MASTER DEVELOPMENT PLAN & TRAFFIC MOVEMENT PERMIT APPLICATIONS

58 Fore Street
Portland, Maine

WOODARD &CURRAN

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

41 Hutchins Drive, Portland, Maine 04102
Tel. (207) 774-2112 Fax (207) 774-6635

227007.00
CPB2 LLC
September 2016

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41 Hutchins Drive
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WOODARD &CURRAN

September 16, 2016

Christine Grimando, Senior Planner
City of Portland Planning Division
389 Congress Street
Portland, ME 04101

Re: 58 Fore Street Redevelopment
Master Development Plan & Traffic Movement Permit Application

Dear Christine:

On behalf of CPB2, LLC, Woodard & Curran is submitting a Master Development Plan and Traffic Movement Permit Application for the proposed redevelopment of the former Portland Company Complex located at 58 Fore Street in Portland, Maine. Woodard & Curran will be acting as the agent for CPB2, LLC for this permit application. The permit documents were prepared in accordance with Chapter 14, Land Use Code of Ordinances of the City of Portland, Maine and meet the applicable sections of the City of Portland Design and Technical Manuals. All submission materials (i.e. application, narrative report and attachments, and drawings, etc.) have been uploaded to the City's E-Plan web-site.

We look forward to working with your office on this project, and would be glad to meet to discuss this application in greater detail. Please do not hesitate to contact me if you have any questions or require additional information.

Sincerely,

WOODARD & CURRAN

David Senus, PE
Project Manager

TABLE OF CONTENTS

TABLES

FIGURES

1. APPLICATION FORM

Portland, Maine Yes. Life's good here.

Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

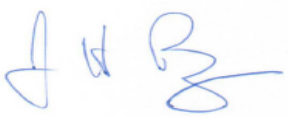
By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a ***legal signature*** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are ***paid in full*** to the Inspections Office, City of Portland Maine by method noted below:

☐ Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☐ Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☒ I intend to deliver a payment method through the ~~U.S. Postal Service mail~~ a hand delivered check once my application paperwork has been electronically delivered.



Applicant Signature: _____ Date: September 9, 2016

I have provided digital copies and sent them on: _____ Date: _____

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3rd Floor, Room 315.

Master Development Plan
Development Review Application
Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form to be used for a Master Development Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Purpose of a Master Development Plan:

- The purpose of a Master Development Plan is to provide for a mix of land uses at designated locations to achieve a land development responsive to the assets of a site. A Master Development Plan is a well-integrated development in terms of land uses, functional activities, and major design elements such as buildings, roads, utilities, drainage systems and open space. The Master Development Plan is deemed appropriate to large scale mixed use projects that are intended to be developed in phases. The Master Development Plan shall be reviewed by the Planning Board and may be reviewed independently or concurrently with review of a Level III site plan application for a phased development.

A Master Development Plan is applicable as follows:

- A Master Development Plan is applicable for a site with one acre or larger in cumulative lot area that is designed as a cohesive and integral development program consisting of multiple buildings and associated site improvements proposed to be built in phases.
- The Master Development Plan option shall not apply in residential zones, except for institutional uses.

Planning Board Decision:

- A Master Development Plan approval shall not be construed as final authorization of the development. An approval shall confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the Master Development approval remains valid (6 years from date of approval), including permissible extensions if granted (two 2-year extensions may be granted based upon criteria). All Level III site plans for each phase shall be in general conformance with the Master Development Plan.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: http://me-portland.civicplus.com/DocumentCenter/Home/View/1080
Design Manual: http://me-portland.civicplus.com/DocumentCenter/View/2355
Technical Manual: http://me-portland.civicplus.com/DocumentCenter/View/2356

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours
Monday thru Friday
8:00 a.m. – 4:30 p.m.

Updated: April 23, 2014

PROJECT NAME: 58 Fore Street Master Plan

PROPOSED DEVELOPMENT ADDRESS:

58 Fore Street, Portland, ME

PROJECT DESCRIPTION:

Master Development Plan for the re-development of the former Portland Company Complex.

CHART/BLOCK/LOT: Tax Map 18A, Lots 1, 2, & 3

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: CPB2 LLC, c/o Jim Brady Business Name, if applicable: CPB2, LLC Address: PO Box 7987 City/State : Portland, ME Zip Code: 04112	**Applicant Contact Information** Work # 207-558-3704 Home# Cell # Fax# e-mail: jameshbrady@gmail.com
Owner – (if different from Applicant) N/A Name: Address: City/State : Zip Code:	**Owner Contact Information** Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: Woodard & Curran, c/o David Senus, PE & c/o Mary McCrann, AICP Address: 41 Hutchins Drive City/State : Portland, ME Zip Code: 04102	**Agent/Representative Contact information** Work # Dave Senus 207-558-3704 Mary McCrann 207-558-3783 Cell # e-mail: dsenus@woodardcurran.com mmccrann@woodardcurran.com
Billing Information SAME AS APPLICANT Name: Address: City/State : Zip Code:	**Billing Information** Work # Cell # Fax# e-mail:

Engineer SAME AS AGENT Name: Address: City/State : Zip Code:	**Engineer Contact Information** Work # Cell # Fax# e-mail:
Surveyor Name: Owen Haskell Address: 390 US Route 1, Unit 10 Falmouth, ME 04105 City/State : Zip Code:	**Surveyor Contact Information** Work # 207-774-0424 Cell # Fax# e-mail:
Architect Name: Perkins + Will Address: 225 Franklin St. Suite 1100 Boston, MA 02110 City/State : Zip Code:	**Architect Contact Information** Work # 617-478-0300 Cell # Fax# e-mail:
Attorney Bernstein Shur Name: Mary Costigan Address: 100 Middle Street City/State : Portland, ME Zip Code: 04101	**Attorney Contact Information** Work # 207-228-7147 Cell # Fax# 207-774-1127 e-mail: mcostigan@bernsteinshur.com

APPLICATION FEES:
Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Master Development Plan (check applicable reviews) _X_ Application Fee ($1,000.00)	The City invoices separately for the following: • Notices ($.75 each) • Legal Ad (% of total Ad) • Planning Review ($40.00 hour) • Legal Review ($75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.

APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the **Electronic Plan and Document Submittal** page of the City's website at http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal

2. **In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.**

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

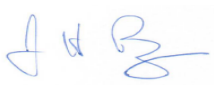
1. **One (1) full size site plans** that must be **folded.**
2. One (1) copy of all written materials or as follows, unless otherwise noted:
   a. Application form that is completed and signed.
   b. Cover letter stating the nature of the project.
   c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Master Development Plan review. It is not a permit to begin construction. An approved Level III site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:	**Date:**
	September 9, 2016

PROJECT DATA

The following information is required where applicable, in order complete the application.

Total Area of Site	433,000	sq. ft.
Proposed Total Disturbed Area of the Site	433,000	sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland		
Impervious Surface Area		
Impervious Area (Total Existing)	335,000	sq. ft.
Impervious Area (Total Proposed)	409,000	sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	111,822	sq. ft.
Building Footprint (Total Proposed)	215,306	sq. ft.
Floor Area (Total Existing)	167,500	sq. ft.
Floor Area (Total Proposed)	958,679	sq. ft.
Zoning		
Existing	B6 & EWPZ w/Shoreland Overlay	
Proposed, if applicable	N/A	
Land Use		
Existing	Warehouse & Parking	
Proposed	Mixed-Use	
Residential, If applicable		
# Residential Units (Total Existing)	None	
# Residential Units (Total Proposed)	638	
# Number of Lots (Total Proposed)	to be determined	
# Affordable Housing Units (Total Proposed)	Compliance with 14-487	
Proposed Bedroom Mix		
# Efficiency Units (Total Proposed)	to be determined	
# One-Bedroom Units (Total Proposed)	to be determined	
# Two-Bedroom Units (Total Proposed)	to be determined	
# Three-Bedroom Units (Total Proposed)	to be determined	
Parking Spaces		
# Parking Spaces (Total Existing)	105 +/-	
# Parking Spaces (Total Proposed)	736 spaces	
# Handicapped Spaces (Total Proposed)	will meet ADA requirements	
Bicycle Parking Spaces		
# Bicycle Spaces (Total Existing)	0 formally designated	
# Bicycle Spaces (Total Proposed)	38 racks (or 76 bike spaces)	
Estimated Cost of Project	to be determined	

MASTER DEVELOPMENT PLAN SUBMISSIONS			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)**
X		1	Completed Application form
X		1	Application fees
X		1	Written description of project
X		1	A written statement and/or plan as to the general impact of the proposed Master Development plan upon the area, relationship to surrounding properties, and measures to create appropriate transitions and access to abutting public properties and neighboring tracts.
X		1	Evidence of right, title and interest
X		1	Evidence of state and/or federal approvals, if applicable
X		1	Written assessment of proposed project's compliance with applicable zoning requirements
X		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
X		1	Written requests for waivers from site plan or technical standards, if applicable
X		1	Evidence of financial and technical capacity
X		1	General statements concerning storm water management techniques.
X		1	Traffic Analysis and recommendations prepared by a registered professional engineer, including current traffic counts, existing street capacity, traffic generation projections, and ability to absorb the increased traffic. If Traffic Movement Permit applies, the TMP submissions and review supersede. (Section 14-527 (e) xii)
X		1	Utilities analysis and recommendations prepared by registered professional engineer. (see utility plan below) Analysis shall assess capacity, identify deficiencies and recommend improvements, including timing, funding mechanisms and coordination with City (14-527 (e) xiii
Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)**
X		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		1	**Master Development Plan Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase) – scale not less than 1 inch equaling 50 feet**
X		Neighborhood context map, at a scale not less than 1 inch 100 feet	
X		Approximate boundary lines of existing and proposed lots with areas and dimensions	
X		Plan show north arrow, date, scale, legend, title Master Development Concept Site Plan, followed by project name, applicant, engineer, designer, and/or agents	
X		For residential areas, proposed density, lot configuration, circulation and plot plan	
X		Analysis of natural features of the site, including natural waterways, wetlands, floodplains, topography, soil conditions and other natural features	
X		Analysis of designated view corridors, historic resources, and archeological resources associated with the site	
X		Existing/proposed buildings and other significant structures, building groupings, exterior building elevations and entrances, parking areas and other significant physical features of the site	

X		Context drawings, perspective renderings, photographic montages, or computer generated graphics depicting the proposed development within the surrounding building and environmental context
X		Building elevation drawings shall include: • Illustration of all sides of the structures
		• Views of major entries or prominent building features
		• Illustration of building articulation and elements
		• Building finish composition
		• Pedestrian and streetscape elements of the Master Development Plan
		Digital 3-D model tied to specific location that is submitted as a KML, KMZ, DXF or DWG file on a CD or DVD or such format as approved by the Planning Authority (Sec. 14527 (e)2)
X		Major circulation patterns surrounding and serving the site, existing and proposed street lines, ways, easement and public areas within or next to the site
X		Major landscaping elements, features, open space, and plans for preservation of natural features
X		Analysis of the public safety services needed to support the Master Development Plan
X		Analysis of the anticipated impacts on the public school system to support the Master Development Plan
X		Generalized drainage plan for the site, drainage ways, flows, points of outfall and indicating impacts of development on affected drainage basins. Contour information at not less than 2 ft. intervals and document run-off characteristics
X		Inventory of existing utilities (storm water, sanitary, electrical , fire alarm boxes & lines, gas, water, lighting, curb and gutter and etc.) illustrating locations, sizes, diameters carrying capacity and present load

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T 207.774.2112
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September 16, 2016

Keith Gautreau
City of Portland Fire Department
380 Congress Street
Portland, Maine 04101

Re: 58 Fore Street Re-development
Master Development Plan Application– Fire Department Review

Dear Keith:

Thank you for coordinating the City of Portland Fire Department's review of the 58 Fore Street Re-development project. Woodard & Curran is filing a Master Development Plan Application with the City of Portland on behalf of CPB2, LLC. The project Site encompasses three parcels of land totaling an area of approximately 9.93 acres located between Fore Street and the waterfront. A plan set showing the proposed development is attached to this application. The set includes site, utility, and grading and drainage plans, as well as architectural and rendered landscaping. As a Master Development Plan, the plans show schematic level build-out of the site, and are not intended to serve as detailed design. Detailed design plans will be developed at a future date, and reviewed under future Site Plan reviews by the City Planning Office and the Portland Fire Department.

The items in the Portland Fire Department Site Review Checklist area addressed as follows:

- Name, address, telephone number of applicant:
  - CPB2, LLC, c/o Jim Brady
  - PO Box 7987, Portland, ME 04112
  - Applicant's Agent – Woodard & Curran, Attention David Senus – 207-558-3704
- Name, address, telephone number of architect:
  - Perkins + Will
  - 225 Franklin Street, Suite 1100, Boston, MA 02110
  - 617-478-0300, Attention Jeff Kim
- Proposed uses of any structures [NFPA and IBC classification]:
  - The proposed building uses have been included in the table below and will include a mix of residential units, office space, retail space, hotel, restaurant, and a full service marina. The NFPA and IBC classification will be determined prior to submission of a Site Plan Application.
- Square footage of all structures [total and per story]:
  - The proposed development block characteristics are indicated in the table below.

Table: Development Block Proposed Characteristics

Development Block	Allowable Height by Zoning	Proposed Use	Current GFA (as of September 2016)	Proposed Parking Areas
B1	35 feet	retail, residential, office	169,278	Structured parking beneath B1
B2	35 – 45 feet	retail, residential, office	72,941	Structured parking beneath B4/B5/B6
B3	35 feet	retail, office	30,800	Structured parking beneath B4/B5/B6
B4	45 - 65 feet	residential, retail	247,860	Structured parking beneath B4/B5/B6
B5	45 – 55 feet	residential, hotel, restaurant, function	247,650	Structured parking beneath B4/B5/B6
B6	45 – 55 feet	residential, B4-B6 connector	187,550	Structured parking beneath B4/B5/B6
B7 – Marina		marina	2,600	Structured parking beneath B4/B5/B6
Subtotal*			**958,679**	
Parking			435,200	
Total Project			**1,393,879**	
***Subtotal Breakdown by Use**				
Total Residential GSF			656,739	
Total Retail GSF			50,273	
Total Office GSF			123,917	
Total Hotel GSF			98,000	
Total Restaurant GSF			3,800	
Total Function GSF			5,800	
Total B4-B6 Connector GSF			17,550	
Total Marina Facilities GSF			2,600	

- Elevations of all structures:
    - Architectural plans showing the elevations of the proposed structures are included in the attached plan set.
- Proposed fire protection of all structures:
    - Internal sprinkler systems will be provided for the proposed buildings.
- Hydrant locations:
    - Existing hydrant locations are indicated on the attached Utility Plan.
- Water main size and location:
    - Water mains within the municipal ROW are noted on the Utility Plan including size and location. Water services into the site are being coordinated with the Portland Water District. Exact size, location and connections will be identified for future Site

Plan application. Existing water mains located in Fore Street and Thames Street are 8 inch and 12 inch respectively.

- Access to all structures [min. 2 sides]:
    - All structures will be accessible on a minimum of two sides.
- A code summary shall be included referencing NFPA 1 and all fire department technical standards:
    - A code summary referencing NFPA 1 and all fire department technical standards will be provided in advance of a Site Plan Application. The building tenant and use has not yet been selected, and the building interior (and associated code references) will depend on the final requirements for the structure.

We appreciate your comments and look forward to discussing this project further. If you have any questions or require additional information, please contact me at any time.

Sincerely,

WOODARD & CURRAN INC.

David Senus, PE
Project Manager

Enclosures: Full Plan Set

Cc: Christine Grimando, Senior Planner, City of Portland Planning Division

2. APPLICATION FEES

A check for the application fee has been included with the submission. The application fee includes:

Master Development Plan: $1,000

Traffic Movement Permit: $1,500

Total Fee: $2,500

2354

CPB2 LLC
P.O. Box 7987
Portland, ME 04112

TD Bank
America's Most Convenient Bank®
52-7445/2112

EZShield™ Check Fraud Protection for Business

9/12/2016

PAY TO THE ORDER OF City of Portland $ **2,500.00

Two Thousand Five Hundred and 00/100********** DOLLARS

City of Portland
389 Congress St
Portland, ME 04112

MEMO application fees - Master Development Plan and Traf

AUTHORIZED SIGNATURE

Security features. Details on back.

⑈002354⑈ ⑆211274450⑆ 2426991748⑈

CPB2 LLC

2354

City of Portland

9/12/2016

Date	Type	Reference	Original Amt.	Balance Due	Discount	Payment
9/12/2016	Bill	application fees	2,500.00	2,500.00		2,500.00
					Check Amount	2,500.00

TD Bank - Operating- application fees - Master Development Plan and 2,500.00

CITY OF PORTLAND
DEPARTMENT OF PLANNING & URBAN DEVELOPMENT

389 Congress Street
Portland, Maine 04101

INVOICE OF FEES

Application No:	2016-224	**Applicant:**	CPB2 LLC.
Project Name:	Master Plan for 58 Fore Street	**Location:**	58 FORE ST
CBL:	018 A001001	**Development Type:**	Master Development Plan
Invoice Date:	09/13/2016		

Previous Balance	-	Payment Received	+	Current Fees	-	Current Payment	=	Total Due	Payment Due Date
$0.00		$0.00		$2,500.00		$2,500.00		$0.00	On Receipt

Previous Balance **$0.00**

Fee Description	Qty	Fee/Deposit Charge
Traffic Movement Permit	1	$1,500.00
Master Development Plan	1	$1,000.00
		$2,500.00

Total Current Fees:	+	**$2,500.00**
Total Current Payments:	-	**$2,500.00**
Amount Due Now:		**$0.00**

CBL 018 A001001

Bill To: CPB2 LLC.
P.O. Box 7987
Portland, ME 04112

Application No: 2016224
Invoice Date: 09/13/2016
Invoice No: 59776
Total Amt Due: $0.00
Payment Amount: $2,500.00

Payments can be made online at http://me-portland.civicplus.com/314/Planning-Urban-Development, by mail to City of Portland, Planning Division, 4th Floor, 389 Congress Street, Portland ME 04101 or in person.

Pay Your Bill On-line

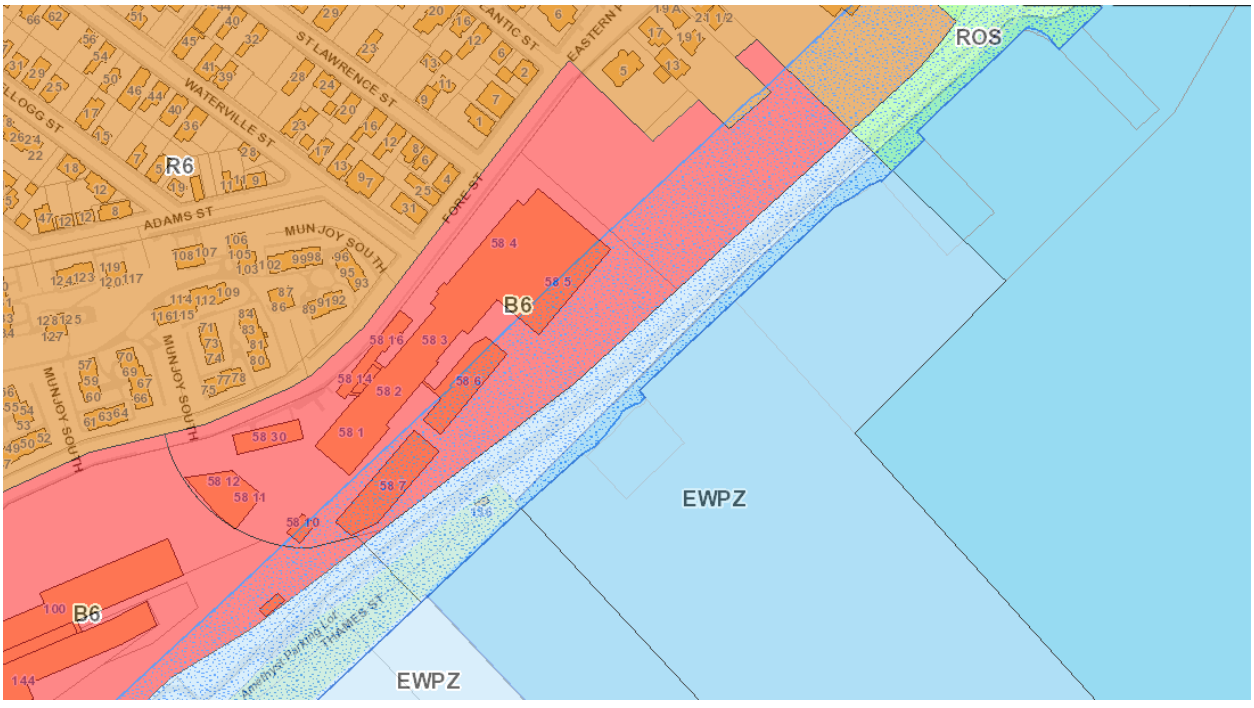
3. PROJECT DESCRIPTION

3.1 INTRODUCTION

This proposal presents a Master Plan for the redevelopment of the former Portland Company Complex located at 58 Fore Street (the "Project Site"). The Project Site encompasses three parcels owned by the Applicant, CPB2 LLC. The parcels are identified as Tax Map 18A, Lots 1, 2, and 3. Lots 1 and 3 have frontage along Fore Street, while Lot 2 is located along the waterfront, separated from Lots 1 and 3 by a linear parcel owned by the Maine Department of Transportation ("MDOT") containing the Maine Rail/Trail corridor and Eastern Promenade Trail. The City of Portland Online Assessor's Database and GIS parcel maps identify Lots 1 and 2 together as approximately 6.92 acres, and Lot 3 as 2.87 acres. A survey completed by Owen Haskell, Inc. in May 2013 identifies the areas of Lots 1 and 2 at 6.04 acres and 1.02 acres respectively, for a total of 7.06 acres, approximately 0.14 acres greater than the City's Assessor's Database. A copy of the survey is provided in Section 15 of this Report for reference. Lot 3 is reported at the same size in the City Assessor Database and on the Owen Haskell survey.

The USGS Location Map attached hereto shows the Project Site situated adjacent to Portland Harbor; bounded by the harbor on the southeast and by Fore Street on the northwest. The majority of the Project Site is located within the B-6 Eastern Waterfront Mixed Zone, some of which is also located within the Shoreland Overlay Zone. The waterfront portion of the Project Site is located within the Eastern Waterfront Port Zone (EWPZ) and Shoreland Overlay Zone. **Figure 1** was taken from the City's online GIS viewer, and shows parcel boundaries and zone boundaries in the vicinity of the Project Site. While **Figure 1** illustrates general boundaries, the City's GIS Zoning map does show the B-6 and EWPZ boundaries further inland than the Council-approved rezoning that occurred in 2015. City Planning staff have acknowledged that the EWPZ boundary has been established at 75' set back from the high water line (sea wall) along the Project Site, as reflected on the Boundary Survey submitted with this Application.

Figure 1: Zone & Parcel Boundaries for 58 Fore Street (City GIS Zoning Map)



3.2 PROJECT PURPOSE AND NEED

The proposed project will redevelop and revitalize the former Portland Company complex into a mixed-use neighborhood to encourage increased year-round use by the greater community. The vision is to redevelop the 10-acre site so it can reach its potential as a revitalized waterfront neighborhood with a vibrant and diverse mix of uses. The Project Site previously served as a pre-Civil War locomotive manufacturing site and components of that past still stand today. Historically significant facades include the Portland Company Vault, the Machine Shop, The Pattern Storehouse and the Blacksmith Shop. The development team has included these historic facades, along with the character and linear orientation of the alleyways between, in the redevelopment planning for the site. The Master Development Planning (MDP) process initiates the formal review for the redevelopment of the Project Site.

The development of the Project Site is a critical piece to Portland's future prosperity for a number of reasons, they include:

- The Project Site is large (+/- 10 acres) and strategically located between Portland's vibrant downtown, its working waterfront, and the beginning of its Eastern Promenade residential neighborhoods. There are few parcels of equivalent potential significance along the East Coast of the United States;
- The Project Site represents a keystone piece in the City's continuing efforts to link its vibrant downtown to the vast potential of its commercial waterfront. Careful development of this area will help the City realize the benefits of its investments in the Ocean Gateway marine terminal facility and related infrastructure;
- The development will help stimulate other investments in the eastern waterfront with the anticipation that investment in the Project Site will result in investment in underdeveloped public and private lands situated between the India Street neighborhood and the Project Site;
- As a whole, this proposed development presents an unparalleled opportunity to grow the City's tax base, add much-needed housing, and create jobs; and
- The development can act as a catalyst for change in this area, improve the quality of life for all Portland residents by facilitating access to the waterfront, adding capacity for events that draw residents and visitors, and enable the City's cruise ship terminal to live up to its name as a truly memorable gateway.

This redevelopment master plan created by CPB2 LLC was informed by the development considerations noted in the Eastern Waterfront Master Plan which include: the historic nature of the 19th century industrial complex; promoting the continuation of boat yard and yacht support services; adaptive reuse and sensitive rehabilitation of historic structures; increasing connections to Commercial Street; promoting shared parking with abutting onsite uses; and expanding recreational boating and active public use of the water.

Guiding design principles identified by CPB2 LLC and used throughout the conceptual development of this project include:

- Enhance public access to the waterfront across the Project Site by fulfilling the Eastern Waterfront Master Plan's vision of moving the Eastern Prom Trail directly to the waterfront, preserving and accentuating key view corridors, and increasing public access through the Project Site from Fore Street to the water's edge.
- Restore and invigorate the historic character of the former Portland Company through restoration and adaptive reuse of contributing structures, as well as the incorporation of the Project Site's history into interpretive design elements of open public spaces at the heart of the development. Incorporate the Project Site's railroad and industrial history into the waterfront open space setting.
- Respond contextually, focusing on the principles set forth in the Eastern Waterfront Master Plan. Design using appropriate scale, height and character with the goal of welcoming the public into the Project Site, and providing the entire community with increased waterfront access.

- Provide much needed housing supply to the City of Portland with exceptionally designed residential units of varying sizes and finishes, both for sale and for rent, creating a vibrant, inclusive, and diverse neighborhood.
- Expand marine-related use on the Project Site, leveraging assets of a world class marina by increasing local transient and seasonal berthing for boaters.
- Provide diverse economic stimulus to the City of Portland by creating a lively, all-season, destination catering to the Portland community, local and national retailers, as well as marina and cruise ship tourism.
- Create an inviting neighborhood including waterfront restaurants, public amenities and activities as well as open public spaces for Portland residents and visitors to enjoy while also stimulating the local economy
- Encourage the development of a waterfront open space on the adjacent City-owned waterfront land by integrating the design of the Project Site's open spaces and historic core open space.

According to a March 2015 report prepared by Planning Decisions for CPB2 LLC, *"The Economic and Fiscal Impact on the Greater Portland Region & Maine of Redevelopment of 58 Fore Street, Portland, ME,"* it was estimated that redeveloping the Project Site could result in the following benefits if it were developed to match a model 10-acre area of the Old Port:

- Addition of approximately $85 million to the City's tax base at its current property tax rate and generate $1.7 million more in annual property tax revenues.
- Generation of direct and indirect construction related spending of over $215 million supporting the full-time equivalent of 1,400 jobs earning wages totaling nearly $68 million. Many of these impacts would flow to Portland businesses and employees.
- Generation of direct and indirect annual operating sales for Maine businesses of over $38 million supporting the full time equivalent of 325 jobs with earnings of approximately $16.5 million. Most of this impact would flow to Portland businesses and employees.
- Generation of additional tax and fee revenue of $6.7 million for municipalities in the Portland region and across the state where workers and vendors connected to this development reside, including the $1.7 million property tax revenue flowing to the City of Portland.
- Generation of additional sales, income, fuel and other tax and fee revenue of $6.9 million for state government from the activities of workers and vendors connected to development of the Project Site.
- Help the City realize the goals of its Eastern Waterfront Master Plan, add to its stock of housing, make full use of the investments it has made along its commercial waterfront, encourage other investments in largely empty land near the Ocean Gateway terminal, and create an iconic and memorable first impression for visitors coming to the City from the sea.

The rationale, design principles and economic impact discussed above for the redevelopment of the Project Site highlight the project's purpose and need.

3.3 EXISTING CONDITIONS

As set forth above, the Project Site includes three tax lots: lots 1 and 3, totaling 8.91 acres, along Fore Street and Lot 2, 1.02 acres along the waterfront, separated from Lots 1 and 3 by a MDOT-owned linear parcel that is approximately 50 feet wide. The ocean frontage on Portland Harbor is approximately 1,000 linear feet. The Eastern Promenade trail and the Maine Narrow Gauge Railroad are located within the MDOT land. There are two 50' easements that cross the strip of MDOT land which provide access to lot 2 as well as a 575,000 square foot (13.2 acre) submerged land lease containing the marina.

The Existing Conditions Plan, included in the drawings attached hereto but bound separately, depicts the existing conditions of the Project Site. The Project Site primarily slopes from north to south towards the waterfront and is currently developed with buildings, pavement, compacted gravel, and vegetated area. A steep grade change exists

along Fore Street. The northeastern corner of the Project Site is a steep, wooded embankment. Retaining walls and buildings have been constructed along much of the boundary with Fore Street to account for the change in grade. A driveway from Fore Street on the western end of the Project Site provides the primary means of access.

Fore Street changes to Eastern Promenade just east of the subject property, and based on data from MDOT's Map Viewer, both streets are classified as major/urban collectors with state aid from the MDOT. India Street and Commercial Street west of India Street are both minor arterials and MDOT state highways. The Thames Street extension of Commercial Street installed as part of the Ocean Gateway project is a local road under City of Portland jurisdiction. Thames Street was constructed to within 400 feet of the Project Site as part of the Ocean Gateway Terminal construction project.

In 2013, the MDOT installed a pavement overlay on Eastern Promenade, starting at the intersection with Atlantic Street, just beyond the Project Site. The portion of Fore Street in front of the Project Site was not repaved. Existing sidewalks on Fore Street are made of concrete. This area of the City is located within the area designated for brick sidewalk. Thames Street currently has brick sidewalk on the southern side of the street, and bituminous sidewalk on the northern side of the street.

A Phase I and a Phase II Environmental Report was completed in September 2007 by Jacobs, Edwards and Kelsey. The results of the survey indicate that the Project Site does not have significant or notable environmental concerns, considering its historical usage. CPB2 performed a Phase I Environmental Assessment as part of its due diligence in June 2013 and will meet the requirements of the Maine DEP Voluntary Response Action Program (VRAP) during redevelopment.

3.4 PROPOSED DEVELOPMENT

The development program consists of seven development "blocks" that have been considered and designed around the vision of creating a mixed use neighborhood with commercial, residential, office, retail, restaurant, marina and public open space uses. Open space includes plazas for pedestrian use between the individual building components as well as a public access easement, view corridors and access to the waterfront via a walkway along the water's edge. (see **Figure 2**). While development of each of the seven blocks may move forward at different times, the entire 10 acres has been conceptualized as a whole.

Figure 2: 58 Fore Street Development Blocks

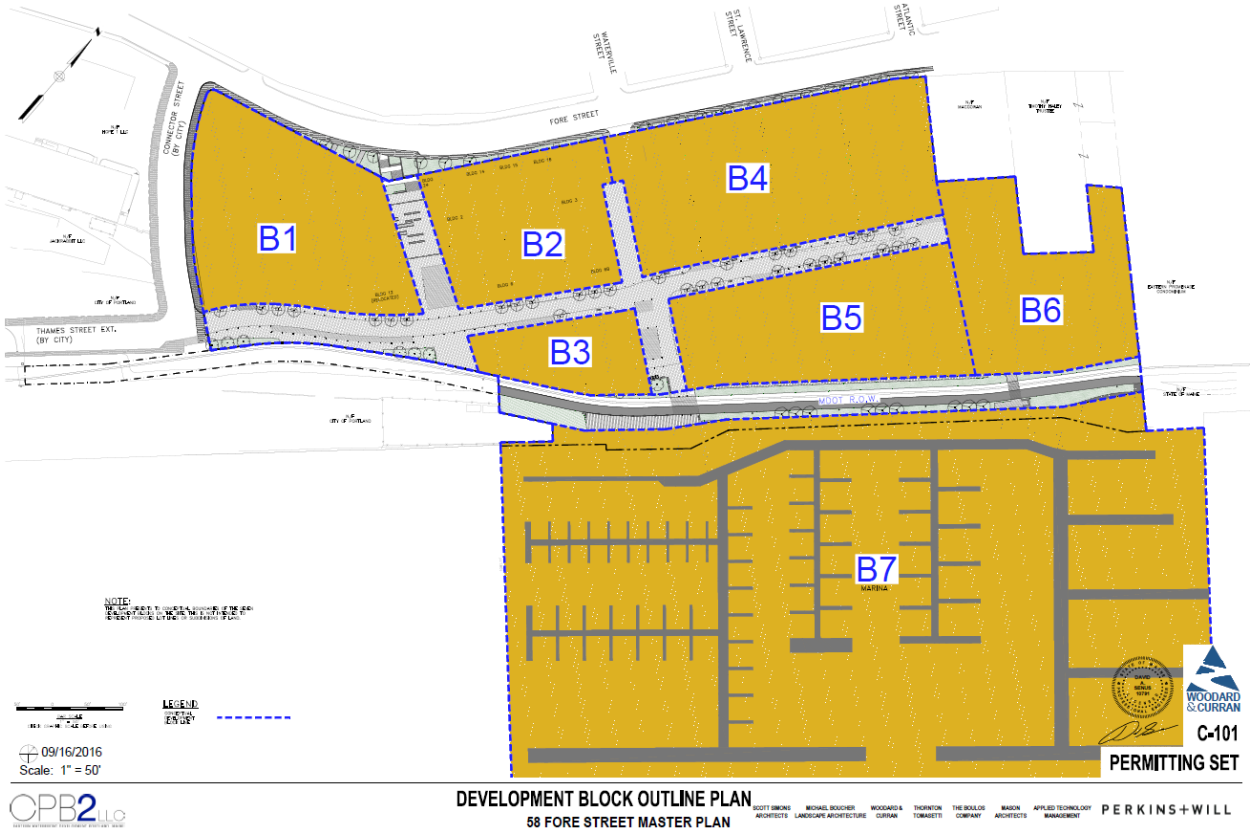


Table 1 includes detailed characteristics about each of the seven development blocks (hereinafter referred to as B1-B7). Parking for the development of B1 will be provided in a garage for the retail, residential and office users. Parking for B2, B3, B4, B5, B6 and B7 will be constructed beneath the base of B4, B5 and B6 as one common pedestal of parking that will serve all uses associated with each development block. It is anticipated that there will be 736 structured parking spaces associated with the entire development project. There will also be 13 additional parallel parking spaces in the interior roadway and spaces for temporary drop off near the marina/hotel. Per City Ordinance, new uses are required to provide bicycle accommodations based on the type of use. This requirement will be met through interior bike parking for the residential units, which will be further designed at the Site Plan level.

Table 1: Development Block Proposed Characteristics

Development Block	Allowable Height by Zoning	Proposed Use	Current GFA (as of September 2016)	Proposed Parking Areas
B1	35 feet	retail, residential, office	169,278	Structured parking beneath B1
B2	35 – 45 feet	retail, residential, office	72,941	Structured parking beneath B4/B5/B6
B3	35 feet	retail, office	30,800	Structured parking beneath B4/B5/B6

Development Block	Allowable Height by Zoning	Proposed Use	Current GFA (as of September 2016)	Proposed Parking Areas
B4	45 - 65 feet	residential, retail	247,860	Structured parking beneath B4/B5/B6
B5	45 – 55 feet	residential, hotel, restaurant, function	247,650	Structured parking beneath B4/B5/B6
B6	45 – 55 feet	residential, B4-B6 connector	187,550	Structured parking beneath B4/B5/B6
B7 – Marina		marina	2,600	Structured parking beneath B4/B5/B6
Subtotal*				**958,679**
Parking				435,200
Total Project				**1,393,879**
***Subtotal Breakdown by Use**				
Total Residential GSF				656,739
Total Retail GSF				50,273
Total Office GSF				123,917
Total Hotel GSF				98,000
Total Restaurant GSF				3,800
Total Function GSF				5,800
Total B4-B6 Connector GSF				17,550
Total Marina Facilities GSF				2,600

3.4.1 Buildings

The proposed development builds off the strength of the historic Portland Company's mid-19th century industrial brick buildings. The rigorous punched window pattern of the buildings in a solid façade has been interpreted into a contemporary architectural expression for the new development. A range of design responses exist to give the development a varied character from the masonry buildings along Fore Street to textured metal, wood and glass residential buildings stepping down the hill and to glassier, transparent buildings along the water's edge.

The existing view corridors extending from Kellogg, Waterville, St Lawrence and Atlantic Streets have helped connect this new development on Portland's waterfront with the street grid from the historic Munjoy Hill neighborhood. To further connect to this important neighborhood, the buildings along Fore Street are two and three story structures in a town house configuration which provide entries directly to units on Fore Street. The architecture of these buildings emulates the scale and massing of the houses from the neighborhood and changes character as one moves from west to east up Fore Street to the Eastern Promenade. The eastern portions of the Project Site are proposed as residential to reflect and support the character of adjacent, existing residential uses. The uses transition to more commercial and public spaces moving west across the Project Site which is consistent with the existing uses and creates a natural and consistent transition to that section of the City.

The proposed development extends Thames Street along the water's edge into the Project Site, defining a vital and vibrant retail district. This district occupies the majority of the historic buildings as well as the base of the new office building, hotel, and waterfront pavilion. Together, this provides for a dynamic destination retail area that builds on the historic character of the Portland Company and integrates its retail with new and more transparent retail on the water's edge.

A key driver to this area of Portland's waterfront is the dynamic 13-acre marina with its boating activities as well as the very active Eastern Promenade Trail with its pedestrian, bicycle, and Maine Narrow Gauge Railroad tourist train that traverses the southern edge of the site. The architecture that fronts this edge is open and transparent on the first two levels and then glassy with balconies terraces and setbacks to articulate the building edges. Metal, glass, wood and masonry materials present a mixture of color tone and texture to this area of the Project Site.

Throughout the Project Site, landscaped courts and hard scape plazas provide active gathering spaces for residents, visitors, retail and yearly celebrations to occur as the Eastern Promenade is integrated into this system. A variety of public access is encouraged throughout the Project Site. On the hill side, housing and planted courtyards step down the hill providing residents active and passive landscaped courts and mews to soften and enliven the architecture and to provide a lush ground plane which serves to maximize the view corridors.

The overall expression of the Project Site, the landscape and the architecture, is to build on the scale and character of the neighborhood and adjacent Old Port while infusing it with a contemporary language that over time will become a part of Portland's rich architectural heritage.

3.4.1.1 Marina (B7)

The proposed plan for the marina associated with the Project Site located at B7 consists of approximately 220 slip spaces (this includes maximum dinghy dock usage for boats moored outside the marina). It is estimated that 140 of the vessels will be seasonal slip users and the other 80 slips would be visiting transient vessels. The marina anticipates a need for 110 parking spaces; 9 will be for employees of the marina. The marina plan calls for repurposing some of the existing marine floating dock and marine floating finger pier infrastructure. New infrastructure will include additional floating dock space, heavy duty floating dock space and four floating wave attenuators. The proposed plan for the marina has been included as an attachment to this section.

3.4.2 Utilities

A utility assessment was prepared for the Project Site in August 2015 which has been included as an attachment to Section 14. The Project Site is currently serviced primarily through utility mains in Fore Street. As part of the construction completed for the Ocean Gateway facility project in 2007, new utility infrastructure was installed in Thames Street. These utilities terminate approximately 400 feet to the west of the Project Site. The City has plans to extend Thames Street and its associated utility infrastructure from its current terminus to the western edge of the Project Site in accordance with the Master Plan for Redevelopment of the Eastern Waterfront. The Project Site will connect to the utility mains within the Thames Street extension, and utilities will be routed through the Project Site primarily within the private site roadway.

3.4.3 Landscaping

The proposed landscape embodies the project's guiding principles, offering an integrated system of spaces and connections that respond to the Project Site's context and support the multiple year-round uses of the new neighborhood. The landscape lends a cohesive identity to the seven development blocks, while allowing for variety and flexibility necessary to create a vibrant, inclusive place. A collection of ground-level and elevated landscapes reflect the distinct character, scale, and programmatic requirements of each block's buildings, while responding to the site's topography and proximity to the waterfront. Pedestrian-oriented and accessible from all directions, this new urban landscape elegantly organizes the rich range of users throughout the site: pedestrians, bicycles, cars, service and emergency vehicles, and the narrow-gauge train. The simple, rational design is supported by a palette of timeless, durable materials that unify the old and the new and contribute to the unique identity of this distinctive new neighborhood in Portland. The landscape consists of the following major elements and features:

- **Streetscape** – The primary street through the property is intended to be shared use, safely accommodating a mixed stream of pedestrian, car, bicycle and service vehicle traffic accessing all the blocks and the marina. The street is curb-less, with driving lanes defined on each side by a shallow break in grade for drainage, street trees, site furnishings, street lights and bollards to define travel lanes for pedestrian safety. Continuous paving unifies the driving lane and sidewalk zones. However, a finer scale and texture of paving demarcates garage and service entrances. Vehicular Turnarounds are provided between B3 and B5 and at the terminus of the street between B5 and B6.
- **Waterfront** – The waterfront zone of this project merges directly with the Eastern Promenade Trail, accommodating pedestrians, cyclists, and the Maine Narrow Gauge Railroad. A generous walkway runs along the seawall for the entire length of the property, connecting seamlessly to existing trails to the east, and the city-owned Amethyst lot to the west. The waterfront walkway widens around the proposed marina building to allow pedestrian circulation and to afford excellent views of Portland Harbor. The waterfront walkway is separated from the bicycle and train routes of the Eastern Promenade Trail by a planted buffer that will create a calmer walking environment, and guide pedestrian crossings of the faster bike and train traffic lanes at demarcated points along the trail. The primary crossing is aligned with the central view corridor and circulation axis between B3 and B5. A second future crossing is proposed on the western side of B3 where the Amethyst lot meets the waterfront. A smaller, private crossing is proposed between the larger yacht dock space and Blocks 5 and 6.
- **B1 Arrival and Courtyard** – Block 1 marks the entry to the property from Thames Street. A plaza unifies the arrival space in front of the proposed office building and the relocated Building 12. Elevated one story above ground level, a central courtyard provides private common exterior lounge space for the inhabitants of the residential building on the northwest side. Loose and varied arrangements of different types of seating accommodate multiple users, and trees provide shade, visual interest, and a sense of nature within this very urban space.
- **B2 Courtyard and Plazas** – The landscape spaces in B2 emphasize openness and flexibility. A grand stair provides access from Fore Street and spans the entire width of the public access easement. Open plazas will exist between Fore Street and the waterfront, accommodating various flows and gatherings of pedestrians, while providing ample seating for visitors to the historic core. An open courtyard between Historic Buildings 2 and 6 offers small groups of trees, seating, and space for outdoor dining.
- **B3 Plazas** – The plaza to the southwest of the B3 building is primarily a transitional space between the upland blocks and the waterfront. This space is envisioned to extend fluidly across the train tracks and bike path to the City-owned land beyond and right up to the water. The plaza on the northwest side between B3 and B5 is an active hub providing access to restaurants, the hotel, marina and waterfront.
- **B4 Terraces** – The terraces between the B4 residential buildings offer inhabitants of the residences a series of connected, elevated spaces to enjoy communally. Accessible from the lobby of each building, the spaces are fully connected by stairways between each level. Together, the terraces offer a range of garden spaces, sun, shade, views, possible small water and fire features, and various seating options.
- **B5/6 Courtyard** – The elevated courtyard between B5 and B6 serves as a drop-off for B6 residents and a vehicular turnaround. An open lawn with seating is provided to the southeast of the turnaround, offering clear views out to the water. A discreet pedestrian connection to the waterfront is located off the eastern corner of the space.
- **B6 Courtyard** – The elevated courtyard at the B6 building offers residents of the buildings a shared outdoor space with plantings, shade, seating, and possible small water features.
- **Materials** – A family of durable, authentic, and environmentally-sound materials unifies the landscape design and helps express the identity of the neighborhood. A palette of simple, modern site furnishings complements the new architecture and accentuates the historic character of the old buildings. A limited palette of stone and/or concrete pavers unifies the ground plane, with the exception of the waterfront walkway and asphalt bike path. Attractive and

well-adapted native plants comprise the plant palette, with more upland species used on the inland blocks, and tougher seashore species in the waterfront zone. Although a common sensibility unifies all of the landscape materials, each block incorporates enough difference and variability to give it a distinctive character and richness.

- **Street Trees –** The Master Development Plan proposes 638 residential units and 130 street trees for the Project Site. The City of Portland requires that all Site Plan Submissions include street trees in numbers and locations as specified in Section 4 of the Technical Manual. Section 4 of the Technical Manual notes the following:

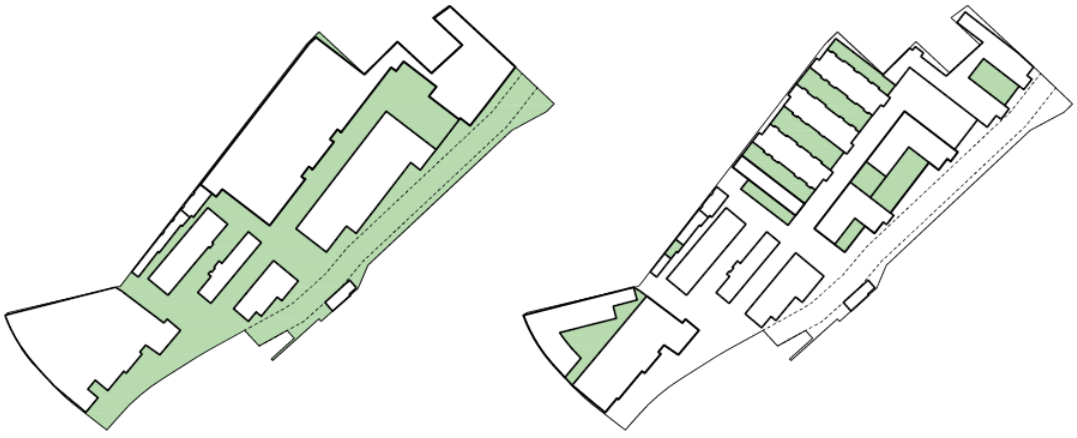
    - Multi-family residential: Multi-family residential developments shall provide a minimum of one tree per unit, planted in the City right of way unless otherwise approved and spaced thirty (30) to forty-five (45) on center.
    - Commercial, Industrial and Institutional Development: Commercial, industrial and institutional developments shall provide street trees thirty (30) to forty-five (45) feet apart on center in the City right of way along all street frontages unless otherwise approved.

  Based on the City's requirements, it would appear that up to 638 street trees would be required at full Master Plan buildout, which is far more than the development can support. During future Site Plan review phases, the developer will work with the City to identify the number of trees to be planted for the particular phase of the development under review, and pay a fee in lieu for the balance of street trees that cannot be planted under that particular Site Plan phase.

- **Open Space -** Approximately 60% of the Project Site is currently proposed as open space and 75% of that open space is proposed to be accessible to the public (see Error! Reference source not found.).

Figure 3: 58 Fore Street Proposed Open Space

PROPERTY TOTAL	**492,330 SF**
OPEN SPACE GROUND LEVEL (PUBLIC)	222,552 SF
GREEN / OCCUPIABLE ROOF TERRACES (PRIVATE)	72,048 SF
TOTAL OPEN SPACE	**294,600 SF**
OPEN SPACE % OF PROPERTY TOTAL	**60%**
PUBLIC OPEN SPACE % OF TOTAL OPEN SPACE	**75%**



OPEN SPACE GROUND LEVEL (PUBLIC) **GREEN / OCCUPIABLE ROOF TERRACES (PRIVATE)**

3.4.4 Stormwater Management

In accordance with Section 5 of the City of Portland Technical Manual, future Level III Site Plans and Subdivisions shall be required to submit a stormwater management plan pursuant to the regulations of Maine DEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding standards. The City of Portland's Ordinances and Standards include specific requirements associated with the applicability of the Chapter 500 standards for redevelopment projects, above and beyond the applicability outlined in the Maine DEP Chapter 500 rules. Acknowledgement of these requirements and the approach to stormwater management is further outlined in Section 12 of this Application.

Stormwater management measures will consist primarily of planted filter boxes, located throughout the development and integrated into the landscaping plan, so that plantings can take advantage of stormwater runoff for watering, while providing a place for stormwater filtration and treatment.

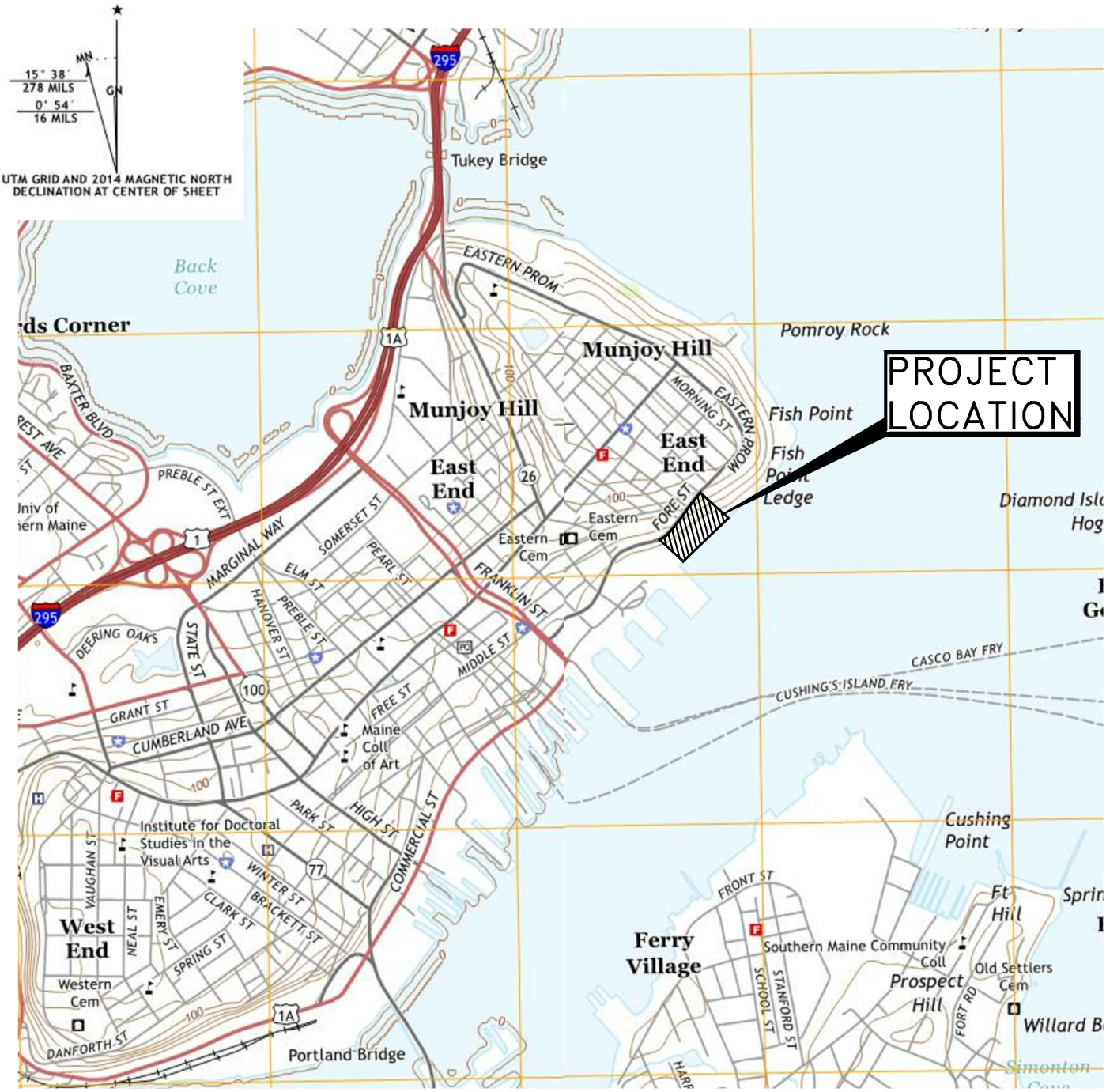
As noted in Section 9 of this Report, we are requesting a waiver from providing additional storage of stormwater for the Flooding Standard, due to the fact that the project will discharge directly into the ocean. Stormwater runoff from the Site will be conveyed exclusively via sheet flow and a piped system. A more detailed discussion of the project's compliance with these standards is provided in Section 12 of this Application.

3.4.5 Geotechnical Conditions

A substantial portion of the Project Site was created by typical 19th century waterfront landfill process. In 2007, the former property owner retained S. W. Cole Engineering Inc. to investigate the characteristics of the site soils as well as the depth of the overburden from the surface down to bedrock. This analysis found that the depth of the overburden ranges from 5 feet to 75 feet below grade with the majority of the borings being less than 25 feet deep to refusal. Suggestions regarding foundation options for new buildings are also included in the S. W. Cole Engineering Report. CPB2 has hired Haley & Aldrich to perform a more comprehensive subsurface exploration program and evaluation of the geotechnical conditions of the site; this process is ongoing at this time and is intended to inform the construction and cost estimating exercises that the CPB2 team is undertaking as part of their master planning efforts.

3.5 ATTACHMENTS

- USGS Location Map



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FEET

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid: Universal Transverse Mercator, Zone 19T
10 000-foot ticks: Maine Coordinate System of 1983 (west zone)

PORTLAND WEST, ME 2014

PORTLAND EAST, ME 2014

WOODARD &CURRAN
41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

USGS LOCATION MAP

DESIGNED BY: N/A	CHECKED BY: DAS
DRAWN BY: BCM	USGS.DWG

CPB2, LLC
PORTLAND, MAINE 04101

58 FORE STREET

JOB NO: 227007.03	
DATE: SEPT. 2016	
SCALE: 1"=2000'	

FIG. 1

4. MASTER DEVELOPMENT PLAN REVIEW §14-527(A)(3)(C)

The 58 Fore Street redevelopment program consists of multiple uses and has been designed in a cohesive and integral manner. Consideration was given to the integration of land uses, functional activities and major design elements such as buildings, roads, utilities, drainage systems and open space.

4.1 DESIGNATED TRACT OF LAND §14-524(A)(3)(C)(III)(A)

The Project Site consists of multiple parcels of contiguous land, totaling more than one acre. The land is approximately 10 acres in size and the parcels are identified as Tax Map 18A, Lots 1, 2, and 3. Lots 1 and 3 have frontage along Fore Street, while Lot 2 is located along the waterfront, separated from Lots 1 and 3 by the MDOT linear parcel.

4.2 DEVELOPED IN A COMPREHENSIVE, DESIGN INTEGRATED MANNER §14-524(A)(3)(C)(III)(B)

CPB2 LLC, site owner and project developer, developed the vision for this project based in part on the Eastern Waterfront Master Plan for the City of Portland. By bringing together a cohesive team of architects, landscape architects, traffic engineers, and civil engineers, the overall intention and focus is on inspiring the design and planning of a master development effort that focuses on a mix of uses with thoughtfully integrated historic components. To illustrate this vision, the development program identifies seven development blocks, each with their own potential future use and outcome, but evaluated and designed together from the very beginning of the redevelopment effort. The redevelopment program for the Project Site was conceived by considering new and redefined uses for these seven separate development blocks. Proposed uses for the development blocks will include residential, office, commercial, retail, hotel, marina and restaurant buildings as well as a plaza type feel for pedestrian use between the individual building components.

4.3 CONSISTENCY WITH THE OBJECTIVES OF THE ORDINANCE §14-524(A)(3)(C)(III)(C)

Section 7 of this application offers a detailed discussion on how the 58 Fore Street redevelopment is consistent with the objectives of the City's ordinance.

4.4 CONSISTENCY WITH THE CITY COMPREHENSIVE PLAN AND APPROVED MASTER PLANS §14-524(A)(3)(C)(III)(D)

The City of Portland's planning efforts to date have provided a solid and informative foundation for the master development planning for the 58 Fore Street redevelopment project. The proposed project is consistent with the plans outlined in this section.

4.4.1 City of Portland Comprehensive Plan (Updated 2005)

The City is currently in the process of updating its Comprehensive Plan. Included within the vision of the City of Portland Comprehensive Plan from 2005 are the following points that the 58 Fore Street redevelopment project embodies.

- "Portland has a vital working waterfront with diverse coastal commerce activities and water dependent uses."
- "Portland retains a small town feel with a built environment that is scaled for people, is pedestrian friendly, and is accessible to the community. Residents value and seek to enhance the safety of the community, the proximity of commercial uses near residences and the walkable nature of the city."
- "Portland has an active and vibrant downtown both day and night due to its interwoven mix of residential, commercial, institutional and cultural land uses."
- "Portland is a city of neighborhoods with a range of residential types such as high density areas on the peninsula…"

- "Portland is a historic maritime city which retains a rich historical character for both commercial and residential neighborhoods, offers a broad spectrum of architecture and distinctive landmarks, and maintains unifying features such as brick buildings and sidewalks, and established and traditional neighborhoods with narrow and interconnected streets."

Future directions for the City of Portland identified in the Comprehensive Plan include:

- "Build upon the historic fabric of Portland's built environment by rehabilitating historic resources and by developing new buildings that respect the scale and character of traditional development patterns. New development shall be pedestrian oriented and accessible."
- "Strive for innovation and bold initiatives that increase the livability and quality of life in Portland."
- "Support a dynamic downtown that embraces the intertwining of uses, including residential, business, retail, institutional, service, and arts and cultural uses."
- "Capitalize on Portland's economic assets and develop a strong economy based upon traditional industries, a strong retail and office center, and emergent opportunities in industry, business and coastal commerce."
- "Create a sustainable community with vital neighborhoods, high quality infrastructure, a strong economy, and a healthy environment while keeping municipal taxes affordable."
- "Preserve and enhance the park system with its trails, active recreation facilities and natural areas."

The Comprehensive Plan does acknowledge a potential public/private build-out scheme for the Eastern Waterfront that includes a portion of this site.

4.4.2 Eastern Waterfront Master Plan (EWMP) (Adopted into the Comprehensive Plan)

The Master Plan for Redevelopment of the Eastern Waterfront (amended September 2006) (EWMP) specifically acknowledges the vacant, underutilized land in the area of the Project Site. The development history of the area where the Project Site is located that was studied for the Master Plan notes that given the location and proximity to water views, urban amenities, vehicular access, port access and integration with the City trail system, significant redevelopment potential exists. Changes such as parking structures, more intensive reuse of historic buildings, replacement of non-historic structures and open space enhancement were all anticipated. The EWMP also contemplates the creation of additional public infrastructure in the means of new roadways to the East of the now existing Thames Street.

Several principles and associated objectives for redevelopment were identified during the Eastern Waterfront Master Planning effort, they include:

- *"Development within the eastern waterfront will be compatible with the surrounding areas, neighborhoods, natural environment and maritime uses."* Objectives associated with this principle that are consistent with the 58 Fore Street redevelopment are the use of compatible architecture, historic preservation and adaptive reuse of contributing historic structures, establishment of a new street and pedestrian network that integrates with the surrounding street and trail network and preservation of significant view corridors to the water and along the waterfront.
- *"Development within the eastern waterfront will create a vital and active mixed use urban area that generates life and use every day of the year and all hours of the day."* Objectives associated with this principle that are consistent with the 58 Fore Street redevelopment are the opportunity for mixed-used non-marine development and activities in locations in ways that are compatible with the use of maritime resources, the increase of the public's use of the water, waterfront and shore through public access and maintaining and enhancing recreational trail access.

- *"Development in the eastern waterfront on piers, bulkheads and on land within 75' of mean high water line, will give priority to compatible water-dependent and maritime uses."* Objectives associated with this principle that are consistent with the 58 Fore Street redevelopment are preserving and encouraging long-term enhancement of emerging and traditional maritime and water dependent uses, utilizing the harbor's deep-water resources to serve deep draft vessels, encouraging small boat berthing where water depth does not permit deep-water berthing, encouraging public physical and visual access to the water where appropriate and allowing non-marine mixed uses when compatible with water dependent and marine uses.
- *"Development in the eastern waterfront will provide a significant benefit to the City and the regional economy."* Objectives associated with this principle that are consistent with the 58 Fore Street redevelopment are encouraging a positive economic return to City government, sustaining and strengthening water-related tourism, enhancing the economic viability of the eastern waterfront's property and facilities, assuring that public investment and development benefit the residents of the greater Portland community, providing adaptable, flexible infrastructure that will allow the City to adjust to future technologies and trends and enhancing multi-model transportation opportunities.

The vision for the redevelopment of 58 Fore Street was built on the foundation of the Eastern Waterfront Master Plan with the intention to deliver the waterfront to the City of Portland with inspiring design and planning focused on mixed uses and architectural styles, public spaces, revitalized historic structures and access to the water along with a continued marina operation.

4.4.3 Design Guidelines for the Eastern Waterfront

The Design Guidelines for the Eastern Waterfront were considered during master development planning of the 58 Fore Street project and will be further considered as components move into site plan review. In general, it was noted that for the Project Site, promoting the continuation of the boat yard and yacht support services, encouraging the adaptive reuse and sensitive rehabilitation of historic structures and increasing connections to Commercial Street and promoting shared parking with abutting uses were key points. For the Master Development Plan, the following components have been considered by the design team:

- **Streets**
    - **Appropriate Street Design** – New streets should be designed to accommodate expected vehicles and pedestrians safely and efficiently while encouraging appropriate speeds. Streets should provide on-street parking along curb lines wherever possible to provide a buffer between pedestrians and moving traffic and to serve the retail, residential and commercial uses in the area.
    - **Sidewalks** - Sidewalks should be provided along both sides of all streets and should be wide enough to accommodate visiting and residential pedestrians comfortably and safely. The pedestrian environment should be further enhanced through the use of fixed street furniture, compatible and consistent lighting, and street trees. Sidewalk cafes, temporary art installations, and seasonal lighting are encouraged along public sidewalks as a means to encourage the year round activity**.**
    - **View Corridors** - Street corridor placement and design should provide for views to and from the water, as well as for permanent installations of public art in key focal point locations.
    - **Railroad Right of Way** - The Commercial Street section drawing includes the Narrow Gauge Railroad adjacent to the Commercial Street corridor. The railroad could add a dynamic intermodal element to Portland's transportation system if integrated with the surrounding streets, sidewalks, trails and private development.
    - **Underground Utilities** - Overhead utilities should be avoided within the Eastern Waterfront**.**

- **Bicycle Safety** - Bicycles are a key mode of transportation in Portland's transportation system as well as providing important recreation and fitness opportunities. Accommodations for bicycle traffic and safety should be designed into new and reconfigured streets and intersections. Bicycle racks should be installed along public sidewalks where appropriate.

- **Buildings/Architecture**
  - **Contextual Design** - New buildings should be designed in response to their context and should be compatible with surrounding neighborhoods. The placement, height, massing, proportion, articulation, and materials of new structures should encourage a vision that supports the idea that the Eastern Waterfront develop into an extension of the surrounding areas while establishing its own identity as a new urban neighborhood.
  - **Pedestrian Environment -** New development should avoid large expanses of blank walls, should provide frequent street level entries, and should provide sidewalk amenities such as street furniture and lighting that encourage year-round pedestrian use.
  - **Primary Entrances and Service Entrances** - Service entrances and loading facilities should be located at the rear or side of structures.
  - **Parking Structures** - Parking structures should be compatible with adjacent uses and architecture.
  - **Historic Structures** - Historically and architecturally significant structures and sites should be inventoried and protected from demolition and carefully rehabilitated in a way that is consistent with their original architectural intent.

- **Open Space and the Public Realm**
  - **Public Open Space and Plazas** - Privately developed open space should contribute to the public realm through enhancement of the pedestrian environment and increased recreation opportunities.

- **Water's Edge**
  - **The Eastern Waterfront…** the function of this area as an intermodal transportation center must be designed into every building and infrastructure element, to facilitate integration and coordination of the various current and potential future modes of transportation.

4.5 BUILDING/IMPROVEMENT LOCATION IN CONSIDERATION OF OPEN SPACE, NATURAL FEATURES, TREE PRESERVATION §14-524(A)(3)(C)(III)(E)

The new buildings have been sited and configured to maximize useable open space and views to the water. The project preserves open view corridors at the ends of existing Munjoy Hill streets, as required, and provides additional open view corridors through B4. The buildings at the waterfront are set back from the EWPZ more than required, providing a sizeable open zone along the harbor. Each block incorporates significant public and/or private open space at ground or elevated levels. The property is a historically developed site, and there are no significant existing trees or other natural features that warrant preservation.

4.6 CONFORMANCE WITH PORTLAND'S HISTORIC PRESERVATION ORDINANCE STANDARDS §14-524(A)(3)(C)(III)(F)

The 58 Fore Street redevelopment project is in conformance with Portland's Historic Preservation Ordinance standards for designated properties within designated historic districts. The proposed development is adjacent to and within 100 feet of the Portland Company Historic District, which was designated by the City Council on February 17, 2016. The district boundary surrounds the historic core of six contributing structures, including Buildings 2, 3, 6, 6B, 16 and 24

and also traces the footprint of Building 12. The project has carefully considered and defined a development program that will be generally compatible with the major character defining elements of the district.

The 58 Fore Street team has designed a dynamic, world-class mixed-use development on the Eastern Waterfront in Portland, at the site of the former Portland Company. The plan envisions a diverse mix of uses including retail, restaurants, commercial offices, residential, and expanded marina. The unique character, history, and qualities of the site make it an especially good location for a development of this type, fully consistent with the vision set forth in the Plan for Redevelopment of the Eastern Waterfront. The blending of well-designed new, modern architecture buildings, in juxtaposition with renovated historic buildings, will create an even more compelling story about the history of the site and how historic buildings like these can be adapted and repurposed for modern day uses.

Building 2: The three floors of Building 2 will be renovated to allow retail, residential and office uses. The exact distribution of uses has not yet been determined, as the market demand for the space is unclear at this time. The goal is to renovate the building while preserving the essential character and qualities that make the building so attractive, such as the red brick exteriors, gabled ends and corbeled brick work, the large, multi-paned windows, the exposed wood floor joists and roof trusses, and the interior columns and brick walls. One design consideration is to remove the cantilevered portions of the existing third floor dormers, which extend out beyond the masonry load bearing wall (as recommended by structural engineers) and reconstruct them to look similar to those shown on the C. Michael Lewis renderings. This would result in the creation of a shed dormer running just inside of gable-to-gable end, similar to many Commercial Street buildings. Another consideration is the dormer on the north side of the building being extended the full length of the building. In one or two sections (i.e. window bays) of the north dormer may have to have Mechanical louvers to hide mechanical equipment for HVAC. Additional considerations are to remove portions of the brick below the first floor windows on the south and north elevations of the building down to the plaza levels to facilitate inside/outside movement for possible café or restaurant tenants, providing use and connections between the existing alleyways and interior spaces.

Building 3: The two floors of Building 3 will be renovated to allow retail, office and residential uses. The exact distribution of uses has not yet been determined, as the market demand for the space is unclear at this time. The goal is to renovate the building while preserving the essential character and qualities that make the building so attractive, such as the red brick exteriors, the large, multi-paned windows, the exposed wood floor joists and roof trusses including the pop up clearstory windows, and the interior columns and brick walls. As discussed with Building 2, one consideration here is to remove portions of the brick below the first floor windows on the south and north side of building down to the plaza level to facilitate inside/outside movement for possible café or restaurant tenants.

Building 6B: This one-story building will be renovated for retail and/or office use. The plan would be to remove the red clad metal addition along the north side of the building, re-establishing the historic width of the alleyway and to add a 1/3 mezzanine level floor inside with shed dormers on both the north and south sides of the roof. In addition, a vertical core of Building 6, which currently juts out into the alley, will provide new entry access and vertical circulation solutions.

Building 12: Building 12's current location has a number of significant challenges going forward because the new "connector road" connecting Fore Street with the Thames Street extension will rise 6 to 8 1/2 feet above the base of Building 12, essentially putting it below grade on the first floor. In addition, this building which is well removed from the rest of the historic core, would potentially be lost at a low elevation within a larger development block (Block #1). We are proposing to stabilize the building so it can be lifted and relocated to another location within Block 1, on a new stable foundation adjacent to the extension of Thames Street on the western edge of the 50' public access easement, which enhances Building 12's proximity to the Portland Company's Historic Core, while still providing some separation from the core buildings. With the building stabilized and relocated, the goal would be to renovate it while preserving the essential character and qualities that make it so attractive, such as the red brick exteriors, the double-hung punched window openings, and the gable end walls and roofline. Dormers may also be a consideration for the future to further

enhance the use of the upper floors. Moving Building 12 was proposed to the Historic Preservation Board in June and August 2016. During the August meeting, a majority of the Historic Preservation Board offered their initial support for the relocation of Building 12 as depicted on the submitted plans for this project.

New buildings are proposed on Block 1 north and west of where Building 12 will be located. Because of the existing grading on that portion of the site, we are proposing building one level of parking under the portion of Block 1 that is north of the proposed location for Building 12. New buildings for offices, residential, or other commercial uses are planned to be built on top of this one level parking deck in accordance with the approved height limitations.

Alley Between Buildings 2/3 and Buildings 24/14/15/16: The goal is to create a lively urban space that creates a strong connection between Building 2 and the others along Fore Street (Buildings 14-16). We envision this space will be accessible to the public from the west end, and that it may turn into a retail corridor for small crafts shops, coffee shops, artist studios, etc.

Buildings 24/14/15/16: The multiple floors of Buildings 24, 14, 15, and 16 will be rebuilt to allow for retail and residential uses. Buildings 14/15 are badly damaged and will likely have to be rebuilt in their entirety. New buildings are being considered on top of the Buildings 14/15/16 footprint, respecting the existing historical alley and building footprints. These buildings will face Fore Street and will follow the approved height limitations. The 50' wide view corridor at the end of Kellogg Street will be maintained as per the approved height limitation guidelines.

Public Access Easement / Public Plaza: In addition to achieving the critically important goals of Historic Preservation on the former Portland Company site, the project strikes a balance with the principles of the Eastern Waterfront Master Plan that focus more broadly on public benefit, including physical and visual public access to the waterfront, enhancement of trail access and increased public use of the waterfront through public access and green space development. The restoration of the original John Poor, Building 2 façade, (c. 1847) the oldest and most architecturally significant building of the former Portland Company, creates a truly iconic focal point for the Historic Core of the site. The removal of Building 1 allows for a public plaza creating pedestrian access across the site from Fore Street to the waterfront. A hardscaped plaza, immediately in front of the western façade of Building 2, would result in the nearly aligned exposures of Building 24, the narrow back alley, Building 2's facade, the larger waterside alley, and then Building 6. This plaza, with its Fore Street termination located strategically at a bend or funneling point on Fore Street, will channel the public into the heart of the complex and will showcase the linear alignment of the Portland Company buildings and alleys. The 58 Fore Street design team believes that this is the most appropriate way to provide the narrative, telling the story of the former Portland Company, through visual connection with the facades of three historic buildings and the two alleys viewed from a beautifully designed public space.

4.7 EFFICIENT LAND USE CONSIDERING TOPOGRAPHY AND SIGNIFICANT NATURAL FEATURES §14-524(A)(3)(C)(III)(G)

Consideration has been given with regard to topography and significant natural features of the Project Site including waterways, wetlands, floodplains, and wildlife. The Project Site is a historically developed site and there are no sensitive wildlife habitats or animals associated with this site. Portland Harbor directly abuts the Project Site and the project has been designed to continue to use this resources as it has been historically used for a marina and yacht support services and public access to the waterfront. The Project Site is also partially within and adjacent to a FEMA flood zone (A2 and V2, respectively). The only portion of the project that will be within either of these zones is the marina building and dock space, which are water dependent uses. The buildings at the waterfront are set back from the EWPZ more than required, providing a sizeable open zone along the harbor.

Existing topography is shown on the Drawings attached to Section 3 of this Report. Proposed topography will be finalized as part of future Site Plan Submissions, but existing drainage patterns will be largely maintained. There are currently three stormwater outfall discharges on the Project Site. Stormwater runoff from the development will be

collected or directed to discrete stormwater treatment systems located throughout the Project Site prior to ultimately discharging to the ocean. A more detailed discussion of the proposed stormwater management plan is provided in Section 12 of this Report. No stormwater runoff from the Project Site is proposed to enter the City's combined sewer system in the future buildout condition.

4.8 EFFICIENT LAND USE DEMONSTRATING COORDINATION OF SITE DEVELOPMENT AND SURROUNDING CONTEXT §14-524(A)(3)(C)(III)(H)

The proposed 58 Fore Street redevelopment project seeks to maximize an efficient use of land while ensuring that the pieces are integrated with each other and the surrounding area in an economically viable development scheme. The land uses proposed are consistent with what the site is currently being used for and the adjacent neighborhood (commercial, residential, retail, office, restaurant, marina).

The redevelopment effort utilizes an integrated design approach with regard to space and connections that are considerate of and responsive to the site's context and will support the year round use of the neighborhood. The seven development blocks were conceptualized to complement the existing landscape while allowing for flexibility and a mix of uses. The neighborhood was designed to be pedestrian oriented and easily accessible by cars, bikes, service and emergency vehicles, as well as the narrow-gauge train.

The architecture for the site specifically builds upon the Portland Company's origins, designated view corridors which help connect the development to the waterfront, the extension of Thames Street which allows for a vibrant retail district, the designated historic district and Portland's waterfront which will also be home to a redeveloped 13-acre marina.

Throughout the site, landscaped courts and hard scape plazas provide active gathering spaces for residents, visitors, retail and yearly celebrations to occur as the Eastern Promenade trail is integrated into this system. A variety of public access is encouraged throughout the site. On the hill side, housing and planted courtyards step down the hill providing residents active and passive landscaped courts and mews to soften and enliven the architecture and to provide a lush ground plane which serves to maximize the view corridors.

A detailed discussion of the how utilities have been considered for the site development and surrounding context is included in **Section 14** of this Report.

4.9 LINKED AND COORDINATED WITH SURROUNDING LAND USES, INFRASTRUCTURE AND OFF-SITE PUBLIC FACILITIES §14-524(A)(3)(C)(III)(I)

The purpose of the proposed project is to create a safe mixed-use development intended to encourage increased year-round use by the greater community, as described throughout this Report. The proposed developed is expected to have minimal impact on the City's public school system and will revitalize the former Portland Company Complex to create opportunities to benefit the local economy and add much-needed housing to improve the quality of life for Portland residents. The project has been designed to complement the adjacent land uses, providing residential condominiums and apartments abutting to the existing residential neighborhoods to the north and east, while blending into a variety of mixed uses on the south and west sides of the project, in line with the vision of the Eastern Waterfront Master Plan. The project interfaces with existing Fore Street, the City's proposed Thames Street extension, and a future proposed City roadway between Thames Street extension and Fore Street in a manner that distributes the project's use of infrastructure. The design focuses on utilizing new infrastructure installed in the Thames corridor, which was intended to serve and facilitate redevelopment along the waterfront, and sized appropriately to accommodate redevelopment of the eastern waterfront.

4.10 DESIGNED WITH STREET SIZING AND INFRASTRUCTURE TO ACCOMMODATE SERVICE DEMAND §14-524(A)(3)(C)(III)(J)

The proposed development has been designed with consideration of the existing street systems, as demonstrated by the Traffic Analysis Report attached to Section 13. The proposed development has also been designed with consideration of utility service needs for the site, as described in Section 14. The existing infrastructure systems have sufficient capacity to accommodate the overall service demands of the proposed development.

4.11 DESIGNED TO CREATE A STREET GRID PATTERN REFLECTING CITY BLOCKS OF THE NEIGHBORHOOD §14-524(A)(3)(C)(III)(K)

The design team gave full consideration for how to set up the larger site for urban block renewal by creating a block network of streets, existing alleyways for all modes of transportation including vehicular, pedestrian and bike. This grid network allows human interaction and connection to the broader site and provides for a block plan promoting both the rehabilitation of the existing historic structures, but also new ground up development. A proposed concept of the site's plan by block showcasing the 6 potential blocks is included with the design drawings (the seventh block being the Marina). Note: the historic core is virtually all contained within Block 2.

The existing view corridors on Kellogg, Waterville, St Lawrence and Atlantic Street have helped connect this new development on Portland's waterfront with the street grid from the historic Munjoy Hill neighborhood. To further connect to this important neighborhood, the buildings along Fore Street are two and three story structures in a town house configuration which provide entries directly to units on Fore Street. The architecture of these buildings emulates the scale and massing of the Munjoy Hill neighborhood. The eastern portions of the site are proposed as residential to reflect and support the character of adjacent, existing residential uses. The uses transition to more commercial and public spaces moving west throughout the site which are more consistent with the existing uses and create a natural and consistent transition with that section of the City. The shared use project roadway serves as a vehicular and pedestrian entry into the core of the site with an alignment that acts as a natural extension of Thames Street. The City's initiative to extend Thames Street and provide a future connection between the end of Thames Street and Fore Street, defining the western edge of the development, is consistent with the City Block pattern envisioned in the Eastern Waterfront Master Plan.

4.12 DESIGNED TO CREATE COHESIVE IDENTITY THROUGH BUILDING SCALE, MASSING, ARTICULATION §14-524(A)(3)(C)(III)(L)

The proposed development builds off the strength of the historic Portland Company's early 19th century industrial brick buildings. The overall expression of the site, the landscape and the architecture, is to build on the scale and character of the neighborhood and adjacent Old Port while infusing it with a contemporary language. In accordance with the height overlay study associated with the Project Site, building massing and scale accommodates the change in topography of the land and provides a transition to the adjacent neighborhood with scale along Fore Street's existing grade consistent with the Munjoy Hill neighborhood. Internal to the site, building massing is broken up by numerous public plazas and a highlighted historic core that articulates both older design features and new architectural styles. Building articulation will be incorporated into the architecture to provide a distinct separation of building form and context.

4.13 INCLUSIVE OF PROVISIONS FOR OWNERSHIP AND MAINTENANCE OF USABLE OPEN SPACE WHERE APPROPRIATE §14-524(A)(3)(C)(III)(M)

Throughout the site, landscaped courtyards and hard scape plazas provide active gathering spaces for residents, visitors, retail and yearly celebrations to occur as the Eastern Promenade is integrated into this system. The developer anticipates going through the Subdivision process in the future where further definition of open space ownership with responsibilities for maintenance and cost will be defined and discussed.

5. EVIDENCE OF RIGHT, TITLE AND INTEREST

The project area is located on parcels identified as Tax Map 18A, Lots 1, 2, and 3, which are owned by the Applicant, CPB2 LLC. The attached deed(s), are provided as evidence of Right, Title, and Interest of the Project Site.

The CPB2 LLC team has been involved in discussions with the City of Portland on potential land transfers on the western portion of the site to allow for site access/connectivity to the City Street network, as well as realignment of the rail/trail corridor. The City of Portland proposes to extend its public roadway system in accordance with the Eastern Waterfront Master Plan to provide access to the site, specifically the Thames Street extension and the connector road between the Thames extension and Fore Street. The extension of these roadways will cross public and private lands, and will require the City and surrounding landowners to negotiate the necessary land transactions to extend these roadways. A portion of the development proposed for B1 is located on property currently owned by Hope 1 LLC. CPB2 LLC intends to address this during the Master Development Plan submission process in harmony with the City's land negotiation efforts.

CPB2 LLC currently has a memorandum of understanding with Maine DOT that acknowledges their ability to relocate Maine DOTs right of way across the site.

5.1 ATTACHMENTS

- Deeds
- Submerged Land Lease
- Memorandum of Understanding – Maine DOT ROW

Doc#: 13675 Bk:31425 Pg: 267

QUITCLAIM DEED WITH COVENANT

Maine Statutory Short Form

MAINE REAL ESTATE TAX PAID

KNOW ALL BY THESE PRESENTS, that **THE PORTLAND COMPANY**, a Maine corporation and having a place of business at 58 Fore Street, County of Cumberland, and State of Maine, for consideration paid, grants to **CPB2 LLC**, a Delaware limited liability company, with an address of P.O. Box 7987, Portland, Maine 04112, with **QUITCLAIM COVENANTS,** the land located in Portland, County of Cumberland and State of Maine, and more particularly described in Exhibit "A" attached hereto and made a part hereof.

IN WITNESS WHEREOF, said THE PORTLAND COMPANY has caused this instrument to be signed and sealed this 1st day of April, 2014.

WITNESS:

THE PORTLAND COMPANY

Phineas Sprague Jr

By: Phineas Sprague, Jr.
Its: President

STATE OF MAINE
COUNTY OF CUMBERLAND

April 1, 2014

Personally appeared the above-named Phineas Sprague, Jr. in his said capacity, and acknowledged the foregoing to be his free act and deed and that of said corporation, The Portland Company, before me.

~~Notary Public~~/Attorney at Law

Drew A. Anderson

Printed Name

EXHIBIT A

TRACT I

A certain lot or parcel of land together with the buildings thereon situated on the southerly side of Fore Street, City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at a point on the southerly sideline of Fore Street at a railroad spike at the northeasterly corner of land now or formerly of Hope 1 LLC as described in deed Book 22261, Page 50, thence S 87° 34' 45" E along the southerly sideline of said Fore Street 287.74 feet;

Thence, N 53° 19' 30" E along the southerly sideline of said Fore Street 594.45 feet to the northwesterly corner of Tract III, as shown on "ALTA/ACSM Land Title Survey, 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" by Owen Haskell, Inc. dated May 22, 2013.

Thence, S 33° 29' 33" E along the westerly side of said Tract III 381.17 feet to land now or formerly of the State of Maine as described in deed Book 10924, Page 91;

Thence, S 63° 18' 30" W along land of said State of Maine 255.00 feet;

Thence, S 68° 31' 30" W along land of said State of Maine 442.91 feet to an iron rod found (bent) and land now or formerly of City of Portland as described in deed Book 21951, Page 341;

Thence, N 88° 12' 30" W along land of said City of Portland 137.25 feet to a non-tangent curve to the right;

Thence, following the curve to the right, along land of said City of Portland and land of said Hope 1 LLC, having a radius of 274.33 feet, an arc length of 337.36 feet, a chord bearing of N 38° 35' 30" W, and a chord length of 316.50 feet, to the southerly sideline of Fore Street and the point of beginning containing 6.04 acres.

Basis of bearings: Magnetic 1967.

TRACT II

A certain lot or parcel of land together with the buildings thereon situated southerly of but not adjacent to Fore Street, in the City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Commencing at a point on the southerly line of Tract I, at an iron rod found (bent) at the southeasterly corner of land now or formerly of the City of Portland as described in deed Book 21951, Page 341, on the northerly line of land now or formerly of the State of Maine as described in deed Book 10924, Page 91, as shown on "ALTA/ACSM Land Title Survey, 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" by Owen Haskell, Inc. dated May 22, 2013.

Thence, N 68° 31' 30" E along the northerly line of land of said State of Maine 215.11 feet;

Thence, S 27° 09' 40" E across land of said State of Maine and along the easterly line of land now or formerly of the City of Portland 50.25 feet to the true point of beginning;

Thence, N 68° 31' 30" E along the southerly sideline of land of said State of Maine 225.10 feet;

Thence, N 63° 18' 30" E along the southerly sideline of land of said State of Maine 690.74 feet;

Thence, S 30° 39' 00" E along land of said State of Maine 56.34 feet;

Thence, S 61° 35' 30" W 27.46 feet;

Thence, S 77° 24' 52" W 94.07 feet;

Thence, S 62° 35' 30" W 475.00 feet;

Thence, S 38° 50' 30" W 60.00 feet;

Thence, S 63° 50' 30" W 120.00 feet;

Thence, N 26° 10' 00" W 8.00 feet;

Thence, S 63° 49' 37" W 150.00 feet to land of said City of Portland;

Thence, N 27° 09' 40" W along land of said City of Portland 74.89 feet to the point of beginning containing 44,274 sq. ft.

Basis of bearings: Magnetic 1967.

ALSO CONVEYING two crossings for vehicular, pedestrian and utility access to and from other land now or formerly of Phineas Sprague to the most immediately above described parcel across the area shown on Exhibit B of Indenture Deed by and between the Maine Department of Transportation and Phineas Sprague, dated August 30, 1993 and recorded in Book 10924, Page 97, as the "Rail-Trail Corridor." Each crossing shall be 50 feet in width over the 50 foot wide "Rail-Trail Corridor" plus turning radii, as necessary, at the entrances to the crossings from the above described parcel of land. Such crossings may be moved from time to time by the Grantee at its expense upon proper notice to and approval by the Maine Department of Transportation, provided that the distance between the centerlines of the two crossings shall never be less than 200 feet; and further provided that in the event of any relocation, any former crossing shall be restored to the condition it would have been in had the crossing not been placed in that location.

TOGETHER WITH any upland including the seawall which immediately adjoin the above described premises.

Received
Recorded Register of Deeds
Apr 03,2014 12:25:29P
Cumberland County
Pamela E. Lovley

TRUSTEES' DEED

Maine Statutory Short Form

KNOW ALL BY THESE PRESENTS THAT **ELIZABETH M. SPRAGUE, ERIC THOMAS SPRAGUE and PHINEAS M. SPRAGUE, as Trustees of THE BUENA VISTA TRUST**, under indenture dated December 20, 2011, with a principal place of business in Cape Elizabeth, Maine, by the power conferred by law, and every other power, for consideration paid, grant to **CPB2 LLC**, a Delaware limited liability company, with a place of business c/o Blue Water Construction, 41 Glendale Place, Gilford, New Hampshire 03249, the land, together with any improvements thereon, situated in the City of Portland, County of Cumberland, State of Maine, described on Exhibit A attached hereto.

MAINE REAL ESTATE TAX PAID

Pursuant to Title 18-B M.R.S. § 1013, we, in our capacities, do hereby certify that (1) we are all of the Trustees of said Trust; (2) the Trust exists as the date of this Agreement; (3) we have power under said Trust to convey any trust asset in our sole discretion and need no consent from any beneficial interests; (4) we are the trustees authorized to execute or otherwise authenticate any and all documents in the exercise of our power; (5) in making this conveyance, we have in all respects acted in pursuance of the authority granted in and by said Trust; and (6) the Trust has not been revoked, modified, amended or terminated in any way that would cause the representations contained in this certificate to be incorrect.

[signatures on next page]

Witness our hands and seals this 19 day of the month of July, 2013.

WITNESS:

THE BUENA VISTA TRUST

_____

By_____
Eric Thomas Sprague, Trustee

_____

By_____
Elizabeth M. Sprague, Trustee

_____

By_____
Phineas M. Sprague, Trustee

STATE OF MAINE
COUNTY OF CUMBERLAND

July __, 2013

Then personally appeared the above named Eric Thomas Sprague, in his said capacity and acknowledged the foregoing instrument to be his free act and deed.

Before me,

_____
Notary Public/Attorney at Law

Witness our hands and seals this 26 day of the month of July, 2013.

WITNESS:

THE BUENA VISTA TRUST

By _____
Eric Thomas Sprague, Trustee

By _____
Elizabeth M. Sprague, Trustee

By _____
Phineas M. Sprague, Trustee

STATE OF MAINE
COUNTY OF CUMBERLAND

July 26, 2013

Then personally appeared the above named Eric Thomas Sprague, in his said capacity and acknowledged the foregoing instrument to be his free act and deed.

Before me,

~~Notary Public~~/Attorney at Law
Drew A. Ardizzi

EXHIBIT A

A certain lot or parcel of land together with the buildings thereon situated on the southerly side of Fore Street in the City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at a point on the southerly sideline of Fore Street at the northeasterly corner of Tract I as shown on "ALTA/ACSM Land Title Survey 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" dated May 22, 2013 by Owen Haskell, Inc., thence N53°19'30"E along the southerly sideline of said Fore Street 140.00 feet;

Thence, N 61° 01' 30" E along the southerly sideline of said Fore Street 43.36 feet to land now or formerly of Macgowan as described in the Deed recorded in Cumberland County Registry of Deeds in Book 15773, Page 153;

Thence, S 31° 18' 30" E along land of said Macgowan 150.00 feet;

Thence, N 61° 01' 30" E along land of said Macgowan 112.00 feet to land now or formerly of Timothy Haley, Trustee, as described in the Deed recorded in the said Registry of Deeds in Book 24759, Pages 67 & 69;

Thence, S 31° 18' 30" E along land of said Haley 110.28 feet;

Thence, N 63° 18' 30" E along land of said Haley 100.00 feet;

Thence, N 31° 18' 30" W along land of said Haley 95.88 feet;

Thence, N 69° 31' 20" E along land of said Haley 49.73 feet to land now or formerly of Eastern Promenade Condominium;

Thence, S 31° 18' 26" E along land of said Eastern Promenade Condominium 240.48 feet to an iron rod found and to land now or formerly of the State of Maine as described in the Deed recorded in said Registry of Deeds in Book 10924, Page 91;

Thence, S 63° 18' 30" W along land of said State of Maine 430.00 feet to the easterly line of said Tract I;

Thence, N 33° 29 '33" W along said Tract I 381.17 feet to the point of beginning containing 2.87 acres.

The premises are conveyed together with the right of access and egress running from the existing paved driveway over land now or formerly of The Portland Company to the

premises conveyed herein as described in a deed to Elizabeth M. Sprague, Eric Thomas Sprague and Phineas M. Sprague, Trustees of The Buena Vista Trust by Warranty deed of The Portland Company dated December 30, 1012 and recorded in the Cumberland County Registry of Deeds in Book 30265, Page 32.

Meaning and intending to convey and hereby conveying the same premises conveyed to Elizabeth M. Sprague, Eric Thomas Sprague and Phineas M. Sprague, Trustees of The Buena Vista Trust by Warranty Deed of The Portland Company, dated December 30, 2012 and recorded in the Cumberland County Registry of Deeds in Book 30265, Page 32.

S:\P\POCO14\Prentice Purchase\Sale Documents\Deed of Trustees.doc

Received
Recorded Register of Deeds
Jul 29,2013 03:54:21P
Cumberland County
Pamela E. Lovley

Murray, Plumb & Murray

MEMORANDUM

TO: Ed Haddad

FROM: Peter S. Plumb

DATE: December 11, 2007

FILE: POCO-001

RE: The Portland Company - Submerged Lands Lease and Related Matters

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I. Submerged Lands Lease.

The Portland Company is the current holder (through a series of assignments) of a Submerged Lands Lease (the "Lease") originally entered into between the Maine Department of Transportation and Fish Point Associates, dated October 20, 1978. The Lease was for an original term of ten years, with the first period ending on October 31, 1988. The Lessee has the right to renew the Lease for three successive renewal terms of ten years each. The First Lease Extension was exercised in 1988 and the second was exercised in 1998. In 2008, the final renewal will be exercised so that this Lease will finally expire on October 31, 2018. In the normal course a new lease would be negotiated for the demised premises at that time.

The original lease area included approximately 1,000 feet along the shore front, and extending out 575 feet more or less to the Harbor Commissioner's Line. In November 1983, approximately 450 feet of the western end of the frontage was deleted to

make room for the Bath Iron Works dry dock facility. Simultaneously, the State added 450 feet to the other (easterly) side of the leased area, leaving a total frontage of 1000 feet, extending out to the Harbor's Commissioners Line. This is the area occupied by the marina slips and moorings today.

II. Access Across the Railroad Right of Way and the Upland Parcel to the Ocean Side of the Railroad Right of Way.

In August 1993, the Portland Company's predecessor in title purchased from the Maine Department of Transportation via an "Indenture Deed" the property from the seawall inward to the Railroad Right of Way abutting the submerged lands lease area and, in addition, two 50 foot wide crossings of the 50 foot wide railroad right of way running between the shore and the Portland Company's principal property. These railroad crossings are 50 feet in width and may not be spaced more than 200 feet apart, center to center.

There are a variety of conditions imposed on the use of the railroad crossings, as well as on the land between the railroad right of way and the seawall. Copies of both the Submerged Lands Lease and the Indenture Deed are available through CBRE The Boulos Company, and all interested parties are urged to review them in detail.

END

EXHIBIT A

LEASE

Waterlots from D.O.T

AGREEMENT made this 20th day of October, 1978 by and between the MAINE DEPARTMENT OF TRANSPORTATION, hereafter called the Department and FISH POINT ASSOCIATES, a Maine partnership having a place of business in Portland, Maine, hereafter called Lessee.

WHEREAS, the Department is interested in encouraging the development of Marine-related activities in Portland Harbor and the Lessee has indicated a similar interest and intent, and the Department is willing to enter this lease with the Lessee of the premises described below for the purpose of furthering and encouraging the Lessee in this development and providing some protection for the investment which the Lessee will make in its investigation and development of the premises;

NOW, THEREFORE, the parties in consideration of agreement of the other do hereby agree as follows:

ARTICLE I

Leased Premises

The Department leases to the Lessee a certain lot or parcel of land and area of Tidal Waters located in the City of Portland, Cumberland County, Maine on the northwesterly shore of Fore River, so-called, more particularly described in Exhibit A annexed hereto and made part of this lease and hereafter called the "premises".

ARTICLE II

Term And Renewals

This lease shall be for an initial term of 10 years, beginning on November 1, 1978 and ending on October 31, 1988. The Lessee shall have the right to renew the term of this lease for three successive renewal terms of

10 years each, subject to the termination conditions. The first renewal term shall commence on the termination of the initial term and each succeeding renewal term shall commence on the expiration of the preceding term, provided that each right of renewal may be exercised and effected only if this lease is in full force and effect immediately prior to the commencement of the applicable renewal term. Lessee shall separately exercise its options to renew by notifying the Department in writing of such election at least 3 months in advance of the commencement date of the applicable renewal term. All terms and conditions applicable during the initial term shall be applicable during each renewal term except that after the third renewal term there shall be no further renewals of this lease.

ARTICLE III

Rent

The Lessee shall pay to Lessor the following amounts of rent, to wit:

(a) $1,000 per year for the first two years of the initial term of this lease.

(b) $3,000 for the third year of the initial term of this lease.

(c) An amount for each year thereafter during the initial term and any renewal term, equal to $3,000 multiplied by the fraction, the denominator of which shall be the U. S. Bureau of Labor Statistics Consumer Price Index for Boston, Mass., revised wage earners and clerical (or successor) in effect for October 1, 1980 and the mimerator of which shall be said Index as of the lease year in question. In the event that said Index is not published for a month specified above, the Index for the closest preceding month shall be used instead. The annual rent shall in no case be reduced below the sum of $3,000.

Rental payments shall be payable annually, in advance on the first day of November for each lease year. A twelve percent (12%)

annual interest charge shall be assessed on rent more than one (1) month in arrears.

ARTICLE IV

Development Of Premises

The Lessee shall from time to time present to the Department proposals as to portions and stages of its development of a berthing facility and/or other Marine-related facilities to be constructed on the premises, for review and approval by the Department, such approval shall not be unreasonably withheld. On or before November 1, 1980 the Lessee shall submit to the Department the final plan of the Lessee for such development, incorporating the portions previously approved by the Department and including a schedule for construction, to receive final approval by the Department. The final approval of the Department shall be concerned only with the general overall scope of the proposed development and the construction schedule, not any of the design details and such approval shall not be unreasonably withheld provided the intent of Article V, Use Of Premises is satisfied. No construction shall take place on the leased premises until the Lessee has secured approval for such construction from the Department. The Department agrees that it will take action to review and approve all plans as soon as possible after the plan is submitted and in no event, later than thirty (30) days after its submission.

If the Lessee has not substantially completed by November 1, 1981 that portion of the development scheduled for completion by that date, this lease may be terminated at the option of the Department provided that this day may be extended by the Department if the Lessee was unable to meet the schedule deadline due to delays caused by any reason or force beyond the control of the Lessee.

ARTICLE V

Use Of Premises.

The premises shall be developed and operated for Marine-related activities and/or facilities available for commercial use including but not limited to, berthing for commercial vessels. The Lessee shall restrict its use to the above described purposes and shall not use or permit the use of the premises for any other purpose unless the express written consent of the Department is first obtained, such consent shall not be unreasonably withheld.

ARTICLE VI

Insurance And Indemnity

The Lessee shall obtain and keep in force at all times during the continuance of this lease, general public liability insurance reasonably satisfactory to the Department against claims for personal injury, death or property damage arising out of or in any way related to, the use and occupancy of the leased premises by Lessee, its agents or invitees. This insurance shall provide a combined limit of at least $1,000,000.00 for personal injury, death and property damage. Evidence of such insurance shall be forwarded to the Department.

The Lessee further agrees to indemnify the Department against all expenses, liabilities and claims of every kind, including reasonable counsel fees, by or on behalf of any person or entity arising out of either (1) failure by Lessee to perform any of the terms or conditions of this Lease, (2) any injury or damage happening on or about the premises due to the negligence of Lessee or (3) any mechanic's lien or security interest filed against the premises.

ARTICLE VII

Assignment And Subletting

The Lessee may assign this lease for security or mortgage its leasehold interest provided that, although approval is not needed for assignments for security or for mortgages of the leasehold interest, the Lessee must give the Department prompt notice of any such assignment or mortgage. The Lessee will not transfer or assign this lease in whole or in part for other than security, nor sub-let any of the leased premises for any purpose without the prior written consent of the Department, such consent shall not be unreasonably withheld. This provision shall not apply to the short-term leasing by the Lessee of individual berths and/or other space in connection with its Marine-related activities.

Whenever an assignment for other than security is approved, the Lessee shall remain primarily liable to the Department for the due performance of all covenants, undertakings and agreements on its part to be performed. A mortgageeor assignee for security will not assume the obligations or liabilities of the Lessee under this lease, provided however, that continued payment of rent shall be a condition precedent to such mortgagee or assignee for security exercising any of the Lessee's rights hereunder. In the event of a default under this lease by the Lessee, the Department agrees that it will at the time of giving the Lessee any notice of default also give any of record mortgagee or assignee for security a copy of the notice of default and said mortgagee or assignee shall have the right to cure such default within the time permitted the Lessee herein.

ARTICLE VIII

Default Of Lessee

In the event of any default by the Lessee in the payment of any rental due hereunder or in the performance of any other term, condition or covenant of this lease to be observed or performed by Lessee for more than thirty (30)

days after written notice of such default shall have been given to Lessee, or if Lessee shall become bankrupt or insolvent, or file any debtor proceeding or have taken against Lessee in any court pursuant to any statute, either of the United States or any state, a petition in bankruptcy or insolvency or for the reorganization or for the appointment of a receiver or trustee of all or a portion of Lessee's property or if Lessee makes an assignment for the benefit of creditors, or petitions for or enters into such an arrangement or if Lessee shall abandon the premises or suffer this lease to be taken under any writ or execution, then the lease shall terminate and the Department in addition to any other rights or remedies it may have, shall have the immediate right of re-entry and may remove all persons and property from the leased premises, and such property may be removed and stored at the cost of and for the account of Lessee, all without service, notice or resort to legal process and without being deemed guilty of trespass or becoming liable for any loss or damage which may be occasioned thereby.

ARTICLE IX

Parties Bound

It is agreed and understood that as part of the consideration for this lease, the Lessee will purchase the real estate near the leased premises presently owned by United Industrial Syndicate, Inc. and being that land as more particularly described in a deed recorded in the Cumberland County Registry of Deeds in Book 2359, Page 233. As further consideration, the Lessee agrees that it will not convey or in any way divest itself of ownership of the above described land during the development stages of this lease or during the first five year period, without the prior written approval of the Department.

All rights and liabilities herein given to, or imposed upon, the respective parties hereto shall extend to and bind the several respective heirs, executors, administrators, successors, and assigns of the respective

parties. No rights, however, shall inure to the benefit of any assignee or Lessee unless the assignment to such assignee has been approved by the Department in writing as provided in Article VII.

ARTICLE X

Taxes

The Lessee agrees to pay all taxes, assessments, or charges which during the term hereof may become a lien or be levied by the State, municipality or other tax-levying body on all personal property of the Lessee, upon all improvements made to the premises by the Lessee in connection with its use and occupancy thereof, and upon the possessory interest of the Lessee in the premises.

ARTICLE XI

Ownership Of Improvements

The personal property and other improvements placed or installed by the Lessee in or on the leased premises shall remain the property of the Lessee and must be removed on or before the expiration of the lease term or its renewals. In the event of expiration or other termination, Lessee shall have ten (10) days, exclusive of Sundays, Saturdays, or Holidays, after such termination, in which to remove its property. All property and other improvements remaining on the premises after the 10 days shall become the property of the Department. If any building or other such improvement which remains on thepremises after the ten days extends onto other property owned by the Lessee, Lessee will make an option available to the Department for the purchase of all property covered by such building or improvement for the fair market value of such property at the time of the termination.

This provision will not apply to any cancellation or termination of the lease which is arranged by agreement between the parties.

ARTICLE XII

Waste, Restriction And Nuisance

During the term of this lease, Lessee shall comply with all applicable laws and ordinances affecting the premises and shall not commit or suffer to be committed, any waste or nuisance on the leased premises.

ARTICLE XIII

Quiet Enjoyment

Upon payment by Lessee of the rent herein provided and observance and performance of all covenants, terms and conditions to be observed and performed by Lessee, Lessee shall peaceably and quietly hold and enjoy the leased premises for the term hereof without hindrance or interruption by the Department or any person or persons lawfully or equitably claiming by, through, or under the Department.

ARTICLE XIV

Waiver

The waiver by either party of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition herein contained. The subsequent acceptance of rent hereunder by the Department shall not be deemed to be a waiver of any preceding breach by Lessee of any term, covenant or condition of this lease, other than the failure of Lessee to pay the particular rental so accepted.

ARTICLE XV

Notices

Any notice, demand, request or other instrument given under this lease shall be delivered in person or sent by Certified Mail, postage prepaid, (a) if to the Department, at the Maine Department of Transportation, Transportation Building, Augusta, Maine 04333, or at such other address as Lessor may designate by written notice, and (b) if to the Lessee, at 58 Fore Street,Portland, Maine 04101, or at such other address as Lessee shall

designate by written notice.

ARTICLE XVI

Miscellaneous

This lease is subject to any and all rights and easements of record and to all terms, conditions, reservations and interests acquired as set forth and described in a Quit-Claim Deed dated November 30, 1973 from Canadian National Railway Company to the State of Maine and recorded in the Cumberland County Registry of Deeds in Book 3490, Page 318. The Lessee agrees to maintain the fencing on the northwesterly boundary of the leased premises as it now exists, or as it by mutual agreement may be relocated.

IN WITNESS WHEREOF, the Department and Lessee have signed this lease as of the day and year first above written.

Witnessed by:

Claire M. Fitzgerald

MAINE DEPARTMENT OF TRANSPORTATION

By [signature]
Its Commissioner

LESSEE:

FISH POINT ASSOCIATES

Kenneth F. Codegan

By [signature]
A Partner

State of Maine
Cumberland, ss.

October 20, 1978

Personally appeared the above named Roger L. Haller, Commissioner of the Department of Transportation of the State of Maine, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of the State of Maine.

Before me, Aldwell Small
Justice of the Peace
~~Notary Public~~

State of Maine
Cumberland, ss.

