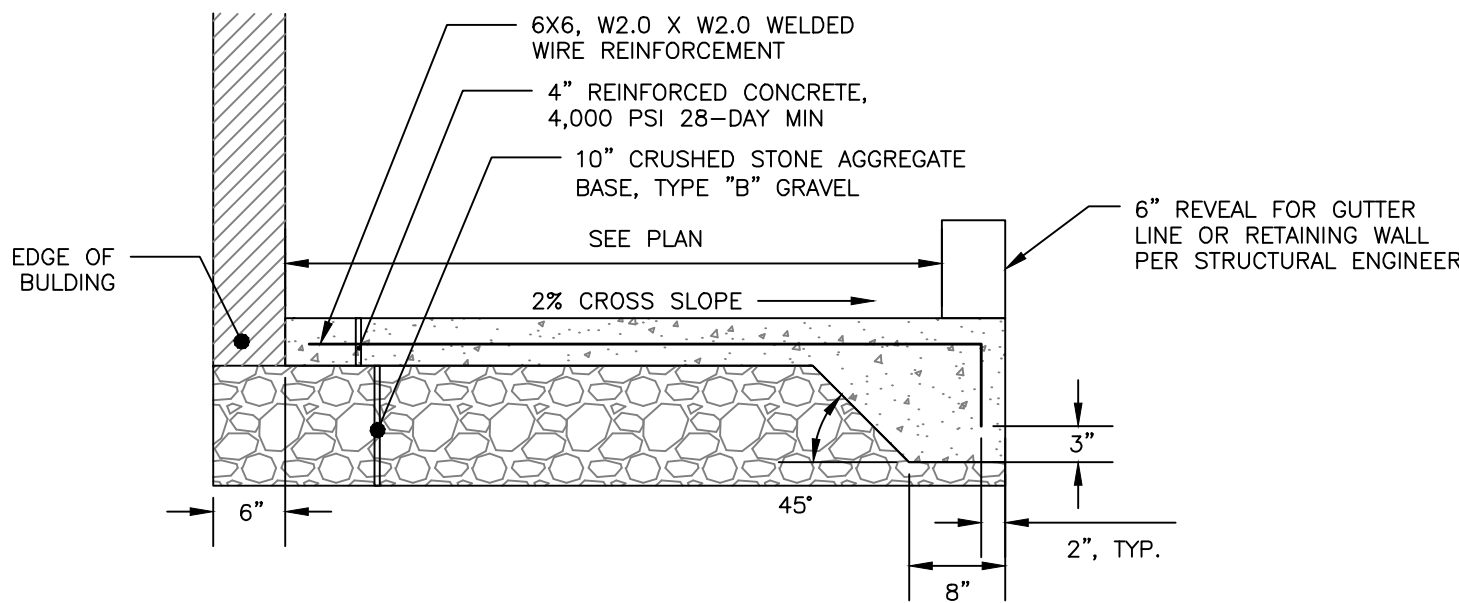
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DRAWN BY:	SJL
CHECKED BY:	WHS



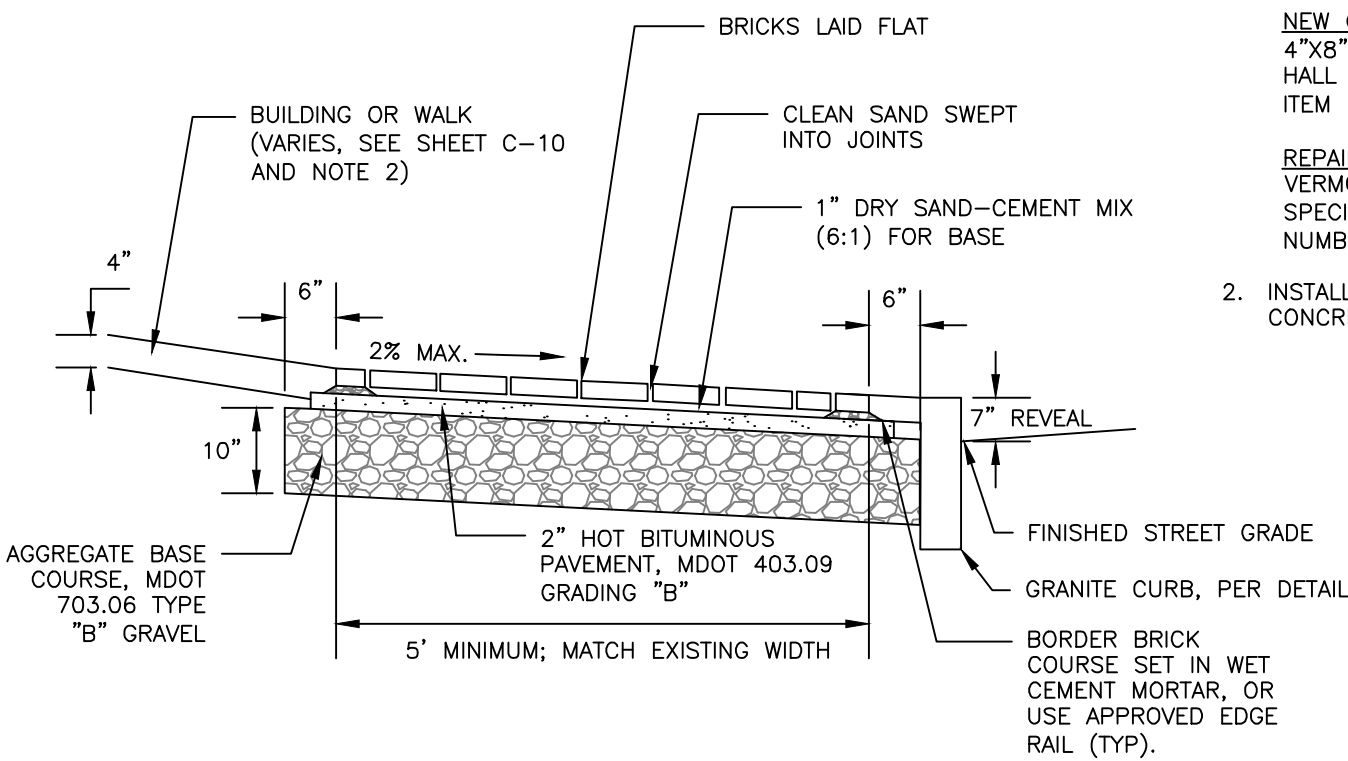
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NOT ISSUED FOR CONSTRUCTION

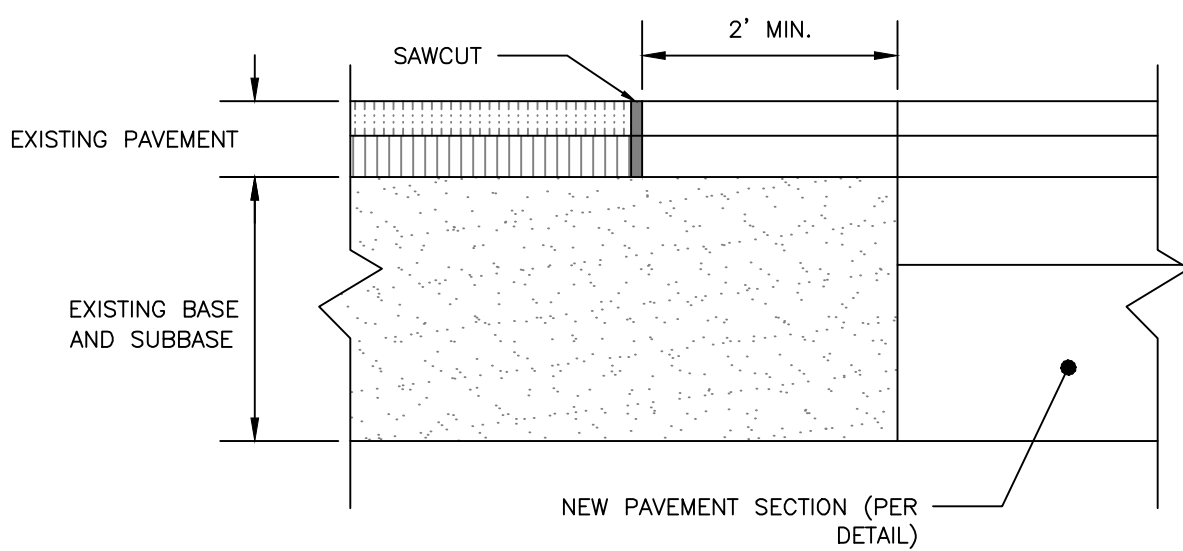


MONOLITHIC CONCRETE SIDEWALK
NOT TO SCALE

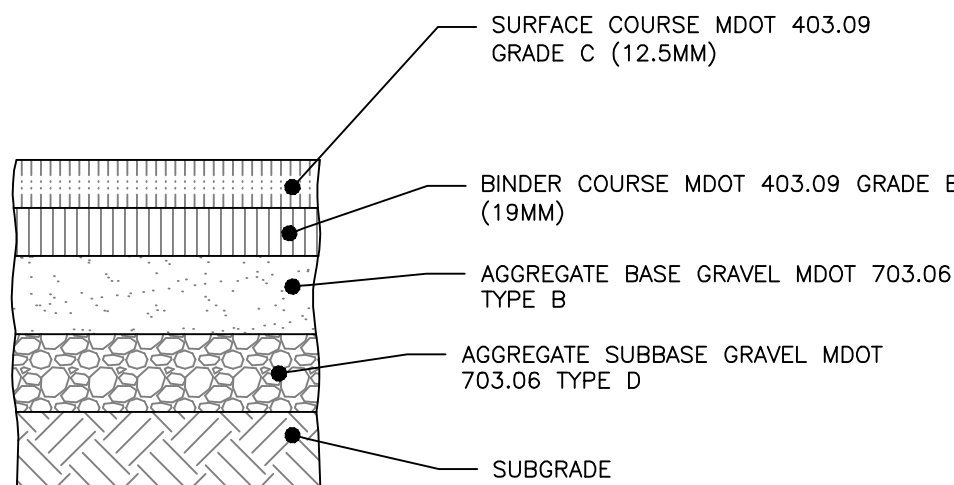


BRICK SIDEWALK WITH BITUMINOUS BASE DETAIL
NOT TO SCALE

- NOTES:
1. SAWCUT EXISTING PAVEMENT AND REMOVE 2\"/>
 2. THE NEW PAVEMENT SECTION SHALL MEET THE CITY OF PORTLAND ARTERIAL BITUMINOUS PAVEMENT SECTION DETAIL AT A MINIMUM OR THE THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



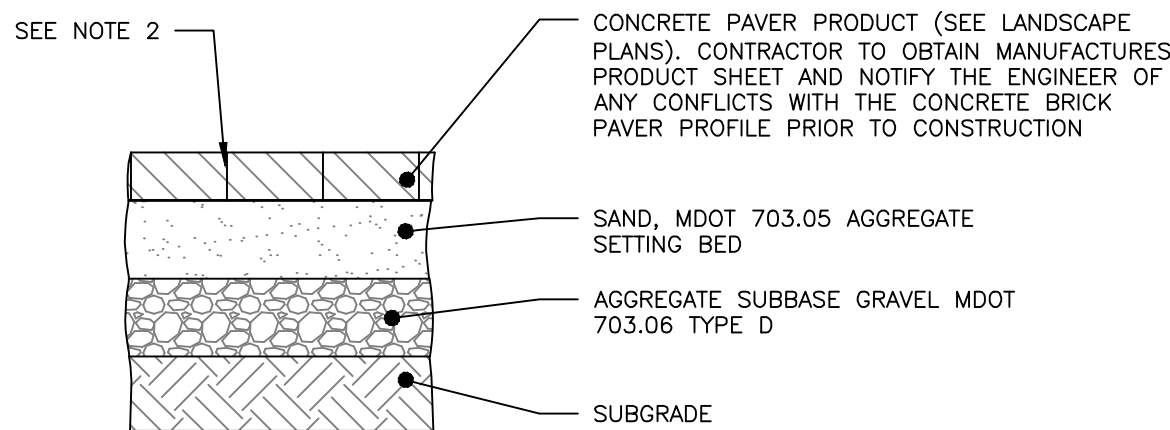
PAVEMENT SAWCUT DETAIL
NOT TO SCALE



- NOTES:
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.

THICKNESS OF LAYERS	
STANDARD	LAYERS
2"	SURFACE COURSE MDOT 403.09 GRADE C (12.5mm)
3"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
6"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
18"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

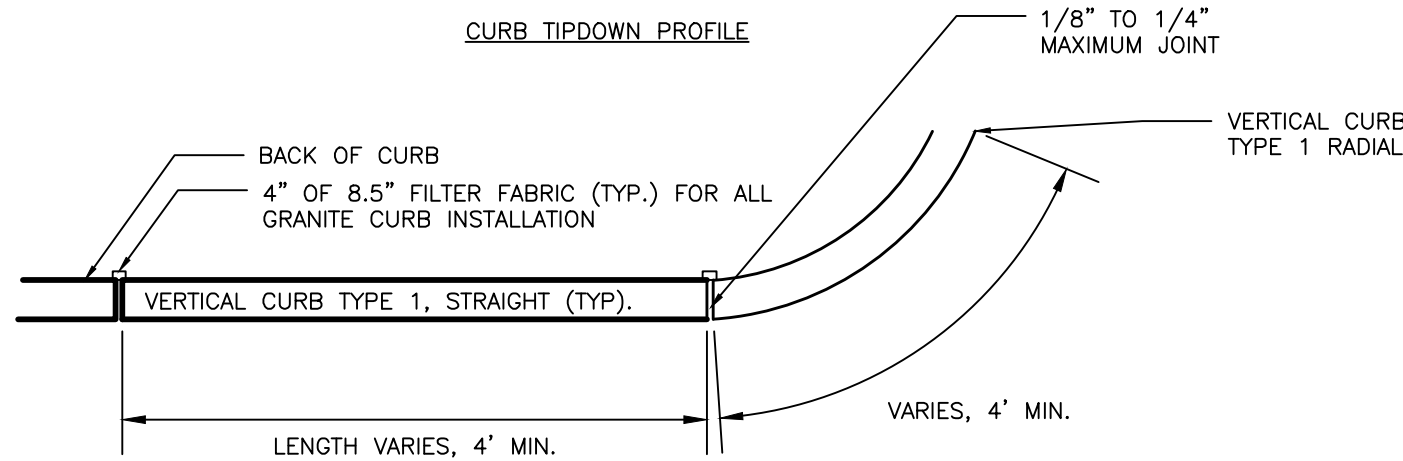
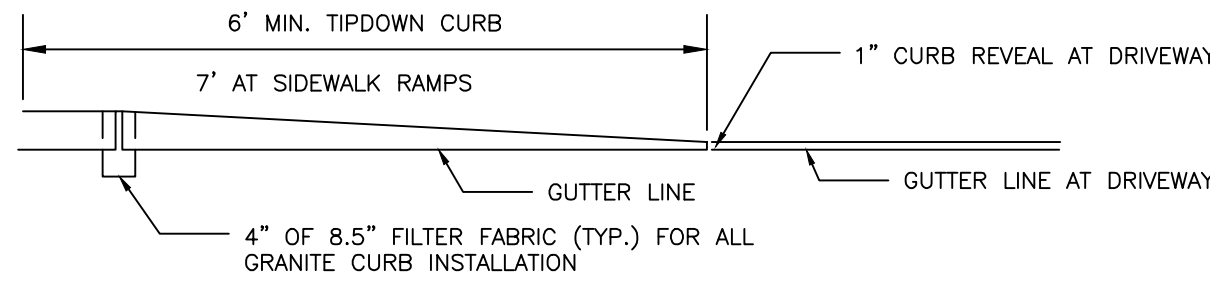
CITY OF PORTLAND ARTERIAL
BITUMINOUS PAVEMENT PROFILE:
WASHINGTON AVENUE
NOT TO SCALE



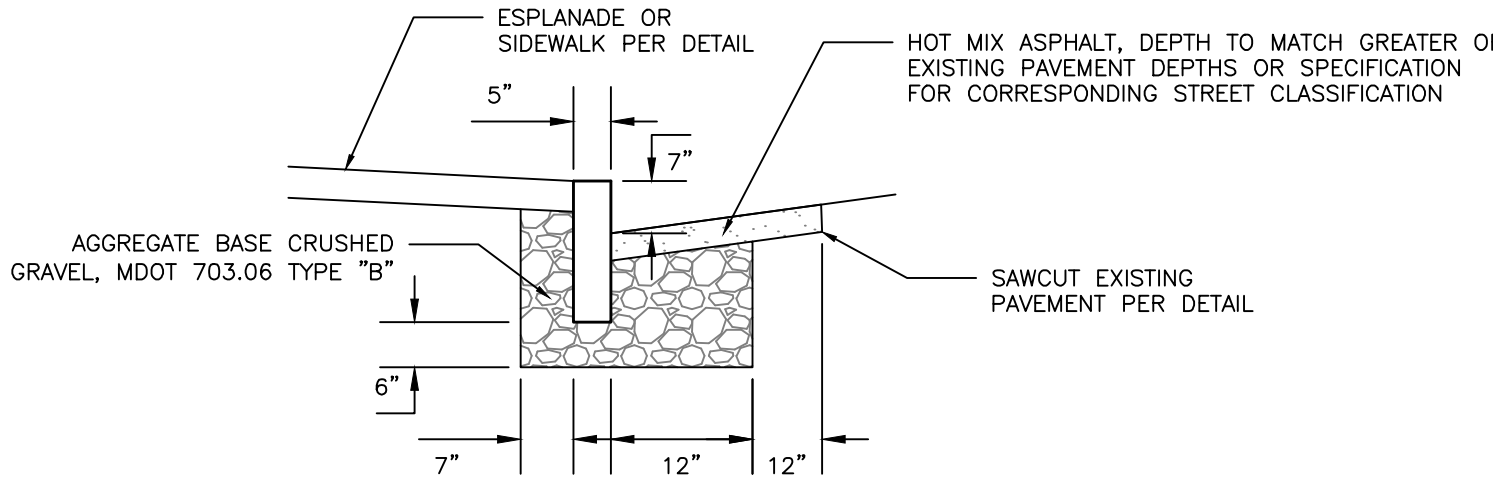
- NOTE:
1. COMPACT AGGREGATE MATERIALS AND SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
 2. INSTALL WITH ALLIANCE GATOR XP POLY SAND PER MANUFACTURER'S RECOMMENDATION. POLY SAND COLOR PER ARCHITECT.

THICKNESS OF LAYERS	
STANDARD	LAYERS
2-3/4"	CONCRETE PAVER (DEPTH TBD BASED UPON THE MANUFACTURER)
4"	AGGREGATE BASE SAND MDOT 703.05
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

CONCRETE BRICK PAVER PROFILE
NOT TO SCALE



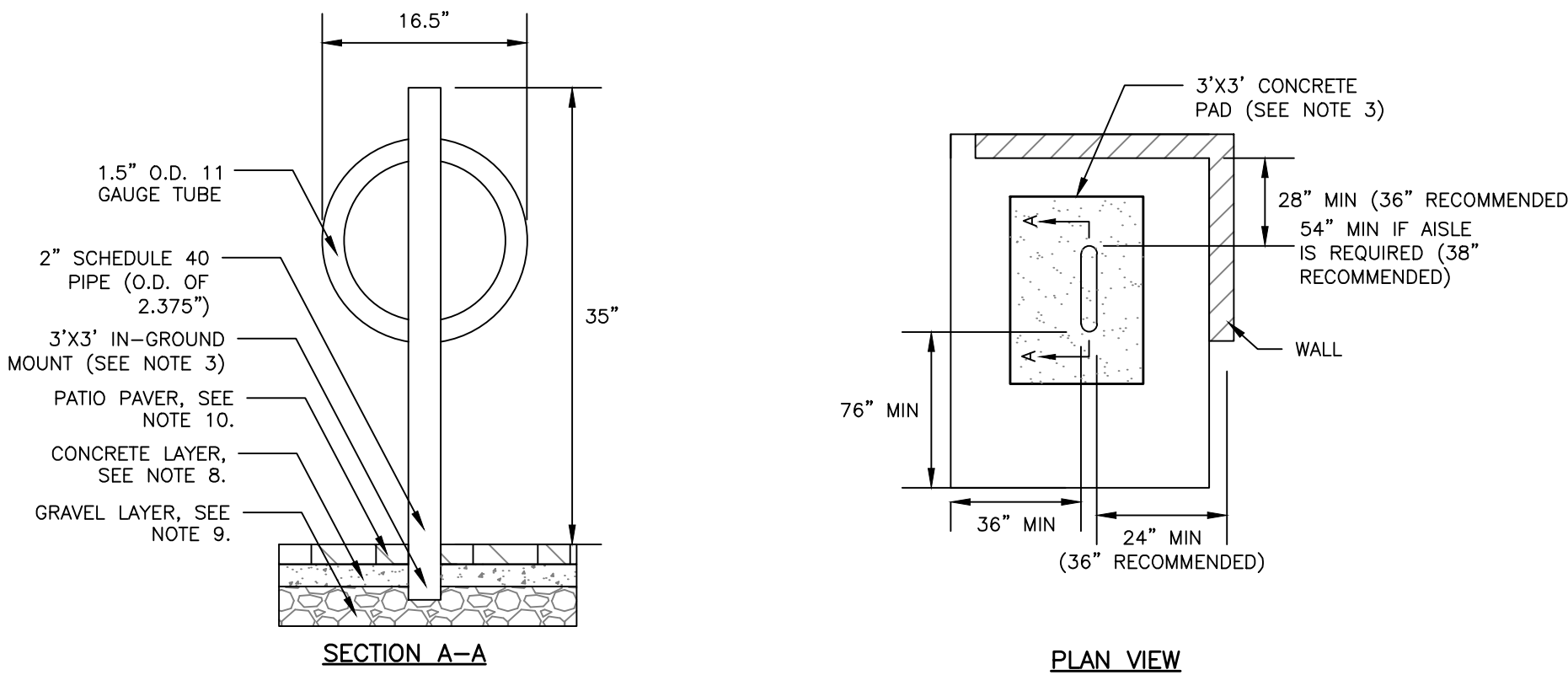
VERTICAL GRANITE CURB PLAN VIEW



VERTICAL GRANITE CURB CROSS SECTION

VERTICAL GRANITE CURB AND TIPDOWN INSTALLATION
NOT TO SCALE

- NOTES:
1. BICYCLE RACK SHALL HAVE CAPACITY FOR TWO BICYCLES.
 2. BICYCLE RACK PARTS SHALL BE OF UNIFORM COLOR AND SHALL BE FINISHED IN ACCORDANCE WITH PRODUCT SPECIFICATION. PER CITY OF PORTLAND TECHNICAL STANDARDS ALL BICYCLE RACKS WITHIN THE RIGHT-OF-WAY SHALL MATCH THE FURNITURE COLOR FOR THAT LOCATION AS DESCRIBED IN THE MUNICIPAL LIGHTING STANDARDS; IF NO DESIGNATED COLOR FOR THAT AREA EXISTS, BICYCLE RACKS SHALL BE BLACK.
 3. BICYCLE RACK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S MOST RECENT INSTALLATION RECOMMENDATIONS, AND SHALL BE INSTALLED WITH AN IN-GROUND MOUNT UNLESS OTHERWISE APPROVED BY ENGINEER.
 4. BICYCLE RACK SHALL BE "DERO BIKE HITCH", AS MANUFACTURED BY DERO BIKE RACKS.
 5. MINIMUM OFFSETS SHOWN, MANUFACTURER'S RECOMMENDED OFFSETS SHALL BE ENFORCED WHERE POSSIBLE.
 6. MINIMUM DISTANCE BETWEEN BICYCLE RACKS SHALL BE 24". RECOMMENDED DISTANCE BETWEEN BICYCLE RACKS SHALL BE 38".
 7. ALL OFFSETS ARE FROM OUTSIDE EDGES OF ITEMS.
 8. CONCRETE SHALL BE 4000 PSI @28 DAYS. BOTTOM OF CONCRETE SHALL BE AT TOP OF SIDEWALK GRAVEL ELEVATION. DEPTH VARIES APPROX. 4"-7".
 9. GRAVEL LAYER SHALL BE INSTALLED IN ACCORDANCE WITH BITUMINOUS BASE DETAIL, AND SHALL BE MAINTAINED 703.06 TYPE B.
 10. TOP OF PATIO PAVERS AT BIKE HITCH SHALL BE FLUSH WITH REST OF PATIO PAVER SURFACE.



BICYCLE HITCH DETAIL
NOT TO SCALE



**CITY OF PORTLAND
APPROVED SITE PLAN**
Subject to Conditions of Approval
and Standard Conditions

DATE OF APPROVAL July 31, 2019
PLANNER Shukria Wiar
PROJECT NO. PL-000261-2019

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

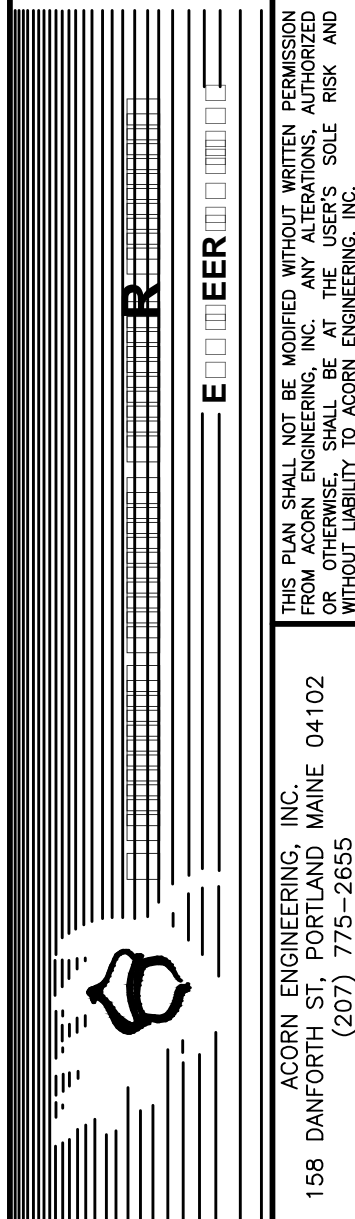
ISSUED FOR BY
LEVEL II SITE PLAN WHS
DATE 10/03/18

SITE DETAILS - 1

WASHINGTON BATHS

AKASHA 155 LLC
PO BOX 11546, PORTLAND, ME 04104

DRAWING NAME
PROJECT NAME
CLIENT



FILE: 1108_DETAILS
JN: 1108
SCALE: NTS
DESIGNED BY: SUL
DRAWN BY: FRT
CHECKED BY: WHS

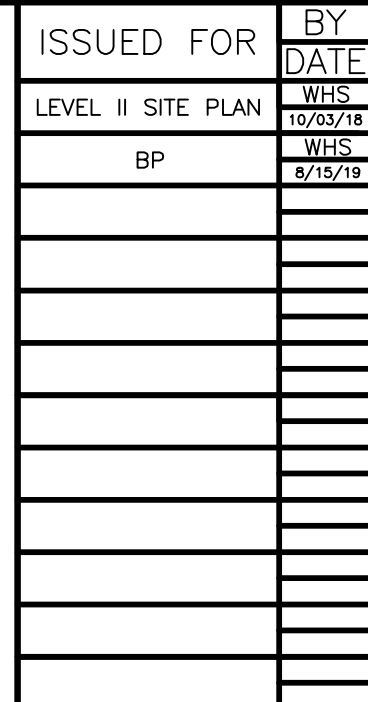


DRAWING NO.
C-40



- | PLANT SCHEDULE | | | | |
|----------------|------------------------------------|-----------------------------------|-----|---------|
| ID | BOTANICAL NAME | COMMON NAME | QTY | SIZE |
| TREES | | | | |
| AP | ACER PALMATUM 'RUSLYN IN THE PINK' | RUSLYN IN THE PINK JAPANESE MAPLE | 1 | 5 GAL. |
| PA | PRUNUS 'ACCOLADE' | CHERRY TREE | 1 | 2" GAL. |
| JC | JUNIPERUS CHINESIS 'BLUE POINT' | BLUE POINT JUNIPER | 5 | 5' |
| PERENNIALS | | | | |
| CB | CALAMAGROSTIS BRACHYTRICHA | KOREAN FEATHER REED GRASS | 4 | 1 GAL. |

SCALE: 1" = 10'



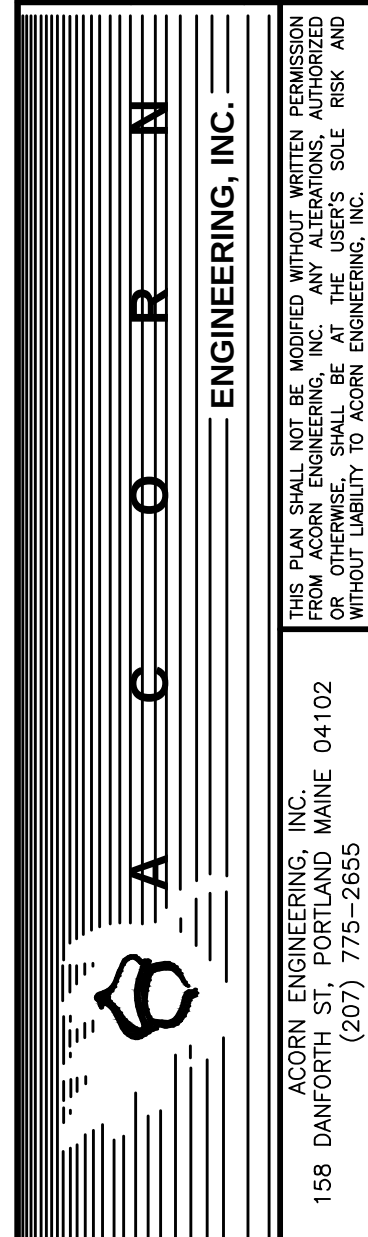
WASHINGTON BATHS

AKASHA 155 LLC
PO BOX 11546, PORTLAND, ME 04104

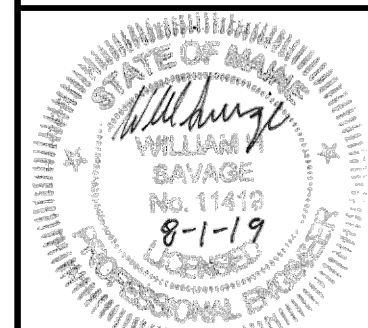
DRAWING NAME:

PROJECT NAME:

CLIENT:



FILE:	1108_CIVIL
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DRAWN BY:	SJL
CHECKED BY:	WHS

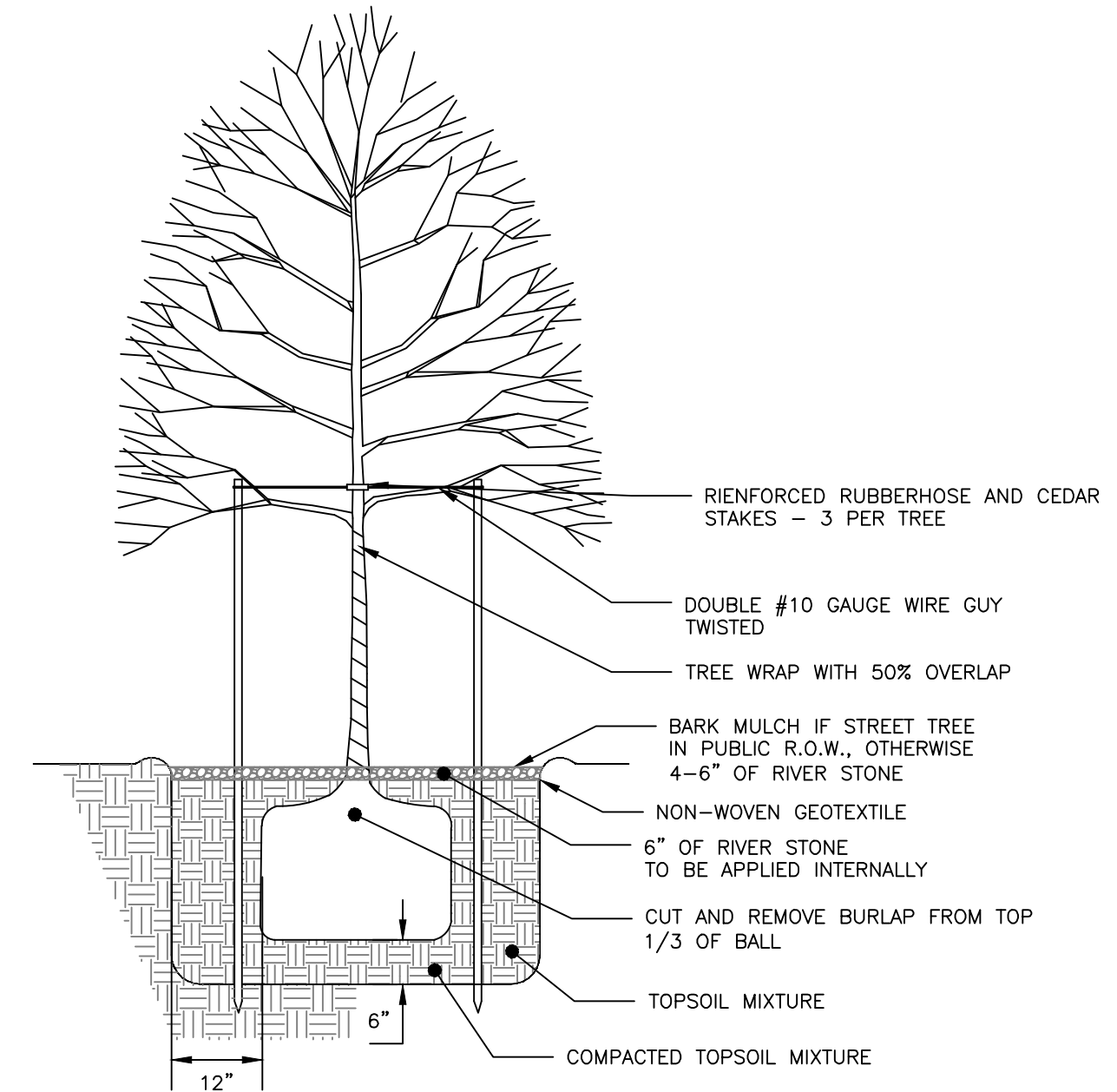
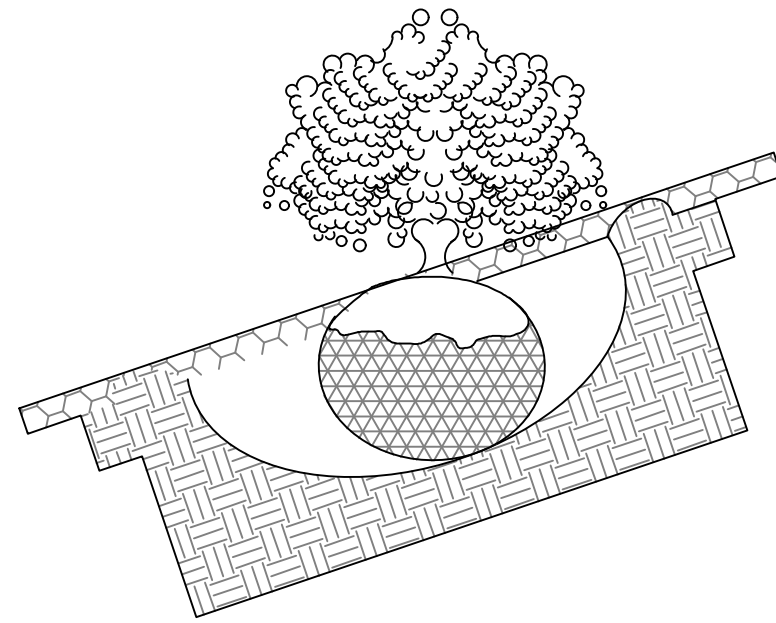


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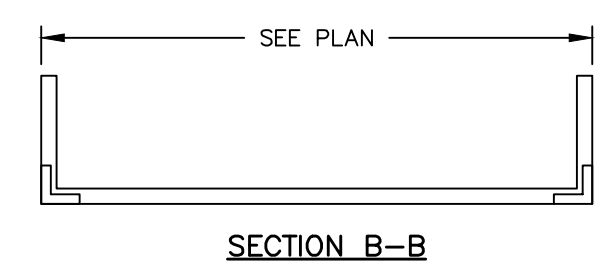
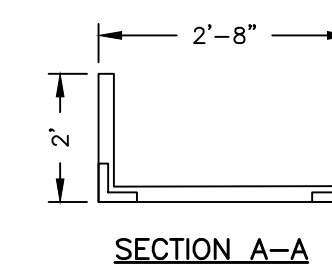
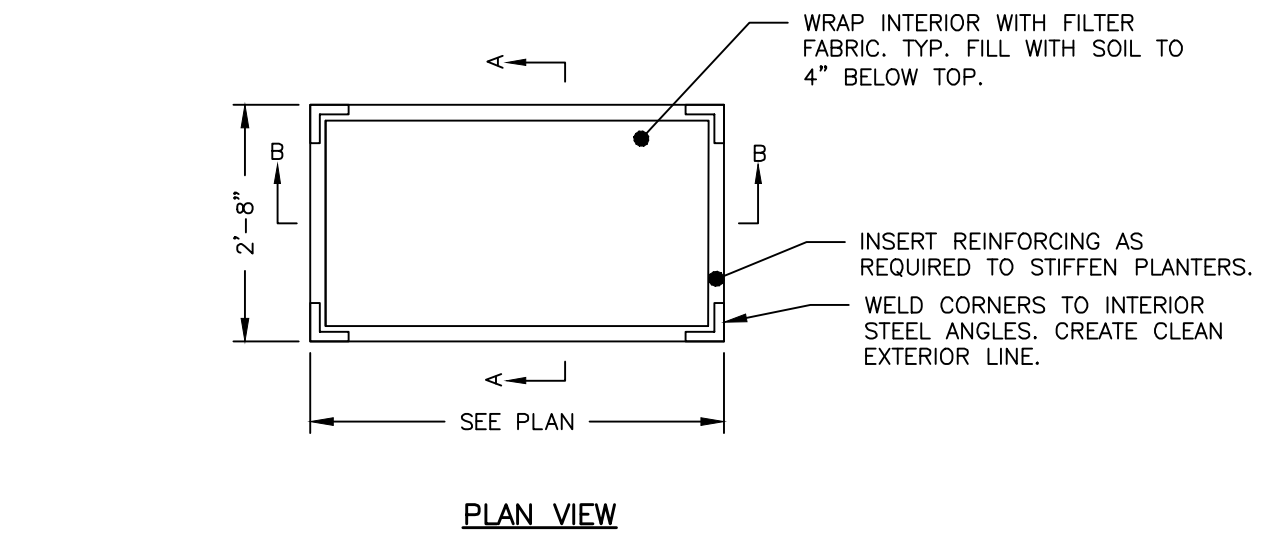
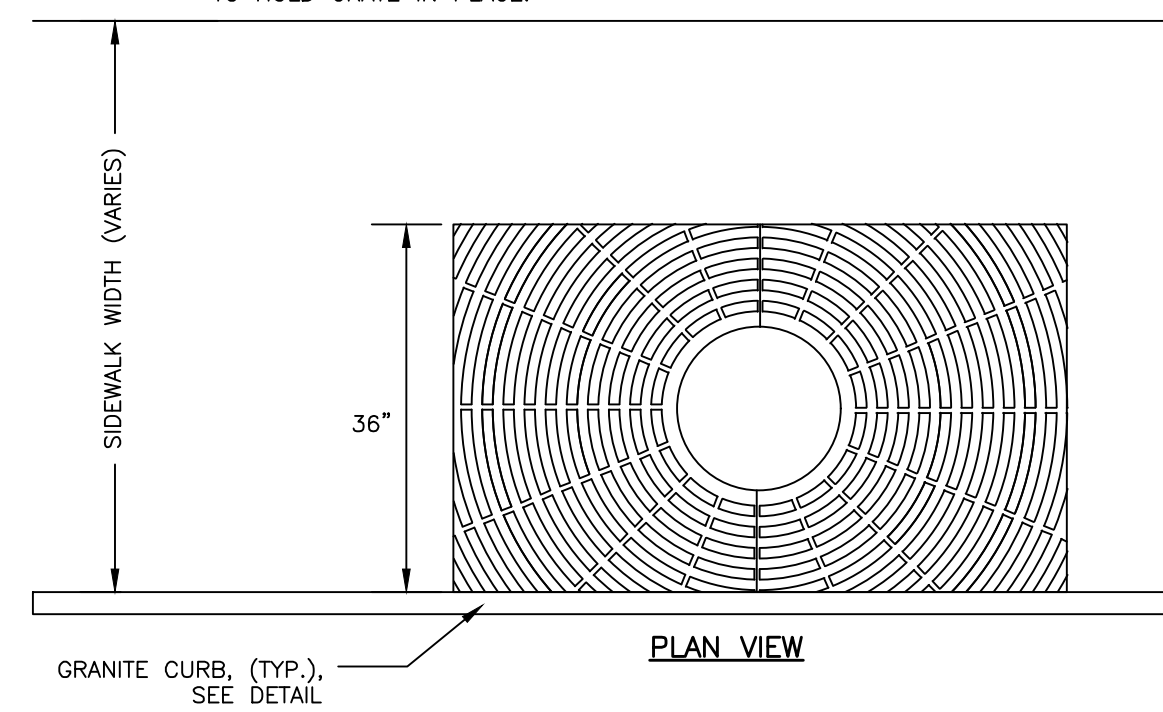
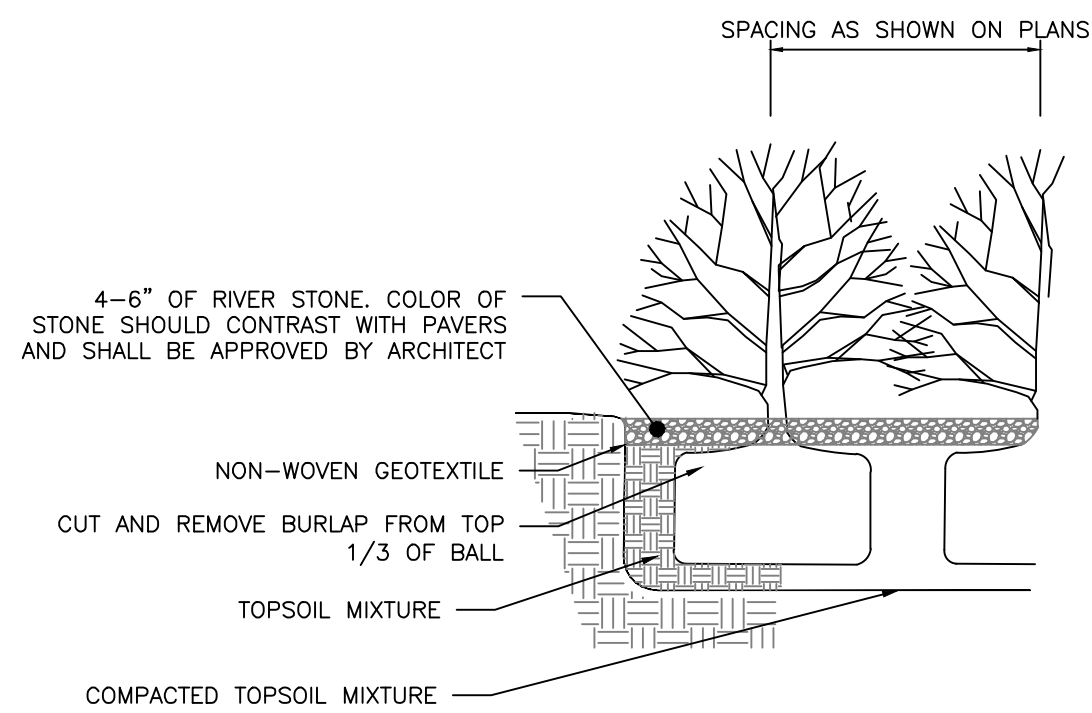
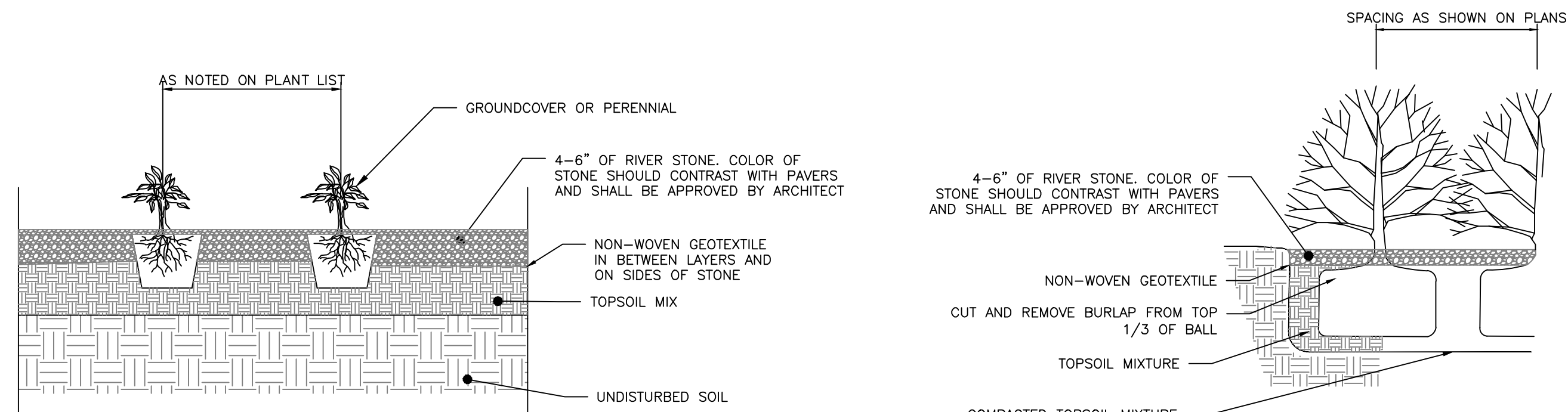
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1. DIG HOLE AT LEAST 2 FEET THE DIAMETER OF THE ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH THE TOP AT DOWNHILL EDGE OF THE HOLE.
2. BACKFILL SHALL BE NATURAL, FRABLE, FERTILE, LOOSE LOW MOISTURE, NON-ASSIDING CHARACTERISTICS OF TOPSOIL IN THE VICINITY WHERE THE HEAVY TOPSOIL SHALL CONTAIN NOT LESS THAN 6% NOR MORE THAN 20% ORGANIC MATTER. TOP SOIL SHALL HAVE A PH OF 6.0 TO 7.5.
3. BACKFILL SHALL BE DEEPER THAN THE ROOT BALL. THE DEPTH SHALL BE MORE THAN 1/2 OF THE 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 ROOT BALL PLANTS.
5. THE BACKFILL SHALL BE TAMPED TO CREATE AN EARTHEN SHOULDER. SOAK PLANTS TWICE WITHIN THE FIRST TWO-FOUR HOURS OF PLANTING.

1. ALL PLANT SELECTION AND INSTALLATION WILL 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% CHEWINGS FESCUE AND 10% 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 REVIEW AND ACCEPT OR REJECT ANY PLANTING 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 REQUIRED ONE YEAR PLANTING WARRANTY.

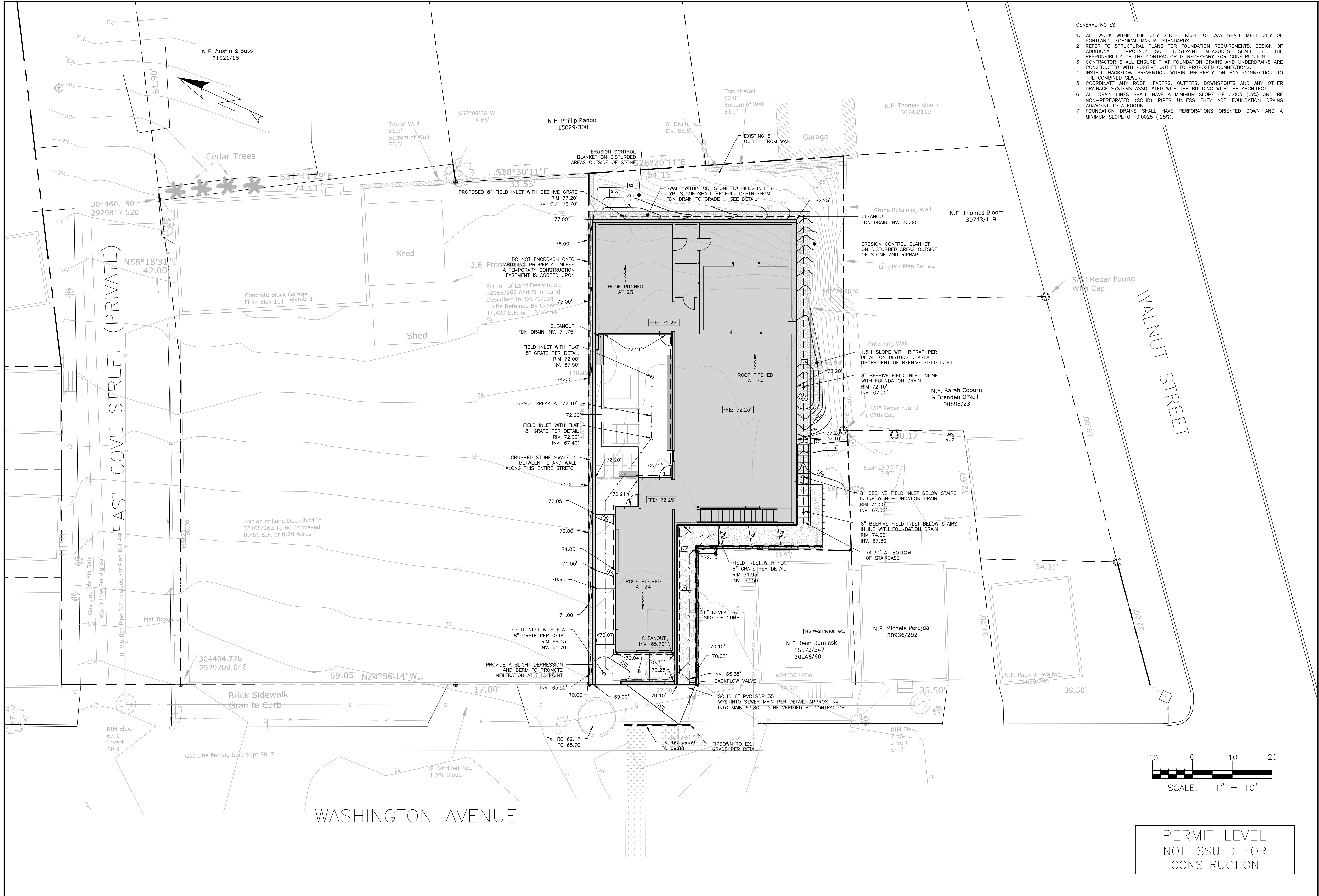


1. 16" EXPANDABLE TREE OPENING; .25" SLOT OPENINGS.
2. SIDEWALK MATERIAL PER PLAN.
3. WHEN INSTALLED IN A BRICK SIDEWALK, GRATE REQUIRES A FRAME TO BE INSTALLED TO HOLD GRATE IN PLACE.

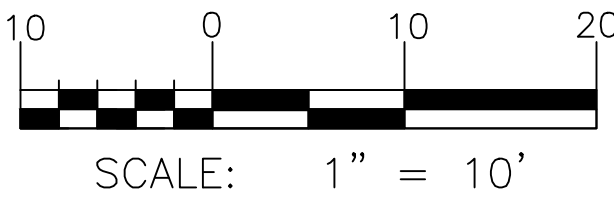


LANDSCAPING DETAILS
PROJECT NAME WASHINGTON BATHS
CLIENT AKASHA 155, LLC PO BOX 11546, PORTLAND, ME 04104

FILE:	1108_DETAILS
IN:	1108
SCALE:	NTS
DESIGNED BY:	SJL
DRAWN BY:	FRT
CHECKED BY:	WHS



- GENERAL NOTES:
1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
 2. REFER TO STRUCTURAL PLANS FOR FOUNDATION REQUIREMENTS, DESIGN OF ADDITIONAL TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
 3. CONTRACTOR SHALL ENSURE THAT FOUNDATION DRAINS AND UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
 4. INSTALL BACKFLOW PREVENTION WITHIN PROPERTY ON ANY CONNECTION TO THE COMBINED SEWER.
 5. COORDINATE ANY ROOF LEADERS, GUTTERS, DOWNSPOUTS AND ANY OTHER DRAINAGE SYSTEMS ASSOCIATED WITH THE BUILDING WITH THE ARCHITECT.
 6. ALL DRAIN LINES SHALL HAVE A MINIMUM SLOPE OF 0.005 (5%) AND BE NON-PERFORATED (SOLID) PIPES UNLESS THEY ARE FOUNDATION DRAINS ADJACENT TO A FOOTING.
 7. FOUNDATION DRAINS SHALL HAVE PERFORATIONS ORIENTED DOWN AND A MINIMUM SLOPE OF 0.0025 (.25%).



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NOT ISSUED FOR
CONSTRUCTION

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1.0 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.

1.1 TEMPORARY EROSION CONTROL MEASURES

THE FOLLOWING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE PLANNED FOR THE PROJECT'S CONSTRUCTION PERIOD:

- 1.1.1 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 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.
- 1.1.2 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 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.
- 1.1.3 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.
- 1.1.4 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.
- 1.1.5 YORK STREET AND GUILFORD COURT SHALL BE SWEEPED 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.
- 1.1.6 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.
- 1.1.7 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.
- 1.1.8 STORMDRAIN INLET PROTECTION SHALL BE PROVIDED TO STORMDRAINS THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE DROP INLET SEDIMENT FILTER, BERM 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.
- 1.1.9 DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MDEP PRODUCT. DUST CONTROL SHALL BE APPLIED AS NEEDED TO ACCOMPLISH DUST CONTROL.
- 1.1.10 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.
- 1.1.11 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.
- 1.1.12 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.
- 1.1.13 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.

1.2 PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT.

- 1.2.1 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.
- 1.2.2 ALL STORMWATER DEVICES SHALL BE INSTALLED AND TRIBUTARY AREAS STABILIZED PRIOR RECEIVING STORMWATER.
- 1.2.3 REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

2.0 EROSION AND SEDIMENTATION CONTROL PLAN

2.1 THE EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED WITHIN THE PLAN SET.

3.0 DETAILS AND SPECIFICATIONS

3.1 EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

4.0 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:

4.1 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.

4.2 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 RAINFALL EVENT, MULCH 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.

4.3 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.

4.4 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 UNTIL SUCH TIME AS 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.

4.5 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.

4.6 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% F 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.

5.0 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.

5.1 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.

5.2 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.

5.3 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.

5.4 DUST CONTROL

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

5.5 STORMWATER APPURTENANCES

ALL UNDERDRAINS, STORM DRAINS, AND CATCH BASINS NEED TO BE OPERATING EFFECTIVELY AND FREE OF DEBRIS.

5.6 EROSION AND SEDIMENTATION CONTROL INSPECTIONS:

ACORN ENGINEERING HAS PERSONNEL QUALIFIED TO CONDUCT EROSION AND SEDIMENTATION CONTROL INSPECTIONS. FOR FURTHER INFORMATION CONTACT:

CONTACT: WILL SAVAGE, PE
TELEPHONE: (207) 775-2655

QUALIFICATIONS:

- MAINE PROFESSIONAL ENGINEERING LICENSE #11419
- MAINE DEP – CERTIFIED IN MAINTENANCE & INSPECTION OF STORMWATER BMP'S CERT #14
- CERTIFIED EROSION, SEDIMENT AND STORM WATER INSPECTOR (CESSWI) CERT #0293
- CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) CERT. #4620

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.

6.0 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. INSTALL ALL OTHER EROSION CONTROL DEVICES AS NECESSARY THROUGHOUT THE REMAINDER OF THIS SCHEDULE.
4. COMMENCE INSTALLATION OF DRAINAGE INFRASTRUCTURE.
5. PRIORITIZE THE DOWNHILL RETAINING AND FOUNDATION WALLS TO CONTAIN RUNOFF WITHIN THE SITE WHILE PROVIDING AN ENGINEERED OUTLET WITH SILTATION BARRIER TO THE MUNICIPAL STORMWATER SYSTEM WITHIN WASHINGTON AVENUE.
6. COMMENCE EARTHWORK OPERATIONS, WALL AND FOUNDATION INSTALLATION.
7. COMMENCE INSTALLATION OF UTILITIES.
8. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.
9. COMPLETE INSTALLATION OF DRAINAGE INFRASTRUCTURE, AS WELL AS OTHER UTILITY WORK.
10. COMPLETE REMAINING EARTHWORK OPERATIONS.
11. INSTALL SUB-BASE AND BASE GRAVELS IN PAVED AREAS.
12. INSTALL PAVING, CURBING AND BRICKWORK.
13. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.
14. 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.
15. TOUCH UP AREAS WITHOUT A VIGOROUS CATCH OF GRASS WITH LOAM AND SEED.
16. COMPLETE SITE SIGNAGE AND STRIPING.
17. 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.

7.0 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.

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-P205-K20) OR EQUIVALENT.

LMESTONE 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:

TEMPORARY SEED APPLICATION RATES			
SEED	LBS / ACRE	RECOMMENDED SEEDING DATES	
WINTER RYE	2.57	8/15 TO 10/1	
OATS	1.84	4/1 TO 7/1 8/15 TO 9/15	
ANNUAL RYGRASS	0.92	4/1 TO 7/1	
SUDANGRASS	0.92	5/15 TO 8/15	
PERENNIAL	0.92	8/15 TO 9/15	
TOTAL	7.17 LBS/ACRE		

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.

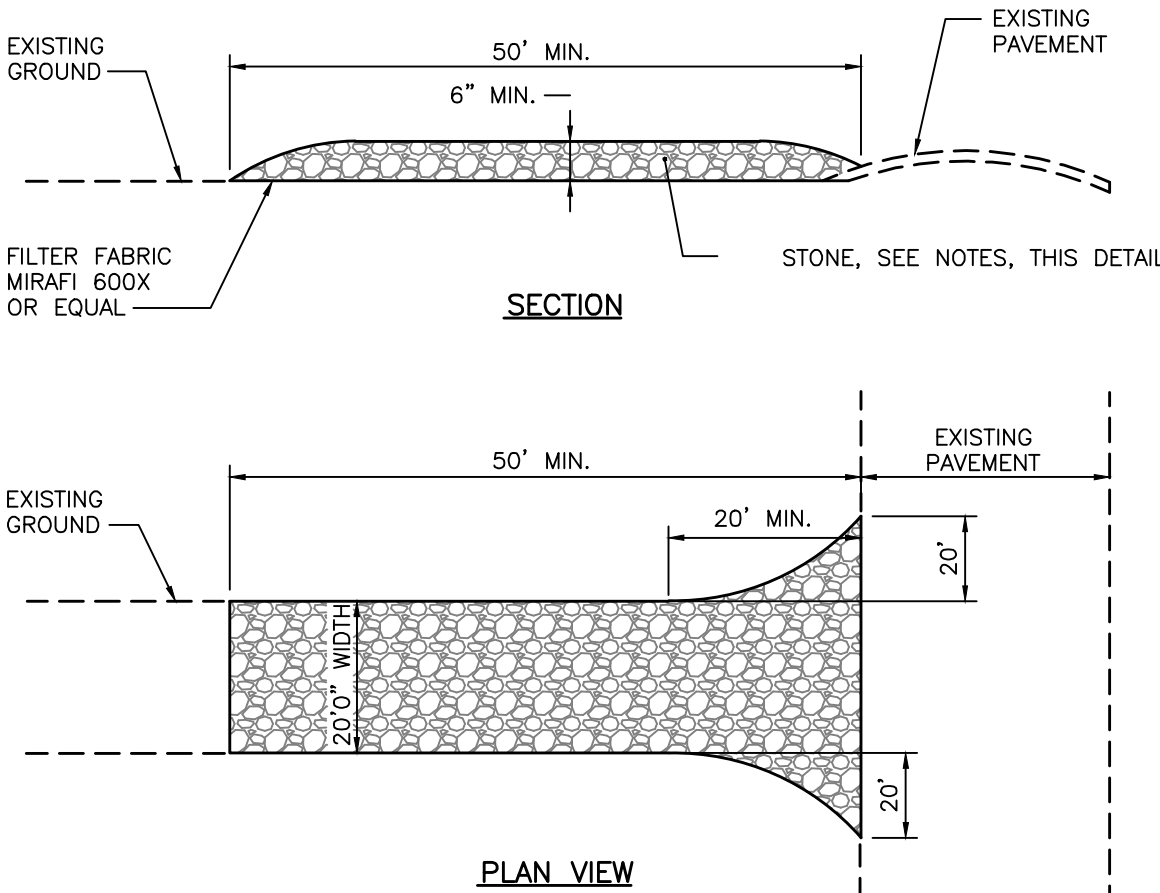
CONCLUSION

PLEASE REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION PERTAINING TO TEMPORARY SEEDING AND MULCHING.

