PUBLIC NOTICE

The Boston Redevelopment Authority d/b/a the Boston Planning & Development Agency ("BPDA")hereby gives notice pursuant to Article 80 of the Boston Zoning Code ("Code"), that a Project Notification Form ("PNF") was filed by Midwood Investment and Development (the "Proponent"), on October 30, 2020 for the 11-21 Bromfield Street project (the "Proposed Project") in the Downtown Crossing neighborhood of Boston. The approximately 0.55-acre site (the "Project Site"), contains four existing buildings, most of which are currently vacant. The Project Site will be developed into a 23-story, approximately 441,000 square foot mixed-use building that includes approximately 20 floors of office space and approximately 59,000 sf of retail space on three levels, one below-grade. Because the Project Site is in a transit-rich, pedestrian-friendly location, the Project will not contain any parking facilities. The Proponent is seeking the issuance of a Scoping Determination by the BPDA pursuant to Section 80B-5 of the Code. In the Scoping Determination for such PNF, the BPDA may waive further review pursuant to Section 80B-5.3(d) of the Code if, after reviewing public comments, the BPDA finds that such PNF adequately describes the Proposed Project's impacts. The PNF may be obtained from the BPDA website at the following link: http://www.bostonplans.org/projects/development-projects/bromfield-street. Public comments on the PNF, including the comments of public agencies, should be submitted in writing to Lance Campbell, BPDA, at the address stated above or via e-mail at Lance.Campbell@boston.gov, within thirty days of the publication of this notice.

BOSTON REDEVELOPMENT AUTHORITY
D/B/A BOSTON PLANNING & DEVELOPMENT AGENCY

Teresa Polhemus
Executive Director/Secretary

PROJECT NOTIFICATION FORM

11-21 Bromfield Street

Submitted to:
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Submitted by:
Midwood Investment and Development
One Bromfield Street, Unit 4
Boston, MA 02108

Prepared by:
Epsilon Associates, Inc.
3 Mill & Main Place, Suite 250
Maynard, MA 01754

In Association with:
Adrian Smith + Gordon Gill
Arrowstreet, Inc.
Mikyoung Kim Design
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
Howard Stein Hudson
Arup
Haley & Aldrich, Inc.

October 30, 2020

Epsilon
ASSOCIATES INC.

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Chapter 1.0

Project Description

1.0 PROJECT DESCRIPTION

1.1 Introduction

Midwood Investment and Development (the Proponent), proposes to redevelop an approximately 0.55-acre site (the Project Site) at the corner of Washington and Bromfield Streets in the Downtown Crossing area of Boston. The Project Site, bounded by Washington Street to the east, Bromfield Street to the south, Province Court (a public way) and Ordway Place (a private passageway) to the north, and the property known as 32-54 Bromfield Street to the west, contains four existing buildings, most of which are currently vacant. The Project Site will be developed into a 23-story, approximately 441,000 square foot (sf) mixed-use building with three levels of commercial space (one of them below-grade), and office space above (the Project). Because the Project Site is in a transit-rich, pedestrian-friendly location, the Project will not contain any parking facilities.

The Project will provide ground floor commercial and active uses along Washington and Bromfield Streets, reinforcing the pedestrian-oriented character of Downtown Crossing. Over the last decade, under the guidance of the City of Boston's many initiatives, Downtown Crossing has seen a resurgence that has confirmed its status as a central place of activity in Boston's economy. The Project Site's location, at the intersection of Washington and Bromfield streets will play a significant role in the continuing renaissance of the Downtown Crossing neighborhood. The Project aims to bolster the neighborhood destination identity through the creation of a signature architecture and an active and engaging street level.

The Project will exemplify sustainable design at its best: the Proponent is targeting a Leadership in Energy and Environmental Design (LEED) Gold, Zero Net Carbon building as defined by the City of Boston[1]. In addition to the Project's public realm and sustainable design benefits, the Project will also generate construction and permanent jobs, housing and jobs linkage payments, and greatly enhanced tax revenues for the City.

This Project Notification Form (PNF) is being submitted to the Boston Redevelopment Authority (BRA) doing business as the Boston Planning & Development Agency (the BPDA) to initiate review of the Project under Article 80B, Large Project Review, of the Boston Zoning Code.

[1] The City has defined Zero Net Carbon as "A ZNC building is a low-energy fossil fuel-free building that meets its annual energy needs from a mix of on- and off-site renewable energy assets. Even with on-site renewable energy generation, larger and more energy-intensive buildings, like medical or laboratory facilities, may require off-site renewable energy delivered by the grid to be ZNC."

1.2 Existing Project Site and Area Context

1.2.1 Project Site

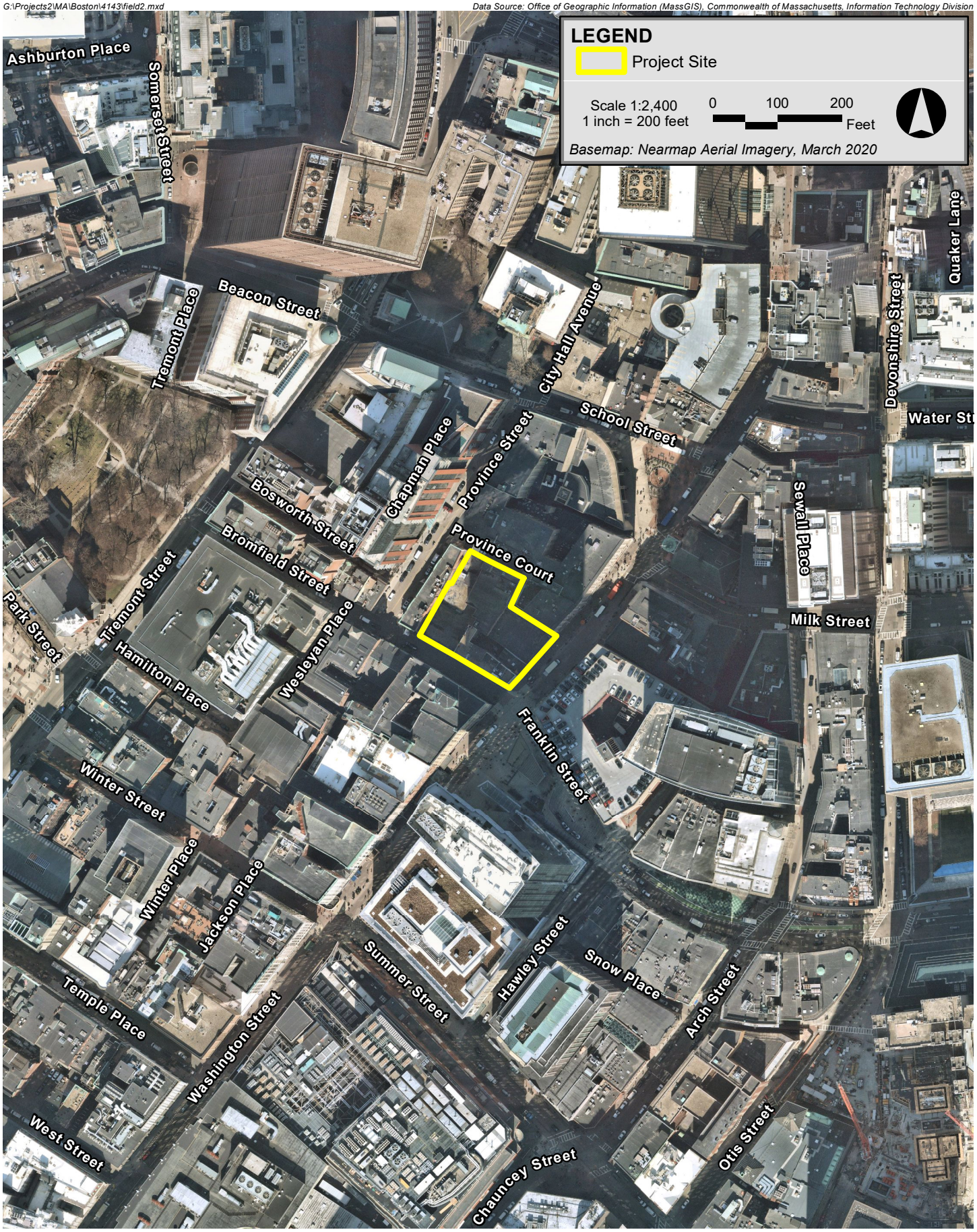
The Project Site is an approximately 0.55-acre (23,744 sf) parcel of land at the corner of Washington and Bromfield Streets in the Downtown Crossing area of Boston. The Project Site contains four existing buildings with approximately 80,000 sf of mostly office space and ground floor retail, at 11-21 Bromfield Street, 349-363 Washington Street, 365 Washington Street, and 367-369 Washington Street (also known as 1-9 Bromfield Street). The Project Site is in the heart of the Downtown Crossing area, is immediately adjacent to office and commercial uses, with residential uses nearby on Province Street, and has excellent access to public transportation and vehicular transportation systems. See Figure 1-1 for an aerial locus map of the Project Site, and Figures 1-2 for images of the existing conditions on and around the Project Site. A survey of the Project Site is included as Appendix A.

The Project Site contains significant topographical variations; the Project site slopes downward about 12 feet from Province Street to Washington Street along the southern (Bromfield Street) side of the Project Site, and downward about 15 feet from Province Court to Bromfield Street along the western side of the Project Site, which together, create a unique topography that has required a creative design approach. The Project design has been developed to try to accommodate the unusual topographic challenges of the Project Site.

1.2.2 Area Context

The Project's location, at the intersection of Washington and Bromfield Streets, represents a significant corner in the renaissance of the Downtown Crossing area. Over the last decade, under the guidance of the City's Downtown Crossing Economic Improvement Initiative and Boston's first Business Improvement District, Downtown Crossing has seen an economic resurgence and substantial development which together, have solidified its status as a central place of activity in Boston's economy. As a result of this resurgence and development activity, and the efforts of the Downtown BID and its constituent businesses and landowners, Downtown Boston is experiencing a new level of vibrancy and activity. This has resulted in the need to create a clear, comprehensive development plan for Downtown Boston.

In September of 2018 the BPDA initiated the ongoing PLAN: Downtown planning study. The primary goal of the study is to develop a new framework for the preservation, enhancement, and growth of the Downtown area of the City of Boston, while balancing the importance of livability, daylight, walkability, climate change, access to open space, affordability, and a dynamic mix of uses, among others. Although this study is on-going, the Project is consistent with the goals of the planning study.



11-21 Bromfield Street Boston, Massachusetts

Epsilon ASSOCIATES INC.

Figure 1-1
Aerial Locus Map

WASHINGTON STREET LOOKING NORTHEAST

THE STEPS AT FRANKLIN STREET AND WASHINGTON STREET

BROMFIELD STREET LOOKING NORTHWEST

11-21 Bromfield Street Boston, Massachusetts

ARROWSTREET

ADRIAN SMITH + GORDON GILL ARCHITECTURE

mikyoung kim design landscape architects

Figure 1-2
Existing Conditions

The Proponent will continue to be a contributor to the significant improvements being undertaken in the area. Creation of exemplary architecture at the Project Site, including an active and engaging street level program, will reinforce the neighborhood's character as a point of destination within the larger fabric of the city.

This idea of destination is further supported by the Project's access to an extensive public transport network, including four of the five major MBTA lines, and multiple major bus stops within a quarter mile of the Project Site. In accordance with Boston's Complete Street Guidelines, the area directly adjacent to the Project Site reflects the "Shared Street" typology, promoting a pedestrian-friendly thoroughfare while supporting multiple modes of transportation. Across Washington Street from the Project, the Shopper's Park and the Millennium Tower landscape design encourages mobility and access, as both sites extend pavers beyond their property limits in lieu of asphalt sidewalks and concrete curb cuts. This Project will foster that sense of multimodal, shared street space.

1.3 Prior Permitting History

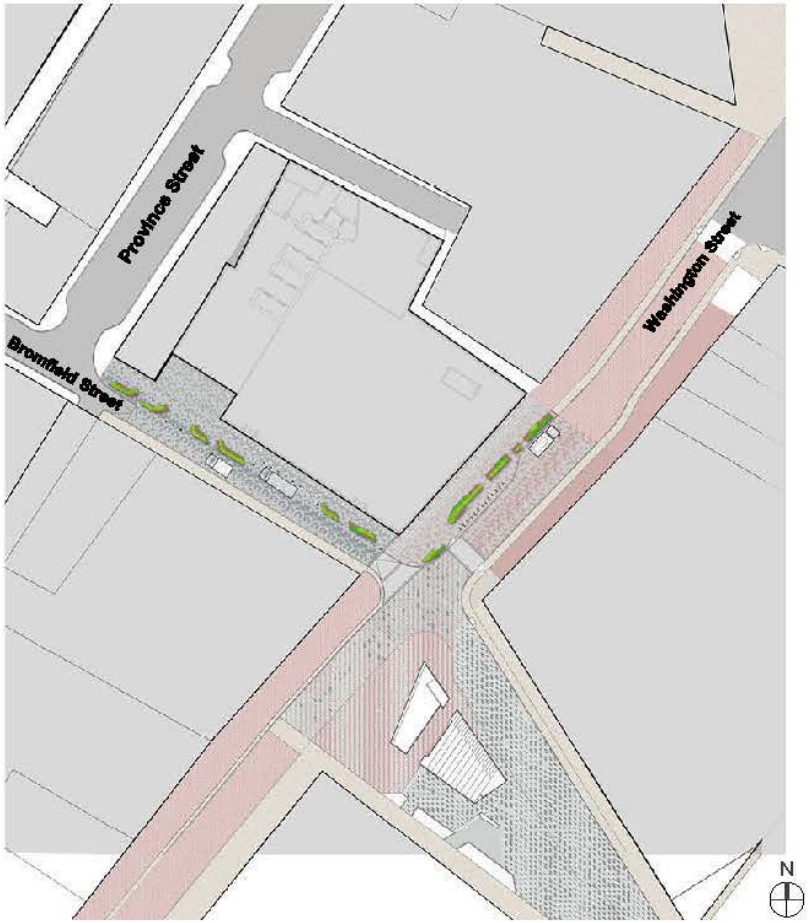
The Project Site has been the subject of previous project proposals. In July 2008, the Proponent submitted a Letter of Intent to the Boston Redevelopment Authority (BRA) for a 22-story building to contain approximately 407,000 square feet of Gross Floor Area, including retail, parking and residential uses (Original Project). A Project Notification Form (PNF) was filed for the Original Project in October 2008. The BRA issued a Scoping Determination for the Original Project PNF in July 2009.

The filing of the PNF coincided with a world-wide recession and the collapse of national capital markets and thus, the Proponent did not proceed with the Original Project.

The subsequent revival of national capital markets and the real estate market in Greater Boston impelled the Proponent to reconsider its plans for the Project Site, and in October 2016, the Proponent filed a Draft Project Impact Report for a revised project at the Project Site. The revised project was to comprise a 59-story mixed-use building of approximately 605,000 square feet in size that would house residential units, retail space on three levels (including one below grade), and above-ground parking uses (One Bromfield Project). The Proponent withdrew the One Bromfield Project from BPDA Article 80B consideration in February 2020.

1.4 Project Description

The Project, as shown in Table 1-1, will be an approximately 441,000 sf, 23-story mixed-use building that includes approximately 20 floors of office space and approximately 59,000 sf of commercial space on three levels, one below-grade. The building height of the Project will be approximately 325 feet. There is no on-site parking proposed. Secure bicycle storage for future tenants/employees will be included within the building, per the City of Boston's Bike Parking Guidelines. See Figure 1-3 for the ground floor plan and Appendix B for floor plans, sections, and elevations.



11-21 Bromfield Street Boston, Massachusetts

ARROWSTREET ADRIAN SMITH+GORDON GILL ARCHITECTURE mikyoung kim design landscape architects

Figure 1-3
Site Plan

The Project's commercial component will be accessible from both the Washington Street and Bromfield Street sides of the building, thereby promoting street level activity and reinforcing the existing retail corridor in the Downtown Crossing area. With another prominent building entry for the office lobby on Bromfield Street, an engaging ground floor landscaping plan and short-term bicycle parking in close proximity to the building entry, the Project will further contribute to the pedestrian-level vitality of the surrounding area.

Table 1-1 Project Program

Project Element	Approximate Dimension
Office space	382,000± GFA
Commercial	59,000± GFA
Gross Floor Area	**441,000± GFA**
Building Height	325 feet

1.5 Public Benefits

The development of the Project will generate myriad public benefits for the surrounding area and the City of Boston as a whole, both during construction and on an ongoing basis upon its completion. These public benefits fall into multiple categories, outlined below.

Public Realm Improvements

The Project will reinforce Downtown Crossing's character as a destination point by expanding the pedestrian zones on Washington and Bromfield streets, by stitching together the disparate streetscape designs of the surrounding area, and by providing much needed lush planting that will maintain the feel of the existing streetscape along Washington Street. Additionally, the Proponent aims to improve the accessibility of the Project Site through new paving and by creating a curb-less environment on Bromfield Street. This strategy will continue the revitalization of this downtown intersection that began with the construction of the pedestrian plaza at Shopper's Park.

Urban Design

The Project will introduce new, high quality architecture to the Project Site with a design and massing that will assimilate the modern and historical influences of the city, manifested in a unique architectural expression.

Sustainable Design

The Proponent has committed to being a leader on climate mitigation in the City of Boston by designing the Project to be Zero Net Carbon per the City's definition. In addition, the Proponent is targeting LEED certification at the Gold level, with certification at the Platinum level being assessed as a stretch goal.

Increased Employment

The Project will result in the creation of approximately 265 construction jobs and approximately 1,765 permanent jobs upon stabilized occupancy.

New Property Taxes

The Project will generate significantly greater property tax revenues to the City of Boston.

Linkage

The Project will generate approximately $3,686,210 in linkage payments to the City, including approximately $3,079,230 to the City's Neighborhood Housing Trust and approximately $606,980 to the City's Neighborhood Jobs Trust.

1.6 Community Outreach Overview

As part of its planning efforts, the Proponent has consulted with area residents and representatives of numerous neighborhood groups, the Downtown BID, elected officials, other stakeholders, and public agencies. The formal community outreach process begins with the filing of this PNF.

The Proponent continues to be committed to a comprehensive and effective community outreach process and will continue to engage the community to ensure public input on the Project. The Proponent looks forward to working with the BPDA and city agencies, local elected officials, neighbors, and others as the design and review processes move forward.

1.7 Schedule

It is anticipated that construction will commence in the second quarter of 2022, subject to market conditions and the availability of financing; construction of the Project will take approximately 28 months.

Chapter 2.0

General Information

2.0 GENERAL INFORMATION

This Chapter summarizes the local planning and regulatory controls, and lists the anticipated permits and approvals applicable to the Project. This Chapter also identifies the members of the Project team and provides required legal information.

2.1 Zoning and Regulatory Controls

The Project Site is located within Subdistrict 1 (General Area) of the Midtown Cultural District, as shown on Map 1A of the Boston Zoning Maps, and is therefore governed by the provisions of Article 38 (Article 38) of the Boston Zoning Code, as amended (Zoning Code). In accordance with Section 38-22 of the Zoning Code, off-street parking is not required at the Project, and pursuant to Section 38-24 of the Zoning Code, the provision and design of the off-street loading facilities at the Project will be determined through the Article 80B Large Project Review process.

The height and density (Floor Area Ratio) of the Project will exceed the as-of-right maximums at the Project Site for Proposed Projects undergoing Article 80B Large Project Review, so the Project will require zoning relief as to height and density. In addition, because the building's shape, massing and siting have all been designed to minimize adverse shadow, wind and view impacts on neighboring properties and streets, the Project as finally designed may not meet all of the Midtown Cultural District specific design requirements set forth in Article 38 of the Zoning Code. Hence, the Project may require zoning relief for specific design requirements under Article 38 of the Zoning Code as well.

2.2 List of Anticipated Permits and Approvals

Table 2-1 presents a preliminary list of local, state, and federal permits and approvals that may be required for the Project. The list is based on current information about the Project and is subject to change as the design of the Project advances. Some of the permits and approvals listed may not be required, while there may be others not listed that will be needed.

Table 2-1 Preliminary List of Permits and Approvals

Agency, Board or Commission	Permit/Approval
Federal	
Federal Aviation Administration	Determination of No Hazard to Air Navigation (building and cranes)
State	
Massachusetts Department of Environmental Protection	Pre-construction and demolition notices
Local	
Boston Planning & Development Agency	Article 80B Large Project Review and associated agreements
Boston Civic Design Commission	Design review

Table 2-1 Preliminary List of Permits and Approvals (continued)

Agency, Board or Commission	Permit/Approval
Local	
City of Boston Board of Appeal	Zoning relief
City of Boston Public Improvement Commission	Streetscape improvements
Interagency Green Building Committee	Article 37 (Green Building) Compliance
Boston Transportation Department	Transportation Access Plan Agreement Construction Management Plan
Boston Landmarks Commission	Article 85 Demolition Delay Approval
Boston Water and Sewer Commission	Site plan approval and related approvals
City of Boston Inspectional Services Department	Demolition permit Building permit Certificate of Occupancy

2.3 Development Team

The following lists the key members of the development team for the proposed Project:

Address/Location: 11-21 Bromfield Street

Proponent: Midwood Investment and Development
One Bromfield Street, Unit 4
Boston, MA 02108
(617) 592-3975
John Usdan
Jeff Dvorett
Mark Rollins

Design Architect: Adrian Smith + Gordon Gill
30 West Monroe, Suite 400
Chicago, IL 60603
(312) 920-1888
Jonathan Orlove
Juan Betancur
Chris Drew

Architect of Record: Arrowstreet, Inc.
10 Post Office Square, Suite 700N
Boston, MA 02109
(617) 623-5555
David Bois
Amy Korte

Landscape Architect:	Mikyoung Kim Design 119 Braintree Street, #103 Allston, MA 02134 (617) 782-9130 Mikyoung Kim Ian Downing
Legal Counsel:	Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. One Financial Center Boston, MA 02111 (617) 348-3009 Rebecca A. Lee, Esq.
Permitting Consultant:	Epsilon Associates, Inc. 3 Mill & Main Place, Suite 250 Maynard, MA 01754 (978) 897-7100 Peggy Briggs Talya Moked
Transportation Consultant:	Howard Stein Hudson 11 Beacon Street, Suite 1010 Boston, MA 02108 (617) 482-7080 Elizabeth Peart
Civil Engineer:	Howard Stein Hudson 11 Beacon Street, Suite 1010 Boston, MA 02108 (617) 482-7080 James Downing
MEP/FP and Sustainability Consultant:	Arup 60 State Street Boston, MA 02109 (617) 864-2987 Alan Glynn Rebecca Hatchadorian

2.4 Legal Information

2.4.1 Legal Judgments or Actions Pending Concerning the Proposed Project

There are no legal judgments or actions pending concerning the Project or the Project Site.

2.4.2 History of Tax Arrears on Property Owned in Boston by the Proponent

There is no history of tax arrears at the Project Site.

2.4.3 Evidence of Site Control/Public Easements

The Project Site is comprised of four parcels of land totaling approximately 23,744 square feet, each owned by an affiliate of the Proponent. Through an affiliate, the Proponent first acquired a portion of the Project Site in 1979 and since 2007, has owned the entirety of the Project Site.

There are no easements for the benefit of the public burdening any portion of the Project Site.

The Project Site includes non-exclusive rights of vehicular and pedestrian passage in Ordway Place, the private alley that runs between the Project Site and the building known as 333 Washington Street (sometimes known as The Jewelers Building); the owners of the 333 Washington Street property have similar non-exclusive passage rights. No portion of the Project is being constructed on or over Ordway Place. The Project Site is shown on the survey included in Appendix A.

Chapter 3.0

Transportation

3.0 TRANSPORTATION

3.1 Overview

The transportation study adheres to the Boston Transportation Department (BTD) Transportation Access Plan Guidelines and Boston Planning and Development Agency (BPDA) Article 80 Large Project Review process. This study includes an evaluation of the existing conditions, future conditions with and without the Project, projected parking demand, loading/delivery plan, transit services, pedestrian and bicycle activity, transportation demand management (TDM) strategies for the Project and construction-period impacts.

3.1.1 Project Description

The Project Site currently consists of retail stores and restaurants with entrances on Washington Street and Bromfield Street. Some of the ground floor retail space along Washington and Bromfield Street is currently vacant.

The proposed Project includes the demolition of the existing on-site structures and the construction of a new mixed-use building totaling approximately 441,000 gross square feet (gsf), with approximately 382,000 square feet (sf) of office space, and 59,000 sf of commercial space. On-site parking will not be provided.

Table 3-1 summarizes the development program.

Table 3-1 Project Development Program

Land Use	Proposed Size
Office	382,000 sf
Commercial	59,000 sf

3.1.2 Transportation Summary

None of the study intersections will experience a change in level of service from the No-Build Condition to the Build Condition, indicating that the Project will have no significant impact to area traffic operations. The convenience of the major Massachusetts Bay Transportation Authority's (MBTA's) subway lines at stations at Downtown Crossing (Red/Orange Lines), Park Street (Green/Red Lines), State Street (Orange/Blue Lines), and Government Center (Green/Blue Lines) will allow significant transit travel to and from the Project Site.

Key transportation characteristics of the Project and analysis results include:

- During the a.m. peak hour, the Project will generate 105 new entering vehicle trips and 27 new exiting vehicle trips and during the p.m. peak hour, the Project will generate 42 new entering trips and 114 new exiting trips. Vehicle trips include automobiles, taxicabs, and transportation network company (TNC) services such as Uber and Lyft.

- No on-site parking will be provided. The limited number of Project tenants and visitors who choose to drive will self-park at the various nearby parking facilities. With approximately 7,279 public parking spaces at seventeen facilities within a quarter mile of the Project Site, sufficient parking capacity will be available to meet the parking demand of this Project.

- During the a.m. peak hour, the Project will generate 313 new entering transit person trips and 63 new exiting transit person trips and during the p.m. peak hour, the Project will generate 142 new entering transit person trips and 372 new exiting transit person trips. Project transit person trips will primarily use MBTA services with nearby stations at Downtown Crossing, Park Street, State Street, and Government Center. The additional transit person trips generated by the Project will not impact transit operations in the area.

- The Proponent will construct new sidewalks adjacent to the Project Site in accordance with Boston Complete Streets guidelines and requirements of the Americans with Disabilities Act and Massachusetts Architectural Access Board (ADA/AAB) to the extent feasible. This will include the reconstruction and widening of the sidewalks where possible, the installation of new, accessible ramps, improvements to street lighting where necessary, planting of street trees, and providing bicycle storage racks, where appropriate.

- In accordance with the City of Boston Bicycle Guidelines, and to encourage bicycling as an alternative mode of transportation, the Proponent will provide secure bicycle storage for tenants, including approximately 173 bicycle spaces for long-term bicycle parking and approximately 32 bicycle spaces for short-term/visitor bicycle parking. Lockers and showers will be provided for employees who walk or bicycle to work.

- The Proponent will work with the BTD to locate a Bluebike bicycle sharing station at a location to be identified in conjunction with BTD.

- The Project will provide an off-street loading and service area accessed from Province Court. Office and commercial delivery activity will occur at the two loading bays and be managed by an on-site transportation coordinator and subject to City regulation. Per existing curbside regulations along Washington Street, some commercial deliveries to the Project Site will occur on-street.

- The Proponent is committed to implementing Transportation Demand Management measures to reduce tenants' dependence on automobiles. TDM measures to be undertaken by the Proponent include promoting transit services in marketing and orientation materials, providing adequate secure bicycle storage, and designating an on-site transportation coordinator (whose responsibilities may include other Project-related duties).

- A Transportation Access Plan Agreement (TAPA) will be entered into between the Proponent and BTD and will set forth the specific TDM measures and agreements between the Proponent and the City of Boston.

3.1.3 Methodology

This transportation study and its supporting analyses were conducted in accordance with BTD guidelines as described below.

The Existing (2020) Condition analysis includes an inventory of the existing transportation conditions such as traffic characteristics, parking, curb usage, transit, pedestrian circulation, bicycle facilities, loading, and site conditions. Existing counts for vehicles, bicycles, and pedestrians were collected at the study area intersections. A traffic data collection effort forms the basis for the transportation analysis conducted as part of this evaluation.

The future transportation conditions analyses evaluate potential transportation impacts associated with the Project. The long-term transportation impacts are evaluated for the year 2027, based on a seven-year horizon from the year of the filing of this traffic study.

- The No-Build (2027) Condition analysis includes general background traffic growth, traffic growth associated with specific developments (not including this Project), and transportation improvements that are planned near the Project Site.

- The Build (2027) Condition analysis includes the No-Build condition plus the net change in traffic volume due to the Project. Expected roadway, parking, transit, pedestrian, and bicycle accommodations, as well as loading facilities associated with the Project, are identified.

The final sections of the transportation study identify transportation demand management measures to minimize automobile usage and Project-related impacts and outline the requirements of the TAPA and Construction Management Plan (CMP).

3.1.4 Study Area

The study area, shown in Figure 3-1, consists of the following six intersections in the vicinity of the Project Site.

- Washington Street/School Street (signalized);
- Washington Street/Milk Street (signalized);
- School Street/Province Street (unsignalized);
- Bromfield Street/Province Street (unsignalized);
- Washington Street/Bromfield Street/Franklin Street (unsignalized); and
- Franklin Street/Hawley Street (unsignalized).

3.2 Existing Condition

This section includes a description of existing study area roadway geometry, intersection geometry, intersection traffic control, curb usage (parking), public transportation services, peak-hour traffic volumes for vehicles, bicycles, and pedestrians, and intersection traffic operations.

3.2.1 Vehicle-Restricted Zone

In the Downtown Crossing area, vehicle restrictions have been in place for decades as part of a pedestrian-only zone where vehicular traffic, except for police, fire, and emergency utility services, is always prohibited. Taxicabs and commercial vehicles are permitted during limited time periods. Key affected roadway segments include:

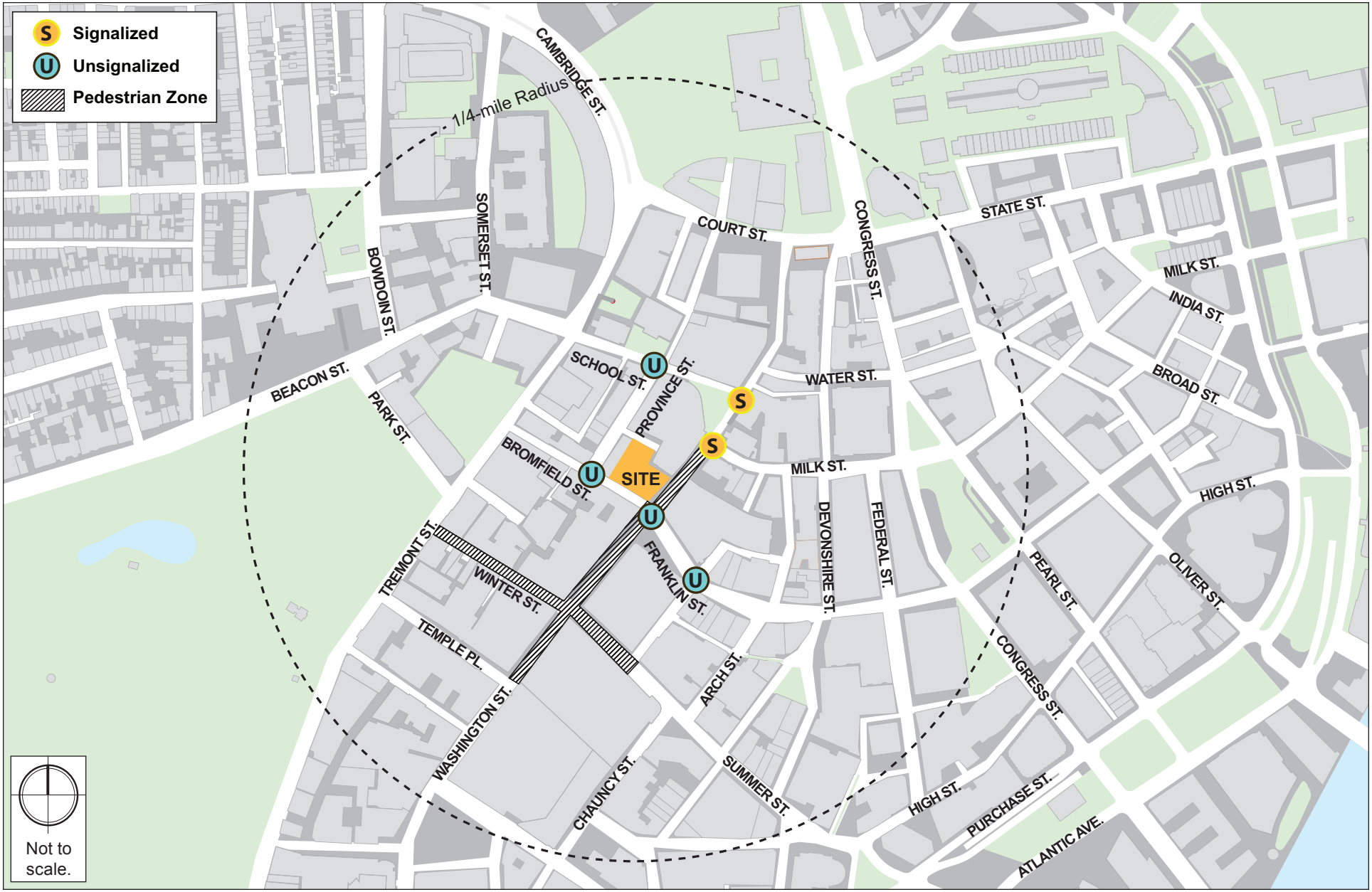
- Winter Street – between Tremont Street and Washington Street;
- Washington Street – between Temple Place and Milk Street;
- Summer Street – between Washington Street and Hawley Street;
- Bromfield Street – between Washington Street and Province Street; and
- Franklin Street – between Millenium Tower turnaround and Washington Street.

These streets are open to taxis between 6:00 p.m. and 2:00 a.m. and to commercial vehicles between 6:00 p.m. and 11:00 a.m. General traffic is not permitted. Vehicle access to the above segments is controlled by signage at the Winter Street/Tremont Street intersection and the Washington Street/Temple Place intersection.

Franklin Street, west of Hawley Street, only provides access to the Millennium Tower cul-de-sac. All vehicles, except for police, fire, and emergency utility services, are prohibited from proceeding beyond the cul-de-sac toward Washington Street.

3.2.2 Existing Roadway Conditions

The study area includes the following major roadways, which are categorized according to the Massachusetts Department of Transportation (MassDOT) Office of Transportation Planning functional classifications:



11-21 Bromfield Street Boston, Massachusetts

HOWARD STEIN HUDSON
Engineers + Planners

Figure 3-1
Study Area Intersections

Washington Street is a one-way northbound one lane roadway, classified as an urban minor arterial roadway under BTD jurisdiction, and generally runs in a north-south direction between Court Street in downtown Boston to the north to Hyde Park Avenue in the Jamaica Plain neighborhood to the south. In the vicinity of the Project Site, Washington Street is designated as a pedestrian-only zone (see description under Section 3.2.1). On-street parking is restricted and sidewalks are provided on both sides of the roadway, although most pedestrians walk on the roadway.

School Street is a one-way eastbound one lane roadway, classified as an urban minor arterial roadway under BTD jurisdiction and generally runs in an east-west direction between Washington Street to the east and Tremont Street to the west. In the vicinity of the Project, on-street parking for commercial vehicles and valet parking for the Omni Parker House is provided along the south side of the roadway. Sidewalks are provided on both sides of School Street, although the sidewalk adjacent to Kings Chapel and Old City Hall is narrow.

Bromfield Street is a one-way westbound one lane roadway, classified as an urban minor arterial roadway under BTD jurisdiction and generally runs in an east-west direction between Washington Street to the east and Tremont Street to the west. In the vicinity of the Project, on-street parking is provided for commercial vehicles along the south side of the roadway and sidewalks are provided along both sides of Bromfield Street.

Province Street is a two-way, two-lane roadway, classified as a local roadway under BTD jurisdiction and generally runs in a north-south direction between School Street to the north and Bromfield Street to the south. On-street parking for commercial vehicles and valet service is provided along Province Street. Sidewalks are provided along both sides of the roadway.

Franklin Street is an urban minor arterial under BTD jurisdiction that connects India Street in the Financial District to Washington Street in Downtown Crossing. Within the study area, Franklin Street is a one-way westbound roadway with a bicycle lane between Devonshire Street and Hawley Street. Near the intersection with Arch Street, Franklin Street contains two medians that are remnants from bus stop islands constructed in the late 1970s as part of the Downtown Crossing auto-restricted zone. Additionally, the Franklin Street segment between Hawley Street and Washington Street consists of a different streetscape to introduce the pedestrian only zone.

Hawley Street is a local street under BTD jurisdiction which runs one-way eastbound from Franklin Street to Milk Street and one-way westbound from Franklin Street to Summer Street. In the vicinity of the Project, on-street parking is not permitted, however, commercial vehicles were observed loading along the roadway. Sidewalks are provided along both sides of Hawley Street.

3.2.3 Existing Intersection Conditions

Existing conditions at the study area intersections are described below.

Washington Street/School Street is a three-legged, signalized intersection with two approaches. The eastbound School Street approach consists of one left-turn only lane. The northbound Washington Street approach consists of one through only lane. On-street parking is prohibited at the intersection, although commercial vehicles were observed loading along both approaches. Crosswalks, accessible ramps, and pedestrian indication equipment are provided across all approaches to the intersection.

Washington Street/Milk Street is a two-legged, signalized intersection with two approaches. The westbound approach on Milk Street contains a single right-turn only lane. The northbound approach on Washington Street contains one shared through/right-turn travel lane. Right turns on red are not allowed at this intersection. Crosswalks and accessible ramps are provided for all approaches. No pedestrian pushbuttons or indications are provided across the Washington Street northbound approach. Exclusive and concurrent pedestrian phases are provided for the crosswalk across Milk Street and the northern crosswalk on Washington Street.

School Street/Province Street is a three-legged, unsignalized intersection with two approaches. The eastbound School Street approach consists of one shared through/right turn lane. The northbound Province Street approach consists of one right-turn only lane. On-street parking is provided along both approaches to the intersection. Crosswalks with accessible ramps are provided along all legs of the intersection.

Bromfield Street/Province Street is a three-legged, unsignalized intersection with two approaches. The westbound Bromfield Street approach consists of a shared through/right-turn lane. The southbound Province Street approach consists of a right-turn only lane. Commercial vehicles are permitted during the designated hours for pick-up/drop off and loading along the entire southern side of Bromfield Street. Parking is also provided on both sides of Province Street. Crosswalks and accessible ramps are provided across the Province Street approach.

Washington Street/Bromfield Street/Franklin Street is a four-legged, unsignalized intersection with vehicle activity on only the Washington Street northbound approach. Because of the pedestrian only zone in Downtown Crossing, the Washington Street northbound approach serves only taxis and commercial vehicles but no general traffic. Washington Street is open to taxis between 6:00 p.m. and 2:00 a.m. and to commercial vehicles between 6:00 p.m. and 11:00 a.m. The Washington Street northbound approach has one shared left-turn/through travel lane. While no crosswalks are present, special paving treatment within this intersection indicates it is part of the Downtown Crossing pedestrian zone. Accessible ramps are provided for all approaches.

Franklin Street/Hawley Street is a four-legged, unsignalized intersection with two approaches. The eastbound Franklin Street approach, which is part of the cul-de-sac in front of Millennium Tower, consists of left-turn/right-turn only. The westbound Franklin Street approach consists of a shared left-turn/through/right-turn lane and a bicycle lane. The through westbound movement only provides access to the Millennium Tower cul-de-sac and no through traffic (toward Washington Street) is permitted. On-street parking is provided along the south side of the

Franklin Street westbound leg and commercial parking along the east side of the Hawley Street one-way northbound leg. Crosswalks with accessible ramps are provided along all legs of the intersection.

3.2.4 Existing Parking

An inventory of the existing on-street curbside regulations and car sharing services in the vicinity of the Project was collected. A description of each follows.

3.2.4.1 On-Street Curbside Regulations

In the study area, limited on-street public parking is available and public spaces are generally provided in privately owned off-street parking facilities. As shown in Figure 3-2, the on-street curbside regulations include a mix of no parking, commercial loading, and evening valet spaces

3.2.4.2 Off-Street Parking Facilities

Approximately 9,171 off-street parking spaces are provided in garages and lots within a quarter-mile radius of the Project Site. Of these, 1,892 spaces are for private use and about 7,279 spaces are available for public use. These parking facilities and their capacities are identified in Table 3-2 and the locations are mapped in Figure 3-3.

Table 3-2 Off-Street Parking Lots and Garages

Map # *(Figure 3-3)*	Address	Facility	Private Capacity	Public Capacity
Parking Lots				
1	37 Ashburton Place	Ashburton Place Lot	0	30
2	17 Beacon Street	VPNE Beacon Street Lot	0	24
3	17-23 West Street	VPNE West Street Lot	0	20
4	100 Chauncy Street	Essex & Lafayette Lot	7	0
5	Chauncy Street	Boston Edison Lot	0	30
Parking Lots – Subtotal			**7**	**104**
Parking Garages				
A	33 Arch Street	Downtown Crossing Garage	0	844
B	45 Province Street	45 Province Street Garage	111	184
C	One Beacon Street	Beacon Street Garage	0	315
D	0 Charles Street	Boston Common Garage	625	1,500
E	1 Avenue de Lafayette	Lafayette Place Garage	61	922
F	162 Tremont Street	Tremont On The Common	500	0
G	55 Pearl Street/130 Congress Street	One Post Office Squire	0	1,036
H	99 Summer Street	99 Summer Street Garage	0	95
I	101 Arch Street	101 Arch Street Garage	0	52

Table 3-2 Off-Street Parking Lots and Garages (Continued)

Map # *(Figure 3-3)*	Address	Facility	Private Capacity	Public Capacity
		Parking Garages		
J	83 Devonshire Street	One Devonshire Garage	0	108
K	275 Washington Street	Pi Alley Garage	295	534
L	73 Tremont Street	73 Tremont Garage	0	108
M	28 State Street	28 State Street Garage	122	0
N	50 Cambridge Street	Center Plaza Garage	0	569
O	53 State Street	Exchange Place	93	0
P	60 State Street	60 State Street Associates	78	227
Q	75 State Street	75 State Street Garage	0	681
Parking Garages – Subtotal			**1,885**	**7,175**
Parking Lots + Garages - Total			**1,892**	**7,279**

3.2.4.3 Car Sharing Services

Car sharing services enable easy access to short-term vehicular transportation. Vehicles are rented on an hourly or daily basis, and all vehicle costs (gas, maintenance, insurance, and parking) are included in the rental fee. Vehicles are checked out for a specific time period and returned to their designated location. Pick-up/drop-off locations are typically in existing parking lots or other parking areas throughout neighborhoods as a convenience to users of the services. Nearby car sharing services provide an important transportation option and reduce the need for private vehicle ownership.

While Zipcar is the primary car share company in the Boston car sharing market, other companies such as Turo and Getaround also operate within the City. Several car sharing locations exist within a quarter-mile radius of the Project Site, including five Zipcar locations. Currently, no Turo and Getaround locations are within a quarter-mile of the Project Site. The nearby car sharing locations are shown in Figure 3-4.

3.2.5 Existing Traffic Data

Due to unforeseen circumstances caused by the COVID-19 pandemic, reliable turning movement counts (TMCs) were not able to be collected in March 2020. Therefore, TMCs and vehicle classification counts from October 26th, 2016, were increased by 0.25% per year to estimate Existing (2020) Condition volumes. The traffic classification counts included car, heavy vehicle, pedestrian, and bicycle movements. The detailed traffic counts for the study area intersections are provided in Appendix C.

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Figure 3-2
On-street Curbside Regulations

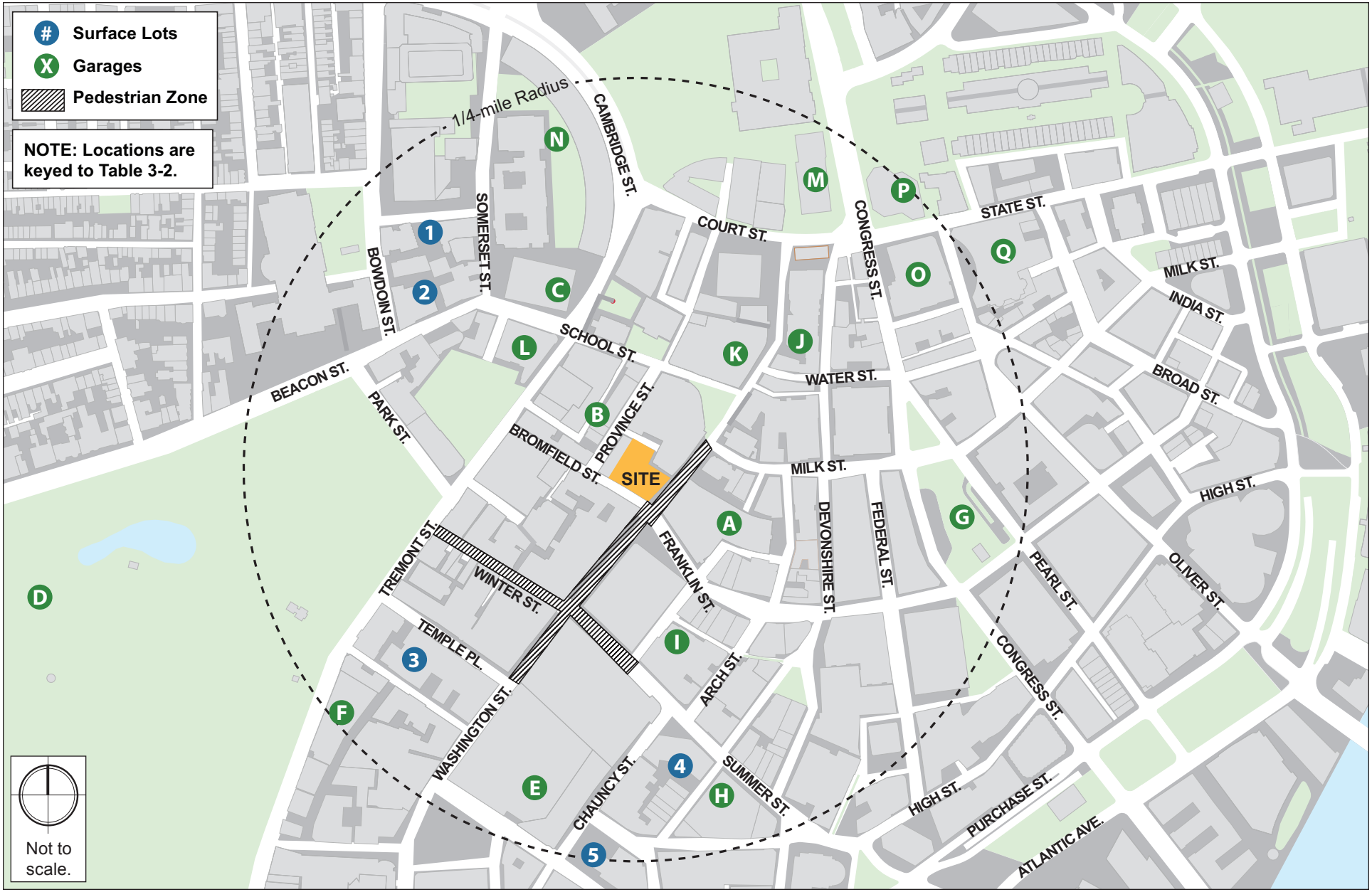

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Figure 3-3
Off-street Parking Facilities

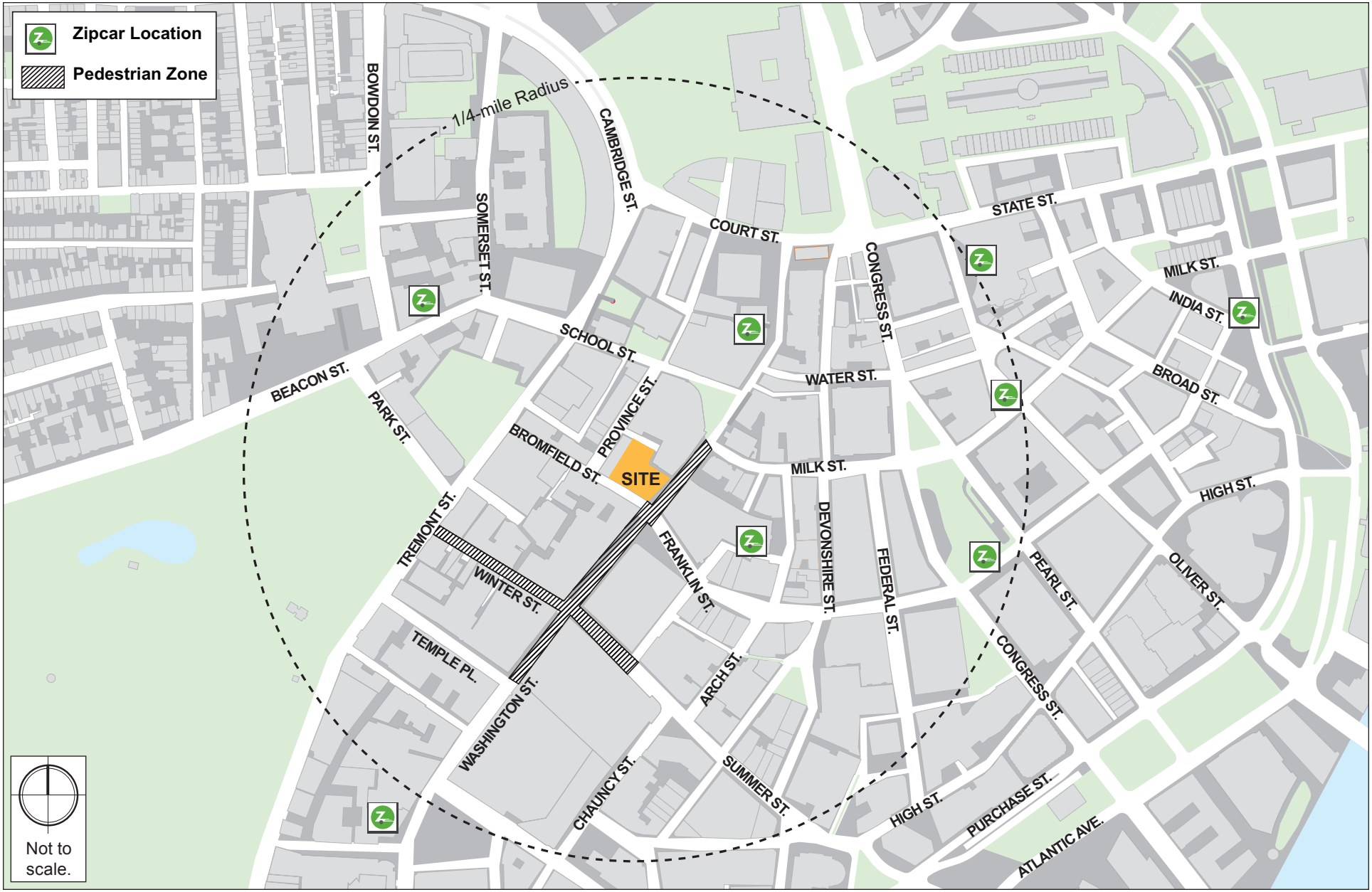

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Figure 3-4
Car Sharing Locations

3.2.6 Existing (2020) Condition Traffic Volumes

The Existing (2020) Condition traffic volumes developed by applying a growth rate to the October 2016 volumes. The volumes were balanced where necessary across the roadway network within the study area.

The resulting Existing (2020) Condition, weekday a.m. and p.m. peak hour traffic volumes are shown in Figure 3-5.

3.2.7 Existing Bicycle Volumes and Accommodations

Bicycle counts, presented in Figure 3-6, were conducted concurrently with the 2016 TMCs and were increased by 0.25% annually to estimate 2020 volumes.

Within the study area, a painted bike lane is provided along Franklin Street between Devonshire Street and Hawley Street. Since Washington Street is designated as a pedestrian-only zone, bicycles are also allowed to mobilize in this zone.

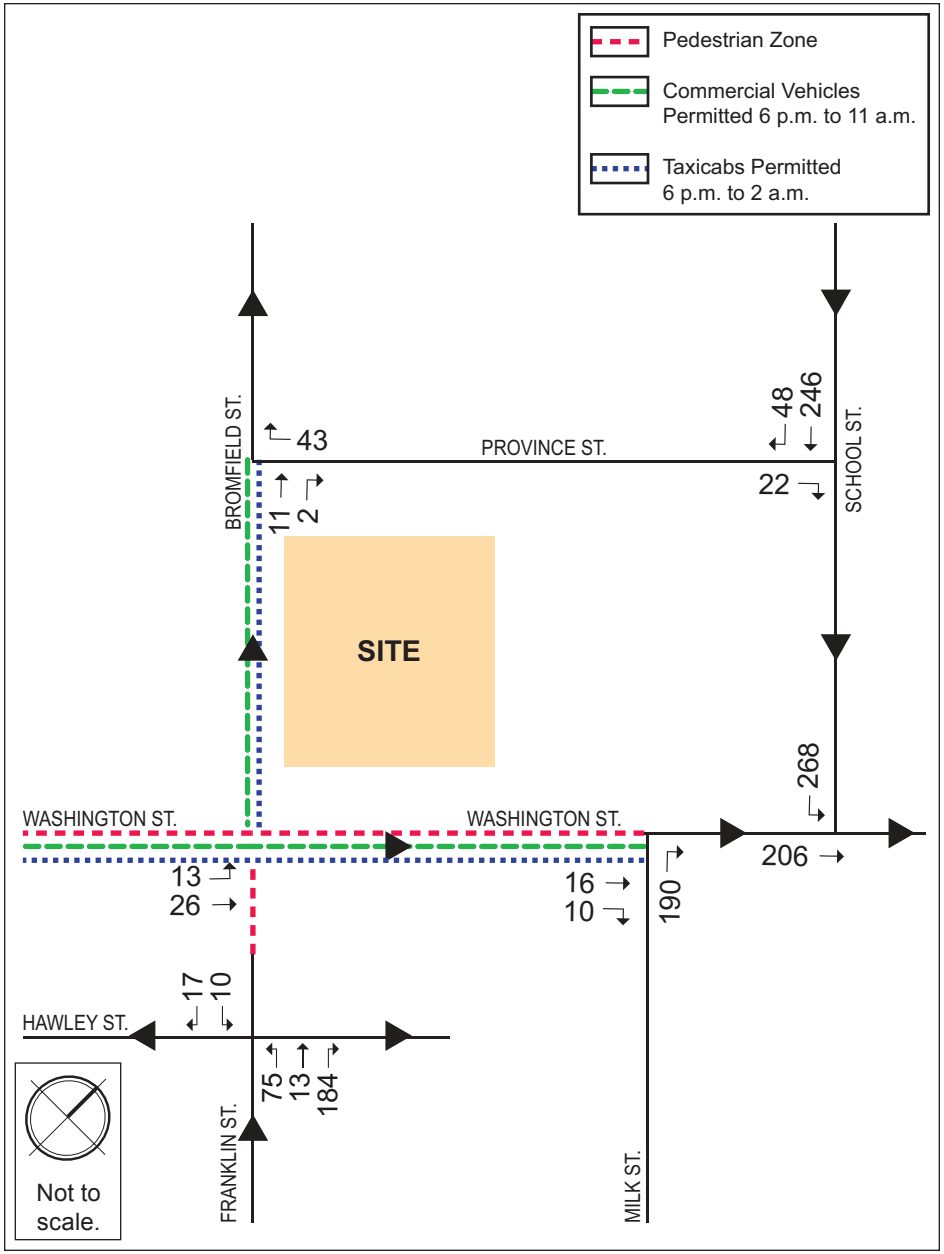
The Project Site is also located in close proximity to four bicycle sharing stations provided by Bluebikes (formerly Hubway). Bluebikes is the Boston area's largest bicycle sharing service, which was launched in 2011 and currently consists of more than 3,400 shared bicycles at more than 190 stations throughout Boston, Brookline, Cambridge, and Somerville. As shown in Figure 3-7, five Bluebike stations are located within a quarter mile of the Project Site and eight other Bluebike stations are in the broader area.

3.2.8 Existing Pedestrian Volumes and Accommodations

The Project Site is located in the dense Downtown Crossing area and is surrounded by a mix of commercial, retail, and residential buildings; educational and governmental organizations; theaters; and restaurants. A pedestrian-only zone, as shown in Figure 3-1, exists along segments of Washington Street, Winter Street, Summer Street, and Franklin Street.

Sidewalks are provided along all streets in the area, although in the pedestrian only zones, pedestrians also walk along the roadway. Crosswalks and accessible ramps are provided at all study area intersections.

To determine the amount of pedestrian activity within the study area, pedestrian counts were conducted concurrently with the 2016 TMCs and were increased by 0.25% annually to estimate 2020 volumes, as shown in Figure 3-8.