October 20, 1978

Personally appeared the above-named Phineas Sprague, Jr. A Partner of Fish Point Associates, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of the partnership.

Before me, Aldwell Small
Justice of the Peace
~~Notary Public~~

EXHIBIT A

Leased Premises

Beginning at a point bearing S 46° 46' 11" W four hundred and fifty (450) feet from the most northerly corner of land conveyed to the State of Maine by Canadian National Railway Company by Quit-Claim Deed dated November 30, 1973 and recorded in the Cumberland County Registry of Deeds, Book 3490, Page 318;

Thence N 46° 46' 11" E along land of the Canadian National Railway Company and said line extended a distance of one thousand (1000) feet to a point;

Thence southeasterly at right angles to the hereinbefore described line about five hundred and seventy-five (575) feet to the Harbor Commissioners line in Fore River;

Thence southwesterly along the Harbor Commissioners line one thousand (1000) feet to a point;

Thence northwesterly along a line one thousand (1000) feet southwesterly from and parallel to the second line described herein five hundred and seventy-five (575) feet to the point of beginning.

Reference is hereby made to a Plan of the State of Maine entitled "Department of Transportation, Bureau of Waterways, Portland, Cumberland County" dated July 1974, on file in the office of the Department of Transportation, Bureau of Highways at Augusta (D.O.T. File No. 3-238A).

B. 6157
P. 245

ASSIGNMENT OF LEASE

For valuable consideration FISH POINT ASSOCIATES, a Maine partnership, hereby transfers and conveys to PHINEAS SPRAGUE of Scarborough, Maine, effective October 29, 1981, all its right, title and interest in and to the lease between Fish Point Associates and The Portland Engineering Company ("PEC") dated December 10, 1978, providing for the leasing to PEC of the property of Fish Point Associates on Fore Street in Portland, Maine.

FISH POINT ASSOCIATES

By P. T. Sprague
A Partner

October 29, 1981

11046

LEASE AMENDMENT

THIS LEASE AMENDMENT made as of this 14th day of November, 1983, by and between the MAINE DEPARTMENT OF TRANSPORTATION, acting by and through its Commissioner, and PHINEAS SPRAGUE, of Scarborough, Maine.

WITNESSETH:

WHEREAS, by Lease dated October 20, 1978 the MAINE DEPARTMENT OF TRANSPORTATION leased a certain lot or parcel of land and area of tidal waters located in Portland, Cumberland County, Maine to FISH POINT ASSOCIATES; and

WHEREAS, a copy said Lease is attached to a Conditional Assignment of Lease by and between FISH POINT ASSOCIATES and RHODE ISLAND HOSPITAL TRUST NATIONAL BANK dated January 11, 1979 and recorded at the Cumberland County Registry of Deeds in Book 4368, Page 119; and

WHEREAS, by Assignment of Lease dated October 29, 1981, a copy of which is attached hereto as Exhibit A, FISH POINT ASSOCIATES assigned its interest in said Lease to PHINEAS SPRAGUE; and

WHEREAS, a portion of the leased premises was conveyed by the State of Maine to the City of Portland by deed dated February 1, 1982 and recorded at said Registry of Deeds in Book 4916, Page 26; and

WHEREAS, the MAINE DEPARTMENT OF TRANSPORTATION and PHINEAS SPRAGUE have agreed to amend the description of the leased Premises as provided herein;

NOW, THEREFORE, IN CONSIDERATION OF ONE DOLLAR ($1.00) and other valuable consideration each to the other given, the receipt of

which is hereby acknowledged, the MAINE DEPARTMENT OF TRANSPORTATION and PHINEAS SPRAGUE hereby agree that the description of the leased premises is amended so that the parcel described on Exhibit B attached hereto is released from the leased premises and the parcel described on Exhibit C attached hereto is included in the leased premises. Except as amended hereby, said Lease remains in full force and effect.

Dated: November 22, 1983

WITNESSETH:

MAINE DEPARTMENT OF TRANSPORTATION

By: George N. Campbell
Its Commissioner George N. Campbell

Laura Leigh Sprague

Phineas Sprague

STATE OF MAINE
~~CUMBERLAND~~ Kennebec, SS. November 22, 1983

PERSONALLY APPEARED the above named George N. Campbell, Commissioner of the MAINE DEPARTMENT OF TRANSPORTATION as aforesaid and acknowledged the foregoing to be his free act and deed in said capacity and the free act and deed of the MAINE DEPARTMENT OF TRANSPORTATION.

Before me,

Notary Public

MY COMMISSION EXPIRES
JULY 30, 1988

SEAL

[redacted]

STATE OF MAINE
CUMBERLAND, SS.

November 1983

PERSONALLY APPEARED the above-named Phineas Sprague and acknowledged the foregoing instrument to be his free act and deed.

Before me,

Notary Public
Seth Sprague
MY COMMISSION EXPIRES
MARCH 30, 1985

[redacted]

SEAL

[redacted]

2051.012

BOOK 6428 PAGE 227

EXHIBIT A

ASSIGNMENT OF LEASE

For valuable consideration FISH POINT ASSOCIATES, a Maine partnership ("FPA"), hereby transfers and conveys to PHINEAS SPRAGUE of Scarborough, Maine, effective October 29, 1981, all its right, title and interest in and to the lease between Fish Point Associates and the Maine Department of Transportation ("DOT") dated October 20, 1978, providing for the leasing to FPA by DOT of certain tidal waters located in the City of Portland, Maine.

FISH POINT ASSOCIATES

By _____
A Partner

October 29, 1981

EXHIBIT B

A certain lot or parcel of land located in Portland, Cumberland County, Maine, bounded and described as follows:

Beginning at a point bearing south 46°46'11" west 450 feet from the most northerly corner of land conveyed to the State of Maine by Canadian National Railway Company by Deed dated November 30, 1973 and recorded in Cumberland County Registry of Deeds, Book 3490, page 318; thence southeasterly at right angles to the hereinbefore described line about 575 feet to the Harbor Commissioner's line in the Fore River; thence northeasterly along the Harbor Commissioner's line 450 feet to a point; thence northwesterly along a line parallel to the second line described herein 575 feet to a point at the most northerly corner of land conveyed in the aforementioned deed to the State of Maine by Canadian National Railway Company dated November 30, 1973; thence south 46°46'11" west along land of the Canadian National Railway Company 450 feet to the point of beginning.

Meaning and intending to release and hereby releasing all of that portion of the premises described in a certain Lease from the Maine Department of Transportation to Fish Point Associates dated October 20, 1978, a true copy of said Lease being attached to a certain Conditional Assignment of Lease by and between Fish Point Associates and Rhode Island Hospital Trust National Bank dated January 11, 1979 and recorded at the Cumberland County Registry of Deeds in Book 4368, page 119, which is within the boundaries of that parcel of land which was conveyed by the State of Maine to the City of Portland by Deed dated February 1, 1982 and recorded at the Cumberland County Registry of Deeds in Book 4916, page 26.

BOOK 6428 PAGE 229

EXHIBIT C

A certain lot or parcel of land located in Portland, Cumberland County, Maine, bounded and described as follows:

Beginning at a point on the sea wall located 550 feet Northeasterly from the most Northerly corner of land conveyed to the State of Maine by Canadian National Railway Company by deed dated November 30, 1973 and recorded at the Cumberland County Registry of Deeds in Book 3490, Page 318, which point is also the most Northerly corner of land leased to Fish Point Associates by the Maine Department of Transportation by lease dated October 20, 1978, a copy of which is recorded along with a certain conditional assignment of lease by and between Fish Point Associates and Rhode Island Hospital Trust National Bank dated January 11, 1979 and recorded at said Registry of Deeds in Book 4368, Page 119; thence continuing in a Northeasterly direction along said sea wall, a distance of 450 feet to a point. Thence Southeasterly at right angles to the hereinbefore described line about 575 feet to the Harbor Commissioner's line in the Fore River; thence Southwesterly along the Harbor Commissioner's line 450 feet to a point which is the most Southeasterly corner of the aforementioned premises leased to Fish Point Associates by the Maine Department of Transportation; thence Northwesterly along said leased premises and parallel to the ~~second~~ line described herein 575 feet to the point of beginning.

RECEIVED
1984 APR 18 AM 9:52
RECORDED REGISTRY OF DEEDS
CUMBERLAND COUNTY

James J. Walsh

SPM

INDENTURE DEED

Indenture by and between the MAINE DEPARTMENT OF TRANSPORTATION (hereinafter the "DEPARTMENT") and PHINEAS SPRAGUE, SR., of Scarborough, Maine (hereinafter "SPRAGUE") dated this 30 day of August, 1993.

53156

WHEREAS, the DEPARTMENT is conveying in this instrument certain real property to SPRAGUE, together with certain crossings which will cross land described below as the Rail-Trail Corridor, which land will be owned by the DEPARTMENT.

NOW, THEREFORE, the DEPARTMENT for one dollar and other good and valuable consideration, including the covenants and agreements contained herein, grants to SPRAGUE certain real property, together with any improvements thereon, subject to the covenants and agreements contained herein which SPRAGUE, by acceptance of this Indenture Deed and execution hereof, agrees to be bound on behalf of himself, his heirs, successors, administrators and assigns, more particularly described as follows:

> Certain land (hereinafter the "SPRAGUE FEE PARCEL") located in Portland, Cumberland County, Maine, more particularly described on Exhibit A attached hereto and made a part hereof, together with two crossings (hereinafter the "CROSSINGS") for vehicular, pedestrian and utility access to and from other land of SPRAGUE to the SPRAGUE FEE PARCEL across the area shown on Exhibit B as the "Rail-Trail Corridor." Each crossing shall be fifty (50) feet in width over the fifty (50) foot wide "Rail-Trail Corridor" plus turning radii, as necessary, at the entrances to the CROSSINGS from the SPRAGUE FEE PARCEL. Such CROSSINGS may be moved from time to time by SPRAGUE at his expense upon proper notice to and approval by DEPARTMENT provided that the distance between the centerlines of the two CROSSINGS shall never be less than two hundred (200) feet and further provided that SPRAGUE, upon such relocation, fully restores any former crossing area to the condition it would have been in had the crossing not been placed in that location.

The SPRAGUE FEE PARCEL and the CROSSINGS are hereby conveyed to SPRAGUE and accepted by SPRAGUE subject to the following exceptions, covenants, reservations and agreements which shall be for the benefit of the DEPARTMENT, its successors and assigns, and with which, by acceptance of this Deed, SPRAGUE hereby agrees:

1. SPRAGUE will make no claim or demand against the owner or any operator of the Rail-Trail Corridor for any injury, including injury resulting in death, loss or damage to property suffered or sustained by SPRAGUE, his employees, agents, subcontractors, business invitees, or any other person or corporation which is based upon or arises out of or is connected with the CROSSINGS

granted herein or anything done or maintained hereunder and hereby waives as against the DEPARTMENT, its operators, subcontractors, agents, servants, lessees or employees, successors and assigns,all such claims and demands.

2. SPRAGUE does hereby and will indemnify and save harmless the DEPARTMENT, its operators, subcontractors, agents, servants, lessees or employees and its successors or assigns:

(a) From and against any and all loss, costs, damages, harm or expenses of any kind, including attorneys' fees suffered or incurred by the DEPARTMENT, its officers, subcontractors, agents, servants, lessees, employees or operators, including injuries, as well as those resulting in death, damage to or destruction of property which are based upon, arise out of or are connected with the grant of the CROSSINGS hereunder or anything done or maintained pursuant to the rights granted or obligations created hereunder, or anything not done or maintained as required hereunder whether caused by the negligence of SPRAGUE, his employees, agents, business invitees, visitors, independent contractors, or otherwise.

3. SPRAGUE understands and agrees that the Rail-Trail Corridor will be used for several purposes including, without limitation, rail transportation and recreation. In the event that (i) the DEPARTMENT, or its operators, subcontractors, successors or assigns installs a railroad in the Rail-Trail Corridor, or (ii) the DEPARTMENT or the City of Portland determines that it is in the interest of public safety, then:

(a) SPRAGUE shall, at his own expense, (i) install fencing or other appropriate barriers along the Rail-Trail Corridor on both the northerly and southerly sides, such fencing or other appropriate barriers to be of a design and material (which may including plantings) approved by the DEPARTMENT and (ii) install the CROSSINGS, including gates and, if required by the DEPARTMENT, active crossing warning devices on both the northerly and the southerly sides of the CROSSINGS area. The purpose of the barriers to be installed by SPRAGUE is to assure that the uses of the Rail-Trail Corridor on the one hand and the adjoining SPRAGUE lands on the other do not interfere with one another and to assure that any crossing of the Rail-Trail Corridor from the SPRAGUE lands is at the designated CROSSINGS. If and when a railroad line is placed in the Rail-Trail Corridor, SPRAGUE shall execute a standard

Crossing Maintenance Agreement of the DEPARTMENT (generic Crossing Maintenance Agreement is appended hereto). Installation of all active crossing warning devices shall be performed under the direction of the DEPARTMENT by its Operator or subcontractors who are acceptable to the DEPARTMENT. Installation of the items listed in this paragraph shall commence and be completed within sixty (60) days, unless material availability so prohibits, after proper notice from the DEPARTMENT to SPRAGUE. All such installation shall be at the expense of SPRAGUE.

(b) SPRAGUE shall, at his own expense, obtain and maintain at all times in a form and with an insurance company satisfactory to the DEPARTMENT, a commercial liability insurance policy with a policy limit of not less than One Million Dollars ($1,000,000.00) inclusive for bodily injury and property damage, which amount or form of the policy may at any time upon receipt by SPRAGUE of a written request to do so from the DEPARTMENT be varied at the expense of SPRAGUE. Such policy shall by its wording or endorsement extend to insure the liabilities herein assumed by SPRAGUE and shall name the DEPARTMENT as an additional insured. Said policy shall provide that fifteen (15) days prior written notice shall be given to the DEPARTMENT in the event that the insured desires to cancel, change or modify such insurance or any part thereof.

4. Neither SPRAGUE nor any of his contractors, sub-contractors, agents or employees shall ever construct, maintain (this provision does not apply to nor prohibit winter snow plowing, snow removal, sanding or salting subject to Paragraph 7 below), repair, replace or remove the CROSSINGS or any addition or extension thereof, without first complying with the following:

(a) SPRAGUE shall give the director of the Rail Transportation Division of the DEPARTMENT (and, in the case of Operators for the right-of-way affected by the CROSSINGS to the principal engineering officer of such Operators) twenty-one (21) days written notice in advance of any proposed construction, relocation, maintenance, repair, replacement or removal work affecting the CROSSINGS (hereinafter "WORK"), enclosing with such notice full plans and specifications for any such WORK (if applicable), including a description of the manner thereof. Each such entry shall be deemed to

№ 55156 Bk 10924 Pg 100

require full project review by the DEPARTMENT and its operators and the presence at each crossing of a flagman, inspector or other personnel of the DEPARTMENT, or its Operators, at the discretion of the DEPARTMENT.

(b) Notwithstanding any other provision hereof, any entry and all WORK shall only occur at such times and subject to such conditions as the DEPARTMENT may from time to time specify and not otherwise.

(c) SPRAGUE shall perform all WORK in good, safe and workmanlike manner and in accordance with all federal, state and local laws, statutes, ordinances and regulations of any description which may apply. SPRAGUE shall furnish the DEPARTMENT and its Operators with copies of any building permits and escrow permits and excavation permits or other similar permits on demand. SPRAGUE shall follow the provisions of any engineering codes applicable to the CROSSINGS to the extent the same shall not be inconsistent with any conditions specified by the DEPARTMENT or its Operators.

5. Notwithstanding any other provisions hereof, SPRAGUE agrees that, in the event the DEPARTMENT, or its Operators, are ever ordered by any governmental authority to provide, install, alter, or improve any form of crossing or vehicular traffic protection at the CROSSINGS or other facilities of any description appurtenant thereof (including, but not limited to flashing lights, automatic gates and other mechanical devices) SPRAGUE shall reimburse the DEPARTMENT and its Operators for the design, construction, installation, maintenance, repair, renewal and removal of the same and for any electricity necessary to operate any mechanical or electrical protection.

6. SPRAGUE shall take all necessary precautions for SPRAGUE's own protection and for the protection of his employees, agents, subcontractors, business invitees, or any other person or corporation and the protection of trains while using the CROSSINGS, having due regard for the operation of trains or locomotives about the CROSSINGS without whistling, ringing of bells or other warning.

7. SPRAGUE shall use the CROSSINGS in such a manner as will not damage the rails, ties or fastenings, and SPRAGUE shall restrict the use of the CROSSINGS to rubber-tired vehicles (upon request by SPRAGUE to and approval from the DEPARTMENT, non rubber-tired equipment may be used). The DEPARTMENT and its Operators further agree that snow plowing, snow removal, sanding and salting by vehicle of the CROSSINGS are not prohibited and are hereby approved by the DEPARTMENT and its Operators provided no plows or

related equipment shall come in direct contact with the rail or ties or appurtenances thereto; plow blades must be kept at least one inch above the crossing surface.

8. Rail movements over the CROSSINGS shall have preference to vehicular and/or pedestrian movements and no claim shall be made against the DEPARTMENT and/or its Operators and no action shall ever be taken by SPRAGUE against the DEPARTMENT or its Operators because of the Operators' equipment blocking passage of vehicles and/or pedestrians over the CROSSINGS. The DEPARTMENT and its Operators agree to use reasonable efforts not to block such passage and any required blockage shall be kept to as short a duration as is possible.

9. SPRAGUE's rights in and to the CROSSINGS conveyed herein shall neither by affected nor lapse as a result of any non-use of either of the CROSSINGS by SPRAGUE from time to time. The parties acknowledge that the CROSSINGS conveyed herein provide access from SPRAGUE's abutting upland property to the SPRAGUE FEE PARCEL and the abutting submerged lands leased to SPRAGUE by the State of Maine (acting by and through the Department of Transportation) pursuant to a Lease dated October 20, 1978, as amended by Amendment dated as of November 1, 1988, and that the CROSSINGS may require relocation from time to time upon prior written notice to and approval from DEPARTMENT by virtue of the changing nature of activities conducted in the area of the leased premises pursuant to said Lease.

10. In the event that SPRAGUE fails to perform in any material respect his obligations under this Agreement within thirty (30) days after receipt of a written notice of breach from the then owner or operator of the Rail-Trail Corridor, or in the event SPRAGUE fails to submit to the DEPARTMENT for approval, a plan satisfying the requirements of the DEPARTMENT for performance of his obligations under this Agreement within thirty (30) days after said notice (and completes the work outlined in the plan within a reasonable period of time after approval by the DEPARTMENT) in the event that the obligations to be performed cannot reasonably be completed within thirty (30) days after said notice, or in the event that the CROSSINGS pose an unreasonable threat to public safety, then the owner of such Rail-Trail Corridor shall have the right to restrict and/or prohibit use of the CROSSINGS (or either of them) until SPRAGUE is in compliance with the provisions hereof.

11. SPRAGUE further agrees that no fences, barriers or other non-marine related structures which would unreasonably interfere with the views of Casco Bay from the Rail-Trail Corridor shall be installed on the SPRAGUE FEE PARCEL or on any wharves which may extend into Casco Bay from the SPRAGUE FEE PARCEL.

№ 55156 Bk 10924 Pg 102

12. The covenants and agreements contained herein are intended to be for the benefit and the burden of the SPRAGUE FEE PARCEL and the CROSSINGS and shall run therewith in perpetuity for the benefit of the owners of the Rail-Trail Corridor and the SPRAGUE FEE PARCEL.

IN WITNESS WHEREOF, the DEPARTMENT and SPRAGUE have executed this Indenture Deed on the day and year first stated.

WITNESS:

MAINE DEPARTMENT OF TRANSPORTATION

By: _____
Dana F. Connors
Its Commissioner

_____
Phineas Sprague, Sr.

STATE OF MAINE
CUMBERLAND, SS.

August 30, 1993

Personally appeared the above-named Dana F. Connors, Commissioner of the Maine Department of Transportation as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act of said Maine Department of Transportation.

Before me,

_____
CATHY McCOLLETT
NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES JANUARY 29, 1994
Notary Public/~~Attorney-at-Law~~

240.NHS
22611001.713

SEAL

Revised 8/26/93

EXHIBIT A
(SPRAGUE LOT 3)

Lot 3 as shown on a certain Plan entitled "Land Title Survey & Subdivision Plan in Portland, Maine, U.S.A.," made for The Trust for Public Land, City of Portland, Maine Department of Transportation, and Canadian National Railway Company dated February 19, 1993, as amended, Sheets 1 through 7, which is recorded in the Cumberland County Registry of Deeds in Plan Book 193, Pages 187 through 193 (the "Plans"), which Lot is more particularly described by metes and bounds as follows:

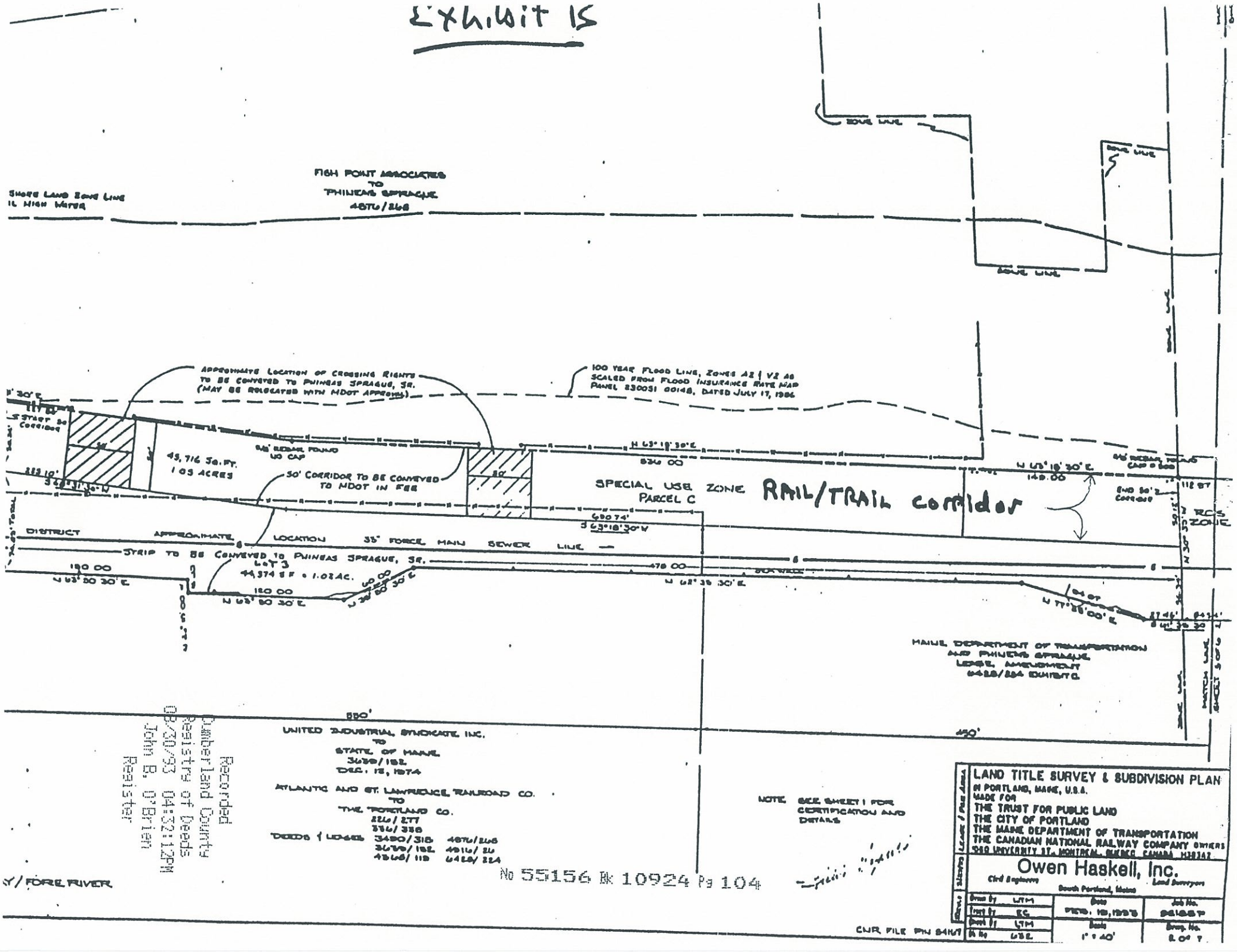
A certain lot or parcel of land in the City of Portland, County of Cumberland, State of Maine with all buildings and improvements thereon, bounded and described as follows:

Beginning at a point located at the northeasterly corner of land leased to Bath Iron Works ("BIW") Corporation (as described in the Memorandum of Pier Lease recorded in said Registry of Deeds in Book 4916, Page 26); thence from said point of beginning N 27° 10' W a distance of 11.44 feet to a point located on the southerly sideline of Parcel C as shown on the Plans (Sheet 2 of 7); thence along said Parcel C N 68° 31' 30" E a distance of 225.10 feet to a point; thence N 63° 18' 30" E a distance of 690.74 feet to a point; thence S 30° 39' E a distance of 56.34 feet to a point; thence S 61° 35' 30" W a distance of 27.46 feet to a point; thence S 77° 25' 00" W a distance of 94.07 feet to a point; thence S 62° 35' 30" W a distance of 475.00 feet to a point; thence S 38° 50' 30" W, a distance of 60.00 feet to a point; thence S 63° 50' 30" W a distance of 120.00 feet to a point; thence N 26° 10' 00" W a distance of 8.00 feet to a point; thence S 63° 50' 30" W a distance of 150.00 feet to a point and land leased to BIW; thence N 27° 10' 00" W along said land leased to BIW a distance of 63.45 feet to the point of beginning.

Together with any upland and intertidal lands including the seawall which immediately adjoin the above-described Premises and lie between the projection of the northeasterly endline of the Premises and the projection of the southwesterly endline of the Premises seaward to the mean low-water line of Casco Bay.

240.NHS
22611001.A-1

Exhibit 15



Recorded
Cumberland County
Register of Deeds
08/30/93 04:32:12PM
John B. O'Brien
Register

№ 55156 Bk 10924 Pg 104

Y/ FORE RIVER

MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING (this "MOU") is entered into this 31st day of March 2015 by and between CPB2 LLC ("CPB2"), a Delaware limited liability company, having a mailing address of P.O. Box 17919, Portland, Maine 04101, and STATE OF MAINE DEPARTMENT OF TRANSPORTATION ("DOT"), having an office at Child Street, 16 State House Station, Augusta, Maine 04333-0016.

WITNESSETH:

WHEREAS, CPB2 is the owner of the property located at 58 Fore Street in Portland, Maine (the "CPB2 Property"), which is depicted on the ALTA survey attached hereto and made a part hereof as Exhibit "A" (the "Survey") and which is commonly known as "The Portland Company Complex;" and

WHEREAS, DOT is the owner of the rail/trail corridor cross-hatched on the Survey (the "DOT Property"), which bisects the CPB2 Property and which is approximately fifty (50) feet wide, consisting of an approximately twenty-six (26) foot wide rail corridor ("Rail Corridor") and an approximately twenty-four (24) foot wide trail corridor ("Trail Corridor"); and

WHEREAS, in connection with the redevelopment of the CPB2 Property, CPB2 would like to create a recreational, public pathway on the portion of CPB2 Property abutting the water to replace the use of the current Trail Corridor; and

WHEREAS, CPB2 and the DOT have been discussing the redevelopment of the CPB2 Property and the creation of a new waterfront recreational, public pathway; and

WHEREAS, CPB2 and the DOT desire to enter into this MOU in order to memorialize their agreements;

NOW, THEREFORE, in consideration of the covenants and agreements hereinafter contained, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, CPB2 and the DOT hereby agree as follows:

1. Upon the request of CPB2, the DOT agrees, subject, to the terms of this MOU, to swap the portion of the DOT Property shown in purple on the Survey (the "DOT Swap Property") for the portion of the CPB2 Property shown in green on the Survey (the "CPB2 Swap Property"). The parties acknowledge that the depiction of the DOT Swap Property and the depiction of the CPB2 Swap Property is not to scale, and represents an illustration of the approximate location of the respective areas. It is the intent of the parties that, upon the completion of the swap, the DOT Property, as reconfigured, will be fifty (50) feet wide and will be located closer to the waterfront, subject to the provisions of clause 1.d below. The parties agree that:

    a. The DOT Property, as reconfigured, shall continue to be used as a rail corridor and a trail corridor;

b. DOT shall grant to CPB2 an easement or easements over the DOT Property, as reconfigured, for pedestrian and vehicular access between the portion of the CPB2 Property, as reconfigured, located on the north side of the DOT Property and the marina and the portion of the CPB2 Property, as reconfigured, located on the south side of the DOT Property. The parties acknowledge that the scope and location of such easements will be informed through the master planning process and the redevelopment of the CPB2 Property, but it is generally agreed that the pedestrians' right to cross the DOT Property, as reconfigured, will not be restricted to specific areas, and that the terms and conditions of such easement or easements shall be reasonably acceptable to both parties;

c. If DOT concludes, through its normal and customary evaluation process, that the fair market values of the properties being swapped are equal, then no consideration shall be exchanged between the parties in connection with the swap. If DOT concludes, through its normal and customary evaluation process, that there is a discrepancy in the values of the properties being swapped, then the parties will work cooperatively to arrive at terms that will allow the swap to go forward;

d. CPB2 will retain a strip of land along the waterfront in order to preserve its right to have a marina, which may be approximately ten (10) to twelve (12) feet wide (the "Waterfront Strip"); the parties acknowledge and agree that the width of the area may be more than 10-12' in various locations to accommodate the variations in the waterfront and will be informed through the master planning process and the discussions with the Planning Department for the City of Portland. The depiction of this area on Exhibit A is not to scale, and represents an illustration of the approximate location of the strip to be retained. The parties will agree upon the exact location of the Waterfront Strip at the time of the swap; and

e. CPB2 will cause the Survey to be revised to reflect the agreed upon location of the DOT Property, as reconfigured, the CPB2 Property, as reconfigured, and the Waterfront Strip.

2. CPB2 may elect, at its sole discretion, to exercise its rights under Paragraph 1 of this MOU by notice given to the DOT at any time on or before the tenth (10^{th}) anniversary of the date of this MOU. If CPB2 exercises such rights, the parties shall enter into a purchase and sale agreement (the "P&S") setting forth the terms and conditions of such swap (the "Swap), the terms and conditions of which shall be consistent with this MOU and with DOT's rights and obligations under Maine and federal law. The parties agree to negotiate such agreement in good faith.

3. In connection with the Swap, CPB2 shall perform, at its sole cost and expense, a geological test of the soils within the existing Rail Corridor and the soils within the proposed relocation of the Rail Corridor (the "Relocated Corridor"). CPB2 shall submit the results of the tests to the DOT for review.

a. If the results of the test show that the density of the soils are substantially the same or that the density of the soils within the Relocated Corridor are better than the density of the soils within the existing Rail Corridor, then such test results shall be deemed to be satisfactory to the DOT and CPB2 shall not be obligated to do any work to the soil within the Relocated Corridor.

b. If the results of the test show that the density of the soils within the Relocated Corridor are worse than the density of the soils within the existing Rail Corridor, then CPB2 agrees, at its sole cost and expense, to do such work as is commercially reasonable to bring the density of the soils within the Relocated Corridor up to the density of the soils within the existing Rail Corridor. Such work shall be a condition precedent to the closing under the terms of the P&S.

4. The parties acknowledge that the DOT and The Trust for the Preservation of Maine Industrial History and Technology (the "Narrow Gauge") have entered into a lease agreement dated October 1, 2009 (the "Narrow Gauge Lease"), pursuant to which the DOT has allowed the Narrow Gauge to install, maintain, repair, replace and operate the railroad tracks for its narrow gauge trains within the existing Rail Corridor. If, as a result of the Swap, the tracks belonging to the Narrow Gauge are not located within the Relocated Corridor, CPB2 agrees to the following:

   a. CPB2 shall relocate, at no expense to the DOT or the Narrow Gauge, the existing narrow gauge railroad tracks so that they are located within the Relocated Corridor or other location reasonably acceptable to the Narrow Gauge and CPB2, or

   b. CPB2 shall enter into an agreement with the Narrow Gauge, pursuant to which CPB2 agrees to permit the Narrow Gauge to continue to maintain, repair, replace and operate the existing narrow gauge railroad tracks in their then location or such other location reasonably acceptable to the Narrow Gauge and CPB2 for the balance of the term of the Narrow Gauge Lease.

5. If it is determined that a Phase I Environmental Site Assessment of the existing Rail Corridor is required in connection with the Swap, CPB2 agrees to obtain, at its sole cost and expense, such Assessment and to submit such Assessment to the DOT for review.

   a. If, as a result of the findings of the Phase I Environmental Assessment, it is determined that a Phase II Environment Site Assessment is required in connection with the Swap, CPB2 agrees to obtain, at its sole cost and expense, such Assessment and to submit such Assessment to the DOT for review.

   b. If it is determined that environmental remediation is required in connection with the existing Rail Corridor, the parties acknowledge that the DOT shall not be required to perform such remediation unless CPB2 agrees to pay for all associated costs or the DOT is otherwise reimbursed for such costs.

6. In addition to the P&S, CPB2 and the DOT agree to perform, execute and deliver, or to cause to be performed, executed and delivered, in connection therewith any and all such further acts, documents, deeds and assurances as may be necessary to consummate the transactions contemplated by the Swap.

7. As a condition to the closing under the terms of the P&S, CPB2 shall obtain the consent of the City of Portland to the relocation of the Trail Corridor and if applicable, CPB2 shall obtain the consent of the Narrow Gauge to the track relocation or to the terms of the agreement, as contemplated by Paragraph 4 above.

8. Each party shall be responsible for payment of their respective fees and expenses incurred in connection with the negotiation and implementation of this MOU, including, without limitation, their respective attorneys' fees and disbursements.

9. All notices given under this MOU shall be in writing and shall be hand delivered, or sent by certified or registered mail, return receipt requested, or sent by nationally recognized overnight delivery service. All notice shall be addressed to the address set forth above for the addressee or to such other address as designated by such addressee by notice to the other party. Any notice given pursuant to this Paragraph 9 shall be deemed given upon receipt by the addressee or upon the date receipt is refused. Supplementing the foregoing, a copy of any notice to CPB2 shall be simultaneously sent, in the same manner as set forth above, to Bernstein Shur, 100 Middle Street, Portland, Maine 04101, to the attention of Richard D. Prentice, Esq.

10. This MOU may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of such counterparts shall constitute one MOU. To facilitate execution of this MOU, the parties may execute and exchange by telephone facsimile or electronically scanned counterparts of the signature pages.

11. If any provision of this MOU is held to be illegal, invalid or unenforceable under present or future laws, such provision shall be fully severable as if such provision had never comprised a part of the MOU; and the remaining provisions of the MOU shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this MOU. Furthermore, in lieu of such illegal, invalid or unenforceable provision, there shall be added automatically as part of this MOU a provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible and that is otherwise legal, valid and enforceable.

12. This MOU constitutes the entire understanding between the parties with respect to the scope of the agreements described herein, and all prior or contemporaneous agreements, understandings, representations and statements, oral or written are merged into this MOU. Neither this MOU nor any provision hereof may be waived, modified, amended, discharged or terminated except by an instrument in writing signed by both parties.

13. This MOU shall be binding upon and shall inure to the benefit of CPB2 and the DOT and their respective successors and assigns.

14. This MOU shall be governed by and interpreted in accordance with the laws of the State of Maine.

[END OF DOCUMENT; SIGNATURES ON NEXT PAGE]

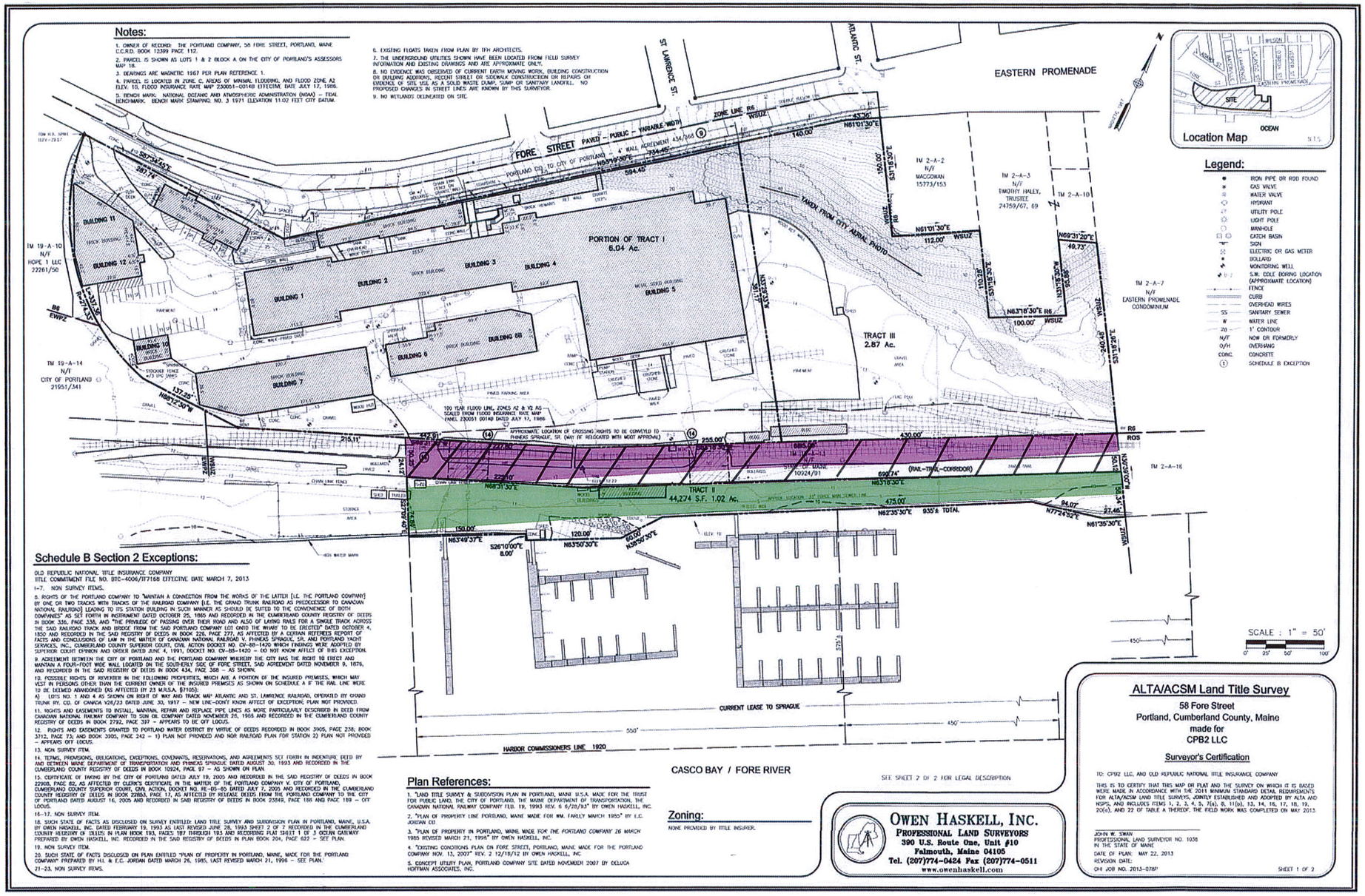
IN WITNESS WHEREOF, this MOU has been duly executed and delivered as of the day and year set forth above.

CPB2 LLC
By: CPB2 Management LLC, Manager

By: _____
Casey W. Prentice
Manager

DEPARTMENT OF TRANSPORTATION

By: _____
David Bernhardt
Its Commissioner



Notes:

1. OWNER OF RECORD: THE PORTLAND COMPANY, 58 FORE STREET, PORTLAND, MAINE C.C.R.D. BOOK 12399 PAGE 112.
2. PARCEL IS SHOWN AS LOTS 1 & 2 BLOCK A ON THE CITY OF PORTLAND'S ASSESSORS MAP 18.
3. BEARINGS ARE MAGNETIC 1967 PER PLAN REFERENCE 1.
4. PARCEL IS LOCATED IN ZONE C, AREAS OF MINIMAL FLOODING, AND FLOOD ZONE A2 ELEV. 10, FLOOD INSURANCE RATE MAP 230051-0014B EFFECTIVE DATE JULY 17, 1986.
5. BENCH MARK: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) — TIDAL BENCH-MARK. BENCH MARK STAMPING: NO. 3 1971 ELEVATION 11.02 FEET CITY DATUM.
6. EXISTING FLOATS TAKEN FROM PLAN BY TFH ARCHITECTS.
7. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS AND ARE APPROXIMATE ONLY.
8. NO EVIDENCE WAS OBSERVED OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS, RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OR EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL. NO PROPOSED CHANGES IN STREET LINES ARE KNOWN BY THIS SURVEYOR.
9. NO WETLANDS DELINEATED ON SITE.

Legend:

- IRON PIPE OR ROD FOUND
- GAS VALVE
- WATER VALVE
- HYDRANT
- UTILITY POLE
- LIGHT POLE
- MANHOLE
- CATCH BASIN
- SIGN
- ELECTRIC OR GAS METER
- BOLLARD
- MONITORING WELL
- S.W. COLE BORING LOCATION (APPROXIMATE LOCATION)
- FENCE
- CURB
- OVERHEAD WIRES
- SANITARY SEWER
- WATER LINE
- 20 — 1' CONTOUR
- N/F — NOW OR FORMERLY
- O/H — OVERHANG
- CONC. — CONCRETE
- (1) — SCHEDULE B EXCEPTION

Schedule B Section 2 Exceptions:

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
TITLE COMMITMENT FILE NO. BTC-4006/117168 EFFECTIVE DATE MARCH 7, 2013

1-7. NON SURVEY ITEMS.

8. RIGHTS OF THE PORTLAND COMPANY TO "MAINTAIN A CONNECTION FROM THE WORKS OF THE LATTER [I.E. THE PORTLAND COMPANY] BY ONE OR TWO TRACKS WITH TRACKS OF THE RAILROAD COMPANY (I.E. THE GRAND TRUNK RAILROAD AS PREDECESSOR TO CANADIAN NATIONAL RAILROAD) LEADING TO ITS STATION BUILDING IN SUCH MANNER AS SHOULD BE SUITED TO THE CONVENIENCE OF BOTH COMPANIES" AS SET FORTH IN INSTRUMENT DATED OCTOBER 25, 1865 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 336, PAGE 338, AND "THE PRIVILEGE OF PASSING OVER THEIR ROAD AND ALSO OF LAYING RAILS FOR A SINGLE TRACK ACROSS THE SAID RAILROAD TRACK AND BRIDGE FROM THE SAID PORTLAND COMPANY LOT ONTO THE WHARF TO BE ERECTED" DATED OCTOBER 4, 1850 AND RECORDED IN THE SAID REGISTRY OF DEEDS IN BOOK 226, PAGE 277, AS AFFECTED BY A CERTAIN REFEREES REPORT OF FACTS AND CONCLUSIONS OF LAW IN THE MATTER OF CANADIAN NATIONAL RAILROAD V. PHINEAS SPRAGUE, SR. AND PORTLAND YACHT SERVICES, INC., CUMBERLAND COUNTY SUPERIOR COURT, CIVIL ACTION DOCKET NO. CV-80-1420 WHICH FINDINGS WERE ADOPTED BY SUPERIOR COURT OPINION AND ORDER DATED JUNE 4, 1991, DOCKET NO. CV-80-1420 – DO NOT KNOW AFFECT OF THIS EXCEPTION.

9. AGREEMENT BETWEEN THE CITY OF PORTLAND AND THE PORTLAND COMPANY WHEREBY THE CITY HAS THE RIGHT TO ERECT AND MAINTAIN A FOUR-FOOT WIDE WALL LOCATED ON THE SOUTHERLY SIDE OF FORE STREET, SAID AGREEMENT DATED NOVEMBER 9, 1876, AND RECORDED IN THE SAID REGISTRY OF DEEDS IN BOOK 434, PAGE 268 – AS SHOWN.

12. POSSIBLE RIGHTS OF REVERTER IN THE FOLLOWING PROPERTIES, WHICH ARE A PORTION OF THE INSURED PREMISES, WHICH MAY VEST IN PERSONS OTHER THAN THE CURRENT OWNER OF THE INSURED PREMISES AS SHOWN ON SCHEDULE A IF THE RAIL LINE WERE TO BE DEEMED ABANDONED (AS AFFECTED BY 23 M.R.S.A. §7105):
A) LOTS NO. 1 AND 4 AS SHOWN ON RIGHT OF WAY AND TRACK MAP ATLANTIC AND ST. LAWRENCE RAILROAD, OPERATED BY GRAND TRUNK RY. CO. OF CANADA V26/23 DATED JUNE 30, 1917 – NEW LINE–DON'T KNOW AFFECT OF EXCEPTION; PLAN NOT PROVIDED.

11. RIGHTS AND EASEMENTS TO INSTALL, MAINTAIN, REPAIR AND REPLACE PIPE LINES AS MORE PARTICULARLY DESCRIBED IN DEED FROM CANADIAN NATIONAL RAILWAY COMPANY TO SUN OIL COMPANY DATED NOVEMBER 26, 1968 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 2792, PAGE 397 – APPEARS TO BE OFF LOCUS.

12. RIGHTS AND EASEMENTS GRANTED TO PORTLAND WATER DISTRICT BY VIRTUE OF DEEDS RECORDED IN BOOK 3905, PAGE 238; BOOK 3712, PAGE 73; AND BOOK 3905, PAGE 242 – 1) PLAN NOT PROVIDED AND NOR RAILROAD PLAN FOR STATION 22 PLAN NOT PROVIDED – APPEARS OFF LOCUS.

13. NON SURVEY ITEM.

14. TERMS, PROVISIONS, OBLIGATIONS, EXCEPTIONS, COVENANTS, RESERVATIONS, AND AGREEMENTS SET FORTH IN INDENTURE DATED BY AND BETWEEN MAINE DEPARTMENT OF TRANSPORTATION AND PHINEAS SPRAGUE DATED AUGUST 30, 1893 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 10924, PAGE 87 – AS SHOWN ON PLAN.

15. CERTIFICATE OF FINDING BY THE CITY OF PORTLAND DATED JULY 19, 2005 AND RECORDED IN THE SAID REGISTRY OF DEEDS IN BOOK 22908, PAGE 82, AS AFFECTED BY CLERK'S CERTIFICATE IN THE MATTER OF THE PORTLAND COMPANY V. CITY OF PORTLAND, CUMBERLAND COUNTY SUPERIOR COURT, CIVIL ACTION, DOCKET NO. RE-05-85 DATED JULY 7, 2005 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 22853, PAGE 17, AS AFFECTED BY RELEASE DEEDS FROM THE PORTLAND COMPANY TO THE CITY OF PORTLAND DATED AUGUST 16, 2005 AND RECORDED IN SAID REGISTRY OF DEEDS IN BOOK 23549, PAGE 186 AND PAGE 189 – OFF LOCUS.

16-17. NON SURVEY ITEM.

18. SUCH STATE OF FACTS AS DISCLOSED ON SURVEY ENTITLED: LAND TITLE SURVEY AND SUBDIVISION PLAN IN PORTLAND, MAINE, U.S.A. BY OWEN HASKELL, INC. DATED FEBRUARY 19, 1993 AS LAST REVISED JUNE 28, 1993 SHEET 2 OF 2 RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 193, PAGES 187 THROUGH 193 AND RECORDING PLAT SHEET 1 OF 3 OCEAN GATEWAY PREPARED BY OWEN HASKELL, INC. RECORDED IN THE SAID REGISTRY OF DEEDS IN PLAN BOOK 204, PAGE 632 – SEE PLAN.

19. NON SURVEY ITEM.

20. SUCH STATE OF FACTS DISCLOSED ON PLAN ENTITLED "PLAN OF PROPERTY IN PORTLAND, MAINE, MADE FOR THE PORTLAND COMPANY" PREPARED BY H.L. & E.C. JORDAN DATED MARCH 26, 1985, LAST REVISED MARCH 21, 1996 – SEE PLAN.

21-23. NON SURVEY ITEMS.

Plan References:

1. "LAND TITLE SURVEY & SUBDIVISION PLAN IN PORTLAND, MAINE U.S.A. MADE FOR THE TRUST FOR PUBLIC LAND, THE CITY OF PORTLAND, THE MAINE DEPARTMENT OF TRANSPORTATION, THE CANADIAN NATIONAL RAILWAY COMPANY FEB. 19, 1993 REV. 6 6/28/93" BY OWEN HASKELL, INC.
2. "PLAN OF PROPERTY LINE PORTLAND, MAINE MADE FOR WM. FARLEY MARCH 1950" BY E.C. JORDAN CO.
3. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR THE PORTLAND COMPANY 28 MARCH 1985 REVISED MARCH 21, 1996" BY OWEN HASKELL, INC.
4. "EXISTING CONDITIONS PLAN ON FORE STREET, PORTLAND, MAINE MADE FOR THE PORTLAND COMPANY NOV. 13, 2007" REV. 2 12/18/12 BY OWEN HASKELL, INC.
5. CONCEPT UTILITY PLAN, PORTLAND COMPANY SITE DATED NOVEMBER 2007 BY DELUCA HOFFMAN ASSOCIATES, INC.

Zoning:

NONE PROVIDED BY TITLE INSURER.

SEE SHEET 2 OF 2 FOR LEGAL DESCRIPTION

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. Route One, Unit #10
Falmouth, Maine 04105
Tel. (207)774-0424 Fax (207)774-0511
www.owenhaskell.com

ALTA/ACSM Land Title Survey

58 Fore Street
Portland, Cumberland County, Maine
made for
CPB2 LLC

Surveyor's Certification

TO: CPB2 LLC, AND OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(a), 8, 11(b), 13, 14, 16, 17, 18, 19, 20(a), AND 22 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MAY 2013.

JOHN W. SIWAN
PROFESSIONAL LAND SURVEYOR NO. 1038
IN THE STATE OF MAINE

DATE OF PLAN: MAY 22, 2013
REVISION DATE:
OHI JOB NO. 2013-078

6. EVIDENCE OF STATE AND/OR FEDERAL APPROVALS

On behalf of CPB2 LLC, Woodard & Curran assessed the regulatory triggers/thresholds for permitting under MaineDEP Site Location of Development (Site Law), and MaineDEP Stormwater Law for the proposed re-development project. It is our understanding that the proposed project should not be subject to Site Location of Development standards since it will result in less than three acres of new Structure area from what was in existence in 1970 (establishment of Site Law), but that because the proposed project will disturb more than one acre of land and result in more than one acre of new impervious area, MaineDEP Stormwater Law applies and a Stormwater Permit will be required. The City of Portland has delegated review for Stormwater Permits, so approval will be obtained as part of the formal Site Plan application, to be submitted at a later date. A letter documenting these determinations was provided to the MaineDEP, which has been attached to this Section for your reference, and the proposed Stormwater Management strategy is described in Section 12 of this Report.

We anticipate that the following State and Federal Permits will be required:

- A Maine Construction General Permit will be required because the proposed project will disturb more than one acre of land.
- A MaineDEP Natural Resources Protection Act Permit-by-Rule (NRPA PBR) for new stormwater outfalls into the Fore River.
- A Category 1 Notification under the Maine General Permit through the Army Corps of Engineers for new stormwater outfalls into the Fore River.
- Development of the Marina will require full permits through MaineDEP and Army Corps of Engineers; it should be noted that the Marina will also require review and approval through the Portland Board of Harbor Commissioners. An application will be submitted to the Harbor Commissioners under separate cover.

No other State or Federal permits will be required.

6.1 ATTACHMENTS

- SLOD Determination Letter & Figure

COMMITMENT & INTEGRITY
DRIVE RESULTS

41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

Via FedEx

September 16, 2016

Alison Sirois, Director of Land Enforcement
Maine Department of Environmental Protection
Southern Maine Regional Office
312 Canco Road
Portland, Maine 04103

Re: 58 Fore Street Re-development
Site Law Determination

Dear Alison:

On behalf of CPB2, LLC, Woodard & Curran is writing to confirm that the Site Location of Development Law (Site Law) does not apply to the proposed re-development of the former Portland Company Complex located at 58 Fore Street in Portland. The proposed project Site encompasses three parcels owned by CPB2, LLC. The parcels are identified as Tax Map 18A, Lots 1, 2, and 3. Lot 2 is located along the waterfront, separated from Lots 1 and 3 by a linear parcel owned by the State of Maine. A survey completed by Owen Haskell, Inc. in May 2013 identifies the areas of Lots 1 and 2 at 6.04 acres and 1.02 acres respectively, and Lot 3 as 2.87 acres for a total of 9.93 acres.

We have assessed the proposed re-development project under Site Law and have determined that it does not meet the definition of "development of state or regional significance that may substantially affect the environment." The property is less than 20 acres and the development is not oil or gas exploration or production activity, an oil terminal facility or an offshore wind power project. Therefore, the only question remaining is whether the development is a structure, i.e. does it contain "buildings, parking lots, roads, paved areas, wharves or areas to be stripped or graded and not to be revegetated that cause a total project to occupy a ground area in excess of 3 acres."

The property at 58 Fore Street was first developed in 1857, as part of the Portland Company. By 1970, the majority of the property was covered by roads, parking lots and buildings. The proposed re-development of the site will reuse many of the buildings and associated facilities existing on January 1, 1970 and therefore is exempted from review under 38 M.R.S. § 488. Accordingly, the Department may not consider the redevelopment of those areas in its determination of whether the proposed development meets the 3-acre threshold.

A 1969 aerial photograph of the Site was found in the records available from the City of Portland Public Works Department Archives Vault. Only approximately 2.83 acres of the 1969 Site was vegetated, such that much of the Site was developed and consisted of "structure" prior to January 1, 1970.

The proposed redevelopment project will result in approximately 2.77 acres of new buildings, parking lots, roads and paved areas. Attached is a Figure that shows the structure area from 1969, the proposed condition, and the resulting new structure area upon future buildout. Since the total proposed new structure area will be less than three acres, the 3-acre structure threshold is not met. Based on these findings, it is our understanding that the proposed project will not be subject to Site Location of Development standards.

Although we understand that the project will not be subject to Site Location of Development standards, substantial review of the project has and will occur by Local, State and Federal regulatory agencies. Specifically, in 2014 and 2015 the property was re-zoned in accordance with a zone change application reviewed by the City of Portland Planning Board and approved by the Portland City Council for consistency with the City's Comprehensive Plan; in 2015 and 2016 the City of Portland Historic Preservation Board recommended and the Portland City Council approved a Historic District designation on portions of the property; the property owner is currently preparing a Master Development Plan to be submitted to and reviewed by the City of Portland Planning Board for consistency with the City's Land Use Code; future development of each building or development blocks on the site will be subject to Site Plan review by the City of Portland Planning Board for consistency with the City's Land Use Code; and redevelopment of the marina and any modifications to the sea wall or stormwater outfalls will be subject to review by the MaineDEP for compliance with the Natural Resources Protection Act and US Army Corps of Engineers for compliance with the Maine General Permit.

It should also be noted that, because the proposed project will disturb more than one acre of land, MaineDEP Stormwater Law applies and a Stormwater Permit will be required. The proposed project will create more than one acre of new impervious area, and will therefore be required to comply with the Basic and General Standards of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Maine Construction General Permit. The City of Portland has delegated review for Chapter 500 Stormwater Permits, so approval will be obtained as part of the formal Site Plan application, to be submitted at a later date. The City of Portland recently adopted changes to their Stormwater Standards that require treatment of redevelopment areas beyond the standards of the Chapter 500 Stormwater Management Rules; as such we anticipate that stormwater quality treatment utilizing technologies acceptable under the General Standards will be provided for a substantial area of the site, a significant improvement over the existing site condition, which has no stormwater treatment systems in place.

Please do not hesitate to contact me if you have any questions or require additional information.

Sincerely,

WOODARD & CURRAN

David Senus, PE
Project Manager

AEA/das

Enclosure(s) Site Law Determination Figure

cc: CPB2 LLC – c/o James Brady, Kevin Costello, Casey Prentice
Barbara Barhydt, Development Review Services Manager, City of Portland Planning Division
Mary E. Costigan, Bernstein Shur

PLAN NOTES:

1. THE PURPOSE OF THESE FIGURES IS TO DETERMINE WHETHER THE PROPOSED PROJECT TRIGGERS THE REGULATORY THRESHOLDS FOR PERMITTING UNDER MAINEDEP SITE LOCATION OF DEVELOPMENT (SITE LAW) BASED ON "STRUCTURE" AREA.

2. "STRUCTURE" IS DEFINED AS BUILDINGS, PARKING LOTS, ROADS, PAVED AREAS, WHARVES OR AREAS TO BE STRIPPED OR GRADED AND NOT TO BE REVEGETATED WHICH CAUSE A TOTAL PROJECT TO OCCUPY A GROUND AREA IN EXCESS OF THREE ACES. FOR THE PURPOSES OF THIS EVALUATION, ANY NON-VEGETATED AREAS ARE ASSUMED TO BE STRUCTURE.

3. THE EFFECTIVE DATE FOR SITE LOCATION OF DEVELOPMENT LAW WAS JANUARY 1, 1970, AND THE "STRUCTURE" THRESHOLD UNDER SITE LAW WAS IMPLEMENTED ON OCTOBER 1, 1975. DEVELOPMENT THAT WAS IN PLACE PRIOR TO 1970 IS CONSIDERED TO BE GRANDFATHERED AND EXEMPT FROM SITE LAW REGULATION, AND ANY STRUCTURE ADDED AFTER THIS DATE IS CONSIDERED "NEW STRUCTURE".

LEGEND

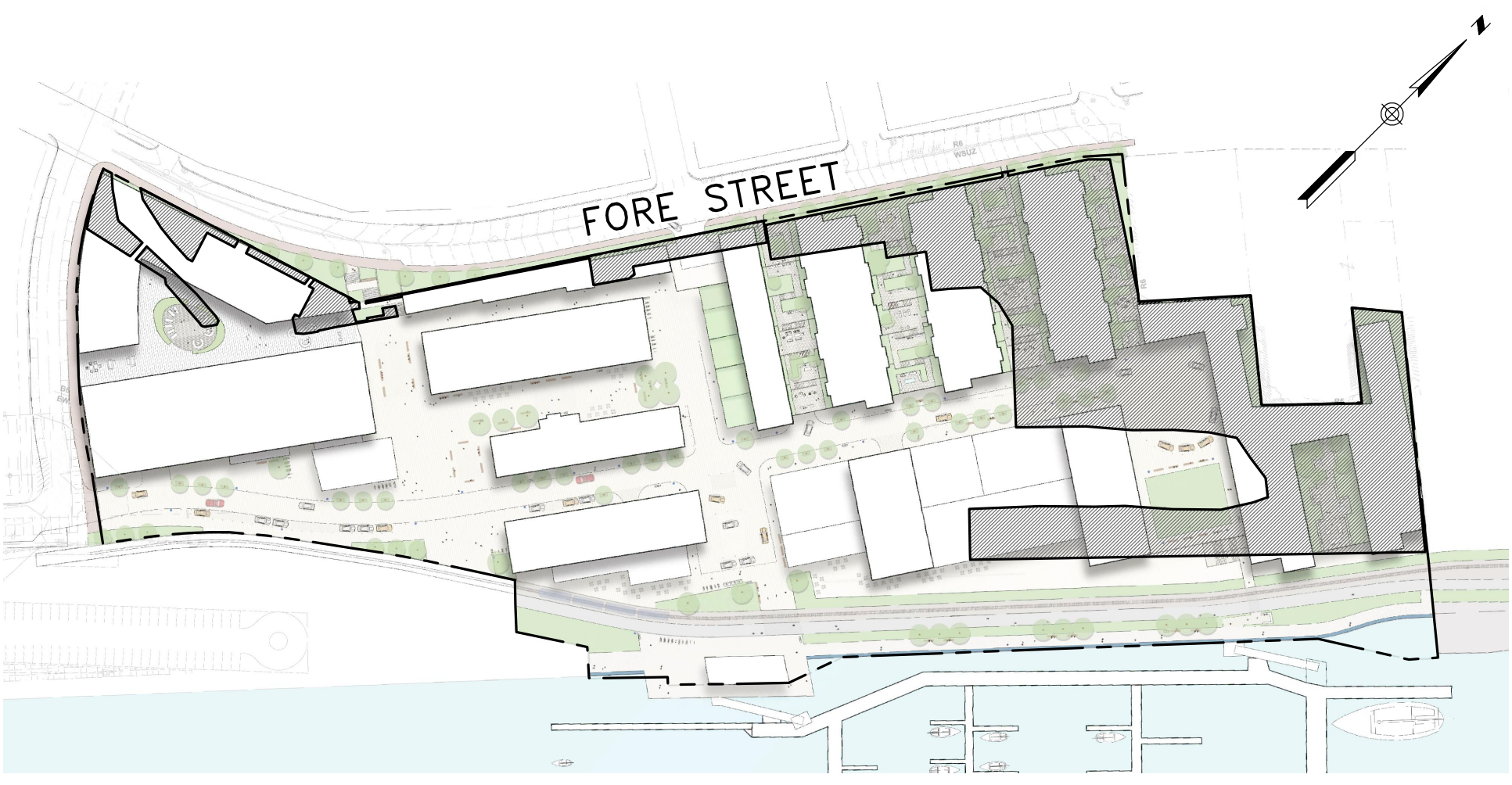
NON-"STRUCTURE" AREA
123,107 S.F. = 2.83 ACRES

150' 0 150' 300'

BAR SCALE
1" = 150'
CHECK GRAPHIC SCALE BEFORE USING

PRE-SITE LAW CONDITIONS - 1969

SCALE: 1"=150'



LEGEND

PROPOSED NEW "STRUCTURE" AREA
(1969 TO FUTURE BUILDOUT)
120,489 S.F. = 2.77 ACRES

150' 0 150' 300'

BAR SCALE
1" = 150'
CHECK GRAPHIC SCALE BEFORE USING

PROPOSED NEW "STRUCTURE" AREA

SCALE: 1"=150'

7. ASSESSMENT OF ZONING - §14-527 (C)(6)

The Project Site is located within the B-6 Eastern Waterfront Mixed Zone, Eastern Waterfront Port Zone, and Shoreland Zone and is subject to the requirements of the City of Portland Code of Ordinances, Chapter 14 Land Use, Division 15.1 (B6), Division 17.5 (EPWZ), Division 26.0 (Shoreland) and Building Height Requirements detailed on the B6 Building Height Overlay & Building Envelope map dated effective on July 1, 2015. A portion of the site is located in a FEMA Flood Zone, as shown by the Flood Insurance Rate Map attached to this Section, and is therefore subject to the City's Flood Plain Management regulations (Division 26.5).

Some of the purposes of the B-6 Eastern Waterfront Mixed Zone, as defined by the Ordinance, are to:

- "Establish a zoning district for the upland portion of the eastern waterfront area that encourages the district to acquire an urban form through development that emphasizes a quality pedestrian experience, promotes public transit and demonstrates exemplary urban design."
- "Promote a range of uses to achieve twenty-four-hour urban vitality and shared use of parking infrastructure as recommended in the Eastern Waterfront Master Plan for redevelopment."

Some of the purposes of the Eastern Waterfront Port Zone, as defined by the Ordinance, are to:

- Nurture deepwater dependent activity within the context of the established waterfront.
- Support and expand Portland's marine industry which requires piers, uplands and circulation consistent with the transportation and use of marine facilities.
- Offer supporting services and activities to provide a safe, convenient and enjoyable travel experience for users of marine passenger facilities which will help foster the growth of Portland's marine passenger industry.
- Foster non-marine uses that complement the marine passenger industry and are compatible with existing and future water dependent uses while providing opportunities for residents and visitors to enjoy the Eastern waterfront.
- Ensure the primary use of the deep-water resources is for the berthing and support of large vessels.
- Design and maintain existing and future pier infrastructure and upland support areas to support a variety of marine uses and to be responsible to future technologies and trends in the marine industry.

Some of the purposes of the Shoreland Zone are, as defined by the Ordinance, are to:

- "Further the maintenance of safe and healthful conditions, prevent and control water pollution, protect fish spawning grounds, aquatic life, bird and other wildlife habitat; protect buildings and lands from flooding and accelerated erosion; protect archaeological and historic resources; protect commercial fishing and maritime industries; protect freshwater and coastal wetlands; control building sites, placement of structures and land uses; conserve shore cover, visual as well as actual points of access to inland and coastal waters and natural beauty, as appropriate in an urbanized environment; and to anticipate and respond to the impact of development in shoreland areas."

Some of the purposes of the Flood Plain Management regulations, as defined by the Ordinance, are to:

- "Reduce future flood risks and losses, protect against financial and human loss resulting from flood disasters, and to control the placement of structures, construction materials, and methods used to minimize potential property damage due to flooding."

One additional zoning requirement is Article IX, Historic Preservation. The purpose of Article IX is to promote the educational, cultural, economic and general welfare of the City of Portland by:

- Creating a mechanism to identify, preserve and enhance distinctive areas, sites, structures and objects that have historic, cultural, architectural and archeological significance;
- Providing a resource of information and expertise to help those interested in rehabilitation or new construction in a district or restoring a landmark;
- Applying design standards in a reasonable and flexible manner to prevent the unnecessary loss of the community's historical features and to ensure compatible new construction and rehabilitation in historic districts while not stifling change and development or forcing modern recreations of historic styles;
- Fostering civic pride in the city's history and development patterns as represented in such distinctive areas, sites, structures and objects;
- Protecting and enhancing neighborhood character;
- Stabilizing and improving the values of designated properties and areas;
- Protecting and enhancing the attractiveness of the city to its home buyers, home owners, residents, tourists, visitors, businesses and shoppers; and
- Fostering and encouraging preservation, restoration and rehabilitation that respects the historic, cultural, architectural and archeological significance of distinctive areas, sites, structures and objects.

CPB2 LLC worked closely with the City of Portland to modify the zoning for 58 Fore Street and changes were adopted by the City Council on June 1, 2015 consistent with recommendations set in the "Master Plan for Redevelopment of the Eastern Waterfront." The extension of the B-6 Eastern Waterfront Mixed Zone and B-6 Building Height Overlay map onto the upland portion of the 58 Fore Street property as well as the Eastern Waterfront Port Zone onto the waterfront portion of the property are critical to the vision set forth by the Eastern Waterfront Master Plan and design guidelines for the Eastern Waterfront. The B-6 zoning was created specifically for the entirety of the Eastern Waterfront and exists on the adjacent properties to the west of 58 Fore Street. This zone change allows for residential development and expanded retail and commercial uses as it encourages this district to acquire a distinctly urban feel through development that emphasizes a quality pedestrian experience and demonstrates exemplary urban design.

This project will help to accomplish all of these intentions and help bring to fruition the vision of the Master Plan for Redevelopment of the Eastern Waterfront by integrating the property and project with the surrounding area and creating a connection between the waterfront and the rest of the neighborhood. The overall project concept is built on City and stakeholder feedback and includes reinvigorating the most historically significant elements of the site, expanding and redeveloping the marina, providing a diverse mix of housing units, and enhancing access to the water's edge. Descriptions of the project's compliance with the relevant sections of the City's Code of Ordinances are provided below.

7.1 PERMITTED USE (§14-269)

Currently, there are 15 buildings on the Site, most of which are interconnected 19th century industrial buildings, originally used by The Portland Company for its foundry operations. Building 5 is a more recently constructed modern single story high bay steel shed building with a small office area. Portland Yacht Services formerly occupied the majority of the leasable space on the 58 Fore Street Property for its full-service boatyard operations and marina. PYS has relocated its operation further down Commercial Street. Additional tenants range from architect firms to non-profits to marine-relates uses. The current marina has 128 slips and 18 transient moorings and can accommodate vessels over 200' long with up to 20' of draft.

The current use of the Site is mixed and the redevelopment project will retain some of existing uses such as office, marina and commercial. All proposed building and site development is located within the B6 and EWPZ.

The B-6 Zone permits the following uses:

- Commercial
  - Professional, business and general offices
  - Restaurants

- Hotels and Inns
- Craft and Specialty Shops
- Retail and Retail Service Establishments
- Theatres
- Banking Services
- Cabinet and Carpentry Shops
- Personal Services
- Business Services
- Offices of Business Trades People
- Miscellaneous Repair Services
- Telecommunication and Broadcast and Receiving Facilities
- Brew Pubs & Microbreweries
- Electronic Data Storage
- Marine Products Wholesale/Retail
- Harbor & Marine Supply Services
- Underground Marine Fuel Storage
- Bakeries, Coffee Roasters, Commercial Kitchens
- Printing Establishments

- Residential
  - Attached Dwellings Including Row Houses, Two Family and Multifamily Dwellings
  - Handicapped Family Units
  - Combined Living/Working Spaces
  - Mixed Use Residential and Commercial Structures
- Public
  - Utility Substations
  - Landscaped Pedestrian Parks/Plazas
  - Pedestrian and Multi-Use Trails

7.2 DIMENSIONAL REQUIREMENTS

The dimensional requirements for the B-6 zone are defined in **Table 2**.

Table 2: B6 Dimensional Requirements

Requirement	Details	Notes
Minimum Lot Size	None	
Minimum Frontage	None	
Yard Dimensions – Minimum Yards in the B6 Zone	**Front Setback** – None (see notes) **Side Setback** - None **Rear Setback** - None	For **Front Setback**, new structures located in the blocks located south of Fore Street and north of Commercial Street and its extension, shall build to the key building envelopes shown on the B6 Building Height Overlay & Building Envelopes map. Buildings located in the easternmost key building envelope, shall not have a maximum front setback, and shall not be required to build to the key building envelope perimeter. Parking structures and the buildings for public transportation facilities may, however, set back beyond the key building envelopes (toward the interior of blocks), but may not occupy the

Requirement	Details	Notes
		land between the key building envelope and the street right of way.
Yard Dimensions – Maximum Building Setback from Street Line	10 feet, except for parking garages, public transportation facilities and as provided with regard to view corridors and key street wall development.	For lots fronting on more than one street, the setback can be increased more than ten (10) feet if all of the following conditions are met: i. The increased setback occurs at the intersection of the streets; ii. The increased setback area is the primary pedestrian entrance to the building; iii. Seventy-five (75) percent of the total building wall length facing the abutting streets shall be setback no greater than ten (10) feet; and iv. All building wall segments, which make up the increased setback shall be included in the calculation of the total building wall length noted in subsection iii.
View Corridors and Key Street Wall Development	See notes.	New structures located in the blocks located south of Fore Street and north of Commercial Street and its extension, shall build to the key building envelopes shown on the B6 Building Height Overlay & Building Envelopes map. Buildings located in the easternmost key building envelope, shall not have a maximum front setback, and shall not be required to build to the key building envelope perimeter. Parking structures and the buildings for public transportation facilities may, however, set back beyond the key building envelopes (toward the interior of blocks), but may not occupy the land between the key building envelope and the street right of way.
Minimum length of building wall required to be located along street frontage of lot	i. 70% of lot street frontage; or ii. 25% of building perimeter, iii. for buildings fronting on two or more streets, the minimum building wall on one street may be decreased so long as the frontage is proportionally increased on other streets in so far that the building wall on the secondary street is not reduced to less than 25 feet.	Except that buildings located in the easternmost key building envelope, as shown on the B6 Building Height Overlay & Building Envelopes map, shall not be subject to this requirement.
Maximum Lot Coverage	100%	
Maximum Building Height	65 Feet	Or as otherwise governed by a Building Height Overlay map (for example, in the Eastern Waterfront).
Minimum Building Height	No new construction of any building shall have less than three (3) floors of habitable space above the average adjacent grade within twenty five (25) feet of any public street.	Except that buildings located in the easternmost key building envelope, as shown on the B6 Building Height Overlay & Building Envelopes map, shall not be subject to a minimum building height. This provision does not apply to parking garages, public transportation facilities, utility substations or additions to or relocation of designated historic structures.

The dimensional requirements for the EWPZ zone are defined in **Table 3**.

Table 3: EWPZ Dimensional Requirements

Requirement	Details	Notes
Minimum Lot Size	None	
Minimum Frontage	None	
Yard Dimensions	Front Setback – None Side Setback – None Rear Setback - None	
Yard Dimensions	Setback from pier line	A minimum setback of twenty five(25) feet from the edge of any pier, wharf or working edge of the hardened shoreline shall be required for any structure, provided that marine offices, as defined in Section 14-301(b)(12), may be located up to five (5) feet from the edge of any pier, wharf or working edge of the hardened shoreline. The setback area may be utilized for water-dependent uses and public uses and activities, subject to the provisions of sections 14-300.1 (no adverse impact) and 14-301.1 (conditional use provisions), and shall not be utilized for restaurant, drinking, or other non water-dependent uses or for off-street parking. The edge of any pier, wharf or bulkhead shall include any attached apron(s).
Maximum impervious surface	100%	
Maximum building height	45 feet (see notes)	• For purposes of this section only, moveable elements such as cranes and gantries, connection devices such as conveyors or bridges, and floating vessels shall not be subject to the space and bulk requirements, but shall be subject to a determination by the Federal Aviation Administration that the location of such equipment will not create a hazard to air traffic. • Rooftop appurtenances may exceed the maximum height limits of forty-five (45) feet providing that their design and placement is either fully screened or integrated into the architecture of the structure on which they sit. • The applicant must provide a determination from the Federal Aviation Administration that structures and equipment in excess of forty-five (45) feet will not exceed the applicable height guidelines for the runway approach and will not create a conclusive evidence that the proposed development will not create a hazard.

7.3 B6 BUILDING HEIGHT OVERLAY & BUILDING ENVELOPE MAP

During the master planning process, appropriate building heights were established that respect view corridors, the historic nature of the site, and site topography, all in compliance with the B-6 Building Height Overlay Map. The B-6

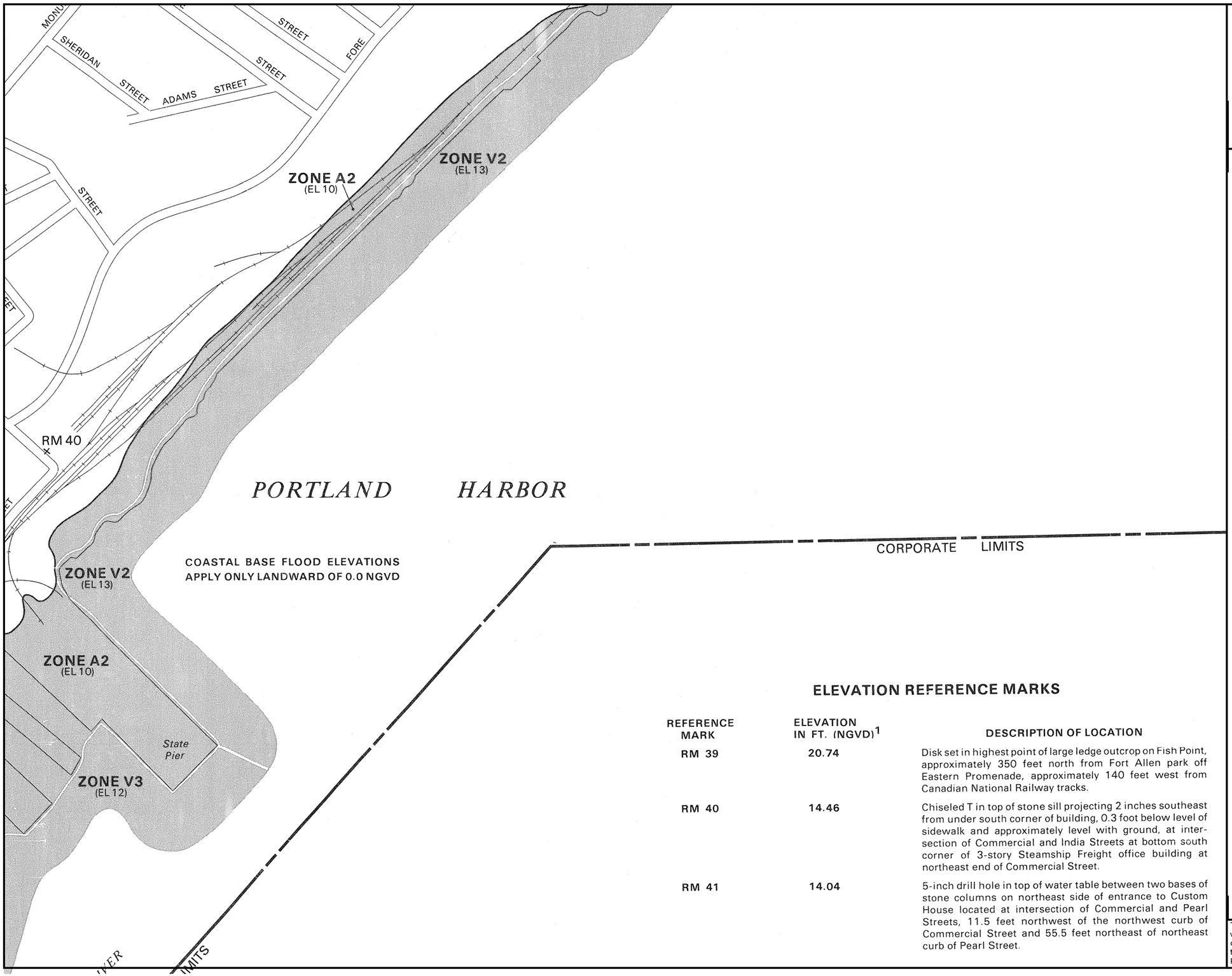
Eastern Waterfront Mixed-Use zone, and accompanying B6 Building Height Overlay Map, were adopted by the City Council on June 1, 2015, consistent with the recommendations set forth by the Master Plan for Redevelopment of the Eastern Waterfront.

CPB2 LLC met with the City of Portland's Planning and Zoning staff at Portland City Hall on February 3, 2014, July 21, 2014 and July 15, 2016 to specifically discuss building heights as they pertain to the planned development project at the 58 Fore Street property and the B6 Building Height Overlay and Building Envelope Map. Memorialized at these meetings was the City's verification that building heights in the B6 are calculated from average grade, unless otherwise noted on the Height Overlay Map. This measurement was also verified through extensive conversations at the Planning Board and Council meetings regarding the B6 Height Overlay Map. Average grade is calculated by averaging the proposed ground surface elevation at the building corners or by averaging the proposed ground surface elevation at some set interval around the perimeter of the proposed building; either method is acceptable at the prerogative of the applicant. City Staff agreed that this has been and is the City's confirmed methodology. Building height for the 58 Fore Street project was calculated in this manner.

CPB2 also confirmed with City staff that regarding pedestal parking forming a continuous foundation for an overall building structure, for the purposes of measuring average grade, a common foundation of parking would be measured as a single overall building structure.

7.4 ATTACHMENTS

- FEMA Flood Insurance Rate Map
- B6 Building Height Overlay & Building Envelopes Map
- Building Height Calculation Plan



COASTAL BASE FLOOD ELEVATIONS
APPLY ONLY LANDWARD OF 0.0 NGVD

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION IN FT. (NGVD)[1]	DESCRIPTION OF LOCATION
RM 39	20.74	Disk set in highest point of large ledge outcrop on Fish Point, approximately 350 feet north from Fort Allen park off Eastern Promenade, approximately 140 feet west from Canadian National Railway tracks.
RM 40	14.46	Chiseled T in top of stone sill projecting 2 inches southeast from under south corner of building, 0.3 foot below level of sidewalk and approximately level with ground, at intersection of Commercial and India Streets at bottom south corner of 3-story Steamship Freight office building at northeast end of Commercial Street.
RM 41	14.04	5-inch drill hole in top of water table between two bases of stone columns on northeast side of entrance to Custom House located at intersection of Commercial and Pearl Streets, 11.5 feet northwest of the northwest curb of Commercial Street and 55.5 feet northeast of northeast curb of Pearl Street.

APPROXIMATE SCALE
400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

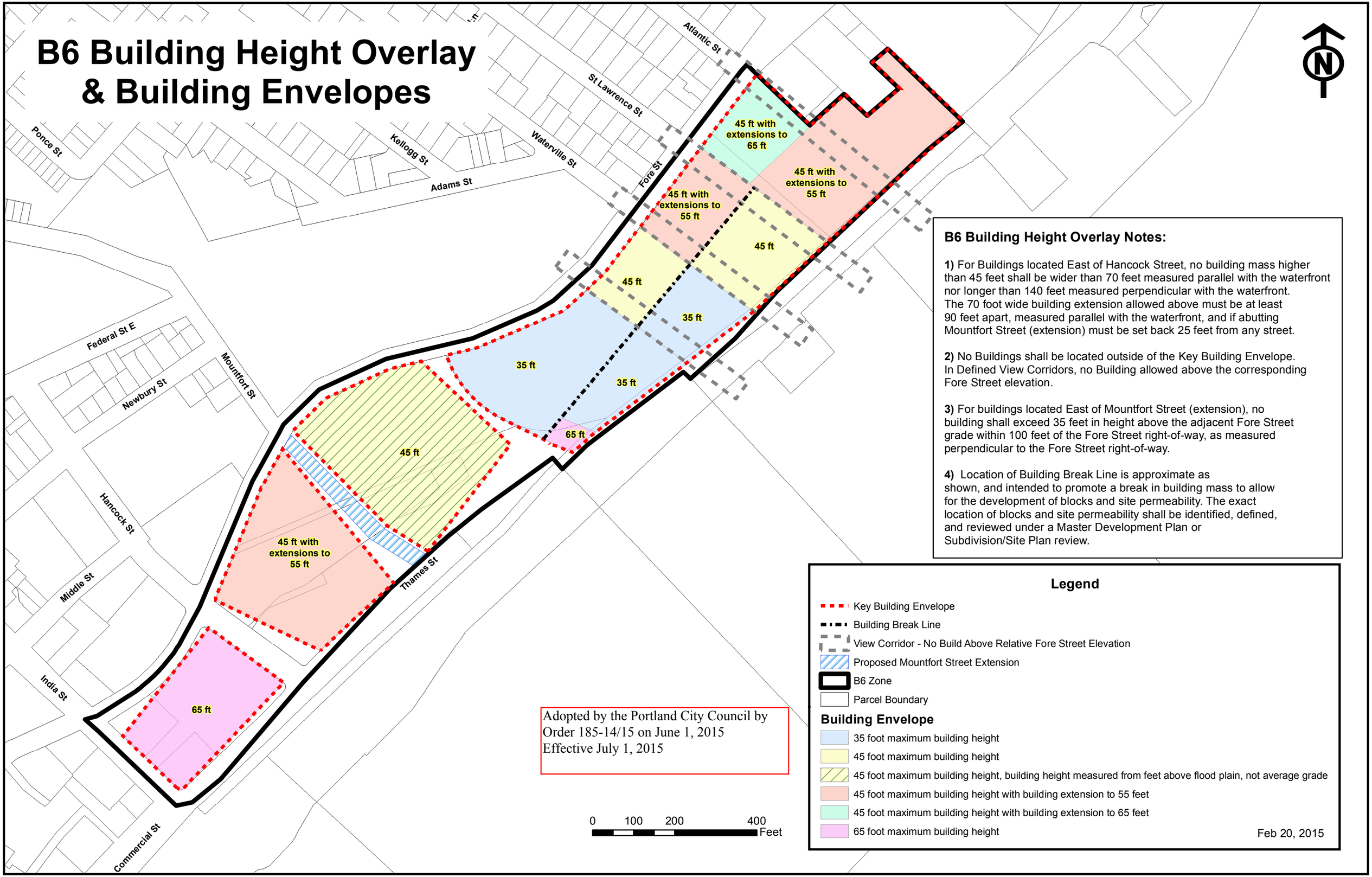
PANEL 14 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0014 B

EFFECTIVE DATE:
JULY 17, 1986

Federal Emergency Management Agency

B6 Building Height Overlay & Building Envelopes



B6 Building Height Overlay Notes:

1) For Buildings located East of Hancock Street, no building mass higher than 45 feet shall be wider than 70 feet measured parallel with the waterfront nor longer than 140 feet measured perpendicular with the waterfront. The 70 foot wide building extension allowed above must be at least 90 feet apart, measured parallel with the waterfront, and if abutting Mountfort Street (extension) must be set back 25 feet from any street.

2) No Buildings shall be located outside of the Key Building Envelope. In Defined View Corridors, no Building allowed above the corresponding Fore Street elevation.

3) For buildings located East of Mountfort Street (extension), no building shall exceed 35 feet in height above the adjacent Fore Street grade within 100 feet of the Fore Street right-of-way, as measured perpendicular to the Fore Street right-of-way.

4) Location of Building Break Line is approximate as shown, and intended to promote a break in building mass to allow for the development of blocks and site permeability. The exact location of blocks and site permeability shall be identified, defined, and reviewed under a Master Development Plan or Subdivision/Site Plan review.

Adopted by the Portland City Council by Order 185-14/15 on June 1, 2015
Effective July 1, 2015

Legend

- Key Building Envelope
- Building Break Line
- View Corridor - No Build Above Relative Fore Street Elevation
- Proposed Mountfort Street Extension
- B6 Zone
- Parcel Boundary

Building Envelope

- 35 foot maximum building height
- 45 foot maximum building height
- 45 foot maximum building height, building height measured from feet above flood plain, not average grade
- 45 foot maximum building height with building extension to 55 feet
- 45 foot maximum building height with building extension to 65 feet
- 65 foot maximum building height

Feb 20, 2015

09/16/16

Scale: 1" = 50'-0"

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

HEIGHT CALCULATION DIAGRAM
58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL

8. EASEMENTS AND OTHER BURDENS §14-527 (C)(7)

A Boundary Survey that shows the site and surrounding parcels is provided in Section 15 of this Report. The following existing easements, public rights of way or other burdens have been identified:

- **MaineDOT Right of Way (ROW)** – The State of Maine owns the 50-foot wide rail-trail-corridor located between tax lots 1 and 3 and tax lot 2 of the Project Site, as shown on the Boundary Survey provided in Section 15 of this Report.
- **MaineDOT Crossing Rights** – The MaineDOT has granted 50-foot wide pedestrian access points across the trail, rail line, and MaineDOT Right of Way to preserve access to the water, as shown on the Boundary Survey provided in Section 15 of this Report; these crossing rights may be relocated/redefined with MaineDOT approval.
- **City Right of Way (ROW) on Fore Street** – There is a City ROW on Fore Street where the proposed development has designed an access stairway into the site. An easement will be required at the top of the Public Access Easement area. The public access easement traverses an area of significant grade change from the existing Fore Street grade to the historic core area of site. The Fore Street ROW is significantly wider in the area of the public access easement, resulting in limited land area on 58 Fore Street property at the top of the proposed stairs. As such, the stairway within this area is proposed to encroach within the Fore Street Right-of-Way, requiring an easement or maintenance agreement to be granted to the 58 Fore Street property to construct and maintain stairs within the City ROW. This concept has been reviewed with City staff and the City staff have been supportive of this approach.
- **Public Access Easement** – There is a proposed public access easement located further to the west of the view corridors (described below). CPB2 LLC has agreed to provide the City with a fifty-foot wide public access easement across the 58 Fore Street property from Fore Street to the waterfront edge of the Project Site. The proposed location of the 50'-wide easement is on and over a portion of the footprint of former Building 1 and extending from Fore Street to the southerly boundary of the property. The description is intended to be general in nature and the final configuration can be determined by CPB2 LLCs discretion with approval of the Planning Board and Corporation Counsel.
- **Retaining Wall** – An access easement to the City of Portland is provided for the 4-foot tall, approximately 353-foot long wall located along Fore Street, as shown on the Boundary Survey provided in Section 15 of this Report.
- **Utilities** – The State of Maine and the Canadian National Railway Company have conveyed perpetual easements to the Portland Water District for utilities located along the southern side of the Site, as shown on the Boundary Survey provided in Section 15 of this Report. The 30-foot wide Canadian National Railway Company easement is associated with the PWD 33-inch diameter sewer force main, and the 50-foot wide State of Maine easement is associated with water and sewer utilities.
- **View Corridors** – The B6 Building Height Overlay & Building Envelope map dated effective on July 1, 2015 requires four individual 50-foot view corridors at Kellogg, Waterville, St. Lawrence and Atlantic Streets be maintained. Within the defined view corridors, no building is allowed above the corresponding Fore Street elevation.

9. WAIVER REQUESTS

A waiver is being requested as described below.

9.1 FLOODING STORMWATER STANDARD

We are requesting a waiver from providing additional storage of stormwater for the Flooding Standard, due to the fact that the project will discharge directly into the ocean. Stormwater runoff from the Site will be conveyed exclusively via sheet flow and a piped system. Further discussion of stormwater management is included in Section 12 of this Report.

10. EVIDENCE OF FINANCIAL & TECHNICAL CAPACITY - §14-527(C)(9)

10.1 FINANCIAL CAPACITY

The Master Development Plan for 58 Fore Street presents a multi-hundred million dollar project to be built-out over the coming decade. Individual components of the project may be financed through CPB2 LLC or other development entities as the redevelopment efforts progress. The planning and design efforts associated with permitting this Master Development Plan have been financed by CPB2 LLC. Additional information on financing will be presented for review as the redevelopment vision progresses into individual Site Plans Applications submitted to the City for each development block. The attached letter indicates CPB2 LLC, has adequate financial capacity to plan and permit this Master Development Plan.

10.2 TECHNICAL CAPACITY

The redevelopment team consists of Portland based developer CPB2 LLC, and a group of three qualified, experienced managers. CPB2 LLC has a clear vision of redeveloping 58 Fore Street to reach its full potential and fulfill the goals set forth by the Eastern Waterfront Master Plan. Its management team includes Jim Brady, Casey Prentice and Kevin Costello. The CPB2 partners have completed several projects which include similar qualities and challenges posed by the 58 Fore Street redevelopment project. The CPB2 team brings together a balance of experience which includes mixed use development, historic redevelopment, architecture and design, maritime development, acquisition and business management, financing and visioning/public input experience. With their experience, they offer a thoughtful vision for bringing additional housing, economic stimulus and job growth to the City of Portland. Some of their individual development related projects include:

- Press Hotel – a LEED-certified boutique hotel with a historic history (former headquarters of the Portland Press Herald) - Portland, ME
- EVO – a restaurant adjacent to the Hyatt Place Hotel – Portland, ME
- ** 280 Fore Street – 70,000 Class A office/retail building at the corner of Franklin and Fore Streets – Portland, ME
- ** Hilton Garden Inn – hotel located in a historic district – Portsmouth, NH
- ** CIEE – 60,000 square foot office/condo building located on Fore Street – Portland, ME
- ** 50 Sewall Street – 40,000 square foot LEED-certified medical office building - Portland, ME
- Excelsior & Des Bains-Lido – multi-project development that included the rehabilitation of two historic assets in Venice, Italy
- Chebeague Island Inn – renovations of a 21-room historic inn and ocean side golf course – Chebeague Island, ME

Note: ** Indicates Jim Brady while in his role as President of Olympia Development.

The design team includes the following professionals:

- Architect – Perkins + Will, Boston, MA
- Civil Engineer & Permitting Professional – Woodard & Curran, Portland, ME
- Local Architect/Historic – Scott Simons Architects, Portland, ME
- Landscape Architect – Michael Boucher Landscape Architecture, Freeport, ME
- Traffic Engineer – Gorrill Palmer, South Portland, ME

- Sustainability Consultant – Thornton Tomasetti, Portland, ME
- Geotechnical Engineer – Haley & Aldrich, Portland, ME
- Surveyor – Owen-Haskell, Falmouth, ME
- Marina Designer – Applied Technologies Management (ATM), Charleston, SC

10.3 ATTACHMENTS

- Financial Capacity Letter

HFF
Holliday Fenoglio Fowler, L.P.

September 14, 2016

Ms. Christine Grimando, AICP
Senior Planner
Planning & Urban Development Department
389 Congress Street 4th Floor
Portland, ME 04101

Re: 58 Fore Street Redevelopment by CPB2 LLC / Master Development Plan Financing

Dear Ms. Grimando,

It's my pleasure to provide this memorandum confirming HFF's relationship with the CPB2 LLC and its managing partners Jim Brady, Casey Prentice and Kevin Costello. HFF believes that CPB2 LLC and its management possess the relevant experience to master plan, design, and coordinate a multi-phased development plan of the scope and importance that the 58 Fore Street redevelopment represents to Portland. The managing partners have proven their development expertise with numerous successful Portland projects.

CPB2 LLC possesses relationships with capital partners, banks, and financial institutions demonstrating the financial capacity necessary to obtain project financing for a master planned waterfront development. In our role as financial intermediary for the project, HFF will work with CPB2 to arrange the appropriate capitalization for each phase of the development.

HFF is one of the largest and most successful commercial real estate capital intermediaries in the country. We incorporate capital markets knowledge with local real estate expertise to successfully complete a broad spectrum of real estate transactions, regardless of size or complexity. HFF looks forward to working with CPB2 LLC on the financing aspects of the project as it moves forward from the Master Development Plan submission to phased vertical developments.

HFF's unique knowledge, broad capital markets relationships and national platform enable the firm to be in the position to arrange financing for a wide range of commercial real estate projects and we're proud of our history of performance spanning more than 30 years.

Thank you and best regards,

Anthony Cutone
Managing Director

11. CONCEPTUAL SITE PLAN §14-527 (E)

The existing Project Site is fully developed and there are no known areas of significant natural features, including unusual natural areas, rare or endangered botanical features, areas of significant wildlife habitats, or wetland areas located within or adjacent to the Project Site. Portions of the project are located within a Historic District and will impact historic resources.

11.1 GENERAL IMPACT OF PROPOSED MASTER DEVELOPMENT PLAN UPON THE AREA §14-527(E)(1)

A neighborhood context map has been prepared at a scale not less than one (1) inch equals one hundred (100) feet and provides a graphic description of the neighborhood where 58 Fore Street lies. The map includes roads, utilities and other public facilities, major existing buildings and structures and is attached to this Section.

The Project Site has historically been a developed part of the City of Portland and the site has always been bordered by the Munjoy Hill/East End neighborhood and Portland Harbor.

Portland Company circa 1938

There are a variety of residential, office, hotel, commercial and retail uses currently within the vicinity of the Project Site. The redevelopment of the former Portland Company complex offers an opportunity to fully realize the potential of this site in accordance with the Eastern Waterfront Master Plan and market forces. The underlying tone of the project is for it to be a neighborhood that is within the context of the surrounding area and aligns with City Zoning requirements. The most important elements of the project are protecting public access to the waterfront, preserving the historic nature of the site, enhancing waterfront uses and ensuring the development is in line with pedestrian access.

The eastern portions of the site are proposed as residential to reflect and support the character of adjacent, existing residential uses. The uses transition to more commercial and public spaces moving west throughout the site which are consistent with the existing uses and create a natural and consistent transition with that section of the City. The waterfront zone of this project merges directly with the Eastern Promenade Trail, accommodating pedestrians, cyclists, and the Maine Narrow Gauge Railroad. A generous walkway runs along the seawall for the entire length of the property,

connecting seamlessly to existing trails to the east, and the city-owned Amethyst lot to the west. The waterfront walkway widens around the proposed marina building to allow pedestrian circulation and to afford excellent views of Portland Harbor. The waterfront walkway is separated from the bicycle and train routes of the Eastern Promenade Trail by a planted buffer that will create a calmer walking environment, and guide pedestrian crossings of the faster bike and train traffic lanes at demarcated points along the trail. The primary crossing is aligned with the central view corridor and circulation axis between B3 and B5. A second future crossing is proposed on the western side of B3 where the Amethyst lot meets the waterfront. A smaller, private crossing is proposed between the larger yacht dock space and Blocks 5 and 6.

11.2 CONCEPTUAL SITE PLAN - §14-527 (E)(2)

11.2.1 Approximate Boundary Lines - §14-527 (e)(2)(i)

The approximate boundary lines of existing lots and proposed blocks within and immediately adjacent to the Master Development Plan, are included in the drawings provided as an attachment to **Section 3** of this Report.

11.2.2 Natural Features of the Site - §14-527 (e)(2)(ii)

The drawings attached to Section 3 of this Report show the natural features of the Project Site (waterways, wetlands, floodplains, topography, soil conditions, etc.). These natural features have been considered in the design of the proposed development. Portland Harbor directly abuts the property and the proposed development will continue to utilize this resources as it has been historically used for a marina and yacht support services and public access to the waterfront. The property is also partially within and adjacent to a FEMA flood zone (A2 and V2, respectively). The only portion of the project that will be within either of these zones is the marina building and dock space, which are water dependent uses. The buildings at the waterfront are set back from the EWPZ more than required, providing a sizeable open zone along the harbor.

The project area is a historically developed site, and there are no known areas of significant natural features, including unusual natural areas, rare or endangered botanical features, areas of significant wildlife habitats within or adjacent to the Project Site that warrant preservation.

11.2.3 Analysis of Designated View Corridors, Historic Resources and Archeological Resources §14-527 (e)(2)(iii)

The 58 Fore Street project was conceived and designed with view corridors and historic resources in mind (there are no archeological resources associate with the site).

11.2.3.1 Designated View Corridors

The B6 Building Height Overlay & Building Envelope map dated effective on July 1, 2015 requires view corridors. This project proposes to maintain four individual 50-foot view corridors at Kellogg, Waterville, St. Lawrence and Atlantic Streets (200 feet in total). There is also a proposed public access easement further to the west of the view corridors. Within the defined view corridors, no building is allowed above the corresponding Fore Street elevation. The project envisions that the public access easement will provide an opportunity for neighbors and the public to walk directly down to the waterfront from Munjoy Hill and Fore Street – something that has been limited in the past.

11.2.3.2 Historic Resources

On October 27, 2015, the Planning Board recommended to the City Council that a portion of the Portland Company building complex be designated a local historic district subject to Portland's historic preservation ordinance; the City Council designated the Portland Company Historic District on February 17, 2016.

Figure **4** shows the building numbering of the existing buildings on the Project Site. A map of the district boundaries is shown in **Figure 5.** A Historic Preservation Application for Certificate of Appropriateness was submitted on July 26, 2016; a copy of the application is attached to this Section for reference.

Figure 4: Existing Buildings – 58 Fore Street

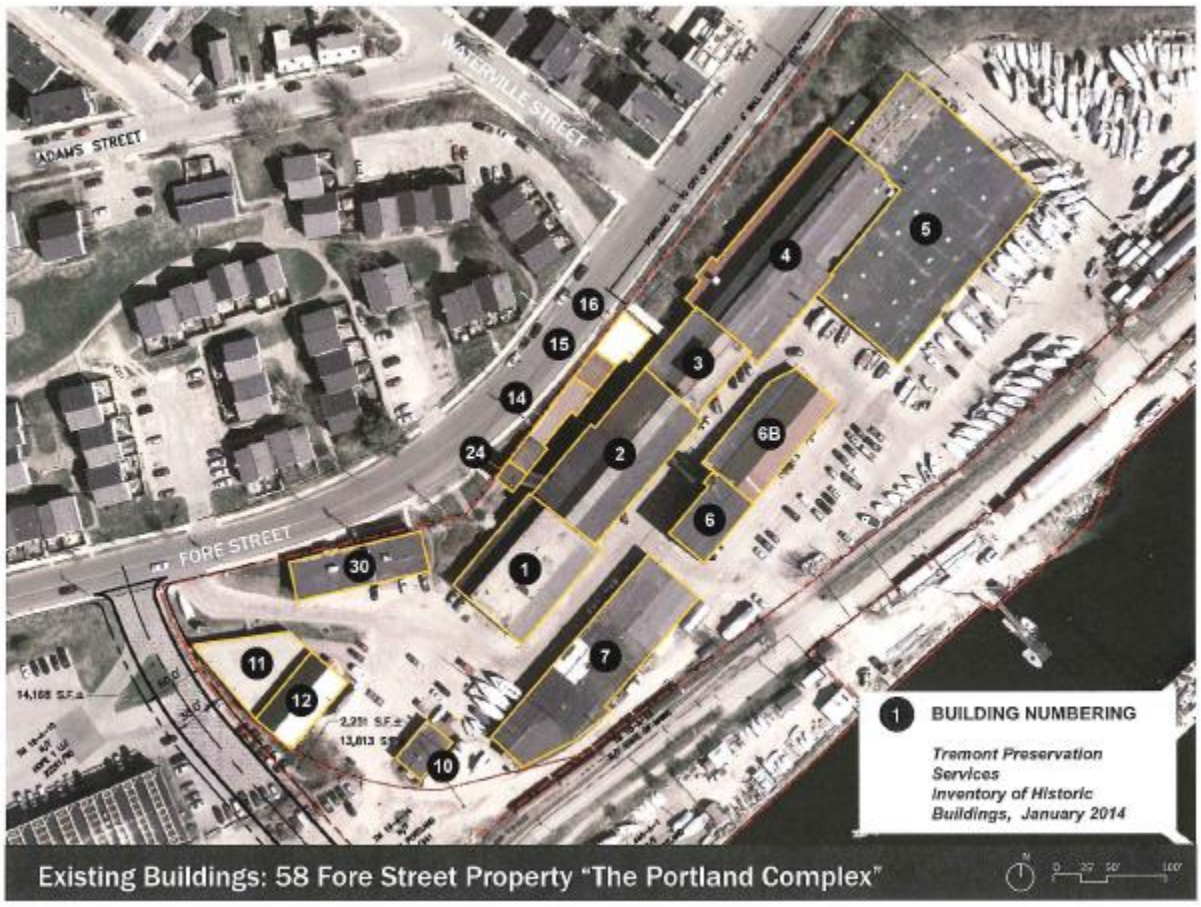
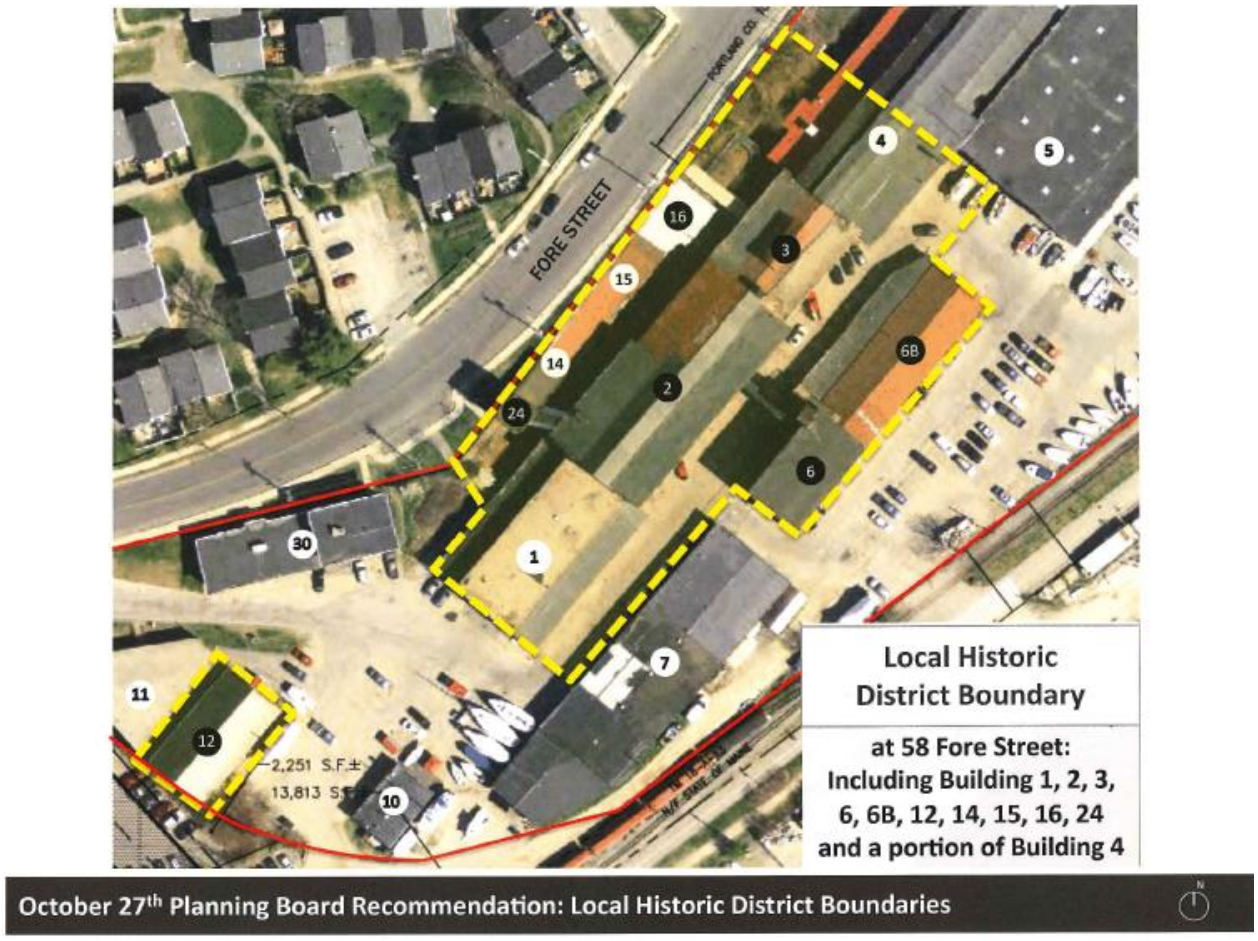


Figure 5: 58 Fore Street – Local Historic District Boundary



11.2.4 Existing/Proposed Buildings, Other Significant Structures, Building Groupings, Exterior Building Elevations and Entrances, Parking Areas, Other Significant Physical Site Features §14-527 (e)(2)(iv)

Existing buildings on the Project Site are shown and numbered on
Figure **4**. Also existing at the site is a marina operation and this use is anticipated to remain on site. For development purposes, the site has been divided into seven development blocks. The redevelopment program for the site was conceived by considering new and redefined uses for these seven separate development blocks. Proposed uses for the development blocks will include residential, office, commercial, retail, hotel, marina and restaurant buildings as well as a plaza type feel for pedestrian use between the individual building components.

