Sustainability& Transportation Committee Agenda

October 8, 2025 at 5:00 PM

MEMBERS
Councilor Regina Phillips, Chair
Councilor Pious Ali, At-Large
Councilor Anna Bullett, District 4

The Sustainability and Transportation Committee will conduct this meeting remotely via Zoom. Allow your computer to install the free Zoom app to get the best meeting experience. If you are not able to attend live either in person or via Zoom, a recording will be available in the Agenda Center following the meeting.

For public comment via Zoom, you will need to use the "raise your hand" feature. To raise your hand via the telephone, please hit *9. You will be unmuted by the host when it is time for public comment.

https://portlandmaine-gov.zoom.us/j/89952567500?pwd=zLf7HunTyswwcokWAwAlXBHcv0WNXl.1

1. Review and approve minutes from September 10

   a. Minutes from September 10, 2025

2. Sustainability Program Updates

   a. Sustainability Program Updates

3. Presentation and Discussion
   Public comment may be taken

   a. Resolution supporting collaboration between the Gulf of Maine Research Institute and the City of Portland to build coastal resilience and support the marine economy
   Presenters: Troy Moon and David Reidmiller, Chief Impact Officer at GMRI
   Public comment will be taken

   b. Amendments to Chapter 28 - Traffic and Motor Vehicles (Section 28-51) regarding snow ban parking regulations

Presenters: Tony Wirkus and Mike Murray
Public comment will be taken

c. Amtrak Downeaster Station Location
Presenters: Greg Jordan, Kevin Kraft, and Patricia Quinn, Executive Director of NNEPRA
Public comment will be taken

4. Other Business

CITY OF PORTLAND, MAINE
Committee on Sustainability and Transportation
Councilor Regina Phillips (D3), Chair
Councilor Pious Ali (At-Large)
Councilor Anna Bullett (D4)

Draft Minutes September 9, 2025
Members Present: Councilor Phillips, Councilor Ali, Councilor Michniewicz, Councilor Pelletier
Staff Present: Troy Moon, Katie Tims, Greg Jordan, Dena Libner, Masi Ngidi-Brown, Paul Bradbury, Tony Wirkus, Michael Murray, Michael Goldman, Rachell Millette, Ethan Hipple

Meeting was called to order.

July 9, 2025 Meeting Minutes
The July 9, 2025 meeting minutes were approved unanimously.

Sustainability Updates
Presented by Troy Moon and Katie Tims, Sustainability Office
Sustainable Neighborhoods Program issued community mini grant awards to build social resilience and improve social connectivity through collaboration on projects. The office received over 40 applications and will update more as they unfold. Encourage the use of block party and community cleanup kits.

The office also received a grant from Maine DEP to improve our community composting program and build kiosks.

Transportation Updates
Presented by Mike Murrary and
Franklin St Revisioning conducted public outreach over the summer and held a pop-up tabling event at the East Bayside Block pArty in June. Coordinating with the consultant and Maine DOT to develop and define preferred alternatives and plan.

Libbytown Safety & Accessibility Project working to achieve PDR status to allow it to go out for bid once a suitable funding source is found.

Brighton Ave improvements continue to work with MDOT to determine the best plan and then will proceed to the PDR stage.

A few Forest Avenue projects underway: marginal way project is led by Maine DOT, Bedford St to Woodford St is a conceptual plan to focus on the road diet that will include a temporary striping plan & lead to full implementation when funding becomes available.

The State and High two way conversion is led by Maine DOT, which is in the process of receiving the appropriate BikePed design which is being coordinated with the Forest Ave and York St project.

Union Branch Connector Pathways - the phase 1 bid is out for construction, expected Spring of 2026 construction will begin.

Completed the RFP and scope of work for the Comprehensive Transportation Plan has been submitted to the purchasing department for approval. Expected to put out the RFP this fall.

Adopting a naming policy for public facilities

Presented by Masi Ngidi-Brown

Interim JDEI Director, Masi Ngidi-Brown presented the name and renaming policy concept proposal that will formalize the City of Portland's naming/renaming of City assets process and develop a policy. Ngdi-Brown reviewed each section of the draft Ordinance Chapter 25 - Naming CIty Assets, which will create a more formal and rigorous process that broadens inclusion, widens community engagement, improves transparency, and effectively aids the City Council in making decisions to name/rename City streets, parks, facilities, and other public places. The article is intended to establish a clear and consistent framework for the naming and renaming of the City's public spaces, streets, buildings, and other landmarks and assets owned by the City.

Public comment on adopting a naming policy for public facilities

A resident praised the work of the interim JDEI Director on their work and hopes the JDEI office can hire the position permanently. They also said they hope the office can focus on more substantive work beyond this issue in the future.

Carter Waldron, a Portland resident, said this naming policy is terrific and it is important work and appreciated the thoughtful presentation.

Councilor Comments on adopting a naming policy for public facilities

Councilor Michniewicz asked if this applies to all city assets, including generically named ones?

Masi Ngidi-Brown answered that it is not to look at what we currently have. It is a tool to use to guide decisions about naming future city assets.

Corporation counsel, Rachel Millette seconded Masi Ngidi-Brown's comment and said that this does not apply to city assets already named and that they would have to go through the renaming process if so.

Councilor Ali liked the ordinance and said it has a lot of community engagement in it. He asked how did you come to the thousand signatures?

Masi Ngidi-Brown shared that the general number for other municipalities for petitions is 500 signatures. They chose a thousand signatures to encourage people to be very thoughtful and

intentional about the impactful decision to rename a city asset. It is not a fixed number - it can be changed based on the guidance of the council.

Councilor Phillips asked why the fire chief is in the naming committee. Why not the police chief?

Assistant City Manager, Dena Libner, answered that it is to ensure emergency responders are not confused by duplicate names or similar to other existing names.

Councilor Phillips noted that the City manager can designate two people to the committee. Phillips asked why the JDEI Director would not be on the naming committee, especially since we want to focus on equity in the naming policy? Also, Councilor Phillips asked why they would not put community members on the actual committee. Was it because there would be a lot of community engagement done?

Corporate counsel, Rachel Millette, answered the first question that in most cases the City Manager would select the JDEI Director and the appropriate Assistant City Manager that oversees the department responsible for the city asset. Those responsibilities and job descriptions can all change (in the event the job titles changed) so they would not have to update the ordinance in the event of that.

Assistant City Manager, Dena Libner, answered that this is more of an administrative process. THe real substantive community engagement is expected to happen at S&T. In the event of a renaming there would be very active solicitation of community ideas and make the process as accessible as possible.

Councilor Ali asked, is there a process of appealing?

Corporate counsel, Rachel Millette, answered there is no appeal process and that the naming committee would move forward 3 names to the Sustainability & Transportation Committee, which they would then move forward 1 name to the City Council. The City Council could choose to pick a different name or go back to a different option or a brand new name at that time.

Councilor Ali asked, does there always need to be 3 names provided?

Corporate counsel, Rachel Millette, answered that once the naming committee has convened there will be a solicitation to the public for additional names for that street as well. The naming committee will review any names received and may recommend up to 3. They may choose to only put forward one recommended name to the S&T committee.

Councilor Phillips thinks a thousand names is too many to require and noted that to be on the council they only need 75 names on the petition. Councilor Phillips would like to leave it five hundred names.

Dena Libner said the staff perspective is not married to the thousand number and wants to defer to what the committee recommends.

Councilor Ali asked how often do people bring something to be named? Do we have any data if it is other councilors or community members? If it was as high as one every month, he would want to keep it at a thousand.

Dena Libner says if the majority of the committee recommends reducing it to 500, they can amend the ordinance before it goes to City Council. She agrees with Councilor Ali that it does not happen that often.

Councilor Phillips asked if the naming committee will be managed and staffed by the Sustainability Office? Who is presenting the naming committee's work to the S&T committee?

Dena Libner answered that the chair of the naming committee would present it to the S&T committee.

Motion to approve adopting a naming policy for public facilities
The motion was moved by Councilor Ali and seconded by Councilor Phillips.
The motion was accepted unanimously and will move forward to full City Council.

Update on Vision Zero
Presented by Assistant City Manager, Greg Jordan
Assistant City Manager, Geg Jordan provided a quick update on the Vision Zero progress. They developed the Vision Zero Quick Action Plan and will have a more substantive update in the October/November meeting as they are still in quarter 1. The council approved and revised the City's Complete Streets policy last month.

Planning staff are now thinking about the process for redesigning the technical manual and have made progress on the Comprehensive Transportation Plan (scope of work for consultant assistance completed).

Councilor Comments on Vision Zero Update
No comments made.

Snow ban parking policy
Presented by Greg Jordan, Tony Wirkus, and Mike Murray
Assistant City Manager, Greg Jordan, noted that if that council has an interest in moving the snow ban parking policy forward that would mean an ordinance change and it would be revisited again in October for public comment and action before moving it to council.

Parking Director, Tony Wirkus, presented on the staff proposal to increase the fine for failing to move a vehicle during a winter storm parking ban. The goal of the change is to increase compliance and improve the speed and efficiency of snow removal from city streets.

Wirkus clarified that the city operated impound lot at Ocean Gateway will not be available due to construction of the Portland Harbor Common Park, which means that the way this has been handled in the past is not an option with the main lot no longer available.

Wirkus noted that there is currently a lack of compliance due to the small fine and limited towing. If a vehicle is in violation of the emergency parking ban and is towed, the total cost to reclaim the vehicle within 24 hours is $210. If a vehicle is in violation of the ban and not towed, but the owner is cited, the fee is $40. Currently, there is a significant lack of compliance with the parking ban due to low fines and the relatively small degree of towing. There is not enough time and resources to equitably enforce the ban as it's not possible to tow every vehicle. The disparity of enforcement due to these limiting factors impedes the ability of the Public Works Department to clear the roads and makes the city less accessible to first responders and residents.

In order to gain additional compliance, staff propose to increase the citation fee from $40 to $175. If a vehicle is towed to a private operator's lot during snow ban hours, the citation fee will be reduced by $135, which would result in a more equitable penalty for lack of compliance with the existing ordinance.

Wirkus noted this proposed change is not about generating revenue it is about compliance and to improve accessibility across the entire city. In addition to increasing the citation, staff propose adding an approved snow ban parking locations in the areas below:
- Baxter Blvd - Coveside between Preble St. Ext. and Bates St
- Eastern Promenade - Extend closer to Major Charles Loring Memorial Park
- St. James - Odd side next to park
- Douglass St. - Odd side next to park
- Rainbow Mall Road - Next to the woods

Subject to City Council approval of the parking fine amount, staff will develop a communication plan to educate residents and visitors about the change through existing digital assets, fliers, and other means identified at a future date.

At this stage, this item is for information and discussion. Subject to committee input, staff recommends placing this item on the Committee's October agenda for public comment and action by the Committee to recommend approval of the parking fine increase by the City Council.

Director of Public Works, Mike Murray, shared that in the past, during the average snowstorm with the snow ban that the tow operators are averaging around 100 cars getting towed and about 400-500 cars that do not get towed and receive the $40 fine. This proposal will encourage moving your car to a snow ban lot and actually clear the roads of cars, which makes it very tight for the equipment to go through and can require them to return and post the streets. The current program is only capturing a fraction of the cars being left out on the streets.

Assistant City Manager, Greg Jordan, emphasized the main focus of this is for citywide accessibility and getting the snow cleared in an effective, timely manner. He understands the fine is a large increase, but it is not to increase revenue. It is to increase accessibility and safety of clearing snow from the streets.

Councilor comments Snow ban parking policy
Councilor Ali worked to increase the towing fee less than five years ago. He asked, is this increase just for snow ban?

Wirkus answered it does not impact the fee paid to tow operators. This is a citation from the City.

Councilor Ali asked if residents can prove that their car broke down due to cold weather and cannot be moved would they still pay the fine?

Wirkus answered that it would follow the normal appeal process and the resident can start by appealing it to the staff and explain the circumstances and provide photo documentation. It could also be escalated to a court summons if needed.

Councilor Pelletier said that this is a great idea and wants staff to continue to pursue this.

Councilor Michniewicz thanked staff for working on this and said this ties into the work we are doing for Vision Zero in keeping the city streets safe and accessible.

Councilor Phillips noted that many people are not in compliance due to there being no available parking spaces. This is 100% about education and find a spot and figure out how to get home. To incentivise someone by increasing fees seems like an oxymoron. However, she does understand that there is a need to clear the streets of cars. Councilor Phillips asked how many additional spots that would provide if they open it up to more snow ban lots?

Tony Wirkus does not know the exact number of spaces, but noted a mile and half of Baxter Boulevard would be opening up.

Councilor Pelletier shared it is important to emphasize this would make it easier to find a parking spot during a snow ban.

The committee is open to hearing about this again in October, especially learning more about the communications plan and concrete info about the additional spaces that will be made available and proceed from there.

Approval of funds for Jetport parking expansion
Presented by Jetport Director, Paul Bradbury

Jetport Director, Paul Bradbury, reviewed the proposed Portland International Jetport Surface Parking Project and considered the referral to the City Council with a request to appropriate $9.3 million from the Jetport's unrestricted fund balance.

The proposed surface parking project provides for the redevelopment and upgrade of two existing parking lots, a gravel 300 space valet parking lot that was acquired from Toye Airport Park LLC in 2021 and the existing 102 space cell phone lot. These existing redeveloped parking lots are combined with the development of approximately 4.5 acres of land south of Jetport Boulevard and west of the Embassy Suites hotel as outlined on the following page.

Bradbury noted that the gravel lot has no stormwater management and is hard to manage. The proposed facility reduces sprawl overall because it reduces off site parking with shuttles. This is only proposing to redevelop areas that are already for parking and impervious surfaces. The project would bring the existing gravel Park'nJet lot up to current site plan standards for stormwater, lighting, and access and it is adjacent to existing long term parking and within the existing developed campus of the Jetport. Onsite wetlands are isolated with no surface water connectivity to other parcels and do not contain essential functions or values.

The proposed project would have a large underground stormwater infrastructure to treat the first 24 hour rainfall event before being discharged which cannot happen currently in today's existing condition.

The second project also to be discussed is the proposed preservation north of Jetport Boulevard: 59,322 square feet of area into conservation, of which 11,245 square feet is wetland. This exceeds the amount required as a condition of approval under the Planning Board Site Plan Permit.

Bradbury also notes that this project was proposed to be done as an intermediate term improvement for parking according to the Master Plan of 2008 and the Master Plan of 2018.

He also notes that the Jetport will protect the wetland areas north of Jetport Boulevard. The gravel lot is crucial to allow for the next phase of developing a parking garage.

Public Comment on Portland International Jetport Infrastructure Improvement Project Updates

Public Comments focused on the following: commenters stated that the presentation brought up additional questions about data demonstrating this is needed.

Commenters noted the plan irreversibly destroys wetlands, will make it harder to meet climate goals, and reinforces reliance on automobiles. One commenter noted that current parking rates are inexpensive, potentially encouraging people to drive instead of get a ride from a friend, taxi, or public transportation, and that the rates are cheaper than Manchester Airport parking.

Several commenters noted that the Unum office complex has large amounts of unused parking spaces could be used with shuttles, as well as the mall.

Commenters noted that the 2018 Sustainable Airport Master Plan on Jetport website recommends two-phase expansion of the parking garage, solving long-term and short-term parking issues. Noted the Master Plan does not recommend more surface parking or clearing acres of woods and wetlands. Commenter stated that the Planning Board approved violation of master plan, but they were given documents which said the proposal was in line with Master Plan.

Commenter stated that they were a proponent of a garage, particularly to preserve wetlands.

Director Bradbury made one comment in response, noting that the Manchester Airport daily rate is lower than Portland's at $14 per day, whereas Portland's daily maximum is $15. It is important for people from other parts of the state to have an affordable option. The idea is not to keep people away from the national air transportation system, but to be consistent with regional prices, because there is not transit to all of the places people come from to use the airport.

Councilor Comments on Portland International Jetport Infrastructure Improvement Project Updates

Councilor Michniewicz asks why expand surface lots over building out a garage. The general goal in Portland is to get away from surface lots.

Director Bradbury responded that this has been in master planning since 2008 because those areas were already impacted. The vast majority of the areas were impacted because of ParkNJet operations, including tree clearing. It is very important to fix the kind of problematic development that was a private operator, including lighting and stormwater issues. This plan does then grab an additional 2.1 acres that were in the 2008 Master Plan. These acres were in the airport business zone. This is a land-constrained airport. In order to do the next phase of expansion, it will be built on top of existing parking. Expectation is that all of the area up to Jetport Boulevard. We don't know what will happen with parking demand in the future. A parking garage cannot be reused. Surface parking lot can be returned to its natural state much easier than a surface parking lot.

Councilor Michniewicz asked what is the advantage if they are land constrained to expand rather than just increase density with a garage?

Director Bradbury responded that they have 769 acres at PWM. An airport their size in the west has 20,000 acres. They really need the density all the way to airport boulevard that is currently airport business. He emphasized the versatility of the surface parking lot and its ability to serve different functions depending on the day and need. Regardless, that land will need to be

developed and is needed for dense airport development that we are talking about in a small airport in the Northeast. And that will preserve land north of Jetport Boulevard. We are doing this project here, but then proposing to preserve wetlands in perpetuity north of Jetport Blvd and along the buffer zone.

Councilor Michniewicz asked What kind of things go in a dense airport zone?

Director Bradbury responded that it is airport terminals, rental cars, hotels, etc.

Councilor Pelletier asks how integral the 2.1 acre lot is to the rest of this proposal. Can it be separated?

Dir. Bradbury responds that they did separate a portion. The challenge is the subsurface stormwater treatment. Installing the subsurface stormwater is integral to the plan.

Councilor Pelletier comments that he is okay with shuttles at airports. He thinks this will be a surface-level parking lot for a very long time. Does not see the need for it when we can just do shuttles, this is sprawl.

Councilor Phillips: There has been a lot of community engagement about this plan. Has four things for the director to comment on: Is this an option if we get too far into the weeds, is there an option to postpone to October, or does it need to be approved ASAP? *Better today, but if more information is needed, can do it in October.*

Councilor Phillips identifies five issues and asks for explanation: There seems to be a huge discrepancy between Director Bradbury and the neighbors about the 2018 plan. Folks are saying we need to go by the 2018 plan. Secondly, there are all of these questions about shuttles and shuttling people in, the relationship with UNUM, and the unused parking lots. Thirdly, the wetlands seem to be the concerns with the neighbors. The fourth thing is the garage. The fifth thing is the overall noise and cutting down trees.

If we decide to take a vote tonight, we are just bringing it to the council. Information can change, there can be amendments, and a lot of things can change from the time it leaves this committee to the time it goes to the council.

Director Bradbury responds that he understands and recognizes the confusion on the master plan. Yes, the 2018 sheet has been on the website since 2018, and so has 2008. He thinks the confusion is that they are contradictory to a certain extent. One shows the land acquisition, which allows for the full lot to be built. In the development plan, the first step is to acquire the property, and we weren't showing the full development, because we had not acquired the plan yet.

The concern with the garage first is that to do the next phase of the garage, we have to take over 300-400 current spaces.

The Greater Portland Metro has increased service. We serve over one million people in the state of Maine, and there is not public transit to the entire state. Our peak parking is not right now, but February, March, April, when people are leaving the state. That is the challenge. There aren't shuttles and taxis to cover the entire state. When they come for their once-a-year trip, we are over capacity. We have rented space from the UNUM parking in the past, but it is no longer available as they develop. All of the leasing is very short-term, including the mall, and we cannot rely on them long-term. When people use shuttles, they still drop off in front, which causes further traffic in front of the curb.

Even though we are counting all of these as impacted wetlands, these are pocketed, isolated, and low-value. The wetlands we are preserving are higher value. This lot will be below the elevation of Jetport Boulevard, creating a natural berm and noise attenuator. We are willing to work to add more trees and more buffer in the non-wet areas.

The garage is a big project, as opposed to this one, that fixes a lot of problems in the current site, including stormwater drainage and electrification. The first phase will be over 1,000 cars, over $40 million dollars immediately. In regards to reuse of the garage, the challenge with the garage is that it is only built to be stressed to 40 pounds per square foot, whereas buildings are built to be stressed to 100-lbs per square foot.

This lot will serve beyond the five-year range. Discussed projections from the FAA for peak traffic at the airport.

The trees that are on there are not old-growth. Director Bradbury discussed the age and diameter of the trees. He emphasized the proposed project is looking to allow development and density south of Jetport Boulevard and preserve trees north of Jetport Boulevard.

Councilor Ali states that if this moves forward to the full council, we are going to receive the same comment from the residents. His understanding is that we cannot even stop this from moving forward. Councilor Ali asked corporation council if this was correct.

Mr. Michael Goldman responded that this has been approved by the Planning Board. Preliminary injunction denied. The project is relying on the funding from the council.

Councilor Ali clarified that if the vote of the committee is to not send it forward, it still goes to the council, but with that negative comment from the committee. Councilor Ali noted that they are going to receive the same emails and memos from the community and asks if it is possible for Director Bradbury to respond to those with a memo before it gets to the council.

Yes, can respond to questions or post FAQ to website. There is an item before the superior court on the planning board approval of the project. I'd appreciate the opportunity to review some of the items. Would welcome the feedback to modify some aspects of the plan to make it more accommodating.

Motion to send Portland International Jetport Infrastructure Improvement Project to full council with a memo that responds to all of the public comments received regarding this project.
The motion was moved by Councilor Ali and seconded by Councilor Phillips.
The motion was accepted unanimously and will move forward to full City Council.

Workshop and Panel Discussion Regarding Environmental Regulation of Cruise Ships in Port
Panelists: Ethan Hipple (City of Portland, Director of Parks, Recreation, and Facilities), Stacy Knapp (Maine DEP Air Bureau), Pamela Parker (Maine DEP), Ivy Frignoca (Friends of Casco Bay), Donnie Brown (CLIA)

Councilor Philips turns meeting over to Director Troy Moon.

Director Moon introduces panel and passes speaking over to Director Hipple. Director Hipple explains role of city related to cruise ships. Described the tariff, which are rules and rates for use of piers.

Stacy Knapp, Maine Department of Environmental Protection (DEP) states that Maine DEP does not have regulatory authority over cruise ships and other marine vessels; EPA and US Coast Guard can enforce these. Maine DEP does not regulate odors; these are handled by city. DEP receives many questions and concerns about cruise ships and would like to better understand possible local impacts to ambient air quality from cruise ship activities. Maine DEP does not have relevant data of what pollutants are impacting ambient air quality and at what levels in areas impacted by cruise ships. Discussed Maine DEP Air Emissions from Marine Vessels released in January 2020, which is statewide data. Maine DEP is very interested in how ambient air quality is affected.

Discussed sensors purchased with Inflation Reduction Act funding, QUANTAQ MODULAIR units looking at Particulate Matter (PM) 2.5, PM 10, Nitrous Oxides (NO_x), and Carbon Monoxide (CO). These instruments are not federal methods and do not meet federal performance requirements. Five will be deployed in Portland for the 2025 cruise ship season and in Bar Harbor for 2026 season. Showed and discussed draft plan for where they plan to deploy the sensors.

Pamela Parker, Head of Water Quality Enforcement for Maine DEP stated that Maine DEP does not have an active vessel monitoring program for cruise ships. Clarified difference between statutes and regulations. Vessels are regulated at the federal level, not the state level, divided by recreational, commercial, and military. Recreational and fishing vessels are largely excluded from regulation. Discussed which direct and incidental discharges are regulated by federal law, state law, and international law, and which laws and judicial rulings regulate them.

Vessel Incidental Discharge Act (VIDA) largely preempts local and state laws regarding incidental discharges. Discussed incidental vessel discharges covered by federal regulations and statutes.VIDA promulgated performance standards. Many states have their own ballast water regulations. The Coast Guard is required to develop compliance and enforcement regulations. Maine has monthly meetings with them as they develop these regulations. The State of Maine is largely preempted from regulating and incidental discharges from ships. Offered hyperlinks of resources on VIDA.

Ivy Frignoca, Casco Baykeeper, Friends of Casco Bay (FCB). FCB collects data and compares it with data collected by others. Data collected by FCB is using processes approved by federal regulatory processes.

Until VIDA is fully implemented, the 2013 Vessel General Permit is still in effect. Described the four parameters which must be monitored and their limits. Described role of Coast Guard and current monitoring. Presented data collected by FCB of average seasonal total nitrogen, pH, and water column turbidity in Portland Harbor. FCB does not collect data related to PAHs and do not have the equipment to do so. Discussed what monitoring requirements will and will not be required of cruise ships in 2026 under VIDA.

Donald Brown, Senior Vice President of Maritime Policy, Cruise Lines International Association (CLIA), discussed regulations governing cruise ships, industry environmental policies, net-zero goals including onshore power, and Exhaust Gas Cleaning Systems (ECGS), also called scrubbers.

Councilor Comments and Questions for Panelists on Environmental Regulations of Cruise Ships in Port

Councilor Ali asked Mr. Brown if he would be willing to enter into an MOU to not discharge scrubber wash water into the bay. *Mr. Brown stated that the scrubbers were within the limits of regulations and that more data was needed.*

Councilor Ali asked Ms. Knapp was caused the 86% reduction in sulfur oxide she noted in the data. *Ms. Knapp responded that this was based on NEI data which includes all types of ships, not just cruise ships, and is likely due to IMO regulations requiring lower sulfur contents in fuels. Mr. Brown also responded and discussed sulfur regulations in North America.*

Councilor Ali asked Mr. Brown if the cruise ships would pay $160 million as a contribution toward onshore power. *Mr. Brown stated that he could not speak for any individual cruise ship lines, that each port would need to be evaluated, and that ships he represents have made significant investments in their ships to be able to use portside electricity.*

Councilor Pelletier asked if Mr. Brown if CLIA offers any grants towards developing portside power in Portland. *Mr. Brown responded that CLIA is not currently set up as a granting institution.*

Councilor Pelletier asked if Portland were to provide CLIA with an MOU asking them to burn clean fuel while in port, would it preclude them doing business in Portland? *Mr. Brown stated that CLIA does not take part in the decisions with where and when individual cruise ships call.*

Councilor Pelletier asked Director Hipple about a cruise ship which this past spring switched to burning clean fuel and the process. *Director Hipple stated that in the case of the Meraviglia, which was in port for a few days for repairs this spring, some community members mentioned submitted concerns regarding black air coming from stacks. Parks, Recreation, and Facilities staff members spoke with the captain who, as a courtesy, temporarily switched to clean-burning fuel.*

Councilor Pelletier noted the number of countries who have banned scrubbers, and then asked a question to Ms. Knapp regarding Maine DEP air monitoring as opposed to shore-power emissions technology, which, to his understanding, will be done by the DOT. *Ms. Knapp stated that she could detail what Maine DEP is doing, but was not familiar with what DOT was doing. She stated that measuring ambient air quality is different from measuring emissions. Measuring emissions would involve measuring at the stack, whereas DEP is measuring where people are. Ms. Knapp and Councilor Pelletier further discussed emissions versus ambient air quality measurements. Baykeeper Frignoca further elaborated that FCB measurements show cumulative pollution in the harbor from many different sources, but do not show impact of those pollutants on the harbor.*

Councilor Michniewicz asked if it would be feasible to collect the data Baykeeper Frignoca mentioned. *Baykeeper Frignoca mentioned that it is important to determine the load of each pollution source. Ms. Parker further discussed data collection, modeling, and discharge from all other boats in the harbor. Mr. Brown stated that CLIA had been involved in some data collection and methods of data collection used. Mr. Brown stated that it is important to do a risk and impact model prior to imposing limits, so as to not stifle innovation.*

Councilor Michniewicz asked Mr. Brown to clarify what risks he was mentioning and who the risks affect. *Mr. Brown stated that the risks he mentioned were to the specific waters and bounds of the locality.*

Councilor Michniewicz asked if there is any environmental damage to banning scrubber wash. *Mr. Brown stated that it would disincentivize alternative technologies.*

Councilor Michniewicz asked Ms. Parker what would be left to the city to regulate, given all of the regulations in place. *Ms. Parker stated that states and civil divisions under them, such as cities, cannot regulate scrubber wash under VIDA, but that there might be creative and backdoor ways to do so. She stated that she did not know how that would be done, but did know that the state cannot institute a ban on the technology and discharge.*

Councilor Pelletier stated that pursuing a memorandum of understanding would be the best way to work with the industry, weighing that it is a discretionary activity that also has a big impact on the economy.

Motion to Adjourn
The motion was moved by Councilor Ali and seconded by Councilor Phillips.
The motion was approved 2-0.

Meeting Adjourned.

City of Portland | Sustainability Office
Troy Moon, *Director*

To: Sustainability and Transportation Committee
Regina Phillips, Chair

MEETING DATE
10/8/2025

AGENDA ITEM
Agenda Item 3A

PURPOSE
To consider a resolution encouraging collaboration between the Gulf of Maine Research Institute and the City of Portland to enhance climate adaptation and resilience.

COMMITTEE WORK PLAN/CITY COUNCIL GOAL ALIGNMENT
This item supports 2025 City Council Common Goal #3: to develop sustainability strategies to address sea-level rise mitigation and other elements of One Climate Future.

BACKGROUND/ANALYSIS
The Gulf of Maine Research Institute (GMRI) is an internationally recognized, nonpartisan scientific 501(c)3 non-profit organization located on Commercial Street in the heart of Portland's working waterfront. Their applied research on climate change and its effect on marine ecosystems provides important findings that inform decision makers at every level of government as well as members of the fishing community and other marine industries. Their scientists have contributed to the National Climate Assessment and have informed Maine's climate action plan, *Maine Won't Wait*. The GMRI team has been an important collaborator with the City and has helped us to inform the public about how climate change is and will impact our community. This work includes encouraging Portland residents to participate in community science by documenting locations in the City experiencing coastal flooding. This will create photographic records that allow us to see how the coastline is changing over time and allows Portland residents to share their perspectives on how flooding is impacting locations near or important to them. We have also collaborated to install instruments that record the height of tides in the Fore River which will provide valuable data to document sea level rise. Most recently, GMRI funded our soon to be released Resilience Education Project,

that will help community members learn about how Portland's built, natural, and social infrastructure build resilience.

GMRI is also committed to supporting Portland's working waterfront. In addition to conducting important research into how climate change impacts fisheries, they promote seafood harvested in the Gulf of Maine through their Sustainable Seafood Program. Through this work they seek to build market demand for Gulf of Maine seafood by working with retailers, restaurants, seafood dealers, fishermen, and other stakeholders to educate the public about the high quality of local seafood. Finally, they recently purchased Union Wharf and have committed to preserving it in order to provide waterfront access to commercial fishing vessels, which is essential to Portland's marine economy.

The City and the Gulf of Maine Research Institute have mutual interests in climate and coastal resilience as well as strong motivation to protect and grow the blue economy. These efforts can only be enhanced by increasing our collaboration and cooperation to achieve our mutual goals.

FISCAL IMPACT
n/a

CONCLUSION(S)
GMRI and the City have a history of effective collaboration on the waterfront. This resolution will recognize the partnership between our two organizations and will help us achieve our mutual goals of building climate resilience and building economic opportunity in the marine economy.

PRIOR COMMITTEE REVIEW
None

PREPARED BY

Troy Moon, Sustainability Director

ATTACHMENTS
Draft Resolution

CITY OF PORTLAND
IN THE CITY COUNCIL

RESOLUTION SUPPORTING COLLABORATION WITH THE GULF OF MAINE RESEARCH INSTITUTE TO ADVANCE CLIMATE ADAPTATION AND RESILIENCE

WHEREAS, climate change represents an existential threat to coastal communities as a result of sea level rise, warming waters, and a host of other impacts to community well-being; and

WHEREAS, the City of Portland ("the City") is a vibrant and diverse community that is home to an expansive waterfront that provides economic opportunity, recreational enjoyment, and critically-important habitat; and

WHEREAS, the Gulf of Maine Research Institute ("GMRI") is an internationally recognized, independent, and nonpartisan scientific 501(c)3 non-profit organization located on the waterfront of Portland, Maine, whose mission is to develop and deliver collaborative solutions to global ocean challenges; and

WHEREAS, GMRI and the City have shared interests in addressing the root causes of and building resilience to climate change, particularly along Portland's waterfront; growing the regional marine-dependent economy; and educating the next generation of science-literate ecosystem stewards; and

WHEREAS, GMRI and the City share long-term and significant interest in Maine's seafood economy, providing infrastructure, services, policy development, and community support to fisheries and aquaculture industries.

NOW, THEREFORE, BE IT RESOLVED, that the Portland City Council supports a robust collaboration between GMRI and the City of Portland to advance these mutual goals; and

BE IT FURTHER RESOLVED, that the Portland City Council is committed to supporting GMRI's scientific mission by sharing relevant City data, collaborating on grant applications and funding opportunities that advance mutual goals, and by encouraging City participation in GMRI-hosted events and programs that advance climate resilience and a vibrant marine economy; and

BE IT FURTHER RESOLVED, that the Portland City Council wishes to collaborate with GMRI to engage Portland residents and businesses on topics of mutual concern, including coastal resilience, working waterfront protection, and economic development strategies that build resilience, especially in areas of the City prone to coastal flooding.

City of Portland | Parking Division
Tony Wirkus, *Director*

To: Sustainability and Transportation Committee
Councilor Regina Phillips, Chair

MEETING DATE
October 8, 2025

AGENDA ITEM
Agenda Item 3b - Snow Ban Parking

PURPOSE
Review staff proposal to increase the fine for failing to move a vehicle during winter storm parking bans. The goal of the change is to increase compliance and improve the speed and efficiency of snow removal from city streets.

COMMITTEE WORK PLAN/CITY COUNCIL GOAL ALIGNMENT
This item is not included in the Committee's 2025 workplan.

BACKGROUND/ANALYSIS
During significant snow events, the City Manager has the authority to declare an emergency parking ban to aid in snow removal efforts throughout the City of Portland. While this declaration may be inconvenient at times, it is necessary to maintain accessibility for first responders and residents.

Historically, the Police Department cites and tows vehicles that interfere with snow removal efforts at the direction of Public Works. The vehicles are towed to a city owned lot that is staffed by the Parking Division and Police Department. While there is a significant lack of compliance, the scope of towing is limited due to time and resources. The current operation has been carried out in this form for many years but needs to be reviewed due to the changing landscape of the peninsula.

In addition to the lack of compliance and resources to enforce the ban, the prospect of maintaining an impound lot on the peninsula or nearby presents a constant challenge. The impound lot has moved several times over the history of the emergency snow ban, most recently to the Ocean Gateway Lot located at Commercial St. and India St. The Ocean Gateway Lot will become the site of Harbor Commons park and is scheduled to close to parking in November. Staff have been actively exploring other options, but have not yet been successful in securing an alternate location. As the peninsula continues to become more densely populated, identifying a large, unused parking lot that is suitable for an impound lot during an emergency snow ban will be a perennial problem that is likely to become increasingly difficult. Rather than focusing on a

one-year solution, now is the time to act to make a strategic change to increase compliance and align with the overall transportation goals of the city.

Chapter 28 Traffic and Motor Vehicles (Section 28-51) of the Portland City Code stipulates fines for various parking violations. If a vehicle is in violation of the emergency parking ban and is towed, the total cost to reclaim the vehicle within 24 hours is $210. If a vehicle is in violation of the ban and not towed, but the owner is cited, the fee is $40. Currently, there is a significant lack of compliance with the parking ban due to low fines and the relatively small degree of towing. There is not enough time and resources to equitably enforce the ban as it's not possible to tow every vehicle. The disparity of enforcement due to these limiting factors impedes the ability of the Public Works Department to clear the roads and makes the city less accessible to first responders and residents.

In order to gain additional compliance, staff propose to increase the citation fee from $40 to $175. If a vehicle is towed to a private operator's lot during snow ban hours, the citation fee will be reduced to $40, which would, in combination with towing fees, result in a more equitable penalty for lack of compliance with the existing ordinance. In addition to increasing the citation, staff propose adding approved snow ban parking locations in the areas below.

- Baxter Blvd - Coveside between Preble St. Ext. and Bates St
- Eastern Promenade - Extend closer to Major Charles Loring Memorial Park
- St. James - Odd side next to the park
- Douglass St. - Odd side next to the park
- Rainbow Mall Road - Next to the woods
- Valley St. - South of C St. next to the park

Below is a list of currently approved snow ban locations.

- Dougherty Field Skate Park parking lot. Accessible from the St. James Street side.
- Deering Oaks - Parking on the Tennis Court Road Only - Park only on the left side of the road. No parking on the right side
- Fitzpatrick Stadium Parking Lot - Please park behind the Ice Arena. Do not park adjacent to the Ice Arena.
- Hadlock Field Parking Lot Not available 2024-2025 due to construction
- All Portland Public School Parking lots (except the Reiche Community Center lot which abuts the school and playing field. This lot is reserved for Community Center use at all times. *Must be out of all school lots by 6:30 AM.*
- Presumpscot School Lot - limited parking
- Cutter St. Lots (off the Eastern Prom) - Eastern Prom Cutter St Middle Lot is closed. Do not park on the East End Boat Ramps.
- Beach St. lot - Accessible from Commercial St. after 8 pm
- City lot at the corner of Park and Commercial Streets across the street from the IMT (International Marine Terminal) AKA Angelo's Acre, 441 Commercial Street
- On Peaks Island, snow ban parking is available at the Welch St. Parking Lot
- Western Prom - The entire waterside of the Western Prom
- Eastern Prom - Turner St. to the East End School Property light pole 33 (waterside)

- Marginal Way - Plowman to just before the entrance area to the East End Wastewater treatment Plant (Waterside Only). Please do not park on Marginal Way if there is flooding or standing water. Parking is not allowed in the Maine DOT Park and Ride Lot.
- Preble Street Extension Parking Lot (Across from Hannaford) - Adhere to the spaces that are designated for snow ban parking. Please be aware of ongoing construction in this area.
- State Street Extension - Parking is available on State St Ext between Forest Avenue and Park Avenue across from the entrance to Deering Oaks Park. Left side of the road only. Where parking is typically available. Adhere to any no parking signs closest to Forest Avenue.
- Spring Street Garage ($3 snow ban rate)
- Elm Street Garage ($3 snow ban rate)
- Arts District Garage (Private operator offers snow ban parking for a fee)
- Cumberland County Courthouse Garage (Private operator offers snow ban parking for a fee)
- Ocean Gateway Garage (Private operator offers snow ban parking for a fee)
- Public Market Garage (Private operator offers snow ban parking for a fee)
- Temple Street Garage (Private operator offers snow ban parking for a fee)

Subject to City Council approval of the parking fine amount, staff will develop a communication plan to educate residents and visitors about the change through existing digital assets, fliers, and other means identified at a future date.

FISCAL IMPACT
The exact financial impact is unknown. In FY25, 868 citations for $40 were issued resulting in $34,720 in fines. While this measure would substantially increase the fine, staff also anticipate an increase in compliance.

CONCLUSION(S)
Staff recommends the Committee forward a recommendation to the City Council to increase the citation fee to $175.

PRIOR COUNCIL/COMMITTEE REVIEW
Sustainability and Transportation Committee (September 10, 2025) - Issue Introduction

PREPARED BY

Tony Wirkus
Director
Parking Division

ATTACHMENTS
New Approved Snow Ban Locations
2024-25 Snow Ban Locations

CITY OF PORTLAND
IN THE CITY COUNCIL

AMENDMENT TO PORTLAND CITY CODE
CHAPTER 28 RE: SNOW BAN FEE

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PORTLAND, MAINE IN CITY COUNCIL ASSEMBLED AS FOLLOWS:

1. That Section 28-51 of the Portland City Code Chapter 28 is hereby amended to read as follows:

***

Sec. 28-51. Traffic schedule.

The stopping, standing and/or parking of motor vehicles and movement of traffic are hereby regulated on the streets or parts of streets and ways and on publicly owned property as set forth on the traffic schedule and, when signs are erected giving notice thereof the stopping, standing and/or parking of motor vehicles and movement of traffic shall be regulated as set forth on the schedule for such streets or parts of streets and ways and on such publicly owned property. The traffic schedule shall be updated regularly by the city's traffic engineer and kept on file in the office of the city clerk. Amendments to the traffic schedule shall be made by the traffic engineer acting pursuant to his or her authority under this chapter or by order of the city council.