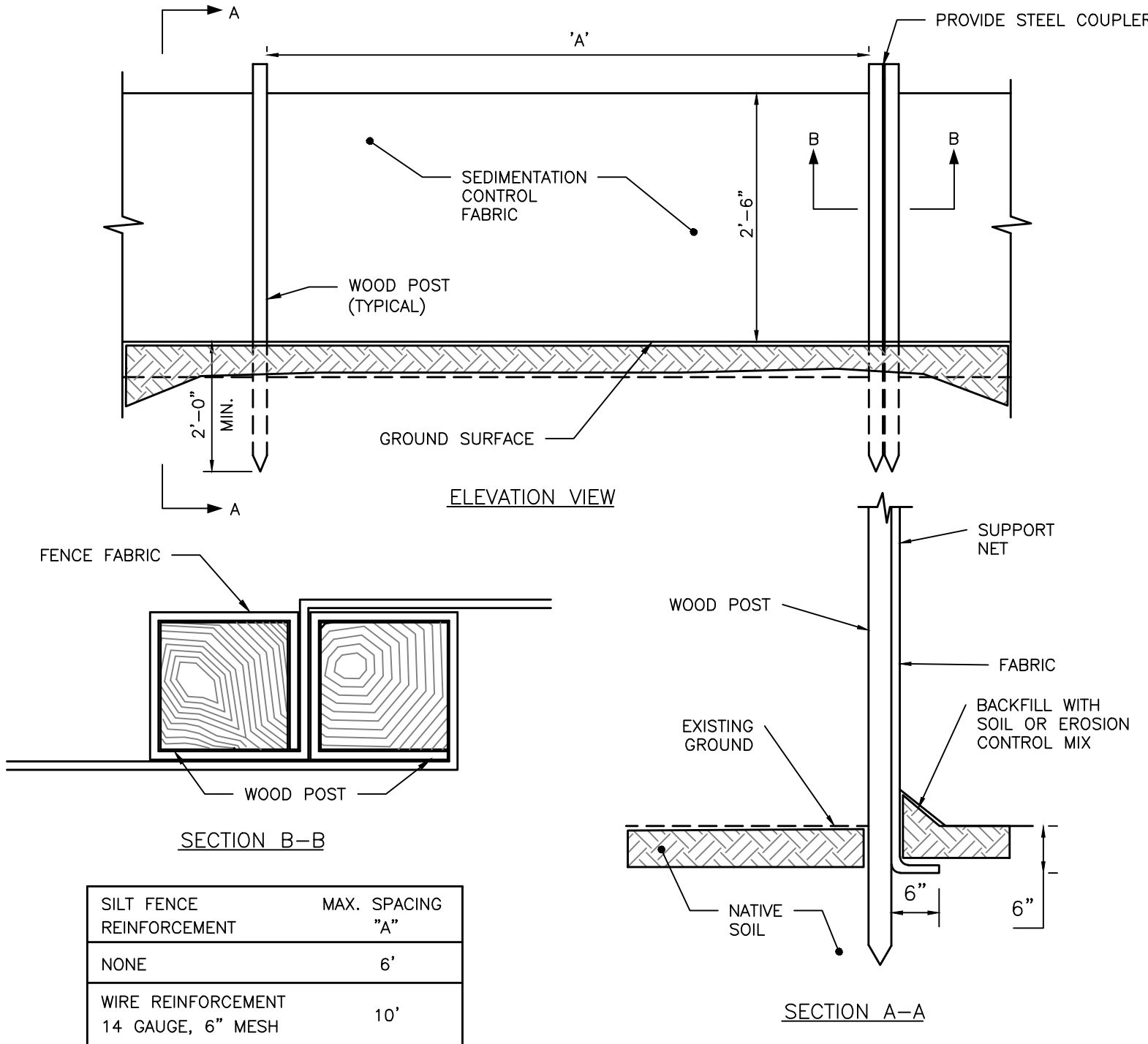
PERMANENT SEED APPLICATION RATES	
SEED	LBS / ACRE
KENTUCKY BLUEGRASS	20.00
CREeping RED FESCUE	20.00
PERENNIAL RYEGRASS	4.80
TOTAL	44.8 LBS/ACRE

NOTES:

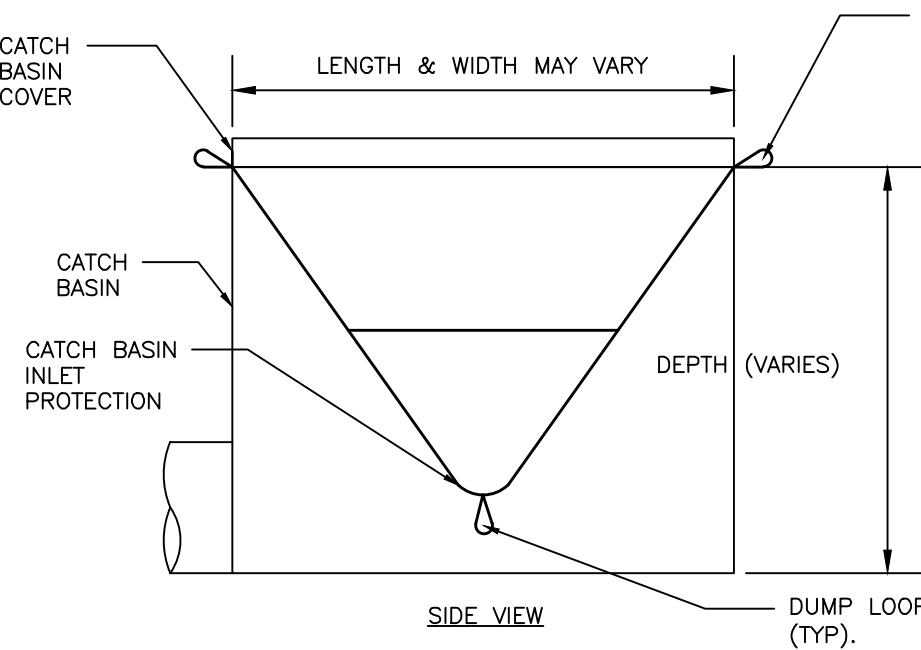
1. CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
2. STONE SHALL BE 2”-3” COARSE AGGREGATE
3. CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED OR RETAINED IN A MANNER APPROVED BY ENGINEER.
4. WHEN NECESSARY, ON-SITE VEHICLES SHALL HAVE THEIR WHEELS CLEANED PRIOR TO LEAVING SITE.
5. CONSTRUCTION ENTRANCE SHALL BE GRADED IN A MANNER THAT PREVENTS TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY



STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

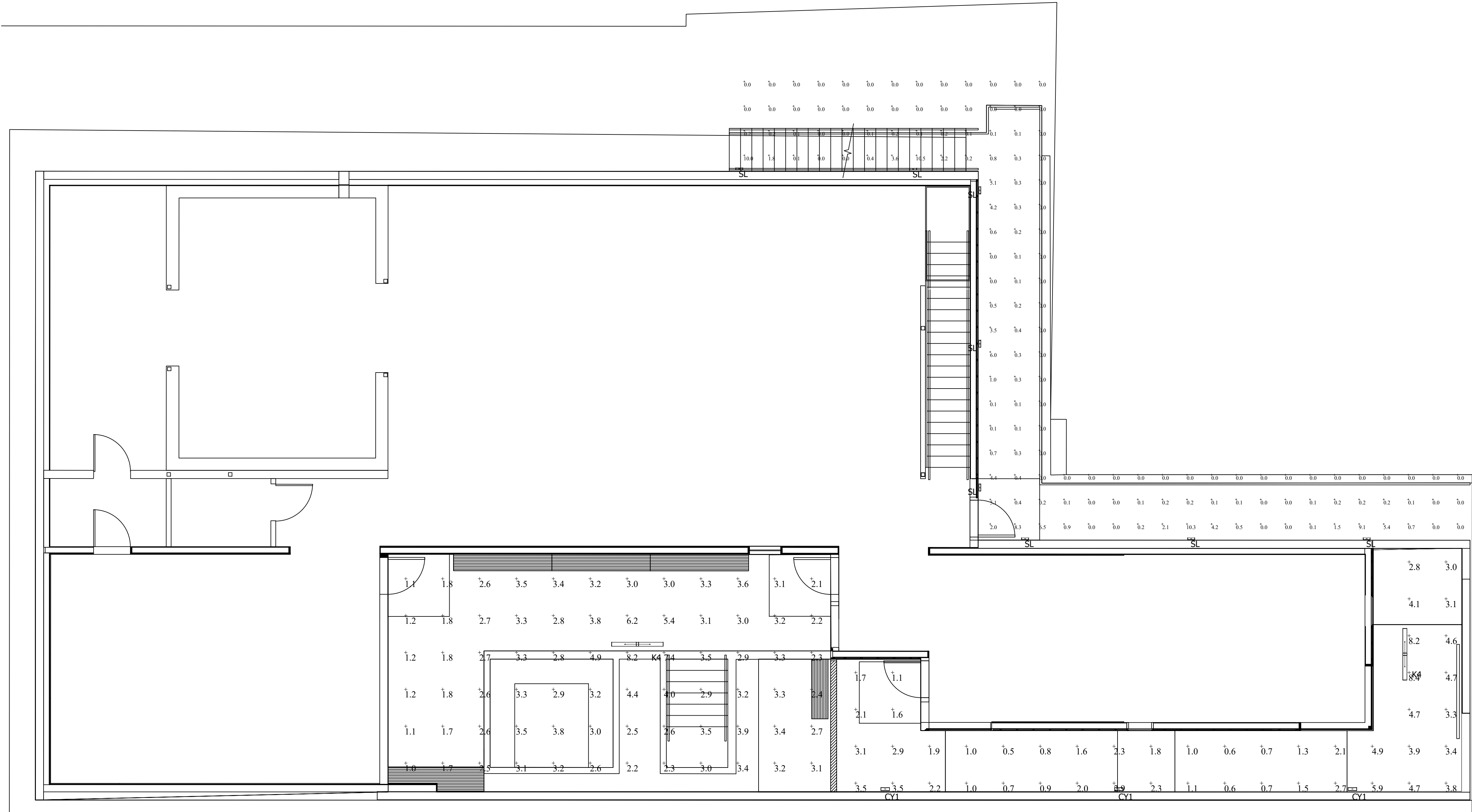


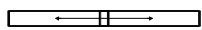
SILTATION FENCE DETAIL
NOT TO SCALE



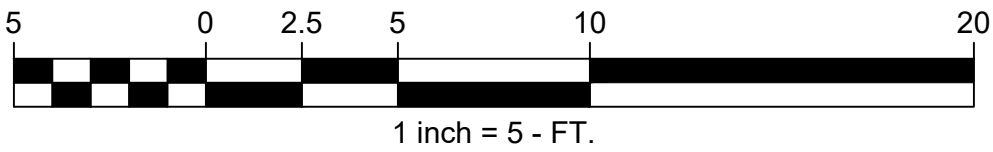
CATCH BASIN INLET PROTECTION
NOT TO SCALE

ISSUED FOR	BY
LEVEL II SITE PLAN	WHS
	10/03/18
DRAWING NAME: EROSION & SEDIMENTATION CONTROL DETAILS	
PROJECT NAME: WASHINGTON BATHS	
CLIENT: AKASHA 155 LLC	
PO BOX 11546, PORTLAND, ME 04104	
DRAWING NO. C-45	
FILE: 1108_DETAILS	
JN:	1108
SCALE:	NTS
DESIGNED BY:	SUL
DRAWN BY:	FRT
CHECKED BY:	WHS



Luminaire Schedule							
Symbol	Label	Qty	Mounting Height	LLF	Watts	Lumens	Description
	K4	2	12' - 0" AFG	0.850	23.5	2562	KM4-T4-2030
	CY1	3	7' - 0" AFG	0.425	17	1547	CY1-15-3K7-2-1D-1D-R
	SL	8	2' - 0" AFG	0.900	5	64	KLV807-3LED-3000K

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Courtyard 1	Illuminance	Fc	3.02	8.2	1.0	3.02	8.20
Courtyard 2	Illuminance	Fc	2.65	8.4	0.5	5.30	16.80
Sidewalk	Illuminance	Fc	0.81	10.5	0.0	N.A.	N.A.



1. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO HUBBELL LIGHTING. 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:

WASHINGTON BATHS
PORTLAND, ME
COURTYARD LIGHTING PLAN

REVISED FROM DRAWING NUMBER(S):

R1: 10/05/18	R5: 04/12/16
R2: 04/02/19	R6: 04/16/19
R3: 04/04/19	R7: 05/13/19
R4: 04/09/19	R8: 05/14/19



Hubbell Lighting, Inc.
701 MILLENNIUM BLVD.
GREENVILLE, SC 29607

DN BY:
DHK

REV BY:
DHK

QUOTE:
N/A

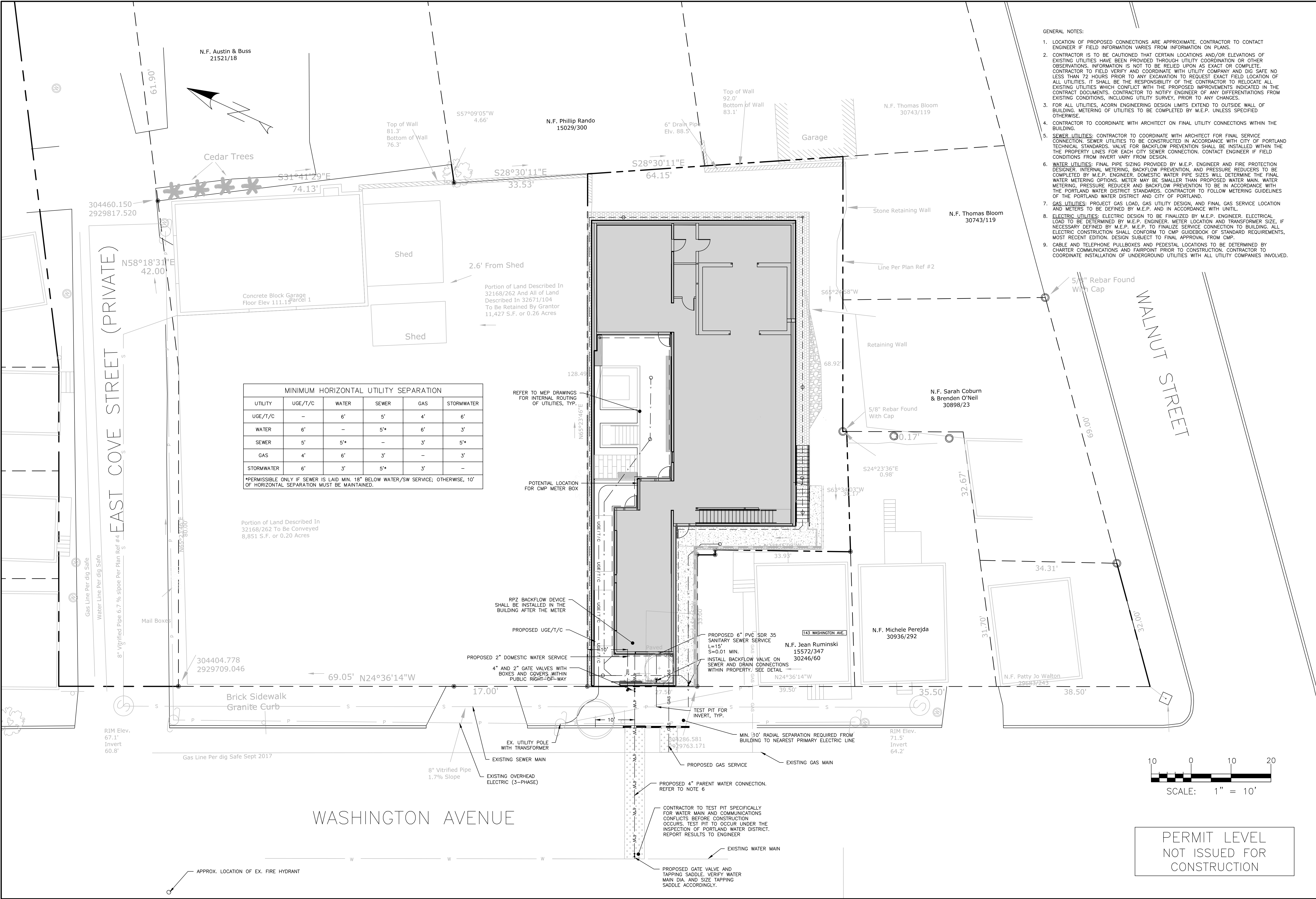
DATE:
10/03/18

DATE:
05/14/19

DRAWING / DESIGN NO.:
1822835R8

CHK BY:
N/A

SCALE:
AS NOTED



- GENERAL NOTES:
- LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
 - 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 RELED 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 SURVEY, PRIOR TO ANY CHANGES.
 - FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS EXTEND TO OUTSIDE WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
 - CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
 - SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF FIELD CONDITIONS FROM INVERT VARY FROM DESIGN.
 - 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.
 - GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNILIT.
 - 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.
 - CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CHARTER COMMUNICATIONS AND FAIRPOINT PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.

ISSUED FOR	BY
LEVEL II SITE PLAN	WHS
FINAL	WHS
	10/23/18
	8/14/19

UTILITY PLAN	WASHINGTON BATHS
DRAWING NAME	AKASHA 155 LLC
PROJECT NAME	PO BOX 11546, PORTLAND, ME 04104
CLIENT	

ACORN ENGINEERING, INC.
158 DANFORTH ST. PORTLAND, MAINE 04102
(207) 775-2655

FILE:	1108_CIVIL
JN:	1108
SCALE:	1"=10'
DESIGNED BY:	SUL
DRAWN BY:	SUL
CHECKED BY:	WHS

DRAWING NO.
C-20

1. LOCATION WITH WARNING TAPE SHALL BE INSTALLED OVER CENTERLINE OF PIPE AT A MAXIMUM OF 24 INCHES BELOW FINISH GRADE.
2. SITE CONTRACTOR TO COORDINATE CONNECTION OF SEWER LATERAL TO HOUSEHOLD PLUMBING WITH ARCHITECTURAL CONTRACTOR.
3. CONNECTION OF PROPOSED SEWER LATERAL TO HOUSEHOLD PLUMBING SHOULD INCORPORATE USE OF SIMILAR PIPE MATERIALS, IN THE CASE OF DISSIMILAR PIPES BEING USED, A FERNCO FLEXIBLE COUPLING SHALL BE USED.

45°

45° MAXIMUM WYE BRANCH

WOODEN 2X4 1'
ABOVE GRADE

EXISTING SURFACE

DIRECTION OF MAIN SEWER

45°

PROPOSED WYE BRANCH

WYE BRANCH

6" OF 3/4" CRUSHED STONE (MDOT
703.22 TYPE C) SURROUNDING PIPE

NOT TO SCALE

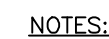


- REINFORCED CONCRETE PIPE (RCP) MIN. STRENGTH OF CLASS III
- PVC RING TYPE SEWER (SDR 35) OR EQUIVALENT, MIN PS-46 RATING
- PVC RING TYPE SEWER PIPE MEETING ASTM F 789
- DUCTILE IRON PIPE (DIP)
- ADS N-12 HP TRIPLE-WALL MIN PS-46 RATING
- ADS SANITITE HP MIN. PS-46

NOT TO SCALE

NOTES:

1. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. THE SUCCESS OF TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. STORM DRAIN COVER BETWEEN 2" AND 3' SHALL INCLUDE 4" OF RIGID INSULATION, COVER BETWEEN 3" AND 4' SHALL INCLUDE 2" RIGID INSULATION, OTHER UTILITIES: ADD 2" OF INSULATION TO EXISTING COVER. COVER ABOVE MINIMUM DEPTH, INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
3. MINIMUM COVER:
 - 4.1. 2'-0" - STORM DRAIN
 - 4.2. 5'-0" - SEWER
5. NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SEWER.
6. THIS DETAIL SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF PORTLAND ROW.
7. THICKNESS AS NOTED BY SURFACE DETAILS
8. ALL PERMEABLE TRENCHES SHALL BE 10" OF A STORM OR SEWER PIPE SHALL BE PLANTED AT A DEPTH NO GREATER THAN 3' DEEP. PERMEABLE LANDSCAPE FABRIC SHALL CREATE A ROOT BARRIER AROUND THE PIPES. CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE DRAWINGS.



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 LID 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.

NOT TO SCALE



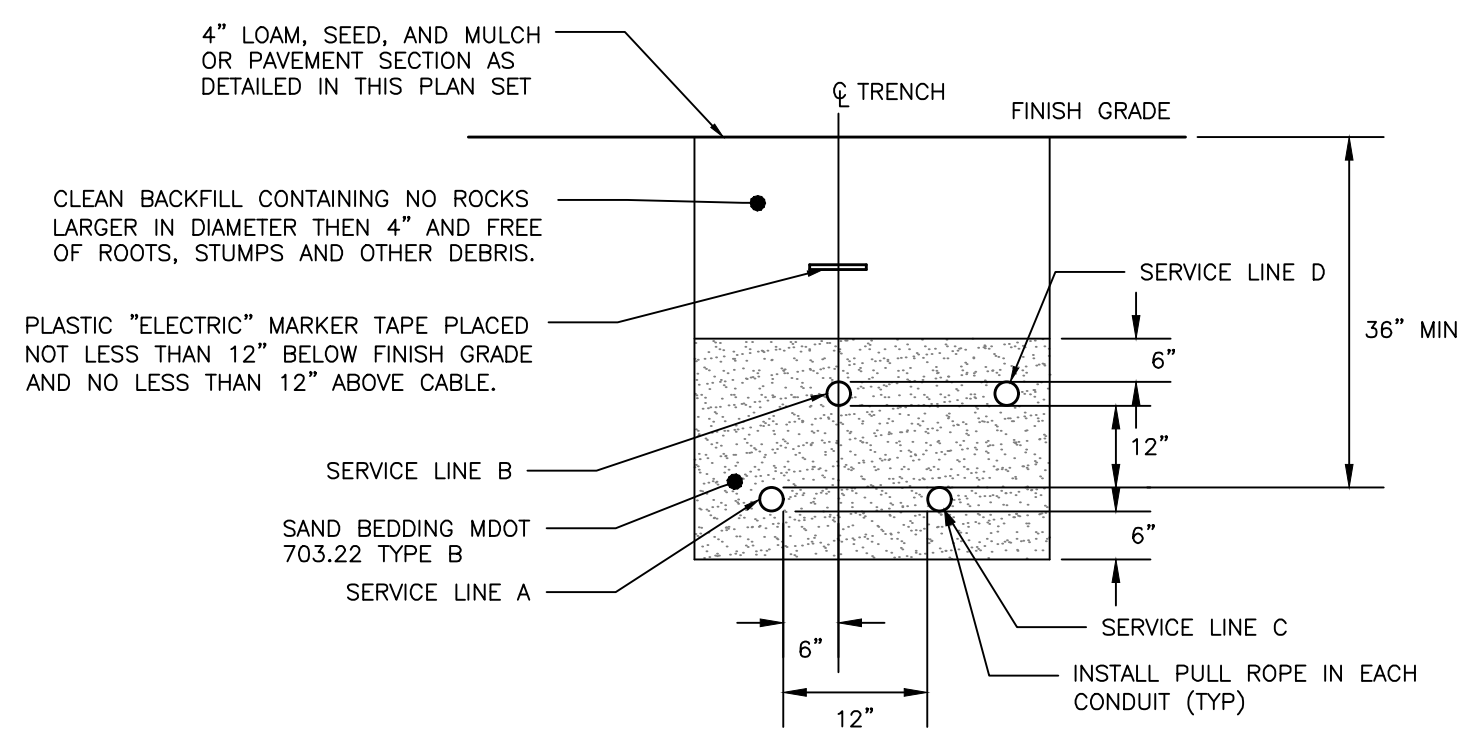
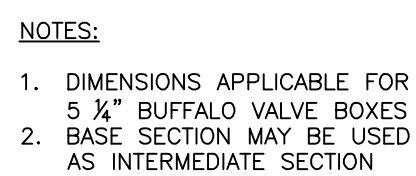
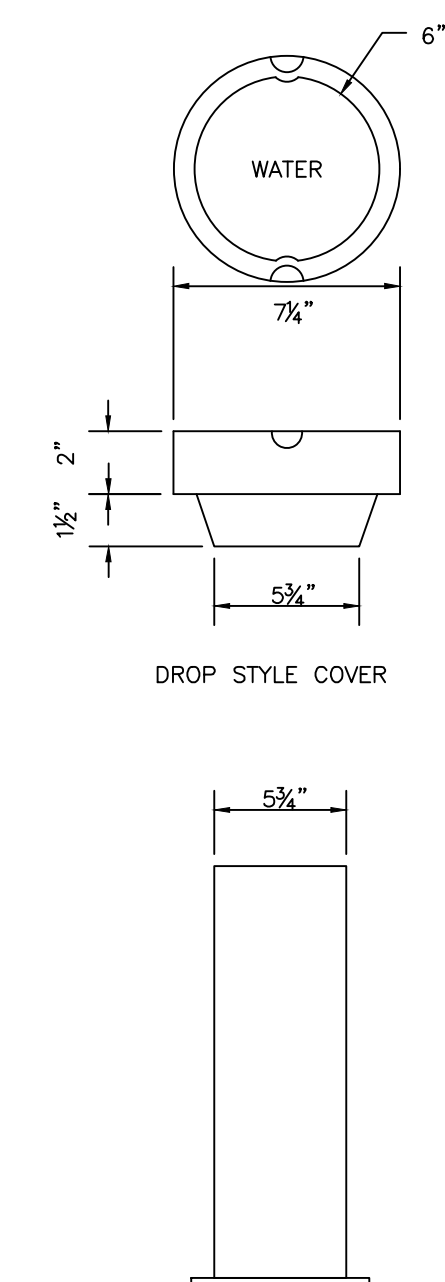
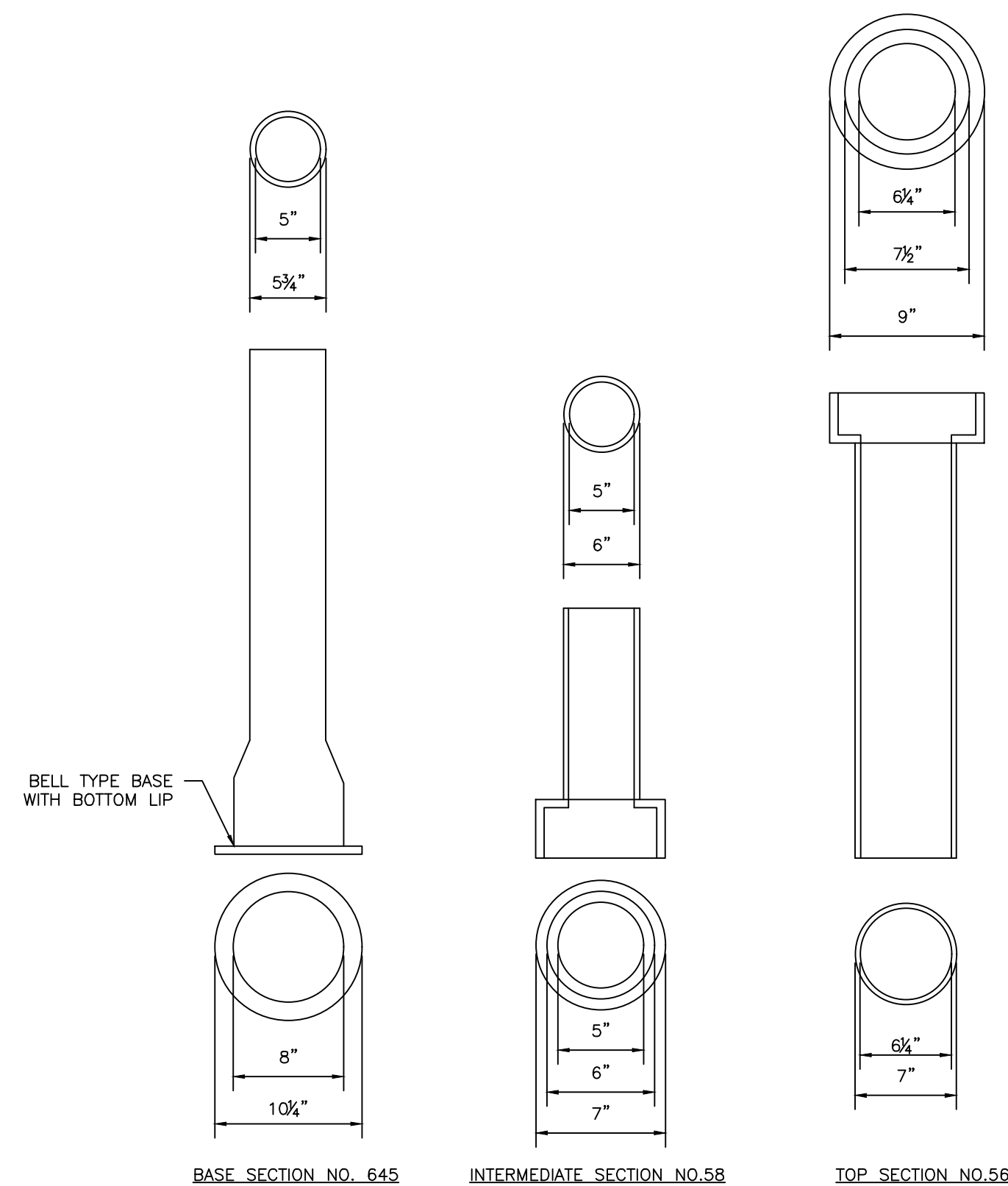
1. REFER TO GRADING AND DRAINAGE PLANS FOR CLEANOUT LOCATIONS.
2. CONTRACTOR TO CONFIRM NO CONFLICT WITH OTHER FLOOR DRAINS OR PIPING SYSTEMS.
3. EACH CLEANOUT SHALL BE FLUSH WITH THE FINISH FLOOR ELEVATION.

- PVC SDR 35 OR EQUIVALENT WITH SOLID COUPLINGS (TYP)

PROVIDE WYE AS NECESSARY OTHERWISE,
PROVIDE A 1/8 BEND

NOT TO SCALE

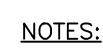
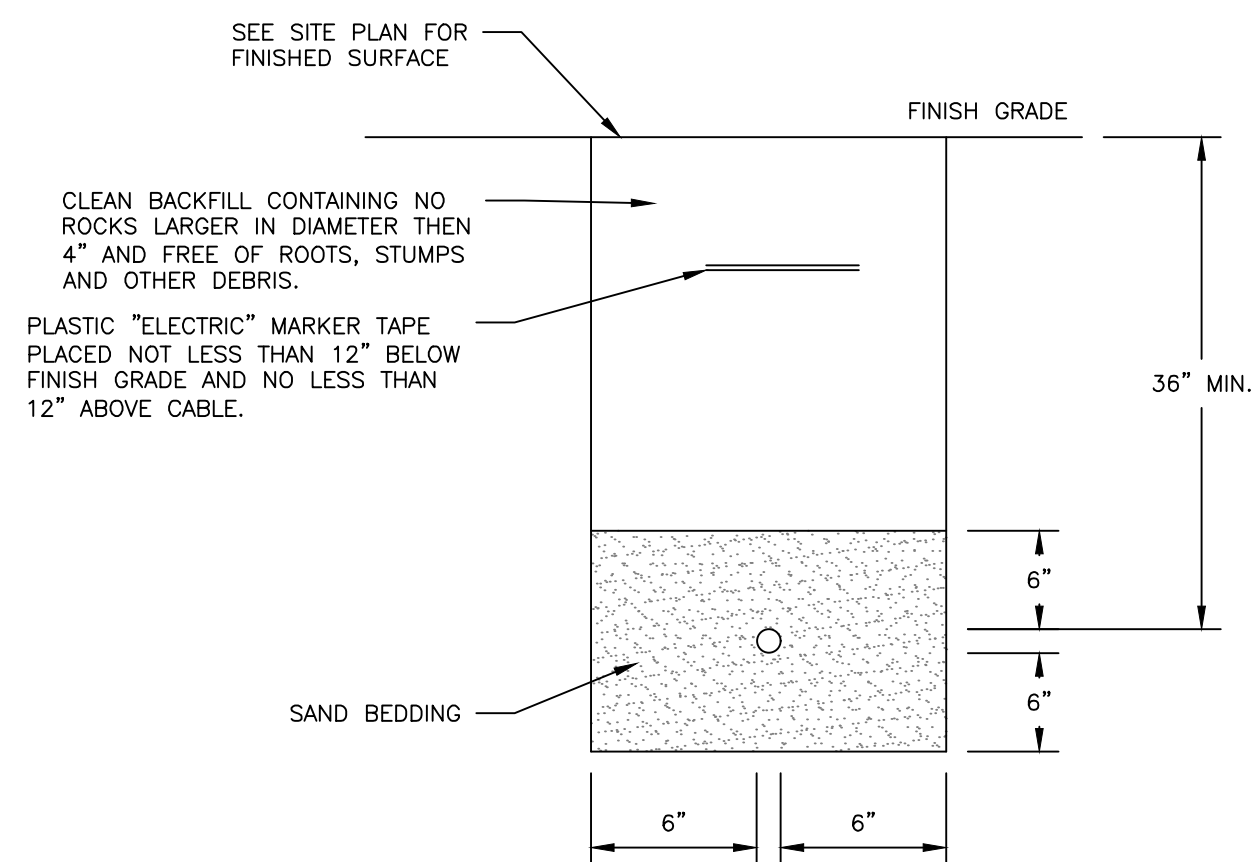
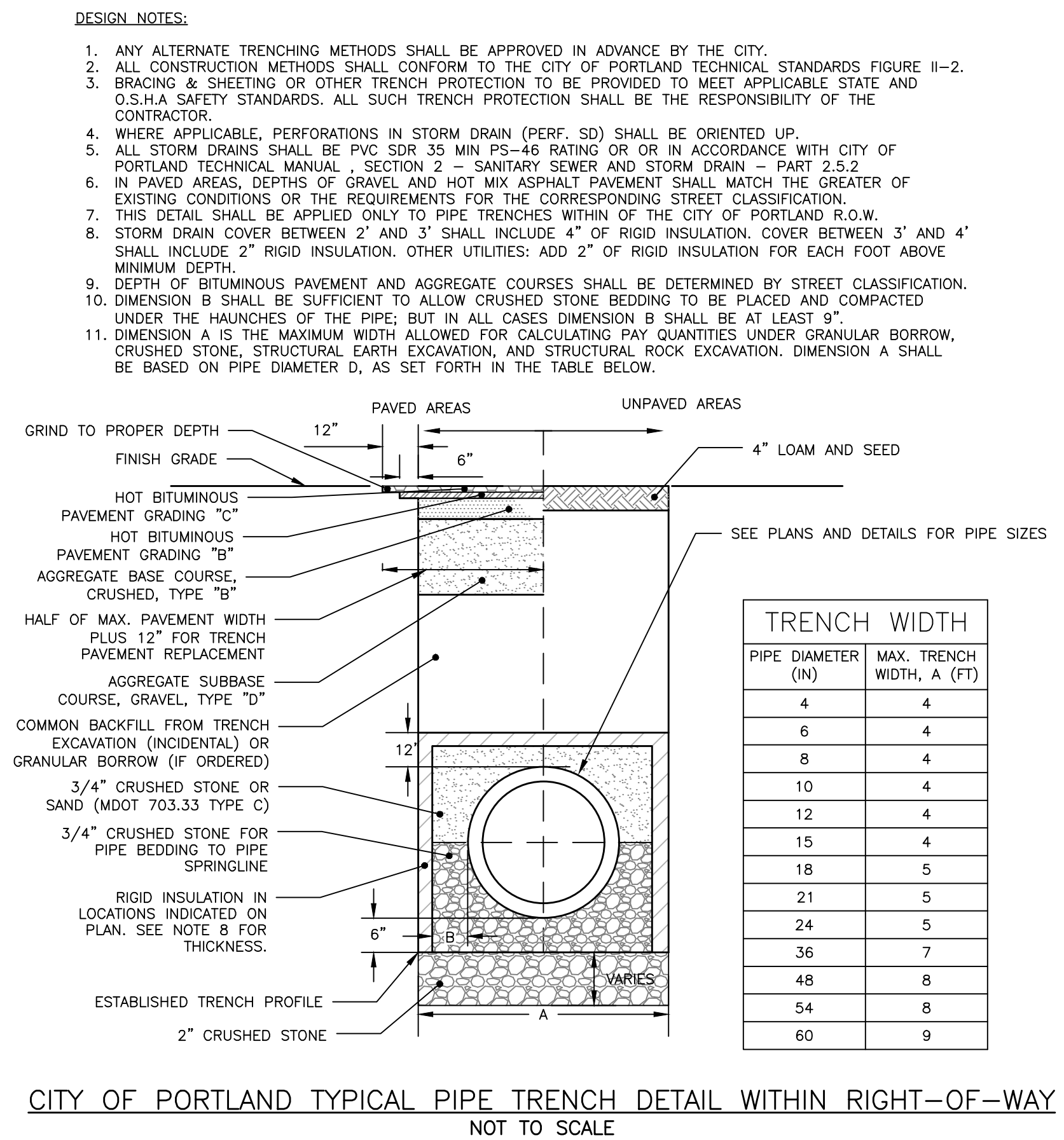
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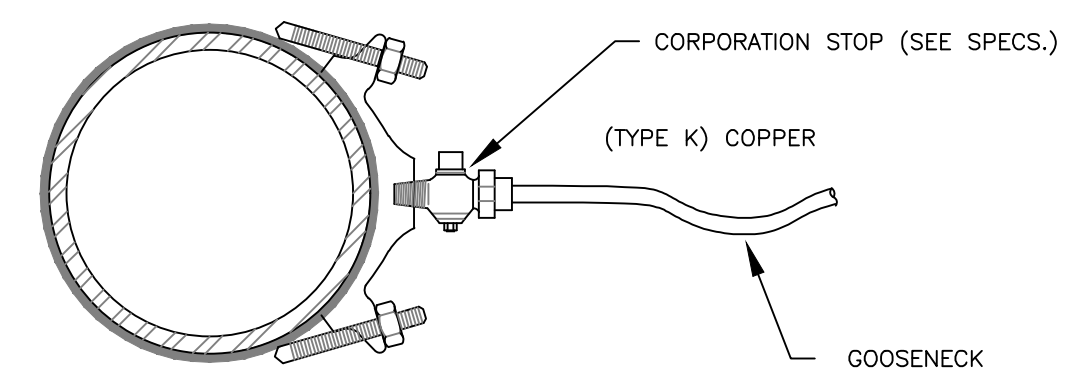
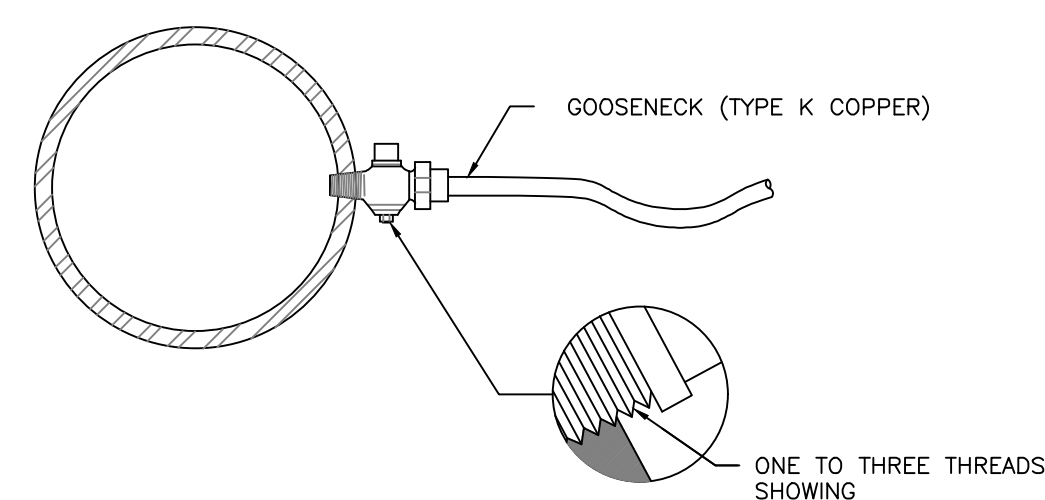
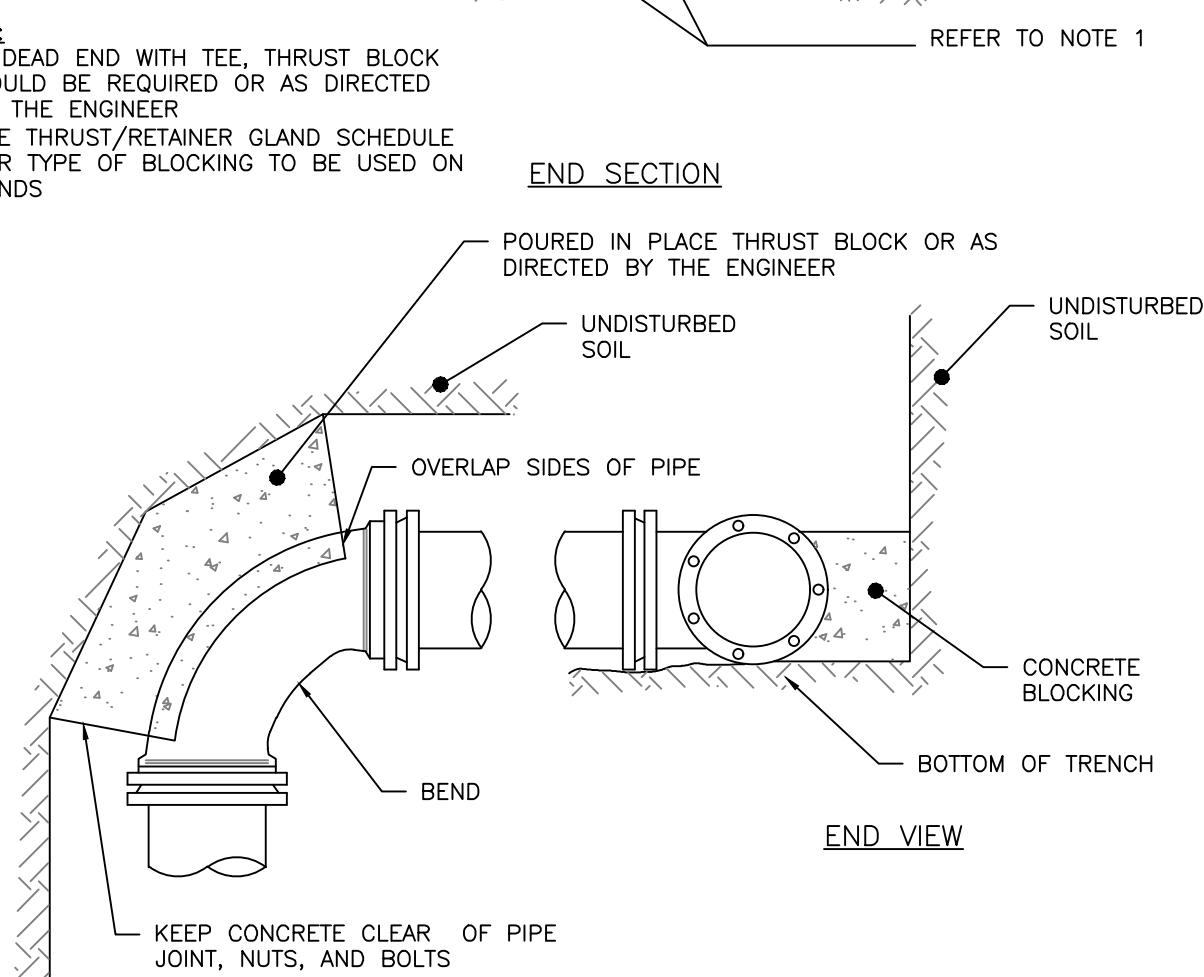
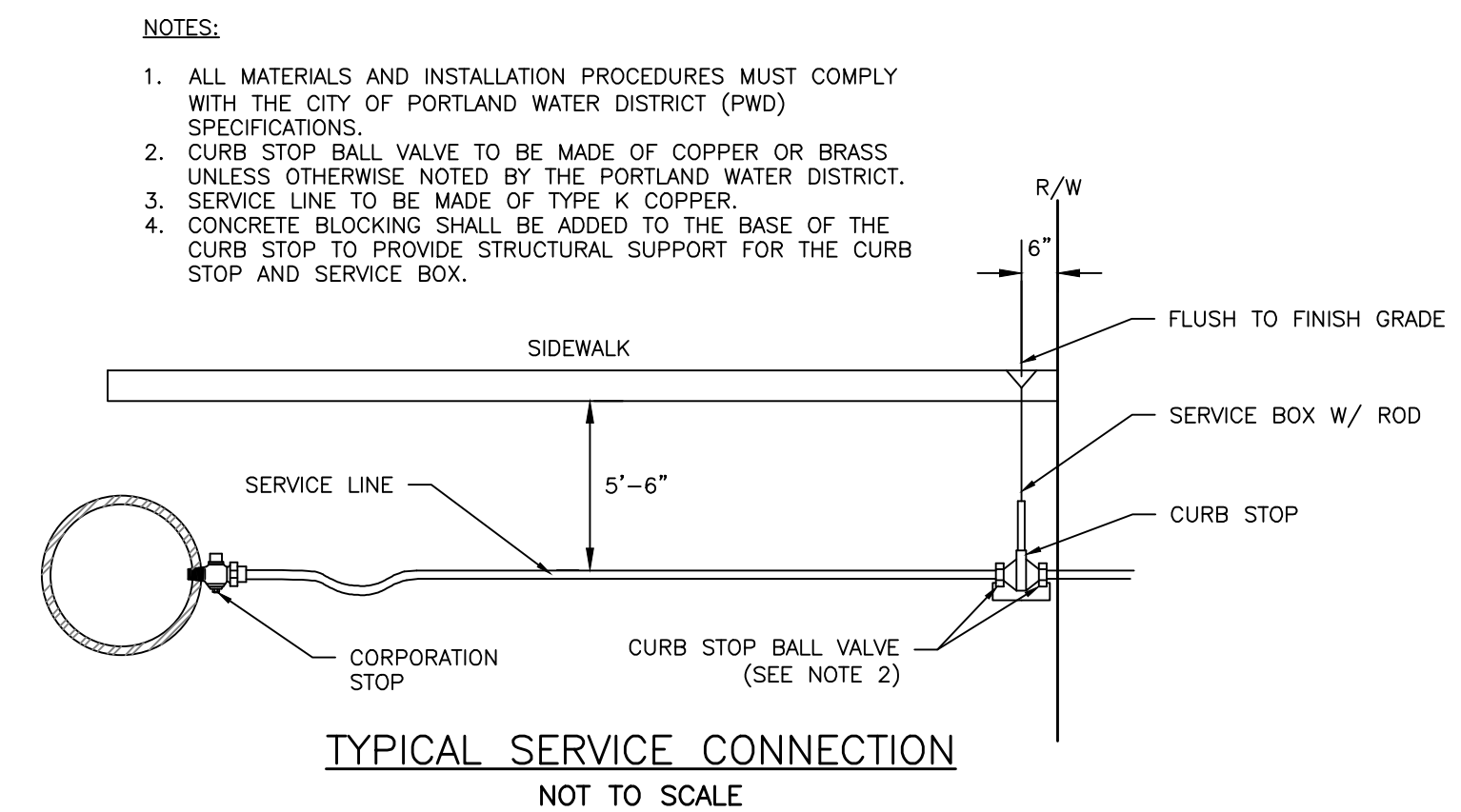
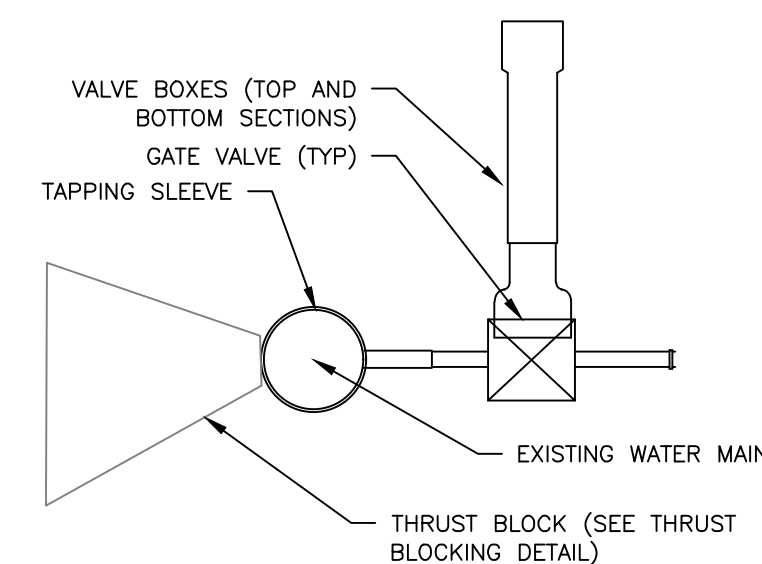
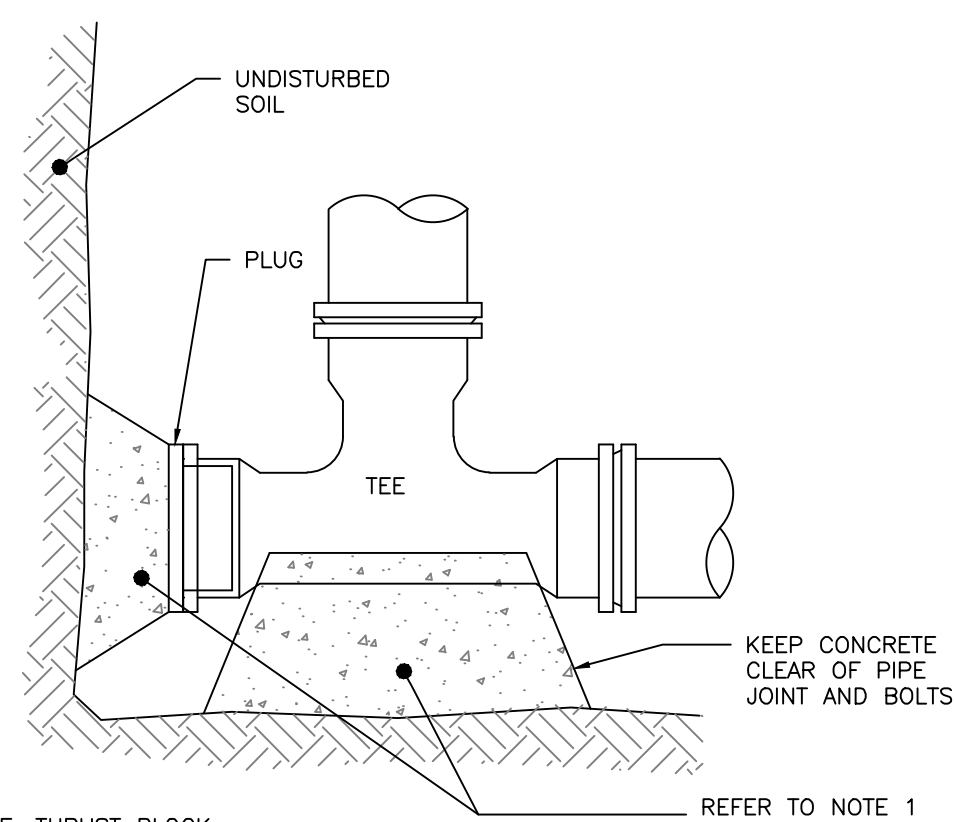
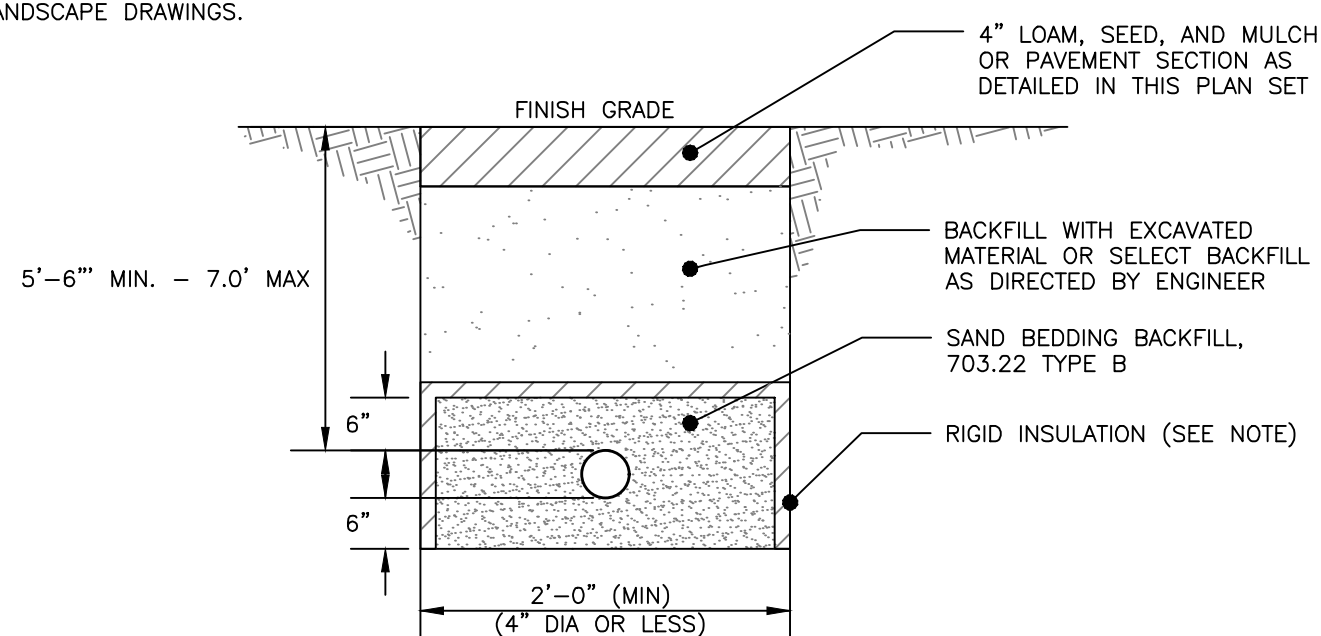
CONDUIT TYPE					
SERVICE	CONDUIT SIZE	GRASS AND PAVED AREAS	UTILITY		REMARKS
A	2-5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER		SEE NOTE 1
B	2-4"	SCHEDULE 40 PVC	COMMUNICATION		-
C	2-4"	SCHEDULE 40 PVC ELECTRICAL GRADE	SPARE		IF REQUIRED
D	2-4"	SCHEDULE 40 PVC	CABLE		-

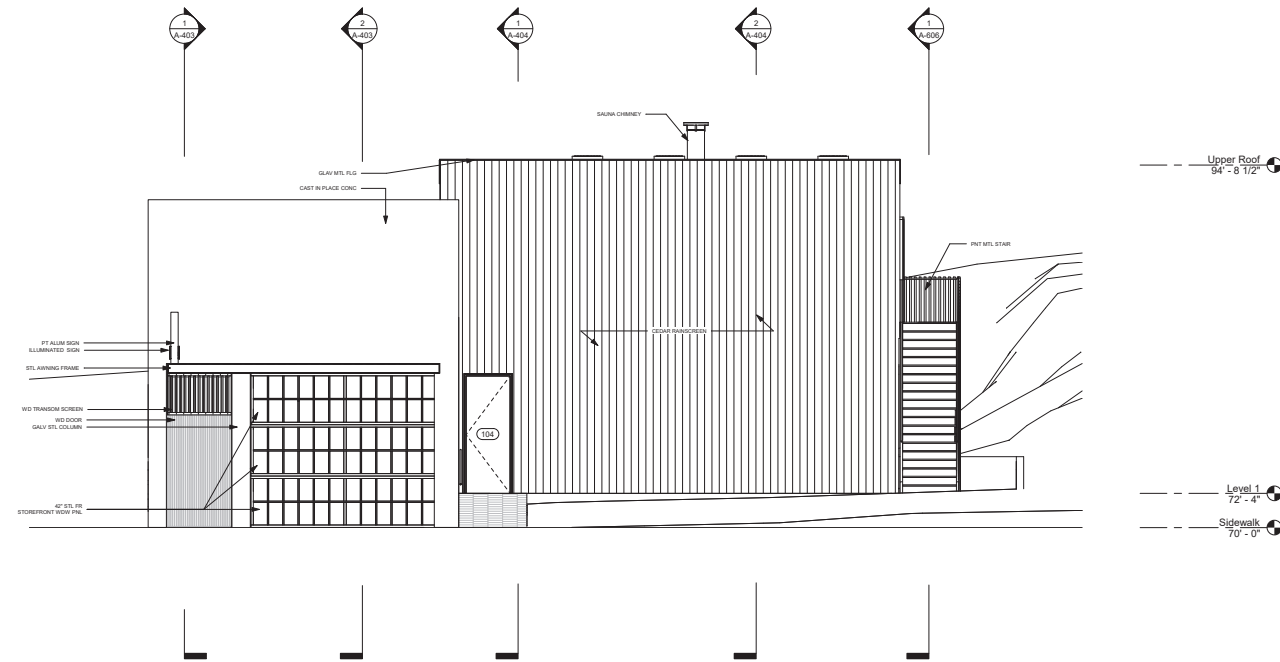
NOTES:

1. ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10" ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.
2. MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.

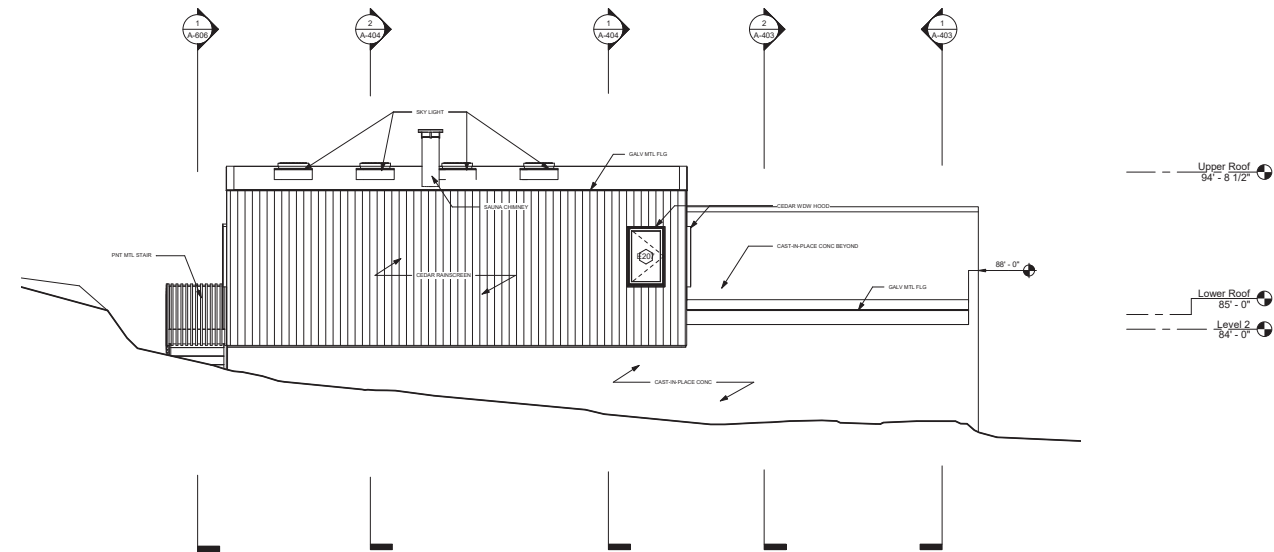


1. THE WATER TRENCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARD DETAILS & SPECIFICATIONS.
2. IF LESS THAN 5'-6" OF COVER IS POSSIBLE ADD 1 INCH OF "BLUE DOW" RIGID INSULATION FOR EVERY 12" LESS COVER.
3. ALL PROPOSED TREES PLANTED LESS THAN 10 FEET FROM THE WATER PIPE SHALL BE PLANTED AT A DEPTH NO GREATER THAN 3' DEEP. PERMEABLE LANDSCAPE FABRIC SHALL CREATE A ROOT BARRIER AROUND THE WATER PIPES. CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE DRAWINGS.