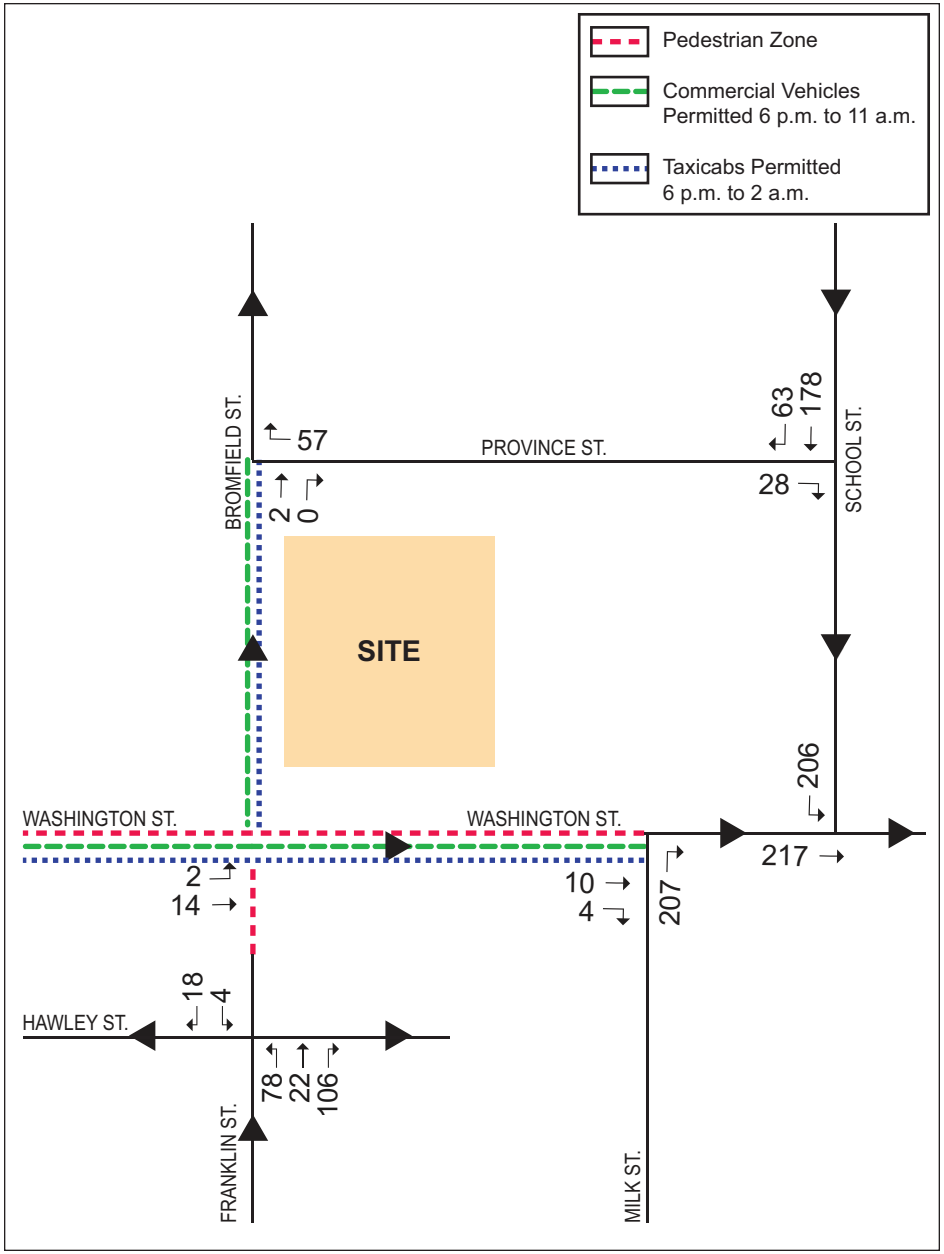


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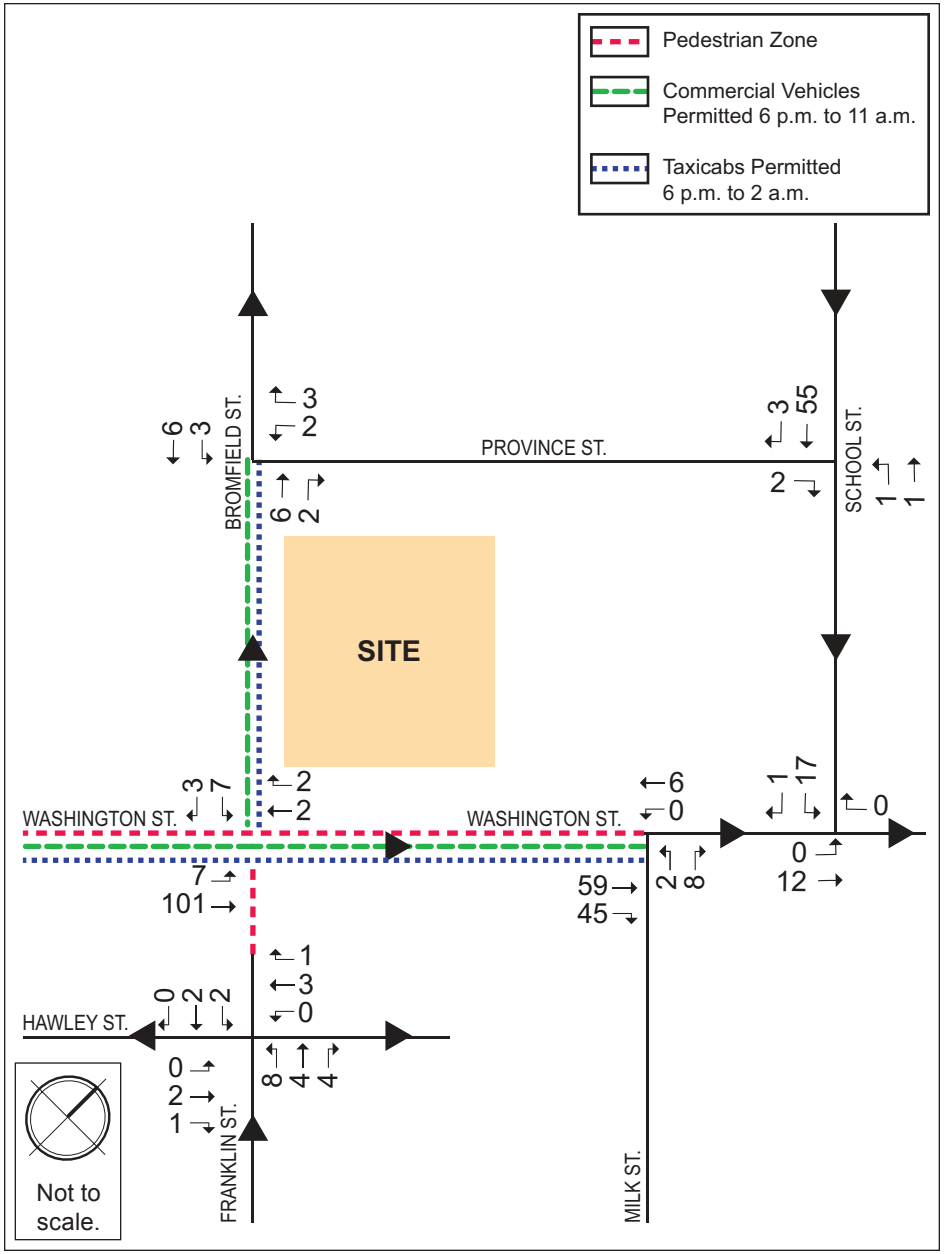
Figure 3-5
Existing (2020) Condition Traffic Volumes, Weekday a.m. and p.m. Peak Hours



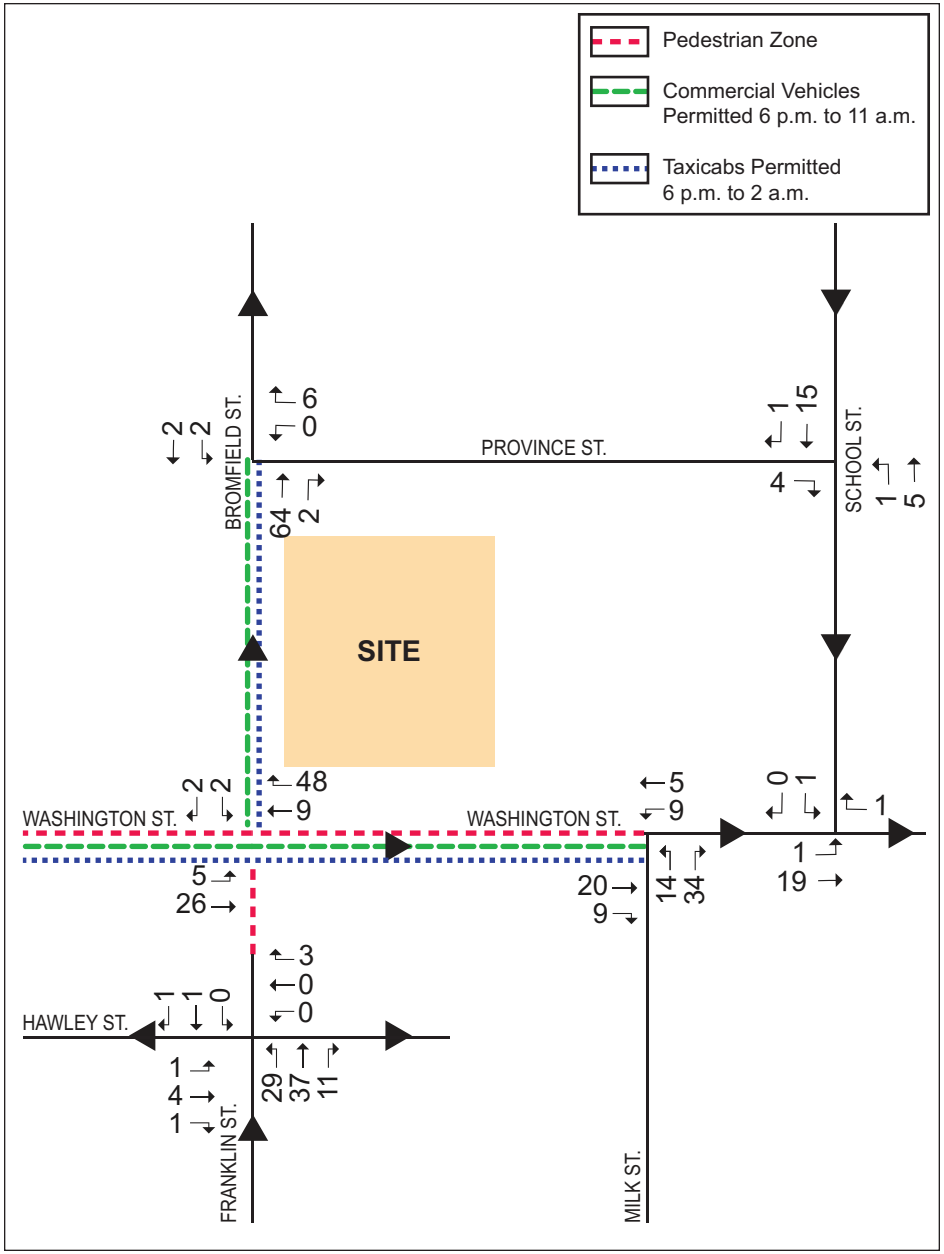


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Figure 3-6
Existing (2020) Condition Bicycle Volumes, Weekday a.m. and p.m. Peak Hours

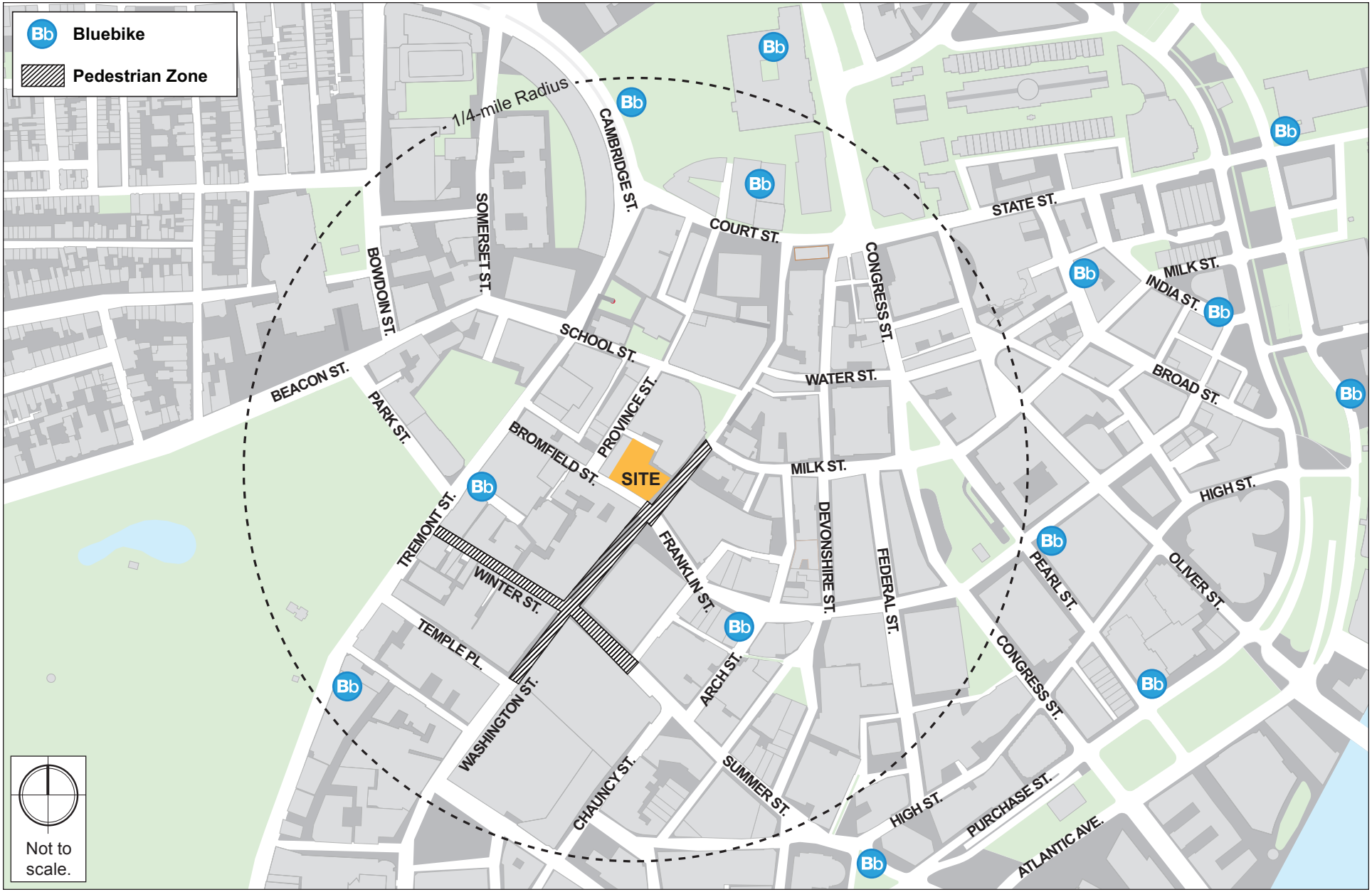

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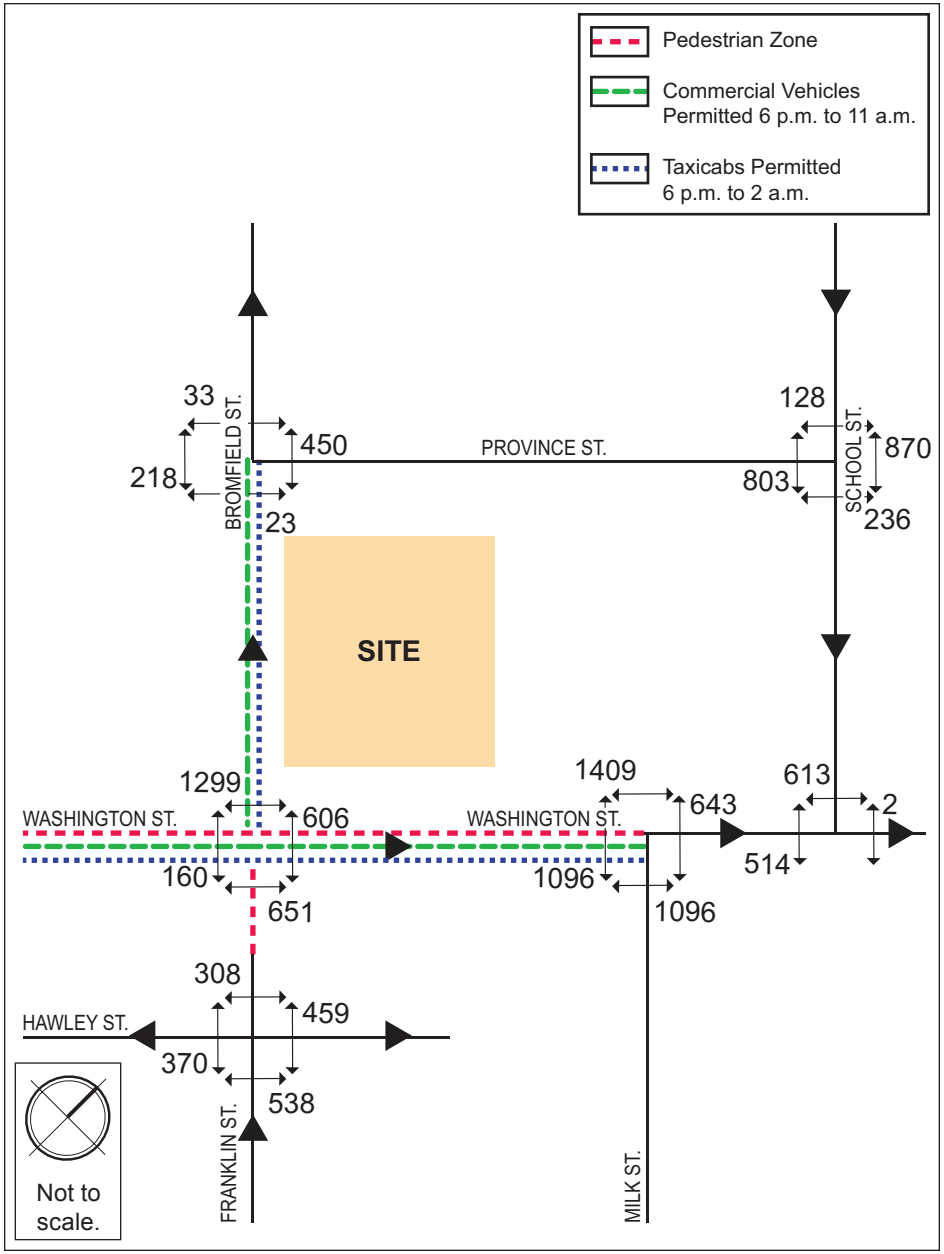
Figure 3-7
Bicycle Sharing Locations



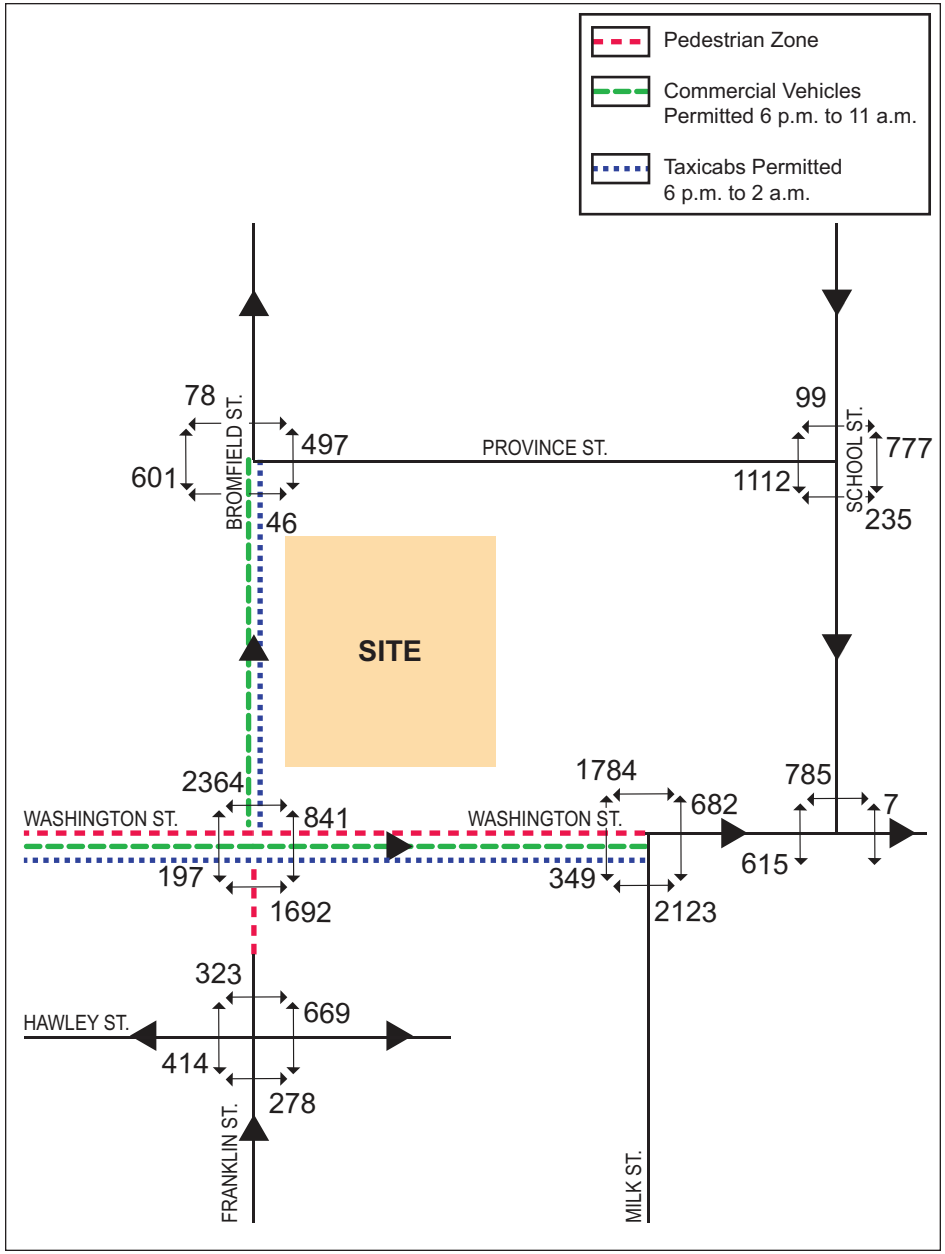


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Figure 3-8
Existing (2020) Condition Pedestrian Volumes, Weekday a.m. and p.m. Peak Hours

3.2.9 Existing Public Transportation Services

The Project Site is in the Downtown Crossing neighborhood of Boston with many public transportation options. Four MBTA subway stations, as described below, are within a five-minute walk (less than ¼ mile) of the Project Site:

- Downtown Crossing – access to the Orange Line and Red Line transit service
- Park Street – access to the Red Line and all four branches of the Green Line transit service
- State Street – access to the Orange Line and Blue Line transit service
- Government Center – access to all four branches of the Green Line and Blue Line transit service

The Silver Line surface bus route SL5 operates between Dudley Station and Downtown Crossing along Washington Street; the primary stop in the downtown area is on Temple Place. Seven local bus routes and ten express bus routes have stops within ¼ mile of the Project Site. The MBTA services in the study are area summarized in Table 3-3 and shown in Figure 3-9.

Table 3-3 Existing Public Transportation Service Summary

Transit Service	Description	Peak-Hour Headway (minutes)[1]
MBTA Rapid Transit Lines		
Orange Line	Forest Hills – Oak Grove	6
Blue Line	Wonderland – Bowdoin	5
Red Line	Alewife – Braintree/Mattapan	5-9
Green Line	Lechmere – Boston College, Cleveland Circle, Riverside, or Heath Street	6-7
Silver Line	Silver Line 5 (SL5): Dudley Station – Downtown (Temple Place)	5-9
MBTA Local Bus Routes		
Route 4	North Station – Tide Street	20
Route 7	City Point – Otis Street & Summer Street	6-9
Route 11	City Point – Bedford Street & Chauncy Street	6-12
Route 43	Ruggles Station – Park Street Station (via Tremont Street)	20-30
Route 55	Jersey Street & Queensberry Street – Park Street Station	15-30
Route 92	Sullivan Square Station – Downtown via Main Street	15
Route 93	Sullivan Square Station – Downtown via Bunker Hill Street	8-12

1 Headway is the scheduled time between trains or buses. Headways are approximate.
Source: www.mbta.com, March 2020.

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Figure 3-9
Public Transportation

3.2.10 Existing Transit Ridership

Most new transit person trips generated by the Project are expected to use the MBTA subway lines and, accordingly, the associated transit capacity evaluation was focused on the MBTA's Orange, Blue, Red, and Green Lines.

To determine the existing ridership volumes to capacity along the subway lines, the transit analysis was performed using existing Spring 2018 rail flow data (most recent available) obtained from the MBTA, which provides passenger entrances and estimates of exits at each station broken down into 15-minute intervals. The transit analysis is presented in Section 3.6 and the detailed transit data is provided in Appendix C.

3.3 No-Build Condition

The No-Build (2027) Condition reflects a future scenario that incorporates anticipated traffic volume changes associated with background traffic growth independent of any specific project, traffic associated with other planned specific developments, and planned infrastructure improvements that will affect travel patterns throughout the study area. These infrastructure improvements include roadway, public transportation, pedestrian facility, and bicycle facility improvements.

3.3.1 Background Growth Traffic

The methodology to account for generic future background traffic growth, independent of this Project, may be affected by changes in demographics, smaller scale development projects, or projects unforeseen at this time.

Based on a review of recent and historic traffic data collected and to account for any additional unforeseen traffic growth, a traffic growth rate of half percent (0.5%) per year, compounded annually through Year 2027, was used.

3.3.2 Specific Development Traffic Growth

Traffic volumes associated with known, larger, or adjacent development projects can affect traffic patterns throughout the study area within the future analysis time horizon. Key background development projects were identified in the vicinity of the Project Site and are shown in Figure 3-10. Traffic volumes associated with the following projects were directly incorporated into the future conditions traffic volumes:

- **Congress Square** – The proposed project consists of three buildings with approximately 284,600 sf of office space, 36,650 sf of retail/restaurant space, and two hotels with a total of 249 hotel keys. The project has been approved by the BPDA Board. While the hotel at 68 Devonshire Street, with approximately 133 hotel keys, is open, the remaining buildings have not yet been completed.

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Figure 3-10
Background Projects

- **Winthrop Square** – The project consists a mixed-use project including residential, office, retail, restaurant, parking and other commercial uses along with an inclusive Great Hall space totaling up to 1.65 M gross square feet. The BPDA approved a Notice of Project Change (NPC) for a decrease in the residential space to approximately 66,825 gsf, an increase in the office space to approximately 772,422 sf, and a decrease in parking capacity by 50 spaces. This project is currently under construction.

Traffic volumes for several smaller or more remote projects, listed below, are reflected in the general background traffic growth.

- **1 Court Street Residence Hall** – The project consists of converting the existing hotel to approximately 280 beds of undergraduate student housing for Suffolk University, including approximately 2,200 sf of active ground floor use for student lounge and publicly accessible retail space. This conversion has been completed.

- **Harbor Garage Redevelopment** – The proposed project consists of demolishing the existing parking structure and including approximately 865,000 sf of residential space (~200 units), office, and ground floor retail space. This project is currently under review by the BPDA.

- **Center Plaza** – The project consists of approximately 30,000 gsf of new development including the renovation of the Center Plaza's street level lobbies, sidewalk arcade along Cambridge Street, and passageways through the building. This project has been approved by the BPDA Board.

- **55 India Street** – The project consists of the construction of an approximately 67,000 sf, 12-story mixed-use building with approximately 29 residential units and up to 4,000 sf of ground floor commercial space. This project has been approved by the BPDA Board.

- **Dock Square** – The project proposes to retain the existing building and current parking garage, and construct a new, ten-level, approximately 134-unit residential condominium addition on the roof. This project recently submitted a Notice of Project Change which is under review by the BPDA.

- **One Post Office Square** – The proposed project consists of upgrades to the existing office tower including replacing the exiting façade with a glass curtainwall, the existing parking structure will demolished and replaced by a new 18-story structure with ground floor retail and drop-off for an automated parking garage. The automated parking garage will include three stories above grade and two stories below, with a 13-story addition above the garage that extends the existing office floor plates from the One Post Office Square office tower. This project is currently under construction.

- **Government Center Garage** – This project includes construction of a 2.9 million sf development including 812 residential units, 196 new hotel rooms, 1.15 million sf of office space, 82,500 sf of retail space and 1,159 parking spaces. While the project will be built in several phases, all trips expected to be generated by this project were assigned to the

study area intersections. Trip generation and distribution data were obtained from the transportation component of the *Redevelopment of the Government Center Garage Project Notification Form* prepared in June 2013. The proponent submitted a Notice of Project Change on June 30, 2017 modifying the residential tower (WP-B1) to convert approximately 118 apartment units on the upper eleven floors to approximately 55 condominium units, for a total of approximately 368 apartment units and approximately 55 condominium units. These changes would decrease the total of number of units in WP-B1 from 486 units to 423 units. No increase in parking demand or trip generation for this component is anticipated. Phase 1 is currently under construction.

- **Haymarket Hotel** – The project consists of a six-story building that will contain approximately 225 hotel rooms with approximately 9,600 sf of retail/restaurant space and a 1,615 sf area that will house storage areas and restrooms for members of the Haymarket Pushcart Association. This project is currently under construction.

3.3.3 Proposed Infrastructure Improvements

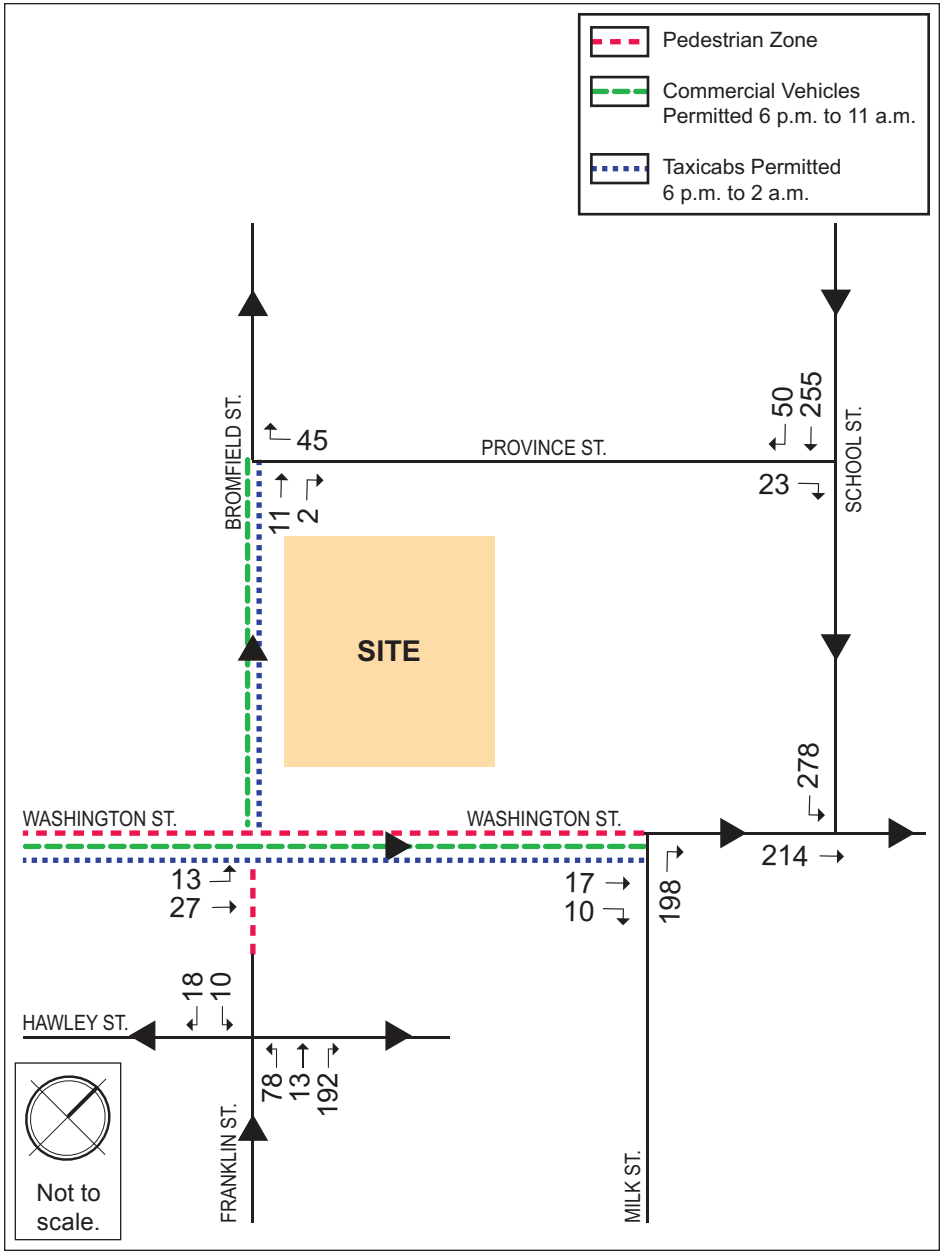
A review of on-going studies and planned improvements to roadway, bicycle, and pedestrian facilities was conducted to understand future transportation changes in the study area. While no infrastructure improvements are planned in the immediate area, recommendations from the following planning studies were incorporated as appropriate:

- **PLAN: Downtown** – This on-going study is being conducted by the BPDA and focuses on preserving cultural heritage, promoting dense and mixed-use development, encouraging economic development, promoting the retention growth, and diversity of active ground-floor uses, enhancing access to housing, improving connections through, within, and to Downtown, encouraging consistent, safe, healthy, and high-quality improvements to the public realm, preserve historic building fabric and cultural institutions, ensuring future development and public realm projects are resilient and mitigate climate change impacts, and reducing the carbon impacts. While the study's initial schedule targeted mid-2020 for completion, the schedule has been delayed by the COVID-19 pandemic.

- **Connect Downtown** – This study is being conducted by the City of Boston Transportation Department and focuses on improving pedestrian crossings along designated corridors in Back Bay, Bay Village, Beacon Hill, Chinatown, Downtown, South End, and West End. The goal is to implement improvements that provide comfortable, safe, and direct routes for bicyclists, and enhance pedestrian access to the Public Garden and Boston Common.

3.3.4 No-Build (2027) Condition Traffic Volumes

The half percent per year annual growth rate, compounded annually, was applied to the Existing (2020) Condition traffic volumes, then the traffic volumes associated with the background development projects listed above were added to develop the No-Build (2027) Condition traffic volumes. The No-Build (2027) weekday a.m. peak hour and p.m. peak hour traffic volumes are shown in Figure 3-11.



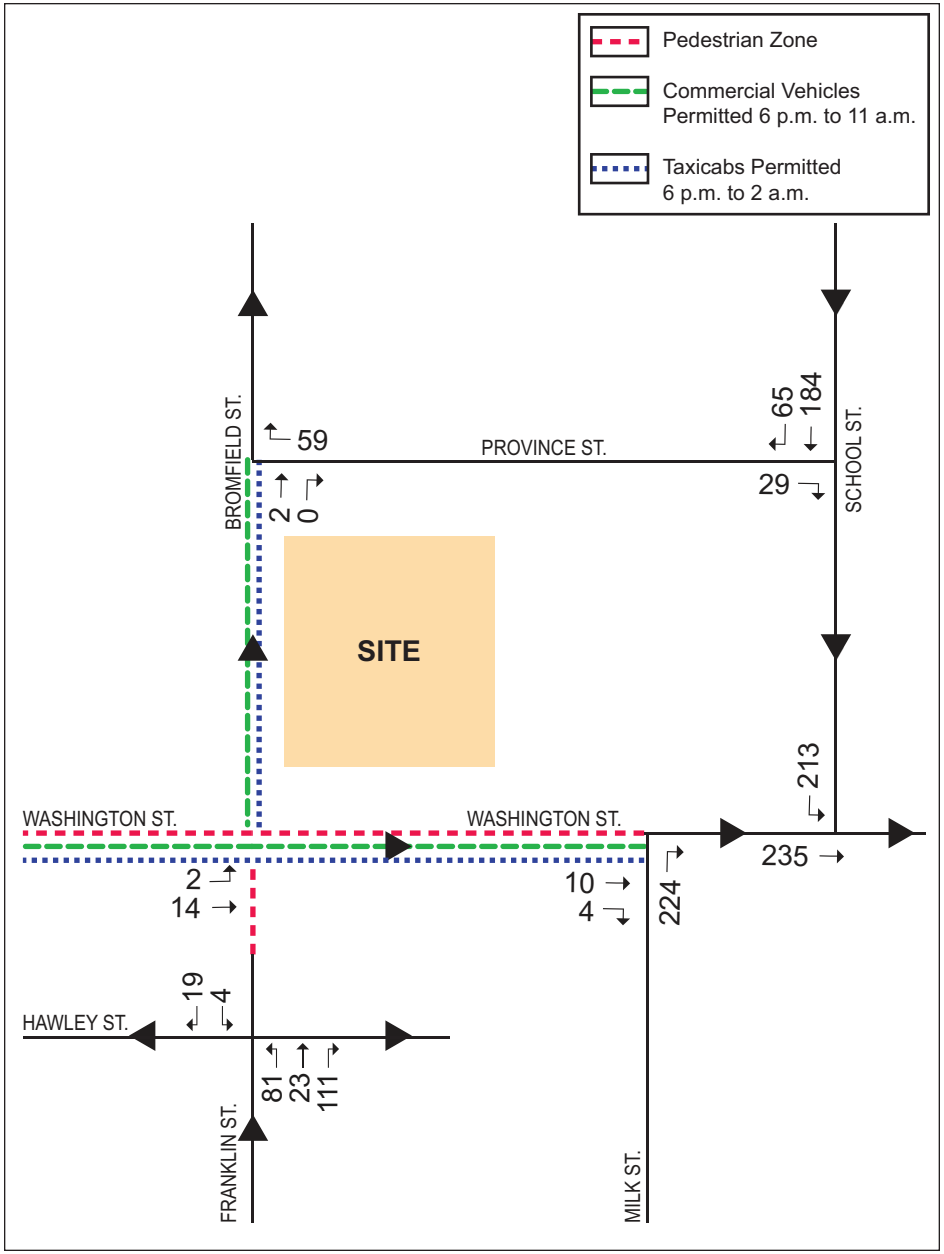


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Figure 3-11
No-Build (2027) Condition Traffic Volumes, Weekday a.m. and p.m. Peak Hours

3.3.5 No-Build (2027) Condition Transit Ridership

For transit service, the No-Build (2027) Condition reflects a future scenario that incorporates anticipated ridership growth and infrastructure improvements that will affect transit operations in the study area.

The Central Transportation Planning Staff's (CTPS) Long-Range Transportation Plan (LRTP) projects future growth along all public transportation in Massachusetts. Per the LRTP, transit ridership on rapid rail transit lines is expected to grow 28 percent between 2012 and 2040, which is approximately one percent per year. This growth rate was applied to the existing 2018 transit data to establish a future 2027 transit ridership No-Build Condition.

The transit analysis for existing and future conditions is presented in Section 3.6 and the detailed transit data is provided in Appendix C.

3.3.5.1 Proposed Transit Improvements

As outlined in MBTA's Focus40 plan, the following service improvements will be incorporated to the subway lines:

- **Orange Line** – One new set of Orange Line cars has been sporadically added to the system starting in August 2019. By 2022, all older Orange Line cars will be replaced with the new cars, which will provide higher passenger capacity and allow for shorter headways between trains. For the analysis of the Project, the loading standard capacity of the new trains is assumed to be the same as the existing cars, but the operational capacity has been increased by 25 percent to reflect the associated improvement in headways. Because some MBTA analysis indicates that capacity could increase by as much as 40 to 50 percent over existing conditions, the 25 percent adopted for this Project is considered conservative. While the volume to capacity ratios were assessed under the same loading standard as the Existing Condition, the graphs (included in the Appendix) highlight the increase in capacity from the new train cars.
- **Blue Line** – The MBTA is planning various capacity improvements for the Blue Line including signal improvements, increased train service, and a possible Red-Blue Line connector. Since the timing and effect on capacity of these improvements is not known at this time, the future capacities were not increased, resulting in a conservative (lower) estimate of Blue Line transit capacity.
- **Green Line** – In December 2018, the MBTA started replacing older Green Line cars with new cars, which provide higher passenger capacity and allow for shorter headways between trains. The improvement in headways will increase capacity by approximately 15 percent by 2040. While the volume to capacity ratios were assessed under the same loading standard as the Existing Condition, the graphs (included in the Appendix) highlight the increase in capacity from the new cars.

- **Red Line** –The MBTA is planning to continue replacement of older train cars and will study the possibility of a Red-Blue Line connector. Since the timing and impact on capacity of these improvements is not known at this time, the future capacities were not increased, resulting in a conservative (lower) estimate of Red Line transit capacity.

3.4 Build Condition

The Project includes the demolition of the existing buildings on the Project Site and the construction of a new building with approximately 382,000 sf of office space and approximately 59,000 sf of commercial space.

3.4.1 Site Access and Vehicle Circulation

Since the Project will have no on-site parking, the Project's limited parking demand will be served by nearby existing parking facilities. Taxis and transportation network company (TNC) vehicles, such as Uber and Lyft, however, will arrive at the Project Site. Because of the pedestrian zone in Downtown Crossing and adjacent one-way streets, vehicle travel paths to the Project Site are limited, these vehicles are expected to primarily serve the Project Site from Province Street.

As shown in the Site Plan, Figure 3-12, the primary office pedestrian entrances to the Project Site will be located along Bromfield Street. The commercial uses will have pedestrian access along Washington Street and Bromfield Street. The Proponent will construct new sidewalks adjacent to the Project Site in accordance with Boston Complete Streets guidelines and requirements of the Americans with Disabilities Act and Massachusetts Architectural Access Board (ADA/AAB), to the extent feasible.

3.4.2 Project Parking

The Project does not include any on-site parking. The limited number of Project tenants and visitors who choose to drive will self-park at the various nearby parking facilities, as presented in Table 3-2. With approximately 7,279 public parking spaces at seventeen facilities within a quarter mile of the Project Site, sufficient parking capacity will be available to meet the parking demand of this Project.

For the purpose of the Project's traffic capacity analysis, presented in Section 3.5, three of the nearby seventeen parking facilities were identified as being most convenient to the Project Site. The Project's forecasted parking trips were assigned to the travel routes serving these facilities.

3.4.3 Loading and Service Accommodations

Today, deliveries to many Downtown Crossing retailers in the designated pedestrian zone occur curbside in designated commercial loading areas. Before many of the Project Site tenants vacated in recent years, some retail deliveries occurred along Washington Street adjacent to the Project Site, while some deliveries and trash pick-up occurred at service doors on Province Court.

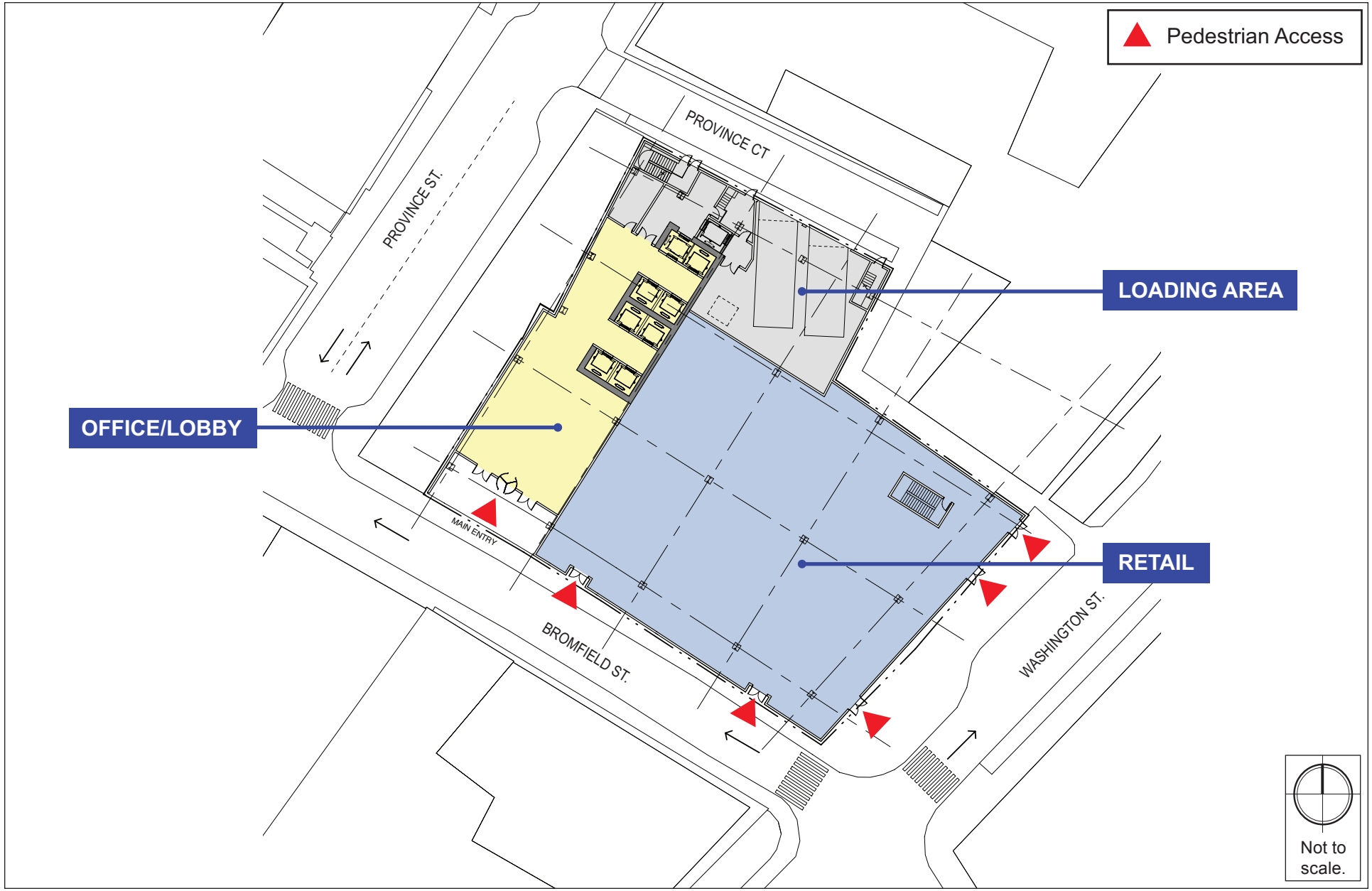

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Figure 3-12
Site Plan

With the redevelopment of the Project Site, some commercial deliveries will continue to occur along Washington Street. The Project's primary loading and service areas, however, will be located on Province Court. See Figure 3-12. As is the case today, delivery vehicles using Province Court will back in from Province Street to the Project's loading bays, which will be internal to the building. The Project will provide two loading bays, one accommodating up to a Single Unit (SU)-36 sized truck and the other accommodating up to an SU-30 truck. Trash pick-up will occur at this loading area.

Daily delivery trip estimates for the Project were developed based on Central Transportation Planning Staff (CTPS) data for the identified land uses. Overall, the Project is expected to generate approximately 25 daily deliveries. On average, delivery vehicles occupy a loading bay for about 15 minutes. Given the number of available loading bays and daily deliveries, ample loading capacity will be provided by the Project. While some deliveries will occur via truck (mostly single-unit box trucks), most will occur via cars/vans.

Note that trash trips are not included in the number of daily deliveries. Trash trips generally occur between 5:00 a.m. – 7:00 a.m. and do not coincide with regular delivery activity.

3.4.4 Bicycle Accommodations

Secure bicycle parking will be provided for employees, who will have access to shower/locker rooms. Short-term bicycle parking racks will also be provided for visitors on Washington Street. Table 3-4 summarizes the Project bicycle accommodations in accordance with BTD *Bike Parking Guidelines*, published in January 2020.

Table 3-4 Project Bicycle Accommodations

Land Use	Employees		Visitors	
	Rate	Quantity	Rate	Quantity
Office	1 per 2,500 sf	153 spaces	1 per 20,000 sf	20 spaces
Commercial	1 per 3,000 sf	20 spaces	1 per 5,000 sf	12 spaces
Total	-	173 spaces	-	32 spaces

The Project will provide approximately 173 long-term secure bicycle spaces within the building and approximately 32 short-term bicycle spaces on Washington Street.

3.4.5 Trip Generation Methodology

Determining the future trip generation of the Project is a complex, multi-step process that produces an estimate of vehicle trips, transit trips, and walk/bicycle trips associated with a proposed development and a specific land use program. A project's location and proximity to different travel modes determines how people will travel to and from a site.

To estimate the number of trips expected to be generated by the Project, data published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual*[1] were used. ITE provides data to estimate the total number of unadjusted vehicular trips associated with the Project. In an urban setting well-served by transit, adjustments are necessary to account for other travel modes such as walking, bicycling, and transit.

To estimate the unadjusted number of vehicular trips for the Project, the following ITE land use codes (LUC) were adopted as most appropriate:

Land Use Code 710 – General Office Building. As described by ITE, a general office building houses multiple tenants; it is a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted. An office building or buildings may contain a mixture of tenants including professional services, insurance companies, investment brokers, and tenant services, such as a bank or savings and loan institution, a restaurant, or cafeteria and service retail facilities. Calculations of the number of trips use ITE's average rate per 1,000 sf.

Land Use Code 820 – Retail/Shopping Center. As described by ITE, a retail shopping center is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. A shopping center's composition is related to its market area in terms of size, location, and type of store. Of the ITE retail categories, this one best suits the commercial component proposed within the Project. Calculations of the number of trips use ITE's average rate per 1,000 sf.

3.4.6 Travel Mode Share

BTD provides vehicle, transit, and walking mode shares for different areas of Boston. The Project is located in the eastern portion of designated Area 2 – Downtown. Because Area 2 encompasses a large part of downtown, the travel mode shares were adjusted to reflect the robust transit availability at the Project Site. The daily average shares from BTD were adopted for the vehicle mode during all time periods. The BTD transit shares were used for daily and peak hour periods. The remaining share was assigned to the walk mode.

The unadjusted vehicular trips were converted to person-trips by using vehicle occupancy rates published by the Federal Highway Administration (FHWA)[2]. The person-trips were then distributed to different modes according to the mode shares shown in Table 3-5.

---

1 Trip Generation Manual, 10th Edition; Institute of Transportation Engineers; Washington, D.C.; 2017.

2 Summary of Travel Trends: 2017 National Household Travel Survey; FHWA; Washington, D.C.; July 2018.

Table 3-5 Travel Mode Shares

Land Use		Walk/Bicycle Share	Transit Share	Vehicle Share	Vehicle Occupancy Rate
Daily					
Office	In	31%	43%	26%	1.18
	Out	31%	43%	26%	1.18
Commercial	In	59%	20%	21%	1.82
	Out	59%	20%	21%	1.82
a.m. Peak Hour					
Office	In	11%	63%	26%	1.18
	Out	11%	63%	26%	1.18
Commercial	In	33%	46%	21%	1.82
	Out	33%	46%	21%	1.82
p.m. Peak Hour					
Office	In	11%	63%	26%	1.18
	Out	11%	63%	26%	1.18
Commercial	In	33%	46%	21%	1.82
	Out	33%	46%	21%	1.82

3.4.7 Existing Trip Generation

When assessing a site with existing, active land uses, it is standard practice to estimate existing trips and subtract those trips from the projected new future trips. The result of this process yields "net new" trips that become the basis for traffic analysis. While the Project Site buildings have had varying levels of occupancy during recent years, much of the Project Site is now vacant. Therefore, no credit (reduction) for existing trips has been takin in the calculations relating to the Build Condition.

3.4.8 Project Trip Generation

The travel mode share percentages shown in Table 3-5 were applied to the number of person trips to develop walk/bicycle, transit, and vehicle trip generation estimates for the Project. Vehicle trips include automobiles, taxicabs, and TNC services, such as Uber and Lyft. The trip generation for the Project by travel mode is shown in Table 3-6. The detailed trip generation information is provided in Appendix C.

Table 3-6 Project Trip Generation

Land Use		Walk/Bicycle Trips	Transit Trips	Vehicle Trips Private	Vehicle Trips Taxicab/ TNC	Total Vehicle Trips
Daily						
Office 382,000 sf	In	680	944	450	68	518
	Out	680	944	450	68	518
	Total	**1,360**	**1,888**	**900**	**136**	**1,036**
Commercial 59,000 sf	In	1,196	405	101	66	167
	Out	1,196	405	101	66	167
	Total	**2,392**	**810**	**202**	**132**	**334**
a.m. Peak Hour						
Office 382,000 sf	In	50	284	92	8	100
	Out	8	46	15	8	23
	Total	**58**	**330**	**107**	**16**	**123**
Commercial 59,000 sf	In	20	29	3	2	5
	Out	13	17	2	2	4
	Total	**33**	**46**	**5**	**4**	**9**
p.m. Peak Hour						
Office 382,000 sf	In	9	52	17	9	26
	Out	48	274	89	9	98
	Total	**57**	**326**	**106**	**18**	**124**
Commercial 59,000 sf	In	65	90	10	6	16
	Out	70	98	10	6	16
	Total	**135**	**188**	**20**	**12**	**32**

As shown in Table 3-6, the Project is expected to generate approximately 1,370 vehicle trips daily with 132 vehicle trips (105 entering and 27 exiting) during the weekday a.m. peak hour and 156 vehicle trips (42 entering and 114 exiting) during the weekday p.m. peak hour.

The Project is expected to generate approximately 2,698 daily transit person trips with 376 transit person trips (313 entering and 63 exiting) during the weekday a.m. peak hour and 514 transit person trips (142 entering and 372 exiting) during the weekday p.m. peak hour.

3.4.9 Vehicle Trip Distribution

The trip distribution identifies the various travel paths for vehicles associated with the Project. Trip distribution patterns for the Project were based on BTD's origin-destination data for Area 2 – Downtown, which is close to many transit services and within walking distance to many employers, retail shops and restaurants, and cultural and educational institutions. As discussed in Section 3.4.2, on-site parking will not be provided. Therefore, vehicles trips have been further disaggregated into private automobile trips and taxi/TNC trips, assuming private automobile trips will self-park in nearby parking facilities and taxicabs/TNC trips will travel to the Project Site. For self-park vehicles, the following three facilities were chosen to distribute the trips: 45 Province

Street Garage, Downtown Crossing Garage, and Pi Alley Garage, due to their close proximity to the Project Site. Project parkers will likely use more than these three facilities, but this methodology results in a more conservative (i.e. higher impact) analysis of study area intersections that are closest to the Project Site.

The trip distribution patterns for the Project are illustrated in Figures 3-13 and Figure 3-14, respectively, for automobiles and taxis/TNCs.

3.4.10 Build (2027) Condition Traffic Volumes

The Project-generated vehicle trips were distributed throughout the study area according to the trip distribution patterns. The Project-generated automobile trips are shown for the weekday a.m. and p.m. peak hours in Figure 3-15 and Figure 3-16, respectively. The Project-generated taxi/TNC trips are shown in Figure 3-17 for the weekday a.m. and p.m. peak hours.

The trip assignments were added to the No-Build (2027) Condition vehicular traffic volumes to produce the Build (2027) Condition vehicular traffic volumes. The Build (2027) Condition volumes are shown in Figure 3-18, for the weekday a.m. and p.m. peak hours.

3.4.11 Build (2027) Condition Transit Ridership

As shown in Table 3-6, the Project is expected to generate approximately 2,698 daily transit person trips with 376 transit person trips (313 entering and 63 exiting) during the weekday a.m. peak hour and 514 transit person trips (142 entering and 372 exiting) during the weekday p.m. peak hour.

For the transit analysis presented later in Section 3.6, the Project transit trips were distributed among the major MBTA services, as shown in Table 3-7, based on BTD's origin-destination data and the convenience of service to the Project Site.

Table 3-7 Transit Trip Distribution

MBTA Transit Line	Percent of Project Generated Transit Person Trips
Red Line	35%
Orange Line	28%
Green Line	23%
Blue Line	14%

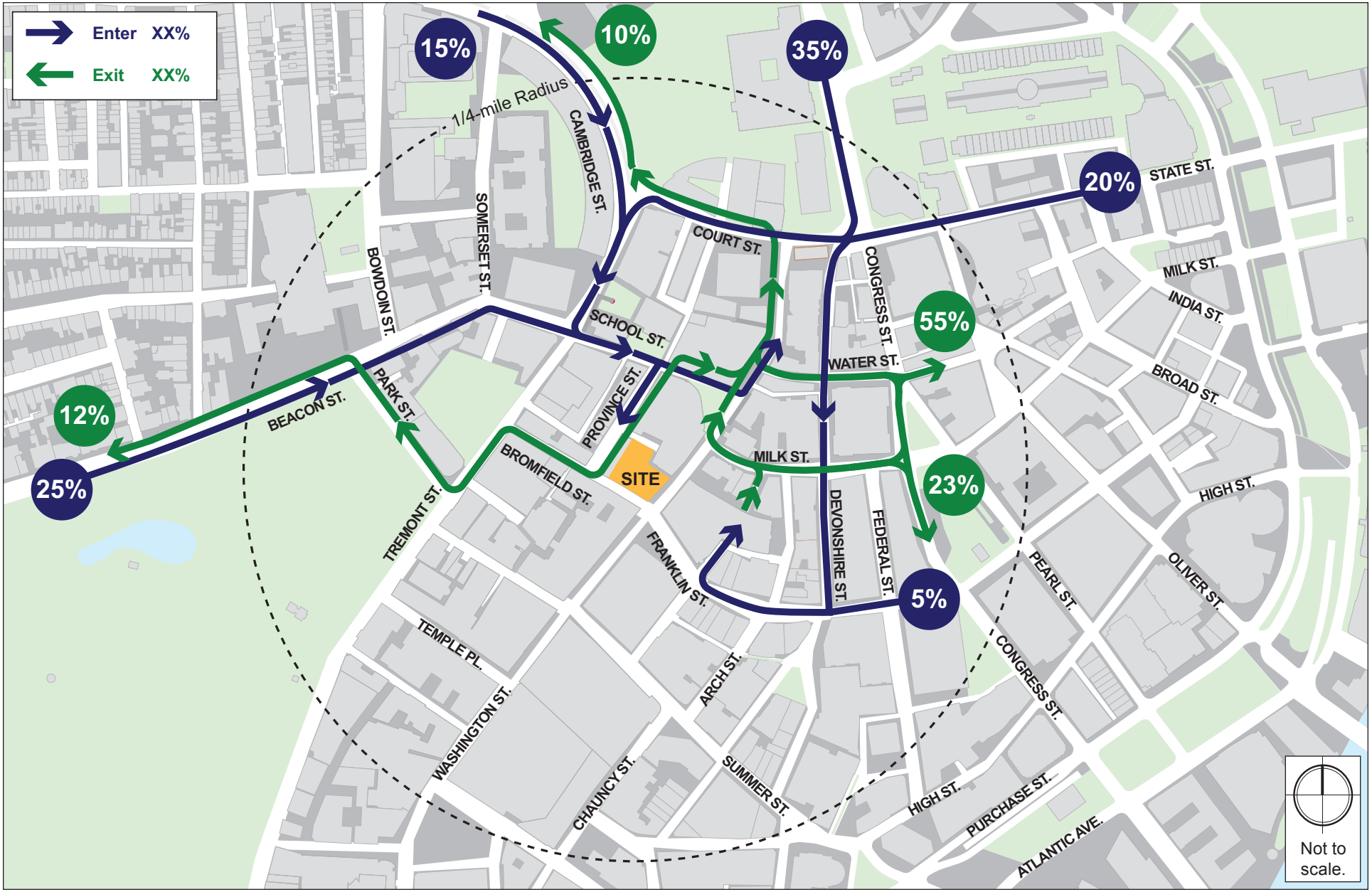

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Figure 3-13
Trip Distribution - Automobile

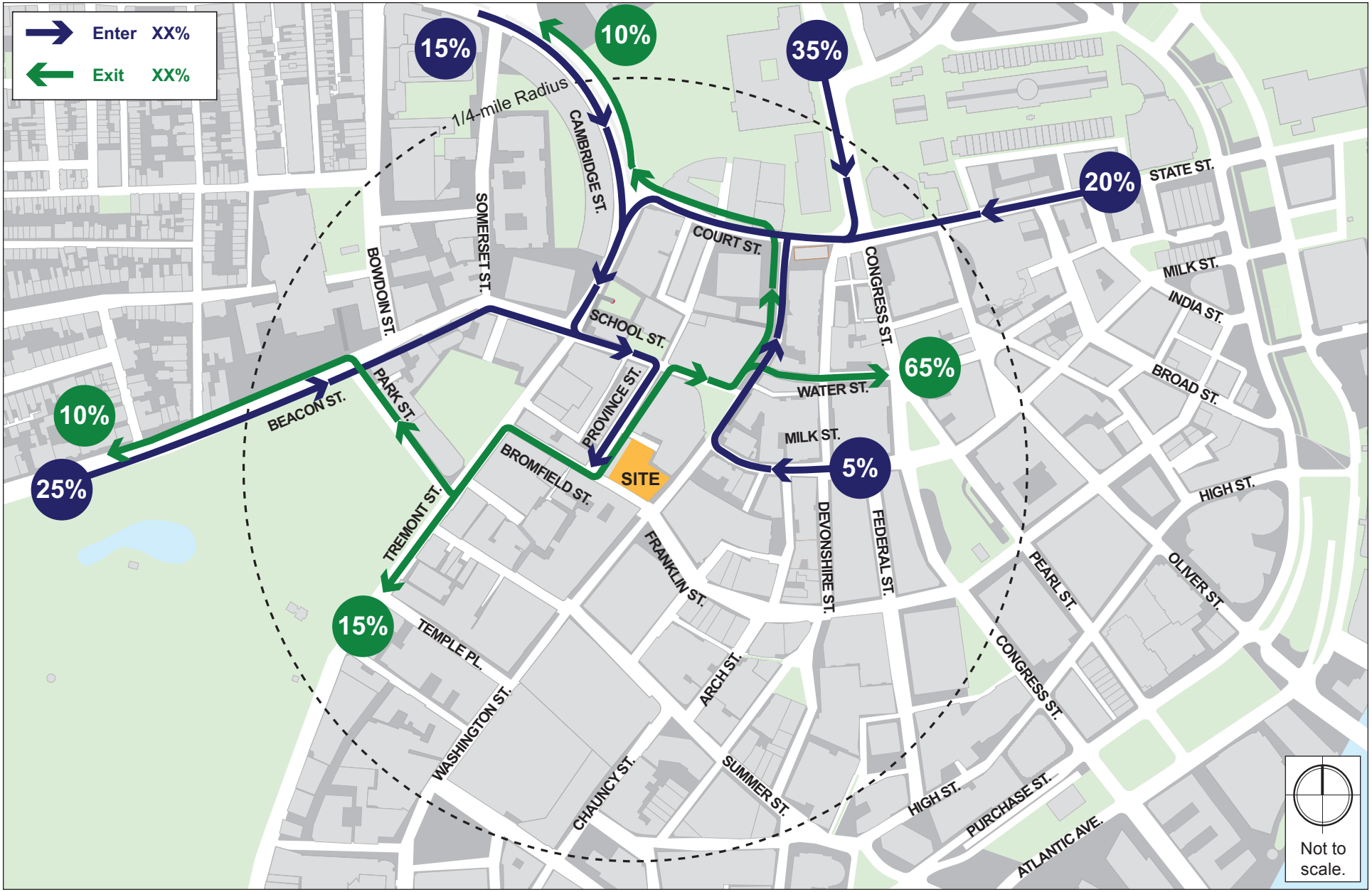

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Figure 3-14
Trip Distribution - Taxicabs/TNCs

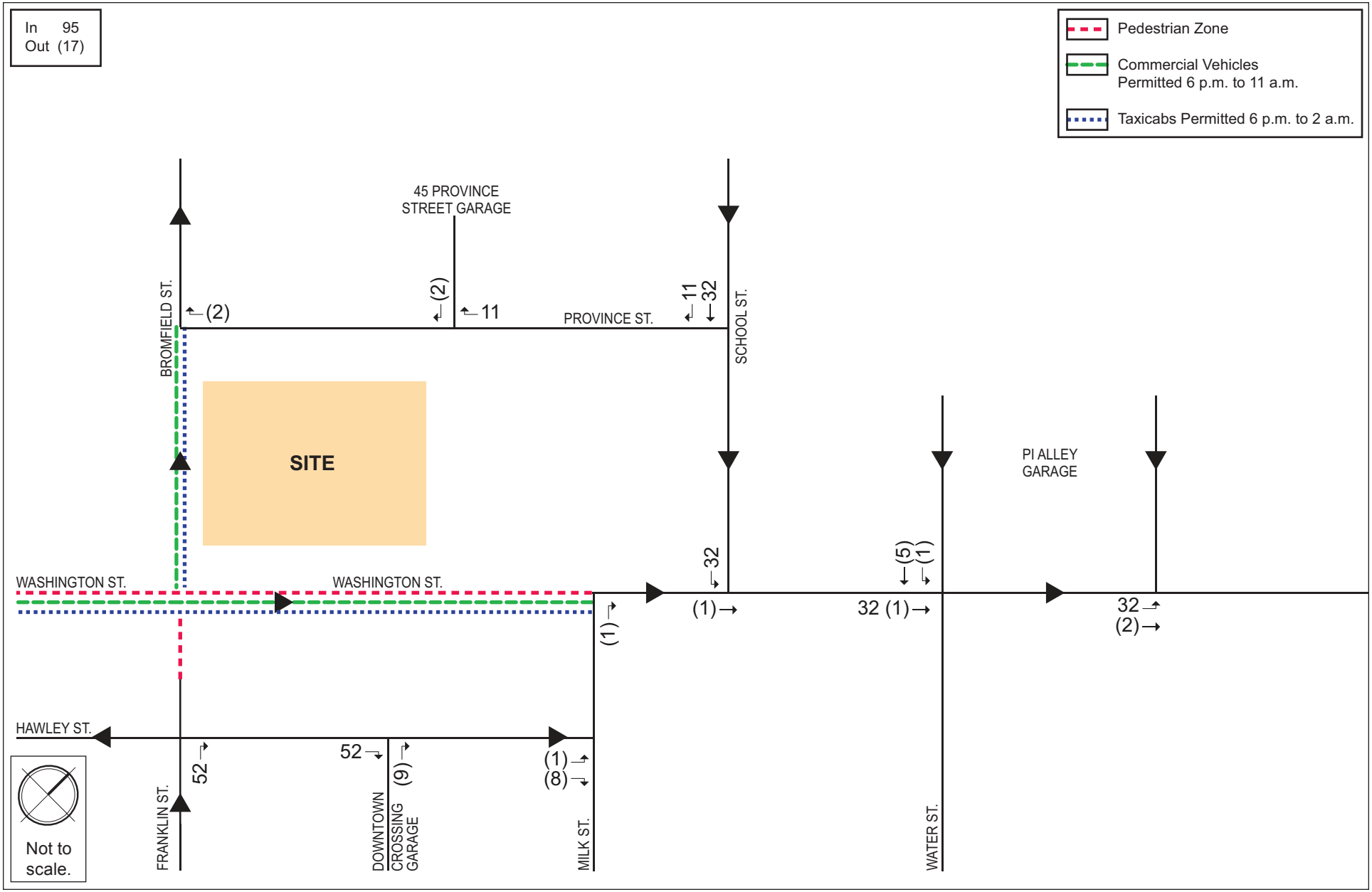

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Figure 3-15
Project-Generated Vehicle Trips - Automobile, Weekday a.m. Peak Hour