Parking Violations and Waiver Fees

1	Expired Meter or receipt/no receipt/receipt face down	$25.00
[2...		
[3	repealed by Order 109-FY18 when odd/even house numbers overnight parking rule ended]	
4	No Parking This Side of Street	$40.00
5	Double Parking, Obstructing Traffic, or Parking in bicycle lane	$40.00
6	Parking in Hazardous Area -Fire Hydrant-Crosswalk	$70.00
7	Snow Removal or Plowing Area	$175.00~~40.00~~

8	No Parking Bus Stop	$40.00
9	Blocking Driveway (On Complaint)	$40.00
10	Displaying vehicle for sale	$25.00
11	Washing, greasing or repairing such vehicle except for repairs necessitated by an emergency	$25.00
12	Advertising purposes	$25.00
13	Storage/abandoned vehicle (10 consecutive days)	$30.00
14	Angle Parking Only	$30.00
15	Parking a Vehicle 20’ or more in Residential Area November-March	$30.00
16	Camper, Trailer, boat, Etc. Over 24 hrs in any 7 calendar day period	$30.00
17	Driver to Remain with Vehicle in Taxi Stand	$30.00
18	Non-EV parking at EV charging station or EV at charging station not plugged in	$40.00
19	Unregistered motor vehicle	$35.00

A....Parking in Disabled Zone		$200.00
B.... Other.		
C	Prolonged Parking-Feeding Meters	$30.00
D	Overtime In Time Zone (Green Sign)	$20.00
E	No Parking Zone	$40.00
F	No Parking Between Signs	$40.00
G	No Parking Here To Corner	$40.00
H	No Parking Taxi Stand	$40.00
J	No Parking Intersection	$40.00
K	No Parking Sidewalk	$40.00
L	No Parking / Dual Rear Wheels/ Overtime Commercial Vehicle Zone	$40.00
M	No Parking Against Traffic Flow	$40.00
N	Posted Emergency No Parking Zone	$40.00
P	No Parking More than 18” from Curb	$40.00
Q	No Stopping or Standing	$40.00
R	No Parking City Lot or Property (Permit Required)	$40.00
S	No Parking on Esplanade	$40.00
T	No Parking That Takes More Than One Parking Space	$25.00
U	Interference with enforcement	$500.00

***

City of Portland
Winter 2024 - 2025
Snow Ban Parking Locations

public works

The City offers numerous free options for parking on the peninsula during a snow ban. These lots are available **after 5:00 PM** on weekdays on the day a ban is called unless otherwise posted.

****School lots and Unrestricted Parking Areas can be accessed earlier on weekends/when school is not in session****

All vehicle owners must **REMOVE THEIR VEHICLES** from these designated areas listed below by ****7:00 AM (Except for school lots, which are 6:30 AM and by 8:00 AM for the Promenades, State St Ext., and Marginal Way) the morning the ban is removed.** **

The City may tow, at the owner's expense, any vehicle which has not been removed by the deadline:

- Deering Oaks - Parking on the Tennis Court Road Only **Park only on the left side of the road** **No parking on the right side****
- Fitzpatrick Stadium Parking Lot – ****Please park behind the Ice Arena. Do not park adjacent to the Ice Arena****
- ~~Hadlock Field Parking Lot~~ Inactive (No Parking)
- All Portland Public School Parking lots ****Except Reiche Community Center Lot (Clark St) which abuts the School and Playing field. This lot is reserved for Community Center use only at all times **Must be out of all school lots by 6:30 AM. ****
- Longfellow School Lot
  Is currently open for snow ban parking**
- Presumpscot School Lot
  Limited Parking**
- Cutter St. Lots (off the Eastern Prom)
  ****Eastern Prom Cutter St Middle Lot is closed** **Do Not Park on the East End Boat Ramps****
- Beach St. lot - Accessible from Commercial St. after 8 PM.
- City lot at the corner of Park and Commercial Streets across the street from the IMT (International Marine Terminal) AKA Angelo's Acre, 441 Commercial St.
- On Peaks Island, snow ban parking is available at the Welch St. Parking Lot
- Western Prom - The entire waterside of the Western Prom
- Eastern Prom - Turner St. to the East End School Property light pole 33 (waterside)
- Marginal Way - Plowman to just before the entrance area to the East End Wastewater treatment Plant **(Waterside Only)** ****Please do not park on Marginal Way if there is flooding or standing water** **Parking is not allowed in the Maine DOT Park and Ride Lot. ****
- Preble Street Extension Parking Lot (Across from Hannaford) - **Adhere to the spaces that are designated for snow ban parking. **Please be aware with ongoing construction in this area. ****
- State Street Extension - Parking is available on State St Ext between Forest Ave & Park Ave across from the entrance to Deering Oaks Park. ****Left side of the road only**** where parking is typically available. ****Adhere to any no parking signs closest to Forest Ave.****

Most parking garages will be available during snow bans at reduced rates. For a complete list of city-owned and privately operated parking garages, visit the city's website at https://www.portlandmaine.gov/430/Garages-Lots

****Vehicles must be out of these alternate parking lots by 7:00 AM (unless otherwise noted) the morning the ban is lifted.****

Public Works Customer Service: 207-874-8493
Parking Ban Hotline: 207-879-0300

Legend

Open Space | Schools | Yellow Zone

Snow Ban Parking Locations

Inactive (No Parking) **Active (Parking)**

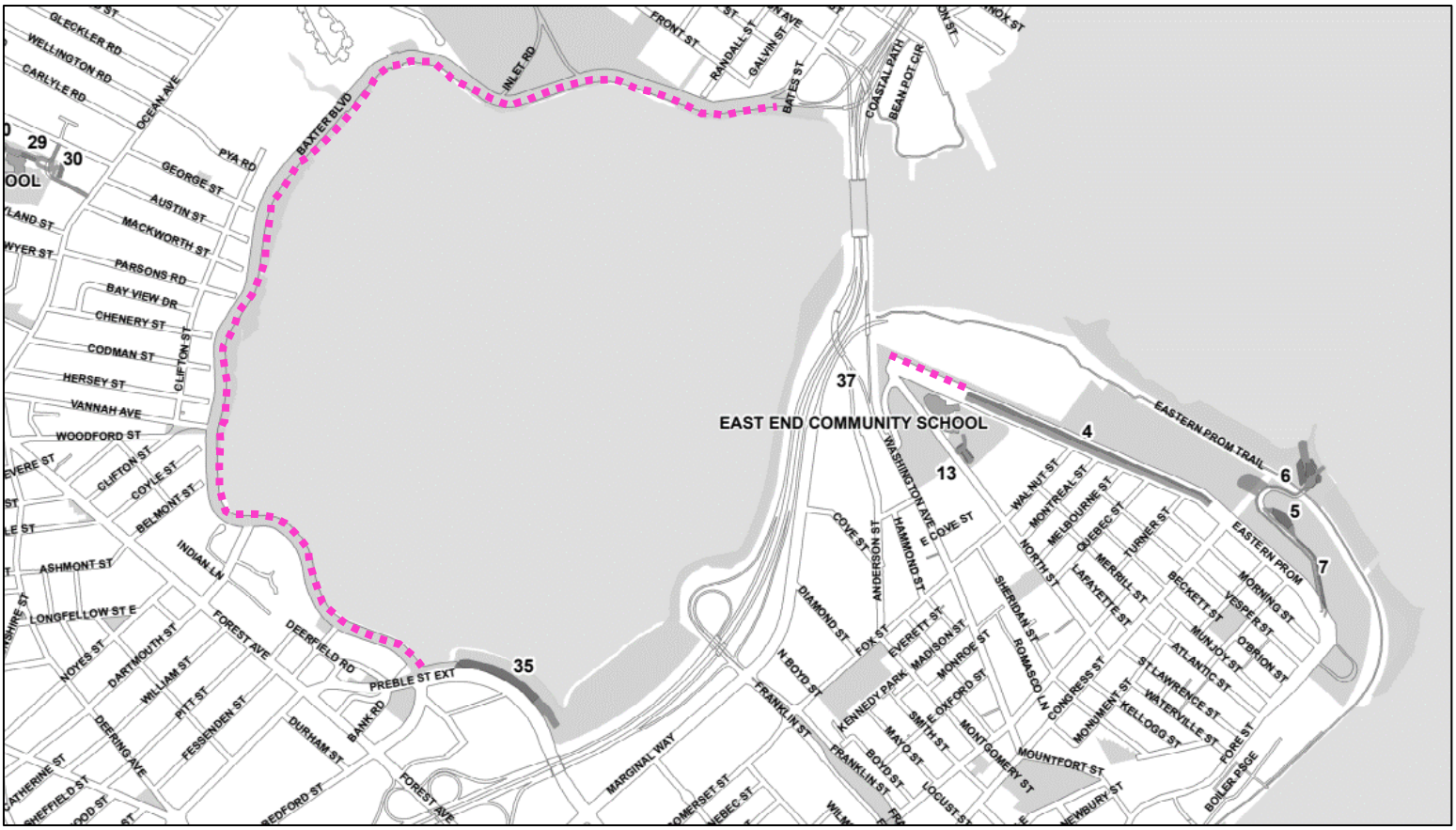
0 0.35 0.7 Miles

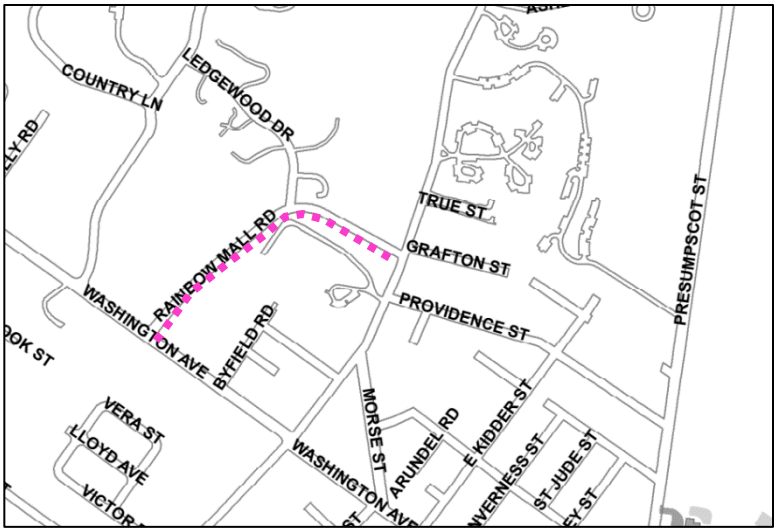
Map created by the City of Portland's Department of Public Works 2/12/2025

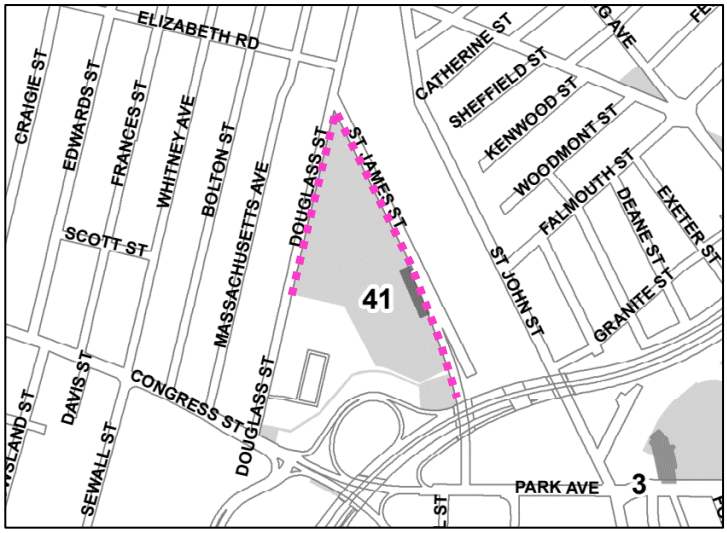
Snow Ban Parking Locations

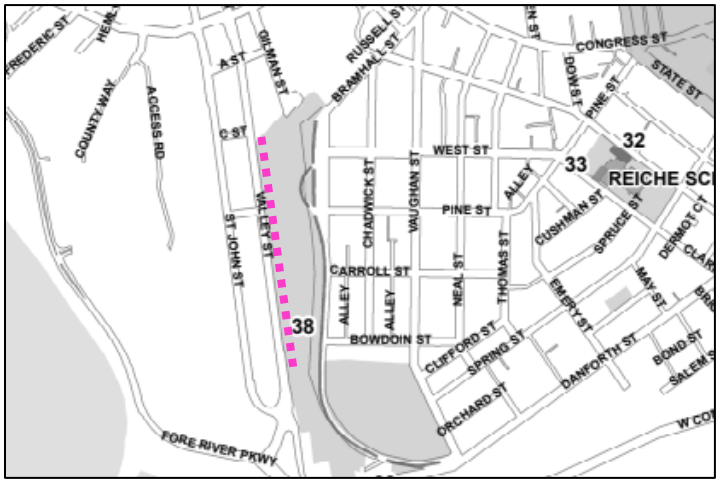
1	Deering Oaks Park	15	Deering High School	29	Ocean Ave School
2	State Street Lot	16	Longfellow School	30	Ocean Ave School
3	**~~Hadlock Field Parking Lot~~ Inactive**	17	Lincoln Middle School	31	Presumpscot School
4	Eastern Prom - On Street Parking	18	Lincoln Middle School	32	Reiche School
5	Cutter St Upper Lot - Eastern Prom	19	Amanda C. Rowe Elementary School	**33**	**~~Reiche School~~ Inactive**
6	Cutter St Lower Lot - Eastern Prom	20	Ocean Ave School	34	State Street - On Street Parking
7	Cutter St Parking - Eastern Prom	21	Presumpscot School	35	Preble St Ext Parking Lot (Back Cove)
8	Angelo's Acre Lot - Commercial St	22	Gerald E. Talbot Community School	36	State Street Extension
9	Beach St	23	PATHS	37	Marginal Way (Neareast to U-Haul Facility)
10	Welch St (Peaks Island)	24	PATHS	38	Western Promenade
11	King Middle School	25	PATHS	39	Western Promenade
12	Fitzpatrick Stadium	26	PATHS	40	Western Promenade
13	East End School	27	Lyman Moore Middle School	41	Skate Park Lot - St James St
14	Deering High School	28	Harrison Lyseth Elementary School		

Additional Approved Snow Ban Parking Locations 2025-26









From: Steven Laudage <sclaudage@gmail.com>
Subject: Public Comment: Snow Ban Parking
Date: Tues, Oct. 7 at 9:09 AM

City of Portland Sustainability & Transportation Committee -

I support the inclusion of new parking locations for snow ban parking. On 4/4/2024 I contacted parking@portlandmaine.gov, suggesting that we additionally consider requesting the new Maine Med and VA parking garages be made available during snow bans, since I figured these locations see at least decreased demand overnight. The response was that the VA did not seek to share parking, but MMC may (though I have not been able to confirm this). I believe there are about 2,700 spots currently available during snow bans (see attached for an estimate) -- these two garages alone would add about 1,000 spots. I would accordingly also recommend that any new parking garages include allowance of reduced rate snow ban parking as a requirement.

Thank you!
Steven Laudage
322 Spring St.

City of Portland | Planning & Urban Development Department
Kevin D. Kraft, AICP *Director*

Staff Memo To:
Sustainability & Transportation Committee
Councilor Regina Phillips, Chair

MEETING DATE
October 8, 2025

AGENDA ITEM
Agenda Item 3C – Amtrak Downeaster Station Relocation

PURPOSE
To provide the committee with information about the Northern New England Passenger Rail Authority's (NNEPRA) plans to relocate the Amtrak Downeaster train station from Thompson's Point to a location along the CSX mainline railroad track adjacent to St. John Street.

COMMITTEE WORK PLAN/CITY COUNCIL GOAL ALIGNMENT
While this item is not directly identified as part of the City Council's 2025 goal setting, nor is it included in the Committee's 2025 work plan, this item is related to and presents opportunities to advance several Council and Committee goals, including 2025 City Council Common Goal #3:

- (*One Climate Future*) to *expand transit options with a focus on non-car solutions.*

Additionally, it closely relates to the Committee's priorities around Vision Zero, Complete Streets, and comprehensive transportation planning, and presents the opportunity to advance goals in Portland's Comprehensive Plan (*Portland's Plan 2030*) and climate action plan (*One Climate Future*), both of which emphasize reducing greenhouse gas emissions, decreasing car dependency by expanding transit and non-car options, and supporting Transit-Oriented Development (TOD).

BACKGROUND
NNEPRA is advancing plans to relocate the Amtrak Downeaster station from the Portland Transportation Center (PTC) at Thompson's Point to a location along the CSX mainline railroad track near St. John Street. As part of this effort, NNEPRA and its consultant conducted an alternatives analysis evaluating three privately-owned sites as potential locations, including:

- **Site 1:** Behind Amato's and McDonald's on St. John Street, immediately north of Congress Street (determined not to be feasible)
- **Site 2:** Union Station Plaza behind the Maine Central Railroad building
- **Site 3:** Between Northern Light Mercy Hospital and St. John Street

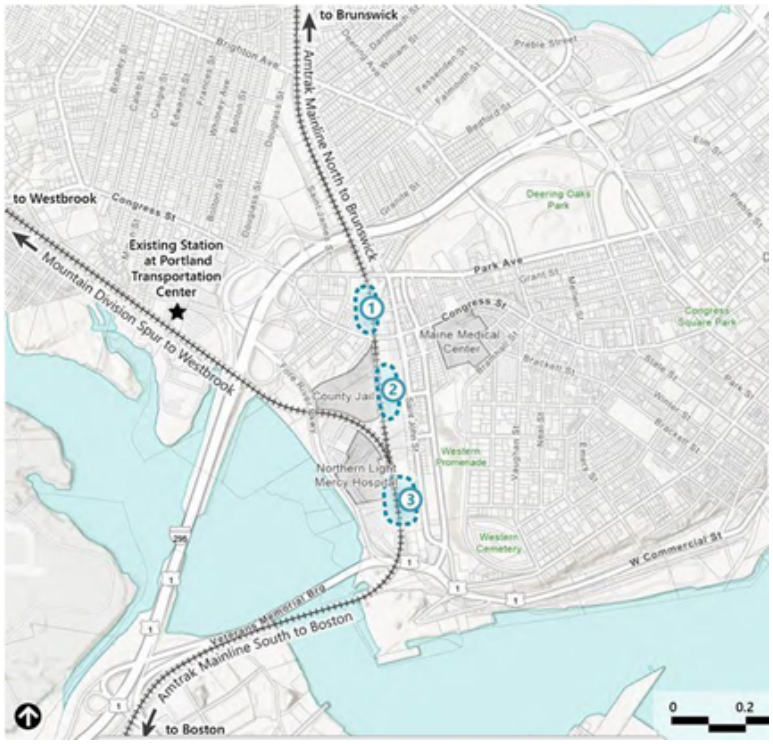


Figure 1: Sites Considered - NNEPRA/VHB Portland Train Station Relocation Report

The results of this analysis are documented in NNEPRA's "*Portland Train Station Relocation Planning Report*", dated December 5, 2024. NNEPRA and its Board of Directors concluded that Site 3 best meets the project's needs and goals and are requesting the City's support to advance a new station at this location.

Summary of City Staff's Position

City staff maintain that Site 2 represents the most advantageous location for relocating a train station to the mainline track, offering the greatest potential to transform rail service, support economic development, reduce car-dependency and increase multi-modal transit, and encourage housing creation in Portland over the long term while also offering benefits to railroad operations. From the City's perspective, NNEPRA's alternatives analysis lacked formal, collaborative engagement with key stakeholders, and the technical evaluation remains incomplete, providing insufficient information to assess whether the no-build option (current PTC) or Site 2 is more or less viable than Site 3.

Station Relocation Study History

Preceding NNEPRA's alternatives analysis, MaineDOT led a study with the City of Portland, Concord Coach Lines, METRO, NNEPRA, GPCOG, PACTS, and others as principal stakeholders, which concluded in 2021. The study's objective was to gather data and seek consensus on addressing both immediate and long-term needs of intercity bus and rail from a customer and regional transportation systems perspective. Key questions included whether bus and rail should

remain co-located, whether a new rail facility is warranted, if so, where, and how to ensure any option for relocation maximizes customer and system benefits while remaining cost-effective. The findings are documented in the "Portland Transportation Center - Customer and Transportation System Study" (Attachment A).

The study evaluated multiple locations and configurations of bus and rail and concluded that a new rail station at Union Station offered the highest overall benefits of all the alternative sites studied. This location was found to maximize safety and efficiency for rail, eliminate the reverse movement on the mainline, and improve access to numerous local transit routes, bicycle facilities, and walking connections to downtown. It also supported parking needs while retaining bus operations at the current PTC. The Study Team recommended further evaluation of Union Station due to its "ability to provide the highest transportation benefit coupled with its ability to provide the highest customer benefits of all alternatives evaluated." The study also noted its potential economic and land use advantages and opportunities to increase ridership while reducing VMT, VHT, and greenhouse gas emissions.

On February 3, 2021, MaineDOT issued a letter (Attachment B) summarizing the study findings and outlining a path forward for identifying a mutually agreed-upon location for a new train station. The letter recommended a detailed evaluation of the Union Station site, including a cost-benefit analysis. If the analysis demonstrated a favorable cost-benefit ratio, MaineDOT advised securing funding to advance a new station at the Union Station site, contingent on improved bus-rail connectivity and the support of NNEPRA, directly impacted landowners, and the City.

City Assessment of NNEPRA's Alternatives Analysis

In 2023, NNEPRA began its own alternatives analysis process. Throughout this process, City of Portland staff emphasized that locating a new train station on the Portland Peninsula represented a major investment in the city's and region's transportation infrastructure—an initiative staff strongly support. At the same time, staff consistently urged NNEPRA to weigh broader factors beyond rail operations, including land use, accessibility, connectivity, walkability, economic development, and housing opportunities, as vital elements of the alternatives analysis. Staff also highlighted the importance of aligning with City Council policy direction and accounting for ongoing infrastructure investments and zoning initiatives such as the Libbytown Safety & Accessibility Project, ReCode, the Parkside to the Portland Transportation Center Pathways Projects (Union Branch Multi-Use Pathway), and Metro's Bus Rapid Transit study.

City staff further encouraged NNEPRA to convene key stakeholders early in the process—including the City, MaineDOT, Maine Medical Center, Mercy Hospital, Metro, PACTS/GPCOG, the Chamber of Commerce, and neighborhood groups—to build a shared understanding of the alternatives analysis and foster collaboration around such a significant investment. Partnerships with landowners, particularly Maine Medical Center, were also highlighted as critical opportunities to support economic development, housing, and lodging in coordination with a new station. Furthermore, staff emphasized the project's regional significance and encouraged NNEPRA to engage with the Portland Area Comprehensive

Transportation System (PACTS), the Metropolitan Planning Organization responsible for regional transportation planning.

NNEPRA published their final alternatives analysis in December of 2024. While this analysis documents the operational benefits of Site 3, and therefore recommends proceeding with this location, City staff has raised concerns both about the adequacy of the analysis and the process that led to its conclusions. These concerns repeat themes that staff has voiced since the beginning of NNEPRA's work - that the alternatives analysis does not adequately address other key criteria such as land use context and multi-modal access, does not consider alternative design solutions, lacks sufficient data to support its conclusions, fails to align with City and regional policy, concludes that land is not available, and did not involve collaborative conversations between key stakeholders. Staff note that the analysis provides insufficient information to assess whether the no-build option (the current PTC) or Site 2 is more or less viable than Site 3. Furthermore, staff are not aware of any cost-benefit analysis conducted for Site 2, despite MaineDOT identifying it as the preferred site and recommending further detailed evaluation. Consistent with the MaineDOT study findings, City staff continue to view Site 2 as the most advantageous location.

Staff acknowledge that all sites analyzed in the alternatives analysis are privately owned and that property and logistical issues would need to be addressed at any location. However, at this stage, property ownership or willingness to sell should not influence the conclusions about the relative opportunities and challenges of each site under consideration.

Technical & Site Considerations

A. Site 2 (Union Station Plaza). *Site 2 presents an opportunity to establish a regionally significant train station that can anchor mixed-use development and support multi-modal access while accommodating cars.*

Site 2 comprises two privately owned parcels totaling approximately 8.2 acres, including a one-story shopping plaza with surface parking, owned by Maine Medical Center, and the historically designated Maine Central Railroad Building with associated parking, owned by East Brown Cow and leased to Maine Medical Center. The Railroad Building is largely vacant, with limited office space and a ground-floor restaurant.

Site 2 has significant economic and housing development potential. The site is located within an established commercial area zoned Transit-Oriented Development 2 (TOD-2) and B-2b Mixed-Use. Although the lots abut Congress and St. John Streets, the area identified for a new platform is set back roughly 750–1,100 feet from their intersection, or less than a quarter-mile, along a high-frequency bus corridor served by Metro Routes 1, 5, 7, 9A, 9B, and the BREEZ. The existing TOD-2 zoning encourages dense, pedestrian-oriented, mixed-use neighborhoods that support Portland's investment in high-frequency transit and foster vibrant, 24-hour activity.

Site 2 offers significant transportation benefits. Relocating the station here would improve rail operations by eliminating the need for trains to back in and out of the PTC. While the

site would require a shuttle connection to the Concord Coach Lines bus terminal, its proximity to the highest concentration of bus routes in Maine would enable efficient and easy connections to local transit service, encouraging the seamless use of alternative modes of travel to and from the station. Metro's ongoing Bus Rapid Transit (BRT) study includes a potential Congress Street stop, which would provide fast transit service from this station location to Westbrook, Gorham, Downtown Portland, the Eastern Waterfront, and Casco Bay Lines to the islands.

The site provides direct pedestrian access to dense residential neighborhoods, commercial areas, Hadlock Field, Fitzpatrick Stadium, the Portland Expo, Troubh Ice Arena, and the Maine Medical Center campus via existing sidewalk and trail networks. Planned projects, such as the Parkside to Portland Transportation Center pathway projects, will enhance pedestrian and bicycle access to and from the site and will create direct off-street trail connections to major growth zones in Portland including Bayside, Franklin Street, and the Roux campus in East Deering via the Bayside Trail and Tukey's Bridge.

Site 2 can accommodate full-length Downeaster trains and future Airo trainsets with straight, full-length platforms. Grade crossing gates and signals could be timed to minimize traffic delays for trains stopping south of Congress Street.

Site 2 complements ongoing City, State, and regional infrastructure investments, including a new multi-use pathway behind Deering Oaks Park and the Libbytown Safety & Accessibility Project, which includes two-way street conversions and expanded pedestrian and bicycle facilities on Congress Street and Park Avenue. The site aligns with City goals such as Vision Zero, Complete Streets, and objectives in *One Climate Future,* as well as the passenger rail goals of the City's 1993 *Transportation Master Plan*, which identified the area behind the Maine Central Railroad Building as the preferred site for a future train station. *Portland's Plan 2030* highlights Congress Street as a priority corridor connecting major nodes and neighborhoods, supporting walking, biking, and transit, and offering potential for mixed-use, higher-density development that leverages transit access. The intersection of Congress and St. John Streets is identified as a key node for significant transformation.

B. **Site 3 (Ferguson Site, St. John Street)** *Overall, Site 3 is more automobile-dependent, similar to the current PTC station, and offers limited connectivity to public transportation, bicyclist, and pedestrian infrastructure. It lies beyond reasonable walking distance to residential, employment, and recreational destinations and under current zoning is not able to support future economic or housing development.*

Site 3 covers approximately 5.6 acres, comprising seven separately owned parcels, and is located within an established industrial zone designated I-Mb (Industrial Moderate Impact). The area identified for a new platform is set back roughly 2,300-feet from Congress Street. Surrounding uses are predominantly industrial, including Ferguson Plumbing Supply, the Metro bus depot, Cozy Harbor Foods, and Barber/Tyson Foods. The site is also separated from Union Station Plaza by Maine Medical Center's approximately

2,500 space parking garage, which borders the site to the north. While Northern Light Mercy Hospital lies south of the rail line in proximity to Site 3, the broader context offers minimal opportunity for transit-oriented development or neighborhood integration. There is limited potential for mixed-use development or residential growth due to zoning restrictions in this area.

As with Site 2, Site 3 is situated on the CSX mainline railroad track off St. John Street, which would improve rail operations by eliminating the need for trains to back in and out of the PTC. Although NNEPRA has highlighted a potential connection to the Mountain Division Line, a prior GPCOG study ruled out this corridor for passenger service, and growth opportunities further west are limited.

Site 3 has limited bicycle and pedestrian access, and transit service is minimal. The quarter-mile walkshed is tightly constrained by the Veterans Memorial Bridge overpass, railroad tracks, and grade changes along the Western Promenade, reducing connectivity to surrounding destinations. The site would require a shuttle connection to the Concord Coach Lines bus terminal and has limited integration with local bus service. Only Metro Route 1 serves the area, looping via St. John Street and Congress Street in a manner unlikely to generate significant train-to-bus ridership. Site 3 also falls outside the focus of Metro's Bus Rapid Transit study. This means that Site 3 would be more dependent on auto trips but less accessible by car than the current PTC location.

From an infrastructure perspective, *Site 3 cannot accommodate larger passenger platforms or a future rail bypass track,* which may constrain long-term operations and expansion. While the site offers some operational advantages—such as more efficient movement of out-of-service trains to the PTC layover facility—these are limited by the small number of daily train movements since the primary layover facility is in Brunswick and the Mountain Division connection's infeasibility.

Site 3 is not supported by the City's long-range planning. Any redevelopment at Site 3 would require rezoning to introduce mixed-use development, potentially disrupting the existing industrial fabric. This type of change is not supported in *Portland's Plan*, which instead identifies Congress and St. John as the nearest area for focused growth. Further, the plan supports the retention of our core industrial employers as a critical component of the region's economy. From a smart growth perspective, the site is located further from existing infrastructure and job centers compared with underdeveloped areas closer to Congress Street, which have greater potential to support significant development. Furthermore, locating the station at this site would run counter to the City's Vision Zero, Complete Streets, and reduced car-dependency goals. The site is less accessible for pedestrians and cyclists, has limited public transit connectivity, and would force non-drivers to navigate an environment dominated by cars, a Metro bus depot, and adjacent industrial businesses with heavy truck traffic and maneuvering needs.

Lastly, to support the auto-centric nature of the station, additional analysis and partnerships would have to be explored, including the consideration of train station

parking on the Northern Light Mercy Hospital site, so there could be direct access to I-295 via the Fore River Parkway, otherwise the existing PTC is more accessible via automobile. Given current travel patterns and network limitations, Site 3's distance from transit connections poses a significant barrier to attracting and retaining riders and supporting Portland's desire to reduce auto-dependency and support growth in transit ridership.

City Staff Conclusion
From the City's perspective, Site 2 offers strong connectivity to public transit and bicycle-pedestrian networks, supporting equitable access to regional and interstate rail. It provides an opportunity for a multi-modal hub within walking distance of residences, businesses, recreational facilities, and Maine Medical Center. Zoned TOD-2 and B-2b, the site is well-suited for mixed-use, compact urban development, promoting sustainable economic growth, reducing car dependence, and delivering related environmental and economic benefits. It aligns with City policies and meets key project requirements, including parking, vehicular, pedestrian, bike, and transit access, as well as compatible land use.

In contrast, Site 3 is more automobile-dependent, similar to the current PTC station, with limited access to transit, bicycle, and pedestrian infrastructure. It lies beyond reasonable walking distance to residential, employment, and recreational destinations and is less likely to support future economic or housing development. Although Site 3 may appear advantageous due to its proximity to the Mountain Division, these benefits are outweighed by the clear advantages of Site 2 and the fact that the Mountain Division has already been ruled out for passenger rail. Additionally, Site 3's design and layout may require substantial transportation infrastructure improvements to ensure safe and accessible access for riders, and may have broader impacts and result in displacement of existing businesses.

Policy Considerations: Advancing Portland's Transit and Development Vision

All major infrastructure decisions involve tradeoffs. In considering the potential relocation of the train station, the committee should weigh how the project aligns with the City's adopted policies and long-standing priorities. These policies consistently emphasize safe, sustainable, and equitable development, and underscore that achieving these goals depends on effectively integrating land use and transportation. By pairing compact development with robust transit, the City can expand mobility options, reduce reliance on cars, and cut greenhouse gas emissions.

Even as far back as the 1993 Transportation Master Plan, *A Time of Change,* Portland leaders recognized the need to co-locate compact development and transportation hubs within major activity centers. The 1993 plan highlighted several potential sites for multimodal centers, including:

- **Union Station Area** – envisioned as a regional hub combining Amtrak and intercity bus services.
- **Maine Medical Center** – identified as a major activity generator.
- **St. John Street** – proposed for a passenger rail station behind the former Maine Central Railroad office.

The 1993 plan also underscored that public transit only thrives where there are potential riders, where the zoning allows for both population density and the concentration of jobs, goods, and services that people need to access, and where there are seamless connections to other modes of public transit. These themes were carried forward in subsequent planning efforts.

A. **Portland's Plan 2030**, adopted in 2017, engaged more than 3,000 residents and businesses over several years to shape a shared vision for the City. The comprehensive plan's future land use framework focuses growth in targeted areas, identifying Congress Street as a priority corridor and the intersection of Congress Street and St. John Street as a priority node. These areas are designated as locations well-suited for dense, mixed-use development that can both support and be supported by robust transit. The plan emphasizes smart growth, transit-oriented development, Complete Streets, and reducing automobile reliance through compact, connected neighborhoods. Its overarching goal is to advance sustainable land use and transportation policies that promote housing and job growth in transit-rich locations, foster multimodal access, and lead to a more connected city.
B. **One Climate Future**, adopted in 2020, the City's climate action plan, set ambitious goals: reducing community-wide greenhouse gas emissions 80% by 2050 and ensuring that by 2035, 26% of all trips in Portland and South Portland are made by public transit or active transportation. Achieving these targets requires investment in our transportation network - safe street designs, connected bicycle facilities, and a major expansion of public transit to make travel more accessible and seamless. It also requires smart land use. One Climate Future identifies transit-oriented development (TOD) as a core climate strategy—by clustering housing and businesses near transit and in walkable, connected neighborhoods, cities can bring more people closer to jobs and services. Equally important, the plan emphasizes equity, ensuring that residents who rely most on public transit—whether due to income, disability, or other factors—are actively involved in shaping decisions that connect homes, businesses, open spaces, and community resources.
C. **ReCode** was unanimously adopted by the City Council in 2024 after a seven-year process that engaged thousands of residents, businesses, and stakeholders. *ReCode* was about putting *Portland's Plan, One Climate Future,* and other prior planning work into action. Guided by prior policy directions and extensive public input, the update designated the area around Site 2 as TOD-2—Portland's highest-density zone outside downtown—to support mixed-use, transit-oriented development near Maine Medical Center and existing transit routes. Industrial zoning was retained south and east of D Street to support active businesses and preserve connections to the working waterfront, freight rail, and I-295, avoiding the need to route truck traffic through urban or residential areas. Together, these zoning decisions reflect a deliberate strategy to concentrate growth and transit investment around Congress Street and St. John Street while maintaining essential industrial functions nearby.
D. **Vision Zero**, in 2025 the City Council unanimously adopted Resolve 8-24/25, which expressed the City's support for adopting GPCOGs' Vision Zero Action Plan and committed the City to eliminating traffic fatalities and serious injuries on our transportation network. Achieving this goal relies on safe street design, enforcement,

strong community partnerships, and expanding the transportation network to support public transit, walking, biking, and safe mobility for all users, regardless of age or ability.

E. **Complete Streets** is a policy the Portland adopted in 2012, and recently updated with unanimous support from the City Council in 2025. This approach ensures streets are planned, designed, built, operated, and maintained to provide safe, convenient, and accessible travel for all users. While designs vary by context, they typically incorporate sidewalks, bike lanes, transit accommodations, crosswalks, lighting, and ADA-accessible curb ramps. Integrating transportation hubs into this network is essential to enhance safety and accessibility for all users. The region and MaineDOT also have Complete Streets policies consistent with these principles.

Portland's priorities are further reinforced by regional policies reflected in several GPCOG/PACTS initiatives, including:

- **Transit Tomorrow** – the long-range regional transit strategy for the Greater Portland area. It aims to make transit easier and more frequent, expand rapid transit opportunities, and promote transit-friendly land use policies that encourage development in villages and urban centers already served by transit.
- **Connect 2045** – the region's federally required long-range transportation plan, supporting mobility and growth across all travel modes—transit, freight, bicycles, and pedestrians. Guided by *Maine Won't Wait's* ambitious greenhouse gas reduction goals, the plan emphasizes the importance of a safe, accessible, and interconnected transportation network that integrates walking, biking, driving, and public transit.
- **Transit Together** – an initiative to improve coordination and integration among the region's public transit providers, making the system more seamless for riders, more efficient to operate, and better aligned with land use.
- **Gorham-Westbrook-Portland Rapid Transit Study** – an effort that examined the need for and benefits of a bus rapid transit line connecting Gorham, Westbrook, and Portland. It concluded that the most direct and fastest alignment would link USM Gorham, Gorham Village, downtown Westbrook, Rock Row, USM Portland, Maine Medical Center, downtown Portland, and the Eastern Waterfront.

FISCAL IMPACT

There is no direct fiscal impact associated with this item. However, any station location could result in future infrastructure needs, potentially requiring city funding to support improvements to and from the station.

CONCLUSION(S)

This item is presented for information and discussion. City staff find NNEPRA's alternatives analysis incomplete, leaving insufficient information to determine whether the no-build option (current PTC), Site 2, or Site 3 is most viable. Staff recommend a revised analysis, guided by a stakeholder steering committee, that incorporates broader engagement, further technical review, and exploration of potential partnerships with land owners. As part of this process, the City is also prepared to undertake additional TOD studies for the St. John Street area.

PRIOR COMMITTEE REVIEW
N/A

PREPARED BY

Kevin Kraft, AICP
Director
Planning & Urban Development

ATTACHMENTS
Attachment A – MaineDOT PTC Study 2021
Attachment B - PTC-MaineDOT Letter - 2021

NORTHERN NEW ENGLAND
PASSENGER RAIL AUTHORITY

September 19, 2025

TO: Kevin Kraft, Director of Planning & Urban Development
City of Portland

FROM: Patricia Quinn, Executive Director
NNEPRA

RE: City of Portland Staff Request regarding Portland Station Relocation

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Dear Kevin:

I am writing in response to the request received from staff from City of Portland ("Staff Request") by way of an email dated June 27, 2025 asking for a "proper and thorough" analysis of site locations for a relocated Amtrak Downeaster station in Portland.

At a high level, we can confidently state that the multi-year Alternatives Analysis conducted by VHB on behalf of NNEPRA and MaineDOT was detailed, thorough, and consistent with the legal requirements associated with site selection. The Analysis determined in 2024 that the Amtrak Downeaster station in Portland (Portland Station) should be relocated to a site along the mainline at the confluence with the Mountain Division Branch Line (a/k/a "Site 3"). VHB has described the process and findings in greater detail in the attached memorandum.

Additionally, the Staff Request asks for a "no-build" analysis, which has already been conducted. As noted in the attached memorandum, the Alternatives Analysis identified the challenges and high-level costs associated with the current station location, i.e "no-build" scenario. Further, a formal "no-build" analysis was undertaken in detail through a Benefit Cost Analysis (BCA) prepared in late 2024 by VHB as part of a grant application for federal funding to complete final design and construction of a new station at Site 3. This is also described more fully in the attached memo.

The Staff Request also asks for an analysis that is "transparent" and that uses "objective criteria," and in this regard, we can also confidently state that the extensive Alternatives Analysis conducted satisfies those requirements as is fully described in the attached memo.

At the conclusion of the multi-year site selection process, NNEPRA convened a Stakeholder Process to address concerns raised by Portland Staff late in 2024. Participants included MaineDOT, NNEPRA, CSX,

Amtrak, Maine Health, Portland Regional Chamber of Commerce, VHB, City of Portland staff ("Portland Staff"), and GPCOG staff.