② West Elevation
1/4" = 1'-0"



① East Elevation
1/4" = 1'-0"



KIEL MOE ARCHITECT

Structural Integrity Consulting Engineers, Inc.
46 Forest Avenue
Portland, ME 04101
207-774-4614

SHEET NOTES:
PRICING SET

Asher Woodworth

WASHINGTON BATHS

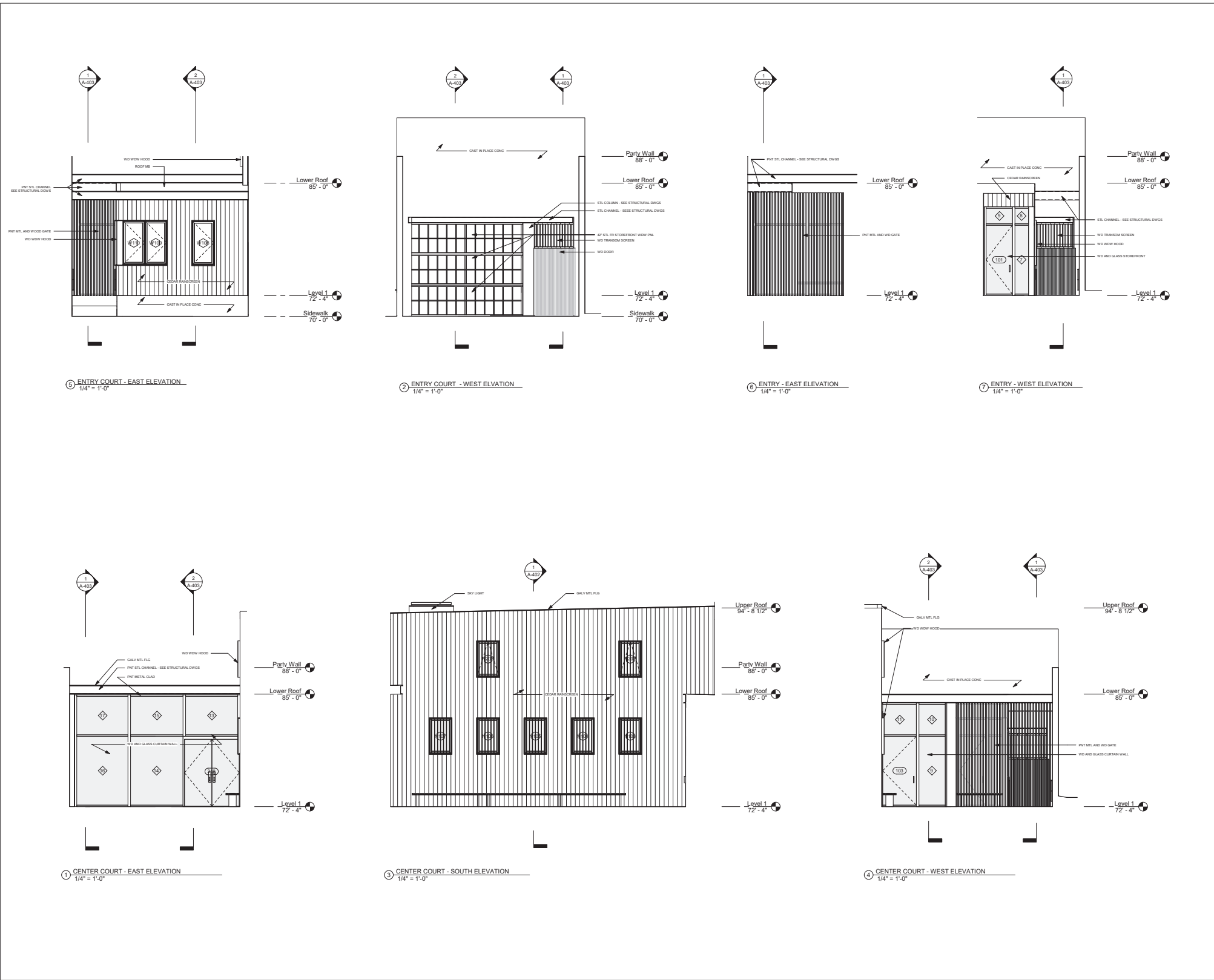
EXTERIOR ELEVATIONS

Project Number 18001
Date June 25, 2019
Drawn By GWH
Checked By JWM

A-301

Scale 1/4" = 1'-0"

7/24/2019 9:01:10 AM



KIEL MOE ARCHITECT

Structural Integrity Consulting Engineers, Inc.
46 Forest Avenue
Portland, ME 04101
207-774-4614

SHEET NOTES:
PRICING SET

Asher Woodworth

WASHINGTON BATHS

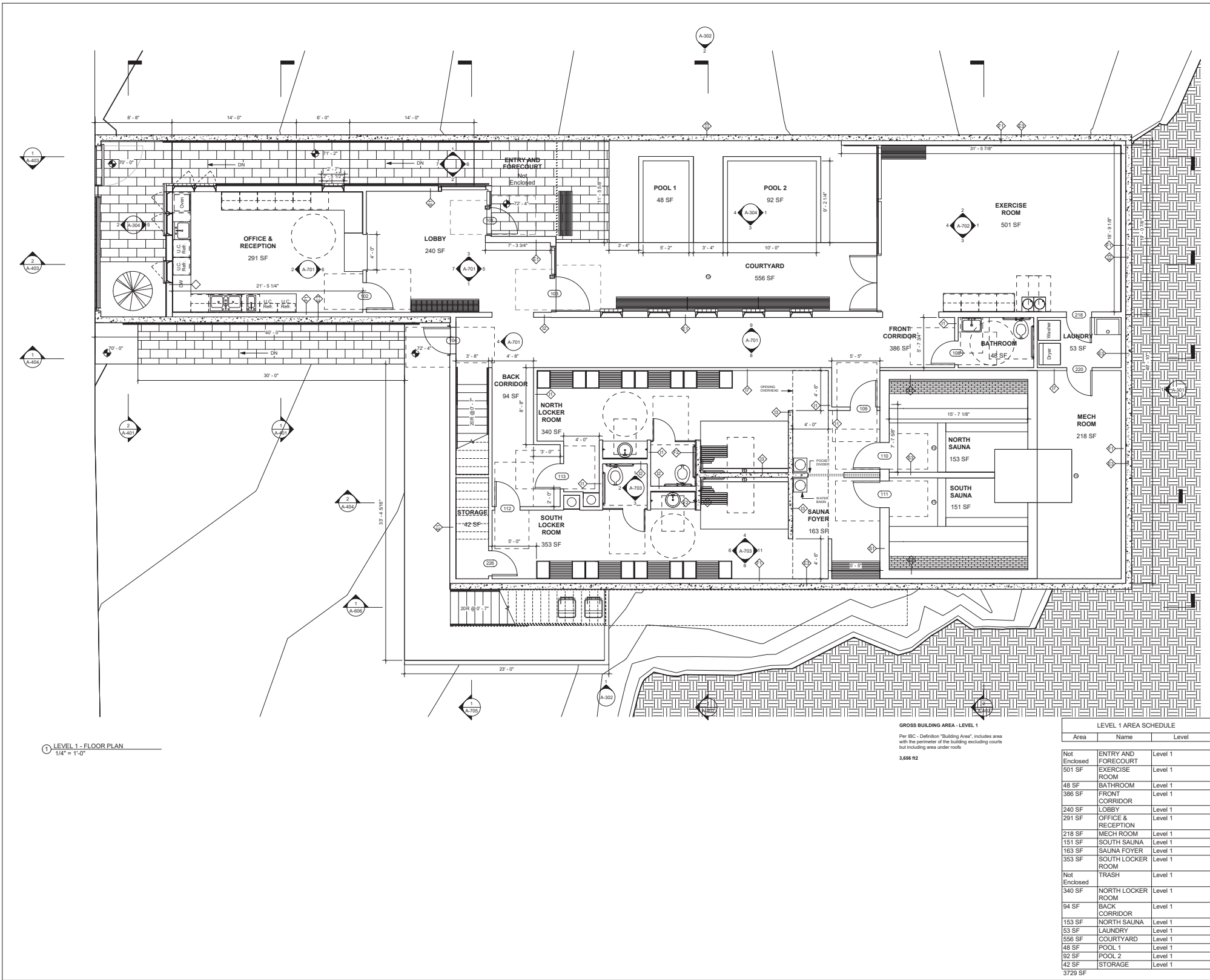
EXTERIOR ELEVATIONS -
ENTRY COURT AND
CENTER COURTYARD

Project Number 18001
Date June 25, 2019
Drawn By GWH
Checked By JWM

A-304

Scale 1/4" = 1'-0"

7/24/2019 9:01:17 AM





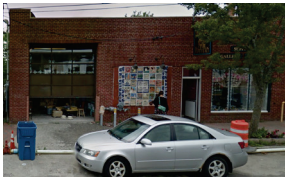
143 Washington Ave
Street Facade
July 24, 2019

Pattern

-The adjacent commercial street facades with operable doors can be found in closed, open, and partially open states.

Response

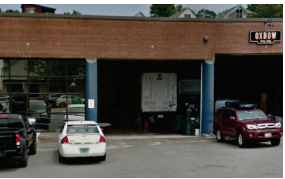
-143 Washington Ave fits this pattern by allowing its doors to operate in a variety of configurations that will amplify engagement with street.



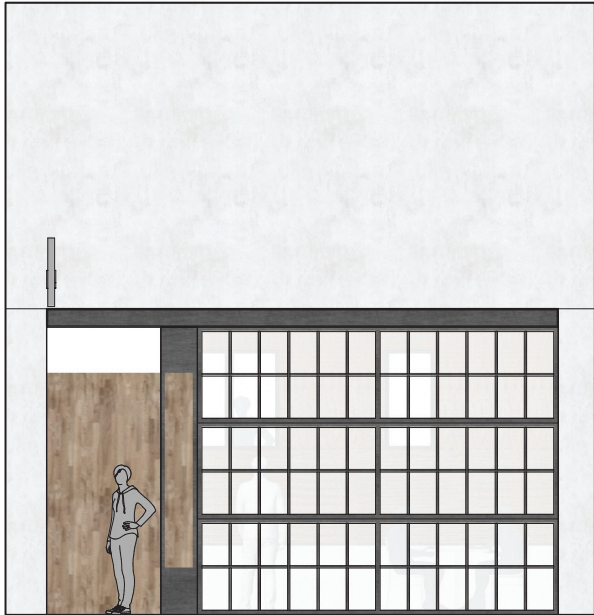
Commercial
118 Washington Ave.



Commercial
118 Washington Ave.



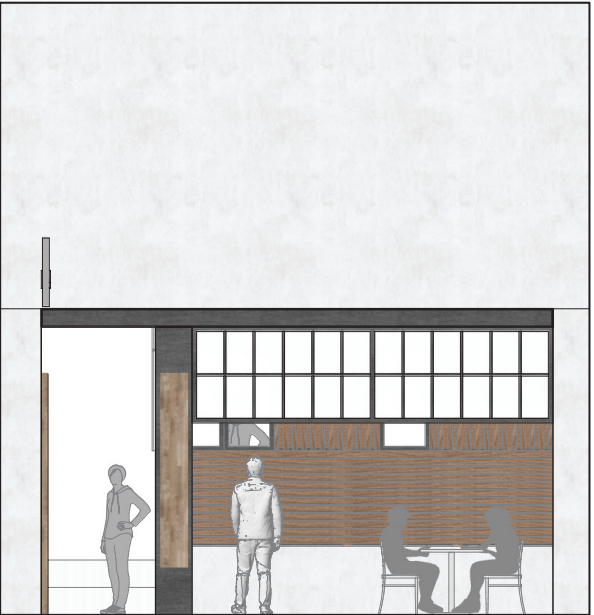
Commercial
49 Washington Ave.



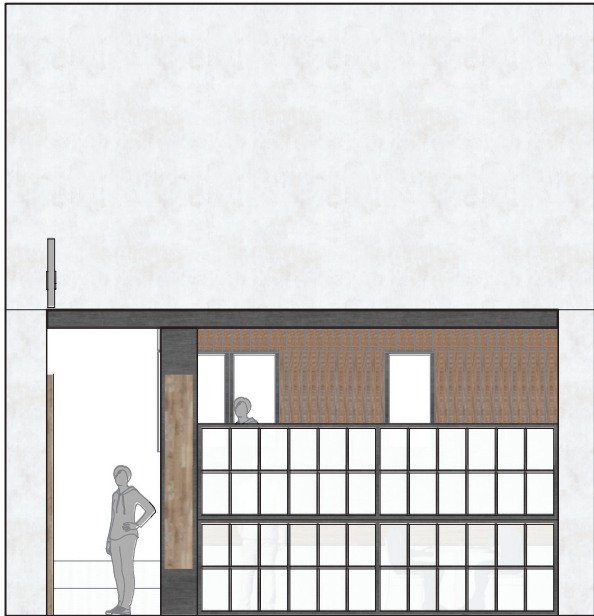
All Closed



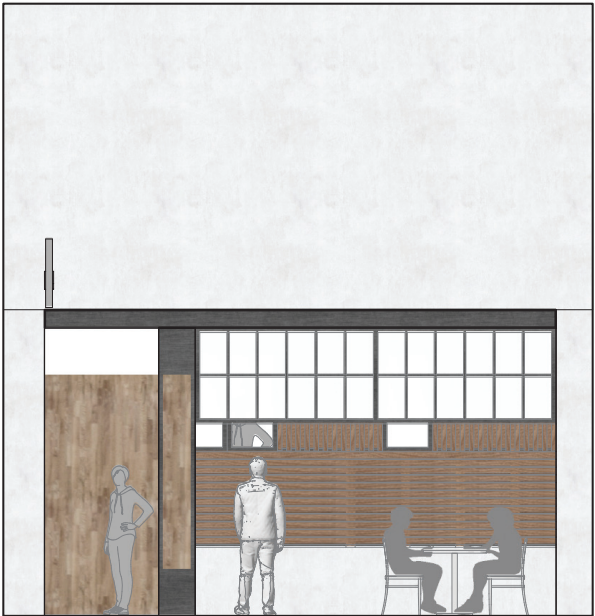
Middle Section Open
42" clear opening



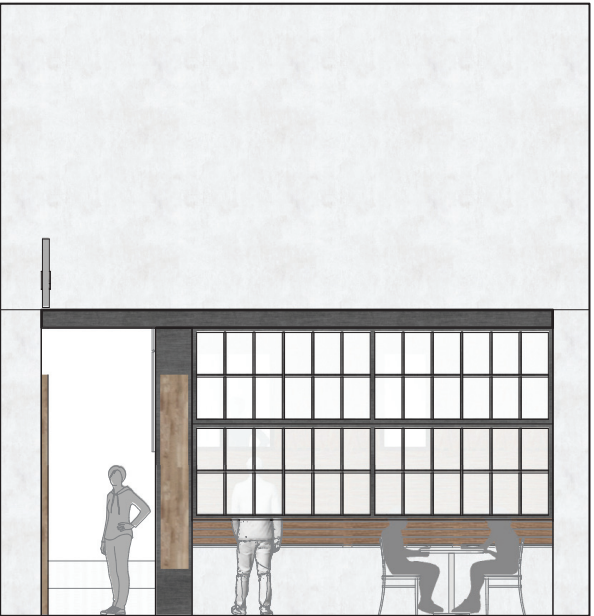
Bottom Panels Open
7' clear opening



Top Panels Open
42" open transom



Bottom Panels Open
door closed



Bottom Panel Open





All Closed



Middle Section Open
42" clear opening



Bottom Panels Open
7' clear opening



Top Panels Open
42" open transom



Top Panels Open



Bottom Panel Open

Commercial Storefronts
53-178 Washington Ave.

The basic street facade strategy is a variant of extant commercial street facades on Washington Avenue.

Pattern

-Several adjacent commercial street facades feature dark metal-framed storefronts and operable garage doors; typically with an adjacent hinged door. The most adjacent of such properties are framed by simple facades painted gray.

Response

-143 Washington Ave fits this pattern by featuring an operable storefront panel that can open for pop-up street engagement. Like these adjacent commercial facades, 143 Washington Ave includes a smaller entry door, framed by a gray material.



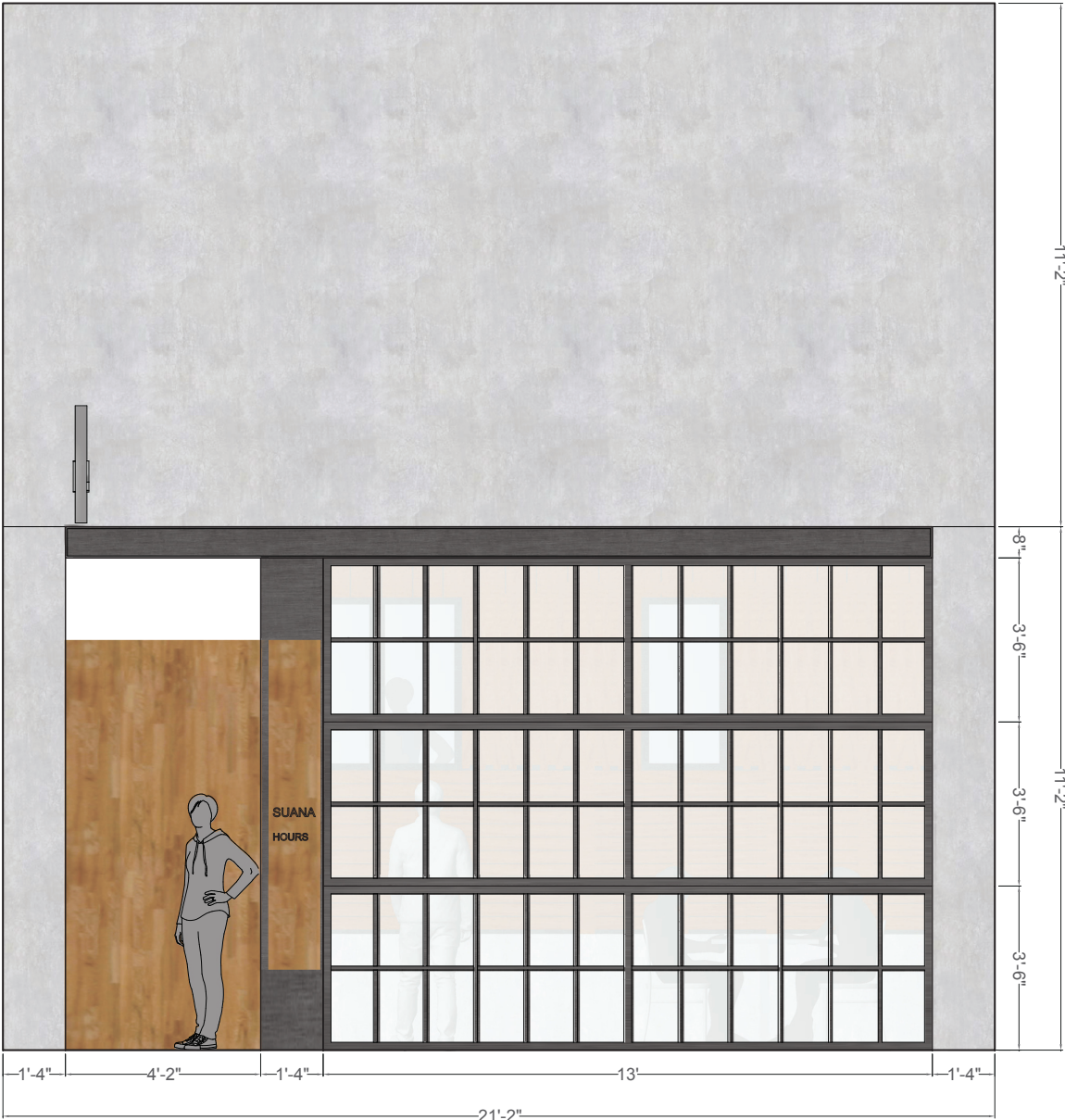
Commercial
123 Washington Ave.



Commercial
135 Washington Ave.



Commercial
155 Washington Ave.



Commercial
143 Washington Ave.



Commercial
118 Washington Ave.



Commercial
178 Washington Ave.



Commercial
63 Washington Ave.



Commercial
53 Washington Ave.

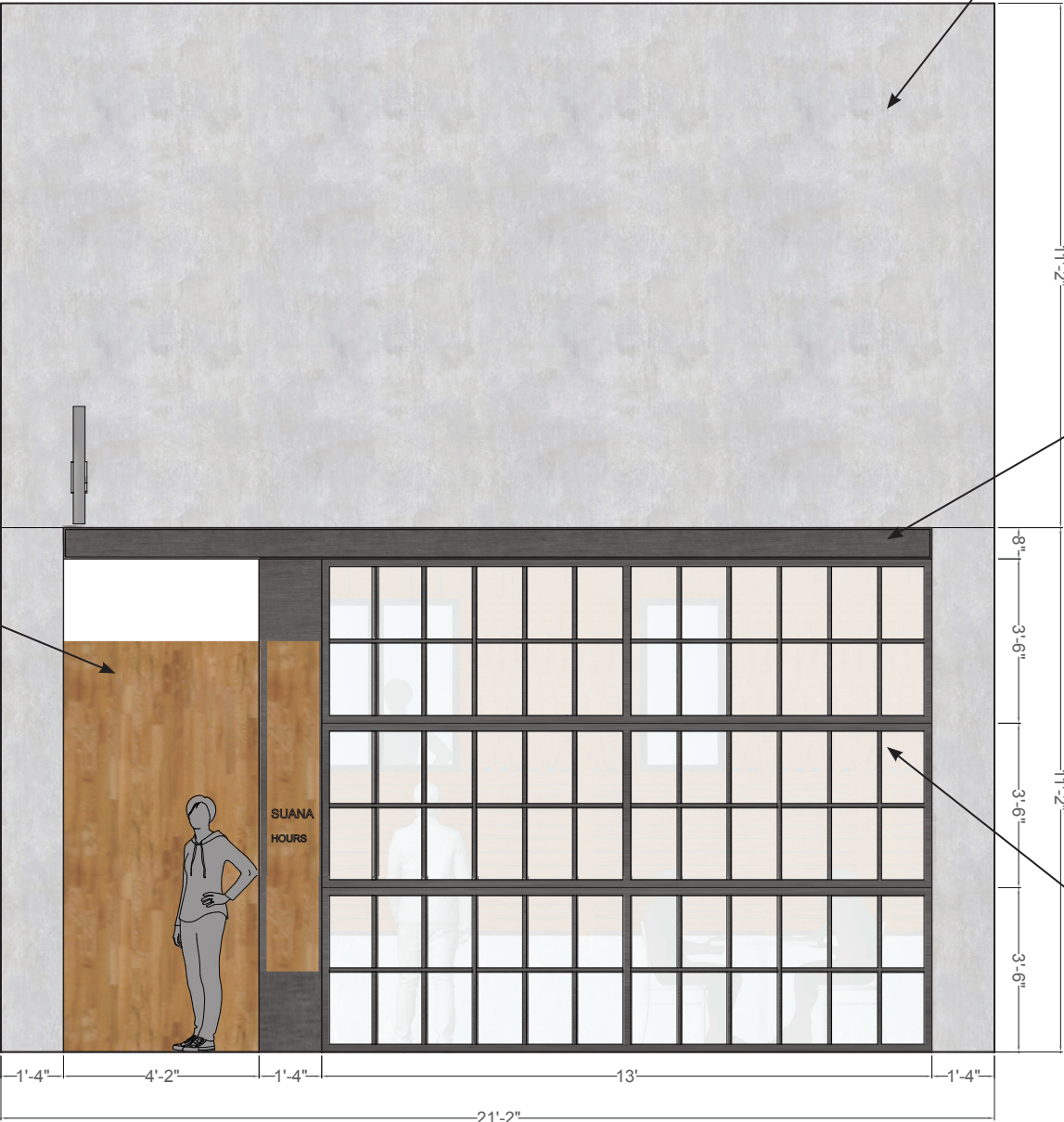
Street Facade Materials

-The street facade materials negotiate varied contextual features found on Washington Avenue with the construction systems of the new building.



Wood Accent Entry Door

- White Cedar sourced from Maine
- the sealed wood door will add warmth to the street facade
- finish to match underside of awning
- an adjacent panel of wood on the structural pier will feature business name, operating hours, etc. to add further warmth to the entry. (Awning will also include downlighting of sidewalk.



Cast in place Concrete

- cast concrete expresses steel form-work for rougher texture and surface differentiation.
- concrete sealed with clear sealer so as to provide subtle differentiation and texture



Steel Channel Awning

- powder-coat painted to match operable glass panels
- awning will have wood on its underside to add further warmth at the pedestrian scale
- business sign on awning



Hope's Steel Window Panels

- Hope's windows provide thin mullions for minimal sight-lines
- proportions to recall both commercial storefronts on Washington Ave and smaller-scale glass units of earlier New England storefronts
- powder-coat painted to match awning
- <https://hopeswindows.com/>

Commercial Party Walls
43-185 Washington Ave.

Pattern
-Commercial party walls are predominately gray walls; a mix of concrete masonry block, various wood sidings, etc.

Response
-143 Washington Ave fits this pattern, while providing a more consistent and higher quality material (cast-in-place concrete) that helps set a precedent for future party walls in the area.



Commercial
185 Washington Ave.



Commercial
123 Washington Ave.



Commercial
94 Washington Ave.



Commercial
178 Washington Ave.



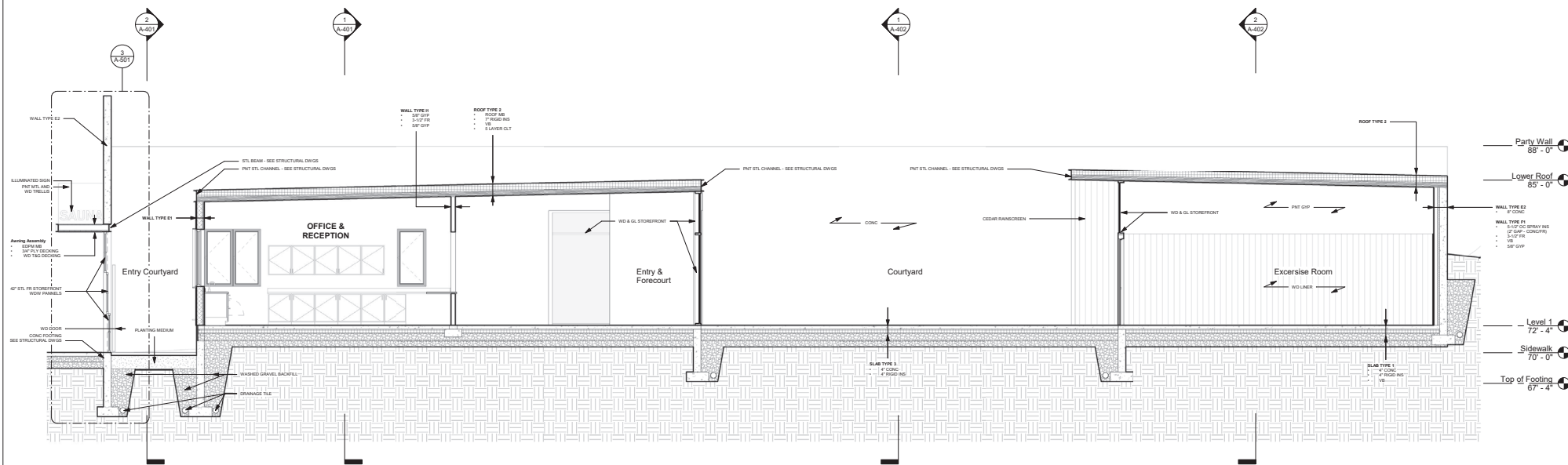
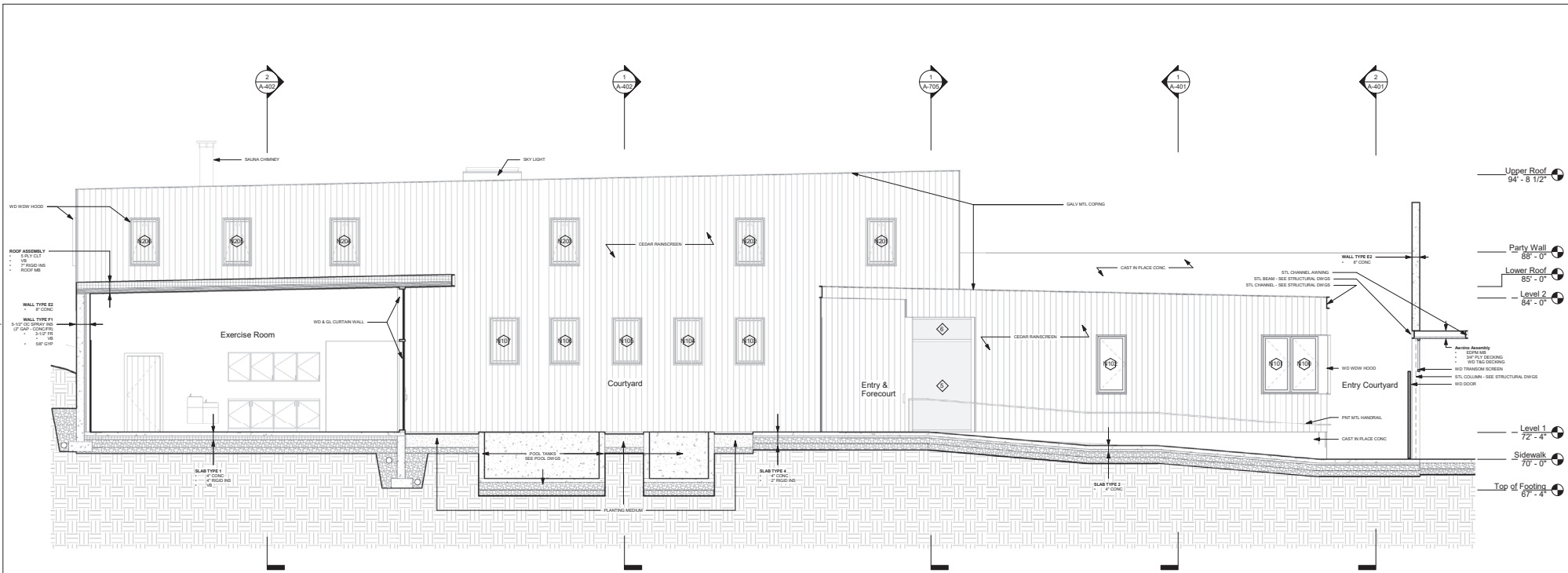
Commercial
123 Washington Ave.



Commercial
107 Washington Ave.



Commercial
43 Washington Ave.



KIEL MOE ARCHITECT

Structural Integrity Consulting Engineers, Inc.
46 Forest Avenue
Portland, ME 04101
207-774-4614

SHEET NOTES:

PRICING SET

Asher Woodworth

WASHINGTON BATHS
BUILDING SECTIONS

Project Number 18001
Date June 25, 2019
Drawn By Author
Checked By Checker

A-403

Scale 1/4" = 1'-0"

7/24/2019 9:01:35 AM

PLANNING BOARD REPORT

PORTLAND, MAINE



263 Cumberland Ave Redevelopment
Level III Site Plan Review
Downtown Lodging, LLC, Applicant
PL-000748-2019 CBL: 026 Foo8

Submitted to: Portland Planning Board
Public Hearing Date: October 8, 2019

Prepared by: Andrew Tufts, Planner
Date: October 3, 2019

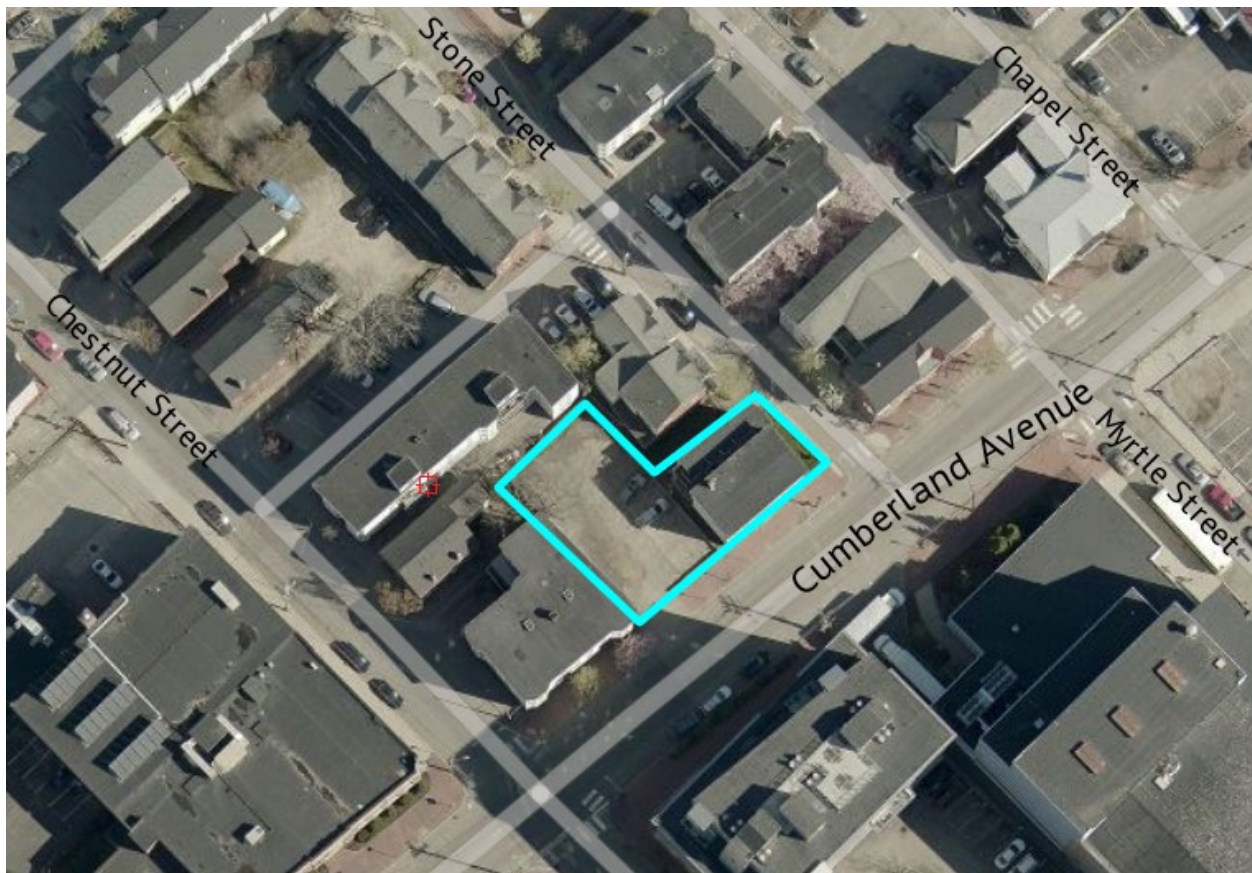


Figure 1: Parcel outline

I. INTRODUCTION

Downtown Lodging, LLC, has submitted a Level III Site Plan application for the development of a five-story, 89-room lodging house with ground-floor retail at 263 Cumberland Avenue. The subject property is a 6,981 square foot parcel located at the corner of Cumberland Ave and Stone Street. The immediate surrounding neighborhood is a mix of residential, commercial, and institutional uses and is zoned B-2 with an R-7 overlay.

A total of 134 notices were sent to property owners within 500 feet of the site and a legal notice ran in the August 31st & September 2nd 2019 editions of the Portland Press Herald.

Applicant: Downtown Lodging, LLC

Consultants:

- Will Savage, PE (Acorn Engineering, Inc)
- Ryan Senatore, AIA (Ryan Senatore Architecture)
- Randy Loubier, Surveyor (Owen Haskell Inc)

II. REQUIRED REVIEWS

<i>Waiver Requests</i>	<i>Applicable Standards</i>
Request to remove one existing tree greater than 10 inches DBH within the setback area. <u>Staff Comments:</u> Pending.	Technical Manual, <i>Section 14-526. (a)2.a.iv Landscape Preservation</i> , requiring all development subject to zoning setbacks shall preserve a minimum of 30% of existing trees ten (10) inches DBH or greater within the setback area.
Request to position the driveway 28.25' from the intersection of projected right-of-way lines to the center of the driveway. <u>Staff Comments:</u> The City's Traffic Engineer supports a waiver from the City's Technical Standards for driveway position given site constraints.	Technical Manual, 1.7.2.7 Along local streets, driveways shall be thirty-five (35) feet from intersections.
<i>Review</i>	<i>Applicable Standards</i>
Site Plan	<i>Section 14-526</i>

III. PROJECT DATA

Existing Zoning	B-2 Zone & R-7 Overlay Zone
Existing Use	Lodging House, Surface Parking
Proposed Use	89 Lodging House Units, Retail Space
Bedroom Mix	Single Room Occupancy (all units)
Parcel Size	6,981 SF

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	1,585 sf	5,132 sf	+ 3,547 sf
Building Floor Area	4,425 sf	32,576 sf	+ 28,151 sf
Impervious Surface Area	6,091 sf	5,661 sf	- 432 sf
Parking Spaces	9	2	- 7
Bicycle Parking Spaces	0	19	+ 19



Figure 2: Existing axonometric perspective

IV. BACKGROUND & EXISTING CONDITIONS

The proposed development is located on the western corner of Cumberland Ave and Stone Street in a transitional area between Portland's Downtown and Bayside neighborhoods. It is currently developed with an existing 3-story lodging house and adjacent surface parking area. The site is largely impervious due to the existing building and surface parking. The existing building currently serves as a 20-room lodging house. The site is bordered by multi-family housing to the north, a 29-unit lodging house to the west, Chestnut Street Lofts and Portland High School to the south, and an additional multi-family housing development to the east. There are also a variety of small retail establishments, along with Merrill Auditorium and City Hall within the vicinity. The existing sidewalk along the subject property's Cumberland Ave frontage is brick, while the existing sidewalk along Stone Street is concrete. There are two tree wells containing a total of two young street trees along Cumberland Ave. The nearest open space is Lincoln Park, an approximately 4-minute walk to the East. Bayside Trail is an approximately 6-minute walk North-West, while Back Cove Park is an approximately 13-minute walk North-West.

Owen Haskell, Inc. completed a boundary and topographic survey of the site in February of 2018. There were no existing or proposed easements identified.



Figure 3: Conceptual rendering – Cumberland Avenue looking west

V. PROPOSED DEVELOPMENT

The proposed development is a five-story, 32,576 sf building with 89 lodging house rooms. The proposed building would have one retail unit on the ground floor (5,132 SF) along the Cumberland Ave frontage and would have lodging house rooms on floors one through five. There is a basement at the back of the property with a two-car garage entrance located on Stone Street. Laundry and Kitchens are to be included on each floor. The bedrooms would be 9 ft x 15 ft. Each room includes a murphy bed, a table/desk, a fridge and a microwave. The existing brick sidewalk along Cumberland Avenue will be replaced in-kind, and the applicant has requested that concrete be retained as the material for the sidewalk along Stone Street. The proposed development is expected to decrease impervious area by approximately 432 square-feet. The proposed landscaping will also retain stormwater on site. Stormwater management features for quality control that meets Maine DEP Chapter 500 General Standards is not required. The majority of the generated runoff will be from the roof which will be piped directly to the separated storm system through the use of a downspout. Perimeter field inlets will direct runoff into Stone Street. There are two waivers proposed, one pertaining to the removal of an existing tree, and the other relating to driveway location.

VI. PUBLIC COMMENT AND NEIGHBORHOOD MEETING

The neighborhood meeting was held on August 19, 2019 at 5:30 pm at the Portland Public Library. There were approximately 10 members of the public in attendance.

Bill Simpson, developer and applicant, began the meeting with an introduction of the project. He was followed by Will Savage, of Acorn Engineering and Ryan Senatore, of Ryan Senatore Architects who provided a more technical presentation of the design and programming of the site. Comments received included inquiries regarding the design, function and management of the building. That correspondence may be found in this report's attachments.

VII. PLANNING BOARD WORKSHOP – 9/10/19

The project was introduced by Andrew Tufts, the assigned project Planner, providing a brief slideshow presentation. The applicant, William Simpson, provided a background of the project followed by the project engineer, Will Savage, and project architect, Ryan Senator. The board agreed unanimously that the buildings central marquis feature was out of place. Architectural design and materials were the primary concerns of the board.

The driveway waiver and landscape waiver are supported by planning staff.

VIII. RIGHT, TITLE, & INTEREST AND FINANCIAL & TECHNICAL CAPACITY

The owner of the property is Downtown Lodging, LLC. The applicant has provided a copy of the warranty deed, recorded at the Cumberland County Registry of Deeds (Book 22285, Page 120), which demonstrates their right, title and interest in the property. **(Attachment B)**

As evidence to demonstrate sufficient financial and technical capacity, the applicant has provided a letter from Camden National Bank indicating that between the applicant's funds and bank financing, the applicant has sufficient financial capacity to complete the proposed project. Similarly, information has been provided on the development team demonstrating the capacity to design and construct the project. **(Attachment F)**

IX. ZONING ANALYSIS

The property currently lies within the City of Portland B-2 zone and within the R-7 Overlay Zone. As a lodging house use, the B-2 Standards apply. The following dimensional and parking requirements apply to the B-2 Zone:

B2 Zone Summary Dimensional and Parking Requirements Applied to 263 Cumberland Ave		
	Required	Proposed
Minimum Lot Size	None	6981 sf
Area Per Dwelling Unit	435 sf	N/A
Area Per Lodging House Rooming Unit	250 sf (128 units max)	89 units
Minimum Street Frontage	20' ft	151' ft
Front Yard Minimum	none	.15' ft
Rear Yard Minimum	10' ft	10.10' ft
Side Yard Minimum	None	N/A
Maximum Lot Coverage	None	73%
Maximum Height	55' ft	53.65' ft
Landscape Open Space	none	19%
Off-Street Parking	18	2

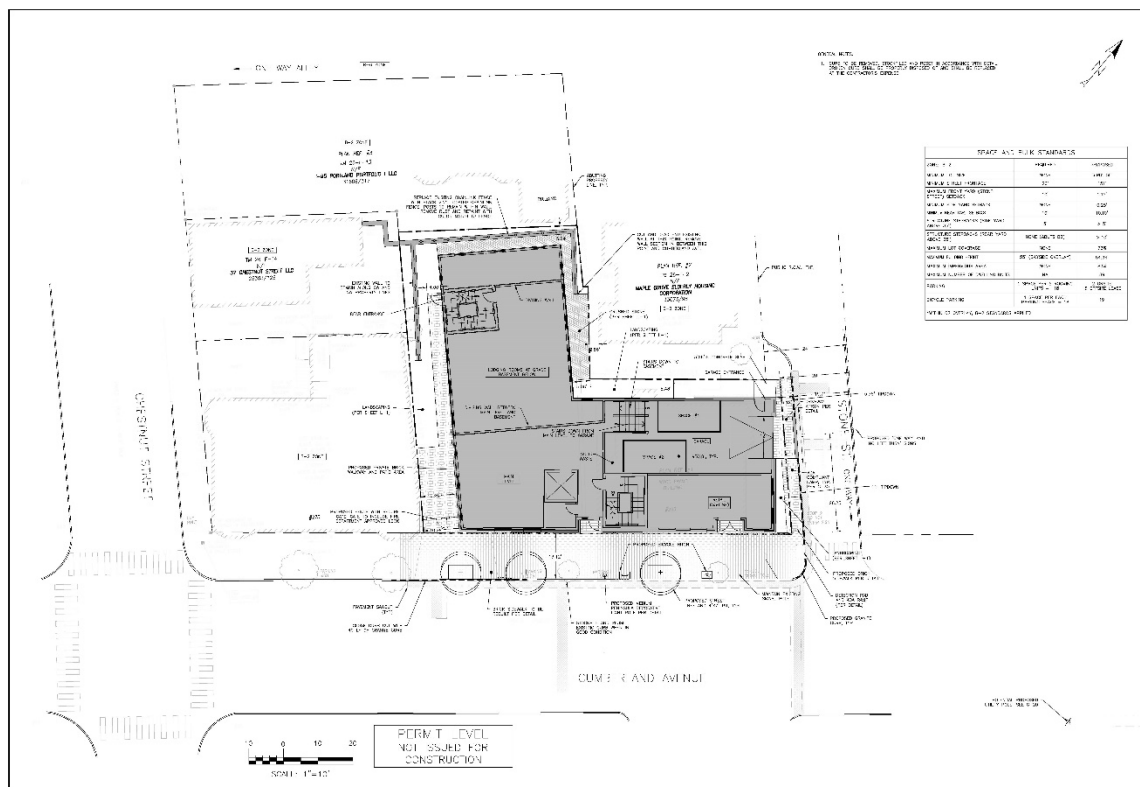


Figure 4: Proposed Site Plan

X. DEVELOPMENT REVIEW

A. SITE PLAN REQUIREMENTS (Section 14-527)

Any waivers granted must be recorded at the Registry of Deeds within two years of a Planning Board decision.

B. SITE PLAN STANDARDS (Section 14-526)

The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations. Staff comments are listed below.

1. Transportation Standards

a. Impact on Surrounding Street Systems and Access and Circulation

The site is located on Cumberland Ave, between Chestnut and Stone Streets. Cumberland Ave, classified as minor arterial, currently supports a significant amount of traffic. There is an anticipated decrease in traffic anticipated given the transformation of a parking lot into a lodging house. There are two proposed parking spaces on site with a number (to be determined) of off-site leased parking spaces at a nearby lot.

The proposed driveway has been located as far away from the Cumberland/Stone intersection as possible.

The following comment-response thread highlights ongoing discussions between the applicant and the review team:

Comment – *The Applicant’s general feasibility assumptions regarding construction management is noted, and I acknowledge that many details cannot be determined until a general contractor is on board. I speculate that the Applicant’s construction impact is very likely to extend beyond the construction fence shown in the latest CM plan. It is very likely that the general contractor will request that some, if not all, of the sidewalk on Cumberland Avenue be occupied during construction, which is not desirable. Similarly, it is likely that the Stone Street sidewalk will need to be closed. The Applicant should coordinate with a general contractor on all potential street closures and detours as soon as possible, and provide the City with approximate durations of closures, detour routes, and traffic management plans. These materials should be included in a resubmitted CM plan that reflects the approximate extent of the impacts during the majority of the construction activity. If the sidewalk is able to remain open on Cumberland Avenue through most construction activities (which is desirable), pedestrian detour plans will still be needed for the periods when the sidewalk must be closed, such as during utility connections. Updated CM plans with these additional details should be a condition of approval to be met before a building permit is issued.*

Comment – *It is still not clear from the plans that there will be an acceptable pedestrian pathway between the Cumberland Avenue sidewalk and the Stone Street sidewalk. Further explanation and/or spot grades may be helpful. If an acceptable pedestrian path is not yet provided, the plans should be further revised.*

Response – *Based upon the shallow foundation and relatively minimal excavation extents, it’s anticipated that a narrow lane would be maintained on Stone Street without the need for a full width shutdown. That said, the final means/methods and management will be up to the construction management company who will be required to submit traffic and pedestrian management plans to the City for review as mentioned in the CM narrative. At this point we feel as we’ve taken the CM plan as far as we can for the civil engineer’s purview. It’s important to note that Stone Street is a one-way street with traffic headed towards Cumberland Ave and if a temporary shutdown did occur, any detour would still allow access for fire department/emergency access as well as local traffic.*

b. Sidewalks

A brick sidewalk exists along Cumberland Ave which will be rebuilt as part of the project. A concrete sidewalk exists along Stone Street which will also be rebuilt as part of the project. The existing sidewalk along Stone Street is brick. The applicant has requested that the new sidewalk along Stone Street remain concrete, due to the steep slope and lack of sun in the winter. Planning staff supports this request.

c. Public Transit Access

There are five bus transfer stations within 500 ft of the site. Approximate 4-minute walk to the Metro Pulse Station, and a 6-minute walk to the Nickelodeon Cinemas for the South Portland bus. The proposed project meets public transit requirements.

d. Parking

The proposed project will provide 2 parking spaces on site and will meet the remaining requirement of 16-spaces by entering into an off-site lease.

e. Bicycle Parking

A total of 19 bicycle spaces are provided. The site plan includes an interior storage room which would provide a secure location for 15 bicycle parking spaces. Additionally, two bicycle hitches are proposed along Cumberland Ave.

2. Environmental Quality Standards

a. Preservation of Significant Natural Features

There are no known significant natural features on the site.

b. Landscaping and Landscape Preservation

A landscaping plan was submitted as part of the application. The plan shows a variety of trees, shrubs, and perennials, all listed in the City of Portland Recommended Tree List. Three street trees are to be provided along Cumberland Ave. The width of the existing sidewalk on Stone Street does not allow for any street trees to be planted.

c. Water Quality, Storm Water Management and Erosion Control

Lauren Swett has reviewed the applicants plans and project details, and offers the following comments (Attachment 1):

- a. The Applicant has provided erosion and sedimentation control details and a written plan in accordance with the Basic Standards. Erosion control features have been called out on the Construction Management Plan, sheet C-03.
- b. The Applicant is not increasing impervious surface, and is not required to provide any treatment or flooding control as required for the General and Flooding Standards.
- c. The Applicant is not increasing non-roof redeveloped impervious surface, and is not required to provide any treatment as required for the Redevelopment Standard.

3. Public Infrastructure and Community Safety Standards

a. Public Safety and Fire Prevention

Mike Thompson, Division Chief of the Fire Prevention and Community Outreach Division, has reviewed the submitted plans and found them to be acceptable, noting the following points (Attachment 1):

Comment – Any new building shall not affect the emergency escape capacity of an existing building. Please provide the distance between the proposed building and 263 Cumberland Ave at the point where the proposed retaining wall ends.

Response – The proposed building will not affect the emergency escape capacity of any existing buildings and conforms to all required setbacks. The distance between the proposed building and the existing building at 263 Cumberland Ave is approximately 12' at the end of the existing retaining wall.

Comment –Plans should be submitted to the City of Portland Engineering Department for proper addressing by the E-911 Addressing Officer.

Response – Please let us know if the Planning Department is able to distribute the plans or if the Applicant should coordinate this.

Comment –The buildings street address shall be marked at the main entrance of the building.

Response – The building address will be marked at the main building entrance.

b. Availability and Adequate Capacity of Public Utilities

The project will be served by Central Maine Power, the Portland Water District, City Department of Public Works. Evidence of utility capacity is pending. The applicant is waiting on additional confirmation from Unitil on the gas location relative to distance from the street.

Tom Errico, City Traffic Consultant, has the following comment:

Comment: The Applicant shall modify the existing school flashing sign located on Cumberland Avenue just west of Stone Street (in front of the building), so that the aerial wires are placed underground.

Applicant Response: As far as the school sign/pole goes, we are uncertain/skeptical as to the extent of work that would be required with control boards, utility pole modifications, etc. It's likely that completing the switchover would not be as simple as just putting the wires underground in one of our trenches. Additionally, the Applicant feels as though this switchover is completely separate from the proposed project and should therefore not be required as part of the site plan process.

4. Site Design Standards

a. Snow and Ice Loading

Based upon the roof design, it is not anticipated that snow or ice loading will be a concern to pedestrians within the public right-of-way or on the applicant's property.

b. View Corridors

The proposed project is located within the Downtown View Corridor Protection Plan but does not impact the pre-development view of St. Patrick's Church. The site is located on the opposite side of Cumberland Ave as the historic landmark and is shorter in height than the existing Chestnut Street Lofts directly across the street from the site.

c. Historic Resources

The development is not located in a historic district, historic landscape district or City designated landmark. The development is adjacent to the Congress Street Historic District and is compatible with design aspects of existing buildings.

d. Exterior Lighting

The applicant has submitted a lighting and photometric plan. Exterior lighting has been designed to meet the requirements of Section 12 of the Technical Manual. Any lighting that may adversely impact the abutting residential properties will feature house-side shielding.

e. Noise and Vibration

The HVAC system will meet the applicable state and federal emissions requirements and will also be screened and directed away from abutters.

f. Signage and Wayfinding

All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.



Figure 5: Proposed Elevation

g. Zoning Related Design Standards

The project has been designed to meet the standards set forth in the Two-Family, Special Needs Independent Living Units, Multiple-Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters Design Standards (Section (i) in the City of Portland Design Manual.

A design review has been conducted by the City's Urban Designer. After a series of revisions made in response to comments, the design review finds that standards have been met by the proposed. (ATTACHMENT 5)

h. Construction Management Plan

The applicant has submitted a construction management plan which has been reviewed by staff. As a condition, the applicant will continue to work with staff on this plan before issuance of a Certificate of Occupancy.

XI. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board find the 263 Cumberland Avenue redevelopment project meets the applicable standards of Portland's Land Use Code.

XII. PROPOSED MOTIONS FOR THE BOARD TO CONSIDER

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 September 8, 2019, for application #PL-000748-2019, relevant to the Site Plan Standards of the Land Use Code and Portland's Technical and Design Standards, and other regulations, and the testimony presented at the Planning Board hearing:

1. Landscape Preservation

The Planning Board **[finds / does not find]** based upon the City Engineer's Review, that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard *Section 14-526. (a)2.a.iv Landscape Preservation*, requiring all development subject to zoning setbacks shall preserve a minimum of 30% of existing trees ten (10) inches DBH or greater within the setback area, that substantial justice and the public interest are secured with the proposed variation in this standard, and that the variation is consistent with the intent of the ordinance. The Planning Board **[waives/ does not waive]** the Technical Manual standard *Section 14-526. (a)2.a.iv* to allow the removal of a tree greater than (10) inches from the site.

2. Driveway Separation

The Planning Board **[finds / does not find]** based upon the City Engineer's Review, that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual (Section 1.14), 1.7.2.7 which requires that, along local streets, driveways shall be thirty-five (35) feet from intersections, 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 1.14), 1.7.2.7 to allow the driveway separation.

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 September 8, 2019, for application #PL-000748-2019, 263 Cumberland Avenue 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 ISSUANCE OF A CERTIFICATE OF OCCUPANCY

1. The Applicant should coordinate with a general contractor on all potential street closures and detours as soon as possible, and provide the City with approximate durations of closures, detour routes, and traffic management plans. These materials should be included in a resubmitted Construction Management (CM) plan that reflects the approximate extent of the impacts during the majority of the construction activity. If the sidewalk is able to remain open on Cumberland Avenue through most construction activities (which is desirable), pedestrian detour plans will still be needed for the periods when the sidewalk must be closed, such as during utility connections. Updated CM plans with these additional details should be a condition of approval to be met before a building permit is issued.

PRIOR TO ISSUANCE OF A BUILDING PERMIT

2. The applicant shall meet with traffic officials from Portland Department of Public Works on site to discuss logistics of burying the overhead powerline connected to the school flashing sign. The applicant will complete this in coordination with other utility connections.
2. The applicant shall provide confirmation of adequate wastewater capacity from the Department of Public Works for review and approval by the Planning Authority

XIII. ATTACHMENTS
PLANNING BOARD REPORT ATTACHMENTS

1. Comment Response Letter
2. Design Review Hearing
3. Public Comment
4. Energov Review Comments
5. Cumberland Ave School Flash Sign

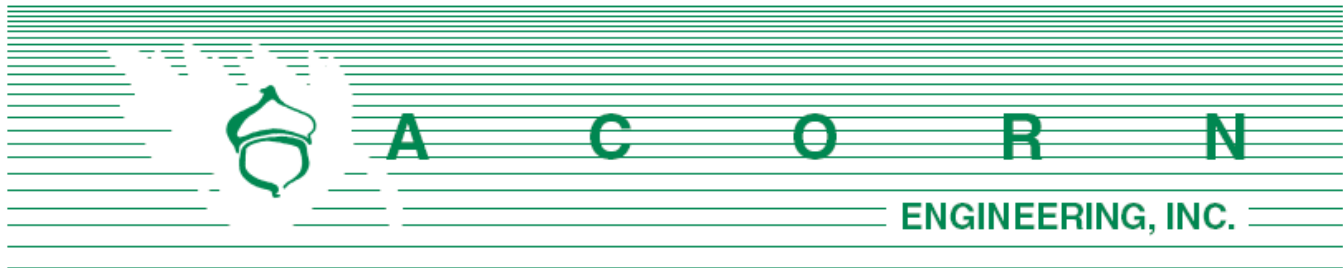
APPLICANT'S SUBMITTALS

- A. Cover Letter
- B. Level III Final Site Plan Application & Checklist
- C. Right, Title & Interest
- D. Zoning Assessment
- E. Easements
- F. Waiver Table
- G. Financial Capacity
- H. Technical Capacity
- I. Conformity with Land Use Ordinance
- J. Stormwater Management Report
- K. Erosion & Sedimentation Control Report
- L. Fire Department Letter

- M. Wastewater Capacity
- N. Lighting
- O. Architectural Design Narrative
- P. Utility Cover
- Q. Construction Management Plan
- R. Solid Waste Disposal
- S. Neighborhood Meeting
- T. Comment Response Letter
- U. Architectural Design Narrative Response
- V. Comment Response Letter 2
- W. Off Site Parking Lease

Plans

- Plan 1. Cover Sheet
- Plan 2. General Notes
- Plan 3. Existing Conditions Plan
- Plan 4. Construction Management Plan
- Plan 5. Site Plan
- Plan 6. Landscape Plan
- Plan 7. Utility Plan
- Plan 8. Grading & Drainage Plan
- Plan 9. Site Details – 1
- Plan 10. Site Details – 2
- Plan 11. Landscape Details
- Plan 12. Utility Details - 1
- Plan 13. Utility Details – 2
- Plan 14. Drainage Details
- Plan 15. Erosion & Sediment Control Notes
- Plan 16. Basement Floor Plan
- Plan 17. First Floor Plan
- Plan 18. Second-Fifth Floors Plan
- Plan 19. Roof Plan
- Plan 20. Exterior Elevation Plan
- Plan 21. Conceptual Rendering – Cumberland looking Northeast
- Plan 22. Conceptual Rendering – Cumberland looking North
- Plan 23. Conceptual Rendering – Cumberland looking West
- Plan 24. Conceptual Rendering – Adjacent Parking Lot
- Plan 25. Conceptual Rendering – Stone St looking South
- Plan 26. Conceptual Section
- Plan 27. Exterior Elevation Plan – 2
- Plan 28. Exterior Elevation Plan – 3
- Plan 29. Exterior Elevation Plan – 4



Andrew Tufts – City Planner
 Planning Division, City of Portland
 389 Congress Street
 Portland, ME 04101

September 24, 2019

Subject: Comment Response Letter 2
 263 Cumberland Ave Redevelopment – Portland, Maine

On behalf of Downtown Lodging, LLC we are pleased to respond to the second round of comments that we've received thus far.

Lauren Swett – 3rd Party Civil Engineering Review

Comment – *I've reviewed the response to comments for 263 Cumberland. They've requested additional guidance on lighting to include, and Bruce noted yesterday that he can help with that. They are also waiting on additional confirmation from Unitil on the gas location relative to my comment on distance from the street. Other than those last small follow-up items, they've addressed all my comments.*

Response – We are still awaiting confirmation from Unitil on the maximum distance from the ROW to the meter. If the current proposal exceeds this distance, the proposed meter location can easily be modified to be in accordance with Unitil's standards.

Bruce Hyman – Transportation

Comment – *Acorn Eng is showing a 15' & 4' tipdowns for the ramping down of the sidewalk at the driveway AND flares at the driveway. I just think the whole thing needs to be re-thought/drawn. I think they just get rid of the flares and ramp down to a driveway that will have a max 2% cross-slope.*

Response – We have removed the flares from the driveway apron to simplify the design. Because we are chasing grade, the longer tipdowns are necessary to compensate for the street's 5% grade. DPW has mentioned they will allow a 5" reveal instead of 7", thus allowing for a reduction in ramp length/tipdown to 11 feet on the uphill side. The downhill side of the driveway is now at a 5.75' tipdown with a 1% grade up to the side entrance (pedestrian door). At this point, the curb reveal will return to 7".

Comment – *Says for alternating sides 175'-225' spacing; for one/single side spacing is 90'-100'. Their frontage is approx. 100' on Cumberland so one fixture, main question is placement and orientation. I don't advocate for more of the Downtown Street on Stone at the corner with*

Cumberland

Response – It would appear the Technical Manual specifies the Peninsula Medium Street Light. Please provide confirmation this is the desired lighting model and review our proposed location for the light pole.

Mike Tremblay – DPW

Comment – *The ADA ramp detail shown on sheet C-41 is not acceptable. The detail appears to show the pedestrian path running through a driveway flare. This will create differential cross-slopes for a pedestrian walking along the sidewalk. All grade breaks should run perpendicular to the path of the sidewalk.*

Response – The detail has been revised to eliminate the flares.

Comment – *My previous comment about removing green space to achieve an ADA-compliant sidewalk is no longer relevant because the site plan now provides an ADA-compliant sidewalk without removing this green space.*

Response – No response.

Comment - *It appears that tipdowns for the ADA ramp across Stone Street and the 15-foot long tipdown for the driveway on Stone Street come together at a point, with little or no straight vertical curb between the tipdowns. This is undesirable; DPW prefers that curb sections be no less than 4 feet; a 4-foot flat section would also serve as an ADA landing before a pedestrian travels down the proposed 15-foot long ramp towards the driveway. Additionally, the 15-foot long tipdown creates a long area with a lower than desirable reveal. While this is understandable due to the grade of Stone Street, alternate designs should be considered. A 5-inch curb reveal would be considered by DPW for the area between the curb ramp and the driveway ramp; this will help achieve some separation between the curb ramp and driveway. Additionally, a 1-inch lip is required where the driveway meets Stone Street; this may shorten the 15-foot ramp by 1-3 feet if it is not already applied.*

Response – A 5” reveal has been incorporated which has allowed the ramp length to decrease to 11 feet. There is an approximate 10.5’ section which will feature a 5” reveal.

Comment - *Regardless of whether the driveway ramp design is altered, DPW requests additional spot grades along the Stone Street sidewalk. Spot grades at the top of curb, bottom of curb, and back of sidewalk at grade break locations are requested.*

Response – Additional spot grades have been added to the plan.

Comment - *The sidewalk and driveway on Stone Street must be installed in brick. Since the sidewalk must be reconstructed completely, and the slope of Stone Street is less than 10%, there are no applicable exceptions to the sidewalk material policy.*

Response – We have revised the sidewalk material to brick.



Comment - *The curb ramp across Stone Street may create an inaccessible route between the two adjacent sidewalks if flares are used, as the ramp detail indicates. The full ramp should be shown in plan view, and an accessible path should be maintained around the ramp. Changes to the driveway ramp along Stone Street and/or curb reveal required between the driveway ramp and the curb ramp, as discussed above, may allow for sufficient space to traverse between the flare and the ramp.*

Response – The ramps have been revised – please see Sheet C-30.

Comment - *The relocated utility pole UP#33H continues to be within study area of the Merrill Auditorium loading dock design. DPW does not support any new utility poles between the existing UP#33 pole and the Merrill Auditorium loading dock. UGE/T/C connections via UP#34 would be desirable.*

Response – We have discontinued this proposal and have begun further discussions with CMP to determine the best location to provide electric and communications to the building. The utility plan now includes the two most likely options for either a new utility pole on the southerly side of the Cumberland/Myrtle intersection or a tap off the existing utility pole on the northerly side of the Cumberland/Myrtle intersection. A final utility plan will be forwarded to Planning and Public Works once a determination is made by CMP.

Comment - *A greater understanding of construction impacts is required prior to approval. As previously stated, the project area has significant pedestrian traffic and is located nearby several pedestrian generators. Whether the site sidewalk will be closed and for how long, if and where pedestrians will be rerouted, etc. will be important to understand. Additionally, closing Stone Street for any length of time will require traffic management and emergency response plans, as several addresses are served by Stone Street and will need alternate means of access and egress. The width of Stone Street would likely require that any temporary two-way operation would require parking restrictions and/or flaggers.*

Response – We have provided information relating to detours and pedestrian management on the Construction Management Plan, sheet C-03. In general, the existing sidewalk and street network lends itself well to detours when necessary. Additionally, pedestrian traffic along Stone Street may largely remain feasible because on the northerly side of the street, a wide sidewalk exists which likely will not be affected by construction vehicles. Because the timeline as well as the means and methods are up to the general contractor/construction management company, ultimately the final traffic/pedestrian management and emergency plans will be their responsibility. This requirement is noted within Sheet C-03 as well as the within the construction management narrative which is based on a City-developed template.