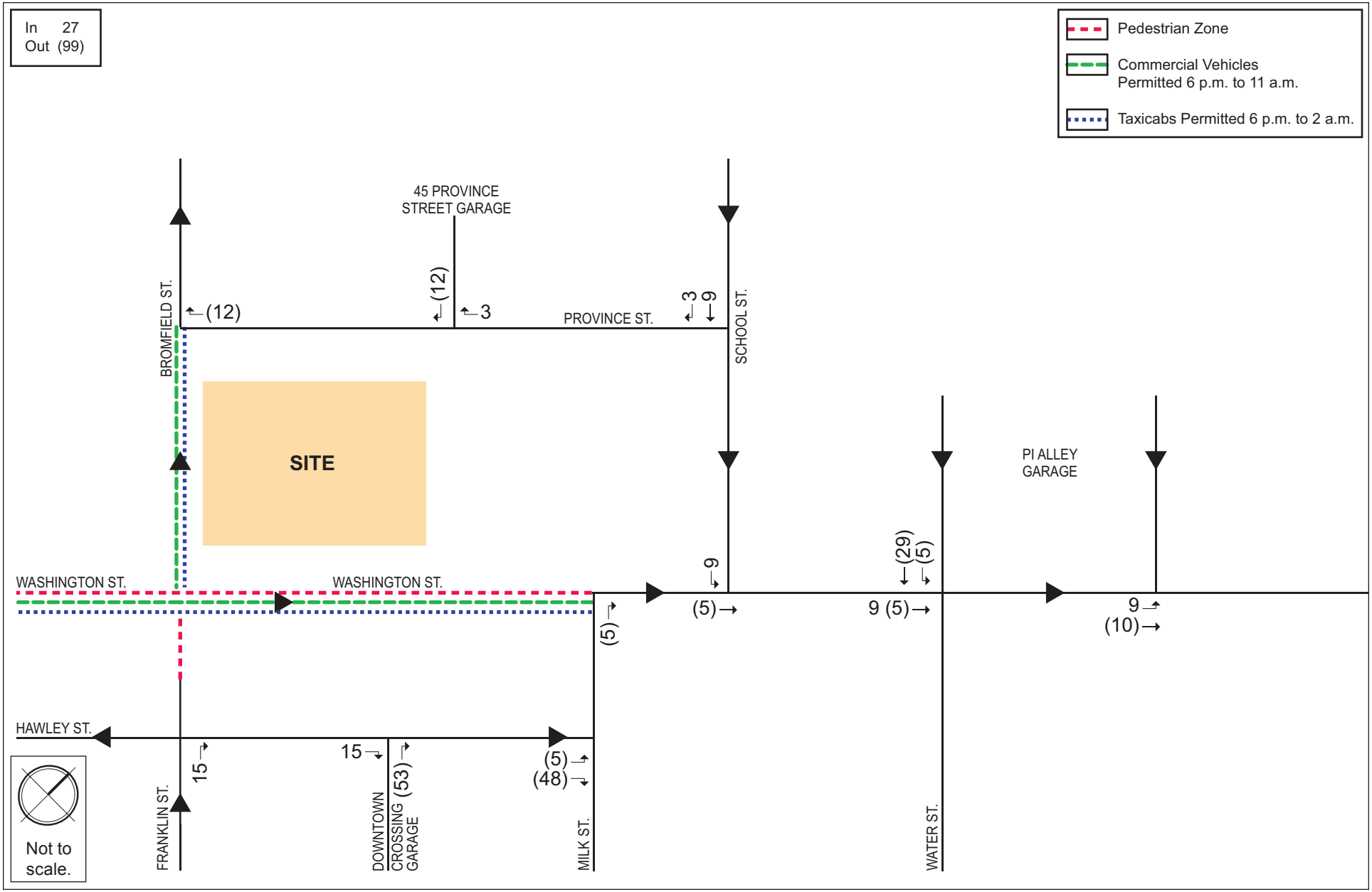

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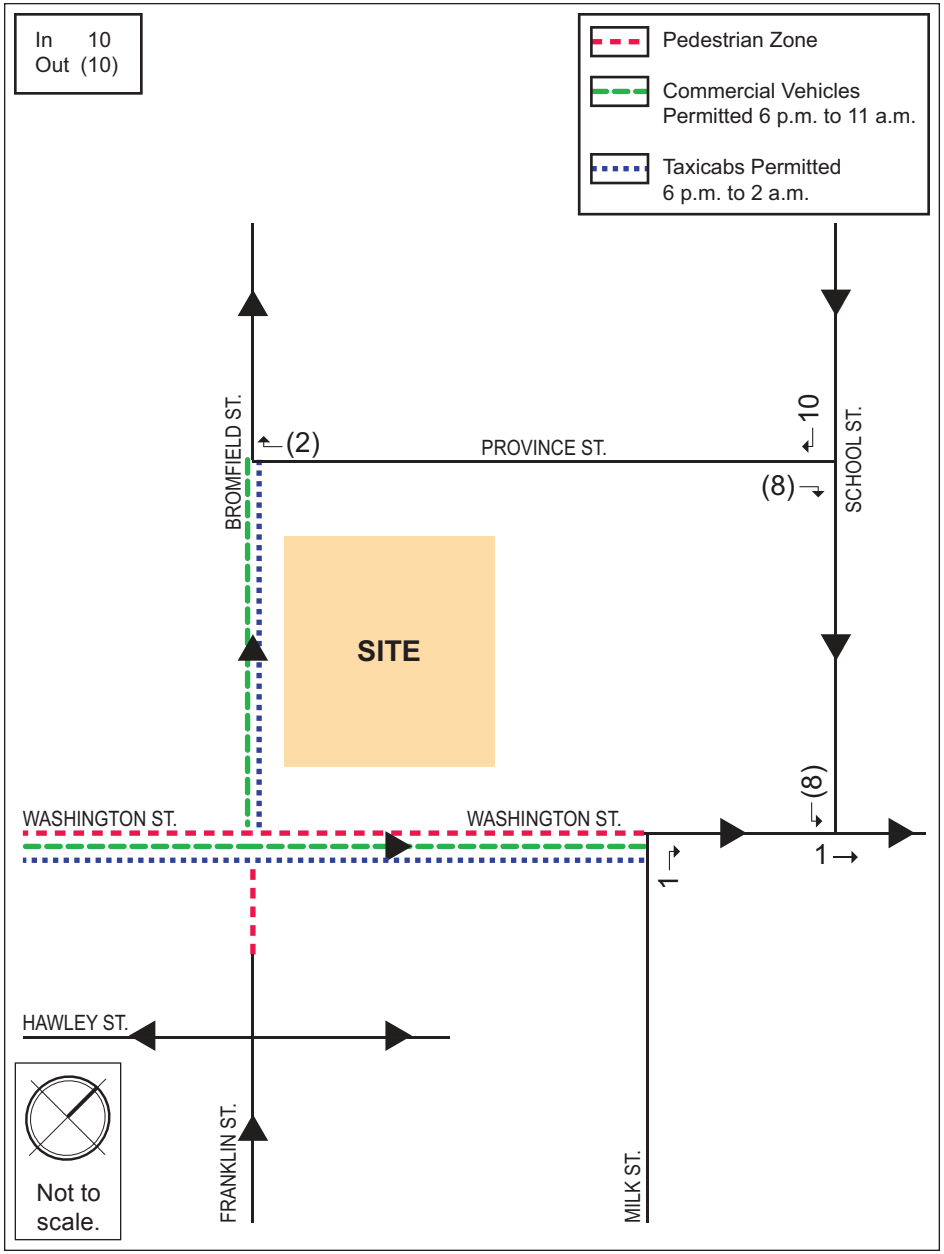
Figure 3-16
Project-Generated Vehicle Trips - Automobile, Weekday p.m. Peak Hour



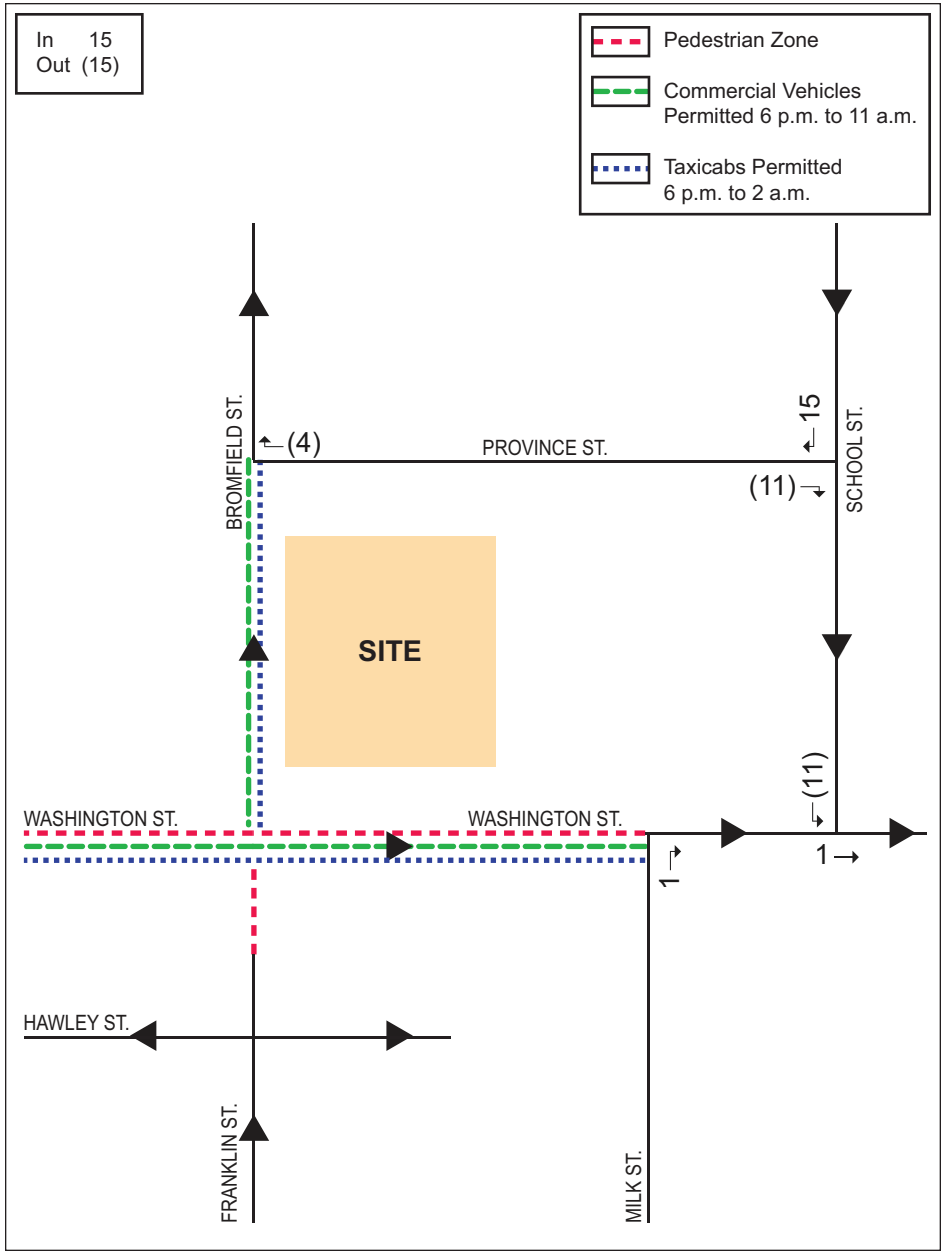


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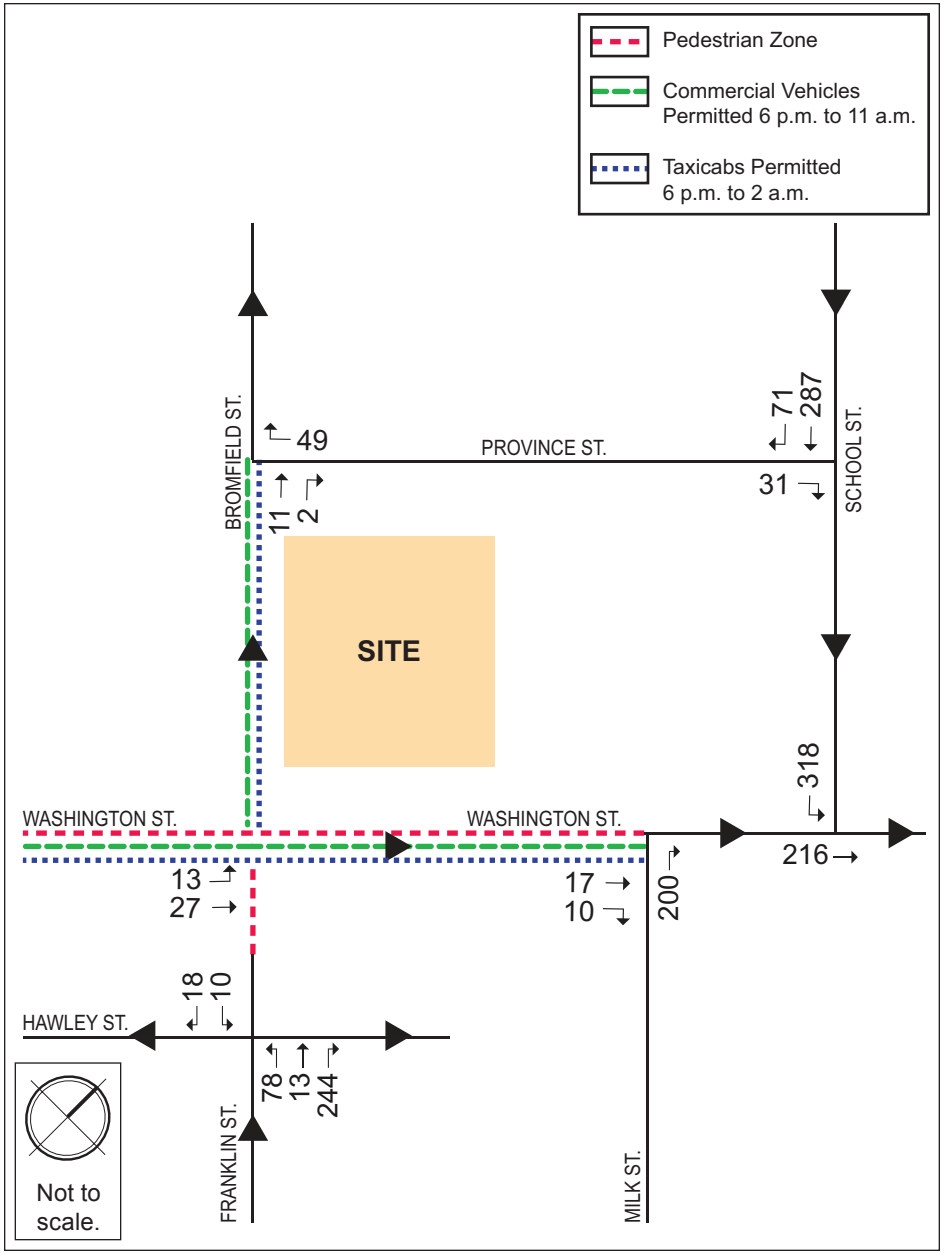
Figure 3-17
Project-Generated Vehicle Trips - Taxicabs/TNCs Weekday a.m. and p.m. Peak Hours



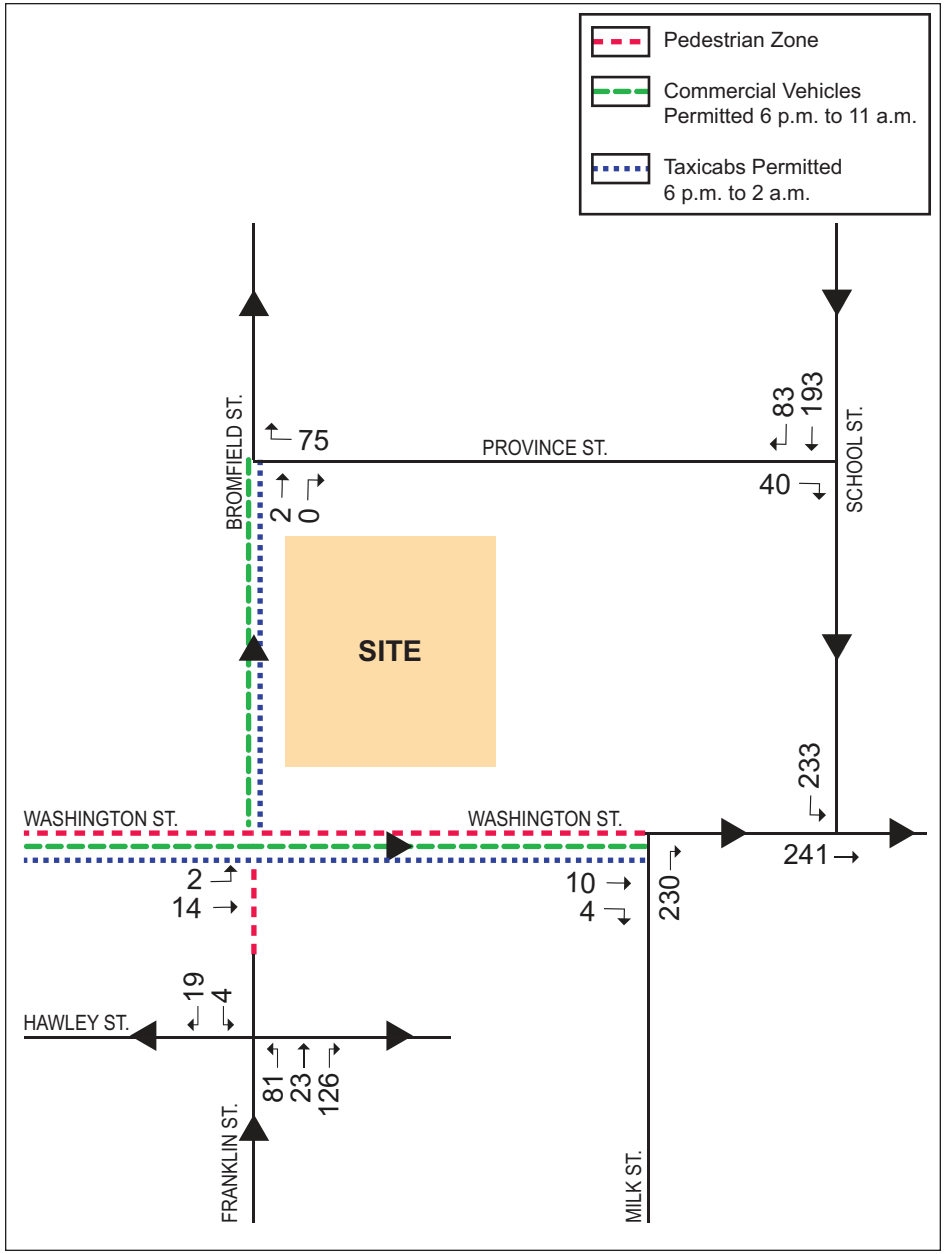


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Figure 3-18
Build (2027) Condition Traffic Volumes, Weekday a.m. and p.m. Peak Hours

3.5 Traffic Capacity Analysis

The criterion for evaluating traffic operations is level of service, which is determined by assessing average delay experienced by vehicles at intersections and along intersection approaches. Trafficware's Synchro (version 9) software package was used to calculate average delay and associated LOS at the study area intersections. This software is based on the traffic operational analysis methodology of the Transportation Research Board's 2000 Highway Capacity Manual (HCM). Field observations were performed to collect intersection geometry such as number of turning lanes, lane length, and lane width that were then incorporated into the operations analysis.

LOS designations are based on average delay per vehicle for all vehicles entering an intersection. Table 3-8 displays the intersection LOS criteria. LOS A indicates the most favorable condition, with minimum traffic delay, while LOS F represents the worst condition, with significant traffic delay. LOS D or better is typically considered desirable during the peak hours of traffic in urban and suburban settings. However, LOS E or F is often typical for a stop-controlled minor street that intersects a major roadway and does not necessarily indicate that the operations at the intersection are poor or failing.

Table 3-8 Vehicle Level of Service Criteria

Level of Service	Average Stopped Delay (sec/veh)	
	Signalized Intersection	Unsignalized Intersection
A	≤10	≤10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	>80	>50

Source: 2000 Highway Capacity Manual, Transportation Research Board.

In addition to delay and LOS, the operational capacity and vehicular queues are calculated and used to further quantify traffic operations at intersections. The following describes these other calculated measures.

- The volume-to-capacity ratio (V/C ratio) is a measure of congestion at an intersection approach. A V/C ratio below one indicates that the intersection approach has adequate capacity to process the arriving traffic volumes over the course of an hour. A V/C ratio of one or greater indicates that the traffic volume on the intersection approach exceeds capacity.

- The 50th percentile queue length, measured in feet, represents the maximum queue length during a cycle of the traffic signal with typical (or median) entering traffic volumes.
- The 95th percentile queue length, measured in feet, denotes the farthest extent of the vehicle queue (to the last stopped vehicle) upstream from the stop line. This maximum queue occurs five percent, or less, of the time during the peak hour, and typically does not develop during off-peak hours. Since volumes fluctuate throughout the hour, the 95th percentile queue represents what can be considered a "worst case" condition. Queues at an intersection are generally below the 95th percentile length throughout most of the peak hour. It is also unlikely that 95th percentile queues for each approach to an intersection occur simultaneously.

Table 3-9 and Table 3-10 present, respectively, the a.m. and p.m. peak hour capacity analysis for the study area intersections under each analysis condition: Existing (2020) Condition, No-Build (2027) Condition, and the Build (2027) Condition. The detailed analysis sheets are provided in Appendix C. The sections below present results for each condition.

3.5.1 Existing (2020) Condition

As shown under the Existing (2020) Conditions of Table 3-9 and Table 3-10, all study area intersections and approaches operate at acceptable levels of service for urban areas such as downtown Boston (LOS D or better).

3.5.2 No-Build (2027) Condition

As shown in the No-Build Condition, the study area intersections and approaches continue to generally operate at the same levels of service as under the Existing (2019) Condition.

3.5.3 Build (2027) Condition

As shown in the Build Condition, all the study intersections continue to operate generally at the same LOS as under the No-Build (2026) Condition during the a.m. and p.m. peak hours. These results indicate that the Project will not have any significant impact to traffic operations in the study area.

Table 3-9 Capacity Analysis Summary, Weekday a.m. Peak Hour

Intersection/Movement	Existing (2020) Condition					No-Build (2027) Condition					Build (2027) Condition				
	LOS	Delay (s)	V/C Ratio	Queues (ft) 50th	Queues (ft) 95th	LOS	Delay (s)	V/C Ratio	Queues (ft) 50th	Queues (ft) 95th	LOS	Delay (s)	V/C Ratio	Queues (ft) 50th	Queues (ft) 95th
Signalized Intersections															
Washington Street/School Street	**B**	**17.3**	-	-	-	**B**	**19.8**	-	-	-	**B**	**19.7**	-	-	-
School St EB left	A	7.7	0.32	45	83	A	7.8	0.34	47	86	A	8.3	0.39	55	101
Washington St NB thru	C	28.4	0.49	64	100	C	33.6	0.56	67	108	C	34.4	0.56	68	110
Washington Street/Milk Street	**A**	**2.2**	-	-	-	**A**	**2.3**	-	-	-	**A**	**2.3**	-	-	-
Milk St WB right	A	0.3	0.17	0	0	A	0.4	0.18	0	0	A	0.4	0.18	0	0
Washington St NB thru/right	B	13.0	0.10	6	18	B	13.3	0.11	6	19	B	13.3	0.11	6	19
Unsignalized Intersections															
School Street/Province Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
School St EB thru/right	A	0.0	0.19	-	0	A	0.0	0.19	-	0	A	0.0	0.23	-	0
Province St NB right	A	7.0	0.02	-	1	C	17.8	0.11	-	9	C	19.3	0.15	-	13
Bromfield Street/Province Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromfield St WB thru/right	A	0.0	0.01	-	0	A	0.0	0.01	-	0	A	0.0	0.01	-	0
Province St SB right	B	14.7	0.13	-	11	C	15.3	0.14	-	12	C	15.5	0.16	-	14
Washington Street/Bromfield Street/ Franklin Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington St NB left/thru	A	7.6	0.05	-	-	A	7.6	0.05	-	-	A	7.6	0.05	-	-
Franklin Street/Hawley Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Franklin St EB left/right	A	7.0	0.04	-	-	A	7.0	0.04	-	-	A	7.1	0.04	-	-
Franklin St WB left/thru/right	A	8.1	0.30	-	-	A	8.2	0.31	-	-	A	8.6	0.37	-	-

Table 3-10 Capacity Analysis Summary, Weekday p.m. Peak Hour

Intersection/Movement	Existing (2020) Condition					No-Build (2027) Condition					Build (2027) Condition				
	LOS	Delay (s)	V/C Ratio	Queues (ft) 50th	Queues (ft) 95th	LOS	Delay (s)	V/C Ratio	Queues (ft) 50th	Queues (ft) 95th	LOS	Delay (s)	V/C Ratio	Queues (ft) 50th	Queues (ft) 95th
Signalized Intersections															
Washington Street/School Street	**B**	**16.5**	**-**	**-**	**-**	**B**	**18.7**	**-**	**-**	**-**	**B**	**19.0**	**-**	**-**	**-**
School St EB left	A	7.6	0.26	35	66	A	7.7	0.27	36	69	A	7.9	0.29	40	76
Washington St NB thru	C	24.9	0.42	64	118	C	28.7	0.50	71	131	C	29.7	0.51	73	134
Washington Street/Milk Street	**A**	**1.9**	**-**	**-**	**-**	**A**	**1.8**	**-**	**-**	**-**	**A**	**1.8**	**-**	**-**	**-**
Milk St WB right	A	0.4	0.19	0	0	A	0.5	0.21	0	0	A	0.5	0.22	0	0
Washington St NB thru/right	B	14.0	0.09	5	10	B	14.0	0.09	5	10	B	14.0	0.09	5	10
Unsignalized Intersections															
School Street/Province Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
School St EB thru/right	A	0.0	0.17	-	0	A	0.0	0.17	-	0	A	0.0	0.19	-	0
Province St NB right	A	7.4	0.03	-	2	B	14.8	0.10	-	8	C	15.6	0.14	-	12
Bromfield Street/Province Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromfield St WB thru/right	A	0.0	0.00	-	0	A	0.0	0.00	-	0	A	0.0	0.00	-	0
Province St SB right	C	16.5	0.20	-	18	C	17.9	0.22	-	21	C	18.9	0.28	-	28
Washington Street/Bromfield Street/ Franklin Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington St NB left/thru	A	7.2	0.03	-	-	A	7.2	0.03	-	-	A	7.2	0.03	-	-
Franklin Street/Hawley Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Franklin St EB left/right	A	6.8	0.04	-	-	A	6.8	0.04	-	-	A	6.8	0.04	-	-
Franklin St WB left/thru/right	A	7.9	0.24	-	-	A	7.9	0.25			A	8.0	0.27	-	-

3.6 Transit Capacity Analysis

The transit analysis was performed using the most recent (Spring 2018) rail flow data available from the MBTA, which provides passenger entrances and estimates of exits at each station by 15-minute intervals. The data is disaggregated by each direction and by the maximum hourly rail load leaving the Project Site and going to the Project Site throughout the day.

3.6.1 Transit Analysis Methodology

The volume to capacity ratio (V/C) is the primary measurement to determine the impact to transit service from the Project. To calculate the V/C, ridership and capacity were determined for the Existing Condition to evaluate how the transit service operates today. Then, similar to the process of projecting vehicular traffic, the future ridership and capacity was developed both for the No-Build Condition, without the Project, and the Build Condition, with the Project.

The hourly capacity of the MBTA routes is determined by multiplying the vehicle capacity by the number of trips per hour, which is derived from the scheduled headways. To establish the capacity of each route, the MBTA's *Service and Delivery Policy* was referenced to establish the train car capacity as summarized in Table 3-11.

Table 3-11 MBTA Service and Delivery Policy

MBTA Transit Service	Vehicle Load (Per Train Car)	Load per Train
Red Line[1]	165	990
Orange Line[1]	141	846
Green Line[2]	100	200
Blue Line[1]	86	516

1 Based on six cars.
2 Based on two cars.

The vehicle load standards outlined in Table 3-1 were used to determine the acceptable train capacity throughout the day by multiplying the load standard per car by the number of train cars by the number of hourly trains (derived from the headway).

3.6.2 Transit Volume to Capacity Ratio

As previously mentioned, the V/C ratio is the primary measurement to determine the impact the Project has on transit. The V/C ratio is a measurement of the number of passengers divided by the operating capacity. A V/C ratio of one (1.0) means the transit line is at capacity and any additional passengers either cannot fit or will cause delays to service as passengers try to squeeze on.

3.6.2.1 MBTA Red Line Operations

The MBTA Red Line is a rail transit that serves neighborhoods from Cambridge (Alewife) to the northwest through Boston (Mattapan) and Braintree to the south. The specific station that the MBTA Red Line serves for the Project is Downtown Crossing. For the purpose of this analysis, the maximum hourly rail load at the Project Site from both directions was analyzed.

The Red Line capacity, ridership, and V/C ratio are displayed for all three conditions: Existing, No-Build, and Build, in Table 3-12. Based on the results, the Red Line does not reach over capacity during any hour throughout the day during any of the three conditions analyzed. The transit volume graph is included in Appendix C.

3.6.2.2 MBTA Orange Line Operations

The MBTA Orange Line is a rail transit that serves neighborhoods from Malden (Oak Grove) to the north through Boston (Forest Hills) to the south. The specific stations that the MBTA Orange Line serves for the Project are Downtown Crossing and State Street. For the purpose of this analysis, the maximum hourly rail load at the Project Site from both directions was analyzed.

Table 3-13 shows the Orange Line capacity, ridership, and V/C ratio for all three conditions: Existing, No-Build, and Build. Based on Table 3-13, the Orange Line does not reach over capacity during any hour throughout the day during any of the three conditions analyzed. The transit volume graph is displayed in Appendix C.

3.6.2.3 MBTA Green Line Operations

The MBTA Green Line is a rail transit and consists of four different branches, B, C, D, and E, that serves neighborhoods from Cambridge (Lechmere) to the east through Newton (Riverside) to the west. The specific station that the MBTA Green Line serves for the Project is Park Street. For the purpose of this analysis, the maximum hourly rail load at the Project sire from both directions was analyzed.

Table 3-14 shows the Green Line capacity, ridership, and V/C ratio for all three conditions: Existing, No-Build, and Build. Based on Table 3-14, the Green Line does not reach over capacity during any hour throughout the day during any of the three conditions analyzed. The transit volume graph is displayed in Appendix C.

3.6.2.4 MBTA Blue Line Operations

The MBTA Blue Line is a rail transit that serves neighborhoods from Revere (Wonderland) to the northeast through Boston (Bowdoin) to the southwest. The specific station that the MBTA Blue Line serves for the Project is State Street. For the purpose of this analysis, the maximum hourly rail load at the Project Site from both directions was analyzed.

The Blue Line capacity, ridership, and V/C ratio are displayed for all three conditions: Existing, No-Build, and Build, in Table 3-15. Based on the results, the Blue Line does not reach over capacity during any hour throughout the day during any of the three conditions analyzed. The transit volume graph is displayed in Appendix C.

Table 3-12 MBTA Red Line Ridership and Capacity Summary Maximum Load at Downtown Crossing Station

Time of Day	Trains	Planning Capacity	Existing (2018) Condition				No-Build (2027) Condition				Build (2027) Condition			
			Northbound		Southbound		Northbound		Southbound		Northbound		Southbound	
			Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C
5-6 a.m.	9	8910	1046	0.12	415	0.05	1119	0.13	444	0.05	1120	0.13	445	0.05
6-7 a.m.	13	12870	4765	0.37	1506	0.12	5097	0.40	1611	0.13	5112	0.40	1613	0.13
7-8 a.m.	13	12870	6395	0.50	3520	0.27	6840	0.53	3765	0.29	6863	0.53	3773	0.29
8-9 a.m.	13	12870	7189	0.56	4715	0.37	7689	0.60	5043	0.39	7799	0.61	5065	0.39
9-10 a.m.	9	8910	3792	0.43	2554	0.29	4056	0.46	2731	0.31	4080	0.46	2742	0.31
10-11 a.m.	9	8910	2046	0.23	1456	0.16	2189	0.25	1557	0.17	2212	0.25	1574	0.18
11 a.m. – 12 p.m.	9	8910	1755	0.20	1360	0.15	1877	0.21	1454	0.16	1908	0.21	1485	0.17
12-1 p.m.	9	8910	1880	0.21	1515	0.17	2010	0.23	1621	0.18	2047	0.23	1657	0.19
1-2 p.m.	9	8910	1895	0.21	1860	0.21	2027	0.23	1989	0.22	2058	0.23	2009	0.23
2-3 p.m.	9	8910	2194	0.25	2537	0.28	2347	0.26	2713	0.30	2378	0.27	2745	0.31
3-4 p.m.	9	8910	2628	0.29	4477	0.50	2811	0.32	4788	0.54	2841	0.32	4826	0.54
4-5 p.m.	13	12870	3824	0.30	6952	0.54	4090	0.32	7436	0.58	4119	0.32	7488	0.58
5-6 p.m.	13	12870	5784	0.45	8120	0.63	6186	0.48	8685	0.67	6236	0.48	8815	0.68
6-7 p.m.	13	12870	4050	0.31	4772	0.37	4332	0.34	5104	0.40	4348	0.34	5126	0.40
7-8 p.m.	10	9900	2102	0.21	2942	0.30	2249	0.23	3146	0.32	2260	0.23	3163	0.32
8-9 p.m.	10	9900	1407	0.14	2124	0.21	1505	0.15	2272	0.23	1510	0.15	2284	0.23
9-10 p.m.	10	9900	1038	0.10	1792	0.18	1111	0.11	1917	0.19	1114	0.11	1928	0.19
10-11 p.m.	10	9900	805	0.08	1630	0.16	861	0.09	1744	0.18	863	0.09	1753	0.18
11 p.m. – 12 a.m.	10	9900	480	0.05	1134	0.11	513	0.05	1213	0.12	514	0.05	1215	0.12
12-1 a.m.	10	9900	181	0.02	377	0.04	194	0.02	404	0.04	195	0.02	405	0.04

Table 3-13 MBTA Orange Line Ridership and Capacity Summary Maximum Load at Downtown Crossing Station

Time of Day	Trains	Planning Capacity	Existing (2018) Condition				No-Build (2027) Condition				Build (2027) Condition			
			Northbound		Southbound		Northbound		Southbound		Northbound		Southbound	
			Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C
5-6 a.m.	7	5922	344	0.06	605	0.10	376	0.06	662	0.11	377	0.06	662	0.11
6-7 a.m.	10	8460	1858	0.22	2516	0.30	2032	0.24	2752	0.33	2044	0.24	2754	0.33
7-8 a.m.	10	8460	3078	0.36	4265	0.50	3367	0.40	4665	0.55	3385	0.40	4671	0.55
8-9 a.m.	10	8460	4086	0.48	4977	0.59	4469	0.53	5443	0.64	4557	0.54	5461	0.65
9-10 a.m.	8	6768	2179	0.32	2719	0.40	2383	0.35	2974	0.44	2402	0.35	2983	0.44
10-11 a.m.	8	6768	1363	0.20	1655	0.24	1490	0.22	1810	0.27	1509	0.22	1823	0.27
11 a.m. – 12 p.m.	8	6768	1405	0.21	1526	0.23	1536	0.23	1669	0.25	1561	0.23	1694	0.25
12-1 p.m.	8	6768	1546	0.23	1643	0.24	1691	0.25	1797	0.27	1720	0.25	1826	0.27
1-2 p.m.	8	6768	1783	0.26	1771	0.26	1950	0.29	1937	0.29	1974	0.29	1953	0.29
2-3 p.m.	8	6768	2424	0.36	2142	0.32	2651	0.39	2343	0.35	2676	0.40	2368	0.35
3-4 p.m.	8	6768	3612	0.53	2725	0.40	3951	0.58	2981	0.44	3975	0.59	3012	0.45
4-5 p.m.	10	8460	5196	0.61	3646	0.43	5682	0.67	3987	0.47	5705	0.67	4028	0.48
5-6 p.m.	10	8460	6471	0.76	4848	0.57	7077	0.84	5302	0.63	7117	0.84	5406	0.64
6-7 p.m.	10	8460	4021	0.48	2886	0.34	4398	0.52	3156	0.37	4411	0.52	3173	0.38
7-8 p.m.	8	6768	2278	0.34	1681	0.25	2492	0.37	1839	0.27	2500	0.37	1853	0.27
8-9 p.m.	5	4230	1635	0.39	1216	0.29	1788	0.42	1329	0.31	1792	0.42	1339	0.32
9-10 p.m.	5	4230	1348	0.32	1042	0.25	1474	0.35	1140	0.27	1477	0.35	1149	0.27
10-11 p.m.	5	4230	1291	0.31	894	0.21	1412	0.33	978	0.23	1413	0.33	985	0.23
11 p.m. – 12 a.m.	5	4230	886	0.21	619	0.15	969	0.23	677	0.16	970	0.23	678	0.16
12-1 a.m.	5	4230	307	0.07	187	0.04	336	0.08	205	0.05	337	0.08	206	0.05

Table 3-14 MBTA Green Line Ridership and Capacity Summary Maximum Load at Park Street Station

Time of Day	Trains	Planning Capacity	Existing (2018) Condition				No-Build (2027) Condition				Build (2027) Condition			
			Eastbound		Westbound		Eastbound		Westbound		Eastbound		Westbound	
			Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C
5-6 a.m.	29	5800	166	0.03	574	0.10	181	0.03	628	0.11	182	0.03	628	0.11
6-7 a.m.	35	7000	654	0.09	1971	0.28	715	0.10	2156	0.31	725	0.10	2157	0.31
7-8 a.m.	40	8000	1450	0.18	3781	0.47	1586	0.20	4135	0.52	1601	0.20	4140	0.52
8-9 a.m.	40	8000	2095	0.26	4808	0.60	2291	0.29	5259	0.66	2362	0.30	5273	0.66
9-10 a.m.	29	5800	1315	0.23	2866	0.49	1438	0.25	3135	0.54	1454	0.25	3142	0.54
10-11 a.m.	29	5800	901	0.16	1843	0.32	985	0.17	2016	0.35	1000	0.17	2027	0.35
11 a.m. – 12 p.m.	29	5800	925	0.16	1655	0.29	1012	0.17	1810	0.31	1032	0.18	1830	0.32
12-1 p.m.	29	5800	1086	0.19	1794	0.31	1188	0.20	1962	0.34	1212	0.21	1986	0.34
1-2 p.m.	29	5800	1226	0.21	1885	0.33	1341	0.23	2062	0.36	1360	0.23	2075	0.36
2-3 p.m.	29	5800	1714	0.30	2008	0.35	1874	0.32	2196	0.38	1894	0.33	2217	0.38
3-4 p.m.	33	6600	2372	0.36	2457	0.37	2595	0.39	2687	0.41	2615	0.40	2712	0.41
4-5 p.m.	37	7400	3109	0.42	3069	0.41	3400	0.46	3357	0.45	3419	0.46	3391	0.46
5-6 p.m.	37	7400	3351	0.45	4763	0.64	3665	0.50	5210	0.70	3698	0.50	5296	0.72
6-7 p.m.	34	6800	2417	0.36	3414	0.50	2644	0.39	3734	0.55	2655	0.39	3748	0.55
7-8 p.m.	31	6200	1590	0.26	1863	0.30	1739	0.28	2037	0.33	1746	0.28	2048	0.33
8-9 p.m.	29	5800	1251	0.22	1208	0.21	1368	0.24	1321	0.23	1371	0.24	1329	0.23
9-10 p.m.	29	5800	1257	0.22	927	0.16	1374	0.24	1014	0.17	1376	0.24	1021	0.18
10-11 p.m.	29	5800	1513	0.26	809	0.14	1654	0.29	885	0.15	1655	0.29	891	0.15
11 p.m. – 12 a.m.	29	5800	1137	0.20	518	0.09	1244	0.21	566	0.10	1245	0.21	567	0.10
12-1 a.m.	29	5800	395	0.07	179	0.03	432	0.07	196	0.03	432	0.07	196	0.03

Table 3-15 MBTA Blue Line Ridership and Capacity Summary Maximum Load at State Street Station

Time of Day	Trains	Planning Capacity	Existing (2018) Condition				No-Build (2027) Condition				Build (2027) Condition			
			Eastbound		Westbound		Eastbound		Westbound		Eastbound		Westbound	
			Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C	Ridership	V/C
5-6 a.m.	7	3612	167	0.05	857	0.24	177	0.05	912	0.25	178	0.05	912	0.25
6-7 a.m.	12	6192	601	0.10	1437	0.23	639	0.10	1530	0.25	645	0.10	1531	0.25
7-8 a.m.	12	6192	642	0.10	2022	0.33	684	0.11	2153	0.35	693	0.11	2156	0.35
8-9 a.m.	12	6192	565	0.09	2077	0.34	602	0.10	2211	0.36	646	0.10	2220	0.36
9-10 a.m.	7	3612	518	0.14	1082	0.30	551	0.15	1152	0.32	561	0.16	1156	0.32
10-11 a.m.	7	3612	551	0.15	698	0.19	587	0.16	743	0.21	596	0.17	750	0.21
11 a.m. – 12 p.m.	7	3612	714	0.20	575	0.16	760	0.21	612	0.17	772	0.21	624	0.17
12-1 p.m.	7	3612	961	0.27	555	0.15	1024	0.28	591	0.16	1039	0.29	605	0.17
1-2 p.m.	7	3612	1151	0.32	609	0.17	1225	0.34	649	0.18	1237	0.34	657	0.18
2-3 p.m.	7	3612	1961	0.54	722	0.20	2089	0.58	769	0.21	2101	0.58	782	0.22
3-4 p.m.	7	3612	2938	0.81	785	0.22	3128	0.87	836	0.23	3140	0.87	851	0.24
4-5 p.m.	12	6192	3713	0.60	706	0.11	3953	0.64	752	0.12	3965	0.64	773	0.12
5-6 p.m.	12	6192	4278	0.69	636	0.10	4555	0.74	677	0.11	4574	0.74	729	0.12
6-7 p.m.	12	6192	2652	0.43	403	0.07	2824	0.46	429	0.07	2831	0.46	438	0.07
7-8 p.m.	7	3612	1672	0.46	265	0.07	1780	0.49	282	0.08	1784	0.49	289	0.08
8-9 p.m.	7	3612	1382	0.38	210	0.06	1471	0.41	224	0.06	1473	0.41	229	0.06
9-10 p.m.	7	3612	1374	0.38	185	0.05	1463	0.41	197	0.05	1464	0.41	201	0.06
10-11 p.m.	7	3612	1654	0.46	177	0.05	1761	0.49	188	0.05	1762	0.49	192	0.05
11 p.m. – 12 a.m.	7	3612	1645	0.46	94	0.03	1751	0.48	100	0.03	1752	0.49	101	0.03
12-1 a.m.	7	3612	677	0.19	40	0.01	721	0.20	43	0.01	721	0.20	43	0.01

3.7 Transportation Demand Management

The Proponent is committed to implementing Transportation Demand Management measures to minimize automobile usage and Project related traffic impacts.

The Proponent is prepared to take advantage of good transit access in marketing the Project Site to future tenants by working with them to implement the following TDM measures to encourage the use of non-vehicular modes of travel.

3.7.1 Alternative Mode Benefits and Tactics

The Proponent will work to encourage the use of alternative travel modes, such as transportation, bicycling, and walking and will implement the following measures:

- Designating a member of the property management staff to serve as a transportation coordinator (whose responsibilities may include other Project-related duties) to oversee transportation issues, including parking, service and loading, and deliveries;
- Joining A Better City (ABC), the local transportation management association (TMA);
- Providing orientation data to new tenants containing information on available transportation, including public transportation routes and schedules, nearby vehicle sharing and bicycle sharing locations, and walking opportunities;
- Working with new tenants as they move in to raise awareness of public transportation, bicycling, and walking opportunities;
- Hosting at least two on-site events per year to encourage active transportation options; and
- Providing information on travel alternatives for employees and visitors via the Internet and in each building lobby.

3.7.2 Bicycle and Pedestrian Trips

The proposed promotions and incentives to encourage bicycle and pedestrian trips are as follow:

- Providing bicycle and pedestrian access information via the Project website;
- Providing covered, secure bicycle storage within the building for building occupants, including approximately 173 bicycle spaces for office employees and approximately 32 bicycle spaces for commercial employees;
- Providing lockers and showers for employees who walk or bicycle to work;
- Providing 32 on-site external bicycle racks for visitors on Washington Street; and
- Providing a Bluebike bicycle sharing station at a location to be determined in conjunction with BTD's recommendation.

3.7.3 Public Transportation

The goal of the following promotion and incentive measures is to increase public transit use to and from the Project Site:

- Providing real-time transit information in the building lobby;
- Providing transit access information on the Project website, including information on bus and subway routes and schedules;
- Encourage employers to subsidize on-site full-time employees' purchase of monthly transit passes; and
- Promoting to commercial tenants that, as employers, they can save on payroll-related taxes and provide employee benefits when they offer transportation benefits such as subsidized public transportation.

3.7.4 Ride Sharing

The goal of this incentive measure is to promote ridesharing among employees:

- Providing access to information on area carpool and vanpool participants through membership in ABC, the local TMA; and
- Providing on-line registration for the RideSource ride-matching program through membership in ABC, the local TMA.

3.8 Transportation Mitigation Measures

The Proponent will continue to work with the City of Boston to create a Project that efficiently serves vehicle trips, improves the pedestrian environment, and encourages transit and bicycle use. The Proponent will construct new sidewalks adjacent to the Project Site in accordance with Boston Complete Streets guidelines and requirements of the Americans with Disabilities Act and Massachusetts Architectural Access Board (ADA/AAB) to the extent feasible. This will include the reconstruction and widening of the sidewalks where possible, the installation of new, accessible ramps, improvements to street lighting where necessary, planting of street trees, and providing bicycle storage racks, where appropriate.

The Proponent is responsible for preparation of the Transportation Access Plan Agreement (TAPA), a legal agreement between the Proponent and the BTD. The TAPA formalizes the findings of the transportation study, mitigation commitments, elements of access and physical design, travel demand management measures, and any other responsibilities that are agreed to by both the Proponent and the BTD. Because the TAPA must incorporate the results of the technical analysis, it must be executed after these other processes have been completed. The proposed measures listed above and any additional transportation improvements to be undertaken as part of this Project will be defined and documented in the TAPA.

3.9 Evaluation of Short-term Construction Impacts

The Proponent will also produce a Construction Management Plan for review and approval by BTD. The CMP will detail the schedule, staging, parking, delivery, and other associated impacts of the construction of the Project.

Most construction activities will be accommodated within the current Project Site boundaries. Details of the overall construction schedule, working hours, number of construction workers, worker transportation and parking, number of construction vehicles, and routes will be addressed in detail in the CMP to be filed with BTD in accordance with the City's transportation maintenance plan requirements.

To minimize transportation impacts during the construction period, the following measures will be considered for the CMP:

- Limited construction worker parking on-site;
- Encouragement of worker carpooling;
- Consideration of a subsidy for MBTA passes for full-time employees; and
- Providing secure spaces on-site for workers' supplies and tools so they do not have to be brought to the site each day.

The CMP to be executed with the City prior to commencement of construction will document all committed measures.

Chapter 4.0

Assessment of Development Review Components

4.0 ASSESSMENT OF DEVELOPMENT REVIEW COMPONENTS

This chapter provides detailed green building strategies, as well as discussions and qualitative analyses of other environmental impacts related to the Project.

4.1 Environmental Protection

4.1.1 Wind

The Project will have a building height of approximately 325 feet. In response to a request by the BPDA, RWDI was retained to provide an assessment of potential wind conditions on and around the Project Site in order to inform the design of the Project and the quantitative wind analysis that will be conducted for the DPIR. The results of this assessment, provided in Appendix D, found that adjacent surroundings, tower setbacks at several levels, and recessed entrances along Bromfield Street will help to reduce the potential wind impacts of the Project. No dangerous or unacceptable wind conditions are expected as a result of the Project, however, uncomfortable wind speeds may occur at several locations. The quantitative (wind tunnel) analysis will quantify these wind conditions and determine if wind control measures are required.

4.1.2 Shadow

The Project has been designed with consideration of shadow impacts, which was informed by a preliminary shadow study. The Proponent will conduct a more in depth shadow study for the Project in accordance with BPDA requirements to evaluate anticipated impacts on the surrounding open spaces and public realm, and report the results in the DPIR.

4.1.3 Daylight

The purpose of a daylight analysis is to estimate the extent to which a proposed project affects the amount of daylight reaching the public streets in the immediate vicinity of a project site, such as Washington, Province and Bromfield Streets. The daylight obstruction related to the Project is anticipated to be similar to existing daylight obstruction on streets in the immediate vicinity of the Project Site. The extent of daylight obstruction resulting from the Project and measures to mitigate any adverse impacts will be included in the DPIR.

4.1.4 Solar Glare

It is not anticipated that the Project will include the extensive use of reflective glass or other reflective materials on the building facades that would result in adverse solar glare impacts.

4.1.5 Air Quality

The BPDA requires that project-induced impacts to ambient air quality be addressed. A microscale analysis is used to determine the effect on air quality of the increase in traffic generated by the Project. This microscale analysis may be required for a project at intersections where 1) project traffic would impact intersections or roadway links currently operating at Level of Service (LOS) D, E, or F or would cause LOS to decline to D, E, or F; 2) project traffic would increase traffic volumes on nearby roadways by 10% or more (unless the increase in traffic volume is less than 100 vehicles per hour); or, 3) the project will generate 3,000 or more new average daily trips (ADT) on roadways providing access to a single location.

The proposed Project does not generate 3,000 ADT, nor does it increase traffic volumes by 10 percent or 100 vehicles per hour. As discussed in Chapter 3, all intersections studied will continue to operate at the same LOS as under the No Build conditions during both the a.m. and p.m. peak hours. Therefore, no quantitative analysis is required. Given the generally well-operating intersections, and the small increases in volume at the worst intersections, it is expected that there would be no violations of the NAAQS for CO at any intersections associated with Project-related traffic.

4.1.6 Flood Hazard Zones/Wetlands

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the Project Site located in the City of Boston - Community Panel Number 25025C0081J indicates the FEMA Flood Zone Designations for the Project Site. The most recent map (2016) shows that the Project is located in a Zone X Area determined to be outside the 0.2% annual chance floodplain.

The Project Site does not contain wetlands.

4.1.7 Geotechnical/Groundwater

This section discusses site soil and groundwater conditions, earthwork, and the anticipated foundation construction methods for the proposed Project.

4.1.7.1 Subsurface Soil and Bedrock Conditions

The Project Site is located within the original Boston colonial shoreline and is generally characterized by favorable ground conditions. A test boring program was completed at the Project Site by the Proponent. In addition, available test boring logs from near the Project have also been compiled and reviewed to understand area geologic conditions. Subsurface conditions are characterized by the general soil profile described in Table 4.1-1 below.

Table 4.1-1 Subsurface Conditions

Generalized Description	Approximate Thickness of Layer (ft)
Fill (variable, granular fill)	1 to 12
Marine Deposits (Typ. medium to very dense silt or very stiff sandy clay)	10 to 30
Glacial Deposits (very dense silt, with varying amounts of sand, gravel, cobbles)	40 to 50
Bedrock (Cambridge Argillite)	Depth to Rock of 70 to 90 ft

The property is currently occupied by four buildings that range in height from two to six stories above grade and have one to two basement levels. The lowest level basement of the existing structures is typically finished at approximately El. 31 (ft BCB, Boston City Base). Sidewalk vaults are present below Washington and Bromfield Streets. Topographically, the site slopes from the northwest to the southeast from approximately El. 55 BCB near the intersection of Province Street and Province Court, to approximately El. 40 BCB near the intersection of Bromfield and Washington Streets.

4.1.7.2 Groundwater

Groundwater levels at the Project Site measured at depths of about 15.5 to 43 feet during drilling of test borings corresponding to about El. 5.5 to El. 28. Drilling fluids were used to maintain borehole stability during drilling such that the groundwater levels observed may not be representative of stable conditions. A groundwater observation well will be installed in a subsequent subsurface exploration program to provide additional groundwater level data for Project design.

Historical groundwater level data reviewed from around the Project Site indicated groundwater levels varying between El. 10 to El. 21. Site groundwater levels are expected to fluctuate due to seasonal variations in precipitation and temperature, and other factors such as nearby construction activities, surface runoff, and leakage into and out of utilities and other below grade structures, and local fill and soil conditions.

4.1.8 Solid and Hazardous Wastes

4.1.8.1 Existing Hazardous Waste Conditions

If soil disposal is required, the Proponent will obtain site-specific information regarding the environmental conditions of excavated soils in order to evaluate for the presence of oil and hazardous materials. Foundation construction for the new building will likely generate soil requiring off-site transport. Chemical testing of the material will be required by receiving facilities to identify chemical constituents and any contaminants present. Chemical testing of the material will be conducted prior to construction in accordance with facility requirements.

Any material leaving the site will be legally transported in accordance with all applicable local, state and federal requirements, including without limitation, M.G.L. Chapter 21E and its regulations, the Massachuestts Contingency Plan. In addition, any regulated soil conditions related to oil and hazardous materials will be managed in accordance with appropriate Massachusetts MassDEP regulatory requirements, including the MCP.

4.1.8.2 Operational Solid and Hazardous Wastes

The Project will generate solid waste typical of office uses. Solid waste is expected to include wastepaper, cardboard, glass bottles and food. Recyclable materials will be recycled through a program implemented by the building management company. The Project will generate approximately 772 tons of solid waste per year.

The Project will include recycling areas for items such as paper, plastic, glass and cans.

4.1.9 Noise

The mechanical equipment for the Project will be similar to that used on similarly sized office buildings. Rooftop equipment will be screened, as appropriate, and acoustic screening will be included to the extent needed to meet City noise regulations and ensure no adverse effects on any nearby residential buildings. The Project team will ensure that the building's mechanical equipment will meet the City of Boston Noise Standards.

Construction period noise impacts and mitigation are discussed below in Section 4.1.10.2.

4.1.10 Construction Impacts

The proximity of city streets and abutting commercial properties to the Project Site will require careful scheduling of material removal and delivery. Planning with the City and Project abutters will be essential to the successful development of the Project.

A Construction Management Plan (CMP) will be submitted to the BTD for review and approval prior to the issuance of a demolition or building permit for the Project. The CMP will define truck routes which will help in minimizing the impact of trucks on local streets, appropriate pedestrian detours and other pedestrian safety measures, and related matters.

Construction methodologies that ensure public safety and protect nearby businesses will be employed. Techniques such as barricades, walkways, painted lines, and signage will be used as necessary. Careful construction management and scheduling, including plans for construction worker commuting and parking, routing plans and scheduling for trucking and deliveries, protection of existing utilities, maintenance of fire access, and control of noise and dust will minimize impacts on the surrounding environment.

Throughout Project construction, a secure perimeter will be maintained to protect the public from construction activities at the Project Site.

4.1.10.1 Construction Air Quality

Short-term air quality impacts from fugitive dust may be expected during demolition, excavation and the early phases of construction. Plans for controlling fugitive dust during demolition, excavation and construction include mechanical street sweeping, wetting portions of the Project Site during periods of high wind, and careful removal of debris by covered trucks. The construction contract will provide for a number of strictly enforced measures to be used by contractors to reduce potential emissions and minimize impacts. These measures are expected to include:

- Using wetting agents on areas of exposed soil on a scheduled basis;
- Using covered trucks;
- Minimizing spoils on the construction site;
- Monitoring of actual construction practices to ensure that unnecessary transfers and mechanical disturbances of loose materials are minimized;
- Minimizing storage of debris on the site; and
- Periodic street and sidewalk cleaning with water to minimize dust accumulations.

4.1.10.2 Construction Noise

The Proponent is committed to mitigating noise impacts from the construction of the Project. Periodic increased community sound levels, however, are an inherent consequence of construction activities. The construction work at the Project Site will comply with the requirements of the City of Boston Noise Ordinance. Every reasonable effort will be made to minimize the noise impact of construction activities, including:

- Instituting a proactive program to ensure compliance with the City of Boston noise regulations;
- Using appropriate mufflers on all equipment and ongoing maintenance of intake and exhaust mufflers;
- Muffling enclosures on continuously running equipment, such as air compressors and welding generators;
- Replacing specific construction operations and techniques by less noisy ones where feasible;
- Selecting the quietest of alternative items of equipment where feasible;

- Scheduling equipment operations to keep average noise levels low, to synchronize the noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels;

- Turning off idling equipment; and

- Locating noisy equipment at locations that protect sensitive locations by shielding or distance.

4.1.10.3 Construction Waste Management

The Proponent will reuse or recycle demolition and construction materials to the greatest extent feasible. Construction procedures will allow for the segregation, reuse, and recycling of materials. Materials that cannot be reused or recycled will be transported in covered trucks by a contract hauler to a licensed facility.

4.1.11 Rodent Control

A rodent extermination certificate will be filed with the building permit application to the City. Rodent inspection monitoring and treatment will be carried out before, during, and at the completion of all construction work for the Project, in compliance with the City's requirements. Rodent extermination prior to work commencement will consist of treatment of areas throughout the Project Site.

4.1.12 Wildlife Habitat

The Project Site is currently developed within a fully developed urban area and, as such, the Project will not impact wildlife habitats as designated on the National Heritage and Endangered Species Priority Habitats of Rare Species and Estimated Habitats of Rare Wildlife maps.

4.2 Sustainable Design and Green Buildings

The following section describes the Project's overall approach to sustainable design, construction, and operation. Also included is a discussion of the Project's approach to carbon neutrality, an initial assessment of green building design, and proposed compliance with the requirements of Article 37 of the Boston Code (Article 37) relative to the City of Boston's Green Building policies and procedures.

The Proponent is targeting a full electric building off-set with off-site renewable energy to achieve the City of Boston's definition of Zero Net Carbon. High-performance, environmentally responsive design principles will be utilized. Sustainability is at the heart of the Project, and the Proponent has developed a holistic approach that addresses climate mitigation and adaptation but also broader issues of health, site, water, materials, construction practices, biophilic design and indoor environmental quality.

This vision is clearly expressed in the Project's three main Design Principles:

1. Develop the building's exterior expression in a manner that addresses the architectural heritage of the Downtown Crossing neighborhood.

2. Integrate performance-based design principles to define the building's architectural language.

3. Maximize daylight, control glare, reduce cooling and heating loads and emphasize access to views.

In compliance with Article 37 of the Boston Zoning Code, the Project will be certifiable under the LEED for Core & Shell Developments (LEED-CS) using the v4.1 rating system with a target of Gold, which requires attaining at least 60 points. A preliminary LEED checklist for the Project is included at the end of this section. The checklist currently reflects 69 points as 'yes' with an additional 26 points as 'maybe'. The Project intends to exceed Article 37 minimum requirements and certify the Project with USGBC/GBCI. At this early stage of design, certification at the Platinum level is being assessed as a stretch goal for its feasibility and cost effectiveness.

A narrative of each prerequisite and credit, identifying points across the eight LEED categories, as well as the Boston Green Building Credits under Article 37, is provided below. Points that are still being studied are described in italics.

The Massachusetts energy code and stretch energy code is typically updated on a three-year cycle. At the time of this writing, the energy code and stretch energy code is currently in its concurrency period. The new energy code is based on IECC 2018 with Massachusetts Amendments. Per 780 CMR, Ninth Edition, Chapter 13: Energy Efficiency Amendments as of August 7, 2020, the concurrency period will end November 7, 2020. The Project will be subject to the updated Massachusetts energy code and stretch energy code. The stretch energy code, 780 CMR Chapter 115AA, has been adopted by the City of Boston and requires buildings demonstrate an energy reduction greater than 10% from the energy code.

4.2.1 Integrative Process (IP)

The design team has and will continue to work in an integrated manner to explore and develop sustainability and LEED goals for the Project. Multiple sustainability workshops with the Proponent and design team have been held to define goals and targets and inform the design, addressing issues of energy and emissions performance, building envelope design, active systems options, heat island effects, water, air quality, health and resilience. As part of the Project's strategy to achieve LEED Gold, a target 25 percent reduction in energy has been established, 15 percent better than Stretch Code. Preliminary energy modeling using the new

energy code[1] as the baseline for comparison will be included in the DPIR to establish an EUI target for the proposed design and confirm the target reduction in energy expected to be achieved by the Project.

4.2.2 Location and Transportation (LT)

The Project Site has pedestrian access within half a mile to all four MBTA lines in addition to multiple MBTA bus routes and a perfect transit score of 100, Rider's Paradise[2], and an 81 bike score, Very Bikeable. Given the excellent walking and transit-oriented location, the Project will seek to encourage low carbon, non-automobile transportation. The proposed strategies include:

LT Sensitive Land Protection: The Project Site is located on previously developed land.

LT Surrounding Density and Diverse Uses: The Project Site is located in a dense neighborhood of Boston and provides access to numerous, i.e. more than eight, diverse uses recognized by LEED requirements within a half-mile walking distance.

LT Access to Quality Transit: The Project Site is located with access to the MBTA Red, Green, Orange and Blue T lines within a half mile walk at Government Center, Park Street, Downtown Crossing and State stations. In addition, there are nine MBTA bus lines within a quarter-mile walk of the site.

LT Reduced Parking Footprint: The Project will comply with Option 1: No off-street parking will be provided on-site.

4.2.3 Sustainable Sites (SS)

The Project Site will be developed with low impact development (LID) principles and best management practices (BMPs) that contribute to reducing urban heat island effects and enhancing resilience to future climate conditions. Strategies include:

SS Construction Activity Pollution Prevention (prerequisite): The Proponent will develop and implement an erosion and sedimentation control plan for all construction activities aligned with LEED criteria and local requirements.

SS Site Assessment: The Proponent will assess the Project Site consistent with LEED criteria for this credit, including topography, hydrology, climate, vegetation, soils, human use and human health effects.

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1 780 CMR Ninth Edition, Chapter 13: Energy Efficiency Amendments as of 8/7/20, which is based on IECC 2018with Massachusetts Amendments.

2 Per Walk Score: https://www.walkscore.com/score/1-bromfield-st-boston-ma-02108

SS Heat Island Reduction: The Project will reduce heat island effects through a combination of strategies, including the use of hardscape materials with a low solar reflectance and the provision of a combination of green roof and white roof areas with an SRI of greater than 82.

SS Light Pollution Reduction: The Project will design site lighting to meet the up light and light trespass requirements for all applicable exterior luminaires to comply with all internally illuminated signage requirements.

SS Tenant Design and Construction Guidelines: The Proponent will develop and implement tenant design and construction guidelines to educate tenants about the energy efficiency and sustainability features and systems implemented in the base building and requirements to support the ongoing sustainability performance of the building. The guidelines will also provide suggestions for implementing sustainable strategies in a fit-out that support the overall building sustainability strategy and energy and emissions performance. Recommendations to support good indoor air quality will be provided in the guidelines and may include recommendations to implement a construction indoor air quality management plan, specify low-emitting materials per LEED product categories and requirements, specify finish materials such as flooring, ceilings, GWB and/or furniture that do not contain chemicals of concern and/or are ILFI Red List Free[3] and implement green cleaning products and procedures during operation. The guidelines will also highlight the strategies implemented for good indoor air quality and healthier materials selected in the base building design.

4.2.4 Water Efficiency (WE)

Potable water will be used efficiently both outdoors and indoors for the Project. Proposed strategies will include:

WE Outdoor Water Use Reduction (prerequisite and credit): The Project will reduce outdoor water use for landscape requirements by over 75 percent through the selection of native plant species, limiting irrigation and using efficiency irrigation where required. Recycling rainwater for irrigation will be assessed for cost effectiveness, which could contribute to achievement of this credit.

WE Indoor Water Use Reduction (prerequisite and credit): The Project will reduce indoor potable water use through the use of water-sense labelled low- and ultra-low flow water fixtures to achieve a 35 percent reduction from the baseline and will assess recycling rainwater for toilet flushing purposes for cost effectiveness.

WE Cooling Tower Water Use: The Proponent has proposed to use HVAC systems that do not require a cooling tower and will pursue Option 2 - No Cooling Tower.

[3] https://living-future.org/declare/declare-about/red-list/

WE Water Metering (prerequisite and credit): The Project will install water metering to measure the base building water consumption and submeter at least two end uses, anticipated to be domestic hot water and indoor plumbing fixtures or irrigation.