Turning to the specifics of the Alternatives Analysis and why Site 3 was identified as the only viable site for a new Portland Station along the Mainline, three sites were studied. Site 1 was quickly eliminated as being unworkable. Site 2 is the site preferred by Portland Staff. Site 2 is predominantly on land owned by Maine Health which includes their parking lot, employee parking garage, and shuttle access area. Both during the Alternatives Analysis and during the Stakeholder Process conducted this year, Maine Health has repeatedly indicated that they are not willing to make their land available for Portland Station at Site 2 for a number of significant reasons. They were unequivocal in this regard. The passenger platform at Site 2 would also be adjacent to the Cumberland County Jail and would likely require property acquisition. NNEPRA recently confirmed with Cumberland County leadership that they have significant safety and security concerns about a train station adjacent to the Cumberland County Jail, and for these reasons, the County strongly opposes Site 2. Concerns raised by Maine Health and Cumberland County are over and above the significant operational and safety challenges raised by Amtrak and CSX regarding Site 2, as identified in the Alternatives Analysis.

Based on the multi-year Alternatives Analysis, as confirmed by information developed through the more recent Stakeholder Process, it is clear that Site 3 is operationally superior to Site 2 and is supported by the vast majority of stakeholders and members of the public. Site 3 is also the only site that is actually available for acquisition for a train station. For these reasons, there is no need or basis for further study or analysis on a site that is undesirable, unavailable and which has already been carefully studied over the course of many years according to standards laid out by federal law. Additionally, a train station at Site 3 will in no way constrain, and will in fact support, economic and transit-oriented development (TOD) along the St. John Street corridor.

As a final note, with only one site available for relocating Portland Station, we look forward to working cooperatively with Portland Staff to design and construct a modern passenger rail station at Site 3 which meets the needs of the travelling public and supports economic prosperity in Portland and the region. Only by relocating Portland Station to the Mainline can the public, and communities along the Downeaster corridor, benefit from lower operating costs, reduced travel time on the Downeaster, increased ridership that will reduce harmful emissions from automobiles, enhanced potential for TOD and increased opportunities to increase Downeaster frequency or to provide passenger rail service beyond Portland should expansion become viable.

Date: **August 19, 2025**
Project #: 55095.21

Memorandum

To: **Patricia Quinn, Executive Director, NNEPRA**

From: **David Senus, PE & Gordon Edington, PE, VHB**

Re: **Portland Station Relocation – Response to City Request**

Request from Portland City Staff

We were asked to respond to a request received from City of Portland staff by way of email dated June 27, 2025. The request reads as follows:

> *One question that continues to remain open, however, is the request to conduct a proper and thorough alternatives analysis. Specifically, we request that the analysis include a no-build scenario with comparative cost and ridership analyses, and a transparent cost-benefits assessment of all reasonable alternatives using objective criteria.*
>
> *Without an appropriate alternatives analysis, we continue to lack a clear basis to determine which site—including the current location—is most advantageous and represents what is in the best interest of the City of Portland and is the best use of public funds.*

This email was provided to the Northern New England Passenger Rail Authority (NNEPRA) following the second of two recent stakeholder meetings conducted by NNEPRA related to relocation of NNEPRA's Portland Station. This memorandum is intended to address the request noted above, including a detailed discussion of the steps followed by NNEPRA related to identification of a site for a new Portland Station.

Response

VHB, in partnership with NNEPRA and MaineDOT, has conducted a proper, thorough and comprehensive Alternatives Analysis for a new Downeaster station on the CSX Freight Mainline ("Mainline") in Portland. The process was multi-year and collaborative, incorporating technical analysis, stakeholder input, and public engagement. A thorough and detailed benefit-cost analysis (BCA) has also been prepared in compliance with federal guidelines in conjunction with a grant funding request intended to be submitted by NNEPRA to finance the design and construction of a new Portland Station.

Alternatives Analysis Process for Portland Station

1. **MaineDOT Study (2021):**
   In 2021, MaineDOT finalized a study recommending further study for the eventual relocation of Portland Station to a site along the Mainline. The study found that the Downeaster's current Thompson's Point station requires inefficient train backups that add 15 minutes per trip which increases costs, limits service frequency and discourages ridership. The study recommended further study of the relocation of Portland Station to the Mainline.

Memorandum

2. **NNEPRA Initiates Alternatives Analysis for Relocation of Portland Station (2021-24):**
   In 2021, NNEPRA initiated a detailed study process to evaluate siting options for relocating Portland Station along the Mainline, as recommended by the 2021 MaineDOT Study. The Alternatives Analysis was completed in accordance with the project planning process outlined in the Federal Railroad Administration (FRA) Guidance on Development and Implementation of Railroad Capital Projects.

3. **Sites Considered through the Alternatives Analysis:**
   Three locations along a half mile stretch of the Mainline nearest the current Portland Station were evaluated:
   - **Site 1**: North of Congress St (McDonald's area)
   - **Site 2**: South of Congress St (near Union Station Plaza)
   - **Site 3**: Adjacent to Mercy Hospital near St. John Street

4. **Evaluation Criteria:**
   Each site was assessed against the same standard criteria:
   - Ability to support safe and efficient train operations
   - Availability of property to support parking needs
   - Vehicular, pedestrian, bike and transit connectivity
   - Proximity to employment centers and demand generators
   - Compatibility with land use and development initiatives
   - Ability to support future rail service expansions

5. **Public and Stakeholder Engagement:**
   - Ongoing engagement with Amtrak, CSX, MaineHealth, Northern Light Mercy Hospital (Mercy), Greater Portland Metro, Greater Portland Council of Governments (GPCOG) / Portland Area Comprehensive Transportation System (PACTS) and Portland City staff
   - Two virtual public meetings were held with extended comment periods
   - Comments made at the two public meetings and in the public comment portal reflected overwhelming public support for Site 3

6. **Key Findings:**
   - **Site 1** is not viable due to location and track infrastructure limitations.
   - **Site 2** was not selected as the preferred location due to multiple site and rail operational challenges, including:
     - Site 2 presents significant operational challenges specific to Congress Street grade crossing impacts, requirements for the installation of a third track (station track), and position in relation to railroad interlocking (which controls the safe passage of freight and passenger rail).
     - Site 2 abuts the County Jail to the west. The western platform and associated building / support infrastructure would be located partially on or directly abutting the County jail. The County has submitted a letter in opposition to siting the station immediately adjacent to the jail.
     - Site 2 requires acquisition of land from MaineHealth, which has unequivocally stated that the land is not available for train station development.

- **Site 3** has been identified as the preferred location for numerous reasons:
  - Site 3 is the only site with direct access to maintenance facilities on the Mountain Division and best supports train operations, creates no new impacts to grade crossings, and requires the least amount of costly infrastructure improvements.
  - Site 3 is the only site that provides direct access to the Mountain Division branch, which preserves the opportunity for future passenger rail development to the west.
  - Site 3 is supported by Amtrak, CSX, MaineDOT, the Portland Regional Chamber of Commerce, and the majority of the public providing site selection comments during and following the public meetings.
  - Site 3 offers direct access to more jobs and best improves pedestrian/bike connectivity by connecting St. John Street to the Fore River Parkway.
  - Site 3 is comprised of land where acquisition is possible.
  - Site 3 provides connectivity to the Fore River Parkway and the opportunity for future parking through collaboration with Mercy Hospital.
  - Site 3 provides the most direct access to the Concord intercity bus station.

7. **NNEPRA Board Supports Site 3:**
   - In June 2024, the NNEPRA Board of Directors voted to support Site 3 based on the technical findings of VHB; input from key stakeholders such as CSX, MaineDOT, and Amtrak; public feedback from a public meeting; and written comments received through the public portal. Following the Board vote, NNEPRA held a second public meeting to determine whether the public supported the Board decision. The majority of comments specific to site selection that were received at the second meeting supported the Board's selection of Site 3.

8. **Summary Report:**
   - A Portland Train Station Relocation Planning Report dated December 5, 2024, was prepared and submitted to NNEPRA (Final Report) summarizing the Alternatives Analysis process, findings, and recommendations. The Final Report included a description of analysis conducted prior to the vote of the NNEPRA Board, noted the Board's action in August 2024, and included subsequent information received after the Board vote. The additional information received after the Board vote confirmed the earlier findings in support of Site 3 and the Board declined to take any action to modify its earlier support for Site 3.

Benefit Cost Analysis and Additional Stakeholder Engagement:

Benefit-Cost Analysis (BCA) (2024):

- A Benefit-Cost Analysis (BCA) for relocating Portland Station at Site 3 was drafted in December 2024, in preparation for a grant funding application to the FRA. The BCA was prepared following United States Department of Transportation (USDOT) methodology, as required by the FRA Notice of Funding Opportunity, and measured the benefits and cost of relocating Portland Station as compared to the no-build baseline.
- The BCA found that Site 3 yields $63M in benefits vs. $37M in costs (in 2022 dollars), with a BCA ratio of **1.71**.
- Compared to a "no-build" baseline, Site 3 would save 52,000 hours/year in travel time, reduce 1.5M vehicle miles annually, and improve operational efficiency by $17.7M over 20 years.

Additional Stakeholder Collaboration (2025):
Stakeholder meetings in March and May were held to address Portland City staff concerns subsequent to the conclusion of the Alternatives Analysis process. Questions regarding the following topics were raised by City staff and addressed:

- **TOD Compatibility**: Site 2 and Site 3 are located approximately a ¼ mile (1,200 feet) apart as measured along the Mainline. Site 3 aligns with TOD principles and is located within a ½ mile walking distance of the TOD2 zone, the distance defined by the Federal Highway Administration and other urban and transit planning resources as the walking range for a TOD site to a transportation station.
- **Site Availability**: MaineHealth has clearly stated that Site 2 is not available for station development. CSX has stated that they do not undertake site analysis for sites where the land will not be available.
- **Operations and Safety**: Site 2 would increase grade crossing closures and train conflicts at Congress Street; Site 3 would result in no increase either. CSX requires a 3rd, parallel track at Site 2 to serve as a Station Track.

Conclusion and Next Steps

The Alternatives Analysis is complete, technically sound, and consistent with federal requirements. Delays in advancing this project continue to impose ongoing costs, service inefficiencies, and uncertainty for the community and property owners. Site 3 remains the **only viable and available** location that meets the needs of the Downeaster service and aligns with regional mobility goals.

Background: Alternatives Analysis Process and Recommendations

The **Purpose** of the Portland Station Site Alternatives Analysis (Analysis) conducted by VHB was to identify a location for the relocated Portland Station along the Mainline.

The Alternatives Analysis included a **Problem Statement** documenting that the current station location at the Portland Transportation Center (PTC) on Thompson's Point is on a railroad branch line which requires trains to exit the Mainline and change direction twice, adding 15 minutes to travel time for ten trains each day. This results in scheduled travel time that makes the Downeaster less competitive with roadway modes (impeding ridership growth) and interferes with the movement of freight rail. Relocating the station to a location on the Mainline is necessary to reduce passenger train travel time and freight conflicts, improve connectivity and proximity to employment centers/demand generators, and increase regional ridership. In calendar year 2023, 125,000 riders collectively spent more than 31,000 hours on Downeaster trains backing in and out of the PTC, resulting in 3,650 hours of crew overtime and the consumption of 8,600 gallons additional gallons of fuel. Annual costs to NNEPRA and the public are approximately $973K. The benefits of locating Portland Station along the Mainline were also documented in the Maine State Rail Plan published by MaineDOT in 2023.

The Analysis identified the **Project Needs** including a Mainline location with double track to support two boarding platforms, seamless access to existing train maintenance facilities on the branch line, nearby parking for 105 cars, multi-modal accessibility, convenient access to the PTC, compatibility with land use and development initiatives, and ability to support potential service expansions.

The study area included the approximately one-half mile corridor of the CSX Mainline on the Portland peninsula closest to established transportation networks, such as I-295 and city arterial streets, businesses, and residential areas.

- The Analysis evaluated three Mainline sites:
  - Site 1: north of Congress Street between McDonalds / Amato's (to the east) and La Quinta Inn (to the west)
  - Site 2: south of Congress Street between St. John Street and the County Jail, near the Union Station Plaza and Maine Medical Center Employee Garage
  - Site 3: between St. John Street and Mercy Hospital near the Metro offices/garage (to the east), Ferguson Showroom and Warehouse (to the north), Mercy Hospital to the west, and Tyson-Barber Foods (to the south)

- All three sites were evaluated against the same objective criteria which considered:
  - Ability to support safe and efficient train operations
  - Availability of property to support parking needs
  - Vehicular, pedestrian, bike and transit connectivity
  - Proximity to employment centers and demand generators
  - Compatibility with land use and development initiatives
  - Ability to support future rail service expansions

- The Project team remained in direct communication with and gathered input from stakeholders (railroad partners, property owners, transit operators, City of Portland staff) throughout the multi-year Analysis process.
  - Amtrak and CSX both support Site 3 for the following reasons:
    - It is the only site with direct access to existing train maintenance facilities near the PTC
    - Site 3 would best improve efficiency of train movements
    - Site 3 would not impact the Congress Street grade crossing
    - Site 3 would require the least amount of railroad infrastructure modifications/investment (i.e. – no station track and minimal modifications to the interlocking and signalization system)
  - MaineHealth, the property owner of Site 2, expressed concerns with station development at Site 2 due to:
    - Conflicts with employee parking and shuttle service corridor that may raise safety concerns for employees due to increased vehicular traffic
    - Potential for increased grade crossing closures at Congress Street, a critical ambulance corridor
    - Limitations on the ability to expand to accommodate the community's increasing healthcare needs
    - Potential to jeopardize the rehabilitation of the adjacent historic office structure
  - Northern Light Mercy expressed a willingness to work collaboratively with NNEPRA to explore options that are mutually beneficial at Site 3, with the assurance that the integrity of their campus and safety of their employees and patients would be preserved.

- Greater Portland Metro indicated a willingness to work with NNEPRA to accommodate future bus service at any of the sites selected. Given that train service at a relocated Portland Station would enable 6 round trips of the Amtrak Downeaster, one more than the current 5 roundtrips, local bus service can be provided through 12 passes of a local Metro bus each day, which is believed to be very achievable.
- City of Portland planning staff identified Site 2 as their preferred location based on their vision of land use at that location, view of connectivity to bike and pedestrian networks and access to high frequency bus routes.

- The Alternatives Analysis included extensive public outreach.
  - A virtual public meeting was held in April 2024 to present information about the Project, describe the characteristics of the three sites under consideration, and to gather feedback.
    - More than 100 people participated; written public comment was accepted for two weeks following the meeting.
      - Formal comments were provided by more than 60 individuals
      - The public provided overwhelming support for relocating the Portland station
      - Site 3 was favored among public respondents expressing an opinion on location
  - In June 2024, VHB presented the findings of the technical analysis, stakeholder input, and summary of public feedback at a public meeting of the NNEPRA Board of Directors.
    - The NNEPRA Board of Directors publicly voted that Site 3 best meets Project needs based on the following factors:
      - Site 3 is the only site which provides direct access to train maintenance facilities on the Mountain Branch and mitigates train conflicts most effectively
      - Site 3 requires the least costly railroad infrastructure improvements (i.e. – minimal signal modifications and no station track)
      - Site 3 would have no impact on Congress Street grade crossing closures given that the baseline "no-build" scenario exhibits the same operational characteristics as Site 3
      - Site 3 is the only site which creates bike and pedestrian connectivity between St. John Street, Portland's West End neighborhoods, and the Fore River parkway. Site 2 is constrained by the County Jail to the west and would offer no connectivity.
      - Site 3 is the only site with direct pedestrian access to Mercy Northern Light campus
      - Site 3 provides the most opportunity for connectivity to the current Portland Transportation Center/Concord Coach lines via the Fore River Parkway
      - Site 3 is preferred by Amtrak, CSX and the general public
    - The NNEPRA Board of Directors passed a resolution directing NNEPRA staff to pursue station planning and development at Site 3.

- In August 2024, a second virtual public meeting was held to present the final summary of the Alternatives Analysis including a determination that Site 3 best meets project goals. A summary of stakeholder, public, and Board input was presented along with a recommendation to move forward with preliminary engineering and environmental review of Site 3. Public input was solicited at the meeting for two weeks following.
  - 51 people provided comment with most supporting the Project and selection of Site 3
  - The Project received considerable media coverage throughout the process
- The Portland Train Station Relocation Planning Report documenting the Siting Analysis process and recommendations was formally published in December 2024.

Background: Benefit Cost Analysis, Stakeholder Engagement, and Technical Evaluation

NNEPRA and MaineDOT proceeded to pursue grant funding for station design and construction of the new Portland Station through the FRA. VHB initiated preliminary engineering, design and environmental review of Site 3.

An application for funding through the FRA Federal-State Partnership (FSP) Program was drafted for submission in December 2024. A draft benefit cost analysis (BCA) was prepared to support the FSP application package utilizing December 2023 U.S. Department of Transportation's BCA methodology prescribed under the FSP grant program.

- Preparing a BCA is a substantial undertaking and requires input such as capital costs, which are estimated utilizing concept design plans, and also requires that projects be evaluated against a baseline 'no-build' condition.
- The BCA determined that the combined service improvements of a Portland station (at Site 3) are expected to achieve the following benefits, starting in 2030:
  - Save existing riders approximately 52,000 hours of travel time annually;
  - Increase ridership by approximately 20,000 passengers annually, savings those passengers roughly $16.5 million over 20 years in vehicle operating costs;
  - Reduce vehicle miles traveled by approximately 1.5 million annually;
  - Save approximately $17.7 million in Downeaster operating costs, partially covered by taxpayers, over 20 years; and
  - Save approximately $24 million in emissions related costs and $5 million in automobile congestion, noise, and safety costs over 20 years.
- The resultant BCA ratio for a Portland Station at Site 3 was determined to be 1.71, with benefits totaling $63,188,672 (in 2022 $) compared to the total capital costs of $36,892,631 (in 2022 dollars), yielding a net present value of $26,296,041.
- BCA's are only required to evaluate the Project for which funding is being sought. Information collected throughout the Siting Analysis, however, indicates that Sites 1 and 2 would have a BCA ratio less favorable than the BCA calculated for Site 3 due to the need for additional railroad related infrastructure, higher capital costs and fewer benefits on train efficiencies associated with Sites 1 and 2. Benefits derived from ridership would not vary for three sites within walking

distance of one another, with potentially lower ridership at Sites 1 and 2 without direct walking access to Northern Light Mercy Hospital.

VHB participated in additional stakeholder meetings to address questions and concerns raised by Portland City staff in March 2025 and May 2025. Participants included representatives from NNEPRA staff and Board, MaineDOT, MaineHealth, GPCOG/PACTS, Greater Portland Chamber of Commerce, CSX Transportation and Amtrak along with City staff. At these meetings:

- An overview of the Alternatives Analysis and the additional technical evaluations was provided along with assurances that the Analysis was complete and thorough and that all aspects of development had been considered as part of the multi-year site analysis process.

- Concerns raised by Portland City staff were addressed by subject-matter expert participants to provide further clarification and/or information regarding numerous topic areas including:
  - Ability to support TOD
    - A train station at Site 3 supports TOD and presents no barrier or limitation to the redevelopment potential for the properties located within the City's recently adopted TOD2 zones near Congress Street / St John Street under ReCode, and in fact supports TOD opportunities.
      - Site 3 is located approximately a ¼ mile (1,200 feet) from the TOD2 zone when measured along the Mainline, and within a ½ mile walking distance which meets TOD criteria as defined by the Federal Highway Administration and other urban and transit planning resources.
      - Site 3 is a catalyst for TOD at Site 2. Streetscape improvements along St. John Street can enhance connectivity of Site 3 to future TOD opportunities on Site 2.
    - Portland is the primary urban job base location in the region into which employees from surrounding communities travel for work.
      - Based on extensive ridership data provided by NNEPRA, individuals living within walking distance of Portland Station are not likely to commute by train to other Downeaster station communities. Rather, the commuting opportunities sustaining TOD are greater in the station communities north and south of Portland to commute into Portland.
      - Ridership data (2024) indicates that 92% of passengers boarding the Downeaster at Portland Station live in zip codes outside the City of Portland.
      - Site 3 is within walking distance of approximately 6,500 more jobs than the current location, has direct pedestrian access to Mercy Hospital and is immediately adjacent to the employee shuttle service for Maine Medical Center.
  - Train Operations
    - Amtrak described the challenges associated with train movements during regular service at the current station location and importance of ongoing access to existing train maintenance facilities via the Mountain Division branch line accessible from Site 3, but not directly accessible from Site 2.

- Amtrak and CSX described the risks and limitations of a station at Site 2, including grade crossing safety concerns and potential for extended closures, reinforcing that a station at Site 2 would increase grade crossing closure time and risk to the travelling public as well as infrastructure construction and maintenance costs. Technology could mitigate but not eliminate additional gate closure times and risks.
- NNEPRA and VHB have consistently noted that CSX would require a station track at Site 2. A station track at this location would involve constructing a new track aligned parallel to the existing two tracks, resulting in 3 parallel tracks within the limited width of the existing CSX right-of-way.

- Availability
  - MaineHealth consistently and repeatedly expressed their position that they do not support a train station on their property and that Site 2 is unequivocally not available for station development.
  - NNEPRA expressed collaboration with Northern Light Mercy to support a station at Site 3.

Substantial studies and outreach over the course of several years have culminated in the recommendation to pursue a new Portland Station at Site 3 and have verified that Site 2 is not viable or available for station development. Additional analysis will not result in a different conclusion.

Attachments:

- Draft Benefit Cost Analysis Technical Memo, prepared by VHB for NNEPRA, dated December 11, 2024

Portland Transportation Center (PTC)

Customer and Transportation System Study

May 2021

MaineDOT

Table of Contents

Executive Summary

Background

The Portland Transportation Center (PTC) has served as a hub for intercity bus service in the Portland, Maine region since beginning operation at Thompson's Point in 1996. With the addition of rail service in 2001, the PTC is also a transportation terminal for Concord Coach Lines' (CCL) intercity bus service to eastern and northern Maine and points south (particularly express service to Boston and NYC), as well as Amtrak's Downeaster service between Boston and Brunswick, managed by Northern New England Passenger Rail Authority (NNEPRA). The PTC terminal and property, including parking lot is owned and managed by CCL, while the Maine Department of Transportation (MaineDOT) owns an adjacent Park and Ride Lot on the north side of Thompson's Point Road that serves both bus and train customers.

From a transportation perspective, traffic on I-295 through Portland continues to grow, resulting in increasing safety and mobility issues. Growth in local, regional, and intercity/interstate bus and rail service is necessary to balance transportation needs long term and offset the auto dependency of the current location. While bus advocates support the current location due to its easy and immediate access to I-295 and parking availability, rail advocates support the opportunity to relocate to the rail mainline to improve travel times, safety, and maximize opportunity for future expansion. At the same time, the existing PTC facility is in urgent need of a terminal renovation, site improvements, additional parking capacity, and, if NNEPRA remains at the PTC, added train platform capacity. Municipal engagement is also essential to improving integration with transportation and land use in a meaningful and positive way.

Study Process

These challenges, opportunities and needs prompted the MaineDOT to initiate the current PTC Study in 2019. Principal Stakeholders include the City of Portland, CCL, METRO, and NNEPRA; additional stakeholders were engaged to contribute to Study analysis and findings. The Greater Portland Council of Governments (GPCOG) and the Portland Area Comprehensive Transportation System (PACTS) support this study by providing local and regional information and staff resources. While the intent of this Study is to assess future conditions and identify reasonable solutions based on known information, unknown long-term effects of the COVID-19 virus pandemic and its influence on modes of travel introduce uncertainty that may alter key assumptions and findings presented herein.

The PTC Study presents findings in two phases. Phase 1 centered on evaluating efficiency relative to meeting customer needs and realizing transportation benefits at existing and potential new locations as well as understanding the feasibility and potential benefits and costs of relocating bus and/or rail facilities. Phase 1 determined that additional analysis and a reevaluation of key assumptions was required. Phase 2 carried forward the emphasis from Phase 1, in addition

identifying possible new locations for consideration and analysis. The Phase 2 Alternatives Analysis focused on: maintaining CCL operations at the existing PTC location on Thompsons Point; continuing evaluation of potential benefits associated with relocating the rail station on the mainline; re-examining the benefits of the Wye track evaluated in previous NNEPRA and MaineDOT studies and the Phase 1 Alternatives Analysis; and completing a more detailed evaluation of bus and rail parking and operation requirements.

Findings & Recommendations

As part of Phase I of this Study, the Study Team, MaineDOT, and GPCOG developed and conducted Visual and Customer Intercept surveys of existing passengers using the PTC in the summer of 2019. These surveys are helpful to understand how people arrive at the facility – from parking, pick up/drop off, walking, biking, or via local transit – and customer origin, use and travel patterns, and modal flexibility. Survey results show that, although most customers use the PTC on an infrequent basis, they have a strong connection to using both modes of travel, would like to see improved connections to the downtown via transit or shuttle, and are split on whether or not separating the bus and rail stations is important to them. The potential for up to 47% of passengers to use both modes for trips to and from Boston points to a strong synergy for customers to use both bus and rail depending upon their trip purpose, schedule, time of travel, and cost.

Findings on bus and rail synergy speak to an important element of this Study: assessing whether benefits of keeping bus and rail operations in the same station location outweigh benefits that may be achieved by relocating the rail station to a new, more central location. Benefits of colocation can include increased ridership, improved efficiencies that reduce costs, improved coordination with other modes such as local transit, and enhanced economic and funding benefit opportunities. Conversely, with bifurcated stations, the ability for passengers to readily shift between modes will be notably reduced unless a shuttle or other means of transportation is provided between the separate stations. Synergy between modes also has implications for parking demand, with the need for on- or off-site parking at either facility depending on whether services are bifurcated.

Beyond surveys and implications for colocation, the Phase 1 analysis included evaluating four primary alternatives. After initial discussion, several alternatives were expanded to evaluate each based on full- and short-term parking needs, as well as separating bus and rail station locations. The resulting eight alternatives considered current and future mode of access, parking demand, and services using eleven measures of effectiveness (MOEs): safety, mobility, environmental, efficiency, customer accessibility, economic/community development/future vision, parking, costs, funding, mission, and benefit/cost (Table 5-5). Despite developing several iterations of alternatives to accommodate different study objectives, none of the Phase 1 alternatives rose to the level of a recommendation.

Based on outcomes of Phase 1 and discussion with the Principal Stakeholders, MaineDOT opted to continue with a second phase of analysis. The Phase 2 Study evaluated four alternatives in

addition to those already considered. While the Phase 1 focus on customer efficiency, modal connections, and mobility was carried forward into Phase 2, the following issues were foremost: maintaining CCL operations at the existing PTC location on Thompsons Point; continuing evaluation of potential benefits associated with relocating NNEPRA to a separate rail station on the mainline and resulting improvements in transportation and rail safety; re-evaluating the benefits of the Wye track; and completing a more detailed evaluation of bus and rail parking and operation requirements. MOEs were simplified in Phase 2 of the Study to include safety, mobility, operations, environmental, modal connectivity, ease of implementation, and costs (Table 6-5).

The quantitative and qualitative analysis of the Phase 2 Alternatives and supporting information from the Phase 1 findings result in a recommendation for further evaluation of Alternative 8, which envisions retaining the existing PTC location on Thompson's Point for bus operations and developing the Union Station area adjacent to Congress Street for rail operations. Using the MOEs, this alternative can provide the highest transportation benefit coupled with the highest customer benefits of all alternatives evaluated. The value of transportation benefit should be considered above all other benefit opportunities. While the benefit-to-cost ratio for Alternative 8 is less than 1.0, further evaluation could identify additional transportation, economic, and land use benefits that could help offset identified costs for this alternative. The Study Team further recommends MaineDOT pursue both short-term and long-term actions. Short-term actions would begin immediately and ideally conclude within the next two years. The timing of long-term actions could be dependent on opportunities and required level of investment, beginning prior to the conclusion of some or all short-term actions and concluding within the next five years.

Short-term Actions:

1. Create a short-term investment, operation and maintenance PTC plan that focuses on enhancing both bus and rail ridership and maximizing benefit to both the customer and transportation system.
2. Conduct a more detailed evaluation of Alternative 8 to provide a greater level of information to support advancing this alternative, including an analysis of creating connectivity between the bus and rail stations. This effort should encourage participation from relevant Principal Stakeholders and other stakeholders.
3. Incorporate short- and long-term actions into local/state/agency master plans.

Long-term Actions:

1. Identify sources and secure funding to implement Alternative 8 if more detailed evaluation shows benefits outweigh costs.
2. If further study shows positive benefit-cost comparison, implement Alternative 8 under a set of conditions that address landowner willingness, NNEPRA and City of Portland support, consistency with the area's current master plan, options for creating connectivity between separate modal facilities, and securing funding.
3. Identify a public entity to own and/or operate the PTC and new rail station(s), similar to many public transportation centers, thereby allowing opportunity for all modes and carriers to be equally managed and invested.

1. Introduction

1.1 Preface – COVD-19 Pandemic

The Portland Transportation Center (PTC) Customer and Transportation System Study (Study) began in June 2019, prior to the COVID-19 pandemic which began to significantly impact the nation in March 2020. During the pandemic, bus and rail passenger ridership at the PTC and throughout the rest of the nation have been dramatically altered. The intent of this Study is to assess future conditions and identify reasonable solutions based on information known prior to the pandemic. However, the long-term effects of the COVID-19 virus are unknown at this time and may alter key assumptions and findings presented in this Study.

1.2 Background

The Portland Transportation Center (PTC) serves as a transportation terminal in Portland Maine for Concord Coach Lines' (CCL) intercity bus service to eastern and northern Maine and points south (particularly express service to Boston and NYC), as well as Amtrak's Downeaster service between Boston and Brunswick, managed by Northern New England Passenger Rail Authority (NNEPRA). The PTC terminal and property, including parking lot, is located on the south side of Thompson's Point Road and is owned and managed by CCL. The Maine Department of Transportation (MaineDOT) owns an adjacent Park and Ride Lot on the north side of Thompson's Point Road that serves transit customers (both bus and train). The PTC is shown in Figure 1-1.

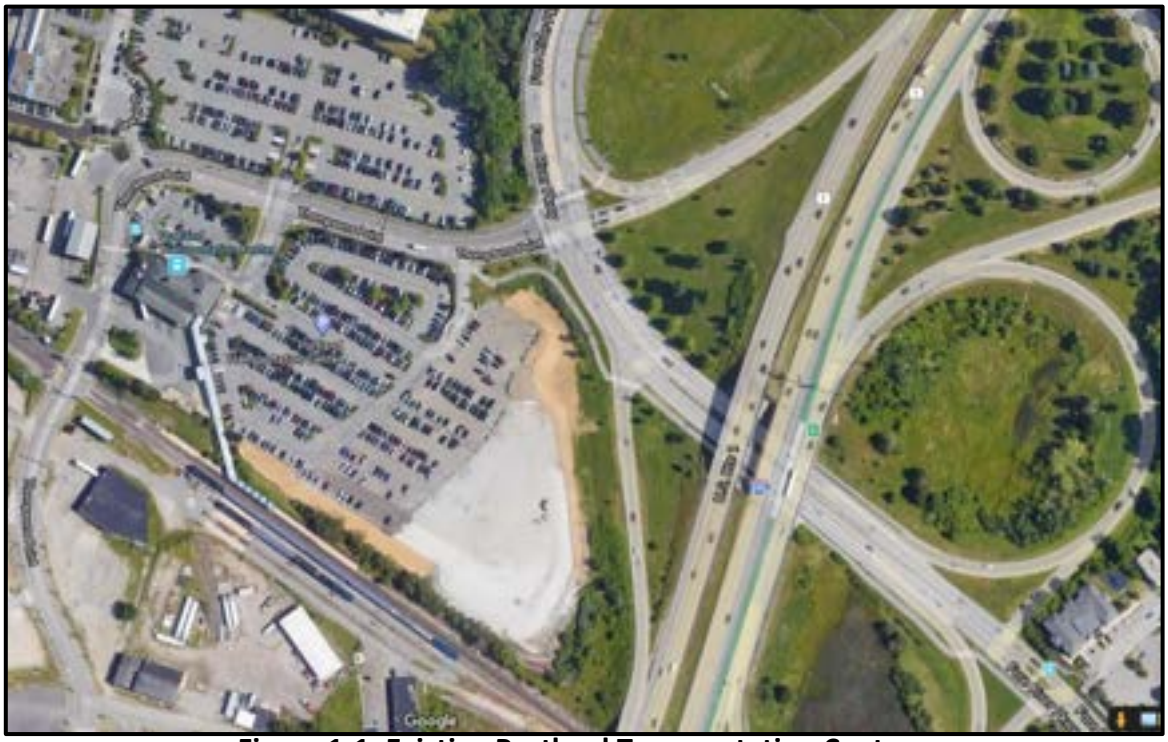


Figure 1-1: Existing Portland Transportation Center

The PTC is in urgent need of a terminal renovation, site improvements, and additional parking capacity, and if NNEPRA remains at the PTC, added train platform capacity. CCL, MaineDOT, NNEPRA, City of Portland and Forefront Properties (owners of the adjacent property south of the railroad tracks) began a discussion in 2017-18 regarding the best way to optimize use of the combined properties to serve mutual needs and potentially expand access to additional transit providers including Greyhound. CCL has begun to expand parking to the east of the existing facility, but more parking will be needed to support future parking demand. NNEPRA has indicated that the location of the station on the Mountain Division spur was impeding ridership because trains currently need to back into the spur to pick-up and discharge passengers, adding time and cost to each trip. For this reason, NNEPRA is seeking a mainline location that will maximize efficiency of the Downeaster and fully realize its ridership potential for travelers within Maine, as well as between Maine and Boston.

This Study seeks to address the following deficiencies at the existing PTC location.

- Long-term customer needs based on growing bus and rail ridership
- Transportation system opportunities to improve safety and mobility
- Additional parking capacity needs, and continued use of overflow parking area on Thompson's Point during peak periods
- Additional rail track and platform infrastructure needs to address future service levels and track capacity
- Rail operational improvement opportunities to address reverse maneuver and improve rail travel times to/from Brunswick
- Remote location that limits residents and downtown Portland/waterfront visitors from walking and biking to/from nearby neighborhoods
- Transit access improvements for local transit users
- Roadway improvements to accommodate growth at the PTC and on Thompsons Point

Sites on the rail main line just to the north and south of the Mountain Division junction that could potentially support a station and benefit from redevelopment have been identified for further evaluation.

1.3 Study Purpose

The purpose of the PTC Study is to evaluate, from a customer and transportation system perspective, various alternatives to address the existing deficiencies identified above and recommend which alternative best balances identified costs as compared to documented benefits. The PTC Study's goal is to recommend practicable solutions that enhance customer satisfaction and improve long-term mobility and safety for the region.

The Study Area (Figure 1-2) is located in Portland, Maine and includes the area bound by the existing PTC to the west, Exit 6 of Interstate I-295, the Mercy Hospital campus along the Fore River Parkway to Veterans Bridge to the east, and the St. John and Valley Street area to the existing Greyhound Station to the north. Bus station locations to be evaluated will remain within

close proximity of Interstate 295 for ease of customer access, and rail station locations to be evaluated will be located along the Mountain Division branch or rail mainline within the Study Area.

Figure 1-2: PTC Study Area Map

1.4 Phased Approach

The PTC Study presents findings in two phases. Phase 1 centered on evaluating efficiency relative to meeting customer needs and realizing transportation benefits at existing and potential new locations as well as understanding the feasibility and potential benefits and costs of relocating bus and/or rail facilities. Phase 1 findings are based on the initial analysis completed in December 2019, which determined that additional analysis and a reevaluation of key assumptions was required. The Phase 2 Alternatives Analysis focused on: maintaining CCL operations at the existing PTC location on Thompsons Point; continuing evaluation of potential benefits associated with relocating the rail station on the mainline; re-examining the benefits of the Wye track evaluated in previous NNEPRA and MaineDOT studies and the Phase 1 Alternatives Analysis; and completing a more detailed evaluation of bus and rail parking and operation requirements. Phase 2 carried forward the focus on customer efficiency, modal connections, mobility and also identified possible new locations for consideration and analysis. The Summary of Findings and

Recommendations contained in this Study are based on both Phase I and 2 information. Each Phase is presented separately.

2. Study Outreach Process

2.1 Overview

The Portland Transportation Center Study (Study) began in June of 2019. The Study Team worked with MaineDOT and the Greater Portland Council of Governments (GPCOG) to identify the key Principal Stakeholders that would be integral to the Study evaluation process. The Principal Stakeholders will help review and provide input on the alternatives being evaluated and the final recommendations from this Study.

Additionally, the Study engaged numerous other stakeholders and interested parties during the process, including the general public. These other stakeholders and public input process are defined below.

2.2 MaineDOT, GPCOG, and the Principal Stakeholders

MaineDOT is responsible for statewide transportation by all modes of travel. It manages the existing transportation system safely and efficiently, supporting Maine's economy through investment of resources for its customers, and building trust with all users and benefactors of the transportation system. MaineDOT initiated this Study, seeking to understand solutions that best address the identified needs from customer and transportation system perspectives.

GPCOG serves as the region's metropolitan planning organization and supports MaineDOT in this Study effort by providing local and regional information and staff resources. In 2020, GPCOG merged with the Portland Area Comprehensive Transportation System (PACTS), a federal metropolitan planning organization (MPO) that coordinates transportation planning and investment decisions with the state, municipalities and public transportation partners. This merger enables the two organizations to work seamlessly together on regional issues, like safe roads, public transportation, housing, economic growth and environmental sustainability, all of which demand integrated strategies. While PACTS became a part of GPCOG, it retains its MPO responsibilities.

The Principal Stakeholders were identified in June of 2019 as the key parties that would provide critical input to the Study process, analysis, and ultimate findings. An overview of each Principal Stakeholder and the identified point of contact follows.

- ***City of Portland, Maine.*** The PTC is located within the City of Portland, which is responsible for promoting and planning for future growth within the Study Area. The City's Planning and Urban Development Department is responsible for comprehensive planning, zoning, transportation planning, and working with developers and neighborhoods on future growth opportunities. Recent City of Portland involvement in the Study Area includes Thompson's Point and the Libbytown neighborhood

comprehensive planning efforts. The City of Portland representative to this Study is Helen Donaldson.

- ***Concord Coach Lines (CCL).*** CCL provides intercity bus service in Maine, New Hampshire, and Massachusetts. In Maine, it operates between Bangor, Maine and Boston, Massachusetts, with its largest station at the PTC in Portland, Maine. CCL owns and operates the PTC facility as well as the southerly parking lot adjacent to the station, which contains approximately 300 paved spaces today with plans to expand to approximately 560 paved spaces in the future. The CCL representative is Benjamin Blunt.
- ***METRO.*** The Greater Portland METRO (METRO) provides fixed-route bus service in the Greater Portland area, serving communities north to Brunswick, west to Gorham, and south to South Portland. The existing PTC is served by METRO from either its Route 1-Congress Street route or the METRO BREEZ line. METRO bus service also provides other connections to local and regional transit systems. The METRO representative is Greg Jordan.
- ***Northern New England Passenger Rail Authority (NNEPRA).*** NNEPRA is a public transportation authority that manages Amtrak's Downeaster regional passenger train service between Brunswick, Maine and Boston, Massachusetts. The Downeaster has five daily round trips between Brunswick and Boston with 10 intermediate stops, including the PTC in Portland, Maine. Amtrak passengers use the existing PTC station, parking either the CCL or MaineDOT lots adjacent to the station and train platform. The NNEPRA representative is Patricia Quinn.

Four Principal Stakeholder meetings were held during the Study. Meetings were held in June 2019, August 2019, and December 2019 to discuss Study process, methodologies, assumptions, and key findings to date. Stakeholder review of the draft report occurred virtually due to the COVID-19 pandemic.