Comment - *The specific location and terms of the offsite parking lease will be required prior to approval.*

Response – We have provided this information as Document W.



Please let us know if you have any additional questions or comments.

Sincerely,



Samuel J. Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



William H. Savage, P.E.
Principal
Acorn Engineering, Inc.





Planning and Urban Development Department Planning Division

Subject: R-7 Compact Urban Residential Design Review – 263 Cumberland Ave
Written by: Caitlin Cameron, Urban Designer
Date of Review: Tuesday, October 1, 2019

A design review according to the *R-7 Compact Urban Residential Overlay Zone* was performed for the revised proposed new construction of a lodging house at 263 Cumberland Avenue. The review was performed by Caitlin Cameron, Urban Designer, Andrew Tufts, Planner, and Deb Andrews, Historic Preservation Program Manager, all within the Department of Planning & Urban Development. The project was reviewed against the *Two-Family, Special Needs Independent Living Units, Multiple-Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters* Design Standards (Section (i) in the City of Portland Design Manual). The project is within 100' of a historic district and includes an advisory review.

Findings of the Design Review:

The proposed design **passes** all of the zoning-related design standards – please refer to comments below with **requested revisions in bold**.

Design Review Comments (*red text denotes principles or standards that are not met*):

1. *Exterior Design . . . shall be designed to complement and enhance the nearest residential neighborhood. The design of exterior facades shall provide positive visual interest by incorporating appropriate architectural elements.*

In general, the building was revised in its materials, articulation, fenestration, and detail to provide a more residential character. Staff determined that though the architectural character varies on Cumberland Avenue, there is an established residential character that this project should emulate, relate to, and knit into.

Scale, Massing, Form: The scale and massing are compatible with the other residential buildings nearby and is appropriate given the transitional nature of Cumberland Avenue between downtown and Bayside. Residential buildings are characterized by simple forms and massing and flat roof lines.

Materials: The material palette and placement were revised in response to staff/board comment. The palette was revised to be approachable, fine grain, simple, and relate to the character of the residential buildings within the neighborhood in the orientation, finish/color. The palette was simplified to two materials – corrugated metal siding and fiber cement panel. The fine grain corrugated metal with horizontal orientation emulates the traditional residential material – staff recommend a matte finish to reduce the metallic/industrial character of the material. The fiber cement is used in limited applications to provide emphasis and articulation, reduce the scale of the building into human-scaled elements.

Fenestration: The change to a punched opening with a regular rhythm conveys the residential use on the upper floors.

Articulation: The delineation of the ground floor from the upper floors is appropriate through the material change and the canopy detail. A cornice line was added at the roof with additional emphasis at the circulation tower/entrance. The revised entrance design brings emphasis and creates a proportionately scaled façade composition in a way that is appropriate for a residential/mixed-use building. **Staff recommend the entrance detail be revised to remove the “second tier” of grey material above the entrance.**

2. *The proposed development shall respect the existing relationship of buildings to public streets. New development shall be integrated with the existing city fabric and streetscape including building placement, landscaping, lawn areas, porch and entrance areas, fencing, and other streetscape elements;*

The building placement is consistent with buildings on Cumberland Avenue and maintains a consistent street wall appropriate for this downtown infill location. Staff interpretation of this standard is that proposed projects should reinforce the streetscape and residential character rather than create anomalies; this incremental development is an opportunity to strengthen the streetscape of Cumberland Avenue which is often fragmented and with varying degrees of activity and engagement with the street.

The public realm interface includes street-facing entries, windows at pedestrian level, and a small canopy detail that brings scale, differentiation between the public spaces and residential spaces, and provides a sense of enclosure to pedestrians. The primary residential entrance is oriented to Cumberland Avenue and is directly accessible from that street. **Staff recommend that the ground floor storefront design be revised to better reflect the traditional ground floor relationship between the windows, transom, and canopy. In this case, the recommended strategy to create the appropriate proportion and pedestrian-scale relationship would be to increase the depth of the canopy element into the transom space and increase the height of the window to meet the canopy/transom line (rather than having a double-stack of transom and canopy element).**

Landscape or porch features would not be appropriate for this streetscape with a multi-family/lodging house building.

3. *Open space*
Not applicable
4. *Light and Air*
Adequately met
5. *Surface Parking*
Not applicable
6. *Lodging House conversion*
Not applicable

Google Groups

263 Cumberland - rooming house

Avery Yale Kamila <avery.kamila@gmail.com>

Aug 12, 2019 10:50 AM

Posted in group: **Planning Board**

Dear Planning Board members,

My family and I live on Myrtle Street, near the existing rooming house, and I want to offer some comments about this project.

1. I'm in favor of density in downtown Portland, so I have no objection to the size or scale of this project.
 2. Rooming houses are a needed rental option, so this is a sensible project for Portland and this particular location.
 3. I'm thrilled to see the first floor will have retail space. That is needed and will be a benefit to the neighborhood.
 4. The existing building has not been well-maintained. Do we know if the new building will have on-site maintenance?
4. My one concern about this project stems from the fact that the rooming house currently on this site, and the one next door, house a high percentage of registered sex offenders. The buildings are right next to the Boys & Girls Club, Portland High, the Family Shelter and public housing where hundreds of children live, making this location an unsuitable place for such high risk individuals to live. Since the tenants in the existing rooming house will be displaced during construction, I would like to see a stipulation added to any approval that would restrict the owner from renting or re-renting to registered sex offenders.

Thank you for considering my comments and for your public service to our great city.

Sincerely,
Avery

Avery Yale Kamila
59 Myrtle St.
PO Box 4242
Portland, ME 04101
207-780-0915
avery.kamila@gmail.com

263 Cumberland Ave

Casey <caseyjgeaney@gmail.com>

Aug 25, 2019 1:10 PM

Posted in group: **Planning Board**

Andrew,

Thanks for taking my call the other day regarding the property noted above. I live very close to this proposed project and have quite a few concerns. I have owned a home on that end of West Bayside for several years and am quite surprised this is the direction the city is considering given the current state of our region of the city.

Our area of Portland has struggled with neglect, unsanitary conditions, trash, illegal drug use, public defecation, and most recently, a mobile meth lab.

I am a Pediatrician and a Pediatric Immunologist by training. I like living in a diverse area of the country and appreciate that the city considers racial and income diversity important. I have a neighbor who runs an alcoholic recovery halfway house across the street. He is a great neighbor. Unity Village is a block away and again, they are good neighbors.

However, Bayside should be a real neighborhood, a neighborhood that provides long term housing and is actually truly diverse and truly integrated in a city that is equally diverse and equally integrated. This area has been used as a site for transient shelter for far too long. It has been used almost exclusively for below market short term housing and rental properties. This is not diverse. And, using this neighborhood to a much greater extent than the rest of the city is more consistent with segregation than integration.

West Bayside deserves housing options that lead to home ownership, include a true mix of market rate and below market rate options, and promote integration across the entire city.

Consistent with my general concerns about our neighborhood, this project introduces a high volume of new short term residents along with almost no parking and a mix of inexpensive materials that do not actually complement or elevate this area. This area cannot handle this volume of residents. This area does not need more temporary residents. Bayside needs long term invested neighbors earning principal toward their life long investment in home ownership while working toward a better Portland.

A mixed use project that incorporates true diversity, encourages home ownership (including condominiums) without impacting already inadequate parking would be welcome.

Thanks for your time.

Casey J. Geaney, MD

Sent from my iPad



PLAN CORRECTIONS REPORT PL-000748-2019 FOR CITY OF PORTLAND

PLAN ADDRESS:	263 Cumberland Ave Portland, Maine 04101	PARCEL:	026 F008001
APPLICATION DATE:	07/01/2019	SQUARE FEET:	0.00
EXPIRATION DATE:		VALUATION:	\$0.00
DESCRIPTION: Demo of existing 20-room lodging house and redevelopment of site into 89-room lodging house with small first-floor retail unit.			
CONTACTS	Name	Company	Address
Agent/Representative	Will Savage	Acorn Engineering	158 Danforth Portland, ME 04104

Comments & Corrections Required

City Arborist Jeff Tarling

Civil Engineering - Third Party Reviewer Lauren Swett

Comment(s)/ Recommendation(s):

- The Applicant's project will be decreasing impervious surface and the redevelopment work will result in a reduction in non-roof impervious surface. No stormwater treatment or flooding control is required.
- The stormdrain connection from the site is a 6-inch pipe with minimal slope. Based on a rough Manning's calculation, it appears that the pipe capacity is roughly 0.5 cfs. Confirm that this capacity is adequate to manage all flow from the site, or provide a larger pipe.
- The plans identify that there is an existing drain through the retaining wall with "outlet unknown". Please clarify if this drain is anticipated to collect any site drainage and if it discharges onto the neighboring property.
- The plans identify locations of ramps at the driveway. It is suggested that spot grades be provided to identify the extent and slope of the ramps.
- The Applicant is providing building lighting, and should provide a photometrics plan and address the current municipal street lighting standard. It appears that Decorative Light Peninsula Medium Street and/or Downtown Street standards will apply here.
- The gas connection is shown far from the roadway. Confirm that this location will be acceptable for Unitil to provide maintenance of their meter.
- Winterberry is proposed at the western side of the building. Confirm that this will not be in conflict with the gas and stormdrain utilities provided in this area.
- Creeping juniper is proposed for installation over the proposed stormdrain line on the site. Confirm that adequate access will be provided for maintenance of the stormdrain pipe, including the roof drain connection, that is within the proposed landscape area.

DPW Document Review Bill Scott

DPW Engineering Mike Tremblay

DPW Water Resources Compliance Doug Roncarati

DPW Water Resources Engineering Brad Roland

Fire Robert Thompson

Comment(s)/ Recommendation(s):

- Any new building shall not affect the emergency escape capacity of an existing building. Please provide the distance between the proposed building and 273 Cumberland Ave at the point where the proposed retaining wall ends.
- *10/4/2019 A plan with the requested measurements was provided to the Fire Dept. We approve of the overall site plan as submitted.
- Plans should be submitted to the City of Portland Engineering Department for proper addressing by the E911 Addressing Officer.
- The buildings street address shall be marked at the main entrance of the building.

Parking John Peverada

Planning Andrew Tufts

Traffic - Third Party Reviewer

Tom Errico

Transportation/Planning

Bruce Hyman

Zoning

Pool Zoning

Conditions Required



Andrew Tufts <atufts@portlandmaine.gov>

263 Cumberland Ave School Flash Sign

5 messages

Andrew Tufts <atufts@portlandmaine.gov>

Wed, Oct 2, 2019 at 1:44 PM

To: Jeremiah Bartlett <jbartlett@portlandmaine.gov>, Mike Tremblay <mtremblay@portlandmaine.gov>

Hello,

Tom Erico had the following comment for 263 Cumberland Ave:

The Applicant shall modify the existing school flashing sign located on Cumberland Avenue just west of Stone Street (in front of the building), so that the aerial wires are placed underground.

The applicant needs more information on this, such as how to proceed..

Happy to chat by phone. I'm available by cell this afternoon, 751-0028.

--

Andrew Tufts

Planner

Planning and Urban Development Department

389 Congress Street 4th Floor

Portland, ME 04101

atufts@portlandmaine.gov

(207) 874-8724

**school flash sign.PNG**

1349K

Jeremiah Bartlett <jbartlett@portlandmaine.gov>

Thu, Oct 3, 2019 at 11:17 AM

To: Andrew Tufts <atufts@portlandmaine.gov>

Cc: Mike Tremblay <mtremblay@portlandmaine.gov>, "Thomas, Kevin" <kthomas@portlandmaine.gov>

Hi Andrew,

The connection will need to be placed underground in a conduit. It is something their Engineer will need to investigate, but if some sort of field meeting is needed, I have included Kevin Thomas, Traffic Operations Coordinator, who may be able to field specific questions on process and procedures.

Thank you,

Jeremiah

Jeremiah J. Bartlett, PE, PTOE, IMSA II

Transportation Systems Engineer

Department of Public Works

212 Canco Road, Suite B

Portland, Maine 04103

jbartlett@portlandmaine.gov

(207) 874-8891

[Quoted text hidden]

Andrew Tufts <atufts@portlandmaine.gov>

Thu, Oct 3, 2019 at 11:27 AM

To: Jeremiah Bartlett <jbartlett@portlandmaine.gov>

Cc: Mike Tremblay <mtremblay@portlandmaine.gov>, "Thomas, Kevin" <kthomas@portlandmaine.gov>

Thanks Jeremiah,

Kevin, do you have any thoughts on this? The applicant is already burying the utility connection, so it'd make sense to coordinate this. Is the city still responsible for paying?

[Quoted text hidden]

Mike Tremblay <mtremblay@portlandmaine.gov>

Thu, Oct 3, 2019 at 11:34 AM

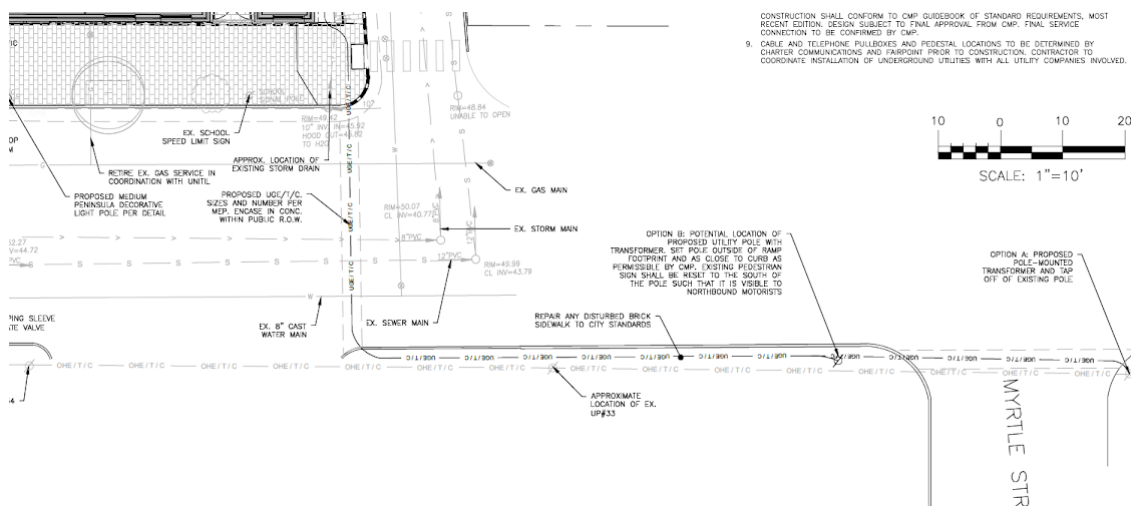
To: Andrew Tufts <atufts@portlandmaine.gov>

Cc: Jeremiah Bartlett <jbartlett@portlandmaine.gov>, "Thomas, Kevin" <kthomas@portlandmaine.gov>

All,

Here is a relevant screenshot from their utility plan -- note the underground connection is proposed to be about 12 feet from this flashing school sign.

Also interested in your input on their proposed electric connection. We do not want them putting a new utility pole between UP#33 and the Merrill Auditorium driveway, which is why they came up with this.



Mike Tremblay, P.E.
 Senior Engineer
 Engineering Division
 Department of Public Works
 City of Portland, ME
mtremblay@portlandmaine.gov
 P. 207.874.8881 F. 207.874.8852



[Quoted text hidden]

Kevin Thomas <kthomas@portlandmaine.gov>

Thu, Oct 3, 2019 at 12:42 PM

To: Mike Tremblay <mtremblay@portlandmaine.gov>

Cc: Andrew Tufts <atufts@portlandmaine.gov>, Jeremiah Bartlett <jbartlett@portlandmaine.gov>

10/4/2019

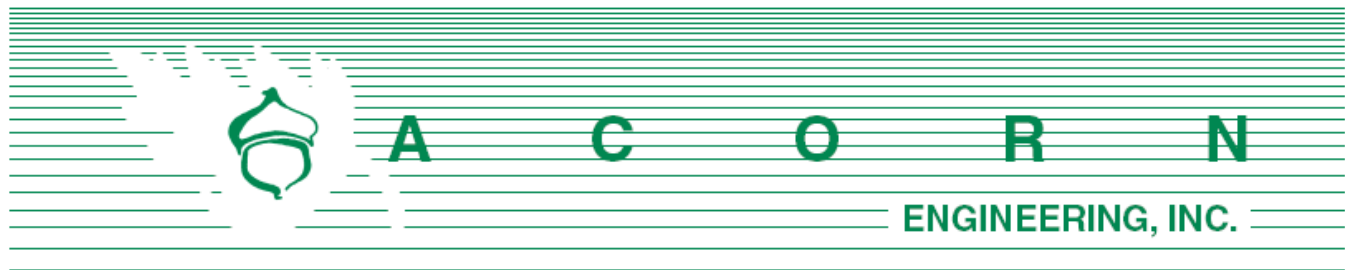
City of Portland Mail - 263 Cumberland Ave School Flash Sign

Hi Mike, The pole location doesn't matter to me I will defer that to Jeremiah and maybe Merrill events as the location may impact them. My main concern is the connection for the power. I work well with on site meetings.

Thanks,

Kevin

[Quoted text hidden]



Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

July 1, 2019

Subject: Level III Final Site Plan/Subdivision Application
Redevelopment of 263 Cumberland Ave. Portland, ME

To Whom It May Concern:

On behalf of Downtown Lodging, LLC we are pleased to submit the accompanying package of submission materials related to the proposed mixed-use project at 263 Cumberland Ave. This submission package is intended to meet the City's requirements as outlined in the Level III Site Plan Application procedure. The proposal includes the construction of an 89-room lodging house with a small first floor retail component to activate the Cumberland Avenue frontage. To facilitate this urban infill redevelopment, the existing 20-room lodging house and associated surface parking lot will be demolished. The project site is located within the City's B-2 Zoning District and complies with the permitted uses within the zone.

We are pleased to submit this application which will significantly increase the City's available housing stock by providing a diverse option within the rental market. The project also seeks to activate the frontage along Cumberland Avenue by filling in the "street wall" gap and providing a ground level retail component. Additionally, two bicycle hitches and three street trees are proposed within the brick sidewalk that will be rebuilt as part of the project.

While 16 off-site leased parking spaces will be provided for tenant parking needs in accordance with the zoning ordinance, this project encourages the use of multimodal transportation given its central downtown location where there are many opportunities to walk to destinations or a METRO bus stop. Furthermore, the basement floor plan includes ample space for secure bicycle storage.

Downtown Lodging, LLC and the design team look forward to your review of this project. If you have any questions regarding these materials or the completeness of the application materials, please contact us within the next five (5) days.

Sincerely,

Samuel J. Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.

William H. Savage, P.E.
Principal
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: Level III Final Site Plan Application & Checklist
- Section C: Right, Title, Interest
- Section D: Zoning Assessment
- Section E: Easements
- Section F: Waiver Table
- Section G: Financial Capacity
- Section H: Technical Capacity
- Section I: Conformity with Land Use Ordinance
- Section J: Stormwater Management Report
- Section K: Erosion & Sedimentation Control Report
- Section L: Fire Department Letter
- Section M: Wastewater Capacity
- Section N: Lighting
- Section O: Architectural Design Narrative
- Section P: Utility Cover
- Section Q: Construction Management Plan
- Section R: Solid Waste Disposal

Drawings:

- Civil Site Plan Set, Dated 6/28/2019
- Architectural Plan Set, Dated 6/25/2019



CITY OF PORTLAND
Planning & Urban Development Department

LEVEL II and LEVEL III SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

Please submit each document as a separate PDF file
Please confirm by electronically checking the boxes to the left

**** PLEASE FILL OUT AND UPLOAD SEPARATELY THE ZONING TABLE
AND WAIVER TABLE AS NOTED BELOW ****

GENERAL APPLICATION DOCUMENTS

Yes ☒	NA ☐	Project Description Cover Letter with detailed project description
Yes ☒	NA ☐	Completed Checklist – Level I: Site Alteration (this document)
Yes ☒	NA ☐	Right, Title and Interest Deeds, leases, or purchase and sales agreements
Yes ☐	NA ☒	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
Yes ☒	NA ☐	Zoning Assessment Table listing required and proposed uses and dimensional standards Zoning Assessment Table
Yes ☒	NA ☐	Existing and/or Proposed Easements or Covenants, applicable. Evidence of existing easements and any proposed easements
Yes ☒	NA ☐	Waiver Requests Written request for waiver describing request and reason Waiver Table
Yes ☒	NA ☐	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes ☒	NA ☐	Technical Capability Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

**LEVEL II AND LEVEL III 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 ☒	Transportation Analysis- Traffic Impact (14-526 (a) 1) - Provisions for pedestrian, bicycle, vehicle, and loading circulation and incremental volume of traffic impacts - Traffic Impact Study (Technical Manual, Section 1) if applicable
Yes ☒	NA ☐	Access and Circulation (14-526 (a) 2 a) - Access and internal circulation, addressing ADA access - Access and egress impacts on traffic flows - Description and use of drive-up features, if applicable
Yes ☐	NA ☒	Loading and Servicing (14-526 (a) 2 b) - Loading and servicing needs, route and travel way geometrics for deliveries - Turning templates for delivery vehicles, if applicable
Yes ☒	NA ☐	Sidewalks (14-526 (a) 2 c) - Sidewalks and condition along street frontages and internal walkways - Engineered details for ADA ramps and public sidewalk details meeting sidewalk materials policy and ADA ramp construction details as applicable (Technical Manual, Section 1)
Yes ☐	NA ☒	Public Transit (14-526 (a) 3), if applicable - Existing available transit services - Proposed site plan design details, such as easement, pad base, and shelter
Yes ☒	NA ☐	Off-Street Parking: Vehicle & Motorcycle/Scooter) (14-526 (a) 4 a and c) - Expected parking demand, proposed parking supply, ADA parking, and applicable Zoning Requirements - Address Technical Manual standards (Section 1) for curb cut separation and parking lot layout and locate on site plan
Yes ☒	NA ☐	Bicycle Parking (14-526 (a) 4 b) - Address bicycle parking requirements and identify locations on-site - Construction details for bike racks (Technical Manual, Section 1)
Yes ☒	NA ☐	Snow Storage (14-526 (a) 4 d) Management plan for snow removal and locate snow storage areas on plan
Yes ☐	NA ☒	Traffic Demand Management (TDM) (14-526 (a) 5), if applicable Develop TDM with Trip Reduction Targets and Strategies

ENVIRONMENTAL AND LANDSCAPE FEATURES		
Yes ☐	NA ☒	Preservation of Significant Natural Features (14-526 (b) 1), if applicable • Trees, plants, habitats listed on State or Federal list of endangered or threatened • High and moderate value waterfowl and wading habitat • Aquifers on Casco Bay Islands • Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) • Proposed preservation areas and protection measures • Documentation from environmental consultants, determinations from applicable state agencies
Yes ☒	NA ☐	Landscaping and Landscape Preservation (14-526 (b) 2 a) • Preservation of trees and preservation within required zoning setbacks (Technical Manual, Section 4) • Protection measures of existing vegetation during construction • Protection measures within Shoreland Zone, if applicable
Yes ☒	NA ☐	Site Landscaping (14-526 (b) 2 b) • Screening and buffering of service areas and between non-residential and residential uses • Planting plans with plant schedule and sizes (Technical Manual, Section 4)
Yes ☐	NA ☒	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable • Landscaped islands within parking areas (Technical Manual, Section 4)
Yes ☒	NA ☐	Street Trees (14-526 (b) 2 b iii) • Existing Heritage or Feature Trees on site and measures to preserve • Identify street trees on the plan meeting the site plan and Technical Manual standards (Section 4) or identify alternative measures, if applicable
ENVIRONMENTAL AND STORMWATER		
Yes ☒	NA ☐	Water Quality, Stormwater Management and Erosion Control (14-526 (b)3 a) • Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable • Erosion control plan and measures • Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable • Subsurface sanitary sewage disposal and groundwater protection

PUBLIC INFRASTRUCTURE AND SAFETY		
Yes ☒	NA ☐	Consistency with City Master Plans (14-526 (c) 1) - Identify consistency with master plans - Proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes ☒	NA ☐	Public Safety and Fire Prevention (14-526 (c)) - Address Crime Prevention through Environmental Design (CPTED) (Technical Manual, Section 3) - Emergency vehicle access - Address consistency with public safety standards (Technical Manual, Section 3) - Submit a code summary referring NFPA 1 and all Fire Department standards (Technical Manual, Section 3) – Fire Checklist
Yes ☒	NA ☐	Availability and Adequacy of Public Utilities (14-526 (c) 3) (Technical Manual, Sections 2 & 9) - Electrical services, including providing underground services - Identify existing and proposed connections for public utilities and required public utility upgrades - Sewer line connections are required, if there is a main within 200 feet - Proposed solid waste management facilities on-site and management for the site - Written evidence of the ability to serve from utility companies, as applicable
SITE DESIGN		
Yes ☒	NA ☐	Massing, Ventilations and Wind Impact (14-526 (d) 1) - Wind and ventilation impacts on adjoining structures and/or adjacent public spaces. Wind study, if applicable - Bulk, location or height impacts on adjoining structures - Identify and locate HVAC equipment and venting away from public spaces and residential properties - Identify screening and manufacturing specifications for noise, if applicable
Yes ☐	NA ☒	Shadows (14-526 (d) 2), if applicable Shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes ☒	NA ☐	Snow and Ice Loading (14-526 (d) 3) Building design to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes ☒	NA ☐	View Corridors (14-526 (d) 4), if applicable Protection of designated view corridors (Portland Design Manual, Appen. 1)

Yes ☒	NA ☐	Historic Resources (14-526 (d) 5), if applicable • Identify developments within Historic Districts or affecting Designated Landmarks • Certificate of Appropriateness or other evidence • Identify Developments within 100 feet of Historic Districts or affecting Designated Landmarks. Advisory HP review may be required • Address preservation and documentation of Archaeological Resources
Yes ☒	NA ☐	Exterior Lighting (14-526 (d) 6) • Cut sheets of on-site light fixtures and any architectural or specialty lights (Technical Manual, Section 12) • Engineered details for any lights proposed in street right-of-way (Technical Manual, Section 10)
Yes ☒	NA ☐	Noise and Vibration (14-526 (d) 7) • Evidence of noise levels for equipment, such as equipment specifications, to demonstrate consistency with zoning requirements
Yes ☒	NA ☐	Signage and Wayfinding (14-526 (d) 8), if applicable • Signage plan showing the location, dimensions, height and setback of all existing and proposed signs. Signs in Historic Districts are reviewed by Historic Preservation staff • Proposed commercial and directional signage on site
Yes ☒	NA ☐	Zone Related Design Standards (14-526 (d) 5) • Address Historic Preservation Design Review, if applicable • Address any applicable design review standards by zone • Address submission requirements from Design Manual, page 1, addressing neighborhood context • Description of exterior materials, color, finish, and samples
Construction Management Plan		
Yes ☒	NA ☐	Construction Management Plan • Construction Management Document and Plan

**LEVEL II AND LEVEL III SITE PLAN
DRAWINGS CHECKLIST**

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

RECENT BOUNDARY SURVEY (stamped by Maine Licensed Surveyor)

- ☒ Must be in compliance with Technical Manual, Section 13

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

Existing Conditions

- ☒ Approximate location of structures on abutting property
- ☒ Topography
- ☐ Locate water courses
- ☐ Delineate wetlands
- ☒ Zone lines

Proposed Site Plan

- ☒ Ground floor area, and grade elevations for all buildings

Access, Circulation, and Parking

- ☒ Streets and intersections adjacent to site, any proposed geometric modifications
- ☒ Location, dimensions and materials of all existing and 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
- ☒ Existing and proposed transit infrastructure with dimensions/ engineering specifications
- ☒ Location of vehicle and bicycle parking with dimensions and engineering specifications

Site Considerations

- ☒ Identify snow storage areas
- ☒ Location of fire hydrants
- ☒ Location of solid waste management facilities

UTILITY PLAN including:

- ☒ Existing utilities on site and within public streets
- ☒ Location, sizing and directional flows of all existing and proposed utilities
- ☒ Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site
- ☒ Electric utility infrastructure

GRADING AND DRAINAGE PLAN including:

- ☒ Existing grades and drainage
- ☒ Proposed grades
- ☒ Proposed stormwater management meeting Technical Manual (Section 5), standards
- ☒ Location and proposed alteration of a water course
- ☒ Preservation or alteration of wetlands

EROSION CONTROL

- ☒ Must be in compliance with Technical Manual, Section 5

LANDSCAPE PLAN including:

- ☒ Existing vegetation to be preserved and preservation measures
- ☒ Proposed landscaping and buffers
- ☒ Planting schedule

RECORDING PLAT, if applicable
☐ If Subdivision, must be in compliance with requirements of Section 14-496 (b)
ARCHITECTURAL PLANS AND RENDERINGS including:
☒ Exterior building elevations, color renderings, illustrations of all sides
☒ Location and dimensions of all existing and proposed HVAC and mechanical equipment, all proposed screening
☒ Provide context drawings, if applicable (Design Manual, page 1)
☒ Floor plans

C. Right, Title, and Interest

Please refer to the attached deed demonstrating the Applicant's Right, Title, Interest.



WARRANTY DEED

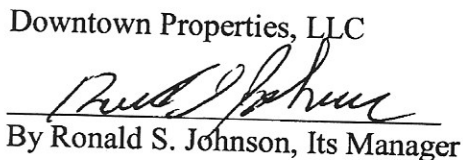
KNOW ALL PERSONS BY THESE PRESENTS, that, **DOWNTOWN PROPERTIES, LLC**, for consideration paid, grant to **DOWTOWN LODGING, LLC**, a Maine limited liability company, with a mailing address of P. O. Box 10250, Portland, Maine 04104, with WARRANTY COVENANTS, the premises situated on or about 263, 267 and 273 Cumberland Avenue, in the City of Portland, County of Cumberland and State of Maine, described on Exhibit A, attached hereto and made a part hereof.

Reference is made to the Deed from Merle W. Clarke to Downtown Properties, LLC, dated January 31, 2005 recorded in the Cumberland County Registry of Deeds at Book 25553, Page 120.

Reference is further made to the Deed from Clarke Properties, Inc. to Downtown Properties, LLC, dated January 31, 2005, recorded in the Cumberland County Registry of Deeds in Book 22285, Page 301.

IN WITNESS WHEREOF, the said Ronald S. Johnson, Manager of Downtown Properties, LLC has signed and sealed this instrument on November 24, 2015.


Witness

Downtown Properties, LLC

By Ronald S. Johnson, Its Manager

STATE OF MAINE
COUNTY OF CUMBERLAND

November 24, 2015

Then personally appeared Ronald S. Johnson, Manager of Downtown Properties, LLC and acknowledged the foregoing instrument to be his free act and deed in said capacity.

Before me,


Notary Public

Thomas Tenell
Attorney at Law

MAINE REAL ESTATE TAX PAID

Exhibit A

263 Cumberland Avenue

A certain lot or parcel of land, with the buildings thereon, situated in said Portland on the northwest corner of Cumberland Avenue and Stone Street, bounded and described as follows:

Beginning at a stone monument on said corner; thence along the northerly side line of Cumberland Avenue fifty-seven and thirty-eight one hundredths (57.38) feet to a division line between Elizabeth Harris and David B. Chase established November 8, 1859 and recorded in Cumberland County Registry of Deeds, Book 297, Page 260; thence northerly along said division line forty-four and five tenths (44.5) feet to an iron pipe set into the ground; thence in an easterly direction fifty-four and eight tenths (54.8) feet to the westerly side line of Stone Street; thence along the westerly side line of said Stone Street in southerly direction forty-four and sixty-one one-hundredths (44.61) feet to a stone monument and the point of beginning.

Reference is made to deed recorded in Book 3319, Page 8 and Abstract of Divorce Decree recorded in Book 4617, Page 254.

267 Cumberland Avenue

Also, another certain lot or parcel of land with the buildings thereon, situated in said Portland and bounded and described as follows:

Beginning on the northwesterly side of Cumberland Avenue at the southeasterly corner of land now or formerly owned by the heirs of Israel Waterhouse; thence northwesterly by said Waterhouse land sixty-nine and two tenths (69.2) feet to land formerly of one P. Callan; thence northeasterly by said Callan land thirty-four and eight tenths (34.8) feet; thence northerly by said Callan land seven and eighty-five hundredths (7.85) feet; thence northwesterly by said Callan land ten and five tenths (10.5) feet; thence northeasterly by said Callan land twelve and eight tenths (12.8) feet; thence southeasterly by the eaves of the shed on the premises hereby conveyed, seventeen and eight tenths (17.8) feet, thence northeasterly at right angles seventeen and one-half (17-1/2) inches; thence southeasterly parallel with the underpinning of the house and seventeen and five tenths (17.5) inches therefrom, seventy-one and one tenth (71.1) feet to Cumberland Avenue; thence southwesterly by Cumberland Avenue forty-eight (48) feet and two and one-half (2-1/2) inches to the place of beginning.

Also, another certain lot or parcel of land situated in said Portland, bounded and described as follows;

Beginning at the most westerly corner of land owned by Susan P. Capen and adjoining land now or formerly of W. H. Jerris; thence northeasterly by said Capen land thirty-four and eight tenths (34.8) feet; thence northerly by said Capen land seven and eighty-five hundredths (7.85) feet; thence

northwesterly by said Capen land ten and five tenths (10.5) feet to the corner of the buildings on said land formerly belonging to Susan P. Capen; thence southwesterly in a direct line as the fence now stands or formerly stood, forty and six tenths (40.6) feet to land formerly of said Jerris; thence southeasterly by said Jerris land seventeen and seven tenths (17.7) feet to the bounds first mentioned.

273 Cumberland Avenue

A certain lot or parcel of land with the buildings thereon, situated in said City of Portland, County of Cumberland, State of Maine on the northeasterly corner of Cumberland Avenue and Chestnut Street, bounded northerly by land formerly owned by William H. Jerris, now or formerly owned by Abbie M. Goodrich; easterly by land now or formerly owned or occupied by M. Harris; and extending on said Cumberland Avenue about sixty-one (61) feet to said Harris land; and on said Chestnut Street about fifty-six (56) feet to said Goodrich land, and containing thirty-five hundred thirteen (3,513) square feet, more or less.

Received
Recorded Register of Deeds
Nov 25, 2015 01:13:08P
Cumberland County
Nancy A. Lane

Section D

Zoning Assessment





ZONING ANALYSIS Relevant Zone(s) B-2

All Projects:

	Required	Proposed
Lot Size	None	6981 SF
Area Per Dwelling Unit	435 SF	N/A
Minimum Street Frontage	20'	151'
Front Yard Minimum	None	0.15'
Front Yard Maximum	10'	3.52'
Rear Yard	10'	10.10'
Yard Right	None	5.24'
Yard Left	None	0.25'
Side Street Setback	None	0.25'
Step Back	None	=setback
Maximum Lot Coverage	None	73%
Minimum Lot Coverage	None	73%
Maximum Height	55'	53.65'
Open Space	None	19%
Maximum Impervious Area	None	81%
Pavement Setback		
Floor Area Ratio		
Off Street Parking Spaces	18	2
Loading Bays	NA	
Other 1		
Other 2		
Other 3		

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):			

E. Summary of Written Easements

There are no existing easements identified by Owen Haskell, Inc. on the Existing Conditions Plan.

There are no proposed changes.



Section F

Request for Waivers



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.
Sec. 14-526. (a)2.a.iv Landscape Preservation	All development subject to zoning setbacks shall preserve a minimum of 30% of existing trees ten (10) inches DBH or greater within the setback area	We are requesting permission to remove the one (1) existing tree greater than 10 inches DBH within the setback area.	The existing tree currently poses a safety hazard and is in poor health. It also protrudes approximately 30' over the existing parking lot preventing construction of a building.
Technical Manual 1.7.2.7	Along local streets, driveways shall be thirty-five (35) feet from intersections	We are requesting permission to position the driveway 28.25' from the intersection of projected right-of-way- lines to the center of the driveway.	Stone St is a one way street with plenty of sight distance coming from Oxford St, and has low traffic volume. The driveway is located as far from the intersection as possible and only services 2 parking spaces.

G. Financial Capacity

A letter from the Applicant's bank confirming financial capacity is attached to this section.





April 26 2019

263 Cumberland Avenue
Portland, ME

Re: William Simpson – Proposed construction project at 263 Cumberland Avenue, Portland, ME

To Whom It May Concern:

Please accept this letter as a financial reference for William Simpson. Mr. Simpson and I have had a very successful relationship on prior development and real estate projects. All loan and deposit accounts related to his projects have been handled as agreed and I look forward to working with Mr. Simpson on future projects.

Based on my experience, William Simpson has the financial capacity and backing to handle the proposed project at 263 Cumberland Avenue in Portland, ME.

Please let me know if you need any additional information.

Sincerely,

Stephen J. Matteo, SVP

Camden National Bank

H. Technical Capacity

Acorn Engineering, Inc. and Cornerstone Building & Restoration have successfully permitted, engineered, and constructed a plethora of projects in Portland over the past several years. Some examples include:

- Eldredge Lumber
- Munjoy Heights
- 89 Anderson St. – East Bayside Lofts
- 121 Washington Ave
- 667 Congress St – the Hiawatha
- Cumberland Flats
- East End Loft



I. Conformity with Land Use Ordinance

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use, Article V Section 14-526 as well as the City of Portland Technical Manual, Chapter 14 Standards for Local Site Location of Development Review.

OVERVIEW

The proposed 5-story building, consisting of a lodging house with small first floor retail unit has been designed to conform to City standards where possible. This project conforms with the majority of the applicable standards of Portland's Land Use Ordinance Section 14-526 as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The site is located on Cumberland Avenue, between Chestnut and Stone Streets. Cumberland Ave, classified as minor arterial, currently supports a significant amount of traffic. There is an anticipated decrease in traffic anticipated given the transformation of a parking lot into a lodging house. There are two proposed parking spaces on site with a number (to be determined) of off-site leased parking spaces at a nearby lot

2. Access and Circulation:

a. Site Access and Circulation:

- (i) The development will provide safe access and internal circulation for both pedestrians and vehicles as seen on the Site Plan.
- (ii) The proposed driveway has been located as far away from the Cumberland/Stone intersection as possible.
- (iii) The site does not feature drive up services as mentioned in this requirement.

b. Loading and Servicing:

- (i) There are no anticipated loading and servicing needs.

c. Sidewalks:

- (i) A brick sidewalk exists along Cumberland Ave which will be rebuilt as part of the project. A concrete sidewalk exists along Stone Street which will also be rebuilt as part of the project.
- (ii) Not applicable.
- (iii) Both the main entrance to the building and the retail entrance will be off the Cumberland Ave sidewalk with a continuation of the brick walk. Pedestrian access to the rear of the site will be provided by a concrete sidewalk to the rear stairwell. Please refer to the Site Plan, Sheet C-10, for more information.



3. Public Transit Access:

- a. Although not required, the nearest transit shelter is less than ¼ mile away.
- b. Not applicable.
- c. Not applicable.
- d. Not applicable.

4. Parking:

a. Location and Required Number of Vehicle Parking Spaces:

- (i) The proposed project will provide 2 parking spaces on site and will meet the remaining requirement by entering into an off-site lease.
- (ii) A parking study is not required.
- (iii) The proposed project does not exceed minimum parking requirements.
- (iv) The parking scenario is a unique situation which is not outlined in the Technical Manual; however, the parking has been proven functional through the use of a turning template program.
- (v) There is no proposed exterior parking.

b. Location and Required Number of Bicycle Parking Spaces:

- (i) The site plan includes an interior storage room which would provide a secure location for 15 bicycle parking spaces. Additionally, two bicycle hitches are proposed along Cumberland Ave.
- (ii) A waiver is not requested.

c. Motorcycles and Scooter Parking:

- (i) There are no areas designated for motorcycles or scooters at this time.

d. Snow Storage:

- (i) The proposed project layout will create minimal snow terrain; accumulation is limited to walks. The Owner may have snow removed from the site when necessary.
- (ii) The snow storage has not been located where it will adversely impact the functionality of any part of the site.

5. Transportation Demand Management (TDM):

- a. A TDM plan is not required for this project.
- b. A TDM plan is not required for this project.
- c. A TDM plan is not required for this project.



(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:
 - a. Not applicable.
 - b. Not applicable.
2. Landscaping and Landscaping Preservation:
 - a. Landscape Preservation.
 - (i) There is only one existing tree on site which is in poor condition.
 - (ii) There exists one (1) 20" DBH tree within the rear setback which is proposed to be removed due to the imposing safety concern from its greatly overhanging branches.
 - (iii) Not applicable.
 - (iv) The existing 20" DBH tree in the rear setback extends approximately 30' over the existing parking lot which poses a safety hazard and would also significantly compromise any further development if allowed to remain.
 - (v) Not applicable.
 - b. Site Landscaping.
 - (i) Landscaped Buffers:
 - a. All loading and dumpster locations will be screened from view.
 - b. The project has 150.71 linear feet of frontage along Stone Street and Cumberland Ave; it is required that a minimum of six shrubs or shrub alternatives per 45 feet of frontage are planted. The requirement is met through a combination of landscaping within the setbacks and internally within the site. Please refer to the Landscaping Plan for more information.
 - c. Not applicable.
 - d. Not applicable.
 - (ii) Parking Lot Landscaping:
 - a. Not applicable.
 - b. Not applicable.
 - c. Not applicable.
 - d. Not applicable.
 - e. Not applicable.



(iii) Street Trees:

- a. Street trees are to be provided every 30 to 45 feet along the street frontage. This ratio equates to a minimum of three trees. Three shade trees are proposed to be planted within the sidewalk on Cumberland Ave. The width of the existing sidewalk on Stone Street does not allow for any street trees to be planted.
- b. Not applicable.

3. Water Quality, Stormwater Management and Erosion Control:

a. Stormwater:

- (i) The site drainage will not be directed to flow or pond onto adjacent lots. The drainage patterns will be altered to intercept the roof runoff as well as stormwater in between structures, with the addition of stormwater management practices to attenuate the flows.
 - (ii) Existing flows to adjacent properties will be decreased. Overall, there is a proposed reduction in impervious area and stormwater will be captured by drains and pipes to the separated stormwater system in Stone Street.
 - (iii) The runoff from the site into the City property will not increase from the pre-development condition.
 - (iv) Not applicable.
- b. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including the basic standards of MEDEP Chapter 500. Please refer to sections J and K, the Stormwater Management and Erosion & Sedimentation Control Plans, respectively, for more information.
 - c. The project is not located in a watershed of an urban impaired stream as listed by the MEDEP.
 - d. Not applicable.
 - e. 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.
 - f. The development will provide for adequate and sanitary disposal of sewage in accordance with Section 2 of the Technical Manual.

(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. The site has been designed to promote safe and inviting public access:
- b. Adequate emergency access has been provided. Access is available from Cumberland Ave as well as Stone Street (One Way).
- c. A fire hydrant is located across the street from the site on Cumberland Ave.

3. Availability and Adequate Capacity of Public Utilities:

- a. Public utilities in the vicinity of the site have capacity to serve the project. Ability to Serve letters have been sent to the respective companies. Responses have been included in the submission and any remaining responses will be submitted upon receipt.
- b. The electrical service will be wired underground.
- c. The new sewer and stormwater infrastructure will meet the provisions of the Technical Manual.
- d. The project will be served by connection to the public sewer system within Stone Street.
- e. The sanitary sewer collection system meets all applicable sections of the Technical Manual. The stormwater management system is designed to meet the standards of Chapter 500.
- f. The project anticipates providing internal solid waste storage with private hauling of the waste.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:

- a. Not applicable.
- b. Not applicable.
- c. Not applicable.

2. Shadows:

- a. The shadows created by the building will not influence public open spaces.

3. Snow and Ice Loading:

- a. The structures will not distribute snow and ice onto adjacent properties.

4. View Corridors:

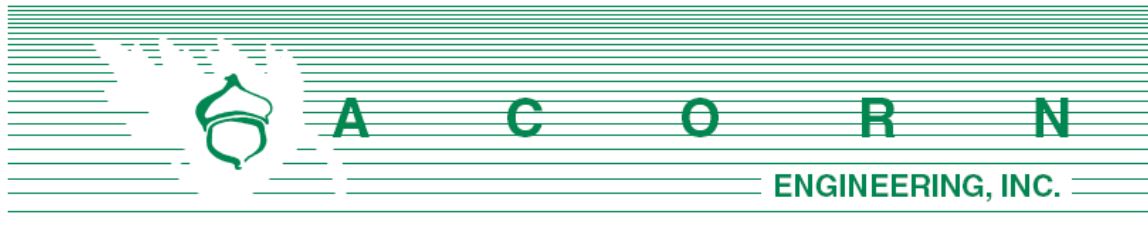
- a. The proposed project is located within the Downtown View Corridor Protection Plan but does not impact the pre-development view of St. Patrick's Church. The site is located on the opposite side of Cumberland Ave as the historic landmark and is shorter in height than the existing Chestnut Street Lofts directly across the street from the site.

5. Historic Resources:



- a. The development is not located in a historic district, historic landscape district or City designated landmark.
 - b. The development is adjacent to the Congress Street Historic District and is compatible with design aspects of existing buildings.
 - c. There are no known archaeological resources on the site.
6. Exterior Lighting:
- a. Site Lighting.
 - (i) Exterior lighting has been designed to meet the requirements of Section 12 of the Technical Manual. Please let us know if a photometric plan is required as part of this permit.
 - (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.
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. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
 - (i) The project is not located in a historic district or subject to Article IX.
 - (ii) Not applicable.
 - (iii) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
9. Zoning Related Design Standards:
- a. The project has been designed to meet the standards set forth in the B-2 zone. Please refer to the Site Plan for more information on the Space & Bulk Standards.





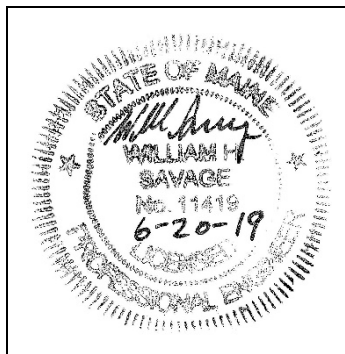
J. STORMWATER MANAGEMENT **REPORT**

Prepared For:

**Downtown Lodging, LLC
55 Washington Ave
Portland, Maine 04101**

Prepared By:

**Acorn Engineering, Inc.
65 Hanover Street
Portland, Maine 04101**



June 2019

INTRODUCTION

Acorn Engineering, Inc. has been retained by Downtown Lodging, LLC to provide civil engineering services for the proposed redevelopment of 263 Cumberland Ave. The proposed project includes a five-story, building consisting of an 89-room lodging house with a small first floor retail unit.

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, Article V. Site Plan Section 14-523. Required Approvals and Applicability (F) Level III Site Plan Review.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.

The proposed project is expected to decrease the impervious area by approximately 432 square-feet. Additionally, the proposed landscaping will help retain stormwater on site. These features will help reduce the overall runoff of stormwater into the street and thus reduce the demand on the City's storm system.

EXISTING CONDITIONS

The proposed project site is located at the corner of Cumberland Ave and Stone Street. A boundary plan has been prepared by Owen Haskell, Inc. of Falmouth, Maine dated February 2, 2018.

Abutting Uses:

- | | |
|--------------------------------|---|
| ➤ North B-2 Zone (R-7 Overlay) | Multi Family Residential |
| ➤ East B-2 Zone | Multi Family Residential |
| ➤ South B-3 Zone | Governmental / Multi Family Residential |
| ➤ West B-2 Zone (R-7 Overlay) | Multi Family Residential |

Nearly 100% of the existing site is comprised of pavement or rooftop. The average slope is moderate with grades dropping away from Cumberland Ave at approximately 5% on the north-eastern side of the lot.

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, a field inventory of significant natural feature was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream.

PROPOSED DEVELOPMENT

The proposed project is a five-story, 89 room lodging house, with 4 levels of dedicated living space and a combined first floor level with living space and a small retail unit, as well as basement and garage storage and parking, respectively.

The proposed project will decrease the site's impervious area by approximately 432 square-feet. Therefore, stormwater management features for quality control that meets Maine DEP's Chapter

500 General Standards have not been designed. Furthermore, features for quantity control are not required and have not been analyzed; however, the project is anticipated to exceed Chapter 500 Flooding Standards by decreasing peak flows from the site.

Furthermore, the non-roof impervious area has been reduced by over 4,000 square-feet, leaving only 315 square-feet of impervious area that is not roof. A series of inline field inlets, swales, and crushed stone surface will manage stormwater. The majority of the generated runoff will be from the roof which will be piped directly to the separated storm system through the use of a downspout.

The landscaping plan includes planting of trees, shrubs, and perennials. The re-vegetation strategy proposes native plants which will complement the new structure while offering environmental benefits such as reducing the heat island effect, stormwater uptake and treatment, reduction of erosion, provide wildlife habitat, and screening in between properties.

The development will be served by the Portland Water District, underground power/cable/communications, natural gas and the municipal sewer system. Solid waste and recycling will be contracted through a private waste disposal and recycling provider. The project anticipates incorporating Maine DEP approved stormwater Best Management Practices (BMP) to meet the General and Flooding Standards.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey

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 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
Hinckley loamy sand	0.17	0.17

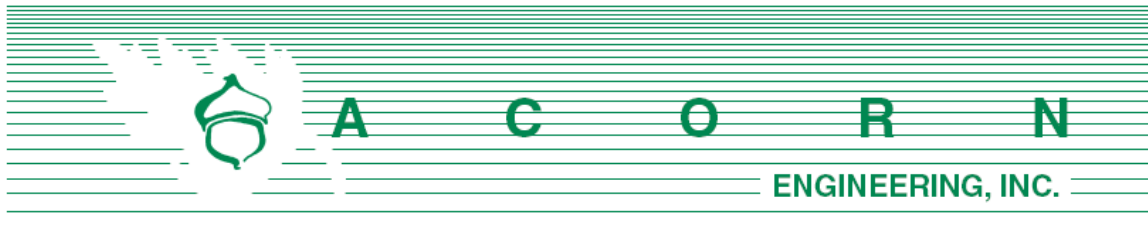
The soil “K” value for the soil, listed above, shows a low susceptibility to erosion. The site’s susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil “K” values for the soils show a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the sustained slope throughout the site.

Conclusion

The proposed redevelopment was designed to meet the requirements set forth in the City of Portland

Technical Manual – Section 5 – Portland Stormwater Management Standards. The proposed project as designed is anticipated to largely maintain existing drainage patterns while decreasing the overall volume and flowrate of stormwater runoff. The project will not cause flooding or erosion problems within the subject site, abutters' sites, nor within the right-of-way.





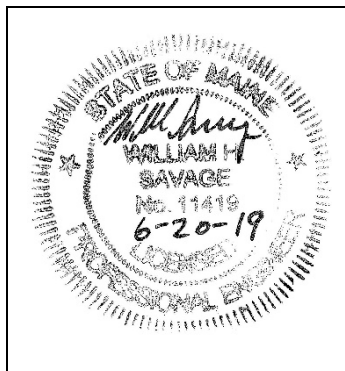
K. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**Downtown Lodging, LLC
55 Washington Ave
Portland, Maine 04101**

Prepared By:

**Acorn Engineering, Inc.
65 Hanover Street
Portland, Maine 04101**



June 2019

INTRODUCTION

Acorn Engineering, Inc. has been retained by Downtown Lodging, LLC to provide civil engineering services for the proposed redevelopment of 263 Cumberland Ave. The proposed project includes a five-story, building consisting of an 89-room lodging house with a small first floor retail unit.

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 at the corner of Cumberland Ave and Stone Street. A boundary plan has been prepared by Owen Haskell, Inc. of Falmouth, Maine dated February 2, 2018.

Abutting Uses:

- | | |
|--------------------------------|---|
| ➤ North B-2 Zone (R-7 Overlay) | Multi Family Residential |
| ➤ East B-2 Zone | Multi Family Residential |
| ➤ South B-3 Zone | Governmental / Multi Family Residential |
| ➤ West B-2 Zone (R-7 Overlay) | Multi Family Residential |

A large portion of the site is occupied by the existing structures and a paved driveway. The grades are relatively flat. Approximately 95% of the site is impervious.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey

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 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
Hinckley loamy 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

Critical areas that would require special attention during construction include, but are not limited to, the drainage system within Cumberland Ave and Stone Street and slope stabilization located within the vicinity during earthwork and foundation construction.

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 Cumberland Ave and Stone 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 $\frac{1}{2}$ 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: Will Savage, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert- #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620

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 roadway 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.

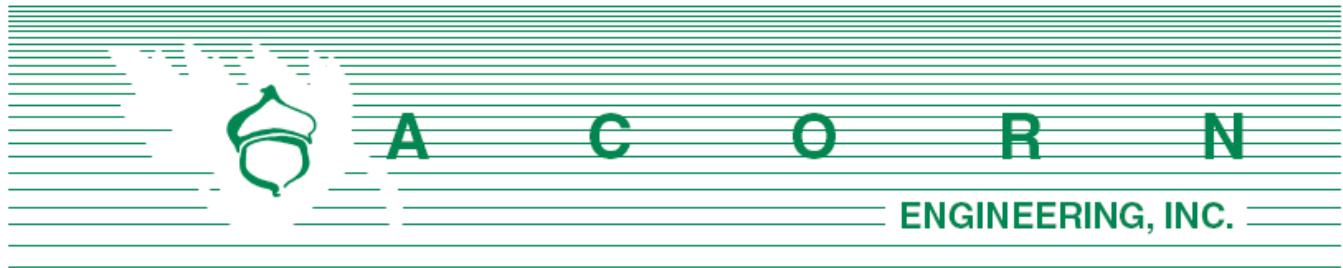
Recommendations

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 Thompson
 City of Portland Fire Department
 380 Congress St.
 Portland, ME 04101

June 28, 2019

Subject: 263 Cumberland Ave – Fire Department Checklist
 Section L of Application

On behalf of Downtown Lodging, LLC, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of applicant

Downtown Lodging, LLC
 55 Washington Ave
 Portland, ME 04101
 (207) 599-1440

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: Lodging and Rooming / IBC: R-3

4. Square footage of all structures, including decks [total and per story]

Existing Building		
Total	Approx. 7,500	sf

Proposed Building		
1 st Floor	5,097	sf
2 nd Floor	5,097	sf
3 rd Floor	5,097	sf
4 th Floor	5,097	sf
5 th Floor	5,097	sf
Total	25,485	sf

5. Elevation of all structures

Based upon the average grade plane defined by the IBC, the proposed building height is just under 54'. This height is below the allowable 55 feet within the Bayside Overlay. 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 with additional protection 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 the street from the site on Cumberland Ave. 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 redevelopment will be serviced by a new 6" sprinkler line and domestic water main within Cumberland Ave. A 4" or 6" fire service line will extend from the domestic water main to the building fire suppression system. The building is expected to have internal sprinkler risers and a Fire Department pump connection on the street side of the building.

9. Access to all structures [min. 2 sides]

Access to the structure is provided directly on Cumberland Ave. Additionally, the site is accessible by a fire truck through Stone Street (One Way).

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:

- Cumberland Ave: 38 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: Not applicable

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: As depicted on the site plan, the proposed building layout provides a minimum of two paved access points to the structure: from Hammond Street directly and one from Fox Street.

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 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, namely Cumberland Ave.

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 except for the subsurface parking area.

3.4.6. Elevators shall be sized to accommodate an 80 x 24-inch stretcher.

Response: The elevators will be sized to accommodate an 80 x 24 stretcher, per the Architect's designs.

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 applicant will work with the City's Public Works Division to assign street addresses and numbering to meet City Standards.

Thank you for your review. Please let me know if you have any additional questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Will Savage".

William H. Savage, P.E.
Principal
Acorn Engineering, Inc.



Mixed Use Building - 263 Cumberland Avenue, Portland, Maine

IBC 2015

NFPA 101 2009

5 floors above grade

502.1

Sprinklers

NFPA 13

NFPA 13

Fire Alarm

Monitored Fire Alarm Required

Monitored Fire Alarm Required

Smoke and CO Detectors

Smoke and CO detectors required

Smoke and CO detectors required

Occupant Load

T 1004.1.1

7.3.1.2

Basement = 1513 sf S2 Storage (500 gsf/oc) = 4

Basement = 1513 sf S2 Storage (500 gsf/oc) = 4

Floor 1= 4,035 sf Residential (200 gsf/oc) = 21

Floor 1= 4,035 sf Residential (200 gsf/oc) = 21

Floor 1 = 555 sf Retail(30 gsf/oc) = 19

Floor 1 = 555 sf Retail(30 gsf/oc) = 19

Floor 2 = 4,840 sf Residential (200 gsf/oc) = 25

Floor 2 = 4,840 sf Residential (200 gsf/oc) = 25

Floor 3 = 4,840 sf Residential (200 gsf/oc) = 25

Floor 3 = 4,840 sf Residential (200 gsf/oc) = 25

Floor 4 = 4,840 sf Residential (200 gsf/oc) = 25

Floor 4 = 4,840 sf Residential (200 gsf/oc) = 25

Floor 5 = 4,840 sf Residential (200 gsf/oc) = 25

Floor 5 = 4,840 sf Residential (200 gsf/oc) = 25

Total Building Occupant Load = 144**Total Building Occupant Load = 144**

Use Group(s)

310.1

Apartments (R2)

30.1

Apartment Building

S2 - STORAGE

Mercantile

M - Retail

Storage -Ordinary Hazard

Podium Building

510.2

Type 1A below 3hr separation Type 5A above

Max Building height from grade plan for 5A type (70')

Constr. Type B and 1

T 503

1A - non-combustible protected

I (332) non-combustible protected

Constr. Type 2,3,4,5,6	T 503	5A - combustible protected		V (111) combustible protected
Building Height	T 504.3	Sprinkler NFPA13 = 70' max. For R, M, S uses		
Number of Stories	T 504.4	R2 = 4 Stories with sprinkler above podium		
		M = 4 Stories with sprinkler		
		S2 = 5 Stories with sprinkler		
Building Area	T 506.2	Sprinkler 13 = 36,000 sf max per floor		
Building Elements 1A	T 601	3 hr Structural Frame	30.1.6	Apartments -No Minimum Construction requirements
	T 602	3 hr Bearing Walls Exterior (sep. dist >= 10')	42.1.6	Storage - No Min requirements
	T 602	3 hr Bearing Walls Exterior (sep. dist <10')	37.1.6	Mercantile - No Min requirements
	T 601	3 hr Bearing Walls Interior		
	T 601	0 hr Non-Bearing Walls Interior		
	T 602	1 hr Non-Bearing Walls Exterior (sep. dist >= 10')		
	T 602	1 hr Non-Bearing Walls Exterior (sep. dist <10')		
	705.5	Exterior Wall with >10' sep. needs rating only from inside		
	T 601	2 hr Floor Construction (1hr between units)		
	T 601	1-1/2 hr Roof Construction		
Building Elements 5A	T 601	1 hr Structural Frame		
	T 602	1 hr Bearing Walls Exterior (sep. dist >= 10')		
	T 602	1 hr Bearing Walls Exterior (sep. dist <10')		
	T 601	1 hr Bearing Walls Interior		
	T 601	0 hr Non-Bearing Walls Interior		
	T 602	0 hr Non-Bearing Walls Exterior (sep. dist >= 30')		
	T 602	1 hr Non-Bearing Walls Exterior (sep. dist <30')		
	705.5	Exterior Wall with >10' sep. needs rating only from inside		
	T 601	1 hr Floor Construction (1hr between units)		
	T 601	1 hr Roof Construction		
Separations				
		M and S2 sprinkled = 1 hr	T6.1.14.4.1	Mercantile and Storage Ordinary with Sprinkler = 1hr
		S2 and R2 sprinkled = 1 hr		Mercantile and Apartments with Sprinkler = 1hr
		M and S2 sprinkled = 1 hr		

			708	2 hr Mechanical Shaft > 4 stories		
			1022.1	2 hr Stair Shaft > 4 stories		
			709.1	1 hr Between Dwelling Units	30.3.7.2	1/2 hr vertical and horizontal sep. between dwellings
			1018.1	1/2 hr Corridor	30.2.4.4.7	1 hr corridor
			508.2.5	1 hr Boiler Room	T 31.3.2.1.1	0 hr Boiler Room w/sprinklers
			508.2.5	1 hr Trash Room	T 31.3.2.1.1	0 hr Trash Room w/sprinklers
			508.2.5	1 hr Storage Room	T 31.3.2.1.1	1 hr Storage Room w/sprinklers
			508.2.5	1 hr Laundry Room	T 31.3.2.1.1	0 hr Laundry Room w/sprinklers
			715.4	90 minute Stairwell Doors (2hr shaft)		
			715.4	20 minute Apartment Entry Doors (1/2 hr corridor wall)	30.3.6.2.1	20 minute Apartment Entry Doors
Distances and Exits						
			1017.2	250' Travel Distance to exits with Sprinklers	30.2.6.2.3	200' Travel distance from apt. door to exit
			1006.2.1	125' Common Path of Travel for R use (75' for M and A)	30.2.5.3.2	50' Common Path of Travel
			1020.4	50' Dead End (20' in A use)	30.2.5.4	50' Dead End
					30.2.6.1.2	125' Travel Distance within Dwelling to Corridor
			403.6.2	Elevator as Means of Egress - required as building is over 4 stories		
				Generator required as Elevator is a MOE		
				Elevator Lobbies Required		
				Exterior Walls to meet NFPA 285 Fire Test		
Unprotected Openings			T 705.8	15% when exterior wall sep. dist. is 3'>5'		
			T 705.8	25% when exterior wall sep. dist. is 5'>10'		
			T 705.8	45% when exterior wall sep. dist. is 10'>15'		
			T 705.8	75% when exterior wall sep. dist. is 15'>20'		
			T 705.8	Unlimited when exterior wall sep. dist. is 25'>30'		
			T 705.8	Unlimited when exterior wall sep. dist. is >30'		
Parapets			705.11 (ex 6)	Parapets are NOT required when the wall is allowed 25% or more		
				Unprotected openings		

Egress Windows		1030.1	NOT Required at the building has two means of egress		
Egress Stairs		1009.1	Occ. Load >50 = 44" min width		
		1003.3	Handrails can protrude into stair 4.5" max	7.2.2.2.1.2	Handrails can protrude into stair 4.5" max
Sound		1207.2	STC > 50 at walls and floors/ceilings		
		1207.3	IIC > 50 at walls and floors/ceilings		
Energy IECC 2006		T 402.1.1	0.35 Fenestration U-Factor		
Zone 6			R-49 Ceiling		
Residential			R-20 or 13+5c Framed wall		
			R-30 Floor		
			R-19 or 15c Basement wall		
			R-10 to 4ft Slab		
UPC 2015		3,235 sf x 12940 residential / 200 = 65 = 33 males, 33 females			
		81 residents = 42 males, 42 females			
			Male fixtures= 3 toilets, 2 urinals, 3 lavs		
			Female fixtures = 3 toilets, 3 lavs		
			11 showers total		
Accessibility		Fair Housing Act Applies			
		All units are designed to meet the Fair Housing Act			
		Maine Human Rights Act Applies			
		All units are designed to meet the Maine Human Rights Act			
		Retail Spaces must meet ADA 2010			
		All common spaces and retail areas are designed to meet ADA 2010			
		The residential units do not need to meet ADA as the project has no Public Funding			

M. Calculation of Wastewater Flowrate for 263 Cumberland Ave Redevelopment

The proposed project includes a five-story, approximately 25,000 sf building consisting of an 89-room lodging house with a small first floor retail unit and two parking spaces in the basement. 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	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Lodging House	20 rooms	20	180 + 30(20)	780
Apartment	1-Bedroom	1	120	120
Total Gallons per Day (Existing)				900
Proposed Flow				
Lodging House	89 rooms	89	180 + 40(89) *	3,740
Small-Retail Unit	2-Employees	1	325 + 12(2)	349
Total Gallons per Day (Proposed)				4,089
Net Change				+3,189 GPD
Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				
*Proposed lodging house flow as advised by City of Portland Public Works				

As seen above, the project anticipates an increase in daily flow of approximately 3,200 gallons.



CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Portland Dept. of Public Works -
Water Resources
55 Portland Street,
Portland, Maine 04101-2991



Bradley Roland, P.E.
Water Resources Division
Department of Public Works
55 Portland Street
Portland, ME 04103

Date: 7/12/19

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 263 Cumberland Avenue

Chart Block Lot Number: 26-F-8, 26-F-16

Proposed Use: 89-room lodging house with small first floor retail unit

Previous Use: 20-room lodging house

Existing Sanitary Flows: 900 GPD

Existing Process Flows: 0 GPD

Description and location of City sewer that is to receive the proposed building sewer lateral.

The project proposes connecting to the existing 12" PVC sewer main within Stone Street

Site Category
Commercial (see part 4 below)
Industrial (complete part 5 below)
Governmental
Residential
Other (specify)

X
X

Clearly, indicate the proposed connections, on the submitted plans.

2. Please, Submit Contact Information.

City Planner's Name: TBD Phone: 207.874.8719

Owner/Developer Name: Downtown Lodging, LLC.

Owner/Developer Address: 55 Washington Ave., Portland, ME 04101

Phone: 207.874.0700 Fax: _____ E-mail: classactspropertymanagement@yahoo.com

Engineering Consultant Name: Acorn Engineer, Inc.

Engineering Consultant Address: 65 Hanover St., Portland, ME 04101

Phone: 207.775.2655 Fax: _____ E-mail: wsavage@acorn-engineering.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: 4089 GPD

Peaking Factor/ Peak Times: Diurnal

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:	0
Size of External Grease Interceptor:	NA
Retention Time:	NA
Peaking Factor/ Peak Times:	NA

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:	0	GPD	
Do you currently hold Federal or State discharge permits?	Yes	No	X
Is the process wastewater termed categorical under CFR 40?	Yes	No	X
OSHA Standard Industrial Code (SIC):	<i>(http://www.osha.gov/oshstats/sicser.html)</i>		
Peaking Factor/Peak Process Times:	NA		

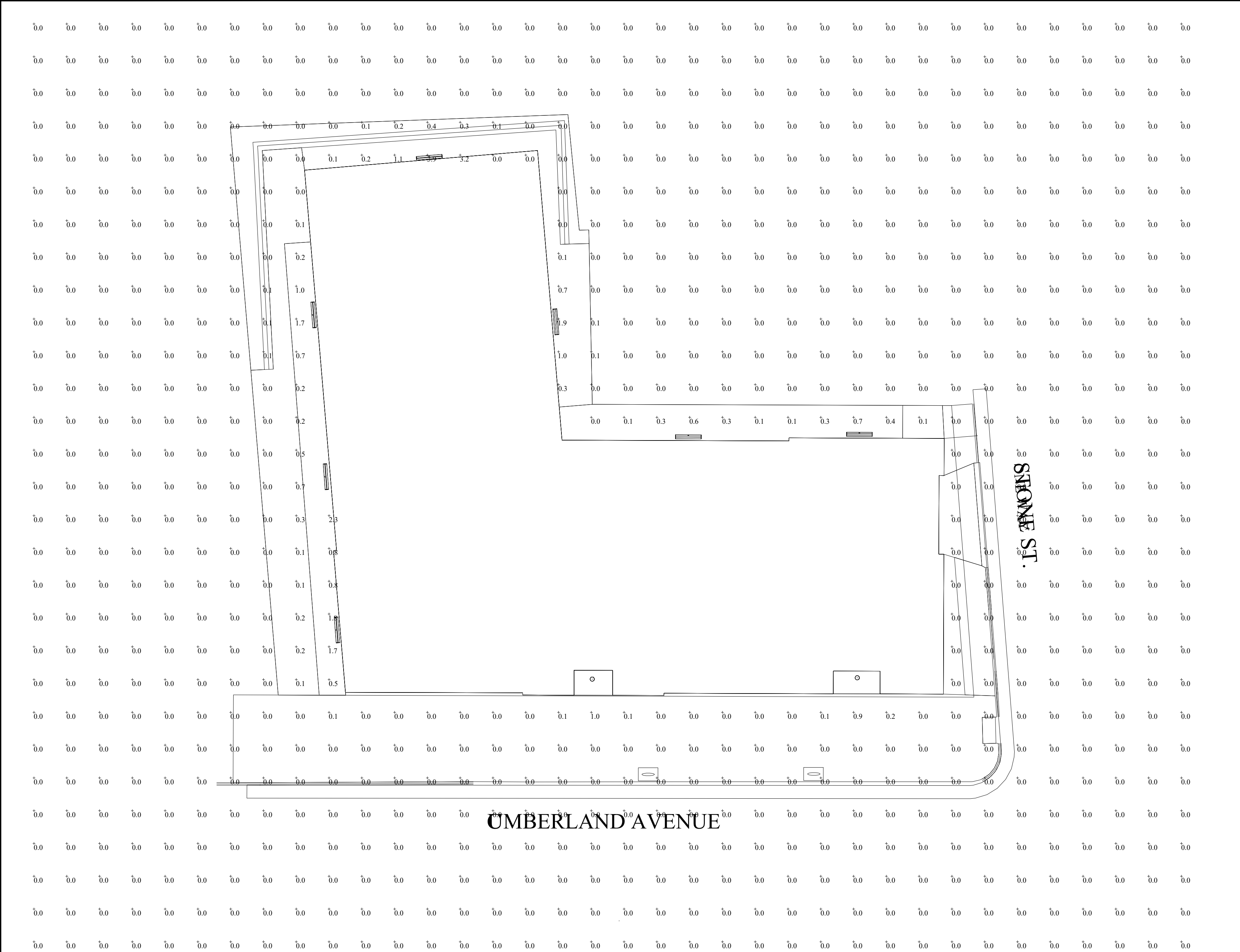
Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the 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.

N. Lighting

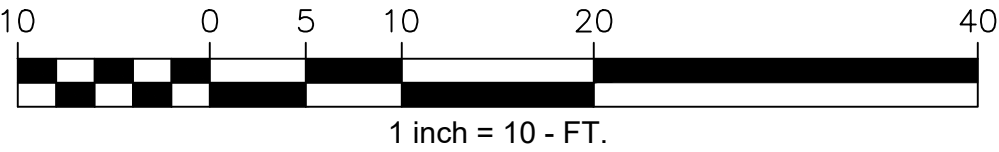
Please find attached the photometric plan and cut sheets. Please note an existing street light exists near the proposed garage door which has not been modeled. In the reality, this area will be adequately lit. Additionally, the proposed light pole base on Cumberland Ave has not been included within the photometric plan.





Luminaire Schedule							
Symbol	Qty	Label	Mounting Height	LLF	Lum. Lumens	Lum. Watts	Description
↑	7	PS	8' - 0" AFG	0.900	1164	13	RN-D-2-5-3K8-WW-CL
⊙	2	DL	8' - 0" AFG	0.850	785	8	LTR-4RD-H-SL06L-DM1_LTR-4RD-T-

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Area	Illuminance	Fc	0.04	3.9	0.0	N.A.	N.A.



1. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO HUBBELL LIGHTING. 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:

263 CUMBERLAND REDEVELOPMENT
PORTLAND, ME
SITE PHOTOMETRIC PLAN

REVISED FROM DRAWING NUMBER(S)

R1: 09/20/19R2: 02/23/19



Hubbell Lighting, Inc.
701 MILLENNIUM BLVD.
GREENVILLE, SC 29607

DN BY:

DHK

REV BY:

DHK

QUOTE:

N/A

DATE:

09/19/19

DATE:

09/23/19

DRAWING / DESIGN NO.:

1924920R2

CHK BY:

N/A

SCALE:

AS NOTED



Date: Sep 24, 2019

Swaney Lighting
PO Box 1597
Scarborough ME 04070
Phone: (207) 883-7100
Fax: (207) 885-9606

Job Name
263 CUMBERLAND REDEVELOPMENT
SLA19-43266
PORTLAND ME

Bid Date
Sep 23, 2019

Submittal Date
Sep 24, 2019

Designer & Consultants:
Swaney Application Design
applications



Transmittal

Swaney Lighting
 PO Box 1597
 Scarborough ME 04070
 Phone: (207) 883-7100
From: Therese "TC" Freeman X-103

Project 263 CUMBERLAND REDEVELOPMENT
Quote# SLA19-43266
Location PORTLAND ME
To SWANEY LIGHTING
 15 PLEASANT HILL ROAD
 SCARBOROUGH ME 04074
 Contact: WANDA RICHARD

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- | | | |
|-----------------------------------|--|--------|
| ☐ Drawings | ☐ Specifications | Other: |
| ☐ Prints | ☐ Information | |
| ☐ Plans | ☒ Submittals | |

THESE ARE TRANSMITTED FOR:

- | | | |
|--|---|---------------------------------|
| ☒ 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
PS	Architectural Area Lighting	RN-D-2-5-3K8-WW-CL-UNV-W-**
	Item Note: SPECIFY FINISH	
DL	PRESCOLITE	LTR-4RD-H-SL06L-DM1
DL	PRESCOLITE	LTR-4RD-T-SL30K8MD-S

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

RN-D-2-5-3K8-WW-CL-UNV-W-**

Type:**PS**

Notes: SPECIFY FINISH

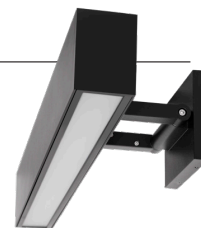
SLA19-43266

Pursuit™ – Direct (Down)

TYPE

FEATURES

- 2', 3', 4', 6' & 8' housing lengths
- Sections can be joined for runs up to 150' with seamless lens
- IP66 Rated
- Light engine is independently rated IP67
- Electrical connections IP68 rated
- Symmetric, asymmetric, wall graze & wall wash distributions
- "L", "T" & "X" illuminated connectors for custom shapes
- NX Distributed Intelligence & SiteSync enabled for wireless control
- Output up to 1,500 lm/ft
- Surface, fixed arm, adjustable arm, pendant, mullion & wall mounting options

**ORDERING CODE**

1	2	3	4	5	6	7	8	9	10	11	12
RN	D										
Model	Light Engine	Row Length	Max Section Length	Output	Color Temp	Down Distribution	Shielding	Voltage	Mounting	Options	Finish

1. MODEL**RN Pursuit****2. LIGHT ENGINE****D Direct (Down)****3. ROW LENGTH**

Manual input (150' Max length. round up to nearest whole foot)

4. MAXIMUM FIXTURE SECTION LENGTH**2 2' Fixture**

3 3' Fixture

4 4' Fixture

6 6' Fixture

8 8' Fixture

5. OUTPUT**5 500 lumens/ft**

7 750 lumens/ft

10 1000 lumens/ft

15 1500 lumens/ft

6. COLOR TEMPERATURE**3K8 3000K, 80 CRI**

3K9 3000K, 90 CRI

4K8 4000K, 80 CRI

4K9 4000K, 90 CRI

5K8 5000K, 80 CRI

Consult factory for additional CCT options.

7. DISTRIBUTIONS

SM Symmetrical

AS Asymmetrical

WG Wall graze

WW Wall wash**8. SHIELDING**

DL Diffuse lens

CL Clear lens**9. VOLTAGE****UNV 120-277V**

347 347V

480 480V

10. MOUNTING**W Wall**

A3 3" Adjustable arm

A6 6" Adjustable arm

A12 12" Adjustable arm

F3 3" Fixed arm

F6 6" Fixed arm

F12 12" Fixed arm

M Mullion

S Surface

PSW12 12" Pendant

PSW24 24" Pendant

PSW36 36" Pendant

11. OPTIONS

EMF1 End Power Feed at one end

EMF2 End Power Feed at both ends

Photocell OptionsPC Button photocell ⁽¹⁾**Control Options - Not available with PC ⁽¹⁾**

SCP Dimming Occupancy Sensor

SWP SiteSync Wireless

SWPM SiteSync Wireless with SCP

NXWE NX Wireless Enabled

NXOSW NX Wireless, PIR Occupancy Sensor, Dimming Daylight Harvesting

Emergency Battery OptionEM Battery Backup Unit (-20°C) ⁽²⁾**12. FIXTURE FINISH****Standard Color - Specify**

BL Black

BLT Matte Black

DB Dark Bronze

GT Graphite

MG Medium Grey

TT Titanium

WH White

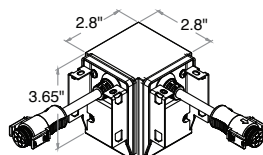
CUSTOM Custom Color

Note:⁽¹⁾ Requires auxiliary housing. Fixture length will increase.⁽²⁾ Integral battery backup for 3, 4, 6 and 8 foot versions only. Not available on 2' housing.**ACCESSORIES****Non Illuminated Connectors - Enable**
Custom Shapes (see separate spec sheet)**ORDERING PREFIX**

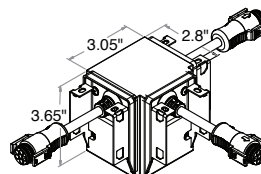
RNLTX-L-D L shape

RNLTX-T-D T shape

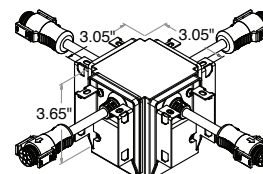
RNLTX-X-D X shape



L Shape



T Shape



X Shape

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| 1 |

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

RN-D-2-5-3K8-WW-CL-UNV-W-**-**

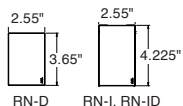
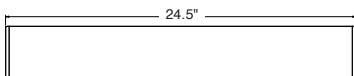
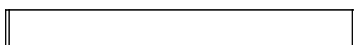
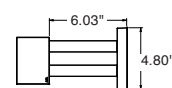
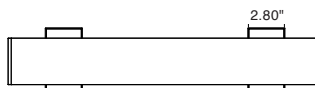
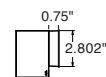
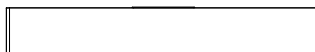
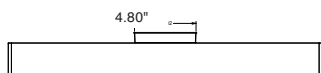
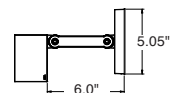
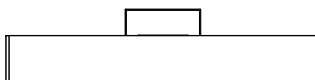
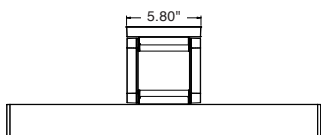
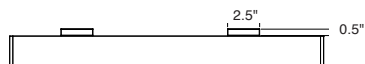
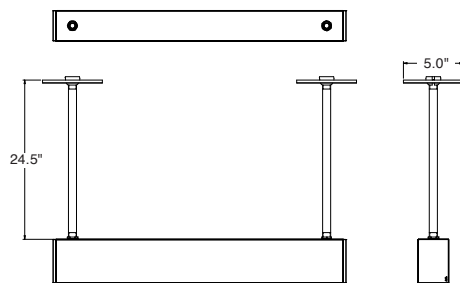
Notes: SPECIFY FINISH

Type:**PS**

SLA19-43266

Pursuit™ – Direct (Down)

TYPE

DIMENSIONS**FIXTURE****FIXED ARM****WALL****ADJUSTABLE ARM****MULLION****PENDANT**ARCHITECTURAL AREA LIGHTING
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| 2 |

Submitted by Swaney Lighting		Job Name: 263 CUMBERLAND REDEVELOPMENT Designer & Consultants: Swaney Application Design	Catalog Number: RN-D-2-5-3K8-WW-CL-UNV-W-**-**	Type: PS
			Notes: SPECIFY FINISH	SLA19-43266

Pursuit™ – Direct (Down)

TYPE

LUMINAIRE PERFORMANCE-DIRECT (DOWN)

Section Length	Lumens/ft	Nominal Lumen Package	System Watts	Distributions Type	Shielding	5K8		4K9		4K8		3K9		3K8	
						(5000K nominal, 80CRI)		(4000K nominal, 90CRI)		(4000K nominal, 80CRI)		(3000K nominal, 90CRI)		(3000K nominal, 80CRI)	
						Lumens	LPW ¹	Lumens	LPW ¹	Lumens	LPW ¹	Lumens	LPW ¹	Lumens	LPW ¹
2FT	500	1,000	13	SM	Diffuse	1225	94	957	73	1181	90	922	70	1138	87
					Clear	1372	105	1071	82	1323	101	1033	79	1275	97
				AS	Diffuse	1093	83	854	65	1054	81	823	63	1016	78
					Clear	1234	94	973	74	1201	92	943	72	1164	89
				WG	Diffuse	1289	98	1007	77	1243	95	970	74	1198	92
					Clear	1430	109	1117	85	1379	105	1076	82	1329	102
				WW	Diffuse	1093	83	854	65	1054	81	823	63	1016	78
					Clear	1234	94	973	74	1201	92	943	72	1164	89
	750	1,500	19	SM	Diffuse	1771	92	1383	72	1708	88	1333	69	1646	85
					Clear	1970	102	1538	80	1899	98	1483	77	1831	95
				AS	Diffuse	1580	82	1234	64	1524	79	1190	62	1469	76
					Clear	1784	92	1393	72	1720	89	1343	69	1658	86
				WG	Diffuse	1864	96	1455	75	1797	93	1403	73	1732	90
					Clear	2067	107	1615	84	1993	103	1556	81	1921	99
				WW	Diffuse	1580	82	1234	64	1524	79	1190	62	1469	76
					Clear	1784	92	1393	72	1720	89	1343	69	1658	86
	1,000	2,000	26	SM	Diffuse	2265	89	1769	69	2184	86	1705	67	2105	83
					Clear	2523	99	1970	77	2432	95	1899	74	2345	92
				AS	Diffuse	2021	79	1578	62	1949	76	1521	60	1878	74
					Clear	2282	89	1782	70	2200	86	1718	67	2121	83
				WG	Diffuse	2384	93	1861	73	2298	90	1794	70	2215	87
					Clear	2644	104	2065	81	2550	100	1991	78	2457	96
				WW	Diffuse	2021	79	1578	62	1949	76	1521	60	1878	74
					Clear	2282	89	1782	70	2200	86	1718	67	2121	83
	1500	3000	41	SM	Diffuse	3048	74	2380	58	2939	72	2294	56	2832	69
					Clear	3414	83	2666	65	3291	80	2570	63	3172	77
				AS	Diffuse	2720	66	2124	52	2622	64	2047	50	2527	62
					Clear	3070	75	2398	58	2960	72	2311	56	2853	70
				WG	Diffuse	3207	78	2505	61	3092	75	2414	59	2980	73
					Clear	3558	87	2779	68	3430	84	2678	65	3306	81
				WW	Diffuse	2720	66	2124	52	2622	64	2047	50	2527	62
					Clear	3070	75	2398	58	2960	72	2311	56	2853	70



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JOB _____
 TYPE _____
 NOTES _____

| 3 |

Submitted by Swaney Lighting		Catalog Number: RN-D-2-5-3K8-WW-CL-UNV-W-** Notes: SPECIFY FINISH	Type: PS SLA19-43266
	Job Name: 263 CUMBERLAND REDEVELOPMENT Designer & Consultants: Swaney Application Design		

Pursuit™ – Direct (Down)

TYPE

LUMINAIRE PERFORMANCE–DIRECT (DOWN) CONT'D

Section Length	Lumens/ft	Nominal Lumen Package	System Watts	Distributions Type	Shielding	5K8 (5000K nominal, 80CRI)		4K9 (4000K nominal, 90CRI)		4K8 (4000K nominal, 80CRI)		3K9 (3000K nominal, 90CRI)		3K8 (3000K nominal, 80CRI)	
						Lumens	LPW ¹	Lumens	LPW ¹	Lumens	LPW ¹	Lumens	LPW ¹	Lumens	LPW ¹
3FT	500	1,500	19	SM	Diffuse	1838	97	1435	76	1772	94	1383	73	1708	90
					Clear	2058	109	1607	85	1984	105	1549	82	1912	101
				AS	Diffuse	1640	87	1280	68	1581	84	1234	65	1524	81
					Clear	1851	98	1445	76	1785	94	1393	74	1720	91
				WG	Diffuse	1934	102	1510	80	1864	99	1455	77	1797	95
					Clear	2145	113	1675	89	2068	109	1615	85	1993	105
				WW	Diffuse	1640	87	1280	68	1581	84	1234	65	1524	81
					Clear	1851	98	1445	76	1785	94	1393	74	1720	91
	750	2,250	28	SM	Diffuse	2657	94	2075	73	2561	90	2000	70	2469	87
					Clear	2955	104	2308	81	2849	100	2224	78	2746	97
				AS	Diffuse	2370	83	1851	65	2285	80	1784	63	2203	78
					Clear	2676	94	2090	74	2580	91	2014	71	2487	88
				WG	Diffuse	2795	98	2183	77	2695	95	2104	74	2598	91
					Clear	3101	109	2422	85	2990	105	2334	82	2882	101
				WW	Diffuse	2370	83	1851	65	2285	80	1784	63	2203	78
					Clear	2676	94	2090	74	2580	91	2014	71	2487	88
	1,000	3,000	38	SM	Diffuse	3398	89	2654	69	3276	86	2558	67	3158	83
					Clear	3785	99	2955	77	3649	96	2849	75	3517	92
				AS	Diffuse	3032	79	2368	62	2923	77	2282	60	2817	74
					Clear	3423	90	2673	70	3300	86	2577	67	3181	83
				WG	Diffuse	3576	94	2792	73	3447	90	2691	70	3323	87
					Clear	3967	104	3098	81	3824	100	2986	78	3686	96
				WW	Diffuse	3032	79	2368	62	2923	77	2282	60	2817	74
					Clear	3423	90	2673	70	3300	86	2577	67	3181	83
	1,500	4,500	58	SM	Diffuse	4572	79	3570	62	4408	76	3441	59	4249	73
					Clear	5121	88	3999	69	4937	85	3854	66	4759	82
				AS	Diffuse	4079	70	3186	55	3933	68	3071	53	3791	65
					Clear	4606	79	3597	62	4440	77	3467	60	4280	74
				WG	Diffuse	4811	83	3757	65	4638	80	3621	62	4471	77
					Clear	5337	92	4168	72	5146	89	4017	69	4960	86
				WW	Diffuse	4079	70	3186	55	3933	68	3071	53	3791	65
					Clear	4606	79	3597	62	4440	77	3467	60	4280	74



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| 4 |

Pursuit™ – Direct (Down)

TYPE

LUMINAIRE PERFORMANCE-DIRECT (DOWN) CONT'D

Section Length	Lumens/ft	Nominal Lumen Package	System Watts	Distributions Type	Shielding	5K8		4K9		4K8		3K9		3K8	
						(5000K nominal, 80CRI)		(4000K nominal, 90CRI)		(4000K nominal, 80CRI)		(3000K nominal, 90CRI)		(3000K nominal, 80CRI)	
						Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW
4FT	500	2000	25	SM	Diffuse	2450	98	1913	77	2362	95	1844	74	2277	91
					Clear	2744	110	2143	86	2645	106	2065	83	2550	102
				AS	Diffuse	2186	88	1707	69	2108	85	1645	66	2031	82
					Clear	2468	99	1927	77	2379	96	1858	75	2293	92
				WG	Diffuse	2578	104	2013	81	2485	100	1941	78	2396	96
					Clear	2860	115	2233	90	2757	111	2153	86	2658	107
				WW	Diffuse	2186	88	1707	69	2108	85	1645	66	2031	82
					Clear	2468	99	1927	77	2379	96	1858	75	2293	92
	750	3,000	38	SM	Diffuse	3542	94	2766	73	3415	91	2666	71	3292	87
					Clear	3940	105	3077	82	3799	101	2966	79	3661	97
				AS	Diffuse	3161	84	2468	65	3047	81	2379	63	2937	78
					Clear	3568	95	2787	74	3440	91	2686	71	3316	88
				WG	Diffuse	3727	99	2911	77	3593	95	2806	74	3464	92
					Clear	4135	110	3229	86	3987	106	3113	83	3843	102
				WW	Diffuse	3161	84	2468	65	3047	81	2379	63	2937	78
					Clear	3568	95	2787	74	3440	91	2686	71	3316	88
	1,000	4,000	52	SM	Diffuse	4531	88	3538	69	4368	85	3410	66	4210	82
					Clear	5046	98	3941	76	4865	94	3798	74	4689	91
				AS	Diffuse	4042	78	3157	61	3897	76	3043	59	3757	73
					Clear	4564	88	3564	69	4400	85	3435	67	4241	82
				WG	Diffuse	4767	92	3723	72	4596	89	3589	70	4430	86
					Clear	5289	102	4130	80	5099	99	3981	77	4915	95
				WW	Diffuse	4042	78	3157	61	3897	76	3043	59	3757	73
					Clear	4564	88	3564	69	4400	85	3435	67	4241	82
	1,500	6,000	82	SM	Diffuse	6096	74	4760	58	5877	72	4589	56	5665	69
					Clear	6828	83	5332	65	6582	80	5139	63	6345	77
				AS	Diffuse	5439	66	4248	52	5244	64	4094	50	5055	62
					Clear	6141	75	4795	58	5920	72	4622	56	5707	70
				WG	Diffuse	6414	78	5009	61	6184	75	4828	59	5961	73
					Clear	7116	87	5557	68	6861	84	5357	65	6613	81
				WW	Diffuse	5439	66	4248	52	5244	64	4094	50	5055	62
					Clear	6141	75	4795	58	5920	72	4622	56	5707	70



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Submitted by Swaney Lighting		Catalog Number: RN-D-2-5-3K8-WW-CL-UNV-W-** Notes: SPECIFY FINISH	Type: PS SLA19-43266
	Job Name: 263 CUMBERLAND REDEVELOPMENT Designer & Consultants: Swaney Application Design		

Pursuit™ – Direct (Down)

TYPE

LUMINAIRE PERFORMANCE–DIRECT (DOWN) CONT'D

Section Length	Lumens/ft	Nominal Lumen Package	System Watts	Distributions Type	Shielding	5K8		4K9		4K8		3K9		3K8	
						(5000K nominal, 80CRI)		(4000K nominal, 90CRI)		(4000K nominal, 80CRI)		(3000K nominal, 90CRI)		(3000K nominal, 80CRI)	
						Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW
6FT	500	3,000	37	SM	Diffuse	3675	100	2870	78	3543	96	2766	75	3415	93
					Clear	4116	112	3214	87	3968	108	3098	84	3825	104
				AS	Diffuse	3279	89	2561	69	3161	86	2468	67	3047	83
					Clear	3702	100	2891	78	3569	97	2787	76	3440	93
				WG	Diffuse	3867	105	3020	82	3728	101	2911	79	3594	97
					Clear	4290	116	3350	91	4136	112	3229	88	3987	108
				WW	Diffuse	3279	89	2561	69	3161	86	2468	67	3047	83
					Clear	3702	100	2891	78	3569	97	2787	76	3440	93
	750	4,500	56	SM	Diffuse	5313	95	4149	74	5123	91	3999	71	4938	88
					Clear	5910	105	4615	82	5698	101	4449	79	5492	98
				AS	Diffuse	4741	84	3702	66	4571	81	3569	63	4406	78
					Clear	5352	95	4180	74	5160	92	4029	72	4974	89
				WG	Diffuse	5591	99	4366	78	5390	96	4208	75	5196	92
					Clear	6202	110	4844	86	5980	106	4669	83	5764	103
				WW	Diffuse	4741	84	3702	66	4571	81	3569	63	4406	78
					Clear	5352	95	4180	74	5160	92	4029	72	4974	89
	1,000	6,000	76	SM	Diffuse	6796	89	5307	70	6552	86	5116	67	6316	83
					Clear	7569	99	5911	77	7297	96	5697	75	7034	92
				AS	Diffuse	6064	79	4735	62	5846	77	4564	60	5635	74
					Clear	6846	90	5346	70	6600	87	5153	68	6362	83
				WG	Diffuse	7151	94	5584	73	6894	90	5383	71	6645	87
					Clear	7933	104	6195	81	7649	100	5972	78	7372	97
				WW	Diffuse	6064	79	4735	62	5846	77	4564	60	5635	74
					Clear	6846	90	5346	70	6600	87	5153	68	6362	83
	1,500	9,000	124	SM	Diffuse	9144	74	7141	58	8816	71	6883	56	8497	69
					Clear	10241	83	7998	64	9874	80	7709	62	9517	77
				AS	Diffuse	8159	66	6371	51	7866	63	6141	50	7582	61
					Clear	9211	74	7193	58	8880	72	6934	56	8560	69
				WG	Diffuse	9622	78	7514	61	9276	75	7243	58	8941	72
					Clear	10674	86	8336	67	10291	83	8035	65	9919	80
				WW	Diffuse	8159	66	6371	51	7866	63	6141	50	7582	61
					Clear	9211	74	7193	58	8880	72	6934	56	8560	69



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JOB _____
TYPE _____
NOTES _____

| 6 |

Pursuit™ – Direct (Down)

TYPE

LUMINAIRE PERFORMANCE-DOWN CONT'D

Section Length	Lumens/ft	Nominal Lumen Package	System Watts	Distributions Type	Shielding	5K8		4K9		4K8		3K9		3K8	
						(5000K nominal, 80CRI)		(4000K nominal, 90CRI)		(4000K nominal, 80CRI)		(3000K nominal, 90CRI)		(3000K nominal, 80CRI)	
						Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW
8FT	500	4,000	50	SM	Diffuse	4900	98	3827	77	4724	95	3688	74	4554	91
					Clear	5488	110	4286	86	5291	106	4131	83	5100	102
				AS	Diffuse	4372	88	3414	69	4215	85	3291	66	4063	82
					Clear	4936	99	3855	77	4759	96	3715	75	4587	92
				WG	Diffuse	5156	104	4026	81	4971	100	3881	78	4791	96
					Clear	5720	115	4467	90	5515	111	4306	86	5316	107
				WW	Diffuse	4372	88	3414	69	4215	85	3291	66	4063	82
					Clear	4936	99	3855	77	4759	96	3715	75	4587	92
	750	6,000	75	SM	Diffuse	7084	94	5532	74	6830	91	5333	71	6583	88
					Clear	7880	105	6154	82	7597	101	5931	79	7323	97
				AS	Diffuse	6321	84	4936	66	6094	81	4758	63	5874	78
					Clear	7136	95	5573	74	6880	91	5372	71	6632	88
				WG	Diffuse	7455	99	5821	77	7187	96	5611	75	6927	92
					Clear	8270	110	6458	86	7973	106	6225	83	7685	102
				WW	Diffuse	6321	84	4936	66	6094	81	4758	63	5874	78
					Clear	7136	95	5573	74	6880	91	5372	71	6632	88
	1,000	8,000	103	SM	Diffuse	9061	88	7076	68	8736	84	6821	66	8421	81
					Clear	10092	98	7881	76	9730	94	7597	73	9378	91
				AS	Diffuse	8085	78	6314	61	7795	75	6086	59	7513	73
					Clear	9128	88	7128	69	8800	85	6871	66	8483	82
				WG	Diffuse	9535	92	7446	72	9192	89	7177	69	8861	86
					Clear	10578	102	8260	80	10198	99	7962	77	9830	95
				WW	Diffuse	8085	78	6314	61	7795	75	6086	59	7513	73
					Clear	9128	88	7128	69	8800	85	6871	66	8483	82
	1,500	12,000	175	SM	Diffuse	12192	70	9521	54	11754	67	9177	52	11330	65
					Clear	13655	78	10664	61	13165	75	10279	59	12690	73
				AS	Diffuse	10878	62	8495	49	10488	60	8188	47	10109	58
					Clear	12282	70	9591	55	11841	68	9245	53	11413	65
				WG	Diffuse	12829	73	10018	57	12368	71	9657	55	11922	68
					Clear	14232	81	11114	64	13721	78	10713	61	13226	76
				WW	Diffuse	10878	62	8495	49	10488	60	8188	47	10109	58
					Clear	12282	70	9591	55	11841	68	9245	53	11413	65



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JOB _____
TYPE _____
NOTES _____

| 7 |

Submitted by Swaney Lighting 	Job Name: 263 CUMBERLAND REDEVELOPMENT Designer & Consultants: Swaney Application Design	Catalog Number: RN-D-2-5-3K8-WW-CL-UNV-W-** Notes: SPECIFY FINISH	Type: PS SLA19-43266
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Pursuit™ – Direct (Down)

TYPE

ELECTRICAL CHARACTERISTICS – INDIRECT (UP)

Section Length	Lumen Power Level (LM)	Load (A)	System Power (W)	Max Mated Units	Total Feet
2FT	1500	0.357	41.1	28	56
	1000	0.226	26.0	44	88
	750	0.171	19.6	58	116
	500	0.114	13.1	88	150
3FT	1500	0.54	61.2	19	57
	1000	0.335	38.4	30	90
	750	0.25	28.6	40	120
	500	0.166	19.1	60	150
4FT	1500	0.724	81.8	14	56
	1000	0.456	51.8	22	88
	750	0.329	37.8	30	120
	500	0.219	25.0	46	150
6FT	1500	1.097	124.0	9	54
	1000	0.674	76.0	15	90
	750	0.494	56.0	20	120
	500	0.327	37.2	31	150
8FT	1500	1.44	163.1	7	56
	1000	0.901	103.6	11	88
	750	0.656	74.8	15	120
	500	0.432	49.7	23	150

Note: 10A Max Amperage



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TYPE _____
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| 8 |

Submitted by Swaney Lighting	Job Name: 263 CUMBERLAND REDEVELOPMENT Designer & Consultants: Swaney Application Design	Catalog Number: RN-D-2-5-3K8-WW-CL-UNV-W-**-** Notes: SPECIFY FINISH	Type: PS SLA19-43266
------------------------------	---	--	---

Pursuit™ – Direct (Down)

TYPE

SPECIFICATIONS

HOUSING

- Low copper extruded 6063 aluminum
- Silicone and EPDM gasketing provides comprehensive sealing and ingress protection.
- Luminaire housing shall be free of any visible heat fins, hardware or fasteners.
- Bracketry and hardware shall be stainless steel.

OPTICAL ARRAY

- LEDs shall be mounted to a FR4 printed circuit board assembly.
- Optical lenses shall be clear extruded PMMA acrylic.
- Optical array shall be recessed in order to shield each LED optic across the length of the aperture.
- Light engine is independently IP67 rated to enable luminaire rating of IP65.
- Secondary external lens is 1/16" diffuse acrylic.

ELECTRICAL

- Drivers shall be in direct contact with the extruded aluminum housing across the entire surface area of the widest face for maximum thermal transfer.
- "Thermal Shield", thermistor provides protection for the sustainable life of the LED driver(s) and electronic components.
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- 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. Surge protection device shall be wired in parallel.
- Drivers shall be U.L. recognized.
- Integral battery backup provides emergency path of egress lighting for the required 90 minutes for -20°C ambient environments, excluding 2' fixture
- Electrical connections IP68
- Housing designed to IP65 standard

END CAPS

- Die-cast, low copper aluminum alloy 360

SPECIFICATIONS

- Luminaire shall be capable of operating at 100% brightness in a 25°C environment. Both driver and optical array shall have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Luminaires not configured with a control system shall be provided with 0-10 purple and gray dimming leads.

CONTROLS

- Button photo control for dusk to dawn energy savings
- Photocell is factory installed in accessory housing. For multiple/continuous row applications, one fixture is supplied with a photocell to operate multiple luminaires.
- Dimming Occupancy Sensor-SCP
- SiteSync™ wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. See ordering information of visit www.hubbellighting.com/products/sitesync for more details.
- SiteSync Lighting Control delivers flexible control strategies for reducing power consumption and minimizing maintenance costs while delivering the right light levels with a simple and affordable wireless solution.
- Hubbell Control Solutions' NX Distributed Intelligence™ lighting control platform utilizes a Distributed Network Architecture (DNA) that connects intelligent devices including luminaires, controllers, panels, occupancy sensors, photocells, wall switches and dimmers, creating a system with an unmatched level of reliability, scalability and simplicity

FINISH

- 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.

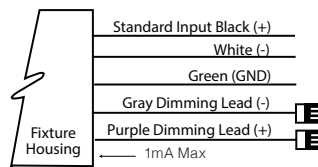
CERTIFICATION

- Luminaire shall be listed with UL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.
- IP66 rated
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org.

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:

Five year limited warranty (for more information visit: [http:// www.hubbellighting.com/resources/warranty/](http://www.hubbellighting.com/resources/warranty/))



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JOB _____
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Submitted by Swaney Lighting		Catalog Number: RN-D-2-5-3K8-WW-CL-UNV-W-**	Type: PS
	Job Name: 263 CUMBERLAND REDEVELOPMENT Designer & Consultants: Swaney Application Design	Notes: SPECIFY FINISH	SLA19-43266

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**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-H-SL06L-DM1

Type:**DL**

Notes:

SLA19-43266

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

FEATURES

- 4" architectural LED downlight delivering 600 – 4000 lm
- Four beam distributions from 0.4 to 1.2 Spacing Criteria
- Quiet reflector appearance with superior 50° optical cutoff
- 2700K – 5000K, 80+ and 90+ CRI options
- Available for New Construction (non-IC), Retrofit (non-IC), IC and Chicago Plenum applications
- Variety of dimming protocol options including 0–10V, DALI, DMX, Lutron Forward Phase and EcoSystem
- NX Distributed Intelligence™ wired and wireless controls capability available

**CONTROL TECHNOLOGY****SPECIFICATIONS****CONSTRUCTION**

- Standard Non-IC, Chicago Plenum, IC and Retrofit options
- New Construction: Painted black durable steel platform with pre-installed bar hangers
- Retrofit: Die cast aluminum mounting ring with 5-axis adjustable junction box
- Retrofit housing allows below ceiling installation without removing existing fixture
- Pre-wired junction box with snap-on covers for easy access
- Snap-in connection from driver compartment allows easy installation

OPTICS

- Visually pleasing 50° cutoff to source and source image
- The light distribution is free of distracting bright spots or pixelation and the perimeter has a smooth transition
- Optical grade silicone lens integral to light engine
- High purity spun aluminum reflector, self-flanged
- Flush Mount flange option with mud-in ring available
- Large selection of anodized finishes and colors
- Painted cones and flange options available

ELECTRICAL

- Chip-on-board LED with 2 SDCM
- Multiple CCTs, 80+ or 90+ CRI
- Long life L90 at 55,000 hours (TM-21)
- Universal voltage 120V–277V driver, 347V optional
- UL Class 2, inherent short circuit and overload protection, RoHS compliant
- Flicker free 0-10V dimming with 1% or <1% performance
- DALI, DMX, and Lutron Forward Phase and EcoSystem options
- Integral and remote emergency controller and battery pack options available
- NX or Lutron Vive control options available
- Refer to additional spec sheets for information on SpectraSync™ Tunable White or Dim-to-Warm or PowerHUBB™ PoE enabled solutions

INSTALLATION

- Accommodates ceiling thickness up to 2"
- Universal adjustable mounting brackets also accept ½" EMT conduit or 1½" or ¾" lathing channel (by others) or Prescolite accessory bar hangers (B24 or B6)
- Light Engine/Driver fully serviceable from above or below the ceiling

LITEISTRY™**RELATED PRODUCTS**
[Ø 3" LITEISTRY Family](#)
[Ø 4" LITEISTRY Family](#)
[Ø 6" LITEISTRY Family](#)
CERTIFICATIONS

- cCSAus certified to UL 1598
- Suitable for wet locations, covered ceiling
- EM/EMR: Certified under UL924 standard for emergency lighting and power equipment
- Approved for 8 (4in/4out) No. 12AWG conductors rated for 90°C through wiring

WARRANTY

- 5 year warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA

KEY DATA	
Lumen Range	600-4000
Wattage Range	8-52
Efficacy Range (LPW)	90-99
Reported Life (Hours)	55,000
Input Current (Amps)	0.065-0.43 (120V)



Submitted by Swaney Lighting	Job Name: 263 CUMBERLAND REDEVELOPMENT Designer & Consultants: Swaney Application Design	Catalog Number: LTR-4RD-H-SL06L-DM1	Type: DL
		Notes:	SLA19-43266



LTR-4RD

LITEISTRY 4" ROUND DOWNLIGHT

DATE: _____ LOCATION: _____
TYPE: _____ PROJECT: _____
CATALOG #: _____

ORDERING GUIDE

Example: LTR-4RD-H-SL10L-DM1-LTR-4RD-T-SL35K8MDS

CATALOG # _____

HOUSING

LTR-4RD-H	Aperture/Shape/Function	Lumen Package ²	Lumen Output	Driver Options ³	Control Options	Voltage	Housing Options ¹¹
LTR-4RD-H	4" Round Downlight New Construction Housing	SL Standard Lumen	06L 600 10L 1000 15L 1500	DM1 0-10V Dimming to 1% DM01 0-10V Dimming to < 1% DMX DMX with RDM dimming to < 0.1% ³ DALI DALI Dimming to 1% 2DM Lutron Hi-Lume 2-wire Dimming to 1% (120V Forward Phase only) ³ EDM Lutron Hi-Lume EcoSystem Dimming to 1% ³	NXE NX Enabled, Dual SmartPorts ⁴ NXWE NX Wireless Enabled ⁴ NXWD NX Wireless Enabled, Dual SmartPorts ⁴ LV Lutron Vive Enabled, 0-10V (requires 0-10V driver) LVE Lutron Vive Enabled, EcoSystem, (requires EDM)	Standard 120-277V 34 347V ⁶	CP Chicago Plenum ⁹ IC IC rated ¹⁰ EM Emergency Battery Pack with integral test switch and indicator light EMR Emergency Battery Pack with remote test switch and indicator light DTS Device Transfer Switch GTD Generator Transfer Device
LTR-4RD-RFH	4" Round Downlight Retrofit Housing ¹⁷	ML Medium Lumen	20L 2000 25L 2500 30L 3000				
LTR-4RD-RFW	4" Round Downlight Retrofit Housing (for Wide Diameter) ¹⁷	HL High Lumen	35L 3500 40L 4000				

TRIM

LTR-4RD-T	Aperture/Shape/Function	Lumen Package	CCT	CRI	Distribution
LTR-4RD-T	4" Round Downlight Light Engine/Trim Assembly	SL Standard Lumen	27K 2700K	8 80+CRI	NR Narrow (0.4 SC)
		ML Medium Lumen	30K 3000K	9 90+CRI	MD Medium (0.7 SC)
		HL High Lumen	35K 3000K 40K 4000K 50K 5000K ²		WD Wide (0.9 SC) XW Extra Wide (1.2 SC)

TRIM CONTINUED

Reflector Finish	Reflector Color	Flange Color Options	Lower Trim Options	Reflector Options
S Specular	Standard Clear	Standard matches reflector color	EM Pre-punched reflector for EM integral test switch and indicator	AM Antimicrobial Coating ⁶
SS Semi-Specular	CG Champagne Gold	WT White Flange ⁵	FM Flush Mount Mud-In Ring ¹²	
MFC American Matte™	BL Black	BT Black Flange ⁵	WF Wide Flange	
VS Softglow®	LW Light Wheat			
VSS SoftSheen™	PW Pewter			
	WC Painted White Cone and Flange			
	BC Painted Black Cone and Flange			

Accessories

- ☐ B24 Set of two (2) 24" bar hangers for T-bar ceilings
- ☐ B6 Set of two bar hangers for ceiling joist up to 24" centers
- ☐ FMR4-R Flush Mount Mud-In Ring Accessory, 4" Round
- ☐ LiteGear LiteGear® Inverter, 125VA-250VA
- ☐ LPS Series LightPower Micro-Inverter, 20VA-55VA

Notes:

- RFH and RFWH available up to 30L; not available with Controls or Housing options.
- 5000K available in 80+ CRI only.
- 2DM, EDM, DMX available in 10L-35L.
- NX requires DM1 driver option.
- WT not needed for WC, BT not needed for BC.
- Clear reflector or WC only, consult factory for other colors.
- See line art for compatibility with existing aperture diameters.
- 347V requires DM1 driver option; not available in 06L or with DTS, GTD, EM, EMR.
- CP available up to 20L; not available with DMX, Controls, or EM/EMR options.
- IC available up to 20L; not available with Controls options.
- Housing options not available in combination.
- Flush Mount Flange (FM) requires FMR accessory (sold separately).

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-H-SL06L-DM1

Type:**DL**

Notes:

SLA19-43266

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

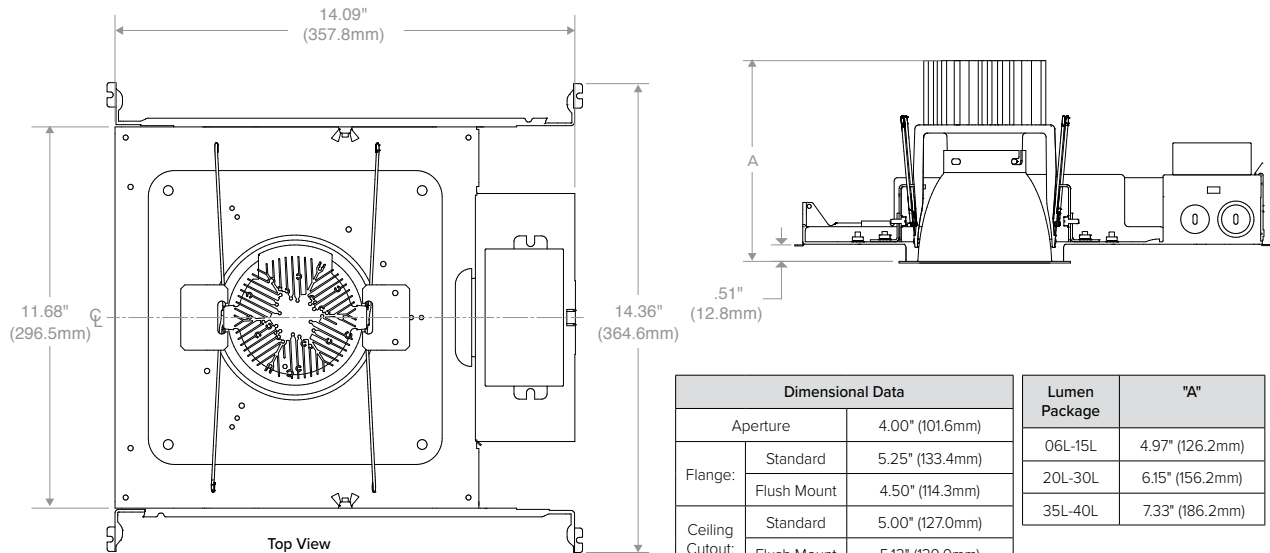
CONTROLS**NX Distributed Intelligence™ Lighting Controls:**

Supports both indoor and outdoor applications in a variety of deployment options- wired, wireless, hybrid.

Integrates with and enables a wide array of luminaires including those with SpectraSync Color Tuning Technology.

NX DISTRIBUTED INTELLIGENCE

NX INTEGRATED CONTROLS REFERENCE								
NX Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0-10V Dimming	On/off Control	Bluetooth® App Programming
NX Networked – Wired								
NXE	N/A	Yes	Yes	No	No	Yes	Yes	Requires NXBTC/R ¹
NX Networked – Wireless								
NXWE ²	N/A	Yes	Yes	No	No	Yes	Yes	No ³
NX Networked – Wired/Wireless								
NXWD	N/A	Yes	Yes	No	No	Yes	Yes	Requires NXBTC/R ^{1,3}

¹ NXBTC/R needs to be plugged into an available NX SmartPort™ on the fixture network² Programming via App requires factory assistance³ To program NXWE option, need to consult factory. If connected to an area controller, programming can be done from that**DIMENSIONS****LTR-4RD-H New Construction**

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-H-SL06L-DM1

Type:**DL****Notes:**

SLA19-43266

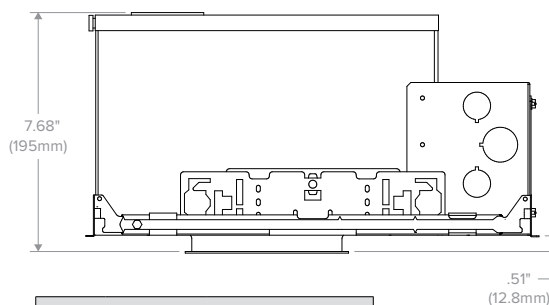
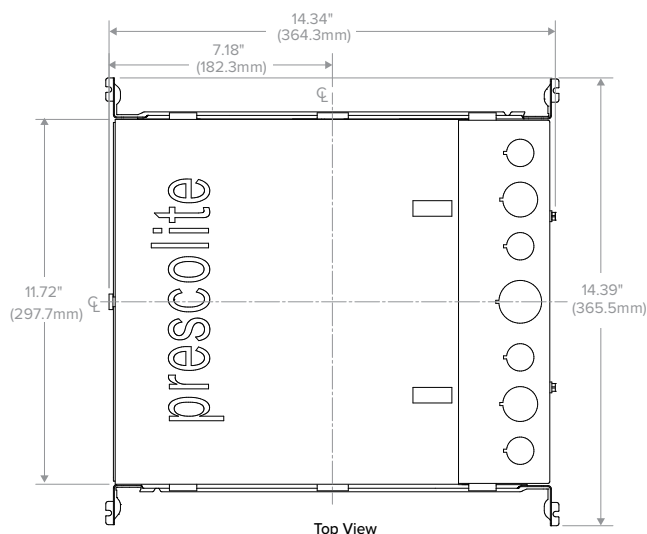
**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

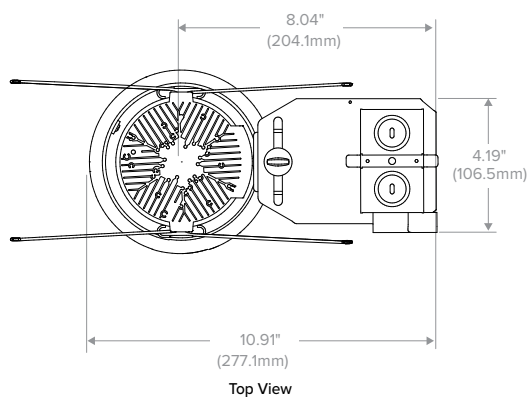
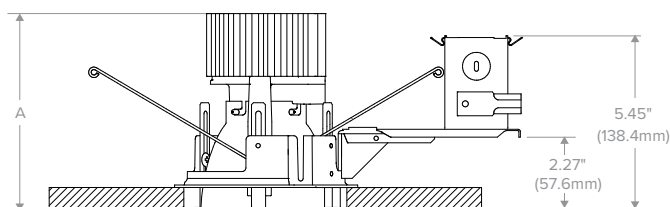
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

DIMENSIONS CONTINUED

Dimensional Data		
Aperture		4.00" (101.6mm)
Flange:	Standard	5.25" (133.4mm)
	Flush Mount	4.50" (114.3mm)
Ceiling Cutout:	Standard	5.00" (127.0mm)
	Flush Mount	5.12" (130.0mm)
Ceiling Thickness:		0.50" to 2.00" (12.7mm to 50.8mm)

LTR-4RD-H IC/CP

Housing Compatibility Guide			
Existing Frame Opening**		Use Housing	Use Flange Option
MIN	MAX		
4.75" (120.7mm)	5.00" (127.0mm)	-RFH	(Standard)
5.00" (127.0mm)	5.50" (139.7mm)	-RFHW	WF

**Measure the existing plaster frame opening at its narrowest point

Dimensional Data		
Aperture		4.00" (101.6mm)
Flange:	Standard	5.25" (133.4mm)
	Flush Mount	4.50" (114.3mm)
Ceiling Cutout:	Standard	5.00" (127.0mm)
	Flush Mount	5.12" (130.0mm)
Ceiling Thickness:		0.50" to 2.00" (12.7mm to 50.8mm)

Lumen Package	"A"
06L-15L	4.97" (126.2mm)
20L-30L	6.15" (156.2mm)
35L-40L	7.33" (186.2mm)

LTR-4RD-RFH/-RFHW

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-H-SL06L-DM1

Notes:**Type:****DL**

SLA19-43266

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

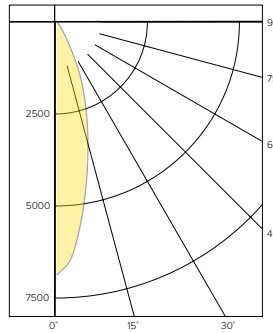
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

PHOTOMETRY**LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8NRS****LUMINAIRE DATA**

Test No.	19.00532
Description	2000 lm, Narrow, 3500K, 80 CRI
Delivered Lumens	2238
Watts	22.5W
Efficacy	99.3
Mounting	Recessed
Spacing Criterion	0.4
Beam Angle (FWHM)	29

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	6877
5	6035
15	3284
25	1313
35	260
45	26
55	3
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	4535
55°	645
65°	292
75°	0
85°	0

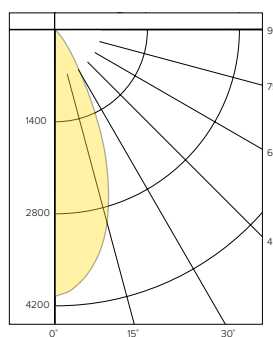
*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	2208	98.6
0-60	2237	99.9
0-90	2238	100.0
0-180	2238	100.0

LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8MDS**LUMINAIRE DATA**

Test No.	19.00533
Description	2000 lm, Medium, 3500K, 80 CRI
Delivered Lumens	2152
Watts	22.5W
Efficacy	95.6
Mounting	Recessed
Spacing Criterion	0.7
Beam Angle (FWHM)	44

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	4053
5	3893
15	3037
25	1493
35	366
45	34
55	3
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	5931
55°	645
65°	292
75°	0
85°	0

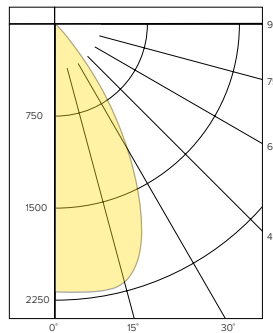
*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	2113	98.2
0-60	2151	99.9
0-90	2152	100.0
0-180	2152	100.0

LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8WDS**LUMINAIRE DATA**

Test No.	19.00534
Description	2000 lm, Wide, 3500K, 80 CRI
Delivered Lumens	2059
Watts	22.5W
Efficacy	91.6
Mounting	Recessed
Spacing Criterion	0.9
Beam Angle (FWHM)	61

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	2201
5	2210
15	2051
25	1504
35	692
45	169
55	10
65	3
75	1
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	11338
55°	1075
65°	584
75°	477
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1983	96.3
0-60	2056	99.8
0-90	2059	100.0
0-180	2059	100.0

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-H-SL06L-DM1

Type:**DL****Notes:**

SLA19-43266

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

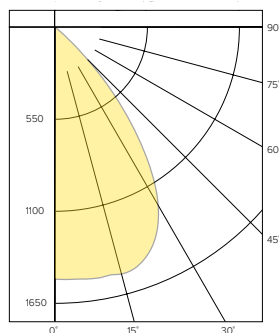
CATALOG #: _____

PHOTOMETRY CONTINUED**LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8XWS****LUMINAIRE DATA**

Test No.	19.00535
Description	2000 lm, Extra Wide, 3500K, 80 CRI
Delivered Lumens	2028
Watts	22.5W
Efficacy	90.2
Mounting	Recessed
Spacing Criterion	1.2
Beam Angle (FWHM)	78

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1794	88.5
0-60	2025	99.8
0-90	2028	100.0
0-180	2028	100.0

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	1235
5	1252
15	1392
25	1454
35	1010
45	256
55	6
65	2
75	1
85	0
90	0

LUMINANCE DATA*

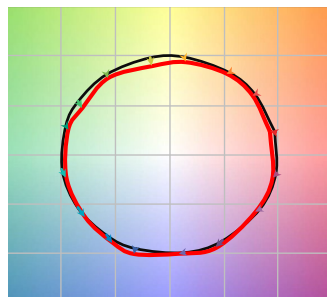
Vertical Angle	Average
45°	44656
55°	1290
65°	584
75°	231
85°	477

*Candela/Square Meter

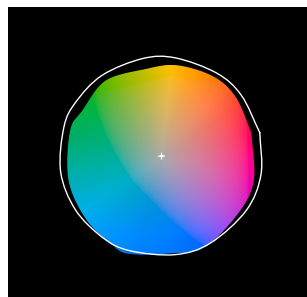
LUMEN MULTIPLIER

Option	27K8	30K8	35K8	40K8	50K8	27K9	30K9	35K9	40K9
Multiplier	0.94	0.98	1.00	1.01	1.02	0.81	0.84	0.85	0.85

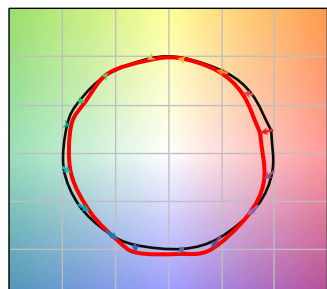
Photometrics are published below at a nominal 3500 Kelvin, 80+ CRI. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

TM-30 DATA**COLOR VECTOR GRAPHIC**
3500K, 90 CRI

— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 90 CRI

TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R _f	84	88
R _g	95	95
CCT (K)	3411	3419
D _{uv}	0.0015	0.0042
x	0.4120	0.4147
y	0.3974	0.4052
CIE R _a	84	93
CIE R _g	11	62

COLOR VECTOR GRAPHIC
3500K, 80 CRI

— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 80 CRI

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-H-SL06L-DM1

Type:**DL****Notes:**

SLA19-43266

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ELECTRICAL DATA

DRIVER DATA		
Input Voltage	120-277 V	347 V
Input Frequency	50/60 Hz	50/60 Hz
Power Factor	≥0.90	≥0.90
THD	<20%	<20%
EMI Filtering (FCC 47 CFR Part 15)	Class A	Class A

* Values for DM1 option shown, values for other dimming options may vary.