Within the historic core, there will be pavement in various textures to foster the pedestrian experience and public plaza environment. A brick inlay within the paving will depict the footprint of Building 1 across the public access easement adjacent to Building 2. Rail tracks currently extending into Building 1 will be incorporated, as well, to memorialize the footprint and purpose of Building 1. Continuous stone or other modular paving is envisioned throughout the site.

One significant physical feature is the site grade which is 12' along the 1,000 feet of waterfront and goes from 30 to 50 to 70 to 88 feet along Fore Street. The vision is to utilize this grade differential by constructing pedestal parking beneath

the building footprints of B4, B5 and B6. There will also be a one level pedestal of parking built underneath the building for B1. On the Thames Street side, this parking will be framed by drive entry, retail and building entry areas, thus screening the parking behind. This pedestal of parking will be buried into the grade of Fore Street and not be exposed at that level. In total, there will be four ways to get in and out of the garage parking areas – three will be directly on site and one is proposed to be along Fore Street into B4.

Vehicular access to the site will primarily stem from the Thames Extension (abutting Commercial Street) and in the future, a newly constructed roadway that will be perpendicular to Fore Street and the Thames Extension, adjacent to B1. Vehicles entering the site will have the opportunity to park within structured parking, limited on street parking will be available. The access point for B6 will be along a slightly sloped ramp to be constructed on top of the pedestal parking and running parallel between B4 and B5. This ramp will end in front of B6 and a turnaround will be provided for vehicles to exit the area. The City of Portland Fire Department was consulted with regard to Fire Truck access and it was confirmed that this proposed approach will be able to accommodate their vehicles.

Pedestrian access will be available to users from Thames and Fore Streets, the staircase being proposed along Fore Street and utilizing the public access easement to bring visitors into the site, all the way down to the waterfront, the pedestrian path along the waterfront (which will be maintained by Maine DOT and Portland Trails) and a proposed extending walkway along the water. Access points will cross the bike/pedestrian path as well as the rail line.

Other notable site features include the property's prominent location adjacent to Portland Harbor as well as a Maine DOT easement, rail line and bike/pedestrian path that currently bisects the property. The redevelopment plan does include modifying these features and bringing them closer to the water which will bring users closer to the water's edge and provide for a more continuous development program, consistent with the EWMP. During the planning phase of this project, meetings were held with Portland Trails, the City of Portland and Maine DOT regarding these modifications.

See also Section 4.6 for a more detailed explanation of the proposed changes and renovation to the buildings in the Historic Core.

11.2.5 Context Drawings – Context Drawings, Renderings, Photo Montage or Computer Generated Graphics §14-527 (e)(2)(v)

Architectural plans and renderings depicting the proposed development within the surrounding building and environmental context are included with this submittal.

11.2.6 Major Circulation Patterns, Existing and Proposed Lines of Streets, Ways, Easements and Public Areas §14-527 (e)(2)(vi)

The major circulation patterns surrounding and serving the Site will be driven by the extension of Thames Street across the Site; the primary 50-foot pedestrian access easement from Fore Street; a central corridor at ground level providing direct access to the waterfront; and the pedestrian, bicycle, and train paths along the waterfront. Existing and proposed lines of streets, ways, easements, and public areas are shown on the drawings attached to **Section 3** of this Report. The Thames Street extension is intended to be shared use, safely accommodating a mixed stream of bike/pedestrian, car, and service vehicle traffic accessing all the blocks and the marina. Vehicular turnarounds are provided between B3 and B5 and at the terminus of the street between B5 and B6. Circulation will also occur throughout the historic core, all the way around Buildings 2, 3, 6 and 6A.

The waterfront section of the Site will continue to accommodate pedestrian, bicycle, and train movement and is fully continuous with the Eastern Promenade Trail. The proposed Site will also continue to provide direct access to the waterfront, as it does in the existing condition. Much of the Site's outdoor space will be public area; the street, the waterfront corridors, the outdoor space around the historic buildings, and the entire waterfront zone will all be open and accessible to the public. Approximately 60% of the entire property is currently proposed as open space and 75% of

that proposed open space is proposed as accessible to the public. Easements are described in Section 8 of this Report.

11.2.7 Major Landscaping Elements, Features, Open Space and Plans for Preserving Natural Features §14-527 (e)(2)(vii)

Proposed plans for major landscaping elements, features, and open space are described in **Section 3.4.3** of this Report. The drawings attached to **Section 3** of this Report show the natural features of the Project Site. These natural features have been considered in the design of the proposed development. Portland Harbor directly abuts the Project Site and the proposed development will preserve and enhance public access to this resource. The property is also partially within and adjacent to a FEMA flood zone (A2 and V2, respectively). The only portion of the project that will be within either of these zones is the marina building and dock space, which are water dependent uses. The buildings at the waterfront are set back from the EWPZ more than required, providing a sizeable open zone along the harbor.

The project area is a historically developed site, and there are no known areas of significant natural features, including unusual natural areas, rare or endangered botanical features, areas of significant wildlife habitats within or adjacent to the Project Site that warrant preservation.

11.2.8 Public Safety Services §14-527 (e)(2)(viii)

Public safety services will be needed to support the overall master plan for the Project Site both during design, construction and when the build out/occupancy is complete. The design of the new buildings will benefit any emergency response activity in that they will be full covered by modern, code compliant sprinkler systems. Each building will also have all of the code required smoke, fire and carbon monoxide detectors.

In July 2016, an informal meeting was held with Captain Keith Gautreau (Assistant Chief, Portland Fire Department) and Michael White (City of Portland, Life Safety Plans Reviewer) to review plans for the development. There will be continued communication as plans develop. Minutes from this meeting have been included as an attachment.

11.2.9 School System Impacts §14-527 (e)(2)(ix)

The proposed developed is expected to have minimal impact on the City's public school system. The master plan does include a component of residential development that will be a mix of studio, one bedroom, two-bedroom and three-bedroom apartment and condo units that may include school age occupants. However, we anticipate that the City of Portland school system will be able to accommodate the total number of school age children who may reside in the proposed units. The site's primary circulation drive has been designed to accommodate bus access if needed. Based on the Portland School Department's current districting, should school age children reside within the development, they would likely attend the East End School and King Middle School or Lyman Moore Middle School.

11.2.10 Stormwater/Drainage Plan §14-527 (e)(2)(x)

A review of the 2013 Owen Haskell, Inc. survey indicates that there are currently three stormwater outfall discharges on the Site; however, portions of the site's stormwater runoff may discharge to the combined sewer system. The City of Portland is working to reduce the number of combined sewer overflows occurring in the City, and any separation of sanitary sewer from stormwater flow will help with this initiative. In early 2013, the City's Combined Sewer Overflow Long Term Control Plan Tier III Update was completed; one of the geographic areas evaluated in this report was the Portland Harbor. The 58 Fore Street area was identified as part of the India Street CSO-shed; however, the report did not give any specific recommendations for management of stormwater in this area. A targeted area for green infrastructure and sewer separation was identified within the report, southwest of the proposed development area.

The Ocean Gateway construction project created separate stormwater and sanitary sewer systems installed to the end of Thames Street. The stormwater discharges to an outfall constructed as part of the project. Prior to discharge at this

new outfall, stormwater is directed through a stormwater treatment unit designed to meet water quality standards established at that time. A 2006 evaluation of this stormwater system identified the maximum drainage area and acceptable flows that could discharge to the outfall's stormwater treatment system; stormwater flows from 58 Fore Street cannot be handled by the Ocean Gateway outfall's permitted stormwater treatment system.

The proposed drainage plan and stormwater management techniques are described in Section 12 of this Report.

11.2.11 Master Development Plan Boundaries §14-527 (e)(2)(xi)

The drawings attached to Section 3 of this Report show the Master Development Plan boundaries for the Project Site.

11.2.12 Traffic Analysis §14-527 (e)(2)(xii)

Please refer to Section 13 of this Report.

11.2.13 Utilities Analysis §14-527 (e)(2)(xiii)

Please refer to Section 14 of this Report.

11.3 ATTACHMENTS

- Neighborhood Context Map
- Historic Preservation Application for Certificate of Appropriateness
- 58 Fore Street Development Block 2: Historic Core Package
- July 18, 2016 – Fire Prevention Meeting Minutes

41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

NEIGHBORHOOD CONTEXT MAP

DESIGNED BY: N/A
DRAWN BY: BCM
CHECKED BY: DAS
\\wc\shares\Projects\227007.03 NCM.dwg

CPB2, LLC
PORTLAND, MAINE 04102

58 FORE STREET

JOB NO: 227007.03
DATE: SEPT. 2016
SCALE: 1"=200'

FIG. 2

Date: JULY 26, 2016

HISTORIC PRESERVATION
APPLICATION FOR CERTIFICATE OF APPROPRIATENESS

Pursuant to review under the City of Portland's Historic Preservation Ordinance (Chapter 14, Article IX of the Portland City Code), application is hereby made for a Certificate of Appropriateness for the following work on the specified historic property:

PROJECT ADDRESS:

58 FORE STREET, PORTLAND, ME 04101

CHART/BLOCK/LOT: 018 A001 (for staff use only)

PROJECT DESCRIPTION: Describe below each major component of your project. Describe how the proposed work will impact existing architectural features and/or building materials. If more space is needed, continue on a separate page. Attach drawings, photographs and/or specifications as necessary to fully illustrate your project—see following page for suggested attachments.

SEE ATTACHED CPB2 NARRATIVE DATED JULY 25, 2016

CONTACT INFORMATION:

APPLICANT
Name: CPB2 LLC
Address: P.O. BOX 7987
PORTLAND, ME
Zip Code: 04112
Work #: 207.358.1994
Cell #: 207.653.9990
Fax #:
Home:
E-mail: JAMESHBRADY@GMAIL.COM

PROPERTY OWNER
Name: CPB2 LLC
Address: P.O. BOX 7987
PORTLAND, ME
Zip Code: 04112
Work #: 207.358.1994
Cell #: 207.653.9990
Fax #:
Home:
E-mail: JAMESHBRADY@GMAIL.COM

BILLING ADDRESS
Name: SCOTT SIMONS ARCHITECTS
Address: 75 YORK STREET
PORTLAND, ME
Zip: 04101
Work #: 207.772.4656
Cell #:
Fax #: 207.828.4656
Home:
E-mail:

ARCHITECT
Name: SCOTT SIMONS ARCHITECTS
Address: 75 YORK STREET
PORTLAND, ME
Zip: 04101
Work #: 207.772.4656
Cell #:
Fax #: 207.828.4656
Home:
E-mail: SCOTT@SIMONSARCHITECTS.COM
AUSTIN@SIMONSARCHITECTS.COM

CONTRACTOR
Name: NOT YET DETERMINED
Address:
Zip Code:
Work #:
Cell #:
Fax #:
Home:
E-mail:

JNB

Applicant's Signature

Owner's Signature (if different)

Historic Preservation Application Fee Schedule:

• **Administrative Review** (for minor or standard alterations)	$65.00
• **HP Board Review**	$125.00
• **HP Board Review for major projects** involving new construction or building addition exceeding 1000 sq. ft. or comprehensive rehabilitation/redesign of existing structures	$750.00
• **After-the-fact Review** (for work commenced without advance approval)	$1000.00
• **Sign Review** for signs in historic districts	$75.00

Noticing/Advertisements for Historic Preservation Board Review*

- Legal Advertisement: Percent of total bill
- Notices: .75 cents each

(notices are sent to neighbors prior to any workshop or public hearing meetings)

* You will be billed separately for these costs.

Activities Requiring Approval in Historic Districts

If your property is located within a historic district or is an individually designated historic structure, it is necessary to receive approval before proceeding with any exterior alteration, construction activity or site improvement that will be visible from a public way. Following is a list of activities requiring review. **Please check all those activities that apply to your proposed project.**

Alterations and Repair

- ☑ Window and door replacement, including storms/screens
- ☑ Removal and/or replacement of architectural detailing (for example porch spindles and columns, railings, window moldings, and cornices)
- ☐ Porch replacement or construction of new porches
- ☑ Installation or replacement of siding
- ☑ Masonry work, including repointing, sandblasting, chemical cleaning, painting where the masonry has never been painted, or conversely, removal of paint where the masonry historically has been painted
- ☑ Installation or replacement of either roofing or gutters when they are a significant and integral feature of the structure
- ☑ Alteration of accessory structures such as garages

Additions and New Construction

- ☑ New Construction
- ☑ Building additions, including rooftop additions, dormers or decks
- ☑ Construction of accessory structures
- ☑ Installation of exterior access stairs or fire escapes
- ☐ Installation of antennas and satellite receiving dishes
- ☐ Installation of solar collectors
- ☑ Rooftop mechanicals

Signage and Exterior Utilities

- ☑ Installation or alteration of any exterior sign, awning, or related lighting
- ☑ Exterior lighting where proposed in conjunction with commercial and institutional signage or awnings
- ☑ Exterior utilities, including mechanical, plumbing, and electrical, where placed on or near clearly visible facades

Site Alterations

- ☑ Installation or modification of site features other than vegetation, including fencing, retaining walls, driveways, paving, and re-grading

Moving and Demolition

- ☑ Moving of structures or objects on the same site or to another site
- ☑ Any demolition or relocation of a landmark contributing and/or contributing structure within a district

Note: Your project may also require a building permit. Please call Building Inspections (874-8703) to make this determination.

ATTACHMENTS

To supplement your application, please submit the following items, *as applicable to your project.*
Keep in mind that the information you provide the Historic Preservation Board and staff is the only description they will have of your project or design. Therefore, it should precisely illustrate the proposed alteration(s).

__✓__ Exterior photographs (required for all applications.) Include general streetscape view, view of entire building & close-ups of affected area.

_____ Sketches or elevation drawings at a minimum 1/4" scale. Please label relevant dimensions. All plans shall be submitted in 11" x 17" format except for major projects, where 22" x 34" plans are requested. Applicants for major projects should submit one (1) 11" x 17" copy for scanning purposes.

_____ Details or wall sections, where applicable.

_____ Floor plans, where applicable.

__✓__ Site plan showing relative location of adjoining structures.

_____ Catalog cuts or product information (e.g. proposed windows, doors, lighting fixtures, fencing)

_____ Materials - list all visible exterior materials. Samples are helpful.

_____ Other(explain) SITE MASTER PLAN MATERIAL

_____

_____

If you have any questions or need assistance in completing this form, please contact Historic Preservation staff: Deb Andrews (874-8726, dga@portlandmaine.gov or Rob Wiener (756-8023), rwiener@portlandmaine.gov)

Please return this form, application fee (see attached fee schedule), and related materials to:

Historic Preservation Program
Department of Planning and Urban Development
Portland City Hall, 4th Floor
389 Congress Street
Portland, ME 04101

Standards for Review of Alterations to Historic Buildings

In considering an application for a Certificate of Appropriateness involving alterations, the Historic Preservation Board and Staff the following review standards, as provided in the City's historic preservation ordinance:

(1) Every reasonable effort shall be made to provide a compatible use for the property which requires minimal alteration to the character-defining features of the structure, object or site and its environment or to use a property for its originally intended purpose.

(2) The distinguishing original qualities or character of a structure, object or site and its environment shall not be destroyed. The removal or alteration of any historic material or distinctive architectural features should be avoided when possible.

(3) All sites, structures and objects shall be recognized as products of their own time, place and use. Alterations that have no historical basis or create a false sense of historical development such as adding conjectural features or elements from other properties shall be discouraged.

(4) Changes which may have taken place in the course of time are evidence of the history and development of a structure, object or site and its environment. Changes that have acquired significance in their own right, shall not be destroyed.

(5) Distinctive features, finishes, and construction techniques or examples of skilled craftsmanship which characterize a structure, object or site shall be treated with sensitivity.

(6) Deteriorated historic features shall be repaired rather than replaced wherever feasible. Where the severity of deterioration requires replacement of a distinctive feature, the new feature should match the feature being replaced in composition, design, texture and other visual qualities and, where possible, materials. Repair or replacement of missing historic features should be based on accurate duplications of features, substantiated by documentary, physical or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other structures or objects.

(7) The surface cleaning of structures and objects, if appropriate, shall be undertaken with the gentlest means possible. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be undertaken.

(8) Every reasonable effort shall be made to protect and preserve significant archeological resources affected by or adjacent to any project. If resources must be disturbed, mitigation measures shall be undertaken.

(9) Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant cultural, historical, architectural or archeological materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the size, scale, color, material and character of the property, neighborhood or environment.

(10) Wherever possible, new additions or alterations to structures and objects shall be undertaken in such a manner that, if such additions or alterations were to be removed in the future, the essential form and integrity of the historic property would be unimpaired.

CASH ONLY IF ALL CheckLock™ SECURITY FEATURES LISTED ON BACK INDICATE NO TAMPERING OR COPYING

Scott Simons Architects LLC
75 York Street
Portland, ME 04101
(207) 772-4656

Bath Savings Institution
BRUNSWICK, ME 04011
52-7444/2112

14156

7/26/2016

PAY TO THE ORDER OF City of Portland $ **125.00

One Hundred Twenty-Five and 00/100********** DOLLARS

PROTECTED AGAINST FRAUD

City of Portland
389 Congress Street
Portland, Maine 04101

MEMO HP application

⑈014156⑈ ⑆211274447⑆ 050 1045 4⑈

Scott Simons Architects 14156

City of Portland 7/26/2016

Date	Type	Reference	Original Amt.	Balance Due	Discount	Payment
7/26/2016	Bill		125.00	125.00		125.00
					Check Amount	125.00

Bath Checking	HP application	125.00

CITY OF PORTLAND

DEPARTMENT OF PLANNING & URBAN DEVELOPMENT

389 Congress Street
Portland, Maine 04101

INVOICE OF FEES

Application No:	2016-180	**Applicant:**	CPB2 LLC
Project Name:	Preliminary Development Program	**Location:**	58- FORE ST
CBL:	018 A001001	**Development Type:**	Historic Preservation Project
Invoice Date:	07/27/2016		

Previous Balance	-	Payment Received	+	Current Fees	-	Current Payment	=	Total Due	Payment Due Date
$0.00		$0.00		$125.00		$125.00		$0.00	On Receipt

Previous Balance **$0.00**

Fee Description	Qty	Fee/Deposit Charge
HP Minor Board Review	1	$125.00
		$125.00

Total Current Fees:	+	**$125.00**
Total Current Payments:	-	**$125.00**
Amount Due Now:		**$0.00**

CBL 018 A001001
Bill To: CPB2 LLC
PO BOX 7987
PORTLAND, ME 04112

Application No: 2016180
Invoice Date: 07/27/2016
Invoice No: 59037
Total Amt Due: $0.00
Payment Amount: $125.00

Make checks payable to the ***City of Portland,*** ATTN: Inspections, 3rd Floor, 389 Congress Street, Portland, ME 04101.

Pay On-Line at http://portlandmaine.gov/550/Inspections

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

July 25, 2016

RE: Portland Company, Historic District

The primary purpose of the Historic Preservation ("HP") Board workshop is to review and seek guidance from the HP Board regarding the challenges of the location of Building #12, the former Pattern Storehouse Addition.

HISTORY

On February 17, 2016, the Council designated two specific Historic District boundaries within the Portland Company district. One of those boundaries encircled the existing footprint of Building #12, by itself, and separate from the historic core which included 6 additional contributing structures, including buildings 2, 3, 6, 6B, 16 & 24.

The Pattern Storehouse Addition, according to Sutherland Conservation & Consulting:

"Construction Date: 1895
The Patter Storehouse Addition was built immediately adjacent to the original storehouse (Bldg #11), built a decade earlier, using the same materials and technology…"

The Pattern Storehouse Addition, being built adjacent to, actually shares the same common wall with the earlier Building 11, which has been determined to not be a contributing structure due to structural integrity.

CONTEXT

The Eastern Waterfront Master Plan, adopted 2004, contemplates additional public infrastructure in the means of new roadways to the East (extension of Commercial St – now called Thames St) as well as 3-4 connector roads connecting Thames St up to Fore St. During the Ocean gateway project, the first of these new connector roads was constructed, stepping up the slight grade at that location for the Hancock St extension. Additional connector roads were envisioned to the East with the furthest East being a Street immediately adjacent to the Portland Company Western property boundary. Building 12 sits on this Western most property boundary.

The grade changes at this specific location are best seen in the profile image prepared by Woodard & Curran (Civil Engineers), for the City of Portland, dated

February 26, 2016. Here the significant grade from the finished floor elevation of Building #12 of 12.83 and 13.08 (Approx. 13.0') up to the nearby connection at Fore Street at elevation 29.0' create a challenging situation for Building #12 once the new connector road is constructed. As shown in this profile section, the new roadway would bury a large portion of the first floor of Building #12. The northwest corner of Building 12 would be 8.47' below the roadway, and the southwest corner would be 5.87' below the plane of the new roadway. In essence this would "bury" much of the first floor of this building, in the new grade required for the roadway. The result of this roadway intervention would be the uncomfortable relationship of Building 12 to its new surroundings on the west side.

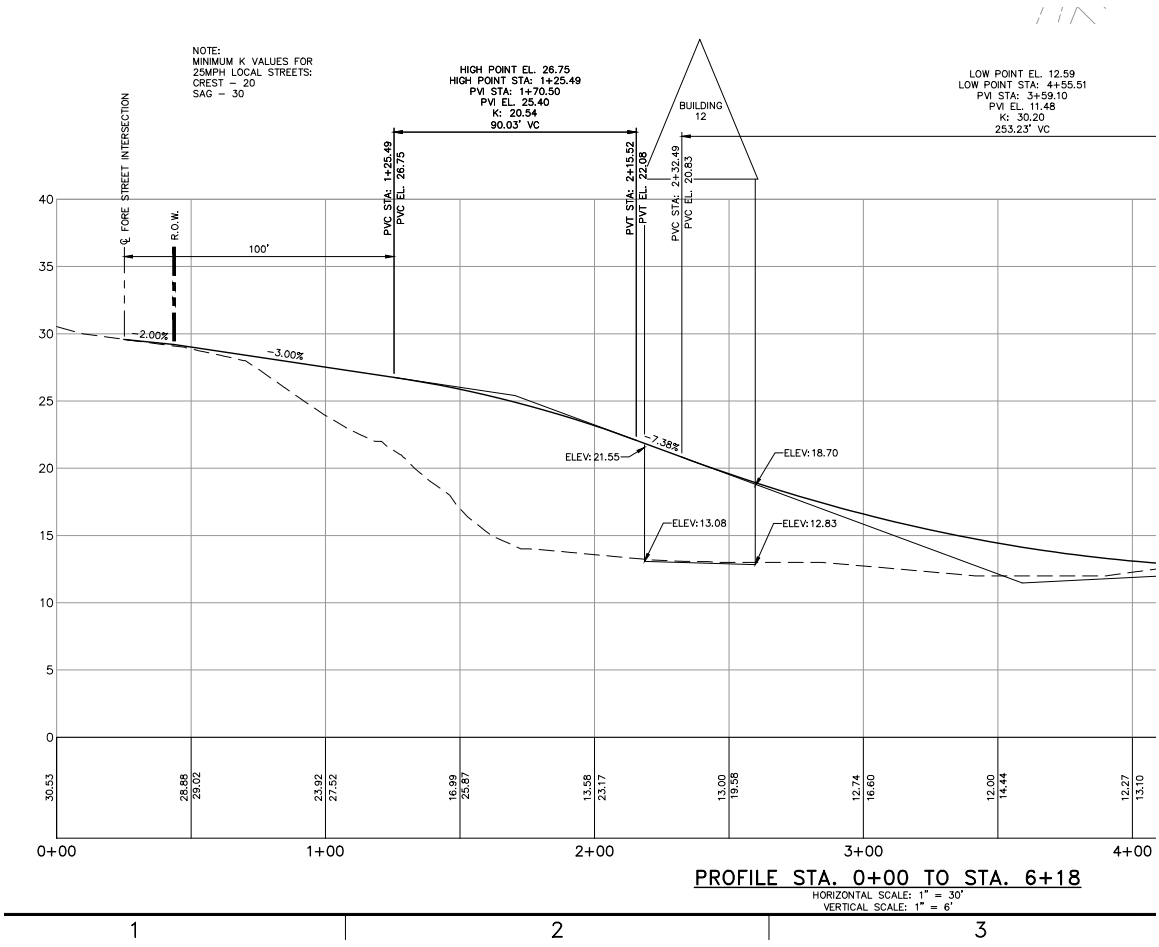


Figure 1-1: Section at Building #12 and proposed new connector road.

On the other three sides of Building 12, CPB2 proposes to develop Parcel 1 with a mixture of commercial and residential buildings, and structured parking below. The layout and efficiency of these buildings is important to the success of the

development. To keep the majority of parking off the streets and surface areas of the overall development, CPB2 proposes to build a one level parking structure under Parcel 1. This parking structure will enclose approximately the lower 10' of Building 12 on three sides, again further compromising the relationship of Building 12 to its original site and the other buildings in the Historic Core. Essential the lower floor of the building will be concealed by the roadway on the west and the garage on the other three sides.
A four-story building, with one level of retail on the ground floor along Thames Street (and parking under the back portions of the ground floor) and three floor levels above, will be built along the south edge of the Parcel 1 site. A three-story building will be built on top of the parking structure along the north side, following approximately the line of Fore Street. These proposed developments will enclose Building 12, removing it visually from the context of the Historic Core buildings to the east.

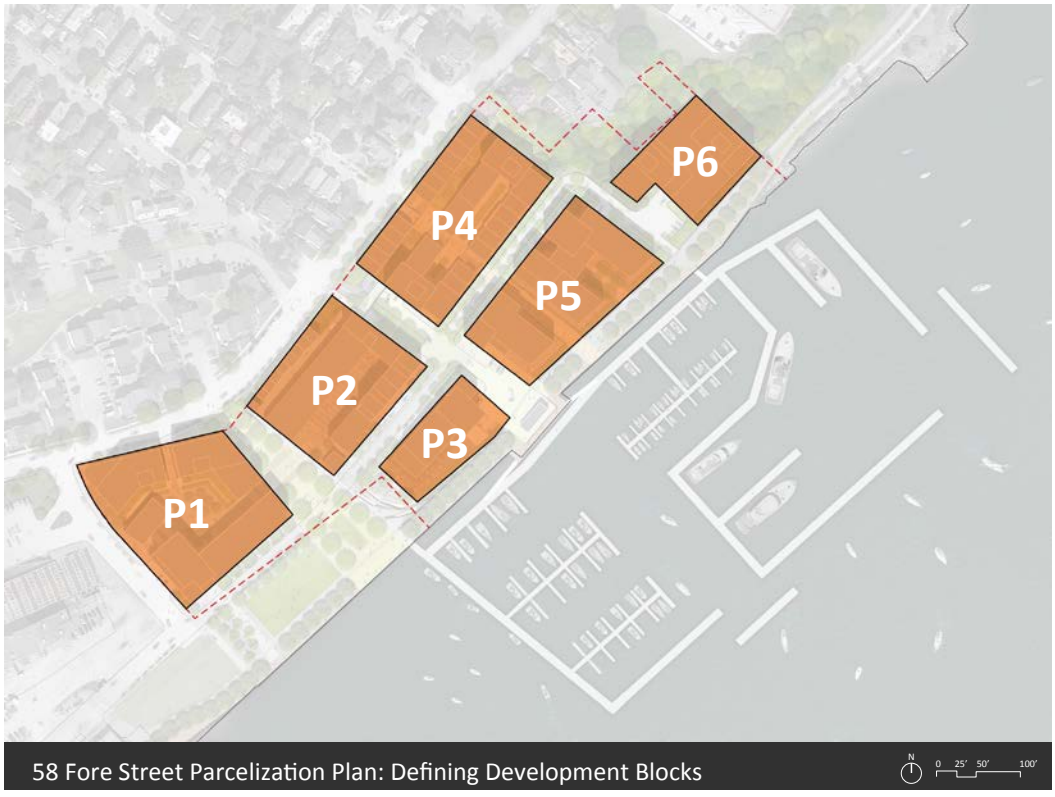


Figure 1-2: Concept Parcel Plan for Portland Company site, for reference

While seeking to resolve the challenging design conditions with the current location of Building 12, the design team have considered a number of possible alternate locations to better suit and integrate Building 12 to the larger historic

core located to the East. In consideration of this, the team has reviewed Land Use code, Chapter 14, section 652, regarding *Standards for review of relocation.*

Chapter 14-562. Standards for review of relocation.

In acting upon an application for a certificate of appropriateness involving relocation, the historic preservation board and the planning board shall apply the following general standards and any design guidelines in the ordinance designating the landmark or district:

(a) Whether the historic or urban design character in a static interest of the structure or object contribute to its present setting

(b) If located with in a district, whether there are definite of plans for the area to be vacated and what the effect of those plans is on the character of the surrounding area. In such cases, consideration of additional design guidelines for construction to be imposed as a condition of approval is appropriate.

(c) Whether the relocation of the structure or object can be accomplished without significant damage to its physical integrity.

(d) Whether the proposed relocation area is compatible with the cultural historical or architectural character of the structure or object.

Considering the proposed 50' Public access easement option CPB2 has offered to the City of Portland, located West of Building #2, this creates a break from the historic core, yet provides for a visual connection and relationship to the large complex to the East, included the six additional contributing structures of the Portland Company historic district. Upon looking at potential relocation alternatives, the design team reviewed relocation at the SW corner of Parcel 1 Discuss the proposed relocation, adjacent to the proposed public 50' easement – how that holds Building 12 away from the core 9as it always was since it was the pattern storage and was kept away for fire protection. Also want to highlight he alignment with the Portland Company historic core buildings (linear nature of the complex). Also discuss situating Building 12 proud of the new construction proposed at Parcel 1 along the easement access, to allow for better visual identification. Highlight the three primary viewpoints:

- Upon vehicular and/or pedestrian movement Eastward on Thames St – visually connecting to the West façade (one with Portland Company painted on brick)
- From Fore St, as approaching the proposed 50' public access easement
- From the waterfront and Portland trails

We look forward to a open discussion regarding a possible relocation of Building #12, to create a unique a special historic district benefiting the public, both visitors and residents to this area of the city.

Sincerely,

For CPB2, LLC

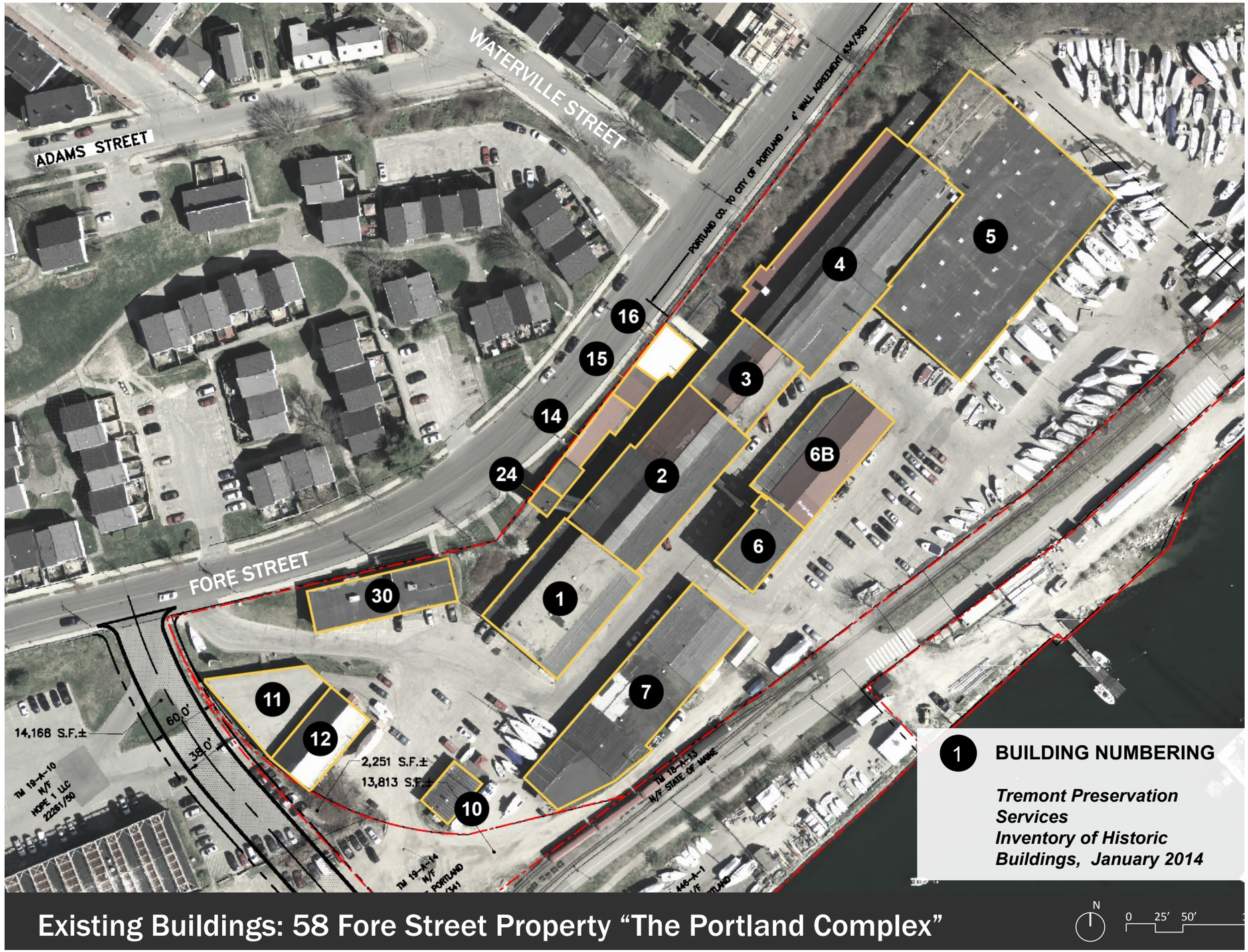
Jim Brady, Co-Manager
CPB2 Management, LLC

scott simons architects
designed for human potential

58 Fore Street

Development Block 2: Historic Core

EXISTING AERIAL VIEW



Existing Buildings: 58 Fore Street Property "The Portland Complex"

BUILDINGS 2 + 3: EXISTING GROUND FLOOR CONDITIONS

BUILDINGS 2 + 3: EXISTING SECOND FLOOR CONDITIONS

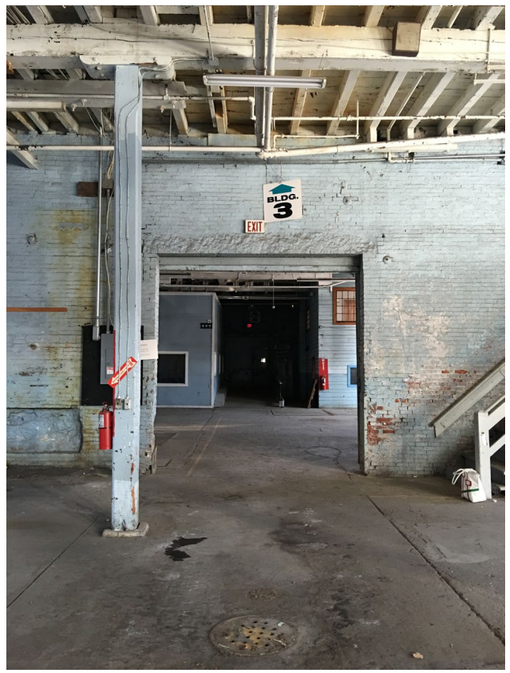
BUILDINGS 2, 24, 14, 15, 16: EXISTING CONDITIONS

BUILDINGS 2, 3: EXISTING CONDITIONS

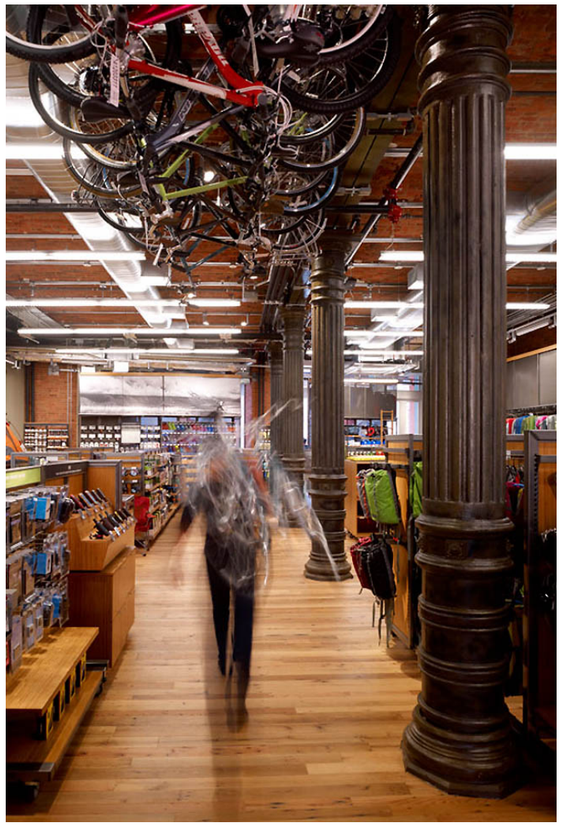
BUILDINGS 6, 6B: EXISTING CONDITIONS

BUILDINGS 24, TOWER: EXISTING CONDITIONS

BUILDING 12: EXISTING CONDITIONS

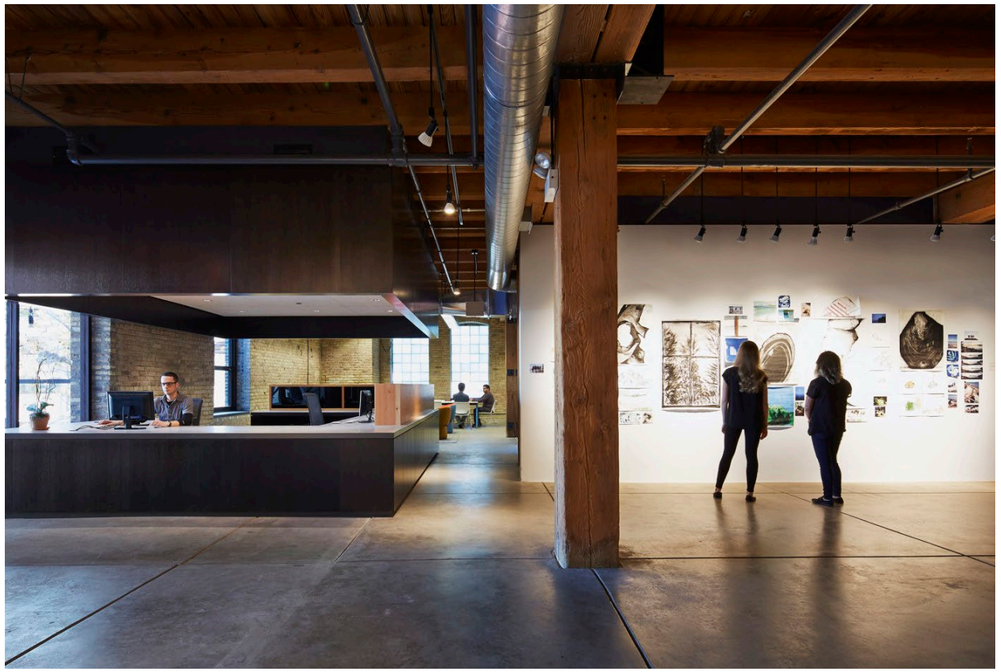


EXISTING GROUND FLOOR

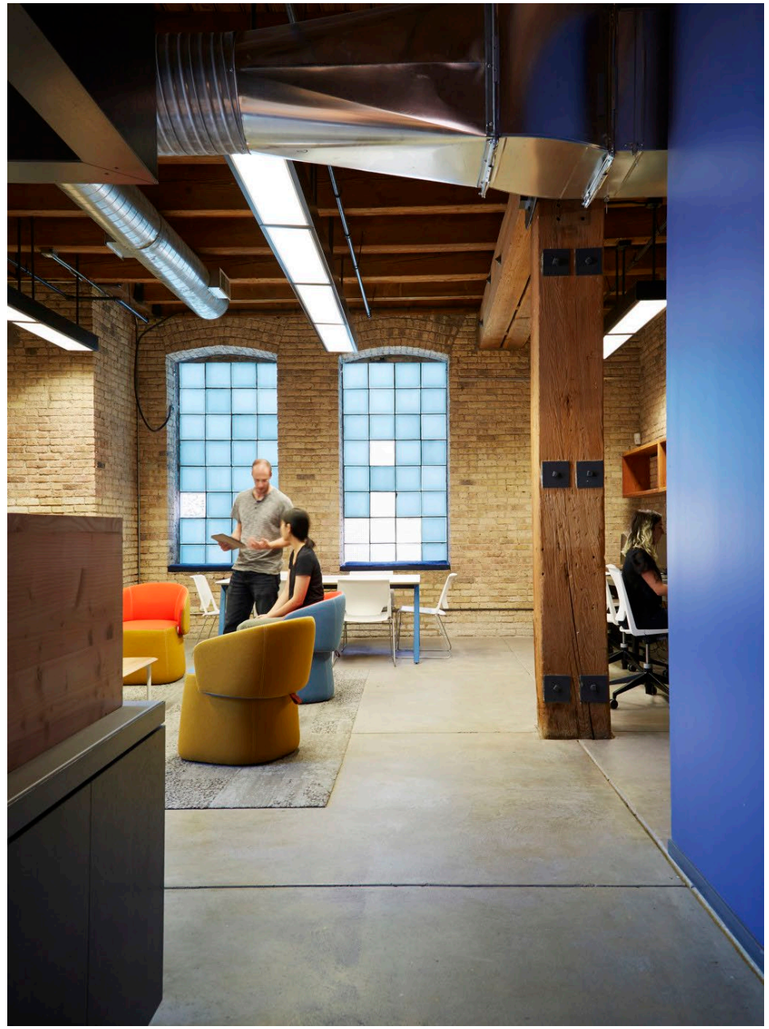


PRECEDENT IMAGES + CONCEPTS: COMMERCIAL TENANT

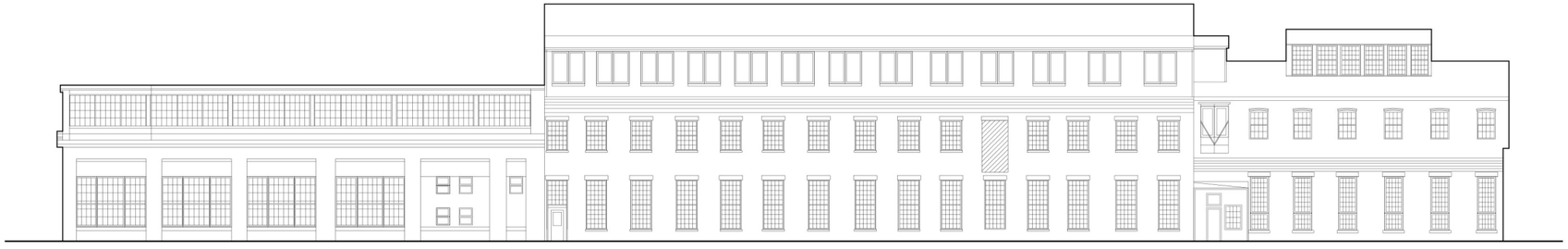
EXISTING 2ND FLOOR

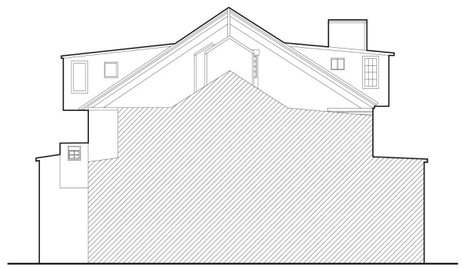


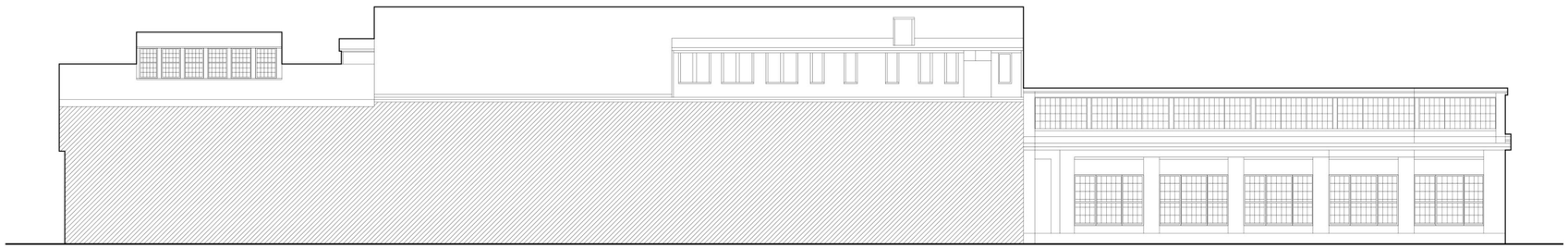
PRECEDENT IMAGES + CONCEPTS: OFFICE TENANT



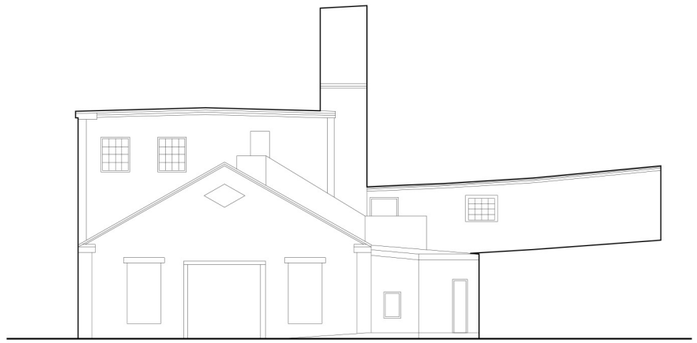
BUILDINGS 2 + 3 EXISTING ELEVATIONS



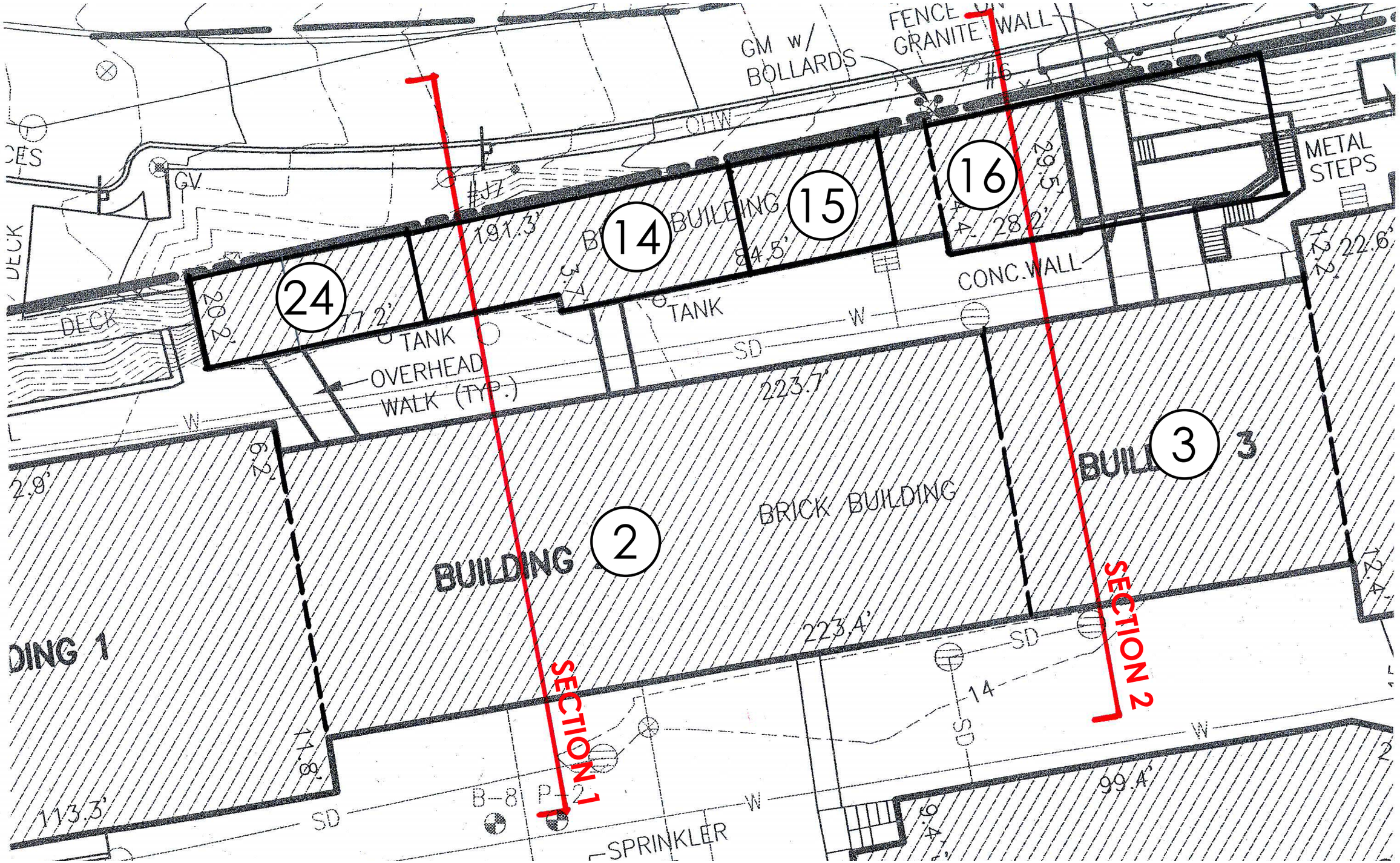




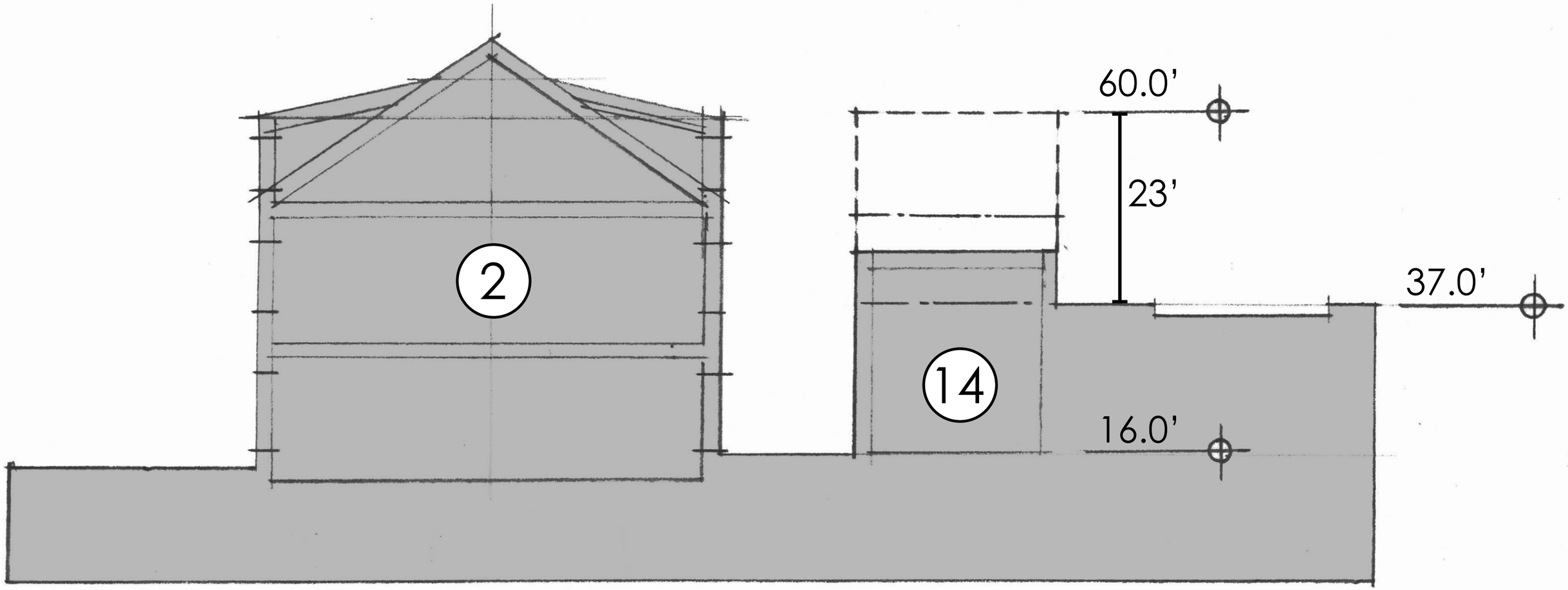
BUILDINGS 6 + 6B EXISTING ELEVATIONS



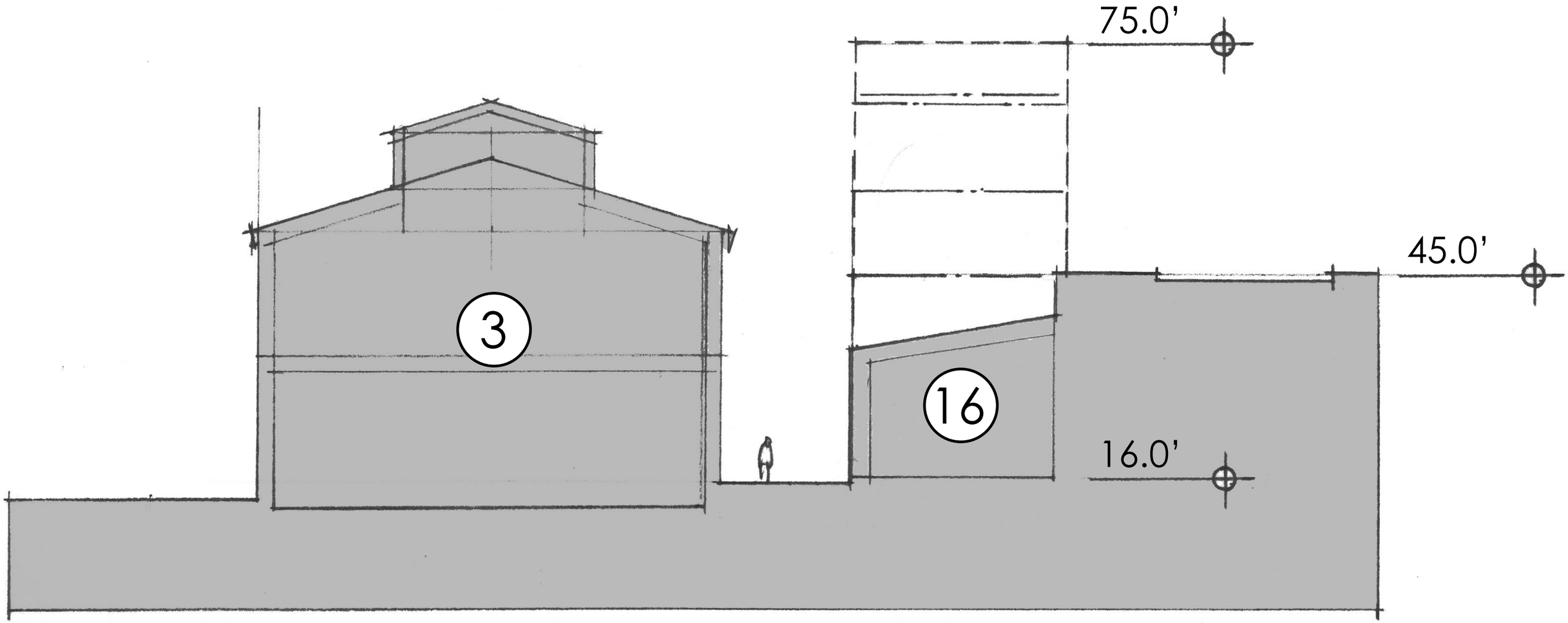
BUILDING SECTIONS



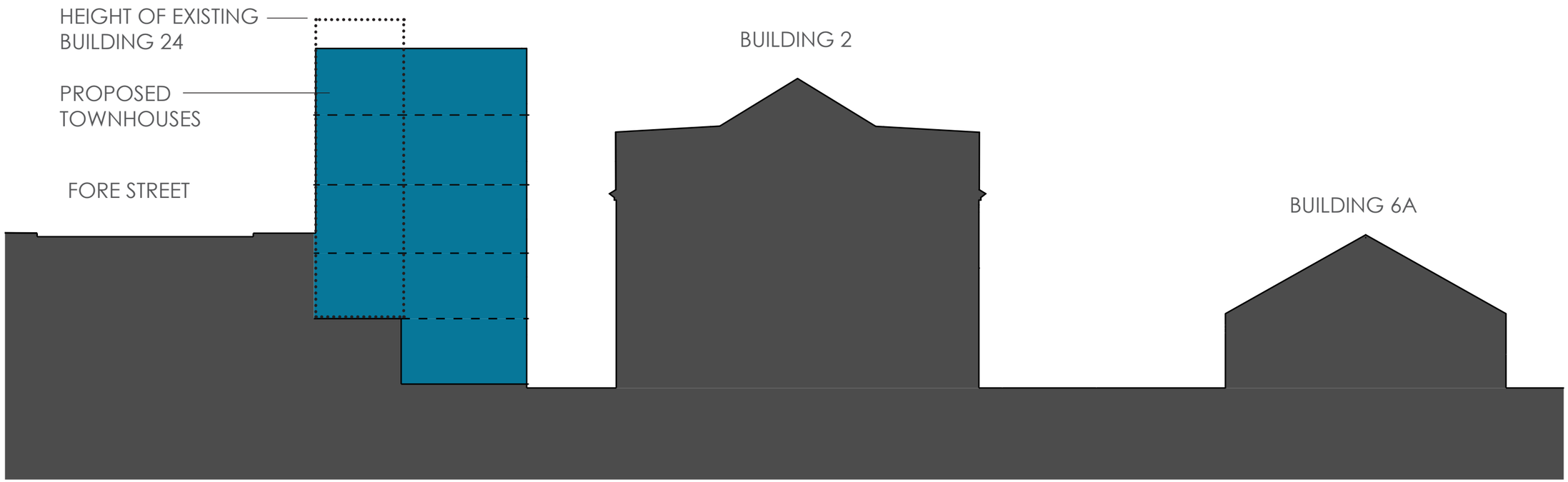
PROPOSED: SECTION 1



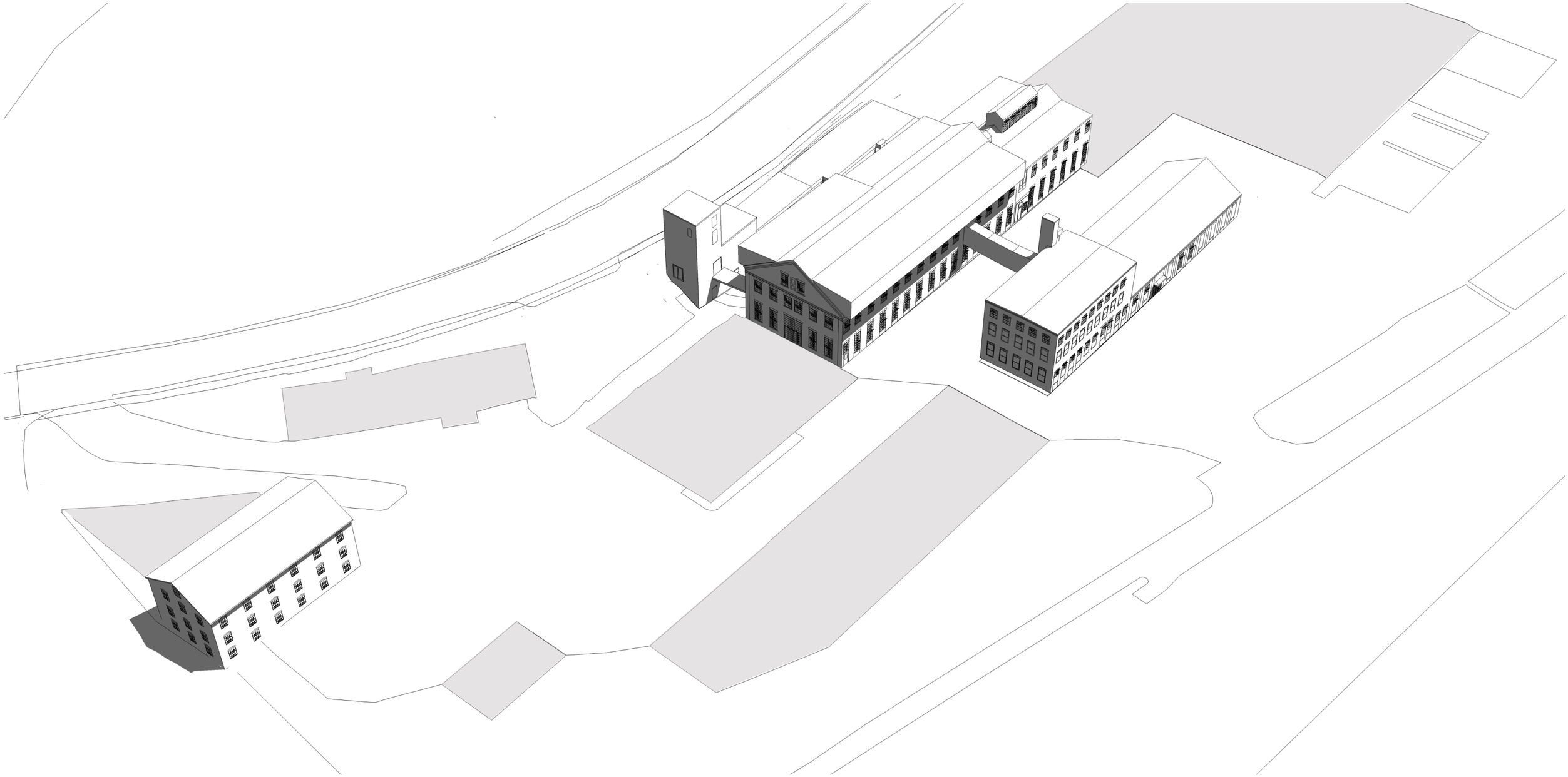
PROPOSED: SECTION 2



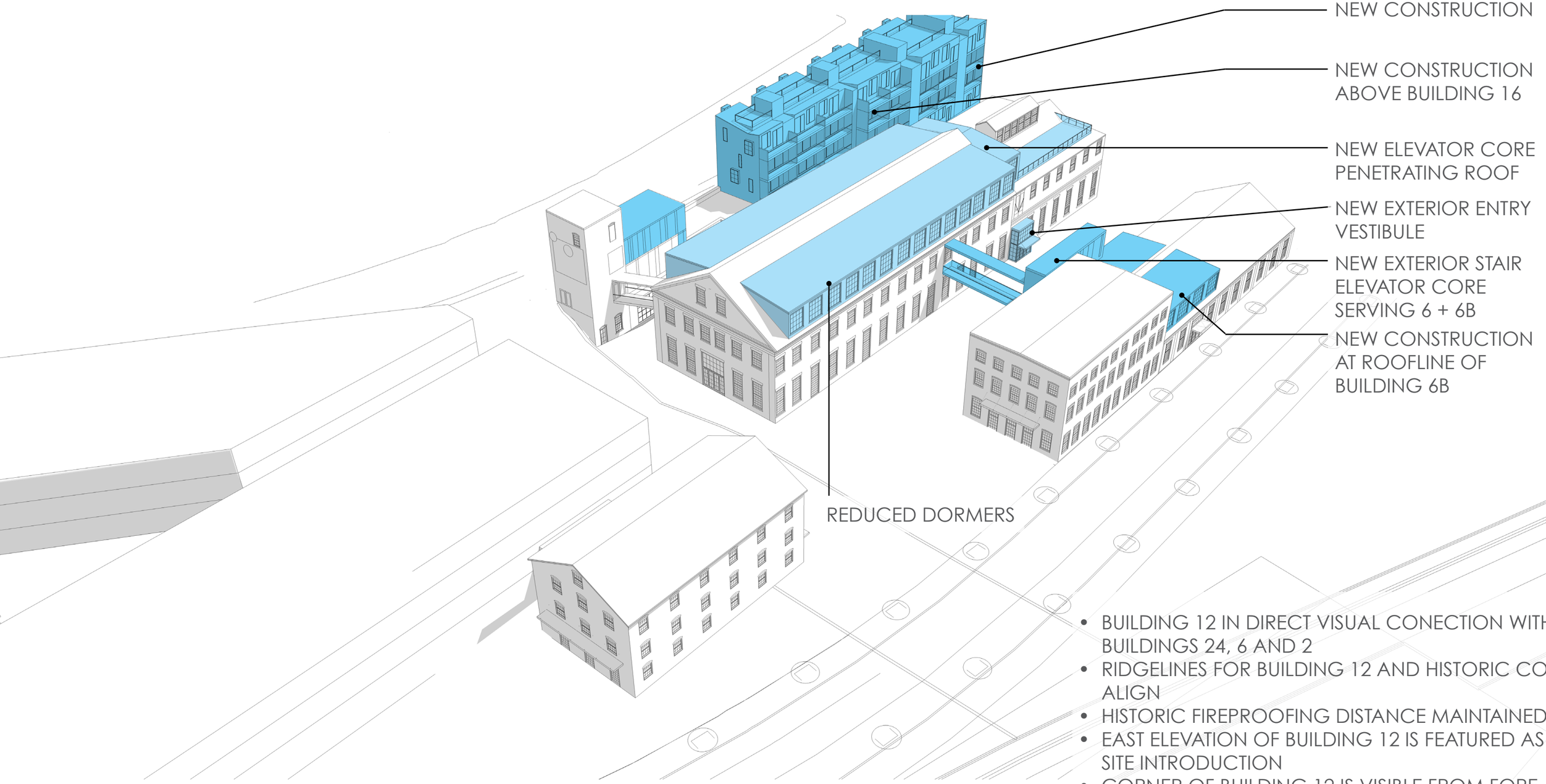
PROPOSED SITE SECTION: DEVELOPMENT BLOCK 2



EXISTING BUILDINGS TO REMAIN

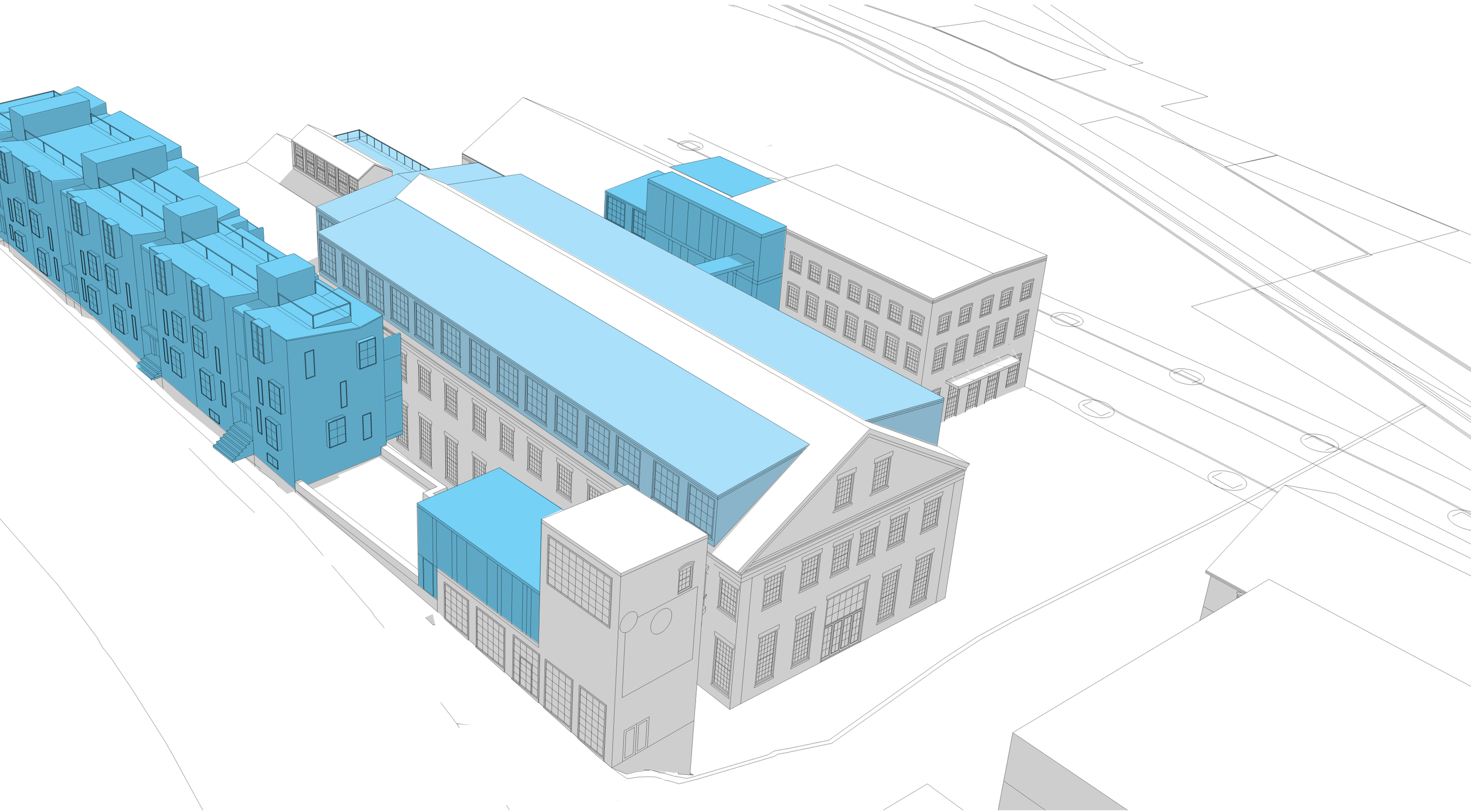


PROPOSED DEVELOPMENT

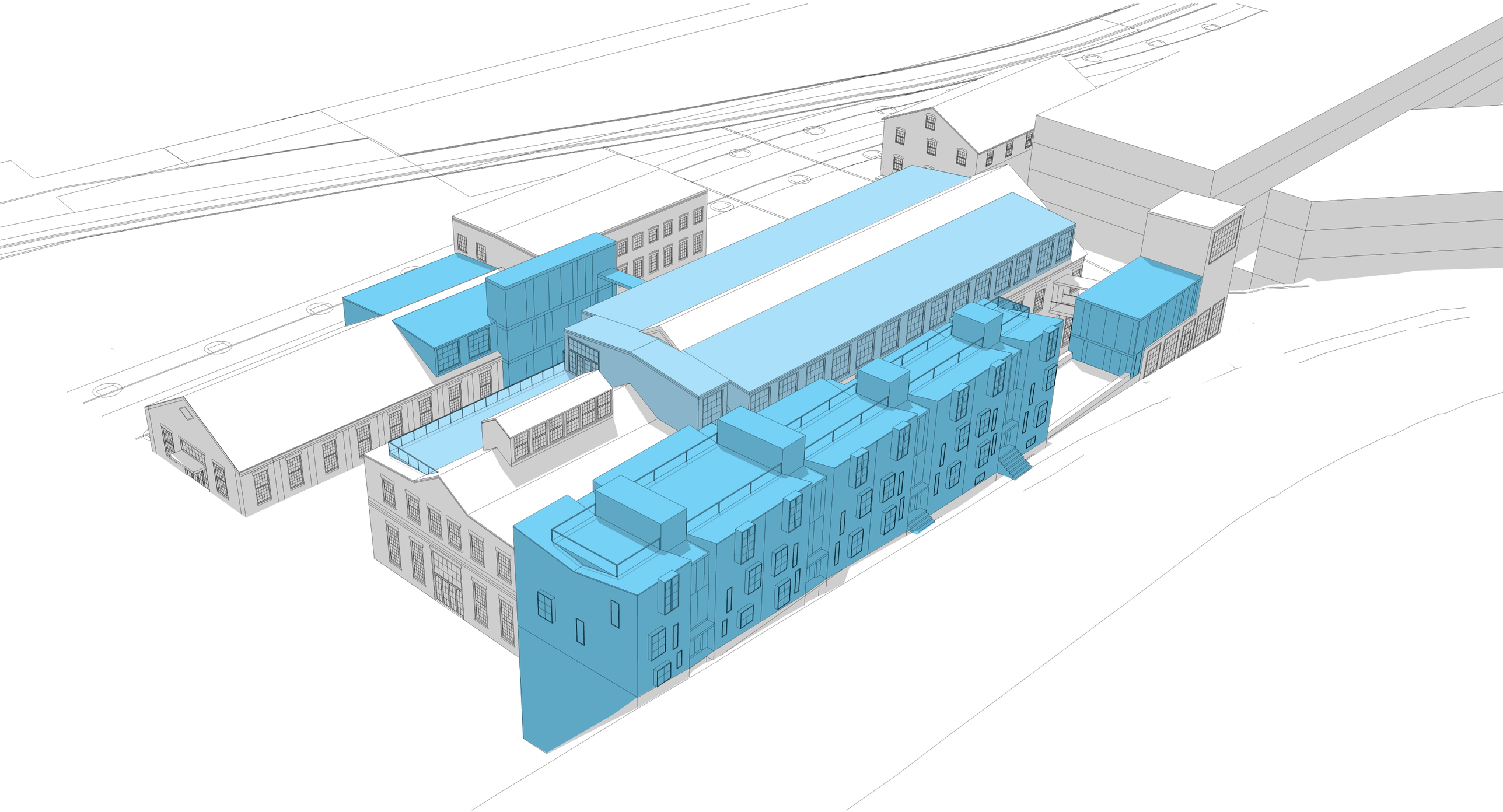


- BUILDING 12 IN DIRECT VISUAL CONECTION WITH BUILDINGS 24, 6 AND 2
- RIDGELINES FOR BUILDING 12 AND HISTORIC CORE ALIGN
- HISTORIC FIREPROOFING DISTANCE MAINTAINED
- EAST ELEVATION OF BUILDING 12 IS FEATURED AS A SITE INTRODUCTION
- CORNER OF BUILDING 12 IS VISIBLE FROM FORE STREET

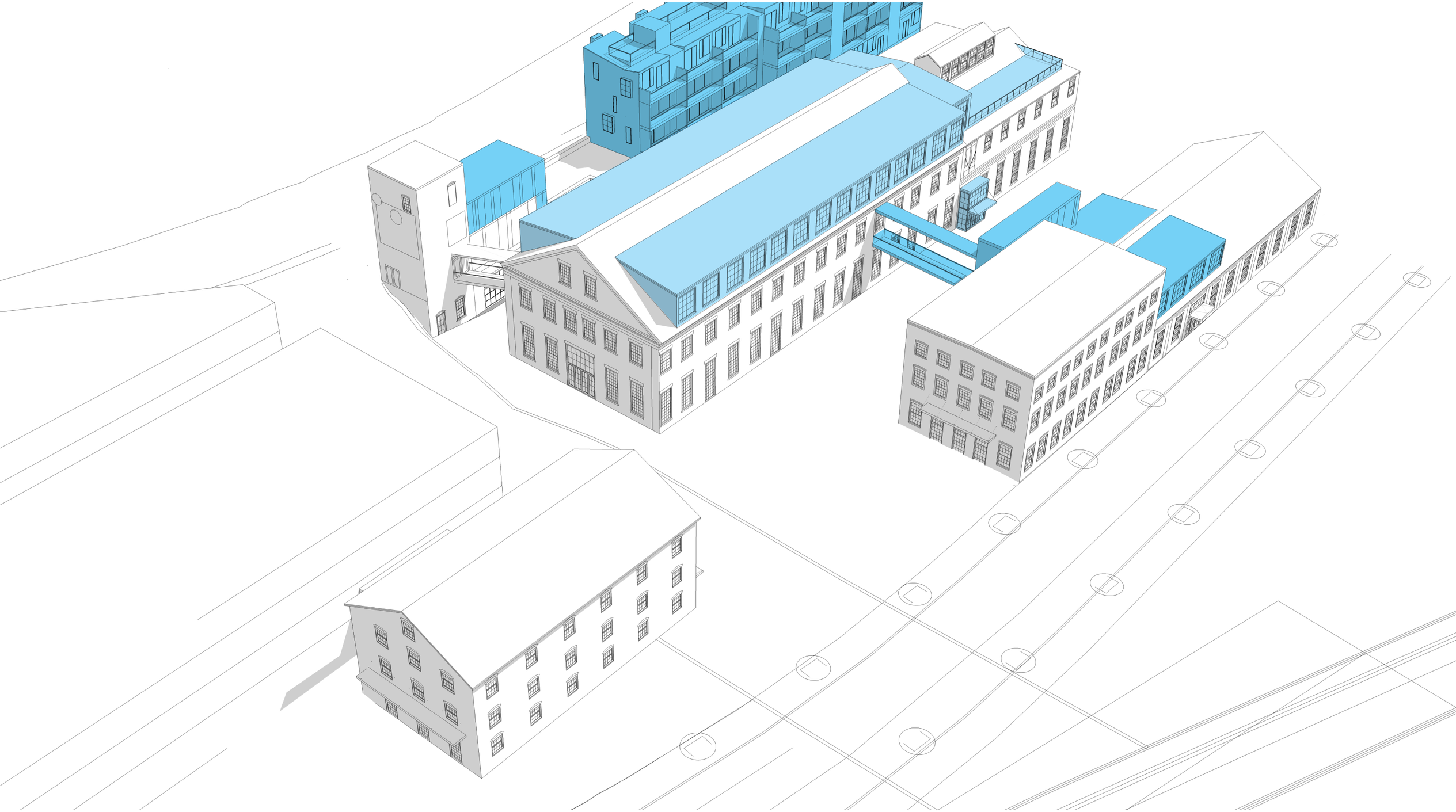
DEVELOPMENT BLOCK 2: HISTORIC CORE



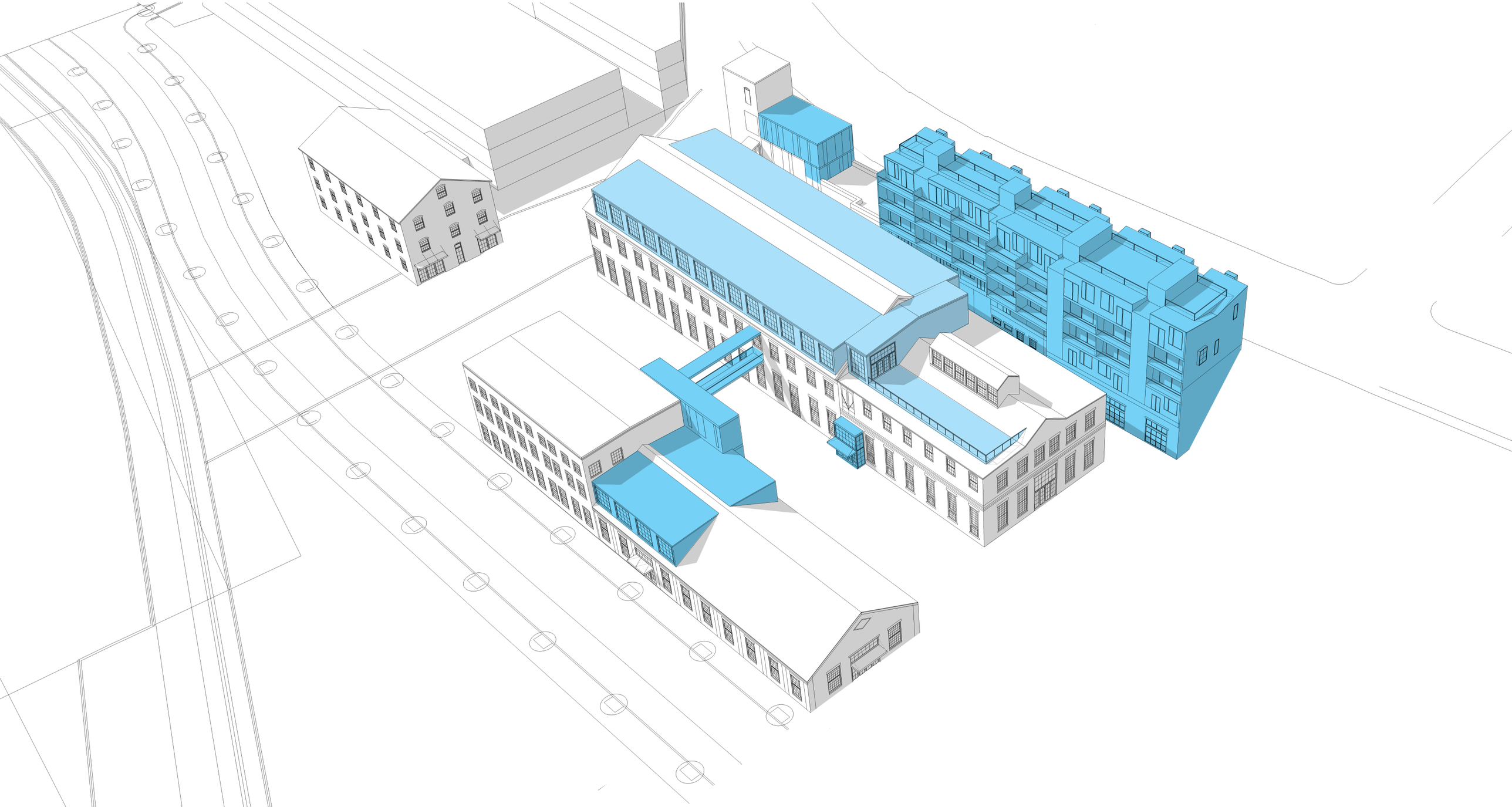
DEVELOPMENT BLOCK 2: HISTORIC CORE



DEVELOPMENT BLOCK 2: HISTORIC CORE



DEVELOPMENT BLOCK 2: HISTORIC CORE



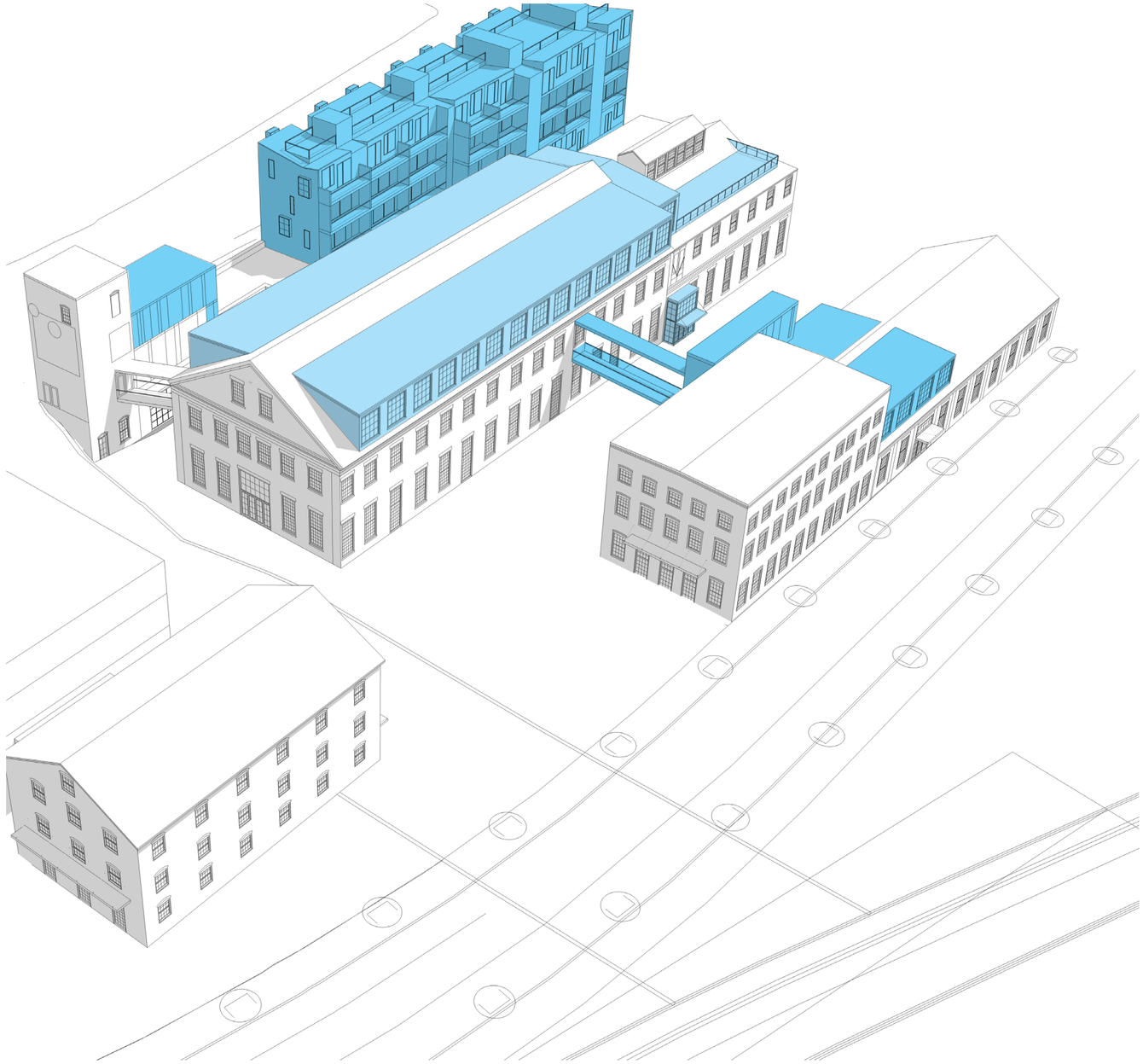
VIEW FROM THAMES STREET EXTENSION

PROPOSED DEVELOPMENT

58 Fore Street Calculations

Historic Core Buildings + Additions

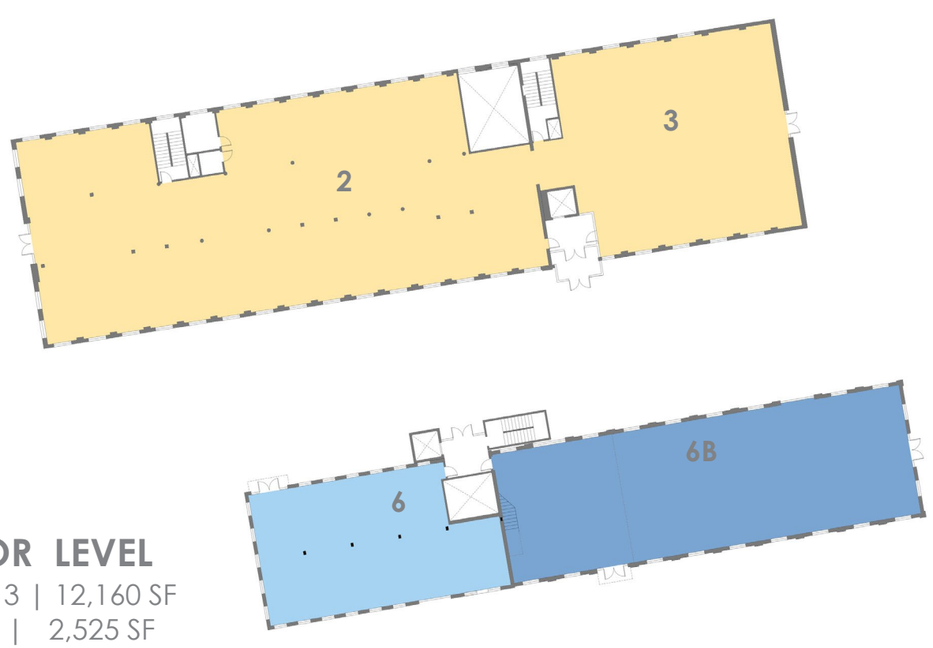
Building 2		
9,400 SF x 3 floors	28,200 GSF	(existing)
Building 3		
4,800 SF x 2 floors	9,600 GSF	(existing)
Building 3: East Expansion		
1,195 SF x 3 floors	3,585 GSF	(new)
Building 6B: Mezzanine		
1,600 SF x 1 floors	1,600 GSF	(existing)
Building 12		
3,580 SF x 3 floors	10,740 GSF	(existing)
Building 13		
750 SF x 1 floors	750 GSF	(existing)
750 SF x 2 floors	1,500 GSF	(new)
Total	2,250 GSF	
Building 14		
1,062 SF x 1 floors	1,062 GSF	(existing)
Building 15		
1,294 SF x 2 floors	2,588 GSF	(existing)
1,294 SF x 3 floors	3,882 GSF	(new)
Total	6,470 GSF	
Building 16		
1,492 SF x 2 floors	2,984 GSF	(existing)
1,492 SF x 3 floors	4,476 GSF	(new)
Total	7,460 GSF	
Building 16: East Expansion		
2,570 SF x 4 floors	10,280 GSF	(new)
(ground floor unusable b/c retaining wall)		
Building 16: East Expansion Under View Easement		
1,750 SF x 2 floors	3,500 GSF	(new)
(ground floor unusable b/c retaining wall)		
Building 24		
425 SF x 4 floors	1,700 GSF	(existing)
All Buildings	59,224 GSF	(existing
	27,223 GSF	(new)
TOTAL GSF	**86,447 GSF**	



PROPOSED FLOOR PLANS

SECOND FLOOR LEVEL

BUILDING 2 & 3 | 12,518 SF
BUILDING 6 | 2,525 SF
BUILDING 6B | 1,275 SF

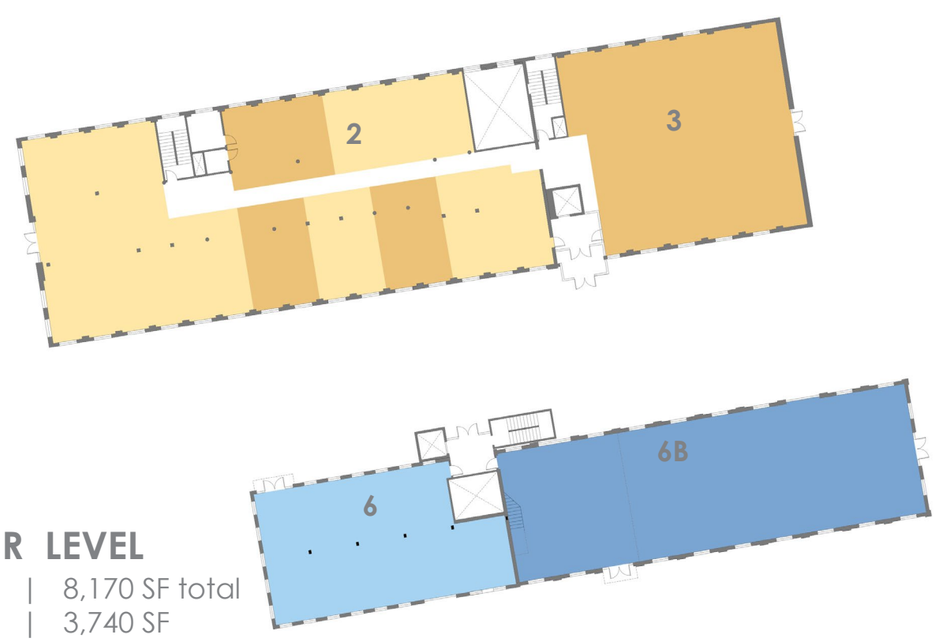


FIRST FLOOR LEVEL

BUILDING 2 & 3 | 12,160 SF
BUILDING 6 | 2,525 SF
BUILDING 6B | 4,561 SF

SECOND FLOOR LEVEL

BUILDING 2 | 8,389 SF
BUILDING 3 | 4,028 SF
BUILDING 6 | 2,525 SF
BUILDING 6B | 1,275 SF



FIRST FLOOR LEVEL

BUILDING 2 | 8,170 SF total
BUILDING 3 | 3,740 SF
BUILDING 6 | 2,525 SF
BUILDING 6B | 4,561 SF

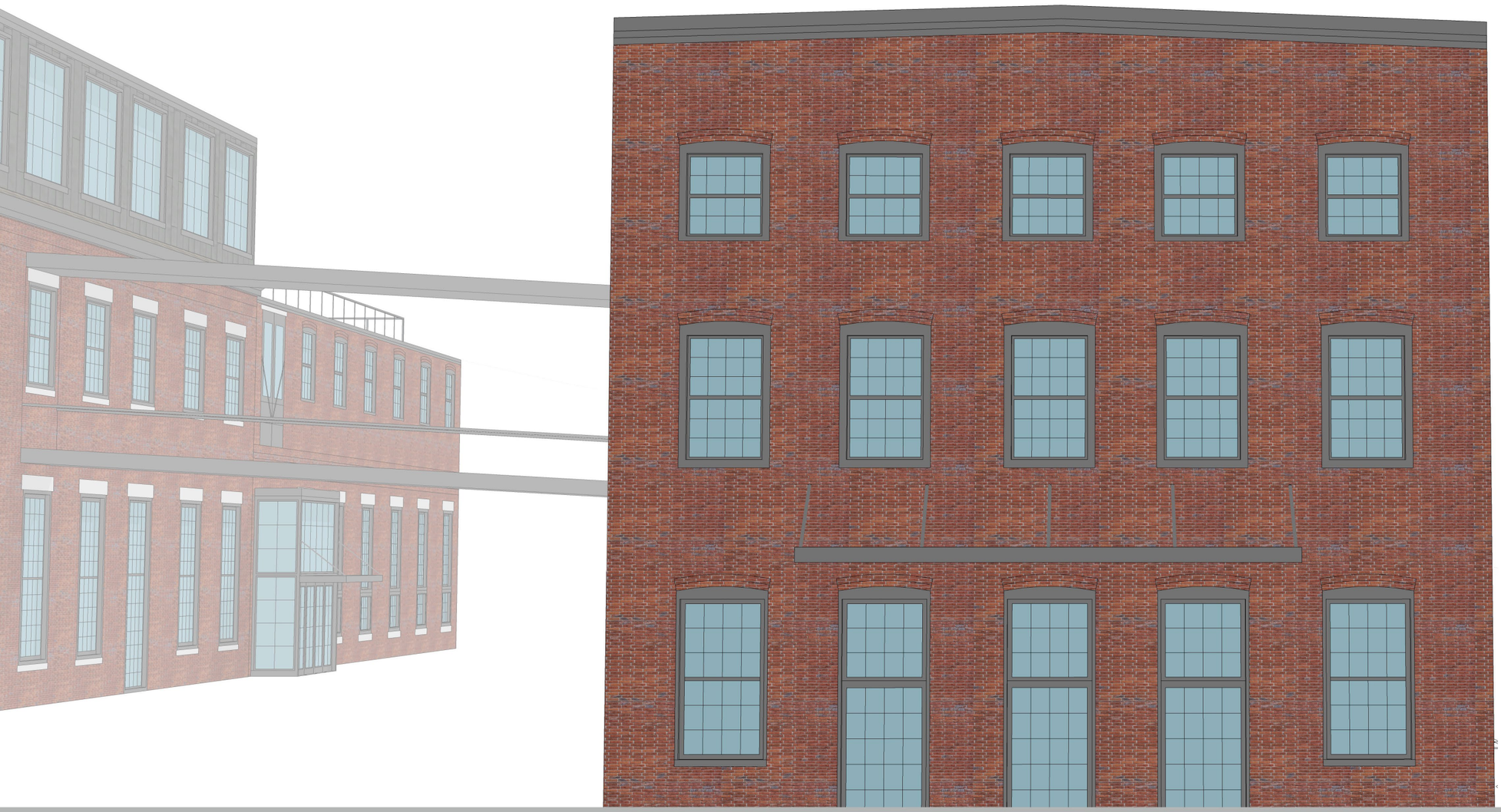
BUILDING 2: PROPOSED WEST ELEVATION

BUILDINGS 2 +3: PROPOSED SOUTH ELEVATION

BUILDINGS 2 +3: PROPOSED NORTH ELEVATION

BUILDING 3: PROPOSED EAST ELEVATION

BUILDING 6: PROPOSED WEST ELEVATION



BUILDINGS 6 +6B: PROPOSED SOUTH ELEVATION

BUILDINGS 6 +6B: PROPOSED NORTH ELEVATION

BUILDING 6B: PROPOSED EAST ELEVATION

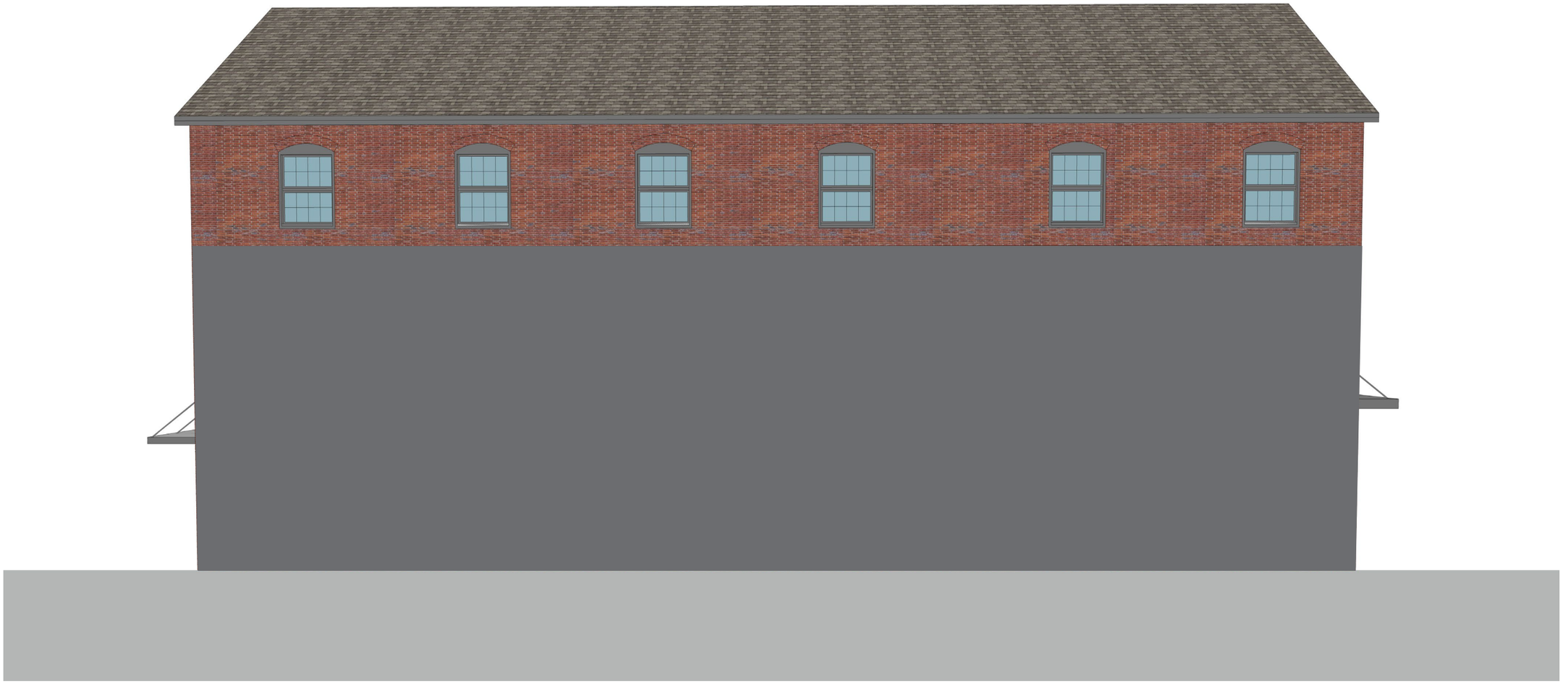
RENDERING LOOKING NORTH

RENDERING LOOKING WEST

RENDERING LOOKING TOWARD BUILDING 12

BUILDING 12: EXISTING SOUTH ELEVATION

BUILDING 12: EXISTING NORTH ELEVATION

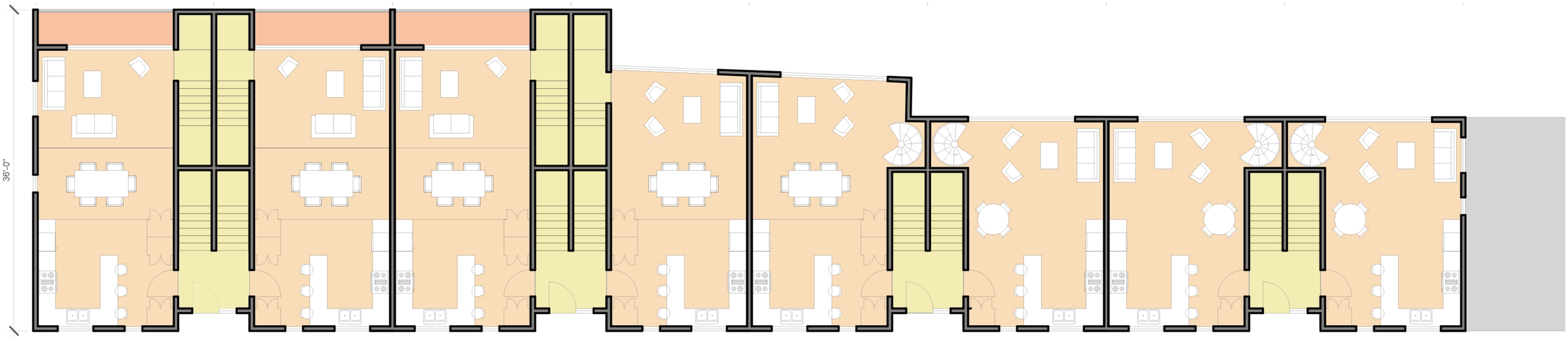


*NOTE: ACTUAL VIEW WILL BE OBSTRUCTED
BY ADJACENT BUILDING AND CONNECTOR

BUILDING 12: PROPOSED EAST ELEVATION

BUILDING 12: PROPOSED WEST ELEVATION

PROPOSED TOWNHOUSE FLOOR PLANS



TOWNHOUSE: PROPOSED NORTH ELEVATION

TOWNHOUSE: PROPOSED SOUTH ELEVATION

RENDERING LOOKING EAST

scott simons architects
designed for human potential

75 York Street

Portland, Maine 04101

phone 207 772 4656
fax 207 828 4656
www.simonsarchitects.com

58 FORE STREET - Meeting Minutes

date/time:	Monday afternoon, July 18, 2016, 2:00 pm			
project:	58 Fore Street, 2016-0200			
location:	Conference Room of Scott Simons Architects			
attendees:	Captain Keith Gautreau	KG	Assistant Chief, Portland Fire Department	PFD
	Michael White	MW	City of Portland, Life Safety Plans Reviewer	PFD
	Jim Brady	JB	58 Fore Street	CPB2
	David Senus	DS	Woodard & Curran	W&C
	Lauren Swett	LS	Woodard & Curran	W&C
	Ryan Kanteras	RK	Scott Simons Architects	SSA
	Scott Simons	SS	Scott Simons Architects	SSA
	Austin Smith	AS	Scott Simons Architects	SSA
prepared by:	Austin Smith	AS	Scott Simons Architects	SSA
CC	Casey Prentice	CP	58 Fore Street	CPB2
	Kevin Castello	KC	58 Fore Street	CPB2
meeting title:	Site Plan Review, 58 Fore Street			

item:	action:	description:
01.01		Progress plans shared with Keith Gautreau and Michael White including site plans and modeling of building masses with the understanding that the review was informal. Thames Street extension and connection to Fore Street noted.
01.02		East of the Thames Street intersection, the proposed east west corridor would be a private way positioned between Parcels 4 & 5. The corridor ends on the westernmost Parcel 6. A 90 ft turning radius is provided (100 ft clear) Width between building faces of Parcel 4 & 5 to be 45 ft. Between Parcels 4 & 5 a low grade ramp will raise the road level to approx. 10 ft above grade. A parking level will be below the access corridor and the turnaround. Capt. Gautreau's comments included: A. If no curbing defines roadway, if is preferable for fire apparatus access. B. No objections to access corridor above parking deck. The corridor deck must be able to support both a ladder truck and a fully loaded engine. The structure will be substantial and could possibly be more similar to bridge construction.
01.03		Capt. Gautreau noted that fire truck access is preferred on a minimum of two sides of each building. Fore Street, the EW corridor and the pedestrian trail could provide coverage for most of the site. For the pedestrian trail to serve as access, width and bearing would have to be considered. Parcel 6 because of its position on the east boundary, could not be accessed from two

sides. In a case such as this, an additional level of fire protection could be added to make the design work.