2.3 Other Stakeholders

Other stakeholders were provided updates on Study progress and asked for information as needed to contribute to Study analysis and findings. Other stakeholders contacted during the course of the PTC Study were:

- Maine Medical Center – Christopher Chop
- Mercy Hospital/Northern Light Health – Charlie Therrien
- Northern Hospitality – Chris Thompson
- Greyhound - Stephanie Gonterman
- Union Station – Brandt Sharrock

2.4 Public and Community Outreach

During the Study, the Study Team, MaineDOT, and GPCOG organized and facilitated gathering information from the general public and members of the community. Specific outreach conducted as part of this Study included:

- Customer Surveys. The Study Team, MaineDOT, and GPCOG developed and conducted a series of customer surveys of existing passengers using the PTC in the summer of 2019. The survey gathered important customer information directly that could be used to inform Study analysis and findings. Details of this survey are described in Chapter 3.
- Presentation to PACTS Committee. The Study Team provided an update to the PACTS Executive Committee on February 3, 2020. The update included a review of alternatives evaluated to date and a schedule to complete the Study Report.
- Presentation to City of Portland's Sustainability and Transportation Committee. The Study Team provided a virtual update to the City of Portland's Sustainability and Transportation Committee on May 20, 2020. This presentation, open to members of the general public, included a review of alternatives evaluated to date and a schedule to complete the Study Report.
- Public Comment on the Draft Report. The Draft Study report was posted to the MaineDOT webpage in February 2021. Public comment was requested through email and meeting notifications and accepted continuously throughout the study and the web posting. All public comments received were included in the Final Study Report.

3. Customer Surveys of Intercity Rail and Bus Passengers in Portland

3.1 Introduction

A key goal in this Study is to understand how existing PTC customers will be affected by each of the alternatives evaluated. To better understand intercity bus and rail customers, it was decided early in the Study process that a series of surveys would support the Study analysis and findings. The Study Team, MaineDOT, and GPCOG determined that Visual and Customer Intercept surveys would best gather customer information.

The Visual survey was used to understand how people arrive at the PTC – from parking, pick up/drop off, walking, biking, or via local transit. The Customer Intercept survey gathered specific information from passengers as they boarded either the bus or train at the PTC and Greyhound station, providing a greater level of detail than could be gathered from the visual survey. Details of each survey method are described in this Chapter along with key findings.

It is understood that, while the results of the surveys represent snapshots in time, the information provides statistically significant data points that can be used appropriately when estimating future conditions.

3.2 Survey Purpose

Conducting the PTC Visual and Customer Intercept Surveys achieved three principal objectives:

1. Help quantify the numbers of passenger trips to and from the PTC by their modes of access. The percentage of passenger trips made by mode served to estimate potential changes in passenger trips resulting from changes in local transit service and location of the passenger terminal which could affect walk or bike trips;
2. Help establish the correlation between PTC passengers and the number of on-site parked vehicles. Using the CCL hourly parking ingress and egress records for an entire year, a relationship was derived between passengers split into three groups by destination (i.e., to/from Logan and NYC, to/from South Station, and to/from North Station) and the number of parked vehicles by parking duration; and
3. Help to better understand the characteristics and attitudes of PTC customers as they relate to bus and rail operations and opportunities. This includes understanding customer trip purpose, frequency, specific passenger origin and destinations, and whether customers use bus, rail, or both modes when using the PTC.

3.3 Visual Survey

The Visual mode of access survey was conducted at the PTC on Wednesday, June 26, 2019. Weather conditions throughout the day were sunny and warm. Passenger counts took place

between 5:00 AM and 8:30 AM and between 11:00 AM and 8:00 PM. This 12-1/2-hour time period enabled the observation of passengers arriving that day for all five NNEPRA trains bound to Boston North Station and for 11 of the 14 pairs of CCL buses destined to Boston South Station and Logan Airport. An estimated 85% of all PTC passenger arrivals were observed and recorded.

Data on the mode of access or egress used by each person were recorded at 15-minute intervals and arriving and departing passengers tabulated by the number of persons in their entering and exiting group. Observed modes were as follows.

- Arrived or departed in a vehicle parked in one of the two onsite paid parking lots;
- Dropped off or picked up by a passenger vehicle, which included private automobiles, taxis, shared ride services such as Uber and Lyft, and privately-operated shuttle vans (e.g., Hyatt Place, Clarion, Ashton Gardens, Courtyard, Holiday Inn, Enterprise);
- Used public transit via the Metrobus and BREEZ stop adjacent to the PTC;
- Walked to or from the site. Although the majority walked along Sewall Street, it is possible that some of the passengers recorded as pedestrians walked to or from a vehicle parked on Sewall Street;
- Bicycled to or from the site; and
- Walked to or from the site in the direction of Thompson's Point. In this case, the survey was unable to observe the actual trip origin or destination and the commercial site at Thompson's Point or off-street parking in that area were assumed.

As expected, the predominant direction of travel during the early morning hours consists of passengers arriving to board a bus or train at the PTC. During the evening hours, the predominant direction of travel consists of bus and rail passengers departing PTC for their destination. During the middle of the day, arrivals and departures are relatively balanced. Figure 3-1 presents the numbers of passengers arriving at and departing from the PTC during the 60-minute period shown on the x-axis. A total of 693 passengers were observed arriving at the PTC on survey dates, while a total of 573 passengers were observed departing from the PTC. This overall arrival/departure imbalance is due largely to the count not including arriving and departing passengers over the entire 24-hour period.

As shown in Figure 3-1, the greatest number of passenger arrivals occurs in the morning before 7:15 am. For departures, the highest numbers occur after 3:00 pm with the peak occurring around 3:45 pm. The passenger arrival and departure numbers are viewed as consistent with a typical weekday, when the majority depart in the morning and arrive in the late afternoon to early evening.

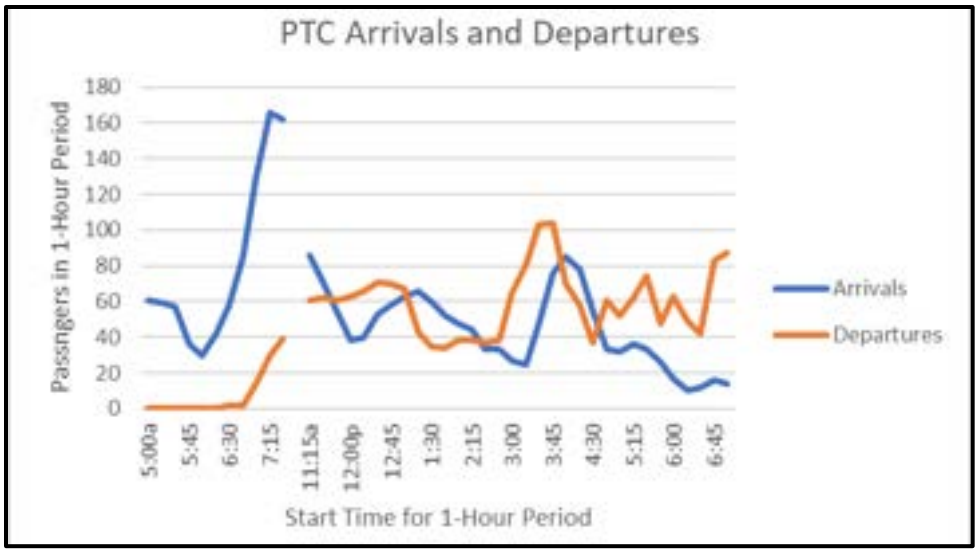


Figure 3-1: PTC Arrivals and Departures on Wednesday, June 26, 2019.

Results of the visual survey provide an initial estimate of the mode of access – passengers parking, being picked up/dropped off, walking, biking or using local transit. Table 3-2 summarizes the Visual survey mode of access results.

Mode of Access	Visual Survey
Parked on-site	39%
Dropped off	58%
Transit	1%
Walk	1%
Bicycle	1%
Total	100%

Table 3-2: Mode of Access for PTC Passengers – Visual Survey

3.4 Customer Intercept Survey

Boarding Amtrak and CCL passengers were interviewed by Study Team, MaineDOT, and GPCOG staff at the PTC on Thursday, July 18, 2019 and Sunday, July 21, 2019. Survey staff asked passengers to answer a series of questions designed to gather useful customer information and opinions on potential future conditions (Figure 3-2). A total of 504 valid surveys were gathered over the course of the two-day survey period. Boarding Greyhound passenger at the Congress Street station were also interviewed on Thursday, July 25, 2019 (weekday) and Sunday, August 4, 2019 (weekend), resulting in 24 additional usable surveys.

Approximately 25% of all bus and rail passengers were surveyed using the questionnaire during the two-day survey period. This enabled the Study to meet the goal of achieving a 95% confidence level, with a confidence interval of ±5% for all responses and by mode. More detailed evaluations of the data, either by date or mode, can be completed but will result in a lower confidence level and so should be used cautiously.

MaineDOT

6:00 am CCL Bus to South Station

Why are you being surveyed?

The Maine Department of Transportation is looking to gather information about customers who use the Portland Transportation Center (PTC). For the questions below, please describe the trip you are taking now, in one direction only.

1. **Where did your Trip today start?**
   Zip Code or City/State:_____
2. **This location is your?**
   Home:_____ Work:_____ Store/Shopping:_____ Recreation/Vacation/Friend:_____ Other:_____
3. **Where is your Trip today ending?**
   Zip Code or City/State:_____
4. **What is the Purpose of your Trip?**
   Work:_____ Vacation/Recreation:_____ Shopping:_____ Other:_____
5. **Number of people in your party/traveling with you:_____**
6. **How did you arrive to the PTC?**
   Drove & Parked Your Vehicle:_____ Was dropped off:_____ Walk_____ Bike:_____ Transit:_____ Other:_____
7. **If you drove and parked, would you consider parking at a nearby location and taking a shuttle if you could save money on parking?**
   Yes:_____ No:_____ Not Sure:_____ Depends on how much I would save:_____
8. **Would you have used local transit or a local, downtown Portland shuttle if convenient to arrive at the PTC?**
   Yes:_____ No:_____ Not sure:_____
9. **How often do you use the PTC?**
   Daily (3+ times per week):_____ Weekly (1-2 times per week):_____ Monthly:_____ Infrequently:_____
10. **When you use the PTC, do you use?**
    Bus only:_____ Rail only:_____ Both bus and rail:_____
11. **If the bus and rail stations were in separate locations – about a mile apart - would this matter to you?**
    Yes:_____ No:_____ Not sure:_____
12. **Will you return to the PTC on a return Trip? Yes:_____ No:_____**
    If yes: Today:_____ Tomorrow:_____ Other (duration in days):_____
13. **If, yes, what mode of travel will you use on your return Trip?**
    Bus:_____ Rail:_____ Other:_____
14. **If, no, did you use the PTC to arrive in Portland?**

    Yes:_____ No:_____

THANK YOU FOR YOUR PARTICIPATION – PLEASE PROVIDE ANY COMMENTS ON THE BACK OF THIS SURVEY

Figure 3-2: Customer Intercept Survey Questionnaire for sample date/time

The following sections provide key findings from the visual and customer intercept surveys.

3.4.1 Question 4 – Purpose of Trip

PTC passengers were asked to describe the purpose of the trip they were taking on the day they were surveyed.

Trip Purpose	All Survey Results	Weekday Survey Results	Weekend Survey Results
Work	19%	21%	18%
Vacation/Recreation	68%	69%	67%
Shopping	1%	0%	1%
Other	12%	10%	14%
Total	100%	100%	100%

Table 3-3: Trip Purpose for PTC Customers

Table 3-3 summarizes those results, showing that vacation/recreation is the purpose of most of the trips at the PTC, approximately 2/3 of all trips taken. This notable percentage can be anticipated given the time of year the survey was taken, and that Boston and trips to Logan Airport are likely vacation or recreation oriented. The percentage of work trips is greatest during the weekday but follows a similar trend on the weekend day.

3.4.2 Question 6 - Mode of Access to Station

Most PTC respondents arrived at the station were dropped off via passenger, while one-third parked a vehicle at PTC. Remaining respondents arrived at PTC by either METRO, bicycle, or foot. The mode of access to PTC did not vary significantly between passengers on longer duration trips (e.g., to Logan Airport or New York City on CCL) and shorter duration trips (e.g., to South Station on CCL or North Station on NNEPRA). As shown in Table 3-4, most passengers are dropped off at the station by passenger vehicle, with the long duration trips having a slightly higher percentage being dropped off (63% versus 60%). These results are comparable to the visual survey results described in Section 3.2. For the Greyhound passengers surveyed, 8% park, 54% are dropped-off, 15% walk, and 23% use transit.

Mode of Access	All PTC Interviews	Logan Airport & New York City (CCL) Passengers	South Station (CCL) and North Station (NNEPRA) Passengers
Parked on-site	33%	32%	34%
Dropped off	60%	63%	59%
Transit	3%	4%	3%
Walk	3%	1%	3%
Bicycle	1%	0%	1%
Total	100%	100%	100%

Table 3-4: Mode of Access for PTC Passengers

Visual and Customer Intercept survey results were combined to estimate existing mode of access percentages described in Chapter 5.

3.4.3 Question 7 - Acceptability of Discounted Remote Parking

Passengers arriving in a vehicle parked on-site were asked whether they would consider using discounted remote parking with a shuttle bus to and from the PTC (Table 3-5). The highest proportion of respondents indicated they were unsure, with half of those indicating that the amount of monetary savings would affect their decision. Equivalent portions of the respondents answered either "yes" or "no."

Passenger Willingness to Use Discount Remote Parking	CCL	NNEPRA
Yes	23%	18%
No	26%	13%
Depends on Savings	15%	11%
Not Sure	13%	12%
No Answer	24%	47%
Total	100%	100%

Table 3-5: Willingness to Use Remote Discount Parking for PTC Passengers who Park on-site

Survey respondents noted several factors influencing their acceptance of remote discount parking, namely trip purpose/duration, cost savings, distance of parking from the PTC (in particular, the time to travel by shuttle to and from PTC), and frequency and reliability of shuttle transport. Shuttle reliability is a key concern because while airport passengers must allow time for TSA screening, CCL and NNEPRA passengers can essentially arrive at the PTC within minutes of a scheduled departure and still have adequate time to board. Conversely, a five minute delay in getting to the airport is likely to have minimal effect on an airline passenger making the scheduled departure on-time; however, such a delay could cause a CCL or NNEPRA passenger to miss a bus or train if arriving within 5 to 10 minutes of a scheduled departure.

3.4.4 Question 8 - Potential Usage of a Downtown Portland Shuttle

Survey respondents were asked whether they would use local transit or a downtown shuttle for their trip to the PTC if it was convenient, to which about half of the respondents (51%) responded affirmatively while 30% responded they would not. The remaining 19% were not sure. The need for a local/downtown shuttle has been previously identified as a desired service by PTC customers and the response indicates a strong opportunity for this service to be successful.

3.4.5 Question 10 – Using Bus and Rail

To ascertain the level of familiarity and experience that PTC passengers have with all transit services between PTC and Boston, CCL and Greyhound passengers were asked whether they had ever used NNEPRA and vice versa (Table 3-6).

Carrier/Service	Alternate Service Used	Respondents Using Alternate Service
CCL Service to South Station/NYC	NNEPRA	46%
CCL Service to Logan Airport	NNEPRA	38%
NNEPRA Service to North Station	CCL	47%

Table 3-6: Synergy between Rail and Bus Service at the PTC

Almost 50% of PTC customers have used both bus and rail when using the PTC. The higher percentages are associated with trips to from Boston's North and South Stations vs. trips to/from Logan Airport.

To assess same-trip synergy between the Portland-Boston transit services, PTC passengers departing Portland were asked whether they expected to return to Portland for their current trip and, if so, on what travel mode. Approximately 11% of the PTC passengers reported their return trip would be via the other travel mode. In other words, approximately 11% of NNEPRA passengers to North Station intended to return to Portland via CCL service with a comparable percentage of CCL passengers to South Station returning to Portland via NNEPRA service.

To correlate and compare these same trip/different mode results, data collected for the CCL and MaineDOT lots adjacent to the PTC for one year was used to compare vehicle arrival time, likely departure time and service options. Similarly, potential "return-to-PTC" travel schedule and carrier were analyzed based on the time of departure from the parking lot associated with individual parking transactions. Based on this analysis, an estimated 5% of passenger roundtrips between the PTC and Boston use different carriers for the two trip legs.

Based on these results, we estimate that between 5-10% of all trips at the PTC are using different modes within the same round trip.

3.4.6 Question 12 - Parking Duration at PTC

Passengers expecting to return to the PTC were asked the length of their trip in days. For passengers arriving in a vehicle and parking on-site, this trip length also represents the duration of time their vehicle is parked at the PTC. Reported parking duration averaged 3.4 days. This value compares to the overall average parking duration of 3.6 days estimated from parking transactions data provided by CCL for the period from July 2018 through June 2019.

Parking duration varied according to the carrier used by the passenger (Table 3-7) and service destination. The maximum average parking duration occurred for CCL passengers traveling to Logan Airport, when the average parking duration was 6.7 days. Shorter parking durations were reported for those using CCL service to New York City or South Station and NNEPRA service to North Station.

Carrier/Service	Average Parking Duration
CCL Service to Logan Airport	6.7 days
CCL Service to New York City	4.3 days
NNEPRA Service to North Station	2.3 days
CCL Service to South Station	1.3 days

Table 3-7: Average Parking Duration by Carrier and Service

3.5 Maine Users of the PTC

A separate analysis used survey data to determine where in Maine PTC customers originate. While not all PTC customers are from Maine, understanding where Maine users live leads to a better understanding of whether alternate locations could encourage walk, bike, and transit usage as a way of reducing parking demand.

Trip origins taken from the survey data were grouped into three generalized locations: (1) the three communities whose residents , visitors, or workers are closest to the PTC – Portland, Westbrook, and South Portland; (2) communities in the remainder of the PACTS region; and (3) communities throughout the remainder of Maine (Table 3-8). Of note is that a significant proportion of PTC boarding passengers travel a relatively long distance to the station. Of those originating in Maine, 38% of CCL passengers to Logan Airport, 43% of CCL passengers to New York City, 31% of CCL passengers to South Station, and 55% of NNEPRA passengers to North Station are from outside the PACTS region. A smaller, but relatively consistent portion of the PTC passengers start their trip close to PTC in either Portland, Westbrook, or South Portland. The lowest percentages occur for the services that primarily serve customers who will not return for at least several days – CCL service to New York City and Logan Airport, while the highest percentage is associated with CCL service to South Station.

Region	CCL Passenger[1]			NNEPRA Passenger[2]
	Logan Airport	New York City	South Station	North Station
Portland, Westbrook, South Portland	28%	27%	35%	30%
Remainder of PACTS region[3]	34%	30%	34%	15%
Remainder of Maine	38%	43%	31%	55%
Total	100%	100%	100%	100%

Table 3-8: Geographic Origins of Maine Passengers Boarding at the PTC.

[1] The Maine address for CCL passengers is the billing address for the person purchasing a CCL ticket for passage to Boston and is derived from annual web sales transactions provided by CCL.

[2] The Maine residence for NNEPRA passengers is based on NNEPRA-provided information on passenger demographics.

[3] Biddeford, Falmouth, Gorham, Saco, Scarborough, Yarmouth, Arundel, Cape Elizabeth, Cumberland, Freeport, North Yarmouth, Raymond, Standish, and Windham

Trip origin data taken from the surveys presented above was later combined with annual NNEPRA zip code boarding data to refine the Maine origin of passengers using the PTC.

3.6 Bus and Rail Passenger Synergy

Based on interviews conducted with NNEPRA and CCL passengers boarding at PTC, an estimated 5 to 10% of passengers who travel to South Station or North Station in Boston on one mode (i.e., rail or bus) return to PTC via the other mode for a single round trip. If the NNEPRA and CCL station locations are bifurcated, a return trip to a separate station location from a passenger's departure only requires the pick-up driver to travel to the other station location. For passengers that arrive by transit, both station locations are assumed to be fully served by the expanded METRO service. However, a passenger who drives and parks at one location will require transport (likely via shuttle bus or regular METRO service) from the other station.

In the 2040 forecast year, approximately 300 passengers arrive each day in a vehicle and park on-site to ride either NNEPRA to North Station or CCL to South Station. Under the assumption that between 5 and 10% of these passengers ride a different mode on the return trip, an estimated 15 to 30 passengers per day would require a shuttle or some means of local transportation between the parking lots at bifurcated stations. Additionally, between 38% and 47% of passengers may use both bus and rail modes at the PTC during different trips. With bifurcated stations, the ability for these passengers to readily shift between modes will be notably reduced.

The potential for up to 47% of passengers to use both modes, primarily for trips to and from Boston, points to a strong synergy for customers to use both bus and rail depending upon their trip purpose and other considerations, including schedule, time of day, and cost.

4. Integrating Transportation Facilities

4.1 Introduction

An important element of this Study is to assess the benefits and impacts of keeping bus and rail operations in the same station location, balancing whether they are significant enough to offset other benefits that may be achieved by relocating the rail station to a separate location, bifurcating bus and rail operations.

Based on the customer survey data, approximately 10% of PTC passengers use both bus and rail. Based on an average monthly boardings of 25,000 bus and rail passengers[4], this could result in up to 2,500 passengers utilizing both modes at some point. Intercept survey data provided by NNEPRA[5] from Downeaster passengers indicates that 1/3 of all rail passengers would use bus if rail was not available, supporting the finding that some passengers do use both bus and rail depending on specific circumstances. While passengers may not use both modes each time , the current combination of bus and rail at the PTC can allow passengers to travel to Boston on one mode and return on the other readily knowing they can either access their parked vehicle, be picked up at the same location they were dropped off, or use the same alternate modes to and from the PTC.

4.2 Case Studies

The Study Team performed a literature search for similar bus and rail station studies to understand potential advantages or disadvantages posed by consolidated transportation facilities to passengers, facility operations, and the municipalities in which they reside. Although the Study Team did not find case studies mimicking the questions posed regarding the PTC, several case studies do illustrate some potential advantages and disadvantages of collocating rail and bus passenger facilities.

4.2.1 William Walsh Regional Transportation Center (RTC), Syracuse, NY. The RTC serves Syracuse's approximately 150,000 residents (2018) and 27 million visiting tourists (2017) by providing collocated intercity rail and bus services. Prior to creation of the RTC in the 1990s, rail and bus services had not operated out of a united facility since the 1960s. In creating a unified facility, rail and bus providers focused on improving the passenger experience with accessibility and connectivity and, as a result, passengers note enhanced convenience associated with making transfers between services. With over 28% of the working population in Syracuse using

[4] Monthly boardings based on March 2019 Concord Coach and Downeaster boarding data provided by CCL and NNEPRA

[5] Survey data provided by NNEPRA to Study Team in March 30, 2020 email

transit, consolidating transit providers at the RTC has led to sustainability of transportation services as well as a demand for restaurants, gift shops, and taxis at the facility. The availability of both short- and long-term parking supports additional hospitality services being provided at the RTC. However, despite these positive aspects of collocation, moving the bus facilities to the RTC, which is located north of the city, means that there is no meaningful contribution of either service to downtown redevelopment.

4.2.2 JMR Intermodal Transportation Center (ITC), Savannah, GA. Serving a similar resident population size to the RTC, the ITC sees approximately 35% of the daily commuters in Savannah and, in 2017, 14 million visiting tourists passed through on one or more of its transit facilities. Rail and bus facilities are bifurcated, with intercity, local and regional bus operated separately from Amtrak's rail service. Passengers note intentional rail and bus synergies that are maintained despite the separation of services, such as ease of connections between local and intercity buses, safe and easy bicycle and pedestrian access, and bus connections to the airport and Amtrak station. While ancillary services are available, no passenger parking is available at the ITC. Even with infrastructure limitations associated with the rail line being located outside of downtown, the ITC generally supports efficient, LEED Gold certified, mixed-use development in surrounding areas.

4.2.3 Fort Worth Central Station, Fort Worth, TX. As a city of approximately 900,000 residents (2018), Fort Worth is significantly larger than either Syracuse or Savannah; however, with about 5% of daily commuters using transit services, approximately the same number of daily travelers are served (~150,000) as in the two prior case studies, along with 5 million visiting tourists annually (2017). Central Station is an intermodal facility located on the edge of downtown Dallas-Fort Worth. While not strictly downtown, its close proximity to commercial and retail, institutional uses, educational facilities, and parking lots under development enhance connectivity for those traveling via vehicles as well as for bicyclists and pedestrians.

4.3 Benefits of Consolidated Transportation Facilities

Successful transportation centers focus on passenger connectivity and conveniences as well as the provision of better facilities. Based on the case studies summarized in Section 4.2, we conclude that converging multiple modes at a single node:

- Increases ridership;
- Helps local transportation agencies develop priority corridors;
- Improves efficiency;
- Addresses bicycle/pedestrian safety issues;
- Improves transit access and equity; and
- Increases viability of state/federal funding support.

Consolidated facilities are sustainable in that they support efficient land use; improve mobility and reduce VMT; and enhance viability of operational service and maintenance. Clustering transportation services has a direct correlation to economic development by attracting businesses, supporting services in and around stations, and encouraging higher intensity land uses. By contrast, bifurcating modes can have the opposite effect, enabling less dense land use around 'stand-alone' locations. Co-location of transportation services aligns itself with sound planning principles and addresses vital issues including passenger choice, transportation connectivity, economics, access and egress, funding and sustainability. A range of principles and issues are discussed below.

4.3.1. Passenger Choice and Connectivity. From the passengers' perspective, collocating multiple modes offers choice and flexibility based on the time and nature of travel. Providing multiple options can be an influencing factor in mode shift of a passenger from the auto mode to public transportation. Lack of choice in terms of frequency, comfort and fares can often dissuade passengers from shifting from the auto mode to the public transit mode. More than one mode of transportation at the same location also provides redundancy in transportation options, which can be critical during times of service disruption.

4.3.2 Providing Local Transit Services. One of the key aspects gleaned from the case studies described in Section 4.2 was that for a transportation center to be successful, it needs to be well served by the local transit system. Bifurcation of the transportation facilities presents more challenges to ensuring that the same level of local transit service is provided at multiple locations.

4.3.3 Access and Egress. Ease of access and egress constitutes a key element for any transportation center. This includes providing parking facilities as well as priority transit routes connecting the transportation center to other areas. Collocating services brings together a larger number of passengers and so the requisite investments in parking facilities can potentially be addressed at a single location, rather than at multiple locations. The resources needed for designation of priority corridors and implementation of traffic engineering controls is significantly less for a single location, rather for multiple locations.

4.3.4 Passenger Amenities. Bringing together passengers at a single location may provide the critical mass necessary to attract private retail and other services, such as high-speed internet. A larger number of passengers and longer combined operating hours associated with multiple modes of transportation can also result in longer durations of open waiting areas and service offerings. In this manner, co-located facilities reduce personnel costs associated with manning the transportation center.

4.3.5 Funding. A collocated facility ensures that capital and O&M investments made towards the development and operation of the transportation center are used most efficiently, rather than different modes seeking out individual investment dollars at separate facilities. Planned

consolidated investments may also make it easier to solicit and obtain funds from a variety of sources.

4.3.6 Economic Impacts. Grouping of transportation services can be a deciding factor in the relocation or expansion of businesses. Findings of a recent study undertaken by Economic Development Research Group (EDRG) titled "The Evolving Connection of Transit, Agglomeration and Growth of High-Tech Business Clusters" [61] details how high-tech business clusters are evolving so that bus and rail solutions are becoming enablers of their continuing and future growth.

4.3.7 Future Growth/ Development/ Provision of Additional Services. Collocating multiple modes of intercity travel ensures that any future transit actions would serve the needs of a broader spectrum of the population. If additional local transit connections are brought to a single, established location, transit riders will have broader options for intercity travel moving forward. The transportation nucleus can more effectively anchor future higher intensity residential and commercial developments rather than exacerbating dispersed development patterns.

4.3.8 Sustainability. Aggregated services and higher intensity of land use ensure a higher degree of inherent fiscal and environmental sustainability. A collocated facility reduces consumption of resources associated with the operations and maintenance of the facility as well as land area required. A shared facility is also a fiscally efficient approach, as infrastructure usage is maximized. This factor is diluted if the facilities for the two transportation modes are bifurcated.

4.4 Regional Public Transportation Vision

PACTS developed a 30-year plan focused on building the Greater Portland region's public transportation network. Coined "Transit Tomorrow", this long-range plan centers on improving the region's economy, environment, and quality of life by making transit easier, expanding local connections, and introducing rapid transit. Some of the benefits of consolidated facilities discussed in Section 4.3 support Transit Tomorrow recommendations, which include adopting a unified mobility platform, strengthening coordination among providers, feeding rapid transit corridors, and maintaining a regional perspective. The long-range vision of Transit Tomorrow is echoed in Moving Southern Maine Forward, the short-range plan developed by GPCOG and PACTS, which includes public transportation projects being implemented in the region aimed at improving the customer experience. Two of the tenants of this short-range plan are particularly relevant to this study:

[6] http://www.edrgroup.com/pdf/the_evolving_connection_of_transit_agglomeration_and_growth_of_high_tech_business_clusters_trb.pdf

- Better connect routes and schedules of transit providers; and
- Improve access to stops and stations.

Short and long-range transportation plans for the Greater Portland region directly link public services to local and regional land use decisions. In 2018, Portland and South Portland released their Smart Corridor Plan, which seeks to balance the needs and priorities of all roadway users and stakeholders along a critical 7-mile roadway corridor connecting these two cities and many of their neighborhoods and activity centers. The Smart Corridor Plan reinforces the connection between land use patterns and public transportation services, establishing the objective of high-quality development in the corridor. This plan did not evaluate the PTC and its role in serving regional transportation needs but its stated objectives to improve safety in all travel modes, manage traffic access and congestion in the corridor, and improve travel options and multimodal access in the corridor are inextricably tied to land use decisions, such as those involving development patterns and the colocation and coordination of transportation services by establishing "multimodal mobility hubs".

4.5 Conclusion

Survey data presented in Chapter 3 identified that approximately 10% of passengers who use the PTC will utilize both bus and rail modes for the same round trip. These values increase to between 38% and 47% of passengers who may use both bus and rail modes at the PTC during different trips.

While no specific case study was identified that supports or rejects the claim that having separate bus and rail station is the better for the customer, the information gathered does provide basis that collocating bus and rail operations provides benefits beyond simple mode choice at a single location. These benefits can include increased ridership, improved efficiencies which can reduce costs, improved coordination with other modes such as local transit, and provide enhanced economic and funding benefit opportunities.

Based on the survey results in Chapter 3 and the findings described in this Chapter, it is recommended that maintaining collocated bus and rail facilities be considered to maximize the benefit to customers, improve operational and maintenance efficiencies, and create enhanced land use and economic benefit opportunities. However, these benefits must be weighed with potential system-wide benefits that increase ridership and transportation mobility.

5. Phase 1 Alternatives Analysis

5.1 Phase 1 Introduction

The original scope of this Study did not envision a multi-phased analysis. It was intended that a recommendation or series of recommendations would be identified through the initial analysis and summary. As previously identified in Section 1.4, a second phase of the PTC Study was added after additional alternatives and the need to reevaluate key assumptions arose as a result of the Phase 1 analysis.

The Phase 1 results provided in this Chapter provide a strong foundation and focus for the Phase 2 Alternatives Analysis discussed in Chapter 6.

5.2 Phase 1 Objectives

Phase 1 had the following objectives.

- Focus on Customer Efficiency, Modal Connections, and Mobility. The overarching Study Purpose is to focus on customer needs and transportation benefits in evaluating existing and potential new locations.
- Understand the Feasibility and Value of Potentially Relocating the Bus and/or Rail Facilities. The Phase 1 alternatives analysis evaluates the potential to relocate the bus and/or rail facilities to new locations, as well as understand the associated costs, benefits, and feasibility.
- Assess Current and Future Bus and Rail Operation Needs. Bus and rail passenger needs continue to evolve. The Study evaluates current and future operation needs, including parking, ridership, safety, and connectivity.

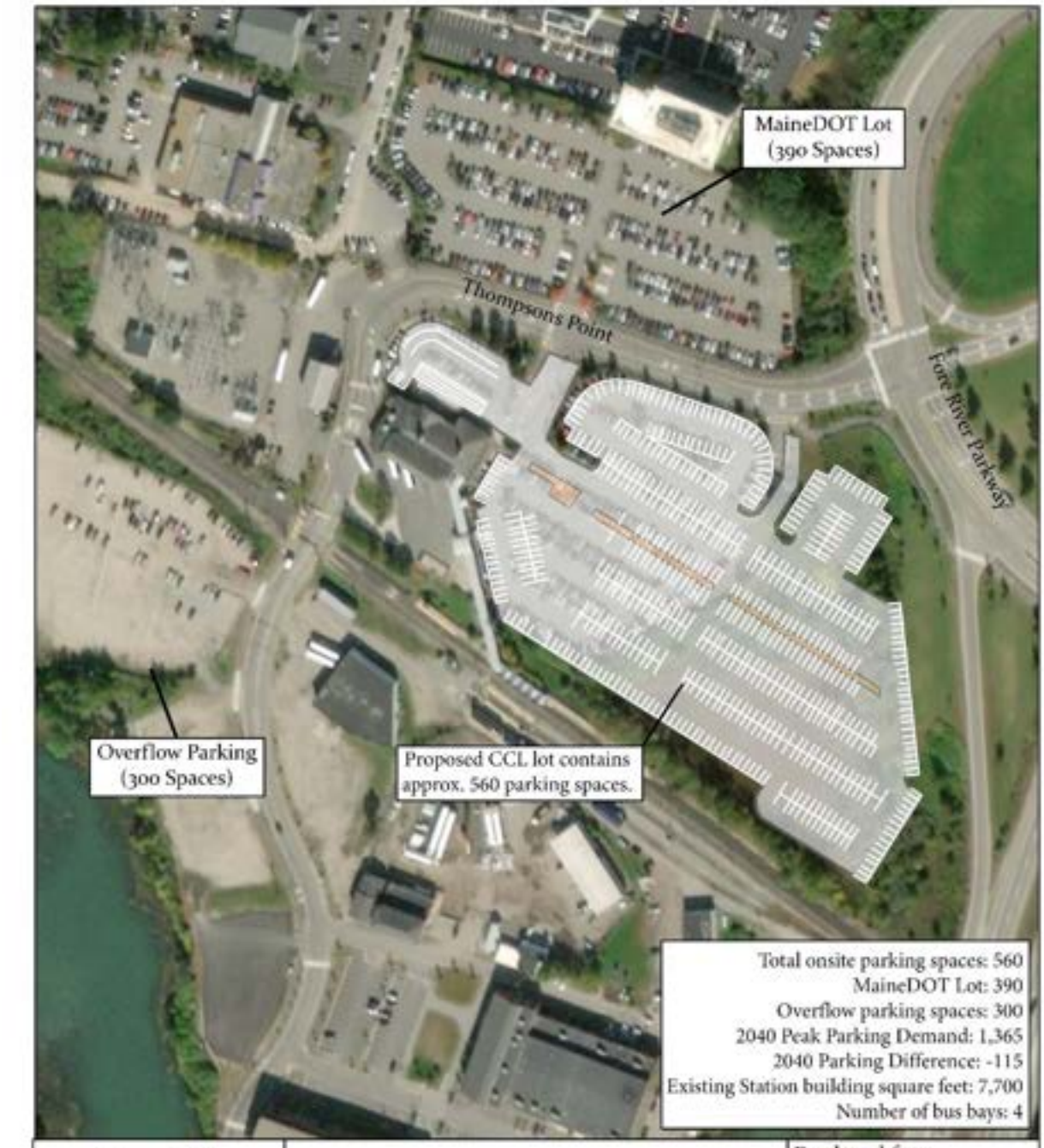
5.3 Identified Alternatives

Four primary alternatives were evaluated as part of the Phase 1 analysis. After initial discussion, several alternatives were expanded to evaluate each based on full- and short-term parking needs, as well as separating bus and rail station locations. Identified alternatives are as follows.