WATTAGE DATA		
Lumen Output	Nominal Lumens	Wattage
06L	600	8
10L	1000	12
15L	1500	19
20L	2000	23
25L	2500	28
30L	3000	35
35L	3500	43
40L	4000	52

* Wattage may vary based on configuration and options selected

ADDITIONAL INFORMATION

DIMMING COMPATIBILITY CHART		
Dimming Ballast	Manufacturer	Web Link
DM1 /DM01	Lutron DDTV	http://bit.ly/1fjSvZg
DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	http://bit.ly/1BJn2R9
EDM	Lutron	http://bit.ly/1vtjHAi
2DM	Lutron	http://bit.ly/1S4WjXK

DMXSee instruction sheet on www.prescolite.com for connection & installation information.**Central Inverters**For full fixture output in back-up mode, we recommend you visit www.dual-lite.com for your Central Lighting Inverter options. Please contact your local Hubbell representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.LiteGear: www.dual-lite.com/products/litegear_lg_seriesLPS Series: www.dual-lite.com/products/lps

Submitted by Swaney Lighting		Catalog Number: LTR-4RD-H-SL06L-DM1	Type: DL
	Job Name: 263 CUMBERLAND REDEVELOPMENT Designer & Consultants: Swaney Application Design	Notes:	SLA19-43266

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**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-T-SL30K8MD-S

Type:**DL**

Notes:

SLA19-43266

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

FEATURES

- 4" architectural LED downlight delivering 600 – 4000 lm
- Four beam distributions from 0.4 to 1.2 Spacing Criteria
- Quiet reflector appearance with superior 50° optical cutoff
- 2700K – 5000K, 80+ and 90+ CRI options
- Available for New Construction (non-IC), Retrofit (non-IC), IC and Chicago Plenum applications
- Variety of dimming protocol options including 0–10V, DALI, DMX, Lutron Forward Phase and EcoSystem
- NX Distributed Intelligence™ wired and wireless controls capability available

**CONTROL TECHNOLOGY****SPECIFICATIONS****CONSTRUCTION**

- Standard Non-IC, Chicago Plenum, IC and Retrofit options
- New Construction: Painted black durable steel platform with pre-installed bar hangers
- Retrofit: Die cast aluminum mounting ring with 5-axis adjustable junction box
- Retrofit housing allows below ceiling installation without removing existing fixture
- Pre-wired junction box with snap-on covers for easy access
- Snap-in connection from driver compartment allows easy installation

OPTICS

- Visually pleasing 50° cutoff to source and source image
- The light distribution is free of distracting bright spots or pixelation and the perimeter has a smooth transition
- Optical grade silicone lens integral to light engine
- High purity spun aluminum reflector, self-flanged
- Flush Mount flange option with mud-in ring available
- Large selection of anodized finishes and colors
- Painted cones and flange options available

ELECTRICAL

- Chip-on-board LED with 2 SDCM
- Multiple CCTs, 80+ or 90+ CRI
- Long life L90 at 55,000 hours (TM-21)
- Universal voltage 120V–277V driver, 347V optional
- UL Class 2, inherent short circuit and overload protection, RoHS compliant
- Flicker free 0-10V dimming with 1% or <1% performance
- DALI, DMX, and Lutron Forward Phase and EcoSystem options
- Integral and remote emergency controller and battery pack options available
- NX or Lutron Vive control options available
- Refer to additional spec sheets for information on SpectraSync™ Tunable White or Dim-to-Warm or PowerHUBB™ PoE enabled solutions

INSTALLATION

- Accommodates ceiling thickness up to 2"
- Universal adjustable mounting brackets also accept ½" EMT conduit or 1½" or ¾" lathing channel (by others) or Prescolite accessory bar hangers (B24 or B6)
- Light Engine/Driver fully serviceable from above or below the ceiling

LITEISTRY™**RELATED PRODUCTS**
[Ø 3" LITEISTRY Family](#)
[Ø 4" LITEISTRY Family](#)
[Ø 6" LITEISTRY Family](#)
CERTIFICATIONS

- cCSAus certified to UL 1598
- Suitable for wet locations, covered ceiling
- EM/EMR: Certified under UL924 standard for emergency lighting and power equipment
- Approved for 8 (4in/4out) No. 12AWG conductors rated for 90°C through wiring

WARRANTY

- 5 year warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA

KEY DATA	
Lumen Range	600-4000
Wattage Range	8-52
Efficacy Range (LPW)	90-99
Reported Life (Hours)	55,000
Input Current (Amps)	0.065-0.43 (120V)



Submitted by Swaney Lighting	Job Name: 263 CUMBERLAND REDEVELOPMENT Designer & Consultants: Swaney Application Design	Catalog Number: LTR-4RD-T-SL30K8MD-S	Type: DL
		Notes:	SLA19-43266



LTR-4RD

LITEISTRY 4" ROUND DOWNLIGHT

DATE: _____ LOCATION: _____
TYPE: _____ PROJECT: _____
CATALOG #: _____

ORDERING GUIDE

Example: LTR-4RD-H-SL10L-DM1-LTR-4RD-T-SL35K8MDS

CATALOG # _____

HOUSING

LTR-4RD-H						
Aperture/Shape/Function	Lumen Package ²	Lumen Output	Driver Options ³	Control Options	Voltage	Housing Options ¹¹
LTR-4RD-H 4" Round Downlight New Construction Housing	SL Standard Lumen	06L 600 10L 1000 15L 1500	DM1 0-10V Dimming to 1% DM01 0-10V Dimming to < 1% DMX DMX with RDM dimming to < 0.1% ³	NXE NX Enabled, Dual SmartPorts ⁴ NXWE NX Wireless Enabled ⁴ NXWD NX Wireless Enabled, Dual SmartPorts ⁴	Standard 120-277V 34 347V ⁶	CP Chicago Plenum ⁹ IC IC rated ¹⁰ EM Emergency Battery Pack with integral test switch and indicator light
LTR-4RD-RFH 4" Round Downlight Retrofit Housing ¹⁷	ML Medium Lumen	20L 2000 25L 2500 30L 3000	DALI DALI Dimming to 1% 2DM Lutron Hi-Lume 2-wire Dimming to 1% (120V Forward Phase only) ³	LV Lutron Vive Enabled, 0-10V (requires 0-10V driver)		EMR Emergency Battery Pack with remote test switch and indicator light
LTR-4RD- RFHW 4" Round Downlight Retrofit Housing (for Wide Diameter) ¹⁷	HL High Lumen	35L 3500 40L 4000	EDM Lutron Hi-Lume EcoSystem Dimming to 1% ³	LVE Lutron Vive Enabled, EcoSystem, (requires EDM)		DTS Device Transfer Switch GTD Generator Transfer Device

TRIM

LTR-4RD-T				
Aperture/Shape/Function	Lumen Package	CCT	CRI	Distribution
LTR-4RD-T 4" Round Downlight Light Engine/Trim Assembly	SL Standard Lumen	27K 2700K	8 80+CRI	NR Narrow (0.4 SC)
	ML Medium Lumen	30K 3000K	9 90+CRI	MD Medium (0.7 SC)
	HL High Lumen	35K 3000K 40K 4000K 50K 5000K ²		WD Wide (0.9 SC) XW Extra Wide (1.2 SC)

TRIM CONTINUED

Reflector Finish	Reflector Color	Flange Color Options	Lower Trim Options	Reflector Options
S Specular	Standard Clear	Standard matches reflector color	EM Pre-punched reflector for EM integral test switch and indicator	AM Antimicrobial Coating ⁶
SS Semi-Specular	CG Champagne Gold	WT White Flange ⁵	FM Flush Mount Mud-In Ring ¹²	
MFC American Matte™	BL Black	BT Black Flange ⁵	WF Wide Flange	
VS Softglow®	LW Light Wheat			
VSS SoftSheen™	PW Pewter			
	WC Painted White Cone and Flange			
	BC Painted Black Cone and Flange			

Accessories

- ☐ B24 Set of two (2) 24" bar hangers for T-bar
ceilings
- ☐ B6 Set of two bar hangers for ceiling joist up to
24" centers
- ☐ FMR4-R Flush Mount Mud-In Ring Accessory, 4"
Round
- ☐ LiteGear LiteGear® Inverter, 125VA-250VA
- ☐ LPS Series LightPower Micro-Inverter, 20VA-55VA

Notes:

- RFH and RFHW available up to 30L; not available with Controls or Housing options.
- 5000K available in 80+ CRI only.
- 2DM, EDM, DMX available in 10L-35L.
- NX requires DM1 driver option.
- WT not needed for WC, BT not needed for BC.
- Clear reflector or WC only, consult factory for other colors.
- See line art for compatibility with existing aperture diameters.
- 347V requires DM1 driver option; not available in 06L or with DTS, GTD, EM, EMR.
- CP available up to 20L; not available with DMX, Controls, or EM/EMR options.
- IC available up to 20L; not available with Controls options.
- Housing options not available in combination.
- Flush Mount Flange (FM) requires FMR accessory (sold separately).

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-T-SL30K8MD-S

Type:**DL**

Notes:

SLA19-43266

**LTR-4RD**

LITE|STRY 4" ROUND DOWNLIGHT

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

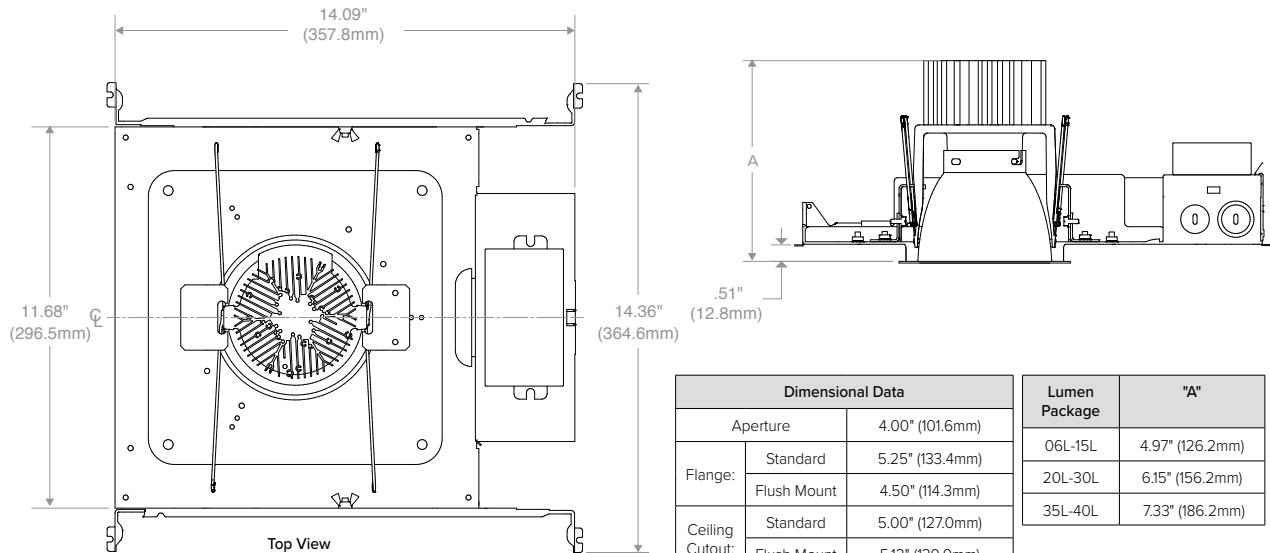
CONTROLS**NX Distributed Intelligence™ Lighting Controls:**

Supports both indoor and outdoor applications in a variety of deployment options- wired, wireless, hybrid.

Integrates with and enables a wide array of luminaires including those with SpectraSync Color Tuning Technology.



NX INTEGRATED CONTROLS REFERENCE								
NX Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0-10V Dimming	On/off Control	Bluetooth® App Programming
NX Networked – Wired								
NXE	N/A	Yes	Yes	No	No	Yes	Yes	Requires NXBTC/R ¹
NX Networked – Wireless								
NXWE ²	N/A	Yes	Yes	No	No	Yes	Yes	No ³
NX Networked – Wired/Wireless								
NXWD	N/A	Yes	Yes	No	No	Yes	Yes	Requires NXBTC/R ^{1,3}

¹ NXBTC/R needs to be plugged into an available NX SmartPort™ on the fixture network² Programming via App requires factory assistance³ To program NXWE option, need to consult factory. If connected to an area controller, programming can be done from that**DIMENSIONS****LTR-4RD-H New Construction**

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-T-SL30K8MD-S

Type:**DL****Notes:**

SLA19-43266

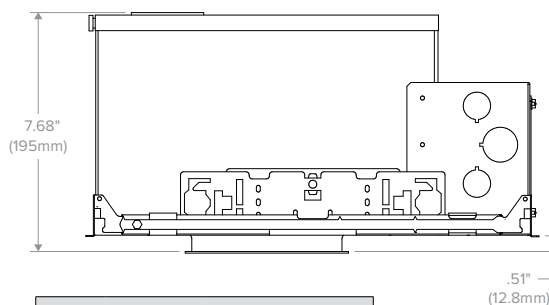
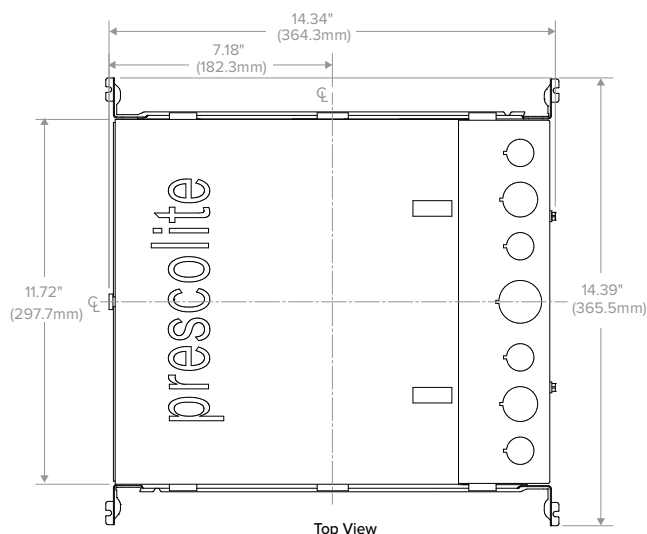
**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

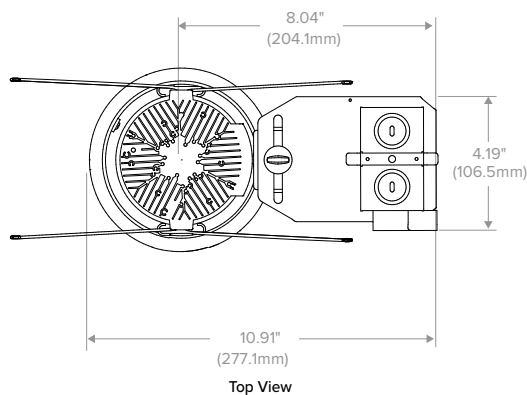
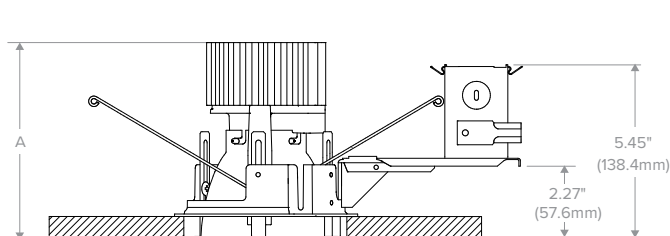
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

DIMENSIONS CONTINUED

Dimensional Data		
Aperture		4.00" (101.6mm)
Flange:	Standard	5.25" (133.4mm)
	Flush Mount	4.50" (114.3mm)
Ceiling Cutout:	Standard	5.00" (127.0mm)
	Flush Mount	5.12" (130.0mm)
Ceiling Thickness:		0.50" to 2.00" (12.7mm to 50.8mm)

LTR-4RD-H IC/CP

Housing Compatibility Guide			
Existing Frame Opening**		Use Housing	Use Flange Option
MIN	MAX		
4.75" (120.7mm)	5.00" (127.0mm)	-RFH	(Standard)
5.00" (127.0mm)	5.50" (139.7mm)	-RFHW	WF

**Measure the existing plaster frame opening at its narrowest point

Dimensional Data		
Aperture		4.00" (101.6mm)
Flange:	Standard	5.25" (133.4mm)
	Flush Mount	4.50" (114.3mm)
Ceiling Cutout:	Standard	5.00" (127.0mm)
	Flush Mount	5.12" (130.0mm)
Ceiling Thickness:		0.50" to 2.00" (12.7mm to 50.8mm)

Lumen Package	"A"
06L-15L	4.97" (126.2mm)
20L-30L	6.15" (156.2mm)
35L-40L	7.33" (186.2mm)

LTR-4RD-RFH/-RFHW

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-T-SL30K8MD-S

Type:**DL**

Notes:

SLA19-43266

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

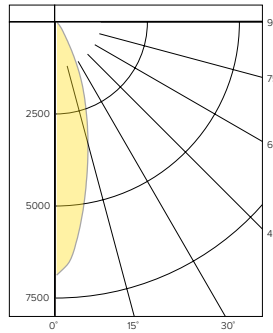
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

PHOTOMETRY**LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8NRS****LUMINAIRE DATA**

Test No.	19.00532
Description	2000 lm, Narrow, 3500K, 80 CRI
Delivered Lumens	2238
Watts	22.5W
Efficacy	99.3
Mounting	Recessed
Spacing Criterion	0.4
Beam Angle (FWHM)	29

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	6877
5	6035
15	3284
25	1313
35	260
45	26
55	3
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	4535
55°	645
65°	292
75°	0
85°	0

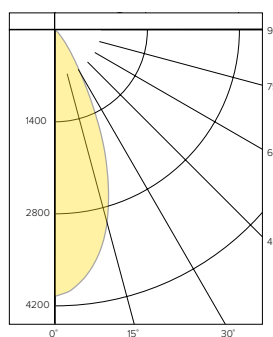
*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	2208	98.6
0-60	2237	99.9
0-90	2238	100.0
0-180	2238	100.0

LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8MDS**LUMINAIRE DATA**

Test No.	19.00533
Description	2000 lm, Medium, 3500K, 80 CRI
Delivered Lumens	2152
Watts	22.5W
Efficacy	95.6
Mounting	Recessed
Spacing Criterion	0.7
Beam Angle (FWHM)	44

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	4053
5	3893
15	3037
25	1493
35	366
45	34
55	3
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	5931
55°	645
65°	292
75°	0
85°	0

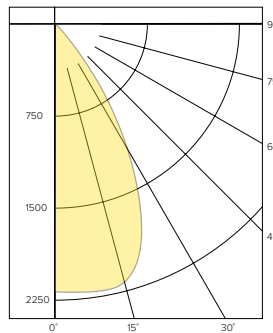
*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	2113	98.2
0-60	2151	99.9
0-90	2152	100.0
0-180	2152	100.0

LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8WDS**LUMINAIRE DATA**

Test No.	19.00534
Description	2000 lm, Wide, 3500K, 80 CRI
Delivered Lumens	2059
Watts	22.5W
Efficacy	91.6
Mounting	Recessed
Spacing Criterion	0.9
Beam Angle (FWHM)	61

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	2201
5	2210
15	2051
25	1504
35	692
45	169
55	10
65	3
75	1
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	11338
55°	1075
65°	584
75°	477
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1983	96.3
0-60	2056	99.8
0-90	2059	100.0
0-180	2059	100.0

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-T-SL30K8MD-S

Type:**DL****Notes:**

SLA19-43266

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

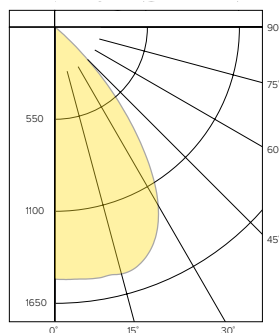
CATALOG #: _____

PHOTOMETRY CONTINUED**LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8XWS****LUMINAIRE DATA**

Test No.	19.00535
Description	2000 lm, Extra Wide, 3500K, 80 CRI
Delivered Lumens	2028
Watts	22.5W
Efficacy	90.2
Mounting	Recessed
Spacing Criterion	1.2
Beam Angle (FWHM)	78

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1794	88.5
0-60	2025	99.8
0-90	2028	100.0
0-180	2028	100.0

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	1235
5	1252
15	1392
25	1454
35	1010
45	256
55	6
65	2
75	1
85	0
90	0

LUMINANCE DATA*

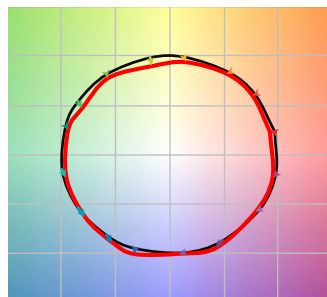
Vertical Angle	Average
45°	44656
55°	1290
65°	584
75°	231
85°	477

*Candela/Square Meter

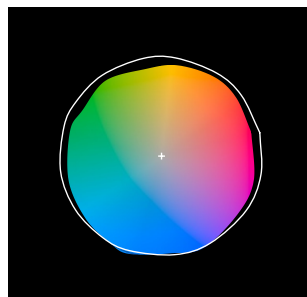
LUMEN MULTIPLIER

Option	27K8	30K8	35K8	40K8	50K8	27K9	30K9	35K9	40K9
Multiplier	0.94	0.98	1.00	1.01	1.02	0.81	0.84	0.85	0.85

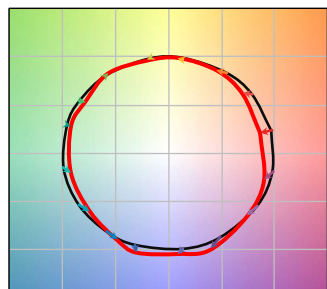
Photometrics are published below at a nominal 3500 Kelvin, 80+ CRI. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

TM-30 DATA**COLOR VECTOR GRAPHIC**
3500K, 90 CRI

— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 90 CRI

TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R _f	84	88
R _g	95	95
CCT (K)	3411	3419
D _{uv}	0.0015	0.0042
x	0.4120	0.4147
y	0.3974	0.4052
CIE R _a	84	93
CIE R _g	11	62

COLOR VECTOR GRAPHIC
3500K, 80 CRI

— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 80 CRI

**Job Name:**263 CUMBERLAND REDEVELOPMENT
Designer & Consultants: Swaney Application
Design**Catalog Number:**

LTR-4RD-T-SL30K8MD-S

Type:**DL****Notes:**

SLA19-43266

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ELECTRICAL DATA

DRIVER DATA		
Input Voltage	120-277 V	347 V
Input Frequency	50/60 Hz	50/60 Hz
Power Factor	≥0.90	≥0.90
THD	<20%	<20%
EMI Filtering (FCC 47 CFR Part 15)	Class A	Class A

* Values for DM1 option shown, values for other dimming options may vary.

WATTAGE DATA		
Lumen Output	Nominal Lumens	Wattage
06L	600	8
10L	1000	12
15L	1500	19
20L	2000	23
25L	2500	28
30L	3000	35
35L	3500	43
40L	4000	52

* Wattage may vary based on configuration and options selected

ADDITIONAL INFORMATION

DIMMING COMPATIBILITY CHART		
Dimming Ballast	Manufacturer	Web Link
DM1 /DM01	Lutron DDTV	http://bit.ly/1fjSvZg
DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	http://bit.ly/1BJn2R9
EDM	Lutron	http://bit.ly/1vtjHAi
2DM	Lutron	http://bit.ly/1S4WjXK

DMXSee instruction sheet on www.prescolite.com for connection & installation information.**Central Inverters**For full fixture output in back-up mode, we recommend you visit www.dual-lite.com for your Central Lighting Inverter options. Please contact your local Hubbell representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.LiteGear: www.dual-lite.com/products/litegear_lg_seriesLPS Series: www.dual-lite.com/products/lps

Submitted by Swaney Lighting		Catalog Number:	Type:
	Job Name: 263 CUMBERLAND REDEVELOPMENT Designer & Consultants: Swaney Application Design	LTR-4RD-T-SL30K8MD-S Notes:	DL SLA19-43266

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O. Architectural Design Narrative

Please find attached the design narrative completed by Ryan Senatore Architecture.



June 25, 2019

Caitlin Cameron
Urban Designer
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Re: 263 Cumberland - Design Narrative

The proposed building to be located at the corner of Cumberland Avenue and Stone Street consists of a ground floor retail use and 89 rooming units. The building is a 5 story structure along Cumberland Avenue with a basement to the back of the property

Prior to developing the building concept we spent much time walking the streets of the surrounding neighborhood, analyzing existing streetscapes, building massing, forms, materials and textures. The owner tasked us to design a building with a reference to Art Deco design while using contemporary materials.

The neighborhood is comprised of a diverse palate of Architectural forms, scales and density. Adjacent buildings are both gable roof forms and flat roof forms ranging from 3 stories to 8 stories in height.

We designed 263 Cumberland using color, massing and texture to scale the building and to create a facade rhythm proportionate with other buildings in the neighborhood. The building entry on Cumberland Avenue is defined by a vertical tower element with a metallic flush siding panel, the base of the building is masonry with a horizontal corrugated metal siding to contrast the flush panels. The window pattern is regular with flush siding panels between to contrast the corrugated siding.

Building Scale is important in this neighborhood, we have utilized color (as described above) as well as texture and massing to scale the building to fit in with its surroundings. We have used differing siding types on the facades to help scale the facades.

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101



The siding materials proposed are factory finished metal panel siding, factory finished corrugated siding and brick, chosen for their crisp appearance and long term durability. The windows proposed are dark in color to compliment the siding colors and also further reinforce the crisp simplicity of the design. The roofing proposed is an EPDM roof membrane.

We look forward to discussing the project at the upcoming Planning Board workshop.

Sincerely,



Ryan Senatore, AIA LEED AP

Principal

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

P. Utilities

The proposed project will include installation of multiple utility services to the new building.

Water:

The existing domestic service line to the existing building will be retired in accordance with Portland Water District standards. A new 6" parent connection will tie into the main and will branch off to provide a sprinkler line and domestic line to the development.

Sewer:

The existing sewer lateral will be retired in accordance with the Department of Public Works. A new 6" pvc lateral will be installed to accept the wastewater from each unit, the elevator sump, and the garage sewer after draining from the oil-water separator. The proposed connection is within the separated sewer main in Stone Street.

Stormwater:

While the existing site is currently nearly 100% impervious, there is currently no drainage infrastructure on site. It is proposed to intercept the entirety of the new building's roof runoff and pipe it to the separated storm system. Remaining stormwater will be caught by vegetated and stone swales around the exterior of the building. Field inlets will capture water in these low spots and will be routed to the 6" outlet to Stone Street. Please see the Stormwater Management Report for more information.

UGE/T/C:

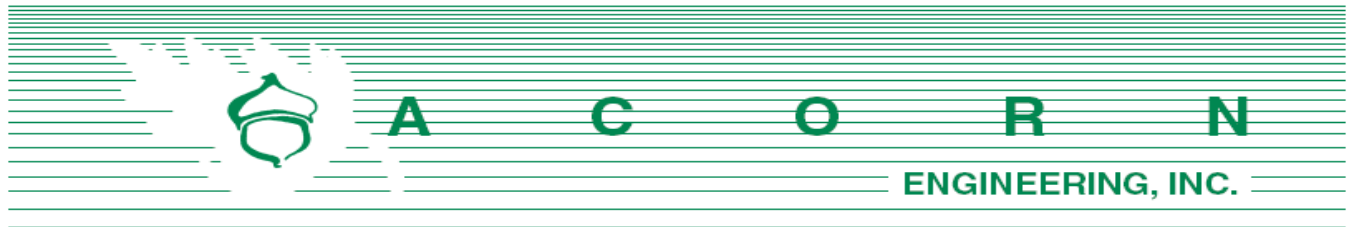
The existing building has underground services to the front right corner of the building on Stone Street. These services are proposed to be rerouted underground from utility pole #34 on the opposite side of Cumberland Ave. It is anticipated a pole-mounted transformer will be required as part of this project.

Gas:

There is currently a gas service tapped from the gas main on Cumberland Ave. It is proposed to retire the existing line and install a new gas service off of the gas main within Cumberland Ave as seen on the Utility Plan, Sheet C-20.

Ability to serve letters have been sent out to the respective utility companies on June 24, 2019 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.





Portland Water District
Attn: MEANS Department
225 Douglass Street
Portland, Maine 04104

June 24, 2019

Subject: 263 Cumberland Ave. Redevelopment
Re: Ability to Serve

To Whom It May Concern:

On behalf of Downtown Lodging, LLC, we are pleased to submit the following request for Portland Water District's (PWD) ability to serve the proposed development. The proposed project is located at 263 Cumberland Ave. (Chart, Book, Lots 26-F-8,16), within the B-2 Zoning District in Portland, Maine. The lot will be redeveloped into a five-story, 89-unit rooming house a small, first-floor retail unit. The existing multi-family structure will be demolished to facilitate the redevelopment.

According to the existing conditions survey, there is an existing service within the project limits located near the rear of the existing building on Stone St. It is proposed that the existing service be retired in accordance with PWD standards. A 6" sprinkler line and 4" domestic line are proposed to service the redevelopment with a parent-child connection. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, and assuming the units will be comprised of 89 one-bedroom units, and 1 small-retail unit, the project anticipates the following design flows:

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Lodging House	1-Room	20	$180+30*(20)$	780
Apartment	1-Bedroom	1	120	120
Total Gallons per Day (Existing)				900
Proposed Flow				
Rooming House	1-Bedroom	89	$180+30*(89)$	2,850
Small-Retail Unit	2-Employees	2	$325+12*(2)$	349
Total Gallons per Day (Proposed)				3,199



Net Change	+2,299 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition	

The proposed project is anticipated to increase the net flow by approximately 2,300 gallons per day (GPD). It should be noted that these values were developed using conservative estimates from the State of Maine Subsurface Wastewater Disposal Rules.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Cumberland Ave and Stone St and confirmation of the location and size of the services to the existing property and the size and material of the water main within Cumberland Ave and Stone St.
2. Alternative connection locations from the property to the existing system.
3. PWD's proposed infrastructure improvements within the project vicinity.
4. Flow data for adjacent hydrant.
5. PWD's ability to serve the project.

I have attached a fixture count, an existing conditions plan created by Owen Haskell, Inc., and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.





Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

August 9, 2019

Sam Lebel, E.I.
Acorn Engineering, Inc.
PO Box 3372
Portland, ME 04104

Re: 267 Cumberland Avenue, PO
Ability to Serve with PWD Water

Dear Mr. Lebel:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on June 25, 2019. Based on the information provided, 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. 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 (parent) and 2-inch domestic service (child) with a 1.5-inch meter may be installed from the water main in Cumberland Avenue. The services should enter through the properties frontage on Cumberland Avenue at least 10-feet from any side property lines. An approved backflow prevention device must be installed on each service line directly after the meter/entrance to the building prior to service activation. Please note that only one meter and one bill will be associated to each domestic service line. This one master meter would be located in a common space that all tenants could gain access to if necessary.
- 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 make an appointment to complete a service application form and pay all necessary fees. The appointment shall be requested through MEANS@pwd.org or by calling 207-774-5961 ext. 3199. Please allow (3) business days to process the service application paperwork. PWD will guide the applicant through the new development process during the appointment.



Existing Site Service

According to District records, the project site does currently have existing water service. A 1-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 8-inch diameter cast iron water main in Cumberland Avenue and a public fire hydrant located approximately 100 feet from the site. The most recent static pressure reading was 93 psi on November 9, 2018.

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 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.

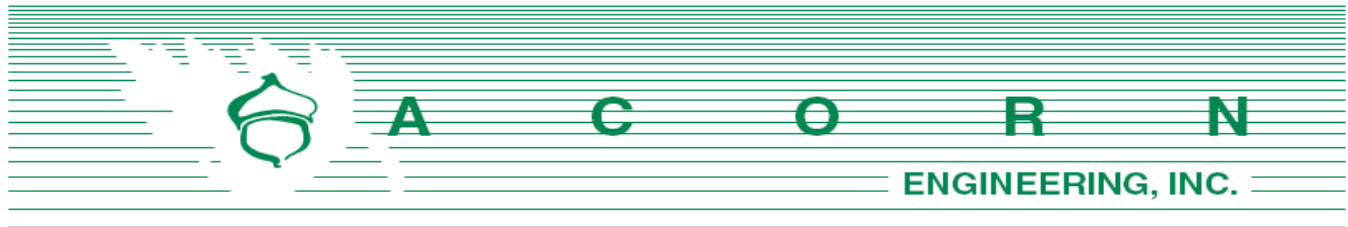
Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland 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

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



Central Maine Power Company
Attn: Mr. Paul DuPerre
162 Canco Road
Portland, Maine 04103

June 24, 2019

Subject: 263 Cumberland Ave. Redevelopment
Re: Ability to Serve

Dear Mr. DuPerre:

On behalf of Downtown Lodging, LLC, we are pleased to submit the following request for Central Maine Power's (CMP) ability to serve the proposed development. The proposed project is located at 263 Cumberland Ave. (Chart, Book, Lots 26-F-8,16), within the B-2 Zoning District in Portland, Maine. The lot will be redeveloped into a five-story, 89-unit rooming house with a small, first-floor retail unit. The existing multi-family structure will be demolished to facilitate the redevelopment.

It is proposed that the existing underground line be removed from its location on Stone St. and a new underground conduit be dropped from the existing 3-phase utility pole #34 on Cumberland Ave. The conduit will cross Cumberland Ave to the proposed building. Given the proposed loads, we anticipate a new pole-mounted transformer will be needed. As a note, there is one proposed elevator.

On behalf of the client, we are requesting the following information:

1. Any easements for overhead services currently crossing the proposed development.
2. Alternative connection locations from the development to the existing system.
3. CMP's proposed infrastructure improvements within the project vicinity.
4. CMP's ability to serve the project.
5. Access requirements to the CMP meters.

I have attached an existing conditions plan created by Owen Haskell, Inc. as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



ACORN Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104



June 28, 2019

Acorn Engineering, Inc.
C/O Mr. Sam Lebel, E.I.
PO Box 3372
Portland, Maine 04104

RE: 263 Cumberland, Portland, Maine

Dear Mr. Lebel,

This letter is to advise you Central Maine Power has sufficient three phase electrical capacity in the area to serve the subject project.

Once the project is accepted by the City of Portland, the owner will need to call our Customer Service Center at 1-800-565-3181 to sign up for a New Account and a SAP Work Request Order so we may provide an actual cost.

If you have any questions please feel free to call me at 629-1487.

Sincerely,

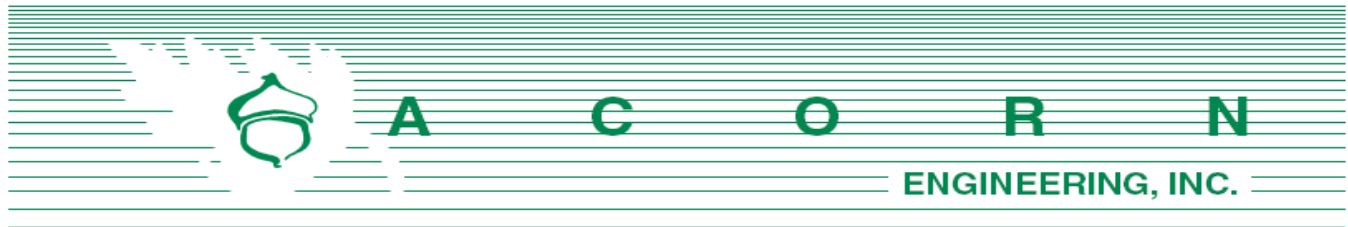
Paul DuPerre
Energy Service Specialist

162 Canco Road, Portland, ME 04103
Telephone 800.750.4000, Fax 207.791.1026
cmpco.com



An equal opportunity employer





Unitil Service Corp.
Attn: Bridget Harmon
376 Riverside Industrial Parkway
Portland, Maine 04103

June 24, 2019

Subject: 263 Cumberland Ave. Redevelopment
Re: Ability to Serve

Dear Ms. Harmon:

On behalf of Downtown Lodging, LLC, we are pleased to submit the following request for Unitil's ability to serve the proposed development. The proposed project is located at 263 Cumberland Ave. (Chart, Book, Lots 26-F-8,16), within the B-2 Zoning District in Portland, Maine. The lot will be redeveloped into a five-story, 89-unit rooming house with a small, first-floor retail unit. The existing multi-family structure will be demolished to facilitate the redevelopment.

It is proposed that the gas line currently serving the existing building be removed and a new service be installed from the existing gas main on Cumberland Ave to the proposed building's rear.

On behalf of the client, we are requesting the following information:

1. Any additional utility mapping such as gas lines within Cumberland Ave and Stone St.
2. A confirmation of an existing gas main within Cumberland Ave and Stone St, as well as the size of any gas lines and services in the vicinity.
3. Unitil's proposed infrastructure improvements within the project vicinity.
4. Unitil's ability to serve the project.

I have attached an existing conditions plan created by Owen Haskell, Inc. as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



ACORN Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104



June 27, 2019

Sam Lebel
Project Engineer
Acorn Engineering, Inc.
Po Box 3372
Portland Maine 04104

Re: 263 Cumberland Ave Redevelopment

Dear Mr. Lebel:

Thank you for your interest in using natural gas for the above referenced project.

This is to confirm that natural gas can be made available from our distribution system to serve your proposed project.

Any improvements to the existing distribution system necessary to provide this service, as well as the design of the gas system in the project itself will be established as the overall design and scope of your project progresses. Please provide gas load requirements in order for the evaluation to be completed.

If you have any further questions or require additional information, please do not hesitate to contact me.

Sincerely,

Bridget L. Harmon

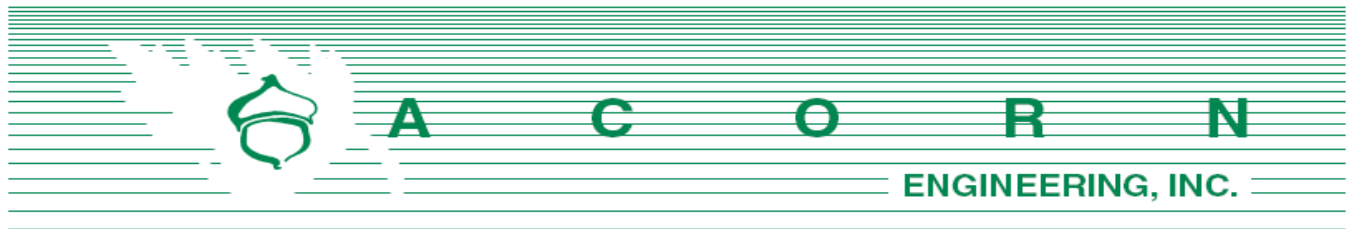
Business Development Representative
Unitil Corporation

Harmon@unitil.com

(O) 207-541-2536

ME GAS CUSTOMER ENERGY SOLUTIONS
376 Riverside Industrial Parkway
Portland, ME 04103

T 207-541-2508 www.unitil.com



Consolidated Communications
Attn: Mr. Patrick Morrison
5 Davis Farm Road
Portland, Maine 04103

June 17, 2019

Subject: 263 Cumberland Ave. Redevelopment
Re: Ability to Serve

Mr. Morrison:

On behalf of Downtown Lodging, LLC, we are pleased to submit the following request for Consolidated's ability to serve the proposed development. The proposed project is located at 263 Cumberland Ave. (Chart, Book, Lots 26-F-8,16), within the B-2 Zoning District in Portland, Maine. The lot will be redeveloped into a five-story, 89-unit rooming house with a small, first-floor retail unit. The existing multi-family structure will be demolished to facilitate the redevelopment.

It is proposed that the underground line currently serving the existing home be removed and new underground conduits be dropped from the existing utility pole #34 on Cumberland Ave. The conduit will cross Cumberland Ave to the proposed building.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Cumberland Ave and Stone St.
2. Any easements for overhead services currently crossing the proposed development.
3. Alternative connection locations from the property to the existing communication system.
4. Consolidated's proposed infrastructure improvements within the project vicinity.
5. Consolidated's ability to serve the project.

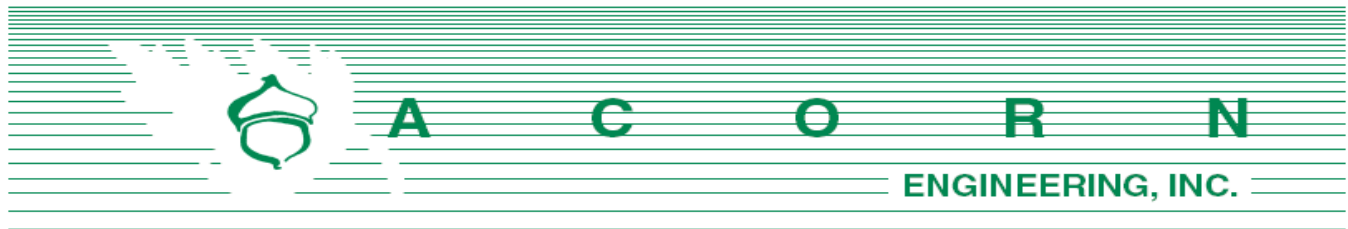
I have attached an existing conditions plan created by Owen Haskell, Inc. as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104



Charter Communications
Attn: Mr. Mark Pelletier
118 Johnson Road
Portland, Maine 04102

June 17, 2019

Subject: 263 Cumberland Ave. Redevelopment
Re: Ability to Serve

Dear Mr. Pelletier:

On behalf of Downtown Lodging, LLC, we are pleased to submit the following request for Charter's ability to serve the proposed development. The proposed project is located at 263 Cumberland Ave. (Chart, Book, Lots 26-F-8,16), within the B-2 Zoning District in Portland, Maine. The lot will be redeveloped into a five-story, 89-unit rooming house with a small, first-floor retail unit. The existing multi-family structure will be demolished to facilitate the redevelopment.

It is proposed that the underground line currently serving the existing home be removed and new underground conduits be dropped from the existing utility pole #34 on Cumberland Ave. The conduit will cross Cumberland Ave to the proposed building.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Cumberland Ave and Stone St.
2. Any easements for overhead services currently crossing the proposed development.
3. Alternative connection locations from the property to the existing communication system.
4. Charter's proposed infrastructure improvements within the project vicinity.
5. Charter's ability to serve the project.

I have attached an existing conditions plan created by Owen Haskell, Inc. as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

Q. Construction Management Plan

Project Address: 263 Cumberland Ave.

Project Description:

The proposed project includes the development of a 5-story building consisting of an 89room lodging house with a small first floor retail unit.

Project Team Summary:

Owner:	Downtown Lodging, LLC
General Contractor:	TBD
Civil Engineer:	Acorn Engineering, Inc.
Architect:	Ryan Senatore Architecture
Structural Engineer:	Structural Integrity Consulting Engineers, Inc.

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. Refer to the Civil/Site Plan Set, Sheet C-03 Construction Management Plan for visual representation of the measures 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 the Cumberland Ave 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:

Bill Simpson, Owner
Downton Lodging, LLC
(207) 599-1440

GC and Subcontractor information will be posted along the Cumberland Ave 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 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>	Summer 2020
<u>Project End Date:</u>	Spring 2021

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. The Construction Management Plan, Sheet C-03, depicts all proposed 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 Cumberland Ave and Stone 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 Cumberland Ave and Stone 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 Cumberland Ave or Stone 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 Cumberland Ave 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 & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved Construction Management Plan, C-03, 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. 157 CY. Earthwork subcontractor(s) pit to project site.
 - Hot Mix Asphalt – Approx. 10 tons. Paving subcontractor(s) pit to project site.

L. Special Measures as Necessary

No special measures are necessary for the proposed reconstruction.

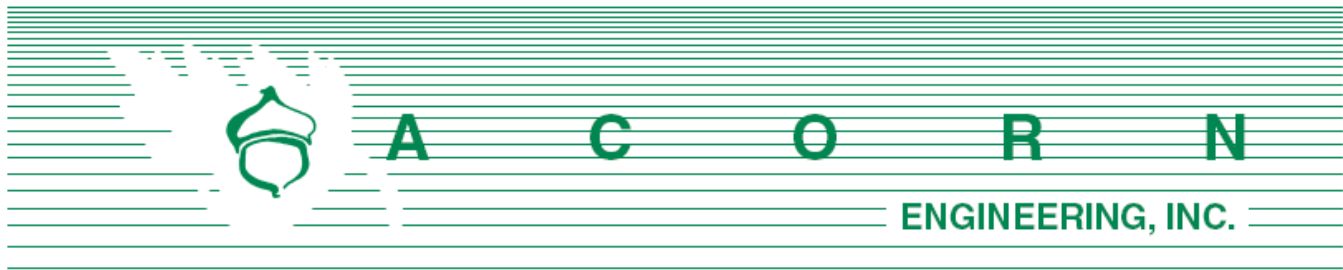


R. Solid Waste Disposal

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) and within the architectural plans.

The solid waste containers will be fully enclosed and screened from the public view.





Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

August 20, 2019

Subject: 263 Cumberland Ave Redevelopment Neighborhood Meeting

I, Kris Bears, hereby certify that a neighborhood meeting was held on August 19, 2019 at the Portland Public Library located at 5 Monument Square at 5:30 pm.

I also certify that on August 7, 2019, 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,

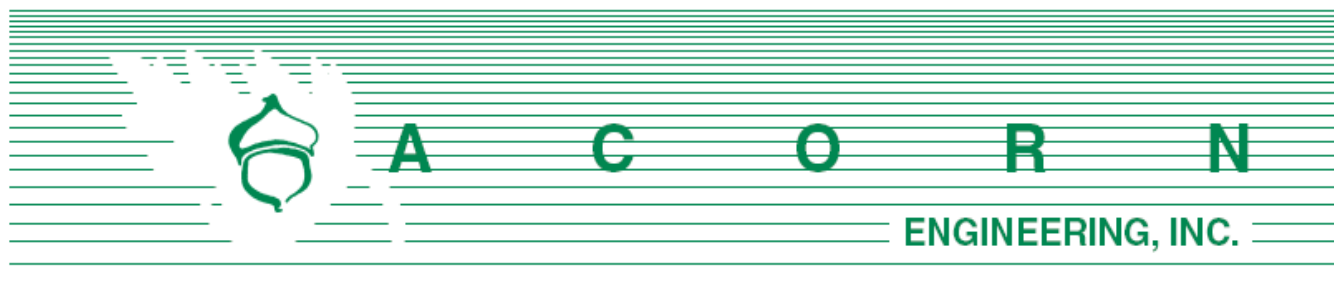
Dated 8/20/19

A handwritten signature in black ink, appearing to read "Kris Bears", is written over a light blue horizontal line.

Kris Bears
Design Engineer
Acorn Engineering, Inc.

Included with this certification are:

1. Copy of the invitation sent
2. Meeting Minutes
3. Sign In Sheet



August 7, 2019

Dear Neighbor:

On behalf of Downtown Lodging, LLC, we are pleased to invite you to a neighborhood meeting to discuss the proposed project at 263 Cumberland Avenue within the B-2 zoning district. The infill project includes the redevelopment of the existing 20-room lodging house and parking lot into an 89-room lodging house and a small first-floor retail space comprising a 5-story building. A partial basement is proposed with access off Stone Street. Overall, the site's street frontage along Cumberland will be improved by closing the existing curb cut, rebuilding the sidewalk to City standards, and planting three street trees.

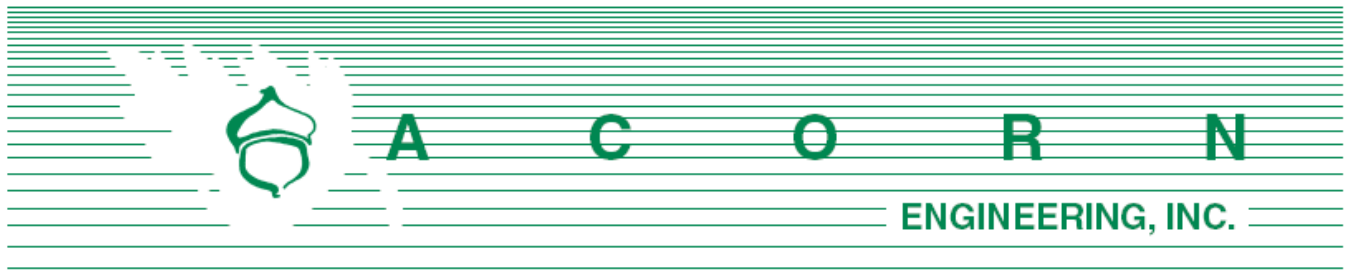
Meeting Location: Portland Public Library (Room 5), 5 Monument Square Portland, ME 04101

Meeting Date: Monday, August 19, 2019

Meeting Time: 5:30 p.m.

The City code requires that property owners within 500 feet of the proposed development and residents on an "interested parties list" be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board. If you have any questions regarding the neighborhood meeting, please don't hesitate to call me at 207-775-2655. We look forward to seeing you at the meeting.

Sincerely,
William H. Savage, P.E.
Acorn Engineering, Inc.



263 Cumberland Ave Redevelopment Level III Site Plan/Subdivision Application

Neighborhood Meeting Minutes

August 19, 2019 / 5:30 pm

Portland Public Library

Project Team Attendees:

Bill Simpson (BS): Developer/Presenter – (Downtown Properties, LLC)
Steve Trask (ST): Building Manager – 263 Cumberland Avenue
Will Savage (WS): Civil Engineer/Presenter (Acorn Engineering)
Kris Bears (KB): Civil Engineer/Note Taker (Acorn Engineering)
Ryan Senatore (RS): Architect/Presenter (Ryan Senatore Architecture)

Meeting started at approximately 5:35 pm.

Presentation:

Will Savage:

- Neighborhood Meeting is a City requirement for a Level III Application.
- Sign In sheet is available for everyone which will become public record along with the meeting minutes

Bill Simpson:

- Developer and Applicant
- Based out of Portland
 - Has a variety of apartments and lodging house throughout the area
 - Current building at 263 Cumberland is at full occupancy and it would benefit the community to offer additional housing
 - This would be the first new construction lodging house in ownership
 - Owner's office would be on site, providing additional security during daytime hours
 - Nighttime security guard would monitor entry / exit of the site
 - Wants an Art Deco theme and better street wall activation
 - Hopes that patrons will include local college / university students

Will Savage:

- Proposed Project is at 263 Cumberland Avenue, within Portland's B-2 zone

- Existing building is a 20-unit lodging house with surface parking
- Surrounding uses include: Avesta Housing to the north, 29-unit lodging house to the west, Chestnut St Lofts and Portland High School to south, and Avesta Housing to the east.
- Existing site is graded to drain to the rear. Nearly the entire existing site is impervious.
- Proposed redevelopment would increase the city's housing stock
- Proposed building in place of the existing parking lot would activate street frontage
- Circulation is one-way from Stone St. into and out of the garage, which would provide 2 parking spaces and additional room for maintenance and storage.
- 16 additional leased parking spaces are proposed offsite to meet City's parking requirements.
- There are 5 bus transfer stations within 500 ft of the site. Approximate 4-minute walk to the Metro Pulse Station, 6-minute walk to the Nickelodeon for the South Portland Bus.
- Utilities have been designed to meet standards
- Power would be underground to the development.
- Proposed 6" fire water line and 2" domestic line. Entire building will be sprinkled.
- Sewer to connect within Stone St.
- Gas to the site from within Cumberland Ave.
- Reduce overall impervious of the site to 81% by identifying opportunities for landscaping around the building.
- Roof coverage and permeable soils will improve water quality.
- Perimeter field inlets will direct runoff into Stone St.

Ryan Senatore:

- Overview of Ground level
 - Recessed entry for sense of security
 - Garage for maintenance, trash, etc.
 - Storage in basement for additional building upkeep
- Overview of living spaces / upper floors
 - Focused on efficient use of space
 - Laundry and kitchens installed per floor
 - Floor plan to the 2nd-5th floors are the same
- Overview of elevations and exterior
 - Design is an interpretation of art deco theme with modern elements
 - Play with textures on the exterior to make it appealing and create a nice street scape environment
- Good views from within, nice lighting and pleasant environment
- Roof is reserved for heating / cooling apertures which will be hidden towards middle
- Despite entryway elevation change around the building, maintain ADA access from all points.

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. Q or C denotes Question or Comment from the Public.

Q: How many rooms will there be per bathroom?



RS: Bathroom quantity designed per 2015 Universal Plumbing Code. 5 toilet fixtures and 2 showers per floor.

Q: Is there no living space? No TV or communal tables?

BS: There is a larger first floor kitchen / living space as well as kitchens on all other floors. No TV's or couches to avoid arguments surrounding viewing.

Q: Why no living space?

RS: Kitchen's are intended to be communal.

BS: Social space will be directed to the kitchens, want to avoid folks hanging out in lobby space.

Q: If there is no common space, what is the square footage per person, total?

RS: We can calculate that.

Q: What are the bedroom sizes?

RS: Bedrooms and 9 ft x 15 ft.

BS: We will be doing murphy beds to provide space flexibility, and include a table / desk, fridge, and microwave in each room.

Q: Is the assumption that no one will have cars?

BS: For reference, the existing parking lot is not filled even though the units are.

WS: The city does not require as many spaces as a condominium or rental unit would.

C: What is the target market?

BS: We hope to attract students. I've spoken with Maine College of Art (MECA) about renting spaces for their students.

C: Sounds like it might be tight on space.

Q: Only 1 person per room?

BS: Yes

Q: Will there be gender segregation?

BS: No

Q: Will the bathrooms be unisex?

BS: Yes.



C: This market has been decimated in the past, but as the news reports, it's just coming back.

WS: There are several other developers in the area that are going back to Single Room Occupancy (SRO).

Q: What size rooms are being constructed elsewhere?

BS: In New York, 15 ft x ft 15, but with bunks and 2 people per room, which makes it tighter.

Q: What are general building costs?

WS: Approximately \$200 per square foot in Portland.

Q: Will there be air conditioning?

BS: Yes, it will be controlled per floor.

Q: Will there be a compressor? Will it be as loud as the existing on the Merrill Auditorium?

BS: We will be putting in new heat pumps. These should be quieter than the existing pumps on the Merrill Auditorium.

Q: It would be nice if these were shielded to be conscious of noise / visibility control.

RS: Heating units will be placed on the roof

Q: Will there be duct work running to each individual room? Or does heat just enter through doorway?

RS: Yes, duct work to each room.

Q: Are the only sinks in the bathroom?

BS: Yes.

Q: Is there going to be a cleaning fee?

BS: We plan to continue with the regular checks we currently have. Provide daily scheduled cleanings for general cleanliness / check for bed bugs and removal if necessary.

Q: Is the only entry and exit through the front of the building?

BS: The main door, yes. Try to contain who's coming in and contain places where people are smoking. Try to keep this to the space between the proposed building and the adjacent building. Fire exit located to the side.

C: Maybe provide benches in the alley (between 263 and 265 Cumberland). Something that will keep folks from sitting on the concrete wall like they currently do.



C: One of my biggest problems at the building that I own is health and general cleanliness.

BS: We hope to attract MECA students and capitalize and those looking for short term housing, after moving to Portland for example. We take applications for housing and do background checks on potential tenants.

C: Not so concerned about people, just interested about how they are encouraged to enter and exit.

C: I like that there is only one entrance, it provides surveillance of coming and going.

BS: I like to have control over entry and exit.

Q: How do you control who comes and goes?

BS: We have a sign in sheet, security, an a 'no visitors after 9pm' policy. Usually people will call if they have a neighbor that has visitors past the allowed hour.

Q: Any limitations on what kind of business will go in the retail space?

BS: I would like to have a coffee shop.

C: That's good. Be mindful of other local businesses.

BS: I would also like to have some food available in the lobby for 24-hour access for renters.

Q: Would a roof deck be a possibility? That would allow smoke from people smoking to go straight up.

BS: Elevator doesn't go to the roof.

RS: Roof just has heating equipment planned at the moment.

Q: Can people reserve the kitchens for social events? Birthdays for example.

BS: Currently at 263 Cumberland, people get together in kitchens for holiday dinners.

RS: If possible, yes.

WS: If that works for the developer, the first floor may have that as an option.

Q: What are rents like in these places?

BS: More or less the same as the existing, maybe \$800.

Q: Who lives there?

BS: General assistance workers, lots of people who work low paying jobs in portland.



Q: Do you plan to market to seasonal workers?

BS: Not necessarily, we don't do that much marketing because of high demand.

Q: Is there a waiting list?

BS: Yes, there is currently.

Q: Do you have an idea of a construction time frame?

BS: I have been told that construction would take about a year.. Most of it will just be on slab.

C: That's good. I am concerned about duration of construction because I work nearby.

Q: Is the basement for tenant storage?

BS: No, we will reserve that for building maintenance and storage space necessary for operations.

Q: If you ever go back to a different use, do you have to go back to the city.

WS: Yes, we would need to go before the city again.

Q: Who owns the neighboring property? Why not develop it all at once?

BS: I also own that space, I hope to clean it up at the same time. I just got a quote for new siding to go on that building.

C: I would really want to count the toilets if I were you, to make sure that they are sufficient for the number of rooms.

WS: There will likely be a workshop with the Planning Board in September prior to a final hearing. You all are invited to attend and submit comments to the planning department.

Meeting concluded at approximately 6:40 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,

Kris Bears
Design Engineer
Acorn Engineering, Inc.
kbears@acorn-engineering.com



Sign In Sheet

8/19/2019

Downtown Lodging - 263 Cumberland Ave
263 Cumberland Redevelopment

Members of the Public in Attendance:

NAME

1. Larry + Dory Hamm
2. Aurelia Scott + Bob Knog
3. DOUG + LISA SMITH
4. MICHAEL GUIGLI
5. George Rheault
6. Victoria Powers
7. Gary Tilton
8. ~~Steve Trask~~
- 9.
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E-MAIL

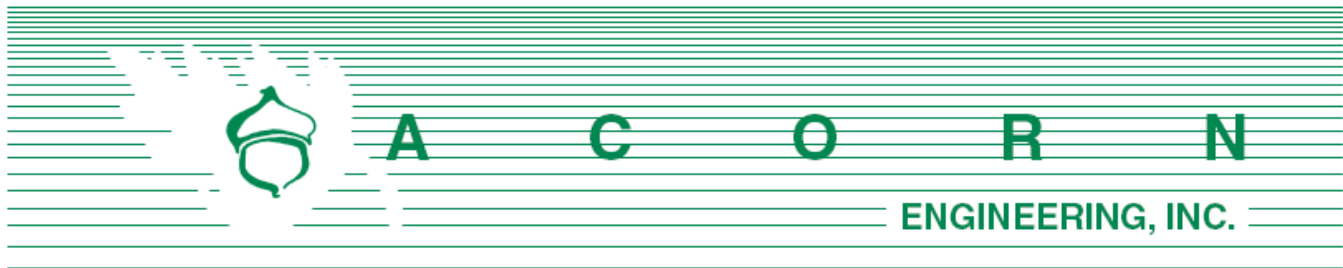
LDHAMM VA@gmail.com
mekacs2512@gmail.com
thesmiths@rustydogma.com
MPGUIGLI@GUIGLI.COM
> ~~powers~~ powers@tilton@gmail.com

Developer and Consultant Team in Attendance:

NAME

1. Will Savage - Acorn
2. Ryan Senatore - RSA
3. Bill Simpson - Owner
4. Steve Trask - Building Manager

E-MAIL



Andrew Tufts – City Planner
Planning Division, City of Portland
389 Congress Street
Portland, ME 04101

August 30, 2019

Subject: Comment Response Letter
263 Cumberland Avenue Redevelopment – Portland, Maine

On behalf of Downtown Lodging, LLC we are pleased to respond to the comments that we've received thus far.

Mike Tremblay, DPW

Comment – *On the driveway apron detail, a pedestrian path is shown, but width is omitted. DPW understands that the existing sidewalk is less than the City's minimum width of 5 feet. DPW strongly recommends that the Applicant make efforts to alter the proposed building footprint to allow for a continuous 5-foot minimum crosswalk. Not doing so will result in a sidewalk width that is not compliant with federal ADA standards as well as the City's standards.*

Response – The building has been reduced in width to accommodate a 5' sidewalk, a portion of which will be on the Applicant's parcel.

Comment – *The proposed width of the pedestrian path should be shown in the driveway apron detail.*

Response – The detail has been updated to show the width.

Comment – *The site plan appears to call for an ADA-compliant ramp south of the driveway, but additional detail is needed. DPW typically requires that pedestrian facilities remain at a consistent grade unless it is infeasible to cross a driveway without ramps, which appears to be the case on Stone Street. If a ramp is required, a corresponding ramp opposite the driveway is likely needed as well. These ramps should be designed and shown in the plans, rather than just referred to in a call-out. Additionally, assuming transition ramps are required, the driveway apron detail should be adjusted accordingly. We have provided a suggested detail to the Applicant's engineer in a separate correspondence.*

Response – The ramps have been further detailed on the plans and the driveway apron detail has been revised.

Comment – *The driveway detail shows 6-foot tipdowns; these tipdown lengths are dictated by the slope of adjacent sidewalk ramps. If 7" of reveal is present on Stone Street, a 7' ramp will be*

required to meet an 8.33% grade. Additional clarification of this detail is suggested.

Response – The slope of the street also plays a factor in the length of the tipdowns. The 7' tipdown for ADA ramps applies to streets that are relatively flat. The ramp lengths (and corresponding tipdown lengths) have been clarified on the plans. Note the northwest side of the driveway apron has a 4' tipdown/ramp at 6.3% which results in a flush condition between the landing for the garage swing door entrance and the top of the sidewalk ramp. The southeast side of the driveway apron has a 15' tipdown/ramp at 8.3% because the ramp is “chasing” the grade of the street.

Comment – *Any sidewalk, pedestrian walkway, curb ramp, or driveway constructed must meet all applicable ADA standards. Elements constructed out of compliance with ADA and City accessibility standards is subject to reconstruction at the Applicant's cost. Exceptions, including for the width of the sidewalk on Stone Street, must be expressly requested, with documented reasoning for technical infeasibility. DPW requests that any technical infeasibility request be accompanied by the MaineDOT Technical Infeasibility form. It should be noted that a noncompliant condition on the City ROW will not be accepted by the City until DPW is satisfied that all avenues to creating a compliant facility have been exhausted.*

Response – The proposed plans now meet all ADA regulations.

Comment – *Between the driveway and Cumberland Avenue, a small area between the proposed building and the public ROW is proposed as landscaping. DPW recommends making this sidewalk in order to meet City and Federal ADA standards for sidewalk width.*

Response – Now that the building has been modified to allow for a five foot sidewalk, this green space is proposed to remain. In addition to aesthetics, the green space will allow for a compliant transition from the Cumberland sidewalk ramp and the steep grade of Stone Street.

Comment – *The sidewalk on Stone Street needs to be rebuilt in brick, per the sidewalk material policy. This includes the ADA ramp crossing Stone Street. Additionally, the opposite curb ramp needs to be updated with an detectable warning panel, or rebuilt per ADA standards (in brick) if it does not meet ADA slope standards.*

Response – The existing sidewalk network on Stone Street is primarily concrete, in particular the areas adjacent to the locus parcel. Additionally, given the northern orientation (lack of sun in the winter) and steep slope of the street/sidewalk, the greater friction of coefficient that a brushed concrete surface provides will result in a safer experience for pedestrians when compared to brick. Lastly, the curb ramp across the street does not appear to be within the purview of this project and therefore no modifications are proposed.