4.2.5 Energy and Atmosphere (EA)

The Project will be designed to be energy efficient, reduce GHG emissions, and be able to operate and be maintained in an efficient manner. Proposed strategies will include:

EA Fundamental and Enhanced Commissioning (prerequisite and credit): The Proponent will engage a third-party consultant to implement enhanced commissioning, including building envelope commissioning, per LEED criteria and will consider monitoring-based commissioning as design advances.

EA Optimize Energy Performance (prerequisite and credit): As described above, the Project has a target of energy performance 25 percent below the energy code in full effect November 7, 2020 as described in the introduction to Section 4.2. To achieve this high performance, the Project will be designed with a high-performance building envelope that exceeds that future energy code's minimum performance through the UxA calculation and utilizes energy efficient systems that recover energy and decouple thermal energy from ventilation. A Life Cycle Cost Analysis will be conducted to evaluate the cost-effectiveness of additional energy conservation measures to achieve the Project energy performance target.

EA Advanced Energy Metering (prerequisite and credit): The Project will include energy meters capable of recording both consumption and demand for base building energy sources and for future tenant spaces to enable metering energy consumption for all systems dedicated to their space on at least a per floor basis.

EA Renewable Energy: As part of the Project's Zero Net Carbon strategy, off-site renewables will be purchased. The Proponent is exploring new and existing off-site renewable energy options that align with LEED criteria, for 100% of annual building greenhouse gas emissions. 100% existing renewables would achieve 3 points, while 100% new renewables would achieve 5 points. Per LEED definition, New Off-site Renewables are defined as built within the last year or contracted prior to renewable energy project development. Existing Off-site Renewables are defined as contracted from an existing renewable energy provider.

4.2.6 Materials and Resources (MR)

The Project will be designed to reduce embodied carbon with healthy materials that have reduced environmental impacts. The Project will require robust construction waste management practices and limit waste generation. Strategies include:

MR Storage and Collection of Recyclables (prerequisite): The Project will include separate storage and collection areas for recyclables including mixed paper, corrugated cardboard, glass, plastics, and metals. In addition, the Project will provide for the safe collection, storage, and disposal of batteries and electronic waste.

MR Building Life Cycle Impact Reduction: Further enhancing the Project's commitment to Zero Net Carbon, the Project will report and seek to reduce embodied carbon (scope 3) emissions associated with structure and building enclosure. The Proponent will pursue Option 4: Whole Building Life Cycle Assessment (LAC) Path 3. Accordingly, the Proponent will conduct a LCA of the Project's structure and enclosure with a target to demonstrate at least a 10 percent reduction from a baseline building for global warming potential and two other criteria per LEED, e.g. acidification of land and water resources, eutrophication, depletion of the stratospheric ozone layer, formation of tropospheric ozone, and/or depletion of nonrenewable energy resources. Compliance with the Environmental Product Declarations, described below, will support achievement of this credit.

MR Building Product Disclosure and Optimization - Environmental Product Declarations (EPDs): At least ten products from at least three different manufacturers will be specified with product-specific EPDs or LCA. To support achievement of the Building Life Cycle Impact Reduction, structure and enclosure materials will be specified to meet this credit as well as high value/cost materials such as gypsum wall board.

MR Building Product Disclosure and Optimization - Sourcing of Raw Materials: Materials will be specified from at least five different manufacturers with recycled content, FSC-certified wood and within 100 miles of the Project Site to achieve at least 20 percent materials cost (1 point) with a target to achieve 40 percent for the full 2 points.

MR Building Product Disclosure and Optimization - Material Ingredients: At least ten products from at least three different manufacturers will be specified with material transparency declarations such as Health Product Declarations (HPDs), a Declare label indicating Red List Free, and/or Cradle to Cradle Bronze certification. Materials to meet this credit will focus on interior finish materials and may include resilient flooring, carpet, ceilings, wall base, or gypsum wall board. *An additional point is being considered under Option 2 if at least ten Red List Free products are specified as part of the Core & Shell project.*

MR Construction and Demolition Waste Management and Planning (prerequisite and credit): The Proponent will require the contractor to develop a construction waste management plan aligned with LEED criteria. Additionally, the Proponent will pursue Option 1 and track compliance with Option 2 as a possible exemplary performance point. To achieve Option 1, the contractor will divert at least 75 percent of the total construction and demolition material from landfill, across at least four material streams. For Option 2, the contractor will be required to track new construction waste generation to target no more than 7.5 pounds per square foot and salvage or recycle at least 75 percent of demolition waste.

4.2.7 Indoor Environmental Quality (EQ)

Proposed strategies to provide a healthy and comfortable indoor environment will include:

EQ Minimum Indoor Air Quality (prerequisite): The building ventilation systems will be designed to meet ASHRAE 62.1-2016 via LEED Option 1.

EQ Environmental Tobacco Smoke Control (prerequisite): Smoking will be prohibited inside the building and there will be signage to communicate this policy. Smoking will also be prohibited outside the building except in designated smoking areas located at least 25 feet from all entries, outdoor air intakes, and any operable windows.

EQ Enhanced Indoor Air Quality Strategies: The Project will install entryway systems and MERV 13 filters to minimize cross-contamination to enhance indoor air quality. To earn an additional point, increased ventilation or carbon dioxide monitoring will be implemented.

EQ Low-Emitting Materials: Low-emitting materials for three product categories, i.e. flooring, composite wood and ceilings, will be specified that meet low-VOC content and emissions testing requirements. Additional product categories will be evaluated for their feasibility, e.g. paints and coatings and adhesives and sealants.

EQ Construction Indoor Air Quality Management Plan: During construction, the construction manager will be responsible for developing and implementing an indoor air quality management plan during construction and pre-occupancy that meets SMACNA guidelines.

4.2.8 Innovation in Design

The Project will seek to achieve all innovation in design credits, including one pilot credit. Potential innovation credits include:

- The Comprehensive Composting pilot credit (SSpc 129), which is aligned with the City's Zero Waste Plan and Climate Action Plan 2019 Update.
- Additional innovation credits for achievement include for green building education, O+M ready with green cleaning and integrated pest management plans, exemplary performance in transit and achievement of both construction waste management options. . Pilot Credit Bird Collision Deterrence (SSpc55) is also being explored by the design team.
- A LEED AP BD+C accredited professional is part of the design team.

4.2.9 Regional Priority Credits

The goal of the Regional Priority (RP) credits is to enhance the ability of LEED project teams to address critical environmental issues across the country and around the world. RP credits encourage project teams to focus on their local environmental priorities. The Project is targeting

achievement of at least two regional priority credits for Boston related to energy efficiency and renewable energy. Rainwater Management and Indoor Water Use are also indicated as 'maybe' points.

4.2.10 Boston Green Building Credits

Appendix A of Article 37 lists Boston Green Building Credits, which are credits that may be included in the calculation toward achieving a LEED certifiable project. These credits were developed by the City and are intended to address local issues unique to development within Boston. The credits include the following categories: Modern Grid, Historic Preservation, Groundwater Recharge, and Modern Mobility and a discussion of each is provided below.

The Project is exploring the achievement of two of the Boston Green Building Credits to support Article 37 compliance.

Modern Grid

The Proponent will not explore combined heat and power systems as this is not aligned with the City's Climate Action Plan and commitment to carbon neutrality.

Groundwater Recharge

As discussed earlier, the Project Site is located outside the City's Groundwater Conservation Overlay District as created by Article 32 of the Zoning Code, and opportunities for infiltration may be limited due to site conditions. However, the Project will comply with all applicable Boston Water and Sewer Commission requirements with respect to stormwater recharge.

Modern Mobility

As discussed in Chapter 3, Transportation, the transportation demand management strategies are meeting the prerequisites for transportation coordinator and association, sharing information on non-automotive options, bike storage and parking ratios. The Project is exploring which high value and four basic strategies can be achieved.

Historic Preservation

The Project is not associated with any historic assets.

LEED v4.1 BD+C: Core and Shell

Project Checklist

Project Name: 11-21 Bromfield
Date: 9/22/2020

Y	?	N			
1			Credit	Integrative Process	1

15	1	4	**Location and Transportation**		20
			Credit 1	LEED for Neighborhood Development Location	20
2			Credit 2	Sensitive Land Protection	2
		3	Credit 3	High Priority Site	3
6			Credit 4	Surrounding Density and Diverse Uses	6
6			Credit 5	Access to Quality Transit	6
	1		Credit 6	Bicycle Facilities	1
1			Credit 7	Reduced Parking Footprint (Option 1: No Off-Street Parking)	1
		1	Credit 8	Electric Vehicles	1

4	4	3	**Sustainable Sites**		11
Y			Prereq	Construction Activity Pollution Prevention	Required
1			Credit 1	Site Assessment	1
		2	Credit 2	Protect or Restore Habitat	2
		1	Credit 3	Open Space	1
	3		Credit 4	Rainwater Management	3
2			Credit 5	Heat Island Reduction	2
	1		Credit 6	Light Pollution Reduction	1
1			Credit 7	Tenant Design and Construction Guidelines	1

8	2	1	**Water Efficiency**		11
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
2	1		Credit 1	Outdoor Water Use Reduction (75% reduction)	3
3	1		Credit 2	Indoor Water Use Reduction (35% reduction)	4
2		1	Credit 3	Cooling Tower Water Use (Option 2: No Cooling Tower)	3
1			Credit 4	Water Metering (2 submeters)	1

21	9	3	**Energy and Atmosphere**		33
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
5	1		Credit 1	Enhanced Commissioning (Enhanced Cx + BECx)	6
12	3	3	Credit 2	Optimize Energy Performance	18
1			Credit 3	Advanced Energy Metering	1
	2		Credit 4	Grid Harmonization	2
3	2		Credit 5	Renewable Energy	5
	1		Credit 6	Enhanced Refrigerant Management	1

7	4	3	**Materials and Resources**		14
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
3	1	2	Credit	Building Life-Cycle Impact Reduction (Option 4 Path 3: 10% reduction)	6
1	1		Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
1	1		Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1		1	Credit	Building Product Disclosure and Optimization - Material Ingredients	2
1	1		Credit	Construction and Demolition Waste Management	2

5	4	1	**Indoor Environmental Quality**		10
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
2			Credit	Enhanced Indoor Air Quality Strategies	2
2	1		Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
	2	1	Credit	Daylight	3
	1		Credit	Quality Views	1

6	0	0	**Innovation**		6
1			Credit 1	Innovation Pilot: Comprehensive Composting	5
1			Credit 2	Exemplary Performance - LTc5 or C&D Waste 2 options	1
1			Credit 3	Innovation - O&M Starter: Green Cleaning & IPM	1
1			Credit 4	Innovation - Green Building Education	1
1			Credit 5	Innovation - Purchasing - Lamps	1
1			Credit 6	LEED Accredited Professional	1

2	2	0	**Regional Priority**		4
	1		Credit 1	Regional Priority: SS 4 Rainwater Management (2 points)	1
1			Credit 2	Regional Priority: EA 2 Energy Performance (8pt)	1
	1		Credit 3	Regional Priority: WE 2 Indoor Water Use (4pt = 40%)	1
1			Credit 4	Regional Priority: Renewable Energy (3 points)	1

69	26	15	**TOTALS**	Possible Points:	22

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

4.3 Zero Carbon Building Assessment

According to the City of Boston Climate Action Plan 2019 Update, buildings account for 71 percent of Boston's greenhouse emissions and of that number, commercial buildings contribute over 50 percent of Boston's greenhouse emissions. Therefore, buildings are crucial to achieving the City and State's commitments to carbon neutrality by 2050.

In the City's Climate Action Plan update released October 2019, Action #3 is to strengthen green building zoning requirements to a zero net carbon standard with an immediate timeline of 2020-2021. The City has defined Zero Net Carbon as "A ZNC building is a low-energy fossil fuel-free building that meets its annual energy needs from a mix of on- and off-site renewable energy assets. Even with on-site renewable energy generation, larger and more energy-intensive buildings, like medical or laboratory facilities, may require off-site renewable energy delivered by the grid to be ZNC."

In support of that action, the City has recently incorporated a requirement for a Zero Net Carbon Building Assessment that includes a highly energy efficient and all-electric building systems feasibility study. It requires that all projects being reviewed under Article 80B not only evaluate the proposed design against the State Building Code baseline, but also include a Zero Net Carbon version of the building.

The Proponent has committed to being a leader on climate mitigation with the Project, and is therefore designing the Project to be Zero Net Carbon per the City's definition, thereby mitigating any additional GHG emissions to the City's inventory. A robust approach to carbon neutrality has been developed and is discussed below.

- **Energy Efficiency** is the first step in a carbon neutral design to minimize demand for energy. The proposed design has first used principles to optimize the building envelope through climate, solar radiation and shading analyses. The results of the analyses have informed the design of the building envelope to optimize shading specific to the Project Site, orientation and exposure. Vertical and horizontal shading will be implemented throughout the exterior, informed by the site specific data analysis and annual weather conditions.

  The building envelope design will exceed minimum State Building Energy Code performance standards, in aggregate.

  The active systems being explored for the building will further support the energy efficiency goals for the Project with a target to be 25% better than the forthcoming energy code. Key strategies to achieve this high level of energy efficiency include decoupling thermal energy and ventilation, maximizing the efficiency of thermal energy generation to the extent feasible, and recovering energy where feasible. This includes using a dedicated outdoor air system for ventilation with energy recovery in excess of

code minimum. Lighting systems will utilize an all-LED approach to achieve low lighting power densities while providing appropriate illuminance levels and visual comfort to the various types of spaces within the building.

- **Decarbonization** seeks to change the energy sources used by the Project away from on-site combustion from fossil fuel-based energy sources, typically natural gas, to sources that can be carbon-free, typically electricity. The Project team is exploring electrification approaches for space heating and domestic hot water end uses for their feasibility and cost effectiveness. Specifically, the Project team will utilize an air source heat pump or variable refrigerant flow (VRF) system for thermal energy (heating and cooling) and ventilation air preheating and cooling as well as point-of-use electric water heaters for domestic hot water. The life cycle cost analysis will take into account several variables - for example, operational energy cost, equipment life span, maintenance costs, space allocation and available incentives.

- **Renewables** is the last step in a carbon neutral approach that provides carbon free electricity to meet the building energy demand. The Project is extremely limited in the available area for on-site renewables, i.e. solar photovoltaics, given the small size of the Project Site and the overall building area to roof area ratio. At a minimum, the Project will be designed to be solar ready so that a solar PV system could be installed at a future time.

  Given site constraints for on-site renewables, the Project will require off-site renewables to achieve Zero Net Carbon. The Proponent is exploring off-site renewable energy options that align with LEED criteria as part of a carbon neutral approach and to contribute to LEED certification.

4.4 Climate Change Resilience

The Project is located outside the boundaries of the FEMA flood zones and the future projected flood boundaries through 2070, as identified by the City of Boston and the Boston Harbor Flood Risk Model (BH-FRM). Therefore, coastal flood resilience is not a major consideration for this Project.

As a result, the resilience design strategy focuses on mitigating urban heat island impacts and stormwater flooding through the integration of green plantings at the streetscape and in terraces throughout the façade, canopy tree planting at the streetscape, an upper terrace with a green roof, and the consideration of a white roof membrane. As the design develops, the design team will seek additional opportunities to mitigate future impacts from stormwater and extreme heat at the Project Site.

At the building level, the following strategies are being considered as part of the design:

- Optimizing passive strategies such as building envelope design, daylight and mitigating heat island impacts through the use of greenery, light colored hardscape materials and a green roof and/or white membrane roof;
- Energy-efficient building design to reduce the demand for electricity; and
- Solar-ready design for the high roof area.

A copy of the completed Climate Resiliency Checklist is included in Appendix E. Given the preliminary level of design, the responses are also preliminary and will be updated in the DPIR.

4.5 Urban Design

4.5.1 Project Massing

The overall building form of the Project responds to the unique site conditions at this important intersection defined by the convergence of Franklin Street and Bromfield Street along the Washington Street retail corridor at the north corner of Shoppers Park. Taking cues from adjacent buildings in the Downtown Crossing neighborhood, the building mass will be intentionally set back at varying heights. The subsequent, projected face will create the perception of a completed elevation along Washington Street, where the existing midrise building heights rhythmically rise and fall (see Figures 4.5-1 and 4.5-2).

The varying building setbacks also address the array of building typologies in the development of the Downtown Crossing neighborhood. The direct site context is predominantly comprised of historic and midrise buildings, with more modern high-rise buildings scattered throughout the larger, surrounding area, including the most recent high-rise, the 60 - story Millennium Tower. Thus, the variations in the building massing not only address the Washington Street elevation, but also stitch together the older building stock with the newer taller towers.

The importance of this neighborhood's recent resurgence is fully recognized by the planned design/massing. Directly across from the Project Site, Shoppers Park has been upgraded and has become an epicenter of activity, including stadium seating, moveable tables and chairs for casual dining and interactions, and other landscape improvements which encourage pedestrians to congregate. The articulation of the Project's façade at the commercial floors will further promote this street level activity, while the proposed height of the building will signify this corner as an anchor to the Shoppers Park. See Figure 4.5-3 for illustration of these concepts, and Figure 4.5-4 for a view of the Project from Shoppers Park.

11-21 Bromfield Street **Boston, Massachusetts**

ARROWSTREET ADRIAN SMITH+GORDON GILL ARCHITECTURE mikyoung kim design landscape architects

Figure 4.5-1
View from Washington Street

11-21 Bromfield Street **Boston, Massachusetts**

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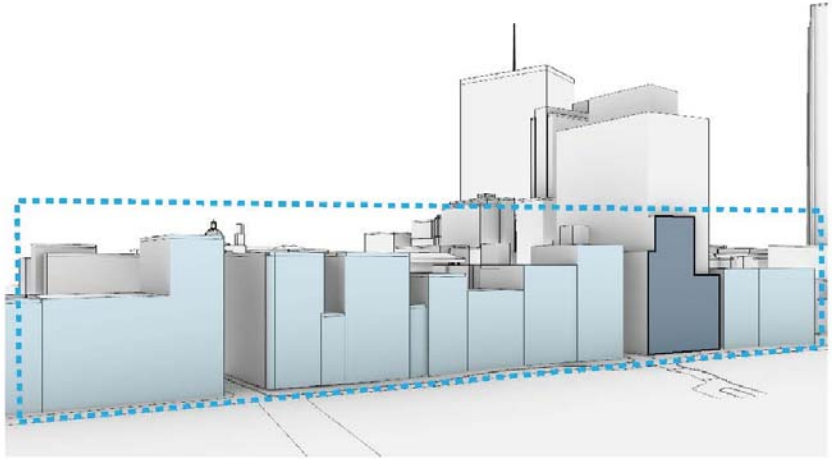
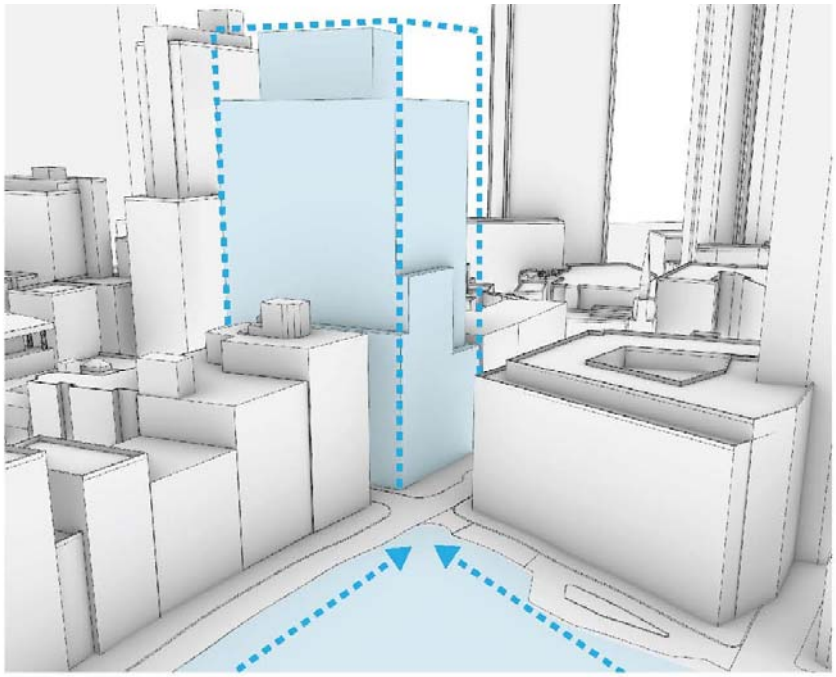
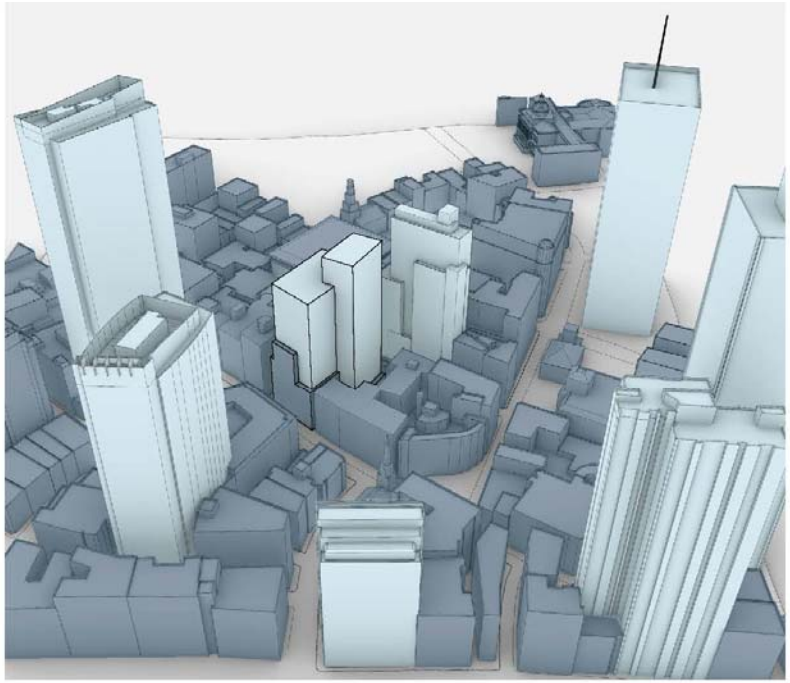
Figure 4.5-2
View from Washington and Bromfield Streets



1 Complete the elevation fabric of the Washington Street wall.



2 Create an anchor for the north corner of the Franklin Street plaza.



3 Stitch together the historic fabric of buildings with the newer taller buildings in the Downtown Crossing neighborhood.

11-21 Bromfield Street Boston, Massachusetts

11-21 Bromfield Street Boston, Massachusetts

ARROWSTREET ADRIAN SMITH+GORDON GILL ARCHITECTURE mikyoung kim design landscape architects

Figure 4.5-4
View from Shoppers Park

On a more granular scale, the planned fenestration of the building envelope is responsive to other external factors. The pre-existing retail datum along both Washington and Bromfield Streets is reflected in the larger proposed street level openings at the Project, separated by major and minor pillar-like structure. See Figure 4.5-5 for a view from Bromfield Street. The scale and width of the proposed openings on the upper, office levels expand and contract in response to several factors. Formally, the size of the openings blend the fenestration of the surrounding buildings' upper stories, as shown in Figures 4.5-6 to 4.5-8. The envelope also recognizes the corner of the building, facing Shoppers Park, as prominent and in need of larger openings for views and daylight. Still, an even more significant influence on the upper level fenestration is related to orientation, daylighting, views and solar radiation. The Project team ran several models to understand solar radiation impacts on the building's massing. Consequently, the articulated rhythm of openings optimize solar heat gain; where windows could not be reduced in size for functionality reasons, sunshades are planned to be integrated and become part of the overarching façade language.

4.5.2 Urban Design Goals

In recognition of the larger strategic plans by the City of Boston to promote economic growth and development within the Downtown Crossing area, including the Washington Street corridor, the Project team is designing the Project with the following goals in mind.

1. Enhance existing open spaces that improve the pedestrian experience.

2. Strengthen existing green connections with landscape and green infrastructure.

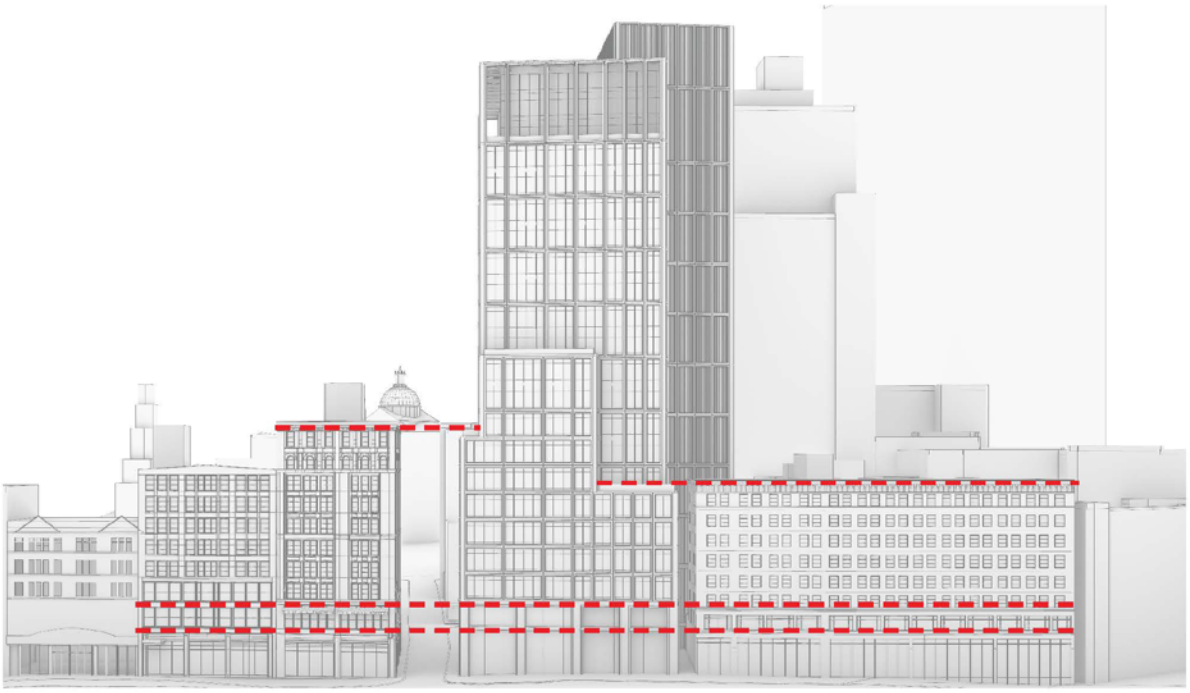
3. Include retail space that can vary in size and provide highly-visible opportunities for a broad range of retailers. These could potentially include independent and local retailers such as existing Bromfield Street retailers.

With the Project helping to anchor Shoppers Plaza, and the promotion of access and mobility at the street level, the Project will contribute to inspiring activity and destination at multiple scales. The immediate neighborhood will see a continuing influx of pedestrians, motivated by new retail along a strengthened, existing retail corridor. The Project Site's immediate access to an extended network of public transit will likewise reinforce the connection to the Project Site.

11-21 Bromfield Street **Boston, Massachusetts**

ARROWSTREET ADRIAN SMITH+GORDON GILL ARCHITECTURE mikyoung kim design landscape architects

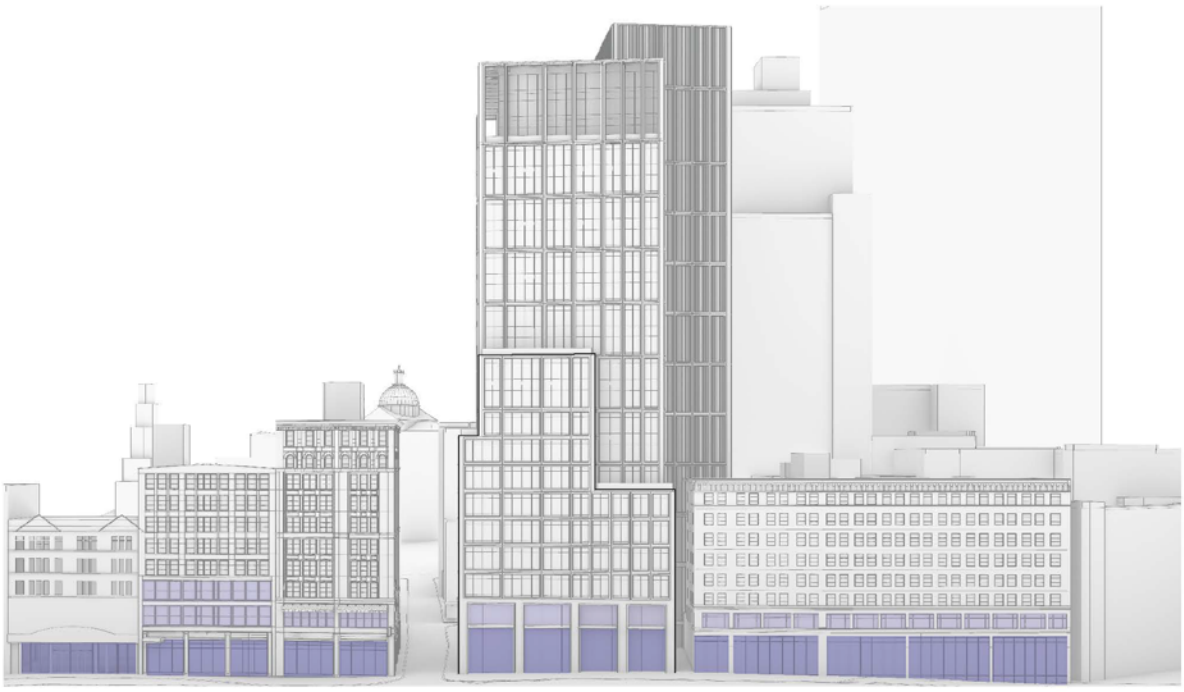
Figure 4.5-5
View from Bromfield Street



CONTEXTUAL DATUMS

CONTEXTUAL FABRIC

Figure 4.5-6
Contextual Relationships



RETAIL DATUM

CORNER HIERARCHY

LARGE CONTEXT SCALE

SMALL CONTEXT SCALE

4.5.3 Landscape Design

The Proponent aims to support a multimodal, shared public realm that is reminiscent of Boston's historical, bustling streets by expanding the pedestrian zones on Washington and Bromfield streets (see Figures 4.5-9 and 4.5-10 for proposed street sections). In accordance with Boston's Complete Street Guidelines, the area along Bromfield Street directly adjacent to the Project Site is considered a "Shared Street" typology, which promotes a pedestrian-friendly thoroughfare while supporting multiple modes of transportation. The Project and typology will act to reinforce the intimate nature of the streets, especially along Bromfield Street, while providing greater expansion of the pedestrian zone and experience. A blend of traditional textures and modern aesthetic will be exemplified through the paver design, as the color and scale of paver units will be utilized in a pattern which uniquely defines the outdoor environment. The subtle shift in the paver pattern will blend the pedestrian zone with a furnishing area, while clearly identifying the vehicular zone. The exclusion of raised curbs on Bromfield Street will promote true accessibility, and the introduction of well-placed bollards and planters will provide a safe, walkable environment.

The iconic paving pattern will continue along Washington Street, on the sidewalk and in the adjacent roadway, but the color will vary to unite and complement the various existing street paving conditions of the surrounding area. The design will expand the pedestrian zone through planters with integrated benches and lush low planting. The result will be a timeless streetscape, which will encourage residents, commuters, and visitors alike to engage with active storefronts, relax in designated furnishing areas and will act as a nod to the character of Boston's "Hobby Street."

4.5.4 Exterior Materials

The Project is still in its early schematic design phase; thus, no specific exterior facade materials have been selected yet. The design team will carefully consider materials and pragmatic concerns relating to the Project, resulting in a materials palette which responds to urbanistic, functional and performance criteria.

The anticipated facades' geometry will be complemented by a warm exterior palette, which ties into the existing fabric of the city. The horizontal and vertical shades will have warm tones, reflecting a city rich with wood, bronze, copper, terracotta, and brick (see Figures 4.5-11 to 4.5-12). The unitized framing expression of the windows will be an additional architectural detail intended to incorporate a modern expression of Boston's vernacular of balconies and bay windows. This framed expression provides scale and contextual identity to the Project in relation to its surrounding context. The Project's exterior fenestration and massing will assimilate the modern and historical influences of the city, manifesting in a unique architectural expression of Boston.

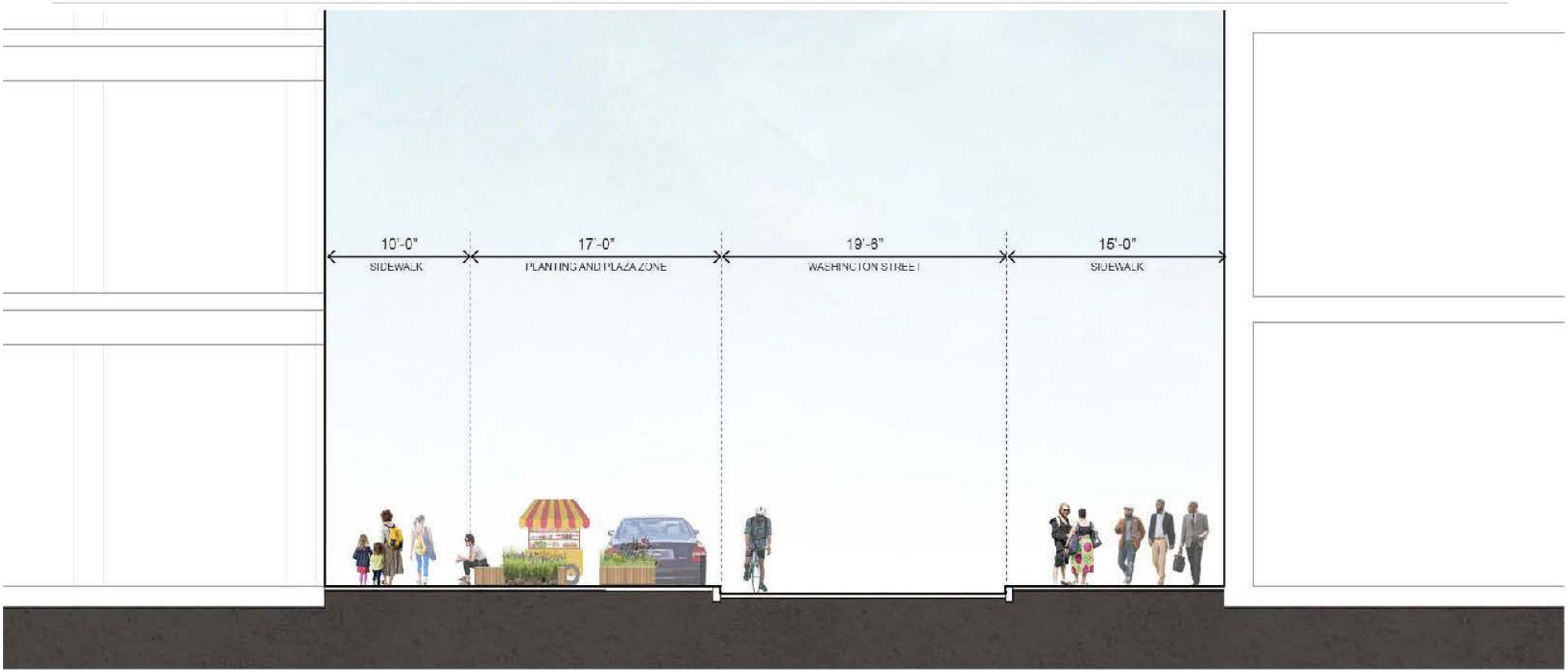
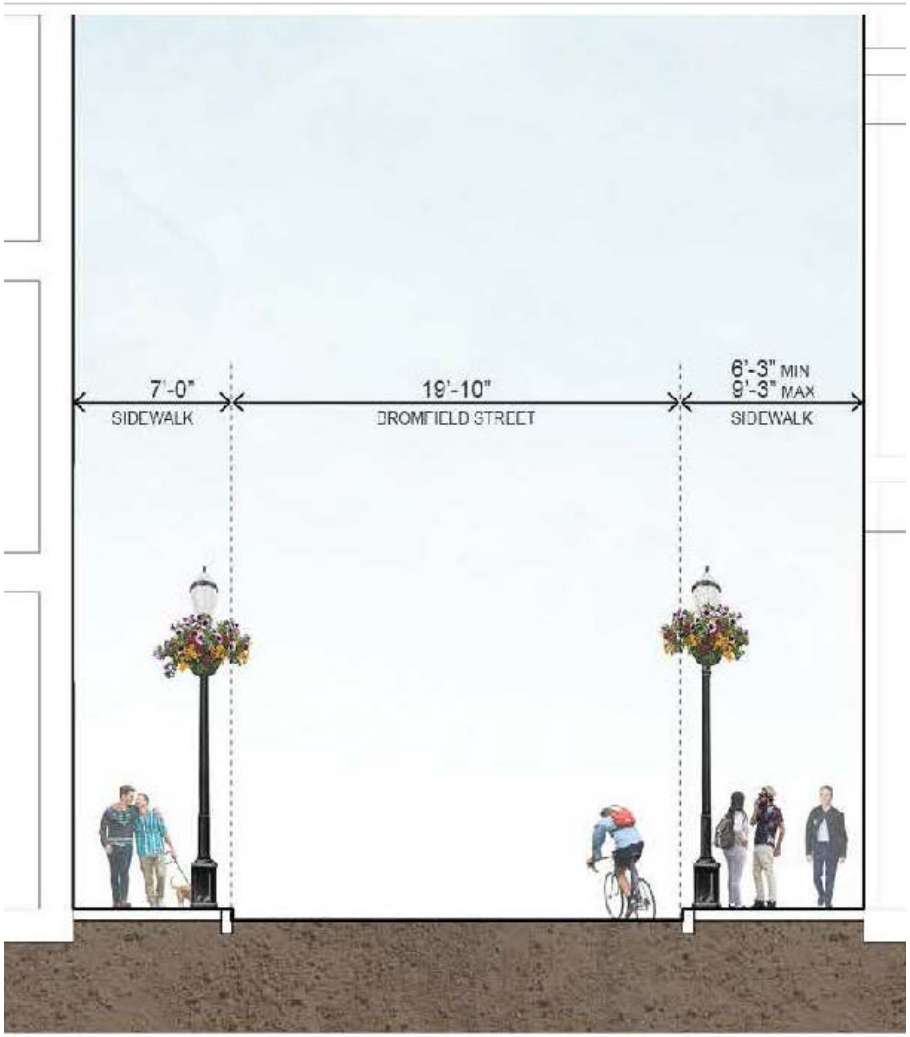


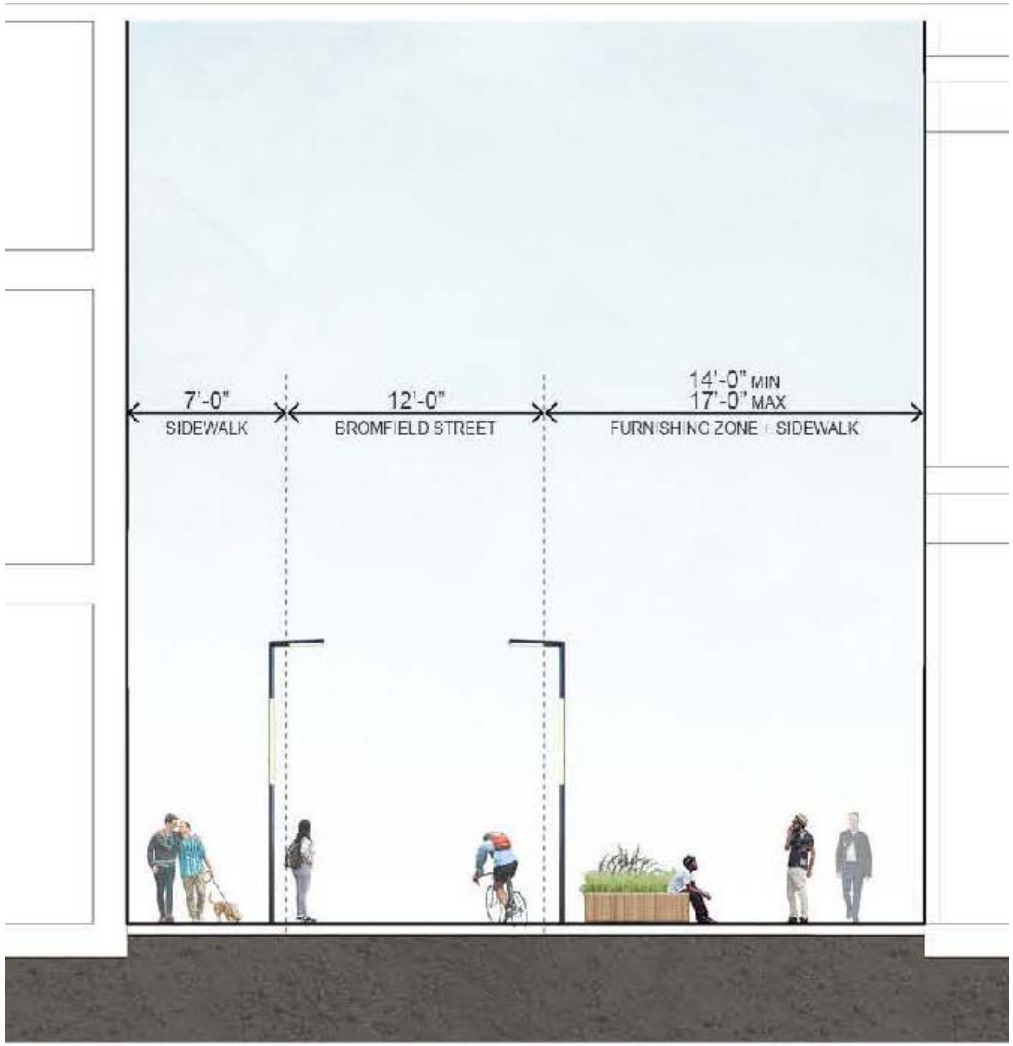
Figure 4.5-9

Proposed Street Section Through Washington Street

Existing Bromfield Street Section



Proposed Bromfield Street Section



11-21 Bromfield Street Boston, Massachusetts

Figure 4.5-10

Existing and Proposed Street Section Through Bromfield Street

11-21 Bromfield Street **Boston, Massachusetts**

Figure 4.5-11
Province Street Aerial

11-21 Bromfield Street **Boston, Massachusetts**

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Figure 4.5-12
Province Court Aerial

4.6 Historic and Archaeological Resources

4.6.1 Historic Resources within the Project Site

The Project Site is located within an area predominantly comprised of large multi-story steel frame and masonry buildings with first floor retail spaces and large storefront windows with upper stories serving as residences or offices. Dates of construction range from the late 19th century through the last decade. Brick, cast stone and stone along with metal panels and single pane and multi-light windows are common building materials in the area. The area is a commercial hub with wide sidewalks, shops, restaurants, and hotels.

The Project Site contains four existing buildings included in the Inventory of Historic and Archaeological Assets of the Commonwealth (Inventory). On June 9, 2016, the Boston Landmark Commission (BLC) determined that the buildings, described below, are not significant under the criteria for determining significance set forth in Section 85-5.3 (a-e) of the Zoning Code, and that no further review by the BLC under Article 85 is required.

351-363 Washington Street

Constructed in 1928, the two-story building now contains two separate retail spaces. The 1980 Boston Landmark Commission (BLC) Inventory Form notes the building was altered in 1945-48. Further alterations to the building, including changes to the exterior building envelope through the application of metal panels and cast stone, have occurred since the Inventory Form was completed. In 1980, the BLC evaluated this building as a Category VI structure, (Non-Contributing). The "Greek key motif" noted on the BLC Inventory Form is no longer visible on the Washington Street elevation, but is present on the side elevation within the alley off of Washington Street. Over time, this building has been significantly altered.

365 Washington Street

An altered example of the Boston Granite style prevalent in Boston between ca. 1830 and 1870, this ca. 1840-50 building is three stories in height and three bays wide. The third floor and attic represent the building's original design, while the second floor retains some turn-of-the-century cast iron storefront elements. The ground floor has been altered with the installation of modern storefronts. In 1980, the BLC evaluated the building as a Category V structure, (Minor Significance). This building has been significantly altered.

1-9 Bromfield Street

Known as the Bromfield Building, this six-story building is situated at the prominent corner of Washington and Bromfield Streets. The Renaissance Revival style commercial structure features pairs of one-over-one, double hung, wood windows with cast stone on the third through sixth floors. This yellow brick building is capped with a brick parapet and features cast iron storefront features at the second floor level. The ground floor has been extensively altered with the

installation of modern storefronts. In 1980, the BLC evaluated this building as a Category V (Minor Significance) structure. This building has been significantly altered through the loss of the original parapet and ground floor storefronts.

11-21 Bromfield Street

This ca. 1948 one-story commercial structure formerly housed the City Sports retail store, prior to the company's going out of business. Described as a "post-WW II utilitarian structure" in the 1980 BLC Inventory Form, this building features a central door and two slightly projecting end bays. Although the original storefront windows and door have been replaced, the building retains its original cast stone walls and polished, dark red granite base and upper central bay. In 1980, the BLC evaluated this building as a Category VI (Non-Contributing) building that "detracts from the rhythm of the streetscape."

4.6.2 Historic Resources in the Vicinity of the Project Site

The Project Site is located in the vicinity of several historic resources listed in the State and National Registers of Historic Places. Table 4.6-1 identifies these resources and corresponds to the resources depicted in Figure 4.6-1.

Table 4.6-1 Historic Resources in the Vicinity of the Project Site

Map No.	Name	Address	Designation
A	Beacon Hill Historic District	Roughly bounded by Beacon St., Embankment Rd., Storrow Dr., Cambridge and Bowdoin Streets and includes the First Harrison Gray Otis House and the Granary Burying Ground.	LHD
B	Beacon Hill Historic District	Roughly bounded by Beacon St., Embankment Rd., Storrow Dr., Cambridge, Bowdoin, Derne and Hancock Streets	NHL, NRDIS
C	Park Street District	Tremont, Park, and Beacon Streets	NRDIS
D	Boston Common	Beacon, Park, Tremont, and Charles Streets	NHL, NRDIS, LL
E	Boston Common and Boston Public Garden	Beacon, Park, Tremont, Boylston and Arlington Streets	NRDIS
F	Sears' Crescent and Sears' Block	38-68 and 70-72 Cornhill Street	NRIND
G	Custom House District (1996 Amendment)	Roughly bounded by Chatham Street, Broad Street, Batterymarch Street and John F. Fitzgerald Surface Road	NRDIS

Table 4.6-1 Historic Resources in the Vicinity of the Project Site (Continued)

Map No.	Name	Address	Designation
H	Custom House District	Roughly bounded by Chatham Street, Broad Street, Batterymarch Street and John F. Fitzgerald Surface Road	NRDIS
I	Newspaper Row	322-328 Washington St., 5-23 Milk Street., and 11 Hawley St.	NRDIS
J	Temple Place Historic District	11-55 and 26-58 Temple Place	NRDIS
K	The Filene's Complex	426 Washington Street	LL
L	Commercial Palace Historic District	Roughly bounded by Bedford, Summer, Franklin, Hawley, and Chauncey Streets	NRDOE
M	Blake and Armory Building	59 Temple Place	NRIND
N	West Street Historic District	West and Tremont Streets	NRDIS, NRMA
O	Washington Street Theatre District	511-559 Washington Street	NRDIS
P	Textile District	Roughly Essex St. from Philips Sq. to Columbia St. and Chauncy St. from Philips Sq. to Rowe Place	NRDIS
Q	Church Green Buildings Historic District	101-113 Summer Street	NRDIS, NRDOE, LL
1	Elizabeth Peabody Bookstore and Circulating Library	13-15 West Street	LL
2	Bedford Building	89-103 Bedford St	NRDOE, NRIND
3	Compton Building	159-175 Devonshire Street	NRIND
4	International Trust Company Building	39-47 Milk Street	LL, NRIND
5	Former Unitarian Universalist Association Headquarters	25 Beacon Street	LHD, NHL, NRDIS
6	Savoy Theater (Opera House)	537 Washington Street	LL, NRDIS, PR
7	Railroad Mall	Boston Common	LL, NHL, NRDIS
8	Beacon Street Mall	Boston Common	LL, NHL, NRDIS
9	Declaration of Independence Tablet	Boston Common	LL, NHL, NRDIS
10	Kimball, James W. - Guild, Chester Jr. House	2 Derne Street	LHD, NHL, NRDIS
11	Liberty Mall	Boston Common	LL, NHL, NRDIS
12	R.H. Stearns Building	140 Tremont Street	NRIND
13	Senate Reception Room	Beacon Street	LHD MA/HL NHL NRIND PR
14	The Ames Building	1 Court Street	LL, NRIND
15	Barry, Commodore John Tablet	Boston Common	LL NHL NRDIS

Table 4.6-1 Historic Resources in the Vicinity of the Project Site (Continued)

Map No.	Name	Address	Designation
16	Winthrop-Carter Building	1 Water Street	LL NRIND
17	The Old Corner Bookstore	277-285 Washington Street	MA/HL NRIND PR
18	Religion Tablet	Boston Common	LL NHL NRDIS
19	Great Elm Plaque	Boston Common	LL NHL NRDIS
20	Boston Athenaeum	10 ½ Beacon Street	LHD, NHL, NRDIS, NRIND
21	Amory Building	65 Temple Street	NRIND
22	Boston Transit Commission Building	15 Beacon Street	NRIND
23	Sears' Block	70-72 Cornhill Street	NRIND
24	The Founders' Memorial	Boston Common	LL NHL NRDIS
25	Ballard Block	20-30 Bromfield Street	LL
26	Old State House	State Street	LL, NHL, NRDIS, NRIND, PR
27	Stock Exchange Building	53-65 State Street	LL
28	King's Chapel Burying Ground	Tremont Street	NRIND, PR
29	Congregational House	12-14A Beacon Street	LHD, NRDIS, PR
30	Publicity Building	40-44 Bromfield Street	NRIND
31	Boston Common Fence	Boston Common	LL, NHL, NRDIS
32	Codman Building (10 Liberty Square Building)	51-57 Kilby Street	NRIND
33	Lafayette Mall	Boston Common	LL, NHL, NRDIS
34	Filene's Department Store	426 Washington Street	LL, NRIND
35	Old City Hall	41-45 School Street	NHL, NRIND
36	Brazer, Second Building	25-29 State Street	LL, NRIND
37	United Shoe Machinery Corporation Building	160 Federal Street	LL, NRIND
38	Massachusetts State House	Beacon Street	LHD, MA/HL, NHL
39	Holmes, Oliver Wendell Mall	Boston Common	LL, NHL, NRDIS
40	Claflin Building	18-20 Beacon Street	LHD, NRDIS, PR
41	Industry Tablet	Boston Common	LL, NHL, NRDIS
42	Frost, H. Lyman House	6 Derne Street	LHD, NHL, NRDIS
43	Park Street Subway Station	Tremont Street	LL, NHL, NRDIS
44	Tremont Street Subway	Tremont Street	LL, NHL, NRDIS, NRIND
45	Cahill, Thomas House	4 Derne Street	LHD, NHL, NRDIS
46	Wigglesworth Building	89-93 Franklin Street	NRDOE, NRIND
47	Federal Reserve Bank Building	27-47 Oliver Street	LL
48	King's Chapel	58 Tremont Street	MA/HL, NHL, NRIND,
49	Saint Paul's Episcopal Church	136 Tremont Street	NHL, NRIND
50	Granary Burying Ground	83-115 Tremont Street	LHD, NRDIS, PR

Table 4.6-1 Historic Resources in the Vicinity of the Project Site (Continued)

Map No.	Name	Address	Designation
51	Old South Meeting House	308 Washington Street	MA/HL, NHL, NRDIS,
52	Sears' Crescent	38-68 Cornhill Street	NRIND
53	Locke - Ober Restaurant	3-4 Winter Place	NRIND
54	Flagstaff Hill	Boston Common	LL, NHL, NRDIS
55	Park Street Under Subway Station	Tremont Street	LL, NHL, NRDIS
56	Shaw, Robert Gould Memorial	Beacon Street	LL, NHL, NRDIS
57	Blake, William O. Building	59 Temple Place	NRIND
58	Richards, Reuben - Beardsley, Mary W. House	45 Bowdoin Street	LHD, NHL, NRDIS
59	Training Tablet	Boston Common	LL, NHL, NRDIS
60	Adams, John Courthouse	1 Pemberton Square	NRIND
61	Brewer, Gardner Fountain	Boston Place	LL, NHL, NRDIS
62	Tremont Street Subway Kiosk	Tremont Street	LL, NHL, NRDIS
63	McCormack, John W. Federal Building and Courthouse	5 Post Office Square	LL, NRDOE, NRIND
64	Fox, I. J. Building	407 Washington Street	NRIND
65	Harding, Chester House	16 Beacon Street	LHD, NHL, NRDIS
66	Tremont Street Subway Kiosk	Tremont Street	LL, NHL, NRDIS

NRIND Individually Listed on the National Register
NRDIS National Register Historic District
NHL National Historic Landmark
LHD Local Historic District
LL Local Landmark
NRDOE National Register Determination of Eligibility
MA/HL Massachusetts Historic Landmark
PR Preservation Restriction

4.6.3 Archaeological Resources Within the Project Site

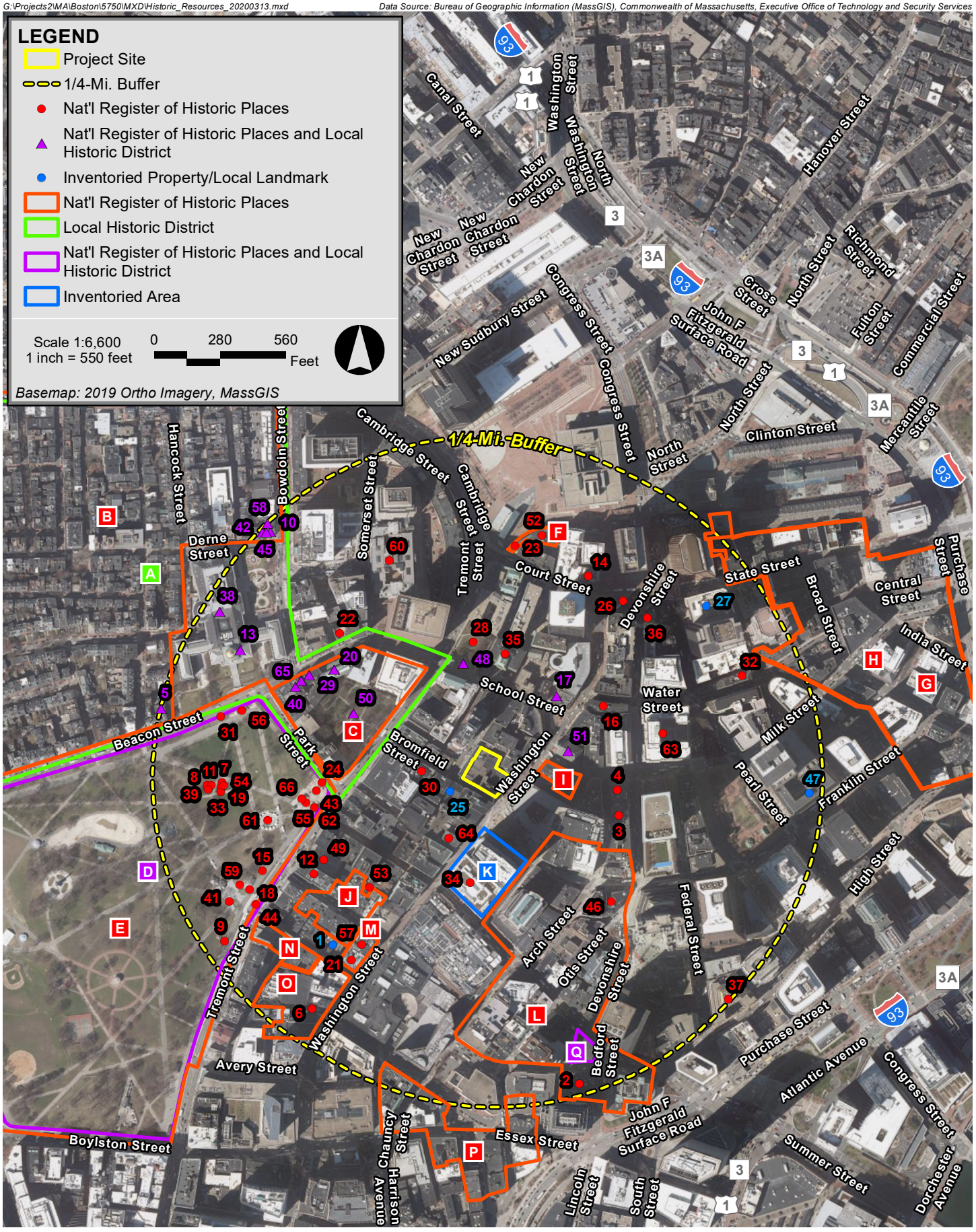
A small portion of the Project Site is within the mapped boundary of archaeological site 19-SU-13. As the Project involves construction on areas of the Project Site previously disturbed and then developed with multi-story buildings, impacts to archaeological resources are not anticipated to result from the construction of the Project.

4.6.4 Consistency with Other Historic Reviews

4.6.4.1 Article 85

On June 9, 2016, the Boston Landmark Commission (BLC) determined that the above-mentioned buildings are not significant under the criteria for determining significance in Section 85-5.3 (a-e) of the Zoning Code, and that no further review by the BLC under Article 85 is required in connection with the Project.

Data Source: Bureau of Geographic Information (MassGIS), Commonwealth of Massachusetts, Executive Office of Technology and Security Services



11-21 Bromfield Street Boston, Massachusetts

Epsilon ASSOCIATES INC.

Figure 4.6-1
Historic Resources

4.6.4.2 Massachusetts Historical Commission

The Proponent does not anticipate that the Project will require any state or federal licenses, permits or approvals, and does not anticipate utilizing any state or federal funds. Therefore, review by the Massachusetts Historical Commission (MHC) is not anticipated at this time. In the event that state or federal licenses, permits, approvals or funding is involved, the Proponent will file an MHC Project Notification Form to initiate MHC review of the Project.

4.7 Infrastructure Systems

The following sections describe the existing sewer, water, and drainage systems surrounding the Project Site and explain how these systems will service the Project. Based on the evaluation of the Project, the capacity of the water and sewer system is adequate to serve the anticipated sewage and water flows. Electric, gas, telephone, and cable service are also available to the Project site and will be coordinated with the appropriate utility companies as the design is further advanced.

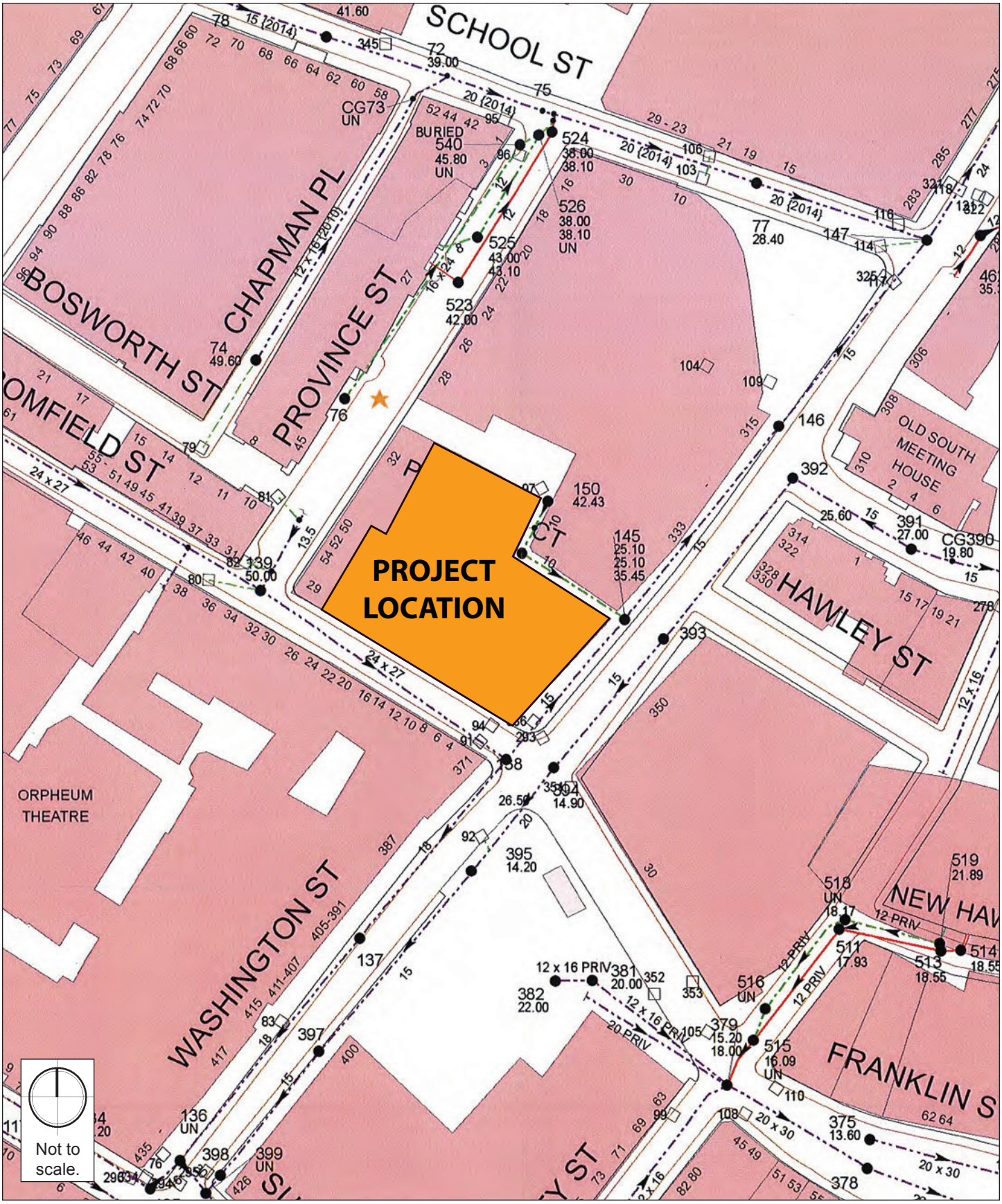
4.7.1 Wastewater

4.7.1.1 Existing Sewer System

The sanitary sewer system in the vicinity of the Project Site is owned, operated, and maintained by BWSC (see Figure 4.7-1). There is an existing 24-inch by 27-inch combined sewer located in Bromfield Street and a 12-inch combined sewer in Province Street. There is also a 15-inch combined sewage line on the west side of Washington Street.

The BWSC combined sewer lines drain into the MWRA sewer lines. Regional sewer service and treatment are provided by the MWRA system, which ultimately connects to the Deer Island Wastewater Treatment Plant. From there, sanitary sewer flow is treated and discharged to the Boston Harbor.

The total sewer flow from the existing building is estimated at 4,517 gallons per day (gpd) based on the existing building uses and design sewer flows provided in 310 CMR 12.203: System Sewage Flow Design Criteria, as summarized in Table 4.7-1.