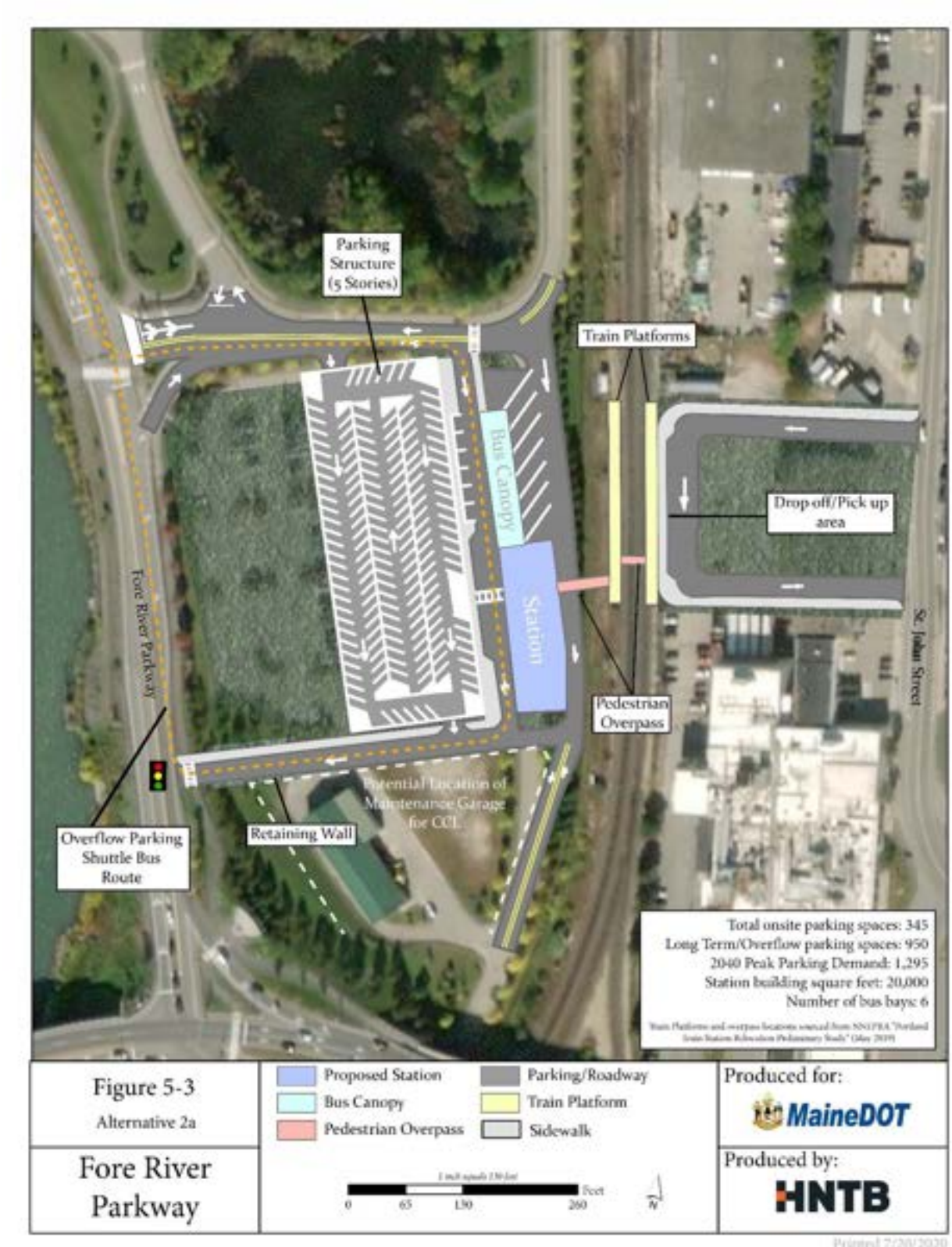
- **No-build Alternative**: Existing PTC Location on Thompson's Point for bus and rail with only planned and funded improvements
- **Alternative 1**: Existing PTC Location on Thompson's Point for bus and rail with additional improvements, including the Wye Track for rail
- **Alternative 2a**: New Location on Fore River Parkway for bus and rail, serving all required parking needs
- **Alternative 2b**: New Location on Fore River Parkway for bus and rail, serving short-term parking needs only
- **Alternative 3a**: New Location on St. John Street for bus and rail, serving all required parking needs
- **Alternative 3b**: New Location on St. John Street for bus and rail, serving short-term parking needs only

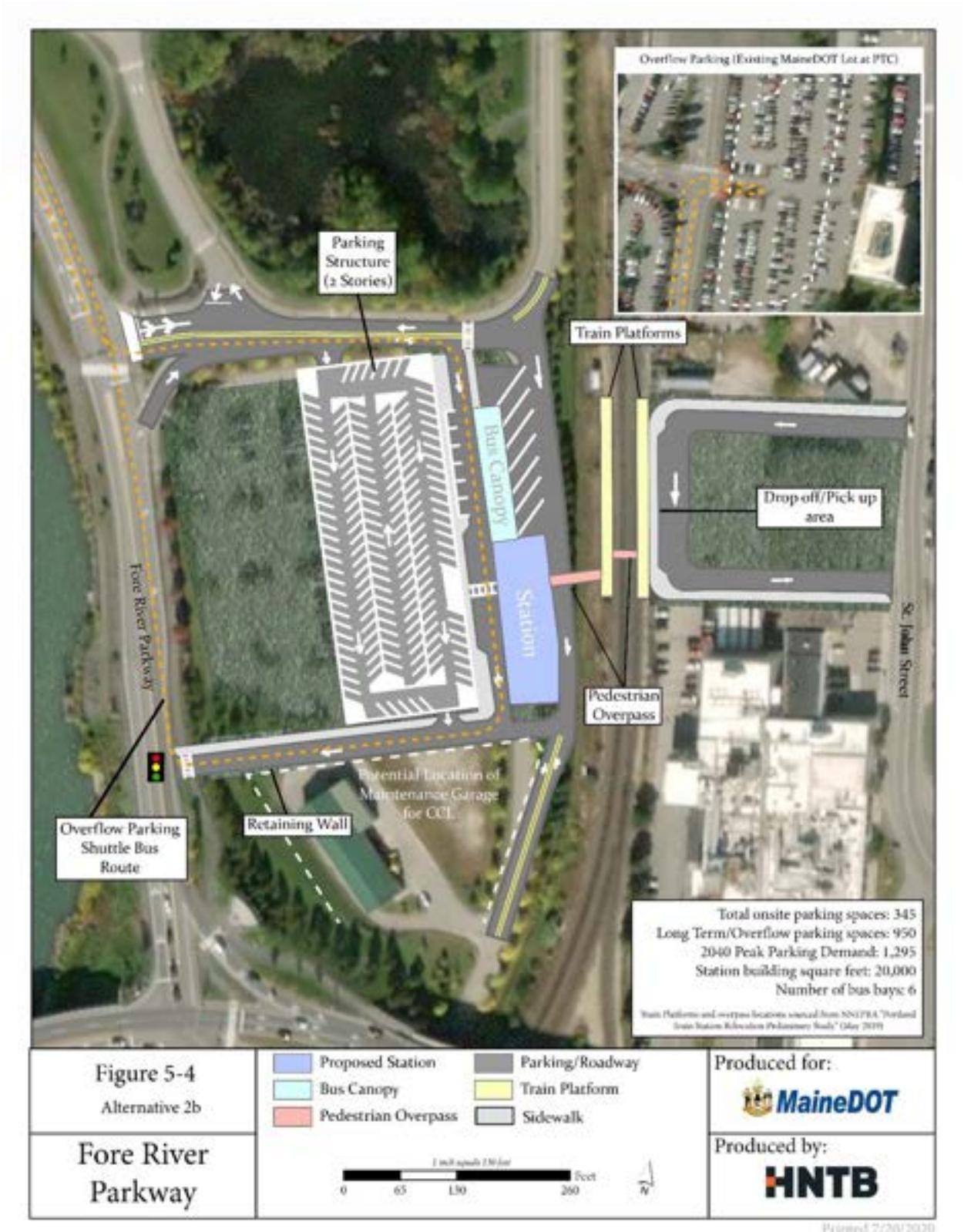
- **Alternative 4a**: Existing PTC Location for bus with new rail station on Fore River Parkway
- **Alternative 4b**: Existing PTC location for bus with new rail station on St. John Street

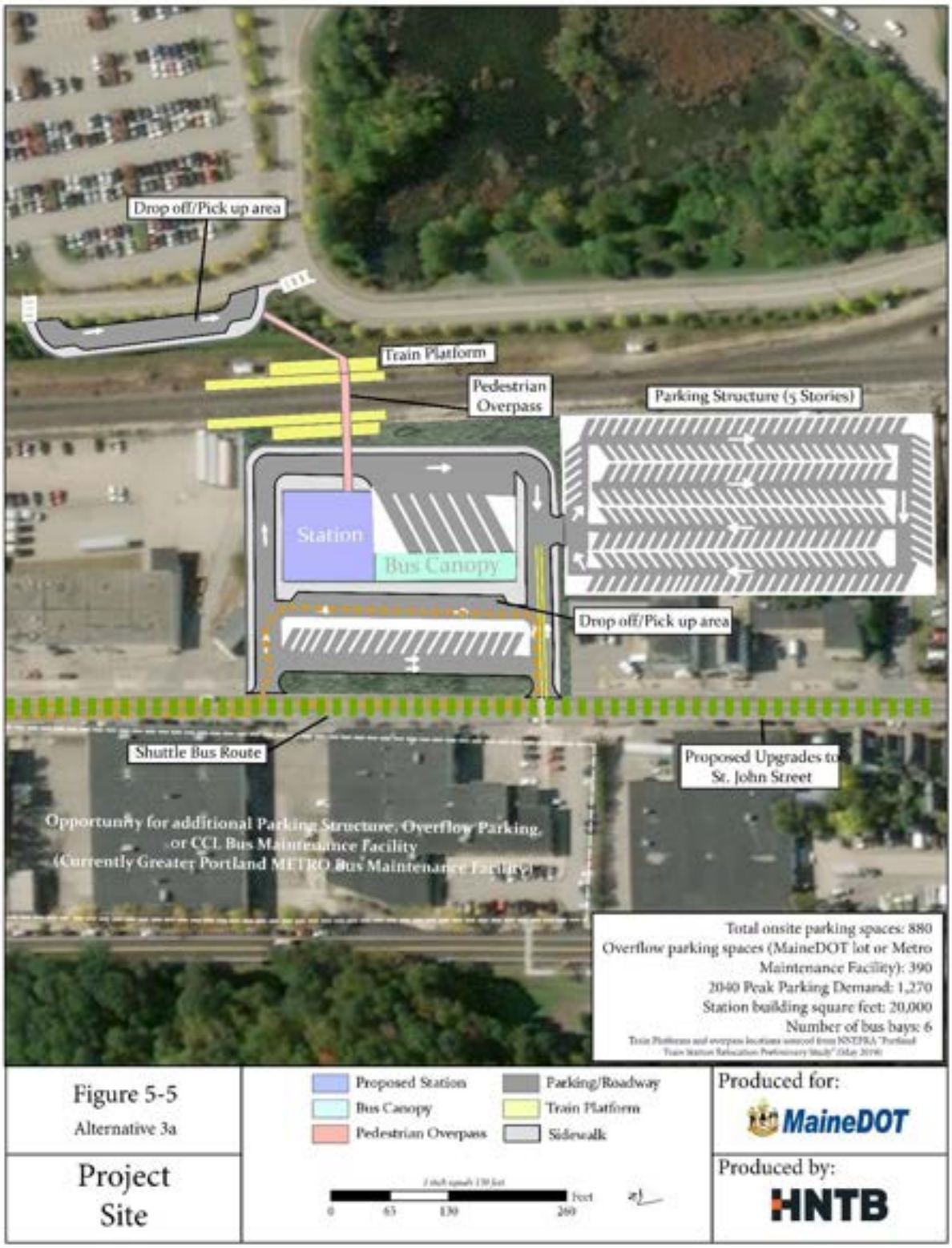
A conceptual layout was developed for each alternative, identifying how each location could accommodate the required parking, station, access, pick-up and drop-off areas, and rail platform and track infrastructure required. The conceptual layouts represent a limited engineering evaluation of each location (Figures 5-1 through 5-8).

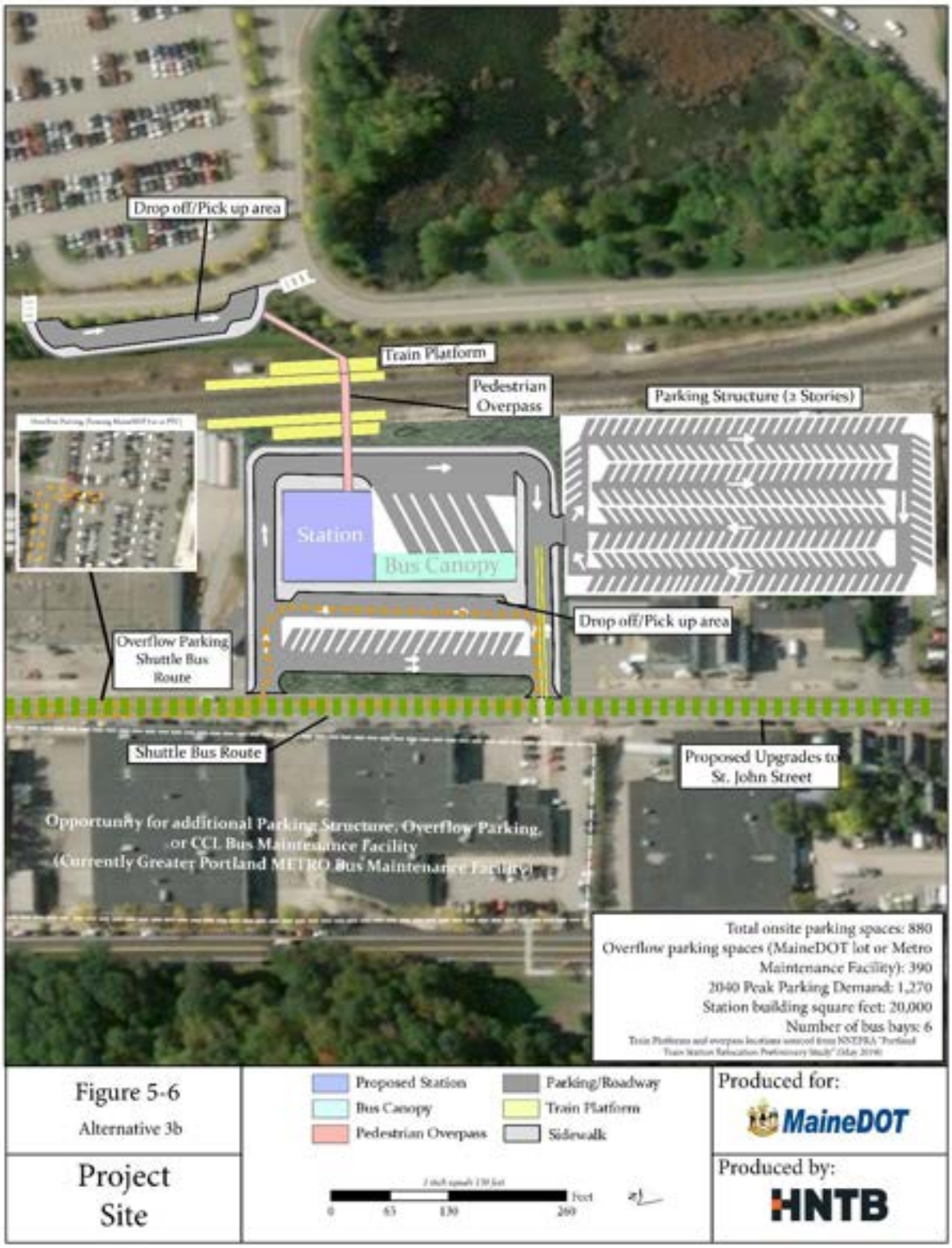

MaineDOT Lot
(390 Spaces)
Thompsons Point
Fore River Parkway
Overflow Parking
(300 Spaces)
Proposed CCL lot contains
approx. 560 parking spaces.
Total onsite parking spaces: 560
MaineDOT Lot: 390
Overflow parking spaces: 300
2040 Peak Parking Demand: 1,365
2040 Parking Difference: -115
Existing Station building square feet: 7,700
Number of bus bays: 4
Figure 5-1
No Build Alternative
Existing
PTC
Parking Lot
Sidewalk
0
90
180
360
Feet
N
Produced for:
MaineDOT
Produced by:
HNTB
Printed 7/20/2020

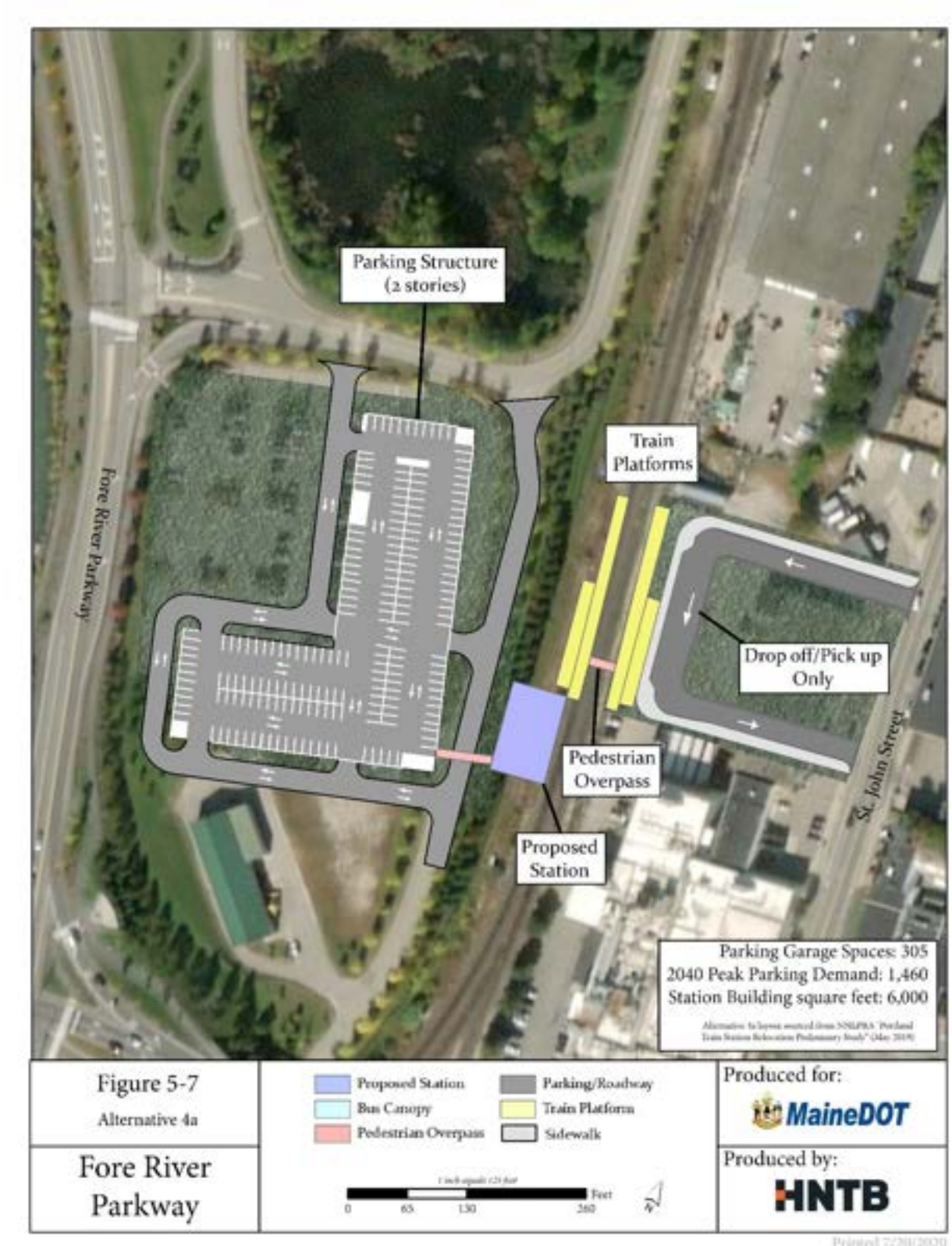

MaineDOT Lot (390 Spaces)
Pedestrian Walkway
Parking Deck (115 Spaces)
Proposed CCL lot contains approx. 560 parking spaces.
Overflow Lot (300 Spaces)
Exit 5
Proposed 20,000 SF Bus & Rail Station with additional bus bays, and a METRO Stop
Train Platform
Proposed Grade Crossings
295
22
Total onsite parking spaces: 1,065
Overflow parking spaces: 300
2040 Peak Parking Demand: 1,365
Station building square feet: 20,000
Number of bus bays: 6
Figure 5-2
Alternative 1
Existing PTC with Wye Track
Platform
Station
Walkway
Proposed Wye Track & Other Rail Modifications
Existing Rail Lines
Proposed Grade Crossings
0
185
370
740
Feet
N
Produced for:
MaineDOT
Produced by:
HNTB
Printed 7/20/2020

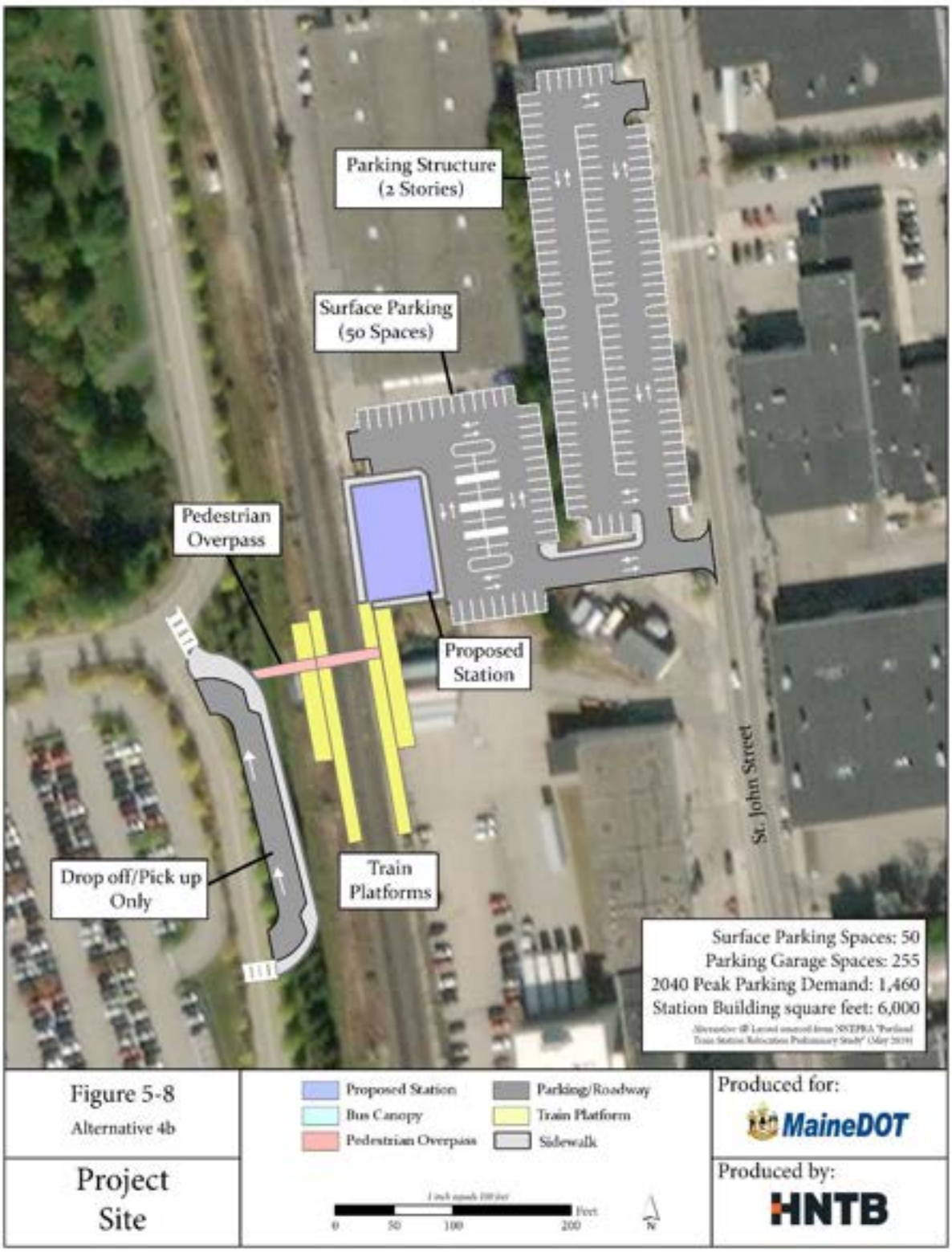

Parking Structure (5 Stories)
Train Platforms
Bus Canopy
Drop off/Pick up area
Station
Fore River Parkway
St. Johns Street
Pedestrian Overpass
Potential Location of Maintenance Garage for CCL
Retaining Wall
Overflow Parking Shuttle Bus Route
Total onsite parking spaces: 345
Long Term/Overflow parking spaces: 950
2040 Peak Parking Demand: 1,295
Station building square feet: 20,000
Number of bus bays: 6
Figure 5-3
Alternative 2a
Fore River Parkway
Proposed Station
Bus Canopy
Pedestrian Overpass
Parking/Roadway
Train Platform
Sidewalk
0
65
130
260
Feet
N
Produced for:
MaineDOT
Produced by:
HNTB
Printed 7/20/2020


Overflow Parking (Existing MaineDOT Lot at PTC)
Parking Structure (2 Stories)
Train Platforms
Bus Canopy
Drop off/Pick up area
Station
Fore River Parkway
St. John Street
Pedestrian Overpass
Potential Location of Maintenance Garage for CCL
Retaining Wall
Overflow Parking Shuttle Bus Route
Total onsite parking spaces: 345
Long Term/Overflow parking spaces: 950
2040 Peak Parking Demand: 1,295
Station building square feet: 20,000
Number of bus bays: 6
Figure 5-4
Alternative 2b
Fore River Parkway
Proposed Station
Bus Canopy
Pedestrian Overpass
Parking/Roadway
Train Platform
Sidewalk
0
65
130
260
Feet
N
Produced for:
MaineDOT
Produced by:
HNTB
Printed 7/20/2020


Drop off/Pick up area
Train Platform
Pedestrian Overpass
Parking Structure (5 Stories)
Station
Bus Canopy
Drop off/Pick up area
Shuttle Bus Route
Proposed Upgrades to St. John Street
Opportunity for additional Parking Structure, Overflow Parking, or CCL Bus Maintenance Facility (Currently Greater Portland METRO Bus Maintenance Facility)
Total onsite parking spaces: 880
Overflow parking spaces (MaineDOT lot or Metro Maintenance Facility): 390
2040 Peak Parking Demand: 1,270
Station building square feet: 20,000
Number of bus bays: 6
Figure 5-5
Alternative 3a
Project Site
Proposed Station
Bus Canopy
Pedestrian Overpass
Parking/Roadway
Train Platform
Sidewalk
0
65
130
260
Feet
Produced for:
MaineDOT
Produced by:
HNTB


Drop off/Pick up area
Train Platform
Pedestrian Overpass
Parking Structure (2 Stories)
Station
Bus Canopy
Drop off/Pick up area
Overflow Parking, Shuttle Bus Route
Shuttle Bus Route
Proposed Upgrades to St. John Street
Opportunity for additional Parking Structure, Overflow Parking, or CCL Bus Maintenance Facility (Currently Greater Portland METRO Bus Maintenance Facility)
Total onsite parking spaces: 880
Overflow parking spaces (MaineDOT lot or Metro Maintenance Facility): 390
2040 Peak Parking Demand: 1,270
Station building square feet: 20,000
Number of bus bays: 6
Figure 5-6
Alternative 3b
Project Site
Proposed Station
Bus Canopy
Pedestrian Overpass
Parking/Roadway
Train Platform
Sidewalk
0
65
130
260
Feet
Produced for:
MaineDOT
Produced by:
HNTB


Parking Structure
(2 stories)
Train
Platforms
Fore River Parkway
Drop off/Pick up
Only
St. John Street
Pedestrian
Overpass
Proposed
Station
Parking Garage Spaces: 305
2040 Peak Parking Demand: 1,460
Station Building square feet: 6,000
Figure 5-7
Alternative 4a
Fore River
Parkway
Proposed Station
Bus Canopy
Pedestrian Overpass
Parking/Roadway
Train Platform
Sidewalk
0
65
130
260
Feet
Produced for:
MaineDOT
Produced by:
HNTB


Parking Structure
(2 Stories)
Surface Parking
(50 Spaces)
Pedestrian
Overpass
Proposed
Station
Drop off/Pick up
Only
Train
Platforms
St. John Street
Surface Parking Spaces: 50
Parking Garage Spaces: 255
2040 Peak Parking Demand: 1,460
Station Building square feet: 6,000
Figure 5-8
Alternative 4b
Project
Site
Proposed Station
Bus Canopy
Pedestrian Overpass
Parking/Roadway
Train Platform
Sidewalk
0
50
100
200
Feet
N
Produced for:
MaineDOT
Produced by:
HNTB

5.4 Estimated Change in Passenger Ridership

Changes in passenger ridership can be anticipated if a change in the location of the bus and/or rail station results in a change in operating travel times for NNEPRA, CCL, or Greyhound for the carriers. This change in operating times can be either a benefit or detriment to ridership. Previous NNEPRA study data for rail operating time changes and PTC Study travel time runs were used to estimate anticipated changes in NNEPRA, CCL, and Greyhound service travel times for the locations associated with Alternatives 1 through 4b (Table 5-1).

Alternative	Mode	Travel Time Change		
		Between Brunswick and Boston	Between Brunswick and Portland	Between Portland and Boston
Alternative 1: Wye Track	Rail	-9 minutes	-5 minutes	No Change
Alternatives 2a, 2b, 4a (Fore River Parkway)	Rail	-16 minutes	-10 minutes	-1 minute
Alternatives 3a, 3b, 4b (St. John Street)	Rail	-16 minutes	-10 minutes	-1 minute
Alternative 1: Wye Track	Bus	-	-	No Change
Alternatives 2a, 2b, 4a (Fore River Parkway)	Bus	-	-	+1 minute
Alternatives 3a, 3b, 4b (St. John Street)	Bus	-	-	+3 minutes

Table 5-1: Change in Service Travel Times by Mode and Alternative

Travel time change estimates are used to determine change in ridership based on intercity travel elasticities. Ridership elasticities provide an estimate of the rate of ridership change based on the rate of travel time change. An October 2015 Northeast Corridor[7] report provides estimates for elasticity between transit service travel times and passenger ridership. Separate elasticities are provided for commuter travel, business travel, and non-business travel. The PTC interviews conducted as part of this overall study provide trip purpose distributions for each carrier and service destination. Based on the elasticities 2015 report, it is assumed that there will be a 0.65 change in ridership for every 1 percent change in travel time for commuter/business trips, and a 1.2 change in ridership for every 1 change in travel time for all other trips.

For these metrics, passenger ridership for bus and rail in the 20-year forecast timeframe are assumed to be 44 percent above current values. The 44 percent growth in volume is based on the Portland Transportation Center Parking Facility Study, prepared for MaineDOT by AECOM in

[7] AECOM Northeast Corridor Future Ridership Analysis Technical Memorandum, October 2015

February 2018, which presents a base growth scenario that has an annual growth rate of 2.2 percent. Application of this growth rate over a 20-year period yields a growth factor of 1.44, or 44 percent, for the number of NNEPRA, CCL, and Greyhound passengers. Using this formula, there are approximately 1,080 daily passengers who board at the PTC today, which is anticipated to grow to 1,550 by year 2040.

Based on the identified change in service travel times and the elasticities from the October 2015 Northeast Corridor report, daily ridership changes for each alternative were estimated and presented in Table 5-2.

Alternative	Mode	Ridership Change		
		Between Brunswick and Boston	Between Brunswick and Portland	Between Portland and Boston
Alternative 1: Wye Track	Rail	+25	+7	No change
Alternatives 2a, 2b, 4a (Fore River Parkway)	Rail	+50	+17	+1
Alternatives 3a, 3b, 4b (St. John Street)	Rail	+50	+17	+1
Alternative 1: Wye Track	Bus	N/A	N/A	No Change
Alternatives 2a, 2b, 4a (Fore River Parkway)	Bus	N/A	N/A	-10
Alternatives 3a, 3b, 4b (St. John Street)	Bus	N/A	N/A	-30

Table 5-2: Daily Change in Ridership by Mode and Alternative

For the analysis of parking demand, it was assumed that all passenger trip increases that result from relocation to the mainline site are new trips to the NNEPRA system. All were assumed to previously have been a drive trip to the ultimate destination. This assumption maximizes the estimated reductions in VMT and VHT for the alternatives.

5.5 Station Mode of Access

Determining customer station mode of access and parking demand for each alternative is a key element in the overall PTC Study. Mode of access identifies how passengers arrive at the station, both currently and in the future, and these values are necessary to determine future parking demand, which is a significant cost element in each alternative, especially if a parking structure is required. Future year station mode of access and parking demand assumptions and estimates are detailed for each alternative.

Using visual and customer intercept survey data presented in Chapter 3 as a basis, the current and future mode of access distributions for all passengers arriving at PTC for a trip to points south on either NNEPRA, CCL, or Greyhound service were estimated (Table 5-3).

Mode of Access for PTC Passengers	Current Year – Existing PTC Location	Year 2040 – Existing PTC Location	Year 2040 – Fore River /St. John Street Locations
Parked Vehicle On-Site	41%	35%	34%
Drop-Off	55%	57%	56%
Local Bus	2%	6%	6%
Walk	1%	1%	2%
Bicycle	<1%	<1%	2%
Totals	100%	100%	100%

Table 5-3: Current and Future Year Station Mode of Access

To estimate future mode of access values, it was assumed that expanded METRO service will be provided by Year 2040. This assumption increases the percentage of passengers arriving at the station via local transit to approximately six percent – a three-fold increase from the current value. Six percent is an optimal level of local transit for regions of similar size and density. The result is an estimated 60-80 future passengers arriving daily via local transit.

The Fore River Parkway (Alternatives 2 and 4a) and St. John Street (Alternatives 3 and 4b) sites would place a station closer to downtown Portland and other Portland Peninsula destinations, increasing the number of walk and bicycle trips as a mode of access. For trips originating in Portland, the percentage arriving by walk and bicycle is assumed to increase to four percent from a current value of less than two percent. Total walk and bicycle trips to the Fore River Parkway and St. John Street sites are forecast to be in the range of 50 to 55 trips daily.

The current mode of access distribution at PTC is roughly 4 percent of all passengers arriving as a pedestrian, bicyclist, or local transit patron. With the assumed provision of additional transit service and the potential for a station located closer to downtown Portland as described above, the percentage of passengers arriving as a pedestrian, on a bicycle, or on local transit is forecast to double or more - between 8 and 10 percent. This results in approximately 90 percent of passengers destined to points south from Portland arriving at the station in a personal passenger vehicle – either being dropped off/picked up or parking.

5.6 Parking Demand

As stated previously, estimating future parking demand is important for both identifying viable station locations with adequate space for parking and capitol cost estimates to provide the necessary number of parking spaces to meet demand.

The current parking supply at PTC consists of:

- North Lot that provides 371 parking spaces
- South Lot that provides 289 parking spaces
- Overflow Lot on Thompson's Point that provides as many as 300 parking spaces

Combined parking for the north and south lots is 660 spaces. An additional 67 parked vehicles can be accommodated along the North and South Lot curbs in unmarked spaces during peak demand periods. CCL is currently in the process of expanding the south lot, which will provide approximately 560 spaces when completed. This additional south lot capacity has been incorporated into the parking demand estimates.

Current parking demand estimates presented in a 2018 MaineDOT study[8] indicate that parking demand exceeds the base parking supply of 660 vehicles during approximately 11 weeks of the year. During those periods, overflow parking and on-site curb space is used. The ultimate capacity (consisting of base plus all overflow parking) of 1,027 spaces is reached about one week per year.

Typical parking demand planning does not support providing spaces for all vehicles at the highest day or week of demand. Rather, consistent with standard roadway and intersection capacity practices, parking demand would be based on a time period that would accommodate most, but not all parking demand. This means the number of parking spaces should never be equal to the highest parking demand. Table 5-4 presents estimated Year 2040 peak parking demand associated with a Portland multi-modal transportation center for rail and intercity bus service. The #5 Rank Week numbers were used to forecast parking demand in the Phase 1 alternative analysis. All passenger volume, station mode of access, and parking demand values estimated were then used to conduct the alternative evaluation described in Section 5.6.

[8] Portland Transportation Center Parking Facility Study: Preliminary Financial Analysis prepared for MaineDOT by AECOM, February 26, 2018

Alternative	#1 Rank Week			#5 Rank Week			#10 Rank Week		
	Total	Long-Term	Short-Term	Total	Long-Term	Short-Term	Total	Long-Term	Short-Term
Alternative 1: Wye Track	1,365	1,065	300	1,215	945	270	1,140	875	265
Alternatives 2a and 2b: Fore River Pkwy	1,295	1,055	240	1,150	940	210	1,070	865	205
Alternatives 3a and 3b: St John Street	1,270	1,035	235	1,130	920	210	1,050	850	200
Alternatives 4a and 4b									
Existing PTC station: CCL & Greyhound pkg	1,155	940	215	1,035	835	200	950	760	190
Proposed Rail station: Downeaster parking	305	185	120	285	175	110	230	140	90

Table 5-4: Year 2040 Peak Parking Demand – Ranked by Week

Alternatives 4a and 4b will require the greatest amount of parking under a bifurcated scenario. Alternatives 1-3 are similar in parking demand, with Alternative 3 resulting in the lowest demand due to increased rail ridership and walk, bicycle, and transit riders, which reduces parking demand slightly.

5.7 Alternatives Evaluation

Each of the alternatives were evaluated based on measure of effectiveness (MOEs) criteria identified in collaboration with the Principal Stakeholders specifically for this Study. The MOEs are organized into 11 categories.

1. Safety – how the proposed alternative affects customer and modal safety
2. Mobility – how the proposed alternative affects vehicular and non-vehicular mobility, including change in ridership
3. Environmental – how the proposed alternative affects greenhouse gas emissions as it relates to the change in travel distance and travel time
4. Efficiency – how the proposed alternative affects the travel time for bus and rail passengers
5. Customer Accessibility – how the proposed alternative affects customer accessibility which includes access to parking, transit, destinations, and modal connectivity
6. Economic/Community Development/Future Vision – how the proposed alternative aligns with current economic/community development opportunities, and future operator and municipal visions
7. Parking – whether the proposed alternative provides adequate parking and how
8. Costs –comparing capital, operation, and maintenance costs of the proposed alternatives
9. Funding – whether there is a viable funding stream for an alternative

10. Mission – whether the proposed alternative is consistent with the mission of the various stakeholders
11. Benefit/Cost – what the range of benefit to cost ratios is for each of the proposed alternatives

Evaluation of the proposed alternatives for each of the MOEs is described below. The MOE matrix shown in Table 5-5 uses color-coding to visually compare the MOE findings.

Safety

- *Reduction in traffic due to increased ridership*
  The No Build alternative does not change the mode of access to the transportation center nor shift traffic from the auto mode to the rail or bus mode for intercity travel. With no reduction in local and regional traffic, there is no resulting improvement in traffic safety. Other alternatives decrease rail travel time and result in either equivalent or slightly increased bus travel time, increasing rail travel competitiveness and translating to increased rail ridership through shift from the bus and/or auto mode. Alternatives 2A/B and 3A/B reduce rail travel time more significantly than Alternatives 1, 4A or 4B. The mode shift from bus or auto to rail results in increased safety for passengers because accidents per passenger mile of travel on rail mode is lower than that of bus mode. However, any shift from the auto mode to the rail mode is associated with increased traffic to and from the existing PTC, which adds to any locally existing conflicts.

- *Pedestrian, bicycle and vehicle safety*
  As with traffic safety, the No Build alternative does not reduce roadway traffic, locally or regionally and so does not address conflicts that arise between pedestrian and bicycle traffic and vehicles. While Alternative 1 reduces roadway traffic regionally as improved rail travel times induce some shift from auto to rail mode, locally increased auto traffic associated with additional passengers to and from the existing PTC will add to any existing multimodal conflicts. Alternatives 2A/B and 3A/B are closer to the city center and so better connected with pedestrian and bicycle amenities. Connections to this site, though not direct, avoid highway on/off ramps, which enhances safety. As with Alternative 1, increased conflicts with the pedestrians and bicyclists can be expected due to an increased number of vehicles accessing the transportation center due to the modal shift from auto to rail. Under Alternatives 4A/B, pedestrians and bicyclists must navigate two different locations to access the two different modes of public transit. While the safety conditions of pedestrians and bicyclists accessing the bus mode would not change, the Fore River Parkway site for rail is close to bicycle trails, albeit indirectly connected. The shift from the auto mode to the train for intercity travel and potential increase in the nonmotorized access to the train station increases local and regional safety under these alternatives. In general, a consolidated transportation center lends itself to designation of priority transportation corridors for access and egress, enhancing travel safety for all modes. In addition, safety for pedestrians, bicyclists and vehicles can occur exclusively through planned improvements and design as well as traffic engineering controls.

TABLE 5-5: MOE MATRIX

- *Train Safety*
  The No Build alternative does not result in any change in train operations and so no change to safety aspects related to train movements. Construction of the wye track associated with Alternative 1 eliminates the back-up movements by the train and additional conflicting movements, thereby improving train movement safety. All other alternatives provide the opportunity to enhance safety of train movements through location and design of a new rail facility.

Mobility

- *Change in VMT/VHT*
  With no shift in mode of access, the No Build alternative does not shift local or regional auto traffic to public transportation, thereby resulting in no reduction in VMT/VHT. Enhanced rail service associated with all other alternatives attracts a limited number of new passengers from both bus and auto modes. Any shift from the auto mode would reduce regional VMT and VHT but would also increase local VMT/VHT associated with auto access to the transportation site. Any mode shift from the bus to the rail would not lead to any reduction in VMT/VHT, either locally or regionally.

- *Change in pedestrian and bicycle trips*
  With no provision for any added pedestrian and bicycle amenities connecting the transportation center to other areas, or changes in the bus or rail operations that result in increased ridership, the No Build and Alternative 1 do not change the number of trips to and from the transportation center. Increased proximity to the city center and better amenities provided in Alternatives 2A/B and 3A/B increases the number of bicycle and pedestrian trips by 10 to 20 pedestrian/bicycle trips daily as compared to the current location. Under Alternatives 4A/B, the bus service would continue to operate out of the current location for the PTC and there will be no changes to the bicycle and pedestrian facilities and hence there will be no changes to the pedestrian and bicycle trips. The rail station being closer to the city center and having better amenities will marginally increase the number of bicycle and pedestrian trips to this node (Table 5-3).

- *Change in walking/bicycle distance to downtown*
  With the PTC remaining at its current location, there is no change in the walking/bicycling distance between the transportation center and downtown and other destinations under either the No Build Alternative or Alternative 1. Walking distance from downtown to the Alternatives 2A/B location is almost equal to that of the current location because there is no direct route from the west side of the rail tracks to downtown. Bicycling distance to downtown is closer because the Fore River Parkway Trail can be accessed close to the site. Of the three locations, Alternatives 3A/B offer the greatest proximity to downtown via the Fore River Parkway Trail and the city grid. Even though there are no pedestrian amenities connecting the site to the east directly, connection to the city grid is occurs via St. John and Congress Streets. Alternatives 4A/B result in no change in the walking or bicycling distance between the current PTC location to any other destination. The rail station at Fore River

Parkway is closer by bicycle, whereas the pedestrian connection to other destinations is almost the same as that of the current PTC because there is no direct connection from the Fore River Parkway site to the city's pedestrian grid.

Environmental

- *Reduction in greenhouse gases/vehicle emissions*
  No change in existing levels of vehicle emissions will result from implementing the No Build alternative or Alternative 1. Any decrease in passenger vehicle travel associated with the remaining alternatives is presumed to also reduce greenhouse gas/ vehicle emissions; however, this decrease is likely minimal enough to be offset by even a slight increase in local transit offerings accessing alternate station locations.

Efficiency

- *Approximate change in travel time by location for bus*
  No build, Alternative 1, and Alternatives 4A/B propose no change in the location of the transportation center nor any engineering controls to speed up the bus travel, hence there is no change in the bus travel time with any of these options. The Alternative 2A/B site is located slightly farther away from the highways, hence the travel distance associated with bus travel increases marginally by about a minute. Alternative 3A/B are the farthest from the highways and increase the bus travel time by approximately 3 minutes.

- *Approximate change in travel time by location for rail*
  Because there is no change in the location of the rail station with the No Build alternative, and no service modifications or changes to rail infrastructure, there is no change to the travel time by rail. Construction of the wye track proposed for Alternative 1 streamlines access and egress of the train from the current station and reduces the number of necessary movements. This translates to travel time savings between 0 and 9 minutes, depending on the origin destination pair, overall increasing rail travel efficiency. For the remaining alternatives, moving the rail station to the main line reduces the rail travel time by rail anywhere between 1 to 16 minutes, based on the service and origin and destination.