Comment – *The driveway needs to be shown in the same material as Stone Street (brick). The brick orientation in the driveway should match the brick orientation of the sidewalk. Border courses are permitted.*

Response – Please see above. As noted, we are proposing a concrete surface.

Comment – *The site plan appears to show a closed curb cut on Cumberland Avenue. The site plan*



should include a callout of this closure, and that new brick will be installed there. New vertical granite curbs replacing the driveway and tipdowns should be called out as well.

Response – Please refer to Sheet C-10 which includes this callout.

Comment – *The site plan should call out areas where new brick sidewalk is proposed vs. where brick sidewalk is to be removed and reset. The existing sidewalk appears to be in good condition on Street View; however, this should be verified. All existing-to-remain, removed-and-reset, and new brick sidewalk shall meet ADA standards (at least 5 feet wide, cross slope of no more than 2%).*

Response – Due to the proximity of the building to the sidewalk as well as the utility construction, bicycle hitches, etc., we are proposing to replace the entire sidewalk as noted on Sheet C-10.

Comment – *The garage, as proposed, appears to have possible issues, including maneuvering out of Space 2 when a vehicle is parked in Space 1. Additionally, Space 1 appears to be obstructing the staircase, and Space 2 appears to obstruct the solid waste area. DPW suggests reducing the off-street parking supply to one space.*

Response – The two spaces will be accessed by the same users. In addition to their familiarity, the turnover will be infrequent. Space #1 has been adjusted to provide space for the staircase users. Therefore, both spaces are proposed to remain. Please see the exhibit attached to this letter.

Comment – *ONE WAY (R6-2) and NO LEFT TURN (R3-2) signs should be placed opposite the garage to ensure that motorists are aware that the roadway is one way and that northbound travel is not permitted.*

Response – These signs have been added to the Site Plan.

Comment – *Specify whether the existing street trees on Cumberland Avenue will remain. These should remain if at all possible. Confirm with Jeff Tarling regarding their condition. If remaining, the eastern bike hitch may be in conflict.*

Response – Per C-03, the existing street trees are proposed to be removed. Given how young the existing trees are and the benefits provided by the proposed reconstruction of the sidewalk, the addition of bicycle racks, and the one additional street tree that the frontage will gain, the removal of the two existing trees is warranted.

Comment – *Verify that the 6" storm pipe will be sufficient to handle the site's runoff.*

Response – The proposed storm drain has been upsized to an 8".

Comment – *The proposed utility pole opposite Cumberland Avenue is not acceptable. The pole location appears to be within the functional area of an ADA ramp. Additionally, the City is currently exploring options for expanding the utility and capacity of the existing loading dock for Merrill Auditorium, which would likely require removal of the proposed pole. An alternate design is required.*



Response – The proposed pole has been relocated 8' to the northeast to avoid being within the sidewalk ramp.

Comment – *The Applicant should explore the possibility of connecting their water service via Stone Avenue rather than Cumberland Avenue in order to avoid a trench that is almost as wide as the street.*

Response – Due to NFPA regulations, the sprinkler line is not permitted to run sub-slab prior to entering the utility room. Therefore, the water lines are proposed to remain as is.

Comment – *The CM plan shows an ADA-accessible sidewalk being maintained during construction. This is desirable. Confirm that the sidewalk will remain the existing length, as shown, or if part or all of the sidewalk will be needed to complete construction. For example, Stone Street has a narrow sidewalk in the vicinity of the property, and the building immediately abuts this sidewalk. In any case, temporary pedestrian walkways and/or detours will likely be needed during certain portions of construction (e.g. sidewalk construction) and a plan should be in place for these events. Maintaining pedestrian accessibility is extremely important in this location, given the proximity of Portland High School, Portland City Hall, the Boys and Girls Club, the Portland Family Shelter, and other destinations. Temporary walkways during sidewalk closures are strongly encouraged, and pedestrian detours should be avoided if at all possible. That said, vehicle maneuvers into the Merrill Auditorium loading dock must be accommodated.*

Response – It is likely a portion of Stone Street will need to be closed temporarily for construction of the building. A pedestrian management plan will be considered and forthcoming; however, ultimately the General Contractor who has not yet been determined will be responsible for determining means and methods.

Comment – *The Applicant should explore the possibility of redesigning the building and site plan such that a 5-foot sidewalk can be maintained on Stone Street. Narrowing the street to accommodate this sidewalk is not desirable to PFD*

Response – The building has been decreased by 16" to facilitate a 5' sidewalk on Stone Street.

Comment – *The applicant should confirm that an accessible route exists to the off-site parking location being used to meet this project's parking requirement.*

Response – Ample sidewalks existing throughout the entire area. The likely off-site lease will occur on Oxford Street.

Comment – *Given the proximity of the proposed building to the property line, DPW is skeptical that the CM plan shows the full extent of the impact to the ROW on Street. If Stone Street must be closed for any length of time, the Applicant must ensure that other users of Stone Street may access and egress other addresses on Stone Street safely and without excess maneuvers. If the sidewalk on Stone Street must be closed, a pedestrian detour plan must be developed and shown*

Response – A mid block one-way street will provide a cut through to Chestnut, meaning there is an excellent opportunity for detouring with minimal local traffic in between the site and detour. The contractor will be required to submit a traffic control plan.



Jeff Tarling, City Arborist

Comment – *Detail for the tree planting pit, typically rectangular 7'x4' depending on the sidewalk width. (The existing tree well on the left side is close)*

Response – A 7'x4' planting pit will be used for all three proposed street trees. See Landscaping Plan, L-1, and Landscaping Details, C-42 for the addition of this detail.

Comment – *The recommended tree type is Honeylocust, we like the upright 'Street Keeper' Honeylocust selection.*

Response – All proposed street trees have been revised to 'Street Keeper' Honeylocust.

Comment – *Not sure if this project contributes to the Planning Tree Fund or if there is a cost assessment for removing the existing tree.*

Response – We are not aware of any ordinance that requires a payment for removal of the existing tree within private property. The tree is primarily being removed due to the safety issues it poses.



Robert Thompson, Fire Department

Comment – *Any new building shall not affect the emergency escape capacity of an existing building. Please provide the distance between the proposed building and 273 Cumberland Ave at the point where the proposed retaining wall ends.*

Response – The proposed building will not affect the emergency escape capacity of any existing buildings and conforms to all required setbacks. The distance between the proposed building and the existing building at 273 Cumberland Ave is approximately 12' at the end of the existing retaining wall.

Comment – *Plans should be submitted to the City of Portland Engineering Department for proper addressing by the E-911 Addressing Officer.*

Response – Please let us know if the Planning Department is able to distribute the plans or if the Applicant should coordinate this.

Comment – *The buildings street address shall be marked at the main entrance of the building.*

Response – The building address will be marked at the main building entrance.



Lauren Swett

Comment – *The Applicant's project will be decreasing impervious surface and the redevelopment work will result in a reduction in non-roof impervious surface. No stormwater treatment or flooding control is required.*

Response – No response.

Comment – *The stormdrain connection from the site is a 6-inch pipe with minimal slope. Based on a rough Manning's calculation, it appears that the pipe capacity is roughly 0.5 cfs. Confirm that this capacity is adequate to manage all flow from the site, or provide a larger pipe.*

Response – The 6" storm drain has been upsized to an 8".

Comment – *The plans identify that there is an existing drain through the retaining wall with "outlet unknown". Please clarify if this drain is anticipated to collect any site drainage and if it discharges onto the neighboring property.*

Response – The pipe in question is not anticipated to collect water from the site. A new field inlet with stone swales will direct water the storm system.

Comment – *The plans identify locations of ramps at the driveway. It is suggested that spot grades be provided to identify the extent and slope of the ramps.*

Response – Additional spot grades and ramp details have been included on the plans.

Comment – *The Applicant is providing building lighting, and should provide a photometrics plan and address the current municipal street lighting standard. I've cc'ed Bruce, so he can weigh in on this. It appears that Decorative Light Peninsula Medium Street and/or Downtown Street standards will apply here*

Response – A photometric plan will be forthcoming. Please provide direction on desired lighting within the public right-of-way.

Comment – *The gas connection is shown far from the roadway. Confirm that this location will be acceptable for Unitil to provide maintenance of their meter.*

Response – Unitil has issued their approval letter and there is no anticipated concern with the meter location. An email has been sent to their project manager to confirm this.

Comment – *Winterberry is proposed at the western side of the building. Confirm that this will not be in conflict with the gas and stormdrain utilities provided in this area.*

Response – We have removed one winterberry shrub to ensure there are no conflicts.



Comment – *Creeping juniper is proposed for installation over the proposed stormdrain line on the site. Confirm that adequate access will be provided for maintenance of the stormdrain pipe, including the roof drain connection, that is within the proposed landscape area.*

Response – There are no concerns with the creeping juniper and its proximity to the storm drains or interference with the system.

Please let us know if you have any additional questions or comments.

Sincerely,



William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.



Samuel J. Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



PLAN REF. #2
 TM 26-F-2
 N/F
 MAPLE GROVE ELDERLY HOUSING CORPORATION
 33073/98

WOOD & BRICK BUILDING

CHAIN LINK FENCE

SPACE #1

SPACE #2

UP

DN

STOP & DO NOT ENTER SIGN

PUBLIC - VARIOUS WIDTH

RIM=44.7
 CL INV.=39.12

RIM=47.8
 8" INV
 8" INV
 10" INV

56"E

54.80'

N50°29'00"E

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6"

10"

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[illegible]

September 23, 2019

Caitlin Cameron
Urban Designer
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Re: 263 Cumberland Avenue- Design Review Responses

Dear Caitlin,

Please see the attached revised design for 263 Cumberland Avenue with revisions based on our Workshop and meeting with you, Deb Andrews and Andrew Tufts after the workshop. We think the design has come a long way to address the design review and planning board comments. Below is a list of items we have revised to address those comments:

- 1.) Revised the horizontal siding to a 4" rib spacing pattern for a more residential scale and less aggressive profile.
- 2.) Revised horizontal siding color to a warmer 'gray' tone
- 3.) Shortened length of window groupings to provide punched openings adjacent to the main entry
- 4.) Removed the vertical 'marquee' element
- 5.) Provided more glazing at the first floor level to differentiate it from the upper levels
- 6.) Eliminated EFIS siding and replace with the same horizontal siding around the building
- 7.) Simplified the amount of exterior materials used by eliminating 4 materials (precast, EFIS color 1, EFIS color 2 and the silver metallic panel at the main entry).
- 8.) Revised the siding panel color to a 'red color' for a warmer contextual color.
- 9.) Added the cornice

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

10.) Simplified the upper roof profile

11.) Raised the entry surround and added detail to the top of it.

We look forward to discussing the project at the upcoming Planning Board meeting.

Sincerely,



Ryan Senatore, AIA LEED AP

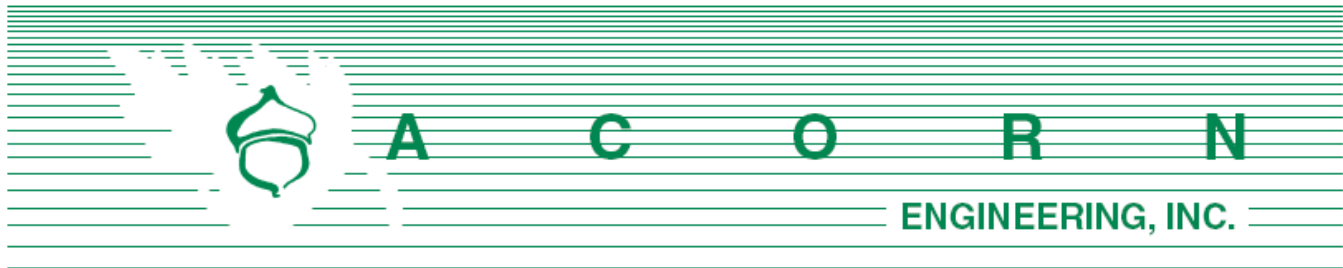
Principal

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101



Andrew Tufts – City Planner
 Planning Division, City of Portland
 389 Congress Street
 Portland, ME 04101

September 24, 2019

Subject: Comment Response Letter 2
 263 Cumberland Ave Redevelopment – Portland, Maine

On behalf of Downtown Lodging, LLC we are pleased to respond to the second round of comments that we've received thus far.

Lauren Swett – 3rd Party Civil Engineering Review

Comment – *I've reviewed the response to comments for 263 Cumberland. They've requested additional guidance on lighting to include, and Bruce noted yesterday that he can help with that. They are also waiting on additional confirmation from Unitil on the gas location relative to my comment on distance from the street. Other than those last small follow-up items, they've addressed all my comments.*

Response – We are still awaiting confirmation from Unitil on the maximum distance from the ROW to the meter. If the current proposal exceeds this distance, the proposed meter location can easily be modified to be in accordance with Unitil's standards.

Bruce Hyman – Transportation

Comment – *Acorn Eng is showing a 15' & 4' tipdowns for the ramping down of the sidewalk at the driveway AND flares at the driveway. I just think the whole thing needs to be re-thought/drawn. I think they just get rid of the flares and ramp down to a driveway that will have a max 2% cross-slope.*

Response – We have removed the flares from the driveway apron to simplify the design. Because we are chasing grade, the longer tipdowns are necessary to compensate for the street's 5% grade. DPW has mentioned they will allow a 5" reveal instead of 7", thus allowing for a reduction in ramp length/tipdown to 11 feet on the uphill side. The downhill side of the driveway is now at a 5.75' tipdown with a 1% grade up to the side entrance (pedestrian door). At this point, the curb reveal will return to 7".

Comment – *Says for alternating sides 175'-225' spacing; for one/single side spacing is 90'-100'. Their frontage is approx. 100' on Cumberland so one fixture, main question is placement and orientation. I don't advocate for more of the Downtown Street on Stone at the corner with*

Cumberland

Response – It would appear the Technical Manual specifies the Peninsula Medium Street Light. Please provide confirmation this is the desired lighting model and review our proposed location for the light pole.

Mike Tremblay – DPW

Comment – *The ADA ramp detail shown on sheet C-41 is not acceptable. The detail appears to show the pedestrian path running through a driveway flare. This will create differential cross-slopes for a pedestrian walking along the sidewalk. All grade breaks should run perpendicular to the path of the sidewalk.*

Response – The detail has been revised to eliminate the flares.

Comment – *My previous comment about removing green space to achieve an ADA-compliant sidewalk is no longer relevant because the site plan now provides an ADA-compliant sidewalk without removing this green space.*

Response – No response.

Comment - *It appears that tipdowns for the ADA ramp across Stone Street and the 15-foot long tipdown for the driveway on Stone Street come together at a point, with little or no straight vertical curb between the tipdowns. This is undesirable; DPW prefers that curb sections be no less than 4 feet; a 4-foot flat section would also serve as an ADA landing before a pedestrian travels down the proposed 15-foot long ramp towards the driveway. Additionally, the 15-foot long tipdown creates a long area with a lower than desirable reveal. While this is understandable due to the grade of Stone Street, alternate designs should be considered. A 5-inch curb reveal would be considered by DPW for the area between the curb ramp and the driveway ramp; this will help achieve some separation between the curb ramp and driveway. Additionally, a 1-inch lip is required where the driveway meets Stone Street; this may shorten the 15-foot ramp by 1-3 feet if it is not already applied.*

Response – A 5” reveal has been incorporated which has allowed the ramp length to decrease to 11 feet. There is an approximate 10.5’ section which will feature a 5” reveal.

Comment - *Regardless of whether the driveway ramp design is altered, DPW requests additional spot grades along the Stone Street sidewalk. Spot grades at the top of curb, bottom of curb, and back of sidewalk at grade break locations are requested.*

Response – Additional spot grades have been added to the plan.

Comment - *The sidewalk and driveway on Stone Street must be installed in brick. Since the sidewalk must be reconstructed completely, and the slope of Stone Street is less than 10%, there are no applicable exceptions to the sidewalk material policy.*

Response – We have revised the sidewalk material to brick.



Comment - *The curb ramp across Stone Street may create an inaccessible route between the two adjacent sidewalks if flares are used, as the ramp detail indicates. The full ramp should be shown in plan view, and an accessible path should be maintained around the ramp. Changes to the driveway ramp along Stone Street and/or curb reveal required between the driveway ramp and the curb ramp, as discussed above, may allow for sufficient space to traverse between the flare and the ramp.*

Response – The ramps have been revised – please see Sheet C-30.

Comment - *The relocated utility pole UP#33H continues to be within study area of the Merrill Auditorium loading dock design. DPW does not support any new utility poles between the existing UP#33 pole and the Merrill Auditorium loading dock. UGE/T/C connections via UP#34 would be desirable.*

Response – We have discontinued this proposal and have begun further discussions with CMP to determine the best location to provide electric and communications to the building. The utility plan now includes the two most likely options for either a new utility pole on the southerly side of the Cumberland/Myrtle intersection or a tap off the existing utility pole on the northerly side of the Cumberland/Myrtle intersection. A final utility plan will be forwarded to Planning and Public Works once a determination is made by CMP.

Comment - *A greater understanding of construction impacts is required prior to approval. As previously stated, the project area has significant pedestrian traffic and is located nearby several pedestrian generators. Whether the site sidewalk will be closed and for how long, if and where pedestrians will be rerouted, etc. will be important to understand. Additionally, closing Stone Street for any length of time will require traffic management and emergency response plans, as several addresses are served by Stone Street and will need alternate means of access and egress. The width of Stone Street would likely require that any temporary two-way operation would require parking restrictions and/or flaggers.*

Response – We have provided information relating to detours and pedestrian management on the Construction Management Plan, sheet C-03. In general, the existing sidewalk and street network lends itself well to detours when necessary. Additionally, pedestrian traffic along Stone Street may largely remain feasible because on the northerly side of the street, a wide sidewalk exists which likely will not be affected by construction vehicles. Because the timeline as well as the means and methods are up to the general contractor/construction management company, ultimately the final traffic/pedestrian management and emergency plans will be their responsibility. This requirement is noted within Sheet C-03 as well as the within the construction management narrative which is based on a City-developed template.

Comment - *The specific location and terms of the offsite parking lease will be required prior to approval.*

Response – We have provided this information as Document W.



Please let us know if you have any additional questions or comments.

Sincerely,



Samuel J. Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



William H. Savage, P.E.
Principal
Acorn Engineering, Inc.





Unified Parking Partners
496 Congress St.
Ste. 3
Portland, ME

September 26th, 2019

To Whom It May Concern;

I have been speaking with Bill Simpson of Downtown Lodging LLC regarding parking for his new building to be constructed at 263 Cumberland Avenue. This is to confirm that we will be able to meet his request for 16 parking spots in our nearby Chestnut Street Garage for 5 years.

Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan McNutt", is positioned below the word "Sincerely,".

Dan McNutt
CEO, Unified Parking Partners

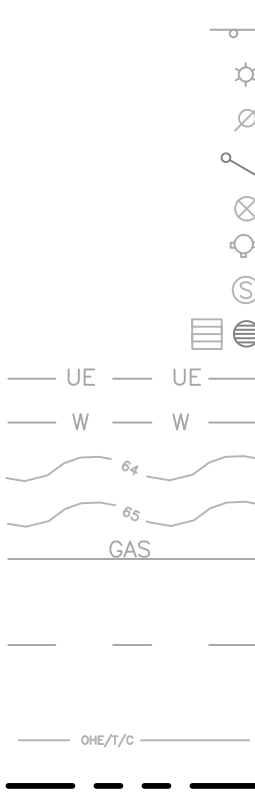
263 CUMBERLAND AVE REDEVELOPMENT

DOWNTOWN LODGING, LLC
PORTLAND, MAINE

LEGEND

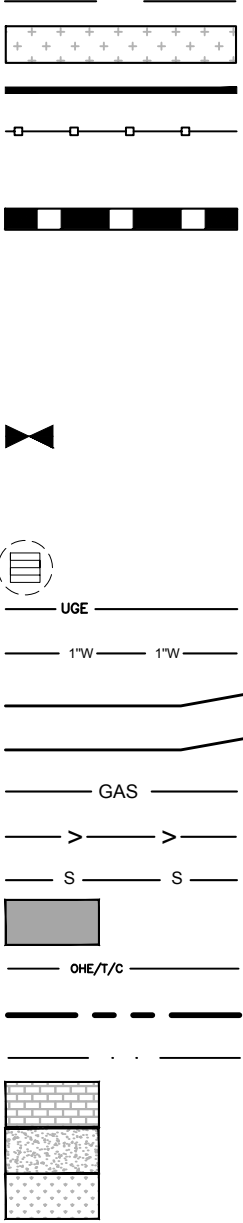
EXISTING

REFER TO THE
EXISTING
CONDITIONS PLAN
FOR ADD'L INFO



UNDERDRAIN
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
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
BRICK
CONCRETE
GRASS

PROPOSED



INDEX

- C-01 COVER SHEET & LEGEND
- C-02 GENERAL NOTES
- EX EXISTING CONDITIONS PLAN – BY OWEN HASKELL, INC
- C-03 DEMOLITION & CONSTRUCTION MANAGEMENT PLAN
- C-10 SITE PLAN
- L-1 LANDSCAPE PLAN
- C-20 UTILITY PLAN
- C-30 GRADING & DRAINAGE PLAN
- C-40 SITE DETAILS – 1
- C-41 SITE DETAILS – 2
- C-42 LANDSCAPING DETAILS
- C-43 UTILITY DETAILS – 1
- C-44 UTILITY DETAILS – 2
- C-45 DRAINAGE DETAILS
- C-46 EROSION CONTROL DETAILS & NOTES

UTILITIES

SEWER:

DEPARTMENT OF PUBLIC WORKS (DPW)
250 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: KEITH GRAY, 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: PAUL DUPERRE
(207) 828-2882

TELEPHONE:

CONSOLIDATED COMMUNICATIONS
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: PAT MORRISON
(207) 745-9363

CABLE:

SPECTRUM CABLE
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: MARK PELLETIER
(877) 546-0962

NATURAL GAS:

UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: BRIDGET HARMON
(207) 541-2536

PROJECT TEAM

DEVELOPER:

DOWNTOWN LODGING, LLC
PORTLAND, MAINE
CONTACT: BILL SIMPSON
(207) 874-0700

ARCHITECT:

RYAN SENATORE ARCHITECTURE
PORTLAND, MAINE
CONTACT: RYAN SENATORE, R.A.
(207) 747-5159

SURVEYOR:

OWEN HASKELL, INC.
FALMOUTH, MAINE
CONTACT: RANDY LOUBIER, P.L.S.
(207) 774-0424

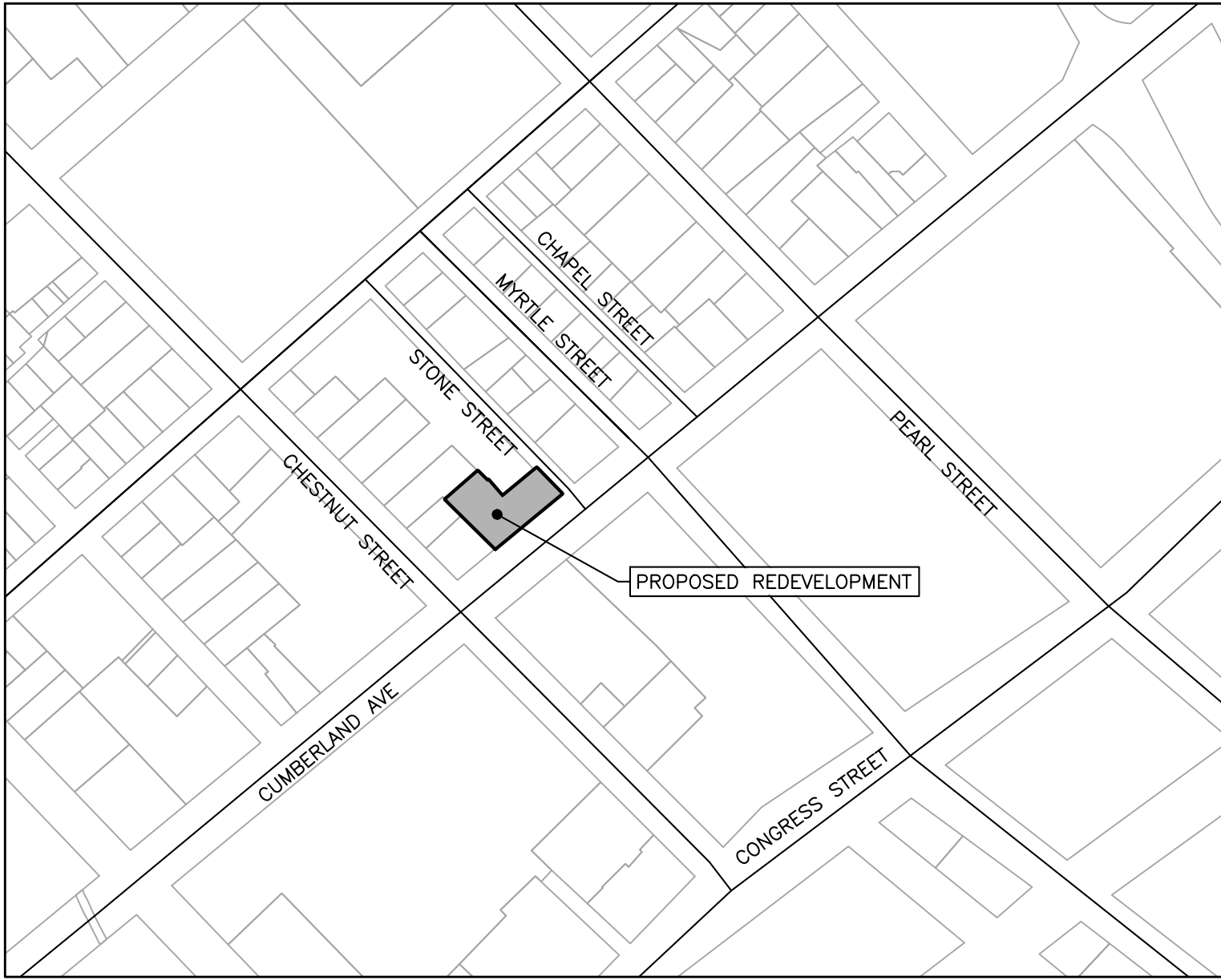
STRUCTURAL ENG.:

STRUCTURAL INTEGRITY CONSULTING ENGINEERS, INC.
PORTLAND, MAINE
CONTACT: AARON JONES, P.E.
(207) 774-4614

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
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CY	CUBIC YARD
DIP	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
GAL.	GALVANIZED
I.B.C.	INTERNATIONAL BUILDING CODE
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
M.E.P.	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
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



VICINITY MAP
NOT TO SCALE

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR
SITE PLAN
COMMENT RESPONSE
COMMENT RESPONSE II

BY
DATE
WHS
8/28/19
WHS
8/29/19
WHS
9/24/19

COVER SHEET & LEGEND

263 CUMBERLAND REDEVELOPMENT

DOWNTOWN LODGING, LLC
55 WASHINGTON AVE, PORTLAND, ME 04101

ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
65 HANOVER ST, 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 AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE: 1121.1_CIVIL

JN: 1121.1

SCALE: NTS

DESIGNED BY: SJL

DRAWN BY: SJL

CHECKED BY: WHS

STATE OF MAINE
Professional Engineer
9-17-19

DRAWING NO.
C-01

3. 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, 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 AUTOCAD FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD 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 SITE WORKING CONDITIONS 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 "PLAN DEPICTING THE RESULTS OF A BOUNDARY SURVEY & EXISTING CONDITIONS SURVEY" (JOB NO. 2017-381P) BY OWEN HASKELL, INC. DATED 2/2/2018.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AND ALL ADJACENT PROPERTIES 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 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, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. THIS SHALL BE COMPLETED AT A MINIMUM FOR ADJACENT STRUCTURES. 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 ACORN ENGINEERING, IF ANY.

CIVIL SITE NOTES:

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP AND ERECTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION FOR ENGINEER'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 THE ENGINEER 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 EXCEPTIONAL CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. THE GENERAL 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. CONCRETE SHALL ALSO BE CURED FOR 28 DAYS PRIOR TO BACKFILLING.
11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE.
12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. THE ENGINEER BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND OBSERVATION VISITS TO THE SITE DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.

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. STORMWATER INSPECTIONS TO BE CONDUCTED BY SITE ENGINEER.
3. NORMAL REVIEWS WILL BE CONDUCTED BY LOCAL BUILDING DEPARTMENT.
4. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
5. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
6. 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.
7. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINED ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
8. 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 CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.
9. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE I.B.C.

10. SPECIAL INSPECTION FIRM SHALL BE EMPLOYED BY OWNER AND COORDINATED BY THE CONTRACTOR.

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 REGISTERED 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 CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE CIVIL ENGINEER 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 SHALL ENSURE THAT DRIVEWAYS AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND IN USE AT ALL TIMES.

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF SITE PLAN - LEVEL III AND SUBDIVISION 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.

1. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 615 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 ACCEPTED ENVIRONMENTAL OR APPROVED EQUIVALENT.
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 OWNER. PRIOR TO THE CONTRACTOR PRICING THE WORK THE CONTRACTOR SHALL REQUEST 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 CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. THE MINIMUM SLOPE SHALL MEET OR EXCEED 0.5% IN ALL CASES. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.
5. NO ADDITIONAL PAYMENT FOR UNSUITABLE MATERIALS SHALL BE MADE.
6. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $N=0.012$ OR LESS.
7. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
8. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.

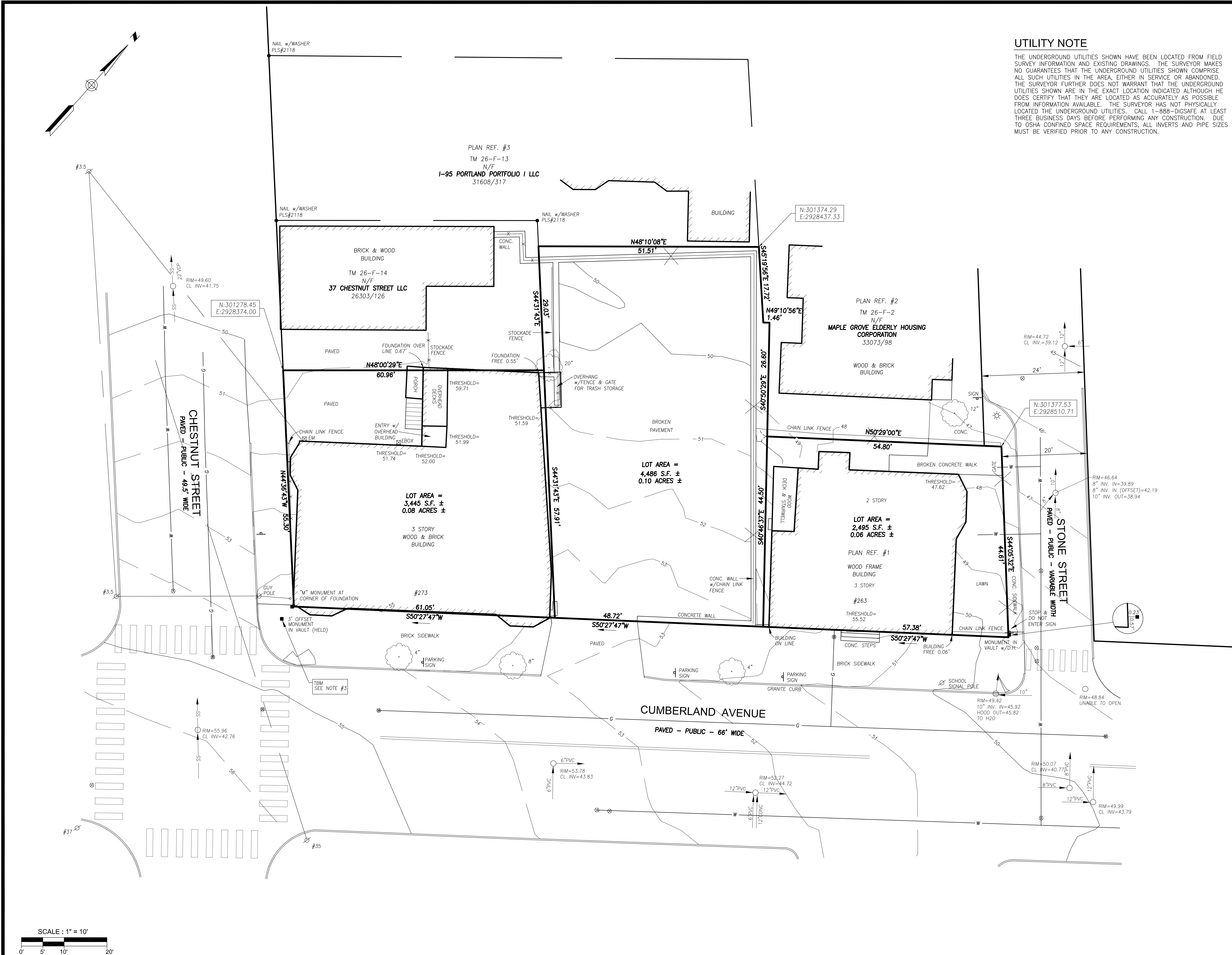
1. ALL ROUTINE MAINTENANCE ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.
2. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT 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.
3. 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.
4. 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 PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.
5. PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.
6. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

1. 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 THE CIVIL ENGINEER FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
2. 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.
3. 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.
4. SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.
5. CONTRACTOR TO PROVIDE 5' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.
6. THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAIN ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN ON SHEET C-44.

15. 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.

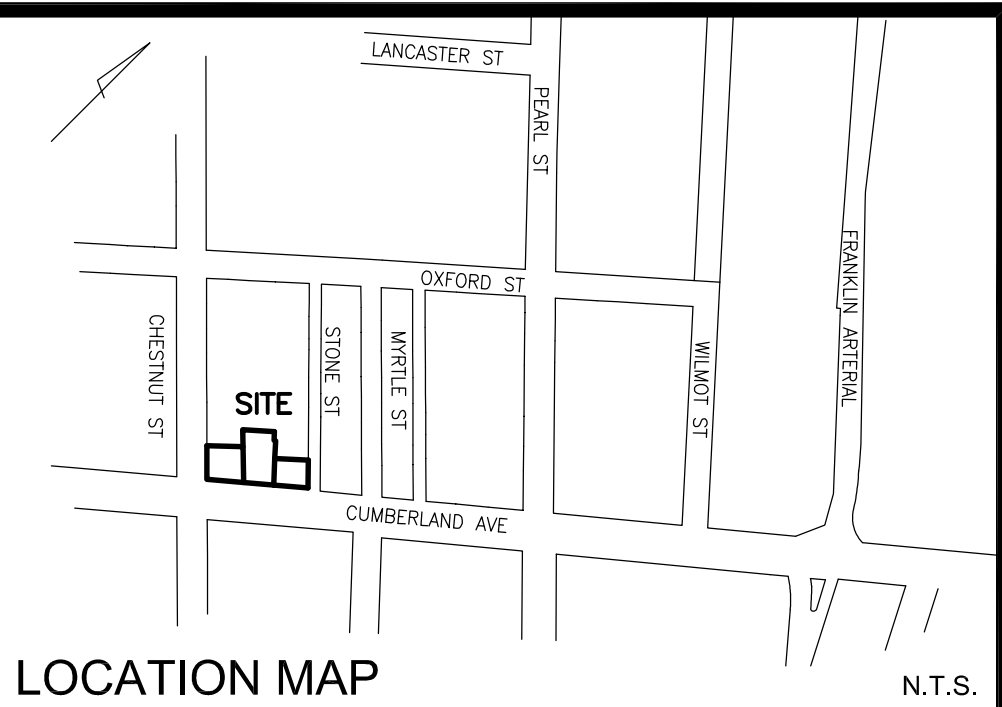
3. THE CLIENT HAS NOT REQUESTED NOR HAS ACORN ENGINEERING COMPLETED A PHASE I – ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPERTY.

[illegible]



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.



LEGEND

●	IRON PIPE OR ROD FOUND	—X—X—	FENCE
■	MONUMENT FOUND	=====	CURB
○	UTILITY POLE	—OHW—	OVERHEAD WIRES
○	MANHOLE	—W—	WATER LINE
⊗	ELECTRIC/GAS METER	—G—	GAS LINE
⊕	SIGN	—SD—	STORM DRAIN
⊖	CATCH BASIN	—SS—	SANITARY SEWER
⊙	HYDRANT	—50—	1' CONTOUR
⊗	WATER VALVE OR SHUTOFF	—IPF/IRF—	IRON PIPE OR ROD FOUND
⊙	DECIDUOUS TREE	—N/F—	NOW OR FORMERLY
		000/000	DEED BOOK / PAGE
		CONC.	CONCRETE

PLAN REFERENCES

- PROPERTY OF LOUISA M. MILLER CUMBERLAND AVE. AND STONE ST. DATED AUGUST 9, 1923. RECORDED IN DEED BOOK 1145, PAGE 236 & 237.
- STANDARD BOUNDARY SURVEY & SUBDIVISION PLAN UNITY VILLAGE AT BAYSIDE PORTLAND, MAINE MADE FOR BAYSIDE HOUSING L.L.C. BY TITCOMB ASSOCIATES DATED 7/10/00 RECORDED IN PLAN BOOK 200, PAGE 524.
- ALTA/ACSM LAND TITLE SURVEY OF 41-43 CHESTNUT STREET PROPERTY MADE FOR 1-95 PORTLAND PORTFOLIO I, LLC BY SEBAGO TECHNICS DATED 5/13/14 REVISED THROUGH 7/01/14.

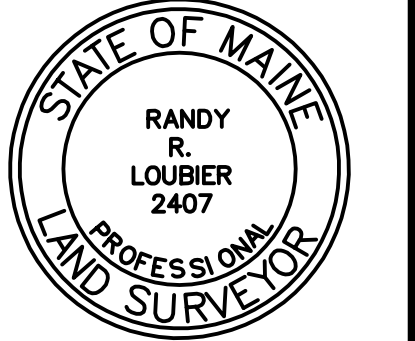
GENERAL NOTES

- OWNER OF RECORD: DOWNTOWN LODGING, LLC
TAX MAP 26 LOTS 8, 15 & 16
C.C.R.D. BOOK 32756 PAGE 336
- BEARINGS ARE BASED ON CITY CONTROL POINTS:
GRANITE MONUMENT 8"x8" WITH CAST IRON FRAME AND COVER AT THE NORTHERLY CORNER OF CUMBERLAND AND CEDAR ST.
T757-32-104
N 301059.622
E 2928195.663
COPPER BOLT IN GRANITE 3" O/S MONUMENT AT THE EASTERLY CORNER OF LANCASTER AND PREBLE ST.
T101-154-6
N 301242.665
E 2927339.445
- ELEVATIONS ARE BASED ON CITY DATUM. OFFICIAL CITY BENCHMARK USED:
CUMBERLAND AVE. AND CHESTNUT ST. N.E.C.
B.M. ON BRASS BOLT IN MON. ON 3 FT. OFFSET
ELEVATION = 54.35

CERTIFICATE

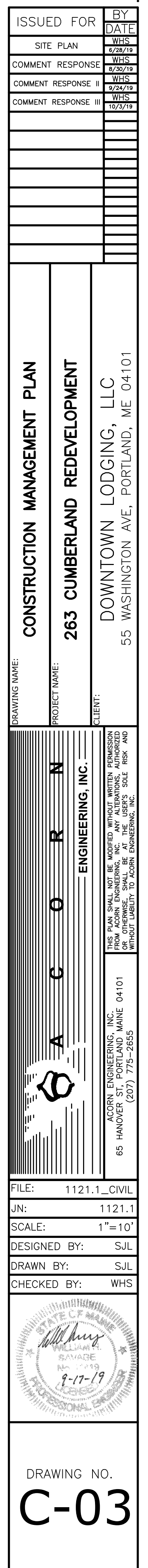
OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

Randy R. Loubier
RANDY R. LOUBIER, PLS #2407
2/2/18
DATE



BOUNDARY & TOPOGRAPHIC SURVEY
AT
263-273 CUMBERLAND AVE., PORTLAND, MAINE
MADE FOR
WILLIAM SIMPSON
P.O. BOX 10250, PORTLAND, ME 04104

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, MAINE 04105
DRAWN BY: RRL/JLW DATE: FEB. 2, 2018 JOB NO. 2017-381P
CHECKED BY: RRL SCALE: 1"=10' DRWG. NO. 1



ONE WAY ALLEY

R-6 ZONE

B-2 ZONE

PLAN REF. #3

TM 26-F-13

N/F

I-95 PORTLAND PORTFOLIO I LLC
31608/317

B-2 ZONE

TM 26-F-14

N/F

37 CHESTNUT STREET LLC
26303/126

B-2 ZONE

#273

B-2 ZONE

PARKING SIGN

PAVEMENT SAWCUT (TYP.)
CLOSE CURB CUT WITH
40 LF OF GRANITE CURB

BRICK SIDEWALK TO BE
REBUILT PER DETAIL

STOCKPILE AND REUSE
EXISTING CURB WHEN IN
GOOD CONDITION

PROPOSED STREET
TREE AND 4'X7' PIT, TYP.

PROPOSED GRANITE
CURB, TYP.

DETECTION PAD
AND ADA RAMP
(PER DETAIL)

LANDSCAPING
(PER SHEET L-1)

STOP &
DO NOT
ENTER SIGN

ADA COMPLIANT
RAMP, TYP.
PER C-30

DRIVEWAY
APRON PER
DETAIL

5.12'

15.71'

20'

24'

PUBLIC R.O.W., TYP.

PLAN REF. #2

TM 26-F-2

N/F

MAPLE GROVE ELDERLY HOUSING
CORPORATION
33073/98

B-2 ZONE

CRUSHED STONE
(PER SHEET L-1)

LANDSCAPING
(PER SHEET L-1)

2.56'

5.06'

5.48'

STAIRS DOWN TO
BASEMENT

5'X6'± CONCRETE SLAB

GARAGE ENTRANCE

5.75' TIPDOWN

11' TIPDOWN

28.25'

16'

12'

SPACE #1

GARAGE

SPACE #2

9'X18', TYP.

SLAM-BET 1

WOOD FRAME
BUILDING

RETAIL
(536 SF)

#263

MAIN LEVEL

SOLID WASTE

STAIRS DOWN FROM
MAIN LEVEL TO GARAGE

DIVISING WALL

DIVISING WALL BETWEEN
MAIN LEVEL AND
BASEMENT

LODGING ROOMS AT GRADE
BASEMENT BELOW

REAR ENTRANCE

EXISTING WALL TO
REMAIN ALONG SW AND
NW PROPERTY LINES

4.00'

REPLACE EXISTING CHAINLINK FENCE
WITH BLACK VINYL COATED CHAINLINK
FENCE. POSTS TO REMAIN WITHIN WALL.
REMOVE RUST AND REPAINT WITH
COLOR MATCH TO FENCE

ABUTTING
PROPERTY
LINE, TYP.

BUILDING

5.24'

13.12'

PROPOSED BICYCLE HITCH

PROPOSED MEDIUM
PENINSULA DECORATIVE
LIGHT POLE PER DETAIL

PROPOSED BRICK
SIDEWALK PER DETAIL

PROPOSED GRANITE
CURB, TYP.

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GARAGE ENTRANCE

5.75' TIPDOWN

11' TIPDOWN

28.25'

16'

12'

SPACE #1

GARAGE

SPACE #2

9'X18', TYP.

SLAM-BET 1

WOOD FRAME
BUILDING

RETAIL
(536 SF)

#263

MAIN LEVEL

SOLID WASTE

STAIRS DOWN FROM
MAIN LEVEL TO GARAGE

DIVISING WALL

DIVISING WALL BETWEEN
MAIN LEVEL AND
BASEMENT

LODGING ROOMS AT GRADE
BASEMENT BELOW

REAR ENTRANCE

EXISTING WALL TO
REMAIN ALONG SW AND
NW PROPERTY LINES

4.00'

REPLACE EXISTING CHAINLINK FENCE
WITH BLACK VINYL COATED CHAINLINK
FENCE. POSTS TO REMAIN WITHIN WALL.
REMOVE RUST AND REPAINT WITH
COLOR MATCH TO FENCE

ABUTTING
PROPERTY
LINE, TYP.

BUILDING

5.24'

13.12'

PROPOSED BICYCLE HITCH

PROPOSED MEDIUM
PENINSULA DECORATIVE
LIGHT POLE PER DETAIL

PROPOSED BRICK
SIDEWALK PER DETAIL

PROPOSED GRANITE
CURB, TYP.

DETECTION PAD
AND ADA RAMP
(PER DETAIL)

LANDSCAPING
(PER SHEET L-1)

STOP &
DO NOT
ENTER SIGN

ADA COMPLIANT
RAMP, TYP.
PER C-30

DRIVEWAY
APRON PER
DETAIL

5.12'

15.71'

20'

24'

PUBLIC R.O.W., TYP.

CRUSHED STONE
(PER SHEET L-1)

LANDSCAPING
(PER SHEET L-1)

2.56'

5.06'

5.48'

STAIRS DOWN TO
BASEMENT

5'X6'± CONCRETE SLAB

GARAGE ENTRANCE

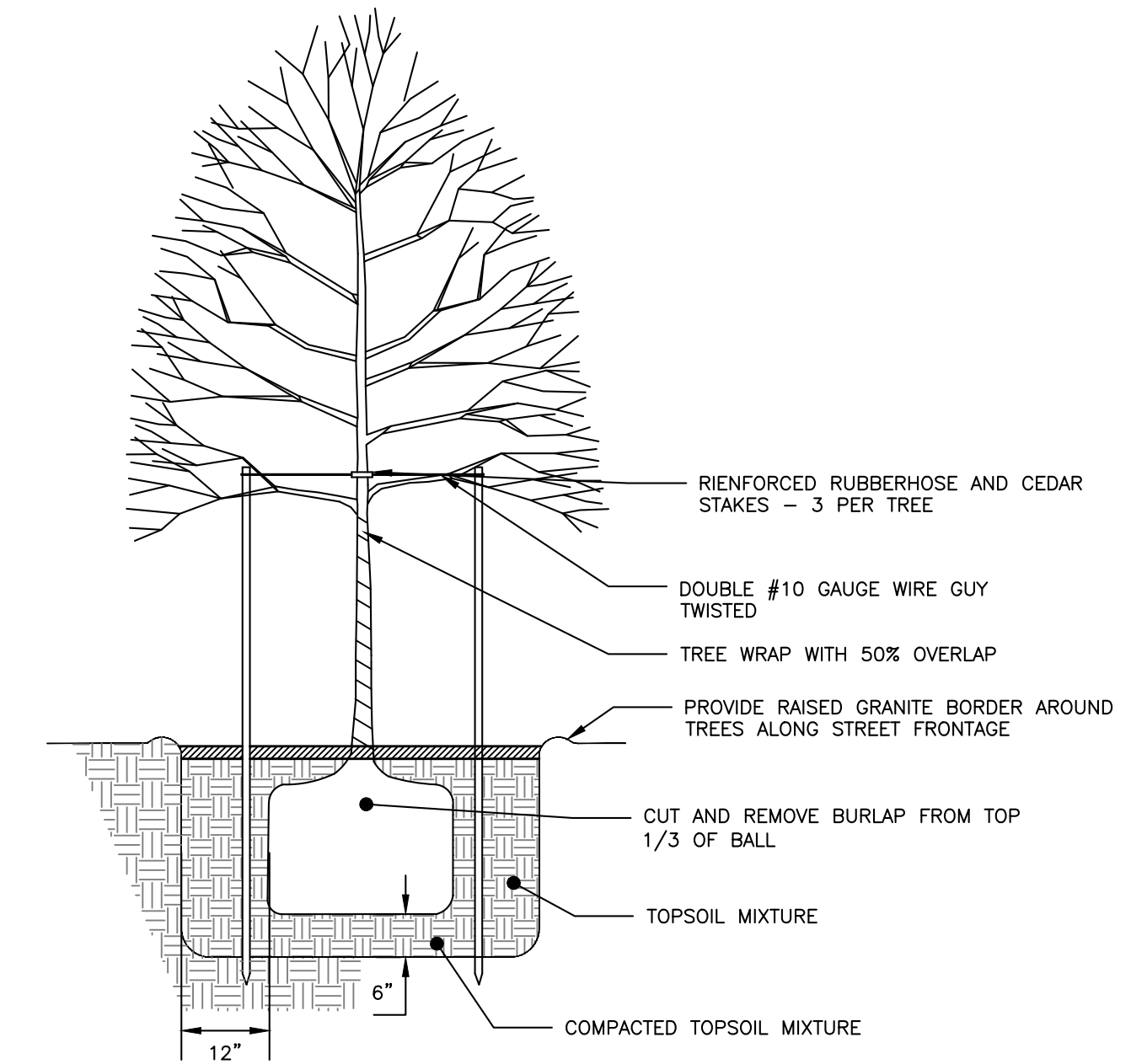
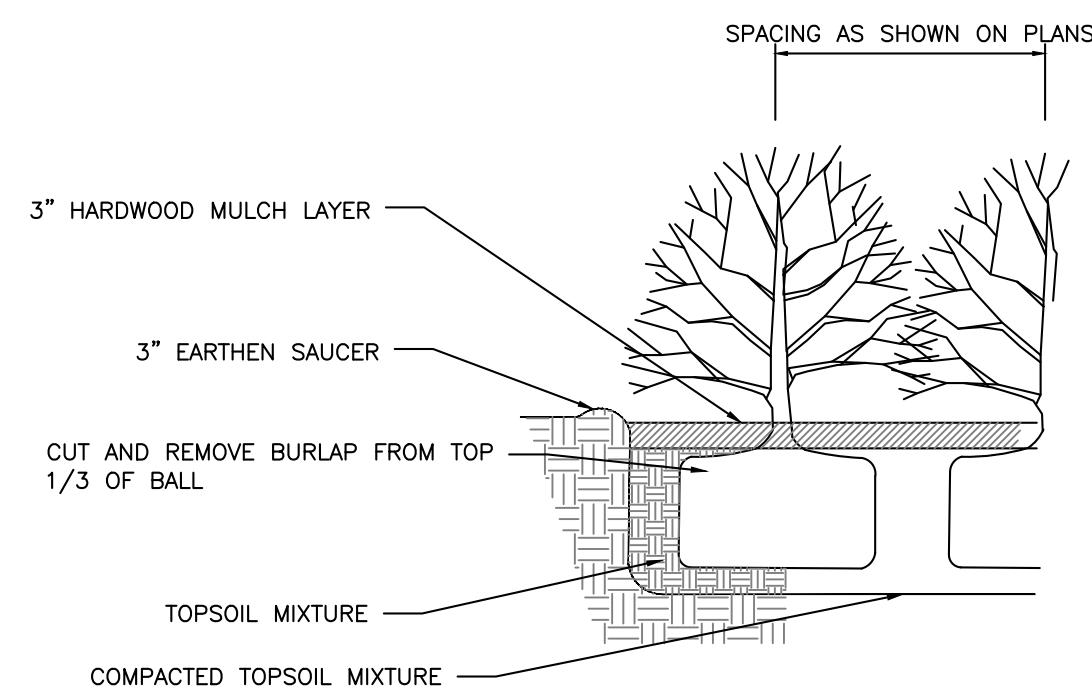
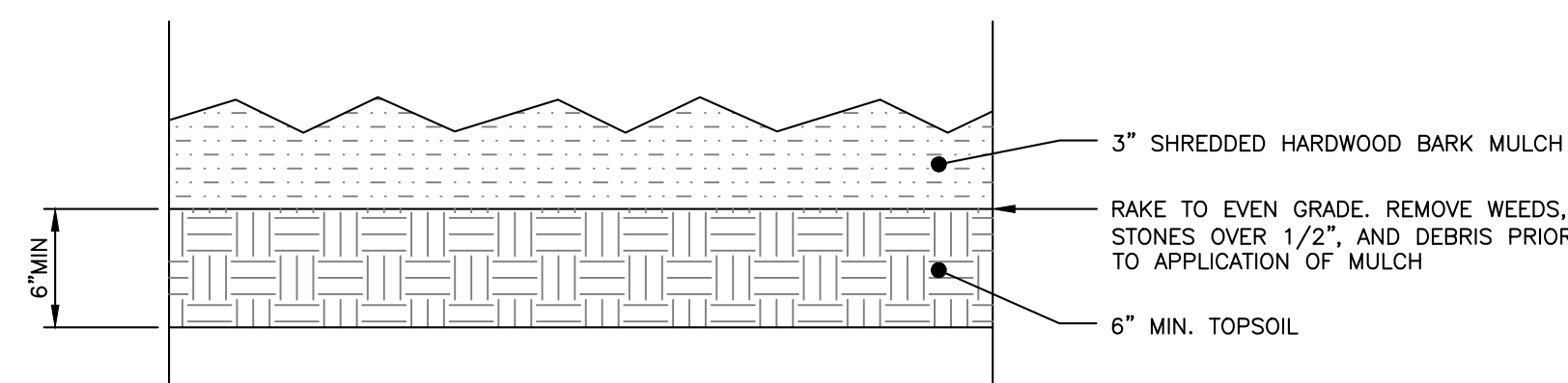
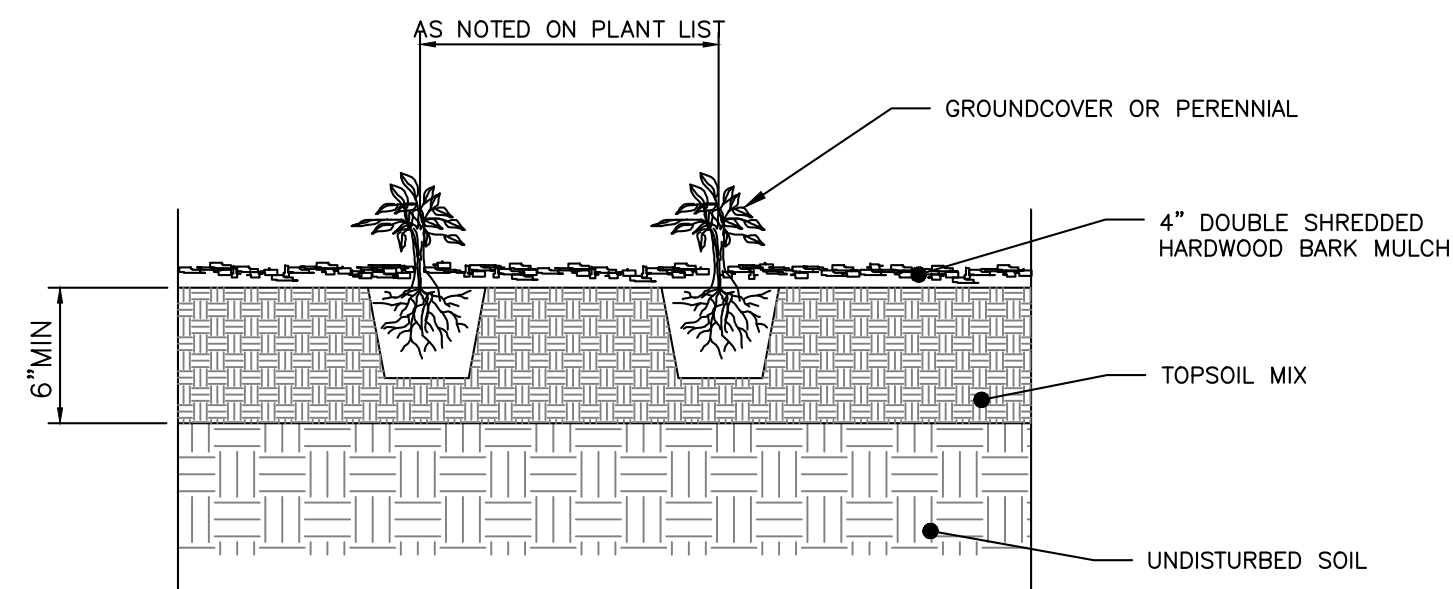
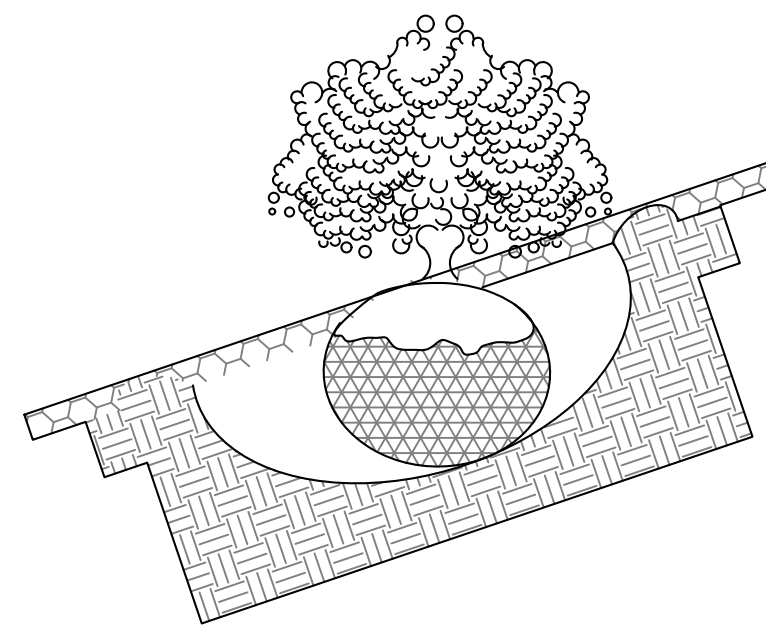
1. ALL PLANT SELECTION AND INSTALLATION WILL BE IN COMPLIANCE WILL THE CITY OF PORTLAND TECHNICAL MANUAL (SECTION 4).
2. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
3. IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN 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 REED FESCUE, 20% CHEWINGS FESCUE AND 10% 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 REQUIRED 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.

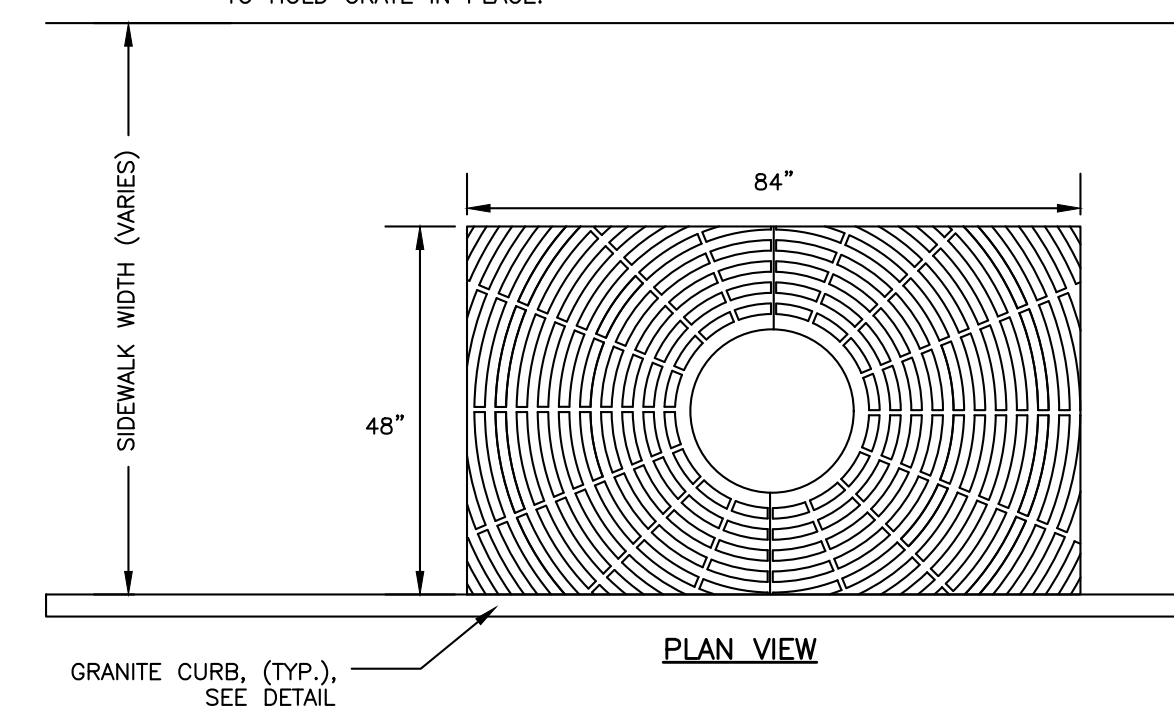
2. TOPSOIL BACKFILL SHALL BE NATURAL, FRACTION, FERTILE, FINE LOAMY SOIL. COMPRESSING THE CHARACTERISTICS OF THE SOIL TO THE ORIGINAL SOIL. THE GROWN ROOTS OF THE SOIL SHALL NOT LESS THAN 6% NOR MORE THAN 20% ORGANIC MATTER. TOP SOIL SHALL HAVE A PH OF 6.5 TO 7.5.

3. CONTAINER GROWN STOCK - REMOVE CONTAINER PROTECTING THE ROOT BALL. GENTLY COMB OUT THE ROOTS. PRUNE DAMAGED ROOTS.

4. WATER THE HOLE 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 PLANTING. PLANTING SHALL BE COVERED WITH AN EARTHEN SAUCER. SOAK PLANTS TWICE WITHIN THE FIRST TWENTY-FOUR HOURS OF PLANTING.



- NOTES:**
1. 16" EXPANDABLE TREE OPENING; .25" SLOT OPENINGS.
 2. SIDEWALK MATERIAL PER PLAN.
 3. WHEN INSTALLED IN A BRICK SIDEWALK, GRATE REQUIRES A FRAME TO BE INSTALLED TO HOLD GRATE IN PLACE.