01.04 Parking garage below Parcel 4 reviewed. Multiple access and egress points to the garage were encouraged.

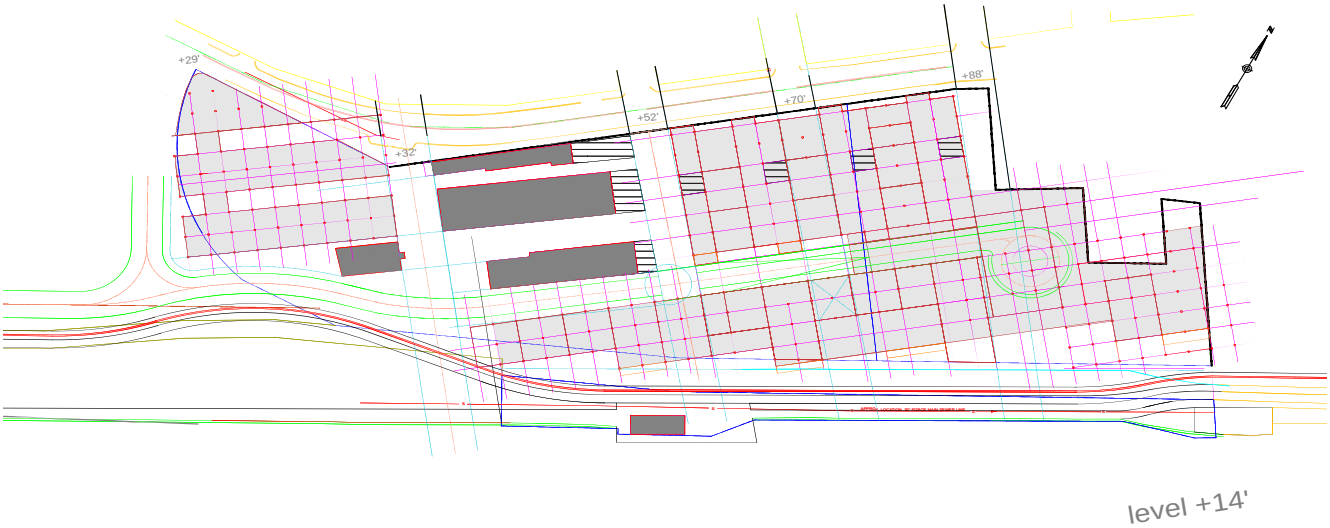
01.05 No concern over water pressure for the site as it is at the base of Munjoy Hill. Site to connect to water lines at multiple points.

01.06 Ladder access to Parcel 4 reviewed. Capt. Gautreau confirmed the definition of a High-Rise Building: NFPA 3.3.36.7 High Rise Building. A building where the floor of an occupiable story is greater than 75 ft. above the lowest level of the fire department vehicle access.

Capt. Gautreau pointed out that high rise construction can become very costly. Measure such as fire proofing of structure and positive air pressure in fire stairs can be very expensive. As a result there are current examples in Portland of developers building to 2 feet below the allowable limit.

01.07 Fire stair cores briefly reviewed in building 2, 3, 6 & 6B of the historic core.

01.08 Capt. Gautreau suggested that as plans develop, Michael White and Capt. David Petruccelli be consulted in planning.



12. STORMWATER MANAGEMENT

As discussed in Section 6 of this Report, Woodard & Curran assessed the regulatory triggers/thresholds for permitting under MaineDEP Site Location of Development (Site Law) and MaineDEP Stormwater Law for the proposed re-development project. It is our understanding that the proposed project should not be subject to Site Location of Development standards since it will result in less than three acres of new Structure area from what was in existence in 1970 (establishment of Site Law), but that because the proposed project will disturb more than one acre of land and result in more than one acre of new impervious area, MaineDEP Stormwater Law applies and a Stormwater Permit will be required. The City of Portland has delegated review for Stormwater Permits, so approval will be obtained as part of the formal Site Plan application, to be submitted at a later date. A letter documenting these determinations was provided to the MaineDEP, which is attached to Section 6 for your reference

Section 5 of the City of Portland Technical Manual requires submission of a stormwater management plan pursuant to the regulations of Maine DEP Chapter 500 Stormwater Management Rules, including Basic, General and Flooding standards. The following section discusses stormwater management relative to the Basic, General and Flooding Standards.

12.1 BASIC STANDARD (SOIL EROSION AND SEDIMENTATION CONTROL)

This standard addresses soil erosion and sedimentation control, inspection and maintenance, and good housekeeping practices during construction. Site plans, details, and erosion and sediment control notes demonstrating compliance with the Basic Standard will be provided as part of future Site Plan Applications, when additional design detail will allow for the identification of the necessary controls.

12.2 GENERAL STANDARD (WATER QUALITY)

The General Standard requires that stormwater quality treatment be provided for no less than 95% of new impervious area and no less than 80% of new developed area. In accordance with Section 5.II.D. of the City of Portland Technical Manual, all projects not subject to requirements of an existing Site Law or Stormwater Management Law Permit that include redevelopment of non-roof impervious area greater than 5,000 square-feet and are subject to City of Portland review, shall provide stormwater quality treatment in accordance with the General Standards for no less than 50% of the redeveloped impervious area. The runoff from any upgradient area must be either directed away from the stormwater treatment measure or that measure must be sized to treat the runoff from the upgradient area.

Table 4 and **Table 5** summarize the project areas and identify the requirements for the project to comply with the City's stormwater quality treatment standards.

Table 4: 58 Fore Street Project Area Summary

Total Existing Developed Area (Proposed Re-Developed Area)	9.66 Acres
Total Proposed Developed Area	11.30 Acres
Net Change Developed Area (Total New Developed Area)	1.64 Acres
Total Proposed Impervious Area	10.75 Acres
Total Re-Developed Impervious Area	8.57 Acres
Total New Impervious Area	2.18 Acres

Table 5: 58 Fore Street Stormwater Quality Treatment Compliance

Required Treatment of New Impervious Area (95%)	2.07 Acres
Required Treatment of New Developed Area (80%)	1.31 Acres
Required Treatment of Redeveloped Impervious Area	4.29 Acres
Total Impervious Area Required to be Treated	6.36 Acres

A Conceptual Stormwater Management Areas Plan is included in the drawings attached to Section 3 of this Report, which shows the conceptual water quality treatment areas and drainage infrastructure. This Plan shows the proposed stormwater treatment zones, which have been delineated based on proposed grading and topography, in addition to possible locations of stormwater treatment systems. As shown by this figure, stormwater runoff from the Site will be collected and treated in compliance with the City's requirements.

Proposed stormwater management measures for compliance with the General Standard will consist of Best Management Practices (BMPs), such as tree box filters, subsurface proprietary treatment systems (i.e. StormFilter, Jellyfish), rain gardens, or subsurface filtration systems. These BMPs will be designed according to the most recent MaineDEP Stormwater BMP guidance; design calculations will be submitted as part of future Site Plan submissions. Additional Low Impact Development (LID) measures, such as rainwater reuse systems, green roofs, and roof dripline filters, may also be incorporated for stormwater credits as part of the detailed Site Plan submission. Building elements will be designed in an environmentally sensitive and sustainable manner, so as to provide stormwater quality improvements to the extent possible.

12.3 FLOODING STANDARD (WATER QUANTITY)

As noted in Section 9 of this Report, we are requesting a waiver from providing additional storage of stormwater for the Flooding Standard, due to the fact that the project will discharge directly into the ocean. Stormwater runoff from the Site will be conveyed exclusively to the ocean via a direct discharge piped system located on the project property, or via sheet flow for areas directly adjacent to the sea wall.

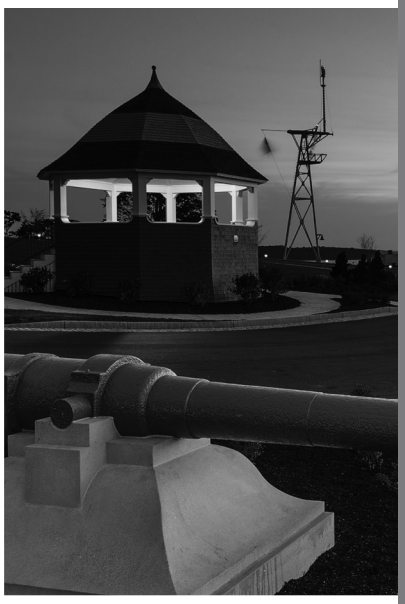
13. TRAFFIC ANALYSIS

Gorrill Palmer has prepared a traffic impact analysis for the proposed 58 Fore Street project, a Traffic Movement Permit application and a Transportation Demand Management Plan. A Traffic Study Pre-Scoping meeting was held with City of Portland staff on July 27, 2016 at City Hall. The full traffic analysis and parking summary report has been provided as an attachment to this Section, in addition to a copy of the Traffic Movement Permit Application.

13.1 ATTACHMENTS

- Traffic Impact Study
- Traffic Movement Permit Application
- Site Parking Demand Memo for 58 Fore Street Mixed Use Development

Relationships.
Responsiveness.
Results.



Section 7
Traffic Impact Study
58 Fore Street
Redevelopment
Portland, Maine

PREPARED FOR:

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September 2016

SUBMITTED BY:

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Traffic Impact Study
58 Fore Street Development
Portland, Maine
September 2016

Table of Contents

I. Introduction

This study examines the impact of the redevelopment of the historic Portland Company at 58 Fore Street on Portland's Eastern Waterfront. The development is proposed to be a total of 958,679 sf of building area and is separated into seven Development Blocks (B1-B7) with varying uses. The following table summarizes the proposed site uses by Development Block:

Proposed Site Use Summary

Development Block	Use	Size
B1		
	Retail	7,878 SF
	Residential	91 Dwelling Units
	Office	79,000 SF
B2		
	Retail	26,895 SF
	Residential	19 Dwelling Units
	Office	25,617 SF
B3		
	Retail	11,500 SF
	Office	19,300 SF
B4		
	Residential	275 Dwelling Units
	Retail	4,000 SF
B5		
	Residential	108 Dwelling Units
	Hotel	132 Rooms
	Restaurant	3,800 SF
	Function Space	5,800 SF
B6		
	Residential (Condos)	131 Dwelling Units
	Residential (Apartments)	14 Dwelling Units
B7		
	Marina Facilities	2,600 SF, 220 Slips

The new marina facilities on B7 are proposed to be three times the size of the existing marina. It will be a new, modern facility with 220 slips proposed; 140 for seasonal boaters and 80 for transient vessels. The facility will service residents of Portland (including Islanders commuting to work on the Portland Peninsula), residents of the 58 Fore Street site, and transient boaters.

There are three proposed accesses to the site; Thames Street Extension into the site, a full movement driveway onto Fore Street across from Waterville Street primarily for residential units, and a new public road connecting Fore Street to Thames Street Extension. The attached Figure 1 (Appendix A) shows the location of the site.

II. Existing Traffic Volumes

Morning and afternoon turning movement counts were completed from 7:30 AM to 9:30 AM and from 4:00 PM to 6:00 PM at the following locations and dates:

- Franklin Street / Middle Street – August 10, 2016 (PM) and August 17, 2016 (AM)
- Franklin Street / Fore Street – August 10, 2016 (PM) and August 17, 2016 (AM)
- Franklin Street / Commercial Street – August 10, 2016 (PM) and August 17, 2016 (AM)
- Cumberland Avenue / Washington Street – August 16, 2016 (AM and PM)
- Congress Street / Mountfort Street / Washington Street – August 16, 2016 (AM and PM)
- Congress Street / India Street – August 16, 2016 (AM and PM)
- Fore Street / Mountfort Street – August 11, 2016 (AM and PM)
- Fore Street / Existing Site Driveways – August 11, 2016 (AM and PM)
- Fore Street / Waterville Street – August 11, 2016 (AM and PM)

The dates, times, and locations of the counts were approved by the City prior to the counts.

Additionally, as part of a different study, GP had completed morning and afternoon turning movement counts at the following locations:

- India Street / Fore Street
- India Street / Commercial Street
- Fore Street / Hancock Street

These counts were collected on October 7, 2015 from 7:00 AM to 8:30 AM and from 4:00 PM to 6:00 PM. The date, times, and locations of the counts were approved by the City prior to the counts.

The AM and PM peak hour volumes of the counts at all 12 locations are shown on the attached Figure 2 (Appendix A).

III. Other Development in the Vicinity of the Site

Approved projects that are not yet opened as well as projects for which applications have been filed are required to be included in the predevelopment volumes for this project. Based on conversations with City Staff the following projects have been included in the background traffic for this project:

- A – 158 Fore Street: 180 room hotel
- B – 1 India Street: office and bank
- C – 185 Fore Street: 4,085 sf of office or retail and 8 residential units
- D – 16 Middle Street: 5,305 sf of retail and 39,526 sf of office
- E – 113 Newbury Street: 39 condominium units (Seaport Lofts)
- F – 48 Hancock Street: 2 residential units
- G – 49 Hancock Street: 2 residential units
- H – 62 India Street: 5,409 sf of retail and 29 condominium units
- I – 169 Newbury Street: 24 condominium units
- J – 273 Congress Street: 2,290 sf of retail and 10 residential units
- K – 31 Fore Street: 4 condominium units

The locations, sizes, and uses of these developments are shown on the attached Other Development Figure in Appendix A. The forecast traffic from these projects within the study area is shown on the attached Figure 4 in Appendix A.

IV. Predevelopment Traffic Volumes

Traffic volumes are typically seasonally adjusted to approximate the 30th highest hour of the year using the weekly group mean factors published by MaineDOT. This seasonal adjustment increases the volumes to those that may be experienced during peak summer months. Since August is a peak summer month, no seasonal adjustment needs to be applied to the counts collected in August 2016. However, October is not a peak summer month, so the three locations counted for another study in October 2015 needed to be adjusted. This seasonal adjustment resulted in an increase of 3.4%.

In addition to seasonally adjusting the traffic volumes, they are also increased by a yearly growth to approximate the build out year of the project. The proposed project is anticipated to be completed and occupied in 2027. MaineDOT traffic counts in the area show a decrease in traffic volumes in the past six years. To be conservative, an annual growth of 0.5% per year was utilized. This is the same growth used for the recently completed Franklin Street Study. The seasonally and annually adjusted volumes are shown on the attached Figure 3 in Appendix A.

The annually and seasonally adjusted traffic volumes have been combined with the approved other development ahead of this project in the approval process to yield the 2027 Predevelopment Design Hour Volumes (DHV) shown on the attached Figure 5 in Appendix A.

V. Trip Generation

The trip generation for the site was calculated separately for Development Blocks 1-6 (B1-B6) and for Development Block 7 (B7), then combined to yield the total site trip generation. This is due to the unique nature of the marina on B7. The following is a summary of the methods, assumptions, and results of the trip generation calculations for the site.

Development Blocks 1-6

The Institute of Transportation Engineers' publication, *Trip Generation*, Seventh Edition, was used to forecast the traffic to be generated by B1-B6. The Ninth Edition is available, but has not yet been accepted by the MaineDOT. Since this project will generate greater than 200 trip ends in a peak hour, a MaineDOT Traffic Movement Permit (TMP) will be required. The permit process can be administered by the City since they have delegated review authority.

The following table summarizes the trip generation for B1-B6.

Development Blocks 1-6 ITE Trip Generation Summary

Development Block	Land Use Code	Size	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
B1								
	814 – Specialty Retail	7,878 sf	4	2	6	9	12	21
	220 – Apartment	91 Units	9	37	46	36	20	56
	710 – General Office	79,000 sf	140	15	155	22	127	149
B2								
	814 – Specialty Retail	26,895 sf	12	8	20	33	40	73
	220 – Apartment	19 Units	2	8	10	8	4	12
	710 – General Office	25,617 sf	57	6	63	9	52	61
B3								
	814 – Specialty Retail	11,500 sf	5	4	9	14	17	31
	710 – General Office	19,300 sf	45	5	50	7	41	48
B4								
	220 – Apartment	275 Units	28	112	140	111	60	171
	814 – Specialty Retail	4,000 sf	2	1	3	5	6	11

Development Block	Land Use Code	Size	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
B5								
	220 – Apartment	108 Units	7	41	48	36	20	56
	310 – Hotel	132 Rooms	44	30	74	43	35	78
	932 – High Turnover Sit-Down Restaurant	3,800 sf	22	22	44	25	16	41
	Function Space*	5,800 sf	0	0	0	0	0	0
B6								
	230 – Residential Condominium / Townhouse	131 Units	9	49	58	44	24	68
	220 – Apartment	14 Units	1	6	7	6	3	9
Development Blocks 1-6			**387**	**346**	**733**	**408**	**477**	**885**

*It was assumed that the function space would be ancillary to the other uses in the Development Block and would not generate additional traffic.

Due to the variety of uses and the site's location within a downtown area, two reductions can be applied to refine the trip generation for B1-B6. These reductions are summarized as follows:

Shared Use Adjustment

Due to the close proximity of the mixed uses and the sharing of people between uses, simply adding the trip generation of each use as if they were isolated would result in an overestimate of trip generation. To estimate the traffic that will visit more than one destination without leaving the site, GP utilized the National Cooperative Highway Research Program (NCHRP) 684 Internal Trip Capture Estimation Tool. The NCHRP 684 spreadsheet uses the ITE forecast trip generation for each type of land use (office, retail, restaurant, residential, hotel, and other) and estimates the trips that will travel between two uses without leaving the site (spreadsheets provided in Appendix B). This yields an internal trip capture percentage, which is the percentage of trip ends that will travel between two uses. The following tables summarize the AM and PM peak hour internal trip capture percentages respectively:

AM Peak Hour NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends*		
	Entering	Exiting	Entering	Exiting	Entering	Exiting	Total
Office	242	26	10%	46%	23	12	35
Retail	23	15	57%	47%	13	7	20
Restaurant	22	22	55%	50%	12	11	23
Residential	56	253	4%	5%	2	12	14
Hotel	44	30	2%	30%	1	9	10
Total	**387**	**346**	**12%**	**14%**	**51**	**51**	**102**

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

PM Peak Hour NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends*		
	Entering	Exiting	Entering	Exiting	Entering	Exiting	Total
Office	38	220	18%	5%	7	10	17
Retail	61	75	31%	44%	19	33	52
Restaurant	25	16	52%	69%	13	11	24
Residential	241	131	11%	15%	27	19	46
Hotel	43	35	21%	6%	9	2	11
Total	**408**	**477**	**18%**	**15%**	**75**	**75**	**150**

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

Other Modes of Transportation Reduction

It can be expected for a site in a downtown area that other modes of transportation will be used to go to and from the site. These other modes could include things such as transit, bicycle, or walking. This site is adjacent to an existing bus route, as well as located on a pedestrian and bicycle path, so full use of other modes of transportation are readily available. The other modes reduction for B1-B6 is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract for the City of Portland. Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, used this data to create maps (Appendix B) that show the estimated percentage of workers living in each Portland Census Tract that use each mode of transportation to travel to work. The site is located on the east side of Census Tract 3, which is a predominantly commercial area. Census Tracts 2 and 5 border the site and consist of primarily residential areas. Since the site is proposed to have a significant number of residential units as well as commercial space, the data from the combination of the three tracts is expected to be more representative of the actual conditions on the site than the data from the

individual tracts. The reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work in the three Census Tracts by the estimated total number of working people in the same three Census Tracts. This calculation yields a reduction of 35.8%, which appears reasonable for this area. The detailed calculation is described in the "Site Parking Demand" memo included in Appendix B.

The Census data is based on residents of the Census Tracts commuting to work, so it is applicable to the residential units, office space, and retail uses on the site, but not necessarily the proposed restaurant and hotel. The restaurants and hotel were further researched to find studies that included information on other modes of transportation for restaurants and hotels. The studies found indicated that 40%-65% of restaurant customers may be using alternative modes of transportation. Since the studies were not specific to Portland, Maine, the local data is expected to be closer to actual conditions that would be seen at the 58 Fore Street development, so the 35.8% reduction was applied to the restaurants. There was limited data available for hotels, so a conservative reduction of 10% was used for the hotel. The studies are discussed in more detail in the "Site Parking Demand" memo in Appendix C. The following table summarizes the other modes of transportation reduction for the site trip generation:

Other Modes of Transportation Reduction Summary

Trip Generation	AM Peak Hour			PM Peak Hour		
	Entering	Exiting	Total	Entering	Exiting	Total
B1-B6 Trip Generation	387	346	733	408	477	885
Hotel Trip Generation	44	30	74	43	35	78
B1-B6 Trip Generation w/o Hotel	343	316	659	365	442	807
Other Modes Reduction (35.8% of B1-B6 Trip Generation w/o Hotel)	123	113	236	131	158	289
Hotel Other Modes Reduction (10% of Hotel Trip Generation)	4	3	7	4	4	8
Total Other Modes Reduction	**127**	**116**	**243**	**135**	**162**	**297**

Development Block 7 (Marina)

Although the ITE does have a Marina category, the number of studies (2) is limited. Therefore, the trip generation for B7 was not determined using the ITE trip generation rates. Since a marina is such a unique facility, the trip generation was forecast based on the characteristics of this specific 220 slip marina. Applied Technology & Management (ATM), experts in marine and coastal engineering, provided the following information and assumptions:

- Peak weekday usage of the marina is forecast to be approximately 10% of the slips, but possibly greater since Maine's peak boating season is shorter than other less seasonal areas
- Approximately 36% of daily users are forecast to be transient boaters (80 transient boater slips out of 220 total slips)
- 10% of daily users who are not transient boaters are on-site residents
- 90% of daily users who are not transient boaters are off-site Portland residents
- 30% of off-site Portland residents are Islanders commuting to and from the Peninsula
- 9 marina employees
- 4 mega-yacht slips

Based on the information from ATM, the following assumptions were made:

- Peak weekday usage will be 15% of the slips (33 slips). This is higher than the 10% identified by ATM and increased to 15% to account for the short season
- Transient boaters will not have a car on site since they arrive and depart using their boat, so they will not generate trip ends
- On-site residents will not enter or exit the site to visit the marina, so they will not generate any trip ends
- Each slip used by an off-site Portland resident who is not an islander will generate one trip end in during the AM peak hour and one trip end out during the PM peak hour
- Each slip used by an Islander commuting to work will generate one trip end out during the AM peak hour and one trip end in during the PM peak hour
- Each employee will generate one trip end in during the AM peak hour and one trip end out during the PM peak hour
- Each mega-yacht slip would be visited by a provisioning vehicle during both peak hours and the provisioning vehicles would enter and exit the site during the peak hour

Based on these assumptions, the forecast weekday peak hour trip generation for the marina is as follows:

- AM Peak Hour: 36 trip ends (26 in / 10 out)
- PM Peak Hour: 36 trip ends (10 in / 26 out)

The detailed trip generation calculations are attached in Appendix B.

Two reductions (shared use and other modes) were applied to the trip generation for B1-B6; however those reductions were not applied to the marina trip generation, as described in more detail as follows:

Shared Use

Although it is possible for marina visitors to eat at the restaurants or visit the shops on site, to be conservative it was assumed that the marina would be a primary destination and would have very few shared trips with the other uses.

Other Modes

Additionally, there is a possibility that marina users would use alternative modes of transportation to get to or from the site, but to be conservative we assumed that visitors would use cars and not another mode of transportation.

Total Site Trip Generation

The following table summarizes the adjusted site trip generation starting with the ITE trip generation and subtracting the shared use reduction as well as the other modes of transportation reduction and lastly adding the marina trip generation:

Adjusted Trip Generation Summary

Trip Generation	AM Peak Hour			PM Peak Hour		
	Entering	Exiting	Total	Entering	Exiting	Total
B1-B6 ITE Subtotal	387	346	733	408	477	885
Shared Use Adjustment	-51	-51	-102	-75	-75	-150
Other Modes Adjustment	-127	-116	-243	-135	-162	-297
B1-B6 Total	**209**	**179**	**388**	**198**	**240**	**438**
B7 Trip Generation	26	10	36	10	26	36
Site Total	**235**	**189**	**424**	**208**	**266**	**474**

As shown in the table, the proposed development is forecast to generate 424 trip ends during the AM weekday peak hour and 474 trip ends during the PM weekday

peak hour. To be conservative, this trip generation does not include any credit for existing on-site uses. This level of trip generation does require a MaineDOT Traffic Movement Permit because it is over 99 trip ends during the peak hour. The Traffic Movement Permit Application can be reviewed and issued by the City since they have delegated review authority.

VI. Trip Composition and Assignment

GP has assumed that all trips are primary in nature and made for the sole purpose of going to and from the site. The trip assignment has been based on the proposed accesses to the site, the site uses, and the traffic counts completed at the study area intersections. The study area was determined based on conversations with the City. The trip assignment has been separated into Residential and Non-Residential trip distributions. The trip assignments are categorized into Residential, Non-Residential, and Marina. The residential trip assignment assumes that the residents of the site know the neighborhood better than the non-residential site visitors, which would lead residents to use side streets more frequently, while the non-residents would use more major roads and posted routes. The marina trip assignment is assumed to follow the non-residential trip distribution. The trip distribution and assignment is shown on the attached Figures 6-11 in Appendix A.

VII. Postdevelopment Traffic Volumes

The predevelopment traffic volumes shown on Figure 5 have been combined with the total forecast traffic for the development shown on Figure 11 to yield the 2027 Postdevelopment DHV shown on the attached Figure 12 (Appendix A).

VIII. Capacity Analysis

GP completed capacity analyses for the study area intersections using the Synchro/SimTraffic computer analysis software. Level of service rankings are similar to the academic ranking system where an 'A' is very good with little control delay and an 'F' represents very poor conditions. At an intersection if the level of service falls below a 'D', an evaluation should be made to determine if mitigation is warranted.

The following tables summarize the relationship between the control delay and level of service:

Level of Service for Unsignalized Intersections and Roundabouts

Level of Service	Control Delay per Vehicle (sec)
A	Less than 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

Level of Service for Signalized Intersections

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

The capacity analyses were completed for two scenarios; first with the existing roadway geometry and the second with the approved proposed Franklin Street improvements. The City and MaineDOT approved the proposed Franklin Street design based on a study done by Gorrill Palmer. The City is responsible for implementing the proposed design and sections of Franklin Street are currently in the process of final design. The approved Franklin Street improvements in the 58 Fore Street study area include new intersection geometry and updated signal timing at the intersections of Franklin Street with Fore Street and Franklin Street with Middle Street, and the construction of a single lane roundabout at the intersection of Franklin Street with Commercial Street. The Synchro/SimTraffic software was also used to analyze the proposed roundabout. The following table is a summary of the capacity analysis results. The detailed analyses are attached in Appendix C.

Level of Service Summary

Approach	Existing Geometry				Proposed Franklin Street			
	2027 AM		2027 PM		2027 AM		2027 PM	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Franklin / Middle (S)								
Franklin SE	B	B	C	E	A	B	B	D
Franklin NW	B	B	B	C	A	A	B	B
Middle NE	B	B	C	C	C	C	B	C
Middle SW	B	B	B	B	C	C	B	B
Overall	B	B	C	D	B	B	B	C

Approach	Existing Geometry				Proposed Franklin Street			
	2027 AM		2027 PM		2027 AM		2027 PM	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Franklin / Fore (S)								
Franklin SE	B	B	C	C	B	B	B	B
Franklin NW	B	B	B	C	B	B	B	B
Fore NE	B	B	B	C	B	B	C	E
Fore SW	B	B	C	C	B	B	B	C
Overall	B	B	B	C	B	B	B	C
Franklin / Commercial (S) – Existing, (R) – Proposed								
Franklin EB	B	B	B	B	A	A	A	A
Maine State Pier WB	C	C	D	D	A	A	A	A
Commercial NB	B	B	B	B	A	A	A	A
Commercial SB	C	C	C	C	A	A	A	A
Overall	B	B	C	C	A	A	A	A
Commercial / Thames / India (U)								
Commercial EB	A	A	A	A	A	A	A	A
Thames WB	A	A	A	A	A	A	A	A
India SE	A	A	A	A	A	A	A	A
India / Fore (U)								
Fore EB	A	A	A	B	A	B	B	B
Fore WB	A	B	A	B	A	B	A	B
India SE	A	B	A	B	A	B	A	B
India NW	A	A	A	A	A	A	A	A
Hancock / Fore (U)								
Fore NB	A	A	A	A	A	A	A	A
Fore SB	A	A	A	A	A	A	A	A
Hancock SE	A	A	A	A	A	A	A	A
Hancock NW	A	A	A	A	A	A	A	A
Mountfort / Fore (U)								
Fore NE	A	A	A	A	A	A	A	A
Fore SW	A	A	A	A	A	A	A	A
Mountfort SE	A	A	A	A	A	A	A	A
Existing Driveways / Fore (U)								
Fore EB	A	N/A	A	N/A	A	N/A	A	N/A
Fore WB	A	N/A	A	N/A	A	N/A	A	N/A
100 Fore St NB	A	N/A	A	N/A	A	N/A	A	N/A
58 Fore St NW	A	N/A	A	N/A	A	N/A	A	N/A
Proposed New Road / Fore (U)								
Fore EB	N/A	A	N/A	A	N/A	A	N/A	A
Fore WB	N/A	A	N/A	A	N/A	A	N/A	A
Proposed Road NB	N/A	A	N/A	A	N/A	A	N/A	A
Proposed New Road / Thames (U)								
Thames NE	N/A	A	N/A	A	N/A	A	N/A	A
Thames SW	N/A	A	N/A	A	N/A	A	N/A	A
Proposed Road SB	N/A	A	N/A	A	N/A	A	N/A	A

Approach	Existing Geometry				Proposed Franklin Street			
	2027 AM		2027 PM		2027 AM		2027 PM	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Waterville / Fore (U)								
Fore NE	A	A	A	A	A	A	A	A
Fore SW	A	A	A	A	A	A	A	A
Waterville SE	A	A	A	A	A	A	A	A
Site Driveway NW	N/A	A	N/A	A	N/A	A	N/A	A
Congress / India (S)								
Congress NE	B	B	C	C	B	B	C	C
Congress SW	A	A	B	B	A	A	B	B
India NW	B	B	D	C	B	B	D	C
Overall	B	B	C	C	A	B	C	C
Washington / Congress / Mountfort (S)								
Congress NE	A	A	C	B	A	A	B	B
Congress SW	B	B	C	B	B	C	C	B
Mountfort NB	B	B	C	B	C	B	C	B
Washington SB	A	A	B	B	A	A	B	B
Overall	B	B	C	B	A	B	B	B
Cumberland / Washington (S)								
Cumberland NE	B	B	B	B	B	B	B	B
Cumberland SW	B	B	B	B	B	B	B	B
Washington NB	B	B	B	B	B	B	B	B
Washington SB	A	B	D	C	B	B	D	C
Overall	A	B	C	B	B	B	C	B

*(S) = Signalized, (U) = Unsignalized, (R) = Roundabout

As shown in the table, the study area intersections are forecast to operate at or above level of service 'D' after the development is completed, with the exception of the Fore Street eastbound approach of the intersection of Franklin Street with Fore Street and the Franklin Street southbound approach of the intersection of Franklin Street with Middle Street. These approaches are forecast to operate at a level of service 'E' during the 2027 Postdevelopment PM peak hour. It may be improved with adjustments to the intersection timing; however since the intersection is part of the proposed Franklin Street improvements, changes to the timing were not made for this analysis. Any adjustments to intersection timing would need to consider the platooning of Franklin Street traffic. It should be noted that at the intersections of India Street with Congress Street, Congress Street with Mountfort Street and Washington Avenue, and Washington Avenue with Cumberland Avenue the levels of service are forecast to increase after the development is completed. This increase is due to updated signal timing for those three intersections in the postdevelopment conditions. Please note that the existing timing and phasing of the two intersections of India Street with Congress Street and Congress Street with Mountfort Street / Washington Avenue include an exclusive pedestrian phase. This phase was not included in the analysis, but

if actuated, will cause the intersections to operate at a lower level of service. This is common in a downtown area where signals include an exclusive pedestrian phase.

Although the capacity analysis shows that the study area intersections are forecast to operate at acceptable levels of service with the existing geometry, it should be noted that observations of the Franklin Street intersections identified that during the PM peak hour queueing on northbound Franklin Street was significant. This queuing resulted in inefficiencies in the upstream intersections such that they operated at very low levels of service.

IX. Sight Line Evaluation

Both the City of Portland and MaineDOT have guidelines for sight distances. The City's sight distance criteria is the same as MaineDOT. The basic sight line standards are as follows.

Standards for Sight Distance

Posted Speed (mph)	MaineDOT Required (ft)	City of Portland Required
25	200	200
30	250	250
35	305	305
40	360	360
45	425	425

MaineDOT and the City measure sight distance using the same methodology. GP has evaluated the available sight lines in accordance with MaineDOT / City standards.

The evaluation method is as follows:

Driveway observation point:	10 feet off edge of travel way
Height of eye at driveway:	3 ½ feet above ground
Height of approaching vehicle:	4 ¼ feet above ground

Speed limits on Fore Street are posted 25 mph, which requires a MaineDOT and City sight distance of 200 feet.

GP measured the sight distance at the proposed site accesses on Fore Street. The following table summarizes the measured sight distances:

Sight Distance Summary

	Posted Speed (mph)	Looking Left (ft)	Looking Right (ft)	MaineDOT Required (ft)	City Required (ft)
Driveway onto Fore	25 mph	300+	300+	200	200
Proposed Road onto Fore	25 mph	250	300+	200	200

As shown in the table, the sight distances exceed MaineDOT and City requirements. It should be noted that the sight distances exiting the proposed site driveway onto Fore Street assume the removal or relocation of on-street parking spaces on either side of the site driveway within the sight triangle. Additionally, the sight distance looking left from the proposed road onto Fore Street could be improved by relocating the Hamilton Marine sign further from the edge of the road.

X. Crash Data

GP obtained the crash data (attached in Appendix D) from MaineDOT for the period of 2013-2015, the most recent period available at the time this study was prepared. In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to be classified as an HCL.

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

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

Based on the crash data provided by MaineDOT there are two high crash locations within the study area; one at the intersection of Franklin Street with Middle Street, and one on Fore Street from its intersection with India Street to its intersection with Mountfort Street. It should be noted that there were two locations that did not meet the HCL criteria, but were close. The intersection of India Street with Fore Street has a CRF of 1.60 and experienced seven collisions during the most recent three-year period and Cumberland Avenue from Boyd Street to Locust Street has a CRF of 4.13 and experienced seven collisions over the most recent three-year period. The intersection of India Street with Fore Street was previously identified as an HCL based on 2012-2014 crash data, but there were fewer crashes during the 2013-2015 period, so it no longer meets both HCL criteria.

To better evaluate the high crash locations and identify correctable crash patterns, the police reports for these locations were requested from MaineDOT and collision diagrams were created (attached in Appendix D). The two locations are described in more detail as follows:

Franklin Street / Middle Street

The intersection of Franklin Street with Middle Street has a CRF of 1.08 and experienced 20 crashes over the most recent three-year period. It is a four legged signalized intersection. Based on a review of the collision diagram all 20 collisions involved vehicles turning left from Franklin Street onto Middle Street colliding with vehicles traveling in the opposite direction of Franklin Street. This occurs in both the Franklin Street northbound and southbound directions, but 16 of the collisions involved southbound left-turning vehicles and northbound through vehicles. Of those 16 collisions, six occurred because the left-turning vehicle could not see the northbound through vehicle due to a snowbank in the median blocking the sight distance. Increased winter maintenance, specifically snow removal, could improve the sight distance at the intersection during winter months, providing left-turning vehicles with a clear view of oncoming traffic.

Fore Street from India Street to Mountfort Street

This section of Fore Street has a CRF of 2.12 and experienced nine crashes over the most recent three-year period, seven of which occurred at the intersection of Fore Street with Hancock Street. The intersection of Fore Street with Hancock Street is stop controlled with stop signs on Hancock Street and free flowing traffic on Fore Street. Based on a review of the collision diagram there does not appear to be a clear and correctable crash pattern. Most collisions at the intersection of Hancock Street with Fore Street were caused by a driver failing to yield the right of way.

XI. Existing Pedestrian, Bicycle, and Transit Infrastructure

One of the benefits of being located in a downtown area is that there is a complete network of sidewalks in the vicinity of the site. The Eastern Promenade Trail runs through the 58 Fore Street development. This pedestrian and bicycle trail connects the site to a 70-mile trail network. Fore Street has sidewalks on both sides that extend west into Downtown Portland and east toward the Eastern Promenade. The sidewalks are in adequate condition, however there are utility poles and sign posts on the south side of Fore Street are located within the sidewalk, which decreases the sidewalk width. As part of the 58 Fore Street development, the sidewalk on Fore

Street in front of the site will be rebuilt. It is recommended that any new sidewalks be constructed to meet ADA requirements.

The site is located within a 3-8 minute walk to several METRO bus stops. It is also approximately a five minute walk from the Ocean Gateway Pier and approximately a ten minute walk from the Maine State Pier, where the Casco Bay Lines Ferry Terminal is located. These bus stops and piers have a continuous network of sidewalks connecting them to the site.

Overall, the existing pedestrian, bicycle, and transit infrastructure is adequate.

XII. Conclusions and Recommendations

The following is a summary of the conclusions and recommendations based on the information and analyses presented in this study:

1. The proposed mixed use development is forecast to generate 424 trip ends during the weekday AM peak hour and 474 trip ends during the weekday PM peak hour. This level of trip generation requires a MaineDOT traffic movement permit. The Traffic Movement Permit Application can be reviewed and the permit issued by the City since they have delegated review authority.

2. The capacity analyses show that the study area intersections are forecast to operate at acceptable levels of service for almost all scenarios once the development is completed and occupied. The exception is the eastbound Fore Street approach of the intersection of Fore Street with Franklin Street and the southbound Franklin Street approach of the intersection of Middle Street with Franklin Street, which are forecast to operate at a level of service 'E' during the 2027 PM Postdevelopment condition. However, a slight change in timing at the intersections may improve the level of service.

3. The sight distances exceed MaineDOT and City requirements at the proposed new road connecting Fore Street to Thames Street Extension and at the proposed site driveway onto Fore Street, provided on-street parking within the sight triangle on either side of the proposed driveway is removed or relocated.

4. The crash data shows that there are two high crash locations in the study area. Based on a review of the collision diagrams there is no clear correctable crash pattern on Fore Street from India Street to Mountfort Street, but there is a crash pattern of left turning vehicle colliding with through vehicles at the

intersection of Middle Street with Franklin Street. The traffic from this development is not anticipated to significantly impact this crash pattern.

5. The existing pedestrian, bicycle, and transit infrastructure is adequate, except the utility poles and signs located within the sidewalks along the south side of Fore Street, which is proposed to be rebuilt as part of this project. The site is surrounded by a continuous sidewalk network, located within a 3-8 minute walk from METRO bus stops and a 5-10 minute walk from the two closest piers, and the Eastern Promenade bicycle and pedestrian trail runs through the site.

Appendix A

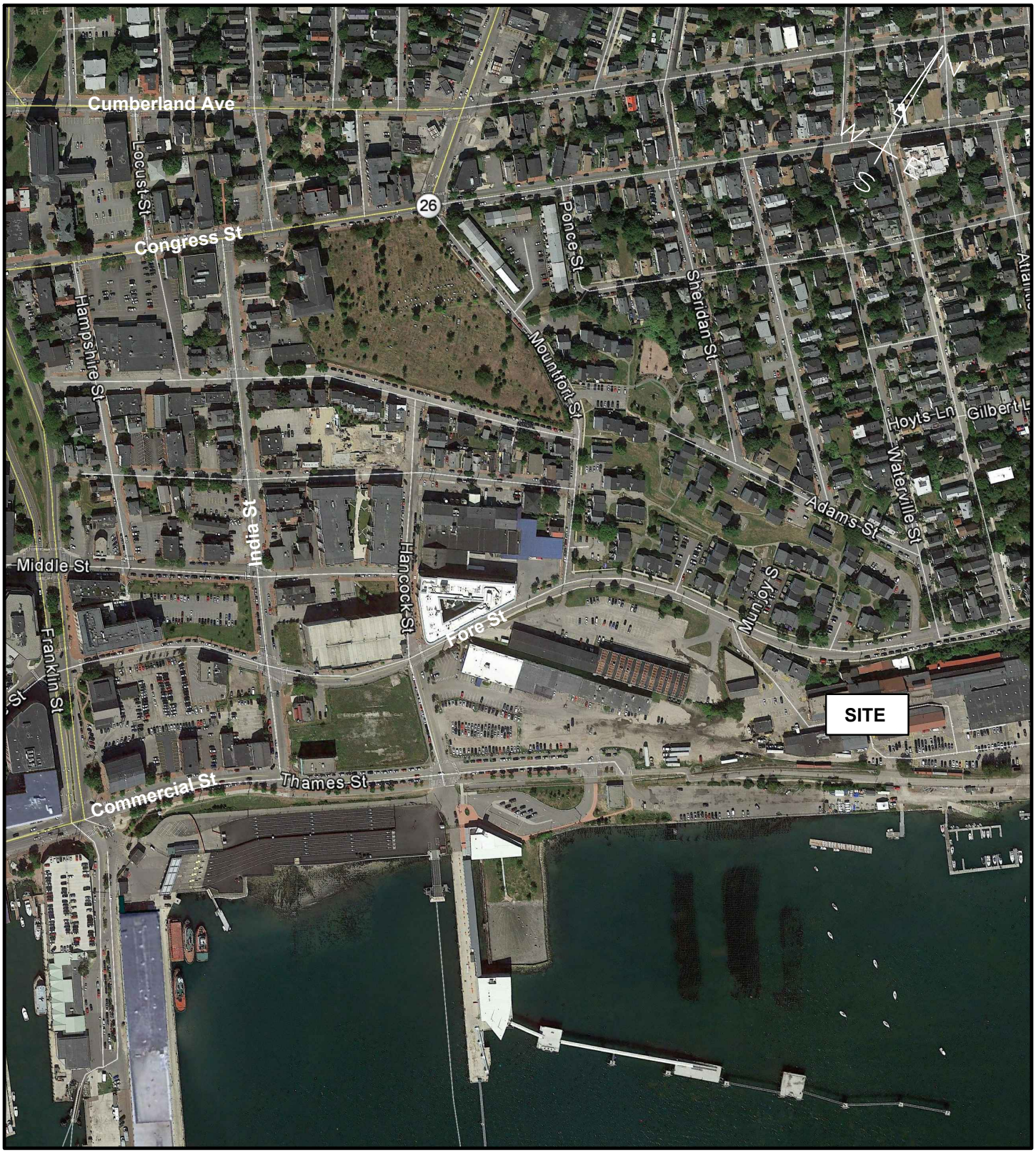
Location Map

Turning Movement Diagrams

Other Development Figure

Location Map

Figure No. 1



58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

Design:	ET	Scale:	NONE
Draft:	LAN	Date:	OCT 2015
Checked:	RED	File Name:	3138-TRAFF.dwg

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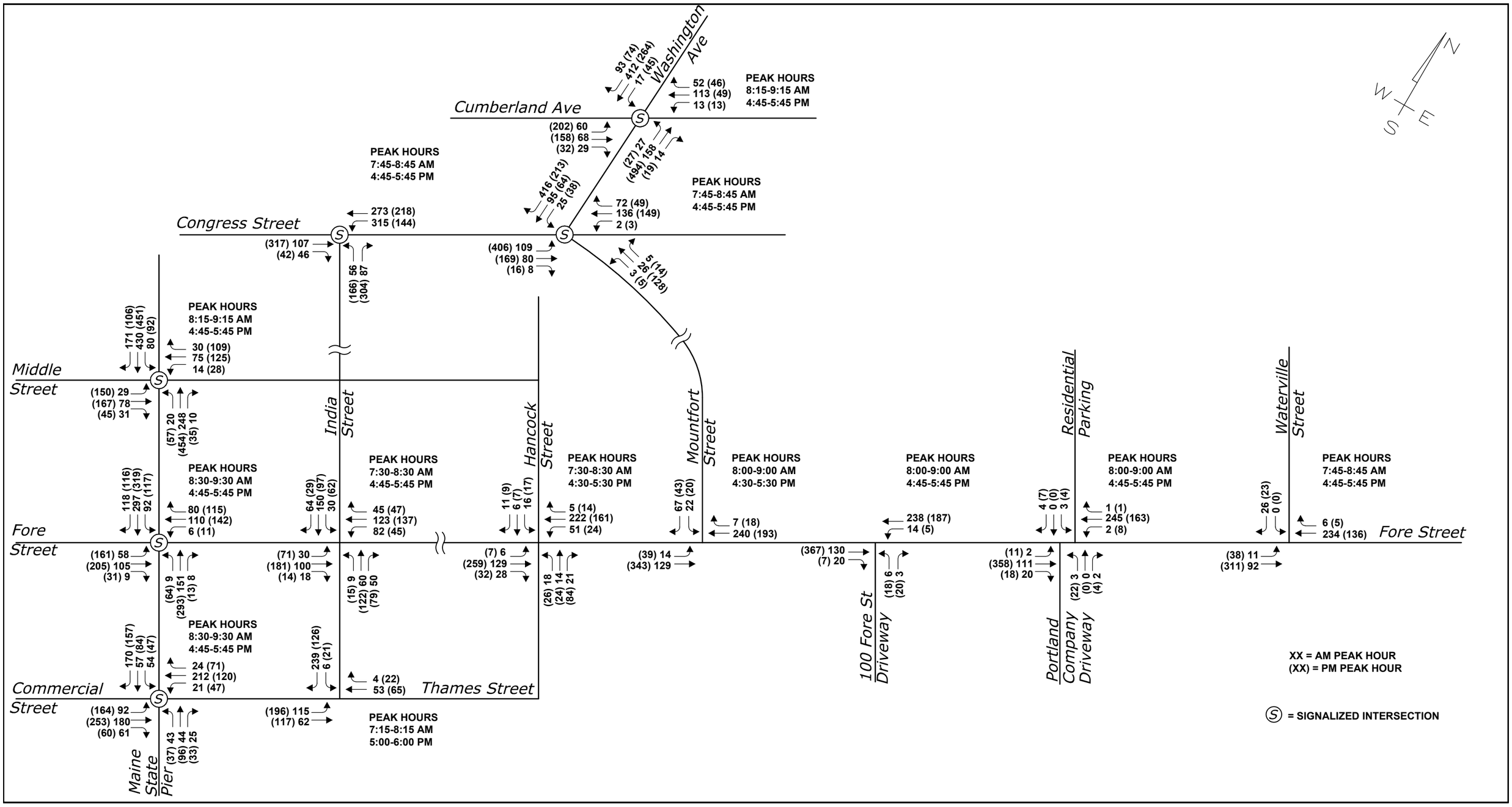
Raw Volumes

Figure No. 2



58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

Design: ET
Draft: LAN
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Scale: NONE
Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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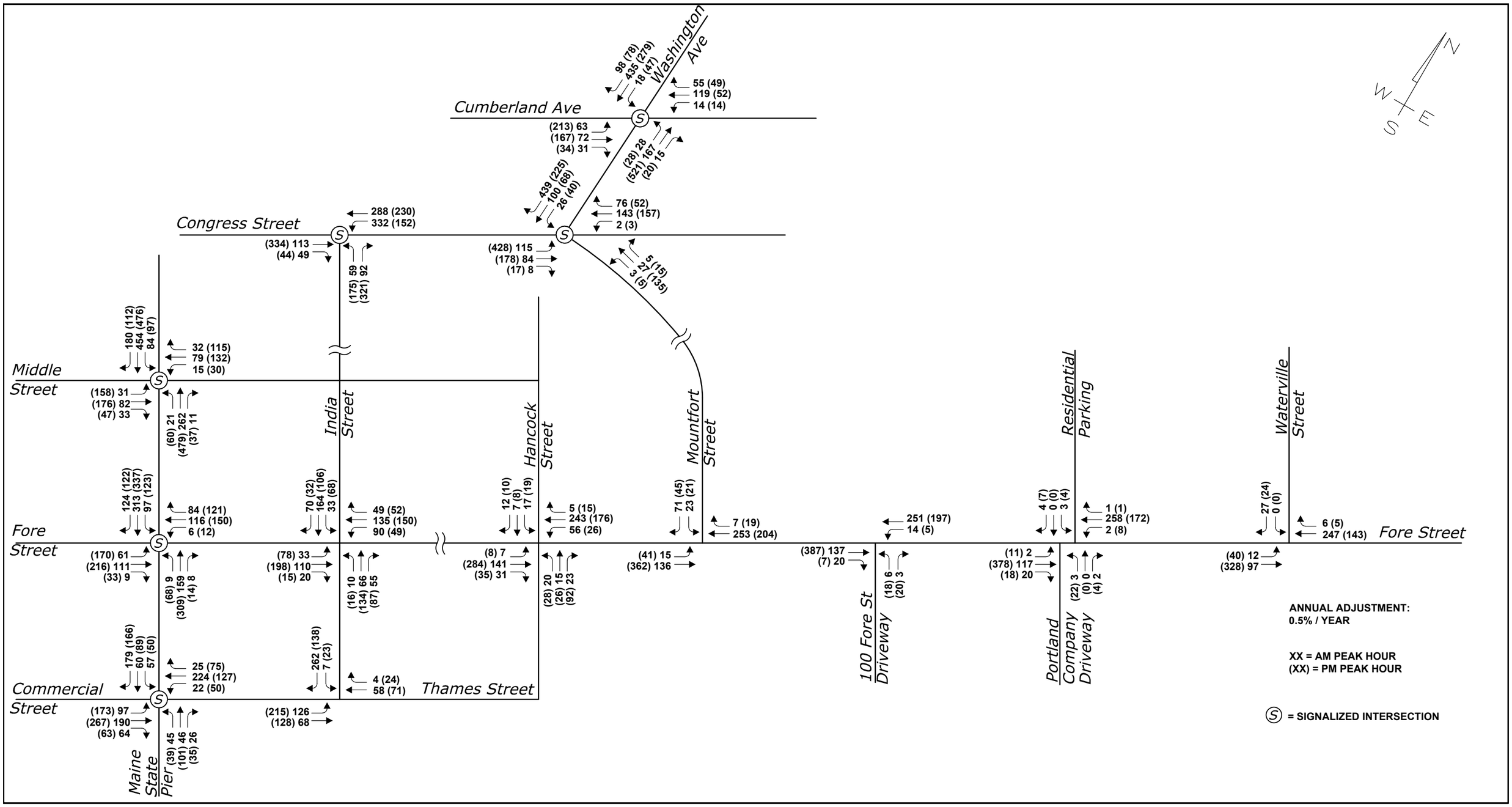
2027 Adjusted Volumes

Figure No. 3



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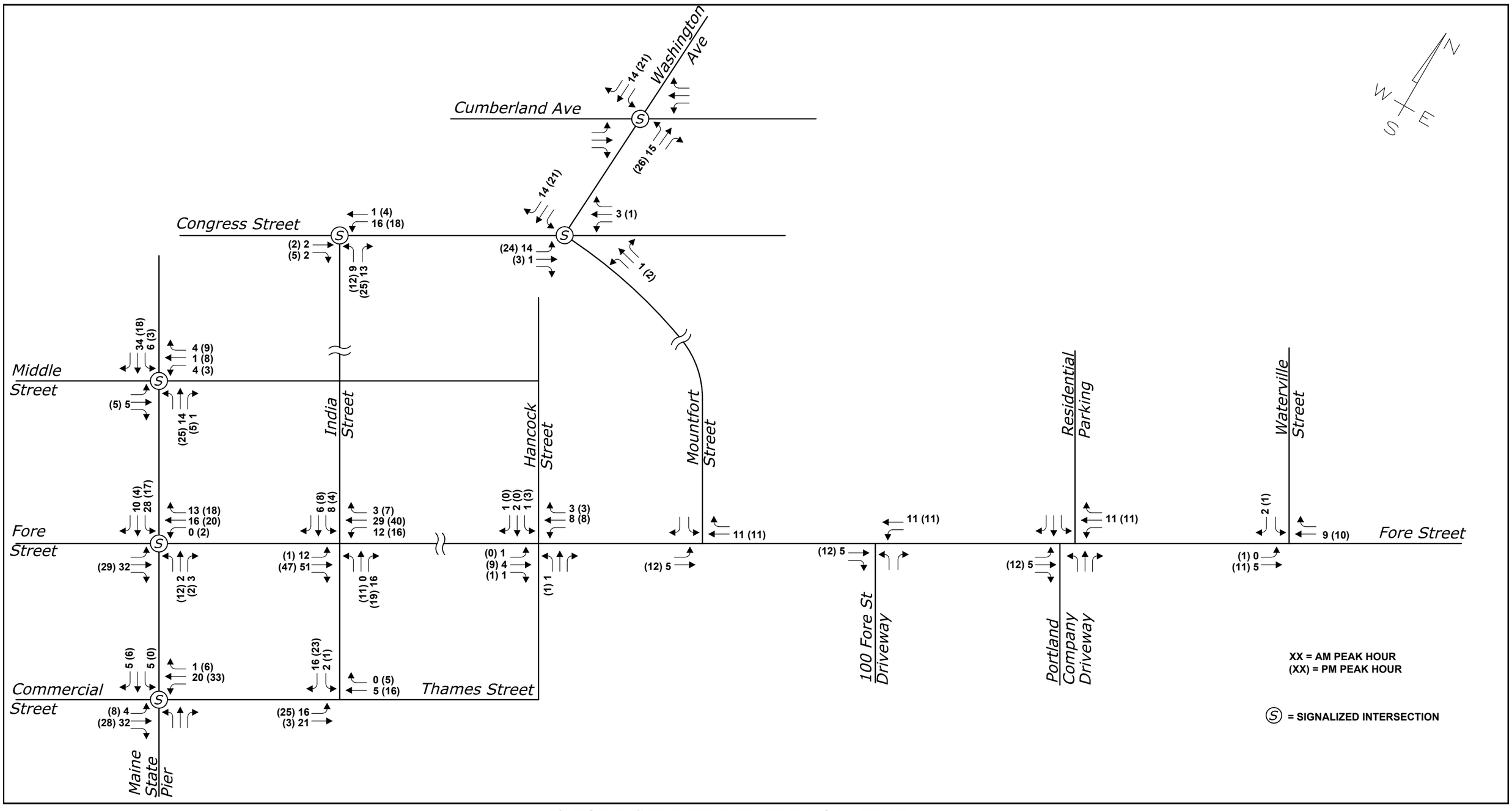
Other Development

Figure No. 4



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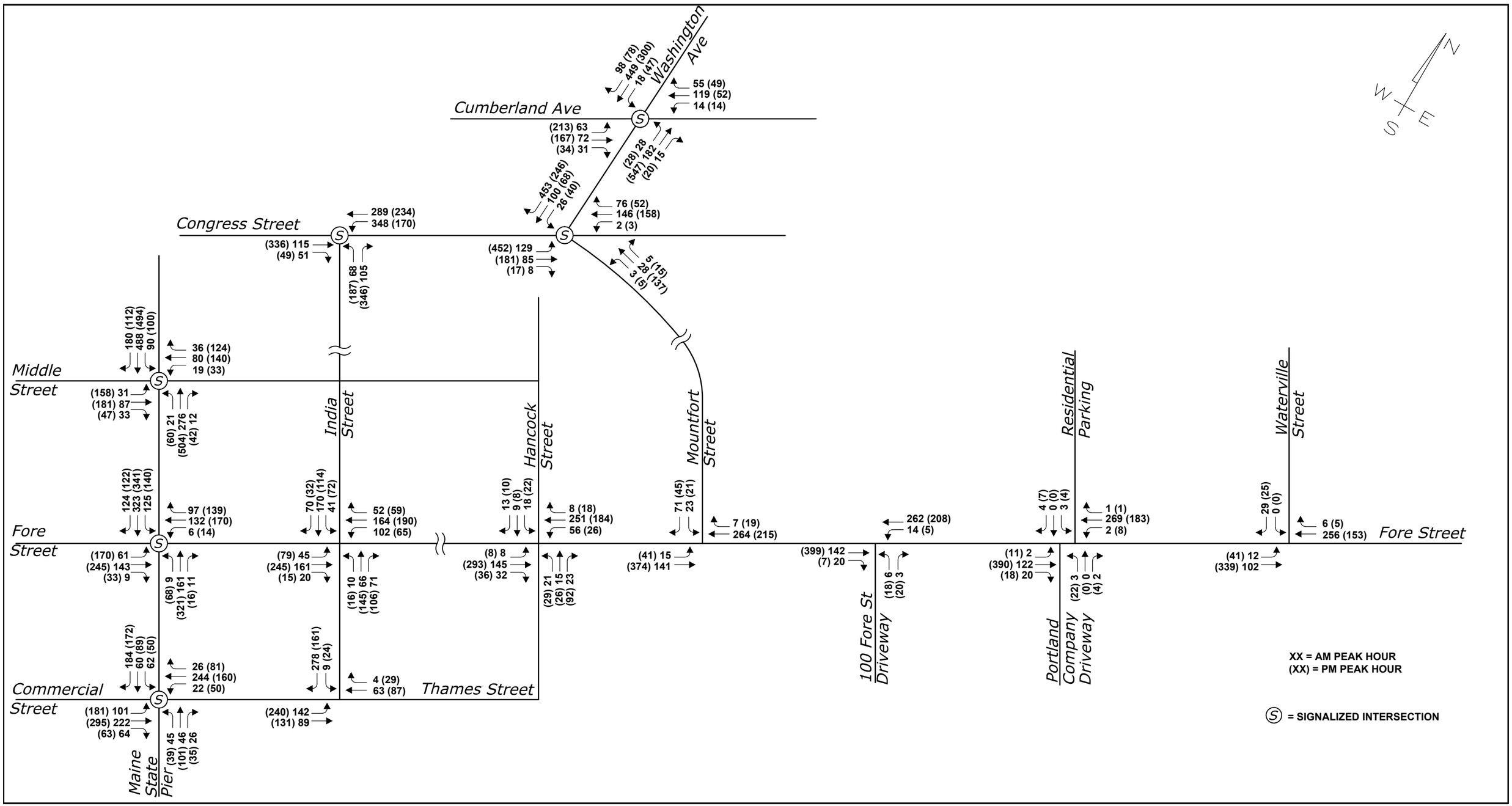
2027 Predevelopment DHV

Figure No. 5



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Date: AUGUST 2016
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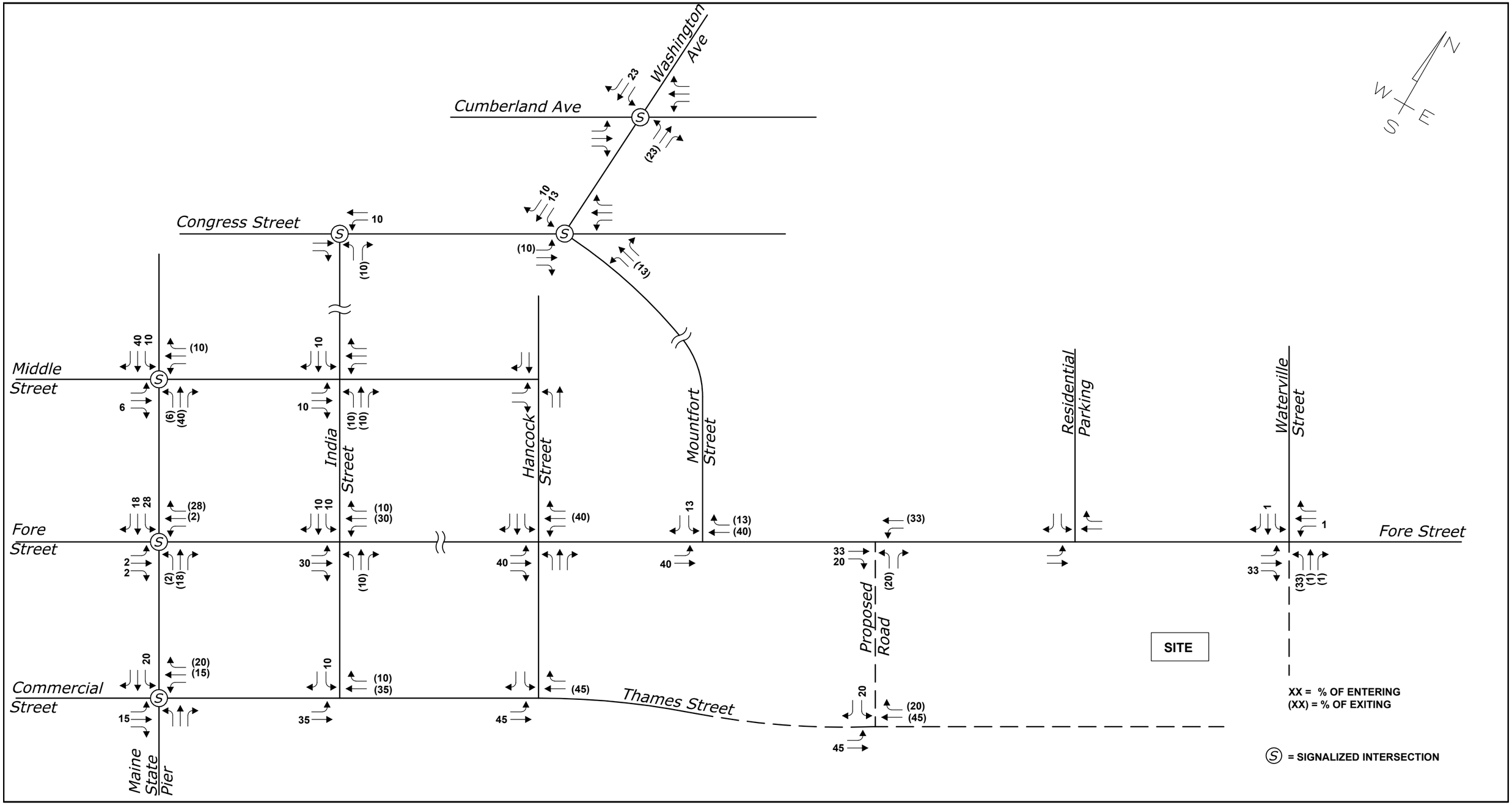
Residential Trip Distribution

Figure No. 6



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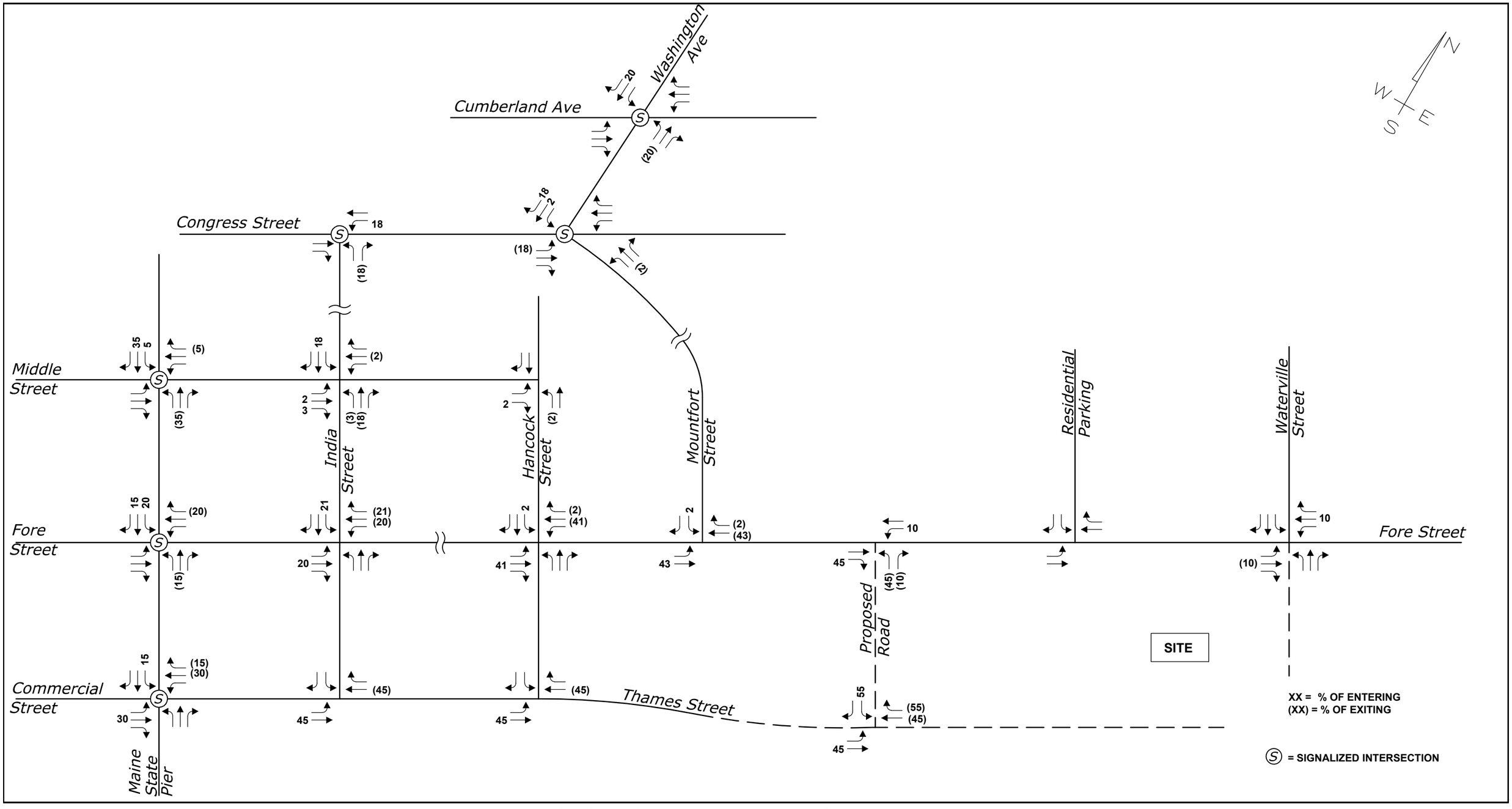
Non-Residential Trip Distribution

Figure No. 7



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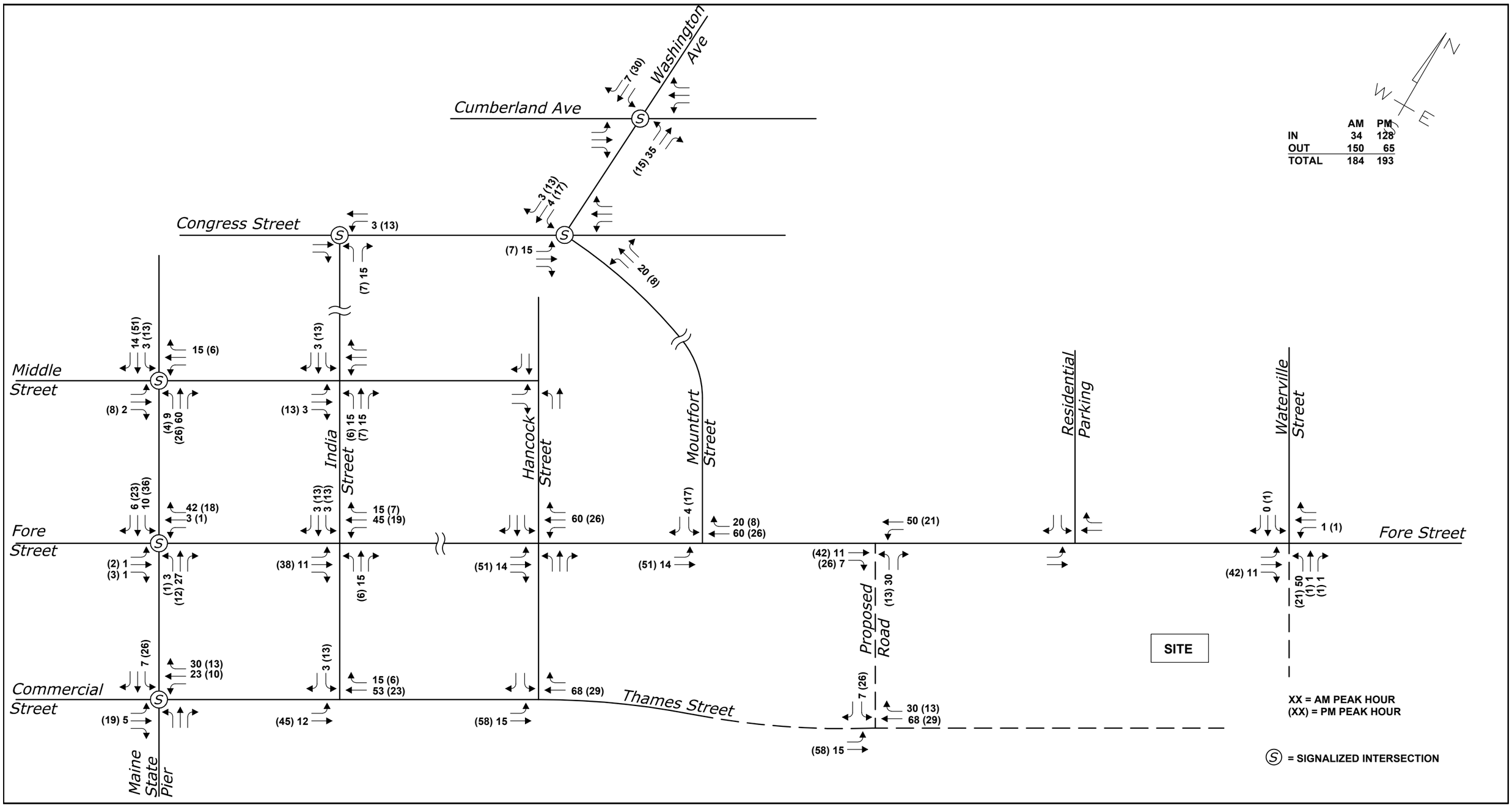
Residential Trip Assignment

Figure No. 8



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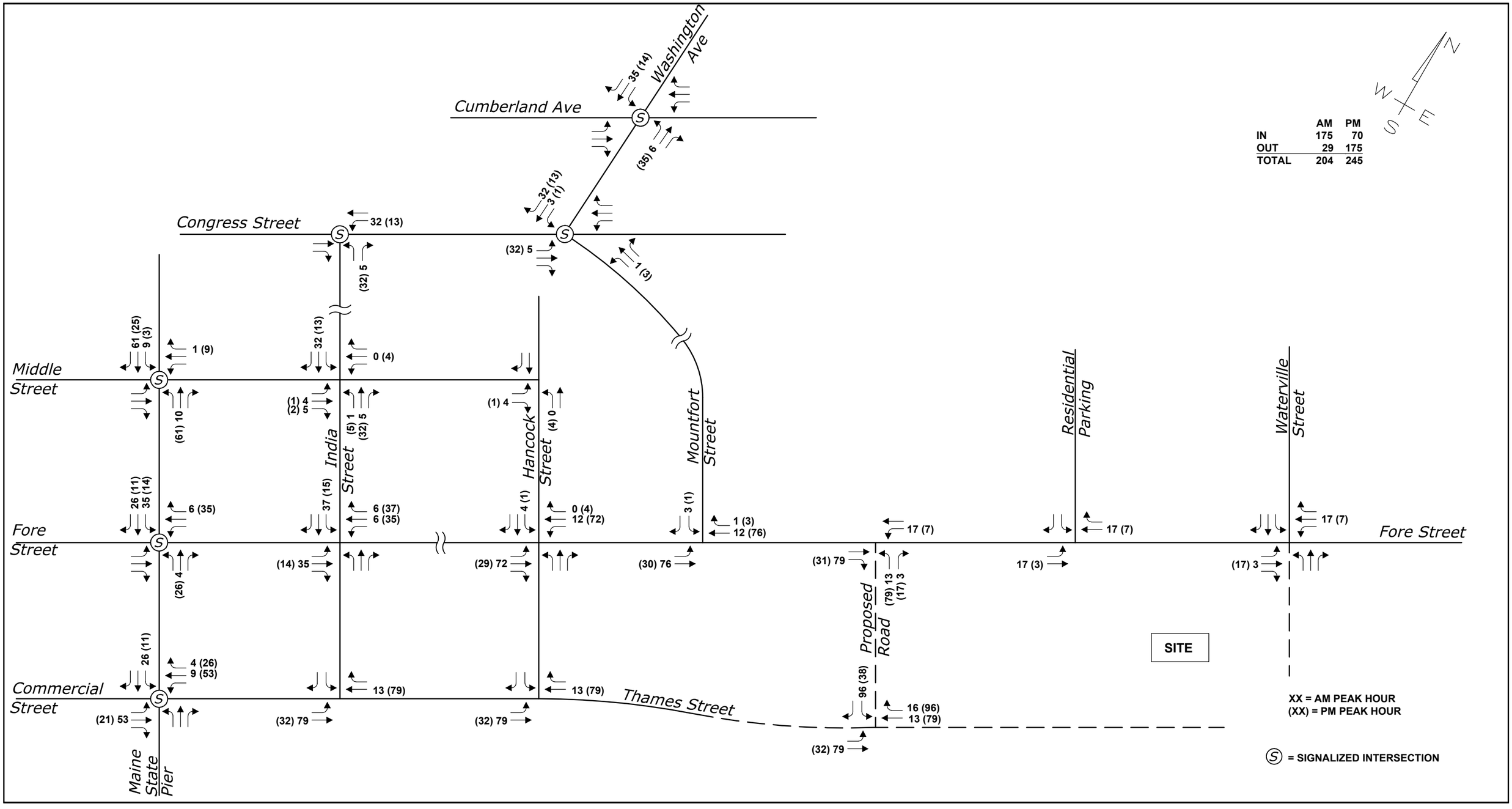
Non-Residential Trip Assignment

Figure No. 9



	AM	PM
IN	175	70
OUT	29	175
TOTAL	204	245

58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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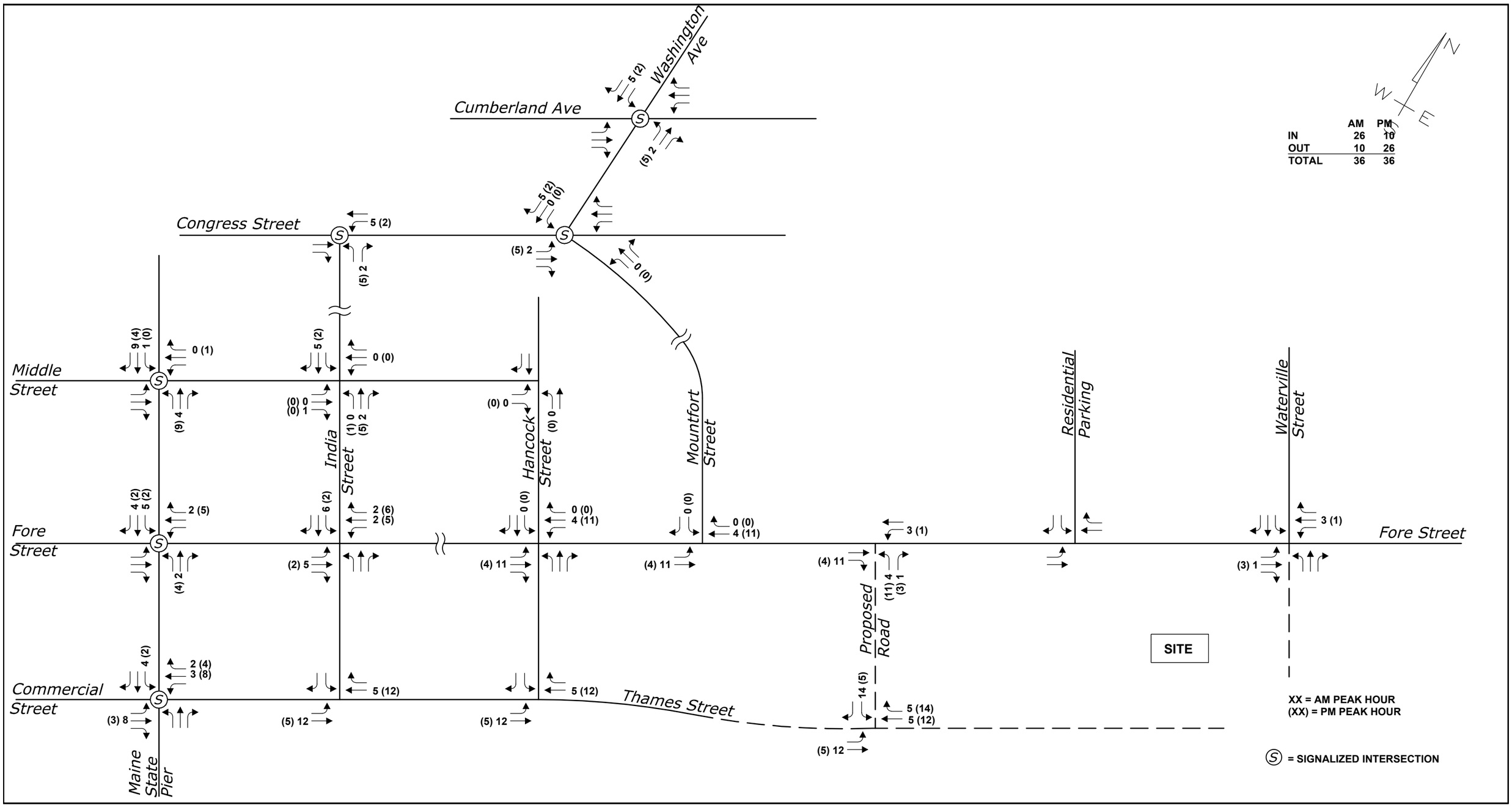
Marina Trip Assignment

Figure No. 10



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Draft: LAN Date: AUGUST 2016
Checked: RED File Name: 3138-TRAFF.dwg

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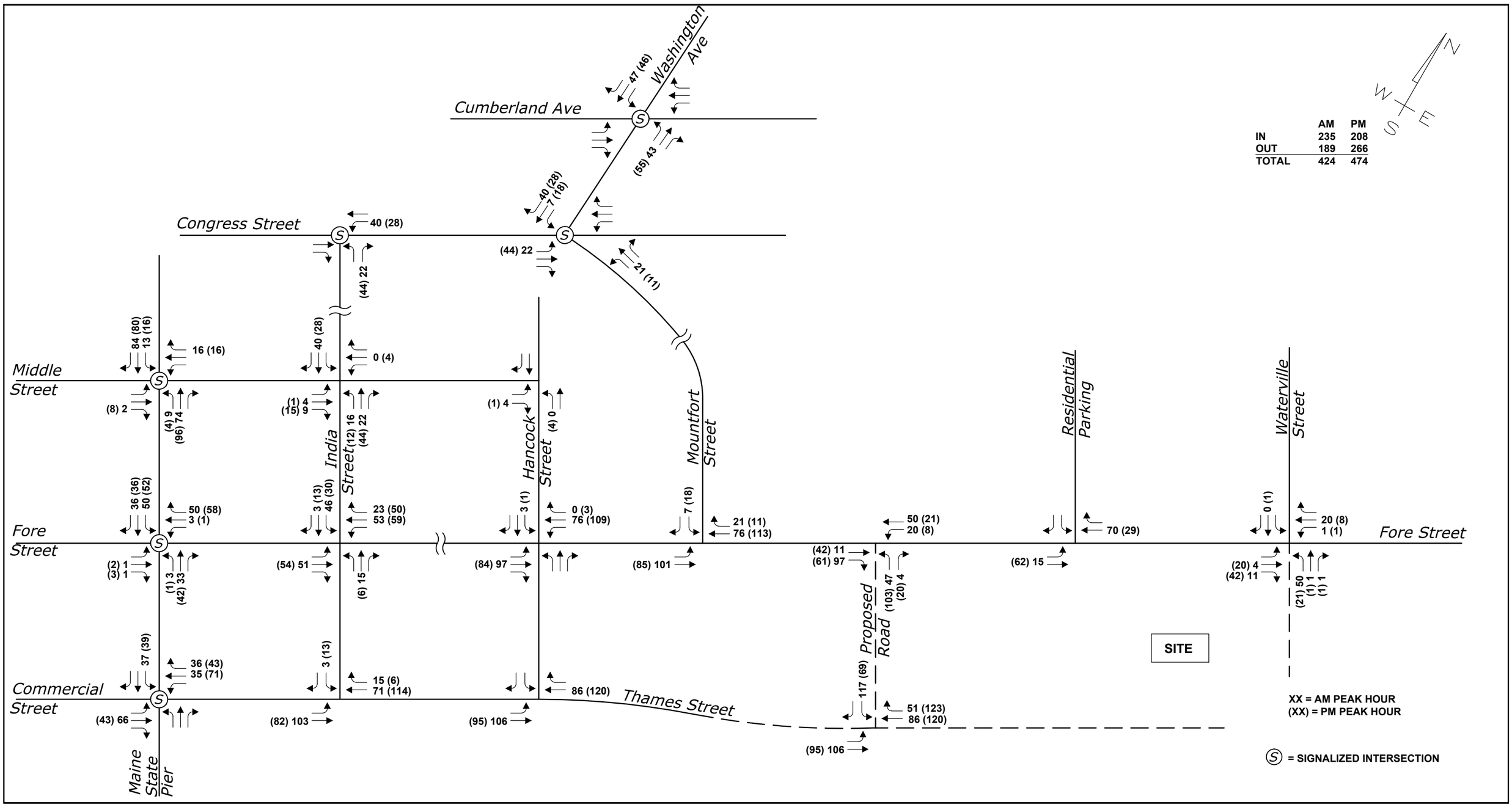
Total Trip Assignment

Figure No. 11



	AM	PM
IN	235	208
OUT	189	266
TOTAL	424	474

58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

Design: ET
Draft: LAN
Checked: RED
Scale: NONE
Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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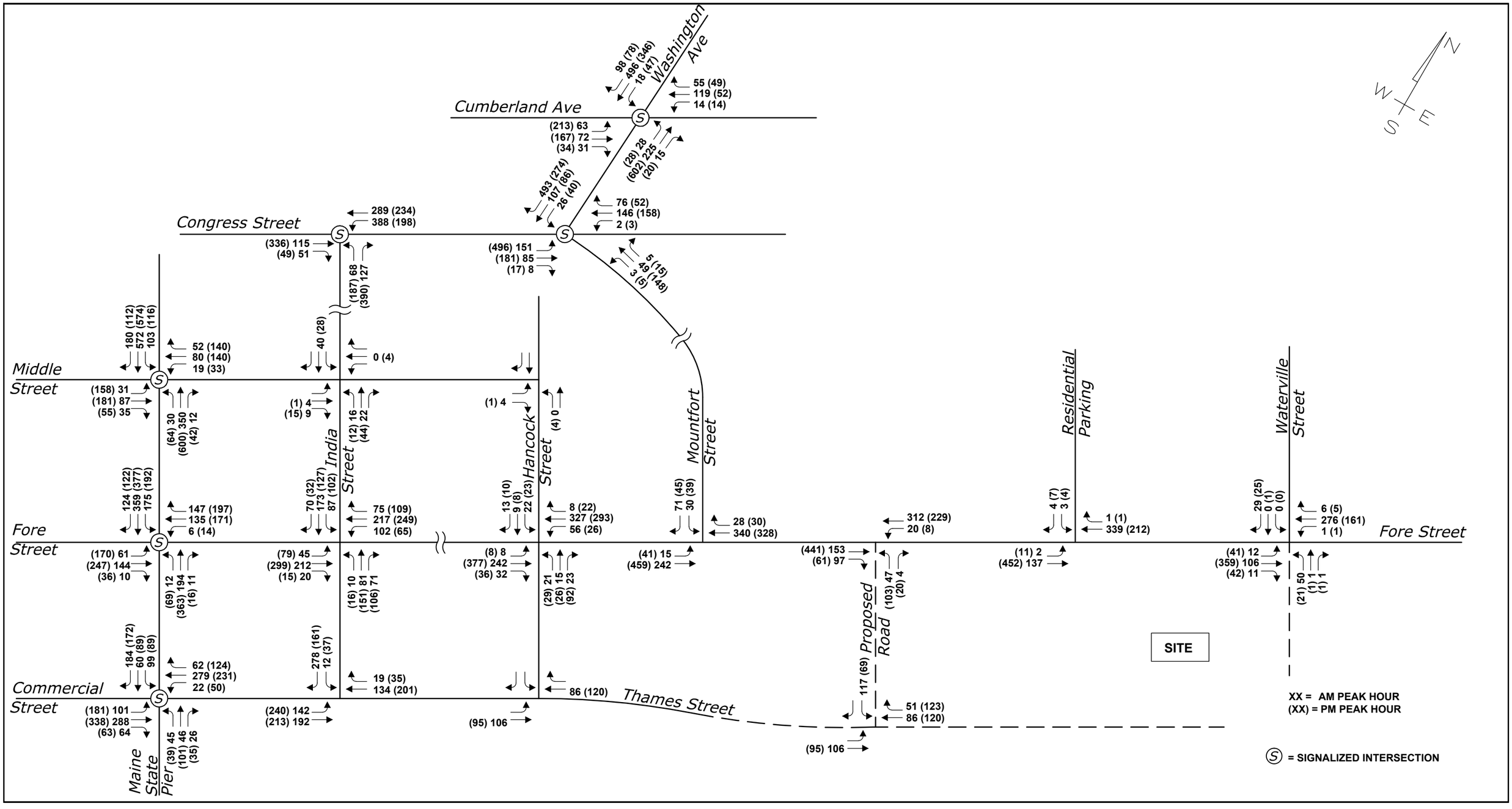
2027 Postdevelopment DHV

Figure No. 12



58 FORE STREET REDEVELOPMENT
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Draft: LAN
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Scale: NONE
Date: AUGUST 2016
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Other Development

A: 180 Room Hotel
B: Office and Bank
C: 4,085 sf Office/Retail, 8 Residential Units
D: 5,305 sf Retail, 39,526 sf Office
E: 39 Condominium Units
F: 2 Residential Units
G: 2 Residential Units
H: 5,409 sf Retail, 29 Condominium Units
I: 24 Condominium Units
J: 2,290 sf Retail, 10 Residential Units
K: 4 Condominium Units

PORTLAND COMPANY
PORTLAND, MAINE

Design:	EAT	Scale:	NONE
Draft:	LAN	Date:	JULY 2016
Checked:	RED	File Name:	3138-Aerial.dwg

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Appendix B

ITE Trip Generation Calculations

NCHRP Spreadsheets

Commute Data Maps

Site Parking Demand Memo

Marina Trip Generation Calculations

58 Fore Street Trip Generation Summary
Portland, Maine
September 2, 2016

Development Block	Use	Land Use Code	Size	Units		AM Trip Generation	% In AM	% Out AM	AM Trips In	AM Trips Out	PM Trip Generation	% In PM	% Out PM	PM Trips In	PM Trips Out
B1															
	Retail	814 - Specialty Retail	7,878	SF		6	60%	40%	4	2	21	45%	55%	9	12
	Residential	220 - Apartment	91	Dwelling Units		46	20%	80%	9	37	56	65%	35%	36	20
	Office	710 - General Office Building	79,000	SF		155	90%	10%	140	15	149	15%	85%	22	127
					B1 Total:	**207**	**74%**	**26%**	**153**	**54**	**226**	**30%**	**70%**	**67**	**159**
B2															
	Retail	814 - Specialty Retail	26,895	SF		20	60%	40%	12	8	73	45%	55%	33	40
	Residential	220 - Apartment	19	Dwelling Units		10	20%	80%	2	8	12	65%	35%	8	4
	Office	710 - General Office Building	25,617	SF		63	90%	10%	57	6	61	15%	85%	9	52
					B2 Total:	**93**	**76%**	**24%**	**71**	**22**	**146**	**34%**	**66%**	**50**	**96**
B3															
	Retail	814 - Specialty Retail	11,500	SF		9	60%	40%	5	4	31	45%	55%	14	17
	Office	710 - General Office Building	19,300	SF		50	90%	10%	45	5	48	15%	85%	7	41
					B3 Total:	**59**	**85%**	**15%**	**50**	**9**	**79**	**27%**	**73%**	**21**	**58**
B4															
	Residential	220 - Apartment	275	Dwelling Units		140	20%	80%	28	112	171	65%	35%	111	60
	Retail	814 - Specialty Retail	4,000	SF		3	60%	40%	2	1	11	45%	55%	5	6
					B4 Total:	**143**	**21%**	**79%**	**30**	**113**	**182**	**64%**	**36%**	**116**	**66**
B5															
	Residential	230 - Residential Condominium/Townhouse	108	Dwelling Units		48	15%	85%	7	41	56	65%	35%	36	20
	Hotel	310 - Hotel	132	Rooms		74	60%	40%	44	30	78	55%	45%	43	35
	Restaurant	932 - High Turnover (Sit Down) Restaurant	3,800	SF		44	50%	50%	22	22	41	60%	40%	25	16
					B5 Total:	**166**	**44%**	**56%**	**73**	**93**	**175**	**59%**	**41%**	**104**	**71**
B6															
	Residential	230 - Residential Condominium/Townhouse	131	Dwelling Units		58	15%	85%	9	49	68	65%	35%	44	24
	Residential	220 - Apartment	14	Dwelling Units		7	20%	80%	1	6	9	65%	35%	6	3
					B6 Total:	**65**	**15%**	**85%**	**10**	**55**	**77**	**65%**	**35%**	**50**	**27**
B7															
	Marina Facilities	N/A	2,600	SF		36	72%	28%	26	10	36	28%	72%	10	26
					B7 Total:	36	72%	28%	26	10	36	28%	72%	10	26
					Site Total:	**769**	**54%**	**46%**	**413**	**356**	**921**	**45%**	**55%**	**418**	**503**

			AM Trip Generation	% In AM	% Out AM	AM Trips In	AM Trips Out	PM Trip Generation	% In PM	% Out PM	PM Trips In	PM Trips Out
		B1-B6 Subtotal:	733	53%	47%	387	346	885	46%	54%	408	477
		NCHRP 684 Reduction:	102	12%	14%	51	51	150	18%	15%	75	75
	35.8%	Other Modes Reduction:	236	35.8%	35.8%	123	113	289	35.8%	35.8%	131	158
	10%	Hotel Other Modes Reduction:	7	57%	43%	4	3	8	50%	50%	4	4
		B1-B6 Total:	**388**	**54%**	**46%**	**209**	**179**	**438**	**45%**	**55%**	**198**	**240**
		Marina Total	36	72%	28%	26	10	36	28%	72%	10	26
		Site Total	**424**	**55%**	**45%**	**235**	**189**	**474**	**44%**	**56%**	**208**	**266**

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	58 Fore Street	**Organization:**	Gorrill Palmer
Project Location:	Portland, Maine	**Performed By:**	ET
Scenario Description:	Max Build Out	**Date:**	2-Sep
Analysis Year:	2016	**Checked By:**	RED
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	123,917	SF	268	242	26
Retail	814	50,273	SF	38	23	15
Restaurant	932	3,800	SF	44	22	22
Cinema/Entertainment		-	SF	0	0	0
Residential	220/230	638	Units	309	56	253
Hotel	310	132	Rooms	74	44	30
All Other Land Uses[2]	N/A	2,600	SF	36	26	10
Total				769	413	356

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	5	0	0	0
Retail	4		2	0	1	0
Restaurant	7	2		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	3	4	0		0
Hotel	7	1	1	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	769	413	356
Internal Capture Percentage	13%	12%	14%
External Vehicle-Trips[3]	667	362	305
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	10%	46%
Retail	57%	47%
Restaurant	55%	50%
Cinema/Entertainment	N/A	N/A
Residential	4%	5%
Hotel	2%	30%

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

Project Name:	58 Fore Street
Analysis Period:	**Scenario 1 - AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	242	242	1.00	26	26
Retail	1.00	23	23	1.00	15	15
Restaurant	1.00	22	22	1.00	22	22
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	56	56	1.00	253	253
Hotel	1.00	44	44	1.00	30	30

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	16	0	0	0
Retail	4		2	0	2	0
Restaurant	7	3		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	3	51	0		0
Hotel	23	4	3	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	5	0	0	0
Retail	10		11	0	1	0
Restaurant	34	2		0	3	2
Cinema/Entertainment	0	0	0		0	0
Residential	7	4	4	0		0
Hotel	7	1	1	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	23	219	242	219	0	0
Retail	13	10	23	10	0	0
Restaurant	12	10	22	10	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	54	56	54	0	0
Hotel	1	43	44	43	0	0
All Other Land Uses[3]	0	26	26	26	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	12	14	26	14	0	0
Retail	7	8	15	8	0	0
Restaurant	11	11	22	11	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	12	241	253	241	0	0
Hotel	9	21	30	21	0	0
All Other Land Uses[3]	0	10	10	10	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	58 Fore Street	**Organization:**	Gorrill Palmer
Project Location:	Portland, Maine	**Performed By:**	ET
Scenario Description:	Max Build Out	**Date:**	2-Sep
Analysis Year:	2016	**Checked By:**	RED
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	123,917	SF	258	38	220
Retail	814	50,273	SF	136	61	75
Restaurant	932	3,800	SF	41	25	16
Cinema/Entertainment		-	SF	0	0	0
Residential	220/230	638	Units	372	241	131
Hotel	310	132	Rooms	78	43	35
All Other Land Uses[2]	N/A	2,600	SF	36	10	26
Total				921	418	503

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		5	1	0	4	0
Retail	2		7	0	20	4
Restaurant	0	7		0	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	6	4	0		4
Hotel	0	1	1	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	921	418	503
Internal Capture Percentage	16%	18%	15%
External Vehicle-Trips[3]	771	343	428
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	18%	5%
Retail	31%	44%
Restaurant	52%	69%
Cinema/Entertainment	N/A	N/A
Residential	11%	15%
Hotel	21%	6%

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

Project Name:	58 Fore Street
Analysis Period:	**Scenario 1 - PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	38	38	1.00	220	220
Retail	1.00	61	61	1.00	75	75
Restaurant	1.00	25	25	1.00	16	16
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	241	241	1.00	131	131
Hotel	1.00	43	43	1.00	35	35

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		44	9	0	4	0
Retail	2		22	3	20	4
Restaurant	0	7		1	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	55	28	0		4
Hotel	0	6	24	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		5	1	0	10	0
Retail	12		7	0	111	7
Restaurant	11	31		0	39	31
Cinema/Entertainment	2	2	1		10	0
Residential	22	6	4	0		5
Hotel	0	1	1	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	7	31	38	31	0	0
Retail	19	42	61	42	0	0
Restaurant	13	12	25	12	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	27	214	241	214	0	0
Hotel	9	34	43	34	0	0
All Other Land Uses[3]	0	10	10	10	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	10	210	220	210	0	0
Retail	33	42	75	42	0	0
Restaurant	11	5	16	5	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	19	112	131	112	0	0
Hotel	2	33	35	33	0	0
All Other Land Uses[3]	0	26	26	26	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

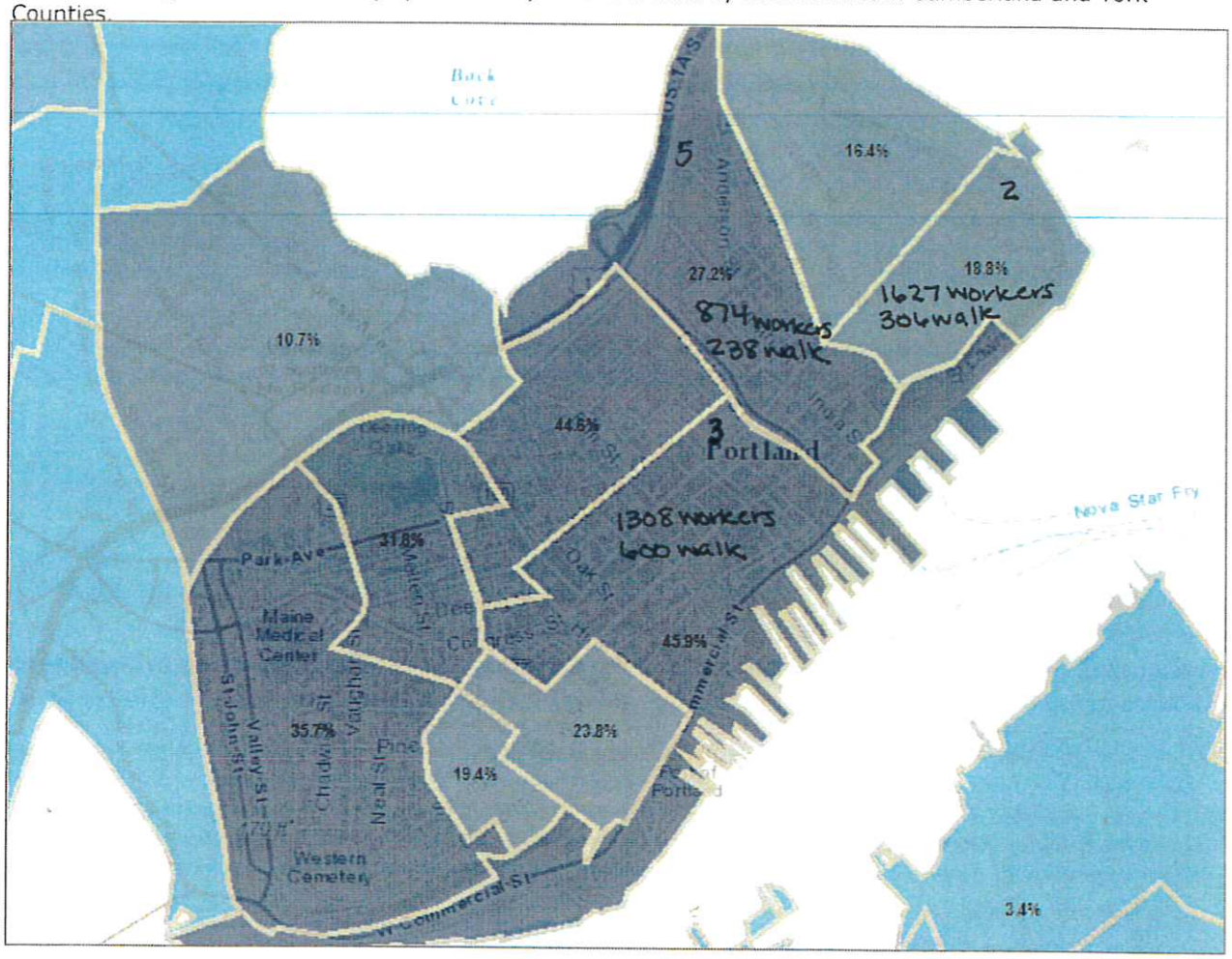
[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Walked

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

3809 Workers
1144 Walk

30.0% walk

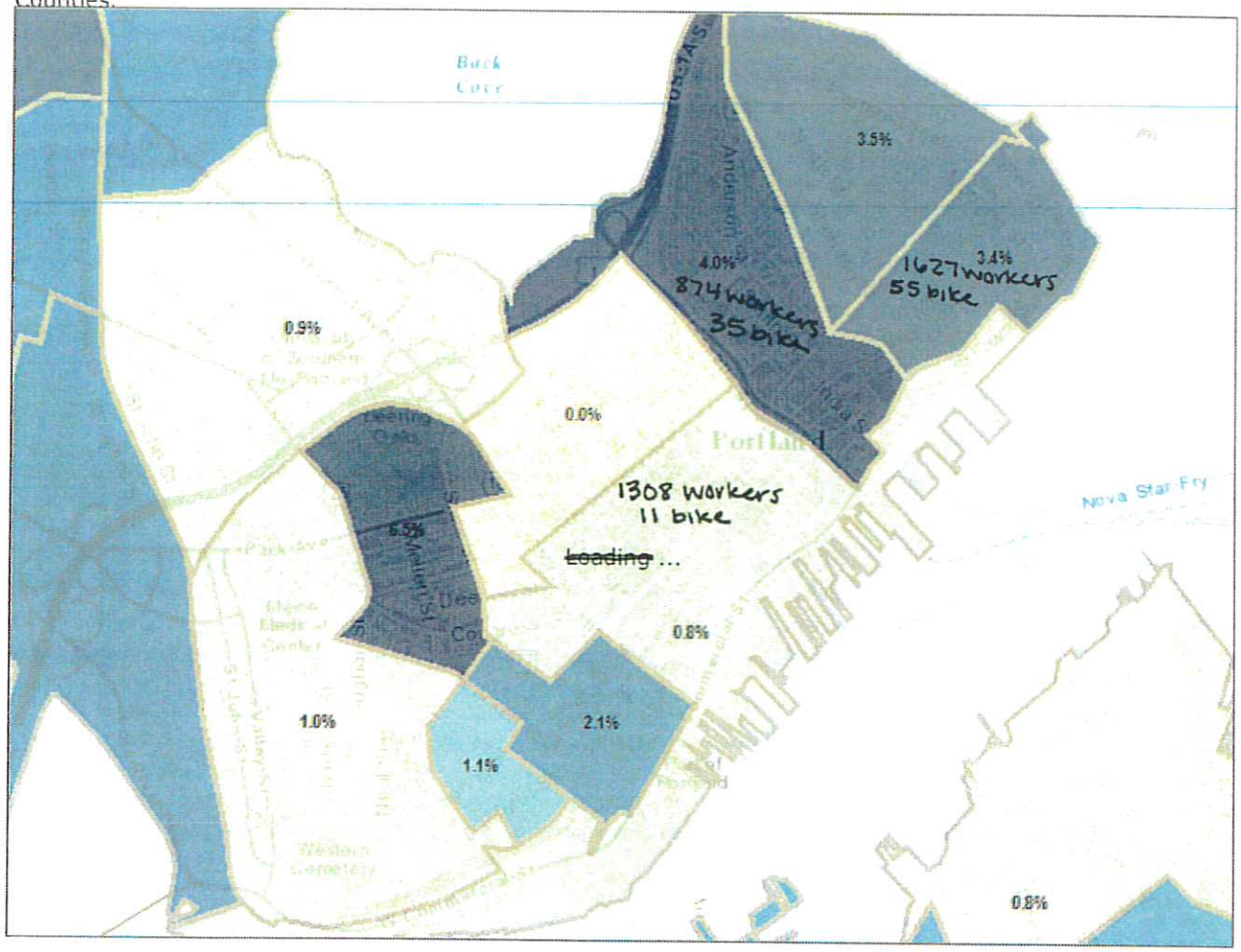
Walk/Bike/Transit

30.0 + 2.7 + 3.1 = 35.8%

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Biked

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

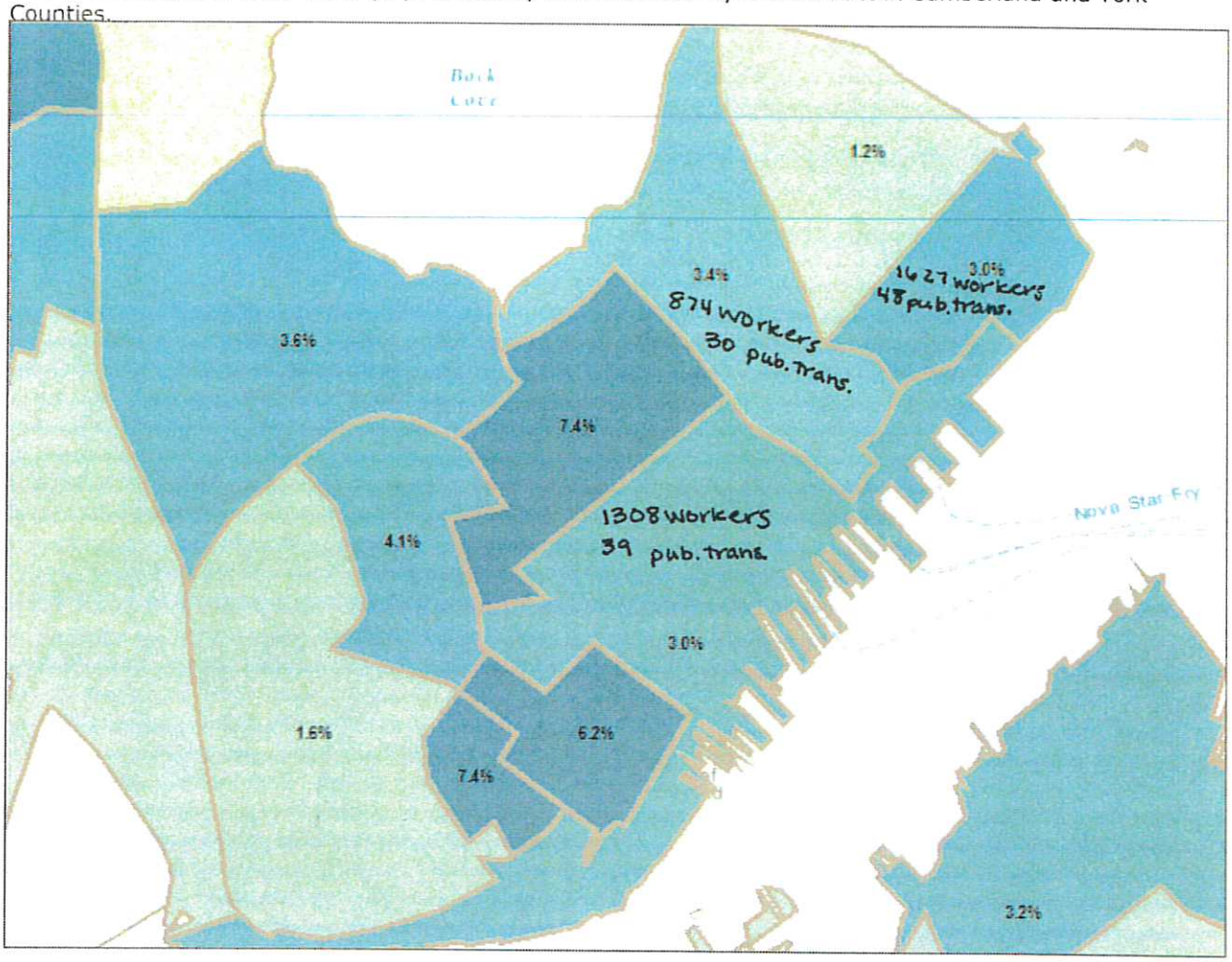
3809 Workers
101 Bike

2.7% Bike

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Public Transportation

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

3809 Workers
117 Public Transportation

3.1% Public Transportation

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Site Parking Demand
58 Fore Street Mixed Use Development
Portland, Maine
JN 3138

Date: September 16, 2016
Subject: Site Parking Demand
58 Fore Street Mixed Use Development
To: David Senus, Mary McCrann, Jim Brady, Kevin Costello, Casey Prentice
From: Randy Dunton and Emily Tynes, Gorrill Palmer (JN 3138)

The following is a summary of the estimated parking demand for the proposed mixed use development at 58 Fore Street. The following table summarizes the sizes and uses of the proposed development used to calculate the parking demand:

Proposed Site Summary

Development Block	Use	Size
B1		
	Retail	7,878 SF
	Residential	91 Dwelling Units
	Office	79,000 SF
B2		
	Retail	26,895 SF
	Residential	19 Dwelling Units
	Office	25,617 SF
B3		
	Retail	11,500 SF
	Office	19,300 SF
B4		
	Residential	275 Dwelling Units
	Retail	4,000 SF
B5		
	Residential	108 Dwelling Units
	Hotel	132 Rooms
	Restaurant	3,800 SF
	Function	5,800 SF
B6		
	Residential (Condos)	131 Dwelling Units
	Residential (Apartments)	14 Dwelling Units
B7		
	Marina Facilities	2,600 SF, 220 Slips

It should be noted that the retail portions of the proposed site will be multiple smaller shops, not large retail stores.