Customer Accessibility and Availability

- *Change in bus ridership*
  With no change to any aspect of bus service or change in location of the terminal point or accessibility, the No Build alternative does not change bus travel time or any amenities, hence there is no change to bus ridership. Because Alternative 1 improves the rail transit time, the bus ridership reduces marginally reflecting the mode shift from bus to rail. Reduction in bus ridership is expected to be up to 10 trips daily under Alternatives 2A/B due to an increase in bus travel time. Alternatives 3A/B result in a mode shift from the bus to other modes and the ridership declines by up to 30 trips daily. Though Alternatives 4A/B retain the bus service at its current location without any change in its operational characteristics, these alternatives reduce the bus ridership in the range of 35-50 trips daily, reflecting the increased competitiveness of the rail mode.

- *Change in rail ridership*
  With no change to any aspect of rail service or change in location of station, accessibility or any rail related infrastructure, there is no change in rail travel time or any amenities with the No Build alternative, hence there is no change to rail ridership. Introducing the wye track as part of Alternative 1 reduces rail transit time, making the rail mode more competitive against other modes of intercity travel namely, bus and auto. This results in a mode shift from both modes to the rail, thereby increasing the number of passengers using the rail mode for intercity travel by an estimated 30-35 trips per day. The reduction in rail travel time for all other alternatives can be significant; an up to 16- minute reduction translates to an increased ridership of about 65-70 trips per day.

- *Value of connectivity*
  Because both modes of intercity travel area located at the same node at the existing PTC, all except Alternatives 4A/B offer passengers the modal choice and the choice of connecting from one mode to the other. With the two public transit modes being separated in Alternatives 4A/B, passenger choice to select either of the modes or transfer from one mode to the other is severely compromised.

- *Access to parking*
  The existing PTC offers passengers the convenience of short-term, long term as well as overflow parking, all at or immediately adjacent to the site. Alternatives2A and 3A offer passengers the convenience of short-term and long-term parking, while Alternatives 2B and 3B offer only short-term parking. Long term parking is accommodated at a yet to be determined site and a last mile shuttle provides connection between the site and long-term parking lot. There is adequate short- and long-term parking at both Alternative 4A and 4B; overflow parking is available at the Fore River Parkway Site.

- *Access to transit*
  The existing site is served by only two routes: Route 1 of the METRO and the METRO BREEZ Express Service between Portland, Yarmouth, Freeport, and Brunswick. No Build and Alternative 1 do not change the provision of transit service at this location. Alternatives 2A/B is not served directly by local transit; however, Route 1 plies on Fore River Parkway and service can be modified to add a transit stop at this location. The Alternative 3A/B site is not served directly by local transit, rather Route 1 and the BREEZ express service plie on St. John Street; therefore, service can be modified to add a transit stop at this location. As with Alternatives 3A/B, the Fore River Parkway site proposed in Alternatives 4A/B is not served by the any transit, but the operations of Route 1 service, which plies on Fore River Parkway, can be modified to add a stop at this location.

- *Access to pedestrian and bicycle networks*
  Challenges posed by the geographical distance of the existing PTC from downtown and the need to negotiate the on and off ramps that lead to and from the local roads to the

surrounding highways will not be addressed by the No Build alternative or Alternative 1The Fore River Parkway Trail, which can be used by both pedestrians and bicyclists, is in close proximity and can be accessed fairly easily in all alternatives but for Alternatives 2A/B, connection to the greater pedestrian network is not direct on the west side of the tracks. East of the tracks there is pedestrian connectivity along St. Johns Street, though only in the north-south direction. For Alternatives 3A/B, connection to the greater pedestrian network is through the combination of St. John Street and Congress Street; however, there is no direct eastward connection to the street network east of Valley Street. Alternatives 4A/B provide access to both pedestrian and bicycle networks; the Fore River Parkway Trail can be accessed easily at the intersection of St. John Street and Danforth Street and pedestrians can use the trail or connect to the city's main grid at the intersection of St. John Street and Congress Street.

- *Customer connections for last mile shuttle and local shuttle*
  The existing site is served by one transit stop and the presence of requisite on-site parking as well an overflow lot in the immediate vicinity, therefore the No Build alternative and Alternative 1 eliminate the need for shuttle connections. Because both modes are collocated in Alternatives 2A/B and 3A/B, only one transit stop is required to serve the last mile shuttle or the shuttle connecting the site to the overflow parking lot. Alternative 4A/B will require two different transit stops serviced by the local transit for the two different locations for the two modes of transportation.

- *Equity assessments*
  The current location of the PTC site does not lend itself to strong pedestrian, bicycle and transit connections; auto is the primary mode of access. Under the No Build alternative and Alternative 1, there is no change to the primary mode of site access and so no improvements to equity. The geographic location of Alternatives 2A/B moves the center closer to the urban core and provides increased choice of transportation to and from the site, leading to minor improvement in the equity issue related to locational choice. Amongst the three sites being evaluated, the geographical location of Alternatives 3A/B move it closest to the urban core and also provide increased choice of transportation to and from the site, resulting in the most improvement in the equity issue related to the locational choice of the transportation center. Alternatives 4A/B lead to nominal improvement to equity because only one of the transportation modes moves closer to downtown and in the process becomes more accessible to all modes of transportation.

Economic/ Community Development/Future Vision

- *Compatibility with existing land use*
  No Build and Alternative 1 result in no change to the existing transportation and transportation related land uses. The current land use around the Alternatives 2A/B location is medical/ hospital use and large-scale transportation use bringing together bus, rail and a large parking facility is not consistent with the existing usage. In Alternatives 3A/B, the east

side of the rail tracks already has mixed use development and the development of a transportation center will be aligned with the expansion of the mixed-use land use. The transportation center could be envisioned as a strong anchor for cohesive future mixed-use development. Alternative 4A continues the transportation land use at the existing site with no change. However, the new rail station location for Alternative 4A is currently for medical/ hospital use and a transportation facility is not consistent with the existing usage. To the contrary, the new station location envisioned in Alternative 4B is mixed use in nature and a transportation center is not in conflict with the mixed use.

- *Compatibility with comprehensive/master plan*
  Thompson's Point is in the B-5 zoning district, which allows for a wide range of commercial and mixed uses and envisions urban patterns of development; therefore, the No Build alternative is consistent with the long-range plans for Thompson's Point. The PTC is relatively far from the urban core of the city and the presence of the highway system further acts as a divider between the urban fabric and the transportation center. The PTC is the major intercity public transportation node for the City of Portland and, even though it aligns itself with the long term plans for Thompson's Point, it is expected to be challenging to integrate the center in a meaningful way and for it to contribute to a high level of economic development and downtown revitalization without connecting it to major destinations with very rich local transit connections, which is not envisioned at this stage of the study. The new combined location proposed by Alternatives 2A/B brings together CCL and NNEPRA on the main line tracks but is not consistent with Mercy Hospital's expansion master plan. Similarly, the Fore River Parkway location proposed in Alternative 4A is not consistent with Mercy Hospital's master plan. By comparison, a transportation center proposed in Alternatives 3A/B and 4B does not conflict with any vision statement by the Maine Medical Center or the City of Portland's Long-Range Plans for the vicinity near St. John and Valley Streets.

- *Development potential*
  Both the No Build alternative and Alternative 1 have the potential to anchor future development around the PTC but the effect would be more local in nature because the existing site is relatively far from the urban core of the city and the presence of the highway system further acts as a divider between the urban fabric and the transportation center. Bringing together the two modes of transportation at a central location and providing access, parking and connections to and from the Alternative 2A/B sites to parcels of land both east and west of the tracks can support development opportunities around this core. Alternatives 3A/B are in a mixed land use area on the eastside of the tracks, closest to the city grid relatively close to downtown. Local transit runs on St. Johns Street and Congress Street, and parcels of land are available that can be earmarked for future development, providing the foundation for a strong development vision around the transportation center. Alternatives 4A/B lead to the bifurcation of the services, resulting in loss of critical mass and the development of strong anchor that can form the nucleus of future development. While the transportation center at the current location will continue to spur development, it will be

limited in nature, and development around the rail station will probably not occur considering the total ridership and service patterns.

- *Consistency with future transportation vision*
  With the transportation center being located away from downtown, the primary mode of access being the auto, and no enhancement of the multi-modal transportation systems, neither the No Build nor Alternative 1 is consistent with the future transportation vision of the greater Portland Area. Alternatives 2A/B and 3A/B increase choice for the end consumer, provide multi-modal connections, induce a shift from the auto mode to a public transit mode, and provide access connectivity through non-auto modes. These aspects are consistent with the future transposition goals for the city for Portland as well as regionally. In Alternatives 4A/B, there will be no change to the current PTC site; it will continue to operate as a center that is served primarily by the auto mode. The improved rail mode will result in some modal shift from auto to rail for regional as well as shorter trips, aligning with the goal of increased multi-modal transportation and reduced auto dependency.

Parking

- *Parking Demand in 2040*
  Both the No Build alternative and Alternative 1 will continue to be able to access adequate parking on or nearby the existing PTC site to meet 2040 demand. Alternatives 2A, 3A and 4A/B can accommodate both short and long-term future parking demand but lack adequate access to overflow parking. Alternatives 2B and 3B provide the least parking on site, meeting only short-term capacity needs as estimated for 2040.

- *Requires parking structure/parking price effect*
  Only the No Build alternative continues to provide adequate parking on site without employing a parking structure and/or parking price effect. Other alternatives require at least a limited parking structure, with Alternatives 2A and 3A requiring larger, higher capacity structures at significant cost.

- *Potential for short/long term parking*
  All alternatives analyzed in Phase 1 of this study have the potential to incorporate short and/or long-term parking with either surface or structure parking spaces.

Costs

- *Estimated Capital Costs*
  The No Build alternative includes planned improvements at the existing PTC, which come at the lowest cost of the alternatives studied. Costs of other alternatives are more significant relative to the status quo; however, Alternatives 2A and 3A require higher levels of funding due to the need for larger parking structures to meet 2040 demand.

- *Estimated Annual Operation and Maintenance Cost Difference*

Under the No Build alternative, annual operations and maintenance costs are not likely to vary over the current condition. Alternatives 1 and 2A result in a decrease to these costs, primarily due to efficiencies realized by operational improvements, and Alternatives 2B, 3A and 3B would require a somewhat modest additional annual funding allocation. Of the Phase 1 alternatives, 4A/B require the most significant increase in annual operations and maintenance costs.

- *Transportation Infrastructure Needs*
  While the No Build alternative has no associated requirement for additional transportation infrastructure, all other alternatives require at least mainline rail improvements. Specifically, Alternative 1 requires improvements to existing track, station, and rail at the PTC site; Alternatives 2A/B and 4A require mainline rail improvements; and Alternatives 3A/B and 4B require more extensive improvements to roadways in addition to the mainline improvements.

Funding

- *Funding Availability*
  CCL has identified funding for the existing PTC site, which will allow for planned improvements to facilities under both the No Build alternative and Alternative 1. Wye track upgrades also proposed as part of Alternative 1 have no identified funding source, which is also true of the remaining Phase 1 alternatives.

- *Potential for Federal, State, Municipal, and Private Funding*
  As stated above, private funding for planned improvements to the existing PTC has been committed by CCL. Private funding is also likely available for station facilities associated with other alternatives, along with state and/or federal funding for track improvements. No specific source of state or federal funds has been identified, nor has a source of funds for parking accommodations. In the case of Alternatives 2A and 3A, a sizeable need exists for the latter facilities.

Mission

- *Consistent with CCL Business Plan*
  The No Build alternative, Alternative 1 and Alternatives 4A/B are consistent with the CCL Business Plan. While Alternatives 2A and 3A are partly consistent with this plan since access to location is not immediately adjacent to I-295, remaining Alternatives 2B and 3B pose conflicts with the CCL Business Plan as it exists today given the distance from I-295 and additional time and distance for customers to access the location.

- *Consistent with NNEPRA Business Plan*
  All Phase 1 Alternatives are wholly consistent with the NNEPRA Business Plan of relocating to the rail mainline to improve rail times and increase ridership except for the No Build

alternative, deemed inconsistent with the NNEPRA Business Plan and Alternative 1, which is only partly consistent due to slight rail time and ridership improvements.

- *Consistent with City of Portland Plan*
  Analysis of the alternatives shows that the existing PTC functions comprised within the No Build alternative and Alternative 1 are consistent with the transportation objectives in the City of Portland's Comprehensive Plan. To the contrary, Alternatives 2A/B are inconsistent with the City's Plan. Remaining alternatives meet some, but not all of the objectives and are therefore partly consistent with this comprehensive plan.

- *Consistent with METRO Mission*
  All Phase 1 alternatives are partly consistent with the METRO mission in that the alternative locations are on existing METRO transit routes but are served by a limited number of transit routes.

Benefit/Cost Assessment

Cost/benefit analysis was not applied to the No Build alternative as it is considered the baseline for the evaluation. A benefit/cost ration of 1.0 or greater is considered positive. None of the alternatives analyzed in this phase meet this threshold.

5.8 Phase 1 Summary

The Phase I Alternatives Analysis did not identify an alternative that had significant benefits over other alternatives. A summary of the key findings from the Phase I Alternatives Analysis concluded:

- **No-build Alternative**. The No-Build Alternative should be dismissed as it does not address long-term bus and rail customer needs, does not eliminate train movement safety conflict, does not promote additional bus or rail ridership, does not increase walk and bike trips, and does not reduce greenhouse gas emissions.
- **Alternative 1:** Initially, Alternative 1 was identified as improving rail and safety ridership through the implementation of the Wye Track; reduced traffic and VMT/VHT; and decreased greenhouse gas emissions but this alternative did not improve walk and bike trips. Questions were raised by the Principal Stakeholders following presentation of the Phase 1 findings regarding the estimated rail ridership improvements which resulted in reduced traffic, VMT/VHT, and greenhouse gases. Through further evaluation after the Phase 1 analysis, it was determined that no rail ridership time savings would be achieved. As a result, Alternative 1 with the Wye track was eliminated from further consideration.
- **Alternatives 2a and 2b.** Alternatives 2a and 2b should be eliminated from further consideration due to concerns raised by Mercy Hospital regarding conflicts of a potential bus and/or rail station with their campus development plan.
- **Alternatives 3a and 3b.** Initially, Alternatives 3a and 3b were identified as improving rail safety and ridership by locating the station on the rail mainline, slightly reducing traffic,

VMT/VHT and greenhouse gas emissions, increasing walk and bike trips as the station was located closer to downtown Portland. However, decreased bus ridership due to the additional distance and travel time for bus customers, higher capital costs, and uncertainty whether the location was compatible with existing land use and overall area master plans result in recommending that these alternatives be dismissed. Questions were raised by the Principal Stakeholders following presentation of the Phase 1 findings regarding the impacts to bus ridership and the feasibility of the proposed location to accommodate both a bus and rail station and parking. Based on existing site constraints and impacts to bus ridership and operations cited, Alternatives 3a and 3b should be eliminated from further consideration.

- **Alternatives 4a and 4b.** Alternative 4a should be eliminated from further consideration due to concerns raised by Mercy Hospital regarding impacts of a potential bus and/or rail station on their campus development plan; because of these impacts, these alternatives were deemed inconsistent with Mercy's guiding plan. Alternative 4b was identified as improving rail safety and ridership because it locates the station on the rail mainline, has a minor reduction in traffic, VMT/VHT and greenhouse gas emissions, increases walk and bike trips for rail passengers as the station was located closer to downtown Portland. But Alternative 4B also had moderate to high capital costs, increased operations and maintenance costs, impacted bus and rail customer synergy, added an additional transit stop due to the separate bus and rail stations, and there was uncertainty if the location was compatible with existing land use and overall area master plans. Questions were raised by the Principal Stakeholders following presentation of the Phase 1 findings regarding required number of rail parking spaces and the other key assumptions regarding this Alternatives. Based on these questions and the impact the parking spaces had on costs and compatibility, it was determined that key assumptions for Alternative 4b be revisited and the analysis revised in a second phase of the study.

Additionally, during the review of the Phase 1 summary by the Principal Stakeholders, an additional location was identified for consideration. The Union Station site is located at the intersection of Congress Street and St. John Street. Based on the summary from the Phase 1 analysis and discussion with the Principal Stakeholders, MaineDOT decided that a second phase of analysis was warranted. The resulting Phase 2 analysis is described in Chapter 6.

6. Phase 2 Alternatives Analysis

6.1 Phase 2 Objectives

Phase 1 of the Alternatives Analysis highlighted the need for a modified study approach to re-analyze eliminated Phase 1 alternative locations, consider new alternatives, address concerns over initial key assumptions, and increase focus on customer and transportation benefits. These identified needs are addressed in the Phase 2 Alternatives Analysis, which focused on the following objectives.

- Maintaining CCL operations at the existing PTC location on Thompsons Point. Review of the Phase 1 Alternatives Analysis did not yield enough benefit to warrant relocation of CCL from its existing location. This is coupled with CCL's current ownership and operation of the PTC facility and south parking lot, as well as its desire to remain at its current location.
- Continuing evaluation of potential benefits associated with relocating NNEPRA to a separate rail station on the mainline and resulting improvements in transportation and rail safety.
- Re-evaluating the benefits of the Wye track evaluated in previous NNEPRA and MaineDOT studies and the Phase 1 Alternatives Analysis. Based on questions from the Phase 1 findings, and additional evaluation by NNEPRA, MaineDOT and the Study Team, the Wye Track was removed from further analysis prior to beginning the Phase 2 alternatives analysis as it was determined to not provide any additional rail travel time benefits.
- Completing a more detailed evaluation of bus and rail parking and operation requirements. Additional data provided following the Phase 1 analysis supported the need to reevaluate bus and rail parking demands as well as combined and separated facility operation requirements.
- Continuing focus on customer efficiency, modal connections, and mobility. The overarching Study Purpose to focus on customer needs and transportation benefits remains in the Phase 2 alternatives analysis. A more focused evaluation process and MOE matrix improves the broader approach taken in Phase 1.

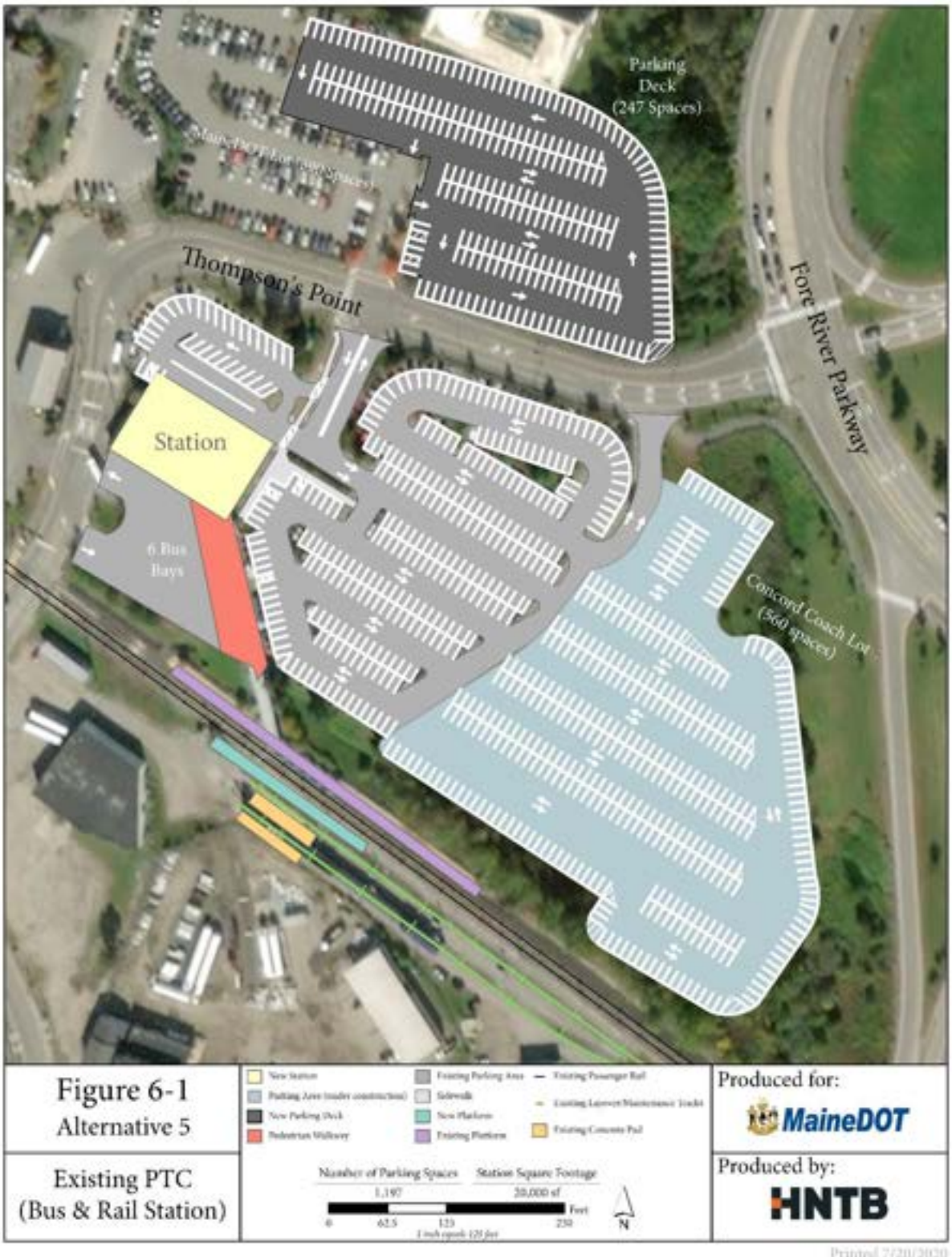
6.2 Identified Alternatives

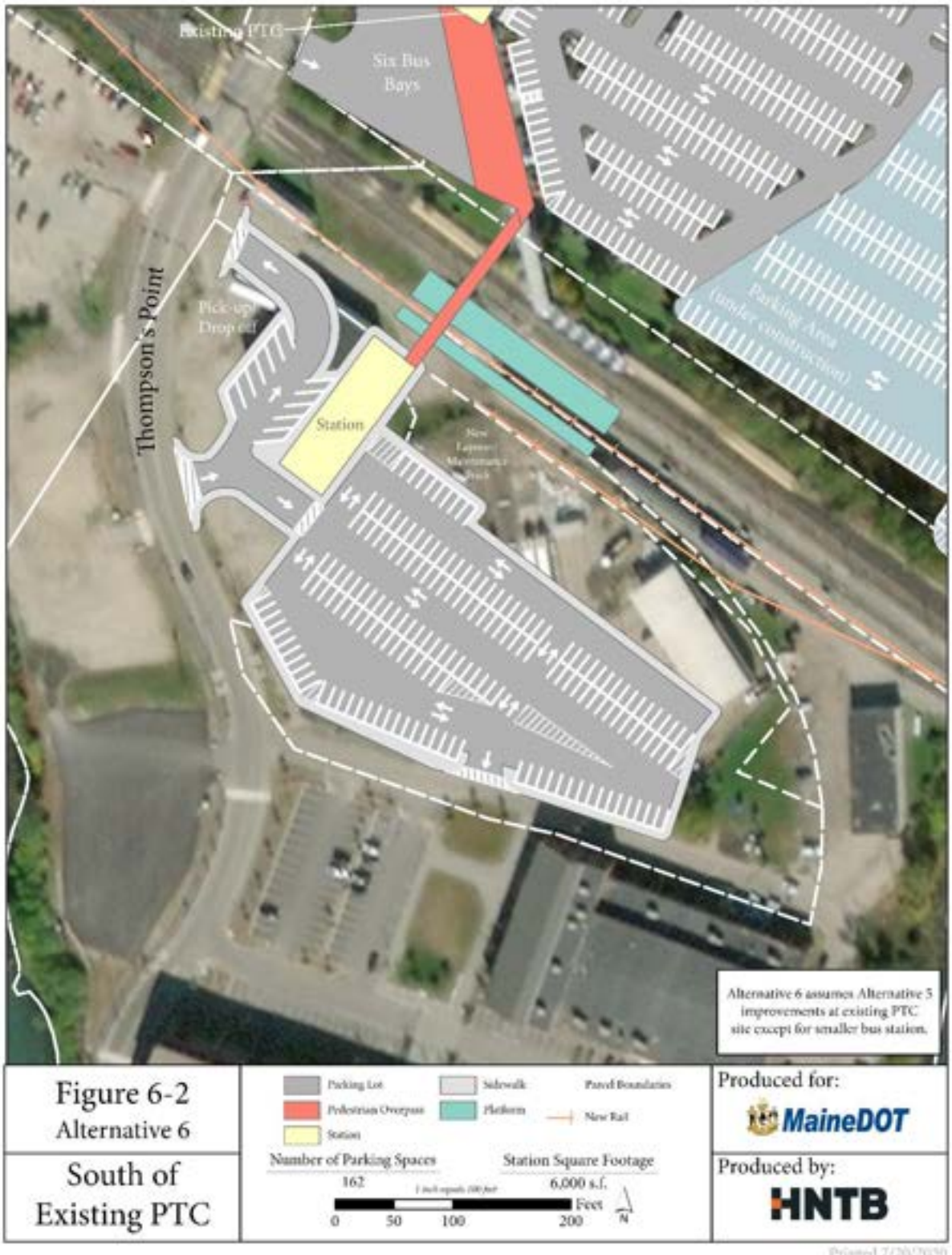
Using the Phase 2 objectives identified above, the following four alternatives were evaluated as part of the Phase 2 alternatives analysis. Phase 2 alternatives were numbered sequentially to the Phase 1 alternatives.

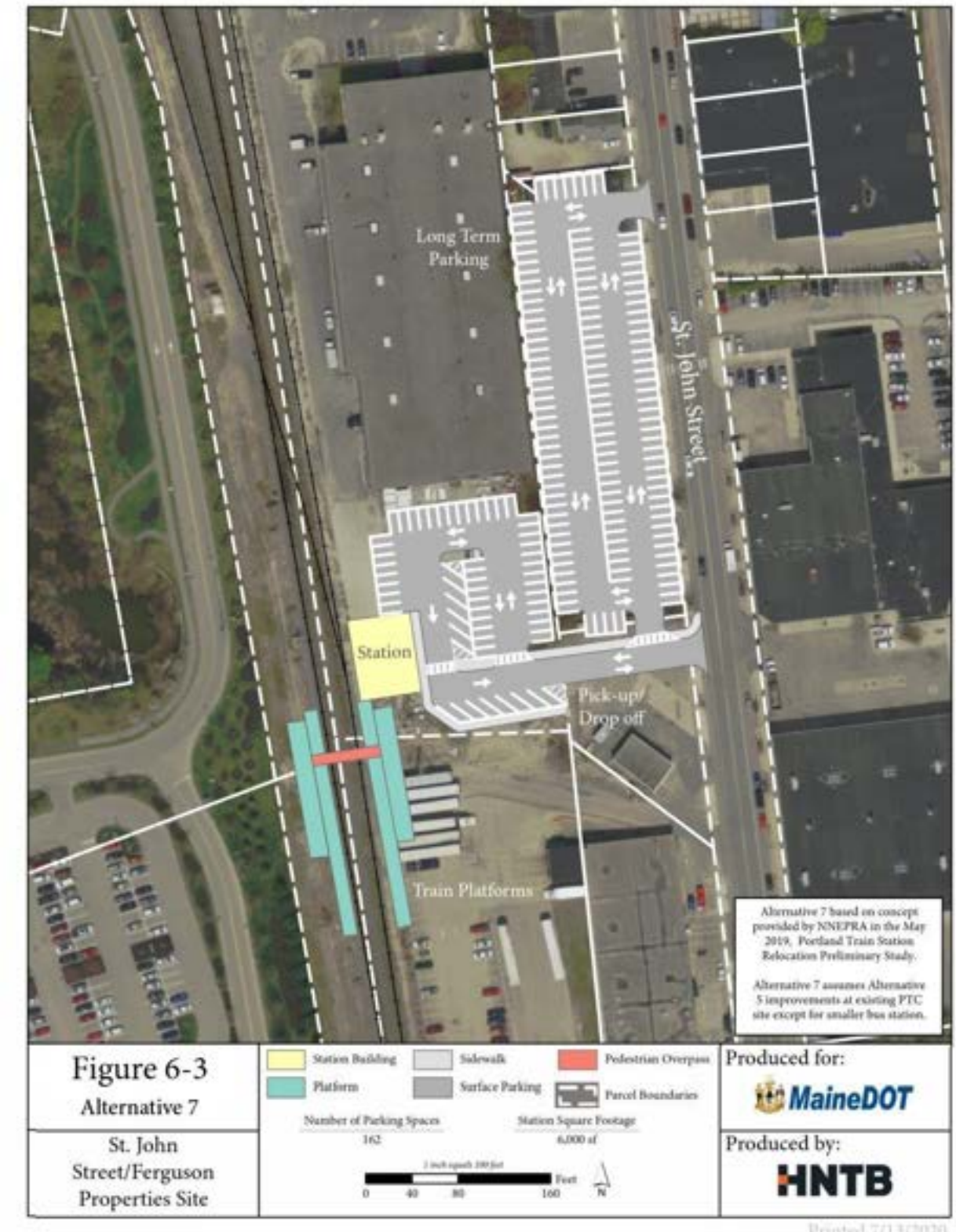
- **No-build Alternative**: Existing PTC Location on Thompson's Point for bus and rail with only planned and funded improvements
- **Alternative 5:** Existing PTC Location on Thompson's Point for bus and rail with additional improvements to meet parking and customer needs

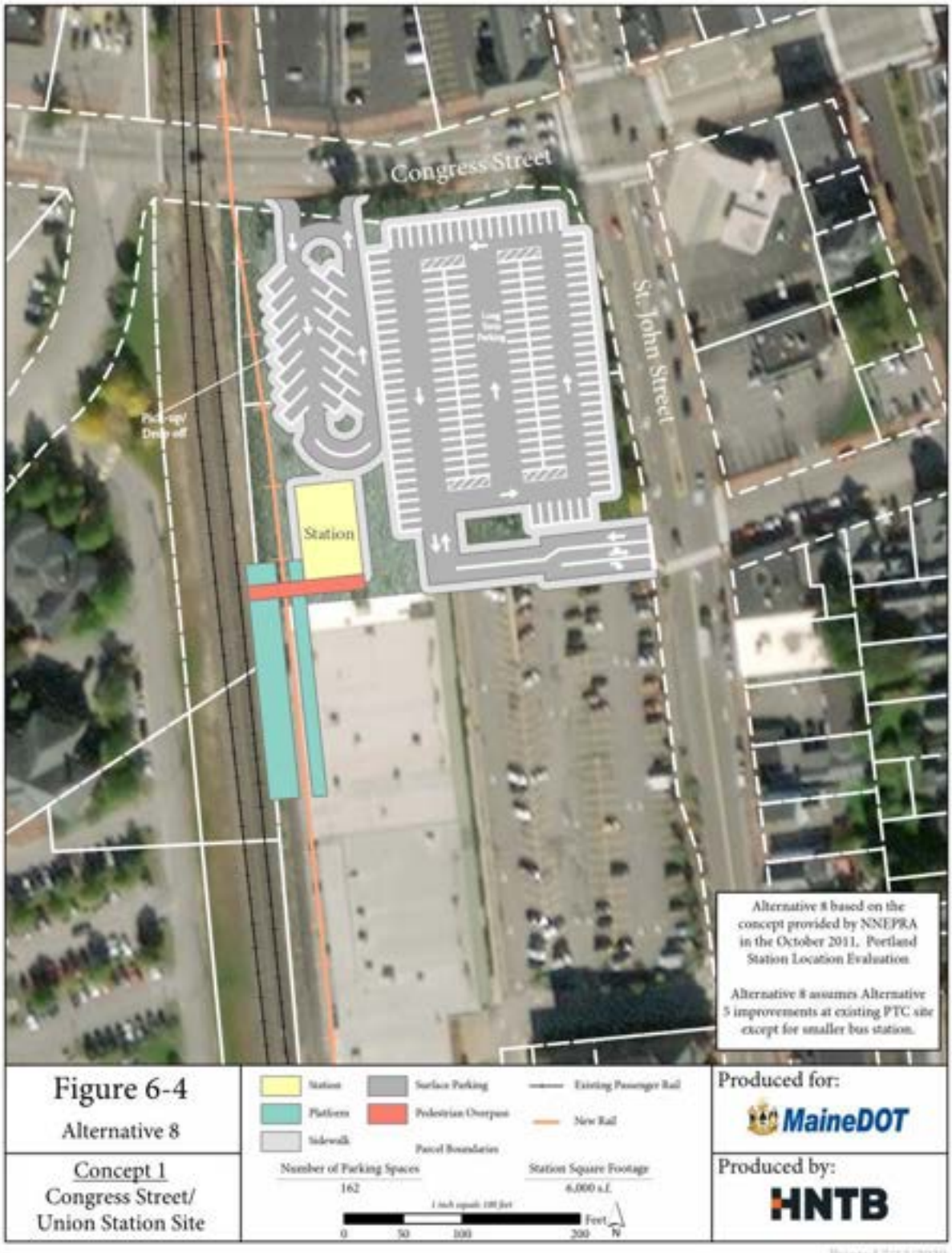
- **Alternative 6:** Existing PTC Location on Thompson's Point for bus in its existing location on north side of tracks and rail on south side of tracks with additional improvements to meet parking and customer needs
- **Alternative 7:** Existing PTC Location on Thompson's Point for bus and Ferguson Property area on St. John Street for rail
- **Alternative 8:** Existing PTC Location on Thompson's Point for bus and Union Station area adjacent to Congress Street for rail

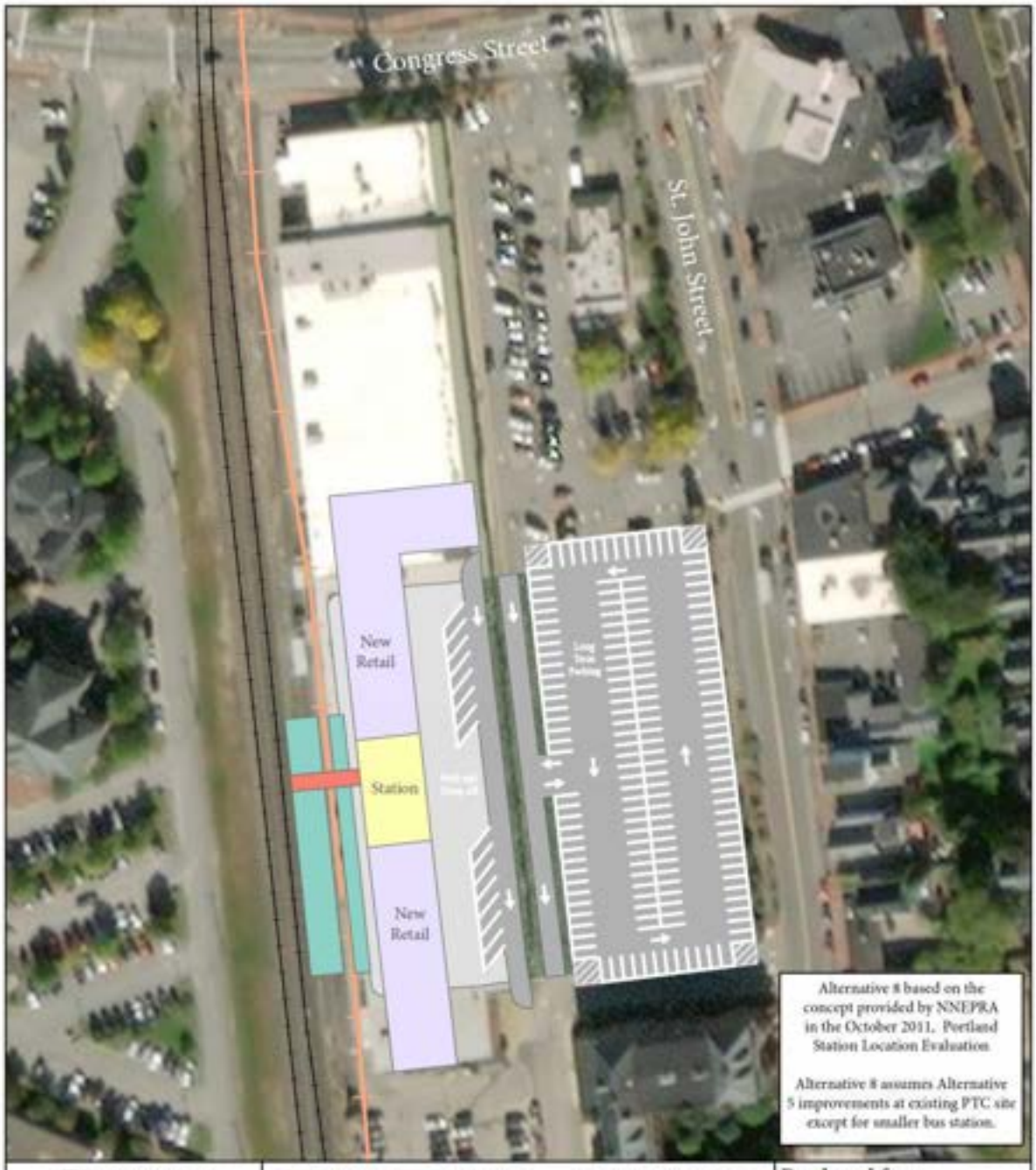
For each alternative, a conceptual layout was developed identifying how each location could accommodate the required parking, station, access, pick-up and drop-off areas, and rail platform and track infrastructure required (Figures 6-1 through 6-4). Alternatives 6, 7 and 8 concept layouts do not show the bus layout as it is assumed to be the same as shown on Alternative 5. The conceptual layouts represent a limited engineering evaluation of each location. Any alternative advancing from this Study will require a more detailed engineering and cost evaluation.


Parking
Deck
(247 Spaces)
Thompson's Point
Fore River Parkway
Station
6 Bus
Bays
Concord Coach Lot
(560 spaces)
Figure 6-1
Alternative 5
Existing PTC
(Bus & Rail Station)
Produced for:
MaineDOT
Produced by:
HNTB
Number of Parking Spaces
1,197
Station Square Footage
20,000 sf
Feet
0
62.5
125
250
N


Existing PTC
Six Bus Bays
Thompson's Point
Pick-up/ Drop-off
Station
Parking Area (under construction)
Alternative 6 assumes Alternative 5 improvements at existing PTC site except for smaller bus station.
Figure 6-2
Alternative 6
South of Existing PTC
Parking Lot
Sidewalk
Paved Boundaries
Pedestrian Overpass
Platform
New Rail
Station
Number of Parking Spaces
162
Station Square Footage
6,000 s.f.
0
50
100
200
Feet
N
Produced for:
MaineDOT
Produced by:
HNTB
Printed 7/20/2020


Long Term Parking
St. John Street
Station
Pick-up/ Drop off
Train Platforms
Alternative 7 based on concept provided by NNEPRA in the May 2019, Portland Train Station Relocation Preliminary Study.
Alternative 7 assumes Alternative 5 improvements at existing PTC site except for smaller bus station.
Figure 6-3
Alternative 7
St. John Street/Ferguson Properties Site
Station Building
Platform
Sidewalk
Surface Parking
Pedestrian Overpass
Parcel Boundaries
Number of Parking Spaces
162
Station Square Footage
6,000 sf
0
40
80
160
Feet
N
Produced for:
MaineDOT
Produced by:
HNTB
Printed 7/13/2020


Congress Street
St. John Street
Station
Pick-up/
Drop-off
Alternative 8 based on the concept provided by NNEPRA in the October 2011, Portland Station Location Evaluation.
Alternative 8 assumes Alternative 5 improvements at existing PTC site except for smaller bus station.
Figure 6-4
Alternative 8
Concept 1
Congress Street/
Union Station Site
Station
Platform
Sidewalk
Surface Parking
Pedestrian Overpass
Parcel Boundaries
Existing Passenger Rail
New Rail
Number of Parking Spaces
162
Station Square Footage
6,000 s.f.
1 inch equals 100 feet
0
50
100
200
Feet
N
Produced for:
MaineDOT
Produced by:
HNTB
Printed 7/13/2020


Congress Street
St. John Street
New Retail
Station
New Retail
Alternative 8 based on the concept provided by NNEPRA in the October 2011, Portland Station Location Evaluation
Alternative 8 assumes Alternative 5 improvements at existing PTC site except for smaller bus station.
Figure 6-5
Alternative 8
Concept 2
Congress Street/
Union Station Site
Station
Platform
Sidewalk
Surface Parking
Pedestrian Overpass
New Retail
Existing Passenger Rail
New Rail
Number of Parking Spaces
162
Station Square Footage
6,000 s.f.
Feet
0
50
100
200
N
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MaineDOT
Produced by:
HNTB
Printed 7/23/2020

6.3 Estimated Change in Passenger Ridership

Changes in passenger ridership can be anticipated if a change in the location of the bus and/or rail station results in a change in operating travel times for NNEPRA, CCL, or Greyhound. This change in operating times can be either a benefit or detriment to ridership. Using previous NNEPRA study data for rail operating time changes, updated Wye track evaluation findings that identified no operating time benefit, and PTC Study travel time runs, the anticipated changes in bus and rail service travel times for the locations associated with Alternatives 5 through 8 were evaluated (Table 6-1).