11-21 Bromfield Street Boston, Massachusetts

HOWARD STEIN HUDSON
Engineers + Planners

Figure 4.7-1
BWSC Sewer System Map

Table 4.7-1 Existing Sewage Flows

Building Use	Number	Sewage Generation Rate	Total Flow (gpd)
Office Space	15,197 sf	75 gpd/1000 sf	1,140 gpd
Commercial Retail	10,177 sf	50 gpd/1000 sf	509 gpd
Office Space	8,620 sf	75 gpd/1000 sf	647 gpd
Commercial Retail	8,545 sf	50 gpd/1000 sf	427 gpd
Office Space	15,084 sf	75 gpd/1000 sf	1,131 gpd
Commercial Retail	3,156 sf	50 gpd/1000 sf	158 gpd
Office Space	5,505 sf	75 gpd/1000 sf	413 gpd
Commercial Retail	1,835 sf	50 gpd/1000 sf	92 gpd
Total			**4,517 gpd**

4.7.1.2 Project-Generated Sanitary Sewer Flow and Proposed Sewer System

As shown in Table 4.7-2 below, the Project will have an estimated daily sewage flow of 31,600 gpd, or a net new daily sewage flow of 27,083 gpd. This calculation was based on 310 CMR 15.203 (Title V), which provides design flow parameters for various building uses. Sanitary sewage discharge will connect to the existing 24-inch by 27-inch combined sewer located in Bromfield Street. The Proponent will coordinate with the BWSC on the design and capacity for proposed connection to the sewer system. It is anticipated that there is enough capacity to accommodate the Project.

Since the projected flow rate of wastewater generated is greater than 15,000 gallons per day, the Project is subject to the MassDEP requirement to offset the new flows associated with the Project by removing infiltration/inflow (I/I) on a 4:1 basis of four gallons removed for every gallon generated.

The Project does not propose any industrial uses.

Table 4.7-2 Estimated Sewage Flows

Building Use	Number	Sewage Generation Rate	Total Flow (gpd)
Office Space	382,000 sf	75 gpd/1000 sf	28,650 gpd
Commercial	59,000 sf	50 gpd/1000 sf	2,950 gpd
		Total Flow	**31,600 gpd**
		Existing Flow	**4,517 gpd**
		Net New Flow	**27,083 gpd**

4.7.2 Water System

4.7.2.1 Existing Water Service

The water distribution system in the vicinity of the Project Site is owned, operated, and maintained by BWSC. Bromfield Street and Province Street contain 12-inch ductile iron cement lined (DICL) water mains that are part of BWSC's Southern High service network with the main in Province Street constructed in 2008 and the main in Bromfield Street constructed in 1980. There is an 8-inch DICL in Province Court constructed in 2008. There is also a 16-inch DICL Southern High water main constructed in 1980 and a 12-inch high pressure fire service line constructed in 1916 in Washington Street. A 16-inch high pressure fire service line constructed in 1915 exists in Bromfield Street. According to BWSC records, there are five 4-inch fire services and one 4-inch domestic service that enter the Project Site and feed the existing buildings. The existing water distribution system is illustrated on Figure 4.7-2.

There are three fire hydrants located in the vicinity of the Project Site. One hydrant is located on the northwest corner of Bromfield Street and Province Street. The second is located on Bromfield Street across from the Project Site near Washington Street. The third hydrant is located on Washington Street just north of Ordway Place and the Project Site. It appears that these hydrants will provide sufficient coverage for the Project. The Proponent will confirm this with BWSC and the Boston Fire Department (BFD) during the detailed design phase.

4.7.2.2 Anticipated Water Consumption

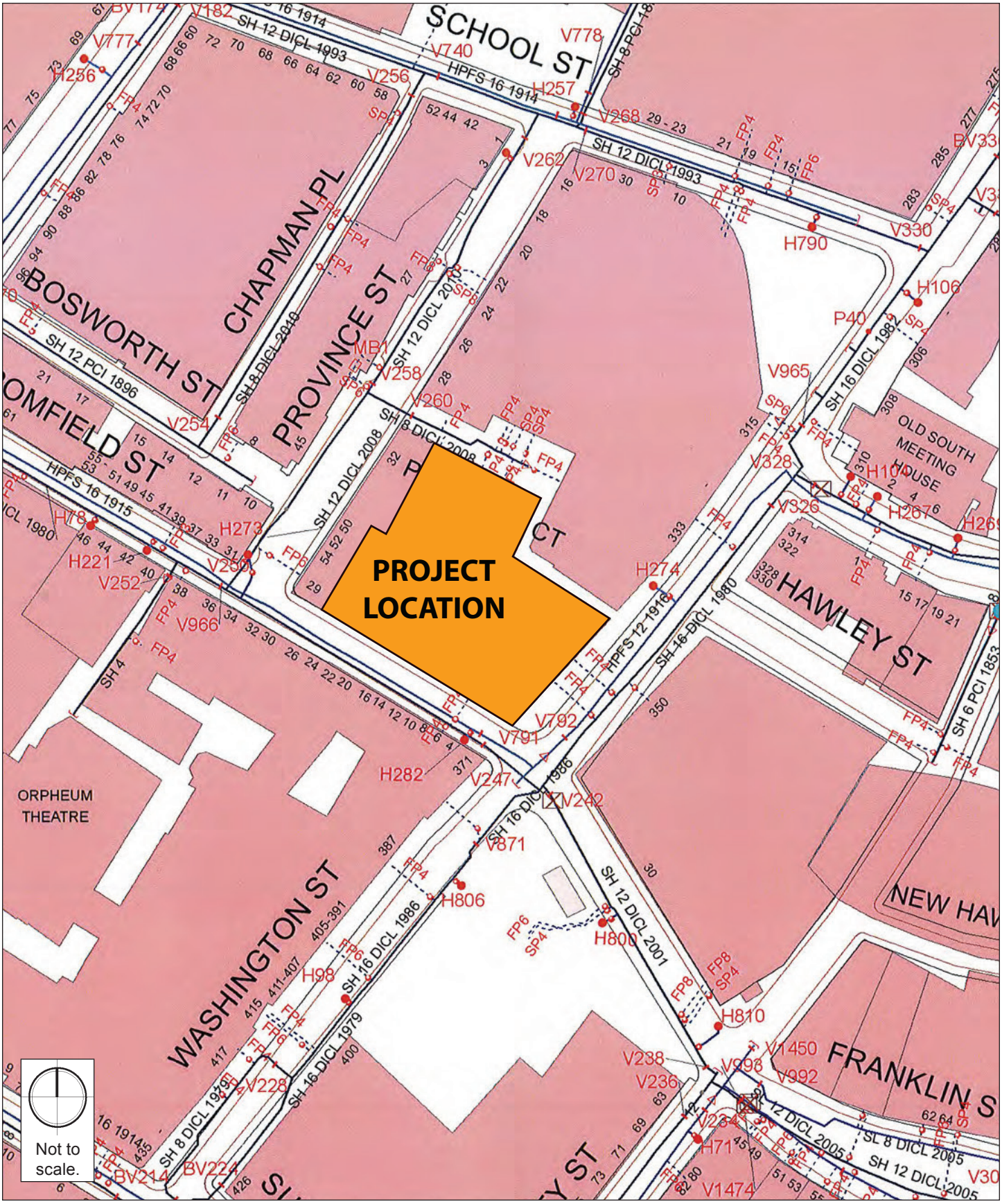
The Project's water demand for domestic service is based on the estimated sewage generation. A conservative factor of 1.1 is applied to the average daily wastewater flows to estimate an average daily water demand that accounts for system losses, irrigation and consumption. The Project's estimated net increase in water demand is approximately 29,791 gpd, for a total water demand of 34,760 gpd.

4.7.2.3 Proposed Water Service

The Project's new domestic water and fire protection services will connect to the water main in Province Court (see Figure 4.7-2). An isolator valve will be installed at the water main between the two fire protection service connections in Bromfield Street. The water will be supplied by the BWSC. It is anticipated that there is enough capacity to accommodate the Project.

4.7.2.4 Water Supply Conservation and Mitigation Measures

Efforts to reduce water consumption will be made. Aeration fixtures and appliances will be chosen for water conservation qualities. In public areas, sensor operated faucets and toilets will be installed.



11-21 Bromfield Street Boston, Massachusetts

HOWARD STEIN HUDSON
Engineers + Planners

Figure 4.7-2
BWSC Water System Map

4.7.3 Storm Drainage System

4.7.3.1 Existing and Proposed Storm Drainage System

BWSC requires the first 1.25 inches of rainfall, times the impervious area on site, must be infiltrated prior to discharge to a storm drain or combined sewer or reused for other purposes such as toilet flushing. The Project anticipates meeting the BWSC infiltration requirement through the use of a stormwater tank with infiltration injection wells. Stormwater run-off from the building roof drains will be collected and conveyed to a storage tank within the building. Stormwater from the storage tank will be pumped to infiltration injection wells likely located under the sidewalk to provide recharge to the soils below. Stormwater runoff from larger stormwater events will discharge into the existing 24-inch by 27-inch combined sewer located in Bromfield Street. The Project Site is currently fully developed and completely impervious. Therefore, the proposed Project will not increase the amount of impervious area on the site and consequently there will be no increase in the amount of stormwater run-off flowing to the combined sewer system. The Proponent will also assess the recycling of rainwater for toilet flushing and/or irrigation purposes for cost effectiveness.

Erosion and sediment controls will be used during construction to protect adjacent properties and the municipal storm drain system. An operation and maintenance plan will be developed to support the long-term functionality of the proposed stormwater management system.

4.7.3.2 Coordination with BWSC

All improvements and connections to BWSC infrastructure will be reviewed by the BWSC as part of its Site Plan Review Process. This process includes a comprehensive design review of the proposed service connections, assessment of system demands and capacity, and establishment of water and sewer service accounts.

4.7.4 Electrical Service

Eversource owns and maintains the electrical transmission system in the vicinity of the Project Site. The actual size and location of the proposed building services will be coordinated with Eversource during the detailed design development.

4.7.5 Natural Gas

National Grid owns and maintains infrastructure in the vicinity of the Project Site. The actual size and location of the building services will be coordinated with National Grid during the detailed design development.

4.7.6 Telecommunications Systems

Verizon owns and maintains infrastructure in the vicinity of the Project Site. It is anticipated Verizon will supply telephone and high-speed internet service to the Project. The actual size and location of the proposed building services will be coordinated with Verizon during the detailed design development.

4.7.7 Steam Systems

Veolia Energy owns and maintains the steam transmission system located in Washington Street. There is an 8-inch steam main in Washington Street up to Franklin Street just south of the Project. The actual size and location of the proposed building services will be coordinated with Veolia Energy during the detailed design development.

4.7.8 Utility Protection During Construction

The Project's Contractor will notify utility companies and call "Dig Safe" prior to excavation. During construction, infrastructure will be protected using sheeting and shoring, temporary relocations, and construction staging as required. The Construction Contractor will be required to coordinate all protection measures, temporary supports, and temporary shutdowns of all utilities with the appropriate utility owners and/or agencies. The Construction Contractor will also be required to provide adequate notification to the utility owner prior to any work commencing on their utility. Also, in the event a utility cannot be maintained in service during switch over to a temporary or permanent system, the Construction Contractor will be required to coordinate the shutdown with the utility owners and Project abutters to minimize impacts and inconveniences.

Chapter 5.0

Coordination with other Governmental Agencies

5.0 COORDINATION WITH OTHER GOVERNMENTAL AGENCIES

5.1 Architectural Access Board Requirements

The Project will comply with the requirements of the Massachusetts Architectural Access Board and the standards of the Americans with Disabilities Act. An Accessibility Checklist and related plans is included in Appendix F.

5.2 Massachusetts Environmental Policy Act (MEPA)

A project is subject to the Massachusetts Environmental Policy Act (MEPA) review when the following two conditions are met: (1) a project is subject to MEPA jurisdiction, and (2) a MEPA review threshold is exceeded. Current plans do not call for the Project to receive any state permits or state funding, or to involve any state land transfers, or to otherwise trigger MEPA jurisdiction and thus, MEPA review of the Project is not required.

5.3 Massachusetts Historical Commission State Register Review

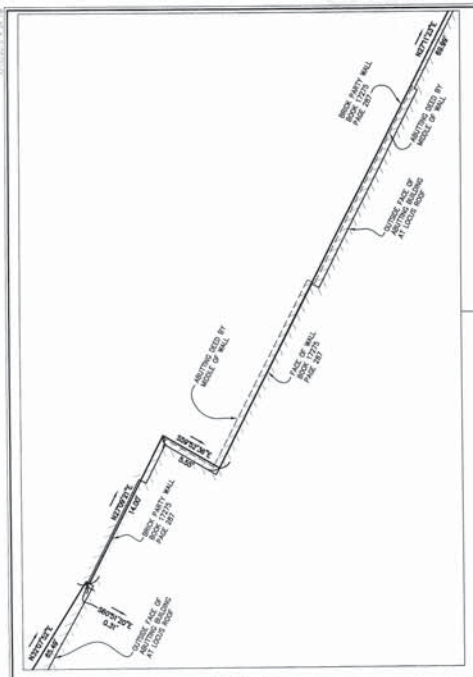
The Proponent does not anticipate that the Project will require any state or federal licenses, permits or approvals, and does not anticipate utilizing any state or federal funds, nor does the Project involve alteration of a property on the State Register. Therefore, review by the Massachusetts Historical Commission (MHC) is not anticipated at this time. In the event that state or federal licenses, permits, approvals or funding is involved, the Proponent will file an MHC Project Notification Form to initiate MHC's review of the Project.

5.4 Boston Landmarks Commission Review

On June 9, 2016, the Boston Landmark Commission (BLC) determined that the above-mentioned buildings are not significant under the criteria for determining significance set forth in Section 85-5.3 (a-e) of the Zoning Code and that no further review by the BLC under Article 85 is required.

Appendix A

Site Survey



REFERENCES:

DEED REFERENCES:

BOOK 41531	PAGE 258
BOOK 33709	PAGE 174
BOOK 38399	PAGE 270
BOOK 9191	PAGE 99
BOOK 17275	PAGE 287
BOOK 8960	PAGE 280

PLAN REFERENCES:

BOOK 9091	PAGE 471
BOOK 3010	PAGE 476
BOOK 4076	PAGE 326
BOOK 4703	PAGE 384
BOOK 5016	PAGE 561

LEGEND

- CATCH BASIN
- DRAIN MANHOLE
- ELECTRIC MANHOLE
- MISCELLANEOUS MANHOLE
- SEWER MANHOLE
- TELEPHONE MANHOLE
- WATER MANHOLE
- GSO — GAS SHUT-OFF
- WSO — WATER SHUT-OFF
- GG — GAS GATE
- WG — WATER GATE
- BWW — BOSTON WATER WORKS
- BWSC — BOSTON WATER AND SEWER COMMISSION
- FIRE HYDRANT
- LIGHT POLE
- HH — HAND HOLE
- FBOX — FIRE PULL BOX
- FA — FIRE ALARM
- PM — PARKING METER
- S — SIGN POST
- B — BOLLARD
- ENT — ENTRANCE
- CLF — CHAIN LINK FENCE
- VGC — VERTICAL GRANITE CURB
- VCC — VERTICAL CONCRETE CURB
- WCR — WHEELCHAIR RAMP
- CONC. DWP — CONCRETE DETECTION WARNING PANEL
- N/F — NOW OR FORMERLY
- DECIDUOUS TREE

NOTES

1.) THE INFORMATION CONTAINED ON THE DISK OR ELECTRONIC DRAWING FILE ACCOMPANYING THIS PLAN MUST BE COMPARED TO THE SEALED AND SIGNED HARD COPY OF THE PLAN TO ENSURE THE ACCURACY OF ALL INFORMATION AND TO ENSURE NO CHANGES, ALTERATIONS, OR MODIFICATIONS HAVE BEEN MADE. RELIANCE SHALL NOT BE MADE ON A DOCUMENT TRANSMITTED BY COMPUTER OR OTHER ELECTRONIC MEANS UNLESS FIRST COMPARED TO THE ORIGINAL SEALED DOCUMENT ISSUED AT THE TIME OF THE SURVEY. DUE TO THE CRITICAL NATURE OF SURVEYING, DATA ACQUISITION, AND AUTOCAD PLAN DEVELOPMENT, IF CRITICAL DIMENSIONAL INFORMATION IS NEEDED AND IS NOT SPECIFICALLY SHOWN ON THE ELECTRONIC DRAWING FILE, PLEASE CONTACT NITSCH ENGINEERING.

2.) AREAWAYS WERE NOT DELINEATED AS PART OF THIS SURVEY.

PAUL R. LAMONTAGNE NO. 47507 REGISTERED PROFESSIONAL LAND SURVEYOR COMMONWEALTH OF MASSACHUSETTS

SEE SHEET 2 FOR LEGAL DESCRIPTIONS, EXCEPTIONS, LOCUS MAP, CERTIFICATION, AND FLOOD ZONE INFORMATION

FIDELITY NATIONAL TITLE INSURANCE COMPANY
FILE NO. 14-0210KC-FN(MA)
EFFECTIVE DATE: JULY 24, 2014

GRAPHIC SCALE

20 10 0 20 40 60

SCALE: 1"=20'

Nitsch Engineering
www.nitscheng.com
2 Center Plaza, Suite 430
Boston, MA 02108
T: (617) 338-0063
F: (617) 338-6472

- Civil Engineering
- Land Surveying
- Transportation Engineering
- Sustainable Site Consulting
- Planning
- GIS

PROJECT #	6935.2
FILE:	6935.2_ALTA1.dwg
SCALE:	1"=20'
DATE:	AUGUST 14, 2014
PROJECT MANAGER:	PRL
FIELD BOOK:	595
DRAFTED BY:	PRL
CHECKED BY:	

REV.	COMMENTS	DATE
1	REMOVED 5 AC UNITS	12/10/14

REVISIONS

ALTA/ACSM LAND TITLE SURVEY

BROMFIELD STREET
BOSTON, MASSACHUSETTS

PREPARED FOR:
MIDWOOD MANAGEMENT CORPORATION
430 PARK AVENUE, SUITE 505, NEW YORK, NEW YORK 10022

SHEET: 1

EX-1

OF 2 REV.

EXHIBIT A - LEGAL DESCRIPTION

11–21 BROMFIELD STREET AND 8 AND 10 PROVINCE COURT

A PARCEL OF LAND WITH THE BUILDINGS THEREON SITUATE AND NOW NUMBERED 11, 13, 15, 17, 19 AND 21 ON BROMFIELD STREET AND 8 AND 10 ON PROVINCE COURT IN BOSTON, COUNTY OF SUFFOLK AND COMMONWEALTH OF MASSACHUSETTS, BEING THE LOT MARKED "8544 5/10 SQ. FT." ON PLAN OF LAND IN WARD 5, BOSTON, DATED JULY 19, 1917 BY ASPINWALL & LINCOLN, CIVIL ENGINEERS, RECORDED WITH THE SUFFOLK DEEDS BOOK 4076, PAGE 326, BOUNDED AND DESCRIBED AS FOLLOWS:

SOUTHERLY ON SAID BROMFIELD STREET, SEVENTY–THREE AND 73/100 FEET;

WESTERLY ON LAND NOW OR FORMERLY OF GEORGE URIEL CROCKER AND OTHERS, TRUSTEES BY A LINE RUNNING THROUGH THE MIDDLE OF THE BRICK PARTY WALL, SIXTY–FIVE AND 44/100 FEET;

NORTHERLY ON THE SAME LAND 31/100 OF A FOOT;

WESTERLY AGAIN ON THE SAME LAND BY A LINE RUNNING THROUGH THE MIDDLE OF THE BRICK PARTY WALL, FOURTEEN FEET;

NORTHERLY AGAIN ON THE SAME BY THE NORTH FACE OF A WALL, FIVE AND 55/100 FEET;

WESTERLY AGAIN ON THE SAME LAND BY A LINE RUNNING IN PART ALONG THE EAST FACE OF A WALL WHICH IS ON SAID ADJOINING LAND SEVENTEEN AND 59/100 FEET, AND IN PART ON THE WEST FACE OF A WALL WHICH IS ON THE DEMISED PREMISES EIGHTEEN AND 70/100 FEET, AND IN PART THROUGH THE MIDDLE OF A BRICK PARTY WALL EIGHT INCHES THICK THIRTY–THREE AND 67/100 FEET;

NORTHERLY ON SAID PROVINCE COURT, THIRTY–NINE AND 95/100 FEET;

EASTERLY ON LAND NOW OR FORMERLY OF FANNIE E. MORRISON BY TWO LINES PASSING THROUGH THE MIDDLE OF PARTY WALLS MEASURING RESPECTIVELY THIRTY–TWO AND 80/100 FEET AND THIRTY–SEVEN AND 88/100 FEET;

NORTHERLY AGAIN ON THE SAME LAND, TWENTY AND 27/100 FEET;

EASTERLY AGAIN ON THE SAME LAND, FOURTEEN AND 08/100 FEET;

NORTHERLY AGAIN ON THE SAME LAND SEVEN AND 15/100 FEET; AND

EASTERLY IN PART ON THE SAME LAND AND IN PART ON LAND NOW OR FORMERLY OF RATSHESKY BY A LINE RUNNING IN PART THROUGH A BRICK PARTY WALL, SIXTY–EIGHT AND 10/100 FEET.

EXHIBIT A–2 – PARCEL II

1–9 BROMFIELD STREET AND 367–369 WASHINGTON STREET

THE LAND IN BOSTON, SUFFOLK COUNTY, MASSACHUSETTS, BOUNDED AND DESCRIBED AS FOLLOWS: TWO CERTAIN PARCELS OF LAND SITUATED ON WASHINGTON STREET AND BROMFIELD STREET IN BOSTON, SUFFOLK COUNTY, MASSACHUSETTS, AS FOLLOWS.

PARCEL ONE

SOUTHEASTERLY BY WASHINGTON STREET, TWENTY–SIX AND 17.100 (26.17) FEET;

SOUTHWESTERLY BY BROMFIELD STREET, SIXTY–NINE AND 25/100 (69.25) FEET;

NORTHWESTERLY BY PARCEL TWO HEREINAFTER DESCRIBED, THIRTY–ONE AND 18/100 (31.18) FEET; AND

NORTHEASTERLY BY LAND NOW OR FORMERLY OF NELSON, BY TWO LINES PASSING THROUGH A BRICK PARTITION WALL, SEVENTY–SIX AND 4/100 (76.04) FEET,

CONTAINING APPROXIMATELY 2,127.3 FEET.

PARCEL TWO

A CERTAIN PARCEL OF LAND SITUATED ON BROMFIELD STREET IN SAID BOSTON, TOGETHER WITH THE BUILDINGS THEREON, NUMBERED 7 AND 9 BROMFIELD STREET, BOUNDED AND DESCRIBED AS FOLLOWS:

SOUTHWESTERLY BY SAID BROMFIELD STREET, TWENTY–FOUR AND 34/100 (24.34) FEET;

SOUTHEASTERLY BY PARCEL ONE ABOVE DESCRIBED, THIRTY–ONE AND 18/100 (31.18) FEET;

NORTHEASTERLY BY LAND FORMERLY OF HOLKER NOW OR LATE OF NELSON BY A LINE PASSING THROUGH THE BRICK PARTITION WALL, TWELVE AND 34/100 (12.34) FEET;

SOUTHEASTERLY AGAIN IN PART BY THE SAME LAND AND IN PART BY LAND CONVEYED BY CHARLES G. SMITH AND OTHERS, COMMISSIONERS, BY DEED RECORDED WITH SUFFOLK DEEDS, LIB. 2865, PAGE 9, TWENTY–ONE AND 62/100 (21.62) FEET;

NORTHEASTERLY AGAIN BY SAID LAST MENTIONED LAND, THIRTEEN AND 4/10 (13.4) FEET; NORTHWESTERLY BY LAND FORMERLY OF CROCKER AND OTHERS, TRUSTEES, FIFTY–TWO AND 85/100 (52.85) FEET,

CONTAINING 1,028.8 SQUARE FEET.

EXHIBIT A - LEGAL DESCRIPTION (CONTINUED)

EXHIBIT A–3 – PARCEL III

349–363 WASHINGTON STREET

CERTAIN REAL ESTATE SITUATED IN BOSTON, SUFFOLK COUNTY, MASSACHUSETTS, WITH BUILDING THEREON NOW NUMBERED 349–363 BOTH INCLUSIVE ON WASHINGTON STREET, BOUNDED AND DESCRIBED AS FOLLOWS:

SOUTHEASTERLY BY WASHINGTON STREET SIXTY–THREE AND 3/100 (63–3/100) FEET; SOUTHWESTERLY BY LAND NOW OR FORMERLY OF HUGH M. NELSON BY A LINE RUNNING THROUGH A BRICK PARTITION WALL FORTY–EIGHT (48) FEET; SOUTHWESTERLY AGAIN BY SAID LAND NOW OR FORMERLY OF NELSON ON A LINE EXTENDING IN PART THROUGH A BRICK PARTITION WALL TWELVE AND 73/100 (12–73/100) FEET; SOUTHEASTERLY AGAIN BY LAND NOW OR FORMERLY OF NELSON FIFTY ONE HUNDREDTHS (50/100) OF FEET; SOUTHWESTERLY AGAIN BY SAID LAND OF NELSON ON TWO LINES THREE (3) FEET AND TWENTY–EIGHT AND 67/100 (28–67/100) FEET RESPECTIVELY; NORTHWESTERLY BY LAND NOW OR FORMERLY OF RATSHESKY, ONE AND 48/100 (1–48/100) FEET, SOUTHWESTERLY BY SAID LAND NOW OR FORMERLY OF RATSHESKY, THIRTEEN AND 4/100 (13–4/100) FEET BY A LINE RUNNING ALONG THE NORTHEASTERLY FACE OF A WALL; NORTHWESTERLY BY LAND NOW OR FORMERLY OF CHARLES F. AND ARTHUR ADAMS FORMERLY OF BALLARD FIFTEEN AND 25/100 (15–25/100) FEET; SOUTHWESTERLY AGAIN BY SAID LAND NOW OR FORMERLY OF ADAMS SEVEN AND 15/100 (7–15/100) FEET; NORTHWESTERLY AGAIN BY SAID LAND NOW OR FORMERLY OF ADAMS FOURTEEN AND 8/100 (14–8/100) FEET; SOUTHWESTERLY AGAIN BY SAID LAND OF ADAMS TWENTY AND 27/100 (20–27/100) FEET, NORTHWESTERLY AGAIN BY SAID LAND OF ADAMS ON TWO LINES MEASURING RESPECTIVELY THIRTY–SEVEN AND 88/100 (37–88/100) FEET AND THIRTY–TWO AND 80/100 (32–80/100) FEET; NORTHEASTERLY BY PROVINCE COURT SIXTY AND 59/100 (60–59/100) FEET; SOUTHEASTERLY BY ORDWAY PLACE FORTY–FOUR AND 55/100 (44–55/100) FEET; NORTHEASTERLY BY SAID ORDWAY PLACE EIGHTY–EIGHT AND 65/100 (88–65/100) FEET.

CONTAINING TEN THOUSAND THREE HUNDRED FIFTEEN AND 6/10 (10,315–6/10) SQUARE FEET. BE ANY OR ALL OF SAID MEASUREMENTS AND CONTENTS MORE OR LESS.

THE ABOVE DESCRIBED PREMISES ARE SHOWN ON A PLAN MADE BY ASPINWALL & LINCOLN, C. E. DATED JUNE 27, 1925, RECORDED AT BOOK 4703, PAGE 384, WHICH PLAN IS REVISED BY ADDITIONS MADE TO TRACING NOVEMBER 15, 1927. THE TRACING WAS REVISED JUNE 20, 1928 AND RECORDED AT BOOK 5016, PAGE 561.

EXCEPTING FROM THE ABOVE DESCRIBED PREMISES THE TRIANGULAR PARCEL OF LAND CONVEYED TO THE CITY OF BOSTON FOR THE PURPOSE OF WIDENING WASHINGTON STREET, BY DEED DATED DECEMBER 17, 1930, RECORDED AT BOOK 5233, PAGE 66.

EXHIBIT A–4 – PARCEL IV

365 WASHINGTON STREET

A CERTAIN PARCEL OF LAND WITH BUILDINGS THEREON SITUATED AND NOW NUMBERED 365 ON WASHINGTON STREET IN BOSTON, SUFFOLK COUNTY, MASSACHUSETTS, AND BOUNDED AND DESCRIBED AS FOLLOWS:

SOUTHEASTERLY ON SAID WASHINGTON STREET, 21 FEET, 9 INCHES;

NORTHEASTERLY ON LAND FORMERLY OF ALPHEUS BIGELOW AND WIFE BY A LINE RUNNING THROUGH THE CENTER OF A TWELVE INCH WALL, 48 FEET

NORTHEASTERLY AGAIN ON THE SAME BY A LINE RUNNING THROUGH AN EIGHT INCH WALL, TWO INCHES SOUTHWESTERLY OF THE NORTHEASTERLY FACE OF SAID WALL, 12 FEET, 9 INCHES

NORTHWESTERLY ON THE SAME, 6 INCHES;

NORTHEASTERLY AGAIN ON THE SAME BY A LINE RUNNING IN PART ALONG THE NORTHEASTERLY FACE OF THE WALL, 31 FEET, 8 INCHES;

NORTHWESTERLY ON THE SAME, 20 FEET, 9 INCHES; AND

SOUTHWESTERLY IN PART ON THE SAME AND IN PART ON LAND FORMERLY OF THE HEIRS OF JOHN BOYLE, 90 FEET, 3 INCHES.

OR HOWEVER OTHERWISE SAID PREMISES MAYBE BOUNDED OR DESCRIBED AND BE ALL OR ANY OF SAID MEASUREMENTS MORE OR LESS.

TOGETHER WITH (A) THE BENEFIT OF AN AGREEMENT BETWEEN UNITED STATES TRUST COMPANY AND OTHERS, TRUSTEES UNDER THE WILL OF I.A. RATSHESKY AND ANOTHER AND E. SOHIER WELCH AND ANOTHER, TRUSTEES, DATED APRIL 30, 1942, AND RECORDED AT BOOK 6006, PAGE 431, SO FAR AS IN FORCE AND APPLICABLE AND (B) CERTAIN "EASEMENT AGREEMENT" DATED JUNE 13, 1978 BY AND BETWEEN JUDITH S. SCHWARTZ AND GLORIA J. BARDEN, TRUSTEES OF WASHINGFIELD REALTY TRUST AND GRANTOR RECORDED AT BOOK 9091, PAGE 471.

SCHEDULE B II - EXCEPTIONS

1. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, CREATED FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE OF THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT. (NOT A SURVEY MATTER)

2. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION. (NOT A SURVEY MATTER)

3. NOTWITHSTANDING COVERAGE PROVISIONS TO THE CONTRARY CONTAINED HEREIN ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE, ARISING SUBSEQUENT TO MARCH, 2007, THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE LAND SURVEY OF THE LAND. (ENCROACHMENTS AND SURFACE FEATURES AS SHOWN ON THE SURVEY)

THE TERM "ENCROACHMENT" INCLUDES ENCROACHMENTS OF EXISTING IMPROVEMENTS LOCATED ON THE LAND ONTO ADJOINING LAND, AND ENCROACHMENTS ONTO THE LAND OF EXISTING IMPROVEMENTS LOCATED ON ADJOINING LAND.

4. ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR OR MATERIALS HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

5. SUCH MATTERS AS WOULD BE DISCLOSED BY A CURRENT CERTIFICATE OF MUNICIPAL LIENS. (NOT A SURVEY MATTER)

NOTE(I): ITEMS 2 AND 4 WILL BE REVISED OR DELETED UPON RECEIPT OF A SATISFACTORY AFFIDAVIT AS TO PARTIES IN POSSESSION AND MECHANICS' LIENS. ITEM 3 WILL BE DELETED AND ITEM 14 REVISED UPON RECEIPT OF A SATISFACTORY SURVEY AND SURVEYOR'S REPORT. ITEM 5 WILL BE REVISED UPON RECEIPT OF CERTIFICATE OF MUNICIPAL LIENS.

6. PARTY WALL AND BOUNDARY AGREEMENT DATED JANUARY 20, 1925 RECORDED AT BOOK 4676, PAGE 416 (THE "AGREEMENT"). (PARCEL I) (AS SHOWN ON THE SURVEY)

SEE ENDORSEMENT 1.

7. AGREEMENT DATED APRIL 1, 1944 RECORDED AT BOOK 6097, PAGE 8 (THE 1944 AGREEMENT"). (PARCEL I) (NOT A SURVEY MATTER)

SEE ENDORSEMENT 1.

8. EASEMENT AGREEMENT DATED JUNE 13, 1978 RECORDED AT BOOK 9091, PAGE 471 ("EASEMENT AGREEMENT"). (PARCEL II) (AS SHOWN ON THE SURVEY)

SEE ENDORSEMENT 1.

9. AGREEMENT DATED APRIL 30, 1942, RECORDED AT BOOK 6006, PAGE 431 (THE "1942 AGREEMENT"). (PARCEL II) (NOT A SURVEY MATTER)

SEE ENDORSEMENT 1.

10. COMMON LAW PARTY WALL RIGHTS. (PARTY WALLS ALONG PERIMETER OF THE PREMISES AS SHOWN ON THE SURVEY)

SEE ENDORSEMENT 1.

11. TITLE TO AND RIGHTS OF THE PUBLIC AND OTHERS ENTITLED THERETO IN AND TO THOSE PORTIONS OF THE INSURED PREMISES LYING WITHIN THE BOUNDS OF ORDWAY PLACE. (PARCEL III) (ORDWAY PLACE AS SHOWN ON THE SURVEY)

SEE ENDORSEMENT 1.

12. RIGHTS GRANTED TO THE CITY OF BOSTON TO SLOPE OR BANK THE FILLING OF THAT PORTION OF THE INSURED PREMISES ABUTTING UPON WASHINGTON STREET WHERE REQUIRED FOR THE GRADING OF WASHINGTON STREET AS SET FORTH IN THE DEED OF CHARLES W. ROWELL DATED DECEMBER 17, 1930 AND RECORDED AT BOOK 5233, PAGE 66. (PARCEL III) (LINES OF WASHINGTON STREET AND ORDWAY PLACE AS SHOWN ON THE SURVEY)

SEE ENDORSEMENT 1.

13. TERMS AND PROVISIONS OF AN INDENTURE BETWEEN NANCY HOLKER AND OTHERS RECORDED AT BOOK 378, PAGE 86. (PARCEL IV) (NOT A SURVEY MATTER)

SEE ENDORSEMENT 1.

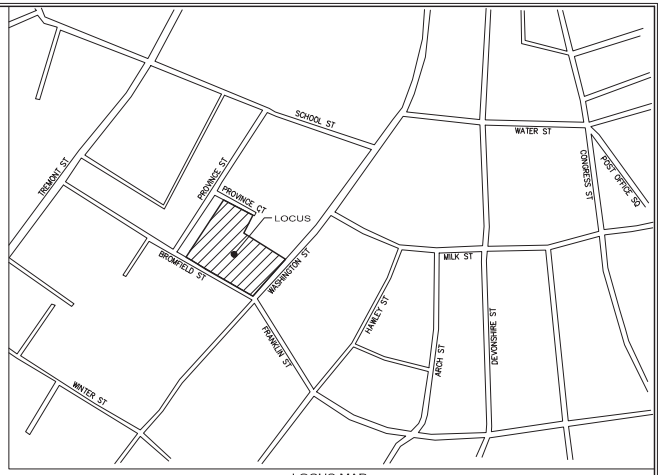
14. ALTA/ACSM LAND TITLE SURVEY (A) 11–21 BROMFIELD STREET AND 8 AND 10 PROVINCE COURT, (B) 1–9 BROMFIELD STREET AND 367–369 WASHINGTON STREET, (C) 349–363 WASHINGTON STREET, AND (D) 365 WASHINGTON STREET, BOSTON, MASS.", PREPARED FOR: 11 BROMFIELD DEVELOPMENT PARTNERS LLC, 367 LLC, 349 ASSOCIATES, M.K. REALTY L.P., AND BOSTON SYNDICATE BY OTTE & DWYER, LAND SURVEYORS, DATED MARCH 1, 2007, PLAT DATED MARCH 26, 2007, SHOWS:

A) WESTERLY WALL OF THE ONE–STORY MASONRY BUILDING (NO. 11–21) IS A PARTY WALL. (AS SHOWN ON THE SURVEY)

B) AIR CONDITIONING UNITS AND VENTS ENCROACH AND/OR PROJECT INTO THE BED OF ORDWAY PLACE, A PRIVATE RIGHT OF WAY. POLICY INSURES AGAINST MONETARY LOSS ARISING FROM THE FORCED REMOVAL THEREOF.

C) ORDWAY PLACE (AS SHOWN ON THE BOSTON CITY ENGINEERING BOOK) EXTENDS INTO THE LAND, AND THE THREE–STORY MASONRY BUILDING (NO. 349–363) ENCROACHES ONTO SAME. POLICY INSURES THAT THE BUILDING MAY REMAIN UNDISTURBED AS LONG AS IT SHALL STAND.

15. RIGHTS OF TENANT, AS TENANT ONLY, UNDER THAT CERTAIN LEASE TO CITY SPORTS, NOTICE OF WHICH IS DATED OCTOBER 31, 1997 AND RECORDED AT BOOK 22461, PAGE 263 WITH NO RIGHTS OF FIRST REFUSAL OR OPTIONS TO PURCHASE, AS AFFECTED BY LEASE SUBORDINATION, ATTORNMENT AND RATIFICATION AND NON–DISTURBANCE AGREEMENT DATED AS OF DECEMBER 29, 2011, BETWEEN WEBSTER BANK NATIONAL ASSOCIATION AND CITY SPORTS, INC., RECORDED JANUARY 6, 2012 IN BOOK 48912, PAGE 318. (PARCEL I) (NOT A SURVEY MATTER)



LOCUS MAP
NOT TO SCALE

FLOOD ZONE INFORMATION

THE PARCELS SHOWN HEREON LIE WITHIN A ZONE "X" (AREAS TO BE DETERMINED OUTSIDE OF THE 0.2% CHANCE ANNUAL FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAP FOR THE COUNTY OF SUFFOLK, MASSACHUSETTS. COMMUNITY PANEL NO. 25025C0081G, EFFECTIVE DATE: SEPTEMBER 25, 2009.

TO: 349 ASSOCIATES LP;
M.K. REALTY LP;
367 (THREE SIXTY SEVEN) LLC;
BOSTON SYNDICATE; AND
FIDELITY NATIONAL TITLE INSURANCE COMPANY
11 BROMFIELD DEVELOPMENT PARTNERS
MIDWOOD MANAGEMENT CORPORATION
LOCKE LORD LLP

THIS IS TO CERTIFY TO THE BEST OF MY KNOWLEDGE INFORMATION AND BELIEF 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 2, 3, 7(b)(1), 8, 9, 11(a), 13 & 14 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON AUGUST 14, 2014. THAT THE PROPERTY IS THE SAME AS THE PROPERTY IN THE LEGAL DESCRIPTION SET FORTH IN THE COMMITMENT.

PAUL R. LEBARON, P.L.S. — DATE

Nitsch Engineering
www.nitschengr.com
2 Center Plaza, Suite 430
Boston, MA 02108
T: (617) 338-0063
F: (617) 338-6472

► Civil Engineering
► Land Surveying
► Transportation Engineering
► Sustainable Site Consulting
► Planning
► GIS

PROJECT #	6935.2
FILE:	6935.2_ALTA1.dwg
SCALE:	1"=20'
DATE:	AUGUST 14, 2014
PROJECT MANAGER:	PRL
FIELD BOOK:	595
DRAFTED BY:	PRL
CHECKED BY:	

REV.	COMMENTS	DATE
1	EDIT CERT	12/14/14

REVISIONS

ALTA/ACSM LAND TITLE SURVEY

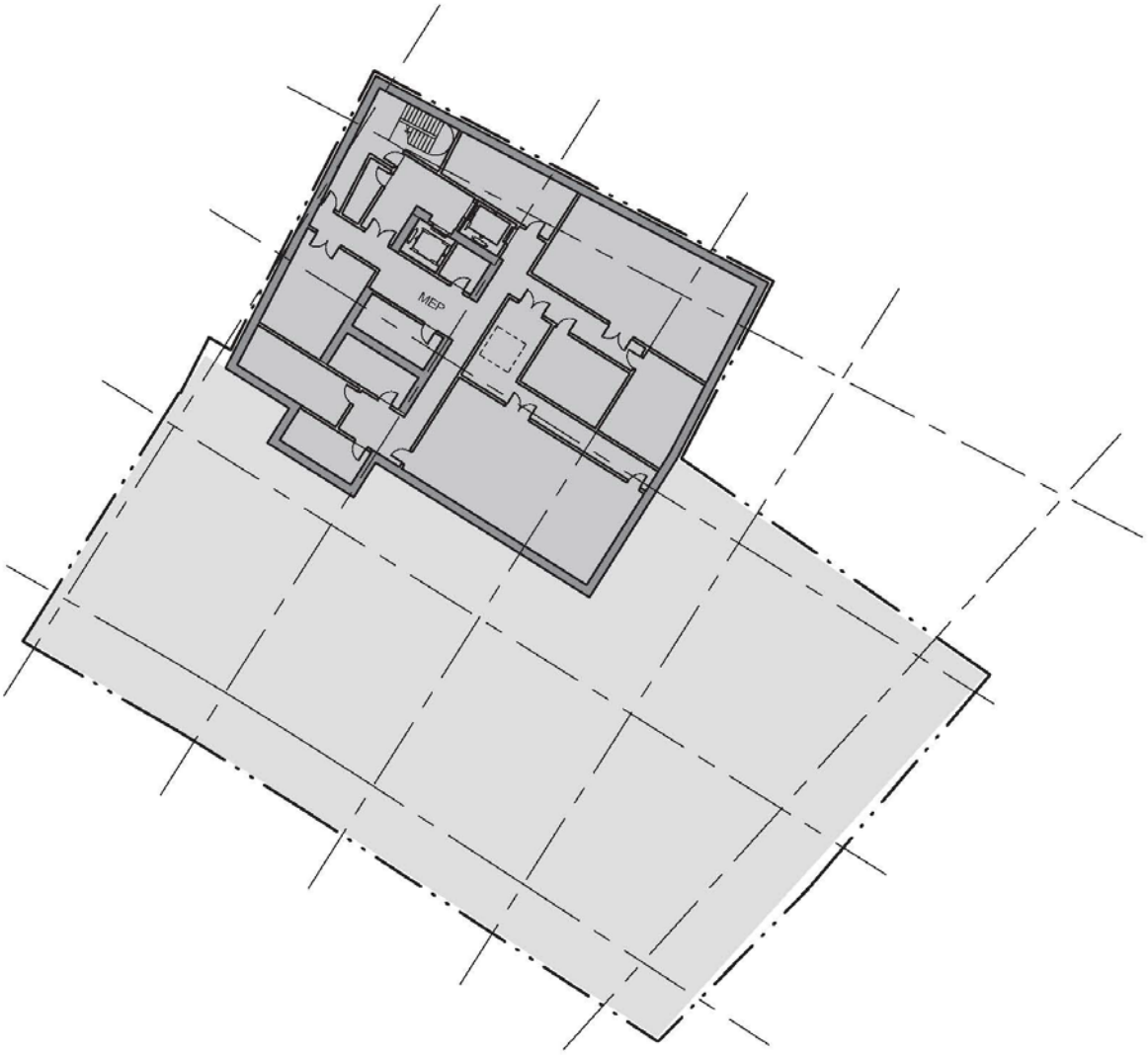
BROMFIELD STREET
BOSTON, MASSACHUSETTS

PREPARED FOR:
MIDWOOD MANAGEMENT CORPORATION
430 PARK AVENUE, SUITE 505, NEW YORK, NEW YORK 10022

SHEET: 1
EX-1
OF 2 REV.

Appendix B

Floor Plans, Sections, and Elevations



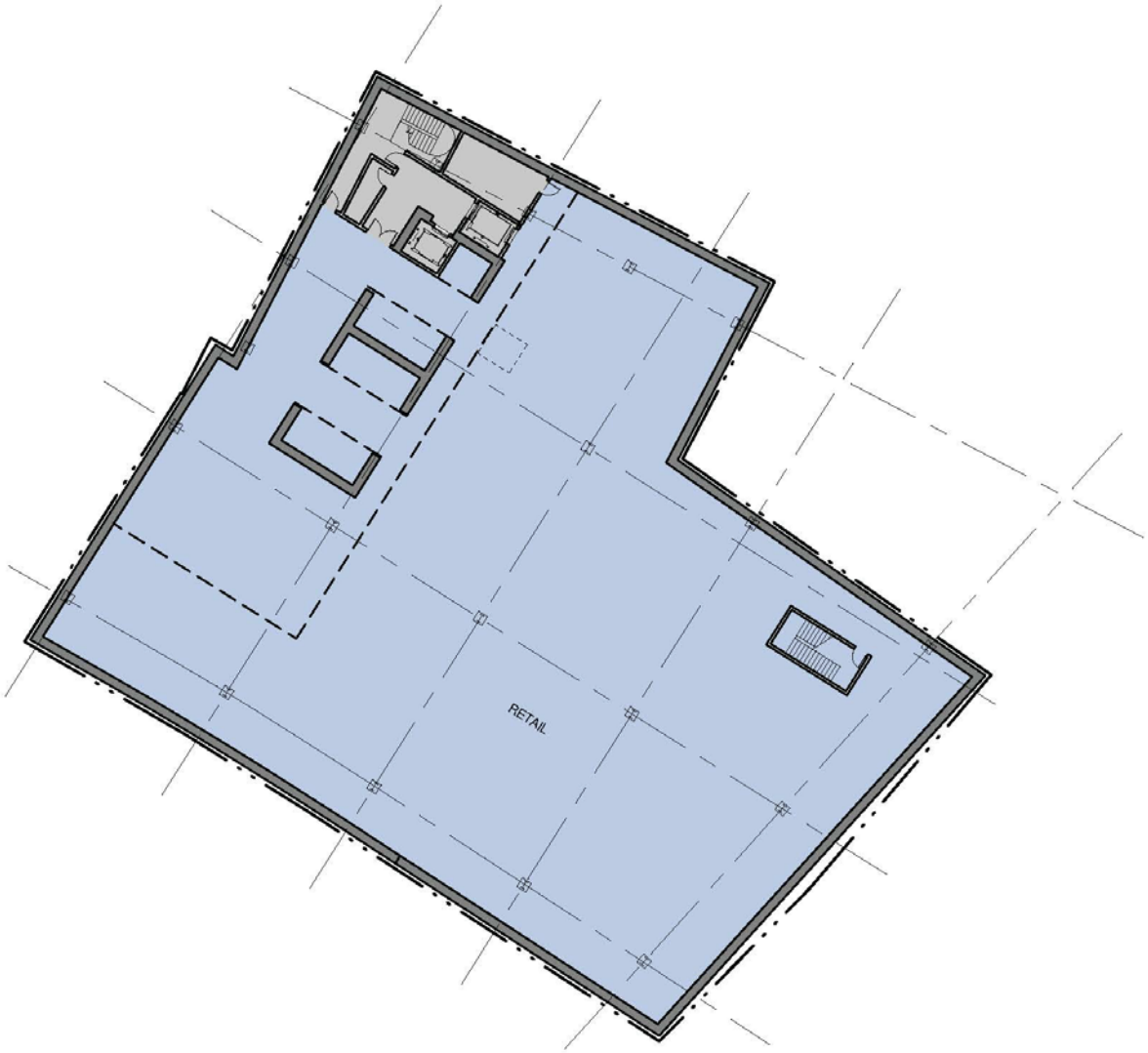
N

SERVICE/MEP

SCALE: 1/32"=1'

11-21 Bromfield Street Boston, Massachusetts

Level B2 Plan



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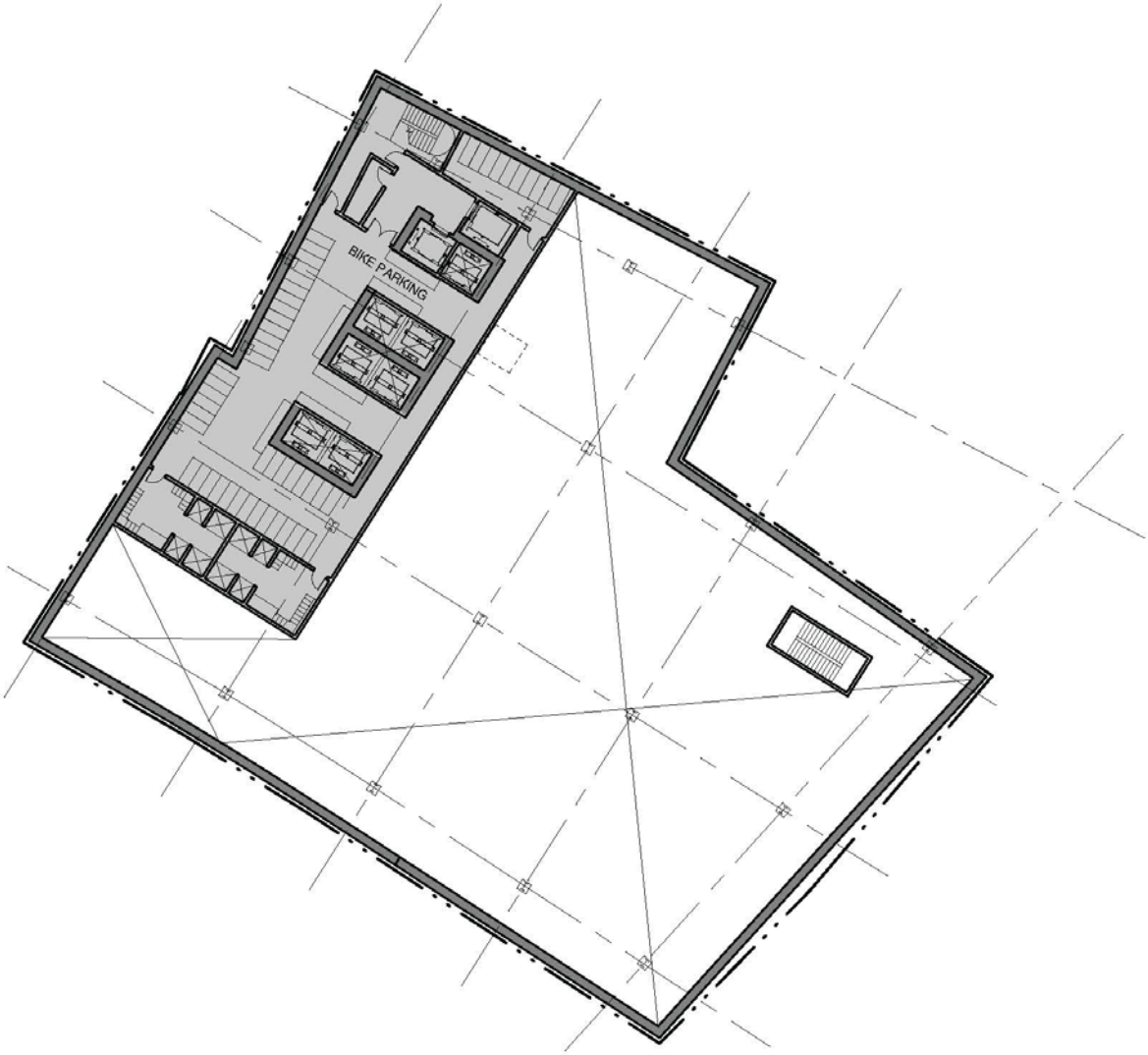
RETAIL SERVICE/MEP SCALE: 1/32"=1'

11-21 Bromfield Street Boston, Massachusetts

Level B1 Plan



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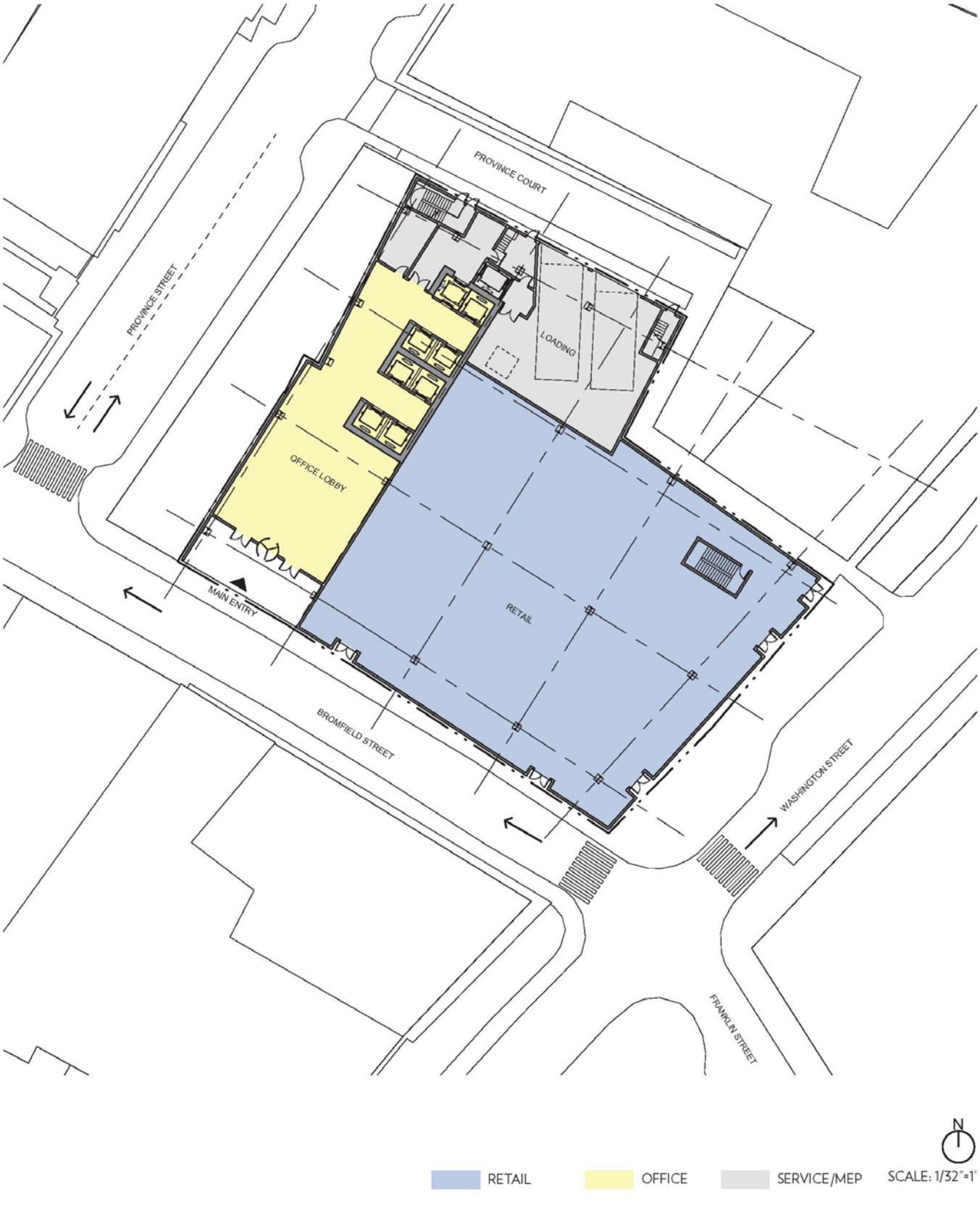
SERVICE/BIKE PARKING

SCALE: 1/32"=1'

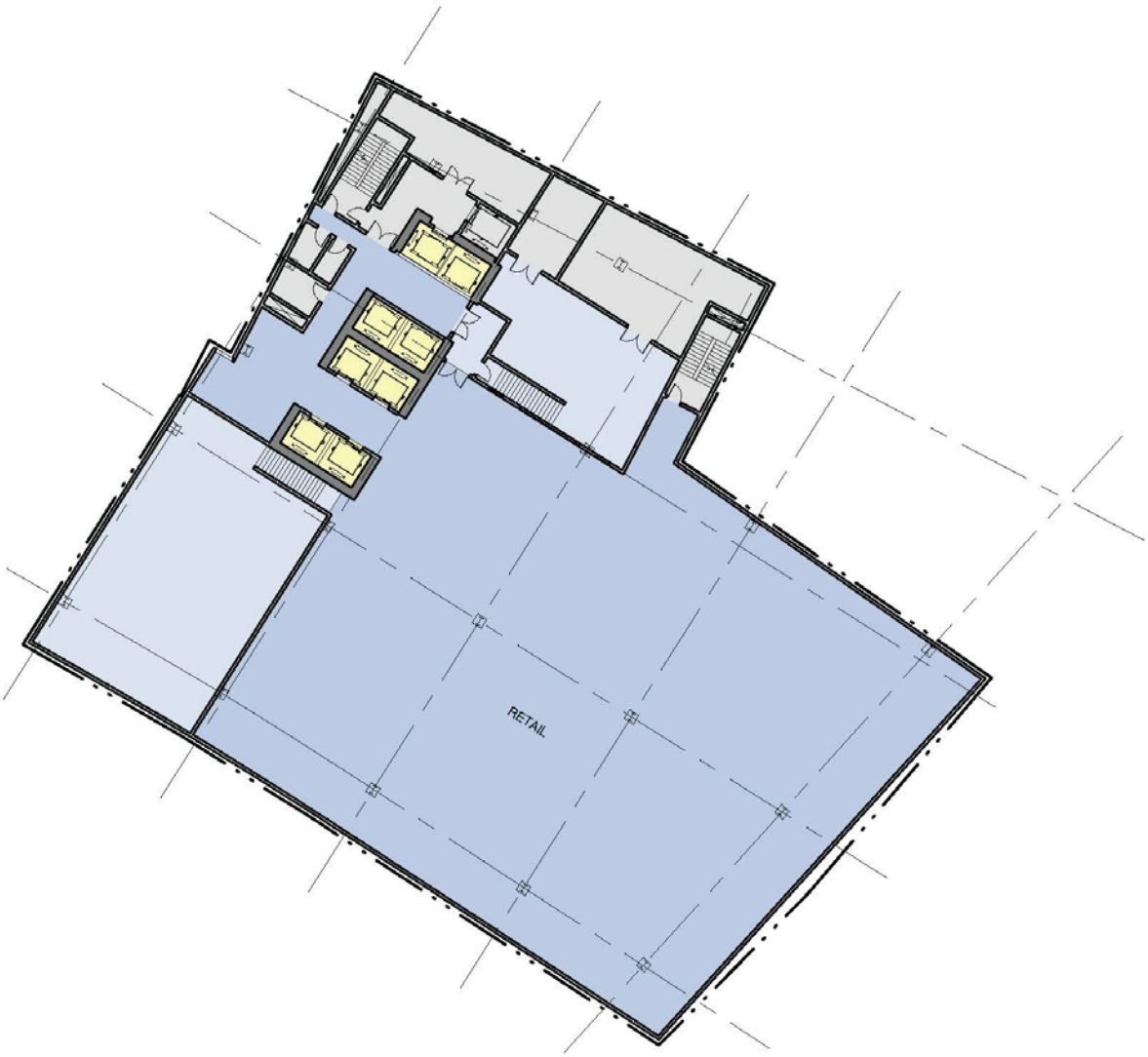
11-21 Bromfield Street Boston, Massachusetts

Level B1 Mezzanine Plan



11-21 Bromfield Street **Boston, Massachusetts**

Ground Level Plan



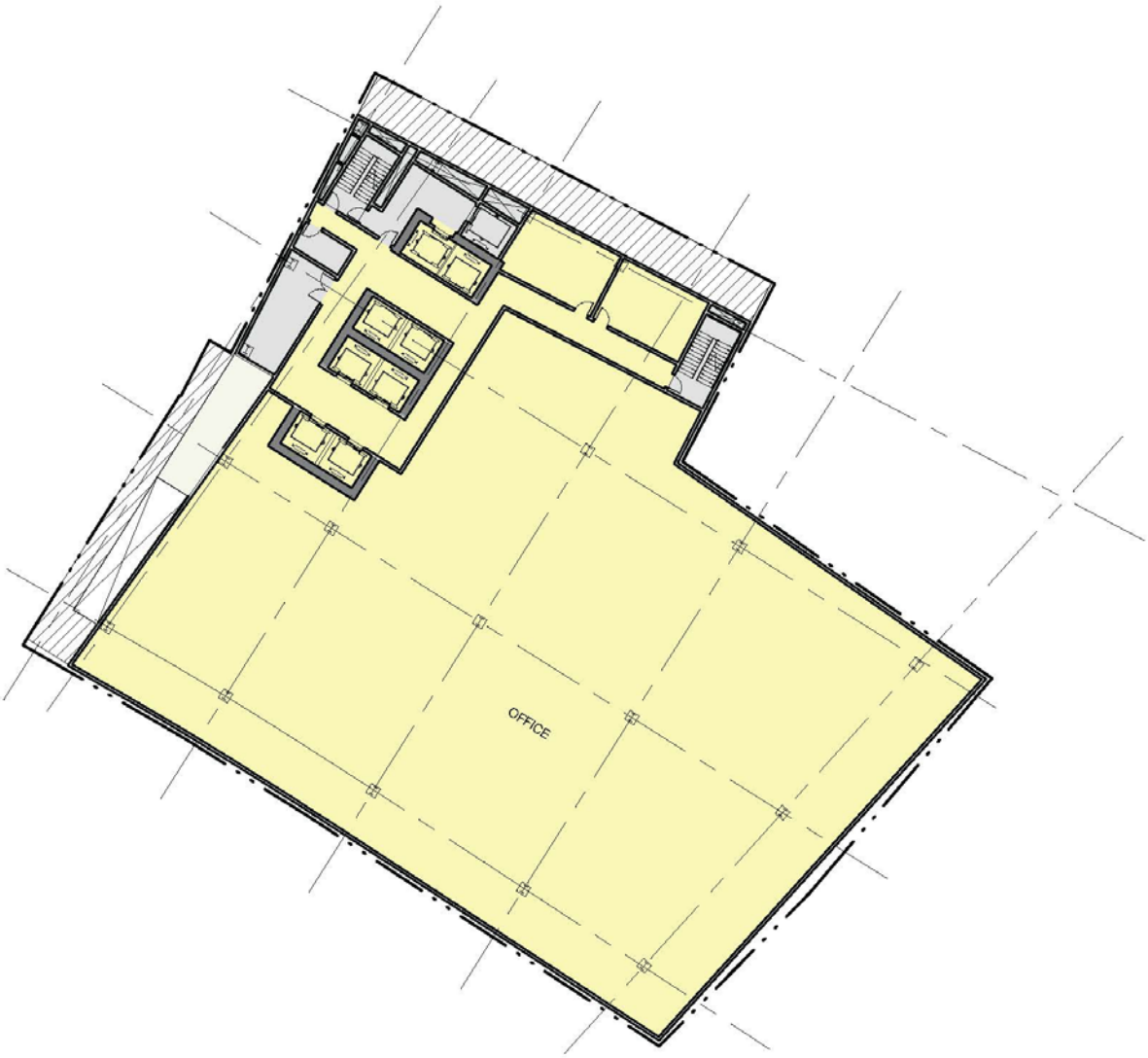
RETAIL OFFICE SERVICE/MEP

N

SCALE: 1/32"=1'