Parking Demand Calculation Methodologies

The parking demand has been determined using two methodologies: using the City Ordinance requirements and based on a shared parking demand. The following summarizes the methodologies in more detail:

City Ordinance Parking Demand

The Ordinance requirement methodology involves calculating the peak parking demand for each use using the City of Portland Code of Ordinances. This method assumes each use is isolated and then adds the individual demands to determine the parking demand for the site. The supporting calculations for this method are attached. This method results in an overestimate because the peak demands for each use are not expected to occur at the same time. For example, offices require more spaces during the day while employees are in the office, and residential buildings would require more spaces later at night when residents are home from work.

The City Ordinance Ch. 14, Art III, Div. 20, Sec. 14-332.2 (c) states, "where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer." Since this mixed use development is approximately 958,679 sf of building floor area, it meets the criteria. Therefore, the site parking demand was determined based on the following methodology.

Shared Parking Plan

The shared parking plan methodology is based on a combination of City Ordinance parking demand, the ITE Parking Generation Manual (4th Edition), and published data / engineering judgement and it reflects that the demand for different uses will peak during different times of day. Since different uses do not peak at the same times, parking spaces can be shared between uses. To determine the shared parking demand, the total parking demand was calculated for each use, then distributed throughout the day based on the type of use. This is the same methodology used for the recent Thompson's Point project. The supporting calculations are attached. With a shared parking plan it is recommended that shared parking language be included in the leases, to ensure tenants understand the shared parking.

Parking Demand Reductions

Given the mixed use of the site as well as its downtown location, the following two parking demand reductions were applied to the shared parking spaces:

Shared Use Reduction

When evaluating a mixed use development with complementary uses such as this, the overall parking demand can be reduced due to the expectation that there will be some cross use between the individual facilities. For instance, it can be assumed that some of the people living in the apartments would also be those that visit the retail. Gorrill Palmer (GP) used the NCHRP 684 Internal Trip Capture Estimation Tool to calculate the reduction that can be applied to the trip generation. This calculated an internal trip capture of 14% for the AM peak hour and 17% for the PM peak hour. It can be assumed that parking demand can be reduced proportionally to the reduction in trip generation. To be conservative, GP used a shared use reduction of 14% throughout the day to estimate the parking demand. The following table summarizes the shared use reduction:

Shared Use Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand	919	690
Shared Use Reduction (14%)	-129	-97

Other Modes Reduction

The overall parking demand for a development in a downtown area can also be reduced due to the expectation that some people going to or from the site would use other modes of transportation such as transit, bicycle, or walking. The site is adjacent to an existing bus route as well as located on a bicycle and pedestrian path. The other modes reduction is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract. Based on this information Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, created maps using GIS data that illustrate the estimated percentage of workers living in each Portland Census Tract that use each mode of transportation to commute to work. The site is located on the east side of Census Tract 3, which is a predominantly commercial area. Census Tracts 2 and 5 border the site and consist of primarily residential areas. Since the site is proposed to have a significant number of residential units as well as commercial space, the data from the combination of the three tracts is expected to be more representative of the actual conditions on the site than the data from the individual tracts. This reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work in the three Census Tracts by the estimated total number

of working people in the same three Census Tracts. This calculation yields a 35.8% use of non-vehicular modes of transportation.

The GPCOG data is based on residents of the Census Tracts commuting to work, so it is applicable to the residential units, office space, and retail uses on the site. It was not clear if the 35.8% reduction would also be applicable to the restaurants and hotel, even though there are hotels and restaurants located within the boundaries of the three Census Tracts. GP searched for studies that included information on other modes of transportation for restaurants and hotels and found two sources that had information that could be compared to the other modes of transportation calculated using the Portland Census data. The following is a more detailed description of the relevant information found in the two studies:

The first study is *Contextual Influences on Trip Generation* (found in the United States Department of Transportation National Transportation Library online database or at the following link: http://ntl.bts.gov/lib/46000/46600/46699/CITG_FinalReport_Draft_10022012.pdf), a study for the Oregon Transportation Research and Education Consortium (OTREC) that compared the ITE predicted trip generation to the actual trip generation of 79 locations in Portland, Oregon, 39 of which were high turnover sit-down restaurants. The study also included surveying the visitors of those sites to determine what mode of transportation the visitors used. The results of the study are divided into different types of areas, ranging from central business district, which is considered the most urban area, to suburban areas, which is considered the least urban type of area surveyed. This study surveyed 12 restaurants in the central business district area and found that 35% of the patrons arrived to the sites using a car, while the remaining 65% walked, biked, or used transit (table attached). This result is higher than the 35.8% use of other modes calculated using the GPCOG information. Because the data is for Portland, Oregon it may not be appropriate to use as a reduction, but it does indicate that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

The second source that included restaurant information is the National Cooperative Highway Research Program (NCHRP) Report 758, *Trip Generation Rates for Transportation Impact Analyses of Infill Developments*. This study used information from the Household Travel Survey (HTS) for the San Francisco Bay area and Metropolitan Washington D.C. and counted data and surveys at specific sites in those areas. The Washington D.C. HTS data for restaurants shows that approximately 40.3% of residents use transit, walk, or bicycle to and from high-turnover sit-down restaurants (table attached). The study only included one site that was counted and surveyed, so the HTS data could not be verified, however like the Portland, Oregon study, it is higher than the other modes reduction calculated using the GPCOG Census information. Like the Portland, Oregon study, this data indicates that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

Based on these two additional sources that contain information specific to restaurant uses, GP determined that the other modes reduction of 35.8% calculated from the GPCOG Census

information that is based on the existing transit system can be applied to the restaurant parking demand. Although the other two studies showed higher percentages of people using alternative modes of transportation to go to or from restaurants, since they are not specific to Portland, Maine, the local data is expected to be closer to the actual conditions that would be seen at the 58 Fore Street development.

The two studies discussed above included information about restaurants, but did not have any data for hotels. Based on our research there is limited information available about modes of transportation used at hotels. It can be assumed for the 58 Fore Street site that hotel employees may take the bus, bike, or walk to get to and from work and some hotel guests may arrive by boat using the marina. To be conservative, GP only used an "other modes of transportation" reduction of 10% for the hotel.

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

Other Modes of Transportation Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand w/o Hotel	886	677
Hotel Peak Parking Demand	33	13
Other Modes Reduction (35.8% of B1-B6 Demand w/o Hotel)	-317	-242
Hotel Other Modes Reduction (10% of Hotel Demand)	-3	-1
Total Other Modes Reduction	**-320**	**-243**

Marina Parking Demand

The City Ordinance does not include a parking requirement for marina facilities. The parking demand for the proposed marina is based on information from Applied Technology & Management (ATM). The new marina is proposed to have 220 slips that will service off-site Portland residents, on-site Portland residents, and transient boaters. ATM provided a range of parking rates from one space for every two slips to one space for every four slips. ITE has limited marina parking information available, however the ATM parking rates appear to be consistent with the ITE data. To be conservative, GP used a requirement of one parking space for every two slips. ATM expects peak usage of the marina to be 10% of the slips, but possibly higher since Maine has a shorter boating season. To be conservative, GP assumed that the peak demand would be 15% of the slips. ATM also stated that there would be approximately 9 employees at this marina, therefore GP included an additional 5% to include spaces for employees, giving a total peak demand estimation of 20% of the slips. Because of the nature of a marina use, the two parking demand reductions that were applied to the rest of the site were not applied to the

marina parking demand. Although it is possible that marina users visit other uses on site or use alternative modes of transportation to get to the site, to be conservative the reductions were not applied.

Dedicated Parking Spaces

Often in large developments, a portion of parking spaces are dedicated to a specific use. For example, residential units may have spaces assigned to each unit or a group of spaces may be reserved for use by only an office. These dedicated spaces would not be shared by any other site uses. The number of dedicated parking spaces is added to the number of shared parking spaces to determine the total site demand. On this site, there are 298 dedicated parking spaces proposed. These spaces include; half of the residential units in B1, all the residential units in B5, and all the residential units in B6. The two parking demand reductions that were applied to the rest of the site were not applied to the dedicated parking spaces, since the spaces will not be shared and will be provided for the peak demand regardless of the expected use of transit, bicycles, or walking.

Parking Demand Summary

The following table summarizes the overall parking demand for the site, including the reductions, based on both the Ordinance and the Shared Parking demand methodologies:

Parking Demand Summary

Proposed	Ordinance	Shared Parking
B1-B6 Shared Parking Demand	919	690
Shared Use Reduction	-129	-97
Other Mode Reduction	-320	-243
B1-B6 Total Shared Parking Demand	**470**	**350**
B7 (Marina) Parking Demand	110	22
B1-B7 Total Parking Demand	**580**	**372**
B1-B7 Dedicated Parking	298	298
Net Parking Demand	**878**	**670**

As shown in the table, the proposed parking demand, including reductions, based on the Ordinance and isolated uses is forecast to be 878 spaces and the parking demand based on shared parking is 670 spaces. The parking demand based on the City Ordinance is higher than the shared parking demand because it assumes all uses will require their peak parking demand concurrently whereas the shared parking demand considers the different uses peaking at different times of day.

It should be noted that a parking facility can be considered full when it is approximately 85% occupied. This is because a driver may not see empty parking spaces when the lot is almost completely occupied, especially in a larger parking area. **To ensure the peak parking demand is satisfied, the recommended number of spaces is 736 (372 spaces / 0.85 + 298 spaces).** This assumes that shared spaces are generally available to all users. The increase is not applied to the dedicated parking spaces because it is assumed that they will be visible and easy for the designated users to find.

The marina may also have additional parking needs, such as temporary parking spaces for visitors to drop off passengers or supplies near their boat before parking their vehicle and for fueling trucks and provisional vehicles that service the mega-yachts. These other parking spaces should be considered in addition to the estimated peak parking demand for the visitors and employees.

Bicycle Parking

Per City Ordinance, new uses are required to provide bicycle accommodations based on the type of use. Residential structures are required to provide 2 bicycle spaces for every 5 dwelling units. Non-residential structures are required to provide 2 bicycle parking spaces for every 10 vehicle parking spaces for the first 100 required spaces, plus one bicycle parking space for every 20 required vehicle parking spaces over the 100 vehicle parking spaces. The following table shows the required bicycle parking for the Ordinance vehicle parking demand and the Shared Parking demand:

Bicycle Parking Summary

	Ordinance	Shared Parking
Parking Variable	409 Spaces, 638 Units	322 Spaces, 638 Units
Residential Bicycle Spaces	256	256
Non-Residential Bicycle Spaces	36	31
Total	**292**	**287**

As shown in the table, the site will require 287-292 bicycle parking spaces to meet the City Ordinance Requirements for bicycle accommodations. The Transportation Demand Management (TDM) plan will outline a more detailed approach to incorporating bicycle parking on site.

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JOB 3138-58 Fore Street Redevelopment
SHEET NO. _____ OF _____
CALCULATED BY ET DATE 8/26/16
CHECKED BY _____ DATE _____
SCALE _____

Marina Trip Generation

Info from ATM:
- 220 slips → 140 seasonal users, 80 transient boaters
- Daily usage peaks around 10%, maybe more
- 10% of daily non-transient users are on-site residents
- 90% of daily non-transient users are offsite residents
- 30% of off site residents are Islanders commuting to the Peninsula
- 9 marina employees
- 4 mega-yacht slips

Assumptions:
- 15% of slips is peak daily usage to be conservative (33 slips)
- 36% are transient boaters ($^{80}/_{220} = 36\%$ → 12 slips)
- 21 non-transient slips used during peak (33 slips - 12 slips)
- 2 on-site residents used slips during peak ($21 \times 0.10 = 2.1$)
- 19 off-site residents use slips during peak ($21 \times 0.90 = 18.9$)
- 6 Islanders commuting to Peninsula ($19 \times 0.30 = 5.7$)
- 1 provisioning vehicle per mega-yacht slip (conservative)
- Transient boaters = 0 trip ends
- on-site residents = 0 trip ends
- off-site residents = 1 AM trip end, 1 PM trip end
  - Islanders leave during AM and return during PM
  - other off-site enter during AM and exit during PM
- Employees enter during AM and exit during PM
- Provisioning vehicles enter and exit during the peak hour (conservative)

AM Peak Hour
- 9 employees in
- 6 islanders out
- 13 seasonal in
- 4 provisional veh. in
- 4 provisional veh. out

36 trip ends (26 in / 10 out)

PM Peak Hour
- 9 employees out
- 6 Islanders in
- 13 seasonal out
- 4 provisional veh in
- 4 provisional veh out

36 trip ends (10 in / 26 out)

Appendix C
Capacity Analysis Results

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	4372	4255	4290	4256	4352	4303
Vehs Exited	4367	4259	4271	4246	4370	4301
Starting Vehs	80	85	67	76	91	75
Ending Vehs	85	81	86	86	73	78
Denied Entry Before	1	1	1	2	0	0
Denied Entry After	1	2	0	0	1	0
Travel Distance (mi)	1199	1181	1177	1180	1198	1187
Travel Time (hr)	78.5	76.6	77.1	76.8	79.0	77.6
Total Delay (hr)	33.5	32.1	32.9	32.1	33.8	32.9
Total Stops	5922	5903	5875	5873	6020	5918
Fuel Used (gal)	62.4	61.7	61.0	61.6	62.4	61.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	4372	4255	4290	4256	4352	4303
Vehs Exited	4367	4259	4271	4246	4370	4301
Starting Vehs	80	85	67	76	91	75
Ending Vehs	85	81	86	86	73	78
Denied Entry Before	1	1	1	2	0	0
Denied Entry After	1	2	0	0	1	0
Travel Distance (mi)	1199	1181	1177	1180	1198	1187
Travel Time (hr)	78.5	76.6	77.1	76.8	79.0	77.6
Total Delay (hr)	33.5	32.1	32.9	32.1	33.8	32.9
Total Stops	5922	5903	5875	5873	6020	5918
Fuel Used (gal)	62.4	61.7	61.0	61.6	62.4	61.8

1: Thames St & India St Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.2	0.1	0.1
Total Del/Veh (s)	6.4	7.2	5.3	5.9
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.3	0.0	0.1
Total Del/Veh (s)	6.8	8.0	8.4	6.1	7.5
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	2.3	1.1	5.8	6.2	2.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.6	0.5	0.5	1.4
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: 100 Fore St & Existing Driveways & Fore Performance by approach

Approach	EB	WB	NB	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	1.8	0.0
Total Del/Veh (s)	0.6	0.5	5.7	3.8	0.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

6: Fore & Waterville St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.2	0.1
Total Del/Veh (s)	3.0	0.4	0.2	0.5
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

7: Congress St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.2	0.2	0.2	0.2
Total Del/Veh (s)	13.5	15.8	8.1	10.4
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.3	0.1
Total Del/Veh (s)	15.7	9.1	5.8	16.5	10.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.5	1.7	0.2	0.5
Total Del/Veh (s)	10.2	9.0	11.8	10.9	9.9
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	2.6	1.3	0.0	0.7
Total Del/Veh (s)	16.5	32.1	16.5	20.2	19.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

38: Fore & Franklin/Franklin St. Performance by approach

Approach	NB	SE	NW	SW	All
Denied Del/Veh (s)	2.8	0.1	0.0	0.0	0.5
Total Del/Veh (s)	11.8	16.0	19.2	17.3	16.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St./Middle St & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.3	0.0	0.2	1.3	0.3
Total Del/Veh (s)	14.9	16.9	15.3	14.1	15.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	26.3
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Thames St & India St

Movement	EB	EB	WB	SE
Directions Served	L	T	TR	LR
Maximum Queue (ft)	61	65	54	137
Average Queue (ft)	40	35	30	68
95th Queue (ft)	59	56	49	116
Link Distance (ft)		495	636	243
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	35			
Storage Blk Time (%)	9	6		
Queuing Penalty (veh)	8	9		

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	72	119	113	73
Average Queue (ft)	35	53	54	35
95th Queue (ft)	62	94	89	59
Link Distance (ft)	527	351	328	243
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	22	54	45	61
Average Queue (ft)	2	9	19	24
95th Queue (ft)	14	37	37	49
Link Distance (ft)	351	421	224	227
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	76	34
Average Queue (ft)	29	2
95th Queue (ft)	56	16
Link Distance (ft)	1097	421
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: 100 Fore St & Existing Driveways & Fore

Movement	EB	WB	NB	NW	NW
Directions Served	TR>	<LT	LR	L	R
Maximum Queue (ft)	4	38	59	30	30
Average Queue (ft)	0	4	11	4	3
95th Queue (ft)	3	22	42	20	20
Link Distance (ft)	386	549	182	230	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					25
Storage Blk Time (%)				0	0
Queuing Penalty (veh)				0	0

Intersection: 6: Fore & Waterville St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	44	30
Average Queue (ft)	20	2
95th Queue (ft)	43	13
Link Distance (ft)	739	549
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Congress St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	151	151	94	237
Average Queue (ft)	74	73	76	86
95th Queue (ft)	121	129	108	178
Link Distance (ft)	629	351		542
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			9	3
Queuing Penalty (veh)			27	11

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	52	180	139	103	77	195
Average Queue (ft)	17	57	71	38	15	89
95th Queue (ft)	45	130	139	79	49	161
Link Distance (ft)	1097	196		542		386
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		1				
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	2	1	0	
Queuing Penalty (veh)		1	2	1	0	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	154	251	74	92	120
Average Queue (ft)	64	112	24	37	58
95th Queue (ft)	129	198	52	75	98
Link Distance (ft)	196	557		310	297
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	1				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			0	1	
Queuing Penalty (veh)			0	0	

Intersection: 11: Commercial & Franklin

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	LT	R
Maximum Queue (ft)	113	96	177	58	145	62	140	175	93	220	126
Average Queue (ft)	38	32	66	29	54	24	59	70	29	119	20
95th Queue (ft)	87	75	140	60	122	60	111	135	72	190	72
Link Distance (ft)		306	306		265			299	299	495	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			25		25	160				150
Storage Blk Time (%)				28	27	17		0		3	
Queuing Penalty (veh)				20	19	15		0		1	

Intersection: 38: Fore & Franklin/Franklin St.

Movement	NB	NB	SE	SE	NW	NW	SW
Directions Served	L	R>	LT	TR	LT	TR	<LR
Maximum Queue (ft)	80	95	195	246	82	79	166
Average Queue (ft)	21	50	96	113	31	24	88
95th Queue (ft)	58	89	175	204	65	63	146
Link Distance (ft)	195		247	247	306	306	527
Upstream Blk Time (%)				0			
Queuing Penalty (veh)				1			
Storage Bay Dist (ft)		75					
Storage Blk Time (%)	0	4					
Queuing Penalty (veh)	0	2					

Intersection: 43: Middle St./Middle St & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	SW	SW
Directions Served	LT	TR	LT	TR	LTR	LT	R
Maximum Queue (ft)	212	242	128	165	109	106	68
Average Queue (ft)	100	128	60	69	56	37	19
95th Queue (ft)	179	219	108	131	103	80	53
Link Distance (ft)	450	450	247	247	546	292	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							50
Storage Blk Time (%)						6	1
Queuing Penalty (veh)						2	1

Network Summary

Network wide Queuing Penalty: 122

Intersection: 7: Congress St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	10.8	12.4	11.0	23.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	22	28	30	13
Cycles @ Minimum (%)	4	20	29	18
Cycles Maxed Out (%)	49	0	1	3
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	17.0	11.5	10.8	35.1	10.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	17	15	33	23	33
Cycles @ Minimum (%)	9	1	23	1	23
Cycles Maxed Out (%)	41	7	10	16	10
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	12.3	19.2	12.3	19.2
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	11	3	11	3
Cycles @ Minimum (%)	1	1	1	1
Cycles Maxed Out (%)	1	36	1	36
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 11: Commercial & Franklin

Phase	2	4	5	6	8
Movement(s) Served	NBT	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	46.0	19.0	16.0	24.0	7.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0
Recall	None	None	None	None	None
Avg. Green (s)	34.4	12.3	11.1	19.0	8.7
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	11	16	13	6	20
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	7	13	17	37	56
Cycles with Peds (%)	26	2	0	24	9

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Fore & Franklin/Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NBL	SETL	SWL
Maximum Green (s)	34.0	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	None	None
Avg. Green (s)	21.9	22.1	21.7	22.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	34	10	12	18
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	7	3	9	3
Cycles with Peds (%)	3	58	23	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 43: Middle St./Middle St & Franklin St. /Franklin St.

Phase	2	3	6
Movement(s) Served	SETL	NESW	NWTL
Maximum Green (s)	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0
Recall	None	None	None
Avg. Green (s)	24.9	19.0	25.5
g/C Ratio	-0.01	-0.01	-0.01
Cycles Skipped (%)	4	10	22
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	29	0	25
Cycles with Peds (%)	0	31	4

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	4874	4799	4748	4773	4684	4775
Vehs Exited	4869	4789	4746	4770	4669	4768
Starting Vehs	101	83	103	94	83	84
Ending Vehs	106	93	105	97	98	92
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	1	1	0	0	2	0
Travel Distance (mi)	1506	1506	1499	1479	1446	1487
Travel Time (hr)	97.7	97.3	96.4	95.7	92.3	95.8
Total Delay (hr)	42.0	41.6	40.9	40.9	38.7	40.8
Total Stops	7144	7171	7082	7039	6829	7054
Fuel Used (gal)	76.3	76.2	75.4	75.2	72.4	75.1

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	4874	4799	4748	4773	4684	4775
Vehs Exited	4869	4789	4746	4770	4669	4768
Starting Vehs	101	83	103	94	83	84
Ending Vehs	106	93	105	97	98	92
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	1	1	0	0	2	0
Travel Distance (mi)	1506	1506	1499	1479	1446	1487
Travel Time (hr)	97.7	97.3	96.4	95.7	92.3	95.8
Total Delay (hr)	42.0	41.6	40.9	40.9	38.7	40.8
Total Stops	7144	7171	7082	7039	6829	7054
Fuel Used (gal)	76.3	76.2	75.4	75.2	72.4	75.1

1: Thames St & India St Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.0
Total Del/Veh (s)	7.7	7.4	5.5	6.8
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.4	0.0	0.1
Total Del/Veh (s)	8.4	10.6	10.3	7.1	9.5
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	2.5	1.4	8.4	7.5	2.6
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	6.8	0.6	0.8	1.7
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: Proposed New Road & Fore Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.7	0.8	6.2	1.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

6: Fore & Site Driveway/Waterville St Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.2	0.1
Total Del/Veh (s)	3.3	6.1	0.5	0.3	1.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.2	0.2	0.2	0.2
Total Del/Veh (s)	13.4	15.8	9.5	11.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.3	0.1
Total Del/Veh (s)	16.9	9.5	6.2	17.1	10.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.5	1.7	0.3	0.5
Total Del/Veh (s)	12.9	11.8	12.7	11.0	12.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	2.5	1.1	0.0	0.6
Total Del/Veh (s)	17.2	33.3	16.7	21.2	19.5
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

23: Thames St/Site Access & Proposed New Road Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0
Total Del/Veh (s)	5.3	2.8	0.5	2.7
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

38: Fore & Franklin/Franklin St. Performance by approach

Approach	NB	SE	NW	SW	All
Denied Del/Veh (s)	2.8	0.1	0.0	0.0	0.5
Total Del/Veh (s)	13.7	17.5	18.1	18.5	17.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St./Middle St & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.4	0.0	0.2	1.7	0.4
Total Del/Veh (s)	16.7	16.0	16.8	14.5	16.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	29.6
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Thames St & India St

Movement	EB	EB	WB	SE
Directions Served	L	T	TR	LR
Maximum Queue (ft)	63	98	59	150
Average Queue (ft)	44	47	37	68
95th Queue (ft)	63	77	55	112
Link Distance (ft)		495	1144	243
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	35			
Storage Blk Time (%)	10	13		
Queuing Penalty (veh)	19	18		

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	114	178	140	82
Average Queue (ft)	46	71	68	39
95th Queue (ft)	87	133	113	65
Link Distance (ft)	528	351	343	243
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	37	67	48	68
Average Queue (ft)	3	13	18	27
95th Queue (ft)	19	45	39	52
Link Distance (ft)	351	421	224	227
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE	SW
Directions Served	LR	LT	TR
Maximum Queue (ft)	95	64	4
Average Queue (ft)	35	7	0
95th Queue (ft)	69	37	3
Link Distance (ft)	1097	421	398
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Proposed New Road & Fore

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	62	60
Average Queue (ft)	5	27
95th Queue (ft)	30	49
Link Distance (ft)	555	328
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Fore & Site Driveway/Waterville St

Movement	SE	NW	NE
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	39	51	29
Average Queue (ft)	21	26	2
95th Queue (ft)	43	47	16
Link Distance (ft)	739	228	555
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	169	156	94	284
Average Queue (ft)	81	76	82	103
95th Queue (ft)	137	131	107	219
Link Distance (ft)	611	350		542
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			14	4
Queuing Penalty (veh)			40	16

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	88	186	140	137	95	177
Average Queue (ft)	30	68	78	43	20	83
95th Queue (ft)	65	146	149	95	64	144
Link Distance (ft)	1097	196		542		386
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		1				
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	3	1	0	
Queuing Penalty (veh)		1	4	1	0	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	202	305	68	100	136
Average Queue (ft)	81	138	25	39	63
95th Queue (ft)	166	250	53	79	108
Link Distance (ft)	196	815		310	297
Upstream Blk Time (%)	1				
Queuing Penalty (veh)	3				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			0	1	
Queuing Penalty (veh)			0	1	

Intersection: 11: Commercial & Franklin

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	LT	R
Maximum Queue (ft)	128	119	179	55	158	67	162	212	88	259	154
Average Queue (ft)	53	35	69	26	47	23	64	87	27	127	43
95th Queue (ft)	108	86	136	56	113	60	123	161	65	216	116
Link Distance (ft)		308	308		265			296	296	495	
Upstream Blk Time (%)								0			
Queuing Penalty (veh)								0			
Storage Bay Dist (ft)	200			25		25	160				150
Storage Blk Time (%)				23	27	17	0	1		5	0
Queuing Penalty (veh)				17	19	15	0	1		3	0

Intersection: 23: Thames St/Site Access & Proposed New Road

Movement	SB	NE
Directions Served	LR	LT
Maximum Queue (ft)	57	6
Average Queue (ft)	31	0
95th Queue (ft)	47	4
Link Distance (ft)	328	1144
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 38: Fore & Franklin/Franklin St.

Movement	NB	NB	SE	SE	NW	NW	SW
Directions Served	L	R>	LT	TR	LT	TR	<LR
Maximum Queue (ft)	124	96	244	236	98	96	228
Average Queue (ft)	24	51	138	109	36	27	112
95th Queue (ft)	74	91	232	202	75	71	185
Link Distance (ft)	254		247	247	308	308	528
Upstream Blk Time (%)			0	0			
Queuing Penalty (veh)			1	0			
Storage Bay Dist (ft)		75					
Storage Blk Time (%)	0	4					
Queuing Penalty (veh)	0	2					

Intersection: 43: Middle St./Middle St & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	SW	SW
Directions Served	LT	TR	LT	TR	LTR	LT	R
Maximum Queue (ft)	276	244	162	196	148	135	70
Average Queue (ft)	136	124	68	81	61	42	26
95th Queue (ft)	226	211	131	152	115	93	63
Link Distance (ft)	492	492	247	247	546	292	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							50
Storage Blk Time (%)						8	1
Queuing Penalty (veh)						4	1

Network Summary

Network wide Queuing Penalty: 169

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	10.7	12.5	11.4	23.4
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	21	29	26	13
Cycles @ Minimum (%)	4	19	30	17
Cycles Maxed Out (%)	54	0	0	3
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	17.3	11.3	11.6	32.9	11.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	18	12	26	16	26
Cycles @ Minimum (%)	8	1	18	0	18
Cycles Maxed Out (%)	46	8	20	16	20
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	12.9	20.5	12.9	20.5
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	11	1	11	1
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	2	51	2	51
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 11: Commercial & Franklin

Phase	2	4	5	6	8
Movement(s) Served	NBT	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	46.0	19.0	16.0	24.0	7.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0
Recall	None	None	None	None	None
Avg. Green (s)	34.2	13.9	11.5	20.1	8.9
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	8	10	19	4	21
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	10	20	21	46	56
Cycles with Peds (%)	27	6	0	29	12

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Fore & Franklin/Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NBL	SETL	SWL
Maximum Green (s)	34.0	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	None	None
Avg. Green (s)	25.0	24.2	24.9	23.9
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	23	8	5	8
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	21	7	23	7
Cycles with Peds (%)	5	64	25	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 43: Middle St./Middle St & Franklin St. /Franklin St.

Phase	2	3	6
Movement(s) Served	SETL	NESW	NWTL
Maximum Green (s)	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0
Recall	None	None	None
Avg. Green (s)	27.2	20.3	27.7
g/C Ratio	-0.01	-0.01	-0.01
Cycles Skipped (%)	2	6	16
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	42	0	38
Cycles with Peds (%)	0	34	5

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	5799	5806	5781	5983	5683	5815
Vehs Exited	5724	5781	5802	5961	5709	5793
Starting Vehs	119	93	154	124	147	118
Ending Vehs	194	118	133	146	121	135
Denied Entry Before	1	2	0	1	2	0
Denied Entry After	2	2	1	0	1	1
Travel Distance (mi)	1832	1815	1830	1867	1801	1829
Travel Time (hr)	144.5	133.1	129.5	138.7	125.4	134.2
Total Delay (hr)	76.9	66.0	61.9	69.8	58.8	66.7
Total Stops	8918	8862	8600	9035	8563	8790
Fuel Used (gal)	96.2	93.5	92.7	97.3	91.3	94.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	5799	5806	5781	5983	5683	5815
Vehs Exited	5724	5781	5802	5961	5709	5793
Starting Vehs	119	93	154	124	147	118
Ending Vehs	194	118	133	146	121	135
Denied Entry Before	1	2	0	1	2	0
Denied Entry After	2	2	1	0	1	1
Travel Distance (mi)	1832	1815	1830	1867	1801	1829
Travel Time (hr)	144.5	133.1	129.5	138.7	125.4	134.2
Total Delay (hr)	76.9	66.0	61.9	69.8	58.8	66.7
Total Stops	8918	8862	8600	9035	8563	8790
Fuel Used (gal)	96.2	93.5	92.7	97.3	91.3	94.2

1: India St & Thames St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0
Total Del/Veh (s)	5.2	8.8	6.6	7.4
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.2	0.0	0.1
Total Del/Veh (s)	9.2	8.8	8.9	8.7	8.9
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	2.6	0.9	6.5	6.0	2.9
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.8	1.1	0.6	1.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: 100 Fore St & Existing Driveways & Fore Performance by approach

Approach	EB	WB	NB	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.8	0.1
Total Del/Veh (s)	0.6	0.7	7.6	8.8	1.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

6: Fore & Waterville St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.2	0.0
Total Del/Veh (s)	2.8	0.8	0.2	0.7
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.6	0.4	0.0	0.4
Total Del/Veh (s)	36.8	22.0	13.9	25.6
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.2	0.1
Total Del/Veh (s)	32.1	11.5	23.6	28.4	22.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.3	2.2	0.2	0.7
Total Del/Veh (s)	18.0	35.7	14.3	11.1	21.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial/Commercial St & Franklin Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	4.9	1.5	0.2	1.2
Total Del/Veh (s)	17.1	45.1	18.8	22.5	22.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	1	0	1

38: Fore & Franklin/Franklin St. Performance by approach

Approach	NB	SE	NW	SW	All
Denied Del/Veh (s)	2.7	0.1	0.0	0.1	0.7
Total Del/Veh (s)	16.0	20.2	19.5	20.6	19.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	1.0	0.0	0.4	1.9	0.7
Total Del/Veh (s)	25.5	18.6	22.2	12.2	20.8
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	1.1
Total Del/Veh (s)	39.4
Denied Entry Before	0
Denied Entry After	1

Intersection: 1: India St & Thames St

Movement	SE	NE	NE	SW
Directions Served	LR	L	T	TR
Maximum Queue (ft)	70	62	119	68
Average Queue (ft)	34	51	53	36
95th Queue (ft)	53	66	93	56
Link Distance (ft)	230		495	666
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		35		
Storage Blk Time (%)		18	9	
Queuing Penalty (veh)		24	21	

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	119	110	116	105
Average Queue (ft)	53	49	47	54
95th Queue (ft)	92	85	84	90
Link Distance (ft)	516	340	273	230
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	22	47	36	92
Average Queue (ft)	1	6	16	41
95th Queue (ft)	10	26	35	73
Link Distance (ft)	340	418	194	210
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	52	58
Average Queue (ft)	19	10
95th Queue (ft)	41	39
Link Distance (ft)	1093	418
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: 100 Fore St & Existing Driveways & Fore

Movement	EB	WB	NB	NW	NW
Directions Served	TR>	<LT	LR	L	R
Maximum Queue (ft)	4	52	57	40	32
Average Queue (ft)	0	7	23	16	5
95th Queue (ft)	3	30	49	42	25
Link Distance (ft)	394	536	232	256	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					25
Storage Blk Time (%)				4	1
Queuing Penalty (veh)				0	0

Intersection: 6: Fore & Waterville St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	44	49
Average Queue (ft)	19	5
95th Queue (ft)	42	27
Link Distance (ft)	792	536
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	630	291	94	208
Average Queue (ft)	263	156	68	86
95th Queue (ft)	517	256	106	162
Link Distance (ft)	1066	318		534
Upstream Blk Time (%)	1	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			7	9
Queuing Penalty (veh)			16	15

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	210	164	134	518	100	221
Average Queue (ft)	84	47	43	205	70	98
95th Queue (ft)	167	114	107	470	132	174
Link Distance (ft)	1093	199		534		330
Upstream Blk Time (%)		0		2		0
Queuing Penalty (veh)		0		12		0
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		1	1	28	1	
Queuing Penalty (veh)		2	1	55	4	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	219	524	104	168	87
Average Queue (ft)	176	197	66	78	40
95th Queue (ft)	255	409	111	143	73
Link Distance (ft)	199	1555		234	264
Upstream Blk Time (%)	12				
Queuing Penalty (veh)	76				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			4	4	
Queuing Penalty (veh)			9	8	

Intersection: 11: Commercial/Commercial St & Franklin

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	LT	R
Maximum Queue (ft)	77	102	168	58	155	57	183	267	44	225	175
Average Queue (ft)	30	49	62	28	91	34	100	93	14	95	37
95th Queue (ft)	68	96	128	63	154	66	168	191	33	175	92
Link Distance (ft)		308	308		133			300	300	495	
Upstream Blk Time (%)					9			0			
Queuing Penalty (veh)					0			0			
Storage Bay Dist (ft)	200			25		25	160				150
Storage Blk Time (%)				19	56	24	2	1		3	0
Queuing Penalty (veh)				25	41	33	5	2		2	0

Intersection: 38: Fore & Franklin/Franklin St.

Movement	NB	NB	SE	SE	NW	NW	SW
Directions Served	L	R>	LT	TR	LT	TR	<LR
Maximum Queue (ft)	206	100	254	219	152	135	245
Average Queue (ft)	86	80	127	113	65	43	122
95th Queue (ft)	186	115	216	204	129	107	211
Link Distance (ft)	193		240	240	308	308	516
Upstream Blk Time (%)	1		0	0			
Queuing Penalty (veh)	0		1	1			
Storage Bay Dist (ft)		75					
Storage Blk Time (%)	3	13					
Queuing Penalty (veh)	9	22					

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	SW	SW
Directions Served	LT	TR	LT	TR	LTR	LT	R
Maximum Queue (ft)	297	280	179	205	256	159	75
Average Queue (ft)	167	127	102	115	145	61	40
95th Queue (ft)	292	239	165	185	226	122	81
Link Distance (ft)	309	309	240	240	546	468	
Upstream Blk Time (%)	3	1		0			
Queuing Penalty (veh)	0	0		0			
Storage Bay Dist (ft)							50
Storage Blk Time (%)						16	1
Queuing Penalty (veh)						19	3

Network Summary

Network wide Queuing Penalty: 408

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	7.7	19.2	23.0	28.7
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	22	0	0	0
Cycles @ Minimum (%)	0	2	0	9
Cycles Maxed Out (%)	21	11	71	3
Cycles with Peds (%)	0	0	0	0

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

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	18.9	13.4	13.1	35.8	13.1
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	3	11	7	5	7
Cycles @ Minimum (%)	3	0	9	0	9
Cycles Maxed Out (%)	79	20	45	21	45
Cycles with Peds (%)	0	0	0	0	0

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

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	17.6	24.4	17.6	24.4
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	18	86	18	86
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 11: Commercial/Commercial St & Franklin

Phase	2	4	5	6	8
Movement(s) Served	NBT	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	46.0	19.0	16.0	24.0	7.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0
Recall	None	None	None	None	None
Avg. Green (s)	40.4	13.6	13.1	22.4	9.2
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	2	4	2	2	4
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	30	22	39	73	84
Cycles with Peds (%)	77	9	0	69	13

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Fore & Franklin/Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NBL	SETL	SWL
Maximum Green (s)	34.0	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	None	None
Avg. Green (s)	28.4	28.9	28.0	29.4
g/C Ratio	-0.01	NA	NA	-0.01
Cycles Skipped (%)	6	0	0	10
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	35	35	35	33
Cycles with Peds (%)	12	88	47	0

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

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	3	6
Movement(s) Served	SETL	NESW	NWTL
Maximum Green (s)	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0
Recall	None	None	None
Avg. Green (s)	31.3	30.7	31.0
g/C Ratio	NA	NA	NA
Cycles Skipped (%)	0	0	0
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	65	40	65
Cycles with Peds (%)	2	58	8

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

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	6344	6450	6482	6344	6358	6401
Vehs Exited	6326	6421	6460	6304	6341	6372
Starting Vehs	157	135	150	170	143	145
Ending Vehs	175	164	172	210	160	170
Denied Entry Before	2	0	0	2	2	0
Denied Entry After	2	2	2	0	1	0
Travel Distance (mi)	2556	2590	2597	2537	2544	2565
Travel Time (hr)	163.8	178.3	177.9	180.2	181.9	176.4
Total Delay (hr)	73.6	86.9	86.2	90.6	91.8	85.9
Total Stops	10222	10745	10612	10555	10705	10570
Fuel Used (gal)	119.4	123.5	124.1	123.2	123.3	122.7

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	6344	6450	6482	6344	6358	6401
Vehs Exited	6326	6421	6460	6304	6341	6372
Starting Vehs	157	135	150	170	143	145
Ending Vehs	175	164	172	210	160	170
Denied Entry Before	2	0	0	2	2	0
Denied Entry After	2	2	2	0	1	0
Travel Distance (mi)	2556	2590	2597	2537	2544	2565
Travel Time (hr)	163.8	178.3	177.9	180.2	181.9	176.4
Total Delay (hr)	73.6	86.9	86.2	90.6	91.8	85.9
Total Stops	10222	10745	10612	10555	10705	10570
Fuel Used (gal)	119.4	123.5	124.1	123.2	123.3	122.7

1: India St & Thames St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.1
Total Del/Veh (s)	5.6	9.6	8.1	8.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.3	0.0	0.1
Total Del/Veh (s)	12.9	12.2	11.2	9.3	11.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	2.8	1.0	8.0	8.0	3.1
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	7.6	1.1	0.8	1.7
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: Proposed New Road & Fore Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.9	0.6	9.1	2.0
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

6: Fore & Site Driveway/Waterville St Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.2	0.1
Total Del/Veh (s)	2.5	6.8	1.2	0.2	1.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.5	0.4	0.0	0.3
Total Del/Veh (s)	29.0	28.3	14.5	24.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.3	0.1
Total Del/Veh (s)	19.7	10.7	17.2	16.5	15.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.4	2.2	0.2	0.7
Total Del/Veh (s)	12.5	32.7	15.8	12.0	18.9
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial/Commercial St & Franklin Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	1.9	1.4	0.2	0.8
Total Del/Veh (s)	19.2	44.1	18.6	23.5	22.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

18: Thames St/Site Access & Proposed New Road Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.1
Total Del/Veh (s)	5.2	2.8	1.0	2.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

38: Fore & Franklin/Franklin St. Performance by approach

Approach	NB	SE	NW	SW	All
Denied Del/Veh (s)	2.6	0.2	0.0	0.5	0.8
Total Del/Veh (s)	20.5	25.0	20.5	25.1	23.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.3	0.0	0.5	2.0	0.5
Total Del/Veh (s)	72.8	20.4	26.4	13.7	39.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	46.4
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: India St & Thames St

Movement	SE	NE	NE	SW
Directions Served	LR	L	T	TR
Maximum Queue (ft)	67	70	131	88
Average Queue (ft)	36	53	60	47
95th Queue (ft)	55	68	108	71
Link Distance (ft)	230		495	1115
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		35		
Storage Blk Time (%)		19	16	
Queuing Penalty (veh)		40	38	

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	158	175	132	118
Average Queue (ft)	77	77	60	56
95th Queue (ft)	138	138	107	93
Link Distance (ft)	515	340	312	230
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	25	50	42	112
Average Queue (ft)	2	8	19	42
95th Queue (ft)	16	32	41	79
Link Distance (ft)	340	418	194	210
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	70	74
Average Queue (ft)	27	16
95th Queue (ft)	55	53
Link Distance (ft)	1093	418
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Proposed New Road & Fore

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	39	79	49
Average Queue (ft)	5	32	17
95th Queue (ft)	24	60	49
Link Distance (ft)	532	339	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			25
Storage Blk Time (%)		19	2
Queuing Penalty (veh)		4	3

Intersection: 6: Fore & Site Driveway/Waterville St

Movement	SE	NW	NE
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	40	40	56
Average Queue (ft)	18	17	6
95th Queue (ft)	41	41	34
Link Distance (ft)	792	375	532
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	481	360	94	202
Average Queue (ft)	236	172	73	90
95th Queue (ft)	427	300	107	173
Link Distance (ft)	1063	578		534
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			11	8
Queuing Penalty (veh)			25	16

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	156	139	136	456	100	133
Average Queue (ft)	66	49	49	165	69	76
95th Queue (ft)	125	104	112	386	128	119
Link Distance (ft)	1093	199		534		330
Upstream Blk Time (%)		0		2		
Queuing Penalty (veh)		0		11		
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	0	22	1	
Queuing Penalty (veh)		1	0	44	4	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	224	643	104	186	96
Average Queue (ft)	147	205	67	72	40
95th Queue (ft)	232	472	110	139	78
Link Distance (ft)	199	1237		234	264
Upstream Blk Time (%)	5			0	
Queuing Penalty (veh)	37			0	
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			6	2	
Queuing Penalty (veh)			12	5	

Intersection: 11: Commercial/Commercial St & Franklin

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	LT	R
Maximum Queue (ft)	121	117	152	59	186	55	182	270	46	299	175
Average Queue (ft)	50	51	58	27	89	29	97	105	15	140	57
95th Queue (ft)	97	101	115	62	161	63	161	204	34	247	143
Link Distance (ft)		310	310		368			606	606	495	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			25		25	160				150
Storage Blk Time (%)				22	52	23	2	1		6	0
Queuing Penalty (veh)				31	38	32	7	2		8	0

Intersection: 18: Thames St/Site Access & Proposed New Road

Movement	SB
Directions Served	LR
Maximum Queue (ft)	42
Average Queue (ft)	26
95th Queue (ft)	43
Link Distance (ft)	339
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 38: Fore & Franklin/Franklin St.

Movement	NB	NB	SE	SE	NW	NW	SW
Directions Served	L	R>	LT	TR	LT	TR	<LR
Maximum Queue (ft)	285	100	263	247	153	137	306
Average Queue (ft)	105	85	167	122	72	56	151
95th Queue (ft)	227	118	272	226	135	119	262
Link Distance (ft)	522		240	240	310	310	515
Upstream Blk Time (%)			4	0			
Queuing Penalty (veh)			14	1			
Storage Bay Dist (ft)		75					
Storage Blk Time (%)	7	17					
Queuing Penalty (veh)	19	29					

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	SW	SW
Directions Served	LT	TR	LT	TR	LTR	LT	R
Maximum Queue (ft)	764	736	236	238	320	207	75
Average Queue (ft)	385	328	125	137	157	75	52
95th Queue (ft)	767	728	202	215	269	154	91
Link Distance (ft)	1345	1345	240	240	543	468	
Upstream Blk Time (%)			0	1			
Queuing Penalty (veh)			2	2			
Storage Bay Dist (ft)							50
Storage Blk Time (%)						18	3
Queuing Penalty (veh)						25	6

Network Summary

Network wide Queuing Penalty: 455

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	4.0	17.0	24.0	26.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	4.4	15.7	21.8	23.1
g/C Ratio	-0.01	-0.01	NA	NA
Cycles Skipped (%)	17	3	0	0
Cycles @ Minimum (%)	80	3	2	3
Cycles Maxed Out (%)	83	64	68	51
Cycles with Peds (%)	0	0	0	0

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

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	10.0	19.0	9.0	33.0	9.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	10.3	11.9	9.0	24.8	9.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	6	23	14	10	14
Cycles @ Minimum (%)	87	0	11	0	11
Cycles Maxed Out (%)	94	9	73	16	73
Cycles with Peds (%)	0	0	0	0	0

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

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	11.0	21.0	11.0	21.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	10.7	20.3	10.7	20.3
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	83	84	83	84
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 11: Commercial/Commercial St & Franklin

Phase	2	4	5	6	8
Movement(s) Served	NBT	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	46.0	19.0	16.0	24.0	7.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0
Recall	None	None	None	None	None
Avg. Green (s)	43.0	13.6	13.1	23.7	9.2
g/C Ratio	NA	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	0	2	2	0	5
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	40	19	41	84	81
Cycles with Peds (%)	79	5	0	75	14

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Fore & Franklin/Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NBL	SETL	SWL
Maximum Green (s)	34.0	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	None	None
Avg. Green (s)	31.1	31.2	31.0	31.6
g/C Ratio	-0.01	NA	NA	-0.01
Cycles Skipped (%)	2	0	0	4
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	63	52	63	53
Cycles with Peds (%)	6	96	50	0

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

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	3	6
Movement(s) Served	SETL	NESW	NWTL
Maximum Green (s)	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0
Recall	None	None	None
Avg. Green (s)	33.6	31.8	33.4
g/C Ratio	NA	NA	NA
Cycles Skipped (%)	0	0	0
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	93	50	91
Cycles with Peds (%)	0	63	7

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

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	4306	4311	4350	4310	4320	4314
Vehs Exited	4326	4293	4361	4319	4335	4325
Starting Vehs	98	59	93	83	77	75
Ending Vehs	78	77	82	74	62	68
Denied Entry Before	0	1	0	0	2	0
Denied Entry After	2	0	0	0	1	0
Travel Distance (mi)	1221	1211	1209	1207	1223	1214
Travel Time (hr)	74.9	74.9	75.4	74.2	74.4	74.8
Total Delay (hr)	25.5	26.0	26.4	25.4	24.9	25.7
Total Stops	5307	5221	5247	5132	5159	5209
Fuel Used (gal)	56.0	56.3	56.5	56.0	56.2	56.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	4306	4311	4350	4310	4320	4314
Vehs Exited	4326	4293	4361	4319	4335	4325
Starting Vehs	98	59	93	83	77	75
Ending Vehs	78	77	82	74	62	68
Denied Entry Before	0	1	0	0	2	0
Denied Entry After	2	0	0	0	1	0
Travel Distance (mi)	1221	1211	1209	1207	1223	1214
Travel Time (hr)	74.9	74.9	75.4	74.2	74.4	74.8
Total Delay (hr)	25.5	26.0	26.4	25.4	24.9	25.7
Total Stops	5307	5221	5247	5132	5159	5209
Fuel Used (gal)	56.0	56.3	56.5	56.0	56.2	56.2

1: Thames St & India St Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.0
Total Del/Veh (s)	4.9	7.1	4.9	5.1
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.3	0.0	0.1
Total Del/Veh (s)	7.7	8.2	8.1	6.1	7.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	2.4	1.2	6.2	5.6	2.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.4	0.6	0.5	1.5
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: Existing Driveways & Fore Performance by approach

Approach	EB	WB	NB	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	2.7	0.0
Total Del/Veh (s)	0.6	0.5	7.0	5.6	0.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

6: Fore & Waterville St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.2	0.1
Total Del/Veh (s)	2.9	0.5	0.3	0.5
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

7: Congress St & India Street Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.2	0.2	0.2	0.2
Total Del/Veh (s)	13.5	13.8	7.0	9.4
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.2	0.1
Total Del/Veh (s)	22.7	8.4	5.5	15.4	9.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.5	1.7	0.2	0.6
Total Del/Veh (s)	12.1	10.2	12.7	10.8	11.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin/Maine State Pier Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.4	0.0	0.1
Total Del/Veh (s)	4.9	2.9	3.7	3.0	3.8
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

38: Franklin/Franklin St. & Fore Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.0	0.3	0.3	0.2
Total Del/Veh (s)	18.4	17.8	19.5	13.5	16.1
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	1.2	0.1	1.0	0.7	0.8
Total Del/Veh (s)	9.2	5.8	22.8	22.0	11.1
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.6
Total Del/Veh (s)	20.4
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Thames St & India St

Movement	EB	EB	WB	SE
Directions Served	L	T	TR	LR
Maximum Queue (ft)	61	58	46	125
Average Queue (ft)	37	32	27	59
95th Queue (ft)	54	48	47	98
Link Distance (ft)		456	600	222
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	35			
Storage Blk Time (%)	9	6		
Queuing Penalty (veh)	8	9		

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	86	105	112	76
Average Queue (ft)	33	50	55	36
95th Queue (ft)	67	87	90	59
Link Distance (ft)	522	343	214	222
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	23	55	38	70
Average Queue (ft)	1	9	19	25
95th Queue (ft)	10	34	38	54
Link Distance (ft)	343	416	197	162
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE	SW
Directions Served	LR	LT	TR
Maximum Queue (ft)	70	57	13
Average Queue (ft)	28	4	0
95th Queue (ft)	56	28	6
Link Distance (ft)	1091	416	383
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Existing Driveways & Fore

Movement	WB	NB	NW	NW
Directions Served	<LT	LR	L	R
Maximum Queue (ft)	39	56	21	34
Average Queue (ft)	3	9	2	4
95th Queue (ft)	21	36	13	20
Link Distance (ft)	552	180	299	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				25
Storage Blk Time (%)			0	0
Queuing Penalty (veh)			0	0

Intersection: 6: Fore & Waterville St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	38	34
Average Queue (ft)	16	4
95th Queue (ft)	40	20
Link Distance (ft)	545	552
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Congress St & India Street

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	139	173	119	193
Average Queue (ft)	72	70	77	69
95th Queue (ft)	119	127	124	145
Link Distance (ft)	383	255		540
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			7	3
Queuing Penalty (veh)			20	11

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	66	179	140	121	70	151
Average Queue (ft)	19	51	70	35	16	84
95th Queue (ft)	53	114	135	77	51	138
Link Distance (ft)	1091	208		540		279
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	2	1	0	
Queuing Penalty (veh)		0	2	1	0	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	213	274	76	112	120
Average Queue (ft)	69	120	27	44	60
95th Queue (ft)	152	215	58	84	104
Link Distance (ft)	208	707		313	242
Upstream Blk Time (%)	1				
Queuing Penalty (veh)	2				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			0	1	
Queuing Penalty (veh)			0	0	

Intersection: 11: Commercial & Franklin/Maine State Pier

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	124	73	128	58
Average Queue (ft)	48	27	33	24
95th Queue (ft)	103	66	84	53
Link Distance (ft)	312	108	714	456
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 38: Franklin/Franklin St. & Fore

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	95	123	39	159	51	206	124	254
Average Queue (ft)	36	58	4	85	9	75	58	130
95th Queue (ft)	73	104	23	148	35	152	126	234
Link Distance (ft)	230	230		522		312		239
Upstream Blk Time (%)								1
Queuing Penalty (veh)								4
Storage Bay Dist (ft)			100		90		75	
Storage Blk Time (%)				7		7	3	18
Queuing Penalty (veh)				0		1	12	23

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	149	346	62	166	57	115	76	136
Average Queue (ft)	40	152	17	59	18	53	19	55
95th Queue (ft)	111	268	49	128	47	98	56	103
Link Distance (ft)		442		239		551		477
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)	100		40		125		50	
Storage Blk Time (%)	0	11	2	8		0	6	15
Queuing Penalty (veh)	0	10	5	2		0	7	3

Network Summary

Network wide Queuing Penalty: 119

Intersection: 7: Congress St & India Street

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	10.3	12.5	10.4	23.1
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	26	26	33	15
Cycles @ Minimum (%)	4	19	32	19
Cycles Maxed Out (%)	47	0	0	2
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	17.1	11.3	10.6	33.8	10.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	20	17	30	22	30
Cycles @ Minimum (%)	8	0	23	0	23
Cycles Maxed Out (%)	42	8	10	15	10
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	12.8	19.7	12.8	19.7
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	9	1	9	1
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	2	41	2	41
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Franklin/Franklin St. & Fore

Phase	2	3	4	6	7	8
Movement(s) Served	SBTL	EBL	WBT	NBTL	WBL	EBT
Maximum Green (s)	24.0	6.0	25.0	24.0	5.0	26.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Recall	C-Min	None	None	None	None	None
Avg. Green (s)	28.2	7.8	17.0	24.5	7.6	22.5
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	5	35	5	18	94	2
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	95	12	13	49	0	33
Cycles with Peds (%)	46	0	64	23	0	88

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	43.0	17.0	42.5	17.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	Min	None	C-Max	None
Avg. Green (s)	47.1	12.9	46.6	12.9
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	20	100	20
Cycles with Peds (%)	6	41	0	0

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

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	4749	4847	4810	4847	4789	4807
Vehs Exited	4751	4857	4819	4877	4808	4820
Starting Vehs	90	83	102	115	93	89
Ending Vehs	88	73	93	85	74	73
Denied Entry Before	0	2	2	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	1491	1548	1524	1535	1519	1524
Travel Time (hr)	93.2	96.2	95.6	98.6	94.4	95.6
Total Delay (hr)	33.4	34.3	34.6	36.8	33.4	34.5
Total Stops	6391	6645	6659	6589	6412	6537
Fuel Used (gal)	68.4	71.0	69.9	71.1	69.3	69.9

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	4749	4847	4810	4847	4789	4807
Vehs Exited	4751	4857	4819	4877	4808	4820
Starting Vehs	90	83	102	115	93	89
Ending Vehs	88	73	93	85	74	73
Denied Entry Before	0	2	2	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	1491	1548	1524	1535	1519	1524
Travel Time (hr)	93.2	96.2	95.6	98.6	94.4	95.6
Total Delay (hr)	33.4	34.3	34.6	36.8	33.4	34.5
Total Stops	6391	6645	6659	6589	6412	6537
Fuel Used (gal)	68.4	71.0	69.9	71.1	69.3	69.9

1: Thames St & India St Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.0
Total Del/Veh (s)	6.2	7.5	5.3	6.1
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.3	0.0	0.1
Total Del/Veh (s)	10.1	11.4	10.2	7.0	10.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.1	0.0
Total Del/Veh (s)	2.5	1.4	8.5	6.8	2.5
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	7.2	0.7	0.8	1.8
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: Proposed New Road & Fore Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.8	0.6	6.6	1.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

6: Fore & Site Driveway/Waterville St Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.3	0.2
Total Del/Veh (s)	2.7	5.3	0.5	0.3	1.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.2	0.2	0.2	0.2
Total Del/Veh (s)	14.2	14.3	9.3	11.0
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.6	0.2
Total Del/Veh (s)	17.8	9.4	7.6	21.1	11.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.5	0.6	1.6	0.2	0.6
Total Del/Veh (s)	15.9	11.3	13.0	12.0	12.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin/Maine State Pier Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.4	0.0	0.2
Total Del/Veh (s)	5.8	3.3	4.2	3.5	4.4
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

23: Thames St/Site Access & Proposed New Road Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0
Total Del/Veh (s)	5.1	3.0	0.2	2.7
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

38: Franklin/Franklin St. & Fore Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.0	0.0	0.4	0.2
Total Del/Veh (s)	18.1	19.7	16.8	17.8	18.1
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	1.5	0.1	1.0	0.7	1.0
Total Del/Veh (s)	12.8	6.6	21.9	20.5	12.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	24.6
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Thames St & India St

Movement	EB	EB	WB	SE
Directions Served	L	T	TR	LR
Maximum Queue (ft)	66	67	68	134
Average Queue (ft)	38	39	40	62
95th Queue (ft)	58	59	59	107
Link Distance (ft)		456	1088	222
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	35			
Storage Blk Time (%)	9	13		
Queuing Penalty (veh)	17	19		

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	128	186	157	78
Average Queue (ft)	45	73	71	38
95th Queue (ft)	96	143	123	61
Link Distance (ft)	522	343	214	222
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	34	67	60	72
Average Queue (ft)	2	12	20	29
95th Queue (ft)	16	43	47	57
Link Distance (ft)	343	416	197	162
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	92	61
Average Queue (ft)	36	6
95th Queue (ft)	71	32
Link Distance (ft)	1091	416
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Proposed New Road & Fore

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	28	53	35
Average Queue (ft)	3	23	3
95th Queue (ft)	18	45	18
Link Distance (ft)	545	347	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			25
Storage Blk Time (%)		7	0
Queuing Penalty (veh)		0	0

Intersection: 6: Fore & Site Driveway/Waterville St

Movement	SE	NW	NE	SW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	30	50	22	6
Average Queue (ft)	17	25	1	0
95th Queue (ft)	39	49	12	4
Link Distance (ft)	545	135	545	269
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	149	159	119	234
Average Queue (ft)	79	65	92	89
95th Queue (ft)	135	120	131	189
Link Distance (ft)	383	632		540
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			14	4
Queuing Penalty (veh)			39	15

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	83	216	140	153	97	230
Average Queue (ft)	31	64	79	46	19	96
95th Queue (ft)	66	150	148	118	62	183
Link Distance (ft)	1091	208		540		279
Upstream Blk Time (%)		0				1
Queuing Penalty (veh)		1				0
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		1	3	3	0	
Queuing Penalty (veh)		3	4	3	0	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	219	281	67	109	128
Average Queue (ft)	90	134	27	41	60
95th Queue (ft)	186	242	57	80	102
Link Distance (ft)	208	719		313	242
Upstream Blk Time (%)	3				
Queuing Penalty (veh)	8				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			0	1	
Queuing Penalty (veh)			0	0	

Intersection: 11: Commercial & Franklin/Maine State Pier

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	158	97	125	65
Average Queue (ft)	62	30	43	29
95th Queue (ft)	127	71	99	60
Link Distance (ft)	312	108	714	456
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Thames St/Site Access & Proposed New Road

Movement	SB
Directions Served	LR
Maximum Queue (ft)	69
Average Queue (ft)	30
95th Queue (ft)	51
Link Distance (ft)	347
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 38: Franklin/Franklin St. & Fore

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	86	134	56	240	58	205	124	261
Average Queue (ft)	40	59	6	109	9	77	87	168
95th Queue (ft)	74	114	32	187	36	147	151	281
Link Distance (ft)	230	230		522		312		239
Upstream Blk Time (%)								3
Queuing Penalty (veh)								20
Storage Bay Dist (ft)			100		90		75	
Storage Blk Time (%)				13		6	9	25
Queuing Penalty (veh)				1		1	44	44

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	149	491	89	184	55	145	92	144
Average Queue (ft)	47	195	25	74	20	56	22	55
95th Queue (ft)	122	368	63	154	50	110	70	108
Link Distance (ft)		517		239		508		477
Upstream Blk Time (%)		1		0				
Queuing Penalty (veh)		0		0				
Storage Bay Dist (ft)	100		40		125		50	
Storage Blk Time (%)	0	18	3	11		1	6	14
Queuing Penalty (veh)	0	18	11	3		0	8	3

Network Summary

Network wide Queuing Penalty: 264

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	Min	Min	None
Avg. Green (s)	9.0	11.0	11.2	23.6
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	9	0	0	0
Cycles @ Minimum (%)	0	40	40	6
Cycles Maxed Out (%)	53	0	0	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	17.7	11.5	11.3	34.0	11.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	15	15	24	16	24
Cycles @ Minimum (%)	7	0	17	0	17
Cycles Maxed Out (%)	51	10	16	15	16
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	12.6	21.5	12.6	21.5
g/C Ratio	-0.01	NA	-0.01	NA
Cycles Skipped (%)	3	0	3	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	1	57	1	57
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Franklin/Franklin St. & Fore

Phase	2	3	4	6	7	8
Movement(s) Served	SBTL	EBL	WBT	NBTL	WBL	EBT
Maximum Green (s)	24.0	6.0	25.0	24.0	5.0	26.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Recall	C-Min	None	None	None	None	None
Avg. Green (s)	28.3	7.2	18.9	26.8	6.6	25.9
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	2	27	2	9	92	2
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	98	22	24	70	4	50
Cycles with Peds (%)	50	0	69	29	0	91

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	43.0	17.0	42.5	17.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	Min	None	C-Max	None
Avg. Green (s)	46.9	13.2	46.4	13.2
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	22	100	22
Cycles with Peds (%)	4	43	0	0

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

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	5963	5923	5791	5819	5881	5882
Vehs Exited	5930	5908	5822	5820	5894	5875
Starting Vehs	120	107	128	124	146	117
Ending Vehs	153	122	97	123	133	121
Denied Entry Before	0	0	0	0	2	0
Denied Entry After	2	1	0	2	1	0
Travel Distance (mi)	1877	1890	1857	1855	1884	1873
Travel Time (hr)	138.8	129.3	126.8	131.2	130.4	131.3
Total Delay (hr)	63.1	53.3	51.8	56.3	54.2	55.7
Total Stops	8193	8117	8171	7843	8375	8143
Fuel Used (gal)	88.9	87.1	85.5	86.5	87.5	87.1

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	5963	5923	5791	5819	5881	5882
Vehs Exited	5930	5908	5822	5820	5894	5875
Starting Vehs	120	107	128	124	146	117
Ending Vehs	153	122	97	123	133	121
Denied Entry Before	0	0	0	0	2	0
Denied Entry After	2	1	0	2	1	0
Travel Distance (mi)	1877	1890	1857	1855	1884	1873
Travel Time (hr)	138.8	129.3	126.8	131.2	130.4	131.3
Total Delay (hr)	63.1	53.3	51.8	56.3	54.2	55.7
Total Stops	8193	8117	8171	7843	8375	8143
Fuel Used (gal)	88.9	87.1	85.5	86.5	87.5	87.1

1: India St & Thames St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0
Total Del/Veh (s)	5.1	6.7	6.7	6.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.3	0.0	0.1
Total Del/Veh (s)	11.3	9.2	8.4	8.0	9.5
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	2.6	1.0	6.5	6.2	2.8
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.8	0.9	0.6	1.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: 100 Fore St & Existing Driveways & Fore Performance by approach

Approach	EB	WB	NB	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.8	0.1
Total Del/Veh (s)	0.6	0.5	6.8	8.9	1.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

6: Fore & Waterville St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.2	0.0
Total Del/Veh (s)	2.3	0.9	0.2	0.8
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.8	0.4	0.0	0.5
Total Del/Veh (s)	40.7	24.4	13.6	27.5
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.2	0.1
Total Del/Veh (s)	24.3	10.8	18.7	23.4	18.1
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	1.8	2.2	0.2	1.1
Total Del/Veh (s)	16.2	41.0	13.9	11.2	21.8
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin/Maine State Pier Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.5	0.1	0.2
Total Del/Veh (s)	3.7	3.9	4.7	4.1	4.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

38: Franklin/Franklin St. & Fore Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	1.5	0.1	0.1	0.2	0.5
Total Del/Veh (s)	30.0	17.2	12.9	13.2	18.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	1.2	0.1	1.8	0.7	0.9
Total Del/Veh (s)	17.2	12.6	19.0	12.0	15.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	1.0
Total Del/Veh (s)	32.5
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: India St & Thames St

Movement	SE	NE	NE	SW
Directions Served	LR	L	T	TR
Maximum Queue (ft)	58	66	88	55
Average Queue (ft)	33	43	40	35
95th Queue (ft)	48	63	68	53
Link Distance (ft)	225		455	750
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		35		
Storage Blk Time (%)		17	8	
Queuing Penalty (veh)		22	20	

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	154	106	116	103
Average Queue (ft)	55	47	54	50
95th Queue (ft)	112	85	96	82
Link Distance (ft)	527	335	167	225
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	39	51	44	90
Average Queue (ft)	2	8	20	41
95th Queue (ft)	16	34	39	72
Link Distance (ft)	335	421	286	217
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	60	56
Average Queue (ft)	22	10
95th Queue (ft)	42	37
Link Distance (ft)	1093	421
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: 100 Fore St & Existing Driveways & Fore

Movement	WB	NB	NW	NW
Directions Served	<LT	LR	L	R
Maximum Queue (ft)	35	55	36	38
Average Queue (ft)	4	22	15	6
95th Queue (ft)	22	46	38	27
Link Distance (ft)	539	299	247	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				25
Storage Blk Time (%)			5	1
Queuing Penalty (veh)			0	0

Intersection: 6: Fore & Waterville St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	35	48
Average Queue (ft)	17	5
95th Queue (ft)	39	28
Link Distance (ft)	662	539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	586	320	119	239
Average Queue (ft)	280	170	70	82
95th Queue (ft)	543	281	116	173
Link Distance (ft)	836	467		533
Upstream Blk Time (%)	2	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			10	7
Queuing Penalty (veh)			23	12

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	145	130	125	510	100	196
Average Queue (ft)	71	41	39	183	71	97
95th Queue (ft)	124	93	102	412	132	162
Link Distance (ft)	1093	194		533		396
Upstream Blk Time (%)		0		1		
Queuing Penalty (veh)		0		6		
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	0	24	1	
Queuing Penalty (veh)		1	0	48	6	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	216	522	104	169	90
Average Queue (ft)	172	206	64	68	40
95th Queue (ft)	246	517	107	131	74
Link Distance (ft)	194	915		255	233
Upstream Blk Time (%)	9	2		0	
Queuing Penalty (veh)	61	0		0	
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			5	3	
Queuing Penalty (veh)			9	6	

Intersection: 11: Commercial & Franklin/Maine State Pier

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	100	93	151	84
Average Queue (ft)	37	36	52	34
95th Queue (ft)	79	74	110	65
Link Distance (ft)	309	108	714	455
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 38: Franklin/Franklin St. & Fore

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	244	225	65	169	118	155	124	248
Average Queue (ft)	104	97	12	96	41	81	60	103
95th Queue (ft)	206	182	43	155	85	135	121	195
Link Distance (ft)	231	231		527		309		248
Upstream Blk Time (%)	5	3						0
Queuing Penalty (veh)	0	0						2
Storage Bay Dist (ft)			100		90		75	
Storage Blk Time (%)				10	1	5	3	11
Queuing Penalty (veh)				1	4	3	16	16

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	149	324	89	253	151	202	80	142
Average Queue (ft)	64	164	46	128	68	70	22	72
95th Queue (ft)	133	265	89	218	122	139	57	118
Link Distance (ft)		689		248		543		409
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				1				
Storage Bay Dist (ft)	100		40		125		50	
Storage Blk Time (%)	3	19	13	31	2	0	2	18
Queuing Penalty (veh)	21	19	70	19	6	1	5	6

Network Summary

Network wide Queuing Penalty: 404

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	8.0	19.7	23.5	30.4
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	16	0	0	0
Cycles @ Minimum (%)	0	4	2	5
Cycles Maxed Out (%)	27	14	79	4
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	19.1	13.3	12.8	36.0	12.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	4	10	9	6	9
Cycles @ Minimum (%)	1	0	12	0	12
Cycles Maxed Out (%)	75	16	41	19	41
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	17.4	24.0	17.4	24.0
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	18	78	18	78
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Franklin/Franklin St. & Fore

Phase	2	4	6	8
Movement(s) Served	SBTL	WBTL	NBTL	EBTL
Maximum Green (s)	20.0	15.0	20.0	15.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	C-Min	None
Avg. Green (s)	20.3	14.9	20.3	15.0
g/C Ratio	-0.01	-0.01	NA	NA
Cycles Skipped (%)	4	5	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	80	94	100	97
Cycles with Peds (%)	37	53	24	80

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	21.0	14.0	20.5	14.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	C-Min	None	None	None
Avg. Green (s)	21.5	13.5	21.0	13.5
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	75	88	75
Cycles with Peds (%)	4	28	0	0

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

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	6346	6356	6213	6484	6385	6358
Vehs Exited	6344	6342	6269	6440	6388	6357
Starting Vehs	180	166	204	167	166	172
Ending Vehs	182	180	148	211	163	172
Denied Entry Before	0	2	0	0	0	0
Denied Entry After	1	0	0	2	2	0
Travel Distance (mi)	2972	2968	2969	3002	3012	2985
Travel Time (hr)	196.1	178.5	180.7	197.5	182.1	187.0
Total Delay (hr)	77.8	60.4	62.5	77.9	62.5	68.2
Total Stops	9728	9465	9205	10181	9531	9626
Fuel Used (gal)	126.8	122.1	122.5	128.2	124.5	124.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	6346	6356	6213	6484	6385	6358
Vehs Exited	6344	6342	6269	6440	6388	6357
Starting Vehs	180	166	204	167	166	172
Ending Vehs	182	180	148	211	163	172
Denied Entry Before	0	2	0	0	0	0
Denied Entry After	1	0	0	2	2	0
Travel Distance (mi)	2972	2968	2969	3002	3012	2985
Travel Time (hr)	196.1	178.5	180.7	197.5	182.1	187.0
Total Delay (hr)	77.8	60.4	62.5	77.9	62.5	68.2
Total Stops	9728	9465	9205	10181	9531	9626
Fuel Used (gal)	126.8	122.1	122.5	128.2	124.5	124.8

1: India St & Thames St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.1
Total Del/Veh (s)	5.6	7.7	8.0	7.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.3	0.0	0.1
Total Del/Veh (s)	14.1	12.7	11.0	9.4	12.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	2.8	1.0	7.4	7.8	3.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	6.9	1.0	0.7	1.5
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: Proposed New Road & Fore Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.9	0.6	8.4	1.9
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

6: Fore & Site Driveway/Waterville St Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.2	0.1
Total Del/Veh (s)	2.5	7.1	1.1	0.2	1.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.5	0.4	0.0	0.3
Total Del/Veh (s)	34.5	27.5	14.5	26.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.2	0.0
Total Del/Veh (s)	18.0	10.4	14.9	15.7	14.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.4	2.2	0.2	0.7
Total Del/Veh (s)	10.9	21.9	15.6	12.5	15.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin/Maine State Pier Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.5	0.0	0.2
Total Del/Veh (s)	4.1	3.7	5.2	4.8	4.6
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

18: Thames St/Site Access & Proposed New Road Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.1
Total Del/Veh (s)	5.2	2.8	0.8	2.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

38: Franklin/Franklin St. & Fore Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.1	0.2	0.2	0.2
Total Del/Veh (s)	62.5	20.6	15.3	15.3	27.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.8	0.0	1.8	0.7	0.7
Total Del/Veh (s)	36.2	15.3	20.5	13.4	23.6
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	37.0
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: India St & Thames St

Movement	SE	NE	NE	SW
Directions Served	LR	L	T	TR
Maximum Queue (ft)	63	62	116	80
Average Queue (ft)	35	47	49	46
95th Queue (ft)	52	64	87	68
Link Distance (ft)	225		455	1072
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		35		
Storage Blk Time (%)		18	15	
Queuing Penalty (veh)		38	36	

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	204	170	120	110
Average Queue (ft)	72	76	59	55
95th Queue (ft)	141	133	100	94
Link Distance (ft)	523	335	263	225
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	33	47	47	105
Average Queue (ft)	3	8	18	46
95th Queue (ft)	18	33	41	80
Link Distance (ft)	335	421	286	217
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	76	66
Average Queue (ft)	27	14
95th Queue (ft)	54	46
Link Distance (ft)	1093	421
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Proposed New Road & Fore

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	34	72	49
Average Queue (ft)	3	33	20
95th Queue (ft)	20	57	52
Link Distance (ft)	534	347	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			25
Storage Blk Time (%)		18	3
Queuing Penalty (veh)		4	3

Intersection: 6: Fore & Site Driveway/Waterville St

Movement	SE	NW	NE	SW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	31	40	35	6
Average Queue (ft)	16	18	4	0
95th Queue (ft)	39	43	21	4
Link Distance (ft)	662	308	534	324
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	580	370	120	216
Average Queue (ft)	261	173	79	90
95th Queue (ft)	567	311	123	174
Link Distance (ft)	1092	574		532
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			12	8
Queuing Penalty (veh)			27	16

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	144	119	129	429	100	146
Average Queue (ft)	65	43	51	158	74	79
95th Queue (ft)	115	91	110	350	130	129
Link Distance (ft)	1093	194		532		396
Upstream Blk Time (%)				1		
Queuing Penalty (veh)				4		
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	0	21	1	
Queuing Penalty (veh)		0	1	41	4	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	213	399	104	184	92
Average Queue (ft)	133	155	66	70	42
95th Queue (ft)	218	317	106	136	78
Link Distance (ft)	194	1247		255	233
Upstream Blk Time (%)	3				
Queuing Penalty (veh)	24				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			6	2	
Queuing Penalty (veh)			11	5	

Intersection: 11: Commercial & Franklin/Maine State Pier

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	107	92	170	100
Average Queue (ft)	46	36	60	41
95th Queue (ft)	88	73	127	77
Link Distance (ft)	311	108	714	455
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 18: Thames St/Site Access & Proposed New Road

Movement	SB
Directions Served	LR
Maximum Queue (ft)	50
Average Queue (ft)	23
95th Queue (ft)	40
Link Distance (ft)	347
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 38: Franklin/Franklin St. & Fore

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	426	292	129	238	132	216	124	254
Average Queue (ft)	209	97	17	125	45	97	82	114
95th Queue (ft)	498	200	70	216	99	176	135	224
Link Distance (ft)	1273	1273		523		311		248
Upstream Blk Time (%)						0		1
Queuing Penalty (veh)						0		4
Storage Bay Dist (ft)			100		90		75	
Storage Blk Time (%)				17	2	7	10	13
Queuing Penalty (veh)				2	7	5	52	24

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	150	791	89	262	150	172	99	167
Average Queue (ft)	98	299	49	148	76	75	23	82
95th Queue (ft)	177	646	95	251	129	136	65	136
Link Distance (ft)		2418		248		545		409
Upstream Blk Time (%)				1				
Queuing Penalty (veh)				9				
Storage Bay Dist (ft)	100		40		125		50	
Storage Blk Time (%)	8	31	19	34	3	1	2	24
Queuing Penalty (veh)	57	36	119	22	7	2	7	8

Network Summary

Network wide Queuing Penalty: 574

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	4.0	17.0	24.0	26.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	4.2	15.6	21.7	23.2
g/C Ratio	-0.01	-0.01	NA	NA
Cycles Skipped (%)	17	2	0	0
Cycles @ Minimum (%)	82	3	2	5
Cycles Maxed Out (%)	83	61	66	52
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	10.0	19.0	9.0	33.0	9.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	10.4	11.7	8.9	24.9	8.9
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	6	21	15	10	15
Cycles @ Minimum (%)	87	0	12	0	12
Cycles Maxed Out (%)	94	9	69	15	69
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	11.0	21.0	11.0	21.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	10.8	20.3	10.8	20.3
g/C Ratio	-0.01	NA	-0.01	NA
Cycles Skipped (%)	1	0	1	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	84	82	84	82
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Franklin/Franklin St. & Fore

Phase	2	4	6	8
Movement(s) Served	SBTL	WBTL	NBTL	EBTL
Maximum Green (s)	20.0	15.0	20.0	15.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	C-Min	None
Avg. Green (s)	20.4	15.0	20.1	15.0
g/C Ratio	-0.01	-0.01	NA	NA
Cycles Skipped (%)	3	4	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	91	95	100	99
Cycles with Peds (%)	35	51	16	78

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	21.0	14.0	20.5	14.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	C-Min	None	None	None
Avg. Green (s)	21.6	13.6	21.1	13.6
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	82	96	82
Cycles with Peds (%)	4	29	0	0

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

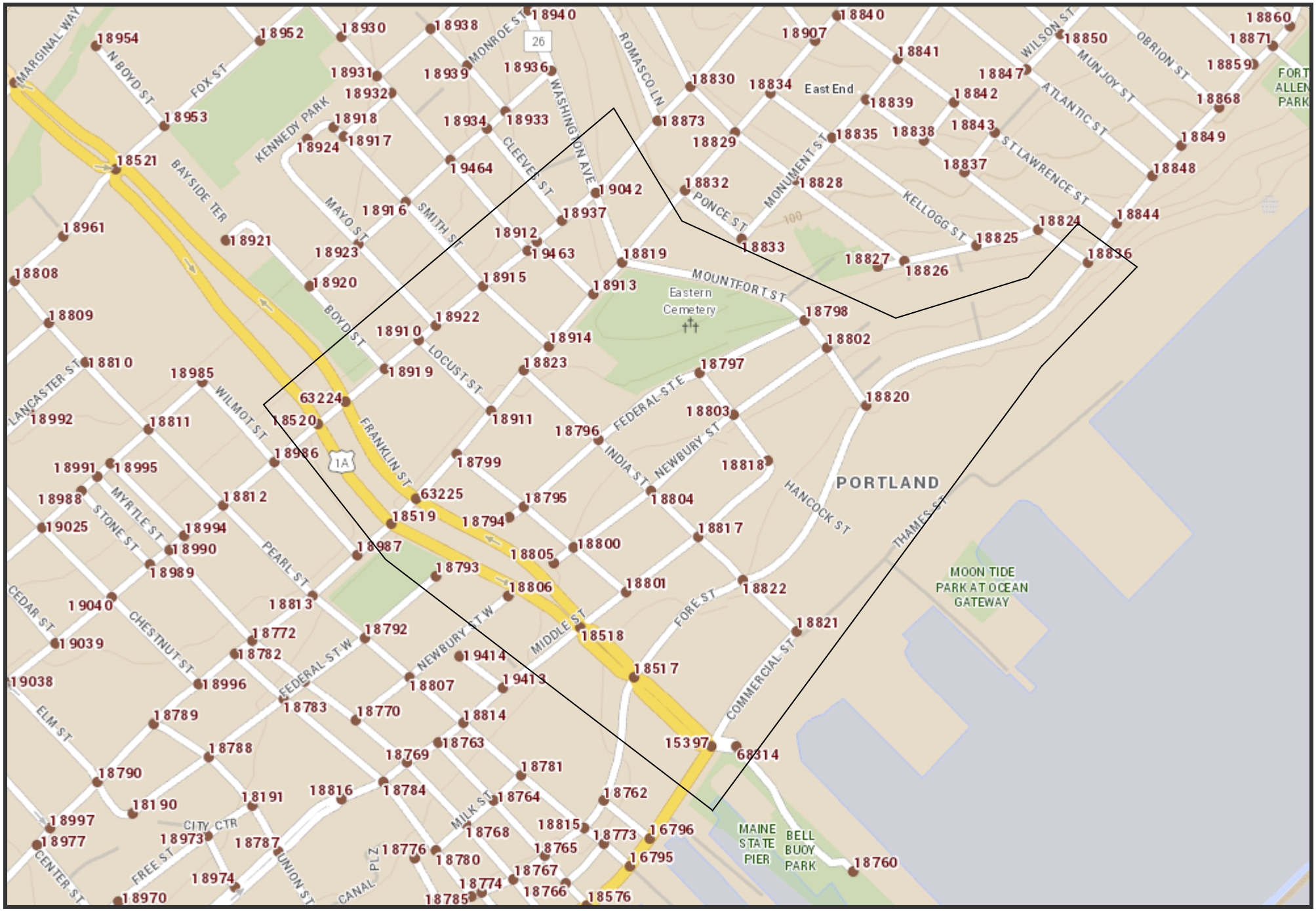
Appendix D

Node Map

Crash Report

Collision Diagrams

NODE MAP



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0.15 Miles

1 inch = 0.13 miles

Date: 8/23/2016
Time: 9:58:43 AM

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

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

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 0561238	Start Node: 18520	Start Offset: 0	☐ Exclude First Node
	End Node: 19042	End Offset: 0	☐ Exclude Last Node
Route: 0560160	Start Node: 18819	Start Offset: 0	☑ Exclude First Node
	End Node: 18519	End Offset: 0	☑ Exclude Last Node
Route: 0561110	Start Node: 18794	Start Offset: 0	☐ Exclude First Node
	End Node: 18798	End Offset: 0	☑ Exclude Last Node
Route: 0560531	Start Node: 18805	Start Offset: 0	☐ Exclude First Node
	End Node: 18802	End Offset: 0	☑ Exclude Last Node
Route: 0560505	Start Node: 18518	Start Offset: 0	☑ Exclude First Node
	End Node: 18818	End Offset: 0	☐ Exclude Last Node
Route: 0560286	Start Node: 18836	Start Offset: 0	☐ Exclude First Node
	End Node: 18517	End Offset: 0	☑ Exclude Last Node
Route: 0561001	Start Node: 15397	Start Offset: 0	☐ Exclude First Node
	End Node: 18821	End Offset: 0	☐ Exclude Last Node
Route: 0001A	Start Node: 15397	Start Offset: 0	☑ Exclude First Node
	End Node: 63225	End Offset: 0	☑ Exclude Last Node
Route: 0001A	Start Node: 63225	Start Offset: 0	☑ Exclude First Node
	End Node: 63224	End Offset: 0	☑ Exclude Last Node
Route: 001AS	Start Node: 18520	Start Offset: 0	☑ Exclude First Node
	End Node: 18518	End Offset: 0	☑ Exclude Last Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

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

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 001AS	Start Node: 18518	Start Offset: 0	☑ Exclude First Node
	End Node: 18517	End Offset: 0	☑ Exclude Last Node
Route: 001AS	Start Node: 18517	Start Offset: 0	☑ Exclude First Node
	End Node: 15397	End Offset: 0	☑ Exclude Last Node
Route: 0561002	Start Node: 18819	Start Offset: 0	☐ Exclude First Node
	End Node: 19042	End Offset: 0	☑ Exclude Last Node
Route: 0560524	Start Node: 18819	Start Offset: 0	☑ Exclude First Node
	End Node: 18820	End Offset: 0	☑ Exclude Last Node
Route: 0560510	Start Node: 18912	Start Offset: 0	☑ Exclude First Node
	End Node: 18913	End Offset: 0	☑ Exclude Last Node
Route: 0560666	Start Node: 18914	Start Offset: 0	☑ Exclude First Node
	End Node: 18915	End Offset: 0	☑ Exclude Last Node
Route: 0560451	Start Node: 18910	Start Offset: 0	☑ Exclude First Node
	End Node: 18911	End Offset: 0	☑ Exclude Last Node
Route: 0560342	Start Node: 18795	Start Offset: 0	☑ Exclude First Node
	End Node: 18799	End Offset: 0	☑ Exclude Last Node
Route: 0560342	Start Node: 18800	Start Offset: 0	☑ Exclude First Node
	End Node: 18795	End Offset: 0	☑ Exclude Last Node
Route: 0560342	Start Node: 18801	Start Offset: 0	☑ Exclude First Node
	End Node: 18800	End Offset: 0	☑ Exclude Last Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

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

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 0561000	Start Node: 18822	Start Offset: 0	☑ Exclude First Node
	End Node: 18821	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18817	Start Offset: 0	☑ Exclude First Node
	End Node: 18822	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18804	Start Offset: 0	☑ Exclude First Node
	End Node: 18817	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18796	Start Offset: 0	☑ Exclude First Node
	End Node: 18804	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18823	Start Offset: 0	☑ Exclude First Node
	End Node: 18796	End Offset: 0	☑ Exclude Last Node
Route: 0560344	Start Node: 18803	Start Offset: 0	☑ Exclude First Node
	End Node: 18818	End Offset: 0	☑ Exclude Last Node
Route: 0560344	Start Node: 18797	Start Offset: 0	☑ Exclude First Node
	End Node: 18803	End Offset: 0	☑ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
18520	0561238 - 0.77	Int of CUMBERLAND AV FRANKLIN ST	9	18	0	0	1	2	15	16.7	7.178	0.84	1.10	0.00
												Statewide Crash Rate:	0.67	
63224	0561238 - 0.80	Int of CUMBERLAND AV FRANKLIN ST	9	13	0	0	1	4	8	38.5	6.653	0.65	1.12	0.00
												Statewide Crash Rate:	0.67	
18919	0561238 - 0.84	Int of BOYD ST CUMBERLAND AV	2	2	0	0	0	0	2	0.0	2.692	0.25	0.44	0.00
												Statewide Crash Rate:	0.15	
18910	0561238 - 0.87	Int of CUMBERLAND AV, LOCUST ST	2	2	0	0	0	0	2	0.0	2.636	0.25	0.44	0.00
												Statewide Crash Rate:	0.15	
18922	0561238 - 0.89	Int of CUMBERLAND AV MAYO ST	2	1	0	0	0	0	1	0.0	2.475	0.13	0.45	0.00
												Statewide Crash Rate:	0.15	
18915	0561238 - 0.94	Int of CUMBERLAND AV, SMITH ST	2	2	0	0	0	0	2	0.0	2.450	0.27	0.45	0.00
												Statewide Crash Rate:	0.15	
19463	0561238 - 0.98	Int of ANDERSON ST CUMBERLAND AV	2	2	0	0	0	0	2	0.0	2.195	0.30	0.46	0.00
												Statewide Crash Rate:	0.15	
18912	0561238 - 0.99	Int of CUMBERLAND AV, MONTGOMERY ST	2	0	0	0	0	0	0	0.0	2.043	0.00	0.47	0.00
												Statewide Crash Rate:	0.15	
18937	0561238 - 1.01	Int of CLEEVE ST CUMBERLAND AV	2	0	0	0	0	0	0	0.0	2.011	0.00	0.47	0.00
												Statewide Crash Rate:	0.15	
19042	0561238 - 1.04	Int of CUMBERLAND AV WASHINGTON AV	9	10	0	0	1	1	8	20.0	4.911	0.68	1.19	0.00
												Statewide Crash Rate:	0.67	
18913	0560160 - 0.55	Int of CONGRESS ST MONTGOMERY ST	2	0	0	0	0	0	0	0.0	3.833	0.00	0.40	0.00
												Statewide Crash Rate:	0.15	
18914	0560160 - 0.60	Int of CONGRESS ST SMITH ST	2	4	0	0	1	0	3	25.0	3.932	0.34	0.40	0.00
												Statewide Crash Rate:	0.15	
18823	0560160 - 0.63	Int of CONGRESS ST INDIA ST	9	7	0	0	1	3	3	57.1	4.581	0.51	1.20	0.00
												Statewide Crash Rate:	0.67	
18911	0560160 - 0.67	Int of CONGRESS ST LOCUST ST	2	0	0	0	0	0	0	0.0	2.943	0.00	0.43	0.00
												Statewide Crash Rate:	0.15	
18799	0560160 - 0.71	Int of CONGRESS ST HAMPSHIRE ST	2	0	0	0	0	0	0	0.0	3.235	0.00	0.42	0.00
												Statewide Crash Rate:	0.15	
63225	0560160 - 0.76	Int of CONGRESS ST FRANKLIN ST	9	12	0	1	0	4	7	41.7	5.974	0.67	1.14	0.00
												Statewide Crash Rate:	0.67	
18794	0561110 - 0	End of FEDERAL ST E	2	0	0	0	0	0	0	0.0	0.007	0.00	-17.21	0.00
												Statewide Crash Rate:	0.14	
18795	0561110 - 0.02	Int of FEDERAL ST E HAMPSHIRE ST	2	0	0	0	0	0	0	0.0	0.274	0.00	0.59	0.00
												Statewide Crash Rate:	0.14	
18796	0561110 - 0.10	Int of FEDERAL ST E INDIA ST	2	1	0	0	0	0	1	0.0	2.510	0.13	0.45	0.00
												Statewide Crash Rate:	0.15	
18797	0561110 - 0.20	Int of FEDERAL ST E HANCOCK ST	2	0	0	0	0	0	0	0.0	0.154	0.00	0.48	0.00
												Statewide Crash Rate:	0.14	
18805	0560531 - 0	End of NEWBURY ST	2	0	0	0	0	0	0	0.0	0.006	0.00	-20.36	0.00
												Statewide Crash Rate:	0.14	
18800	0560531 - 0.03	Int of HAMPSHIRE ST NEWBURY ST	2	0	0	0	0	0	0	0.0	0.296	0.00	0.60	0.00
												Statewide Crash Rate:	0.14	

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
18804	0560531 - 0.11	Int of INDIA ST NEWBURY ST	2	2	0	0	0	0	2	0.0	2.235	0.30	0.46	0.00
											Statewide Crash Rate:	0.15		
18803	0560531 - 0.19	Int of HANCOCK ST NEWBURY ST	2	1	0	0	0	0	1	0.0	0.249	1.34	0.59	2.28
											Statewide Crash Rate:	0.14		
18801	0560505 - 0.33	0509221 POR,MIDDLE,HAMPSHIRE ST	2	1	0	0	0	0	1	0.0	0.968	0.34	0.53	0.00
											Statewide Crash Rate:	0.14		
18817	0560505 - 0.39	Int of INDIA ST MIDDLE ST	2	4	0	0	1	2	1	75.0	2.212	0.60	0.46	1.30
											Statewide Crash Rate:	0.15		
18818	0560505 - 0.47	0509238 POR,HANCOCK,MIDDLE ST.	2	0	0	0	0	0	0	0.0	0.272	0.00	0.59	0.00
											Statewide Crash Rate:	0.14		
18836	0560286 - 0.08	Int of FORE ST WATERVILLE ST	2	0	0	0	0	0	0	0.0	1.748	0.00	0.44	0.00
											Statewide Crash Rate:	0.13		
18820	0560286 - 0.28	Int of FORE ST, MOUNTFORT ST	2	1	0	0	1	0	0	100.0	1.976	0.17	0.43	0.00
											Statewide Crash Rate:	0.13		
18822	0560286 - 0.45	Int of FORE ST INDIA ST	2	7	0	0	0	3	4	42.9	3.565	0.65	0.41	1.60
											Statewide Crash Rate:	0.15		
15397	0561001 - 0	Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER	9	8	0	0	0	3	5	37.5	4.896	0.54	1.19	0.00
											Statewide Crash Rate:	0.67		
18821	0561001 - 0.11	Int of COMMERCIAL ST INDIA ST	2	0	0	0	0	0	0	0.0	2.210	0.00	0.46	0.00
											Statewide Crash Rate:	0.15		
18517	0001A - 11.88	Int of FORE ST FRANKLIN ST	9	8	0	0	1	3	4	50.0	3.590	0.74	1.27	0.00
											Statewide Crash Rate:	0.67		
18518	0001A - 11.94	Int of FRANKLIN ST MIDDLE ST	9	20	0	0	1	5	14	30.0	5.287	1.26	1.17	1.08
											Statewide Crash Rate:	0.67		
18519	001AS - 1.91	Int of CONGRESS ST, FRANKLIN ST	9	11	0	1	1	2	7	36.4	7.631	0.48	1.09	0.00
											Statewide Crash Rate:	0.67		
18819	0561002 - 0	Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV	9	11	0	0	1	0	10	9.1	4.593	0.80	1.20	0.00
											Statewide Crash Rate:	0.67		
18798	0560524 - 0.14	Int of FEDERAL ST E MOUNTFORT ST	2	2	0	0	0	0	2	0.0	0.513	1.30	0.59	2.19
											Statewide Crash Rate:	0.14		
18802	0560524 - 0.17	Int of MOUNTFORT ST NEWBURY ST	2	0	0	0	0	0	0	0.0	0.449	0.00	0.60	0.00
											Statewide Crash Rate:	0.14		
Study Years:	3.00	NODE TOTALS:		150	0	2	11	32	105	30.0	105.383	0.47	0.51	0.92