Alternative	Mode	Travel Time Change		
		Between Brunswick and Boston	Between Brunswick and Portland	Between Portland and Boston
Alternatives 5 and 6: Existing PTC Location	Bus and Rail	No Change	No Change	No Change
Alternatives 7 and 8: St. John Street/Union Station	Bus	-	-	No Change
Alternative 7: St. John Street Rail Station	Rail	-16 minutes	-10 minutes	-1 minute
Alternative 8: Union Station Rail Station	Rail	-16 minutes	-10 minutes	-1 minute

Table 6-1: Change in Service Travel Times by Mode and Alternative

Using the same ridership elasticities from the Phase 1 analysis resulted in a 0.65 percent change in ridership for every 1 percent change in travel time for commuter/business trips, and a 1.2 percent change in ridership for every 1 percent change in travel time for all other trips.

Comments provided by the Principal Stakeholders from the Phase 1 analysis findings indicated that different growth rates for bus and rail passengers would be appropriate for the Phase 2 analysis. Using updated data provided, passenger volumes in the 20-year forecast timeframe are assumed to grow beyond current values as follows.

- For all passenger boardings on CCL and Greyhound service departing from Portland, an annual growth rate of 2.2 percent[9] is assumed (i.e., Year 2040 boardings are 44 percent above current values).
- For all NNEPRA passenger boardings at the Freeport and Brunswick stations, the annual growth rate of 2.2 percent is also assumed.

[9] The Portland Transportation Center Parking Facility Study, prepared for MaineDOT by AECOM in February 2018, presents a base growth scenario that has a 20-year annual growth rate of 2.2 percent for PTC passengers.

- NNEPRA boarding data for at the existing PTC station between the years 2007 and 2019 demonstrate little growth in ridership. In consultation and coordination with NNEPRA staff, an annual growth rate of 1 percent was determined to be an appropriate estimate.

The updated analysis shows that there are approximately 1,080 daily passengers who board at the PTC today, which is anticipated to grow to 1,478 by year 2040. This value is slightly below the 1,553 daily passengers identified in the Phase 1 analysis findings.

Based on the change in service travel times and the elasticities from the October 2015 Northeast Corridor report[10], daily ridership changes for each alternative were estimated (Table 6-2).

Alternative	Mode	Ridership Change		
		Between Brunswick and Boston	Between Brunswick and Portland	Between Portland and Boston
Alternatives 5-8	Bus	N/A	N/A	No change
Alternatives 5 and 6: Exiting PTC location	Rail	No change	No change	No change
Alternatives 7 and 8: St. John Street/Union Station	Rail	+42	+10	+6

Table 6-2: Daily Change in Ridership by Mode and Alternative

For the analysis of parking demand, it was assumed that all passenger trip increases resulting from relocation to the mainline site are new trips to the NNEPRA system; all were assumed to previously have been a drive trip to the ultimate destination. This assumption maximizes the estimated reductions in VMT and VHT for the alternatives.

6.4 Station Mode of Access

Determining customer station mode of access and parking demand for each alternative is a key element in the overall PTC Study. Mode of access identifies how passengers arrive at the station, both currently and in the future, and these values are necessary to determine future parking demand, which is a significant cost element in each alternative, especially if a parking structure

[10] Ridership Analysis Technical Memorandum, prepared for Northeast Corridor Future by Parsons Brinckerhoff and AECOM, October 2015. For every 1 percent reduction in travel time for a commute trip or business trip, a 0.65 percent increase in riders can be expected. For every 1 percent reduction in travel time for all other trip types, a 1.2 percent increase in riders can be expected. NNEPRA passenger interviews conducted at PTC during July 2019 conducted as part of this overall study provide trip purpose distributions.

is required. Future year station mode of access and parking demand assumptions and estimates are detailed for each alternative.

The current and future mode of access distributions for all passengers arriving at PTC for a trip to points south on either NNEPRA, CCL, or Greyhound service are presented in Table 6-3.

Mode of Access for PTC Passengers	Current Year	Year 2040: Alternatives 5&6	Year 2040: Alternative 7	Year 2040: Alternative 8
	Bus and Rail		Rail Only	Rail Only
Parked Vehicle On-Site	41%	35%	34%	34%
Drop-Off	55%	57%	55%	54%
Local Bus	2%	6%	6%	6%
Walk	1%	1%	3%	4%
Bicycle	<1%	<1%	2%	2%
Totals	100%	100%	100%	100%

Table 6-3: Current and Future Year Station Mode of Access

The PTC site, the St. John Street site, and the Union Station site offer both opportunities and challenges to significantly improving the current fixed-route bus service. A key component in improvements is expected to be initiation of frequent, regular, and comprehensive shuttle service between the station(s) and downtown Portland. To estimate future mode of access values, it was assumed that expanded METRO service will be provided by Year 2040. This assumption increases the percentage of passengers arriving at the station via local transit to approximately six percent – a three-fold increase from the current value. Six percent is considered to be an optimal level of local transit for regions of similar size and density.

Future walk and bicycle mode of access percentages for these two Alternatives were determined based on a travel shed analysis which identified the number of people within a specific distance of each site. The St. John Street site and the Union Station site place a station closer to downtown Portland and other Portland Peninsula destinations. Therefore, a slight increase in the number of walk and bicycle trips is anticipated (Table 6-3).

6.5 Parking Demand

As stated, estimating future parking demand is important for both identifying viable station locations with adequate space for parking and estimating capitol cost of providing the necessary number of parking spaces to meet demand.

The current parking supply at PTC consists of:

- North Lot that provides 371 parking spaces
- South Lot that provides 289 parking spaces

- Overflow Lot on Thompson's Point that provides as many as 300 parking spaces

Combined parking for the north and south lots is 660 spaces. An additional 67 parked vehicles can be accommodated along the North and South Lot curbs in unmarked spaces during peak demand periods. CCL is currently in the process of expanding the south lot, which will provide approximately 560 spaces when completed. This additional south lot capacity has been incorporated into the parking demand estimates.

Current parking demand estimates presented in a 2018 MaineDOT study[11] indicate that parking demand exceeds the base parking supply of 660 vehicles during approximately 11 weeks of the year. During those periods, overflow parking and on-site curb space is used. The ultimate capacity (consisting of base plus all overflow parking) of 1,027 spaces is reached about one week per year.

Typical parking demand planning does not support providing spaces for all vehicles at the highest day or week of demand. Rather, consistent with standard roadway and intersection capacity practices, parking demand would be based on a time period that would accommodate most, but not all parking demand. This means the number of parking spaces should never be equal to the highest parking demand. Table 6-4 presents estimated Year 2040 peak parking demand associated with a Portland multi-modal transportation center for rail and intercity bus service. The #5 Rank Week numbers were used to forecast parking demand in the Phase 1 alternative analysis. All passenger volume, station mode of access, and parking demand values estimated were then used to conduct the alternative evaluation described in Section 6.6.

Alternative	#1 Rank Week Total	#5 Rank Week Total	#10 Rank Week Total
All Alternatives Bus	1,155	1,035	950
All Alternatives: Rail	175	162	135
Total Bus and Rail	1,330	1,197	1,085

Table 6-4: Year 2040 Peak Parking Demand – Ranked by Week

Reductions in rail passenger boardings have reduced the overall number of parking spaces identified in the Phase 2 analysis as compared to the Phase 1 analysis findings. Discussion of a potential West Falmouth rail station and the opportunity to further reduce overall and rail parking demand is described in Section 6.7. Additionally, the Phase 1 analysis findings provided a range of parking demand by alternative. The Phase 2 analysis was simplified to identify a single value for bus and rail parking to provide comparable results between alternatives. A more detailed parking demand analysis of the recommended alternative should be completed if

[11] Portland Transportation Center Parking Facility Study: Preliminary Financial Analysis prepared for MaineDOT by AECOM, February 26, 2018

advanced to refine the parking demand totals. For all alternatives, the opportunity to consider separate parking areas for short and long-term parking should be further evaluated for the recommended alternative due to the significant proportion of passengers who park for extended periods of time, primarily bus passengers to Logan Airport or New York City.

6.6 Alternative Evaluation

Each of the alternatives was evaluated based on measure of effectiveness criteria (MOEs) identified specifically for Phase 2 of this Study. Phase 2 MOE's are reduced from Phase 1 based consolidation of similar MOE's to provide a more focused analysis. The Phase 2 MOEs are organized into seven categories as follows.

1. Safety – how the proposed alternative affects customer and modal safety
2. Mobility – how the proposed alternative affects vehicular and non-vehicular mobility
3. Operations -how the proposed alternative addresses future parking demand, bus and rail operations
4. Environmental – how the proposed alternative affects greenhouse gas emissions as it relates to the change in travel distance and travel time, and associated train noise levels
5. Modal Connectivity – how the proposed alternative affects modal connections
6. Ease of Implementation – how readily the proposed alternative can be implemented, whether it is supported by local entities and landowners, and whether it is compatible with future opportunities
7. Costs – how comparable capital, operation, and maintenance costs are across alternative, potential funding stream, and how transportation benefits compare to costs

Evaluation of the proposed alternatives based on the MOEs is below. The MOE matrix shown in Table 6-5 uses color-coding to visually compare the MOE findings.

Safety

- *Customer Accessibility Safety and Platform Safety*
  In terms of customer accessibility and platform safety, no change is anticipated with the No Build alternative while Alternatives 5-8 improve both conditions with one notable exception. Alternative 7 does not include enough area to increase rail platform size should more area be required in the future, thus limiting expansion opportunities for this specific feature.
- *Train Safety*
  The No Build alternative, Alternative 5 and Alternative 6 do not result in any change in train operations and so no change to safety aspects related to train movements. Relocation and design of a new rail facility on one of two sites associated with Alternatives 7 and 8 eliminate the back-up movements by the train and additional conflicting movements, thereby improving train movement safety. Alternative 8 is located immediately adjacent to an at-grade rail crossing on Congress Street, which will increase grade crossing time for the train to slow entering or exiting the station.

TABLE 6-5: MOE MATRIX

Mobility

- *Change in VMT/VHT*
  As in the Phase 1 analysis, there is no shift in mode of access with the No Build alternative, Alternatives 5 and 6, thereby resulting in no reduction in VMT/VHT. For Alternatives 7 and 8, enhanced rail service associated with all other alternatives attracts a limited number of new rail passengers from both bus and auto modes. Any shift from the auto mode would reduce regional VMT and VHT but would also increase local VMT/VHT associated with auto access to the transportation site. For these alternatives, VMT/VHT is estimated to slightly decrease as compared to other alternatives.

- *Bus and Rail Ridership changes*
  The No Build alternative, Alternatives 5 and 6 provide no opportunity to increase bus and rail ridership due to no service travel time changes. Alternatives 7 and 8 increase rail ridership by approximately 58 daily riders by relocating the rail station to the rail mainline, thus improving service travel time and increasing rail ridership.

- *Change in pedestrian and bicycle trips due to reduced walking distance to downtown*
  With the PTC remaining at its current location for No Build and Alternatives 5 and 6, there is no change in the pedestrian and bicycle trips between the transportation center and downtown and other destinations. While Alternative 7 is closer to downtown Portland and so to trail connections, navigation on foot or bicycle is still challenging and the shift in location will benefit only rail passengers seeking to use these modes to access the station. Alternative 8 provides the greatest opportunity to slightly enhance access to services by pedestrians and bicyclists by locating a new rail station in downtown Portland (Table 6-3) and increase walk and bike trips by up to 10 trips/day; however, bus services would retain the challenges posed at the current PTC site.

Operations

- *Parking to meet 2040 demand*
  The existing PTC site does not have adequate space to expand parking to meet 2040 demand, translating into a negative finding for this MOE for the No Build alternative. All other Phase 2 alternatives can accommodate future parking needs; however, a parking structure will be required to do so, adding to the capital costs associated with each of these options.

- *Provides rail center platform and bypass track*
  The No Build alternative does not provide a center rail platform or a bypass track. Alternative 5 provides an additional rail platform and can accommodate a bypass track in the future. Alternatives 6 and 8 can accommodate both features, while providing a bypass track for Alternative 7 is not viable.

- *Rail operations*

Colocation of the PTC rail with the mainline is not feasible for the No Build alternative, nor for Alternatives 5 and 6, which maintain the existing rail station location. Alternatives 7 and 8 propose relocating the rail station, which provides the opportunity to place the new station directly on the rail mainline. Coordination with Pan Am railways, the current rail line owner, will be required to determine rail operation requirements, specifically freight rail, if the station is relocated.

Environmental

- *Reduction in greenhouse gases/vehicle emissions*
  No change in existing levels of vehicle emissions will result from implementing the No Build alternative or Alternatives 5 and 6. Alternatives 7 and 8 are likely to result in a decrease in passenger vehicle emissions due to greater use of alternative modes to access a more central rail station.

- *Train operations noise*
  As with greenhouse gas emissions, train operation noise will not be affected under No Build, Alternative 5, or Alternative 6. Alternatives 7 and 8 consider relocating the rail station, which may create perception of an increase in noise due to idling and horns/whistles at the stations in closer proximity to residential neighborhoods.

Modal Connectivity

- *Bus/rail in same location/customer ability to switch modes readily*
  Colocation of bus and rail facilities in No Build and Alternative 5 will maintain the ability for passengers to easily access different modes. While Alternative 6 results in modifications to the existing PTC site, rail and bus will continue to be in proximity, allowing passengers to choose between rail and bus modes. Alternatives 7 and 8 envision separate rail and bus facilities, which may require a shuttle or other connection to preserve the convenience of modal choice. A separate analysis will be required to determine shuttle or other connection details, frequency and cost.

- *Access to I-295*
  Direct access to and from I-295 will be maintained by the No Build alternative as well as Alternatives 5 and 6. Both Alternatives 7 and 8 will relocate the rail station farther away from access points to I-295, with Alternative 7 located at the greatest distance.

- *Access to existing local transit*
  Both the METRO Route 1 and the BREEZ Express Service will continue to access rail and bus facilities under all alternatives examined in Phase 2 except for Alternative 8. The Alternative 8 rail location will be accessible via six or more local transit routes.

- *Access to roadway network*

Direct access to bus and rail facilities will be maintained under the No Build alternative and Alternatives 5 and 6. Contrarily, not only will Alternatives 7 and 8 create additional distance to the rail station, roadway and intersection improvements will be required to establish safe access to and egress from either of the two new locations.

- *Access to existing pedestrian/bicycle networks*
  Passengers will be able to continue to walk or bike to the current PTC site using existing routes under the No Build alternative and Alternatives 5 and 6. Alternative 7 will require spot improvements to access a new rail facility on St. John Street from adjacent multi-use trails, while Alternative 8 will provide direct connection to the Portland Trail System.

Ease of Implementation

- *Landowner interest*
  CCL and/or MaineDOT own right of way required under the No Build alternative and Alternative 5. As such, their interest in the project is implied. For the bus portion of Alternatives 6-8, CCL and/or MaineDOT own right of way required. Alternatives 6-8 require private property purchase and are likely to impact the value and viability of the properties affected; discussions are underway or pending with landowners affected by these alternatives.

- *Available ROW*
  The No Build alternative and Alternative 5 require no additional right of way acquisition. Of the remaining three Phase 2 alternatives, Alternative 6 requires the greatest amount of land not already owned and controlled by CCL and/or MaineDOT, 3.4 acres compared to 2.2 or 2.6 acres required to implement Alternatives 7 and 8, respectively.

- *Consistent with current land use/zoning*
  No Build alternative and Alternatives 5 and 6 result in no change to the existing transportation and transportation related land uses, which are consistent with the B-5 zoning district that allows for a wide range of commercial and mixed uses and envisions urban patterns of development. Alternative 7 shares challenges with alternatives analyzed in Phase 1 in that the location is potentially in conflict with Mercy Hospital's master plan, if only by its proximity to the medical facilities. Although Alternative 8 envisions relocating the rail station to downtown Portland, transportation use of the proposed site is consistent with the City's current land use and zoning.

- *Compatible with future development opportunities*
  Similar to several earlier alternatives, the No Build alternative and Alternatives 5 and 6 have the potential to anchor future development around the PTC, resulting in a local effect because the existing site is relatively far from the urban core of the city and the presence of the highway system further acts as a divider between the urban fabric and the transportation center. As discussed in Chapter 5, even though the PTC aligns itself with the long term plans for Thompson's Point, it is expected to be challenging to integrate the center in a meaningful

way and for it to contribute to a high level of economic development and downtown revitalization without connecting it to major destinations with very rich local transit connections. Separating rail and bus modes as proposed in Alternatives 7 and 8 will result in loss of critical mass and the development of strong anchor that can form the nucleus of future development; however, relocating rail facilities to a site closer to downtown will support local development potential.

Costs

- *Estimated conceptual capital costs (2019 $$)*

The No Build alternative includes planned improvements at the existing PTC, which come at the lowest cost of the alternatives studied. Costs of other alternatives are more significant relative to the status quo; however, Alternatives 6, 7 and 8 require higher levels of funding due to the need for a separate rail station, rail infrastructure improvements, and roadway/intersection improvements to meet 2040 demand.

- *Estimated annual operating and maintenance cost difference from No Build Alternative*

Alternative 5 will require increase O&M costs due to the additional parking area, building size, and assumed additional staffing. Alternative 6 will have the greatest increase in O&M costs above Alternative 5 due to the separate rail station and assumed staffing, as well as increased rail infrastructure maintenance.

- *Combined/separate operating and maintenance costs*

The No Build alternative, Alternatives 5 and 6 maintain a combined bus and rail station which provides the opportunity for combined O&M costs. Alternatives 7 and 8 have separate bus and rail stations, increasing O&M costs due to staffing and maintenance required at both station locations.

- *Benefit/cost analysis*

Cost/benefit analysis was not applied to the No Build alternative as it is considered the baseline for the evaluation. A benefit/cost ration of 1.0 or greater is considered positive. None of the alternatives analyzed in this phase meet this threshold.

- *Potential to fund improvements*

Planned improvements to complete the expanded south parking lot funded by CCL are assumed for the No Build alternative. All alternatives have opportunity for private funding for stations if retail is incorporated, state and federal funds for rail track and station infrastructure improvements, and additional parking revenue to fund expanded surface and garage parking areas. Private funding opportunities not yet identified may alter or change the ratings of this MOE.

6.7 West Falmouth Station

The Phase 2 alternatives were evaluated with respect to the effect of a potential West Falmouth station on NNEPRA passenger parking demand at the PTC or at any of the alternative sites under

consideration. The evaluation was based on Amtrak Downeaster passenger zip code information provided from boarding passengers at each of the six Maine stations. This information provided a basis to determine the likely percentages of passengers to utilize a West Falmouth Station based on their assumed origin.

Based on this evaluation, the net effect of a West Falmouth station on Portland rail passenger parking demand is approximately 20 to 25 spaces. This means that the estimated rail parking demand could be reduced by up to 25 spaces if a West Falmouth station was constructed.

6.8 Phase 2 Summary

Similar to Phase 1, the Phase 2 Alternatives Analysis identified that all alternatives had benefits and impacts compared to other alternatives.

From a customer perspective, alternatives showing strong benefits in safety and modal connectivity will ultimately provide greater advantages to the customer over the long term. By maintaining a single bus and rail station, Alternatives 5 and 6 provide the greatest connectivity benefits when compared to Alternatives 7 and 8. Alternative 8 provides the greatest safety benefits but needs further evaluation to address potential at-grade crossing impacts.

From a transportation system perspective, alternatives that increased ridership provided the greatest regional benefit, reducing VMT, VHT, and greenhouse gas emissions. Alternatives 7 and 8 slightly reduce regional VMT/VHT and greenhouse gases but will require local roadway and intersection improvements to accommodate additional vehicle travel along Congress and St. John Streets. Perception that Alternatives 7 and 8 may increase noise due to start/stop movements and horns/whistles when entering the stations should be considered.

From a cost perspective, Alternatives 6, 7, and 8 had the highest capital costs due to separate rail stations and parking, along with needed rail and transportation infrastructure improvements. For O&M cost changes, Alternatives 5 and 6 had the highest increase in O&M costs as no rail staffing or operation changes were as assumed and trains will still be required to have a reverse move into the station, adding time and cost.

Key findings of the Phase 2 Alternatives Analysis are:

- **No-build Alternative**. The No-Build Alternative should be dismissed as it does not address long-term bus and rail customer needs, does not eliminate train movement safety conflict, does not promote additional bus or rail ridership, does not provide adequate parking, does not increase walk and bike trips, and does not reduce greenhouse gas emissions.
- **Alternative 5:** Alternative 5 provides strong benefits to customer safety, platform and train movement safety, meets parking demand and ability to provide necessary rail infrastructure, is a combined bus/rail station, has direct access to I-295 and the roadway network, and is the easiest alternative to implement as all improvements are on property owned by either CCL or MaineDOT. However, it does not provide any transportation

benefits as there is no additional bus and/or ridership, is not located on the rail mainline, requires a reverse move for the train into the station, and has increased O&M costs. Alternative 5 does improve customer benefits with an expanded bus/rail station, additional parking to meet demand, and rail platform and access improvements.

- **Alternative 6:** Alternative 6 provides similar benefits to Alternative 5 but separates the bus and rail station with the new rail station and parking located immediately adjacent to the bus station, minimizing the inconvenience to bus and rail passenger synergy. However, it does not provide any transportation benefits as there is no additional bus and/or ridership, is not located on the rail mainline, requires a reverse move for the train into the station, and has increased O&M costs. It has the highest O&M cost increase due to separate rail and bus station staffing and parking maintenance as well as one of the highest capital costs.
- **Alternative 7:** Alternative 7 provides benefits to safety with the elimination of the train reverse move, increases mobility with an additional 58 riders per day, reduces VMT, VHT, and greenhouse gases, and improves rail operations by being located on the rail mainline and eliminating the reverse move. It is located somewhat closer to downtown as compared to Alternatives 5 and 6, but not as close to the urban core as Alternative 8, resulting in slight improvements in pedestrian and bicycle trips. This alternative does not accommodate larger platforms for passenger safety or an additional rail bypass track in the future if ridership increases, which may impact future rail operations and expansion opportunities. This alternative may be perceived to increase noise due to trains idling, separates bus and rail passengers into two stations, has a limited number of existing transit lines passing by, and may not be compatible with future development plans in the vicinity of St. John and Valley Streets. It is also one of the highest priced alternatives along with Alternatives 6 and 8.
- **Alternative 8:** Alternative 8 provides strong benefits to customer and train movement safety, improves rail operations by being located on the rail mainline thereby eliminating the reverse move, and can accommodate a bypass track and a rail center platform. This alternative also meets required parking demand, , improves mobility with an additional 58 rail riders per day, reduces VMT, VHT, and greenhouse gases, and is located the closest to downtown of any alternative, which slightly increases pedestrian and bicycle trips over Alternative 7 by approximately one percent, or up to 10 trips per day. It provides the maximum opportunity to increase local transit trips due to the proximity to the greatest number of transit lines and provides a direct connect to the Portland Trail system. This alternative separates bus and rail passengers with two stations and may be perceived as increasing noise due to trains idling. It is one of the highest priced alternatives along with Alternatives 6 and 7.

Findings from the Phase 2 Alternatives Analysis led to a Study recommendation, which is discussed in Chapter 7.

7. Summary of Findings and Recommendations

7.1 Introduction

The PTC was built and opened for bus service at Thompson's Point in 1996 and underwent reconstruction in 2001 for the addition of rail service. Today, it provides intercity bus and rail service through CCL and the Downeaster, respectively. Recently, numerous studies have sought to determine the future needs and objectives for both valued carriers, as well as assess whether the current location and associated infrastructure will best meet these needs over the long term.

Bus advocates support the current location due to its easy and immediate access to I-295 and parking availability. Rail advocates support the opportunity to relocate to the rail mainline to improve travel times, safety, and maximize opportunity for future expansion. The current location remains auto dependent due to passenger origins as well as the station being located outside of downtown Portland with limited local transit service. Results of several surveys discussed in this report show that: customers use the PTC mostly on an infrequent basis; have a strong connection to using both modes of travel but not necessarily on the same trip; would like to see improved connections to the downtown via transit or shuttle; and are split on whether or not separating the bus and rail stations is important to them. From a transportation perspective, traffic on I-295 through Portland continues to grow, resulting in increasing safety and mobility issues. Growth in local, regional, and intercity/interstate bus and rail service is necessary to balance transportation needs long term. Municipal engagement with transportation agencies and service providers is also essential to improving integration with transportation and land use in a meaningful and positive way.

These challenges, opportunities and needs have prompted the MaineDOT to initiate the PTC Study, engage the Principal Stakeholders, and seek an outcome that best balances customer and transportation system needs.

7.2 Overview of Analysis

The purpose of the PTC Study was to compile and assimilate current and past efforts that sought to address specific location and carrier needs and combine these efforts with the evaluation of various alternatives to determine which alternative best addresses customer and transportation system needs. The PTC Study's goal is to recommend practicable solutions that enhance customer satisfaction and improve long-term mobility and safety for the region.

The Study was conducted in two Phases:

- Phase 1, which consisted of evaluating seven alternatives plus a no-build alternative using 33 broad MOE's
- Phase 2, which consisted of evaluating four alternatives plus a no-build alternative using 24 more focused MOE's

All alternatives were evaluated for the Year 2040 to determine the long-term benefits that can be achieved. The initial Study scope identified six alternatives for evaluation along with 16 MOE's. Through strong Principal Stakeholder participation and input, a total of 13 alternatives and 33 MOE's were identified, analyzed and incorporated into the Study findings.

7.3 Summary of Alternatives

Alternatives for the PTC Study fell into one of three categories: alternatives in which both bus and rail remain at the existing PTC location; alternatives with new locations for both bus and rail; and alternatives in which bus and rail are separated, with bus remaining at the existing PTC location and rail relocating to a new site along the rail mainline.

The nine alternatives analyzed under the two Study Phases were as follows.

Phase 1

No-build Alternative: Existing PTC Location on Thompson's Point for bus and rail with only planned and funded improvements

1. **Alternative 1**: Existing PTC Location on Thompson's Point for bus and rail with additional improvements, including the Wye Track for rail
2. **Alternative 2a**: New Location on Fore River Parkway for bus and rail, serving all required parking needs
3. **Alternative 2b**: New Location on Fore River Parkway for bus and rail, serving short-term parking needs only
4. **Alternative 3a**: New Location on St. John Street for bus and rail, serving all required parking needs
5. **Alternative 3b**: New Location on St. John Street for bus and rail, serving short-term parking needs only
6. **Alternative 4a**: Existing PTC Location for bus with new rail station on Fore River Parkway
7. **Alternative 4b**: Existing PTC location for bus with new rail station on St. John Street

Phase 2

No-build Alternative: Existing PTC Location on Thompson's Point for bus and rail with only planned and funded improvements

8. **Alternative 5:** Existing PTC Location on Thompson's Point for bus and rail
9. **Alternative 6:** Existing PTC Location on Thompson's Point for bus in its existing location on north side of tracks and rail on south side of tracks
10. **Alternative 7:** Existing PTC Location on Thompson's Point for bus and Ferguson Property area on St. John Street for rail
11. **Alternative 8:** Existing PTC Location on Thompson's Point for bus and Union Station area adjacent to Congress Street for rail

7.4 Summary of Findings

Using the Study Purpose established at the start of the process, the Study Team determined the reasonableness of each of the four alternatives evaluated in Phase 2 by summarizing under the following categories:

- How the Alternative addressed Customer needs;
- How the Alternative addressed Transportation System needs;
- Was the Alternative cost-effective;
- How the Alternative can be supported, implemented and potential funding sources identified.

Table 7-1 summarizes the reasonableness of each alternative evaluated using the extensive analysis document in this report and summarized in Table 6-5 (MOE Matrix). This table utilizes the ratings from the MOE Matrix to weigh impacts and benefits of each alternative within each of the four categories. Meeting customer needs is determined by assessing how well the alternative meets the safety, connectivity, and customer mobility MOE's. Meeting transportation system needs is determined by assessing how well the alternative meets the transportation mobility, operations including the ability to add a rail center platform and bypass track, operations cost efficiency, and environmental MOE's. Meeting the cost-effective needs is determined upon whether the alternative has a benefit/cost ratio greater than 1.0. Determining if the Alternative can be supported, implemented and funded is determined based on landowner interest, consistency with current land use/zoning, compatible with future developments, and potential to fund the improvements.

The ultimate suitability of each alternative is shown as the overall Level of Reasonableness which represents the ability of the alternative to meet the Study purpose as identified in Section 1.3. This approach allows a greater emphasis to be placed on the customer and transportation system measures, which is the overall focus of this Study.

Alternative		Meets Customer Needs	Meets Transportation System Needs	Cost Effective (B/C>1)	Supported, Can be Implemented and Potential Funding	Level of Reasonableness
NB	No-Build	Rank – 5 (Lowest)	Rank – 5 (Lowest)	No	Rank – 1 (Highest)	Low
5	Existing PTC location for bus and rail with improvements	Rank – 1 (Tied, Highest)	Rank – 3 (Tied, 2nd lowest)	No	Rank – 2	Moderate
6	Existing PTC location for bus, new rail station south of PTC location with improvements	Rank – 3 (2nd Highest)	Rank – 3 (Tied, 2nd lowest)	No	Rank – 3 (Tied, 2nd Lowest)	Moderate
7	Existing PTC location for bus with improvements, new rail station on St. John Street	Rank - 4 (2nd Lowest)	Rank – 2	No	Rank – 5 (Lowest)	Moderate
8	Existing PTC location for bus with improvements, new rail station at Union Station	Rank – 1 (Tied, Highest)	Rank – 1 (Highest)	No	Rank – 3 (Tied, 2nd Lowest)	High

Table 7-1 Summary of Reasonableness of Alternatives

Table 7-1 shows that Alternative 8 has the highest reasonableness ranking as compared to all other alternatives. Of those alternatives with a moderate level of reasonableness, Alternative 5 could be considered as having a greater combined customer and transportation system level of benefit. Therefore, a direct comparison of these two highest ranking alternatives finds the following.

<u>Alternative 5</u>

- Alternative 5 provides the highest customer benefits (tied with Alternative 8) by maintaining the connectivity between bus and rail modes at the existing PTC location, having the ability to maximize passenger safety by providing longer rail platforms and a bypass track for freight rail, and having the most direct access to I-295. Alternative 5 provides increased parking to meet future demand, additional bus bays for expanded bus service, and additional rail platforms and infrastructure to support additional rail service, all of which benefit customers.
- Alternative 5 provides the second lowest transportation system benefits (tied with Alternative 6) by having the ability to provide a second, center rail platform and bypass track for freight rail, meeting future parking demand, and minimizing operating and maintenance cost efficiency with having all operations at the existing PTC location. Alternative 5 does not benefit customers by resulting in any additional bus or rail travel time benefits and so does not increase ridership. Neither does it eliminate the train reverse move on the mainline, which adds time and cost to the Downeaster.
- Alternative 5 is the second highest supportable alternative because it does not require any additional property to implement, is consistent with current plans at Thompsons

Point, is consistent with City of Portland land use, and is lower cost with anticipated funding from various sources including CCL and from additional parking revenues.

- Alternative 5 has one of the lowest benefit/cost ratios, with a value of 0.02 due to minimal additional transportation system benefits provided as compared to the $28.3M in capital costs.

Alternative 8

- Alternative 8 provides the highest customer benefits (tied with Alternative 5) by: having the ability to maximize passenger safety by providing longer rail platforms and a bypass track for freight rail; eliminating the train reverse move on the mainline; being immediately adjacent to numerous local transit routes; and being the closest alternative to downtown Portland to walk and bike. Alternative 8 provides increased parking to meet future demand and decreases rail travel times for rail customers to/from the Brunswick and Freeport. Alternative 8 retains bus at the existing PTC locations, which provides immediate access to I-295. Alternative 8 eliminated bus and rail synergy by having separate bus and rail stations.
- Alternative 8 provides the highest transportation system benefits by increasing rail ridership, reduces VMT, VHT, and greenhouse gases, provides a second, center rail platform and bypass track for freight rail, and increases walk, bike and transit trips compared to other alternatives. Alternative 8 will add redundant operations and maintenance costs with an additional rail station and will require an additional connection between the bus and rail stations through increased transit or last mile shuttle connection for the 10% of passengers who use different modes during their trip.
- Alternative 8 is the second lowest supportable alternative as it is consistent with current land use and with future development opportunities. However, Alternative 8 requires additional property to implement, needs landowner and City of Portland support, and is one of the most-costly alternatives to implement due to the addition of the rail station. For CCL, Alternative 8 continues the current operations.
- Alternative 8 has one of the highest benefit/cost ratios at 0.48, but it remains under 1.0. Alternative 8 provides improved transportation system benefits with slight decreases in VMT/VHT, increased rail ridership, small increases in bicycle and pedestrian trips, but not enough benefits to offset the $39.0M in capital costs.

7.5 Recommendations

Based on the quantitative and qualitative analysis of the Phase 2 Alternatives, combined with supporting information from the Phase 1 findings, the Study Team recommends further evaluation of Alternative 8. This is based on the alternatives ability to provide the highest transportation benefit coupled with its ability to provide the highest customer benefits of all alternatives evaluated. The value of transportation benefit should be considered the highest above all other benefit opportunities. While the benefit-to-cost ratio for Alternative 8 is less than 1.0, further evaluation could identify additional transportation, economic, and land use benefits that could help offset identified costs for this alternative.

Based on this recommendation, the Study Team recommends the MaineDOT take the short-term and long-term actions described below. Short-term actions would begin immediately and ideally conclude within the next two years. Long-term actions could begin prior to the conclusion of some or all short-term actions, concluding within the next five years.

Short-term Actions:

1. Create a short-term investment, operation and maintenance PTC plan that focuses on enhancing both bus and rail ridership and maximizing benefit to both the customer and transportation system.
2. Conduct a more detailed evaluation of Alternative 8 to provide a greater level of information to support advancing this alternative. This includes an analysis of creating connectivity between the bus and rail station. This effort should encourage participation from relevant Principal Stakeholders and other stakeholders.
3. Incorporate short- and long-term actions into local/state/agency master plans.

Long-term Actions:

1. Identify sources and secure funding to implement Alternative 8 if more detailed evaluation shows benefits outweigh costs;
2. If further study shows positive benefit-cost comparison, implement Alternative 8 under the following conditions:
    - Landowner willingness to work in partnership towards a mixed-use development opportunity at this location that includes a rail station;
    - NNEPRA and City of Portland support;
    - Alternative is consistent with current master plan for this area;
    - Increased connectivity between the bus and rail stations can be accommodated through increased transit or implementation of a last mile shuttle;
    - Continued partnership with MaineDOT and CCL for the necessary improvements to the existing PTC location for bus station passengers and operations; and
    - Funding can be secured.

3. Identify a public entity that owns and/or operates the PTC and new rail station(s), similar to many public transportation centers, thereby allowing opportunity for all modes and carriers to be equally managed and invested.

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DEPARTMENT OF TRANSPORTATION
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AUGUSTA, MAINE 04333-0016

Janet T. Mills
GOVERNOR

Bruce A. Van Note
COMMISSIONER

To: Portland Transportation Center (PTC) Stakeholders and All Interested Parties

Re: PTC Study: Consultant Recommendations and MaineDOT's Proposed Path Forward

From: Bruce A. Van Note, Commissioner
Jennifer Brickett, Director, Bureau of Planning
Nathan Moulton, Director, Freight and Passenger Services

Date: February 3, 2021

Executive Summary

From 2019 and into the fall of 2020, MaineDOT through its consultant led a group of principal stakeholders in the study of facility needs of intercity bus and rail service currently located at the Portland Transportation Center at Thompson's Point Road in Portland, Maine. MaineDOT's goal was to collect data and information and attempt to seek consensus on how to best address immediate and long term needs of intercity bus, rail, and related modes from a customer and regional system perspective.

Questions considered by the study included how and where to invest in terminal improvements, whether bus and rail service should remain in one location, whether a new rail facility makes sense, and if so where, and how we assure that any scenario maximizes customer and system benefit and is cost-effective. The result of this study is the 80± page objective report entitled "Portland Transportation Center - Customer and Transportation System Study" prepared by HNTB Corporation dated December 2020 (PTC Study Report).

As will be seen, achieving a single, commonly-held vision of a path forward proved challenging due to the reasonable but differing perspectives of the stakeholders. The purpose of the memorandum is to set forth MaineDOT's proposed path forward that best balances the short-term and long-term needs of travelers, the system, and stakeholder perspectives, and to provide with supporting rationale.

To do so, the essential recommendations of the PTC Study Report are set forth immediately below, followed by MaineDOT's conclusions and proposed path forward. Thereafter, because the proposed path forward varies in some respects from the report recommendations, this memo then summarizes the background, study process, stakeholder input, and significant consultant findings and recommendations that provided the context and rationale for MaineDOT's proposal.

Essential Recommendations from Study. Pursuant to request of MaineDOT, the PTC Study Report contains the consultant's independent findings and recommendations based upon their objective professional analysis of information available to date. This report contains three essential recommendations.

- In the short-term (within two years), create an investment, operation and maintenance plan for the existing PTC. This is necessary in any event.

- Also in the short-term, conduct a more detailed evaluation of Alternative 8, which calls for CCL bus terminal to remain at the PTC and for a new rail facility at or near the former Union Station site.

- In the longer-term, if that more detailed evaluation yields an adequate benefit cost ratio, funding should be secured and Alternative 8 should be developed upon certain conditions including increased connectivity between the bus and rail stations, the support of NNEPRA, directly impacted landowners, and the City.

MaineDOT's Proposed Path Forward. After carefully analyzing the PTC Study Report finding and recommendations, business and operational differences between key stakeholders, property owner input, and the impact of COVID-19 on public transportation ridership, MaineDOT proposes the following path forward.

1. MaineDOT, CCL, and NNEPRA will immediately work together to create an investment, operation and maintenance plan for the existing PTC including a renegotiation and extension of the lease.
2. MaineDOT will post this Memorandum and the PTC Study Report online and solicit further comments for use by all involved including the stakeholders and will again brief appropriate City staff and officials and PACTS.
3. Operational differences and business needs of the Downeaster and CCL and the possibility for a public-private partnership (PPP) as communicated by NNEPRA staff supports further exploration of a separate rail facility on the railroad mainline.

4. With concurrence of the NNEPRA board, MaineDOT will support NNEPRA in taking the lead on evaluating the viability pursuing PPP or other funding opportunities for a new rail facility on the railroad mainline between Congress Street and the Veterans Memorial Bridge overpass in accordance with the following guiding principles.
    a. The new rail facility will be open to the public.
    b. There will be adequate facilities for connecting modes of access to the new rail facility including a drop and kiss area, parking for Downeaster users, taxis, transit buses, and bicycle and pedestrian facilities.
    c. Appropriate shuttle connections between a new rail station and the current PTC will be provided.

d. If developed as part of a PPP, a long-term (20+ year) relationship with the private partner will clearly define responsibility for capital and operating costs of a new facility.

e. Operating costs for the new rail facility will remain in line with current costs at the current PTC.

f. There will be support – or at least no significant opposition - from the City of Portland or from the owners of property upon which the new rail facility is to be located.

5. In the event that a written agreement for a viable development opportunity does not materialize in two years, or within such other time period as mutually agreed upon by MaineDOT and NNEPRA, then MaineDOT will then update the needs, findings and recommendations contained in the PTC Study Report and pursue development of appropriate improvements.