11-21 Bromfield Street Boston, Massachusetts

Level 2 Plan

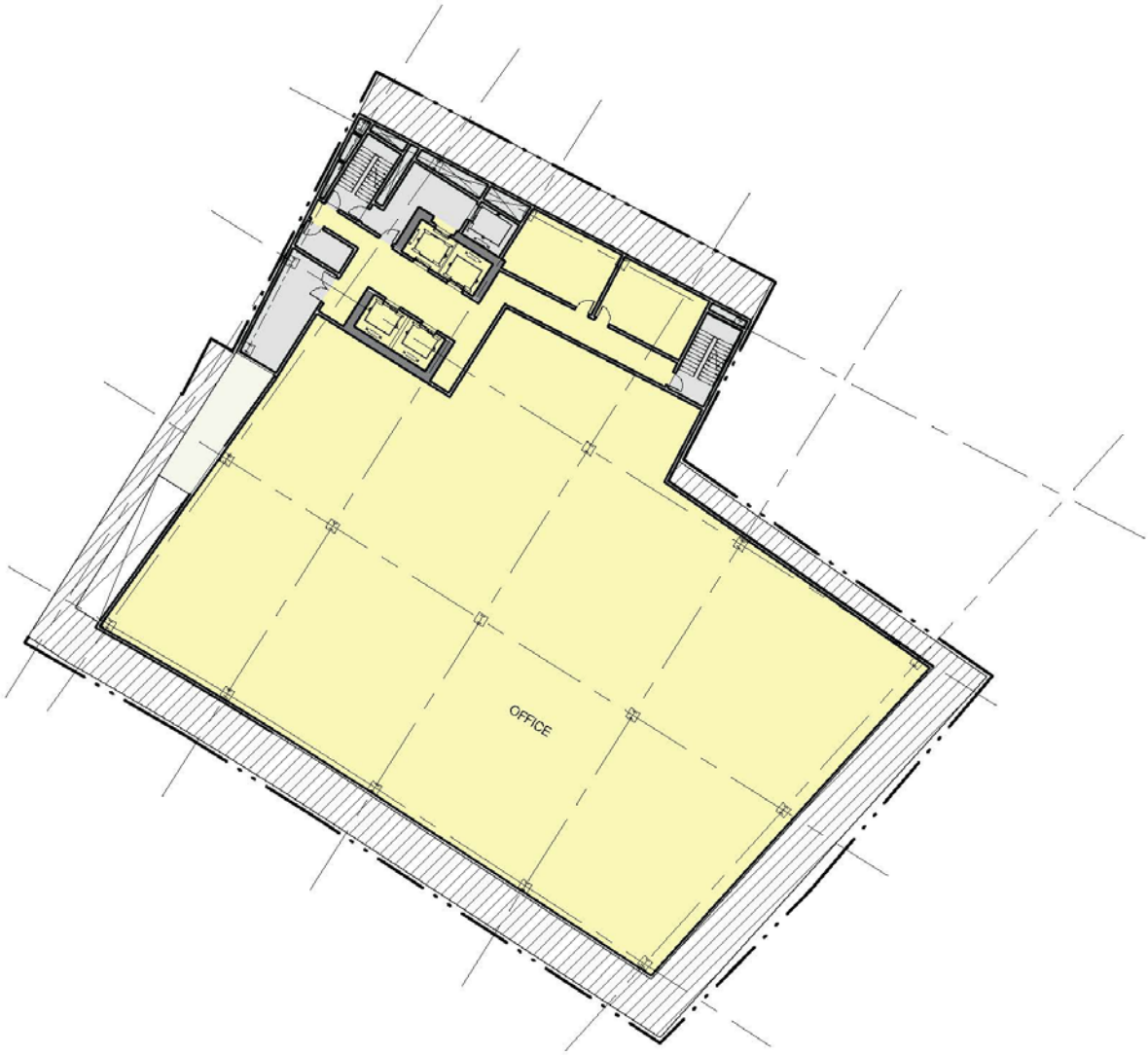


N

OFFICE SERVICE/MEP SCALE: 1/32"=1'

11-21 Bromfield Street Boston, Massachusetts

Typical Lower Office Floor Plan

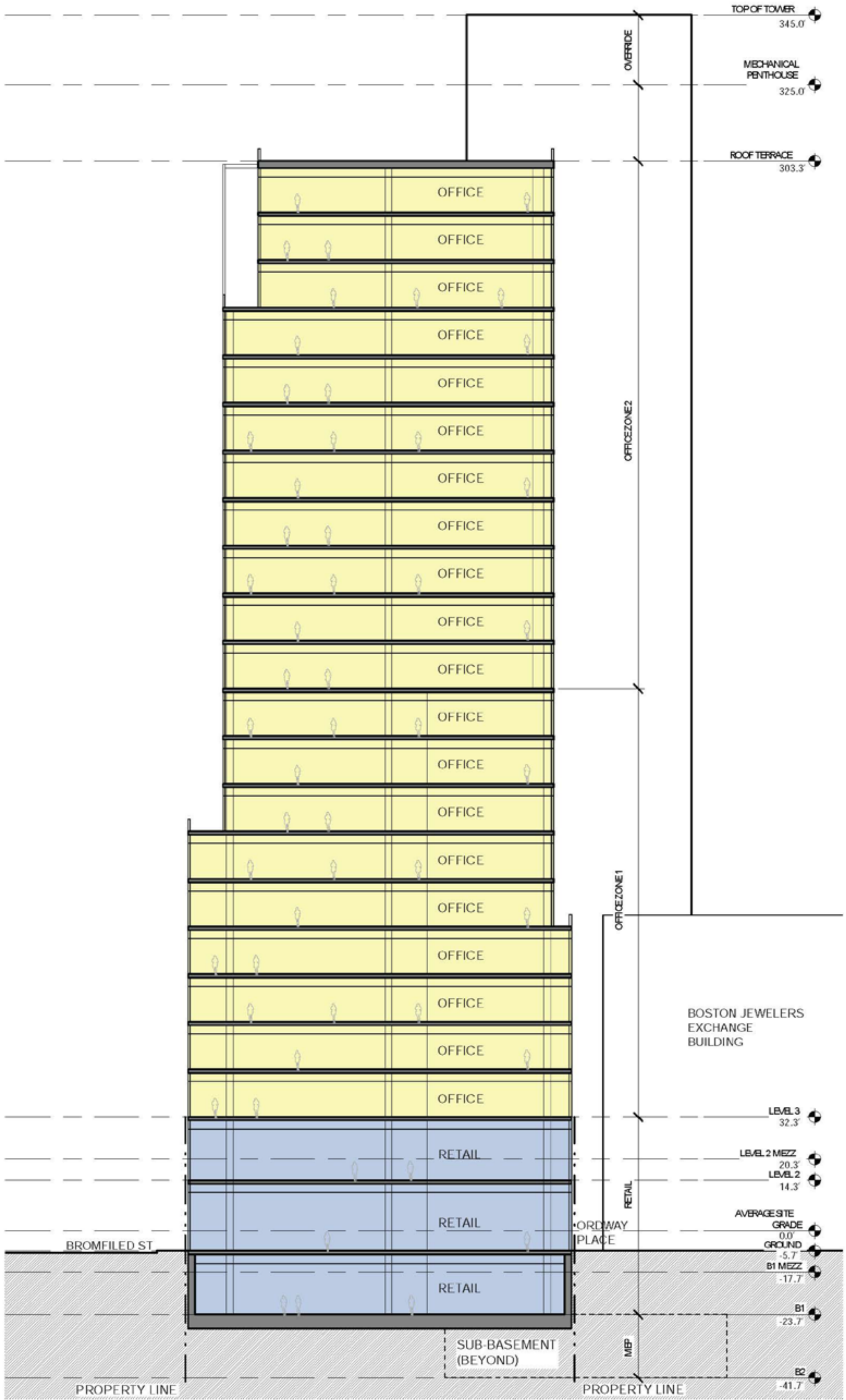


N

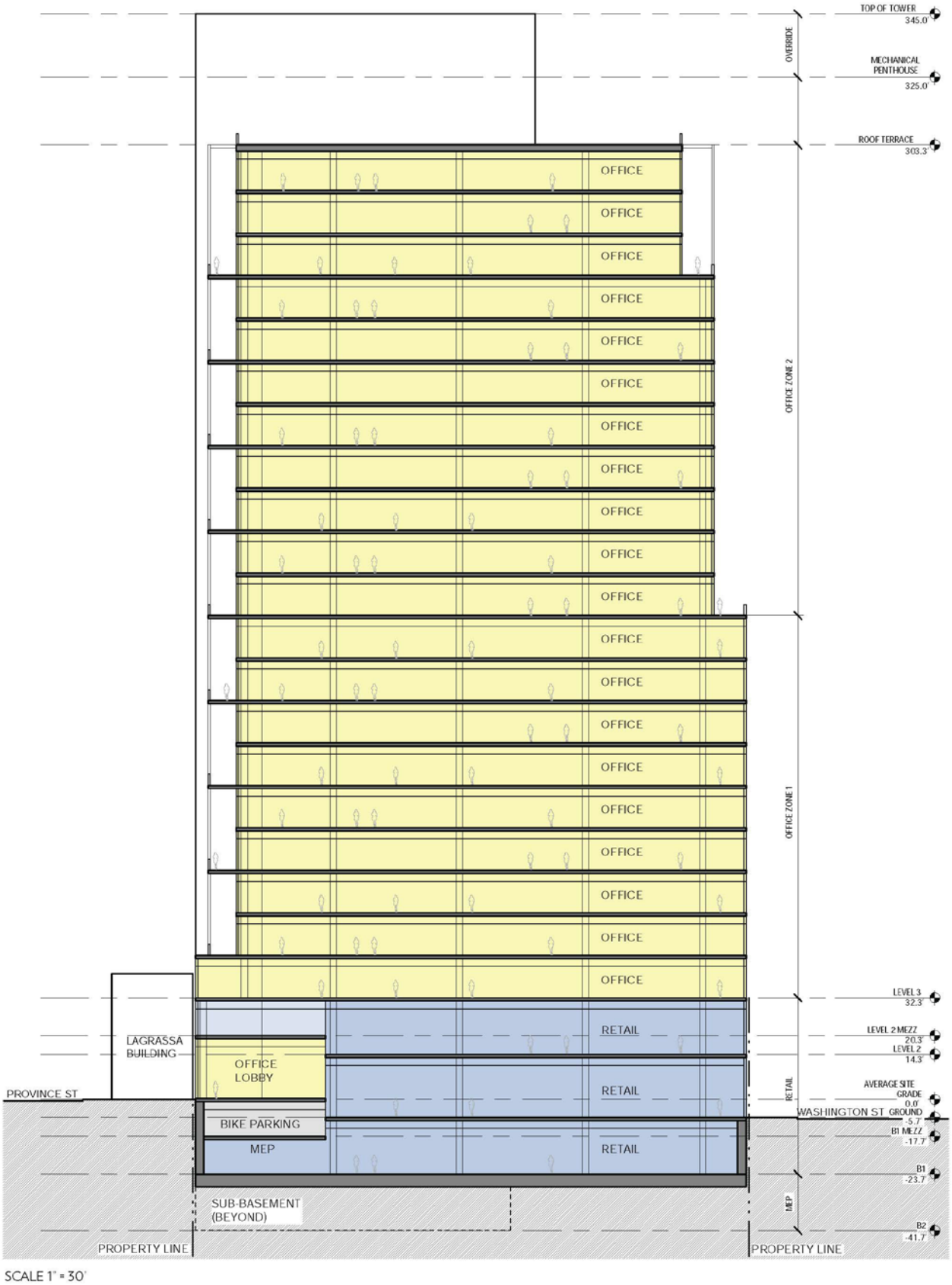
OFFICE SERVICE/MEP SCALE: 1/32"=1'

11-21 Bromfield Street Boston, Massachusetts

Typical Upper Office Floor Plan


TOP OF TOWER
345.0'
MECHANICAL PENTHOUSE
325.0'
ROOF TERRACE
303.3'
OVERRIDE
OFFICE ZONE 2
OFFICE ZONE 1
RETAIL
MEP
OFFICE
RETAIL
BOSTON JEWELERS EXCHANGE BUILDING
LEVEL 3
32.3'
LEVEL 2 MEZZ
20.3'
LEVEL 2
14.3'
AVERAGE SITE GRADE
0.0'
GROUND
-5.7'
B1 MEZZ
-17.7'
B1
-23.7'
B2
-41.7'
ORDWAY PLACE
BROMFILED ST
SUB-BASEMENT (BEYOND)
PROPERTY LINE
PROPERTY LINE

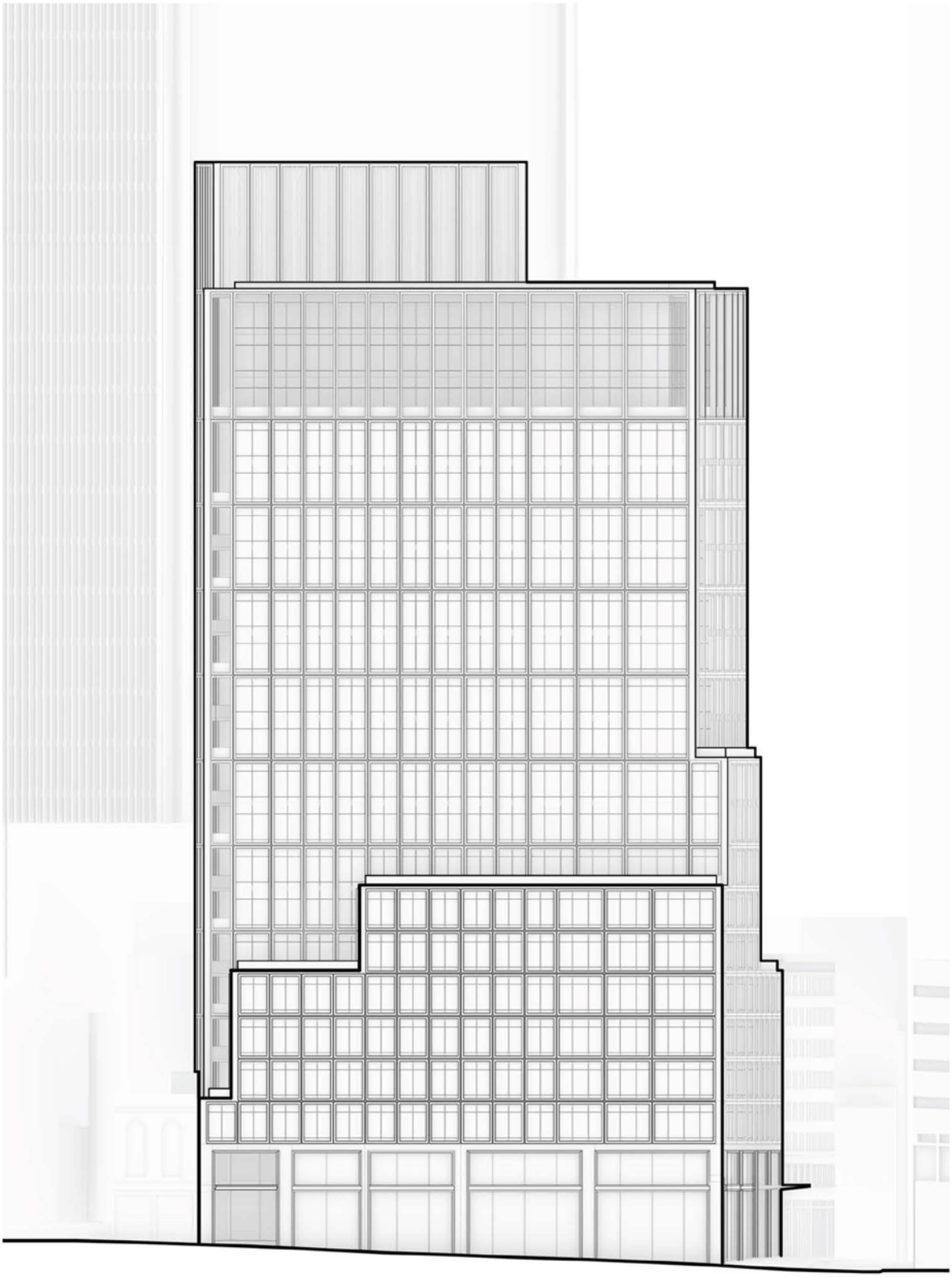
SCALE 1" = 30'



SCALE 1" = 30'

11-21 Bromfield Street Boston, Massachusetts

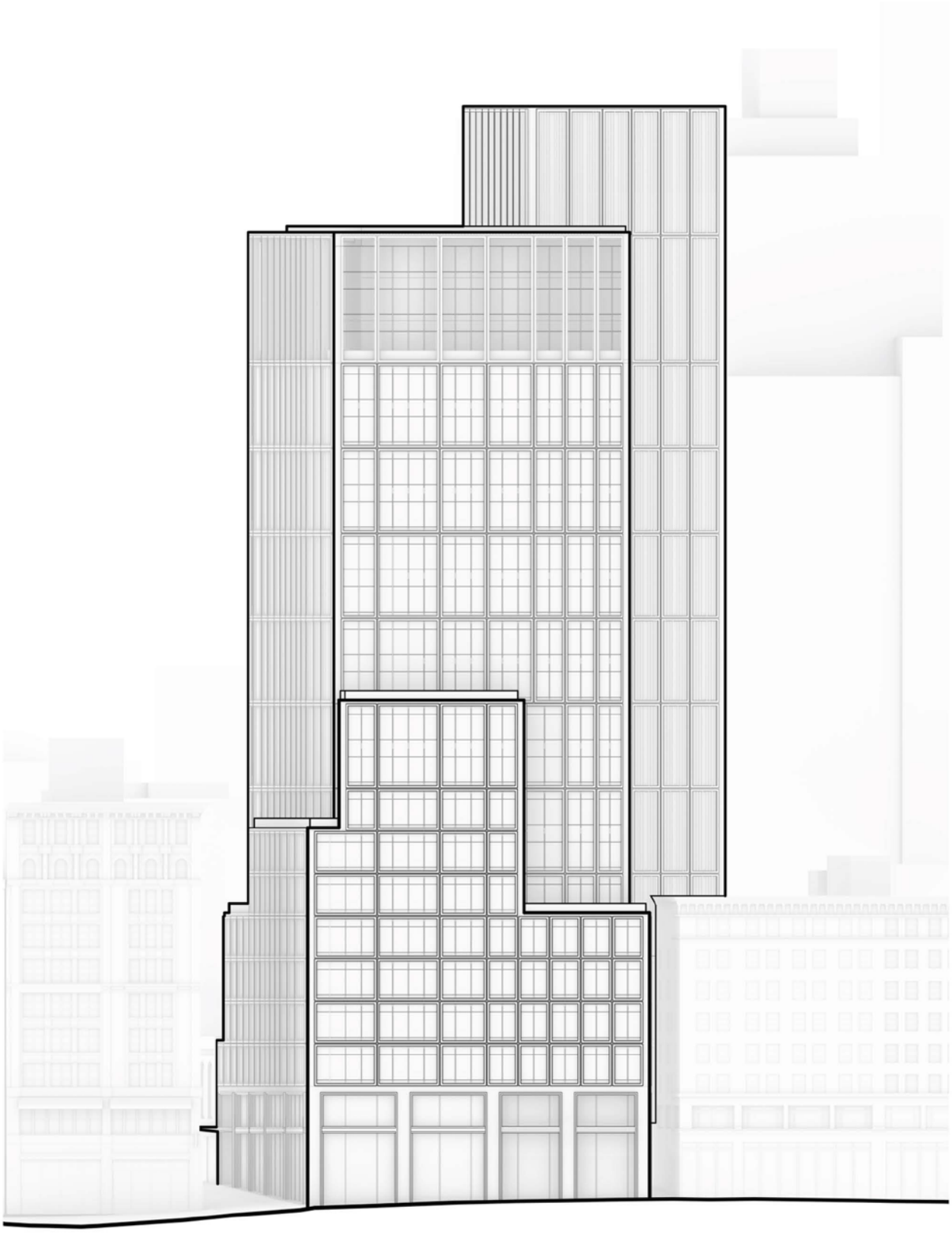
East/West Section



SCALE 1" = 30'

11-21 Bromfield Street Boston, Massachusetts

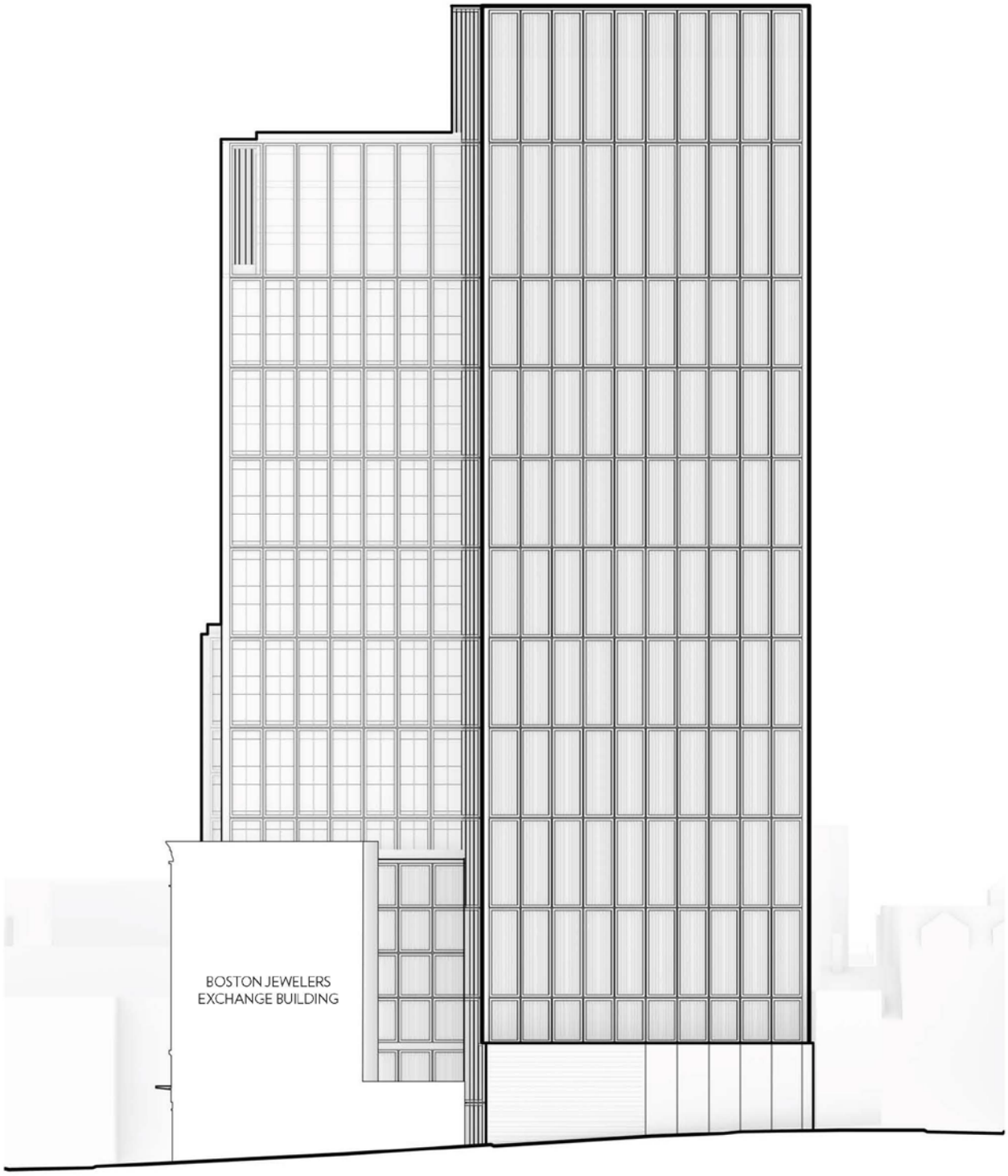
Bromfield Street Elevation



SCALE 1" = 30'

11-21 Bromfield Street Boston, Massachusetts

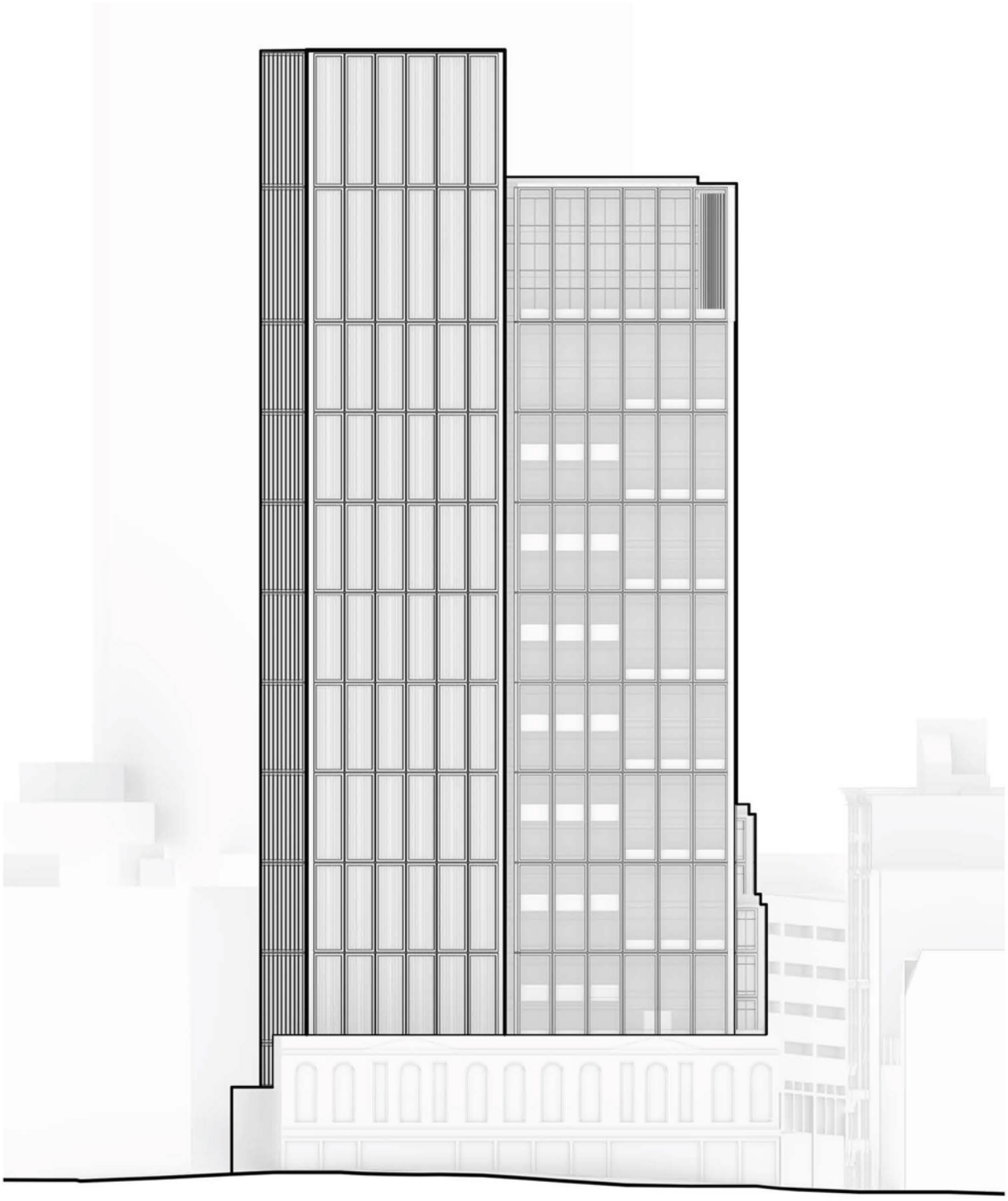
Washington Street Elevation



SCALE 1" = 30'

11-21 Bromfield Street Boston, Massachusetts

Province Court Elevation



SCALE 1" = 30'

11-21 Bromfield Street Boston, Massachusetts

Province Street Elevation

Appendix C

Transportation

Appendix C - Transportation

Peak Hour Vehicle, Pedestrian, and Bicycle Counts
Trip Generation - Proposed Program Synchro
Intersection Level of Service Reports

- Existing (2020) Condition
- No-Build (2027) Condition
- Build (2027) Condition

Transit Analysis

Peak Hour Vehicle, Pedestrian, and Bicycle Counts

Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 1

Groups Printed- Cars - Trucks

	Sidewalk From North			School St From East			Province St From South			School St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	5	0	62	12	79
07:15 AM	0	0	0	0	0	0	0	0	2	0	55	8	65
07:30 AM	0	0	0	0	0	0	0	0	2	0	66	13	81
07:45 AM	0	0	0	0	0	0	0	0	5	0	61	15	81
Total	0	0	0	0	0	0	0	0	14	0	244	48	306
08:00 AM	0	0	0	0	0	0	0	0	6	0	35	16	57
08:15 AM	0	0	0	0	0	0	0	0	3	0	33	9	45
08:30 AM	0	0	0	0	0	0	0	0	2	0	42	13	57
08:45 AM	0	0	0	0	0	0	0	0	5	0	42	14	61
Total	0	0	0	0	0	0	0	0	16	0	152	52	220
Grand Total	0	0	0	0	0	0	0	0	30	0	396	100	526
Apprch %	0	0	0	0	0	0	0	0	100	0	79.8	20.2	
Total %	0	0	0	0	0	0	0	0	5.7	0	75.3	19	
Cars	0	0	0	0	0	0	0	0	29	0	391	97	517
% Cars	0	0	0	0	0	0	0	0	96.7	0	98.7	97	98.3
Trucks	0	0	0	0	0	0	0	0	1	0	5	3	9
% Trucks	0	0	0	0	0	0	0	0	3.3	0	1.3	3	1.7

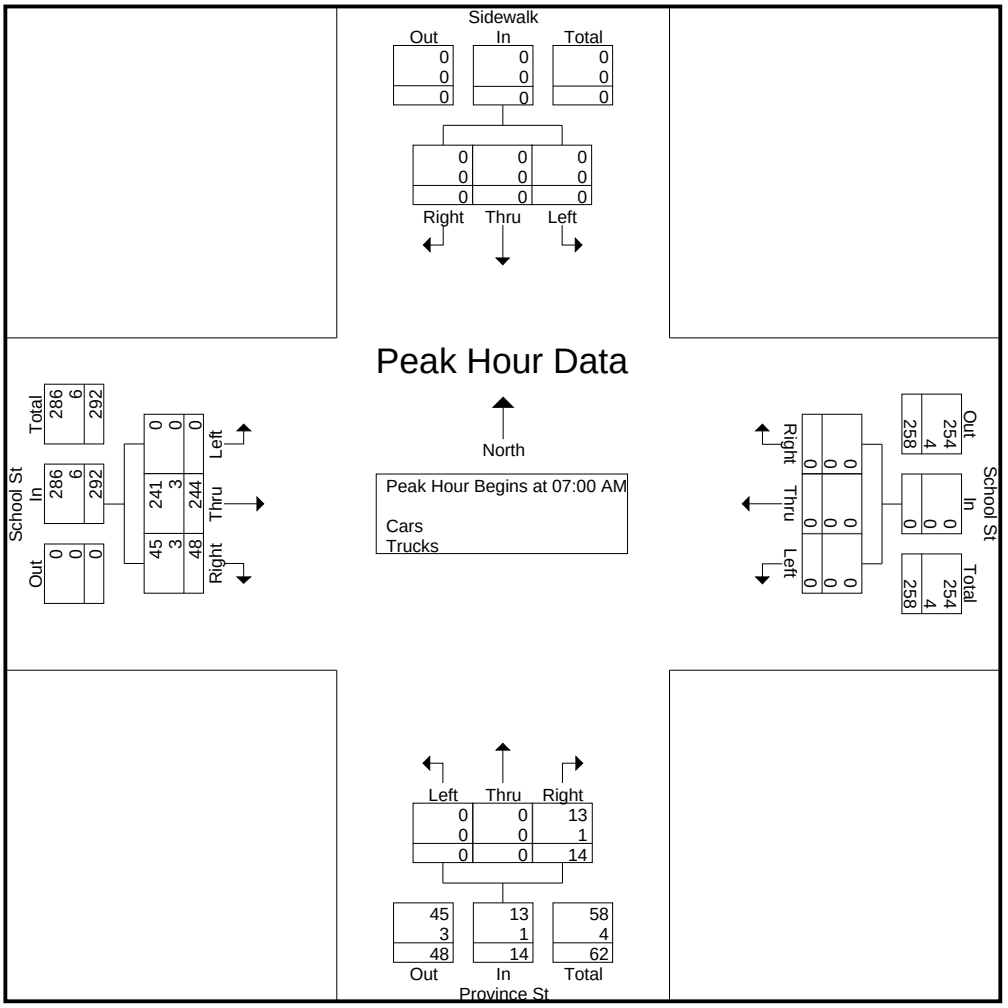
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 2

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	**5**	**5**	0	62	12	74	79
07:15 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	55	8	63	65
07:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	**66**	13	**79**	**81**
07:45 AM	0	0	0	0	0	0	0	0	0	0	5	5	0	61	**15**	76	81
Total Volume	0	0	0	0	0	0	0	0	0	0	14	14	0	244	48	292	306
% App. Total	0	0	0		0	0	0		0	0	100		0	83.6	16.4		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.700	.700	.000	.924	.800	.924	.944
Cars	0	0	0	0	0	0	0	0	0	0	13	13	0	241	45	286	299
% Cars	0	0	0	0	0	0	0	0	0	0	92.9	92.9	0	98.8	93.8	97.9	97.7
Trucks	0	0	0	0	0	0	0	0	0	0	1	1	0	3	3	6	7
% Trucks	0	0	0	0	0	0	0	0	0	0	7.1	7.1	0	1.2	6.3	2.1	2.3



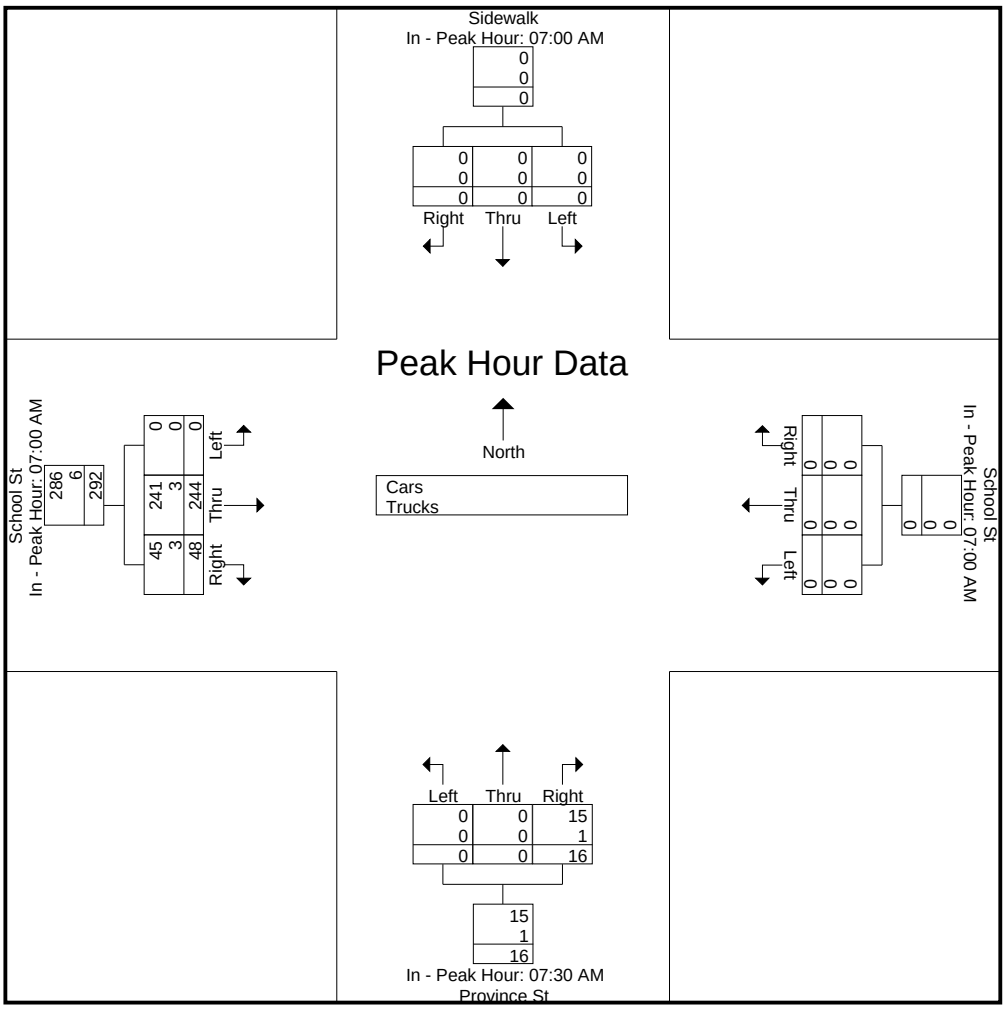
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 3

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:30 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	2	2	0	62	12	74	
+15 mins.	0	0	0	0	0	0	0	0	0	0	5	5	0	55	8	63	
+30 mins.	0	0	0	0	0	0	0	0	0	0	**6**	**6**	0	**66**	13	**79**	
+45 mins.	0	0	0	0	0	0	0	0	0	0	3	3	0	61	**15**	76	
Total Volume	0	0	0	0	0	0	0	0	0	0	16	16	0	244	48	292	
% App. Total	0	0	0		0	0	0		0	0	100		0	83.6	16.4		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.667	.667	.000	.924	.800	.924	
Cars	0	0	0	0	0	0	0	0	0	0	15	15	0	241	45	286	
% Cars	0	0	0	0	0	0	0	0	0	0	93.8	93.8	0	98.8	93.8	97.9	
Trucks	0	0	0	0	0	0	0	0	0	0	1	1	0	3	3	6	
% Trucks	0	0	0	0	0	0	0	0	0	0	6.2	6.2	0	1.2	6.2	2.1	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016

Groups Printed- Cars

	Sidewalk From North			School St From East			Province St From South			School St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	5	0	62	10	77
07:15 AM	0	0	0	0	0	0	0	0	2	0	54	7	63
07:30 AM	0	0	0	0	0	0	0	0	2	0	65	13	80
07:45 AM	0	0	0	0	0	0	0	0	4	0	60	15	79
Total	0	0	0	0	0	0	0	0	13	0	241	45	299
08:00 AM	0	0	0	0	0	0	0	0	6	0	35	16	57
08:15 AM	0	0	0	0	0	0	0	0	3	0	32	9	44
08:30 AM	0	0	0	0	0	0	0	0	2	0	41	13	56
08:45 AM	0	0	0	0	0	0	0	0	5	0	42	14	61
Total	0	0	0	0	0	0	0	0	16	0	150	52	218
Grand Total	0	0	0	0	0	0	0	0	29	0	391	97	517
Apprch %	0	0	0	0	0	0	0	0	100	0	80.1	19.9	
Total %	0	0	0	0	0	0	0	0	5.6	0	75.6	18.8	

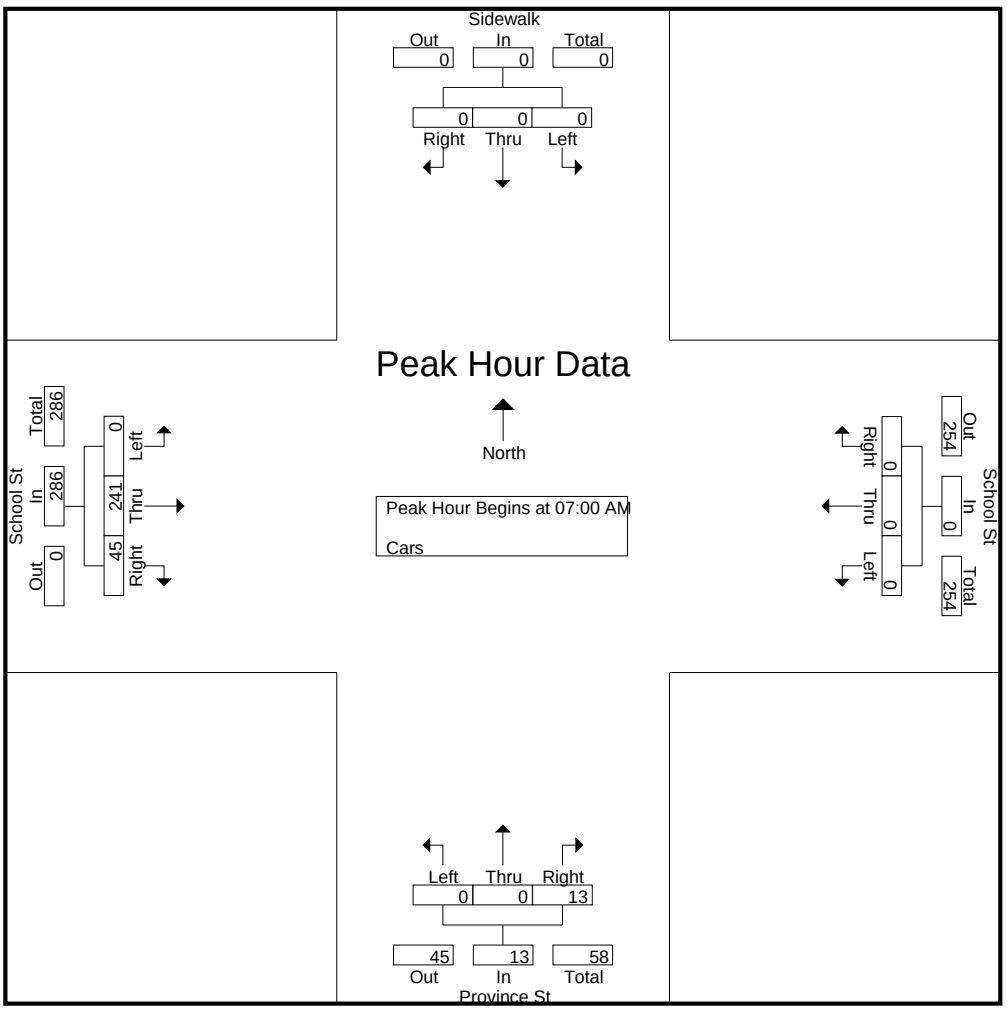
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 5

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	**5**	**5**	0	62	10	72	77
07:15 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	54	7	61	63
07:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	**65**	13	**78**	**80**
07:45 AM	0	0	0	0	0	0	0	0	0	0	4	4	0	60	**15**	75	79
Total Volume	0	0	0	0	0	0	0	0	0	0	13	13	0	241	45	286	299
% App. Total	0	0	0		0	0	0		0	0	100		0	84.3	15.7		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.650	.650	.000	.927	.750	.917	.934



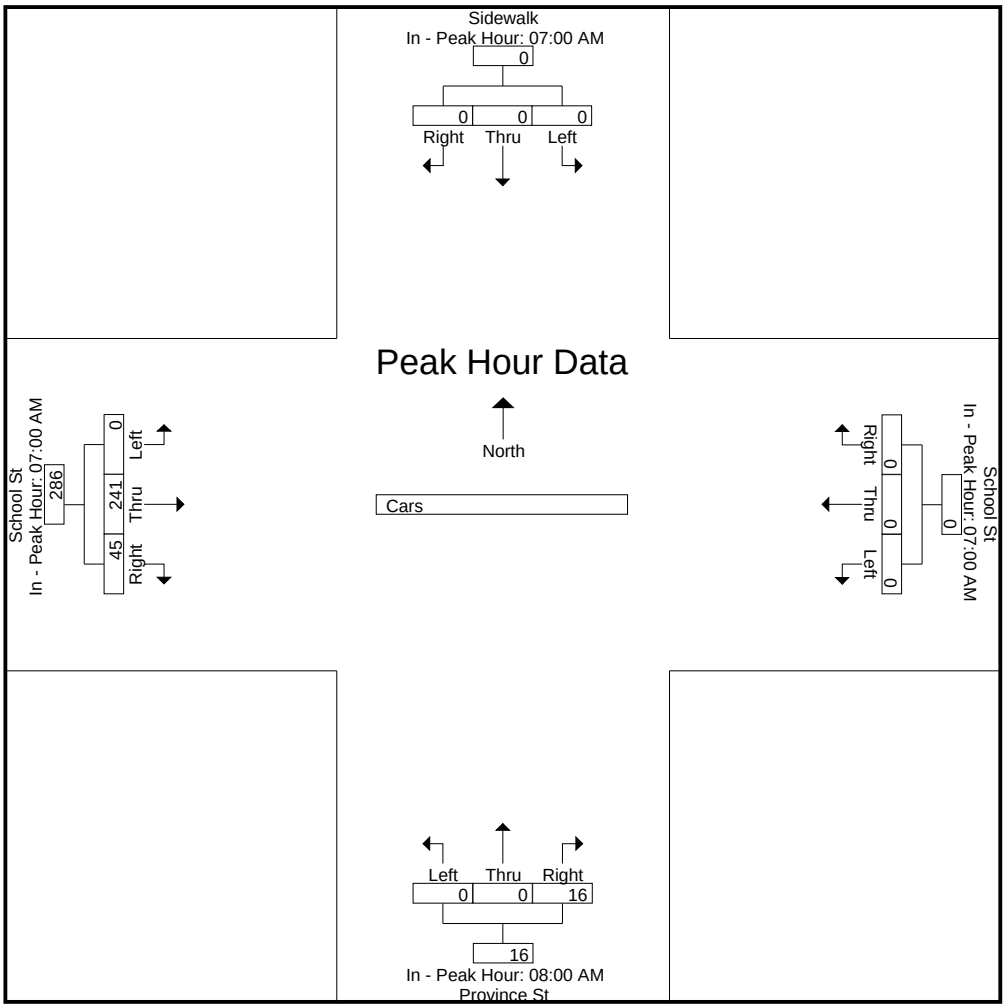
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 6

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				08:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	**6**	**6**	0	62	10	72	
+15 mins.	0	0	0	0	0	0	0	0	0	0	3	3	0	54	7	61	
+30 mins.	0	0	0	0	0	0	0	0	0	0	2	2	0	**65**	13	**78**	
+45 mins.	0	0	0	0	0	0	0	0	0	0	5	5	0	60	**15**	75	
Total Volume	0	0	0	0	0	0	0	0	0	0	16	16	0	241	45	286	
% App. Total	0	0	0		0	0	0		0	0	100		0	84.3	15.7		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.667	.667	.000	.927	.750	.917	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 7

Groups Printed- Trucks

	Sidewalk From North			School St From East			Province St From South			School St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
07:45 AM	0	0	0	0	0	0	0	0	1	0	1	0	2
Total	0	0	0	0	0	0	0	0	1	0	3	3	7
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	2	0	2
Grand Total	0	0	0	0	0	0	0	0	1	0	5	3	9
Apprch %	0	0	0	0	0	0	0	0	100	0	62.5	37.5	
Total %	0	0	0	0	0	0	0	0	11.1	0	55.6	33.3	

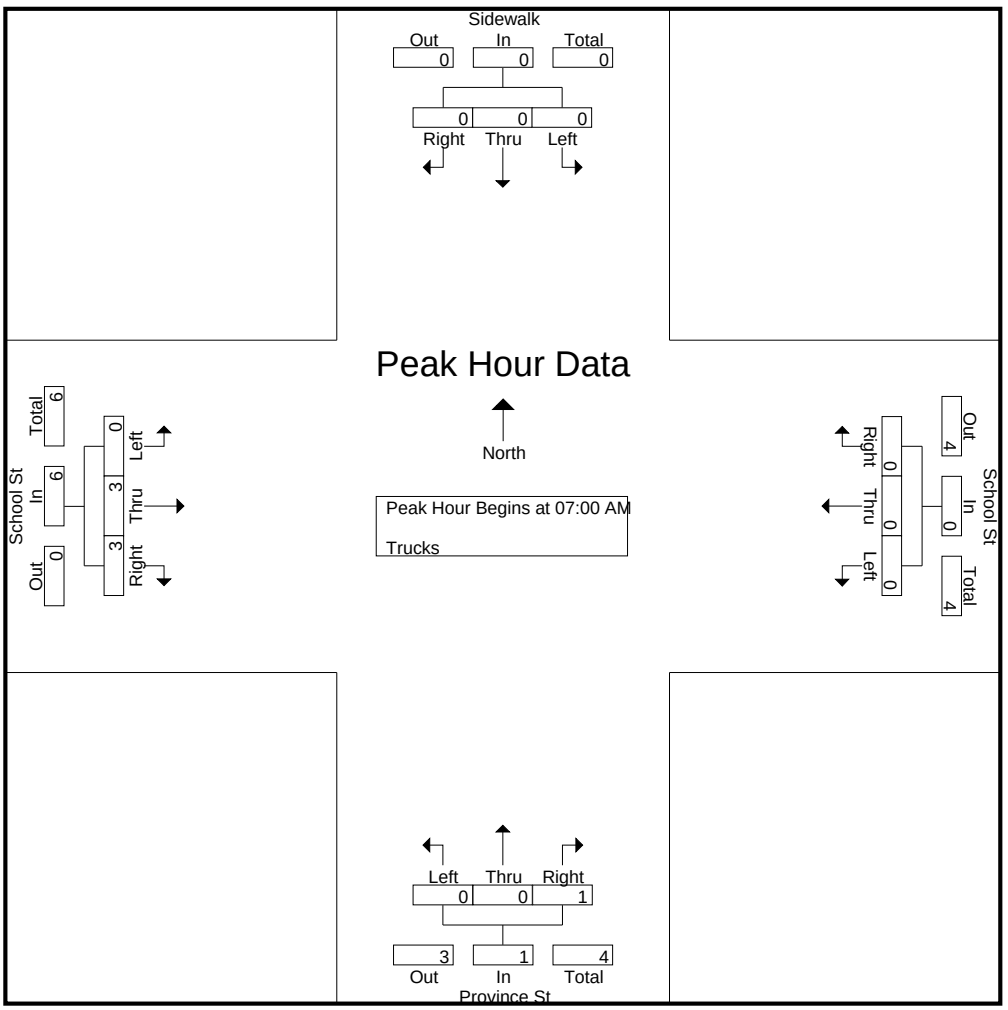
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 8

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	**2**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	1	2	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	1	0	1	2
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	3	3	6	7
% App. Total	0	0	0		0	0	0		0	0	100		0	50	50		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.750	.375	.750	.875



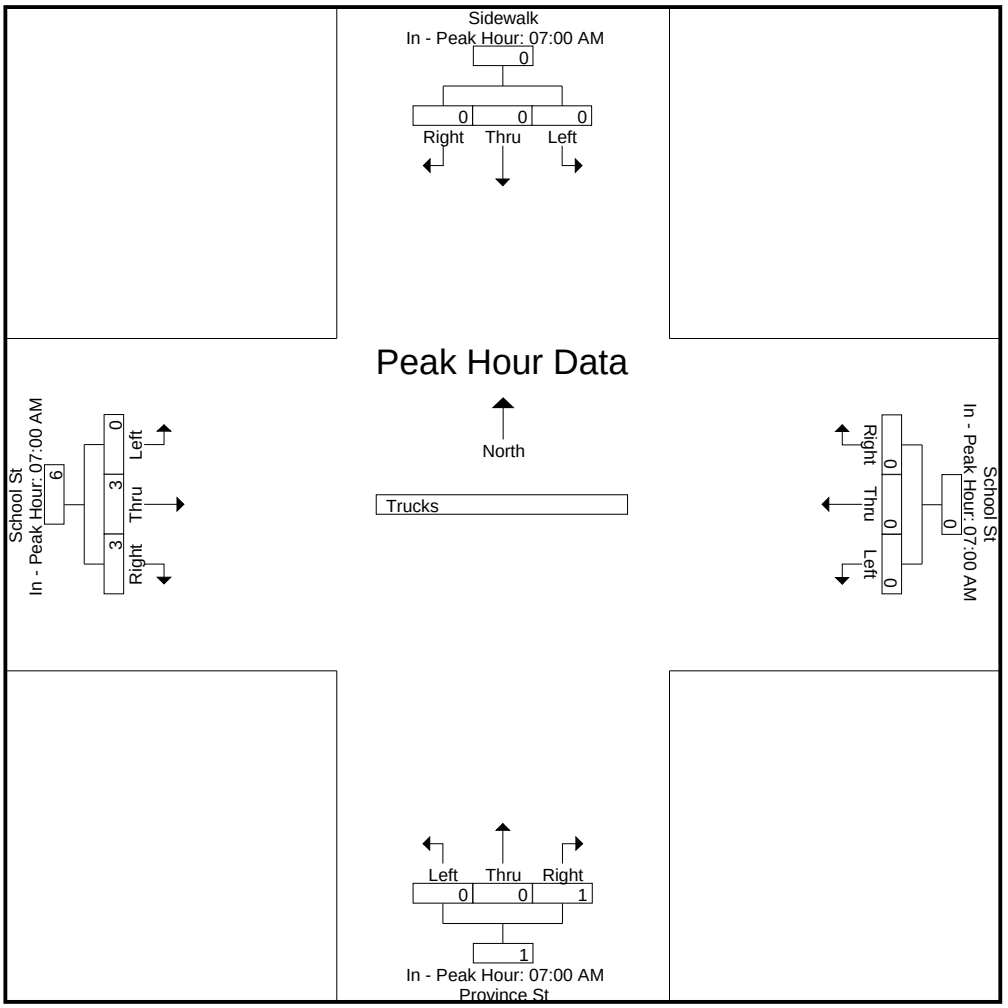
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 9

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	1	2	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
+45 mins.	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	1	0	1	
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	3	3	6	
% App. Total	0	0	0		0	0	0		0	0	100		0	50	50		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.750	.375	.750	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 10

Groups Printed- Bikes Peds

	Sidewalk From North				School St From East				Province St From South				School St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	48	0	0	0	30	0	0	0	63	0	1	0	16	157	1	158
07:15 AM	0	0	0	82	0	0	0	50	0	0	0	91	0	6	0	19	242	6	248
07:30 AM	0	0	0	106	0	1	0	40	0	0	0	100	0	7	1	21	267	9	276
07:45 AM	0	0	0	138	0	0	0	46	0	0	4	156	0	7	1	26	366	12	378
Total	0	0	0	374	0	1	0	166	0	0	4	410	0	21	2	82	1032	28	1060
08:00 AM	0	0	0	168	0	0	0	51	0	0	0	141	0	9	1	28	388	10	398
08:15 AM	0	0	0	244	1	0	0	56	0	0	0	178	0	9	0	37	515	10	525
08:30 AM	0	0	0	207	0	0	0	64	0	0	1	251	0	17	1	35	557	19	576
08:45 AM	0	0	0	242	0	1	0	63	0	0	1	225	0	19	1	27	557	22	579
Total	0	0	0	861	1	1	0	234	0	0	2	795	0	54	3	127	2017	61	2078
Grand Total	0	0	0	1235	1	2	0	400	0	0	6	1205	0	75	5	209	3049	89	3138
Apprch %	0	0	0		33.3	66.7	0		0	0	100		0	93.8	6.2				
Total %	0	0	0		1.1	2.2	0		0	0	6.7		0	84.3	5.6		97.2	2.8	

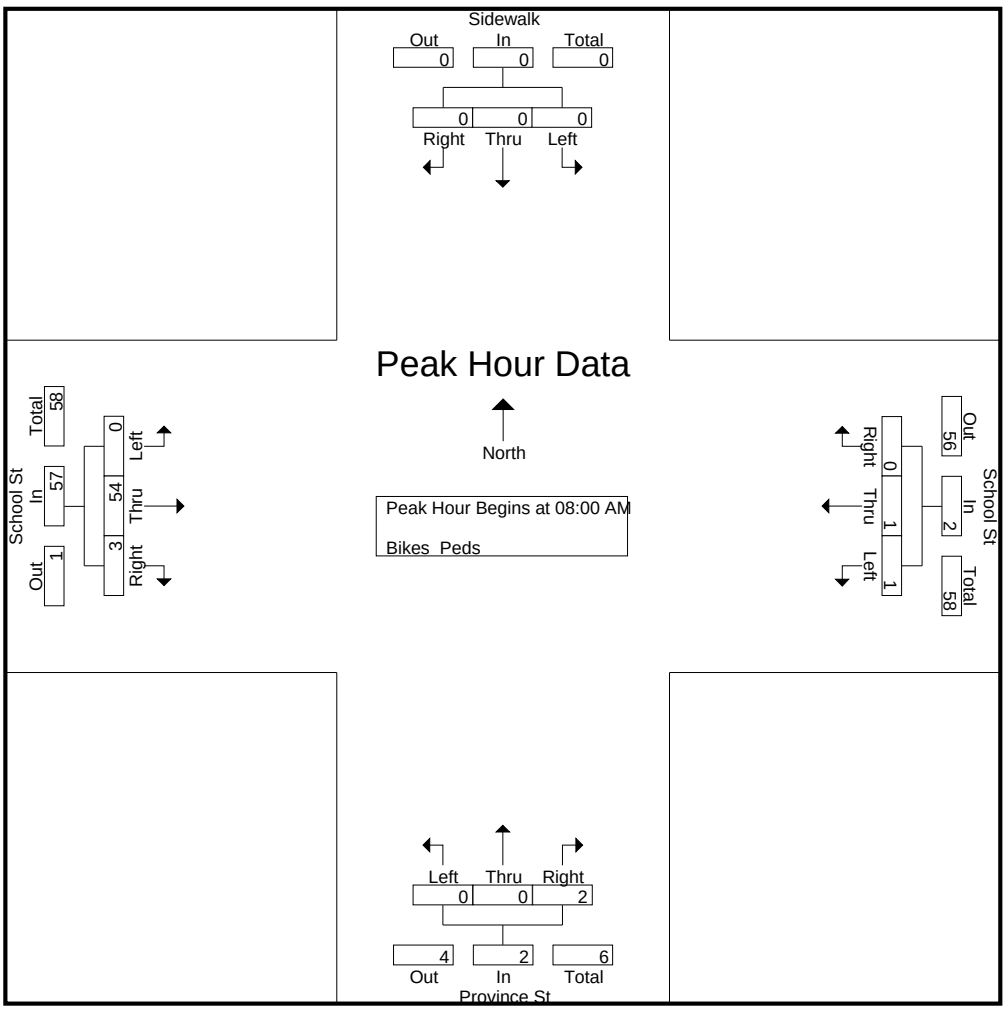
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 11

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	9	**1**	10	10
08:15 AM	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	9	0	9	10
08:30 AM	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	17	1	18	19
08:45 AM	0	0	0	0	0	**1**	0	1	0	0	1	1	0	**19**	1	**20**	**22**
Total Volume	0	0	0	0	1	1	0	2	0	0	2	2	0	54	3	57	61
% App. Total	0	0	0		50	50	0		0	0	100		0	94.7	5.3		
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.000	.000	.500	.500	.000	.711	.750	.713	.693



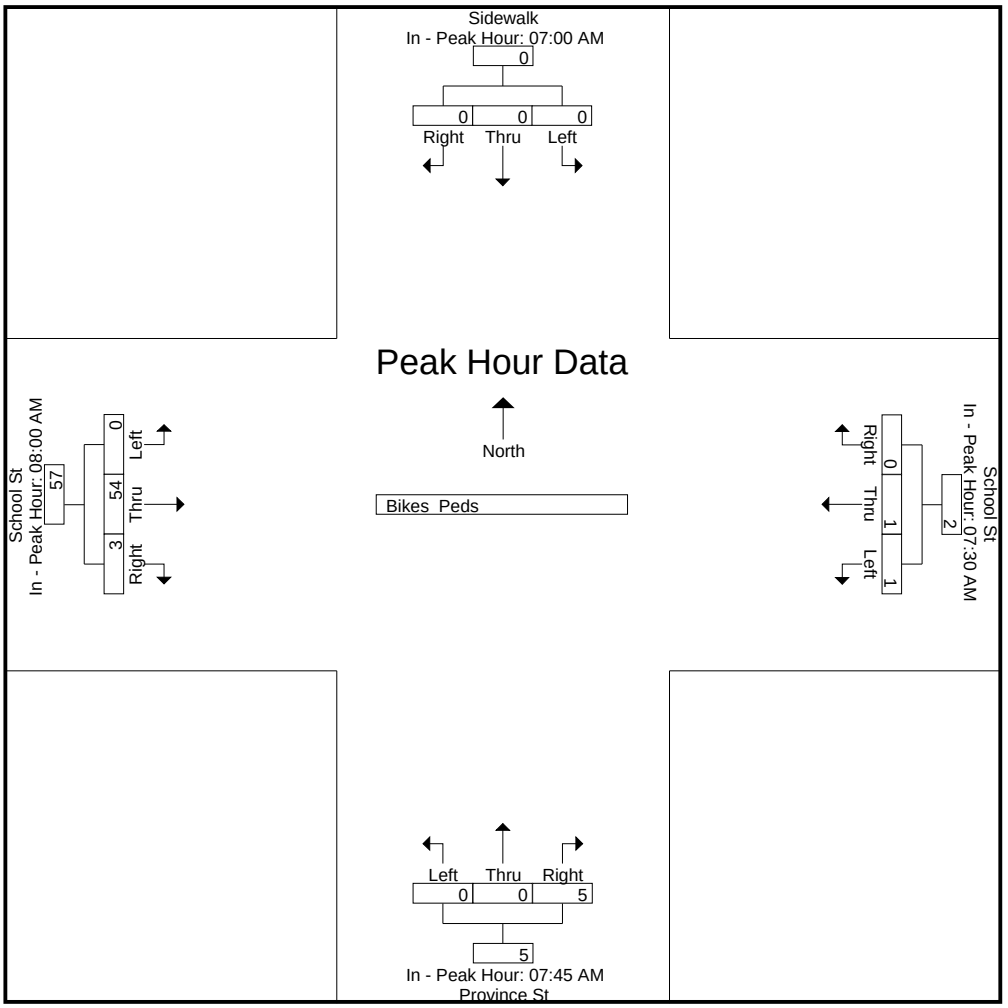
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 12

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
07:00 AM					07:30 AM				07:45 AM				08:00 AM				
+0 mins.	0	0	0	0	0	**1**	0	**1**	0	0	**4**	**4**	0	9	**1**	10	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	17	1	18	
+45 mins.	0	0	0	0	**1**	0	0	1	0	0	1	1	0	**19**	1	**20**	
Total Volume	0	0	0	0	1	1	0	2	0	0	5	5	0	54	3	57	
% App. Total	0	0	0		50	50	0		0	0	100		0	94.7	5.3		
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.000	.000	.313	.313	.000	.711	.750	.713	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 1

Groups Printed- Cars - Trucks

	Sidewalk From North			School St From East			Province St From South			School St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	7	0	37	15	59
04:15 PM	0	0	0	0	0	0	0	0	4	0	37	29	70
04:30 PM	0	0	0	0	0	0	0	0	10	0	39	10	59
04:45 PM	0	0	0	0	0	0	0	0	4	0	32	7	43
Total	0	0	0	0	0	0	0	0	25	0	145	61	231
05:00 PM	0	0	0	0	0	0	0	0	2	0	42	10	54
05:15 PM	0	0	0	0	0	0	0	0	3	0	32	16	51
05:30 PM	0	0	0	0	0	0	0	0	5	0	44	16	65
05:45 PM	0	0	0	0	0	0	0	0	4	0	48	20	72
Total	0	0	0	0	0	0	0	0	14	0	166	62	242
Grand Total	0	0	0	0	0	0	0	0	39	0	311	123	473
Apprch %	0	0	0	0	0	0	0	0	100	0	71.7	28.3	
Total %	0	0	0	0	0	0	0	0	8.2	0	65.8	26	
Cars	0	0	0	0	0	0	0	0	39	0	302	123	464
% Cars	0	0	0	0	0	0	0	0	100	0	97.1	100	98.1
Trucks	0	0	0	0	0	0	0	0	0	0	9	0	9
% Trucks	0	0	0	0	0	0	0	0	0	0	2.9	0	1.9