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18520	63224	3118814	0 - 0.03	0561238 - 0.77	0.03	2	1	0	0	0	0	1	0.0	0.00107	312.57	683.74	0.00
Int of CUMBERLAND AV FRANKLIN ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
63224	18919	3115972	0 - 0.04	0561238 - 0.80	0.04	2	3	0	0	0	0	3	0.0	0.00106	940.32	684.19	1.37
Int of CUMBERLAND AV FRANKLIN ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18910	18919	3129300	0 - 0.03	0561238 - 0.84	0.03	2	7	0	0	0	2	5	28.6	0.00077	3047.62	737.95	4.13
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18910	18922	3118713	0 - 0.02	0561238 - 0.87	0.02	2	1	0	0	0	0	1	0.0	0.00049	678.28	804.41	0.00
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18915	18922	3117967	0 - 0.05	0561238 - 0.89	0.05	2	5	0	0	0	0	5	0.0	0.00120	1394.48	665.03	2.10
Int of CUMBERLAND AV, SMITH ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18915	19463	3131702	0 - 0.04	0561238 - 0.94	0.04	2	0	0	0	0	0	0	0.0	0.00088	0.00	715.17	0.00
Int of CUMBERLAND AV, SMITH ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18912	19463	194577	0 - 0.01	0561238 - 0.98	0.01	2	0	0	0	0	0	0	0.0	0.00021	0.00	850.21	0.00
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18912	18937	3130202	0 - 0.02	0561238 - 0.99	0.02	2	1	0	0	0	0	1	0.0	0.00040	835.08	829.57	1.01
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18937	19042	3131703	0 - 0.03	0561238 - 1.01	0.03	2	3	0	0	0	0	3	0.0	0.00059	1686.50	777.77	2.17
Int of CLEEVE ST CUMBERLAND AV				RD INV 05 61238											Statewide Crash Rate: 198.45		
18819	18913	3131697	0 - 0.03	0560160 - 0.52	0.03	2	1	0	0	0	0	1	0.0	0.00111	300.18	677.09	0.00
Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV				RD INV 05 60160											Statewide Crash Rate: 198.45		
18913	18914	194578	0 - 0.05	0560160 - 0.55	0.05	2	4	0	0	0	1	2	33.3	0.00189	706.78	592.48	1.19
Int of CONGRESS ST MONTGOMERY ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18823	18914	3118711	0 - 0.03	0560160 - 0.60	0.03	2	1	0	0	0	0	1	0.0	0.00117	284.21	668.12	0.00
Int of CONGRESS ST INDIA ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18823	18911	3120757	0 - 0.04	0560160 - 0.63	0.04	2	4	0	0	1	2	1	75.0	0.00116	1150.76	670.11	1.72
Int of CONGRESS ST INDIA ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18799	18911	3123999	0 - 0.04	0560160 - 0.67	0.04	2	2	0	0	0	0	2	0.0	0.00120	557.40	664.91	0.00
Int of CONGRESS ST HAMPSHIRE ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
63225	18799	3115974	0 - 0.05	0560160 - 0.71	0.05	2	1	0	0	0	1	0	100.0	0.00174	191.54	604.90	0.00
Int of CONGRESS ST FRANKLIN ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18519	63225	3115973	0 - 0.03	0560160 - 0.76	0.03	2	0	0	0	0	0	0	0.0	0.00128	0.00	654.44	0.00
Int of CONGRESS ST, FRANKLIN ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18794	18795	194384	0 - 0.02	0561110 - 0	0.02	2	0	0	0	0	0	0	0.0	0.00000	0.00	-	0.00
End of FEDERAL ST E				RD INV 05 61110											Statewide Crash Rate: 384.19	42194.82	
18795	18796	194385	0 - 0.08	0561110 - 0.02	0.08	2	1	0	0	0	0	1	0.0	0.00024	1372.06	1568.43	0.00
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 61110											Statewide Crash Rate: 384.19		
18796	18797	194388	0 - 0.10	0561110 - 0.10	0.10	2	1	0	0	0	0	1	0.0	0.00011	2936.47	1652.05	1.78
Int of FEDERAL ST E INDIA ST				RD INV 05 61110											Statewide Crash Rate: 384.19		
18797	18798	194391	0 - 0.10	0561110 - 0.20	0.10	2	1	0	0	0	0	0	0.0	0.00006	5930.14	1307.34	4.54
Int of FEDERAL ST E HANCOCK ST				RD INV 05 61110											Statewide Crash Rate: 384.19		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18800	18805	194398	0 - 0.03	0560531 - 0	0.03	2	0	0	0	0	0	0	0.0	0.00000	0.00	-	0.00
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19	30403.77	
18800	18804	194397	0 - 0.08	0560531 - 0.03	0.08	2	4	0	0	0	0	4	0.0	0.00008	15800.03	1582.54	9.98
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18803	18804	194402	0 - 0.08	0560531 - 0.11	0.08	2	1	0	0	0	0	1	0.0	0.00011	3119.00	1644.54	1.90
Int of HANCOCK ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18802	18803	194400	0 - 0.08	0560531 - 0.19	0.08	2	1	0	0	0	0	1	0.0	0.00006	5212.57	1423.30	3.66
Int of MOUNTFORT ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18518	18801	194025	0 - 0.06	0560505 - 0.27	0.06	2	2	0	0	0	1	1	50.0	0.00075	885.18	1225.13	0.00
Int of FRANKLIN ST MIDDLE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18801	18817	194399	0 - 0.06	0560505 - 0.33	0.06	2	3	0	0	1	0	2	33.3	0.00017	5854.12	1638.94	3.57
0509221 POR,MIDDLE,HAMPSHIRE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18817	18818	194423	0 - 0.08	0560505 - 0.39	0.08	2	0	0	0	0	0	0	0.0	0.00032	0.00	1495.09	0.00
Int of INDIA ST MIDDLE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18820	18836	3131698	0 - 0.20	0560286 - 0.08	0.20	2	5	0	0	2	0	3	40.0	0.00336	495.47	433.67	1.14
Int of FORE ST, MOUNTFORT ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
18820	18822	3106815	0 - 0.17	0560286 - 0.28	0.17	2	9	0	0	1	1	7	22.2	0.00323	929.24	438.31	2.12
Int of FORE ST, MOUNTFORT ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
18517	18822	3106667	0 - 0.11	0560286 - 0.45	0.11	2	2	0	0	0	0	2	0.0	0.00155	429.61	528.74	0.00
Int of FORE ST FRANKLIN ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
15397	18821	3106035	0 - 0.11	0561001 - 0	0.11	2	3	0	0	0	0	2	0.0	0.00260	385.13	545.43	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				RD INV 05 61001											Statewide Crash Rate: 198.45		
15397	18517	3123025	0 - 0.08	0001A - 11.80	0.08	2	1	0	0	0	1	0	100.0	0.00076	439.06	739.30	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				US 1A											Statewide Crash Rate: 198.45		
18517	18518	3118954	0 - 0.06	0001A - 11.88	0.06	2	0	0	0	0	0	0	0.0	0.00078	0.00	734.26	0.00
Int of FORE ST FRANKLIN ST				US 1A											Statewide Crash Rate: 198.45		
18518	63225	3121455	0 - 0.16	0001A - 11.94	0.16	2	0	0	0	0	0	0	0.0	0.00337	0.00	509.80	0.00
Int of FRANKLIN ST MIDDLE ST				US 1A											Statewide Crash Rate: 198.45		
63225	63224	2566764	0 - 0.09	0001A - 12.10	0.09	2	2	0	0	0	1	1	50.0	0.00319	208.87	517.08	0.00
Int of CONGRESS ST FRANKLIN ST				US 1A											Statewide Crash Rate: 198.45		
18519	18520	3106670	0 - 0.09	001AS - 1.82	0.09	2	3	0	0	0	0	3	0.0	0.00326	306.28	514.07	0.00
Int of CONGRESS ST, FRANKLIN ST				US 1AS											Statewide Crash Rate: 198.45		
18518	18519	3106668	0 - 0.16	001AS - 1.91	0.16	2	1	0	0	1	0	0	100.0	0.00358	93.20	502.19	0.00
Int of FRANKLIN ST MIDDLE ST				US 1AS											Statewide Crash Rate: 198.45		
18517	18518	3118912	0 - 0.06	001AS - 2.07	0.06	2	2	0	0	1	0	1	50.0	0.00078	853.42	734.71	1.16
Int of FORE ST FRANKLIN ST				US 1AS											Statewide Crash Rate: 198.45		
15397	18517	3100256	0 - 0.08	001AS - 2.13	0.08	2	1	0	0	0	0	1	0.0	0.00107	312.58	683.74	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				US 1AS											Statewide Crash Rate: 198.45		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18819	19042	3106814	0 - 0.06	0561002 - 0	0.06	2	4	0	0	0	0	4	0.0	0.00174	764.28	604.53	1.26
Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV				RD INV 05 61002											Statewide Crash Rate: 198.45		
18798	18819	194394	0 - 0.14	0560524 - 0	0.14	2	1	0	0	0	0	1	0.0	0.00073	455.85	1234.29	0.00
Int of FEDERAL ST E MOUNTFORT ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18798	18802	194393	0 - 0.03	0560524 - 0.14	0.03	2	0	0	0	0	0	0	0.0	0.00013	0.00	1658.64	0.00
Int of FEDERAL ST E MOUNTFORT ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18802	18820	194401	0 - 0.05	0560524 - 0.17	0.05	2	6	0	0	0	0	5	0.0	0.00019	10807.60	1626.49	6.64
Int of MOUNTFORT ST NEWBURY ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18912	18913	194575	0 - 0.05	0560510 - 0	0.05	2	0	0	0	0	0	0	0.0	0.00005	0.00	1109.01	0.00
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 60510											Statewide Crash Rate: 384.19		
18914	18915	194579	0 - 0.06	0560666 - 0	0.06	2	1	0	0	0	1	0	100.0	0.00011	3074.89	1646.59	1.87
Int of CONGRESS ST SMITH ST				RD INV 05 60666											Statewide Crash Rate: 384.19		
18910	18911	194572	0 - 0.07	0560451 - 0	0.07	2	3	0	0	0	0	3	0.0	0.00009	10902.21	1610.95	6.77
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 60451											Statewide Crash Rate: 384.19		
18795	18799	194386	0 - 0.06	0560342 - 0.10	0.06	2	0	0	0	0	0	0	0.0	0.00007	0.00	1482.15	0.00
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18795	18800	194387	0 - 0.05	0560342 - 0.05	0.05	2	1	0	0	0	0	1	0.0	0.00012	2805.66	1655.82	1.69
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18800	18801	194396	0 - 0.05	0560342 - 0	0.05	2	0	0	0	0	0	0	0.0	0.00010	0.00	1630.72	0.00
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18821	18822	3106816	0 - 0.06	0561000 - 0.23	0.06	2	0	0	0	0	0	0	0.0	0.00124	0.00	659.57	0.00
Int of COMMERCIAL ST INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18817	18822	3106813	0 - 0.05	0561000 - 0.18	0.05	2	1	0	0	0	0	1	0.0	0.00088	378.86	715.36	0.00
Int of INDIA ST MIDDLE ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18804	18817	3122291	0 - 0.05	0561000 - 0.13	0.05	2	3	0	0	1	0	1	50.0	0.00099	1008.74	695.75	1.45
Int of INDIA ST NEWBURY ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18796	18804	3130049	0 - 0.05	0561000 - 0.08	0.05	2	3	0	0	0	0	3	0.0	0.00112	889.95	675.15	1.32
Int of FEDERAL ST E INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18796	18823	3106811	0 - 0.08	0561000 - 0	0.08	2	2	0	0	0	0	2	0.0	0.00189	353.64	592.58	0.00
Int of FEDERAL ST E INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18803	18818	194403	0 - 0.05	0560344 - 0.04	0.05	2	0	0	0	0	0	0	0.0	0.00007	0.00	1518.66	0.00
Int of HANCOCK ST NEWBURY ST				RD INV 05 60344											Statewide Crash Rate: 384.19		
18797	18803	194392	0 - 0.04	0560344 - 0	0.04	2	0	0	0	0	0	0	0.0	0.00006	0.00	1288.27	0.00
Int of FEDERAL ST E HANCOCK ST				RD INV 05 60344											Statewide Crash Rate: 384.19		
Study Years: 3.00				Section Totals:	3.68		102	0	0	8	11	78	18.6	0.05523	615.59	292.48	2.10
				Grand Totals:	3.68		252	0	2	19	43	183	25.4	0.05523	1520.87	412.47	3.69

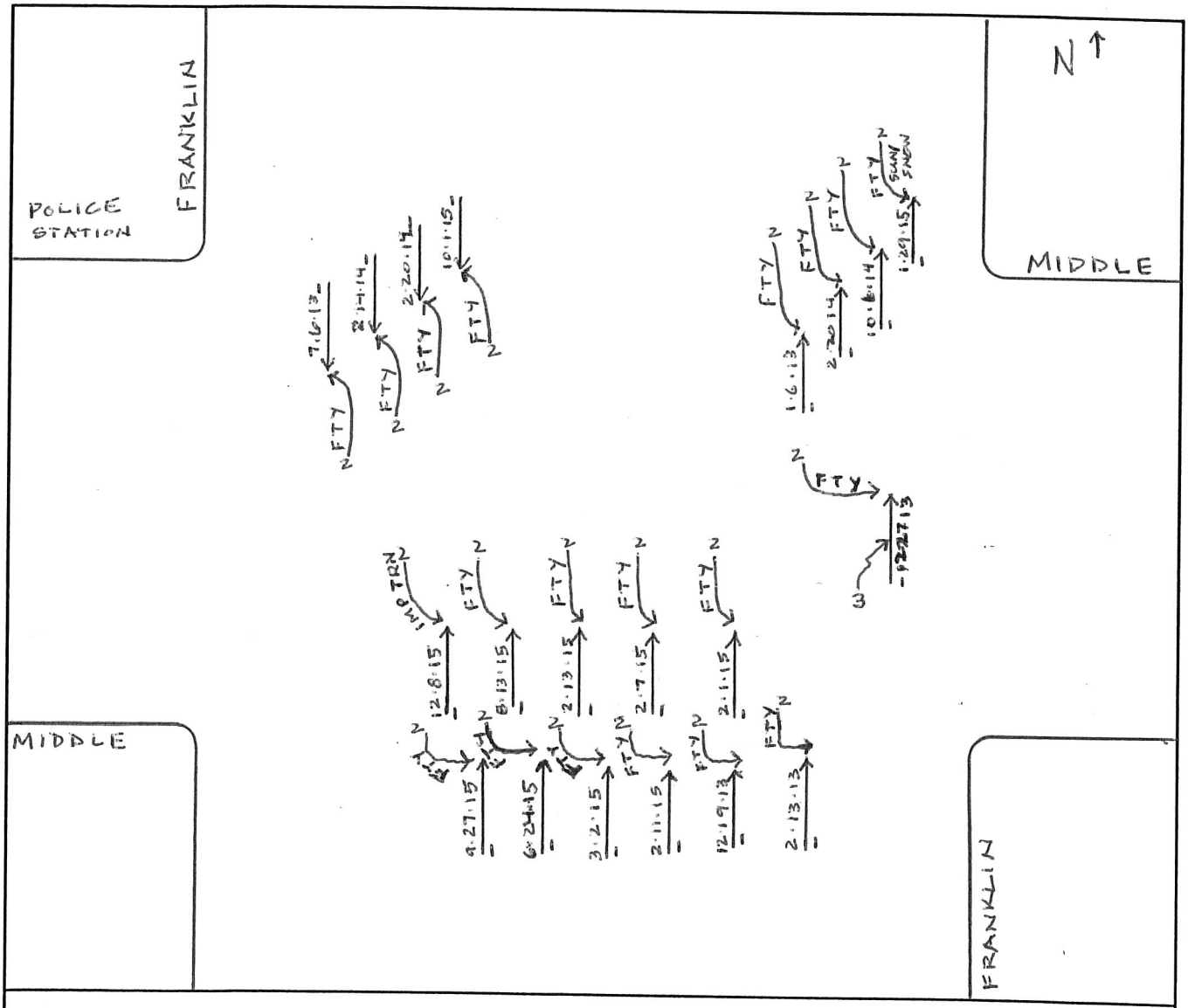
COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION Intersection of Franklin & Middle Streets

TOWN Portland, Maine NODE NO(S) 18518

YEARS REVIEWED 2013 - 2015 DATE PREPARED 08.29.2016



CRITICAL RATE FACTOR _____ EQUIV. PROP. DAMAGE ACC/YEAR _____ ACC/MEV _____

LIGHT
1. DAWN (MORNING) 2. DAYLIGHT 3. DUSK (EVENING)
4. DARK (ST. LIGHTS ON) 5. DARK (NO ST. LIGHTS) 6. DARK (ST. LIGHTS OFF)
7. OTHER

ROAD SURFACE
1. DRY 2. WET 3. SNOW/SLUSH-SANDED
4. ICE/PACKED SNOW-SANDED 5. MUDDY 6. DEBRIS
7. OILY 8. SNOW/SLUSH-NOT SANDED 9. ICE-PKD. SNOW-NOT SANDED
10. OTHER

APPARENT CONTRIBUTING FACTORS - HUMAN
1. NO IMPROPER ACTION 2. FAIL TO YLD. RIGHT OF WAY 3. ILLEGAL UNSAFE SPEED
4. FOLLOW TOO CLOSE 5. DISREGARD TRAFFIC CONTROL DEVICE
6. DRIVING LEFT OF CENTER-NO PASSING 7. IMPROPER PASS-OVERTAKING
8. IMP. UNSAFE LANE CHANGE 9. IMP. PARKING START/STOP 10. IMPROPER TURN
11. UNSAFE BACKING 12. NO SIGNAL OR IMP. SIGNAL 13. IMPEDING TRAFFIC
14. DRIVER INATTENTION-DISTRACTION 15. DRIVER INEXPERIENCE
16. PEDEST. VIOLATION ERROR 17. PHYSICAL IMPAIRMENT 18. VISION OBSCURED-WINDSHIELD GLASS
19. VISION OBSCURED-SUN/HEADLIGHTS
20. OTHER VISION OBSCUREMENT 30. OTHER HUMAN VIOLATION FACTOR
31. HIT AND RUN 51. UNKNOWN

- VEHICULAR
41. DEFECTIVE BRAKES 42. DEFECTIVE TIRE/FAILURE 43. DEFECTIVE LIGHTS
44. DEFECTIVE SUSPENSION 45. DEFECTIVE STEERING 50. OTHER VEHICLE DEFECT
OR FACTOR 51. UNKNOWN

SYMBOLS

ANGLE	PEDESTRIAN	P	FATAL ACCIDENT
BACKING	REAR END		
FIXED OBJECT	SIDE SWIPE		VEHICLE (MOVING)
HEAD ON	TURNING MOVE		BICYCLE — B
OVERTURN	CHANGE LANE		ANIMAL — A
PARKED VEHICLE	OUT OF CONTROL		SLED — S

WEATHER
C = CLEAR F = FOG R = RAIN
SL = SLEET S = SNOW CL = CLOUDY
XW = CROSS WINDS

INJURIES
K = FATAL B = NON-INCAPACITATING
A = INCAPACITATING C = POSSIBLE INJURY

S:/SHEETS/COLLISION DIAGRAM.DWG

COLLISION DIAGRAM

SHEET 2 OF 2

LOCATION Intersection of Franklin & Middle Streets

TOWN Portland, ME NODE NO(S) 18518

YEARS REVIEWED 2013 - 2015 DATE PREPARED 08·29·2016

REPORT NO.	DATE	TIME	INJURIES K	A	B	C	LIGHT	ROAD SURFACE	ACF	OTHER
00076	01·06·13	08:55	-	-	-	1	1	2	2	
000535	02·13·13	06:41	-	-	-	-	1	2	2	
001912	07·06·13	13:08	-	-	-	-	1	1	2	
003722	12·19·13	19:47	-	-	-	-	4	2	2	
003801	12·27·13	08:55	-	-	-	-	2	3	2	
000570	02·14·14	07:56	-	-	-	1	2	3	2	
000702	02·20·14	12:46	-	-	-	-	2	2	2	
000703	02·20·14	12:50	-	-	-	-	2	2	2	
002950	10·06·14	18:10	-	-	-	-	2	1	2	
000362	01·29·15	07:48	-	-	-	1	2	3	2/19	
000442	02·01·15	16:15	-	-	-	1	2	3	2	
000617	02·07·15	14:49	-	-	-	-	2	2	2	
000724	02·11·15	13:04	-	-	-	-	2	2	2	
000769	02·13·15	08:22	-	-	-	-	2	2	2	
001020	03·02·15	14:59	-	-	-	-	2	1	2	
002165	06·24·15	09:30	-	-	-	1	2	1	2	
002716	08·13·15	08:15	-	-	-	-	2	1	2	
003242	09·27·15	10:32	-	-	1	-	2	1	2	
003298	10·01·15	08:45	-	-	-	-	2	1	2	
004095	12·08·15	10:31	-	-	-	-	2	1	10	

S:/SHEETS/COLLISION DIAGRAM.DWG

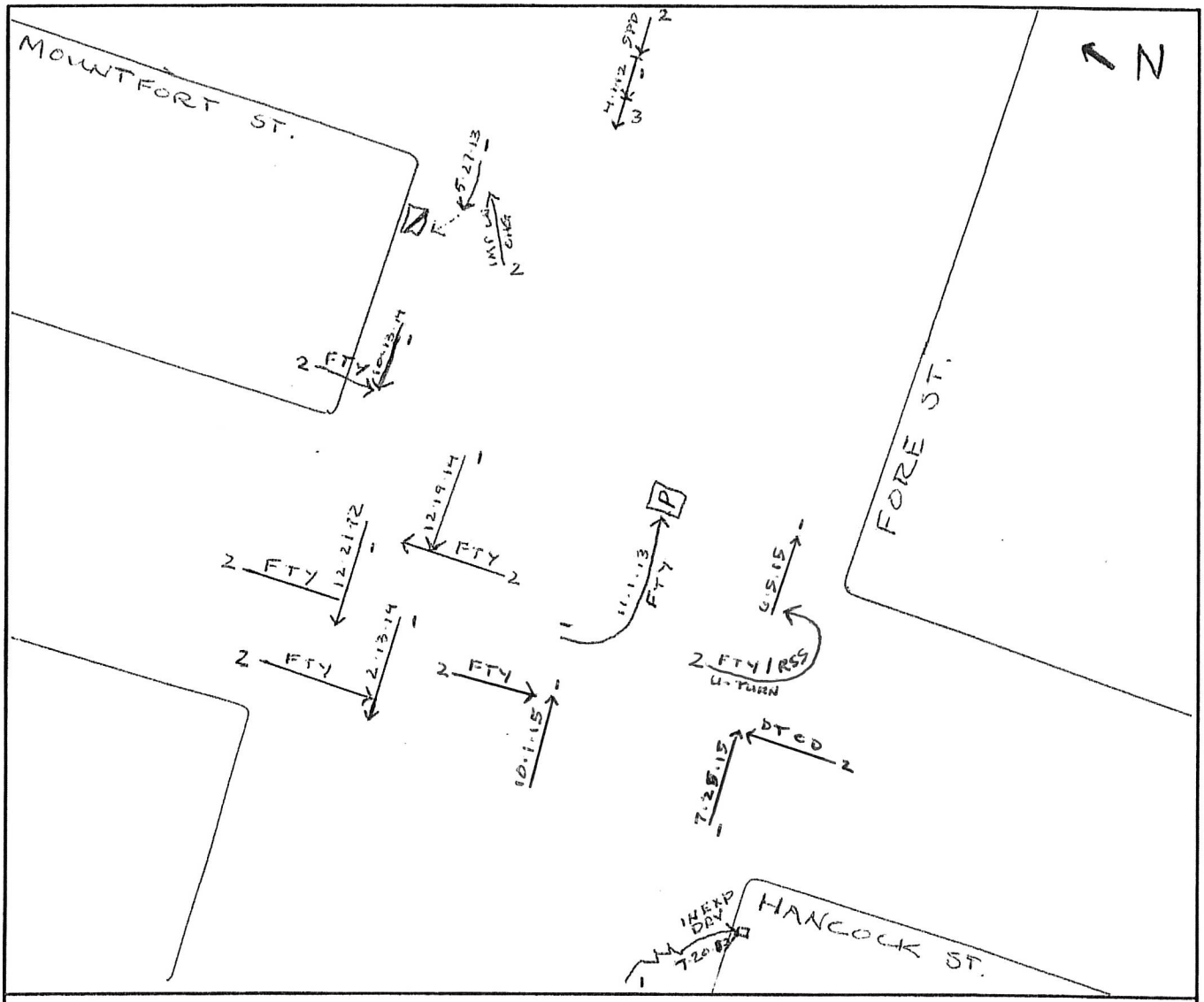
COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION Intersection of Fore Street & Hancock Street

TOWN Portland, Maine NODE NO(S) 18820 to 18822

YEARS REVIEWED 2012 - 2015 DATE PREPARED 08.29.2016



CRITICAL RATE FACTOR _____ EQUIV. PROP. DAMAGE ACC/YEAR _____ ACC/MEV _____

LIGHT
1. DAWN (MORNING) 2. DAYLIGHT 3. DUSK (EVENING)
4. DARK (ST. LIGHTS ON) 5. DARK (NO ST. LIGHTS) 6. DARK (ST. LIGHTS OFF)
7. OTHER

ROAD SURFACE
1. DRY 2. WET 3. SNOW/SLUSH-SANDED
4. ICE/PACKED SNOW-SANDED 5. MUDDY 6. DEBRIS
7. OILY 8. SNOW/SLUSH-NOT SANDED 9. ICE-PKD. SNOW-NOT SANDED
10. OTHER

APPARENT CONTRIBUTING FACTORS - HUMAN
1. NO IMPROPER ACTION 2. FAIL TO YLD. RIGHT OF WAY 3. ILLEGAL UNSAFE SPEED
4. FOLLOW TOO CLOSE 5. DISREGARD TRAFFIC CONTROL DEVICE
6. DRIVING LEFT OF CENTER-NO PASSING 7. IMPROPER PASS-OVERTAKING
8. IMP. UNSAFE LANE CHANGE 9. IMP. PARKING START/STOP 10. IMPROPER TURN
11. UNSAFE BACKING 12. NO SIGNAL OR IMP. SIGNAL 13. IMPEDING TRAFFIC
14. DRIVER INATTENTION-DISTRACTION 15. DRIVER INEXPERIENCE
16. PEDEST. VIOLATION ERROR 17. PHYSICAL IMPAIRMENT 18. VISION OBSCURED-WINDSHIELD GLASS
19. VISION OBSCURED-SUN/HEADLIGHTS
20. OTHER VISION OBSCUREMENT 30. OTHER HUMAN VIOLATION FACTOR
31. HIT AND RUN 51. UNKNOWN

- VEHICULAR
41. DEFECTIVE BRAKES 42. DEFECTIVE TIRE/FAILURE 43. DEFECTIVE LIGHTS
44. DEFECTIVE SUSPENSION OR FACTOR 45. DEFECTIVE STEERING 50. OTHER VEHICLE DEFECT
51. UNKNOWN

SYMBOLS
ANGLE, BACKING, FIXED OBJECT, HEAD ON, OVERTURN, PARKED VEHICLE
PEDESTRIAN, REAR END, SIDE SWIPE, TURNING MOVE, CHANGE LANE, OUT OF CONTROL
FATAL ACCIDENT, VEHICLE (MOVING), BICYCLE (B), ANIMAL (A), SLED (S)

WEATHER
C = CLEAR F = FOG R = RAIN
SL = SLEET S = SNOW CL = CLOUDY
XW = CROSS WINDS

INJURIES
K = FATAL B = NON-INCAPACITATING
A = INCAPACITATING C = POSSIBLE INJURY

S:\SHEETS\COLLISION DIAGRAM.DWG

COLLISION DIAGRAM

SHEET 2 OF 2

LOCATION Intersection of Fore Street & Hancock Street

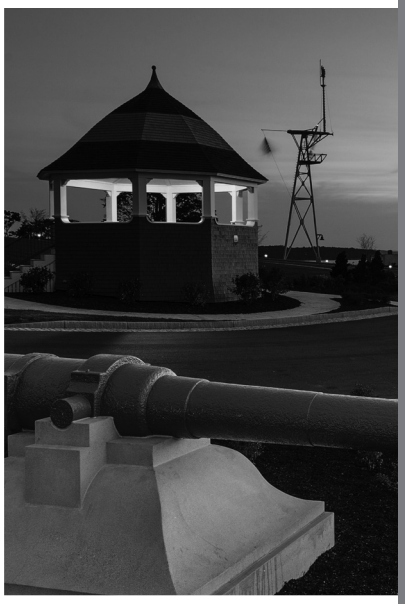
TOWN Portland NODE NO(S) 18820 to 18822

YEARS REVIEWED 2012 - 2015 DATE PREPARED 08.29.2016

REPORT NO.	DATE	TIME	INJURIES K	A	B	C	LIGHT	ROAD SURFACE	ACF	OTHER
00781	04.01.12	02:55	-	-	-	1	4	1	3	
003253	12.21.12	16:53	-	-	-	2	4	2	2	
001534	05.27.13	12:40	-	-	-	1	2	1	8	
002062	07.20.13	10:29	-	-	-	-	2	1	15	Student Driver
003090	11.01.13	15:30	-	1	-	-	2	1	2	
000550	02.18.14	10:03	-	-	-	-	2	2	2	
003007	10.13.14	10:09	-	-	-	-	2	1	2	
003756	12.19.14	15:09	-	-	-	-	2	1	2	
001962	06.05.15	10:35	-	-	-	-	2	1	2/5	U-Turn
002518	07.25.15	17:59	-	-	-	-	2	1	5	
003289	10.01.15	13:11	-	-	-	-	2	2	2	

S:/SHEETS/COLLISION DIAGRAM.DWG

Relationships.
Responsiveness.
Results.



Traffic Permit Application Request for Scoping Meeting 58 Fore Street Redevelopment Portland, Maine

PREPARED FOR:
CPB2
PO Box 7987
Portland, ME 04112

September 2016

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

GORRILL PALMER

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

September 16, 2016

Ms. Christine Grimando
City of Portland Planning Division
389 Congress Street, 4th Floor
Portland, Maine 04101

RE: Application for Traffic Movement Permit
58 Fore Street Redevelopment
Portland, Maine

Dear Ms. Grimando,

Gorrill Palmer (GP) has been retained by CPB2 LLC to prepare this Traffic Movement Permit Application for the proposed 58 Fore Street redevelopment project located at the site of the Portland Company in Portland, Maine.

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

- Sections 1-6
- Signed application form
- Notice of intent to file
- List of abutters (under separate cover)
- $1,500 application fee (under separate cover)

Section 7 (Traffic Impact Study) of the application is also being submitted under separate cover. Please contact our office with any questions regarding this application.

Sincerely,

Gorrill Palmer

Randy Dunton, PE, PTOE
Project Manager

Copy: Jim Brady, CPB2 Management LLC
David Senus, Woodard & Curran
Timothy Soucie, MaineDOT Region 1 Traffic Engineer

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

FOR MDOT USE 12/99
ID#_____

Total Fees:_____
Date Received: _____

****

PERMIT APPLICATION – TRAFFIC
TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. §704-A

Please type or print:

This application is for (check all that apply): Traffic 100-200 PCE's ☐
Traffic 200 + PCE's ☒

Name of Applicant: **CPB2 LLC Attn: Mr. James Brady**

Address: PO Box 7987 Portland, ME 04112 Telephone: (207) 558-3704

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

Address: **707 Sable Oaks Drive, Suite 30, South Portland, ME 04106**

Telephone: **(207) 772-2515**

Name and type of development: 58 Fore Street mixed use development. Total of approximately 960,000 sf of building area consisting of office space, hotel, residential units, retail, restaurant space, and a marina.

Location of development including road, street, or nearest route number: **The site is located at 58 Fore Street at the Portland Company site on the Portland Waterfront.**

City/~~Town/Plantation~~: **Portland** County: **Cumberland** Tax Maps: **018** Lots: **A001, A003**

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

Was this development started prior to obtaining a traffic permit? **No**

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30-A, chapter 187)?
Yes X No _____

Is this project located within a compact area of an urban compact municipality? Yes X No _____

Is this development or any portion of the site currently subject to state or municipal enforcement action?

None Known

Existing DEP or MDOT permit number (if applicable): Delegated review is to the City

Name(s) DOT staff person(s) contacted concerning this application **None**

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

N/A

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

FOR MDOT USE 12/99
ID#_____

Total Fees:_____
Date Received: _____

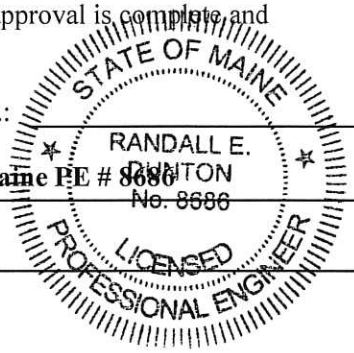
CERTIFICATION

This person responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the applicant for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: _____ Re/Cert/Lic No.: _____

Name (print): **Randall E. Dunton** Engineer: **Maine PE # 8686**

Date: 9/12/16 Other: _____



If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

_____ 9/9/16

Signature of applicant Date

Form C 7/97

NOTICE OF INTENT TO FILE

Please take notice that:

CPB2 LLC (Attn: Mr. James Brady)
PO Box 7987
Portland, ME 04112

is intending to file a MaineDOT Traffic Permit application with the City of Portland (Delegated Review Authority) pursuant to the provisions of 23 M.R.S.A. §704 – A on or about September 16, 2016.

This application is for:

The development of the 58 Fore Street in Portland, Maine. The proposed development is to include 123,917 sf of office space, 50,273 sf of retail, 3,800 sf of restaurant, 638 residential units, a 132 room hotel, and a 2,600 marina with 220 slips. The project is forecast to generate 424 and 474 AM and PM weekday peak hour trip ends respectively. The project is expected to open in 2027.

At the following location:

The site is located at 58 Fore Street, at the site of the historic Portland Company.

A request for a public hearing must be received by the City, in writing no later than 20 days after the application is found by the department to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the Department of Transportation's office in Scarborough (Region 1) during normal working hours. A copy of the application may also be seen at the municipal offices in Portland, Maine.

Written public comments may be sent to the following address: Attention Christine Grimando, Planning Division, 389 Congress Street, Portland, Maine 04101.

Randy Dunton

Randall Dunton, P.E., PTOE
Gorrill-Palmer Consulting Engineers, Inc.

Section 1
Site and Traffic Information

1.A. Site Description and Site Plan

The site is located at 58 Fore Street, at the site of the historic Portland Company along Portland's Eastern Waterfront. The site is identified on City Tax Map 18, Lots A001 and A003. A proposed site plan is included in Attachment 1A.

1.B. Existing and Proposed Site Uses

The existing site has several buildings that were part of the Portland Company site. The proposed mixed-use project consists of a total of 958,679 sf of building area divided into seven Development Blocks (B1-B7) with varying uses. The following table summarizes the proposed site uses by Development Block:

Proposed Site Summary

Development Block	Use	Size
B1		
	Retail	7,878 SF
	Residential	91 Dwelling Units
	Office	79,000 SF
B2		
	Retail	26,895 SF
	Residential	19 Dwelling Units
	Office	25,617 SF
B3		
	Retail	11,500 SF
	Office	19,300 SF
B4		
	Residential	275 Dwelling Units
	Retail	4,000 SF
B5		
	Residential	108 Dwelling Units
	Hotel	132 Rooms
	Restaurant	3,800 SF
	Function Space	5,800 SF
B6		
	Residential (Condos)	131 Dwelling Units
	Residential (Apartments)	14 Dwelling Units
B7		
	Marina Facilities	2,600 SF, 220 Slips

The new marina facilities on B7 are proposed to be three times the size of the existing marina. It will be a new, modern facility with 220 slips proposed; 140 for seasonal boaters and 80 for transient vessels. The facility will service residents of Portland (including Islanders commuting to work on the Portland Peninsula), residents of the 58 Fore Street site, and transient boaters.

Vehicular access to the site will be via Thames Street Extension into the site, a full movement driveway onto Fore Street across from Waterville Street, primarily for residential units, and a new public road connecting Fore Street to Thames Street Extension. On-site parking will be provided with a below grade parking garage and on-street parking through the site.

1.C. Site Vicinity and Boundaries

The site is bordered by Fore Street, the Portland Waterfront, a small residential area to the northeast, and a commercial area to the southwest. A site location map showing the development area is included in Attachment 1B.

1.D. Proposed Uses in the Vicinity of the Proposed Development

Approved projects that are not yet opened as well as projects for which applications have been filed are required to be included in the predevelopment volumes for this project. Based on conversations with City Staff, traffic from the following developments should be included in the background traffic:

- A – 158 Fore Street: 180 room hotel
- B – 1 India Street: office and bank
- C – 185 Fore Street: 4,085 sf of office or retail and 8 residential units
- D – 16 Middle Street: 5,305 sf of retail and 39,526 of office
- E – 113 Newbury Street: 39 condominium units
- F – 48 Hancock Street: 2 residential units
- G – 49 Hancock Street: 2 residential units
- H – 62 India Street: 5,409 sf of retail and 29 condominium units
- I – 169 Newbury Street: 24 condominium units
- J – 273 Congress Street: 2,290 sf of retail and 10 condominium units
- K – 31 Fore Street: 4 condominium units

The locations, sizes, and uses of these developments are shown on the attached Other Development Figure (Attachment 1C).

I.E. Trip Generation

The trip generation for the site was calculated separately for Development Blocks 1-6 (B1-B6) and for Development Block 7 (B7), then combined to yield the total site trip generation. This is due to the unique nature of the marina on B7. The following is a summary of the methods, assumptions, and results of the trip generation calculations for the site.

Development Blocks 1-6

The Institute of Transportation Engineers' publication, *Trip Generation*, Seventh Edition, was used to forecast the traffic to be generated by B1-B6. The Ninth Edition is available, but has not yet been accepted by the MaineDOT. The following table summarizes the trip generation for B1-B6.

Development Blocks 1-6 ITE Trip Generation Summary

Development Block	LUC	Size	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
B1								
	814 – Specialty Retail	7,878 SF	4	2	6	9	12	21
	220 – Apartment	91 Units	9	37	46	36	20	56
	710 – General Office	79,000 SF	140	15	155	22	127	149
B2								
	814 – Specialty Retail	26,895 SF	12	8	20	33	40	73
	220 – Apartment	19 Units	2	8	10	8	4	12
	710 – General Office	25,617 SF	57	6	63	9	52	61
B3								
	814 – Specialty Retail	11,500 SF	5	4	9	14	17	31
	710 – General Office	19,300 SF	45	5	50	7	41	48
B4								
	220 – Apartment	275 Units	28	112	140	111	60	171
	814 – Specialty Retail	4,000 SF	2	1	3	5	6	11
B5								
	230 – Residential Condominium / Townhouse	108 Units	7	41	48	36	20	56
	310 – Hotel	132 Rooms	44	30	74	43	35	78
	932 – High Turnover Sit-Down Restaurant	3,800 SF	22	22	44	25	16	41
	Function Space*	5,800 SF	0	0	0	0	0	0
B6								
	230 – Residential Condominium / Townhouse	131 Units	9	49	58	44	24	68
	220 - Apartment	14 Units	1	6	7	6	3	9
Total Development Blocks 1-6			**387**	**346**	**387**	**346**	**733**	**408**

*It was assumed that the function space would be ancillary to the other uses in the Development Block and would not generate additional traffic.

Due to the variety of uses and the site's location within a downtown area, two reductions can be applied to refine the trip generation for B1-B6. These reductions are summarized as follows:

Shared Use Adjustment

Due to the close proximity of the mixed uses and the sharing of people between uses, simply adding the trip generation of each use as if they were isolated would result in an overestimate of trip generation. To estimate the traffic that will visit more than one destination without leaving the site, GP utilized the National Cooperative Highway Research Program (NCHRP) 684 Internal Trip Capture Estimation Tool. The NCHRP 684 spreadsheet uses the ITE forecast trip generation for each type of land use (office, retail, restaurant, residential, hotel, and other) and estimates the trips that will travel between two uses without leaving the site. This yields an internal trip capture percentage, which is the percentage of trip ends that will travel between two uses. The following tables summarize the AM and PM peak hour internal trip capture percentages respectively.

AM Peak Hour NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	242	26	10%	46%	23	12	35
Retail	23	15	57%	47%	13	7	20
Restaurant	22	22	55%	50%	12	11	23
Residential	56	253	4%	5%	2	12	14
Hotel	44	30	2%	30%	1	9	10
Total	387	346	13%	15%	51	51	102

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

PM Peak Hour NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	38	220	18%	5%	7	10	17
Retail	61	75	31%	44%	19	33	52
Restaurant	25	16	52%	69%	13	11	24
Residential	241	131	11%	15%	27	19	46
Hotel	43	35	21%	6%	9	2	11
Total	408	477	18%	16%	75	75	150

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

As shown in the tables, the NCHRP 684 Internal Trip Capture Estimation Tool results in a reduction of 102 trip ends during the AM peak hour and 150 trip ends during the PM peak hour.

Other Modes of Transportation Reduction

It can be expected for a site in a downtown area that other modes of transportation will be used to go to and from the site. These other modes could include things such as transit, bicycle, or walking. This site is adjacent to an existing bus route, as well as located on a pedestrian and bicycle path. The other modes reduction for B1-B6 is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract for the City of Portland. Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, used this data to create maps (Attachment 1D) that show the estimated percentage of workers living in each Portland Census Tract that use each mode of transportation to travel to work. The site is located on the east side of Census Tract 3, which is a predominantly commercial area. Census Tracts 2 and 5 border the site and consist of primarily residential areas. Since the site is proposed to have a significant number of residential units as well as commercial space, the data from the combination of the three tracts is expected to be more representative of the actual conditions on the site than the data from the individual tracts. The reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work in the three Census Tracts by the estimated total number of working people in the same three Census Tracts. This calculation yields a reduction of 35.8%, which appears reasonable for this area. The detailed calculation is described in the "Site Parking Demand" memo included in Attachment 1D.

The Census data is based on residents of the Census Tracts commuting to work, so it is applicable to the residential units, office space, and retail uses on the site, but not necessarily the proposed restaurant and hotel. The restaurants and hotel were further researched to find studies that included information on other modes of transportation for restaurants and hotels. The studies found indicated that 40%-65% of restaurant customers may be using alternative modes of transportation. Since the studies were not specific to Portland, Maine, the local data is expected to be closer to actual conditions that would be seen at the 58 Fore Street development, so the 35.8% reduction was applied to the restaurants. There was limited data available for hotels, so a conservative reduction of 10% was used for the hotel. The studies are discussed in more detail in the "Site Parking Demand" memo in Attachment 1D. The following table summarizes the other modes of transportation reduction for the site trip generation:

Other Modes of Transportation Reduction Summary

Trip Generation	AM Peak Hour			PM Peak Hour		
	Entering	Exiting	Total	Entering	Exiting	Total
B1-B6 Trip Generation	387	346	733	408	477	885
Hotel Trip Generation	44	30	74	43	35	78
B1-B6 Trip Generation w/o Hotel	343	316	659	365	442	807
Other Modes Reduction (35.8% of B1-B6 Trip Generation w/o Hotel)	123	113	236	131	158	289
Hotel Other Modes Reduction (10% of Hotel Trip Generation)	4	3	7	4	4	8
Total Other Modes Reduction	**127**	**116**	**243**	**135**	**162**	**297**

Development Block 7 (Marina)

Although the ITE does have a Marina category, the number of studies (2) is limited. Therefore, the trip generation for B7 was not determined using the ITE trip generation rates. Since a marina is such a unique facility, the trip generation was forecast based on the characteristics of this specific 220 slip marina. Applied Technology & Management (ATM), experts in marine and coastal engineering, provided the following information and assumptions:

- Peak weekday usage of the marina is approximately 10% of the slips, but possibly more since Maine's peak boating season is shorter than other areas
- Approximately 36% of daily users are transient boaters (80 transient boater slips out of 220 total slips)
- 10% of daily users who are not transient boaters are on-site residents
- 90% of daily users who are not transient boaters are off-site Portland residents
- 30% of off-site Portland residents are Islanders commuting to and from the Peninsula
- 9 marina employees
- 4 mega-yacht slips

Based on the information from ATM, the following assumptions were made:

- Peak weekday usage will be 15% of the slips (33 slips) to be conservative
- Transient boaters will not have a car on site since they arrive and depart using their boat, so they will not generate trip ends
- On-site residents will not enter or exit the site to visit the marina, so they will not generate any trip ends
- Each slip used by an off-site Portland resident who is not an islander will generate one trip end in during the AM peak hour and one trip end out during the PM peak hour
- Each slip used by an Islander commuting to work will generate one trip end out during the AM peak hour and one trip end in during the PM peak hour
- Each employee will generate one trip end in during the AM peak hour and one trip end out during the PM peak hour
- Each mega-yacht slip would be visited by a provisioning vehicle during both peak hour and the provisioning vehicles would enter and exit the site during the peak hour

Based on these assumptions, the forecast weekday peak hour trip generation for the marina is as follows:

- AM Peak Hour: 36 trip ends (26 in / 10 out)
- PM Peak Hour: 36 trip ends (10 in / 26 out)

The detailed trip generation calculations are in Attachment 1D.

Two reductions were applied to the trip generation for B1-B6, however those reductions were not applied to the marina trip generation. Although it is possible for marina visitors to eat at the restaurant or visit the shops on the site, to be conservative it was assumed that the marina would be a primary destination and would have very few shared trips. Additionally, there is a possibility that marina users would use alternative modes of transportation to get to or from the site, but it is more conservative to assume that most visitors would use cars and not another mode of transportation.

Total Site Trip Generation

The following table summarizes the adjusted site trip generation starting with the ITE trip generation and subtracting the shared use reduction as well as the other modes of transportation reduction and lastly adding the marina trip generation:

Adjusted Trip Generation Summary

Trip Generation	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
B1-B6 ITE Subtotal	387	346	733	408	477	885
Shared Use Adjustment	-51	-51	-102	-75	-75	-150
Other Modes Adjustment	-127	-116	-243	-135	-162	-297
B1-B6 Total	**209**	**179**	**388**	**198**	**240**	**438**
B7 Trip Generation	26	10	36	10	26	36
Site Total	**235**	**189**	**424**	**208**	**266**	**474**

As shown in the table, the proposed development is forecast to generate 424 trip ends during the AM weekday peak hour and 474 trip ends during the PM weekday peak hour. To be conservative, this trip generation does not include any credit for existing on-site uses. This level of trip generation does require a MaineDOT Traffic Movement Permit because it is over 99 trip ends during the peak hour. The Traffic Movement Permit Application can be reviewed and issued by the City since they have delegated review authority.

A trip end is defined as a trip into or out of the site; thus a round trip is equal to two trip ends. Since the forecast traffic exceeds 99 trip ends during a peak hour, a Traffic Movement Permit is required. The Traffic Movement Permit Application can be reviewed and issued by the City since they have delegated review authority. A copy of the trip generation calculations are included in Attachment 1D.

1.F. Trip Distribution

Based on ITE's *Trip Generation*, the NCHRP 684 Internal Capture, the other modes reduction, and the marina information the following trip distribution is anticipated:

- AM Peak Hour Adjacent Street: 235 in / 189 out
- PM Peak Hour Adjacent Street: 208 in / 266 out

1.G. Trip Composition and Assignment

GP has assumed that all trips are primary in nature and made for the sole purpose of going to and from the site. The trip assignment has been based on the proposed driveway locations, the site uses, and the traffic counts completed at the study area intersections. The trip assignment has been separated into Residential and Non-Residential trip distributions. The trip assignments are categorized into Residential, Non-Residential, and Marina. The residential trip assignment assumes that the residents of the site know the neighborhood better than the non-residential site visitors, which would lead residents to use side streets more frequently, while the non-residents would use more major roads

and posted routes. The marina trip assignment is assumed to follow the non-residential trip distribution. The trip distribution and assignment is shown on the attached Figures 6-11 in Attachment 1B.

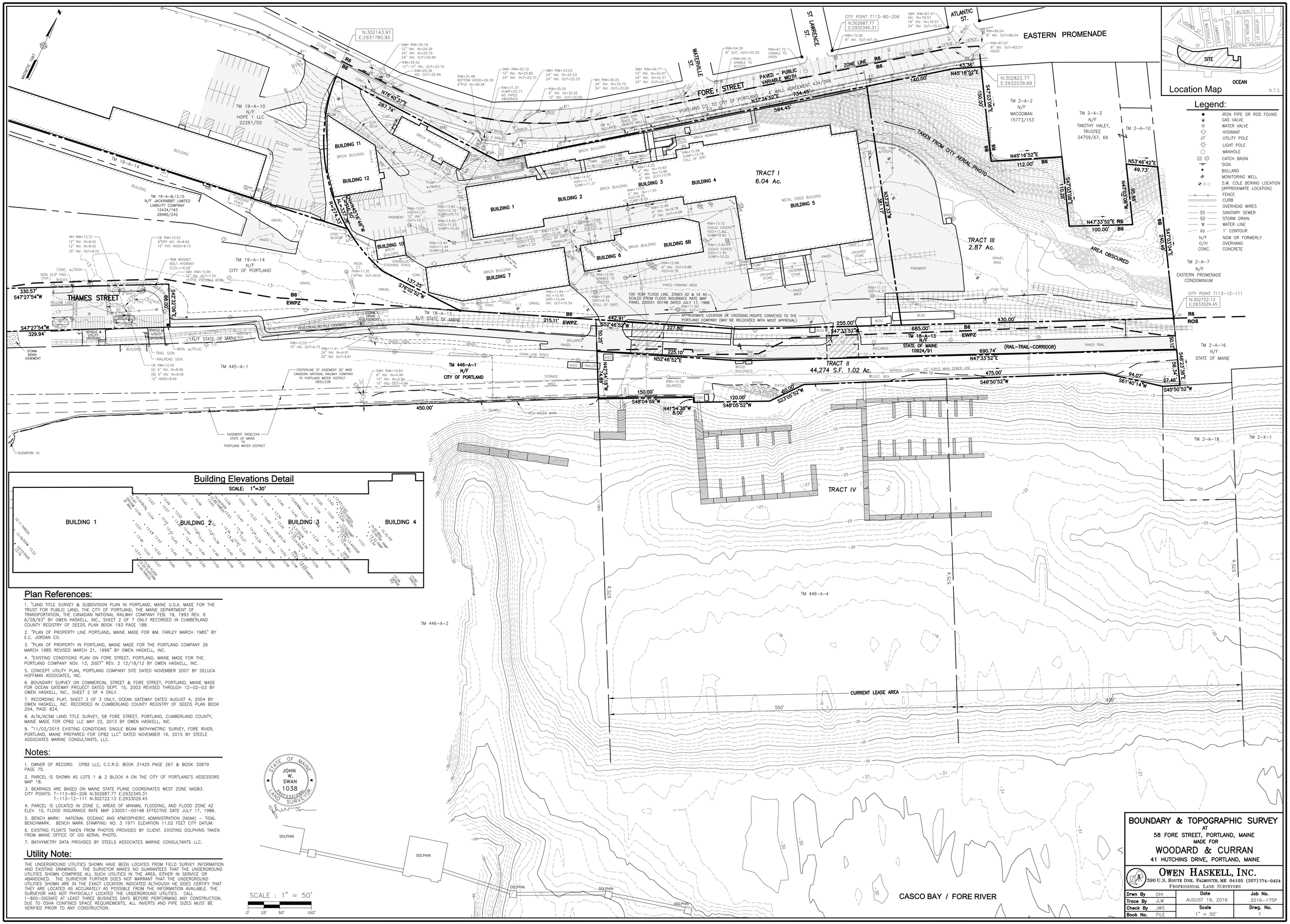
1.H. Attachments

Attachment 1A – Site Survey, Proposed Site Plan
Attachment 1B – Site Location Map, Trip Assignment Diagrams
Attachment 1C – Other Development Map
Attachment 1D – ITE Trip Generation Calculations, NCHRP 684 Spreadsheets, Commute Data Maps, *Site Parking Demand* Memo, Marina Trip Generation Calculations

Attachment 1A

Site Survey

Proposed Site Plan



Building Elevations Detail

SCALE: 1"=30'

Plan References:

1. "LAND TITLE SURVEY & SUBDIVISION PLAN IN PORTLAND, MAINE U.S.A. MADE FOR THE TRUST FOR PUBLIC LAND, THE CITY OF PORTLAND, THE MAINE DEPARTMENT OF TRANSPORTATION, THE CANADIAN NATIONAL RAILWAY COMPANY FEB. 19, 1993 REV. 6 6/28/93" BY OWEN HASKELL, INC., SHEET 2 OF 7 ONLY RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 193 PAGE 188.
2. "PLAN OF PROPERTY LINE PORTLAND, MAINE MADE FOR WM. FARLEY MARCH 1985" BY E.C. JORDAN CO.
3. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR THE PORTLAND COMPANY 26 MARCH 1985 REVISED MARCH 21, 1996" BY OWEN HASKELL, INC.
4. "EXISTING CONDITIONS PLAN ON FORE STREET, PORTLAND, MAINE MADE FOR THE PORTLAND COMPANY NOV. 13, 2007" REV. 2 12/18/12 BY OWEN HASKELL, INC.
5. CONCEPT UTILITY PLAN, PORTLAND COMPANY SITE DATED NOVEMBER 2007 BY DELUCA HOFFMAN ASSOCIATES, INC.
6. BOUNDARY SURVEY ON COMMERCIAL STREET & FORE STREET, PORTLAND, MAINE MADE FOR OCEAN GATEWAY PROJECT DATED SEPT. 15, 2003 REVISED THROUGH 12-02-03 BY OWEN HASKELL, INC., SHEET 2 OF 4 ONLY.
7. RECORDING PLAT, SHEET 3 OF 3 ONLY, OCEAN GATEWAY DATED AUGUST 4, 2004 BY OWEN HASKELL, INC. RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 204, PAGE 624.
8. ALTA/ACSM LAND TITLE SURVEY, 58 FORE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR CPB2 LLC MAY 22, 2013 BY OWEN HASKELL, INC.
9. "11/03/2015 EXISTING CONDITIONS SINGLE BEAM BATHYMETRIC SURVEY, FORE RIVER, PORTLAND, MAINE PREPARED FOR CPB2 LLC" DATED NOVEMBER 16, 2015 BY STEELE ASSOCIATES MARINE CONSULTANTS, LLC.

Notes:

1. OWNER OF RECORD: CPB2 LLC, C.C.R.D. BOOK 31425 PAGE 267 & BOOK 30879 PAGE 75.
2. PARCEL IS SHOWN AS LOTS 1 & 2 BLOCK A ON THE CITY OF PORTLAND'S ASSESSORS MAP 18.
3. BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATES WEST ZONE NAD83. CITY POINTS: T-113-80-206 N:302687.77 E:2932345.31
   T-113-12-111 N:302722.13 E:2933029.45
4. PARCEL IS LOCATED IN ZONE C, AREAS OF MINIMAL FLOODING, AND FLOOD ZONE A2 ELEV. 10, FLOOD INSURANCE RATE MAP 230051-0014B EFFECTIVE DATE JULY 17, 1986.
5. BENCH MARK: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) – TIDAL BENCHMARK. BENCH MARK STAMPING: NO. 3 1971 ELEVATION 11.02 FEET CITY DATUM.
6. EXISTING FLOATS TAKEN FROM PHOTOS PROVIDED BY CLIENT. EXISTING DOLPHINS TAKEN FROM MAINE OFFICE OF GIS AERIAL PHOTO.
7. BATHYMETRY DATA PROVIDED BY STEELS ASSOCIATES MARINE CONSULTANTS LLC.

Utility Note:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-800-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

STATE OF MAINE
JOHN W. SWAN
1038
PROFESSIONAL LAND SURVEYOR

BOUNDARY & TOPOGRAPHIC SURVEY

AT

58 FORE STREET, PORTLAND, MAINE

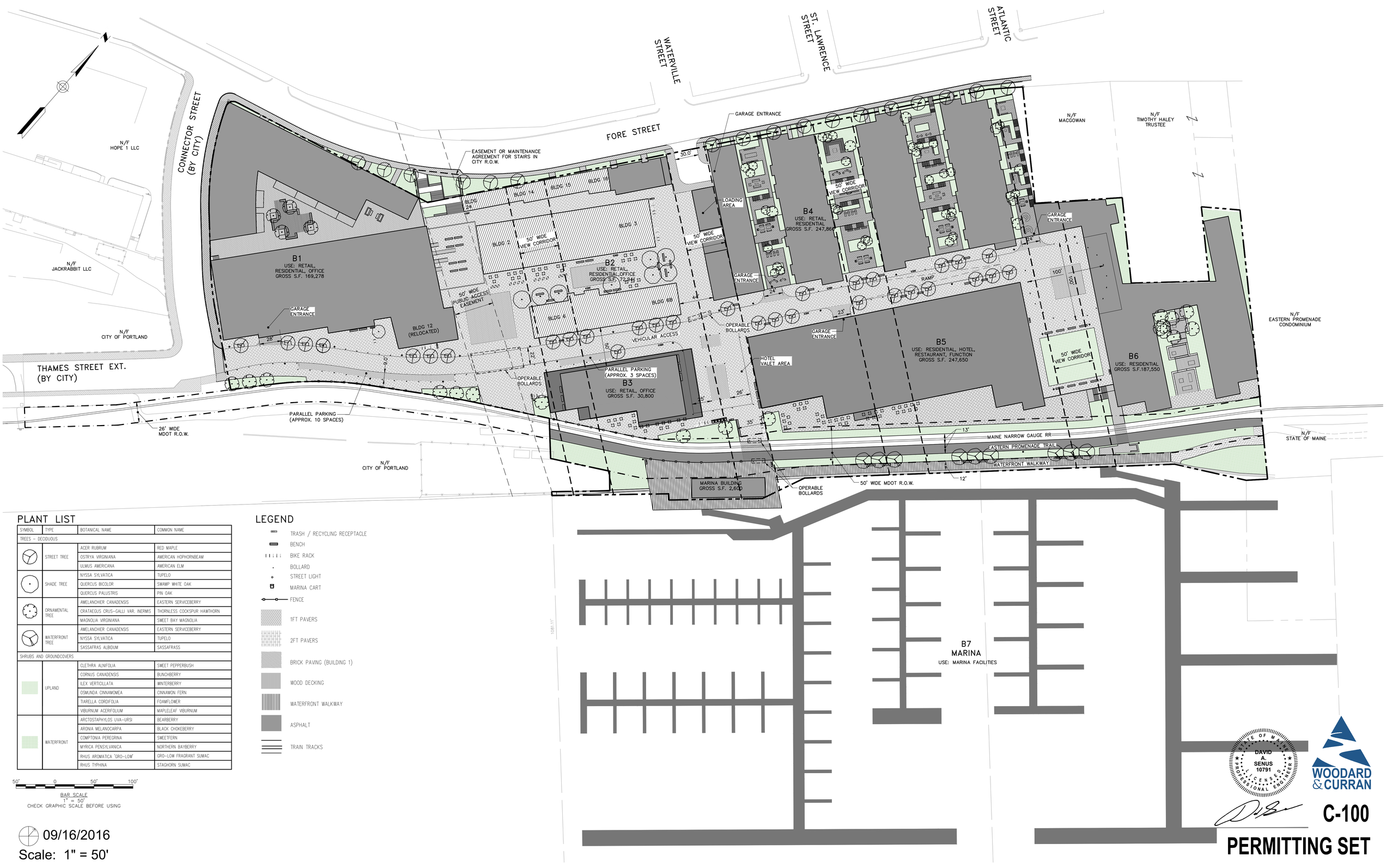
MADE FOR

WOODARD & CURRAN

41 HUTCHINS DRIVE, PORTLAND, MAINE

OWEN HASKELL, INC.
390 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424
PROFESSIONAL LAND SURVEYORS

Drwn By	OHI	Date	Job No.
Trace By	JLW	AUGUST 19, 2016	2016-175P
Check By	JWS	Scale	Drwg. No.
Book No.	FILE	1" = 50'	1



PLANT LIST

SYMBOL	TYPE	BOTANICAL NAME	COMMON NAME
TREES – DECIDUOUS			
	STREET TREE	ACER RUBRUM	RED MAPLE
		OSTRYA VIRGINIANA	AMERICAN HOPHORNBEAM
		ULMUS AMERICANA	AMERICAN ELM
	SHADE TREE	NYSSA SYLVATICA	TUPELO
		QUERCUS BICOLOR	SWAMP WHITE OAK
		QUERCUS PALUSTRIS	PIN OAK
	ORNAMENTAL TREE	AMELANCHIER CANADENSIS	EASTERN SERVICEBERRY
		CRATAEGUS CRUS–GALLI VAR. INERMIS	THORNLESS COCKSPUR HAWTHORN
		MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA
	WATERFRONT TREE	AMELANCHIER CANADENSIS	EASTERN SERVICEBERRY
		NYSSA SYLVATICA	TUPELO
		SASSAFRAS ALBIDUM	SASSAFRASS
SHRUBS AND GROUNDCOVERS			
	UPLAND	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH
		CORNUS CANADENSIS	BUNCHBERRY
		ILEX VERTICILLATA	WINTERBERRY
		OSMUNDA CINNAMOMEA	CINNAMON FERN
		TIARELLA CORDIFOLIA	FOAMFLOWER
		VIBURNUM ACERIFOLIUM	MAPLELEAF VIBURNUM
	WATERFRONT	ARCTOSTAPHYLOS UVA–URSI	BEARBERRY
		ARONIA MELANOCARPA	BLACK CHOKEBERRY
		COMPTONIA PEREGRINA	SWEETFERN
		MYRICA PENSYLVANICA	NORTHERN BAYBERRY
		RHUS AROMATICA 'GRO–LOW'	GRO–LOW FRAGRANT SUMAC
		RHUS TYPHINA	STAGHORN SUMAC

LEGEND

- TRASH / RECYCLING RECEPTACLE
- BENCH
- BIKE RACK
- BOLLARD
- STREET LIGHT
- MARINA CART
- FENCE
- 1FT PAVERS
- 2FT PAVERS
- BRICK PAVING (BUILDING 1)
- WOOD DECKING
- WATERFRONT WALKWAY
- ASPHALT
- TRAIN TRACKS

50' 0 50' 100'

BAR SCALE
1" = 50'
CHECK GRAPHIC SCALE BEFORE USING

09/16/2016
Scale: 1" = 50'

STATE OF MAINE
DAVID A. SENUS 10791
LICENSED PROFESSIONAL ENGINEER

WOODARD & CURRAN

C-100

PERMITTING SET

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

OVERALL SITE MASTER PLAN
58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL

Attachment 1C

Other Development Map

Other Development

A: 180 Room Hotel
B: Office and Bank
C: 4,085 sf Office/Retail, 8 Residential Units
D: 5,305 sf Retail, 39,526 sf Office
E: 39 Condominium Units
F: 2 Residential Units
G: 2 Residential Units
H: 5,409 sf Retail, 29 Condominium Units
I: 24 Condominium Units
J: 2,290 sf Retail, 10 Residential Units
K: 4 Condominium Units

PORTLAND COMPANY
PORTLAND, MAINE

Design:	EAT	Scale:	NONE
Draft:	LAN	Date:	JULY 2016
Checked:	RED	File Name:	3138-Aerial.dwg

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Attachment 1D

Trip Generation Calculations
NCHRP 684 Spreadsheets
Commute Data Maps
Site Parking Demand Memo
Marina Trip Generation Calculations

58 Fore Street Trip Generation Summary
Portland, Maine
September 2, 2016

Development Block	Use	Land Use Code	Size	Units		AM Trip Generation	% In AM	% Out AM	AM Trips In	AM Trips Out	PM Trip Generation	% In PM	% Out PM	PM Trips In	PM Trips Out
B1															
	Retail	814 - Specialty Retail	7,878	SF		6	60%	40%	4	2	21	45%	55%	9	12
	Residential	220 - Apartment	91	Dwelling Units		46	20%	80%	9	37	56	65%	35%	36	20
	Office	710 - General Office Building	79,000	SF		155	90%	10%	140	15	149	15%	85%	22	127
					B1 Total:	**207**	**74%**	**26%**	**153**	**54**	**226**	**30%**	**70%**	**67**	**159**
B2															
	Retail	814 - Specialty Retail	26,895	SF		20	60%	40%	12	8	73	45%	55%	33	40
	Residential	220 - Apartment	19	Dwelling Units		10	20%	80%	2	8	12	65%	35%	8	4
	Office	710 - General Office Building	25,617	SF		63	90%	10%	57	6	61	15%	85%	9	52
					B2 Total:	**93**	**76%**	**24%**	**71**	**22**	**146**	**34%**	**66%**	**50**	**96**
B3															
	Retail	814 - Specialty Retail	11,500	SF		9	60%	40%	5	4	31	45%	55%	14	17
	Office	710 - General Office Building	19,300	SF		50	90%	10%	45	5	48	15%	85%	7	41
					B3 Total:	**59**	**85%**	**15%**	**50**	**9**	**79**	**27%**	**73%**	**21**	**58**
B4															
	Residential	220 - Apartment	275	Dwelling Units		140	20%	80%	28	112	171	65%	35%	111	60
	Retail	814 - Specialty Retail	4,000	SF		3	60%	40%	2	1	11	45%	55%	5	6
					B4 Total:	**143**	**21%**	**79%**	**30**	**113**	**182**	**64%**	**36%**	**116**	**66**
B5															
	Residential	230 - Residential Condominium/Townhouse	108	Dwelling Units		48	15%	85%	7	41	56	65%	35%	36	20
	Hotel	310 - Hotel	132	Rooms		74	60%	40%	44	30	78	55%	45%	43	35
	Restaurant	932 - High Turnover (Sit Down) Restaurant	3,800	SF		44	50%	50%	22	22	41	60%	40%	25	16
					B5 Total:	**166**	**44%**	**56%**	**73**	**93**	**175**	**59%**	**41%**	**104**	**71**
B6															
	Residential	230 - Residential Condominium/Townhouse	131	Dwelling Units		58	15%	85%	9	49	68	65%	35%	44	24
	Residential	220 - Apartment	14	Dwelling Units		7	20%	80%	1	6	9	65%	35%	6	3
					B6 Total:	**65**	**15%**	**85%**	**10**	**55**	**77**	**65%**	**35%**	**50**	**27**
B7															
	Marina Facilities	N/A	2,600	SF		36	72%	28%	26	10	36	28%	72%	10	26
					B7 Total:	36	72%	28%	26	10	36	28%	72%	10	26
					Site Total:	**769**	**54%**	**46%**	**413**	**356**	**921**	**45%**	**55%**	**418**	**503**

			AM Trip Generation	% In AM	% Out AM	AM Trips In	AM Trips Out	PM Trip Generation	% In PM	% Out PM	PM Trips In	PM Trips Out
		B1-B6 Subtotal:	733	53%	47%	387	346	885	46%	54%	408	477
		NCHRP 684 Reduction:	102	12%	14%	51	51	150	18%	15%	75	75
	35.8%	Other Modes Reduction:	236	35.8%	35.8%	123	113	289	35.8%	35.8%	131	158
	10%	Hotel Other Modes Reduction:	7	57%	43%	4	3	8	50%	50%	4	4
		B1-B6 Total:	**388**	**54%**	**46%**	**209**	**179**	**438**	**45%**	**55%**	**198**	**240**
		Marina Total	36	72%	28%	26	10	36	28%	72%	10	26
		Site Total	**424**	**55%**	**45%**	**235**	**189**	**474**	**44%**	**56%**	**208**	**266**

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	58 Fore Street	**Organization:**	Gorrill Palmer
Project Location:	Portland, Maine	**Performed By:**	ET
Scenario Description:	Max Build Out	**Date:**	2-Sep
Analysis Year:	2016	**Checked By:**	RED
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	123,917	SF	268	242	26
Retail	814	50,273	SF	38	23	15
Restaurant	932	3,800	SF	44	22	22
Cinema/Entertainment		-	SF	0	0	0
Residential	220/230	638	Units	309	56	253
Hotel	310	132	Rooms	74	44	30
All Other Land Uses[2]	N/A	2,600	SF	36	26	10
Total				769	413	356

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	5	0	0	0
Retail	4		2	0	1	0
Restaurant	7	2		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	3	4	0		0
Hotel	7	1	1	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	769	413	356
Internal Capture Percentage	13%	12%	14%
External Vehicle-Trips[3]	667	362	305
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	10%	46%
Retail	57%	47%
Restaurant	55%	50%
Cinema/Entertainment	N/A	N/A
Residential	4%	5%
Hotel	2%	30%

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

Project Name:	58 Fore Street
Analysis Period:	**Scenario 1 - AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	242	242	1.00	26	26
Retail	1.00	23	23	1.00	15	15
Restaurant	1.00	22	22	1.00	22	22
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	56	56	1.00	253	253
Hotel	1.00	44	44	1.00	30	30

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	16	0	0	0
Retail	4		2	0	2	0
Restaurant	7	3		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	3	51	0		0
Hotel	23	4	3	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	5	0	0	0
Retail	10		11	0	1	0
Restaurant	34	2		0	3	2
Cinema/Entertainment	0	0	0		0	0
Residential	7	4	4	0		0
Hotel	7	1	1	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	23	219	242	219	0	0
Retail	13	10	23	10	0	0
Restaurant	12	10	22	10	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	54	56	54	0	0
Hotel	1	43	44	43	0	0
All Other Land Uses[3]	0	26	26	26	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	12	14	26	14	0	0
Retail	7	8	15	8	0	0
Restaurant	11	11	22	11	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	12	241	253	241	0	0
Hotel	9	21	30	21	0	0
All Other Land Uses[3]	0	10	10	10	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	58 Fore Street	**Organization:**	Gorrill Palmer
Project Location:	Portland, Maine	**Performed By:**	ET
Scenario Description:	Max Build Out	**Date:**	2-Sep
Analysis Year:	2016	**Checked By:**	RED
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	123,917	SF	258	38	220
Retail	814	50,273	SF	136	61	75
Restaurant	932	3,800	SF	41	25	16
Cinema/Entertainment		-	SF	0	0	0
Residential	220/230	638	Units	372	241	131
Hotel	310	132	Rooms	78	43	35
All Other Land Uses[2]	N/A	2,600	SF	36	10	26
Total				921	418	503

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		5	1	0	4	0
Retail	2		7	0	20	4
Restaurant	0	7		0	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	6	4	0		4
Hotel	0	1	1	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	921	418	503
Internal Capture Percentage	16%	18%	15%
External Vehicle-Trips[3]	771	343	428
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	18%	5%
Retail	31%	44%
Restaurant	52%	69%
Cinema/Entertainment	N/A	N/A
Residential	11%	15%
Hotel	21%	6%

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

Project Name:	58 Fore Street
Analysis Period:	**Scenario 1 - PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	38	38	1.00	220	220
Retail	1.00	61	61	1.00	75	75
Restaurant	1.00	25	25	1.00	16	16
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	241	241	1.00	131	131
Hotel	1.00	43	43	1.00	35	35

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		44	9	0	4	0
Retail	2		22	3	20	4
Restaurant	0	7		1	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	55	28	0		4
Hotel	0	6	24	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		5	1	0	10	0
Retail	12		7	0	111	7
Restaurant	11	31		0	39	31
Cinema/Entertainment	2	2	1		10	0
Residential	22	6	4	0		5
Hotel	0	1	1	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	7	31	38	31	0	0
Retail	19	42	61	42	0	0
Restaurant	13	12	25	12	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	27	214	241	214	0	0
Hotel	9	34	43	34	0	0
All Other Land Uses[3]	0	10	10	10	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	10	210	220	210	0	0
Retail	33	42	75	42	0	0
Restaurant	11	5	16	5	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	19	112	131	112	0	0
Hotel	2	33	35	33	0	0
All Other Land Uses[3]	0	26	26	26	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

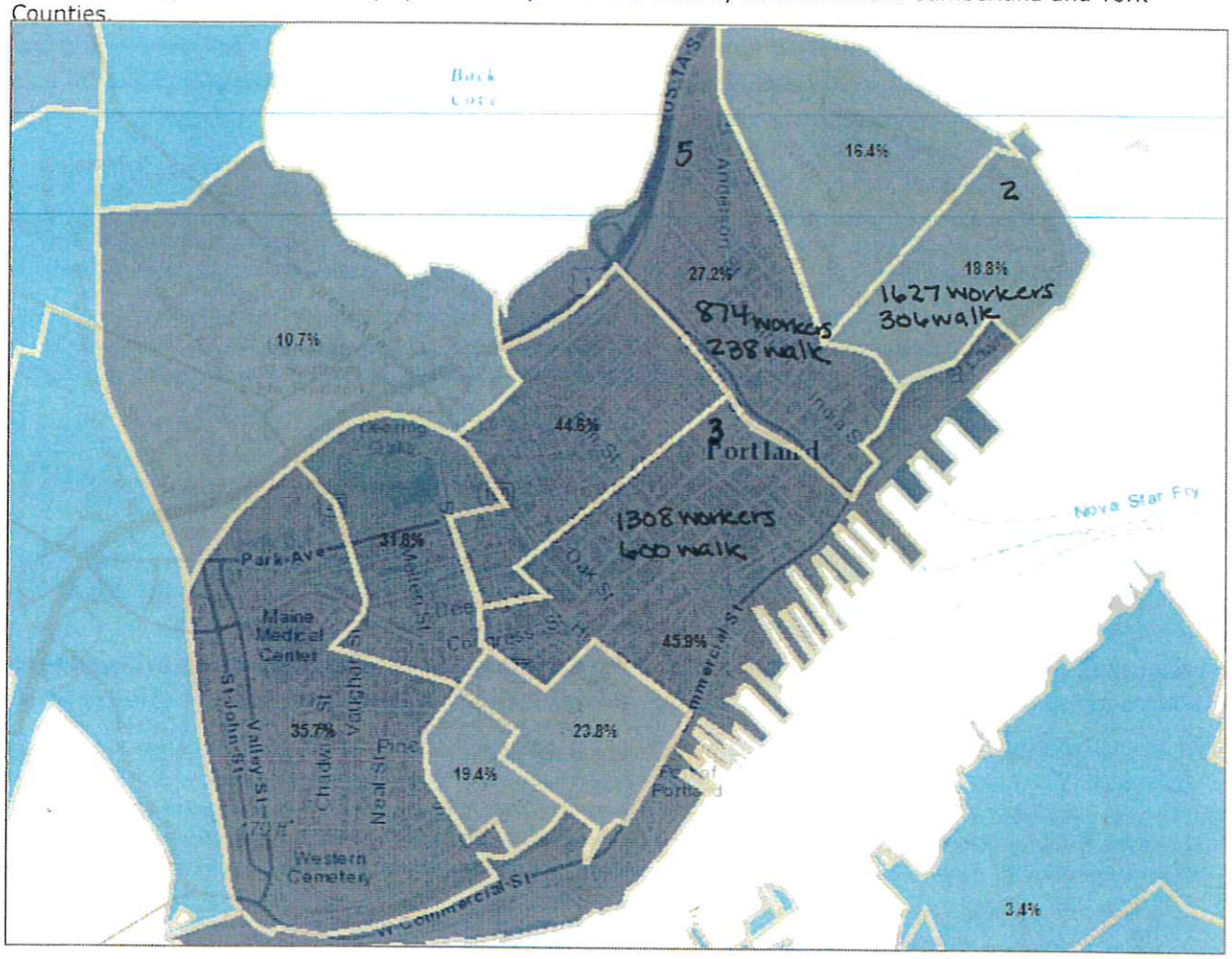
[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Walked

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

3809 Workers
1144 Walk

30.0% walk

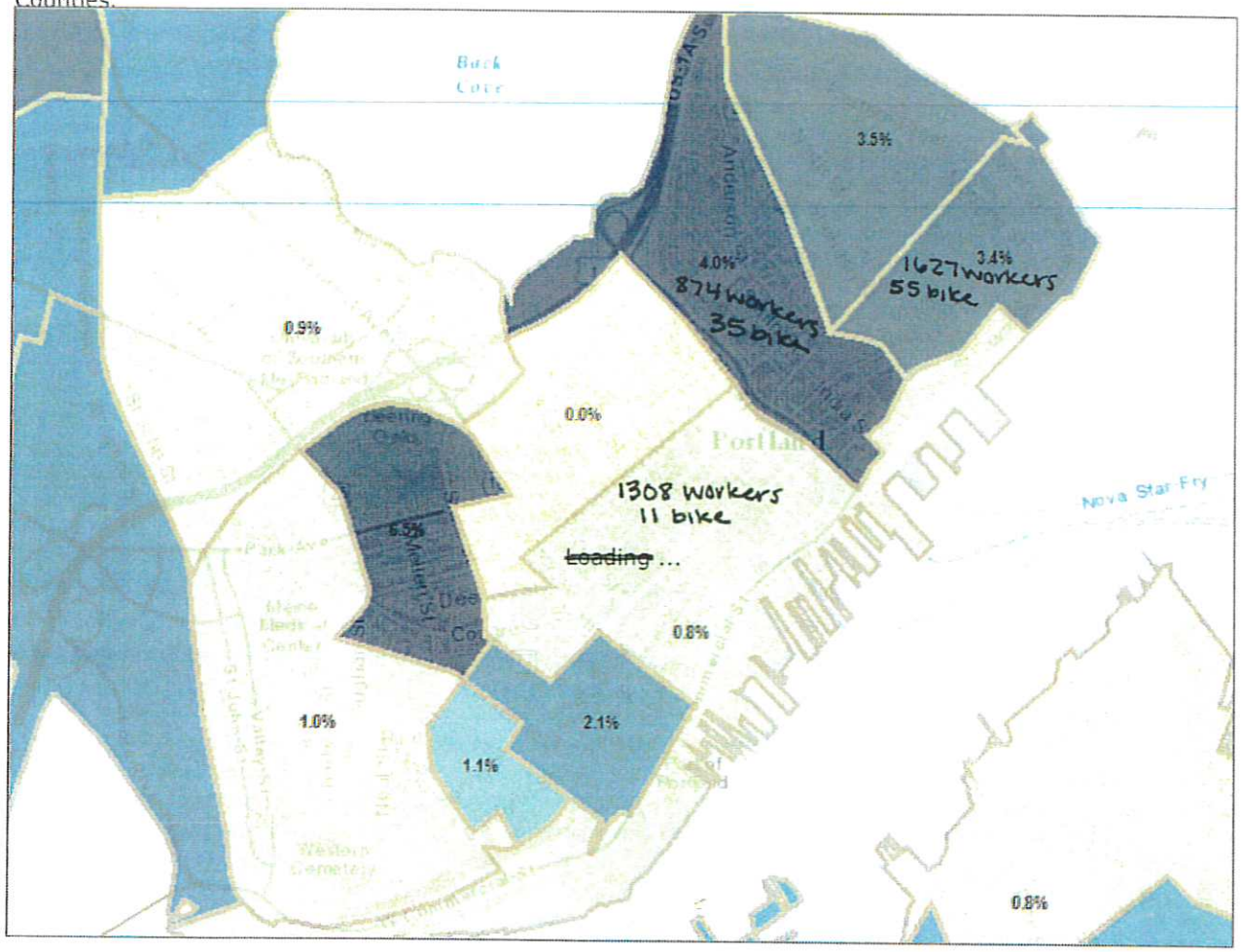
Walk/Bike/Transit

30.0 + 2.7 + 3.1 = 35.8%

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Biked

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

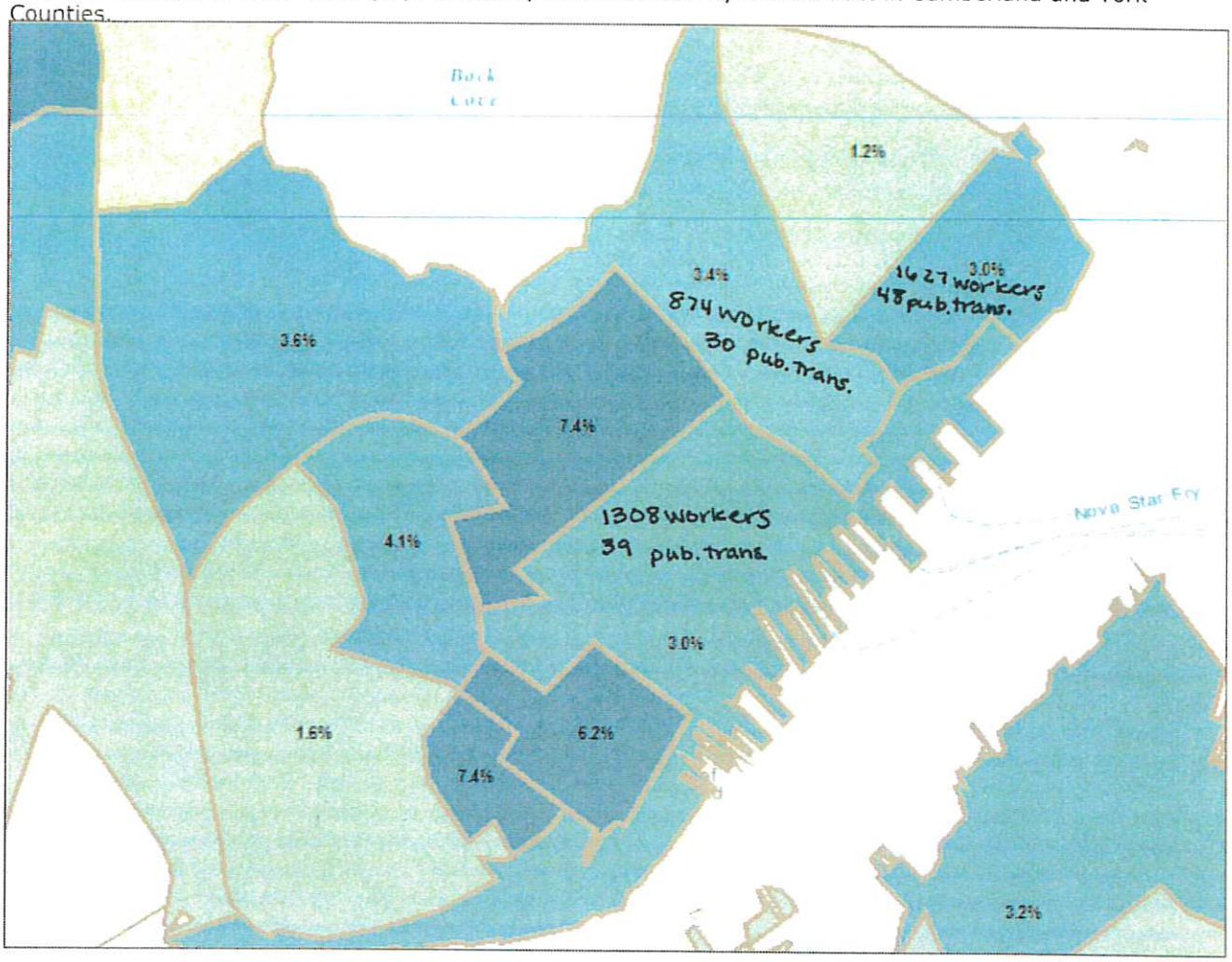
3809 Workers
101 Bike

2.7% Bike

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Public Transportation

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

3809 Workers
117 Public Transportation

3.1% Public Transportation

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South Portland, Maine 04106
207.772.2515

Site Parking Demand
58 Fore Street Mixed Use Development
Portland, Maine
JN 3138

Date: September 16, 2016
Subject: Site Parking Demand
58 Fore Street Mixed Use Development
To: David Senus, Mary McCrann, Jim Brady, Kevin Costello, Casey Prentice
From: Randy Dunton and Emily Tynes, Gorrill Palmer (JN 3138)

The following is a summary of the estimated parking demand for the proposed mixed use development at 58 Fore Street. The following table summarizes the sizes and uses of the proposed development used to calculate the parking demand:

Proposed Site Summary

Development Block	Use	Size
B1		
	Retail	7,878 SF
	Residential	91 Dwelling Units
	Office	79,000 SF
B2		
	Retail	26,895 SF
	Residential	19 Dwelling Units
	Office	25,617 SF
B3		
	Retail	11,500 SF
	Office	19,300 SF
B4		
	Residential	275 Dwelling Units
	Retail	4,000 SF
B5		
	Residential	108 Dwelling Units
	Hotel	132 Rooms
	Restaurant	3,800 SF
	Function	5,800 SF
B6		
	Residential (Condos)	131 Dwelling Units
	Residential (Apartments)	14 Dwelling Units
B7		
	Marina Facilities	2,600 SF, 220 Slips

It should be noted that the retail portions of the proposed site will be multiple smaller shops, not large retail stores.

Parking Demand Calculation Methodologies

The parking demand has been determined using two methodologies: using the City Ordinance requirements and based on a shared parking demand. The following summarizes the methodologies in more detail:

City Ordinance Parking Demand

The Ordinance requirement methodology involves calculating the peak parking demand for each use using the City of Portland Code of Ordinances. This method assumes each use is isolated and then adds the individual demands to determine the parking demand for the site. The supporting calculations for this method are attached. This method results in an overestimate because the peak demands for each use are not expected to occur at the same time. For example, offices require more spaces during the day while employees are in the office, and residential buildings would require more spaces later at night when residents are home from work.

The City Ordinance Ch. 14, Art III, Div. 20, Sec. 14-332.2 (c) states, "where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer." Since this mixed use development is approximately 958,679 sf of building floor area, it meets the criteria. Therefore, the site parking demand was determined based on the following methodology.

Shared Parking Plan

The shared parking plan methodology is based on a combination of City Ordinance parking demand, the ITE Parking Generation Manual (4th Edition), and published data / engineering judgement and it reflects that the demand for different uses will peak during different times of day. Since different uses do not peak at the same times, parking spaces can be shared between uses. To determine the shared parking demand, the total parking demand was calculated for each use, then distributed throughout the day based on the type of use. This is the same methodology used for the recent Thompson's Point project. The supporting calculations are attached. With a shared parking plan it is recommended that shared parking language be included in the leases, to ensure tenants understand the shared parking.

Parking Demand Reductions

Given the mixed use of the site as well as its downtown location, the following two parking demand reductions were applied to the shared parking spaces:

Shared Use Reduction

When evaluating a mixed use development with complementary uses such as this, the overall parking demand can be reduced due to the expectation that there will be some cross use between the individual facilities. For instance, it can be assumed that some of the people living in the apartments would also be those that visit the retail. Gorrill Palmer (GP) used the NCHRP 684 Internal Trip Capture Estimation Tool to calculate the reduction that can be applied to the trip generation. This calculated an internal trip capture of 14% for the AM peak hour and 17% for the PM peak hour. It can be assumed that parking demand can be reduced proportionally to the reduction in trip generation. To be conservative, GP used a shared use reduction of 14% throughout the day to estimate the parking demand. The following table summarizes the shared use reduction:

Shared Use Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand	919	690
Shared Use Reduction (14%)	-129	-97

Other Modes Reduction

The overall parking demand for a development in a downtown area can also be reduced due to the expectation that some people going to or from the site would use other modes of transportation such as transit, bicycle, or walking. The site is adjacent to an existing bus route as well as located on a bicycle and pedestrian path. The other modes reduction is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract. Based on this information Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, created maps using GIS data that illustrate the estimated percentage of workers living in each Portland Census Tract that use each mode of transportation to commute to work. The site is located on the east side of Census Tract 3, which is a predominantly commercial area. Census Tracts 2 and 5 border the site and consist of primarily residential areas. Since the site is proposed to have a significant number of residential units as well as commercial space, the data from the combination of the three tracts is expected to be more representative of the actual conditions on the site than the data from the individual tracts. This reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work in the three Census Tracts by the estimated total number

of working people in the same three Census Tracts. This calculation yields a 35.8% use of non-vehicular modes of transportation.

The GPCOG data is based on residents of the Census Tracts commuting to work, so it is applicable to the residential units, office space, and retail uses on the site. It was not clear if the 35.8% reduction would also be applicable to the restaurants and hotel, even though there are hotels and restaurants located within the boundaries of the three Census Tracts. GP searched for studies that included information on other modes of transportation for restaurants and hotels and found two sources that had information that could be compared to the other modes of transportation calculated using the Portland Census data. The following is a more detailed description of the relevant information found in the two studies:

The first study is *Contextual Influences on Trip Generation* (found in the United States Department of Transportation National Transportation Library online database or at the following link: http://ntl.bts.gov/lib/46000/46600/46699/CITG_FinalReport_Draft_10022012.pdf), a study for the Oregon Transportation Research and Education Consortium (OTREC) that compared the ITE predicted trip generation to the actual trip generation of 79 locations in Portland, Oregon, 39 of which were high turnover sit-down restaurants. The study also included surveying the visitors of those sites to determine what mode of transportation the visitors used. The results of the study are divided into different types of areas, ranging from central business district, which is considered the most urban area, to suburban areas, which is considered the least urban type of area surveyed. This study surveyed 12 restaurants in the central business district area and found that 35% of the patrons arrived to the sites using a car, while the remaining 65% walked, biked, or used transit (table attached). This result is higher than the 35.8% use of other modes calculated using the GPCOG information. Because the data is for Portland, Oregon it may not be appropriate to use as a reduction, but it does indicate that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

The second source that included restaurant information is the National Cooperative Highway Research Program (NCHRP) Report 758, *Trip Generation Rates for Transportation Impact Analyses of Infill Developments*. This study used information from the Household Travel Survey (HTS) for the San Francisco Bay area and Metropolitan Washington D.C. and counted data and surveys at specific sites in those areas. The Washington D.C. HTS data for restaurants shows that approximately 40.3% of residents use transit, walk, or bicycle to and from high-turnover sit-down restaurants (table attached). The study only included one site that was counted and surveyed, so the HTS data could not be verified, however like the Portland, Oregon study, it is higher than the other modes reduction calculated using the GPCOG Census information. Like the Portland, Oregon study, this data indicates that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

Based on these two additional sources that contain information specific to restaurant uses, GP determined that the other modes reduction of 35.8% calculated from the GPCOG Census

information that is based on the existing transit system can be applied to the restaurant parking demand. Although the other two studies showed higher percentages of people using alternative modes of transportation to go to or from restaurants, since they are not specific to Portland, Maine, the local data is expected to be closer to the actual conditions that would be seen at the 58 Fore Street development.

The two studies discussed above included information about restaurants, but did not have any data for hotels. Based on our research there is limited information available about modes of transportation used at hotels. It can be assumed for the 58 Fore Street site that hotel employees may take the bus, bike, or walk to get to and from work and some hotel guests may arrive by boat using the marina. To be conservative, GP only used an "other modes of transportation" reduction of 10% for the hotel.

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

Other Modes of Transportation Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand w/o Hotel	886	677
Hotel Peak Parking Demand	33	13
Other Modes Reduction (35.8% of B1-B6 Demand w/o Hotel)	-317	-242
Hotel Other Modes Reduction (10% of Hotel Demand)	-3	-1
Total Other Modes Reduction	**-320**	**-243**

Marina Parking Demand

The City Ordinance does not include a parking requirement for marina facilities. The parking demand for the proposed marina is based on information from Applied Technology & Management (ATM). The new marina is proposed to have 220 slips that will service off-site Portland residents, on-site Portland residents, and transient boaters. ATM provided a range of parking rates from one space for every two slips to one space for every four slips. ITE has limited marina parking information available, however the ATM parking rates appear to be consistent with the ITE data. To be conservative, GP used a requirement of one parking space for every two slips. ATM expects peak usage of the marina to be 10% of the slips, but possibly higher since Maine has a shorter boating season. To be conservative, GP assumed that the peak demand would be 15% of the slips. ATM also stated that there would be approximately 9 employees at this marina, therefore GP included an additional 5% to include spaces for employees, giving a total peak demand estimation of 20% of the slips. Because of the nature of a marina use, the two parking demand reductions that were applied to the rest of the site were not applied to the

marina parking demand. Although it is possible that marina users visit other uses on site or use alternative modes of transportation to get to the site, to be conservative the reductions were not applied.

Dedicated Parking Spaces

Often in large developments, a portion of parking spaces are dedicated to a specific use. For example, residential units may have spaces assigned to each unit or a group of spaces may be reserved for use by only an office. These dedicated spaces would not be shared by any other site uses. The number of dedicated parking spaces is added to the number of shared parking spaces to determine the total site demand. On this site, there are 298 dedicated parking spaces proposed. These spaces include; half of the residential units in B1, all the residential units in B5, and all the residential units in B6. The two parking demand reductions that were applied to the rest of the site were not applied to the dedicated parking spaces, since the spaces will not be shared and will be provided for the peak demand regardless of the expected use of transit, bicycles, or walking.

Parking Demand Summary

The following table summarizes the overall parking demand for the site, including the reductions, based on both the Ordinance and the Shared Parking demand methodologies:

Parking Demand Summary

Proposed	Ordinance	Shared Parking
B1-B6 Shared Parking Demand	919	690
Shared Use Reduction	-129	-97
Other Mode Reduction	-320	-243
B1-B6 Total Shared Parking Demand	**470**	**350**
B7 (Marina) Parking Demand	110	22
B1-B7 Total Parking Demand	**580**	**372**
B1-B7 Dedicated Parking	298	298
Net Parking Demand	**878**	**670**

As shown in the table, the proposed parking demand, including reductions, based on the Ordinance and isolated uses is forecast to be 878 spaces and the parking demand based on shared parking is 670 spaces. The parking demand based on the City Ordinance is higher than the shared parking demand because it assumes all uses will require their peak parking demand concurrently whereas the shared parking demand considers the different uses peaking at different times of day.

It should be noted that a parking facility can be considered full when it is approximately 85% occupied. This is because a driver may not see empty parking spaces when the lot is almost completely occupied, especially in a larger parking area. **To ensure the peak parking demand is satisfied, the recommended number of spaces is 736 (372 spaces / 0.85 + 298 spaces).** This assumes that shared spaces are generally available to all users. The increase is not applied to the dedicated parking spaces because it is assumed that they will be visible and easy for the designated users to find.

The marina may also have additional parking needs, such as temporary parking spaces for visitors to drop off passengers or supplies near their boat before parking their vehicle and for fueling trucks and provisional vehicles that service the mega-yachts. These other parking spaces should be considered in addition to the estimated peak parking demand for the visitors and employees.

Bicycle Parking

Per City Ordinance, new uses are required to provide bicycle accommodations based on the type of use. Residential structures are required to provide 2 bicycle spaces for every 5 dwelling units. Non-residential structures are required to provide 2 bicycle parking spaces for every 10 vehicle parking spaces for the first 100 required spaces, plus one bicycle parking space for every 20 required vehicle parking spaces over the 100 vehicle parking spaces. The following table shows the required bicycle parking for the Ordinance vehicle parking demand and the Shared Parking demand:

Bicycle Parking Summary

	Ordinance	Shared Parking
Parking Variable	409 Spaces, 638 Units	322 Spaces, 638 Units
Residential Bicycle Spaces	256	256
Non-Residential Bicycle Spaces	36	31
Total	**292**	**287**

As shown in the table, the site will require 287-292 bicycle parking spaces to meet the City Ordinance Requirements for bicycle accommodations. The Transportation Demand Management (TDM) plan will outline a more detailed approach to incorporating bicycle parking on site.