Supporting Context and Rationale

1. Background

The Portland Transportation Center (PTC) at Thompson's Point Road in Portland, Maine, has served as a regional hub for intercity transportation since 1996 when Concord Coach Lines (CCL) built the PTC and began its intercity bus service. In 2001, with the addition of the Amtrak's Downeaster service, which is managed by Northern New England Passenger Rail Authority (NNEPRA), the PTC has been a multimodal regional facility for almost 20 years. The Downeaster began with service between Portland and Boston, and later extended service north to Brunswick in 2012. The PTC terminal and property including its parking lot is owned and managed by CCL, while the Maine Department of Transportation (MaineDOT) owns an adjacent Park and Ride Lot on the north side of Thompson's Point Road that serves both bus and train customers.

There were at least three factors that necessitated a strategic look at the PTC. First, until the COVID pandemic, the PTC and the surrounding transportation system has seen growth that strained the existing facility. In 2019, there were about 745,000 passengers who used the PTC, with CCL bus customers accounting for about 73% and the Downeaster train customers accounting for about 27%.[1] These volumes drove the need for consideration of capital investment including terminal renovation, site improvements, additional parking capacity, and added train platform capacity. Second, since the 2012 extension of Downeaster Service to Brunswick, the need to back trains into the existing PTC causes several minutes of travel time for train passengers traveling to stops north of Portland (Freeport and Brunswick) that could be

[1] COVID-19 has caused severe and sustained drops in ridership. Intercity bus and train have been down by 85 to 90% most weeks compared to a year ago.

eliminated with a mainline rail terminal. Lastly, the original lease and related financial arrangements for colocation of CCL and the Downeaster, originally brokered by MaineDOT, has expired, and there are various other business and operational considerations of CCL and NNEPRA that required collaboration and resolution.

2. Study Purpose, Participants and Phases

These challenges and opportunities prompted the MaineDOT to retain HNTB Corporation (HNTB or consultant) to conduct this PTC Study in the spring of 2019. MaineDOT's goal of the Study was to seek consensus on how to best address immediate and long term intercity bus, rail, and related linkages needs from a customer and regional transportation system perspective. Questions to be considered included how and where to invest in terminal improvements, whether bus and rail service should remain in one location, and if so where, whether a new rail terminal location makes sense, and if so where, and how we assure that any scenario maximizes customer benefit and is fiscally responsible. Principal Stakeholders in the Study included CCL, NNEPRA, MaineDOT, the City of Portland, and METRO. The Greater Portland Council of Governments (GPCOG) and the Portland Area Comprehensive Transportation System (PACTS) supported this study by providing local and regional information and staff resources. Additional stakeholders – including other affected landowners - were engaged as needed to contribute to Study analysis and findings. We thank all participants for their engagement.

The PTC Study was conducted in two phases. Phase 1 – conducted from June 2019 to January 2020, centered on evaluating efficiency relative to meeting customer needs and realizing transportation benefits at existing and potential new locations as well as understanding the feasibility and potential benefits and costs of relocating bus and/or rail facilities. Nine alternatives were considered in Phase 1. Customer input was gathered through customer survey of existing passengers using the PTC in the summer of 2019.

Phase 1 results were inconclusive and failed to result in consensus of key project stakeholders and pointed to the need to reconsider assumptions. Accordingly, with lessons learned from the first phase, MaineDOT authorized HNTB to conduct a Phase 2 Alternatives Analysis from February 2020 and into the Fall 2020. Phase 2 included more focused and detailed stakeholder input concerning operational and business needs, assumptions, supporting data, and other potential terminal locations. Phase 2 focused on continuing the evaluation of relocating the rail station to the mainline including re-examining the benefits and costs of the wye track, maintaining CCL operations at the PTC on Thompsons Point Road, and completing a more detailed evaluation of bus and rail parking needs.

Four additional alternatives were analyzed in Phase 2 (bringing the total number of alternatives considered in both phases to thirteen). Two of the Phase 2 alternatives (Alternatives 5 and 6) call for intercity bus *and* rail continuing at or near the PTC on Thompsons Point Road. The two other alternatives call for only intercity bus to remain at the PTC and a proposed new rail facility on the railroad mainline at two different locations between Congress Street and the Veterans Memorial Bridge overpass: one being off St. John Street known as the Ferguson site (Alternative 7) and one at near the location of the former Union Station near Congress Street (Alternative 8). Conceptual layouts of each alternative are shown in the draft PTC Study Report on pages 50 through 54.

The PTC Study Report is the result of both phases. This memo will hereafter focus on Phase 2. Addressing the transportation impacts of the pandemic statewide accounted for most of the time it took for MaineDOT to consider the draft report and prepare its position in this draft memo. We apologize for the delay.

3. Stakeholder Perspectives

Achieving a single vision for a path forward proved challenging due to the reasonable but differing perspectives of the stakeholders.

- NNEPRA staff and rail advocates have supported relocation of rail terminal to the mainline track somewhere between the RR junction of Mountain Division line and the Veterans Memorial Bridge overpass due to reduce travel time caused by the train backing issue and to maximize future opportunities to expand ridership and service. NNEPRA staff generally has favored Alternative 7 (the Ferguson site).
- CCL and intercity bus system advocates support the current PTC location due to its easy and immediate access to I-295, parking availability, their substantial private capital investments at the PTC, and the lower costs associated with upgrading an existing facility.
- The City of Portland has provided varied informal input and has not taken a definitive position. City staff have informally observed potential long-term planning benefits of the Union Station site (Alternative 8). On May 20, 2020, the three Portland City Councilors on the Council's Sustainability & Transportation Committee generally supported NNEPRA's perspective, with at least one Councilor calling the relocation of the train terminal as advocated by NNEPRA staff as "imperative".
- METRO staff opined that local transit connections could be maximized at the site of the former Union Station.
- Affected private landowners of sites near Mercy hospital and the former Union Station were always courteous and open to discussion, but they expressed concerns about having a future terminal on their properties due to their future development visions and plans.

- MaineDOT is obligated to develop long-range, comprehensive, balanced plans that promote the coordinated and efficient use of all modes of transportation. See 23 MRS §4206(1)(A) and (C). Accordingly, MaineDOT sought alternatives that maximized long-term customer and transportation system benefits in a modally-agnostic manner, seriously considered the customer convenience of continuing to have both bus and rail services co-located, and had potentially favorable benefit-cost attributes.

4. Significant Consultant Findings and Recommendations

Given the varying perspectives noted above, MaineDOT emphasized to HNTB that it was to provide MaineDOT with its independent findings and recommendations based upon its objective analysis of information available to date.

a. Significant General Findings. The draft PTC Study Report contains the following significant findings.

- Wye Track. An updated Wye track evaluation identified no operating time benefit (p.55).
- Mode of Access to Station(s). Today, 55% of passengers (bus and rail) are dropped off at the PTC by private vehicles, 41% drive and park, and the remaining 4% used local bus, walk or bicycle. By 2040, regardless of the alternative selected, between 54 and 57% will be dropped off by private vehicles, 34 to 35% will drive and park, 6% will arrive by local bus, and between 2 and 6% will walk or bicycle (p. 57). Alternative 8 (former Union Station site) provides the maximum opportunity to increase local transit trips due to the proximity to the greatest number of transit lines (p. 66). Alternative 8 is also located the closest to downtown of any alternative and provides a direct connection to the Portland Trail system, which slightly increases pedestrian and bicycle trips over Alternative 7.
- Parking Needs. Under any alternative, parking will remain a key driver of operational efficacy, site selection, and project costs. The Phase 1 analysis forecasts the need for almost 1,200 parking spaces for both bus and rail passengers in 2040, with rail passengers accounting for only about 13% of this total (p. 58). With the current ground parking expansion by CCL complete, the existing PTC site will have 931 spaces. None of the alternatives have adequate space to expand ground level parking to meet forecast 2040 demand. This means to meet parking demand, all Phase 2 alternatives will require a parking structure to meet 2040 parking demands, which adds major capital costs (p.61), or using parking provided by others or remote parking with shuttles. Reductions in rail passenger boardings in Portland have reduced the overall number of parking spaces identified in the Phase 1 analysis (p. 58). Further, the construction of a West Falmouth rail station could reduce rail parking demand by up to 25 spaces (p. 65).

  Once an alternative is selected, a more detailed parking demand analysis is needed. (p. 58).

- Mainline Rail Station. Relocating the train station to the railroad mainline as represented by Alternatives 7 and 8 will:
  - decrease travel times for rail passengers north of Portland by 10 to 16 minutes (p. 55).
  - increase rail ridership by an estimated 58 daily riders, with 90% of the increased ridership (52 riders) being north of Portland (p. 56).
  - slightly reduce passenger vehicle emissions due to greater use of alternative modes to access a more central rail station (pp. 62 and 68).
  - separate intercity bus and rail passengers, thus likely requiring a shuttle or other connection between the bus and rail stations to preserve modal choice (p. 62).
  - potentially create the perception of an increased noise due to idling and horns/whistles at proposed rail stations due to closer proximity to residential neighborhoods (p. 62).
- Landowner impacts. Alternatives 6, 7 and 8 require use of private property other the that of CCL, which could impact the value and viability of development of the properties affected (p. 63).
- Benefit cost. The evaluation of costs and benefits requires more information and will change, but at this time and with current assumptions, none of the Phase 2 alternatives achieved a benefit/cost ratio of 1.0 or greater (p. 64).

b. Summary of Findings for Each Phase 2 Alternative. Based upon the above, the consultant summarized the findings regarding each of the Phase 2 Alternatives on pages 65 and 66 as follows.

- No-build Alternative. The No-Build Alternative does not address long-term bus and rail customer needs, does not eliminate the backing up of trains, does not promote additional bus or rail ridership, does not provide adequate parking, does not increase walk and bike trips, and does not reduce greenhouse gas emissions.

- Alternative 5: Existing PTC site, Thompsons Point, North of track. Alternative 5 provides strong benefits to customer safety. safety, meets parking demand and ability to provide necessary rail infrastructure, is a combined bus/rail station, has direct access to I-295 and the roadway network, and is the easiest alternative to implement as all improvements are on property owned by either CCL or MaineDOT. However, it does not provide any transportation benefits as there is no additional bus and/or rail ridership beyond normal growth, is not located on the rail mainline, requires a reverse move for the train into the station, and has increased O&M costs. Alternative 5 does improve customer benefits with an expanded bus/rail station, additional parking to meet demand, and rail platform and access improvements.

- Alternative 6: Thompsons Point, Both Sides of track. Alternative 6 provides similar benefits to Alternative 5 but separates the bus and rail station with the new rail station and parking located immediately adjacent to the bus station, minimizing the inconvenience to bus and rail passenger synergy. However, it does not provide any transportation benefits as there is no additional bus and/or ridership, is not located on the rail mainline and thus requires the continued backing of trains into the station and has increased O&M costs. It has the highest O&M cost increase due to separate rail and bus station staffing and parking maintenance as well as one of the highest capital costs.

- Alternative 7: On rail mainline, off St. John Street - Ferguson site. Alternative 7 improves rail operations by eliminating the backing of trains, increases train ridership by an estimated 58 riders per day, and reduces VMT, VHT, and greenhouse gases. It is located somewhat closer to downtown resulting in slight improvements in pedestrian and bicycle trips. This alternative separates bus and rail passengers into two stations and thus may require a shuttle between them, has a limited number of existing transit lines passing by, and may be incompatible with future development plans in the vicinity of St. John and Valley Streets. This alternative does not accommodate larger platforms for passenger safety or an additional rail bypass track in the future if ridership increases, which may impact future rail operations and expansion opportunities. This alternative may be perceived to increase noise from trains to nearby properties. It is one of the highest priced alternatives along with Alternatives 6 and 8.

- Alternative 8: On rail mainline, Congress St. former Union Station site. Like Alternative 7, Alternative 8 improves rail operations by eliminating the backing of trains, increases train ridership by an estimated 58 riders per day, and reduces VMT, VHT, and greenhouse gases, separates bus and rail passengers with two stations and thus may require a shuttle between them, and may be perceived as increasing noise. Alternative 8 can accommodate a bypass track and a rail center platform if future ridership increases, provides the maximum opportunity to increase local transit trips due to the proximity to the greatest number of transit lines, and is located the closest to downtown of any alternative and provides a direct connect to the Portland Trail system, which slightly increases pedestrian and bicycle trips over Alternative 7. It is one of the highest priced alternatives along with Alternatives 6 and 7.

c. Major Recommendations. As shown on page 72 of the draft PTC Report, the consultant made the following recommendations.

Starting now and within two years:

- Create Existing PTC Plan. Create an investment, operation and maintenance plan for the existing PTC that focuses on enhancing both bus and rail ridership and maximizing benefit to both the customer and transportation system.

- Further Evaluate Alternative 8. Conduct a more detailed evaluation of Alternative 8 including an analysis of creating connectivity between the bus and rail station and additional benefit cost analysis.

Thereafter, if the more detailed evaluation of Alternative 8 shows that benefits outweigh costs:

- Fund and Develop Alternative 8. Identify sources and secure funding to implement Alternative 8 under the following conditions.
  - Continued partnership with MaineDOT and CCL for the necessary improvements to the existing PTC location for bus station passengers and operations.
  - Funding can be secured.
  - Landowner willingness to work in partnership towards a mixed-use development opportunity at this location that includes a rail station.
  - NNEPRA and City of Portland support.
  - Increased connectivity between the bus and rail stations can be accommodated through increased transit or implementation of a last mile shuttle.

The consultant also recommended that to maximize customer and system benefits, transportation facilities are best held in public owner

Memorandum

To: Patricia Quinn, Executive Director
Northern New England Passenger Rail Authority

Date: Dec 11, 2024

Project #: 55095.21

From: VHB

Re: Benefit Cost Analysis Technical Memo

Overview

The Amtrak Downeaster is a state-supported Amtrak service, sponsored by the Northern New England Passenger Rail Authority (NNEPRA), which makes multiple daily roundtrips along the 143-mile corridor between Brunswick, ME and Boston, MA. The Portland Station Relocation Project (Project) will reduce passenger travel time, improve connectivity and proximity to employment centers/demand generators, and enhance service reliability through increased fluidity of passenger and freight operations, ultimately leading to an increase in ridership.

The current Portland Transportation Center is on a branch line, approximately 1 mile from the CSX mainline that carries Downeaster trains south to Boston and north to Brunswick. The new mainline location for Portland Station will reduce travel time for passengers traveling through Portland by approximately 15 minutes, bring the station closer to downtown Portland and within walking distance of two major hospitals, and save costs to passengers and the Downeaster service.

Because the existing Portland Station is located on a spur off the main Downeaster corridor, trains must make multiple reverse moves – one at the station to travel back to the mainline, and one between the mainline and branch line. The Project will relocate the Portland Station to be on the main Downeaster corridor, eliminating the need for these movements and reducing travel time.

The benefits and costs of these improvements were quantified using a benefit-cost analysis (BCA) that was conducted in accordance with the December 2023 U.S. Department of Transportation's recommended methodology[1] (as prescribed by page 5 in the Notice of Funding Opportunity and referred to in this memo as the "BCA Guidance"). As shown in Table 1, the analysis indicates that ***the improvements would provide a benefit-cost ratio of 1.71.***

Per the BCA Guidance, a discount rate of 3.1 percent was used. All monetized benefits and costs are in 2022 dollars and reflect net present values. Final design is anticipated to begin in 2025, with construction concluded by 2029. The benefits of the project are assumed to start in 2030 (when construction is complete). Benefits are considered through 2049 (a 20-year analysis period).

A summary of the benefit-cost analysis is provided in Table 1. A full description of the data and assumptions used as part of the benefits and costs calculation are included in the following sections.

[1] U.S. Department of Transportation, Office of the Secretary, "Benefit-Cost Analysis Guidance for Discretionary Grant Programs," December 2023.

Memorandum

Table 1 Project Costs and Benefits (2022 Dollars, 3.1% Discount Rate)

	Station Relocation[1]
BENEFITS	
Downeaster Travel Time Savings	$12,737,138
Vehicle Operating Cost Savings (Downeaster and Light-Duty Vehicles)	$20,335,770
Reduced Emissions (Downeaster and Light-Duty Vehicles)	$15,510,293
Avoided Highway Externality (Light-Duty Vehicles)	$2,953,799
Residual Value	$11,651,673
Subtotal of Benefits	**$63,188,672**
COSTS	
Capital Cost	$36,892,631
Subtotal of Costs	**$36,892,631**
Net Present Value	**$26,296,041**
BENEFIT-COST RATIO	**1.71**

[1]Values may not sum to totals due to rounding .

Service and Ridership Assumptions

Service Assumptions

The following service assumptions were made based on information provided in the 2023 Maine State Rail Plan and other sources. Assumptions include:

- The 6th round trip train between Wells and Brunswick will be operational in 2027, and is considered part of the No Build condition without the Project.
- The relocated Portland Station is assumed to be operational in 2030.

Projected Baseline (No-Build) Ridership Assumptions

The following assumptions were made to develop baseline (No-Build) annual ridership values, without the Project.

- The ridership annual growth rate between 2024 and 2030 is assumed to be 2.06% based on existing ridership levels and the forecasted 2030 ridership levels defined in the 2023 Maine State Rail Plan.
- The annual growth rate is applied equally to all station pairs.
- The ridership annual growth rate between 2030 and 2049 is assumed to be 0.5%. The 2023 Maine State Rail Plan shows a relatively flat growth rate after 2030.
- The 2027 ridership forecasts include the additional ridership due to the 6th round trip train. The analysis assumes that the ridership for origin-destination pairs impacted by the sixth round-trip would be increased by 40%. The 40% assumption is based on a frequency elasticity documented in the 2016 Downeaster Corridor Service Development Plan plus an additional percent increase. When the 5th train was added, it resulted in a 30% increase

in ridership (an implied frequency elasticity of 1.2). Applying a frequency elasticity of 1.2 to the 6th round trip would result in a ridership increase of 24%. The analysis assumes a larger increase of 40% because the 6th round trip would occur during the morning peak period. The 40% increase in service results in an additional 16,829 forecasted annual riders in the No-Build condition.

Table 2 presents the projected No-Build ridership levels at key milestones: 2024 (existing), 2027 (addition of sixth round-trip), 2030 (anticipated station opening), and 2049 (last year of benefits included in the benefit-cost analysis assuming a 20-year benefit period). The ridership levels are identified for subgroups based on the origin-destination pair relationship to Portland Station.

Table 2: Total Number of No-Build Forecast Annual Trips

Total Number of Annual Trips	**2024**	**2027**	**2030**	**2049**
To/from Portland from the south	163,025	176,846	188,021	206,710
Through Portland	110,371	122,089	129,804	142,706
To/from Portland from the north	15,866	23,616	25,108	27,604
Not to/from or through Portland	302,620	323,560	344,006	378,200
Total Ridership	**591,881**	**646,111**	**686,938**	**755,219**

Projected New Ridership due to Project

The following assumptions were made to project the anticipated new ridership due to the Project. The analysis assumes that the Project will generate new ridership for origin-destination pairs that would benefit from a reduced travel time due to the Project, and that the Project will generate new ridership due to the improved proximity of the station to employment centers. Specifically, the analysis assumes that:

- For origin-destination pairs that would benefit from a reduced travel time due to the Project, the analysis projects the number of new annual riders by applying a travel time elasticity of -0.4 to the No Build annual riders by station origin-destination pair and their corresponding travel time savings.[2]
- The number of annual riders were further increased as a result of the new station location being closer to employment in Portland, specifically:
  - The number of employees within a mile of the new station was calculated to be 16.7% more than the old station location (source: 2022 LEHD Origin-Destination Employment Statistics at the block level)

[2] Transportation Research Board of the National Academies, Transit Cooperative Research Program (TCRP) Report 165, *Transit Capacity and Quality of Service Manual, Third Edition*, 2013. Per the *Transit Capacity and Quality of Service Manual*, a suggested range of elasticities related to travel time is -0.3 to -0.5, with -0.4 typical (i.e., a 1% decrease in travel time results in a 0.4% increase in ridership).

- Based on existing ridership data by train number, it was calculated that 21.5% of weekday alightings in Portland happen during the morning peak. These riders are assumed to be work trips that are walking to their work location.
- Due to the station relocation, the analysis assumes a further growth in ridership to/from Portland by the product of these two values, or 3.6%.

Table 3 presents the projected new ridership due to the Project at key milestones for each of the two types of new ridership described above, and in total.

Table 3: Total Forecast New Annual Riders

Number of New Annual Riders	**2024**	**2027**	**2030**	**2049**
Travel Time Savings	N/A	N/A	11,555	12,704
New Station closer to Employment	N/A	N/A	7,670	8,432
Total	**N/A**	**N/A**	**19,225**	**21,136**

A reduction in vehicle miles traveled (VMT) was also calculated using the distance between each station pair and the total number of new annual riders per station pair. Table 4 presents the projected vehicle miles saved associated with the new ridership in Table 3.

Table 4: Total Forecast VMT Reductions

Annual Reduction in Vehicle Miles Traveled	**2024**	**2027**	**2030**	**2049**
Total	**N/A**	**N/A**	**1,513,296**	**1,663,715**

Memorandum

Benefits

The benefits of the Project are assumed to start in 2030 with the opening of the new Portland Station.

This section describes the benefits included in the BCA and any assumptions used in the analysis. Table 1 identifies the benefits that are accounted for in the BCA for the improvements.

Travel Time Savings for Passenger Trains

Relocating the station will save time for passenger trains. Passengers traveling north from Boston and alighting in Portland will save 5 minutes, passengers boarding in Portland to points north will save 10 minutes, and passengers traveling through Portland will save 15 minutes. These time savings also apply to the reverse direction. Based on the projected baseline ridership, it is anticipated that 52,304 hours will be saved by passengers in 2030 and 57,503 hours in 2049 (Table 5). The General Travel Time - All Purpose value of $19.60 per hour (2022 $) was applied to these travel time savings, leading to a total cost savings of $21,506,912 (2022 $) over the 20 years considered, discounted to $12,737,138 (2022 $).

Table 5: Total Projected Passenger Hours Saved

Vehicle Hours Saved	2024	2027	2030	2049
To/from Portland from the south	N/A	N/A	15,668	17,226
Through Portland	N/A	N/A	32,451	35,676
To/from Portland from the north	N/A	N/A	4,185	4,601
Total	N/A	N/A	52,304	57, 503

Vehicle Operating Cost Savings

A Downeaster train traveling through Portland will save 15 minutes per trip. It is assumed that by the time the station is in operation, the Downeaster will run six trips a day in each direction. This equates to 3 hours of savings a day. Using the BCA Guidance value for Amtrak State-Supported service of $810 per hour of hauling (since the time savings occur during revenue service), a value that is conservative compared to existing NNEPRA labor costs. NNEPRA labor costs alone exceed the $810 value used in this analysis, which also includes fuel costs and depreciation costs. Using this value, there will be a cost savings of $886,950 per year in vehicle operating cost savings associated with Downeaster operations, totaling $17,739,000 over the 20-year period.

There will also be cost savings due to the project increasing ridership, corresponding to a reduction in vehicle miles traveled for light-duty vehicles considered in this calculation. Using the recommended value of $0.52 per mile (2022 $) results in estimated savings of $786,913 in 2030, increasing to $865,132 in 2049, totaling $16,508,753 over the 20-year period.

Together, the analysis estimates the vehicle operating cost savings to total $34,247,753 (2022 $) from 2030-2049, discounted to $20,335,770 (2022 $).

Memorandum

Emissions Reductions

A Downeaster train traveling through Portland will save 15 minutes per trip. It is assumed that by the time the station is in operation, the Downeaster will run six trips a day in each direction. This equates to a three hour reduction of train hauling per day. The Non-CO_2 and CO_2 emission costs for Amtrak State-Supported service provided by BCA Guidance and the corresponding cost savings associated with the Project are outlined in Table 6 below.

Table 6 also identifies the emissions savings due to the projected increase in ridership with the project, corresponding to a reduction in vehicle miles traveled for light-duty vehicles (as identified in Table 4).

Table 6: Emissions Reduction Cost Savings

Emissions Reduction	Non-CO_2 Emissions	CO_2 Emissions
VMT: Light-Duty Vehicles – All Locations		
Recommended Value per Mile (2022 $)	$0.012	$0.107
Total Savings 2030-2049 (2022 $)	$380,971	$3,396,993
Train and Movement Type: Hauling Amtrak State-Supported		
Recommended Value per Hour (2022 $)	$727	$218
Total Savings 2030-2049 (2022 $)	$15,921,300	$4,774,200

Source: Values as provided by BCA Guidance

The cost savings presented in Table 6 demonstrate the anticipated reduced emissions due to the project. The Emissions Reduction savings total $24,473,465 (2022$) over the 20-year period from 2030-2049, discounted to $15,510,293 (2022 $).

Other Highway Use Externalities

This project will create benefits related to three additional highway use externalities: congestion, noise, and safety. These benefits are based on a reduction vehicle miles traveled associated with the additional ridership generated by the project. The BCA Guidance value for Light-Duty Vehicles – All Locations (cost per VMT) is used for each externality, assuming a congestion cost of $0.116 per VMT, noise cost of $0.0011 per VMT, and safety cost of $0.04 per VMT. This results in cost savings from 2030-2049 (2022 $) of $3,682,721 associated with congestion benefits, $34,922 associated with noise benefits, and $1,269,904 associated with safety benefits. This sums to a total avoided highway externality of $4,987,548 (2022 $) discounted to $2,953,799 (2022 $).

Memorandum

Residual Value

It is assumed that the useful life (in years) of the relocated Portland Station is 50 years[3]. Assuming straight-line depreciation, the residual value is $25,600,728 (2022 $) at the end of 2049, discounted to $11,227,120 (2022 $). The cost assumptions used to develop this residual value are described in more detail in the following section.

Costs

This section describes the costs of the Project. The capital costs have been broken down by task and anticipated year-of-expenditure dollars used to produce the estimate. The analysis assumes an annual inflation rate of 3% per year to convert between year of expenditure dollars and constant dollars (2022 $). Table 7 shows the cost elements included in the capital cost estimate.

Table 7: Project Costs

Cost	Total Cost	Cost in Year $	Cost in 2022 $[1]
Task 1 - Project Administration and Management[2]	$550,000	2027 $	$474,435
Task 2 - Final Design[3]	$4,340,000	2026 $	$3,891,573
Task 2 - Construction Engineering[4]	$5,420,000	2028 $	$4,589,414
Task 3.1 - Station Relocation Construction[4]	$30,500,000	2028 $	$25,853,139
Task 3.2 - Property Acquisitions and/or Easements	$5,300,000	2026 $	$4,708,981
Task 4.1 - Track Improvements[4]	$1,690,000	2028 $	$1,415,348
Task 4.2 - Signal Improvements[4]	$3,940,000	2028 $	$3,299,688
Task 5 - Project Closeout - Final Performance Report	$60,000	2029 $	$48,785
Total	**$52,270,000**		**$44,281,364**

[1] Costs in 2022 $ broken down by task may not add up to total Capital Costs in 2022 $ due to rounding
[2] Project Administration and Management assumed to be evenly distributed from 2025-2029.
[3] Final Design costs assumed to be evenly distributed from 2025-2027.
[4] Construction Engineering, Station Relocation Construction, Track Improvements, and Signal Improvements costs assumed to be evenly distributed between 2028 and 2029.

The relocation of Portland Station has a Capital Cost estimated to be $52,270,000, including inflation to anticipated year of expenditure. It is anticipated that the cost in 2022 $ would total $44,281,364, distributed by year as follows:

2025: $1,067,780
2026: $6,749,655
2027: $1,067,780
2028: $17,673,682
2029: $17,722,467

The discounted capital cost would total $36,892,631 (2022 $).

[3] According to Circular FTA C 5010.1D Chapter IV Section 3.f.2.e , a railroad structure has a minimum useful life of 50 years

Memorandum

Summary

The relocation of Portland Station would provide substantial benefits. The benefits and costs of these improvements were quantified using a benefit-cost analysis (BCA) that was conducted in accordance with the December 2023 U.S. Department of Transportation's recommended methodology[4] (as prescribed by page 5 in the Notice of Funding Opportunity and referred to in this memo as the "BCA Guidance"). Riders would notice the benefits in reduced travel times, but other benefits include reduced emissions and improved safety. This improvement would **produce a benefit-cost ratio of 1.71.**

The benefits for the project include travel time savings, vehicle operating cost savings, emissions reduction, avoided highway externalities, and residual value. The benefits total $111,784,495 (2022 $), equal to $63,188,672 (2022 $) when discounted. This is compared to the total capital costs of $44,281,364 (2022 $), discounted to $36,892,631 (2022 $). This yields a net present value of $26,296,041 and a benefit-cost ratio of 1.71.

[4] U.S. Department of Transportation, Office of the Secretary, "Benefit-Cost Analysis Guidance for Discretionary Grant Programs," December 2023.

From: Zack Barowitz <zbarowitz@gmail.com>
Subject: Libbytown Comment on Proposed Train Station Relocation
Date: Mon, Oct 6, 7:56 AM

Honorable Councilor Regina Phillips, Chair City of Portland S&T Committee
Honorable Councilor Anna Bullett
Honorable Councilor Pious Ali
Dear Chair Phillips and members of the Sustainability & Transportation Committee:
If Portland's train station is to be relocated, the Libbytown Neighborhood Association strongly prefers that that it be moved to Union Station Plaza (known as “Location 2”) because it offers the best opportunity for the formation of a multi-modal hub, transit-oriented development, and is generally more consistent with the City’s Comprehensive Plan.

Although the relocation would add an awkward transfer from the Concord Coach, it is far more accessible for pedestrians, bicyclists, and METRO bus riders (including the BREEZ, #1, #5, #7, and #9) than any other location, current or proposed; thus making it the most suitable option for mixed use development.
By contrast, NEPRA’s preferred site (“Location 3”) lacks these benefits. It is significantly farther from the current station—likely too far to walk for many users. It is served by only one bus line (#1), has poor pedestrian and bicycle access, and sits in an isolated industrial area with little potential for development around a transit hub.
The principal advantage of the “no-build option,” i.e., the station’s current location is the seamless connection to Concord Coach and the easy “two-seat ride” to many destinations. The purpose of returning to the main line should go far beyond creating faster travel times for Amtrak passengers. A major multi-modal travel hub should be accessible to more residents of the city, support sustainable economic growth, and deliver more units of housing. Union Station Plaza has that potential. Location 3 does not.
We respectfully urge the Committee to support Union Station Plaza as Portland’s as the best relocation option.
Sincerely,
Zack Barowitz
Chair
Libbytown Neighborhood Association

From: Steven Laudage <sclaudage@gmail.com>
Subject: Public Comment: Amtrak Downeaster Station
Date: Oct, 7 at 9:07 AM

Please find the following public comment regarding the 10/8/2025 Sustainability & Transportation Committee meeting, Agenda Item 3c. Thank you!
City of Portland Sustainability & Transportation Committee -

I am contacting you regarding "Agenda Item 3C – Amtrak Downeaster Station Relocation". I agree with City Staff's position that Site 2 (the former Union Station) would be the ideal resolution for Portland. The former Union Station location has been rezoned as transit-oriented development since the time of NNEPRA's "Portland Train Station Relocation Planning Report". Union Station aligns with Portland's Comprehensive Plan which identifies the area around the confluence of St. John and Congress Streets as a "Priority Node" for transit-oriented mixed-use "Transformation". While the No-Build option could be reasonable as well, I support NNEPRA's original goal of adding a sixth daily round trip Downeaster service. And while I appreciate NNEPRA's highlighting of the pedestrian hostility of the infrastructure design of the Fore River Parkway area (Site 3), I do not think simply adding a track bridge will solve this problem – the Barber Foods-adjacent location would require significant industrial restructuring to become a more welcoming mixed-use neighborhood (unless of course Mercy Hospital would be willing to give up their massive parking lot in this area for transit-oriented development, including direct connection to St. John Street – I find this unfortunately unlikely). I urge the City to proceed with Site 2, in accordance with the reasons City Staff list in their Memo: economic & housing development, and multi-modal access.

In addition to this however, I urge the challenging of some of the assumptions of the existing concept advanced by NNEPRA. I compiled a summary of many peer-cities' train stations to inform my understanding of which options seem reasonable for us, which I have attached. My recommendations include:

- Consider grade separation at Congress Street. This would alleviate many of the traffic challenges cited by NNEPRA against Site 2. Most all midsize cities incorporate this feature to avoid intermodal conflicts – and indeed a trestle already exists at the next intersections to each the north (Park Avenue), south, and west (both Fore River Parkway).
- Accommodate full-train length high-level platform. Portland has the busiest station in the state by almost twice (ahead of Brunswick). We should have the high-quality and handicap accessible infrastructure capacity to match.
- Incorporate structured (garage) parking & bicycle parking. We should not waste our valuable land with surface parking, and we should encourage the avoidance of cars altogether by including secure bicycle lockers.
- Encourage mixed-use transit-oriented-development. Several examples of modern station design exist, in cities ranging from major metropolitan areas to small towns. We are not alone in seeking these revitalized places, some restored and some built new. These include:
    - Brunswick, ME - which was developed in conjunction with housing, office, hotel, medical, restaurants, and banking
    - Springfield, MA - which includes a newsstand, coffee and sandwich shops
    - Hartford, CT - which includes restaurants
    - Memphis, TN - which includes a restaurant/bar and hotel
    - New Brunswick, NJ - which was designed to anchor a "Transit Village"

- Boston, MA (North & South Stations) - which include grocery stores, pharmacies, entertainment, restaurants & food stands, housing, and office space
- Pittsburgh, PA - which includes dense housing and commercial space
- Anaheim, CA - which includes a unique design and was planned with future modular transit-oriented development in mind
- Tucson, AZ - which includes a museum, retail, restaurant/bar, and office space

Let's avoid the bad examples of for instance Essex Junction, VT which due to its neglect can evidently make visitors "feel scared or intimidated"; Framingham, MA which is perhaps not much more than a platform in a sea of parking; Bridgeport, CT which straddles a roadway; and Meriden/Berlin/Wallingford, CT which while appear sufficient for a suburban use do not have the sense of place which an urban destination should exhibit.

Notably, some (myself included) may be concerned about the fate of the existing businesses at Union Station Plaza (which I advocate for redeveloping in conjunction with this station), including but not limited to the appreciated local businesses of Maine Hardware, Forest City Billiards, Crown Fried Chicken, Buckdancer's Choice Music Co, and Coastal Trading & Pawn; a grocer as well. In my view, these businesses can and should be incorporated into a new, modern form of a future restored on-peninsula mixed use train station.

Our new station should feel like our old Union Station, not like an Amtrak Standard Station from the 1970s. We must not squander this unique opportunity to invest in our city – we have the 63rd busiest Amtrak station in the nation, bringing annual ticket revenue near $4.9M, along the 10th busiest Amtrak route of the Downeaster! We deserve a destination accordingly.

Thank you!
Steven Laudage
322 Spring Street

From: William Steinbock <wsteinbock@icloud.com>
Subject: Comment on Item 3.c Amtrak Downeaster Station Location
Date: Tues, Oct. 7 at 11:38 AM

Dear S&T Committee Members,

Relocating the Portland train station to the main line near the corner of St. John and Congress, Site 2, and transforming that property into a mixed-use development can unlock a multitude of benefits for the city, ranging from economic growth and environmental sustainability to an enhanced quality of life for residents. This location was recommended by the Maine Department of Transportation in a 2021 study of potential Portland train station locations.

Moving the train station to Site 2 would improve the connection between downtown and the station. A station at Site 2 puts Maine Medical, Hadlock Field, and dozens of local businesses within walking distance of people arriving and departing by train. It also places the station in a location more conducive to being reached on foot, by bike, and via METRO. This is especially helpful for someone like me who regularly takes the train to Portland then either catches the bus into downtown or to the Jetport. I'm very concerned that Site 3 would make it exceedingly difficult to access METRO buses, Concord Coach buses, and the Jetport.

The proposed station at Site 3 does not serve Portland or passengers on the Downeaster well. Site 3 is remote and isolated at the end of St. John Street in an area that is uncomfortable to walk in during the evening and night. If the choice is between Site 3 and the current location, I urge you to keep the station where it is as it has METRO and Concord bus service, easy access to Thompson's Point, and is a quick walk from bus stops near Congress and Sewall.

The relocation of the train station to Site 2, coupled with the development of a mixed-use station, holds immense potential for Portland. Imagine a new station that includes much needed housing, offices and retail!. I encourage you to do all you can to make the most of this opportunity by facilitating the development of a station at Site 2 that is more similar to Brunswick's station or North Station in Boston than the station being proposed for construction at the inconveniently located Site 3.

Thank you for taking my comments into consideration.

Sincerely,

William Steinbock
Brunswick, ME

From: Kellan Simpson <kmsimp1@gmail.com>
Subject: Amtrak Downeaster Station Location
Date: Tues, Oct. 7 at 11:50 AM

Hello,

I am strongly opposed to the proposed amtrak station location. I currently use the train once or twice a month to go south.

The station is even less accessible by foot and bike, than the existing station location, which should immediately disqualify the selection.

Furthermore, given the consistent delays/cancellations that the Amtrak service experiences and the low frequency of trains, it is critical the train and bus stations be at the same location. I often take the bus one way and the train another because of Amtrak's shortcomings.

I understand the value of removing the spur, should this decoupling be determined as mandatory, this committee should at least consider locations along the track such as woodfords corner where stations were historically located so that it is more centrally located, accessible by foot, bike, existing bus lines, and car.

Should you proceed with recommending this location it will force me to drive instead of taking the train.

Kellan

From: Myles G. Smith <mylesgsmith@gmail.com>
Subject: Downeaster Train Station: Do Not Relocate, or Build a True Transportation Hub at the Old Union Station
Date: Tues, Oct. 7 at 5:50 PM

Dear Councilmember Phillips, Committee and Staff Members:

Thank you for hearing public comment on this important issue, particularly for those of us residents who mostly walk, bike, and use public transportation in Portland.

The Portland Bicycle Pedestrian Advisory Committee opposes relocating the Downeaster station to Option 3. This is the worst option of the three for the housing, walking, biking and bus connections at Congress Street. Building a station at the southern end of St. John Street would only shave a few minutes off travel times, at tremendous cost, while also creating new problems of interconnectivity and missing opportunities to more densely develop the Valley Street neighborhood for critically needed housing in an ideal location.

Portland Bicycle Pedestrian Advisory Committee has endorsed Option 2, which is closer to Congress Street, residents, busses, medical services, workplaces, bike lanes, amenities and attractions, food service options, hotels, and downtown in general. If a station at this location will only be a platform with no potential to develop interconnected bus services, we would prefer no relocation occur at all.

We have seen the presentation from NNEPRA and its consultants on the alternatives and are not convinced at all that Option 3 is best for riders and residents. Inconveniencing and delaying all passengers when they get off the train by leaving them further from almost every destination, in order to slightly improve train maintenance movement efficiency and reduce travel times for a small fraction of riders is a bad trade, and it comes at great cost. This is the same mistake that our country has been making with passenger rail service for 60 years - assuming that rail stops should be situated in suburban parking lots. Thompson's Point is only now starting to evolve

from something more than this, and there's still a long way to go. We would rather keep working on that location than create a new island of immobility on southern St. John Street.

I myself use the Downeaster and Concord Coach regularly. Separating these services is already a likely net negative for riders like me and my family, who rely on both services and often take one down and the other back from Boston. We already have the LAP, BREEZ and Greyhound services focused on downtown stops. Moving the station to the Option 3 location is worse for us - and most Mainers who use the service - than doing nothing. Let's save the money and use it for something that improves and speeds service on the existing right-of-way if we can't do better than this.

Coordinating and consolidating public transportation services to minimize transfer times and expand options is a critical role of city and state government. PBPAC urges the City of Portland, Maine Health, NNEPRA, Maine DOT, Concord Coach, Greyhound, METRO, Portland Trails, and PACTS to coordinate better on a solution that serves us all. We are happy to contribute and participate whenever possible.

Thank you all for your attention to this matter and your service to our community!

Myles Smith
Chair, Portland Bicycle Pedestrian Advisory Committee

John Clark
Secretary

Winston Lumpkins IV
Past Chair