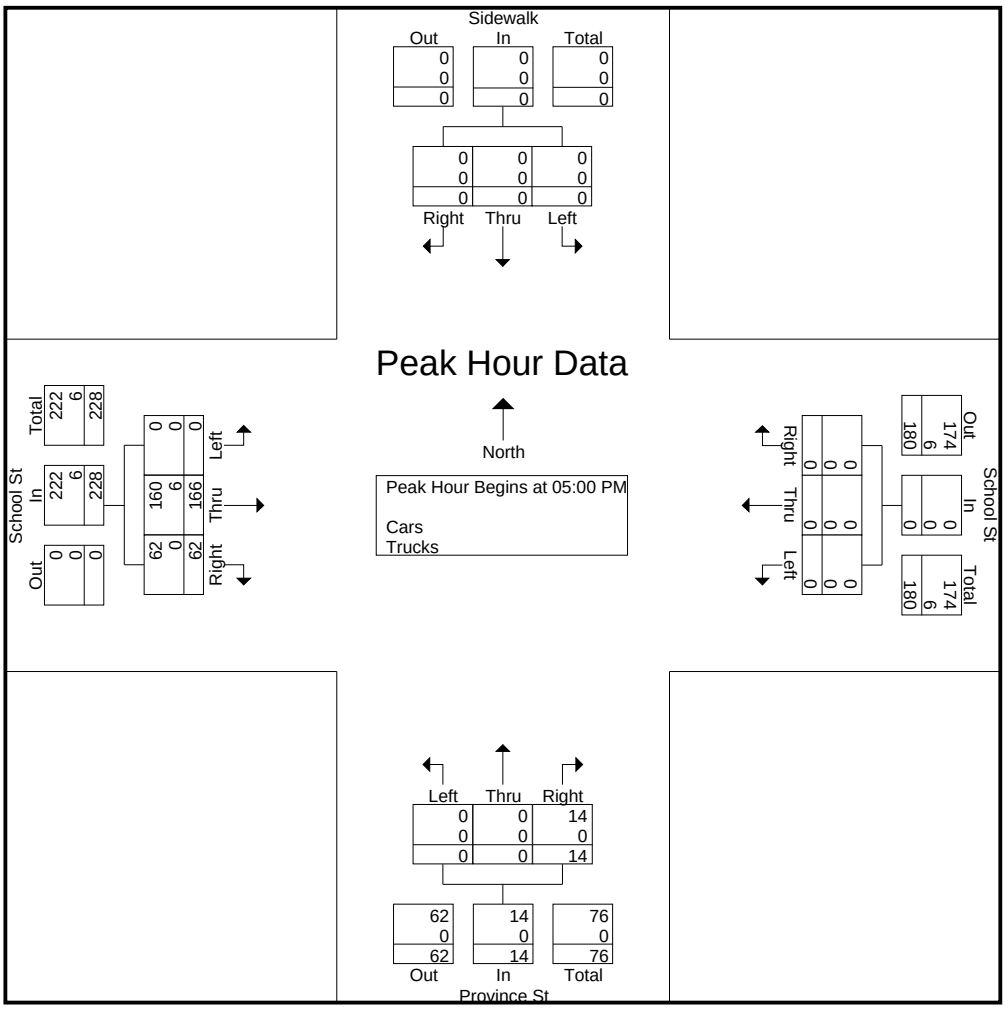
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	42	10	52	54
05:15 PM	0	0	0	0	0	0	0	0	0	0	3	3	0	32	16	48	51
05:30 PM	0	0	0	0	0	0	0	0	0	0	**5**	**5**	0	44	16	60	65
05:45 PM	0	0	0	0	0	0	0	0	0	0	4	4	0	**48**	**20**	**68**	**72**
Total Volume	0	0	0	0	0	0	0	0	0	0	14	14	0	166	62	228	242
% App. Total	0	0	0		0	0	0		0	0	100		0	72.8	27.2		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.700	.700	.000	.865	.775	.838	.840
Cars	0	0	0	0	0	0	0	0	0	0	14	14	0	160	62	222	236
% Cars	0	0	0	0	0	0	0	0	0	0	100	100	0	96.4	100	97.4	97.5
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	6
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	3.6	0	2.6	2.5



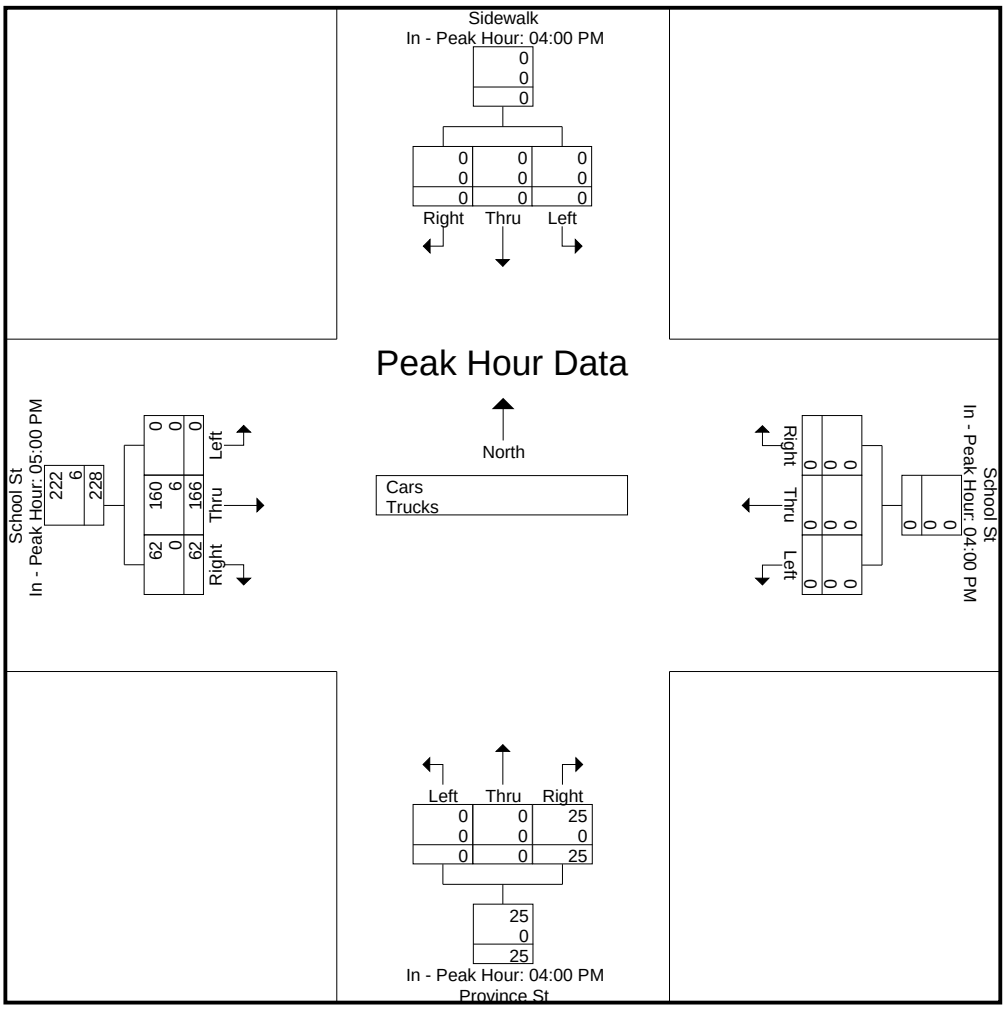
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 3

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				05:00 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	7	7	0	42	10	52	
+15 mins.	0	0	0	0	0	0	0	0	0	0	4	4	0	32	16	48	
+30 mins.	0	0	0	0	0	0	0	0	0	0	**10**	**10**	0	44	16	60	
+45 mins.	0	0	0	0	0	0	0	0	0	0	4	4	0	**48**	**20**	**68**	
Total Volume	0	0	0	0	0	0	0	0	0	0	25	25	0	166	62	228	
% App. Total	0	0	0		0	0	0		0	0	100		0	72.8	27.2		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.625	.625	.000	.865	.775	.838	
Cars	0	0	0	0	0	0	0	0	0	0	25	25	0	160	62	222	
% Cars	0	0	0	0	0	0	0	0	0	0	100	100	0	96.4	100	97.4	
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	3.6	0	2.6	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016

Groups Printed- Cars

	Sidewalk From North			School St From East			Province St From South			School St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	7	0	37	15	59
04:15 PM	0	0	0	0	0	0	0	0	4	0	35	29	68
04:30 PM	0	0	0	0	0	0	0	0	10	0	39	10	59
04:45 PM	0	0	0	0	0	0	0	0	4	0	31	7	42
Total	0	0	0	0	0	0	0	0	25	0	142	61	228
05:00 PM	0	0	0	0	0	0	0	0	2	0	42	10	54
05:15 PM	0	0	0	0	0	0	0	0	3	0	29	16	48
05:30 PM	0	0	0	0	0	0	0	0	5	0	42	16	63
05:45 PM	0	0	0	0	0	0	0	0	4	0	47	20	71
Total	0	0	0	0	0	0	0	0	14	0	160	62	236
Grand Total	0	0	0	0	0	0	0	0	39	0	302	123	464
Apprch %	0	0	0	0	0	0	0	0	100	0	71.1	28.9	
Total %	0	0	0	0	0	0	0	0	8.4	0	65.1	26.5	

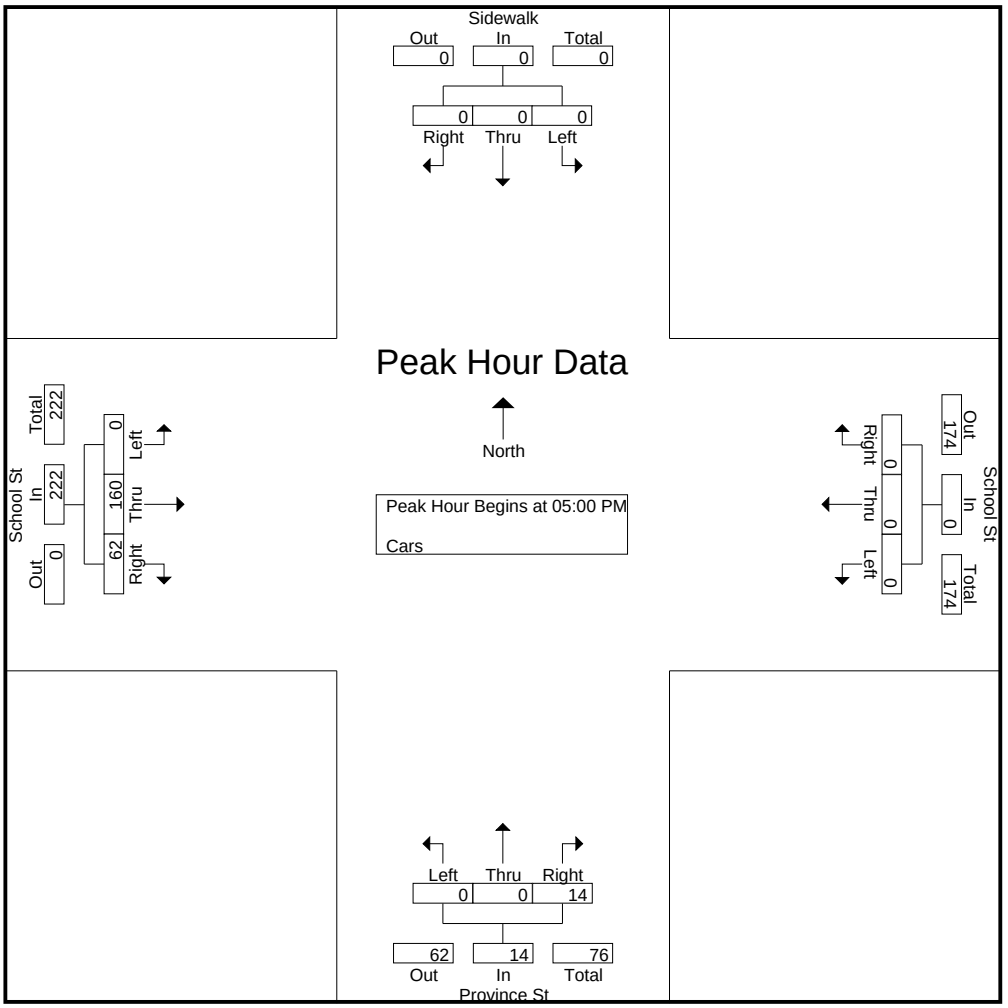
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	42	10	52	54
05:15 PM	0	0	0	0	0	0	0	0	0	0	3	3	0	29	16	45	48
05:30 PM	0	0	0	0	0	0	0	0	0	0	**5**	**5**	0	42	16	58	63
05:45 PM	0	0	0	0	0	0	0	0	0	0	4	4	0	**47**	**20**	**67**	**71**
Total Volume	0	0	0	0	0	0	0	0	0	0	14	14	0	160	62	222	236
% App. Total	0	0	0		0	0	0		0	0	100		0	72.1	27.9		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.700	.700	.000	.851	.775	.828	.831



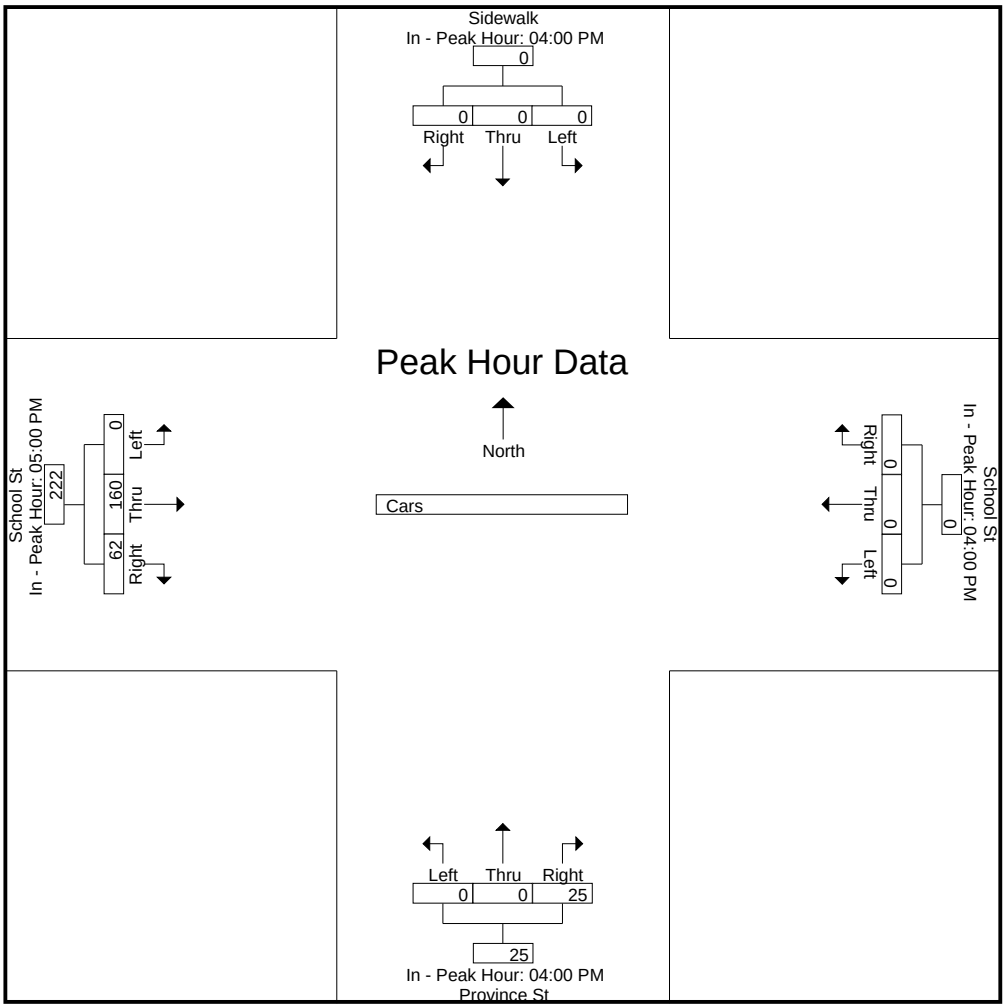
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 6

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				05:00 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	7	7	0	42	10	52	
+15 mins.	0	0	0	0	0	0	0	0	0	0	4	4	0	29	16	45	
+30 mins.	0	0	0	0	0	0	0	0	0	0	**10**	**10**	0	42	16	58	
+45 mins.	0	0	0	0	0	0	0	0	0	0	4	4	0	**47**	**20**	**67**	
Total Volume	0	0	0	0	0	0	0	0	0	0	25	25	0	160	62	222	
% App. Total	0	0	0		0	0	0		0	0	100		0	72.1	27.9		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.625	.625	.000	.851	.775	.828	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 7

Groups Printed- Trucks

	Sidewalk From North			School St From East			Province St From South			School St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	3	0	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	6	0	6
Grand Total	0	0	0	0	0	0	0	0	0	0	9	0	9
Apprch %	0	0	0	0	0	0	0	0	0	0	100	0	
Total %	0	0	0	0	0	0	0	0	0	0	100	0	

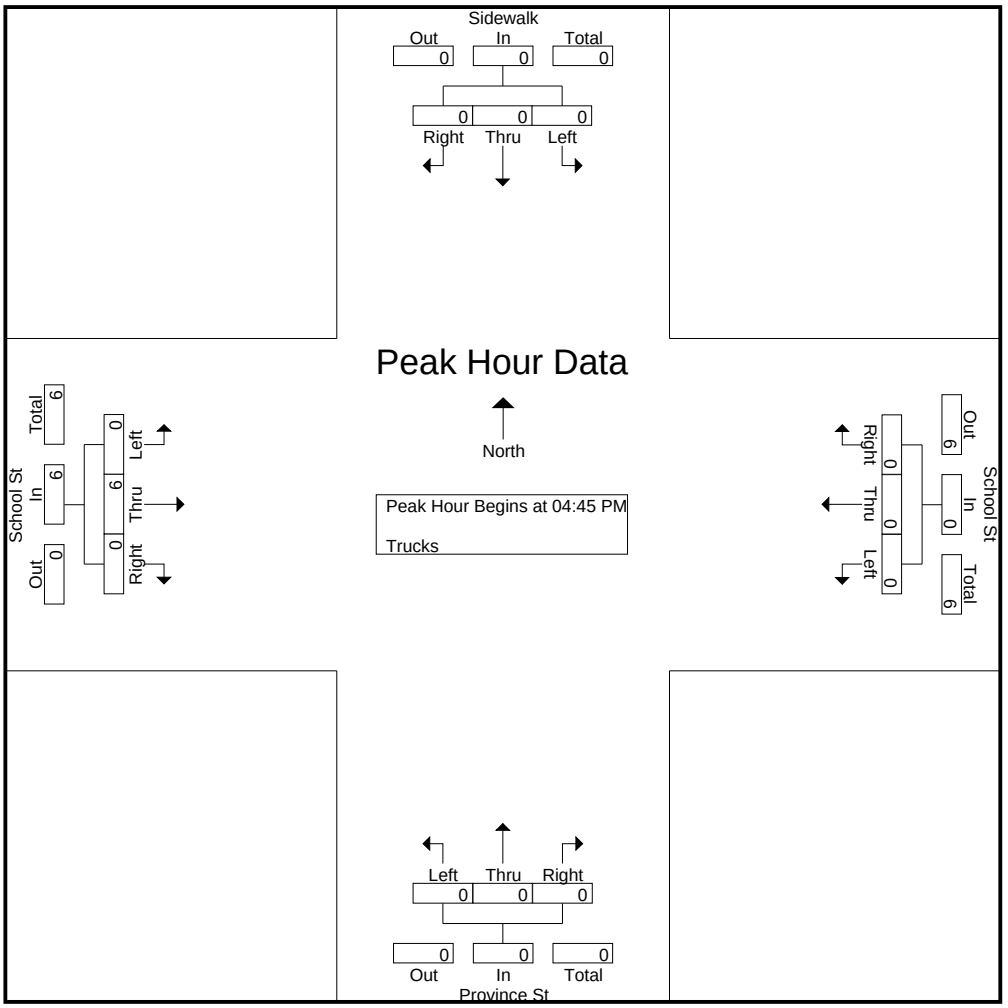
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 8

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	**3**	**3**
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	6
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.500



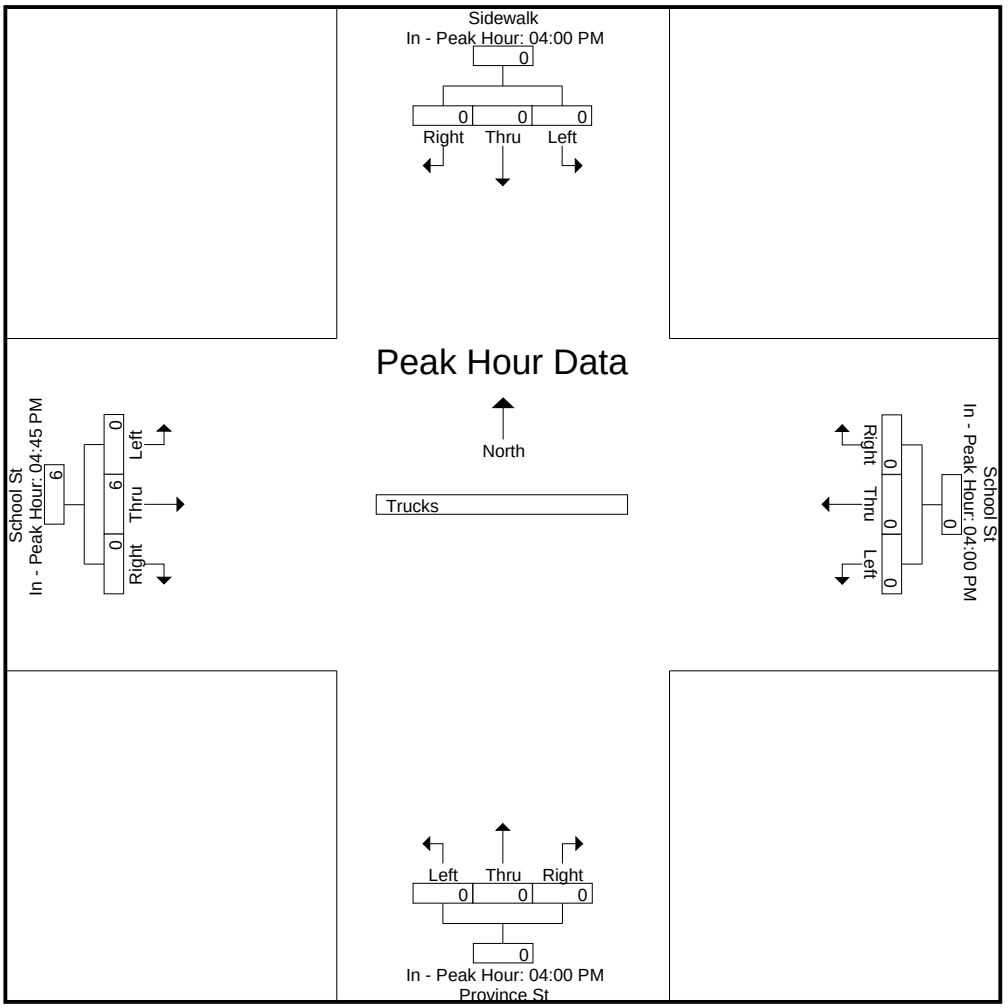
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 9

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				04:45 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	**3**	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016

Groups Printed- Bikes Peds

	Sidewalk From North				School St From East				Province St From South				School St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	195	3	2	0	66	0	0	0	225	0	3	0	26	512	8	520
04:15 PM	0	0	0	189	1	0	0	37	0	1	1	263	0	1	0	28	517	4	521
04:30 PM	0	0	0	157	2	0	0	61	0	0	1	238	0	2	0	20	476	5	481
04:45 PM	0	0	0	136	1	1	0	59	0	0	0	255	0	3	0	40	490	5	495
Total	0	0	0	677	7	3	0	223	0	1	2	981	0	9	0	114	1995	22	2017
05:00 PM	0	0	0	248	0	1	0	70	0	0	0	338	0	4	0	36	692	5	697
05:15 PM	0	0	0	154	0	0	0	32	0	0	2	315	0	4	1	20	521	7	528
05:30 PM	0	0	0	193	3	0	0	70	0	0	1	230	0	3	0	19	512	7	519
05:45 PM	0	0	0	174	2	0	0	61	0	0	1	218	0	4	0	23	476	7	483
Total	0	0	0	769	5	1	0	233	0	0	4	1101	0	15	1	98	2201	26	2227
Grand Total	0	0	0	1446	12	4	0	456	0	1	6	2082	0	24	1	212	4196	48	4244
Apprch %	0	0	0		75	25	0		0	14.3	85.7		0	96	4				
Total %	0	0	0		25	8.3	0		0	2.1	12.5		0	50	2.1		98.9	1.1	

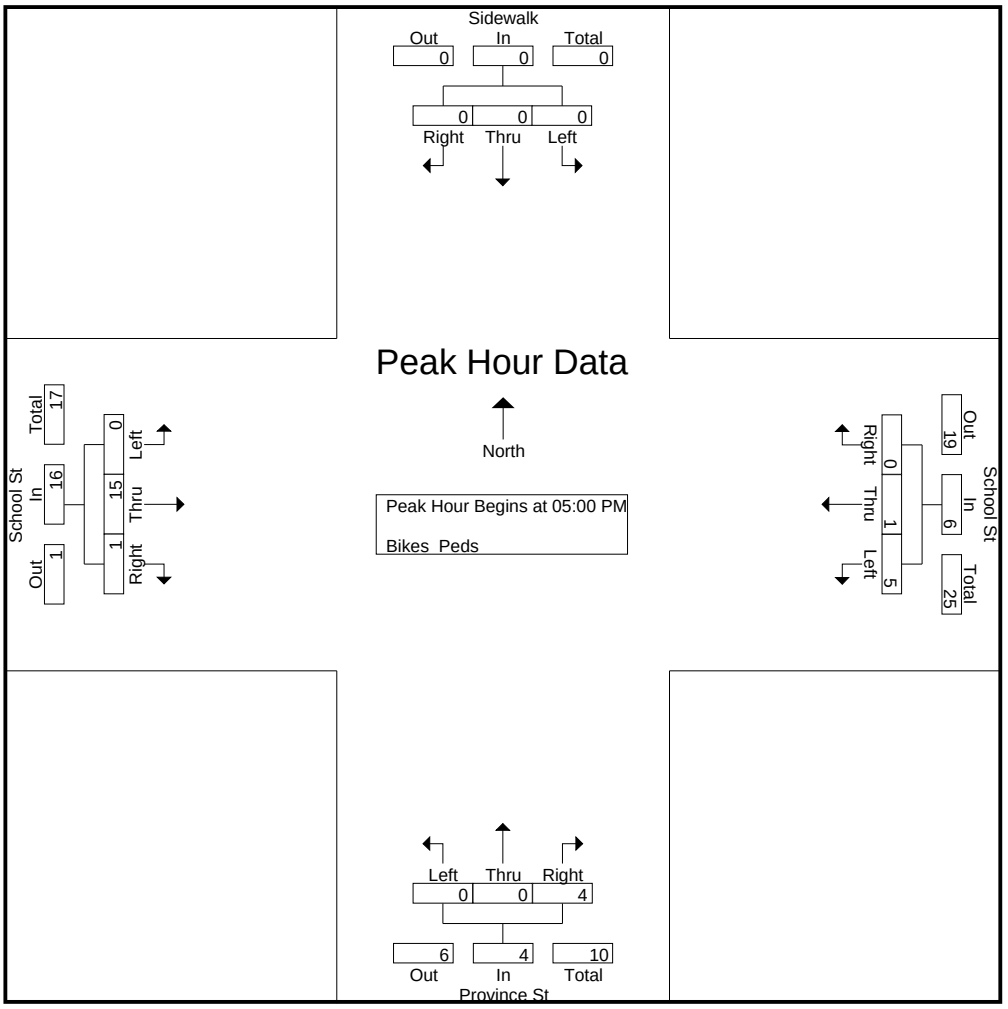
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 11

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	**1**	0	1	0	0	0	0	0	**4**	0	4	5
05:15 PM	0	0	0	0	0	0	0	0	0	0	**2**	**2**	0	4	**1**	**5**	**7**
05:30 PM	0	0	0	0	**3**	0	0	**3**	0	0	1	1	0	3	0	3	7
05:45 PM	0	0	0	0	2	0	0	2	0	0	1	1	0	4	0	4	7
Total Volume	0	0	0	0	5	1	0	6	0	0	4	4	0	15	1	16	26
% App. Total	0	0	0		83.3	16.7	0		0	0	100		0	93.8	6.2		
PHF	.000	.000	.000	.000	.417	.250	.000	.500	.000	.000	.500	.500	.000	.938	.250	.800	.929



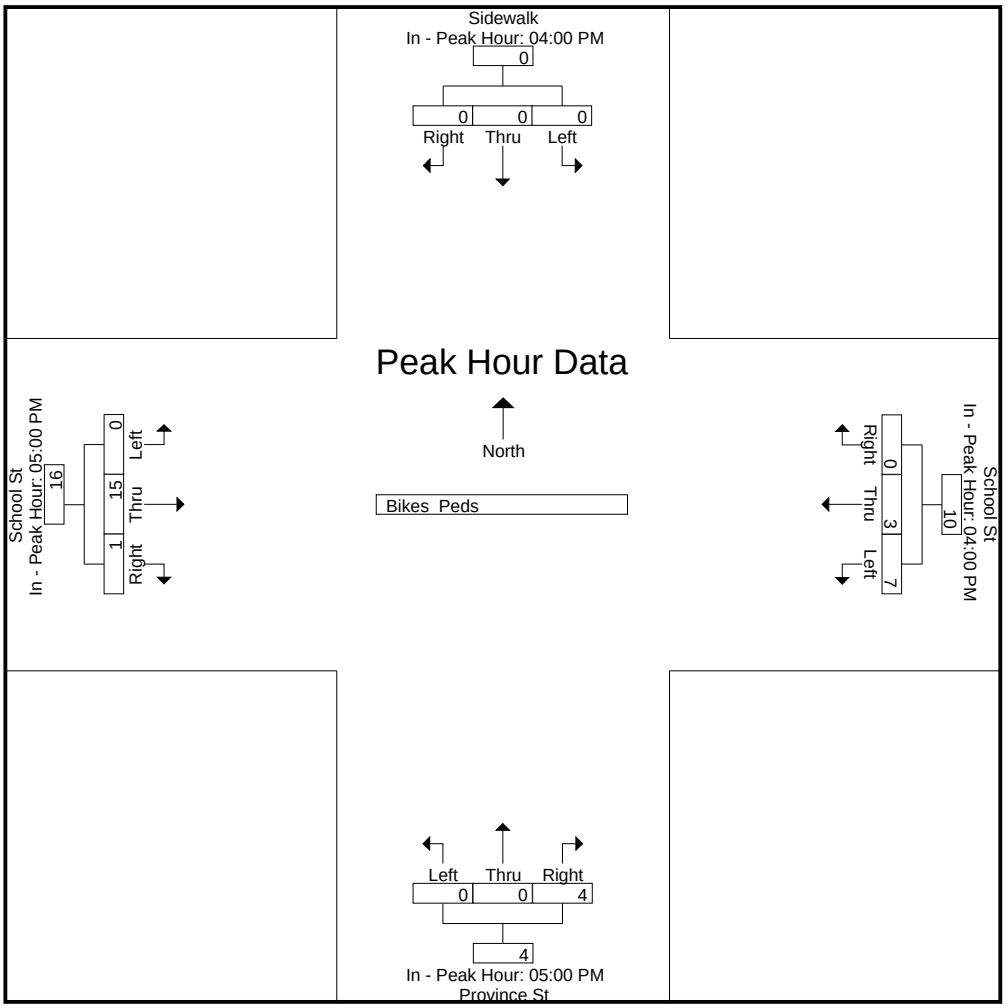
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: School Street
City/State : Boston, MA
Weather : Clear

File Name : 80190001
Site Code : 80190001
Start Date : 10/26/2016
Page No : 12

	Sidewalk From North				School St From East				Province St From South				School St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				05:00 PM				05:00 PM				
+0 mins.	0	0	0	0	**3**	**2**	0	**5**	0	0	0	0	0	**4**	0	4	
+15 mins.	0	0	0	0	1	0	0	1	0	0	**2**	**2**	0	4	**1**	**5**	
+30 mins.	0	0	0	0	2	0	0	2	0	0	1	1	0	3	0	3	
+45 mins.	0	0	0	0	1	1	0	2	0	0	1	1	0	4	0	4	
Total Volume	0	0	0	0	7	3	0	10	0	0	4	4	0	15	1	16	
% App. Total	0	0	0		70	30	0		0	0	100		0	93.8	6.2		
PHF	.000	.000	.000	.000	.583	.375	.000	.500	.000	.000	.500	.500	.000	.938	.250	.800	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

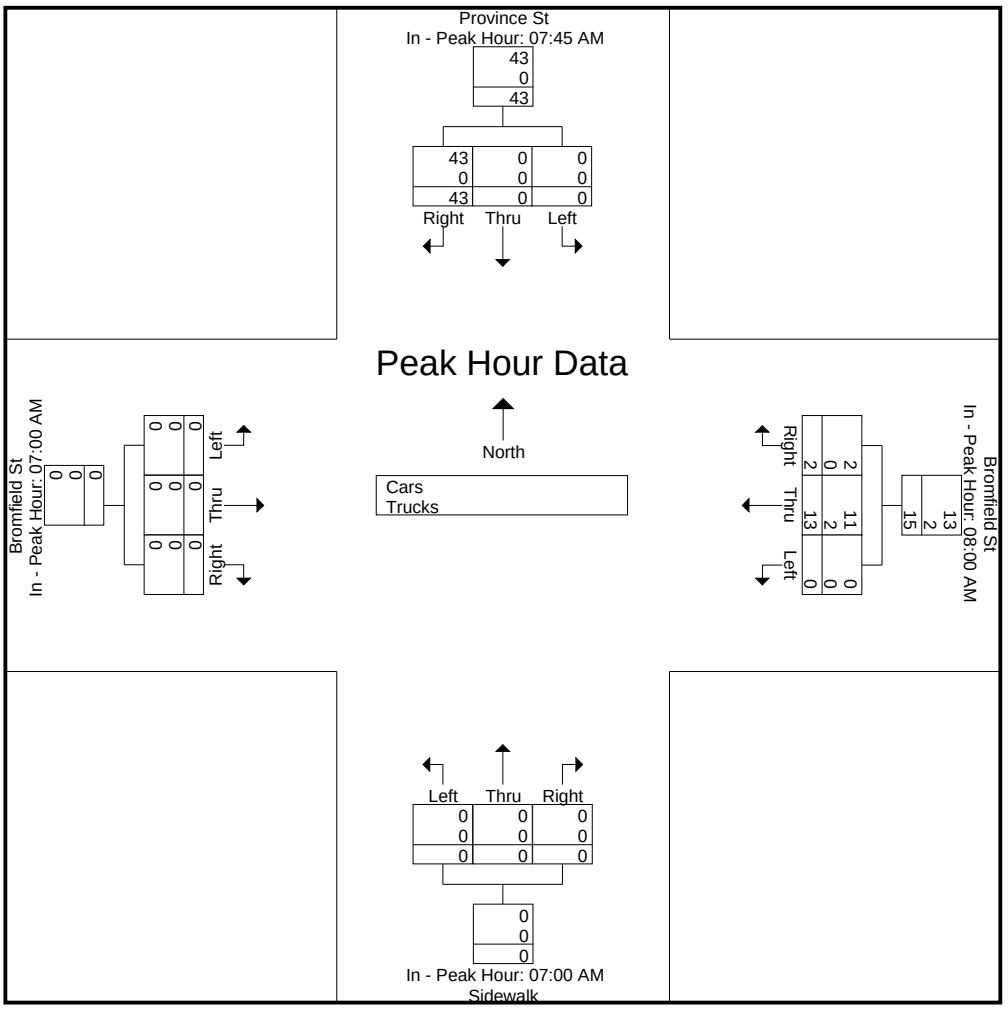
File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 3

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

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

Peak Hour for Each Approach Begins at:

	07:45 AM				08:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	**14**	**14**	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	9	9	0	3	0	3	0	0	0	0	0	0	0	0
+30 mins.	0	0	8	8	0	4	**1**	5	0	0	0	0	0	0	0	0
+45 mins.	0	0	12	12	0	**5**	1	**6**	0	0	0	0	0	0	0	0
Total Volume	0	0	43	43	0	13	2	15	0	0	0	0	0	0	0	0
% App. Total	0	0	100		0	86.7	13.3		0	0	0		0	0	0	
PHF	.000	.000	.768	.768	.000	.650	.500	.625	.000	.000	.000	.000	.000	.000	.000	.000
Cars	0	0	43	43	0	11	2	13	0	0	0	0	0	0	0	0
% Cars	0	0	100	100	0	84.6	100	86.7	0	0	0	0	0	0	0	0
Trucks	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	15.4	0	13.3	0	0	0	0	0	0	0	0



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016

Groups Printed- Cars

	Province St From North			Bromfield St From East			Sidewalk From South			Bromfield St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	7	0	3	0	0	0	0	0	0	0	10
07:15 AM	0	0	3	0	4	0	0	0	0	0	0	0	7
07:30 AM	0	0	8	0	2	1	0	0	0	0	0	0	11
07:45 AM	0	0	14	0	2	0	0	0	0	0	0	0	16
Total	0	0	32	0	11	1	0	0	0	0	0	0	44
08:00 AM	0	0	9	0	1	0	0	0	0	0	0	0	10
08:15 AM	0	0	8	0	2	0	0	0	0	0	0	0	10
08:30 AM	0	0	12	0	4	1	0	0	0	0	0	0	17
08:45 AM	0	0	8	0	4	1	0	0	0	0	0	0	13
Total	0	0	37	0	11	2	0	0	0	0	0	0	50
Grand Total	0	0	69	0	22	3	0	0	0	0	0	0	94
Apprch %	0	0	100	0	88	12	0	0	0	0	0	0	
Total %	0	0	73.4	0	23.4	3.2	0	0	0	0	0	0	

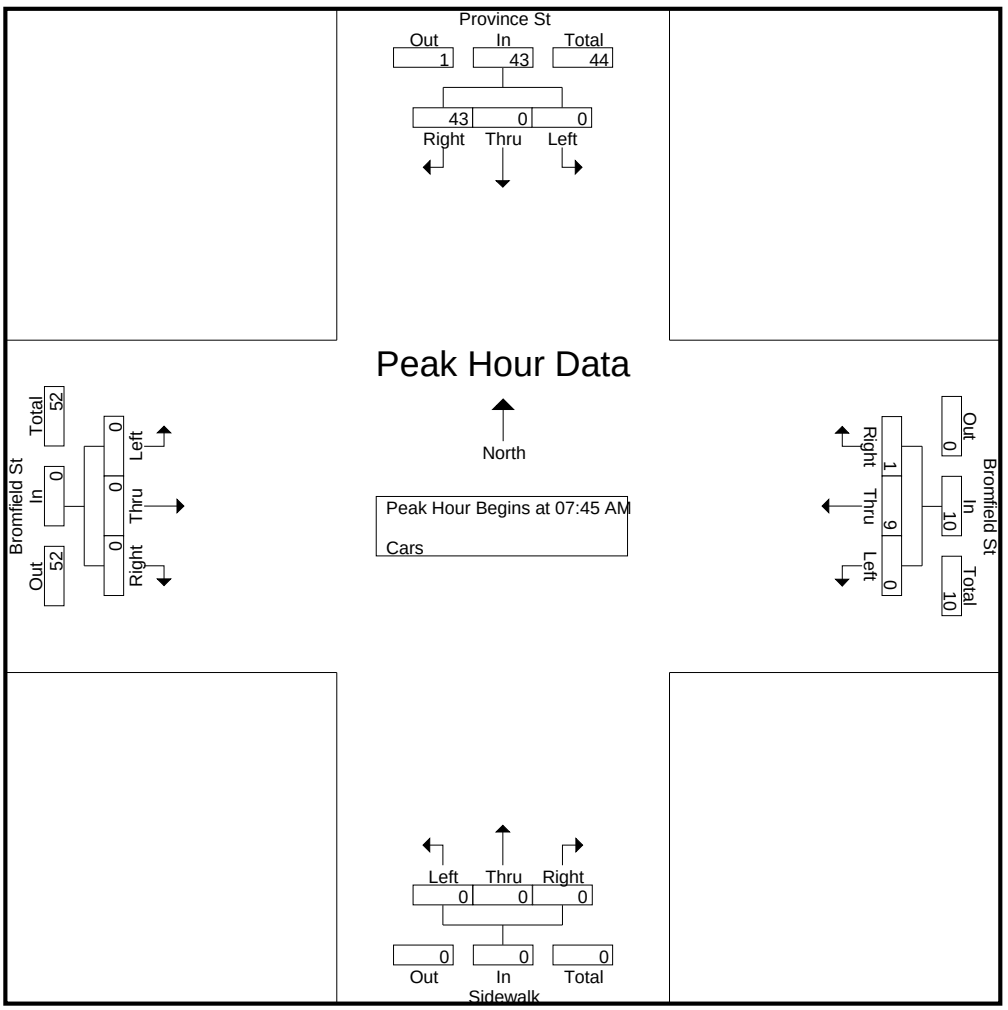
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 5

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	**14**	**14**	0	2	0	2	0	0	0	0	0	0	0	0	16
08:00 AM	0	0	9	9	0	1	0	1	0	0	0	0	0	0	0	0	10
08:15 AM	0	0	8	8	0	2	0	2	0	0	0	0	0	0	0	0	10
08:30 AM	0	0	12	12	0	**4**	**1**	**5**	0	0	0	0	0	0	0	0	**17**
Total Volume	0	0	43	43	0	9	1	10	0	0	0	0	0	0	0	0	53
% App. Total	0	0	100		0	90	10		0	0	0		0	0	0		
PHF	.000	.000	.768	.768	.000	.563	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000	.779



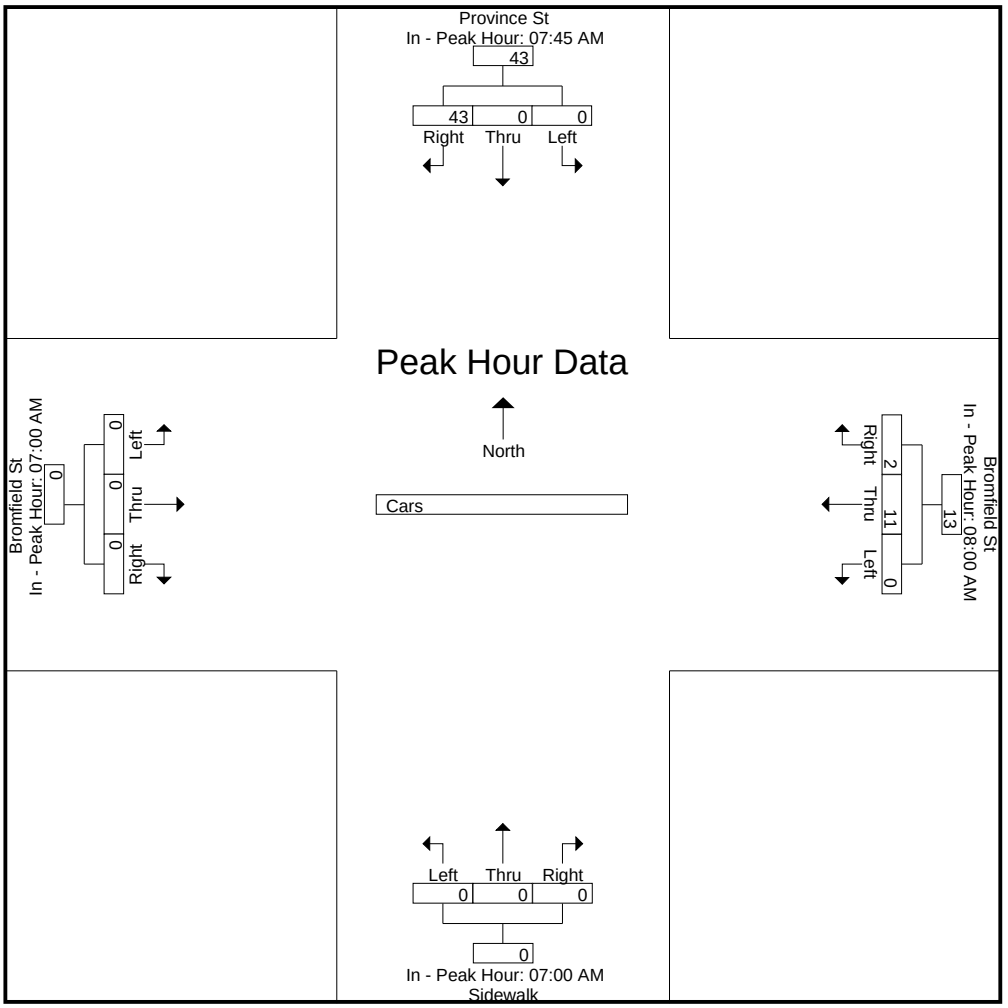
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 6

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:45 AM				08:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	**14**	**14**	0	1	0	1	0	0	0	0	0	0	0	0	
+15 mins.	0	0	9	9	0	2	0	2	0	0	0	0	0	0	0	0	
+30 mins.	0	0	8	8	0	**4**	**1**	**5**	0	0	0	0	0	0	0	0	
+45 mins.	0	0	12	12	0	4	1	5	0	0	0	0	0	0	0	0	
Total Volume	0	0	43	43	0	11	2	13	0	0	0	0	0	0	0	0	
% App. Total	0	0	100		0	84.6	15.4		0	0	0		0	0	0		
PHF	.000	.000	.768	.768	.000	.688	.500	.650	.000	.000	.000	.000	.000	.000	.000	.000	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016

Groups Printed- Trucks

	Province St From North			Bromfield St From East			Sidewalk From South			Bromfield St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	4	0	1	0	0	0	0	0	0	0	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	2	0	0	0	0	0	0	0	2
Grand Total	0	0	4	0	3	0	0	0	0	0	0	0	7
Apprch %	0	0	100	0	100	0	0	0	0	0	0	0	
Total %	0	0	57.1	0	42.9	0	0	0	0	0	0	0	

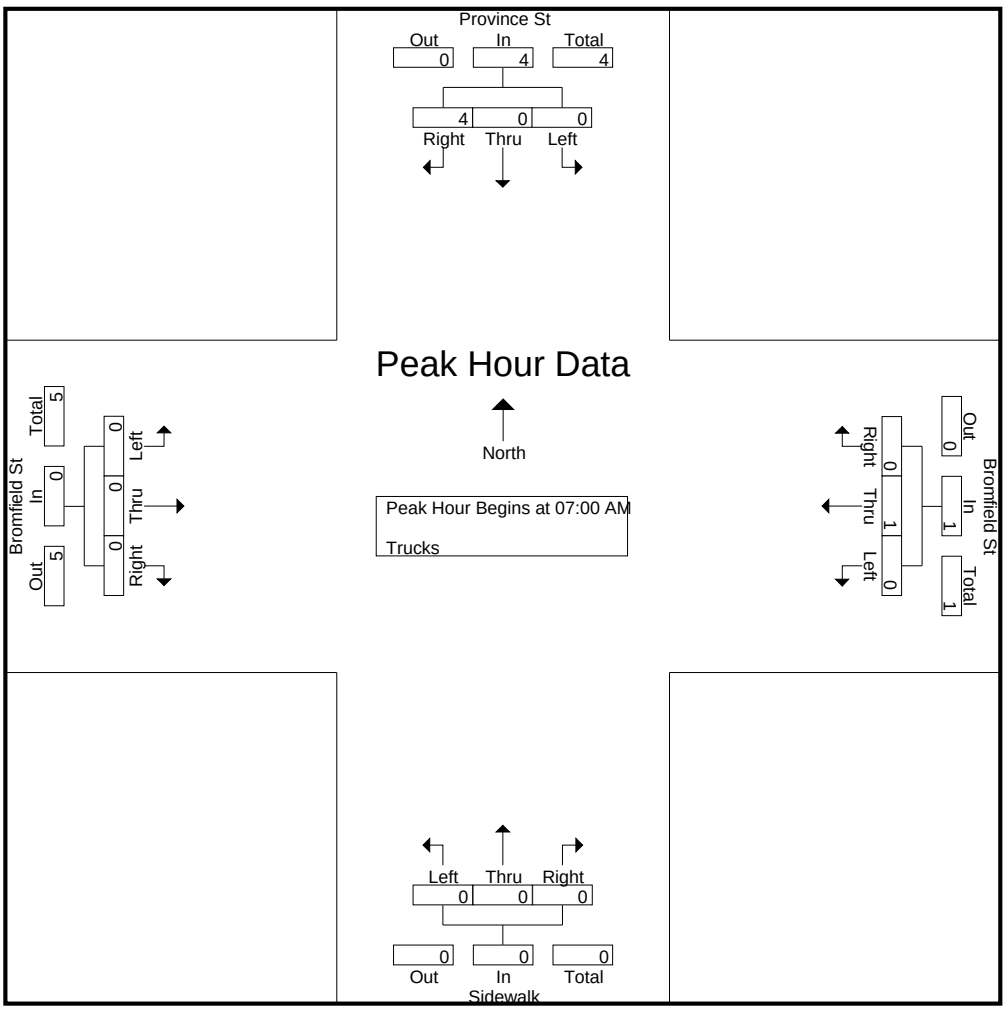
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 8

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	0	0	**2**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	1
Total Volume	0	0	4	4	0	1	0	1	0	0	0	0	0	0	0	0	5
% App. Total	0	0	100		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.500	.500	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.625



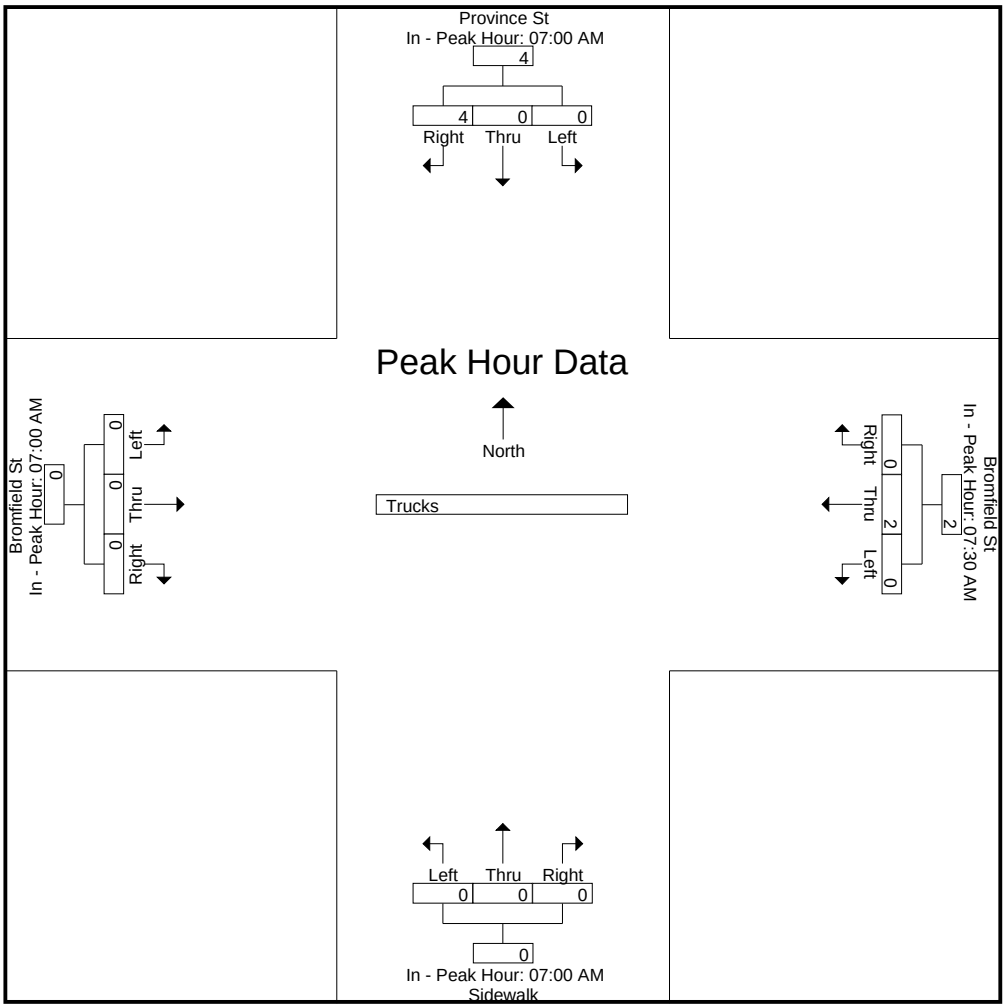
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 9

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:30 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	
+30 mins.	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	
Total Volume	0	0	4	4	0	2	0	2	0	0	0	0	0	0	0	0	
% App. Total	0	0	100		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.500	.500	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016

Groups Printed- Bikes Peds

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	30	0	1	0	4	0	0	0	12	0	0	0	8	54	1	55
07:15 AM	0	0	0	38	0	0	0	0	0	0	0	36	0	2	0	11	85	2	87
07:30 AM	0	0	0	62	0	0	0	7	0	0	0	32	0	0	0	3	104	0	104
07:45 AM	0	0	0	82	0	0	2	5	0	0	0	26	1	0	0	7	120	3	123
Total	0	0	0	212	0	1	2	16	0	0	0	106	1	2	0	29	363	6	369
08:00 AM	0	0	1	79	0	3	0	7	0	0	0	54	2	0	0	2	142	6	148
08:15 AM	2	1	1	107	0	1	0	10	0	0	0	47	0	2	0	7	171	7	178
08:30 AM	0	0	0	114	0	1	0	3	0	0	0	57	0	1	0	14	188	2	190
08:45 AM	0	0	1	146	0	1	2	3	0	0	0	58	1	5	0	10	217	10	227
Total	2	1	3	446	0	6	2	23	0	0	0	216	3	8	0	33	718	25	743
Grand Total	2	1	3	658	0	7	4	39	0	0	0	322	4	10	0	62	1081	31	1112
Apprch %	33.3	16.7	50		0	63.6	36.4		0	0	0		28.6	71.4	0				
Total %	6.5	3.2	9.7		0	22.6	12.9		0	0	0		12.9	32.3	0		97.2	2.8	

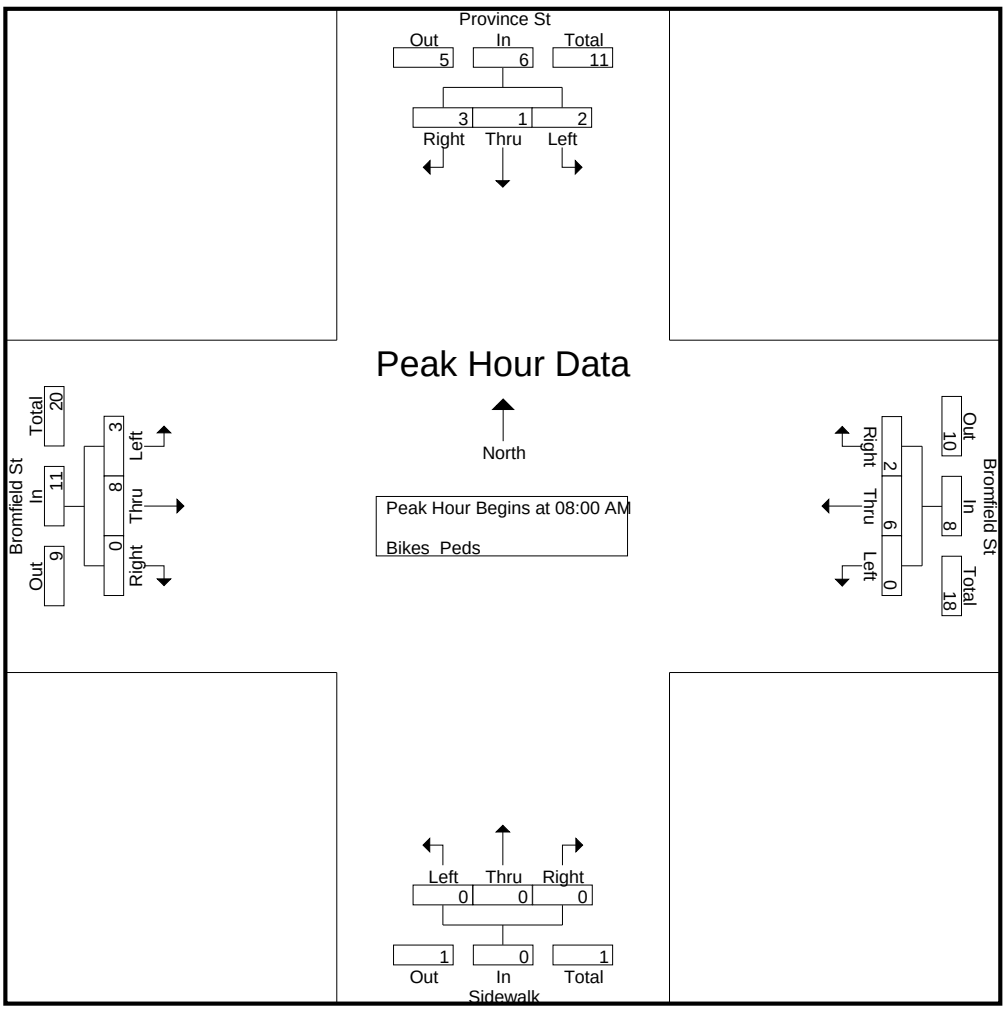
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 11

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	**1**	1	0	**3**	0	**3**	0	0	0	0	**2**	0	0	2	6
08:15 AM	**2**	**1**	1	**4**	0	1	0	1	0	0	0	0	0	2	0	2	7
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:45 AM	0	0	1	1	0	1	**2**	3	0	0	0	0	1	**5**	0	**6**	**10**
Total Volume	2	1	3	6	0	6	2	8	0	0	0	0	3	8	0	11	25
% App. Total	33.3	16.7	50		0	75	25		0	0	0		27.3	72.7	0		
PHF	.250	.250	.750	.375	.000	.500	.250	.667	.000	.000	.000	.000	.375	.400	.000	.458	.625



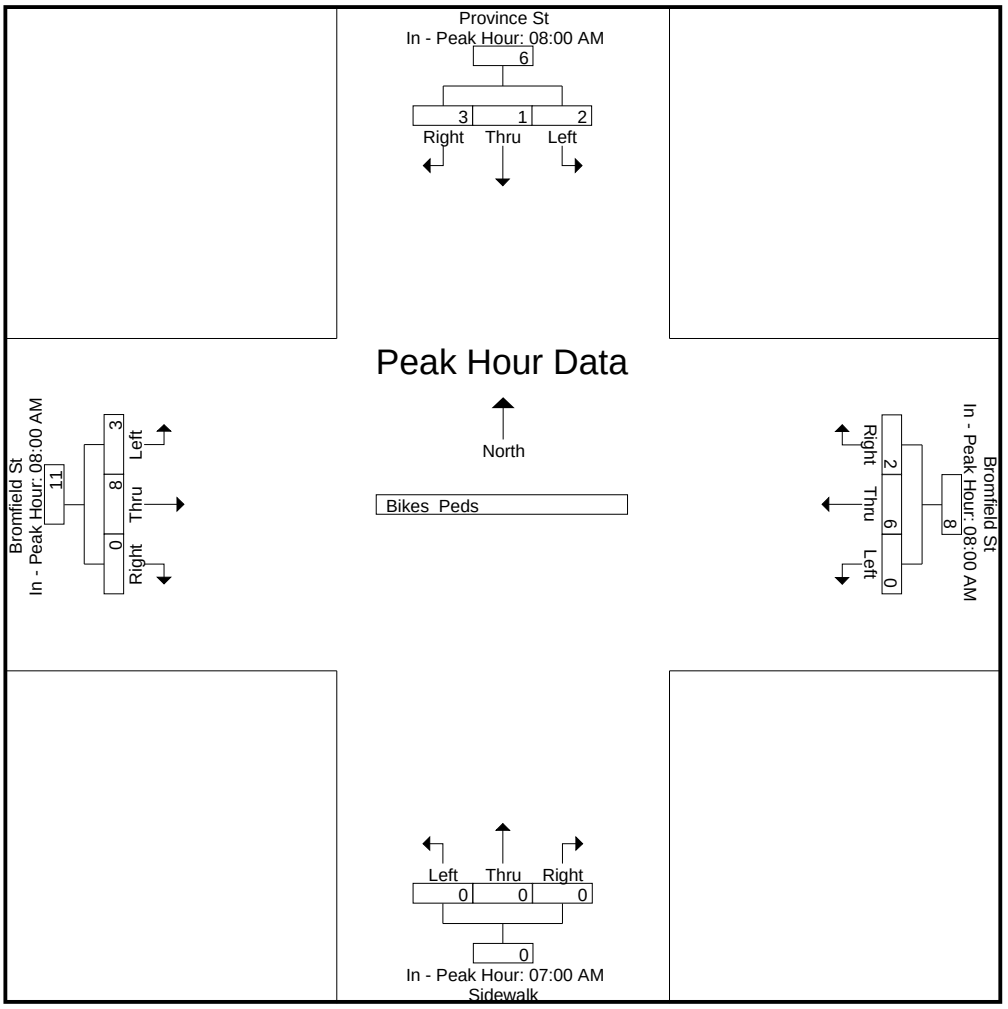
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 12

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	08:00 AM				08:00 AM				07:00 AM				08:00 AM				
+0 mins.	0	0	**1**	1	0	**3**	0	**3**	0	0	0	0	**2**	0	0	2	
+15 mins.	**2**	**1**	1	**4**	0	1	0	1	0	0	0	0	0	2	0	2	
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	
+45 mins.	0	0	1	1	0	1	**2**	3	0	0	0	0	1	**5**	0	**6**	
Total Volume	2	1	3	6	0	6	2	8	0	0	0	0	3	8	0	11	
% App. Total	33.3	16.7	50		0	75	25		0	0	0		27.3	72.7	0		
PHF	.250	.250	.750	.375	.000	.500	.250	.667	.000	.000	.000	.000	.375	.400	.000	.458	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 1