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JOB 3138-58 Fore Street Redevelopment
SHEET NO. _____ OF _____
CALCULATED BY ET DATE 8/26/16
CHECKED BY _____ DATE _____
SCALE _____

Marina Trip Generation

Info from ATM:
- 220 slips → 140 seasonal users, 80 transient boaters
- Daily usage peaks around 10%, maybe more
- 10% of daily non-transient users are on-site residents
- 90% of daily non-transient users are offsite residents
- 30% of off site residents are Islanders commuting to the Peninsula
- 9 marina employees
- 4 mega-yacht slips

Assumptions:
- 15% of slips is peak daily usage to be conservative (33 slips)
- 36% are transient boaters ($^{80}/_{220} = 36\%$ → 12 slips)
- 21 non-transient slips used during peak (33 slips - 12 slips)
- 2 on-site residents used slips during peak ($21 \times 0.10 = 2.1$)
- 19 off-site residents use slips during peak ($21 \times 0.90 = 18.9$)
- 6 Islanders commuting to Peninsula ($19 \times 0.30 = 5.7$)
- 1 provisioning vehicle per mega-yacht slip (conservative)
- Transient boaters = 0 trip ends
- on-site residents = 0 trip ends
- off-site residents = 1 AM trip end, 1 PM trip end
  - Islanders leave during AM and return during PM
  - other off-site enter during AM and exit during PM
- Employees enter during AM and exit during PM
- Provisioning vehicles enter and exit during the peak hour (conservative)

AM Peak Hour
- 9 employees in
- 6 islanders out
- 13 seasonal in
- 4 provisional veh. in
- 4 provisional veh. out

36 trip ends (26 in / 10 out)

PM Peak Hour
- 9 employees out
- 6 Islanders in
- 13 seasonal out
- 4 provisional veh in
- 4 provisional veh out

36 trip ends (10 in / 26 out)

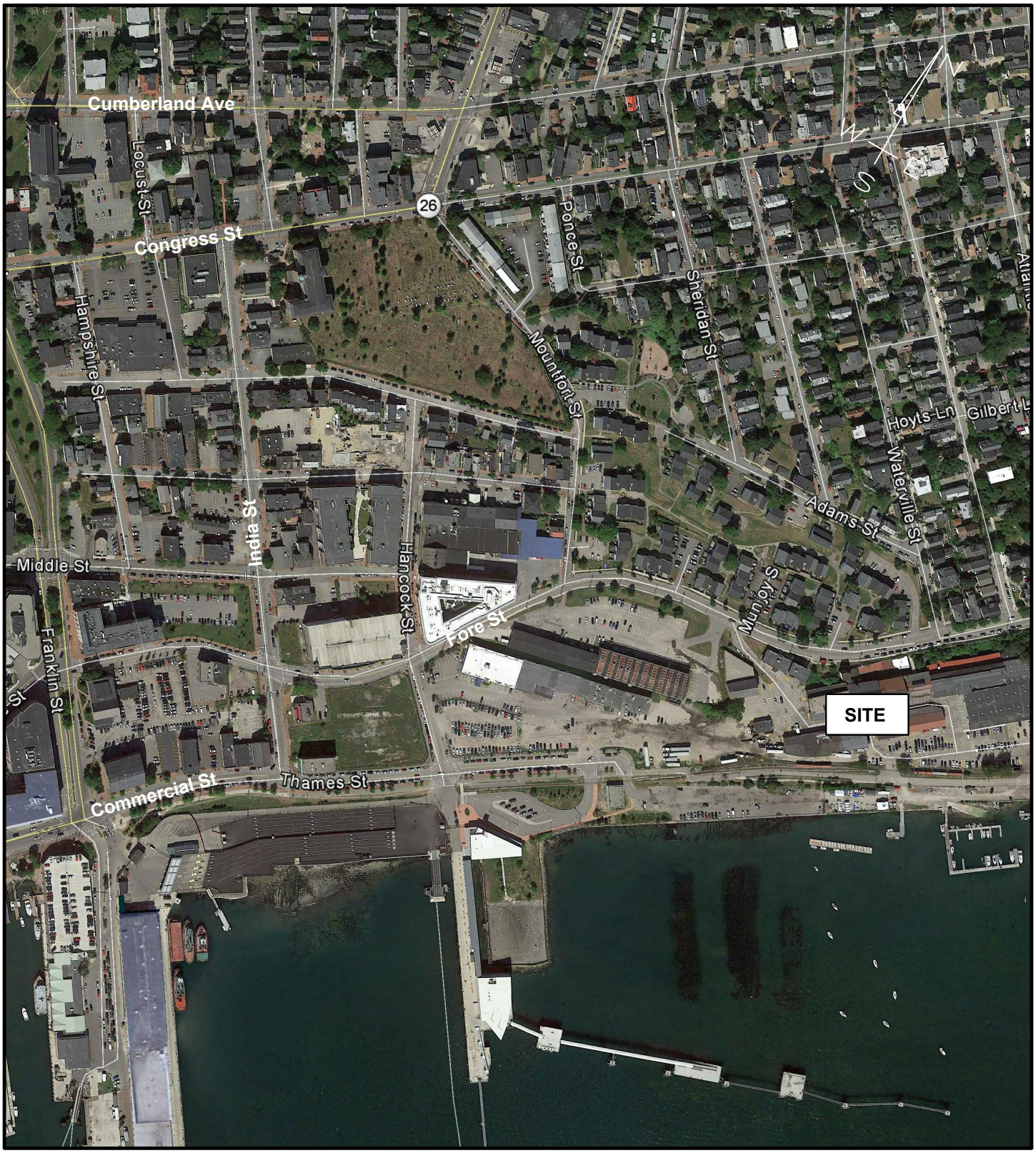
Attachment 1B

Site Location Map

Trip Assignment Diagrams

Location Map

Figure No. 1



58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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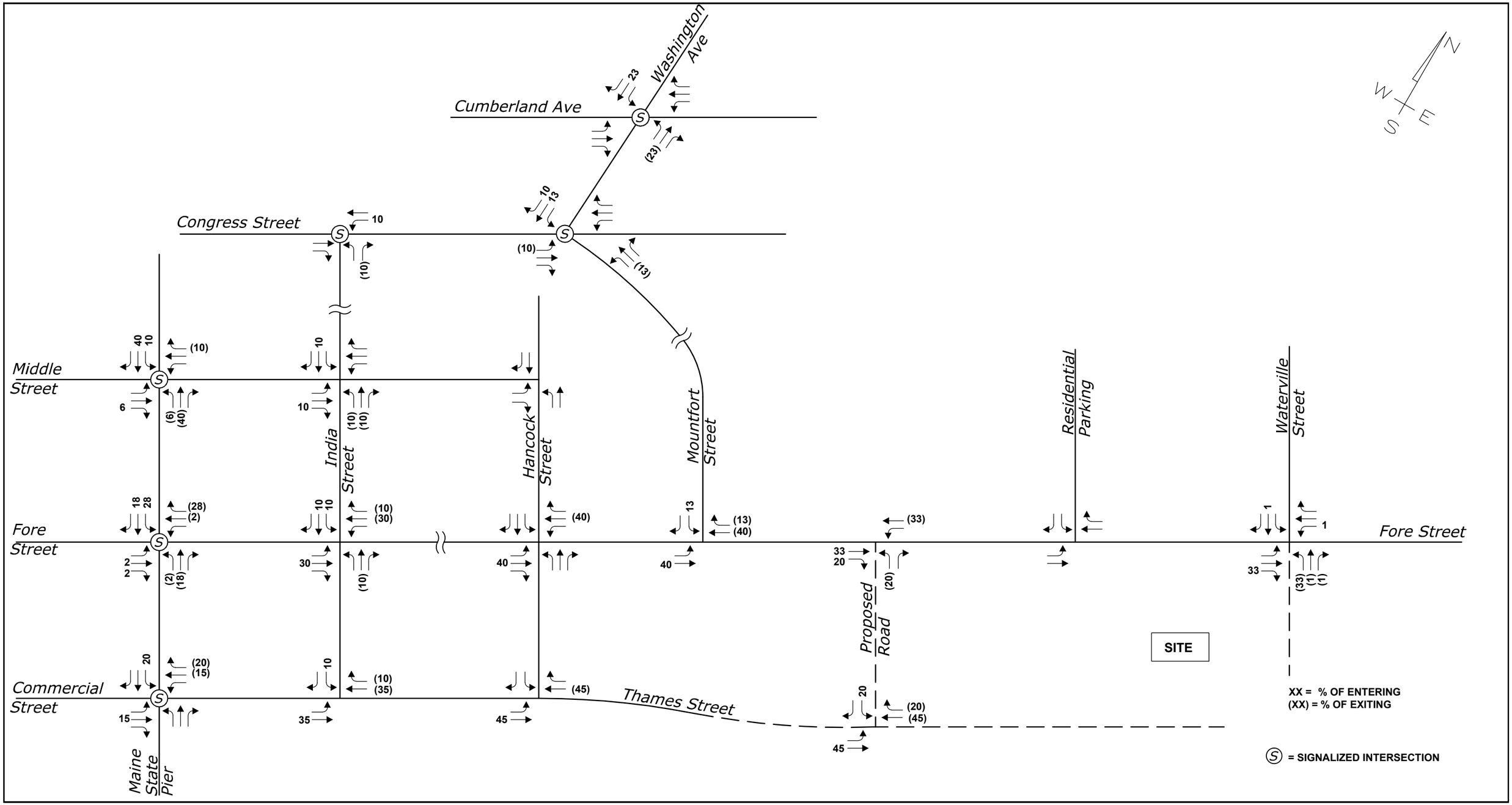
Residential Trip Distribution

Figure No. 6



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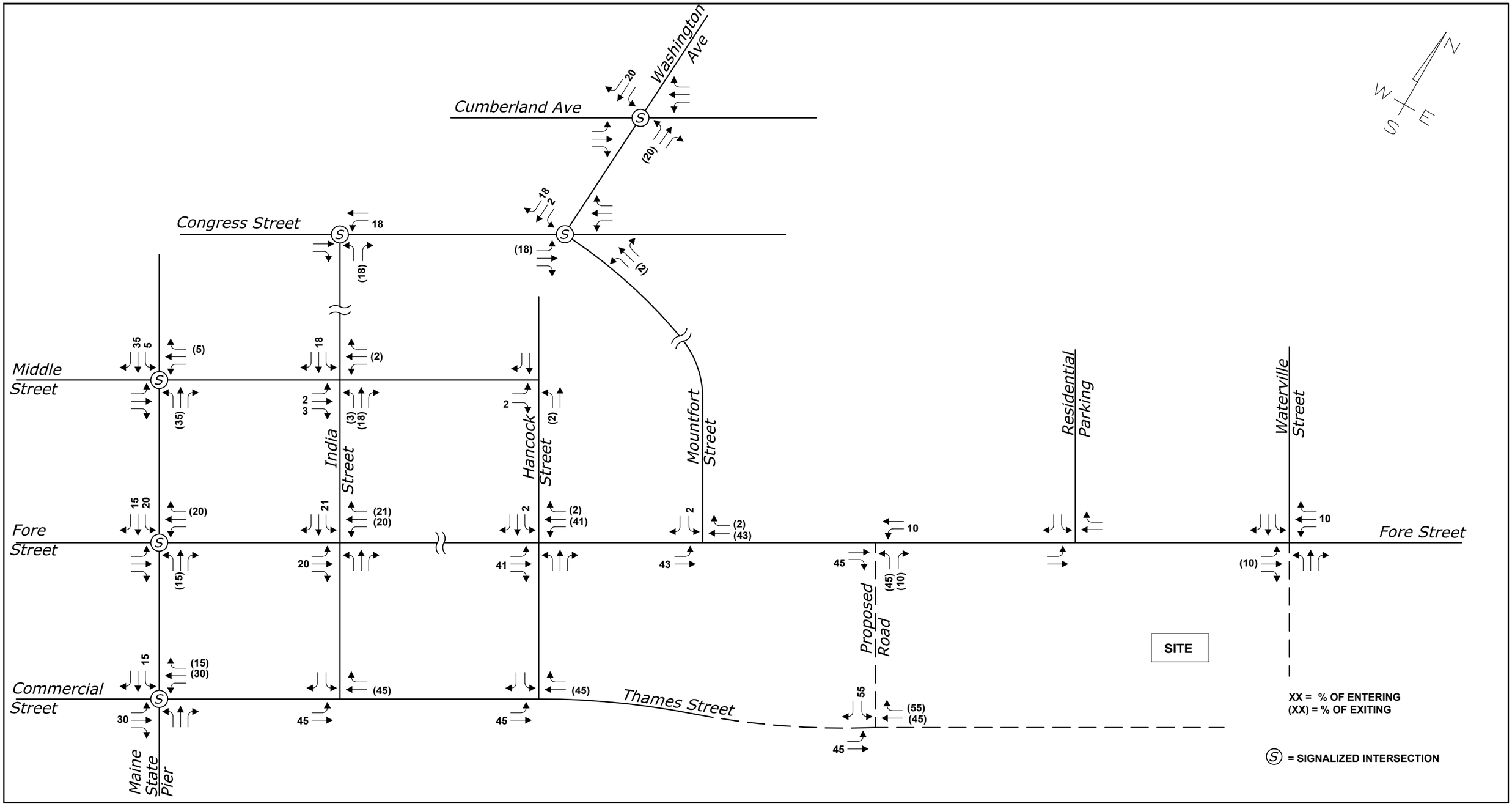
Non-Residential Trip Distribution

Figure No. 7



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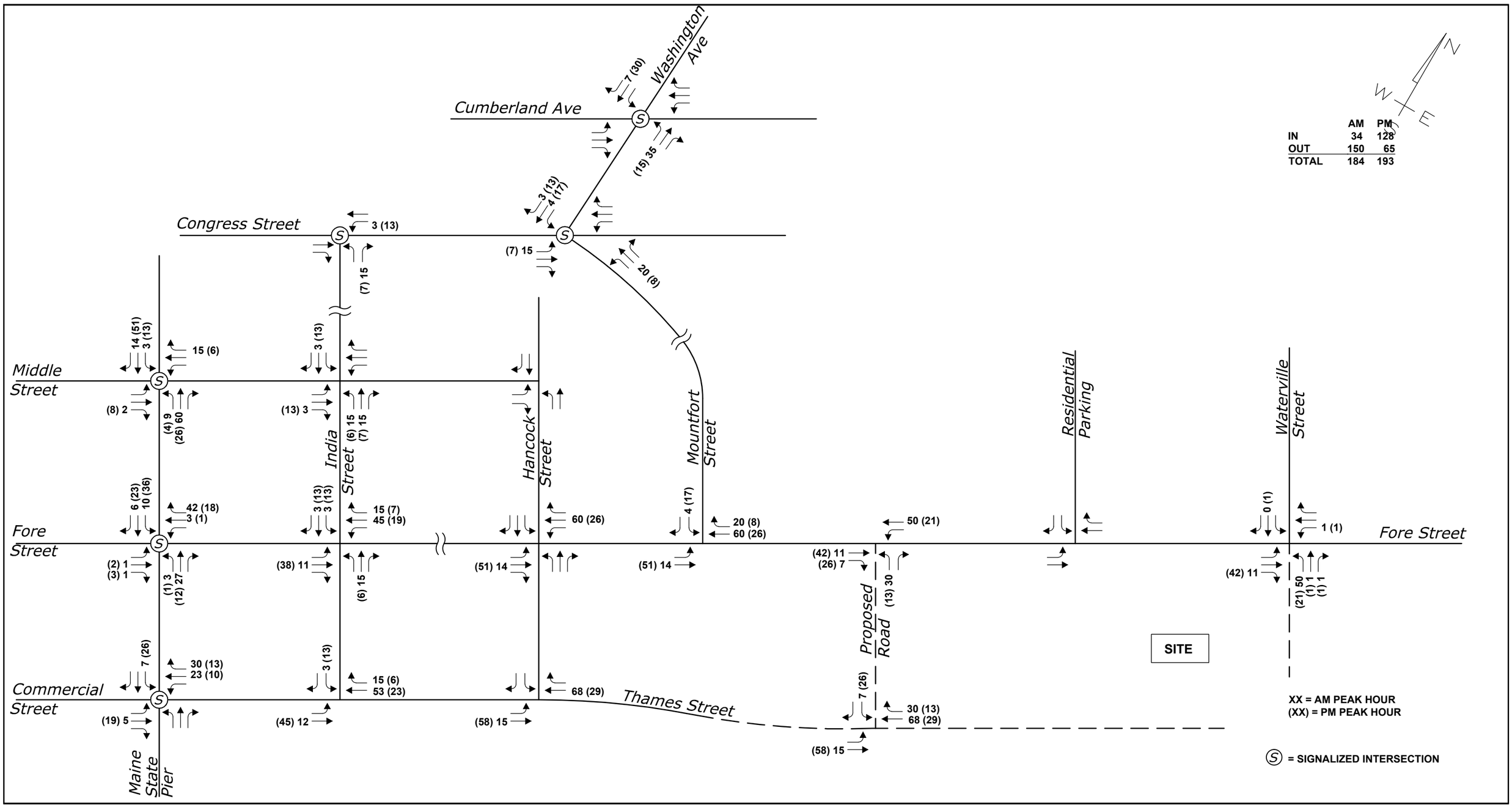
Residential Trip Assignment

Figure No. 8



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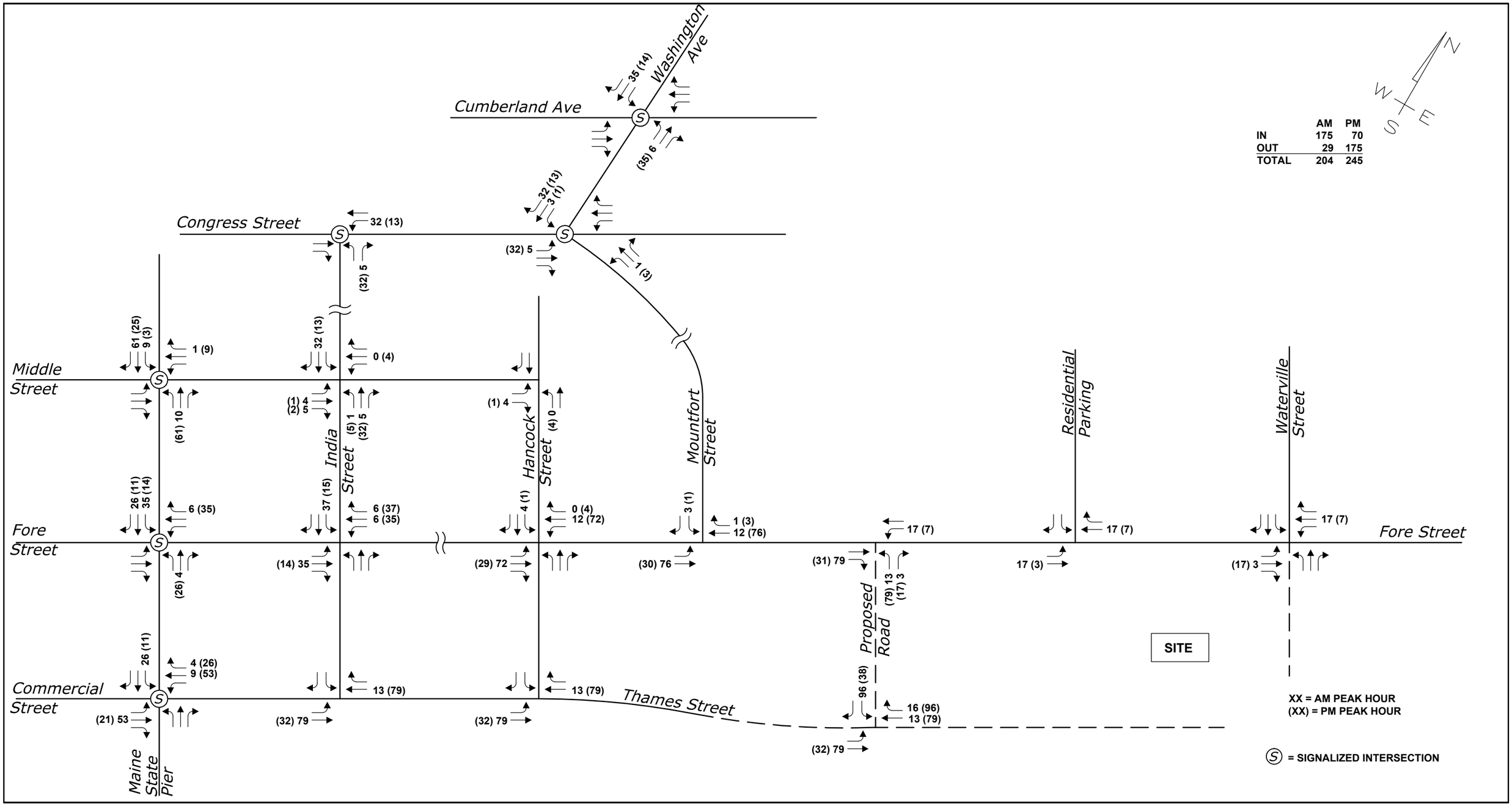
Non-Residential Trip Assignment

Figure No. 9



	AM	PM
IN	175	70
OUT	29	175
TOTAL	204	245

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PORTLAND, MAINE

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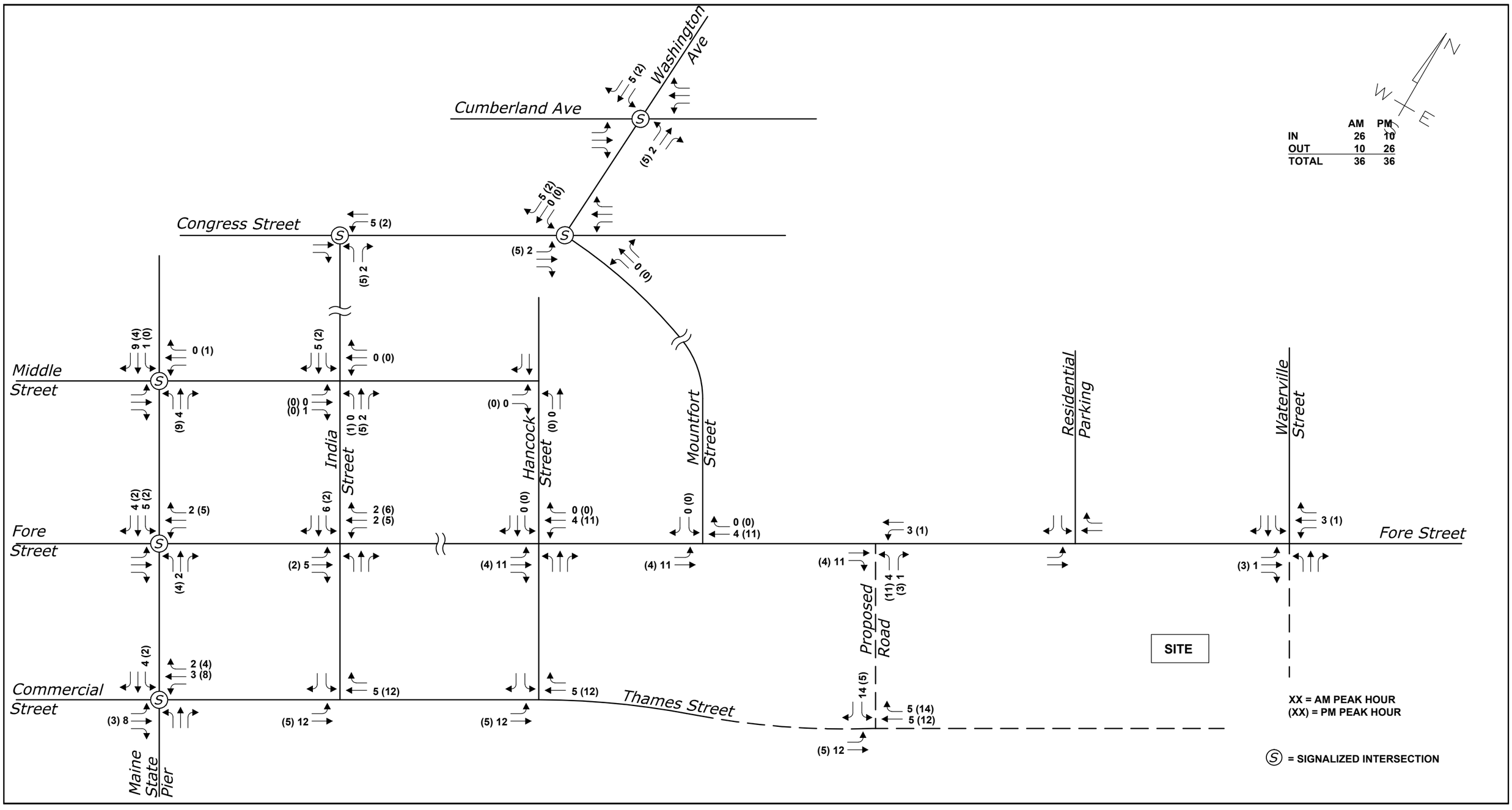
Marina Trip Assignment

Figure No. 10



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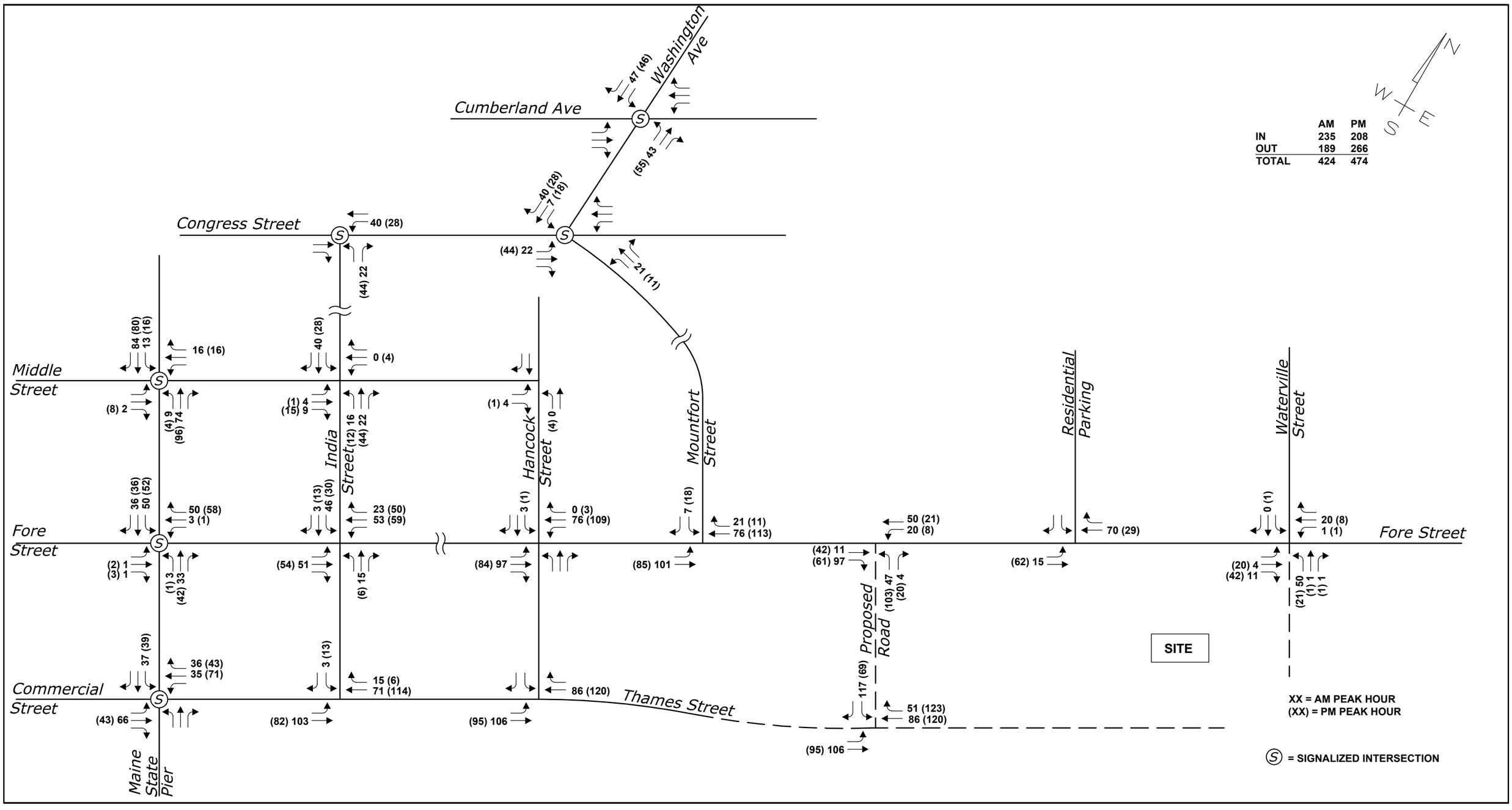
Total Trip Assignment

Figure No. 11



	AM	PM
IN	235	208
OUT	189	266
TOTAL	424	474

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Section 2
Traffic Crashes

2.A. Crash Summary Data

Gorrill Palmer obtained the crash data from MaineDOT for the period of 2013-2015, the most recent period available (Attachment 2A).

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

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual crash rate to the rate for similar intersections in the state. A CRF of less than 1.00 indicates a rate of less than average) **and**:
2. A minimum of eight crashes over the same three-year period.

Based on the crash data provided by MaineDOT, there are two high crash locations within the study area; one at the intersection of Franklin Street with Middle Street, and one on Fore Street from its intersection with India Street to its intersection with Mountfort Street. It should be noted that there were also two locations that did not meet the HCL criteria, but were close. The intersection of India Street with Fore Street has a CRF of 1.60 and experienced seven collisions during the most recent-three year period and Cumberland Avenue from Boyd Street to Locust Street has a CRF of 4.13 and experienced seven collisions over the most recent three-year period. The intersection of India Street with Fore Street was previously identified as an HCL based on 2012-2014 crash data, but it experienced fewer crashes during the 2013-2015 period, so it no longer meets both HCL criteria.

To better evaluate the high crash locations and identify correctable crash patterns, the police reports for these locations were provided by MaineDOT and used to create collision diagrams, included as an attachment to this section. The two locations are described in more detail as follows:

Franklin Street / Middle Street

The intersection of Franklin Street with Middle Street has a CRF of 1.08 and experienced 20 crashes during the most recent three-year period. It is a signalized four leg intersection with a median separating the northbound and southbound Franklin Street traffic. Based on a review of the collision diagram, all 20 of the collisions involved vehicles turning left from Franklin Street onto Middle Street colliding with through traffic on Franklin Street in the opposite direction. This type of collision occurred with both Franklin Street

northbound and southbound left-turning traffic, but 16 of the 20 collisions occurred with southbound left-turning vehicles colliding with northbound through vehicles. Of those 16 collisions, six occurred because the left-turning vehicles could not see the northbound through vehicle due to a snowbank in the median blocking sight distance. Increased winter maintenance, specifically snow removal, could increase the sight distance at the intersection during the winter months and provide left-turning vehicles with a clearer view of oncoming traffic.

Fore Street from India Street to Hancock Street

This section of Fore Street has a CRF of 2.12 and experienced nine collisions during the most recent three-year period, seven of which occurred at the intersection of Fore Street with Hancock Street. The intersection of Fore Street with Hancock Street is stop controlled, with stop signs on Hancock Street and free flowing traffic on Fore Street. Based on a review of the collision diagram there does not appear to be a clear and correctable crash pattern. Most of the collisions at the intersection of Hancock Street and Fore Street were caused by a driver failing to yield the right of way.

2.B. Attachments

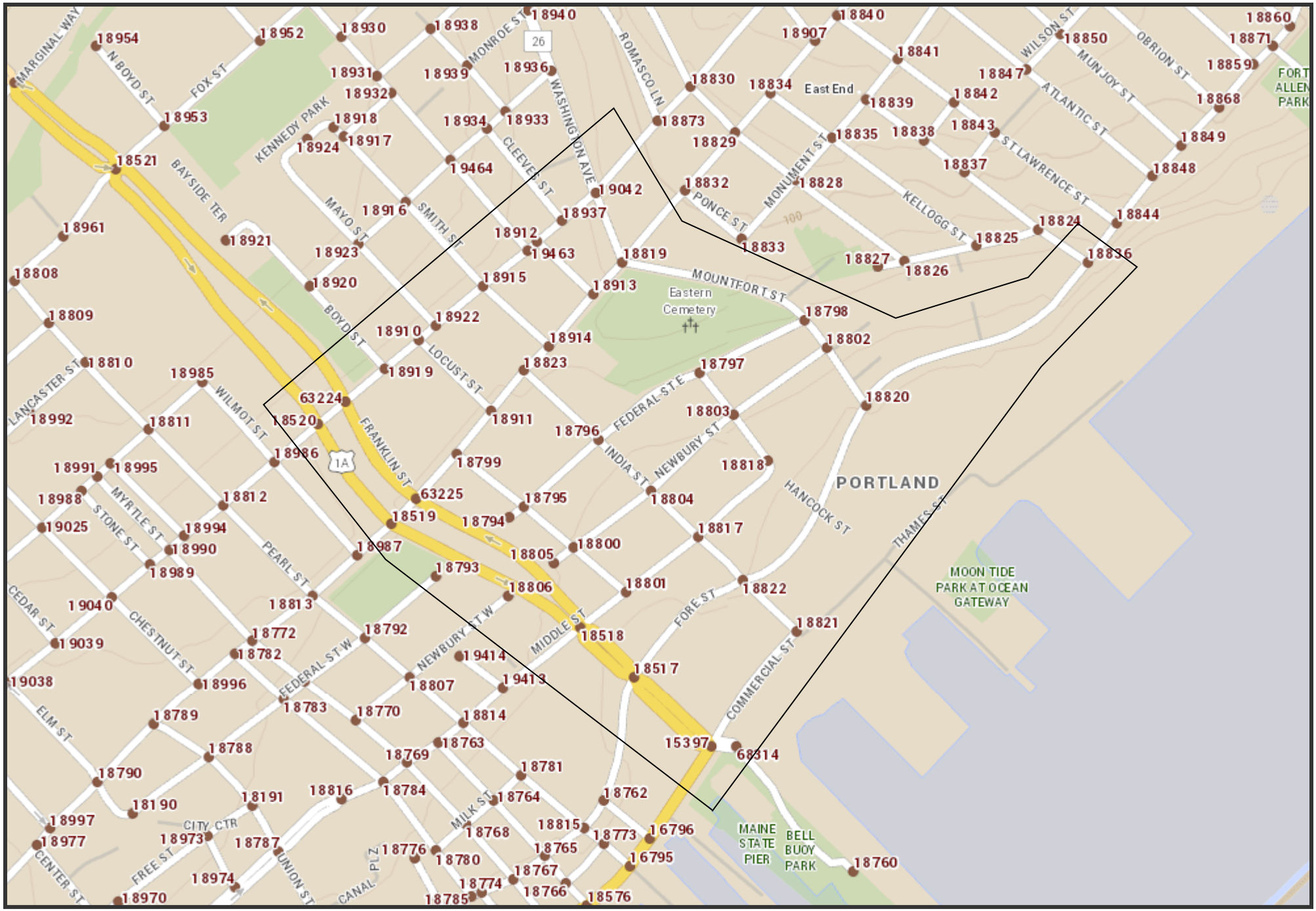
Attachment 2A – Crash Report, Collision Diagrams

Attachment 2A

Crash History

Collision Diagrams

NODE MAP



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

0.15 Miles

1 inch = 0.13 miles

Date: 8/23/2016
Time: 9:58:43 AM

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

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

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 0561238	Start Node: 18520	Start Offset: 0	☐ Exclude First Node
	End Node: 19042	End Offset: 0	☐ Exclude Last Node
Route: 0560160	Start Node: 18819	Start Offset: 0	☑ Exclude First Node
	End Node: 18519	End Offset: 0	☑ Exclude Last Node
Route: 0561110	Start Node: 18794	Start Offset: 0	☐ Exclude First Node
	End Node: 18798	End Offset: 0	☑ Exclude Last Node
Route: 0560531	Start Node: 18805	Start Offset: 0	☐ Exclude First Node
	End Node: 18802	End Offset: 0	☑ Exclude Last Node
Route: 0560505	Start Node: 18518	Start Offset: 0	☑ Exclude First Node
	End Node: 18818	End Offset: 0	☐ Exclude Last Node
Route: 0560286	Start Node: 18836	Start Offset: 0	☐ Exclude First Node
	End Node: 18517	End Offset: 0	☑ Exclude Last Node
Route: 0561001	Start Node: 15397	Start Offset: 0	☐ Exclude First Node
	End Node: 18821	End Offset: 0	☐ Exclude Last Node
Route: 0001A	Start Node: 15397	Start Offset: 0	☑ Exclude First Node
	End Node: 63225	End Offset: 0	☑ Exclude Last Node
Route: 0001A	Start Node: 63225	Start Offset: 0	☑ Exclude First Node
	End Node: 63224	End Offset: 0	☑ Exclude Last Node
Route: 001AS	Start Node: 18520	Start Offset: 0	☑ Exclude First Node
	End Node: 18518	End Offset: 0	☑ Exclude Last Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

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

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 001AS	Start Node: 18518	Start Offset: 0	☑ Exclude First Node
	End Node: 18517	End Offset: 0	☑ Exclude Last Node
Route: 001AS	Start Node: 18517	Start Offset: 0	☑ Exclude First Node
	End Node: 15397	End Offset: 0	☑ Exclude Last Node
Route: 0561002	Start Node: 18819	Start Offset: 0	☐ Exclude First Node
	End Node: 19042	End Offset: 0	☑ Exclude Last Node
Route: 0560524	Start Node: 18819	Start Offset: 0	☑ Exclude First Node
	End Node: 18820	End Offset: 0	☑ Exclude Last Node
Route: 0560510	Start Node: 18912	Start Offset: 0	☑ Exclude First Node
	End Node: 18913	End Offset: 0	☑ Exclude Last Node
Route: 0560666	Start Node: 18914	Start Offset: 0	☑ Exclude First Node
	End Node: 18915	End Offset: 0	☑ Exclude Last Node
Route: 0560451	Start Node: 18910	Start Offset: 0	☑ Exclude First Node
	End Node: 18911	End Offset: 0	☑ Exclude Last Node
Route: 0560342	Start Node: 18795	Start Offset: 0	☑ Exclude First Node
	End Node: 18799	End Offset: 0	☑ Exclude Last Node
Route: 0560342	Start Node: 18800	Start Offset: 0	☑ Exclude First Node
	End Node: 18795	End Offset: 0	☑ Exclude Last Node
Route: 0560342	Start Node: 18801	Start Offset: 0	☑ Exclude First Node
	End Node: 18800	End Offset: 0	☑ Exclude Last Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

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

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 0561000	Start Node: 18822	Start Offset: 0	☑ Exclude First Node
	End Node: 18821	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18817	Start Offset: 0	☑ Exclude First Node
	End Node: 18822	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18804	Start Offset: 0	☑ Exclude First Node
	End Node: 18817	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18796	Start Offset: 0	☑ Exclude First Node
	End Node: 18804	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18823	Start Offset: 0	☑ Exclude First Node
	End Node: 18796	End Offset: 0	☑ Exclude Last Node
Route: 0560344	Start Node: 18803	Start Offset: 0	☑ Exclude First Node
	End Node: 18818	End Offset: 0	☑ Exclude Last Node
Route: 0560344	Start Node: 18797	Start Offset: 0	☑ Exclude First Node
	End Node: 18803	End Offset: 0	☑ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
18520	0561238 - 0.77	Int of CUMBERLAND AV FRANKLIN ST	9	18	0	0	1	2	15	16.7	7.178	0.84	1.10	0.00
												Statewide Crash Rate:	0.67	
63224	0561238 - 0.80	Int of CUMBERLAND AV FRANKLIN ST	9	13	0	0	1	4	8	38.5	6.653	0.65	1.12	0.00
												Statewide Crash Rate:	0.67	
18919	0561238 - 0.84	Int of BOYD ST CUMBERLAND AV	2	2	0	0	0	0	2	0.0	2.692	0.25	0.44	0.00
												Statewide Crash Rate:	0.15	
18910	0561238 - 0.87	Int of CUMBERLAND AV, LOCUST ST	2	2	0	0	0	0	2	0.0	2.636	0.25	0.44	0.00
												Statewide Crash Rate:	0.15	
18922	0561238 - 0.89	Int of CUMBERLAND AV MAYO ST	2	1	0	0	0	0	1	0.0	2.475	0.13	0.45	0.00
												Statewide Crash Rate:	0.15	
18915	0561238 - 0.94	Int of CUMBERLAND AV, SMITH ST	2	2	0	0	0	0	2	0.0	2.450	0.27	0.45	0.00
												Statewide Crash Rate:	0.15	
19463	0561238 - 0.98	Int of ANDERSON ST CUMBERLAND AV	2	2	0	0	0	0	2	0.0	2.195	0.30	0.46	0.00
												Statewide Crash Rate:	0.15	
18912	0561238 - 0.99	Int of CUMBERLAND AV, MONTGOMERY ST	2	0	0	0	0	0	0	0.0	2.043	0.00	0.47	0.00
												Statewide Crash Rate:	0.15	
18937	0561238 - 1.01	Int of CLEEVE ST CUMBERLAND AV	2	0	0	0	0	0	0	0.0	2.011	0.00	0.47	0.00
												Statewide Crash Rate:	0.15	
19042	0561238 - 1.04	Int of CUMBERLAND AV WASHINGTON AV	9	10	0	0	1	1	8	20.0	4.911	0.68	1.19	0.00
												Statewide Crash Rate:	0.67	
18913	0560160 - 0.55	Int of CONGRESS ST MONTGOMERY ST	2	0	0	0	0	0	0	0.0	3.833	0.00	0.40	0.00
												Statewide Crash Rate:	0.15	
18914	0560160 - 0.60	Int of CONGRESS ST SMITH ST	2	4	0	0	1	0	3	25.0	3.932	0.34	0.40	0.00
												Statewide Crash Rate:	0.15	
18823	0560160 - 0.63	Int of CONGRESS ST INDIA ST	9	7	0	0	1	3	3	57.1	4.581	0.51	1.20	0.00
												Statewide Crash Rate:	0.67	
18911	0560160 - 0.67	Int of CONGRESS ST LOCUST ST	2	0	0	0	0	0	0	0.0	2.943	0.00	0.43	0.00
												Statewide Crash Rate:	0.15	
18799	0560160 - 0.71	Int of CONGRESS ST HAMPSHIRE ST	2	0	0	0	0	0	0	0.0	3.235	0.00	0.42	0.00
												Statewide Crash Rate:	0.15	
63225	0560160 - 0.76	Int of CONGRESS ST FRANKLIN ST	9	12	0	1	0	4	7	41.7	5.974	0.67	1.14	0.00
												Statewide Crash Rate:	0.67	
18794	0561110 - 0	End of FEDERAL ST E	2	0	0	0	0	0	0	0.0	0.007	0.00	-17.21	0.00
												Statewide Crash Rate:	0.14	
18795	0561110 - 0.02	Int of FEDERAL ST E HAMPSHIRE ST	2	0	0	0	0	0	0	0.0	0.274	0.00	0.59	0.00
												Statewide Crash Rate:	0.14	
18796	0561110 - 0.10	Int of FEDERAL ST E INDIA ST	2	1	0	0	0	0	1	0.0	2.510	0.13	0.45	0.00
												Statewide Crash Rate:	0.15	
18797	0561110 - 0.20	Int of FEDERAL ST E HANCOCK ST	2	0	0	0	0	0	0	0.0	0.154	0.00	0.48	0.00
												Statewide Crash Rate:	0.14	
18805	0560531 - 0	End of NEWBURY ST	2	0	0	0	0	0	0	0.0	0.006	0.00	-20.36	0.00
												Statewide Crash Rate:	0.14	
18800	0560531 - 0.03	Int of HAMPSHIRE ST NEWBURY ST	2	0	0	0	0	0	0	0.0	0.296	0.00	0.60	0.00
												Statewide Crash Rate:	0.14	

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
18804	0560531 - 0.11	Int of INDIA ST NEWBURY ST	2	2	0	0	0	0	2	0.0	2.235	0.30	0.46	0.00
											Statewide Crash Rate:	0.15		
18803	0560531 - 0.19	Int of HANCOCK ST NEWBURY ST	2	1	0	0	0	0	1	0.0	0.249	1.34	0.59	2.28
											Statewide Crash Rate:	0.14		
18801	0560505 - 0.33	0509221 POR,MIDDLE,HAMPSHIRE ST	2	1	0	0	0	0	1	0.0	0.968	0.34	0.53	0.00
											Statewide Crash Rate:	0.14		
18817	0560505 - 0.39	Int of INDIA ST MIDDLE ST	2	4	0	0	1	2	1	75.0	2.212	0.60	0.46	1.30
											Statewide Crash Rate:	0.15		
18818	0560505 - 0.47	0509238 POR,HANCOCK,MIDDLE ST.	2	0	0	0	0	0	0	0.0	0.272	0.00	0.59	0.00
											Statewide Crash Rate:	0.14		
18836	0560286 - 0.08	Int of FORE ST WATERVILLE ST	2	0	0	0	0	0	0	0.0	1.748	0.00	0.44	0.00
											Statewide Crash Rate:	0.13		
18820	0560286 - 0.28	Int of FORE ST, MOUNTFORT ST	2	1	0	0	1	0	0	100.0	1.976	0.17	0.43	0.00
											Statewide Crash Rate:	0.13		
18822	0560286 - 0.45	Int of FORE ST INDIA ST	2	7	0	0	0	3	4	42.9	3.565	0.65	0.41	1.60
											Statewide Crash Rate:	0.15		
15397	0561001 - 0	Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER	9	8	0	0	0	3	5	37.5	4.896	0.54	1.19	0.00
											Statewide Crash Rate:	0.67		
18821	0561001 - 0.11	Int of COMMERCIAL ST INDIA ST	2	0	0	0	0	0	0	0.0	2.210	0.00	0.46	0.00
											Statewide Crash Rate:	0.15		
18517	0001A - 11.88	Int of FORE ST FRANKLIN ST	9	8	0	0	1	3	4	50.0	3.590	0.74	1.27	0.00
											Statewide Crash Rate:	0.67		
18518	0001A - 11.94	Int of FRANKLIN ST MIDDLE ST	9	20	0	0	1	5	14	30.0	5.287	1.26	1.17	1.08
											Statewide Crash Rate:	0.67		
18519	001AS - 1.91	Int of CONGRESS ST, FRANKLIN ST	9	11	0	1	1	2	7	36.4	7.631	0.48	1.09	0.00
											Statewide Crash Rate:	0.67		
18819	0561002 - 0	Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV	9	11	0	0	1	0	10	9.1	4.593	0.80	1.20	0.00
											Statewide Crash Rate:	0.67		
18798	0560524 - 0.14	Int of FEDERAL ST E MOUNTFORT ST	2	2	0	0	0	0	2	0.0	0.513	1.30	0.59	2.19
											Statewide Crash Rate:	0.14		
18802	0560524 - 0.17	Int of MOUNTFORT ST NEWBURY ST	2	0	0	0	0	0	0	0.0	0.449	0.00	0.60	0.00
											Statewide Crash Rate:	0.14		
Study Years:	3.00	NODE TOTALS:		150	0	2	11	32	105	30.0	105.383	0.47	0.51	0.92

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18520	63224	3118814	0 - 0.03	0561238 - 0.77	0.03	2	1	0	0	0	0	1	0.0	0.00107	312.57	683.74	0.00
Int of CUMBERLAND AV FRANKLIN ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
63224	18919	3115972	0 - 0.04	0561238 - 0.80	0.04	2	3	0	0	0	0	3	0.0	0.00106	940.32	684.19	1.37
Int of CUMBERLAND AV FRANKLIN ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18910	18919	3129300	0 - 0.03	0561238 - 0.84	0.03	2	7	0	0	0	2	5	28.6	0.00077	3047.62	737.95	4.13
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18910	18922	3118713	0 - 0.02	0561238 - 0.87	0.02	2	1	0	0	0	0	1	0.0	0.00049	678.28	804.41	0.00
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18915	18922	3117967	0 - 0.05	0561238 - 0.89	0.05	2	5	0	0	0	0	5	0.0	0.00120	1394.48	665.03	2.10
Int of CUMBERLAND AV, SMITH ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18915	19463	3131702	0 - 0.04	0561238 - 0.94	0.04	2	0	0	0	0	0	0	0.0	0.00088	0.00	715.17	0.00
Int of CUMBERLAND AV, SMITH ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18912	19463	194577	0 - 0.01	0561238 - 0.98	0.01	2	0	0	0	0	0	0	0.0	0.00021	0.00	850.21	0.00
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18912	18937	3130202	0 - 0.02	0561238 - 0.99	0.02	2	1	0	0	0	0	1	0.0	0.00040	835.08	829.57	1.01
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18937	19042	3131703	0 - 0.03	0561238 - 1.01	0.03	2	3	0	0	0	0	3	0.0	0.00059	1686.50	777.77	2.17
Int of CLEEVE ST CUMBERLAND AV				RD INV 05 61238											Statewide Crash Rate: 198.45		
18819	18913	3131697	0 - 0.03	0560160 - 0.52	0.03	2	1	0	0	0	0	1	0.0	0.00111	300.18	677.09	0.00
Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV				RD INV 05 60160											Statewide Crash Rate: 198.45		
18913	18914	194578	0 - 0.05	0560160 - 0.55	0.05	2	4	0	0	0	1	2	33.3	0.00189	706.78	592.48	1.19
Int of CONGRESS ST MONTGOMERY ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18823	18914	3118711	0 - 0.03	0560160 - 0.60	0.03	2	1	0	0	0	0	1	0.0	0.00117	284.21	668.12	0.00
Int of CONGRESS ST INDIA ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18823	18911	3120757	0 - 0.04	0560160 - 0.63	0.04	2	4	0	0	1	2	1	75.0	0.00116	1150.76	670.11	1.72
Int of CONGRESS ST INDIA ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18799	18911	3123999	0 - 0.04	0560160 - 0.67	0.04	2	2	0	0	0	0	2	0.0	0.00120	557.40	664.91	0.00
Int of CONGRESS ST HAMPSHIRE ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
63225	18799	3115974	0 - 0.05	0560160 - 0.71	0.05	2	1	0	0	0	1	0	100.0	0.00174	191.54	604.90	0.00
Int of CONGRESS ST FRANKLIN ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18519	63225	3115973	0 - 0.03	0560160 - 0.76	0.03	2	0	0	0	0	0	0	0.0	0.00128	0.00	654.44	0.00
Int of CONGRESS ST, FRANKLIN ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18794	18795	194384	0 - 0.02	0561110 - 0	0.02	2	0	0	0	0	0	0	0.0	0.00000	0.00	-	0.00
End of FEDERAL ST E				RD INV 05 61110											Statewide Crash Rate: 384.19	42194.82	
18795	18796	194385	0 - 0.08	0561110 - 0.02	0.08	2	1	0	0	0	0	1	0.0	0.00024	1372.06	1568.43	0.00
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 61110											Statewide Crash Rate: 384.19		
18796	18797	194388	0 - 0.10	0561110 - 0.10	0.10	2	1	0	0	0	0	1	0.0	0.00011	2936.47	1652.05	1.78
Int of FEDERAL ST E INDIA ST				RD INV 05 61110											Statewide Crash Rate: 384.19		
18797	18798	194391	0 - 0.10	0561110 - 0.20	0.10	2	1	0	0	0	0	0	0.0	0.00006	5930.14	1307.34	4.54
Int of FEDERAL ST E HANCOCK ST				RD INV 05 61110											Statewide Crash Rate: 384.19		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18800	18805	194398	0 - 0.03	0560531 - 0	0.03	2	0	0	0	0	0	0	0.0	0.00000	0.00	-	0.00
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19	30403.77	
18800	18804	194397	0 - 0.08	0560531 - 0.03	0.08	2	4	0	0	0	0	4	0.0	0.00008	15800.03	1582.54	9.98
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18803	18804	194402	0 - 0.08	0560531 - 0.11	0.08	2	1	0	0	0	0	1	0.0	0.00011	3119.00	1644.54	1.90
Int of HANCOCK ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18802	18803	194400	0 - 0.08	0560531 - 0.19	0.08	2	1	0	0	0	0	1	0.0	0.00006	5212.57	1423.30	3.66
Int of MOUNTFORT ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18518	18801	194025	0 - 0.06	0560505 - 0.27	0.06	2	2	0	0	0	1	1	50.0	0.00075	885.18	1225.13	0.00
Int of FRANKLIN ST MIDDLE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18801	18817	194399	0 - 0.06	0560505 - 0.33	0.06	2	3	0	0	1	0	2	33.3	0.00017	5854.12	1638.94	3.57
0509221 POR,MIDDLE,HAMPSHIRE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18817	18818	194423	0 - 0.08	0560505 - 0.39	0.08	2	0	0	0	0	0	0	0.0	0.00032	0.00	1495.09	0.00
Int of INDIA ST MIDDLE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18820	18836	3131698	0 - 0.20	0560286 - 0.08	0.20	2	5	0	0	2	0	3	40.0	0.00336	495.47	433.67	1.14
Int of FORE ST, MOUNTFORT ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
18820	18822	3106815	0 - 0.17	0560286 - 0.28	0.17	2	9	0	0	1	1	7	22.2	0.00323	929.24	438.31	2.12
Int of FORE ST, MOUNTFORT ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
18517	18822	3106667	0 - 0.11	0560286 - 0.45	0.11	2	2	0	0	0	0	2	0.0	0.00155	429.61	528.74	0.00
Int of FORE ST FRANKLIN ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
15397	18821	3106035	0 - 0.11	0561001 - 0	0.11	2	3	0	0	0	0	2	0.0	0.00260	385.13	545.43	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				RD INV 05 61001											Statewide Crash Rate: 198.45		
15397	18517	3123025	0 - 0.08	0001A - 11.80	0.08	2	1	0	0	0	1	0	100.0	0.00076	439.06	739.30	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				US 1A											Statewide Crash Rate: 198.45		
18517	18518	3118954	0 - 0.06	0001A - 11.88	0.06	2	0	0	0	0	0	0	0.0	0.00078	0.00	734.26	0.00
Int of FORE ST FRANKLIN ST				US 1A											Statewide Crash Rate: 198.45		
18518	63225	3121455	0 - 0.16	0001A - 11.94	0.16	2	0	0	0	0	0	0	0.0	0.00337	0.00	509.80	0.00
Int of FRANKLIN ST MIDDLE ST				US 1A											Statewide Crash Rate: 198.45		
63225	63224	2566764	0 - 0.09	0001A - 12.10	0.09	2	2	0	0	0	1	1	50.0	0.00319	208.87	517.08	0.00
Int of CONGRESS ST FRANKLIN ST				US 1A											Statewide Crash Rate: 198.45		
18519	18520	3106670	0 - 0.09	001AS - 1.82	0.09	2	3	0	0	0	0	3	0.0	0.00326	306.28	514.07	0.00
Int of CONGRESS ST, FRANKLIN ST				US 1AS											Statewide Crash Rate: 198.45		
18518	18519	3106668	0 - 0.16	001AS - 1.91	0.16	2	1	0	0	1	0	0	100.0	0.00358	93.20	502.19	0.00
Int of FRANKLIN ST MIDDLE ST				US 1AS											Statewide Crash Rate: 198.45		
18517	18518	3118912	0 - 0.06	001AS - 2.07	0.06	2	2	0	0	1	0	1	50.0	0.00078	853.42	734.71	1.16
Int of FORE ST FRANKLIN ST				US 1AS											Statewide Crash Rate: 198.45		
15397	18517	3100256	0 - 0.08	001AS - 2.13	0.08	2	1	0	0	0	0	1	0.0	0.00107	312.58	683.74	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				US 1AS											Statewide Crash Rate: 198.45		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18819	19042	3106814	0 - 0.06	0561002 - 0	0.06	2	4	0	0	0	0	4	0.0	0.00174	764.28	604.53	1.26
Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV				RD INV 05 61002											Statewide Crash Rate: 198.45		
18798	18819	194394	0 - 0.14	0560524 - 0	0.14	2	1	0	0	0	0	1	0.0	0.00073	455.85	1234.29	0.00
Int of FEDERAL ST E MOUNTFORT ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18798	18802	194393	0 - 0.03	0560524 - 0.14	0.03	2	0	0	0	0	0	0	0.0	0.00013	0.00	1658.64	0.00
Int of FEDERAL ST E MOUNTFORT ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18802	18820	194401	0 - 0.05	0560524 - 0.17	0.05	2	6	0	0	0	0	5	0.0	0.00019	10807.60	1626.49	6.64
Int of MOUNTFORT ST NEWBURY ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18912	18913	194575	0 - 0.05	0560510 - 0	0.05	2	0	0	0	0	0	0	0.0	0.00005	0.00	1109.01	0.00
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 60510											Statewide Crash Rate: 384.19		
18914	18915	194579	0 - 0.06	0560666 - 0	0.06	2	1	0	0	0	1	0	100.0	0.00011	3074.89	1646.59	1.87
Int of CONGRESS ST SMITH ST				RD INV 05 60666											Statewide Crash Rate: 384.19		
18910	18911	194572	0 - 0.07	0560451 - 0	0.07	2	3	0	0	0	0	3	0.0	0.00009	10902.21	1610.95	6.77
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 60451											Statewide Crash Rate: 384.19		
18795	18799	194386	0 - 0.06	0560342 - 0.10	0.06	2	0	0	0	0	0	0	0.0	0.00007	0.00	1482.15	0.00
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18795	18800	194387	0 - 0.05	0560342 - 0.05	0.05	2	1	0	0	0	0	1	0.0	0.00012	2805.66	1655.82	1.69
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18800	18801	194396	0 - 0.05	0560342 - 0	0.05	2	0	0	0	0	0	0	0.0	0.00010	0.00	1630.72	0.00
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18821	18822	3106816	0 - 0.06	0561000 - 0.23	0.06	2	0	0	0	0	0	0	0.0	0.00124	0.00	659.57	0.00
Int of COMMERCIAL ST INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18817	18822	3106813	0 - 0.05	0561000 - 0.18	0.05	2	1	0	0	0	0	1	0.0	0.00088	378.86	715.36	0.00
Int of INDIA ST MIDDLE ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18804	18817	3122291	0 - 0.05	0561000 - 0.13	0.05	2	3	0	0	1	0	1	50.0	0.00099	1008.74	695.75	1.45
Int of INDIA ST NEWBURY ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18796	18804	3130049	0 - 0.05	0561000 - 0.08	0.05	2	3	0	0	0	0	3	0.0	0.00112	889.95	675.15	1.32
Int of FEDERAL ST E INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18796	18823	3106811	0 - 0.08	0561000 - 0	0.08	2	2	0	0	0	0	2	0.0	0.00189	353.64	592.58	0.00
Int of FEDERAL ST E INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18803	18818	194403	0 - 0.05	0560344 - 0.04	0.05	2	0	0	0	0	0	0	0.0	0.00007	0.00	1518.66	0.00
Int of HANCOCK ST NEWBURY ST				RD INV 05 60344											Statewide Crash Rate: 384.19		
18797	18803	194392	0 - 0.04	0560344 - 0	0.04	2	0	0	0	0	0	0	0.0	0.00006	0.00	1288.27	0.00
Int of FEDERAL ST E HANCOCK ST				RD INV 05 60344											Statewide Crash Rate: 384.19		
Study Years: 3.00				Section Totals:	3.68		102	0	0	8	11	78	18.6	0.05523	615.59	292.48	2.10
				Grand Totals:	3.68		252	0	2	19	43	183	25.4	0.05523	1520.87	412.47	3.69

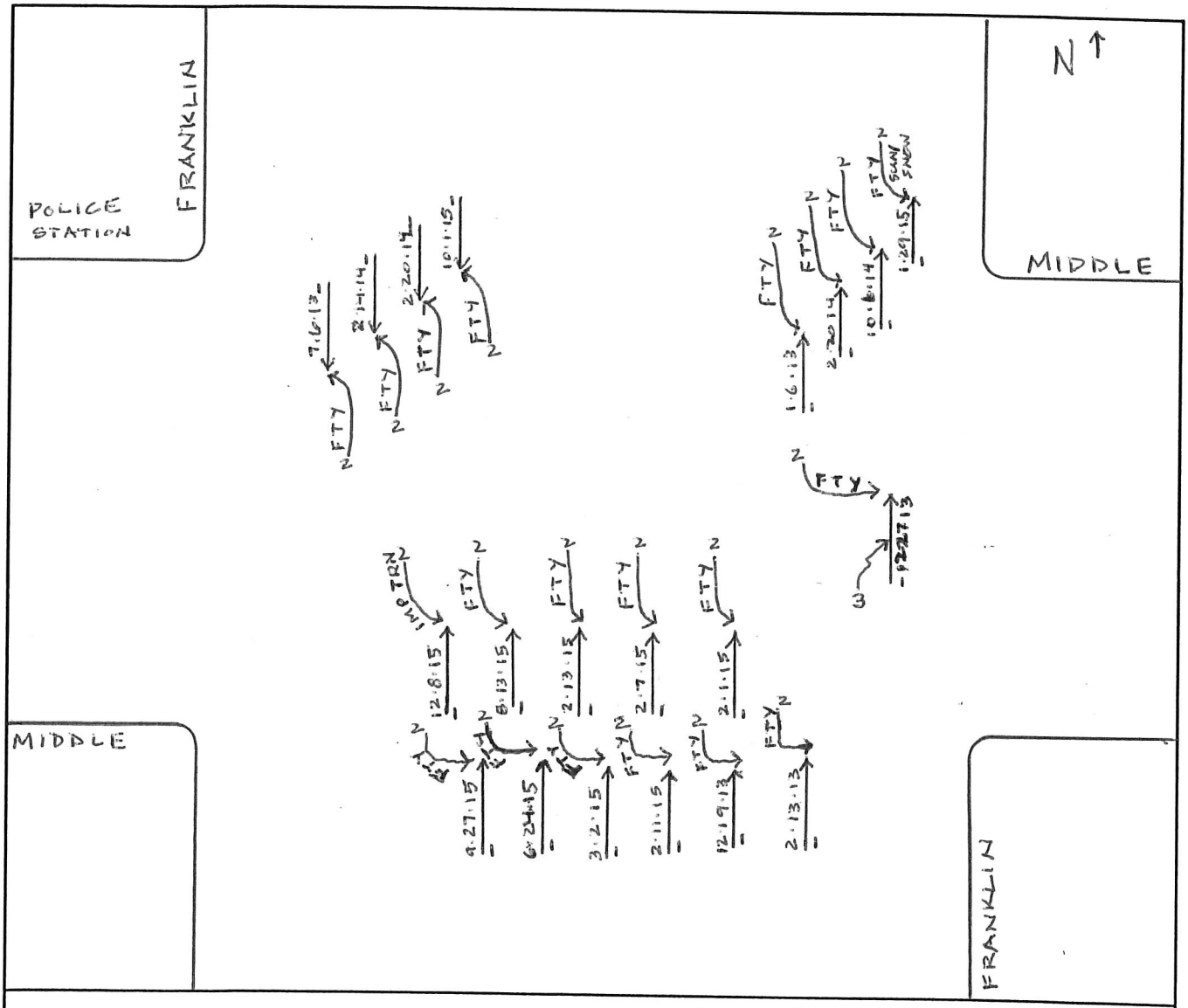
COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION Intersection of Franklin & Middle Streets

TOWN Portland, Maine NODE NO(S) 18518

YEARS REVIEWED 2013 - 2015 DATE PREPARED 08.29.2016



CRITICAL RATE FACTOR _____ EQUIV. PROP. DAMAGE ACC/YEAR _____ ACC/MEV _____

LIGHT
1. DAWN (MORNING) 2. DAYLIGHT 3. DUSK (EVENING)
4. DARK (ST. LIGHTS ON) 5. DARK (NO ST. LIGHTS) 6. DARK (ST. LIGHTS OFF)
7. OTHER

ROAD SURFACE
1. DRY 2. WET 3. SNOW/SLUSH-SANDED
4. ICE/PACKED SNOW-SANDED 5. MUDDY 6. DEBRIS
7. OILY 8. SNOW/SLUSH-NOT SANDED 9. ICE-PKD. SNOW-NOT SANDED
10. OTHER

APPARENT CONTRIBUTING FACTORS - HUMAN
1. NO IMPROPER ACTION 2. FAIL TO YLD. RIGHT OF WAY 3. ILLEGAL UNSAFE SPEED
4. FOLLOW TOO CLOSE 5. DISREGARD TRAFFIC CONTROL DEVICE
6. DRIVING LEFT OF CENTER-NO PASSING 7. IMPROPER PASS-OVERTAKING
8. IMP. UNSAFE LANE CHANGE 9. IMP. PARKING START/STOP 10. IMPROPER TURN
11. UNSAFE BACKING 12. NO SIGNAL OR IMP. SIGNAL 13. IMPEDING TRAFFIC
14. DRIVER INATTENTION-DISTRACTION 15. DRIVER INEXPERIENCE
16. PEDEST. VIOLATION ERROR 17. PHYSICAL IMPAIRMENT 18. VISION OBSCURED-WINDSHIELD GLASS
19. VISION OBSCURED-SUN/HEADLIGHTS
20. OTHER VISION OBSCUREMENT 30. OTHER HUMAN VIOLATION FACTOR
31. HIT AND RUN 51. UNKNOWN

- VEHICULAR
41. DEFECTIVE BRAKES 42. DEFECTIVE TIRE/FAILURE 43. DEFECTIVE LIGHTS
44. DEFECTIVE SUSPENSION 45. DEFECTIVE STEERING 50. OTHER VEHICLE DEFECT
OR FACTOR 51. UNKNOWN

SYMBOLS

ANGLE	PEDESTRIAN	P	FATAL ACCIDENT
BACKING	REAR END		
FIXED OBJECT	SIDE SWIPE		VEHICLE (MOVING)
HEAD ON	TURNING MOVE		BICYCLE — B
OVERTURN	CHANGE LANE		ANIMAL — A
PARKED VEHICLE	OUT OF CONTROL		SLED — S

WEATHER
C = CLEAR F = FOG R = RAIN
SL = SLEET S = SNOW CL = CLOUDY
XW = CROSS WINDS

INJURIES
K = FATAL B = NON-INCAPACITATING
A = INCAPACITATING C = POSSIBLE INJURY

S:/SHEETS/COLLISION DIAGRAM.DWG

COLLISION DIAGRAM

SHEET 2 OF 2

LOCATION Intersection of Franklin & Middle Streets

TOWN Portland, ME NODE NO(S) 18518

YEARS REVIEWED 2013 - 2015 DATE PREPARED 08·29·2016

REPORT NO.	DATE	TIME	INJURIES K	A	B	C	LIGHT	ROAD SURFACE	ACF	OTHER
00076	01·06·13	08:55	-	-	-	1	1	2	2	
000535	02·13·13	06:41	-	-	-	-	1	2	2	
001912	07·06·13	13:08	-	-	-	-	1	1	2	
003722	12·19·13	19:47	-	-	-	-	4	2	2	
003801	12·27·13	08:55	-	-	-	-	2	3	2	
000570	02·14·14	07:56	-	-	-	1	2	3	2	
000702	02·20·14	12:46	-	-	-	-	2	2	2	
000703	02·20·14	12:50	-	-	-	-	2	2	2	
002950	10·06·14	18:10	-	-	-	-	2	1	2	
000362	01·29·15	07:48	-	-	-	1	2	3	2/19	
000442	02·01·15	16:15	-	-	-	1	2	3	2	
000617	02·07·15	14:49	-	-	-	-	2	2	2	
000724	02·11·15	13:04	-	-	-	-	2	2	2	
000769	02·13·15	08:22	-	-	-	-	2	2	2	
001020	03·02·15	14:59	-	-	-	-	2	1	2	
002165	06·24·15	09:30	-	-	-	1	2	1	2	
002716	08·13·15	08:15	-	-	-	-	2	1	2	
003242	09·27·15	10:32	-	-	1	-	2	1	2	
003298	10·01·15	08:45	-	-	-	-	2	1	2	
004095	12·08·15	10:31	-	-	-	-	2	1	10	

S:/SHEETS/COLLISION DIAGRAM.DWG

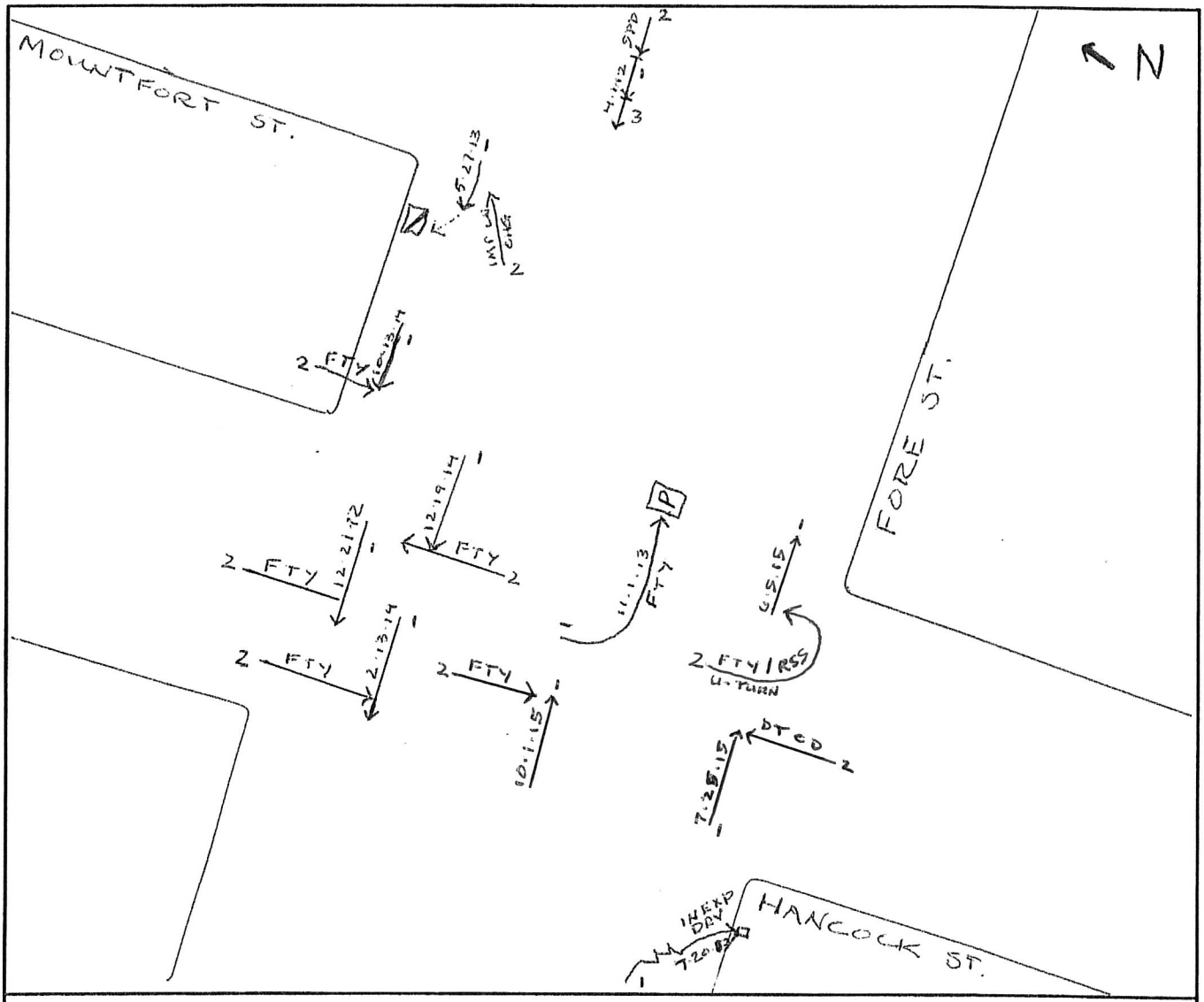
COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION Intersection of Fore Street & Hancock Street

TOWN Portland, Maine NODE NO(S) 18820 to 18822

YEARS REVIEWED 2012 - 2015 DATE PREPARED 08.29.2016



CRITICAL RATE FACTOR _____ EQUIV. PROP. DAMAGE ACC/YEAR _____ ACC/MEV _____

LIGHT
1. DAWN (MORNING) 2. DAYLIGHT 3. DUSK (EVENING)
4. DARK (ST. LIGHTS ON) 5. DARK (NO ST. LIGHTS) 6. DARK (ST. LIGHTS OFF)
7. OTHER

ROAD SURFACE
1. DRY 2. WET 3. SNOW/SLUSH-SANDED
4. ICE/PACKED SNOW-SANDED 5. MUDDY 6. DEBRIS
7. OILY 8. SNOW/SLUSH-NOT SANDED 9. ICE-PKD. SNOW-NOT SANDED
10. OTHER

APPARENT CONTRIBUTING FACTORS - HUMAN
1. NO IMPROPER ACTION 2. FAIL TO YLD. RIGHT OF WAY 3. ILLEGAL UNSAFE SPEED
4. FOLLOW TOO CLOSE 5. DISREGARD TRAFFIC CONTROL DEVICE
6. DRIVING LEFT OF CENTER-NO PASSING 7. IMPROPER PASS-OVERTAKING
8. IMP. UNSAFE LANE CHANGE 9. IMP. PARKING START/STOP 10. IMPROPER TURN
11. UNSAFE BACKING 12. NO SIGNAL OR IMP. SIGNAL 13. IMPEDING TRAFFIC
14. DRIVER INATTENTION-DISTRACTION 15. DRIVER INEXPERIENCE
16. PEDEST. VIOLATION ERROR 17. PHYSICAL IMPAIRMENT 18. VISION OBSCURED-WINDSHIELD GLASS
19. VISION OBSCURED-SUN/HEADLIGHTS
20. OTHER VISION OBSCUREMENT 30. OTHER HUMAN VIOLATION FACTOR
31. HIT AND RUN 51. UNKNOWN

- VEHICULAR
41. DEFECTIVE BRAKES 42. DEFECTIVE TIRE/FAILURE 43. DEFECTIVE LIGHTS
44. DEFECTIVE SUSPENSION OR FACTOR 45. DEFECTIVE STEERING 50. OTHER VEHICLE DEFECT
51. UNKNOWN

SYMBOLS
ANGLE, BACKING, FIXED OBJECT, HEAD ON, OVERTURN, PARKED VEHICLE
PEDESTRIAN, REAR END, SIDE SWIPE, TURNING MOVE, CHANGE LANE, OUT OF CONTROL
FATAL ACCIDENT, VEHICLE (MOVING), BICYCLE (B), ANIMAL (A), SLED (S)

WEATHER
C = CLEAR F = FOG R = RAIN
SL = SLEET S = SNOW CL = CLOUDY
XW = CROSS WINDS

INJURIES
K = FATAL B = NON-INCAPACITATING
A = INCAPACITATING C = POSSIBLE INJURY

S:\SHEETS\COLLISION DIAGRAM.DWG

COLLISION DIAGRAM

SHEET 2 OF 2

LOCATION Intersection of Fore Street & Hancock Street

TOWN Portland NODE NO(S) 18820 to 18822

YEARS REVIEWED 2012 - 2015 DATE PREPARED 08.29.2016

REPORT NO.	DATE	TIME	INJURIES K	A	B	C	LIGHT	ROAD SURFACE	ACF	OTHER
00781	04.01.12	02:55	-	-	-	1	4	1	3	
003253	12.21.12	16:53	-	-	-	2	4	2	2	
001534	05.27.13	12:40	-	-	-	1	2	1	8	
002062	07.20.13	10:29	-	-	-	-	2	1	15	Student Driver
003090	11.01.13	15:30	-	1	-	-	2	1	2	
000550	02.18.14	10:03	-	-	-	-	2	2	2	
003007	10.13.14	10:09	-	-	-	-	2	1	2	
003756	12.19.14	15:09	-	-	-	-	2	1	2	
001962	06.05.15	10:35	-	-	-	-	2	1	2/5	U-Turn
002518	07.25.15	17:59	-	-	-	-	2	1	5	
003289	10.01.15	13:11	-	-	-	-	2	2	2	

S:/SHEETS/COLLISION DIAGRAM.DWG

Section 3
Development Entrances and Exits

3.A. Entrance and Exit Locations

Vehicular access to the site is via a full movement site driveway onto Fore Street primarily for the residential units, Thames Street Extension for the non-residential site uses and a proposed new public road connecting Fore Street to Thames Street Extension.

3.B. Plan View

Attachment 1A of Section 1 shows the proposed site plan.

- Frontage Road(s) – Fore Street
- Posted Speed Limit – 25 mph
- Sight Lines – The posted speed limit on Fore Street is 25 mph, which requires a MaineDOT and City available sight distance of 200 feet. The measured available sight distance exiting the site accesses exceeds 200 feet looking left and right from the proposed road connecting Fore Street to Thames Street Extension. The sight distance looking left from the proposed road onto Fore Street could be improved by relocating the Hamilton Marine sign further from the edge of the road. The proposed site driveway across from Waterville Street exceeds the sight distance requirements in both directions, provided that on-street parking spaces within the site triangle on either side of the driveway are removed.

Section 4
Title, Right or Interest

4.A. Evidence of Title, Right, or Interest

A copy of the Deeds are included in Attachment 4A

4.B. Attachments

Attachment 4A – July 2013 Deed, April 2014 Deed

Attachment 4A

July 2013 Deed
April 2014 Deed

TRUSTEES' DEED

Maine Statutory Short Form

KNOW ALL BY THESE PRESENTS THAT **ELIZABETH M. SPRAGUE, ERIC THOMAS SPRAGUE and PHINEAS M. SPRAGUE, as Trustees of THE BUENA VISTA TRUST**, under indenture dated December 20, 2011, with a principal place of business in Cape Elizabeth, Maine, by the power conferred by law, and every other power, for consideration paid, grant to **CPB2 LLC**, a Delaware limited liability company, with a place of business c/o Blue Water Construction, 41 Glendale Place, Gilford, New Hampshire 03249, the land, together with any improvements thereon, situated in the City of Portland, County of Cumberland, State of Maine, described on Exhibit A attached hereto.

MAINE REAL ESTATE TAX PAID

Pursuant to Title 18-B M.R.S. § 1013, we, in our capacities, do hereby certify that (1) we are all of the Trustees of said Trust; (2) the Trust exists as the date of this Agreement; (3) we have power under said Trust to convey any trust asset in our sole discretion and need no consent from any beneficial interests; (4) we are the trustees authorized to execute or otherwise authenticate any and all documents in the exercise of our power; (5) in making this conveyance, we have in all respects acted in pursuance of the authority granted in and by said Trust; and (6) the Trust has not been revoked, modified, amended or terminated in any way that would cause the representations contained in this certificate to be incorrect.

[signatures on next page]

Witness our hands and seals this 19 day of the month of July, 2013.

WITNESS:

THE BUENA VISTA TRUST

_____

By_____
Eric Thomas Sprague, Trustee

_____

By_____
Elizabeth M. Sprague, Trustee

_____

By_____
Phineas M. Sprague, Trustee

STATE OF MAINE
COUNTY OF CUMBERLAND

July __, 2013

Then personally appeared the above named Eric Thomas Sprague, in his said capacity and acknowledged the foregoing instrument to be his free act and deed.

Before me,

_____
Notary Public/Attorney at Law

Witness our hands and seals this 26 day of the month of July, 2013.

WITNESS:

THE BUENA VISTA TRUST

By _____
Eric Thomas Sprague, Trustee

By _____
Elizabeth M. Sprague, Trustee

By _____
Phineas M. Sprague, Trustee

STATE OF MAINE
COUNTY OF CUMBERLAND

July 26, 2013

Then personally appeared the above named Eric Thomas Sprague, in his said capacity and acknowledged the foregoing instrument to be his free act and deed.

Before me,

~~Notary Public~~/Attorney at Law
Drew A. Ardizzi

EXHIBIT A

A certain lot or parcel of land together with the buildings thereon situated on the southerly side of Fore Street in the City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at a point on the southerly sideline of Fore Street at the northeasterly corner of Tract I as shown on "ALTA/ACSM Land Title Survey 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" dated May 22, 2013 by Owen Haskell, Inc., thence N53°19'30"E along the southerly sideline of said Fore Street 140.00 feet;

Thence, N 61° 01' 30" E along the southerly sideline of said Fore Street 43.36 feet to land now or formerly of Macgowan as described in the Deed recorded in Cumberland County Registry of Deeds in Book 15773, Page 153;

Thence, S 31° 18' 30" E along land of said Macgowan 150.00 feet;

Thence, N 61° 01' 30" E along land of said Macgowan 112.00 feet to land now or formerly of Timothy Haley, Trustee, as described in the Deed recorded in the said Registry of Deeds in Book 24759, Pages 67 & 69;

Thence, S 31° 18' 30" E along land of said Haley 110.28 feet;

Thence, N 63° 18' 30" E along land of said Haley 100.00 feet;

Thence, N 31° 18' 30" W along land of said Haley 95.88 feet;

Thence, N 69° 31' 20" E along land of said Haley 49.73 feet to land now or formerly of Eastern Promenade Condominium;

Thence, S 31° 18' 26" E along land of said Eastern Promenade Condominium 240.48 feet to an iron rod found and to land now or formerly of the State of Maine as described in the Deed recorded in said Registry of Deeds in Book 10924, Page 91;

Thence, S 63° 18' 30" W along land of said State of Maine 430.00 feet to the easterly line of said Tract I;

Thence, N 33° 29 '33" W along said Tract I 381.17 feet to the point of beginning containing 2.87 acres.

The premises are conveyed together with the right of access and egress running from the existing paved driveway over land now or formerly of The Portland Company to the

premises conveyed herein as described in a deed to Elizabeth M. Sprague, Eric Thomas Sprague and Phineas M. Sprague, Trustees of The Buena Vista Trust by Warranty deed of The Portland Company dated December 30, 1012 and recorded in the Cumberland County Registry of Deeds in Book 30265, Page 32.

Meaning and intending to convey and hereby conveying the same premises conveyed to Elizabeth M. Sprague, Eric Thomas Sprague and Phineas M. Sprague, Trustees of The Buena Vista Trust by Warranty Deed of The Portland Company, dated December 30, 2012 and recorded in the Cumberland County Registry of Deeds in Book 30265, Page 32.

S:\P\POCO14\Prentice Purchase\Sale Documents\Deed of Trustees.doc

Received
Recorded Register of Deeds
Jul 29,2013 03:54:21P
Cumberland County
Pamela E. Lovley

Doc#: 13675 Bk:31425 Pg: 267

QUITCLAIM DEED WITH COVENANT

Maine Statutory Short Form

MAINE REAL ESTATE TAX PAID

KNOW ALL BY THESE PRESENTS, that **THE PORTLAND COMPANY**, a Maine corporation and having a place of business at 58 Fore Street, County of Cumberland, and State of Maine, for consideration paid, grants to **CPB2 LLC**, a Delaware limited liability company, with an address of P.O. Box 7987, Portland, Maine 04112, with **QUITCLAIM COVENANTS,** the land located in Portland, County of Cumberland and State of Maine, and more particularly described in Exhibit "A" attached hereto and made a part hereof.

IN WITNESS WHEREOF, said THE PORTLAND COMPANY has caused this instrument to be signed and sealed this 1st day of April, 2014.

WITNESS:

THE PORTLAND COMPANY

Phineas Sprague Jr

By: Phineas Sprague, Jr.
Its: President

STATE OF MAINE
COUNTY OF CUMBERLAND

April 1, 2014

Personally appeared the above-named Phineas Sprague, Jr. in his said capacity, and acknowledged the foregoing to be his free act and deed and that of said corporation, The Portland Company, before me.

~~Notary Public~~/Attorney at Law

Drew A. Anderson

Printed Name

EXHIBIT A

TRACT I

A certain lot or parcel of land together with the buildings thereon situated on the southerly side of Fore Street, City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at a point on the southerly sideline of Fore Street at a railroad spike at the northeasterly corner of land now or formerly of Hope 1 LLC as described in deed Book 22261, Page 50, thence S 87° 34' 45" E along the southerly sideline of said Fore Street 287.74 feet;

Thence, N 53° 19' 30" E along the southerly sideline of said Fore Street 594.45 feet to the northwesterly corner of Tract III, as shown on "ALTA/ACSM Land Title Survey, 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" by Owen Haskell, Inc. dated May 22, 2013.

Thence, S 33° 29' 33" E along the westerly side of said Tract III 381.17 feet to land now or formerly of the State of Maine as described in deed Book 10924, Page 91;

Thence, S 63° 18' 30" W along land of said State of Maine 255.00 feet;

Thence, S 68° 31' 30" W along land of said State of Maine 442.91 feet to an iron rod found (bent) and land now or formerly of City of Portland as described in deed Book 21951, Page 341;

Thence, N 88° 12' 30" W along land of said City of Portland 137.25 feet to a non-tangent curve to the right;

Thence, following the curve to the right, along land of said City of Portland and land of said Hope 1 LLC, having a radius of 274.33 feet, an arc length of 337.36 feet, a chord bearing of N 38° 35' 30" W, and a chord length of 316.50 feet, to the southerly sideline of Fore Street and the point of beginning containing 6.04 acres.

Basis of bearings: Magnetic 1967.

TRACT II

A certain lot or parcel of land together with the buildings thereon situated southerly of but not adjacent to Fore Street, in the City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Commencing at a point on the southerly line of Tract I, at an iron rod found (bent) at the southeasterly corner of land now or formerly of the City of Portland as described in deed Book 21951, Page 341, on the northerly line of land now or formerly of the State of Maine as described in deed Book 10924, Page 91, as shown on "ALTA/ACSM Land Title Survey, 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" by Owen Haskell, Inc. dated May 22, 2013.

Thence, N 68° 31' 30" E along the northerly line of land of said State of Maine 215.11 feet;

Thence, S 27° 09' 40" E across land of said State of Maine and along the easterly line of land now or formerly of the City of Portland 50.25 feet to the true point of beginning;

Thence, N 68° 31' 30" E along the southerly sideline of land of said State of Maine 225.10 feet;

Thence, N 63° 18' 30" E along the southerly sideline of land of said State of Maine 690.74 feet;

Thence, S 30° 39' 00" E along land of said State of Maine 56.34 feet;

Thence, S 61° 35' 30" W 27.46 feet;

Thence, S 77° 24' 52" W 94.07 feet;

Thence, S 62° 35' 30" W 475.00 feet;

Thence, S 38° 50' 30" W 60.00 feet;

Thence, S 63° 50' 30" W 120.00 feet;

Thence, N 26° 10' 00" W 8.00 feet;

Thence, S 63° 49' 37" W 150.00 feet to land of said City of Portland;

Thence, N 27° 09' 40" W along land of said City of Portland 74.89 feet to the point of beginning containing 44,274 sq. ft.

Basis of bearings: Magnetic 1967.

ALSO CONVEYING two crossings for vehicular, pedestrian and utility access to and from other land now or formerly of Phineas Sprague to the most immediately above described parcel across the area shown on Exhibit B of Indenture Deed by and between the Maine Department of Transportation and Phineas Sprague, dated August 30, 1993 and recorded in Book 10924, Page 97, as the "Rail-Trail Corridor." Each crossing shall be 50 feet in width over the 50 foot wide "Rail-Trail Corridor" plus turning radii, as necessary, at the entrances to the crossings from the above described parcel of land. Such crossings may be moved from time to time by the Grantee at its expense upon proper notice to and approval by the Maine Department of Transportation, provided that the distance between the centerlines of the two crossings shall never be less than 200 feet; and further provided that in the event of any relocation, any former crossing shall be restored to the condition it would have been in had the crossing not been placed in that location.

TOGETHER WITH any upland including the seawall which immediately adjoin the above described premises.

Received
Recorded Register of Deeds
Apr 03,2014 12:25:29P
Cumberland County
Pamela E. Lovley

Section 5
Public or Private Rights-of-Way

5.A. Public or Private Rights-of-Way

The site will have three accesses; Thames Street Extension into the site, a full movement driveway onto Fore Street across from Waterville Street, and a new public road that connects Fore Street to Thames Street Extension.

Section 6
Schedule

6.A. Schedule

The proposed project is anticipated to be completed and occupied by 2027.

GORRILL PALMER

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

Site Parking Demand
58 Fore Street Mixed Use Development
Portland, Maine
JN 3138

Date: September 16, 2016
Subject: Site Parking Demand
58 Fore Street Mixed Use Development
To: David Senus, Mary McCrann, Jim Brady, Kevin Costello, Casey Prentice
From: Randy Dunton and Emily Tynes, Gorrill Palmer (JN 3138)

The following is a summary of the estimated parking demand for the proposed mixed use development at 58 Fore Street. The following table summarizes the sizes and uses of the proposed development used to calculate the parking demand:

Proposed Site Summary

Development Block	Use	Size
B1		
	Retail	7,878 SF
	Residential	91 Dwelling Units
	Office	79,000 SF
B2		
	Retail	26,895 SF
	Residential	19 Dwelling Units
	Office	25,617 SF
B3		
	Retail	11,500 SF
	Office	19,300 SF
B4		
	Residential	275 Dwelling Units
	Retail	4,000 SF
B5		
	Residential	108 Dwelling Units
	Hotel	132 Rooms
	Restaurant	3,800 SF
	Function	5,800 SF
B6		
	Residential (Condos)	131 Dwelling Units
	Residential (Apartments)	14 Dwelling Units
B7		
	Marina Facilities	2,600 SF, 220 Slips

It should be noted that the retail portions of the proposed site will be multiple smaller shops, not large retail stores.

Parking Demand Calculation Methodologies

The parking demand has been determined using two methodologies: using the City Ordinance requirements and based on a shared parking demand. The following summarizes the methodologies in more detail:

City Ordinance Parking Demand

The Ordinance requirement methodology involves calculating the peak parking demand for each use using the City of Portland Code of Ordinances. This method assumes each use is isolated and then adds the individual demands to determine the parking demand for the site. The supporting calculations for this method are attached. This method results in an overestimate because the peak demands for each use are not expected to occur at the same time. For example, offices require more spaces during the day while employees are in the office, and residential buildings would require more spaces later at night when residents are home from work.

The City Ordinance Ch. 14, Art III, Div. 20, Sec. 14-332.2 (c) states, "where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer." Since this mixed use development is approximately 958,679 sf of building floor area, it meets the criteria. Therefore, the site parking demand was determined based on the following methodology.

Shared Parking Plan

The shared parking plan methodology is based on a combination of City Ordinance parking demand, the ITE Parking Generation Manual (4th Edition), and published data / engineering judgement and it reflects that the demand for different uses will peak during different times of day. Since different uses do not peak at the same times, parking spaces can be shared between uses. To determine the shared parking demand, the total parking demand was calculated for each use, then distributed throughout the day based on the type of use. This is the same methodology used for the recent Thompson's Point project. The supporting calculations are attached. With a shared parking plan it is recommended that shared parking language be included in the leases, to ensure tenants understand the shared parking.

Parking Demand Reductions

Given the mixed use of the site as well as its downtown location, the following two parking demand reductions were applied to the shared parking spaces:

Shared Use Reduction

When evaluating a mixed use development with complementary uses such as this, the overall parking demand can be reduced due to the expectation that there will be some cross use between the individual facilities. For instance, it can be assumed that some of the people living in the apartments would also be those that visit the retail. Gorrill Palmer (GP) used the NCHRP 684 Internal Trip Capture Estimation Tool to calculate the reduction that can be applied to the trip generation. This calculated an internal trip capture of 14% for the AM peak hour and 17% for the PM peak hour. It can be assumed that parking demand can be reduced proportionally to the reduction in trip generation. To be conservative, GP used a shared use reduction of 14% throughout the day to estimate the parking demand. The following table summarizes the shared use reduction:

Shared Use Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand	919	690
Shared Use Reduction (14%)	-129	-97

Other Modes Reduction

The overall parking demand for a development in a downtown area can also be reduced due to the expectation that some people going to or from the site would use other modes of transportation such as transit, bicycle, or walking. The site is adjacent to an existing bus route as well as located on a bicycle and pedestrian path. The other modes reduction is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract. Based on this information Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, created maps using GIS data that illustrate the estimated percentage of workers living in each Portland Census Tract that use each mode of transportation to commute to work. The site is located on the east side of Census Tract 3, which is a predominantly commercial area. Census Tracts 2 and 5 border the site and consist of primarily residential areas. Since the site is proposed to have a significant number of residential units as well as commercial space, the data from the combination of the three tracts is expected to be more representative of the actual conditions on the site than the data from the individual tracts. This reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work in the three Census Tracts by the estimated total number

of working people in the same three Census Tracts. This calculation yields a 35.8% use of non-vehicular modes of transportation.

The GPCOG data is based on residents of the Census Tracts commuting to work, so it is applicable to the residential units, office space, and retail uses on the site. It was not clear if the 35.8% reduction would also be applicable to the restaurants and hotel, even though there are hotels and restaurants located within the boundaries of the three Census Tracts. GP searched for studies that included information on other modes of transportation for restaurants and hotels and found two sources that had information that could be compared to the other modes of transportation calculated using the Portland Census data. The following is a more detailed description of the relevant information found in the two studies:

The first study is *Contextual Influences on Trip Generation* (found in the United States Department of Transportation National Transportation Library online database or at the following link: http://ntl.bts.gov/lib/46000/46600/46699/CITG_FinalReport_Draft_10022012.pdf), a study for the Oregon Transportation Research and Education Consortium (OTREC) that compared the ITE predicted trip generation to the actual trip generation of 79 locations in Portland, Oregon, 39 of which were high turnover sit-down restaurants. The study also included surveying the visitors of those sites to determine what mode of transportation the visitors used. The results of the study are divided into different types of areas, ranging from central business district, which is considered the most urban area, to suburban areas, which is considered the least urban type of area surveyed. This study surveyed 12 restaurants in the central business district area and found that 35% of the patrons arrived to the sites using a car, while the remaining 65% walked, biked, or used transit (table attached). This result is higher than the 35.8% use of other modes calculated using the GPCOG information. Because the data is for Portland, Oregon it may not be appropriate to use as a reduction, but it does indicate that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

The second source that included restaurant information is the National Cooperative Highway Research Program (NCHRP) Report 758, *Trip Generation Rates for Transportation Impact Analyses of Infill Developments*. This study used information from the Household Travel Survey (HTS) for the San Francisco Bay area and Metropolitan Washington D.C. and counted data and surveys at specific sites in those areas. The Washington D.C. HTS data for restaurants shows that approximately 40.3% of residents use transit, walk, or bicycle to and from high-turnover sit-down restaurants (table attached). The study only included one site that was counted and surveyed, so the HTS data could not be verified, however like the Portland, Oregon study, it is higher than the other modes reduction calculated using the GPCOG Census information. Like the Portland, Oregon study, this data indicates that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

Based on these two additional sources that contain information specific to restaurant uses, GP determined that the other modes reduction of 35.8% calculated from the GPCOG Census

information that is based on the existing transit system can be applied to the restaurant parking demand. Although the other two studies showed higher percentages of people using alternative modes of transportation to go to or from restaurants, since they are not specific to Portland, Maine, the local data is expected to be closer to the actual conditions that would be seen at the 58 Fore Street development.

The two studies discussed above included information about restaurants, but did not have any data for hotels. Based on our research there is limited information available about modes of transportation used at hotels. It can be assumed for the 58 Fore Street site that hotel employees may take the bus, bike, or walk to get to and from work and some hotel guests may arrive by boat using the marina. To be conservative, GP only used an "other modes of transportation" reduction of 10% for the hotel.

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

Other Modes of Transportation Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand w/o Hotel	886	677
Hotel Peak Parking Demand	33	13
Other Modes Reduction (35.8% of B1-B6 Demand w/o Hotel)	-317	-242
Hotel Other Modes Reduction (10% of Hotel Demand)	-3	-1
Total Other Modes Reduction	**-320**	**-243**

Marina Parking Demand

The City Ordinance does not include a parking requirement for marina facilities. The parking demand for the proposed marina is based on information from Applied Technology & Management (ATM). The new marina is proposed to have 220 slips that will service off-site Portland residents, on-site Portland residents, and transient boaters. ATM provided a range of parking rates from one space for every two slips to one space for every four slips. ITE has limited marina parking information available, however the ATM parking rates appear to be consistent with the ITE data. To be conservative, GP used a requirement of one parking space for every two slips. ATM expects peak usage of the marina to be 10% of the slips, but possibly higher since Maine has a shorter boating season. To be conservative, GP assumed that the peak demand would be 15% of the slips. ATM also stated that there would be approximately 9 employees at this marina, therefore GP included an additional 5% to include spaces for employees, giving a total peak demand estimation of 20% of the slips. Because of the nature of a marina use, the two parking demand reductions that were applied to the rest of the site were not applied to the

marina parking demand. Although it is possible that marina users visit other uses on site or use alternative modes of transportation to get to the site, to be conservative the reductions were not applied.

Dedicated Parking Spaces

Often in large developments, a portion of parking spaces are dedicated to a specific use. For example, residential units may have spaces assigned to each unit or a group of spaces may be reserved for use by only an office. These dedicated spaces would not be shared by any other site uses. The number of dedicated parking spaces is added to the number of shared parking spaces to determine the total site demand. On this site, there are 298 dedicated parking spaces proposed. These spaces include; half of the residential units in B1, all the residential units in B5, and all the residential units in B6. The two parking demand reductions that were applied to the rest of the site were not applied to the dedicated parking spaces, since the spaces will not be shared and will be provided for the peak demand regardless of the expected use of transit, bicycles, or walking.

Parking Demand Summary

The following table summarizes the overall parking demand for the site, including the reductions, based on both the Ordinance and the Shared Parking demand methodologies:

Parking Demand Summary

Proposed	Ordinance	Shared Parking
B1-B6 Shared Parking Demand	919	690
Shared Use Reduction	-129	-97
Other Mode Reduction	-320	-243
B1-B6 Total Shared Parking Demand	**470**	**350**
B7 (Marina) Parking Demand	110	22
B1-B7 Total Parking Demand	**580**	**372**
B1-B7 Dedicated Parking	298	298
Net Parking Demand	**878**	**670**

As shown in the table, the proposed parking demand, including reductions, based on the Ordinance and isolated uses is forecast to be 878 spaces and the parking demand based on shared parking is 670 spaces. The parking demand based on the City Ordinance is higher than the shared parking demand because it assumes all uses will require their peak parking demand concurrently whereas the shared parking demand considers the different uses peaking at different times of day.

It should be noted that a parking facility can be considered full when it is approximately 85% occupied. This is because a driver may not see empty parking spaces when the lot is almost completely occupied, especially in a larger parking area. **To ensure the peak parking demand is satisfied, the recommended number of spaces is 736 (372 spaces / 0.85 + 298 spaces).** This assumes that shared spaces are generally available to all users. The increase is not applied to the dedicated parking spaces because it is assumed that they will be visible and easy for the designated users to find.

The marina may also have additional parking needs, such as temporary parking spaces for visitors to drop off passengers or supplies near their boat before parking their vehicle and for fueling trucks and provisional vehicles that service the mega-yachts. These other parking spaces should be considered in addition to the estimated peak parking demand for the visitors and employees.

Bicycle Parking

Per City Ordinance, new uses are required to provide bicycle accommodations based on the type of use. Residential structures are required to provide 2 bicycle spaces for every 5 dwelling units. Non-residential structures are required to provide 2 bicycle parking spaces for every 10 vehicle parking spaces for the first 100 required spaces, plus one bicycle parking space for every 20 required vehicle parking spaces over the 100 vehicle parking spaces. The following table shows the required bicycle parking for the Ordinance vehicle parking demand and the Shared Parking demand:

Bicycle Parking Summary

	Ordinance	Shared Parking
Parking Variable	409 Spaces, 638 Units	322 Spaces, 638 Units
Residential Bicycle Spaces	256	256
Non-Residential Bicycle Spaces	36	31
Total	**292**	**287**

As shown in the table, the site will require 287-292 bicycle parking spaces to meet the City Ordinance Requirements for bicycle accommodations. The Transportation Demand Management (TDM) plan will outline a more detailed approach to incorporating bicycle parking on site.

09-02-16 Ordinance Parking Estimate

Building Letter	P1	P1	P1	P1	P1	P1	P1	P2	P2	P2	P2	P2	P2	P2	P3	P3	P3	P3	P3	P4	P4	P4	P4	P4	P5	P5	P5	P5	P5	P5	P5	P6	P6	P6	P6	P6	P1-P6	P7	P7	
	Specialty Retail	Specialty Retail	Residential	Residential	Office	Office	Total	Specialty Retail	Specialty Retail	Residential	Residential	Office	Office	Total	Specialty Retail	Specialty Retail	Office	Office	Total	Residential	Residential	Specialty Retail	Specialty Retail	Total	Residential	Residential	Hotel	Hotel	Restaurant	Restaurant	Total	Residential	Residential	Residential	Residential	Total	Total	Marina (1)	Marina (1)	**Total**
PGR	200	1 / 200 sf over 2,000 sf	1	1 per Unit	400	1 / 400 sf		200	1 / 200 sf over 2,000 sf	1.00	1 per Unit	400	1 / 400 sf		200	1 / 200 sf over 2,000 sf	400	1 / 400 sf		1	1 per Unit	200	1 / 200 sf over 2,000 sf		1	1 per Unit	1/4	1 per 4 guests	1/150			1	1 per Unit	1	1 per Unit			1/2	1 per 2 slips	
Monthly Adjustment		1		1		1		1.00	1.00	1.00	1	1.00	1		1			1		1	1		1.00		1	1		1	1.0	1			1		1					
SQF or Unit	7,878	7,878 sf	91	91 Units	79,000	79,000 sf		26,895	26,895 sf	19	19 Units	25,617	25,617 sf		11,500	11,500 sf	19,300	19,300 sf		275	275 Units	4,000	4,000 sf		108	108 Units	132	132 rooms	3,800	3,800 sf		131	131 Units	14	14 Units			220	220 slips	
Max Demand	1.000	29	1.00	91	1.00	198	318	1.000	124	1.00	19	1.00	64	208	1.000	48	1.00	48	96	1.00	275	1.000	10	285	1.00	108	1.00	33	1.00	25	166	1.00	131	1.00	14	145	1217	1.00	110	1327
Dedicated Spaces	0.000	0	0.50	45	0.00	0	45	0.000	0	0.00	0	0.00	0	0	0.000	0	0.00	0	0	0.00	0	0.000	0	0	1.00	108	0.00	0	0.00	0	108	1.00	131	1.00	14	145	298	0.00	0	298
Demand w/oDedicated		29		46		198	272		124		19		64	208		48		48	96		275		10	285		0		33		25	58		0		0	0	919		110	1029

(1) The marina parking demand is based on information from ATM. They suggest the peak demand is 10% (possibly higher) of the total number of slips. We used a peak demand of 20% to include 15% of slips (33 slips) and the marina employees. The peak slip usage includes on-site residents and transient boaters that would not require marina parking, as well as the off-site residents that would require parking. It is assumed that most of the off-site slip users arrive at the site during the peak hour, which is reflected in the shared use factors.

09-02-16 Parking Estimate Marina Shared

	45 Dedicated Spaces													
	P1							P2						
Building	P1		P1		P1		Total for P1	P2		P2		P2		Total for P2
	Specialty Retail		Residential		Office			Specialty Retail		Residential		Office		
Rate	200	1 / 200 sf	1	1 per Unit	400	1/400 sf		200	1 / 200 sf	1.00	1 per Unit	400	1/400 sf	
Monthly Adjustment														
SQF or Unit	7,878	7,878 sf	91	91 Units	79,000	79,000 sf		26,895	26,895 sf	19	19 Units	25,617	25,617 sf	
6:00AM	0.00	0	0.84	31	0.00	0	31	0.00	0	0.84	16	0.00	0	16
7:00AM	0.20	8	0.62	11	0.20	40	58	0.20	27	0.62	12	0.20	13	51
8:00AM	0.64	25	0.41	0	0.64	126	151	0.64	86	0.41	8	0.64	41	134
9:00AM	0.93	37	0.34	0	0.93	184	220	0.93	125	0.34	6	0.93	60	191
10:00AM	1.00	39	0.32	0	1.00	197	237	1.00	134	0.32	6	1.00	64	205
11:00AM	1.00	39	0.31	0	1.00	197	237	1.00	134	0.31	6	1.00	64	204
12:00PM	0.90	35	0.30	0	0.90	177	212	0.90	121	0.30	6	0.90	57	184
1:00PM	0.90	35	0.31	0	0.90	177	212	0.90	120	0.31	6	0.90	57	184
2:00PM	1.00	39	0.33	0	1.00	198	237	1.00	134	0.33	6	1.00	64	205
3:00PM	1.00	39	0.37	0	1.00	198	237	1.00	134	0.37	7	1.00	64	206
4:00PM	0.93	37	0.45	0	0.93	184	221	0.93	125	0.45	9	0.93	60	193
5:00PM	0.64	25	0.61	10	0.64	126	161	0.64	86	0.61	12	0.64	41	138
6:00PM	0.20	8	0.69	17	0.20	40	65	0.20	27	0.69	13	0.20	13	53
7:00PM	0.00	0	0.72	20	0.10	20	40	0.00	0	0.72	14	0.10	6	20
8:00PM	0.00	0	0.80	27	0.10	20	47	0.00	0	0.80	15	0.10	6	22
9:00PM	0.00	0	0.89	35	0.10	20	55	0.00	0	0.89	17	0.10	6	23
10:00PM	0.00	0	0.92	38	0.10	20	58	0.00	0	0.92	17	0.10	6	24
Dedicated spaces	0.00	0	0.50	45	0.00	0	45	0.00	0	0.00	0	0.00	0	0

	P3					P4					P5							
Building	P3		P3		Total for P3	P4		P4		Total for P4	P5		P5		P5		Total for P5
	Specialty Retail		Office			Residential		Specialty Retail			Residential		Hotel		Restaurant		
Rate	200	1 / 200 sf	400	1/400 sf		1	1 per Unit	200	1 / 200 sf		1	1 per Unit	4	1 per 4 guests	153.8462	6.5/1000 6:00AM-4:00PM	
Monthly Adjustment															100	10/1000 4:00PM-11:00PM	
SQF or Unit	11,500	11,500 sf	19,300	19,300 sf		275	275 Units	4,000	4,000 sf		108	108 Units	132	132 Rooms	3,800	3,800 sf	
6:00AM	0.00	0	0.00	0	0	0.84	231	0.02	0	231	0.84	0	1.00	33	0.00	0	33
7:00AM	0.20	12	0.20	10	21	0.62	171	0.20	4	175	0.62	0	1.00	33	0.10	2	35
8:00AM	0.64	37	0.64	31	67	0.41	113	0.66	13	126	0.41	0	1.00	33	0.10	2	35
9:00AM	0.93	54	0.93	45	98	0.34	94	0.86	17	111	0.34	0	0.75	25	0.20	5	30
10:00AM	1.00	57	1.00	48	106	0.32	88	1.00	20	108	0.32	0	0.50	17	0.30	7	24
11:00AM	1.00	57	1.00	48	106	0.31	85	0.95	19	104	0.31	0	0.40	13	0.90	22	35
12:00PM	0.90	52	0.90	43	95	0.30	83	0.78	16	98	0.30	0	0.35	12	1.00	25	36
1:00PM	0.90	52	0.90	43	95	0.31	85	0.83	17	102	0.31	0	0.35	12	0.90	22	34
2:00PM	1.00	58	1.00	48	106	0.33	91	0.99	20	111	0.33	0	0.35	12	0.65	16	28
3:00PM	1.00	58	1.00	48	106	0.37	102	0.93	19	120	0.37	0	0.40	13	0.35	9	22
4:00PM	0.93	54	0.93	45	98	0.45	124	0.77	15	139	0.45	0	0.50	17	0.35	13	30
5:00PM	0.64	37	0.64	31	67	0.61	168	0.19	4	172	0.61	0	0.60	20	0.60	23	43
6:00PM	0.20	12	0.20	10	21	0.69	190	0.05	1	191	0.69	0	0.70	23	0.90	34	57
7:00PM	0.00	0	0.10	5	5	0.72	198	0.02	0	198	0.72	0	0.80	26	1.00	38	64
8:00PM	0.00	0	0.10	5	5	0.80	220	0.01	0	220	0.80	0	0.90	30	1.00	38	68
9:00PM	0.00	0	0.10	5	5	0.89	245	0.01	0	245	0.89	0	0.95	31	1.00	38	69
10:00PM	0.00	0	0.10	5	5	0.92	253	0.01	0	253	0.92	0	1.00	33	0.75	29	62
Dedicated spaces	0.00	0	0.00	0	0	0.00	0	0.00	0	0	1.00	108	0.00	0	0.00	0	108

						Shared Spaces								Combined Shared and Dedicated			
	P6					P1-P6					P7			P1-P7		For Bicycle Parking	
Building	P6		P6		Total for P6	P1-P6 Subtotal	Mixed Use Reduction (2)	Other Modes Reduction (Except Hotel) (3)	Hotel Other Modes Reduction (4)	P1-P6 Total	P7		Total for P7	Site Total	Recommended Spaces (4)	Non Residential Required Spaces	Non Residential Required Spaces (reduced)
	Residential		Residential								Marina (1)						
Rate	1	1 per Unit	1	1 per Unit							2	1 per 2 slips					
Monthly Adjustment							14%	35.8%	10%						85%		
SQF or Unit	131	131 Units	14	14 Units							220	220 slips					
6:00AM	0.84	0	0.84	0	0	311	44	100	3	164	0.10	11	11	473	504	44	27
7:00AM	0.62	0	0.62	0	0	341	48	110	3	180	0.20	22	22	500	536	170	96
8:00AM	0.41	0	0.41	0	0	514	72	172	3	267	0.20	22	22	587	638	415	219
9:00AM	0.34	0	0.34	0	0	651	91	224	2	334	0.20	22	22	654	717	573	299
10:00AM	0.32	0	0.32	0	0	679	95	237	2	345	0.20	22	22	666	731	607	316
11:00AM	0.31	0	0.31	0	0	687	96	241	1	349	0.20	22	22	669	735	618	322
12:00PM	0.30	0	0.30	0	0	625	88	220	1	316	0.20	22	22	636	696	559	292
1:00PM	0.31	0	0.31	0	0	626	88	220	1	317	0.20	22	22	637	697	557	291
2:00PM	0.33	0	0.33	0	0	686	96	241	1	348	0.20	22	22	668	734	611	318
3:00PM	0.37	0	0.37	0	0	690	97	242	1	350	0.20	22	22	670	736	603	314
4:00PM	0.45	0	0.45	0	0	681	95	238	2	346	0.20	22	22	667	732	571	298
5:00PM	0.61	0	0.61	0	0	581	81	201	2	297	0.20	22	22	618	674	414	219
6:00PM	0.69	0	0.69	0	0	387	54	130	2	201	0.20	22	22	521	560	189	106
7:00PM	0.72	0	0.72	0	0	328	46	108	3	171	0.10	11	11	481	513	107	60
8:00PM	0.80	0	0.80	0	0	361	51	119	3	188	0.05	6	6	492	526	104	55
9:00PM	0.89	0	0.89	0	0	398	56	131	3	208	0.05	6	6	512	550	106	56
10:00PM	0.92	0	0.92	0	0	401	56	132	3	210	0.05	6	6	514	552	98	52
Dedicated spaces	1.00	131	1.00	14	145						0.00	0	0	298	298	0	0

(1) The marina parking demand is based on information from ATM. They suggest the peak demand is 10% (possibly higher) of the total number of slips. We used peak demand of 20% to include 15% of slips (33 slips) and the marina employees. The peak slip usage includes on-site residents and transient boaters that would not require marina parking, as well as the off-site residents that would require parking. It is assumed that most of the off-site slip users arrive at the site during the peak hour, which is reflected in the shared use factors.

(2) Based on the results from the NCHRP 684 Internal Trip Capture Estimation Tool

(3) Based on Commute to Work data from the 2009-2013 ACS by Census Tract for the City of Portland provided by GPCOG

(4) The increase from required to recommended is only applied to the shared spaces, not the dedicated spaces

~~[illegible]~~
Portland State Univ. Study

Table 3-5. Percent Mode Shares by Area Type and Land Use

Area Type & Land Use	Automobile Mode Share	Walk Mode Share	Bicycle Mode Share	Transit Mode Share
Convenience	58%	27%	7%	6%
Central Business District	34%	49%	10%	10%
Urban Core	52%	31%	9%	6%
Regional Centers	60%	26%	7%	5%
Suburban Town Centers	70%	18%	3%	7%
Suburban Areas	72%	14%	8%	3%
High-turnover Restaurant	63%	22%	8%	6%
Central Business District	35%	42%	7%	16%
Urban Core	65%	20%	13%	2%
Regional Centers	70%	24%	6%	1%
Suburban Town Centers	85%	6%	1%	6%
Suburban Areas	86%	5%	0%	8%
Drinking Place	43%	27%	22%	7%
Central Business District	26%	40%	19%	15%
Urban Core	46%	20%	25%	8%
Regional Centers	52%	30%	18%	1%
Suburban Town Centers*	N/A	N/A	N/A	N/A
Suburban Areas*	N/A	N/A	N/A	N/A
Overall	58%	25%	9%	7%
Central Business District	34%	43%	9%	14%
Urban Core	57%	23%	15%	5%
Regional Centers	61%	26%	10%	3%
Suburban Town Centers	79%	11%	2%	7%
Suburban Areas	78%	10%	5%	5%

*Drinking places were not surveyed in suburban area types

Figure 3-2 shows the resulting automobile mode share for all establishments surveyed in a spatial context. As shown, automobile mode shares are generally lower in establishments closer to the city center. There is variation in automobile mode share in the inner east side of Portland where area type varies between Urban Center and Neighborhood/Regional Center. For a more detailed map of mode shares of survey establishments, see Appendix D.

Case study sites were identified using the guidelines presented in Chapter 4, and data were collected consistent with the procedures for deriving the adjustment factors using the minimum data collection variant. Data collected at the case study sites included:

- Vehicle counts at driveways of parking facilities exclusive to the site,
- Vehicle occupancy,
- Person trips entering and exiting the site's building,
- Observation of mode of access, and
- General observation of site conditions and surrounding context.

With empirical data available, the research team was able to compare predicted and surveyed results of the household travel survey method. A secondary objective of the data collection was to refine the data collection protocol for the proxy site method.

5.3.2 Summary of Findings

The following sections contain brief overviews of the results of applying the household travel survey method to the four land use categories used to develop the example adjustment factors from the HTS data presented in Chapter 4.

5.4 Derived Adjustment Factors

Table 5.1 presents the methodology-derived adjustment factors (mode share and vehicle occupancy) for the GU/UC context zones by land use category and proximity to transit. The research team reviewed these findings for reasonableness. The MWCOG has not published a report summarizing the findings of their HTS, so the research team could not compare its findings on mode share and vehicle occupancy with mode-share cross-references to land use, trip purpose, or context prepared by MWCOG.