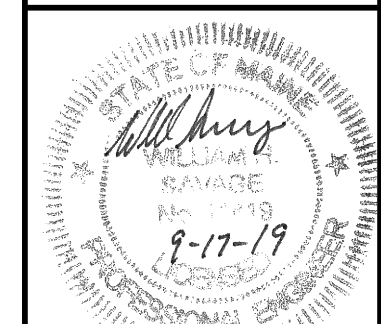
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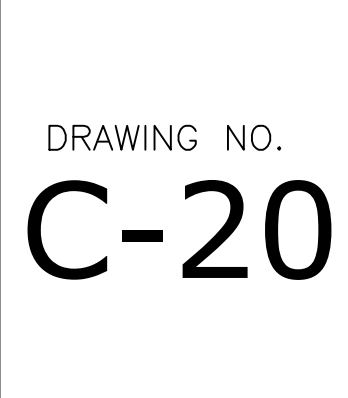


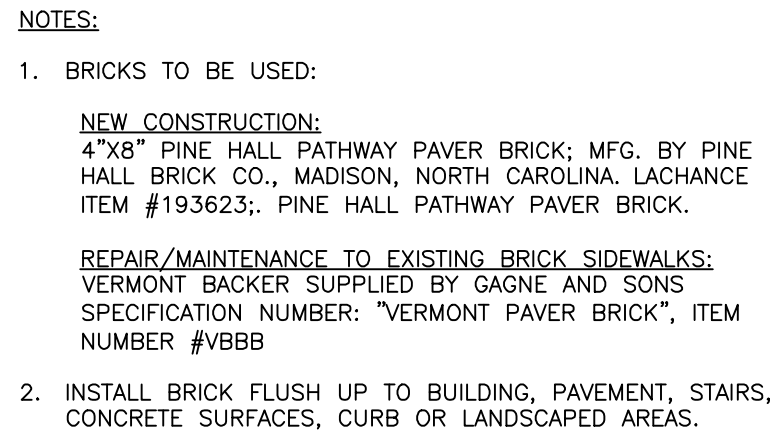
A C O R N
ENGINEERING, INC.

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JN:	1121.1
SCALE:	NTS
DESIGNED BY:	SJL
DRAWN BY:	SJL
CHECKED BY:	WHS



DRAWING NO.
C-42





BRICKS TO BE USED:
NEW CONSTRUCTION:
 4"x8" PINE HALL PATHWAY PAVER BRICK; MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM #193623; PINE HALL PATHWAY PAVER BRICK.

REPAIR/MAINTENANCE TO EXISTING BRICK SIDEWALKS:
 VERMONT PAVER; SUPPLIED BY GAGNE AND SONS.
 SPECIFICATION NUMBER: "VERMONT BACKER BRICK", ITEM NUMBER # VBBB

Diagram Labels:

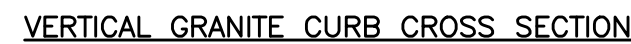
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- REPAIR/MAINTENANCE TO EXISTING BRICK SIDEWALKS
- VERMONT PAVER; SUPPLIED BY GAGNE AND SONS.
- SPECIFICATION NUMBER: "VERMONT BACKER BRICK", ITEM NUMBER # VBBB
- 12" AGGREGATE BASE COURSE, MDOT 703.06 TYPE "B" GRAVEL
- 2" BITUMINOUS PAVEMENT, MDOT 403.09 GRADING "B"
- 1" DRY SAND-CEMENT MIX (6:1) FOR BASE
- 12" BITUMINOUS STRIP
- 1" LIP
- FINISHED STREET GRADE
- COMPACTED SUBGRADE
- WIDTH VARIES PER PLAN
- 12"
- 1.5%
- BRICKS LAID FLAT
- BORDER BRICK COURSE SET IN WET CEMENT MORTAR, OR USE APPROVED EDGE RAIL (TYP).
- CLEAN SAND SWEEP INTO JOINTS
- REFER TO ARCH DRAWINGS
- TENSAR TRIAX TX 140 GEOGRID OR APPROVED ALTERNATE, 9.6'-WIDE STRIP O.C.

Diagram illustrating the cross-section of a road structure with the following layers (from top to bottom):

- SURFACE COURSE MDOT 403.09 GRADE C (12.5MM)
- BINDER COURSE MDOT 403.09 GRADE B (19MM)
- AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B OR A
- AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D
- SUBGRADE

NOTE:
 COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557

CITY OF PORTLAND LOCAL
BITUMINOUS PAVEMENT PROFILE:
STONE ST.
NOT TO SCALE

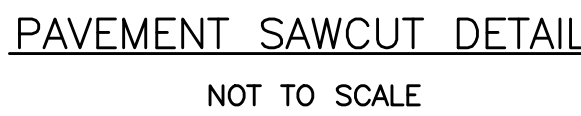


-
- A cross-sectional diagram of a road structure. The layers, from top to bottom, are:
- SURFACE COURSE** MDOT 403.09 GRADE C (12.5MM): Represented by a fine, dense stippled pattern.
 - BINDER COURSE** MDOT 403.09 GRADE B (19MM): Represented by a pattern of horizontal lines.
 - AGGREGATE BASE** GRAVEL MDOT 703.06 TYPE B OR A: Represented by a pattern of small, irregular circles.
 - AGGREGATE SUBBASE** GRAVEL MDOT 703.06 TYPE D: Represented by a pattern of larger, irregular circles.
 - SUBGRADE**: Represented by a pattern of diagonal hatching.
- Each layer is separated by a thin horizontal line, and a small black dot is placed at the interface between each layer. Lines with leader points connect the text labels to their corresponding layers.

- NOTES:
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.

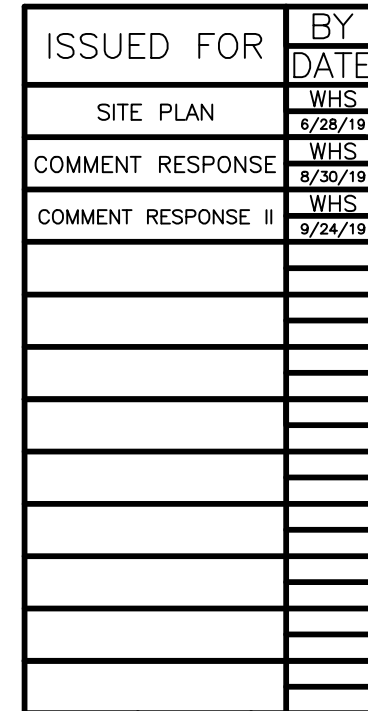
CITY OF PORTLAND ARTERIAL
BITUMINOUS PAVEMENT PROFILE:
CUMBERLAND AVE

NOT TO SCALE



- NOTES:**
1. SAWCUT EXISTING PAVEMENT AND REMOVE 2' STRIP OF EXISTING PAVEMENT. APPLY BITUMINOUS TACK COAT PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
 2. THE NEW PAVEMENT SECTION SHALL MEET THE CITY OF PORTLAND ARTERIAL BITUMINOUS PAVEMENT SECTION DETAIL AT A MINIMUM OR THE THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION



SITE DETAILS - 1

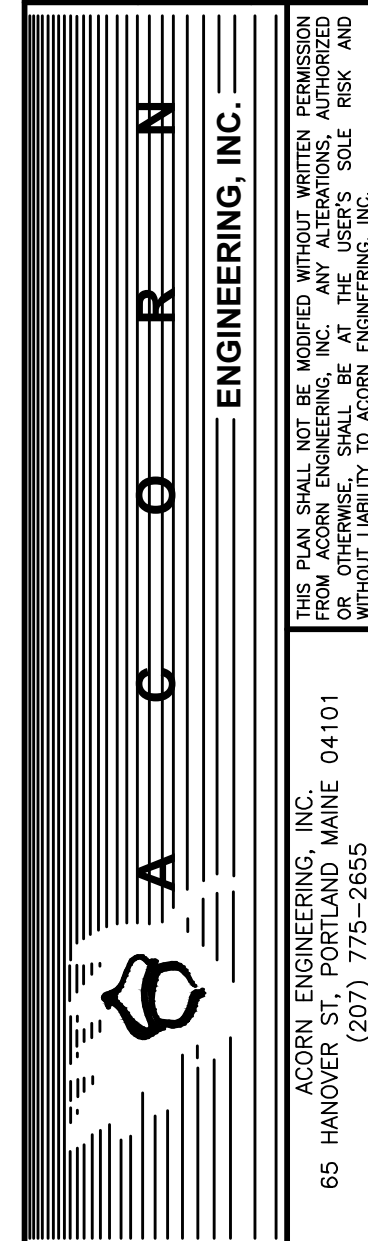
263 CUMBERLAND REDEVELOPMENT

DOWNTOWN LODGING, LLC
55 WASHINGTON AVE. PORTLAND, ME 04101

DRAWING NAME:

PROJECT NAME:

CLIENT:



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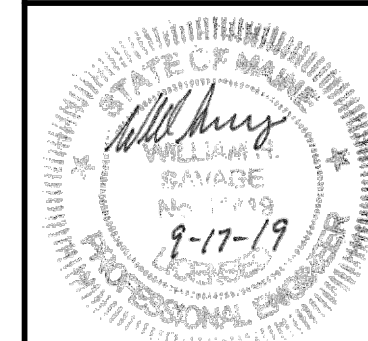
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SCALE: NTS

DESIGNED BY: SJL

DRAWN BY: SJL

CHECKED BY: WHS

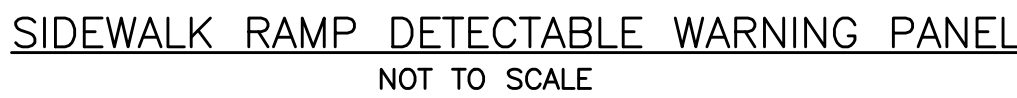


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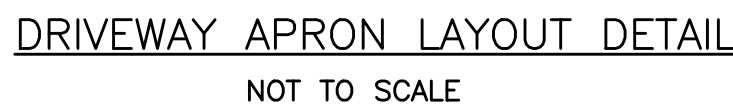
C-40

1. ALL DETECTABLE WARNING PLATES SHALL BE UNCOATED CAST IRON. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS B STRUCTURE CONCRETE MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.
3. TRUNCATED DOME SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.

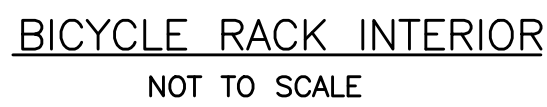
4. SIZE: THE DETECTABLE WARNING PLATES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.
5. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FORM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.



1. REFER TO GRADING & DRAINAGE PLAN FOR SITE GRADING.
2. REFER TO CONCRETE SIDEWALK DETAIL FOR PROFILE.
3. MATCH EXISTING GRADE AT R.O.W. LINE.
4. IF MATCHING THE EXISTING GRADE AT R.O.W. CAUSES APRON SLOPE TO EXCEED RECOMMENDED %, SIDEWALK TRANSITION AREA MAY BE ADDED, BUT SHALL NOT EXCEED 8.33%.



1. FINAL LOCATION OF INTERIOR BICYCLE RACKS SHALL CONFORM TO ALL ARCHITECTURAL DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER AND ARCHITECT WITH ANY DISCREPANCIES.
2. BICYCLE MOUNT SHALL BE ULTRA SPACE SAVER AS MANUFACTURED BY DERO, OR APPROVED EQUAL.
3. BICYCLES SHALL BE WALL MOUNTED OR FLOOR MOUNTED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

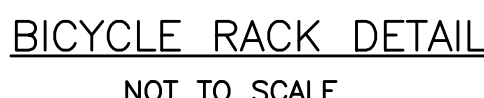


PENINSULA MEDIUM STREETLIGHT
NOT TO SCALE

2. CEMENT: TYPE III PER ASTM C150-81
3. LIGHT POLE BASE SHALL BE AS SUPPLIED
BY GEORGE R. ROBERTS CO., OR
APPROVED EQUAL
4. DIAMETER TBD BASED UPON THE
MANUFACTURER'S RECOMMENDATION.



1. BICYCLE RACK SHALL HAVE CAPACITY FOR TWO BICYCLES.
2. BICYCLE RACK PARTS SHALL BE OF UNIFORM COLOR AND SHALL BE FINISHED IN ACCORDANCE WITH PRODUCT SPECIFICATION. PARTS SHALL MEET ALL APPLICABLE AND TECHNICAL STANDARDS ALL BICYCLE RACKS WITHIN THE RIGHT-OF-WAY SHALL MATCH THE FURNITURE COLOR AND FINISH AS DESCRIBED IN THE MUNICIPAL LIGHTING STANDARDS. IF NO DESIGNATED COLOR FOR THAT AREA EXISTS, BICYCLE RACKS SHALL BE BLACK.
3. BICYCLE RACK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S MOST RECENT INSTALLATION RECOMMENDATIONS, AND SHALL BE INSTALLED WITH AN IN-GROUND MOUNT UNLESS OTHERWISE APPROVED BY ENGINEER.
4. BICYCLE RACK SHALL BE "DERO BIKE HITCH", AS MANUFACTURED BY DERO BIKE RACKS.
5. MINIMUM OFFSETS SHOWN. MANUFACTURER'S RECOMMENDED OFFSETS SHALL BE ENFORCED WHERE POSSIBLE.
6. MINIMUM DISTANCE BETWEEN BICYCLE RACKS SHALL BE 24". RECOMMENDED DISTANCE BETWEEN BICYCLE RACKS SHALL BE 36".
7. ALL OFFSETS ARE FROM OUTSIDE EDGES OF ITEMS.
8. CONCRETE SHALL BE 4000 PSI @28 DAYS. BOTTOM OF CONCRETE SHALL BE AT TOP OF SIDEWALK GRAVEL ELEVATION. DEPTH VARIES APPROX. 4"-7".
9. GRAVEL LAYER SHALL BE INSTALLED IN ACCORDANCE WITH BRICK SIDEWALK WITH BITUMINOUS BASE DETAIL, AND SHALL BE MAINTAINED 703 OR TYPE.
10. TOP OF BRICK LAYER SHALL BE AT SAME ELEVATION IN ACCORDANCE WITH BRICK SIDEWALK DETAIL.



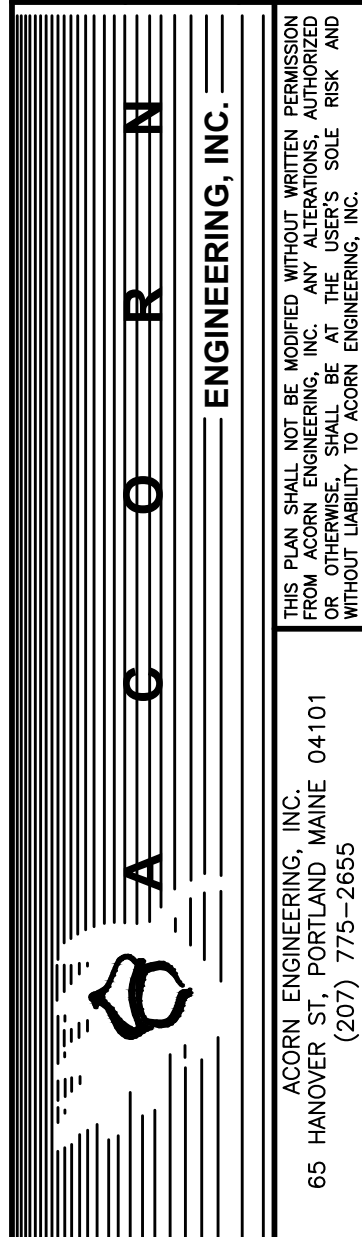
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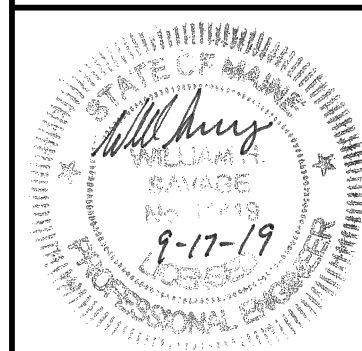
DOWNTOWN LODGING, LLC

PROJECT NAME:

CLIENT:



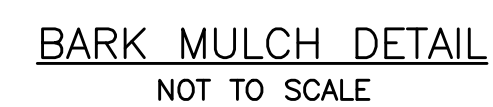
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JN:	1121.1
SCALE:	NTS
DESIGNED BY:	SJL
DRAWN BY:	SJL
CHECKED BY:	WHS



DRAWING NO.

C-41

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. TOPSOIL BACKFILL SHALL BE NATURAL FRAGILE, FERTILE, FINE LOAMY SOIL POSSESSING 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. NO LESS THAN 1% NOR MORE THAN 10% HUMUS.
3. CONTAINER GROWN STOCK - REMOVE CONTAINER PROTECTING THE ROOT BALL. GENTLY COMB OUT THE ROOTS. PRUNE DAMAGED ROOTS.
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 BALLED PLANTS. BACKFILL TO FINISH GRADE AND CREATE AN EARTHEN SAUCER. SOAK PLANTS TWICE WITHIN THE FIRST TWENTY-FOUR HOURS OF PLANTING.



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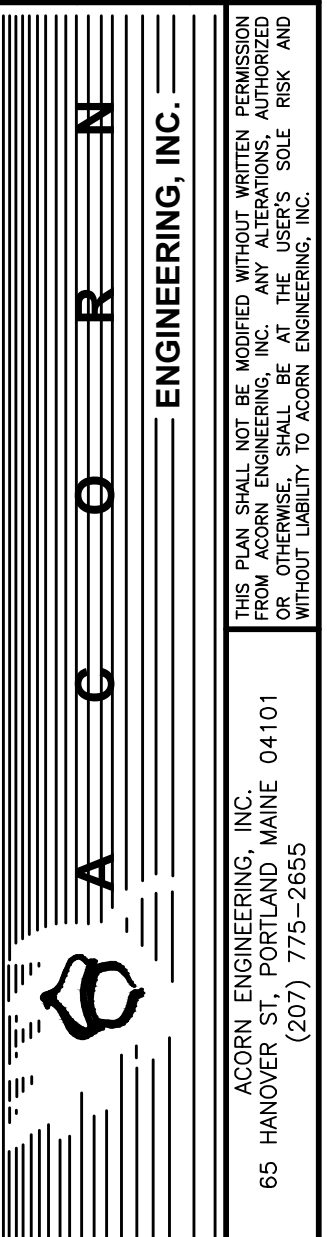
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LANDSCAPING DETAILS

263 CUMBERLAND REDEVELOPMENT

DOWNTOWN LODGING, LLC
55 WASHINGTON AVE, PORTLAND, ME 04101



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1121.1

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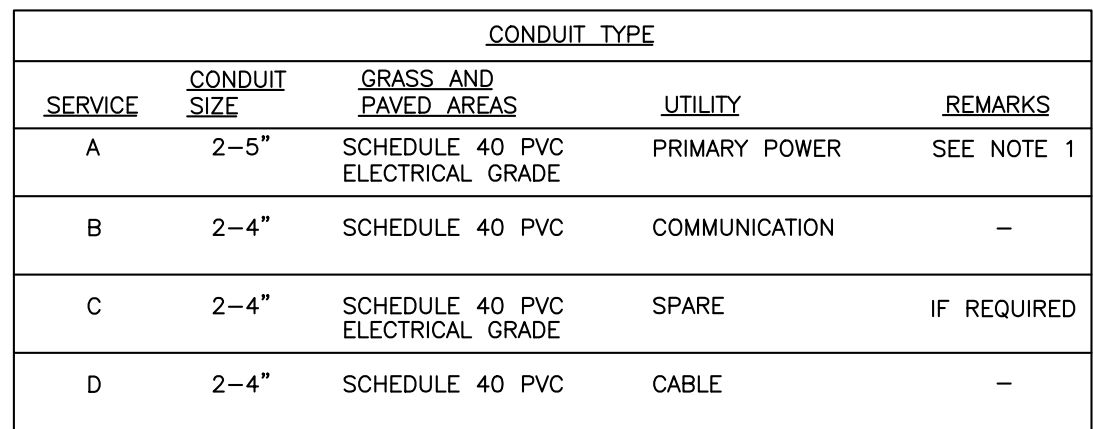
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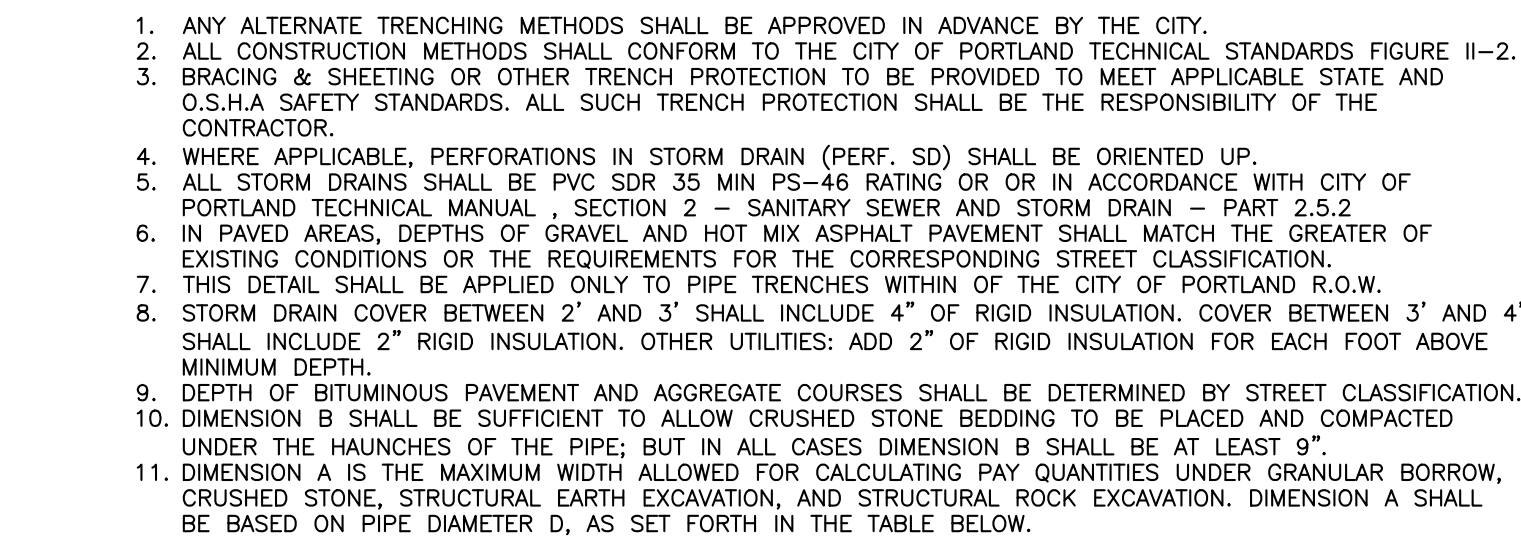
DRAWING NO.

C-42



1. ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10" ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.
2. MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.
3. CONDUITS WITHIN THE CITY RIGHT-OF-WAY SHALL BE ENCASED IN CONCRETE.

TELEPHONE, AND CABLE



NOT TO SCALE



NOT TO SCALE

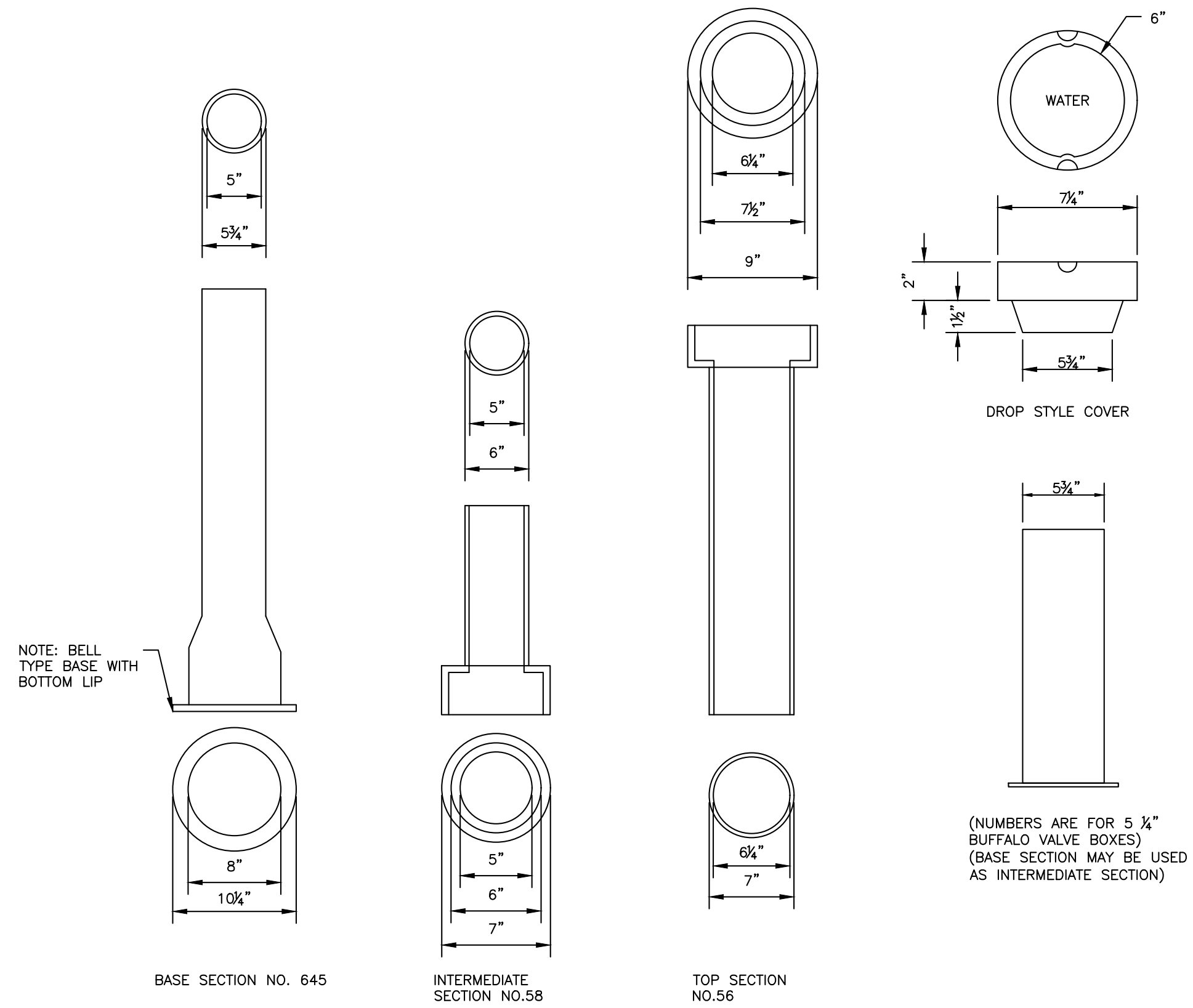


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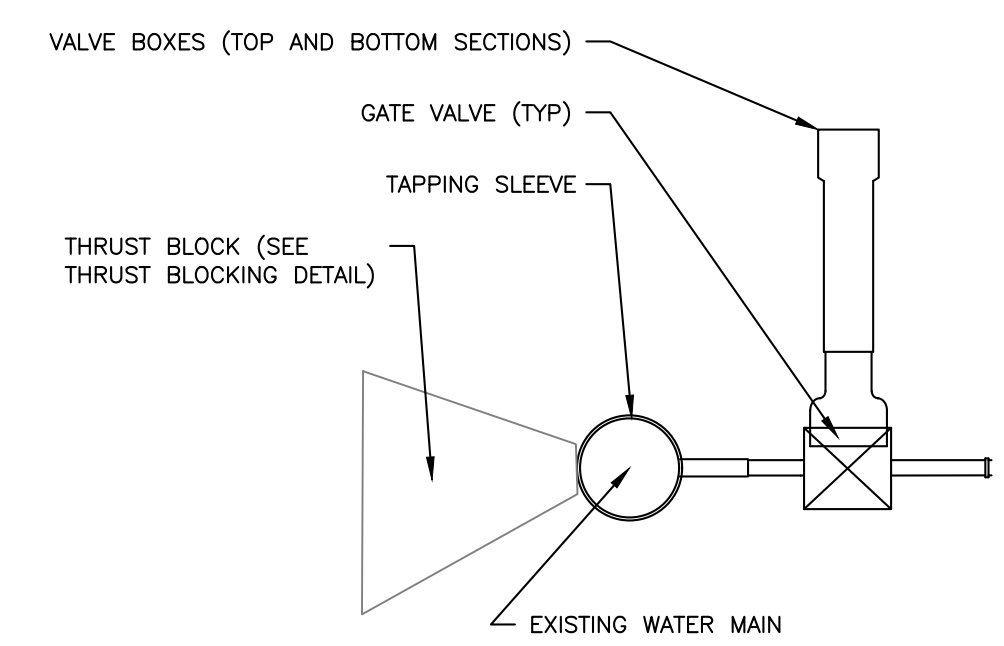


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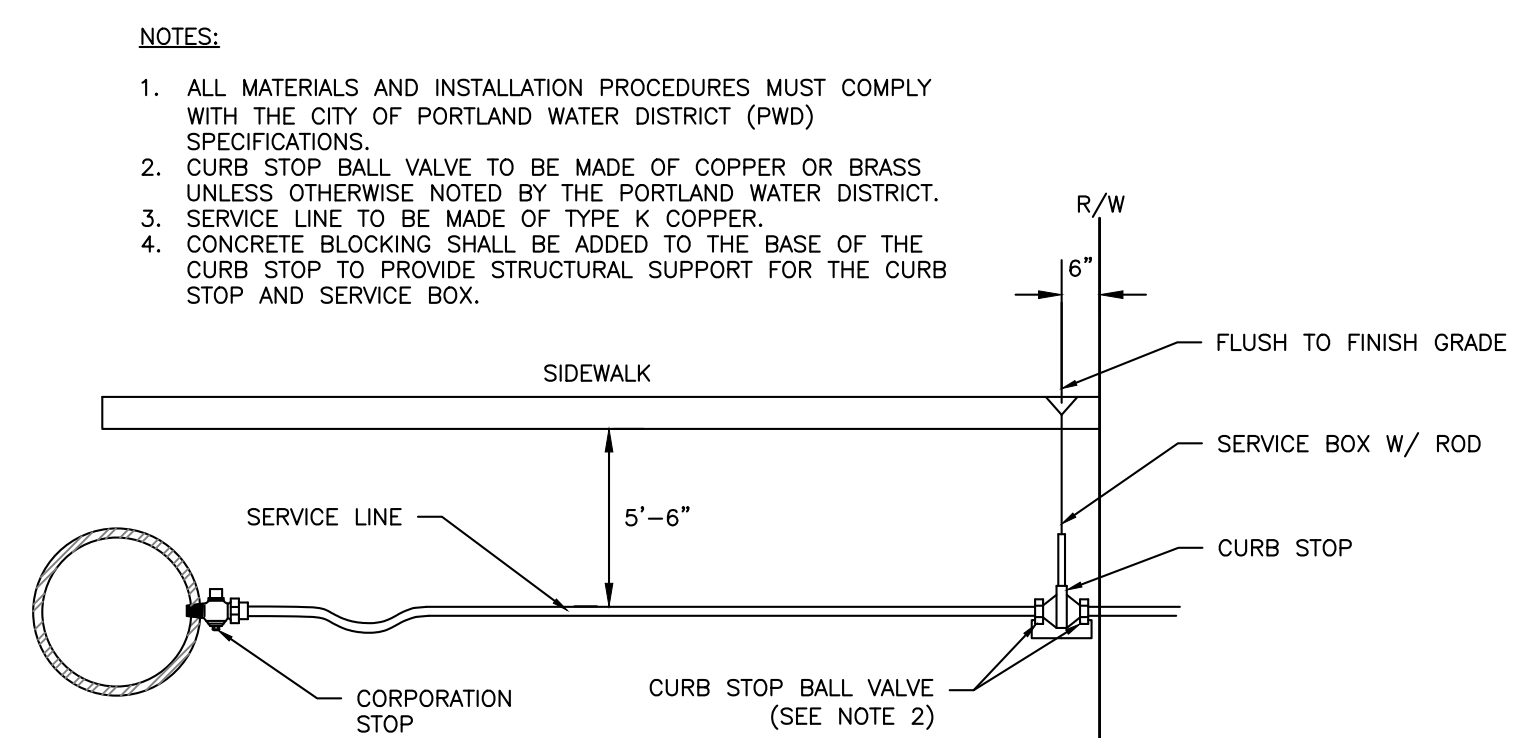
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NOT ISSUED FOR
CONSTRUCTION



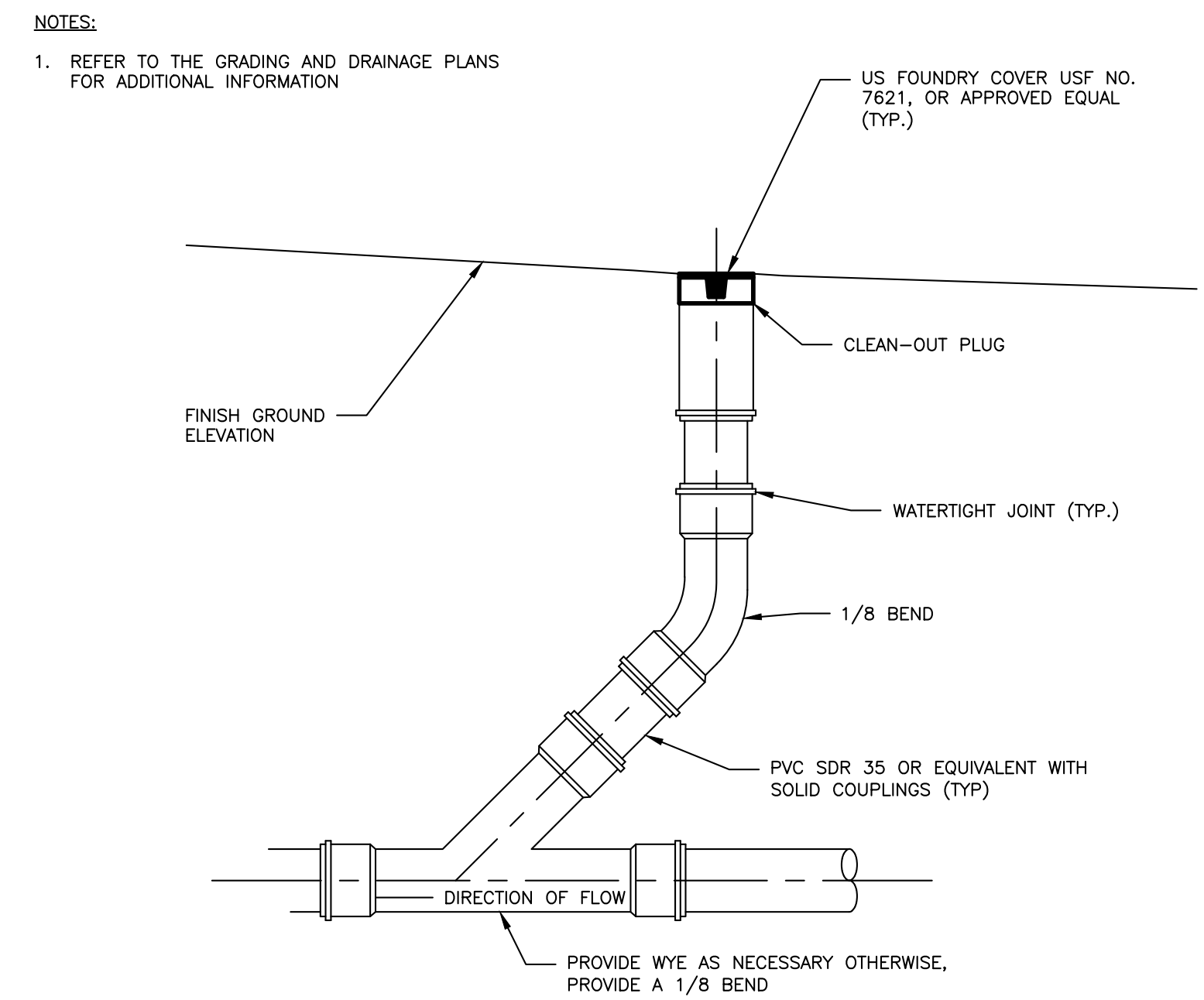
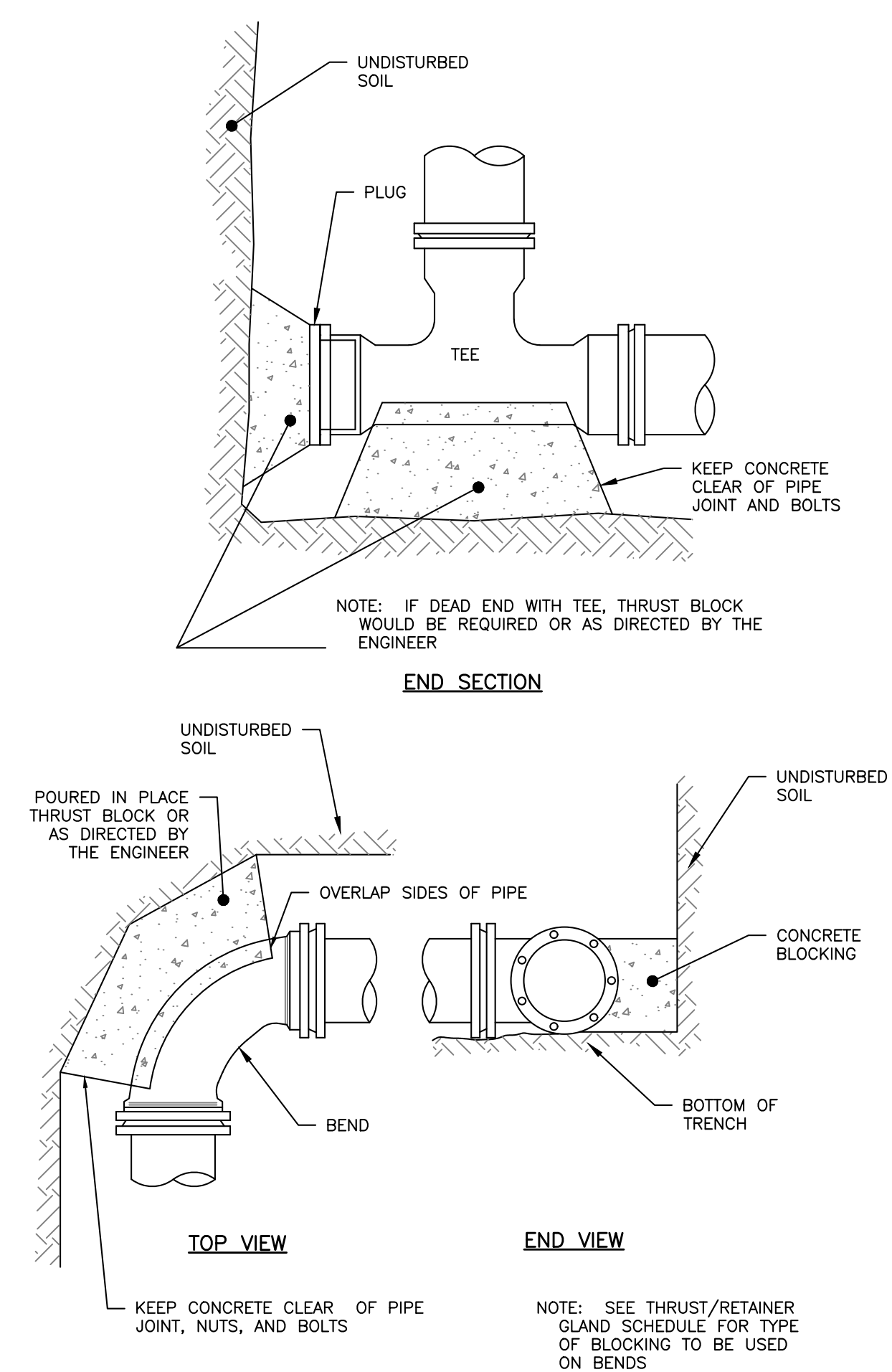
VALVE BOX & COVER
NOT TO SCALE



SIDE VIEW
TAPPING SLEEVE AND VALVE
NOT TO SCALE



TYPICAL SERVICE CONNECTION
NOT TO SCALE



CLEANOUT DETAIL
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
SITE PLAN	DATE
COMMENT RESPONSE	WHS
COMMENT RESPONSE	9/28/19
COMMENT RESPONSE	9/29/19
COMMENT RESPONSE	WHS
COMMENT RESPONSE	9/24/19
UTILITY DETAILS - 2	
PROJECT NAME: 263 CUMBERLAND REDEVELOPMENT	
CLIENT: DOWNTOWN LODGING, LLC	
55 WASHINGTON AVE, PORTLAND, ME 04101	
DRAWING NO. C-44	

ACORN ENGINEERING, INC.

65 HANOVER ST. PORTLAND MAINE 04101

(207) 775-2655

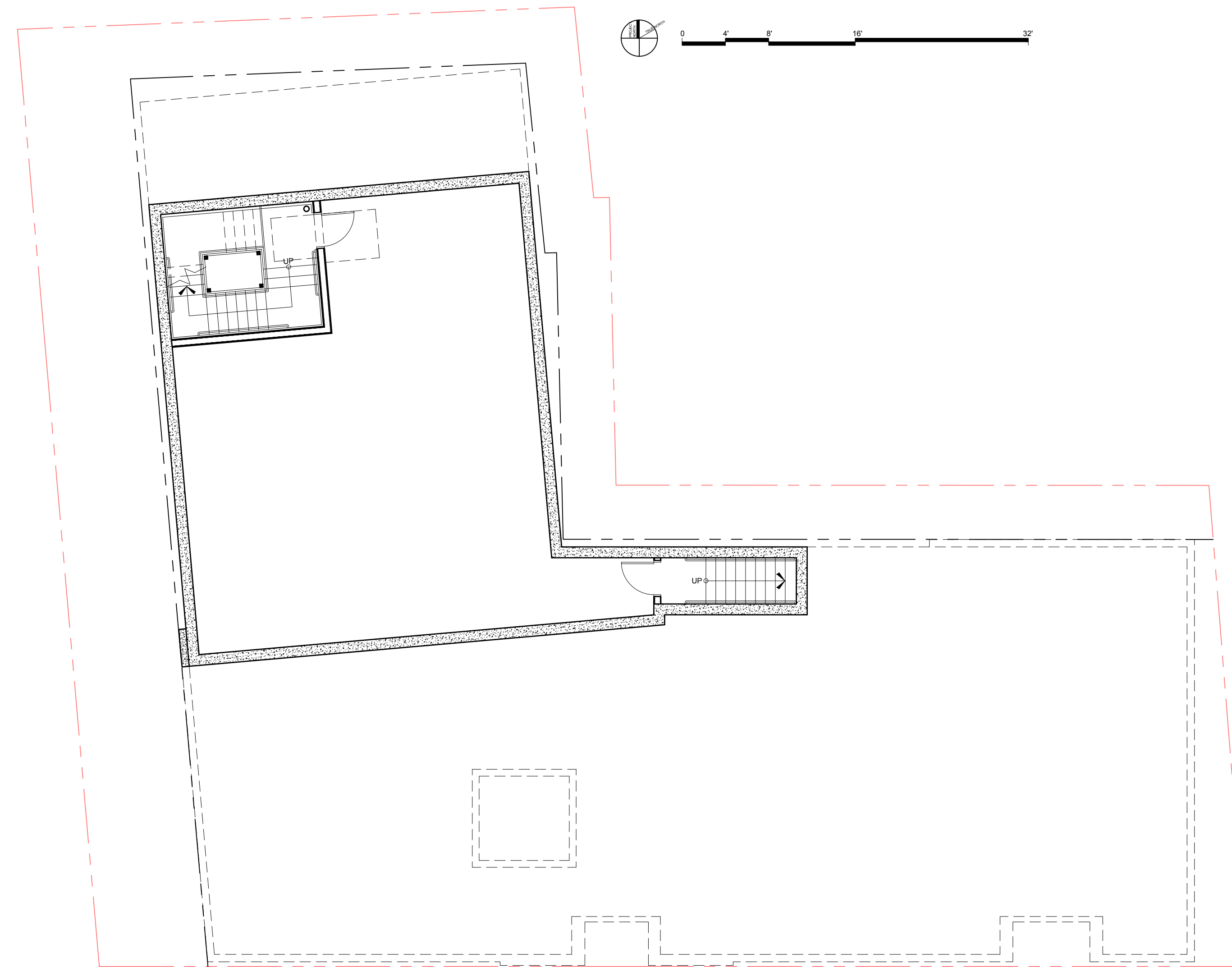
STATE OF MAINE

9-17-19

PROFESSIONAL ENGINEER

263 CUMBERLAND AVENUE PORTLAND, MAINE

OCTOBER 2, 2019

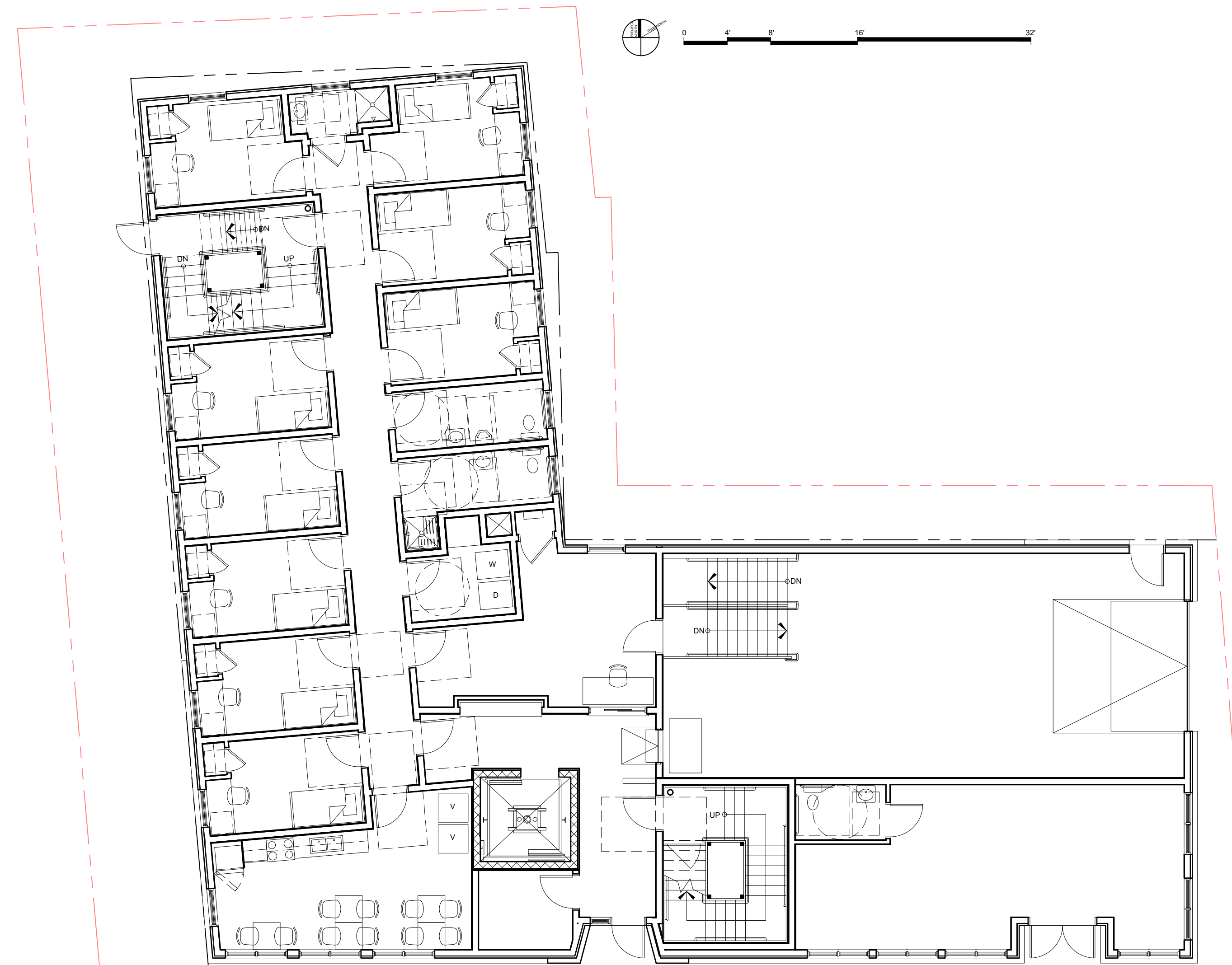


1 BASEMENT CONCEPT PLAN
1/8" = 1'-0"

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263 CUMBERLAND AVENUE PORTLAND, MAINE

OCTOBER 2, 2019



1 FIRST FLOOR CONCEPT PLAN
1/8" = 1'-0"

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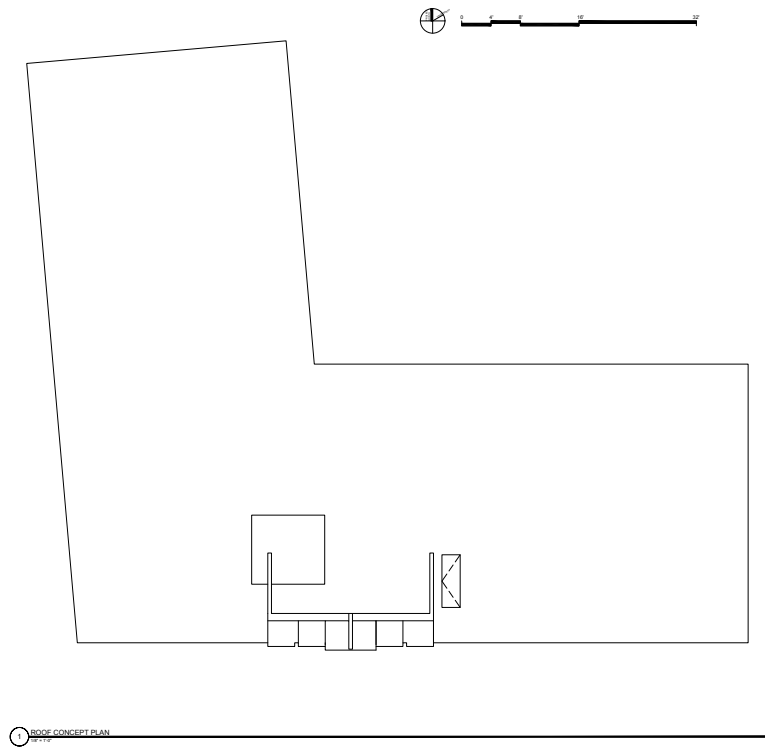


1 SECOND FLOOR CONCEPT PLAN (THIRD THRU FIFTH FLOOR PLANS SIMILAR)
1/8" = 1'-0"

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263 CUMBERLAND AVENUE
PORTLAND, MAINE

SEPTEMBER 4, 2019



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RYAN SENATORE ARCHITECTURE

263 CUMBERLAND AVENUE
PORTLAND, MAINE

MATERIAL FINISH SCHEDULE					
#	PRODUCT	COLOR / FINISH	MANUFACTURER	FINISH / SIZE	MATERIAL TYPE
1	METAL SIDING AND TRIM	ENGLERT (SLATE GRAY)	TBD	6" EXPOSURE - HIDDEN FASTENERS	PRE-FINISHED METAL
2	METAL TRIM	"SILVER METALLIC"	TBD	TBD	PRE-FINISHED METAL
3	HARDIE BOARD	TBD "DARK GRAY"	JAMES HARDIE	PRE-FINISHED	FIBER CEMENT PANEL
4	HARDIE BOARD	TBD "RED"	JAMES HARDIE	PRE-FINISHED	FIBER CEMENT PANEL
5	WINDOW	TBD "BLACK"	TBD	PRE-FINISHED	TBD
6	BRICK	BLACK DIAMOND VELOUR	BELDEN BRICK	TBD	EXTERIOR BRICK

OCTOBER 2, 2019



263 CUMBERLAND AVENUE
PORTLAND, MAINE

OCTOBER 2, 2019

MATERIAL FINISH SCHEDULE					
#	PRODUCT	COLOR / FINISH	MANUFACTURER	FINISH / SIZE	MATERIAL TYPE
1	METAL SIDING AND TRIM	ENGLERT (SLATE GRAY)	TBD	6" EXPOSURE - HIDDEN FASTENERS	PRE-FINISHED METAL
2	METAL TRIM	"SILVER METALLIC"	TBD	TBD	PRE-FINISHED METAL
3	HARDIE BOARD	TBD "DARK GRAY"	JAMES HARDIE	PRE-FINISHED	FIBER CEMENT PANEL
4	HARDIE BOARD	TBD "RED"	JAMES HARDIE	PRE-FINISHED	FIBER CEMENT PANEL
5	WINDOW	TBD "BLACK"	TBD	PRE-FINISHED	TBD
6	BRICK	BLACK DIAMOND VELOUR	BELDEN BRICK	TBD	EXTERIOR BRICK



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263 CUMBERLAND AVENUE
PORTLAND, MAINE

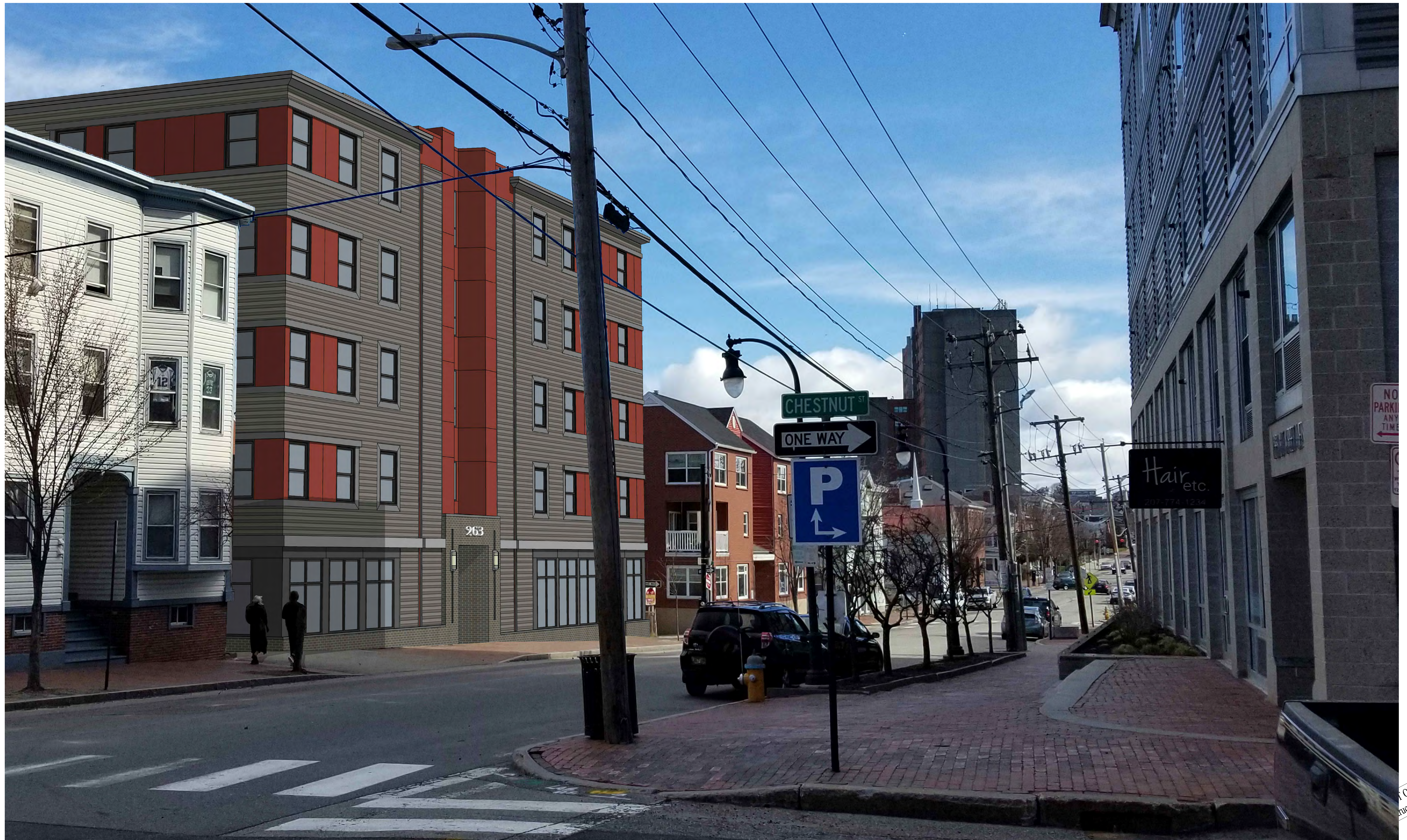
OCTOBER 2, 2019



1 VIEW LOOKING NORTH EAST ON CUMBERLAND AVE

263 CUMBERLAND AVENUE
PORTLAND, MAINE

OCTOBER 2, 2019



1 VIEW LOOKING NORTH ON CUMBERLAND AVE

RYAN SENATORE ARCHITECTURE

263 CUMBERLAND AVENUE PORTLAND, MAINE

OCTOBER 2, 2019



1 VIEW LOOKING WEST ON CUMBERLAND AVE

263 CUMBERLAND AVENUE
PORTLAND, MAINE

OCTOBER 2, 2019



1 VIEW LOOKING WEST FROM ADJACENT PARKING LOT

263 CUMBERLAND AVENUE
PORTLAND, MAINE

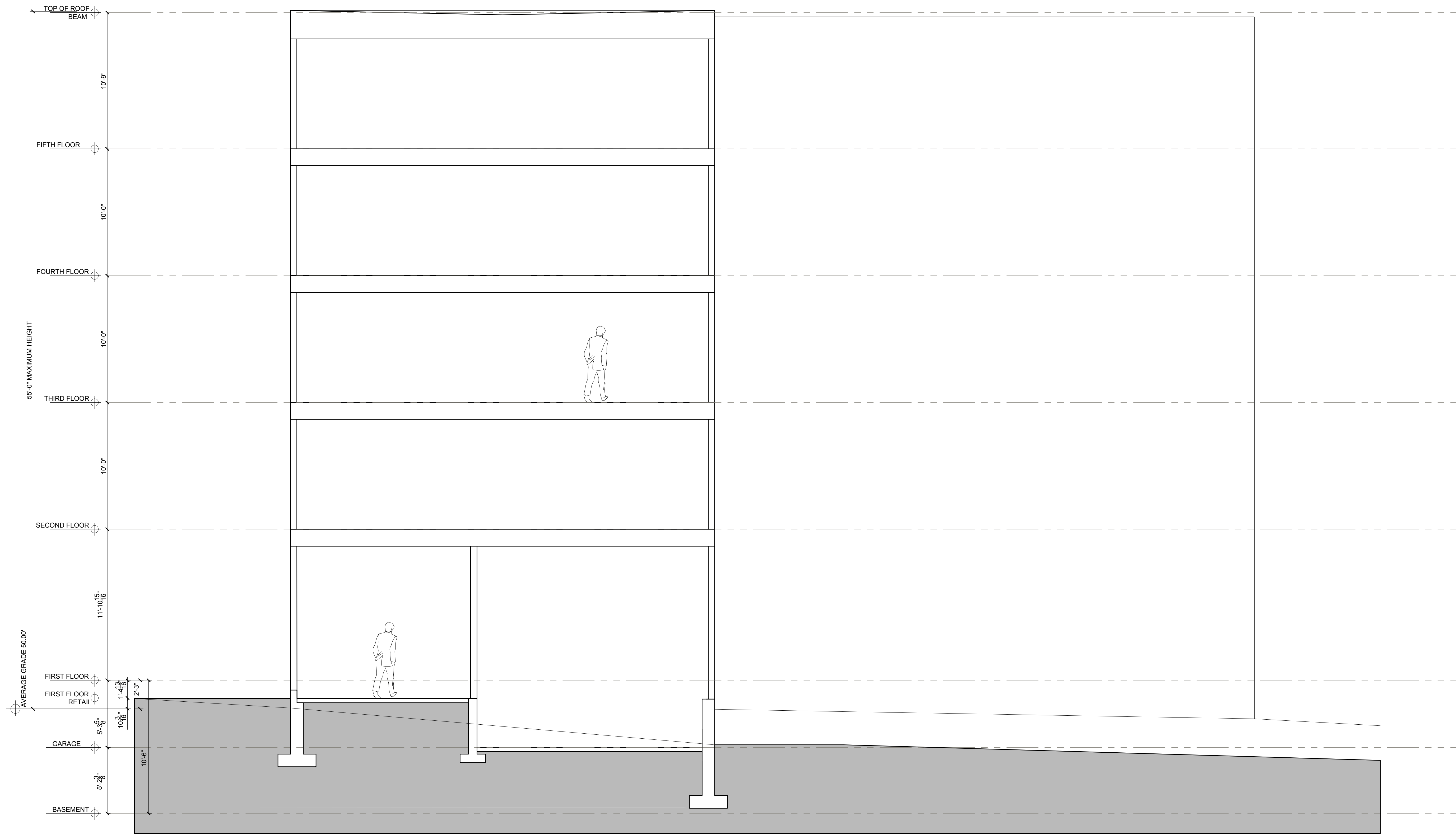
OCTOBER 2, 2019



1 VIEW LOOKING SOUTH ON STONE STREET

263 CUMBERLAND AVENUE
PORTLAND, MAINE

OCTOBER 2, 2019



2 CONCEPTUAL SECTION
1/4" = 1'-0"

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263 CUMBERLAND AVENUE
PORTLAND, MAINE

OCTOBER 2, 2019

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263 CUMBERLAND AVENUE
PORTLAND, MAINE

OCTOBER 2, 2019

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263 CUMBERLAND AVENUE
PORTLAND, MAINE

OCTOBER 2, 2019

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263 CUMBERLAND AVENUE
PORTLAND, MAINE

OCTOBER 2, 2019

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263 CUMBERLAND AVENUE
PORTLAND, MAINE

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OCTOBER 2, 2019



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