Table 5.1. Mode share and vehicle occupancy adjustment factors for Washington, D.C.

Infill Adjustment Factors for GU/UC Contexts	Within Walking Distance Of:			
	High-Frequency Bus Stop		Rail Station	
	a.m.	p.m.	a.m.	p.m.
Residential Case Study Sites (ITE LUC 220)				
Transit	27.3%	24.0%	32.5%	27.7%
Walk/bicycle	11.3%	13.4%	12.9%	15.8%
Vehicle occupancy	1.27	1.32	1.30	1.34
General Office Case Study Sites (ITE LUC 710)				
Transit	33.4%	31.0%	38.8%	35.6%
Walk/bicycle	9.8%	10.4%	11.9%	12.5%
Vehicle occupancy	1.13	1.16	1.15	1.17
Retail/Shopping Center Case Study Sites (ITE LUC 820)				
Transit	15.4%	13.5%	19.7%	16.5%
Walk/bicycle	29.6%	19.0%	35.4%	22.8%
Vehicle occupancy	1.20	1.36	1.16	1.36
Restaurant Case Study Sites (ITE LUC 932)				
Transit	10.4%	13.8%	12.2%	16.1%
Walk/bicycle	29.9%	17.6%	38.8%	22.4%
Vehicle occupancy	1.36	1.71	1.35	1.69

Source:
Mode share and vehicle occupancy adjustment factors were extracted from linked trip data records developed from the 2004 MWCOG HTS.

5.4.1 Residential Land Use Category

The results in Table 5.2 show that the method results in substantially higher peak hour trip generation at the three residential infill case study sites when compared to the actual trips. The results range from a factor of two to as high as nearly three and a half times the actual trips. The research team expected that the method would overpredict or underpredict, but did not expect the large differences shown in Table 5.2.

The three residential test sites generate low volumes of traffic, so the percentage difference between the predicted and actual trips can be misleadingly large. For example, the Columbia Uptown residential test site was determined to generate 13 vehicle trips in the a.m. peak hour, while the method predicts the a.m. peak hour to be 25 trips. The absolute difference of 12 trips remains a small number, but the percentage difference of 92% appears large.

The research team considered that magnitude of the difference between predicted and actual vehicle trips might be an anomaly or magnification of error related to the small number of actual trips. But because all of the residential sites had low actual vehicle trips, the research team was unable to confirm a magnification of error.

When compared to trips estimated using ITE trip generation rates, the method predicts about one-third to one-half fewer trips at all three study sites, as the research team expected. The difference between the predicted and ITE trip

14. UTILITIES ANALYSIS

A Utility Assessment was prepared in August 2015 for the Project Site, which included a review of existing utilities and possible future services, site access, and development considerations. The Assessment considered projects in various stages of planning, permitting, and construction within the vicinity of the Project Site at that time. This Utility Assessment has been attached to this Section for reference. Assessed utilities include water, sanitary sewer, stormwater, natural gas, and communications/power.

The Project Site is currently serviced primarily through utility mains in Fore Street. As part of the Ocean Gateway facility project completed in 2007, new utility infrastructure was installed in Thames Street, an extension of Commercial Street. These utilities terminate approximately 400 feet west of the 58 Fore Street property, and were designed by the City and MaineDOT with consideration for redevelopment of the adjacent public and privately owned properties along the eastern waterfront. The 58 Fore Street redevelopment project proposes to connection to these existing utilities by routing service mains through the project roadway from the City's Thames Street extension. The proposed Utility Plan is included in the drawings attached to Section 3.

The proposed development has been coordinated with the various utilities, as described below. A description of the proposed stormwater management plan is provided in Section 12 of this Report.

14.1 PLAN FOR INFRASTRUCTURE IMPROVEMENTS (TIMING, FUNDING, CITY COORDINATION)

The project team has been conducting ongoing coordination efforts with the various utilities to discuss service connection locations, ability to serve, and estimated costs of the proposed utility work. In addition to ongoing communications, the following meetings were held:

- Meeting with CMP on July 27, 2016 at the Project Site,
- Meeting with Unitil on August 5, 2016 at the Project Site, and
- Meeting with Portland Water District on September 15, 2016 at the PWD office.

Formal letters requesting confirmation of capacity to serve have also been distributed, as summarized below.

14.2 CAPACITY TO SERVE

Letters have been distributed to the local utilities requesting confirmation of capacity to serve the proposed development, including water, sanitary sewer, natural gas, and electricity. Copies of these letters, in addition to the City of Portland Wastewater Capacity Application and sewer demand calculations, are attached to this Section. Responses will be forwarded to the City upon receipt. The documents attached to this Section summarize the existing utilities, the proposed methods of connection, and the proposed uses/estimated demands.

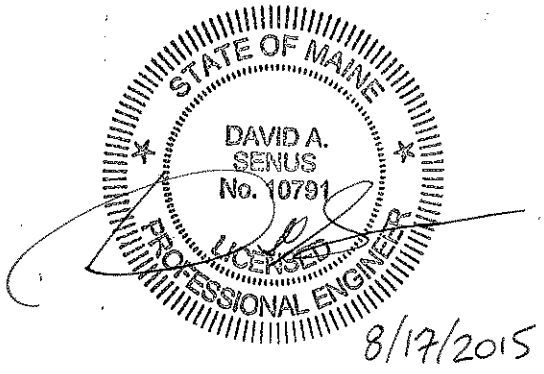
It should be noted that the estimated utility demands may change as the design progresses and that changes will be coordinated as part of future permit submissions.

14.3 ATTACHMENTS

- 58 Fore Street Utility Assessment, dated August, 2015
- Ability to Serve Requests to Utilities
- Portland Wastewater Capacity Application

WOODARD &CURRAN

58 Fore Street – Utility Assessment



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APPENDICES

1. INTRODUCTION

In December 2007, DeLuca Hoffman Associates, Inc. performed a review of the site layout and utilities on the property located at 58 Fore Street in Portland. This Report documents our desktop assessment of site utilities and serves as an update of the information contained within that 2007 document.

1.1 SITE OVERVIEW

The property at 58 Fore Street remains largely unchanged since 2007. The site is split between three parcels identified as Lots 1, 2, and 3 on Map 18 of the City of Portland Tax Maps. Lots 1 and 3 have frontage along Fore Street, while Lot 2 is located along the waterfront, separated from Lots 1 and 3 by a linear parcel containing the railroad owned by the State of Maine. The City of Portland Online Assessor's Database and GIS parcel maps identify Lots 1 and 2 together as approximately 6.92 acres, and Lot 3 as 2.87 acres. A survey completed by Owen Haskell, Inc. in May 2013 identifies the areas of Lots 1 and 2 at 6.04 acres and 1.02 acres respectively, for a total of 7.06 acres, approximately 0.14 acres greater than the City's Assessor's Database. A copy of the survey is attached in Appendix A for reference. Lot 3 is reported at the same size in the City Assessor Database and on the Owen Haskell survey. The property is located in the City's Eastern Waterfront Mixed Zone, referred to as the B6 zone, and Eastern Waterfront Port Zone (EWPZ), and is also partly within the Shoreland Overlay Zone. The following figure was taken from the City's online GIS viewer, and shows parcel boundaries and zone boundaries in the vicinity of the 58 Fore Street property.

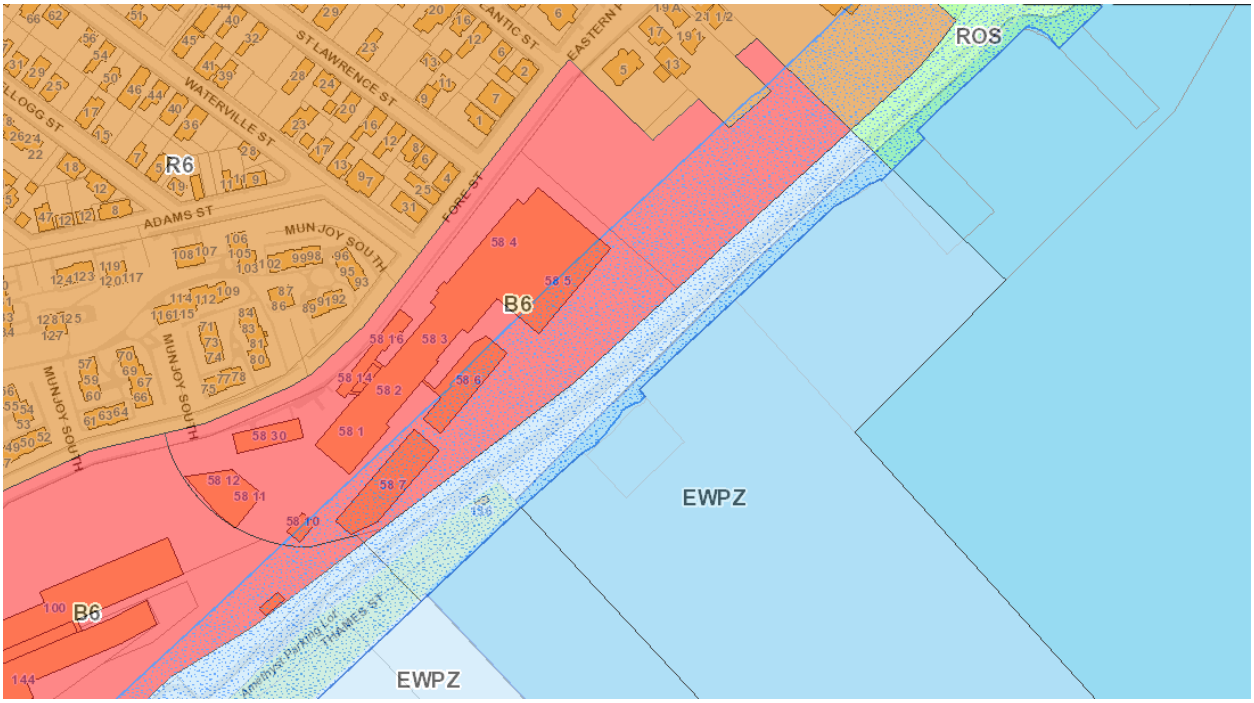


Figure 1-1 City of Portland Zoning Map

The site primarily slopes from west to east towards the waterfront. A steep grade change exists along Fore Street. The northeastern corner of the property is a steep, wooded embankment. Retaining walls and buildings have been constructed along much of the boundary with Fore Street to account for the change in grade. A driveway from Fore Street on the western end of the property provides the primary means of site access. The property is also connected to Hancock Street and Thames Street by gravel parking lots and driveways located on adjacent parcels to the west.

1.2 AREA DEVELOPMENT

Redevelopment in the eastern waterfront area of Portland, near the 58 Fore Street property, has intensified over the last 5 to 10 years. Future projects and redevelopment will require utilization of municipal, quasi-municipal and privately owned utility infrastructure and roadways in the vicinity of the 58 Fore Street property, and therefor appropriate consideration of capacity is necessary.

1.2.1 Completed Projects

The City-owned Ocean Gateway facility construction project with international ferry accommodations on Pier 2 Berth 1 was completed in 2008, and construction of the facility's cruise ship accommodations on Pier 2 Berth 2 was completed in 2011. The Ocean Gateway project included the construction of roadway extensions in the vicinity of the subject property, as well as construction of accompanying utility infrastructure (water, wastewater, storm drains, natural gas, electric and telecommunications). The Ocean Gateway facility is currently used as an event center, and as a berth for large cruise ships. Renewed use of the terminal for regular international ferry service to Nova Scotia is planned to restart in May 2014.

The roughly 750-space privately-owned Ocean Gateway parking garage was constructed in 2008 at the northwest corner of the Fore and Hancock street intersection. In the last several years, a roughly 180-key Marriott Residence Inn was completed on the northeast corner of the Fore and Hancock street intersection and in 2012, a roughly 120-key Hampton Inn with ground-floor restaurant and residential condominiums was completed at northeast corner of the intersection of Fore and Franklin Streets, at the former Jordan's Meats site. Phase one of a two phase project referred to as the "The Bay House" is nearing completion on the east side of the block formed by Hancock, Newbury, Middle and India Street. Phase I of the project includes two buildings containing 84 residential condominium units and street level commercial space.

Although within the City's Old Port District and further from the development with less potential impact, two hotel projects are under construction and nearing completion. The Hyatt Place hotel consists of 123-keys and is located on the corner of Fore Street and Union Street. The Courtyard by Marriott hotel consists of 131-keys and 14 residences and is located on the corner of Commercial Street and Maple Street.

1.2.2 Projects in Planning/Permitting/Construction

There are a number of projects in various stages of planning, permitting, and construction within the vicinity of the 58 Fore Street property. The Watermark at Ocean Gateway, proposed by Intercontinental Real Estate and local developers, obtained all permits to construct a significant mixed-use development on a 1-acre parcel bounded by Fore Street, Hancock Street, and Thames Street, however construction was never started. Permits for the project lapsed and the site has, or is currently under an Option Agreement - Purchase and Sale.

Small open parcels abut the Ocean Gateway parking garage to the north and west. These parcels could be anticipated to see future infill development (office buildings), although no development proposals have recently been submitted to the City Planning office.

Adjacent to the recently constructed Hampton Inn, on the remaining undeveloped acreage of the former Jordan's Meats site, there is additional Planning Board approved five-story mixed-use building consisting of retail space, office space, and residential condominium units.

The "Seaport Lofts", otherwise known as "The Bay House Phase II", has received Planning Board approval for a 39 unit residential building located on the east side of the block formed by Hancock, Newbury, Federal and India Street; construction is ongoing.

The "Newbury Lofts" project was approved by the City Planning Board in the fall of 2012, and proposes 24 residential units and commercial space at the block bounded by Hampshire, Federal, and Newbury Streets and Franklin Arterial. Timeframe for construction is unknown at this time.

A recently submitted project currently under review by Planning Staff and the City Planning Board is on Munjoy Hill, a four-story mixed-use building proposed at the corner of Congress Street and St. Lawrence Street. The building is anticipated to include up to 12 residential units and ground floor commercial space.

2. UTILITY REVIEW

The property at 58 Fore Street is currently serviced primarily through utility mains in Fore Street. As part of the construction completed for the Ocean Gateway facility project, new utility infrastructure was installed in Thames Street, an extension of Commercial Street as well as Hancock Street. These utilities terminate approximately 400 feet from the property at 58 Fore Street, and could likely be extended to provide service to the property. Two plans showing existing utility infrastructure in the vicinity of the property are included in Appendix B. Figure 1 in Appendix B shows existing utility infrastructure outside of the subject property, compiled from survey data and information obtained from various utilities. Figure 2 in Appendix B shows existing utility infrastructure within the 58 Fore Street property, as identified by the 2013 survey by Owen Haskell.

2.1 WATER

The property is currently serviced by the Portland Water District (PWD) from an 8-inch cast iron water main located in Fore Street. The PWD Infrastructure Map, included in Appendix C for reference, shows the existing waterline in Fore Street, and identifies that it was installed in 1901 and 1902. The Map also shows the locations of the water services that enter the 58 Fore Street property.

Water service record cards have been provided for the four services that enter the property at two locations, and are included in Appendix C. Service 7462 is an 8-inch cast iron fire water service located on the eastern end of the property. The service card indicates that the service was installed in 1922. Services 90A, 90B, and 90C are all located at the western end of the property, and include two fire services (6-inch and 4-inch cast iron), and a domestic water service (1 ½-inch, material not specified). The age of these services are not identified on the PWD service record cards. Retirement or maintenance of any of the existing services will be the responsibility of the property owner.

The survey completed by Owen Haskell, Inc. in May 2013 indicates that there is a system of "private" buried water lines located throughout the 58 Fore Street property. This network of piping appears to deliver domestic and fire water to buildings and hydrants located throughout the property. There are no known PWD easements on the site, and we can therefore assume that the water infrastructure on the site is a private system that is the responsibility of the owner.

With the Ocean Gateway project completed in 2008, new utility lines, including a 12-inch water main, were installed to the end of Thames Street. The new water main could be extended towards the 58 Fore Street property, providing a service connection alternative to the 100-year old Fore Street water main.

We did not pressure test, leak test or evaluate the integrity of the "private" water services on the site; upon development of the Master Plan, we would recommend completing this work as necessary, to assess the condition of the infrastructure for future use or replacement as part of the redevelopment of the property. As part of that effort, coordination with PWD would be required to determine the best option for providing adequate pressure and capacity to the site, whether that includes reusing existing infrastructure on site, existing or new services from Fore Street, Thames Street, or a combination thereof. The system may require connections to both (looped system) to satisfy pressure and capacity needs.

2.2 SANITARY SEWER

The property's existing sewer service discharges to the City's gravity sewer in Fore Street. The existing public sewer in Fore Street increases in size from 18 to 24 to 36 inches, from east to west in front of the 58 Fore Street property. The Portland Sewer System Infiltration-Inflow Analysis maps (I&I maps) for the area show the pipe sizes, as well as information on pipe materials and ages. The 18-inch pipe is identified as brick, with no age; the 24-inch pipe is identified as vitrified clay pipe installed in 1935; and no material or age information is provided for the 36-inch pipe.

A service card obtained from the City of Portland archives located at the Public Services Department indicates that a 4-inch sewer service was installed to one of the buildings located at 58 Fore Street in 1984. A review of the sewer

service card and the 2013 Owen Haskell survey indicates that a 15-inch brick sewer extends into the 58 Fore Street property from the sewer manhole on Fore Street (located at the transition from the 24" sewer to the 36" sewer main). The survey does not identify any sewer piping internal to the property. The survey does identify a pump station located on the property and the 2007 DeLuca Hoffman Site Overview and Utility report identified that this pump station is privately owned, and pumps the property's sanitary sewer back to the Fore Street sewer. Additional confirmation of the sanitary sewer pipes identified on the survey is required to confirm the locations of the internal building sewer connections, and whether they will be impacted under the redevelopment Master Plan. It is recommended that CCTV inspections, test pits, and leak testing be completed to evaluate the condition of the existing sewer pipes internal to the site to determine if any of the internal sewer infrastructure may be reused. We also did not evaluate the condition of the existing "private" pump station, pressure test the "private" pump station forcemain, or leak test or evaluate the integrity of the "private" sanitary sewer services on the site. Upon development of the Master Development Plan, we would recommend completing this work to assess the condition of the infrastructure for future use or replacement as part of the redevelopment of the property.

The Fore Street sewer is a combined sewer system that connects to sewers on India Street to the India Street Pump Station, and through the Combined Sewer Overflow (CSO) 23. This CSO overflows into Portland Harbor during high combined flow events caused by rainfall. Both the India Street CSO and Pump Station are owned and operated by the Portland Water District. The India Street Pump Station conveys combined sewage through a 33-inch forcemain to the East End Wastewater Treatment Facility, which is also owned and operated by the Portland Water District.

The 33-inch sewer pressure forcemain from the India Street Pump Station to the East End Wastewater Treatment Facility runs through the portion of the 58 Fore Street property in close proximity to the Eastern Promenade Trail, identified on the City of Portland Assessor's maps as Lot 2. An easement is not identified on the Owen Haskell Survey, however there are two deeds from 1976 which identify the existence of an easement for the sewer forcemain; one deed specifically identifies a 30' easement (15' on either side of the pipe) for a portion of the length of the forcemain, while the second deed references a plan maintained at the Portland Water District. A copy of a plan obtained from PWD is included in Appendix C. This prestressed concrete cylinder pipe carries up to 40 Million Gallons per Day (MGD) of combined sewage and is identified here for the purpose of understanding how the redevelopment Master Plan may be impacted by the location of the forcemain, and the need to maintain an accessible easement; we recommend coordination with Portland Water District as it relates to potential or perceived impacts to the forcemain, and working through the establishment of an easement, if necessary.

A new 12-inch sanitary sewer line was installed at the eastern end of Thames Street as part of the Ocean Gateway project. This sewer line increases to 15 inches in diameter further to the west on Thames Street, and connects directly into the 51-inch brick sewer that is located in India Street. Prior to construction, the brick sewer was CCTV-inspected in 2006, and was found to be in acceptable condition. The brick sewer connects through the India Street CSO structure to the India Street Pump Station. We completed a preliminary review of site grades and the elevation of the sewer installed in Thames Street, which indicate that a gravity flow connection to that Thames Street sewer may be possible, eliminating the need for a private pump station on the 58 Fore Street property.

2.3 STORMWATER

As identified in the previous section, the 58 Fore Street property is currently connected to a combined sanitary/stormwater system in Fore Street. The City of Portland is working to reduce the number of combined sewer overflows occurring in the City, and any separation of sanitary sewer from stormwater flow will help with this initiative. In early 2013, the City's Combined Sewer Overflow Long Term Control Plan Tier III Update was completed; one of the geographic areas evaluated in this report was the Portland Harbor. The 58 Fore Street area was identified as part of the India Street CSO-shed; however the report did not give any specific recommendations for management of stormwater in this area. A targeted area for green infrastructure and sewer separation was identified within the report, southwest of the proposed development area.

The Ocean Gateway construction project created separate stormwater and sanitary sewer systems installed to the end of Thames Street. The stormwater discharges to an outfall constructed as part of the project. Prior to discharge at this new outfall, stormwater is directed through a stormwater treatment unit designed to meet water quality standards established at that time. A 2006 evaluation of this stormwater system identified the maximum drainage area and acceptable flows that could discharge to the outfall's stormwater treatment system; stormwater flows from 58 Fore Street cannot be handled by the Ocean Gateway outfall's permitted stormwater treatment system.

A review of the 2013 Owen Haskell, Inc. survey indicates that there are currently three stormwater outfall discharges on the site; however, portions of the site's stormwater runoff may discharge to the combined sewer system. A complete separation of the 58 Fore Street property's stormwater runoff from its sanitary sewer discharge, combined with quality treatment of the site's stormwater would help to further the City's plans for reducing combined sewer overflows and improving water quality. Based on our experience, we anticipate separation of storm and sanitary sewer at the subject property will be the minimum acceptable measure to the City during the local permitting process. Any new impervious or developed area on the site will require the design and installation of water quality treatment measures in accordance with the City's Technical Standards. State permits, as applicable, may require water quality treatment measures for all redeveloped area with a change of use.

Additionally, the City of Portland is currently exploring the option of implementing a stormwater utility to provide equity between sewer rate payers and stormwater generators by assessing a fee based on the area of impervious surface on a property, with credits provided for certain stormwater improvements. As the stormwater utility fee structure is implemented, it is anticipated that the current PWD-assessed sewer rates would lower in response to this new source of revenue. A stormwater utility would provide an incentive for including water quality improvement systems and increased pervious surface on new development projects. Site planning and design should take into consideration the potential for a stormwater utility fee and associated credits, incorporating appropriate pervious surfaces into the site development plan and evaluating the capital cost of stormwater management systems against potential future fees and credits, as stormwater utility information becomes more available.

New development at 58 Fore Street will require the reconfiguration of the site's storm drain piping, including new inlets and roof drain connections. Depending on the proposed drainage configuration and level to which green infrastructure (including quantity and quality treatment) is incorporated on the property, the existing outfalls on the property may be adequately sized, or require upgrades.

Alternately, a new outfall into Portland Harbor could be created to discharge stormwater from a new collection and treatment system on the property. The construction of a new outfall, or the modification of an existing one would require a permit from the Maine Department of Environmental Protection.

2.4 NATURAL GAS

Natural gas service in the City of Portland is currently provided by Unitil. The 58 Fore Street property is serviced by a natural gas main in Fore Street. A significant number of new projects and conversions of existing properties to natural gas have occurred over the last several years, primarily due to the competitive pricing of natural gas. We understand from local developers that during the winter of 2012/2013, demand for natural gas was high and natural gas service, specifically pressure, was not consistent on the peninsula; this reportedly resulted in heating system malfunctions and outages throughout the downtown.

The existing gas main in Fore Street adjacent to the 58 Fore Street property is a 6" coated steel pipe that was installed in the late 1960s. Unitil has indicated that this is a medium pressure gas main, and that capacity has not been an issue in this area. The property currently has a regulator that sends low pressure services to various locations within the site. Once a preliminary plan for development has been established, Unitil will help to generate an appropriate layout for services and meters within the site.

Unitil has stated that the ideal connection point for natural gas service for new development on the property will likely be from Fore Street; however, a new 6-inch plastic gas main was installed to the end of Thames Street in 2006 as

part of the Ocean Gateway project. As the plan for development progresses, possible connection to this gas main location can be further evaluated.

2.5 COMMUNICATIONS/POWER

The 58 Fore Street property is currently serviced by Central Maine Power (CMP) for electrical service and Fairpoint Communications and Time Warner Cable for communication services. The power and communication services to the buildings on the property originate from overhead utility lines on Fore Street.

CMP has indicated that the three-phase 470V electrical service that serves the property has the capacity to supply the power needs of a future development project at the site. Fairpoint Communications has also stated that they have the capacity to provide communications services for a future development project at the site. The existing property has copper communication services, but fiber optic lines are located in the vicinity of the property and could be used to provide high speed communications service.

Time Warner Cable also has both coaxial and fiber optic lines on the existing poles on Fore Street in front of the 58 Fore Street property, with two service drops for the existing buildings located along Fore Street. Currently they are not providing services to buildings located further away from Fore Street, towards the southeastern side of the site, and Time Warner Cable indicated that a new conduit system internal to the site would be required to extend service further into the site. This would be the case for all power and communications utilities.

Oxford Networks is a third communications service provider with fiber optic cable installed in the area. They have existing fiber optic lines on Fore Street between the intersections with Mountfort Street and Waterville Street, along approximately half of the property's frontage.

All power and communications providers have stated that additional project program/design information will be required for them to calculate their detailed service requirements and costs, and that they are all willing to work with the developer as the project moves forward.

The City of Portland's Technical Manual includes a detail for standard utility locations in City streets. This detail calls for underground electrical and communications lines. New lines installed for future development would need to be installed underground. The City of Portland has also set a precedent with large development projects in the City, requiring that existing overhead lines along a project's roadway frontage be removed and reinstalled underground. Development on the subject property will likely require relocating the existing Fore Street overhead electric and communications lines below ground, along with providing underground service to the site from Fore Street and/or Thames Street. The construction of Thames Street as part of the Ocean Gateway project included installation of underground conduit to allow for future underground electrical and communication services in the area.

2.6 FUTURE SERVICES

City Planning documents have contemplated the extension of Thames Street and associated utilities. Figure 1 shows this extension of Thames Street, including an extension of gas, sewer, water, electric, and communications infrastructure, to the 58 Fore Street property. While this extension may provide an ideal location for future service connections to the property for some utilities, other utilities may better serve the site from their existing location in Fore Street. The location of services will depend greatly on the layout and phasing of the proposed development and the extent that existing buildings and infrastructure will be maintained. As design development progresses, all utility companies will need to be engaged to determine the best locations for designing service connections.

3. SITE ACCESS

3.1 EXISTING AND PROPOSED ACCESS

Main access to the property is by way of a driveway from Fore Street at the western end of the property. The access route extends through the site with driveways and parking areas in between buildings. Gravel driveways and parking areas on the adjacent property to the west connect to 58 Fore Street and provide a secondary means of access, as do gravel and paved ways along the waterfront that connect back to Thames Street. A State of Maine-owned railroad line and the Eastern Promenade trail run along the property, separating the inland parcels (Map 18 Lots 1 and 3) from the waterfront edge (Map 18 Lot 2).

Fore Street changes to Eastern Promenade just east of the subject property, and based on data from the Maine Department of Transportation's (MDOT) Map Viewer, both streets are classified as major/urban collectors with state aid from the MDOT. India Street and Commercial Street west of India Street are both minor arterials and MDOT state highways. The Thames Street extension of Commercial Street installed as part of the Ocean Gateway project is a local road under City of Portland jurisdiction.

An extension of Thames Street to the east (and the potential connection up to Fore Street between the subject property and the adjacent lot to the west) remains the likely primary means for future site access. Thames Street was constructed to within 400 feet of the property as part of the Ocean Gateway Terminal construction project. The attached figure shows a proposed Thames Street layout, with an extension of approximately 300 linear feet, with a connector street back to Fore Street. The maintenance of access from Fore Street may also be a viable option; however, we have not evaluated this option in detail. A traffic management study will need to be completed to determine the best route for primary access based on traffic and circulation concerns in the area and the proposed scale and type of development.

We anticipate the Master Planning process will inform site access considerations and connectivity beyond what is described here.

3.2 PAVEMENT CONDITIONS

In 2013, the MDOT installed a pavement overlay on Eastern Promenade, starting at the intersection with Atlantic Street, just beyond the 58 Fore Street property. Fore Street in front of the subject property was not repaved. Existing sidewalks on Fore Street are made of concrete. This area of the City is located within the area designated for brick sidewalk. Discussions with the City of Portland Planning Division and Public Services Department will be required to determine the need for sidewalk reconstruction; however, development on the 58 Fore Street property will likely require construction of new brick sidewalks along the street frontage, or contribution to a fund for future sidewalk upgrades.

Thames Street was constructed within the past five years, and would likely not require significant work beyond patching at utility connections. Thames Street currently has brick sidewalk on the southern side of the street, and bituminous sidewalk on the northern side of the street. An extension of Thames Street would also require the extension of both sidewalks. Brick sidewalks may be required to on both sides of the street to comply with the City's standards for sidewalk materials in this location.

Pavement conditions within the 58 Fore Street parcels have not been evaluated as part of this assessment. The assumption has been made that the proposed development will result in extensive disturbance, and repaving of the entire site will be necessary. A geotechnical evaluation at the site will provide information about the existing pavement thickness and underlying soils. With this information, an appropriate new pavement section can be specified for driveways and parking areas on the property.

4. DEVELOPMENT ISSUES

DeLuca Hoffman identified a number of development issues as part of their 2007 analysis. The issues they identified are repeated below in italics, with additional information following each. Each of the issues identified in 2007 generally hold true today.

- *Site access by an extension of Thames Street into the site will need to be reviewed with City officials, particularly with respect to the demolition of existing structures to allow the extended street alignment as well as the development of new buildings for new mixed uses.*

  The extension of Thames Street to provide site access will require careful consideration, as well as coordination with the City of Portland and other adjacent land owners. The street extension and associated utility corridor may require land swaps and/or the creation of public access and utility easements. The current City of Portland standards for road construction and layout must be considered in the design. Cost responsibility for these roadway extensions would likely need to be negotiated with the City.

- *Onsite parking will require careful planning and technical guidance as the City will look for assurance that adequate parking is provided. The City will place great importance on the incorporation of Transportation Demand Management (TDM) measures into the site design so that overall traffic impacts from the site may be reduced. The site features will need to include measures for public bus service.*

  As the plan for development progresses, the need for parking and public transportation will continue to be an important consideration. Shared use parking may be of particular interest to the City.

- *The design of a retaining structure(s) along the Fore Street boundary will need to be carefully planned and designed for economics and functionality.*

  No additional comment.

- *Utility availability for the major services including water, sewer and power appears reasonable; however, new onsite infrastructure for all utilities appears necessary given the age and location of the existing systems.*

  No additional comment.

- *Current State and local regulations for stormwater management will require significant measures for stormwater quality treatment prior to release into the harbor. The existing site currently contains no formal measures for water quality treatment of stormwater runoff; therefore an entirely new drainage system will likely be required for any future development program.*

  No additional comment.

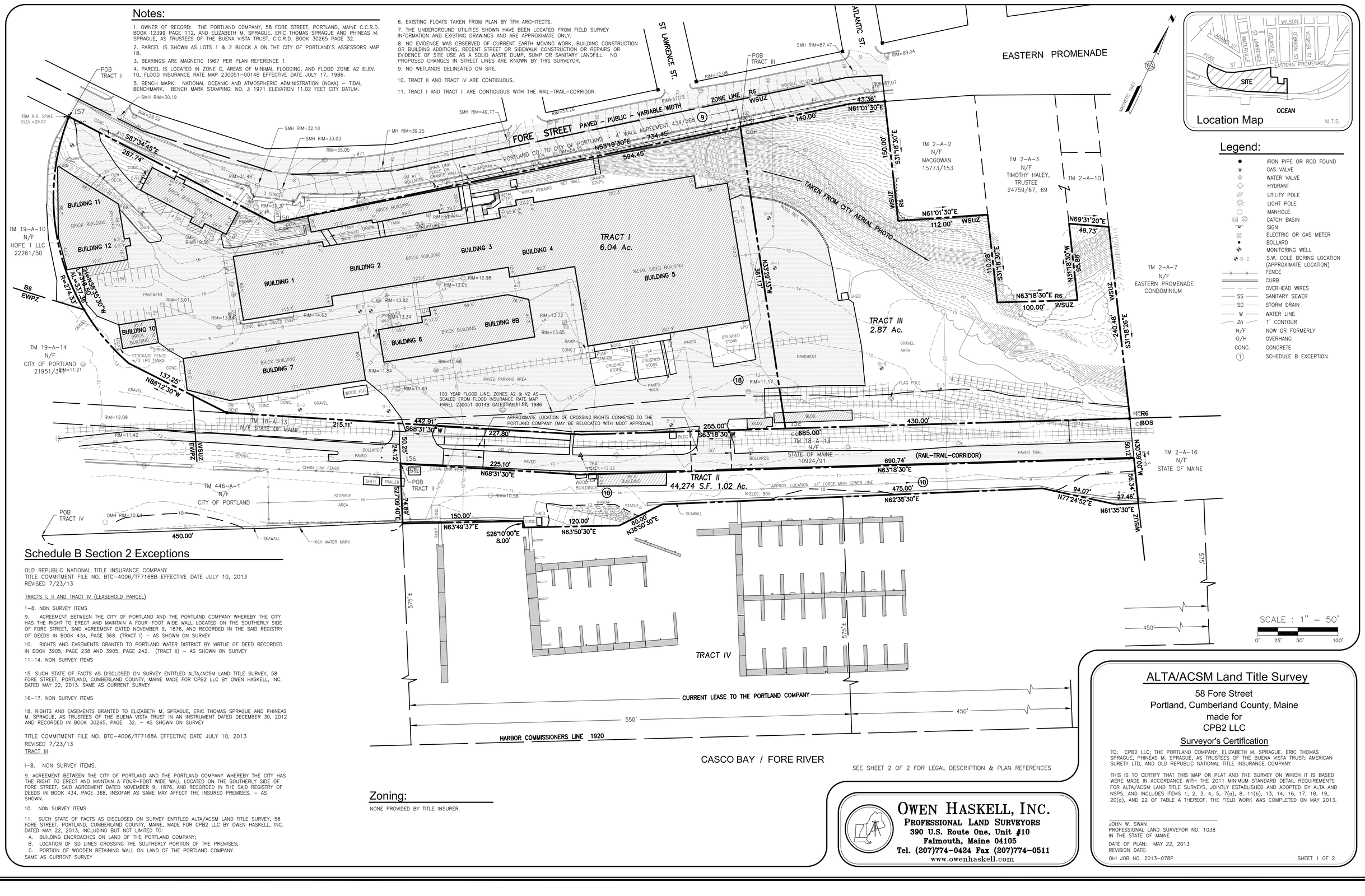
- *Pedestrian access through the site and connections to the Portland waterfront trail system will be emphasized by the City during their review process.*

  The City will be interested in status of negotiations with and the future of the MaineDOT (Narrow Gauge Railway) and Portland Trails Eastern Promenade Trail (public access).

APPENDIX A: 2013 SURVEY

Notes:

1. OWNER OF RECORD: THE PORTLAND COMPANY, 58 FORE STREET, PORTLAND, MAINE C.C.R.D. BOOK 12399 PAGE 112, AND ELIZABETH M. SPRAGUE, ERIC THOMAS SPRAGUE AND PHINEAS M. SPRAGUE, AS TRUSTEES OF THE BUENA VISTA TRUST, C.C.R.D. BOOK 30265 PAGE 32.
2. PARCEL IS SHOWN AS LOTS 1 & 2 BLOCK A ON THE CITY OF PORTLAND'S ASSESSORS MAP 18.
3. BEARINGS ARE MAGNETIC 1967 PER PLAN REFERENCE 1.
4. PARCEL IS LOCATED IN ZONE C, AREAS OF MINIMAL FLOODING, AND FLOOD ZONE A2 ELEV. 10, FLOOD INSURANCE RATE MAP 230051–0014B EFFECTIVE DATE JULY 17, 1986.
5. BENCH MARK: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) – TIDAL BENCHMARK. BENCH MARK STAMPING: NO. 3 1971 ELEVATION 11.02 FEET CITY DATUM.
6. EXISTING FLOATS TAKEN FROM PLAN BY TFH ARCHITECTS.
7. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS AND ARE APPROXIMATE ONLY.
8. NO EVIDENCE WAS OBSERVED OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS, RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OR EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL. NO PROPOSED CHANGES IN STREET LINES ARE KNOWN BY THIS SURVEYOR.
9. NO WETLANDS DELINEATED ON SITE.
10. TRACT II AND TRACT IV ARE CONTIGUOUS.
11. TRACT I AND TRACT II ARE CONTIGUOUS WITH THE RAIL–TRAIL–CORRIDOR.



Location Map N.T.S.

Legend:

- IRON PIPE OR ROD FOUND
- GAS VALVE
- WATER VALVE
- HYDRANT
- UTILITY POLE
- LIGHT POLE
- MANHOLE
- CATCH BASIN
- SIGN
- ELECTRIC OR GAS METER
- BOLLARD
- MONITORING WELL
- B–2 S.W. COLE BORING LOCATION (APPROXIMATE LOCATION)
- FENCE
- CURB
- OVERHEAD WIRES
- SS SANITARY SEWER
- SD STORM DRAIN
- W WATER LINE
- 20 1' CONTOUR
- N/F NOW OR FORMERLY
- O/H OVERHANG
- CONC. CONCRETE
- (1) SCHEDULE B EXCEPTION

Schedule B Section 2 Exceptions

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
TITLE COMMITMENT FILE NO. BTC–4006/TF7168B EFFECTIVE DATE JULY 10, 2013
REVISED 7/23/13

TRACTS I, II AND TRACT IV (LEASEHOLD PARCEL)

1–8. NON SURVEY ITEMS

9. AGREEMENT BETWEEN THE CITY OF PORTLAND AND THE PORTLAND COMPANY WHEREBY THE CITY HAS THE RIGHT TO ERECT AND MAINTAIN A FOUR–FOOT WIDE WALL LOCATED ON THE SOUTHERLY SIDE OF FORE STREET, SAID AGREEMENT DATED NOVEMBER 9, 1876, AND RECORDED IN THE SAID REGISTRY OF DEEDS IN BOOK 434, PAGE 368. (TRACT I) – AS SHOWN ON SURVEY

10. RIGHTS AND EASEMENTS GRANTED TO PORTLAND WATER DISTRICT BY VIRTUE OF DEED RECORDED IN BOOK 3905, PAGE 238 AND 3905, PAGE 242. (TRACT II) – AS SHOWN ON SURVEY

11–14. NON SURVEY ITEMS

15. SUCH STATE OF FACTS AS DISCLOSED ON SURVEY ENTITLED ALTA/ACSM LAND TITLE SURVEY, 58 FORE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR CPB2 LLC BY OWEN HASKELL, INC. DATED MAY 22, 2013. SAME AS CURRENT SURVEY

16–17. NON SURVEY ITEMS

18. RIGHTS AND EASEMENTS GRANTED TO ELIZABETH M. SPRAGUE, ERIC THOMAS SPRAGUE AND PHINEAS M. SPRAGUE, AS TRUSTEES OF THE BUENA VISTA TRUST IN AN INSTRUMENT DATED DECEMBER 30, 2012 AND RECORDED IN BOOK 30265, PAGE 32. – AS SHOWN ON SURVEY

TITLE COMMITMENT FILE NO. BTC–4006/TF7168A EFFECTIVE DATE JULY 10, 2013
REVISED 7/23/13
TRACT III

1–8. NON SURVEY ITEMS.

9. AGREEMENT BETWEEN THE CITY OF PORTLAND AND THE PORTLAND COMPANY WHEREBY THE CITY HAS THE RIGHT TO ERECT AND MAINTAIN A FOUR–FOOT WIDE WALL LOCATED ON THE SOUTHERLY SIDE OF FORE STREET, SAID AGREEMENT DATED NOVEMBER 9, 1876, AND RECORDED IN THE SAID REGISTRY OF DEEDS IN BOOK 434, PAGE 368, INSOFAR AS SAME MAY AFFECT THE INSURED PREMISES. – AS SHOWN.

10. NON SURVEY ITEMS.

11. SUCH STATE OF FACTS AS DISCLOSED ON SURVEY ENTITLED ALTA/ACSM LAND TITLE SURVEY, 58 FORE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE, MADE FOR CPB2 LLC BY OWEN HASKELL, INC. DATED MAY 22, 2013, INCLUDING BUT NOT LIMITED TO:
A. BUILDING ENCROACHES ON LAND OF THE PORTLAND COMPANY;
B. LOCATION OF SD LINES CROSSING THE SOUTHERLY PORTION OF THE PREMISES;
C. PORTION OF WOODEN RETAINING WALL ON LAND OF THE PORTLAND COMPANY.
SAME AS CURRENT SURVEY

Zoning:

NONE PROVIDED BY TITLE INSURER.

SEE SHEET 2 OF 2 FOR LEGAL DESCRIPTION & PLAN REFERENCES

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. Route One, Unit #10
Falmouth, Maine 04105
Tel. (207)774–0424 Fax (207)774–0511
www.owenhaskell.com

ALTA/ACSM Land Title Survey

58 Fore Street
Portland, Cumberland County, Maine
made for
CPB2 LLC

Surveyor's Certification

TO: CPB2 LLC; THE PORTLAND COMPANY; ELIZABETH M. SPRAGUE, ERIC THOMAS SPRAGUE, PHINEAS M. SPRAGUE, AS TRUSTEES OF THE BUENA VISTA TRUST; AMERICAN SURETY LTD, AND OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

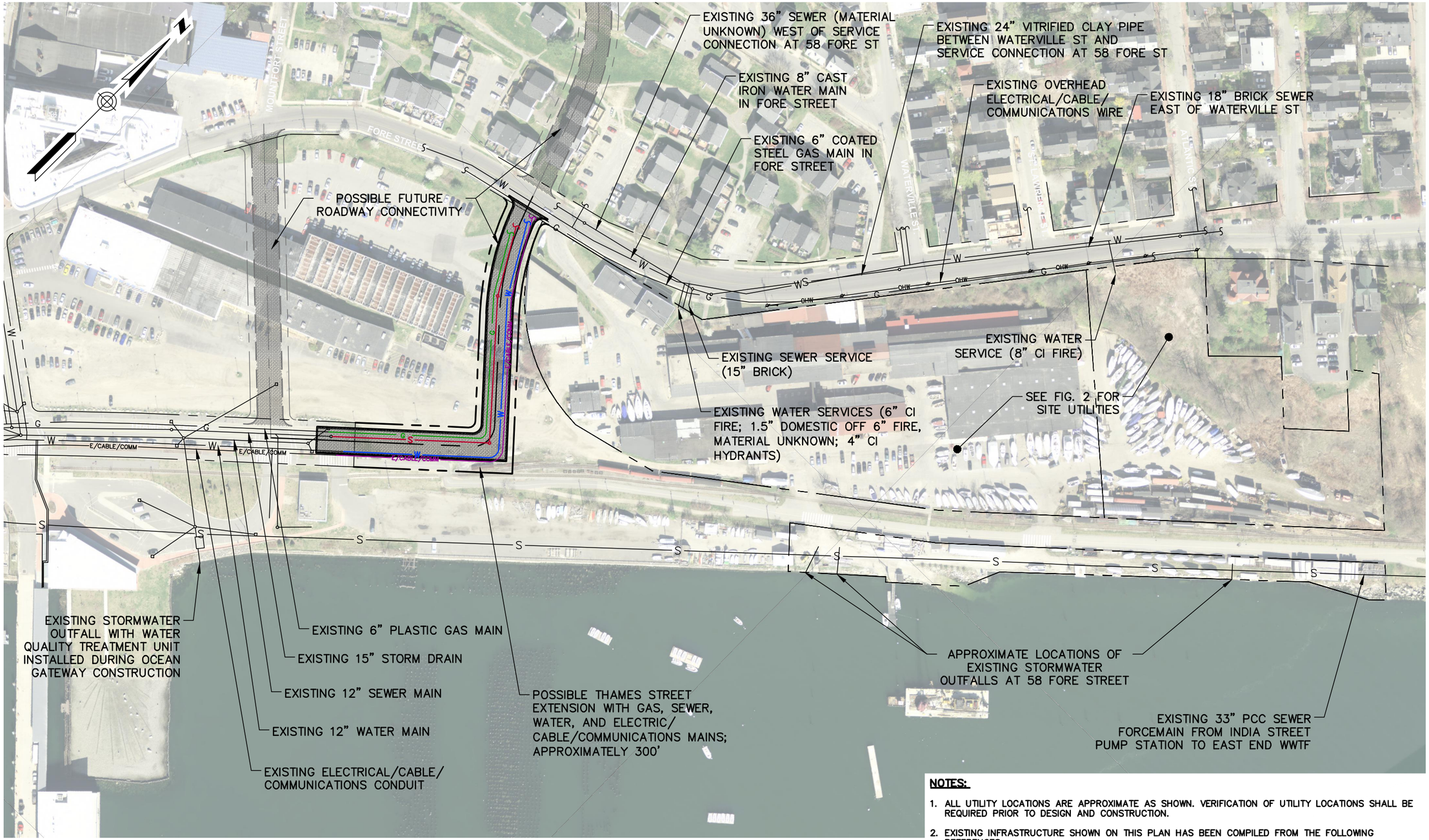
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(a), 8, 11(b), 13, 14, 16, 17, 18, 19, 20(a), AND 22 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MAY 2013.

JOHN W. SWAN
PROFESSIONAL LAND SURVEYOR NO. 1038
IN THE STATE OF MAINE

DATE OF PLAN: MAY 22, 2013
REVISION DATE:

OHI JOB NO. 2013–078P

APPENDIX B: UTILITY FIGURES



150' 0 150' 300'

BAR SCALE
1" = 150'
CHECK GRAPHIC SCALE BEFORE USING

NOTES:

1. ALL UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. VERIFICATION OF UTILITY LOCATIONS SHALL BE REQUIRED PRIOR TO DESIGN AND CONSTRUCTION.
2. EXISTING INFRASTRUCTURE SHOWN ON THIS PLAN HAS BEEN COMPILED FROM THE FOLLOWING REFERENCES:
   a. ALTA/ACSM LAND TITLE SURVEY OF 58 FORE STREET PORTLAND, CUMBERLAND COUNTY, MAINE, PERFORMED BY OWEN HASKELL, INC., DATED MAY 22, 2013.
   b. COMMERCIAL STREET PLAN & PROFILE DRAWING C214, PREPARED BY WOODARD & CURRAN, DATED 1, 14, 2005.
   c. PORTLAND SEWER SYSTEM INFILTRATION–INFLOW ANALYSIS SYSTEM BASE MAPPING PLAN, PREPARED BY HUNTER–BALLEW ASSOCIATES, DATED 1981.
   d. GIS MAP OF 58 FORE STREET, PREPARED BY PORTLAND WATER DISTRICT, DATED NOVEMBER 26, 2013.
   e. MAPS OF GAS INFRASTRUCTURE IN FORE STREET AREA OF PORTLAND, PREPARED BY UNITIL, PROVIDED IN JANUARY, 2013.
   f. AERIAL IMAGE, FROM MAINE OFFICE OF GIS, GEOLIBRARY 3IN 2012 CIR.

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Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

UTILITY PLAN

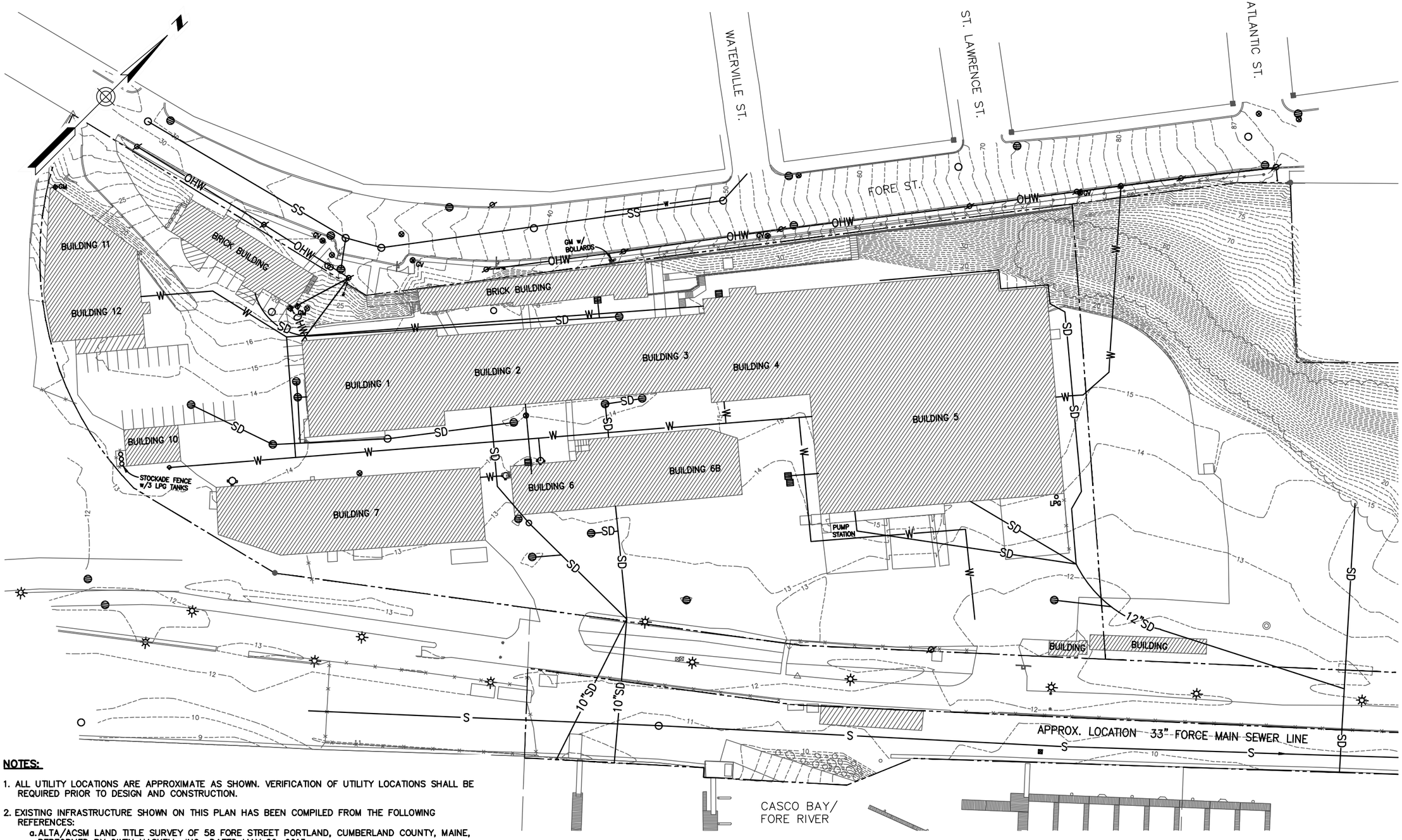
DESIGNED BY: AEA
DRAWN BY: JDE
CHECKED BY: LJS
22700700–U001.dwg

CPB2 MANAGEMENT LLC

PORTLAND COMPANY COMPLEX REDEVELOPMENT

JOB NO: 227007.00
DATE: JAN. 2014
SCALE: AS NOTED

FIGURE 1



NOTES:

1. ALL UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. VERIFICATION OF UTILITY LOCATIONS SHALL BE REQUIRED PRIOR TO DESIGN AND CONSTRUCTION.

2. EXISTING INFRASTRUCTURE SHOWN ON THIS PLAN HAS BEEN COMPILED FROM THE FOLLOWING REFERENCES:
   a. ALTA/ACSM LAND TITLE SURVEY OF 58 FORE STREET PORTLAND, CUMBERLAND COUNTY, MAINE, PERFORMED BY OWEN HASKELL, INC., DATED MAY 22, 2013.

3. UTILITY SIZES PROVIDED ONLY WHEN VERIFIED BY SURVEY.

LEGEND:

——W—— WATER
——SD—— STORM DRAIN
——SS—— SANITARY SEWER
——OHW—— OVERHEAD ELECTRICAL/ CABLE/ COMMUNICATIONS
——S—— SEWER FORCE MAIN

80' 0 80' 160'

BAR SCALE
1" = 80'
CHECK GRAPHIC SCALE BEFORE USING

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COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

EXISTING SITE UTILITY PLAN

DESIGNED BY: AEA
DRAWN BY: BCM
CHECKED BY: LJS
22700700–U002.dwg

CPB2 MANAGEMENT LLC

PORTLAND COMPANY COMPLEX REDEVELOPMENT

JOB NO: 227007.00
DATE: JAN. 2014
SCALE: 1"=80'

FIGURE 2

APPENDIX C: UTILITY BACKGROUND INFORMATION

0 50 100 200 300 400 500 Feet

1 inch = 100 feet

PORTLAND WATER DISTRICT
225 Douglass Street
Portland, ME 04104

Legend

Air Valve	Connection	Combined Service	Manhole
Blow Off	Attribute Change	Domestic Service	CSO
By Pass	Reducer	Fire Service	Gravity
Distribution	Hydrant	Private Hydrants	Force
Transmission	Hydrant Control	Meter Pits	

58 Fore Street

Portland

Disclaimer: This map is suitable for preliminary study and analysis and is based on PWD record information. PWD is not liable for any damages whatsoever resulting from inaccurate data or from errors made in the location and marking of its infrastructure.

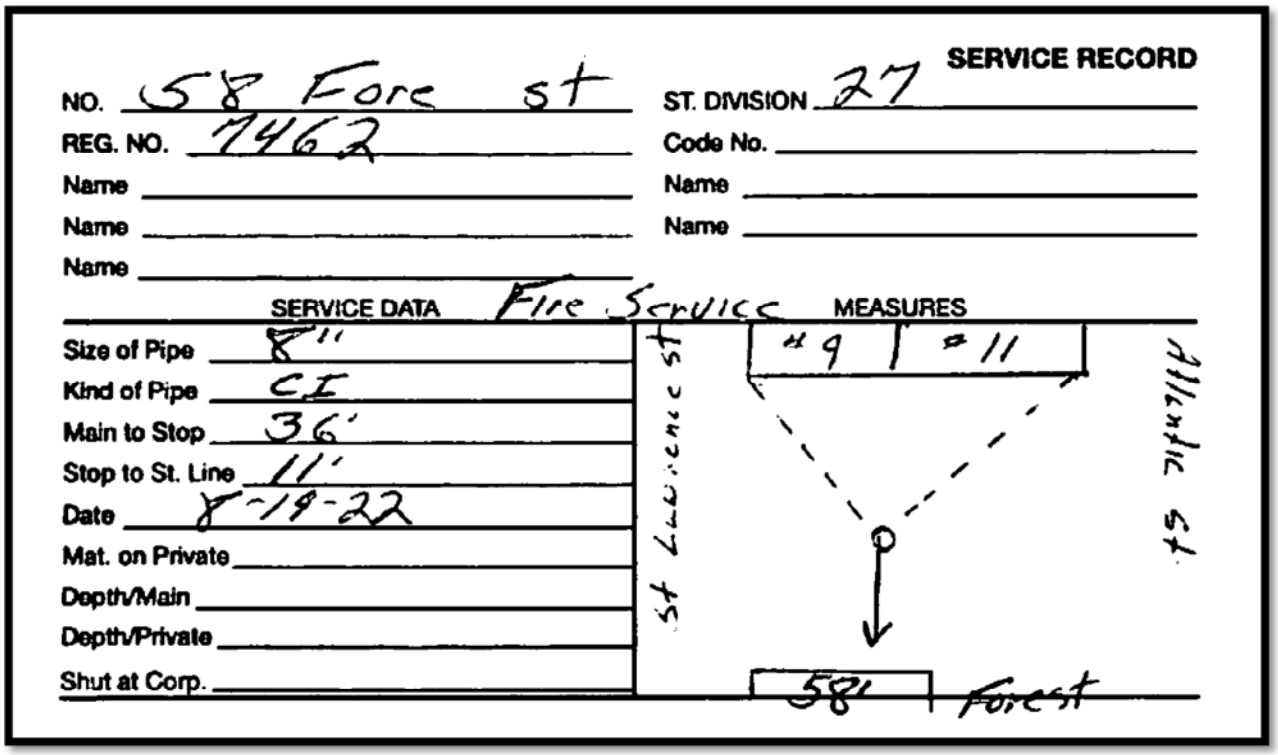
Drawn By: GJH

Prepared For: Woodard & Curran

Scale: As Noted

Date: November 26, 2013

58 Fore Street Water Services – Service Record Cards



SERVICE RECORD

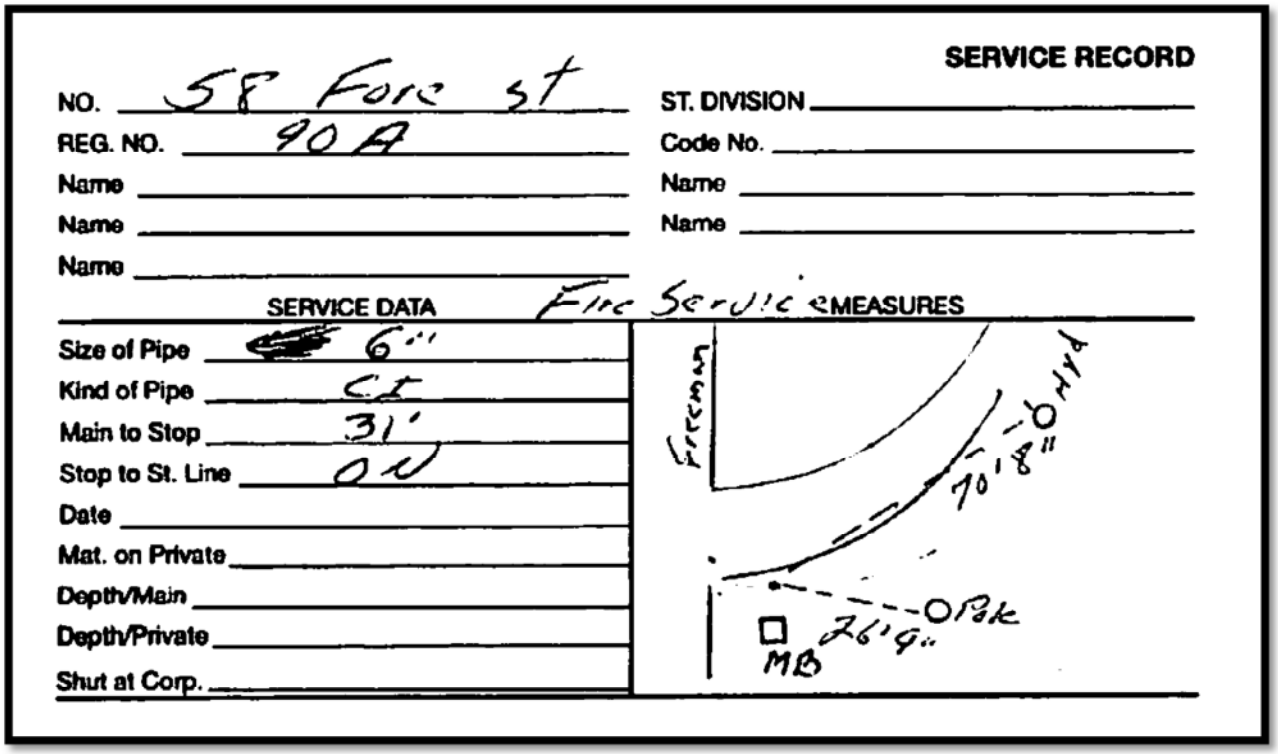
NO. 58 Fore st
REG. NO. 7462
Name
Name
Name

ST. DIVISION 27
Code No.
Name
Name

SERVICE DATA Fire Service

Size of Pipe 8"
Kind of Pipe CI
Main to Stop 36'
Stop to St. Line 11'
Date 8-19-22
Mat. on Private
Depth/Main
Depth/Private
Shut at Corp.

MEASURES



SERVICE RECORD

NO. 58 Fore st
REG. NO. 90A
Name
Name
Name

ST. DIVISION
Code No.
Name
Name

SERVICE DATA Fire Service

Size of Pipe 6"
Kind of Pipe CI
Main to Stop 31'
Stop to St. Line ow
Date
Mat. on Private
Depth/Main
Depth/Private
Shut at Corp.

MEASURES

SERVICE RECORD

NO. 58 Fore St
REG. NO. 90B
Name
Name
Name

ST. DIVISION
Code No.
Name
Name

SERVICE DATA

Size of Pipe 1 1/2"
Kind of Pipe
Main to Stop
Stop to St. Line
Date
Mat. on Private
Depth/Main
Depth/Private
Shut at Corp.

MEASURES

Connected with 90A
Meters only as Domestic
From Fire Service

Meter Box – Left of Buildi

SERVICE RECORD

NO. 58 Fore
REG. NO. 90C
Name
Name
Name

ST. DIVISION 27 Fort
Code No.
Name
Name

SERVICE DATA Fire Service

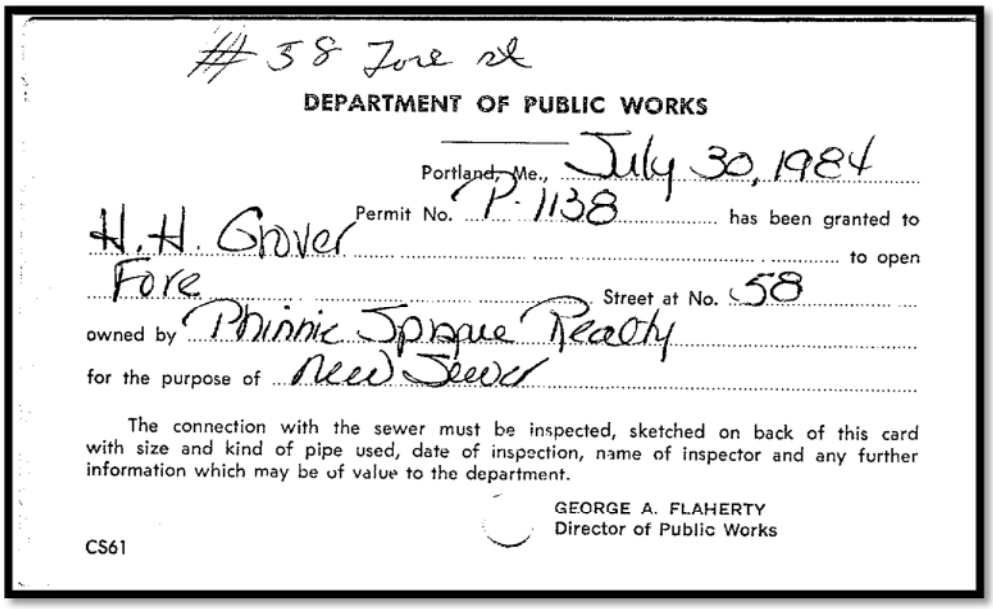
Size of Pipe 4"
Kind of Pipe CI
Main to Stop 24'
Stop to St. Line 6'
Date
Mat. on Private
Depth/Main
Depth/Private
Shut at Corp.

MEASURES

2 Private Hydrants

58 Fore Street Sewer Service – Service Record Card

Card Front:



#58 Fore st

DEPARTMENT OF PUBLIC WORKS

Portland, Me., July 30, 1984

Permit No. P. 1138 has been granted to

H. H. Grover to open

Fore Street at No. 58

owned by Phinnic Sprague Realty

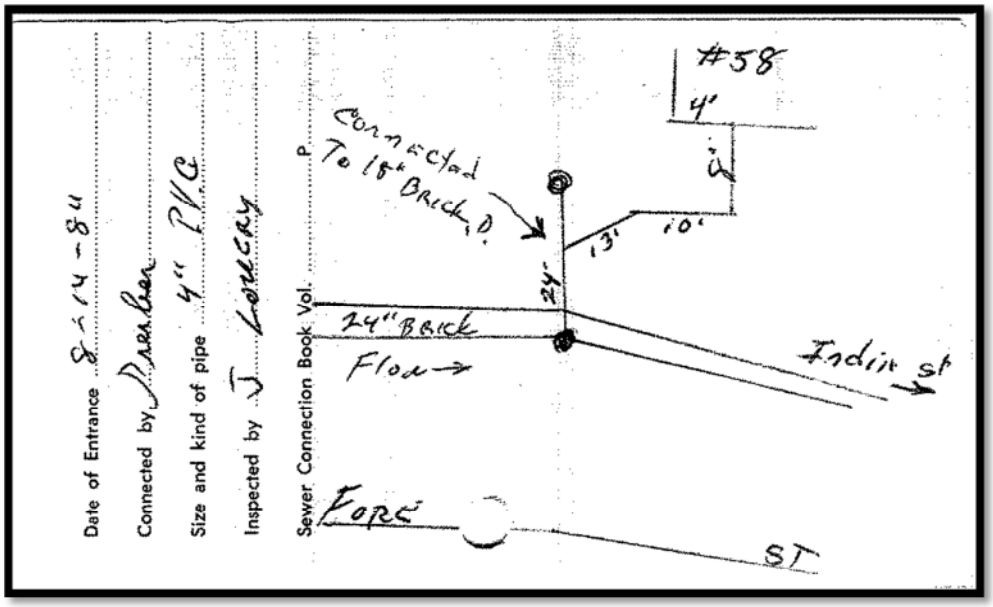
for the purpose of New Sewer

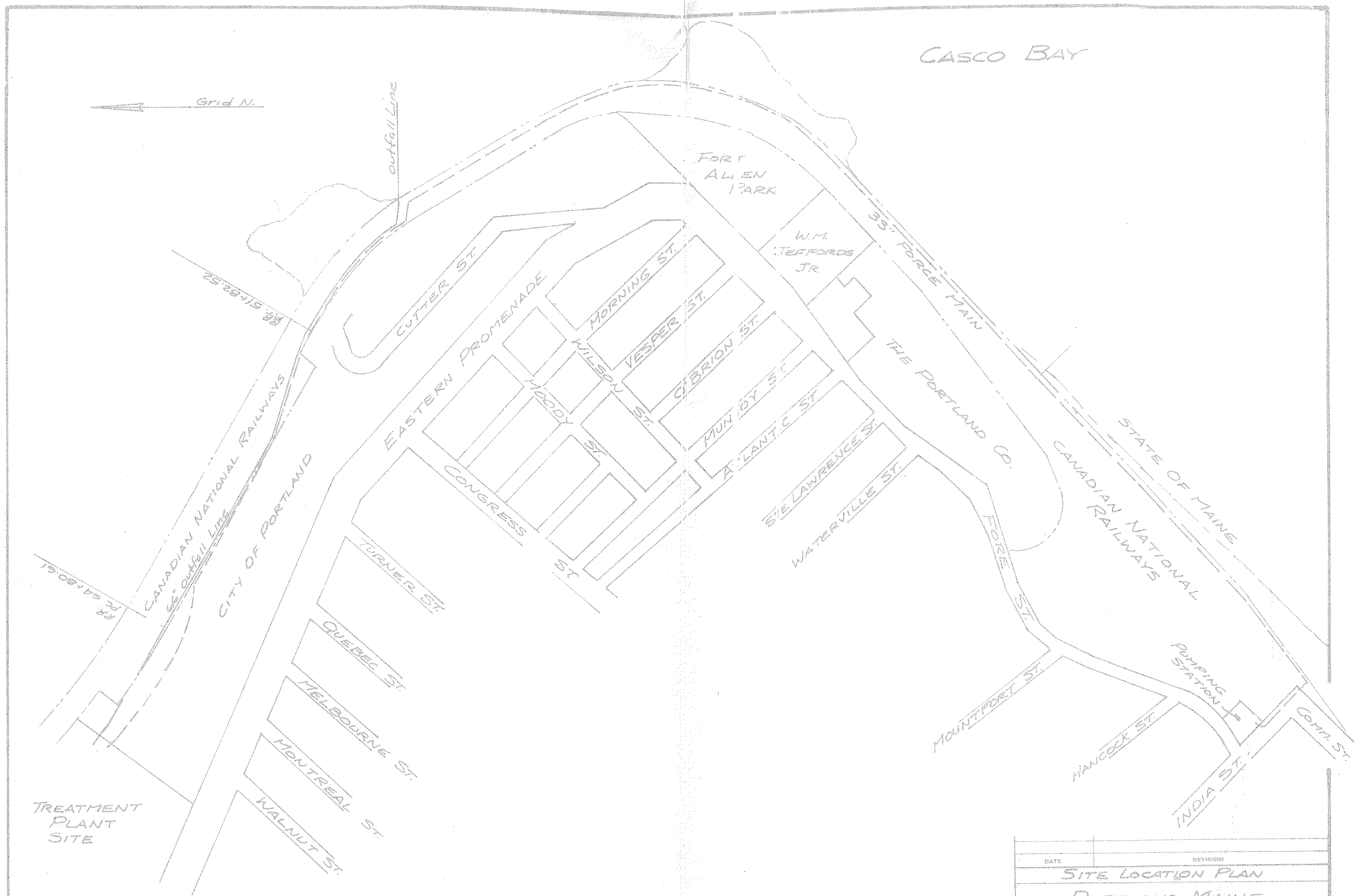
The connection with the sewer must be inspected, sketched on back of this card with size and kind of pipe used, date of inspection, name of inspector and any further information which may be of value to the department.

GEORGE A. FLAHERTY
Director of Public Works

CS61

Card Back:




CASCO BAY
Grid N.
outfall Line
FORT ALLEN PARK
W.M. TEFFORDS JR.
33" FORCE MAIN
THE PORTLAND CO.
STATE OF MAINE
CANADIAN NATIONAL RAILWAYS
CUTTER ST.
EASTERN PROMENADE
MORNING ST.
VESPER ST.
O'BRION ST.
WILSON ST.
MOODY ST.
MUNJOY ST.
ATLANTIC ST.
ST. LAWRENCE ST.
WATERVILLE ST.
CONGRESS ST.
TURNER ST.
QUEBEC ST.
MELBOURNE ST.
MONTREAL ST.
WALNUT ST.
FORE ST.
MOUNTFORT ST.
HANCOCK ST.
INDIA ST.
COMM. ST.
PUMPING STATION
CANADIAN NATIONAL RAILWAYS
66" outfall Line
CITY OF PORTLAND
TREATMENT PLANT SITE

DATE	REVISION

SITE LOCATION PLAN

PORTLAND, MAINE

MADE FOR

PORTLAND WATER DISTRICT
SHOWING LOCATION OF PROPOSED
SEWER LINES WITHIN CANADIAN
NATIONAL RAILWAYS RIGHT OF WAY

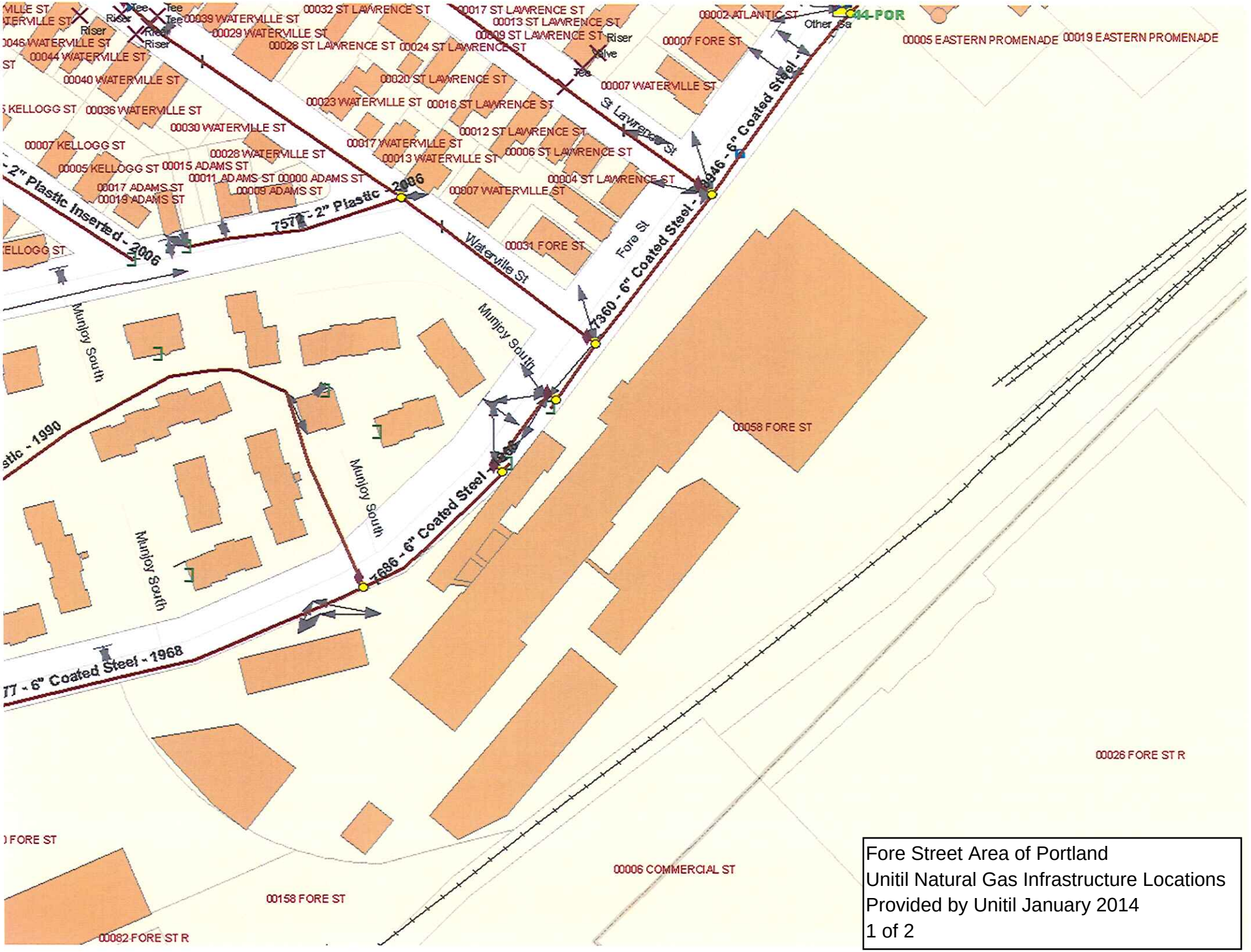
H. I. & E. C. JORDAN — SURVEYORS

DIVISION OF EDWARD C. JORDAN CO., INC.
PORTLAND, MAINE

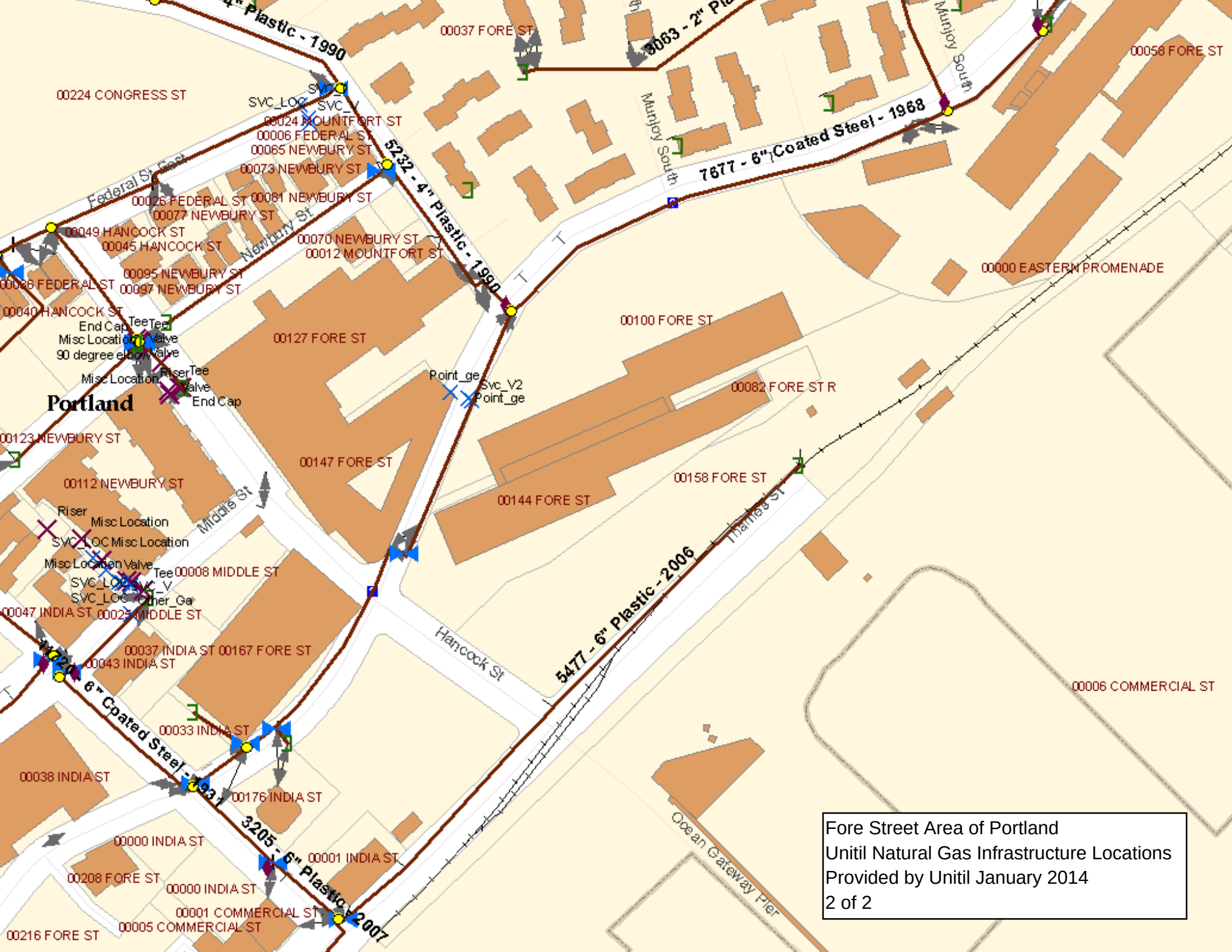
SCALE: 1" = 400'

DATE 2-26-197[illegible]

SURVEY	PLOT	TRACED	FIELD BOOK	OTHER PLAN NOS.	REG NO.	PLAN FILE NO.
	JMR	JMR				374



Fore Street Area of Portland
Unitil Natural Gas Infrastructure Locations
Provided by Unitil January 2014
1 of 2



Fore Street Area of Portland
Unitil Natural Gas Infrastructure Locations
Provided by Unitil January 2014
2 of 2

COMMITMENT & INTEGRITY
DRIVE RESULTS

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Portland, Maine 04102
www.woodardcurran.com

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T 207.774.2112
F 207.774.6635

WOODARD &CURRAN

September 16, 2016

Scott Carpenter
Unitil ME Gas Operations
376 Riverside Industrial Parkway
Portland, ME 04103

Re: Natural Gas Service Request – 58 Fore Street Re-development, Portland, Maine

Dear Scott:

On behalf of CPB2, LLC, this letter serves as written request for confirmation of availability to serve natural gas for the above-referenced project. CPB2 is submitting a Master Development Plan Application for the proposed re-development of the former Portland Company Complex located at 58 Fore Street in Portland, Maine, and is required to demonstrate to the City of Portland that there is adequate capacity to serve the proposed development.

As previously discussed, the proposed development will be a multi-phased, mixed-use development with commercial, residential, office, retail, restaurant, marina and public open space uses. A new six-inch plastic gas main was installed to the end of Thames Street in 2007 as part of the Ocean Gateway project; the proposed development will connect to this gas main via an extension of Thames Street and the associated gas main. The natural gas service entrance location will be off of the Thames Street extension, as shown on the attached plans. We anticipate individual metering will be required for approximately 638 residential units. The proposed development is depicted on the attached plans.

The proposed development will have a total gross floor area of approximately 941,129 square feet (SF) and will consist of the following uses:

- Residential Mix of Condominiums and Apartments (656,739 SF);
- Retail (50,273 SF);
- Office (123,917 SF);
- Hotel (98,000 SF/132 Rooms);
- Restaurant (3,800 SF);
- Function (5,800 SF); and
- Marina Facilities (2,600 SF).

Please note that these uses may be subject to change during future design phases and that anticipated service demands will be coordinated as the design progresses during future permit submissions.

Please provide our office with a letter of confirmation that Unitil has the capacity to service this development, an estimate of the costs for service installation, and any additional information or requirements concerning natural gas service for the Site. We appreciate your assistance. If you have any questions or require any additional information, please do not hesitate to contact me at 207-558-3704.

Sincerely,

WOODARD & CURRAN

David Senus, PE
Project Manager

Enclosure: Master Site Plan

cc: Christine Grimando, City of Portland Senior Planner
Jim Brady, CPB2, LLC

COMMITMENT & INTEGRITY
DRIVE RESULTS

41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

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T 207.774.2112
F 207.774.6635

WOODARD &CURRAN

September 16, 2016

Paul Duperre
Central Maine Power
162 Canco Road
Portland, ME 04103

Re: Electric Service Request – 58 Fore Street Re-development, Portland, Maine

Dear Paul:

On behalf of CPB2, LLC, this letter serves as written request for confirmation of availability to serve electric power for the above-referenced project. CPB2 is submitting a Master Development Plan Application for the proposed re-development of the former Portland Company Complex located at 58 Fore Street in Portland, Maine, and is required to demonstrate to the City of Portland that there is adequate capacity to serve the proposed development. The proposed development is depicted on the attached Master Site Plan and will be a multi-phased, mixed-use development with a total gross floor area of approximately 941,129 square feet (SF) consisting of the following uses:

- Residential Mix of Condominiums and Apartments (656,739 SF);
- Retail (50,273 SF);
- Office (123,917 SF);
- Hotel (98,000 SF/132 Rooms);
- Restaurant (3,800 SF);
- Function (5,800 SF); and
- Marina Facilities (2,600 SF).

We have not estimated power load demands for the upland uses on the site; however, the estimated daily Marina power demand is 3,010 (kVA). Please note that proposed uses and estimated demands may be subject to change during future design phases and that anticipated service demands will be coordinated as the design progresses during future permit submissions.

The construction of Thames Street as part of the Ocean Gateway project included installation of underground conduit to allow for future underground electrical services in the area. As discussed at our meeting on July 27, 2016, it is our understanding that the Site would be best serviced from an extension of below ground electrical from the extension of Thames Street and associated utilities into the Site. As described via email to you on September 14, 2016, the City of Portland has confirmed that the duct banks in Thames Street are a public amenity to allow CMP and other telecomm utilities to pull their wires and services to adjacent sites, including the 58 Fore Street property.

Please provide our office with a letter of confirmation that CMP has the capacity to service this development via Thames Street, an estimate of the costs for work associated with servicing the Site

from Thames Street, and any additional information or requirements concerning the proposed work (i.e. components needed for electrical service to the Site, such as number of conduits). We appreciate your assistance. If you have any questions or require any additional information, please do not hesitate to contact me at 207-558-3704.

Sincerely,

WOODARD & CURRAN

David Senus, PE
Project Manager

Enclosure: Master Site Plan

cc: Christine Grimando, City of Portland Senior Planner
Jim Brady, CPB2, LLC

COMMITMENT & INTEGRITY
DRIVE RESULTS

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T 800.426.4262
T 207.774.2112
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September 16, 2016

Portland Water District MEANS Group
225 Douglass Street
PO Box 3553
Portland, ME 04104-3553

Re: Service Request – 58 Fore Street Redevelopment, Portland, Maine

To Whom It May Concern:

On behalf of CPB2, LLC, this letter serves as written request for availability to serve water and treat sanitary sewer for the above-referenced project. CPB2 is submitting a Master Development Plan Application for the proposed re-development of the former Portland Company Complex located at 58 Fore Street in Portland, Maine, and is required to demonstrate to the City of Portland that PWD has sufficient capacity to supply water service and treat wastewater to serve the proposed development. The proposed development is depicted on the attached Master Site Plan and will be a multi-phased, mixed-use development with commercial, residential, office, retail, restaurant, marina and public open space uses.

With the Ocean Gateway project completed in 2007, new utility lines, including a 12-inch water main, were installed to the end of Thames Street; the proposed development will be serviced by utilities via an extension of Thames Street and associated utilities into the Site. Total estimated water demand for the landside portion of the development is approximately 186,700 gallons per day (GPD) and the total estimated sanitary demand is approximately 169,700 GPD (calculations are attached). Additionally, Applied Technology & Management has calculated the water and sanitary demands for the marina facility, which are 28,800 GPD and 14,410 GPD, respectively. Please note that the estimated demands are based on planning-level uses that may be subject to change during future design phases and that changes in anticipated service demands will be coordinated as the design progresses during future permit submissions.

Site phasing and lot ownership configuration are still being determined at this time, and information will be provided when available. The proposed development block characteristics are indicated in the table below:

Table 1: Development Block Proposed Characteristics

Development Block	Allowable Height by Zoning	Proposed Use	Current GFA (as of September 2016)	Proposed Parking Areas
B1	35 feet	retail, residential, office	169,278	Structured parking beneath B1
B2	35 – 45 feet	retail, residential, office	72,941	Structured parking beneath B4/B5/B6
B3	35 feet	retail, office	30,800	Structured parking beneath B4/B5/B6
B4	45 - 65 feet	residential, retail	247,860	Structured parking beneath B4/B5/B6
B5	45 – 55 feet	residential, hotel, restaurant, function	247,650	Structured parking beneath B4/B5/B6
B6	45 – 55 feet	residential, B4-B6 connector	187,550	Structured parking beneath B4/B5/B6
B7 – Marina		marina	2,600	Structured parking beneath B4/B5/B6
Subtotal*			**958,679**	
Parking			435,200	
Total Project			**1,393,879**	
***Subtotal Breakdown by Use**				
Total Residential GSF			656,739	
Total Retail GSF			50,273	
Total Office GSF			123,917	
Total Hotel GSF			98,000	
Total Restaurant GSF			3,800	
Total Function GSF			5,800	
Total B4-B6 Connector GSF			17,550	
Total Marina Facilities GSF			2,600	

Please provide our office with a letter of confirmation that the Portland Water District has the capacity to supply water service and treat wastewater for this development, and any additional information or requirements concerning service for the Site. We appreciate your assistance. If you have any questions or require any additional information, please do not hesitate to contact me at 207-558-3704.

Sincerely,

WOODARD & CURRAN

David Senus, PE
Project Manager

Enclosure: Master Site Plan & Demand Calculations

cc: Jay Arnold, PWD
Christine Grimando, City of Portland Senior Planner
Jim Brady, CPB2, LLC

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991

Date: September 16, 2016

Mr. Frank J. Brancely,
Senior Engineering Technician,
Phone #: (207) 874-8832,
Fax #: (207) 874-8852,
E-mail:fjb@portlandmaine.gov

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 58 Fore Street, Portland ME

Chart Block Lot Number: Tax Map 18A, Lots 1, 2, & 3

Proposed Use: Mixed-Use

Previous Use: Warehouse & Parking

Existing Sanitary Flows: Unknown GPD

Existing Process Flows: Unknown GPD

Description and location of City sewer that is to receive the proposed building sewer lateral.

Site Category		
	Commercial *(see part 4 below)*	X
	Industrial *(complete part 5 below)*	
	Governmental	
	Residential	X
	Other *(specify)*	

A new 12-inch sanitary sewer line was installed in the eastern end of Thames Street as part of the Ocean Gateway Project. The road and associated sewer line will be extended and a sewer service will be brought into the Site.

(Clearly, indicate the proposed connections, on the submitted plans)

2. Please, Submit Contact Information.

City Planner's Name: Barbara Barhydt Phone: 207-874-8699

Owner/Developer Name: CPB2 LLC, c/o Jim Brady

Owner/Developer Address: PO Box 7987, Portland ME

Phone: 207-558-3704 Fax: E-mail: jameshbrady@gmail.com

Engineering Consultant Name: Woodard & Curran, c/o David Senus, PE

Engineering Consultant Address: 41 Hutchins Drive, Portland ME

Phone: 207-558-3704 Fax: E-mail: dsenus@woodardcurran.com

(Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review)

3. Please, Submit Domestic Wastewater Design Flow Calculations. *Refer to attached calculations

Estimated Domestic Wastewater Flow Generated: 169,700 (Landside) & 14,410 (Marina) GPD

Peaking Factor/ Peak Times: 5 (Landside) & 5.6 (Marina) *Per TR-16 Guides for the Design of Wastewater Treatment Works

Specify the source of design guidelines: *(i.e.* __ *"Handbook of Subsurface Wastewater Disposal in Maine,"* __ *"Plumbers and Pipe Fitters Calculation Manual,"* __ *Portland Water District Records,* X *Other (specify)*

As noted above

(Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet)

4. Please, Submit External Grease Interceptor Calculations.

External Grease Interceptor Calculations will be prepared and submitted as part of future Site Plan Applications; the estimated Domestic Wastewater Design Flows are being submitted as part of a Master Development Plan Submission.

Total Drainage Fixture Unit (DFU) Values: _____

Size of External Grease Interceptor: _____

Retention Time: _____

Peaking Factor/ Peak Times: _____

(Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet)

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated: _____ GPD

Do you currently hold Federal or State discharge permits? Yes ____ No ____

Is the process wastewater termed categorical under CFR 40? Yes ____ No ____

OSHA Standard Industrial Code (SIC): *http://www.osha.gov/oshstats/sicser.html*

Peaking Factor/Peak Process Times: _____

(Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps)

(Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided below, or attached, as a separate sheet)

Notes, Comments or Calculation

WOODARD &CURRAN
41 HUTCHINS DRIVE
PORTLAND, MAINE 04102
TEL. (207) 774-2112
FAX (207) 774-6635

CLIENT CPB2
PROJECT 58 Fore St. Re-development
DESIGNED BY AEA DATE 9-12-16
CHECKED BY _____ DATE _____
PROJECT NO. 227007.03 SHEET NO. 1 OF 2

Sewer Demand Calculations

* Note: Design Flows based on Table 4A + Table 4C of Ch. 241 (2015 Maine Subsurface Wastewater Disposal Rules)

Dwelling Units:

638 Residential Units

90% = 2 bedrooms or less @ 180 GPD => 103,400 GPD
10% = 3 bedrooms @ 270 GPD => 17,230 GPD

Office Space:

$123{,}917\ SF \times \frac{1\ Employee}{221\ SF} \times \frac{12\ GPD}{Employee}$ => 6,730 GPD

Function Space (Assembly Area):

$5{,}800\ SF \times \frac{1\ person}{15\ SF} \times \frac{2\ GPD}{person}$ => 773 GPD

Restaurant (3 meals/day):

$50\%\ (3{,}800\ SF) \times \frac{1\ Seat}{15\ SF} \times \frac{30\ GPD}{Seat}$ => 3,800 GPD

$50\%\ (3{,}800\ SF) \times \frac{1\ Seat}{15\ SF} \times \frac{1\ Employee}{15\ Seats} \times \frac{12\ GPD}{Employee}$ => 101 GPD

Hotel:

$132\ Keys \times \frac{100\ GPD}{Key}$ => 13,200 GPD

$132\ Keys \times \frac{0.75\ Employee}{Key} \times \frac{12\ GPD}{Employee}$ => 1,188 GPD

Calculation's Cont'd NEXT PAGE →

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PROJECT 58 Fore St. Re-development
DESIGNED BY AEA DATE 9-12-16
CHECKED BY _____ DATE _____
PROJECT NO. 227007.03 SHEET NO. 2 OF 2

Sewer Demand Calculations Cont'd...

Marina w/Bathrooms:

$$147 \text{ Slips} \times \frac{140 \text{ GPD}}{\text{Slip}} \Rightarrow 20{,}600 \text{ GPD}$$

Retail (Shopping Centers)

$$50{,}273 \text{ SF} \times \frac{1 \text{ employee}}{383 \text{ SF}} \times \frac{12 \text{ GPD}}{\text{Employee}} \Rightarrow 1{,}575 \text{ GPD}$$

$$50{,}273 \text{ SF} \times \frac{1 \text{ employee}}{383 \text{ SF}} \times \frac{1 \text{ toilet}}{40 \text{ Employees}} \times \frac{325 \text{ GPD}}{\text{toilet}} \Rightarrow 1{,}066 \text{ GPD}$$

Total Sewer Demand = 169,700 GPD

Water Demand = 1.1 (Sewer Demand) => 186,700 GPD

Marina Sewer Demand = 14,410 GPD
(from Applied Technology + Management)
Marina Water Demand = 28,800 GPD
(from Applied Technology + Management)

15. BOUNDARY SURVEY

A boundary survey of the Site was completed by Owen Haskell, Inc., in August, 2016, and is included with the Site Civil Plan set.

COMMITMENT & INTEGRITY
DRIVE RESULTS

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Portland, Maine 04102
www.woodardcurran.com

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F 207.774.6635

Via FedEx

September 16, 2016

Alison Sirois, Director of Land Enforcement
Maine Department of Environmental Protection
Southern Maine Regional Office
312 Canco Road
Portland, Maine 04103

Re: 58 Fore Street Re-development
Site Law Determination

Dear Alison:

On behalf of CPB2, LLC, Woodard & Curran is writing to confirm that the Site Location of Development Law (Site Law) does not apply to the proposed re-development of the former Portland Company Complex located at 58 Fore Street in Portland. The proposed project Site encompasses three parcels owned by CPB2, LLC. The parcels are identified as Tax Map 18A, Lots 1, 2, and 3. Lot 2 is located along the waterfront, separated from Lots 1 and 3 by a linear parcel owned by the State of Maine. A survey completed by Owen Haskell, Inc. in May 2013 identifies the areas of Lots 1 and 2 at 6.04 acres and 1.02 acres respectively, and Lot 3 as 2.87 acres for a total of 9.93 acres.

We have assessed the proposed re-development project under Site Law and have determined that it does not meet the definition of "development of state or regional significance that may substantially affect the environment." The property is less than 20 acres and the development is not oil or gas exploration or production activity, an oil terminal facility or an offshore wind power project. Therefore, the only question remaining is whether the development is a structure, i.e. does it contain "buildings, parking lots, roads, paved areas, wharves or areas to be stripped or graded and not to be revegetated that cause a total project to occupy a ground area in excess of 3 acres."

The property at 58 Fore Street was first developed in 1857, as part of the Portland Company. By 1970, the majority of the property was covered by roads, parking lots and buildings. The proposed re-development of the site will reuse many of the buildings and associated facilities existing on January 1, 1970 and therefore is exempted from review under 38 M.R.S. § 488. Accordingly, the Department may not consider the redevelopment of those areas in its determination of whether the proposed development meets the 3-acre threshold.

A 1969 aerial photograph of the Site was found in the records available from the City of Portland Public Works Department Archives Vault. Only approximately 2.83 acres of the 1969 Site was vegetated, such that much of the Site was developed and consisted of "structure" prior to January 1, 1970.

The proposed redevelopment project will result in approximately 2.77 acres of new buildings, parking lots, roads and paved areas. Attached is a Figure that shows the structure area from 1969, the proposed condition, and the resulting new structure area upon future buildout. Since the total proposed new structure area will be less than three acres, the 3-acre structure threshold is not met. Based on these findings, it is our understanding that the proposed project will not be subject to Site Location of Development standards.

Although we understand that the project will not be subject to Site Location of Development standards, substantial review of the project has and will occur by Local, State and Federal regulatory agencies. Specifically, in 2014 and 2015 the property was re-zoned in accordance with a zone change application reviewed by the City of Portland Planning Board and approved by the Portland City Council for consistency with the City's Comprehensive Plan; in 2015 and 2016 the City of Portland Historic Preservation Board recommended and the Portland City Council approved a Historic District designation on portions of the property; the property owner is currently preparing a Master Development Plan to be submitted to and reviewed by the City of Portland Planning Board for consistency with the City's Land Use Code; future development of each building or development blocks on the site will be subject to Site Plan review by the City of Portland Planning Board for consistency with the City's Land Use Code; and redevelopment of the marina and any modifications to the sea wall or stormwater outfalls will be subject to review by the MaineDEP for compliance with the Natural Resources Protection Act and US Army Corps of Engineers for compliance with the Maine General Permit.

It should also be noted that, because the proposed project will disturb more than one acre of land, MaineDEP Stormwater Law applies and a Stormwater Permit will be required. The proposed project will create more than one acre of new impervious area, and will therefore be required to comply with the Basic and General Standards of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Maine Construction General Permit. The City of Portland has delegated review for Chapter 500 Stormwater Permits, so approval will be obtained as part of the formal Site Plan application, to be submitted at a later date. The City of Portland recently adopted changes to their Stormwater Standards that require treatment of redevelopment areas beyond the standards of the Chapter 500 Stormwater Management Rules; as such we anticipate that stormwater quality treatment utilizing technologies acceptable under the General Standards will be provided for a substantial area of the site, a significant improvement over the existing site condition, which has no stormwater treatment systems in place.

Please do not hesitate to contact me if you have any questions or require additional information.

Sincerely,

WOODARD & CURRAN

David Senus, PE
Project Manager

AEA/das

Enclosure(s) Site Law Determination Figure

cc: CPB2 LLC – c/o James Brady, Kevin Costello, Casey Prentice
Barbara Barhydt, Development Review Services Manager, City of Portland Planning Division
Mary E. Costigan, Bernstein Shur

PLAN NOTES:

1. THE PURPOSE OF THESE FIGURES IS TO DETERMINE WHETHER THE PROPOSED PROJECT TRIGGERS THE REGULATORY THRESHOLDS FOR PERMITTING UNDER MAINEDEP SITE LOCATION OF DEVELOPMENT (SITE LAW) BASED ON "STRUCTURE" AREA.

2. "STRUCTURE" IS DEFINED AS BUILDINGS, PARKING LOTS, ROADS, PAVED AREAS, WHARVES OR AREAS TO BE STRIPPED OR GRADED AND NOT TO BE REVEGETATED WHICH CAUSE A TOTAL PROJECT TO OCCUPY A GROUND AREA IN EXCESS OF THREE ACES. FOR THE PURPOSES OF THIS EVALUATION, ANY NON-VEGETATED AREAS ARE ASSUMED TO BE STRUCTURE.

3. THE EFFECTIVE DATE FOR SITE LOCATION OF DEVELOPMENT LAW WAS JANUARY 1, 1970, AND THE "STRUCTURE" THRESHOLD UNDER SITE LAW WAS IMPLEMENTED ON OCTOBER 1, 1975. DEVELOPMENT THAT WAS IN PLACE PRIOR TO 1970 IS CONSIDERED TO BE GRANDFATHERED AND EXEMPT FROM SITE LAW REGULATION, AND ANY STRUCTURE ADDED AFTER THIS DATE IS CONSIDERED "NEW STRUCTURE".

LEGEND

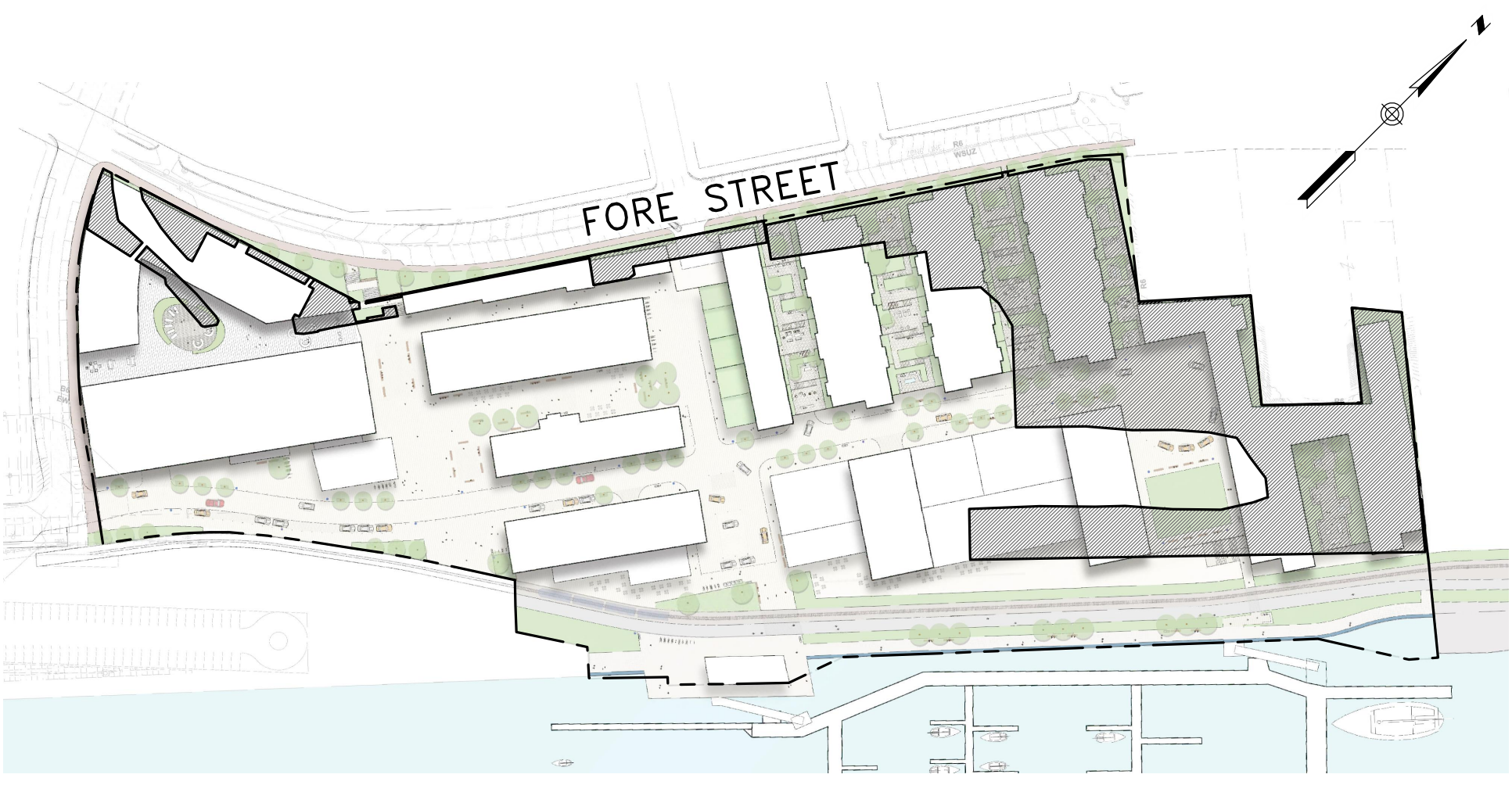
NON-"STRUCTURE" AREA
123,107 S.F. = 2.83 ACRES

150' 0 150' 300'

BAR SCALE
1" = 150'
CHECK GRAPHIC SCALE BEFORE USING

PRE-SITE LAW CONDITIONS - 1969

SCALE: 1"=150'



LEGEND

PROPOSED NEW "STRUCTURE" AREA
(1969 TO FUTURE BUILDOUT)
120,489 S.F. = 2.77 ACRES

150' 0 150' 300'

BAR SCALE
1" = 150'
CHECK GRAPHIC SCALE BEFORE USING

PROPOSED NEW "STRUCTURE" AREA

SCALE: 1"=150'