Groups Printed- Cars - Trucks

	Province St From North			Bromfield St From East			Sidewalk From South			Bromfield St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	15	0	0	0	0	0	0	0	0	0	15
04:15 PM	0	0	19	0	1	0	0	0	0	0	0	0	20
04:30 PM	0	0	11	0	0	0	0	0	0	0	0	0	11
04:45 PM	0	0	11	0	1	0	0	0	0	0	0	0	12
Total	0	0	56	0	2	0	0	0	0	0	0	0	58
05:00 PM	0	0	9	0	3	0	0	0	0	0	0	0	12
05:15 PM	0	0	13	0	1	0	0	0	0	0	0	0	14
05:30 PM	0	0	12	0	0	0	0	0	0	0	0	0	12
05:45 PM	0	0	12	0	1	0	0	0	0	0	0	0	13
Total	0	0	46	0	5	0	0	0	0	0	0	0	51
Grand Total	0	0	102	0	7	0	0	0	0	0	0	0	109
Apprch %	0	0	100	0	100	0	0	0	0	0	0	0	
Total %	0	0	93.6	0	6.4	0	0	0	0	0	0	0	
Cars	0	0	102	0	7	0	0	0	0	0	0	0	109
% Cars	0	0	100	0	100	0	0	0	0	0	0	0	100
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0

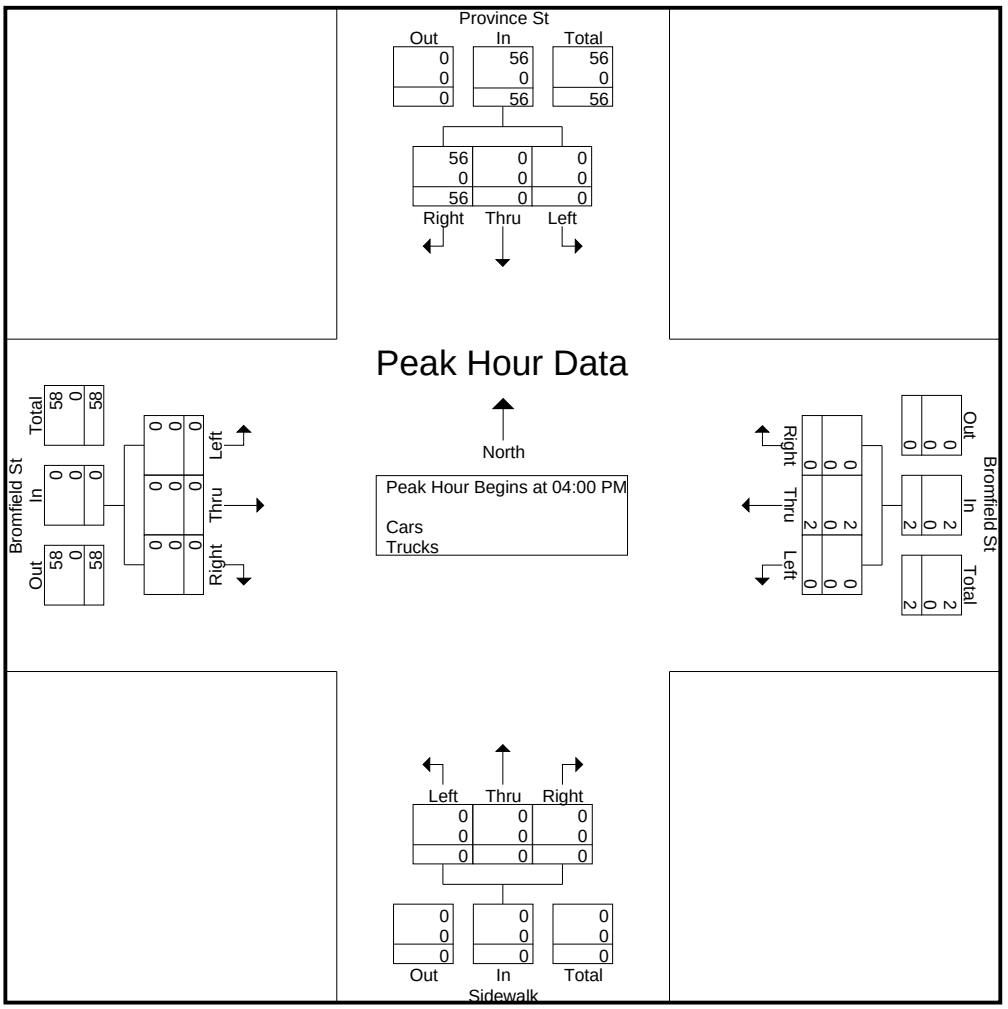
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 2

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	15
04:15 PM	0	0	**19**	**19**	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**20**
04:30 PM	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	0	11
04:45 PM	0	0	11	11	0	1	0	1	0	0	0	0	0	0	0	0	12
Total Volume	0	0	56	56	0	2	0	2	0	0	0	0	0	0	0	0	58
% App. Total	0	0	100		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.737	.737	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.725
Cars	0	0	56	56	0	2	0	2	0	0	0	0	0	0	0	0	58
% Cars	0	0	100	100	0	100	0	100	0	0	0	0	0	0	0	0	100
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

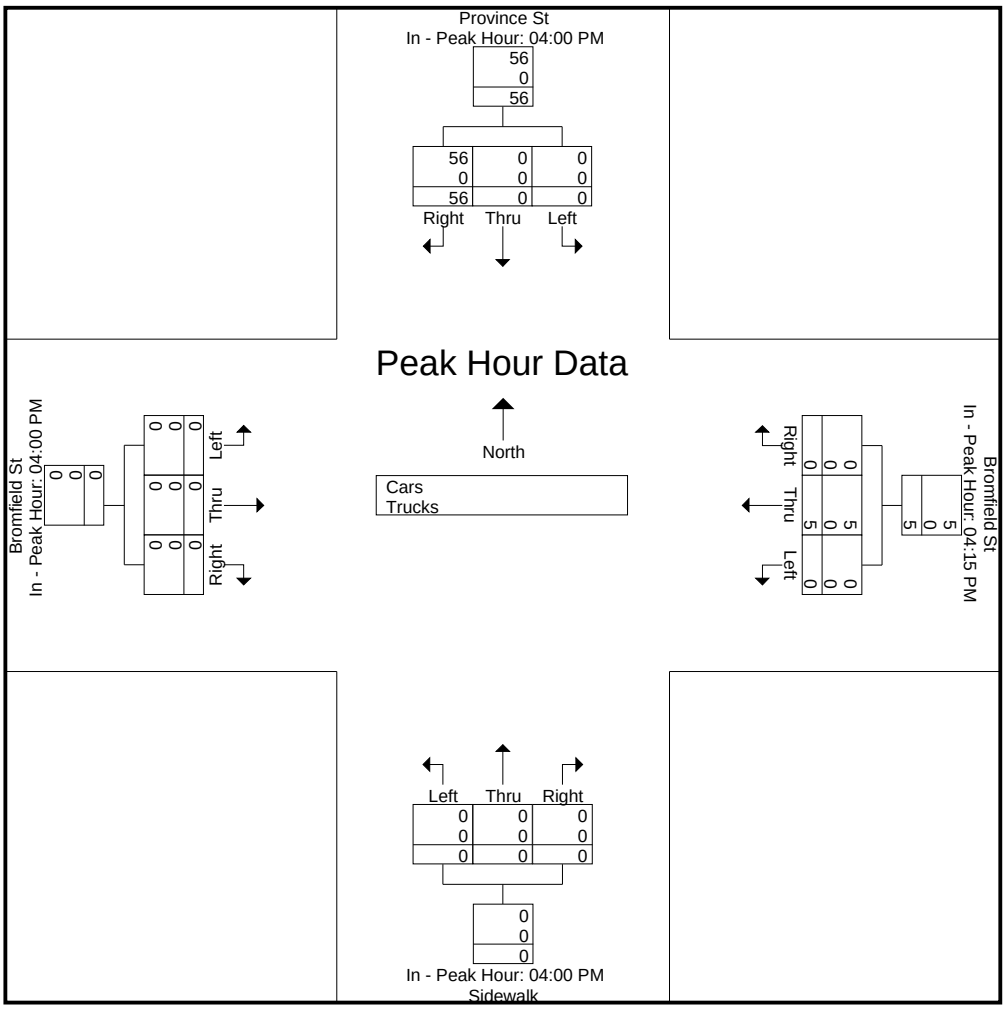
File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 3

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	15	15	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	**19**	**19**	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	11	11	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	11	11	0	**3**	0	**3**	0	0	0	0	0	0	0	0
Total Volume	0	0	56	56	0	5	0	5	0	0	0	0	0	0	0	0
% App. Total	0	0	100		0	100	0		0	0	0		0	0	0	
PHF	.000	.000	.737	.737	.000	.417	.000	.417	.000	.000	.000	.000	.000	.000	.000	.000
Cars	0	0	56	56	0	5	0	5	0	0	0	0	0	0	0	0
% Cars	0	0	100	100	0	100	0	100	0	0	0	0	0	0	0	0
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016

Groups Printed- Cars

	Province St From North			Bromfield St From East			Sidewalk From South			Bromfield St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	15	0	0	0	0	0	0	0	0	0	15
04:15 PM	0	0	19	0	1	0	0	0	0	0	0	0	20
04:30 PM	0	0	11	0	0	0	0	0	0	0	0	0	11
04:45 PM	0	0	11	0	1	0	0	0	0	0	0	0	12
Total	0	0	56	0	2	0	0	0	0	0	0	0	58
05:00 PM	0	0	9	0	3	0	0	0	0	0	0	0	12
05:15 PM	0	0	13	0	1	0	0	0	0	0	0	0	14
05:30 PM	0	0	12	0	0	0	0	0	0	0	0	0	12
05:45 PM	0	0	12	0	1	0	0	0	0	0	0	0	13
Total	0	0	46	0	5	0	0	0	0	0	0	0	51
Grand Total	0	0	102	0	7	0	0	0	0	0	0	0	109
Apprch %	0	0	100	0	100	0	0	0	0	0	0	0	
Total %	0	0	93.6	0	6.4	0	0	0	0	0	0	0	

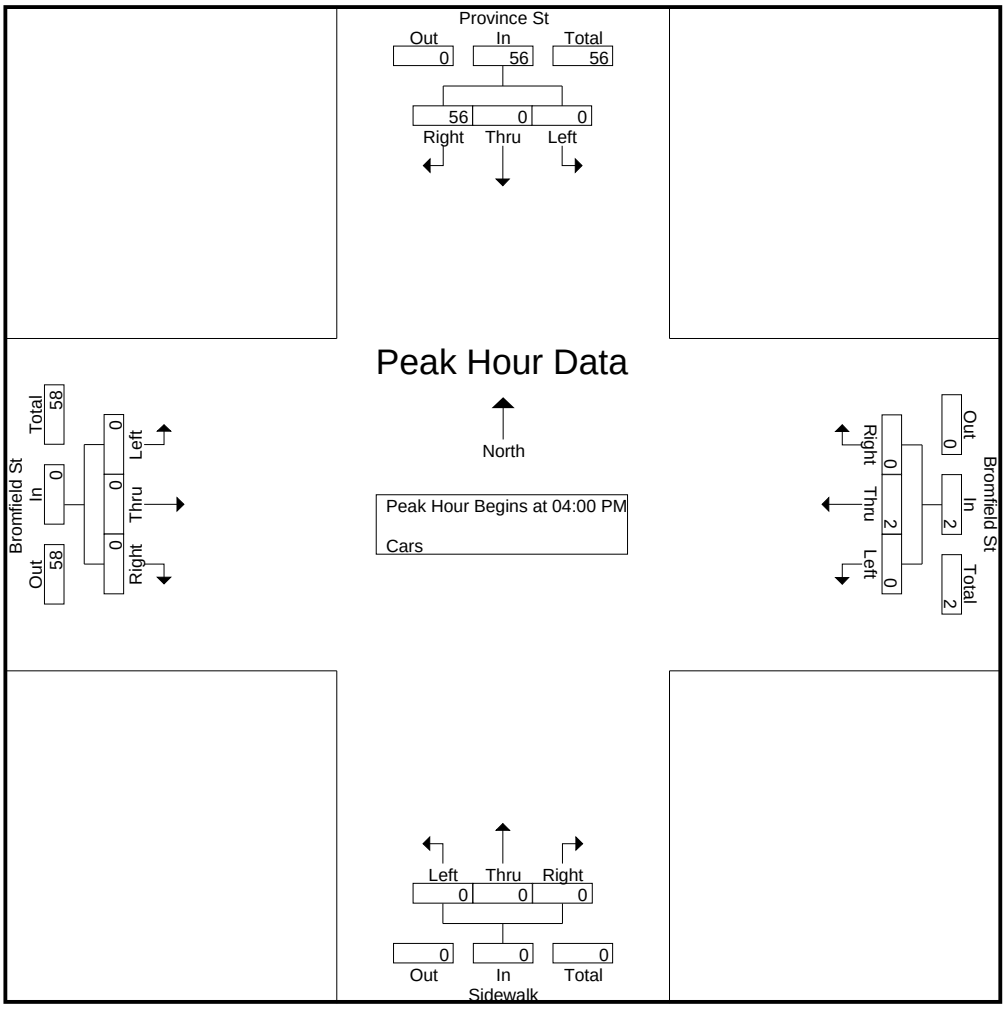
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 5

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	15
04:15 PM	0	0	**19**	**19**	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**20**
04:30 PM	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	0	11
04:45 PM	0	0	11	11	0	1	0	1	0	0	0	0	0	0	0	0	12
Total Volume	0	0	56	56	0	2	0	2	0	0	0	0	0	0	0	0	58
% App. Total	0	0	100		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.737	.737	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.725



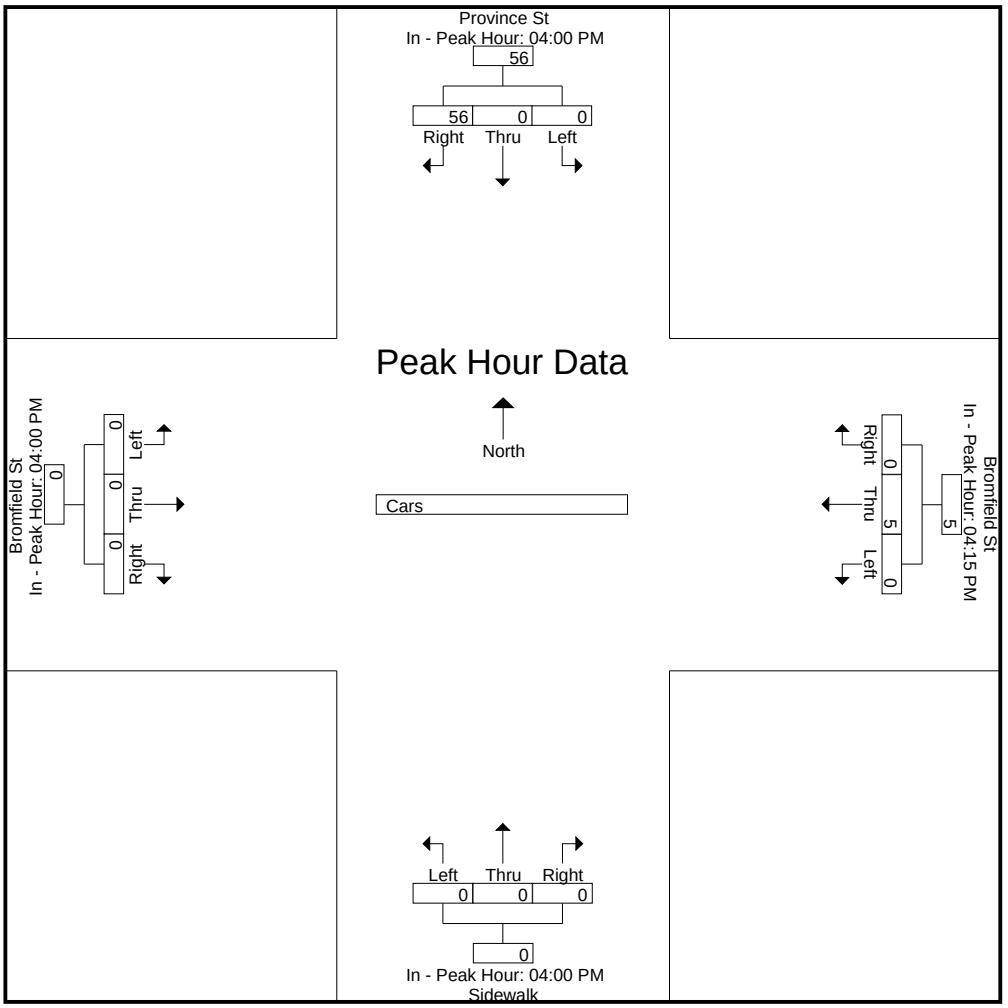
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 6

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:15 PM				04:00 PM				04:00 PM				
+0 mins.	0	0	15	15	0	1	0	1	0	0	0	0	0	0	0	0	
+15 mins.	0	0	**19**	**19**	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	11	11	0	1	0	1	0	0	0	0	0	0	0	0	
+45 mins.	0	0	11	11	0	**3**	0	**3**	0	0	0	0	0	0	0	0	
Total Volume	0	0	56	56	0	5	0	5	0	0	0	0	0	0	0	0	
% App. Total	0	0	100		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.737	.737	.000	.417	.000	.417	.000	.000	.000	.000	.000	.000	.000	.000	



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 7

Groups Printed- Trucks

	Province St From North			Bromfield St From East			Sidewalk From South			Bromfield St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	
Total %													

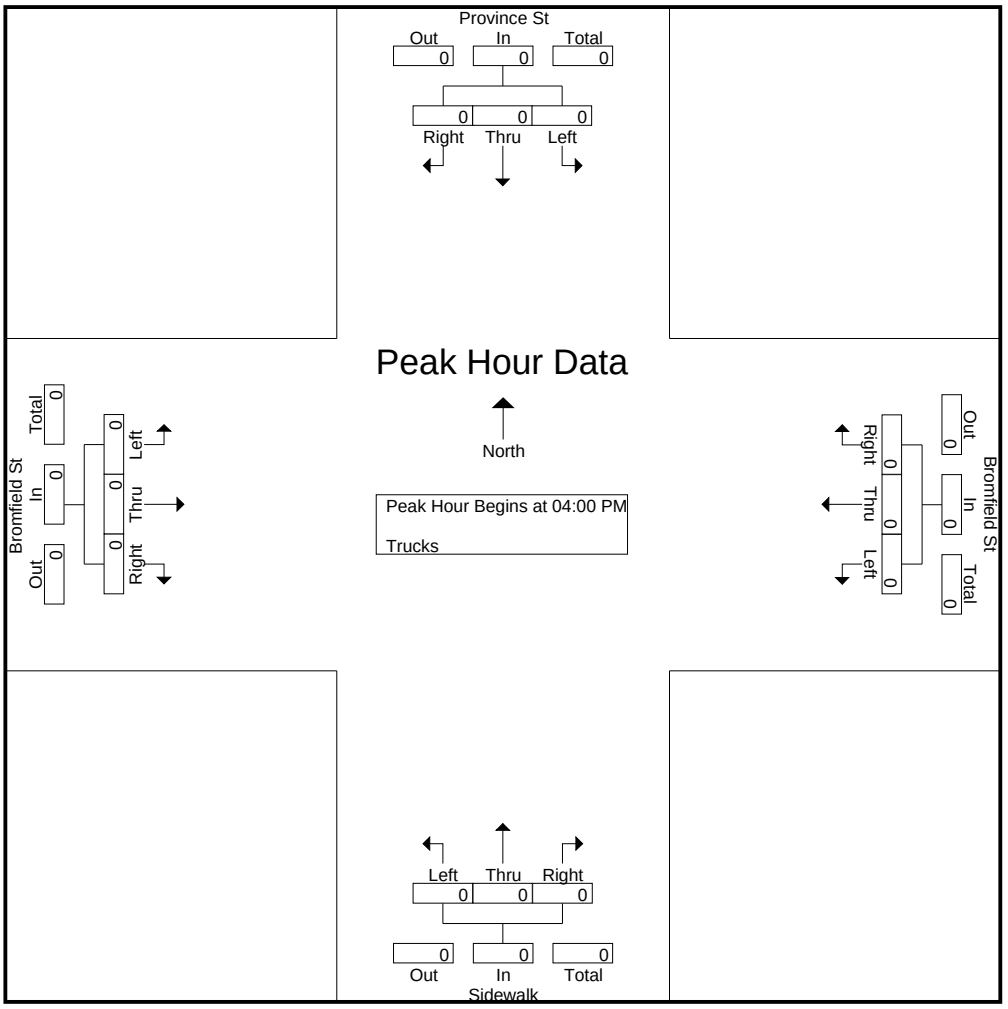
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 8

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

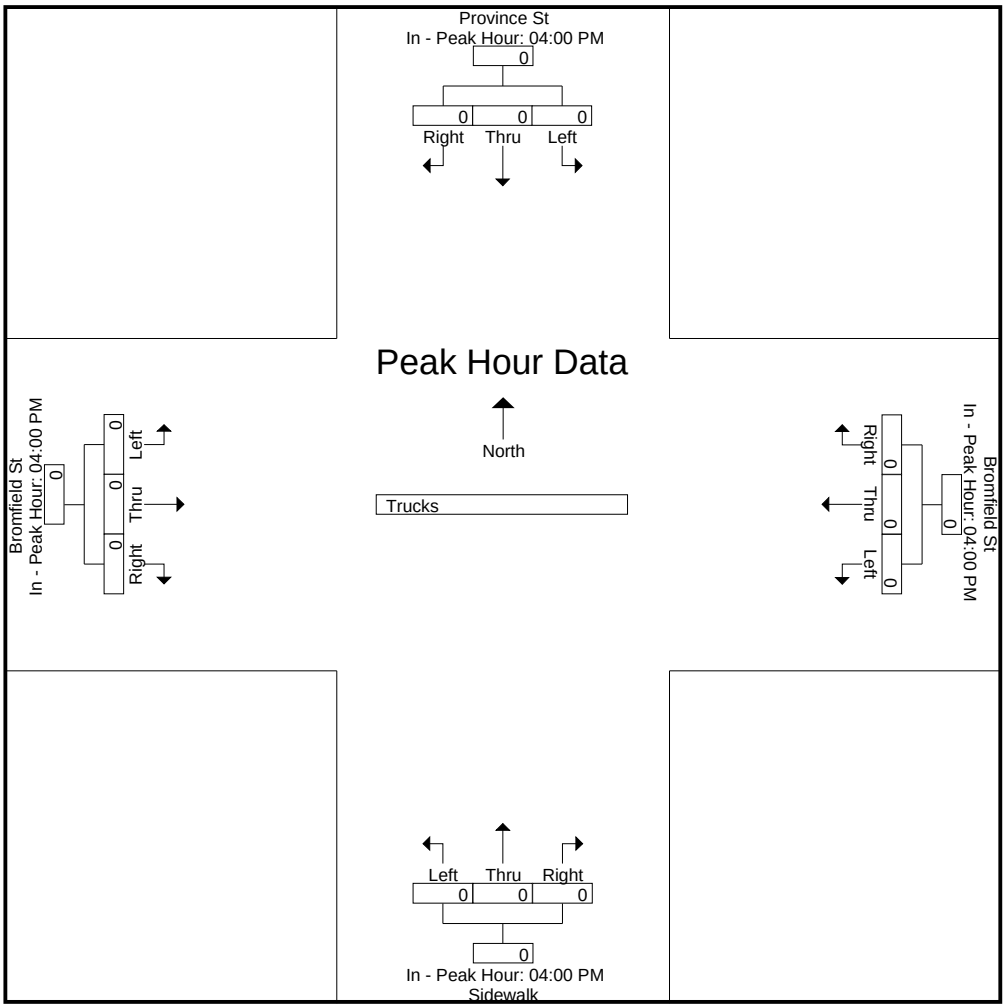
File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 9

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 10

Groups Printed- Bikes Peds

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	3	85	0	3	0	6	0	0	0	67	0	1	0	24	182	7	189
04:15 PM	0	0	1	120	0	4	1	18	0	0	0	85	0	0	0	16	239	6	245
04:30 PM	0	0	1	99	0	6	1	12	0	0	0	73	0	2	0	17	201	10	211
04:45 PM	0	0	2	101	0	6	0	12	0	0	0	91	0	0	0	18	222	8	230
Total	0	0	7	405	0	19	2	48	0	0	0	316	0	3	0	75	844	31	875
05:00 PM	0	0	0	115	0	11	0	8	0	0	0	148	0	0	0	23	294	11	305
05:15 PM	0	1	2	141	0	21	0	7	0	0	0	144	2	0	0	18	310	26	336
05:30 PM	0	0	2	117	0	17	2	14	0	0	0	153	0	2	0	19	303	23	326
05:45 PM	0	0	2	119	0	14	0	17	0	0	0	150	0	0	0	17	303	16	319
Total	0	1	6	492	0	63	2	46	0	0	0	595	2	2	0	77	1210	76	1286
Grand Total	0	1	13	897	0	82	4	94	0	0	0	911	2	5	0	152	2054	107	2161
Apprch %	0	7.1	92.9		0	95.3	4.7		0	0	0		28.6	71.4	0				
Total %	0	0.9	12.1		0	76.6	3.7		0	0	0		1.9	4.7	0		95	5	

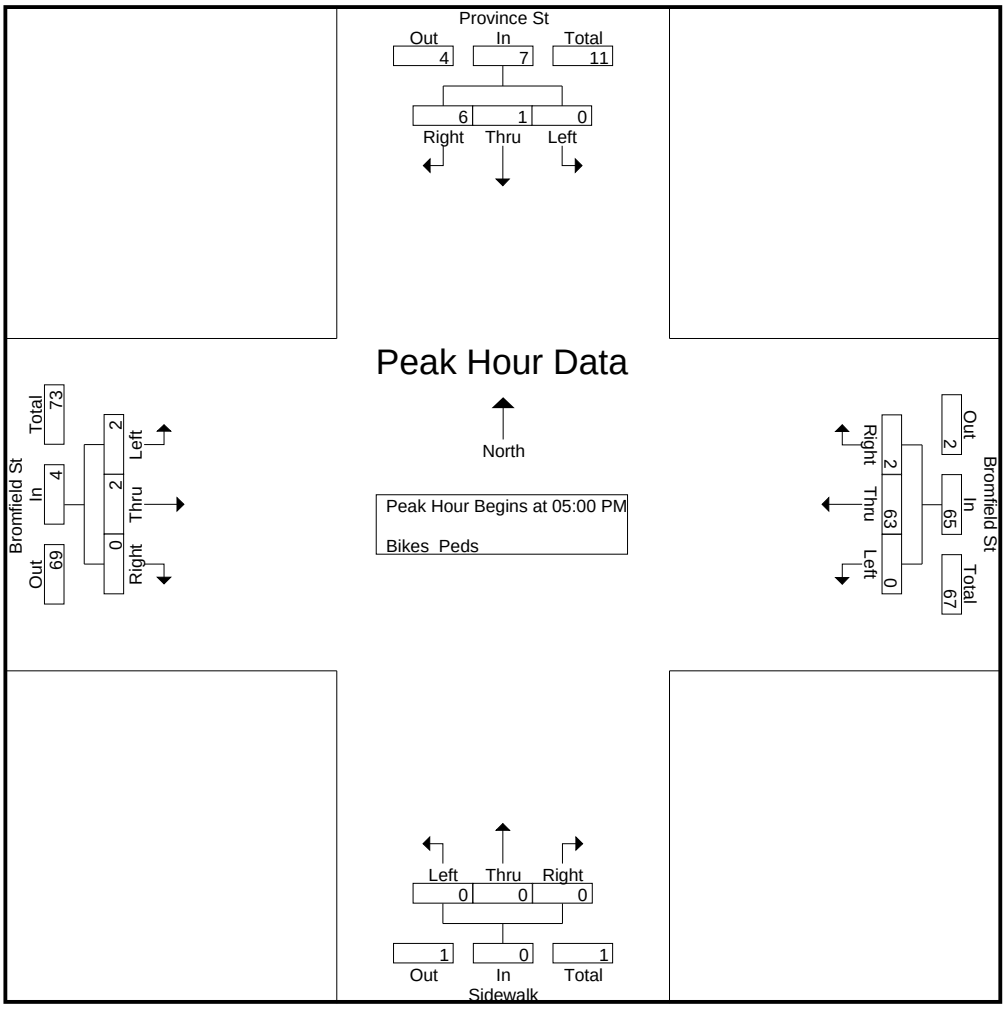
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 11

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	11	0	11	0	0	0	0	0	0	0	0	11
05:15 PM	0	**1**	**2**	**3**	0	**21**	0	**21**	0	0	0	0	**2**	0	0	**2**	**26**
05:30 PM	0	0	2	2	0	17	**2**	19	0	0	0	0	0	**2**	0	2	23
05:45 PM	0	0	2	2	0	14	0	14	0	0	0	0	0	0	0	0	16
Total Volume	0	1	6	7	0	63	2	65	0	0	0	0	2	2	0	4	76
% App. Total	0	14.3	85.7		0	96.9	3.1		0	0	0		50	50	0		
PHF	.000	.250	.750	.583	.000	.750	.250	.774	.000	.000	.000	.000	.250	.250	.000	.500	.731



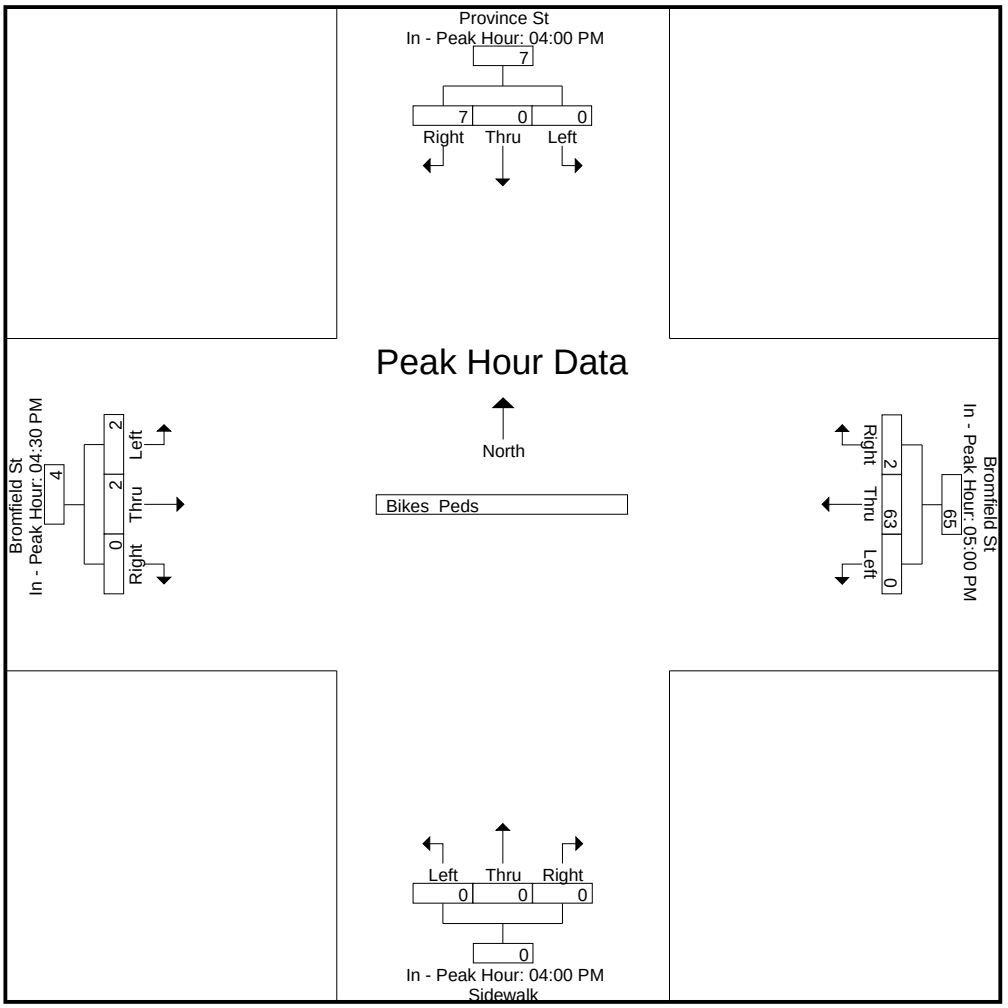
Accurate Counts

978-664-2565

N/S Street : Province Street
E/W Street: Bromfield Street
City/State : Boston, MA
Weather : Clear

File Name : 80190003
Site Code : 80190003
Start Date : 10/26/2016
Page No : 12

	Province St From North				Bromfield St From East				Sidewalk From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				05:00 PM				04:00 PM				04:30 PM				
+0 mins.	0	0	**3**	**3**	0	11	0	11	0	0	0	0	0	**2**	0	**2**	
+15 mins.	0	0	1	1	0	**21**	0	**21**	0	0	0	0	0	0	0	0	
+30 mins.	0	0	1	1	0	17	**2**	19	0	0	0	0	0	0	0	0	
+45 mins.	0	0	2	2	0	14	0	14	0	0	0	0	**2**	0	0	2	
Total Volume	0	0	7	7	0	63	2	65	0	0	0	0	2	2	0	4	
% App. Total	0	0	100		0	96.9	3.1		0	0	0		50	50	0		
PHF	.000	.000	.583	.583	.000	.750	.250	.774	.000	.000	.000	.000	.250	.250	.000	.500	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016

Groups Printed- Cars - Trucks

	Washington St From North			Franklin St From East			Washington St From South			Bromfield St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	0	0	0	5	6	0	0	0	0	11
07:15 AM	0	0	0	0	0	0	2	5	0	0	0	0	7
07:30 AM	0	0	0	0	0	0	3	7	0	0	0	0	10
07:45 AM	0	0	0	0	0	0	3	8	0	0	0	0	11
Total	0	0	0	0	0	0	13	26	0	0	0	0	39
08:00 AM	0	0	0	0	0	0	2	2	0	0	0	0	4
08:15 AM	0	0	0	0	0	0	1	7	0	0	0	0	8
08:30 AM	0	0	0	0	0	0	5	7	0	0	0	0	12
08:45 AM	0	0	0	0	0	0	3	8	0	0	0	0	11
Total	0	0	0	0	0	0	11	24	0	0	0	0	35
Grand Total	0	0	0	0	0	0	24	50	0	0	0	0	74
Apprch %	0	0	0	0	0	0	32.4	67.6	0	0	0	0	
Total %	0	0	0	0	0	0	32.4	67.6	0	0	0	0	
Cars	0	0	0	0	0	0	23	39	0	0	0	0	62
% Cars	0	0	0	0	0	0	95.8	78	0	0	0	0	83.8
Trucks	0	0	0	0	0	0	1	11	0	0	0	0	12
% Trucks	0	0	0	0	0	0	4.2	22	0	0	0	0	16.2

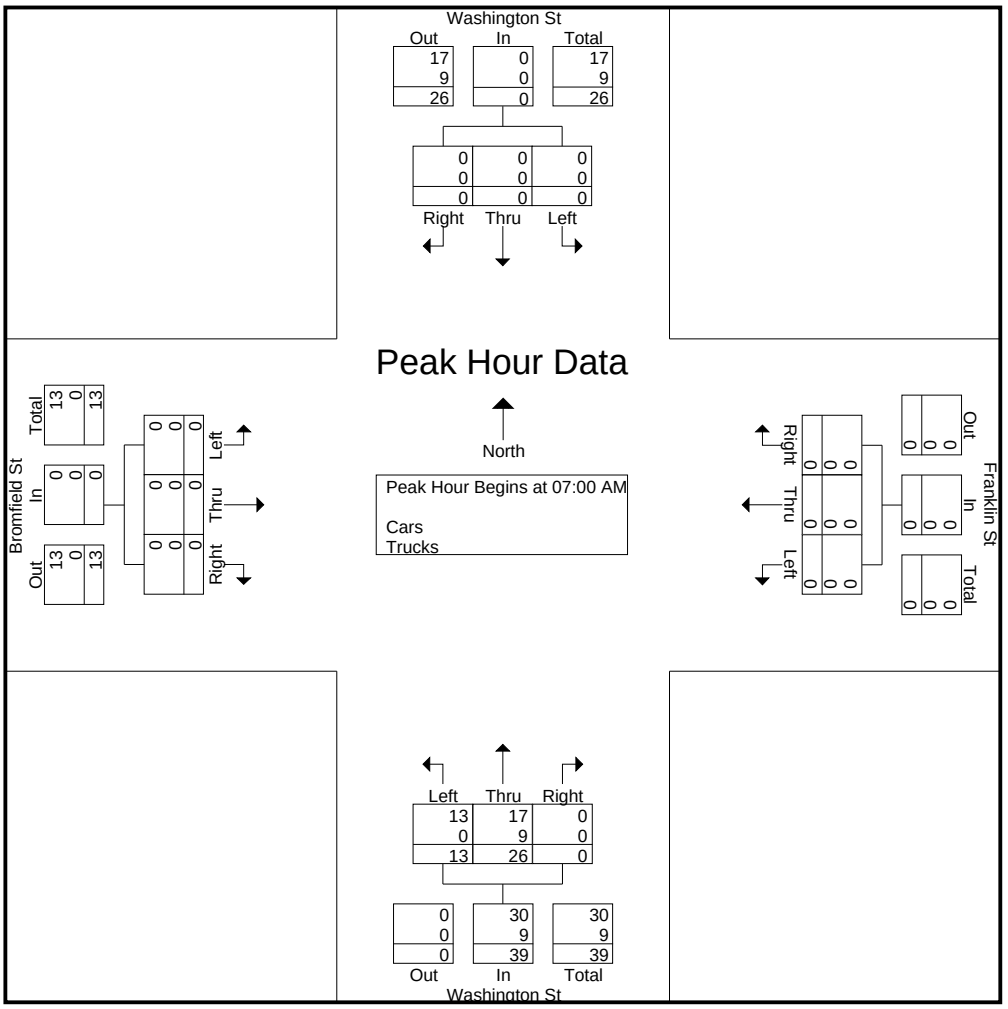
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	**5**	6	0	**11**	0	0	0	0	**11**
07:15 AM	0	0	0	0	0	0	0	0	2	5	0	7	0	0	0	0	7
07:30 AM	0	0	0	0	0	0	0	0	3	7	0	10	0	0	0	0	10
07:45 AM	0	0	0	0	0	0	0	0	3	**8**	0	11	0	0	0	0	11
Total Volume	0	0	0	0	0	0	0	0	13	26	0	39	0	0	0	0	39
% App. Total	0	0	0		0	0	0		33.3	66.7	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.650	.813	.000	.886	.000	.000	.000	.000	.886
Cars	0	0	0	0	0	0	0	0	13	17	0	30	0	0	0	0	30
% Cars	0	0	0	0	0	0	0	0	100	65.4	0	76.9	0	0	0	0	76.9
Trucks	0	0	0	0	0	0	0	0	0	9	0	9	0	0	0	0	9
% Trucks	0	0	0	0	0	0	0	0	0	34.6	0	23.1	0	0	0	0	23.1



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

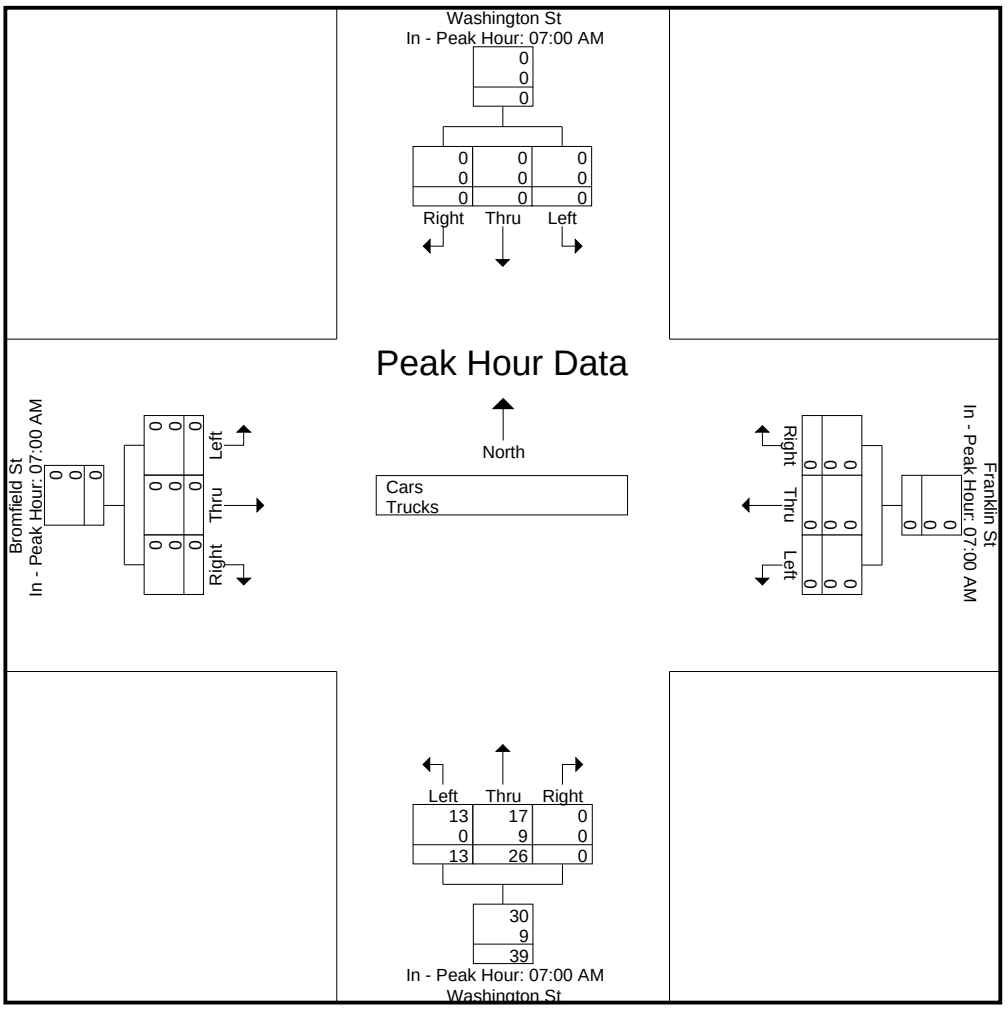
File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 3

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

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

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	**5**	6	0	**11**	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	2	5	0	7	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	3	7	0	10	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	3	**8**	0	11	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	13	26	0	39	0	0	0	0	
% App. Total	0	0	0		0	0	0		33.3	66.7	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.650	.813	.000	.886	.000	.000	.000	.000	
Cars	0	0	0	0	0	0	0	0	13	17	0	30	0	0	0	0	
% Cars	0	0	0	0	0	0	0	0	100	65.4	0	76.9	0	0	0	0	
Trucks	0	0	0	0	0	0	0	0	0	9	0	9	0	0	0	0	
% Trucks	0	0	0	0	0	0	0	0	0	34.6	0	23.1	0	0	0	0	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016

Groups Printed- Cars

	Washington St From North			Franklin St From East			Washington St From South			Bromfield St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	0	0	0	5	2	0	0	0	0	7
07:15 AM	0	0	0	0	0	0	2	4	0	0	0	0	6
07:30 AM	0	0	0	0	0	0	3	4	0	0	0	0	7
07:45 AM	0	0	0	0	0	0	3	7	0	0	0	0	10
Total	0	0	0	0	0	0	13	17	0	0	0	0	30
08:00 AM	0	0	0	0	0	0	2	2	0	0	0	0	4
08:15 AM	0	0	0	0	0	0	1	5	0	0	0	0	6
08:30 AM	0	0	0	0	0	0	5	7	0	0	0	0	12
08:45 AM	0	0	0	0	0	0	2	8	0	0	0	0	10
Total	0	0	0	0	0	0	10	22	0	0	0	0	32
Grand Total	0	0	0	0	0	0	23	39	0	0	0	0	62
Apprch %	0	0	0	0	0	0	37.1	62.9	0	0	0	0	
Total %	0	0	0	0	0	0	37.1	62.9	0	0	0	0	

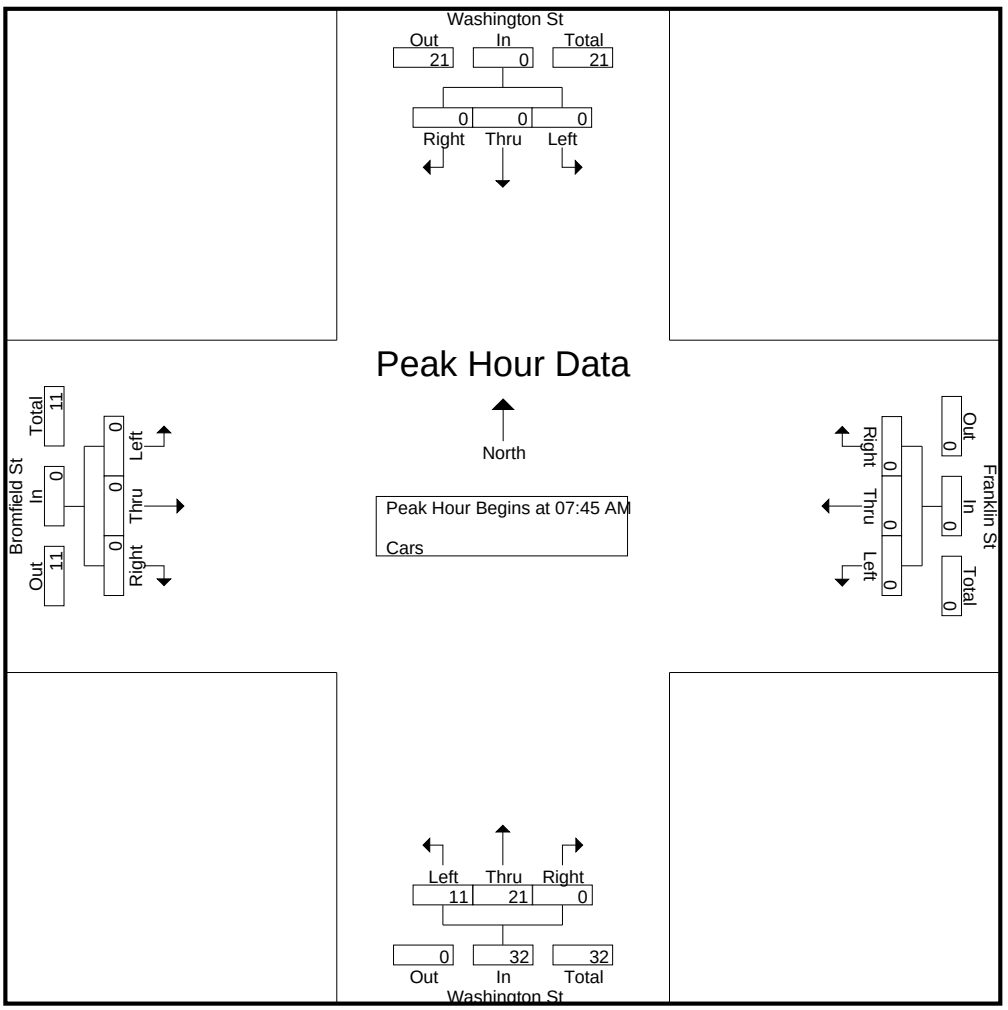
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 5

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	3	**7**	0	10	0	0	0	0	10
08:00 AM	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	4
08:15 AM	0	0	0	0	0	0	0	0	1	5	0	6	0	0	0	0	6
08:30 AM	0	0	0	0	0	0	0	0	**5**	7	0	**12**	0	0	0	0	**12**
Total Volume	0	0	0	0	0	0	0	0	11	21	0	32	0	0	0	0	32
% App. Total	0	0	0		0	0	0		34.4	65.6	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.550	.750	.000	.667	.000	.000	.000	.000	.667



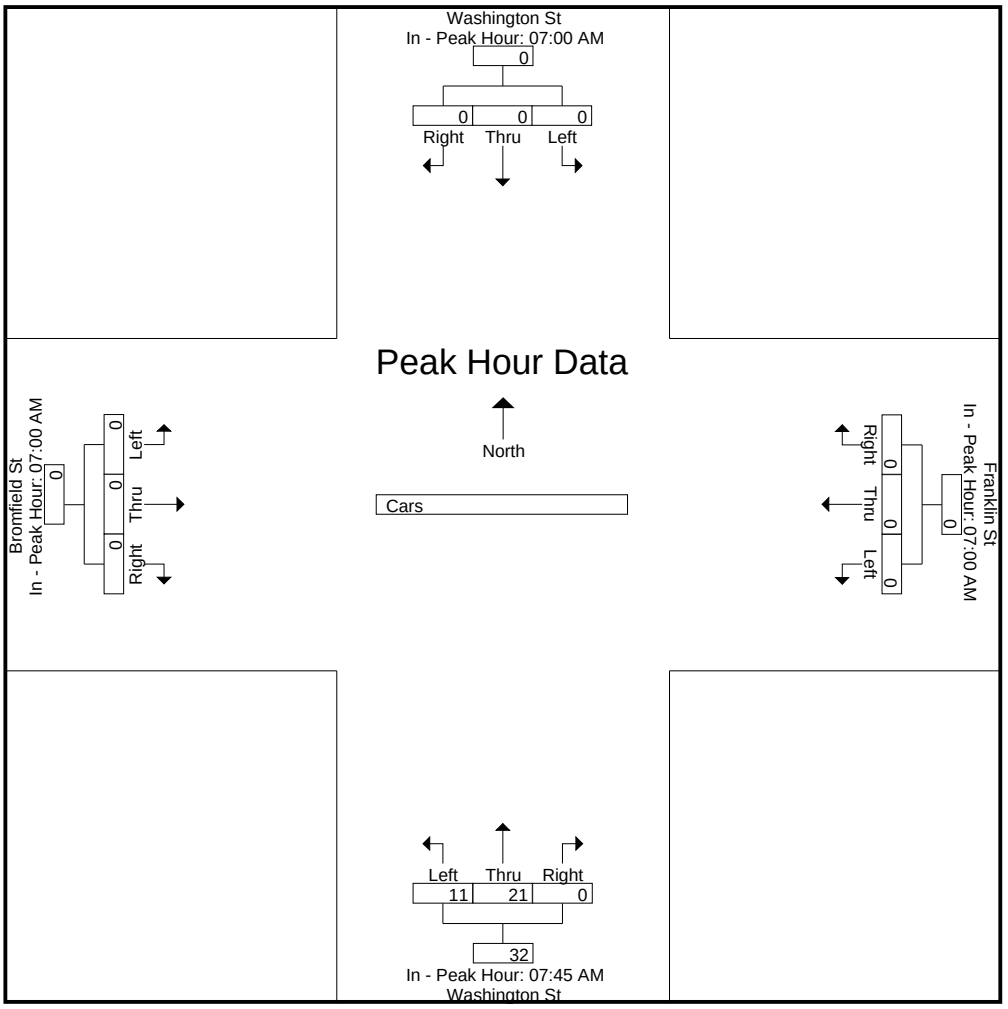
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 6

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:45 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	3	**7**	0	10	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	1	5	0	6	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	**5**	7	0	**12**	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	11	21	0	32	0	0	0	0	
% App. Total	0	0	0		0	0	0		34.4	65.6	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.550	.750	.000	.667	.000	.000	.000	.000	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016

Groups Printed- Trucks

	Washington St From North			Franklin St From East			Washington St From South			Bromfield St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	0	0	0	0	4	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	9	0	0	0	0	9
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	2	0	0	0	0	3
Grand Total	0	0	0	0	0	0	1	11	0	0	0	0	12
Apprch %	0	0	0	0	0	0	8.3	91.7	0	0	0	0	
Total %	0	0	0	0	0	0	8.3	91.7	0	0	0	0	

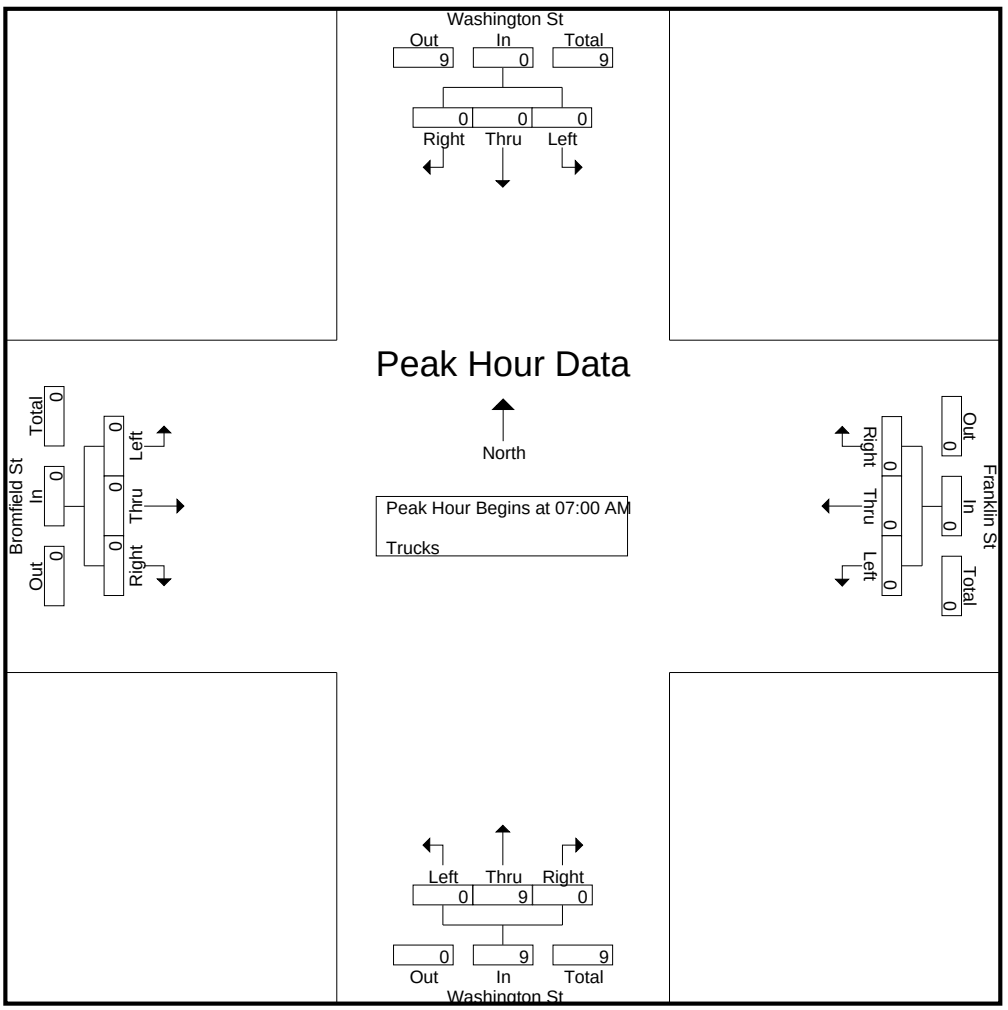
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 8

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	**4**	0	**4**	0	0	0	0	**4**
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	9	0	9	0	0	0	0	9
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.563	.000	.563	.000	.000	.000	.000	.563



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

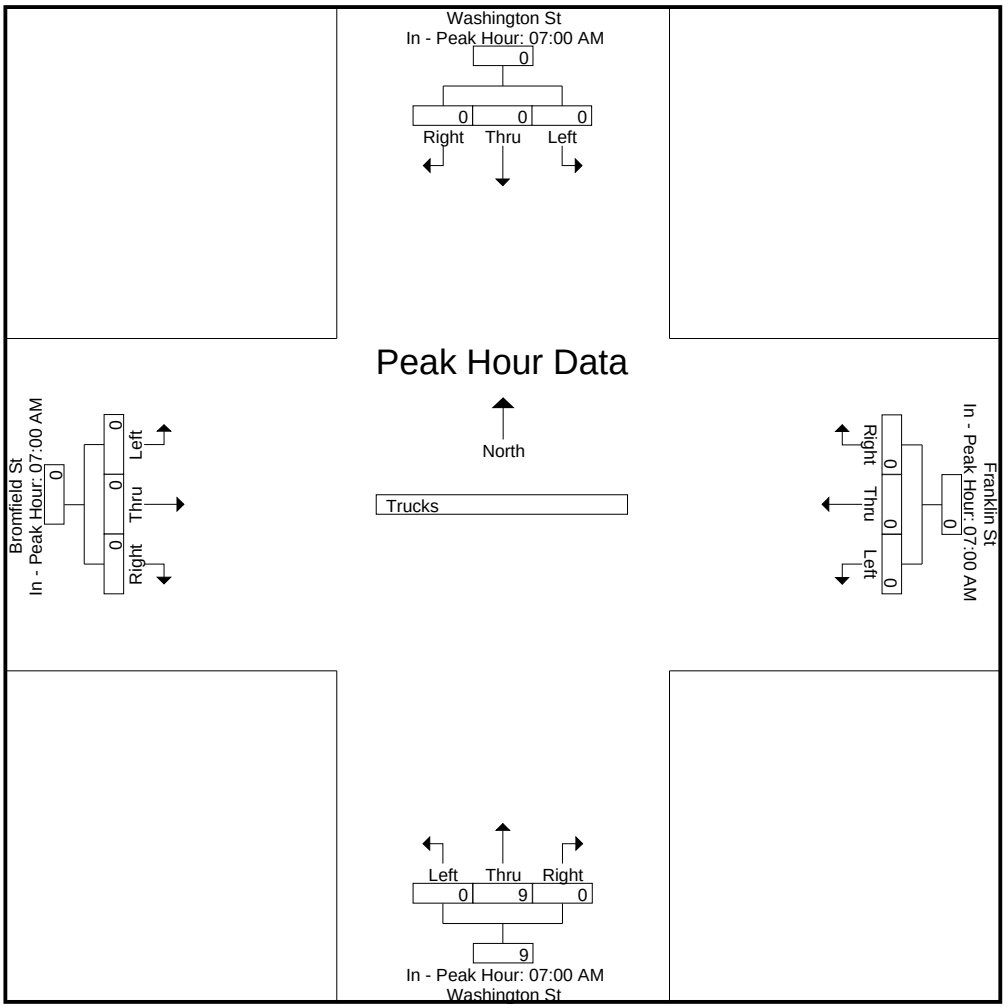
File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 9

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

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

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	**4**	0	**4**	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	9	0	9	0	0	0	0	
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.563	.000	.563	.000	.000	.000	.000	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016

Groups Printed- Bikes Peds

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	60	0	0	0	30	1	4	0	8	0	0	1	135	233	6	239
07:15 AM	1	0	1	68	0	0	0	39	0	6	0	11	1	0	0	196	314	9	323
07:30 AM	0	0	0	81	0	0	0	57	0	10	0	15	0	0	0	232	385	10	395
07:45 AM	0	2	0	88	0	0	0	89	1	9	0	34	0	0	1	263	474	13	487
Total	1	2	1	297	0	0	0	215	2	29	0	68	1	0	2	826	1406	38	1444
08:00 AM	0	1	1	137	0	0	0	103	3	23	0	15	2	0	0	265	520	30	550
08:15 AM	0	0	0	126	0	0	0	167	0	32	0	40	2	0	0	331	664	34	698
08:30 AM	0	0	1	168	0	0	0	171	1	27	0	57	0	0	2	370	766	31	797
08:45 AM	0	1	0	169	0	0	0	204	3	18	0	46	3	0	1	320	739	26	765
Total	0	2	2	600	0	0	0	645	7	100	0	158	7	0	3	1286	2689	121	2810
Grand Total	1	4	3	897	0	0	0	860	9	129	0	226	8	0	5	2112	4095	159	4254
Apprch %	12.5	50	37.5		0	0	0		6.5	93.5	0		61.5	0	38.5				
Total %	0.6	2.5	1.9		0	0	0		5.7	81.1	0		5	0	3.1		96.3	3.7	

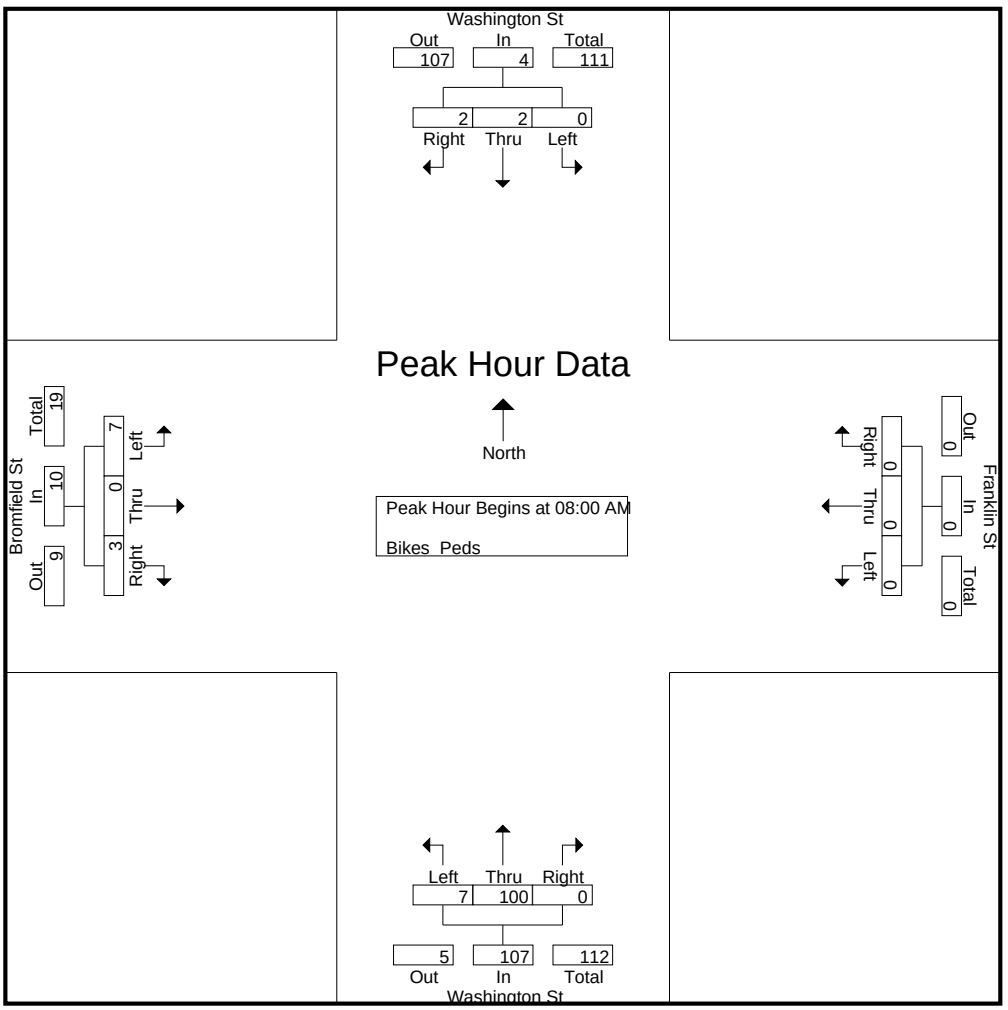
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 11

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	**1**	**1**	**2**	0	0	0	0	**3**	23	0	26	2	0	0	2	30
08:15 AM	0	0	0	0	0	0	0	0	0	**32**	0	**32**	2	0	0	2	**34**
08:30 AM	0	0	1	1	0	0	0	0	1	27	0	28	0	0	**2**	2	31
08:45 AM	0	1	0	1	0	0	0	0	3	18	0	21	**3**	0	1	**4**	26
Total Volume	0	2	2	4	0	0	0	0	7	100	0	107	7	0	3	10	121
% App. Total	0	50	50		0	0	0		6.5	93.5	0		70	0	30		
PHF	.000	.500	.500	.500	.000	.000	.000	.000	.583	.781	.000	.836	.583	.000	.375	.625	.890



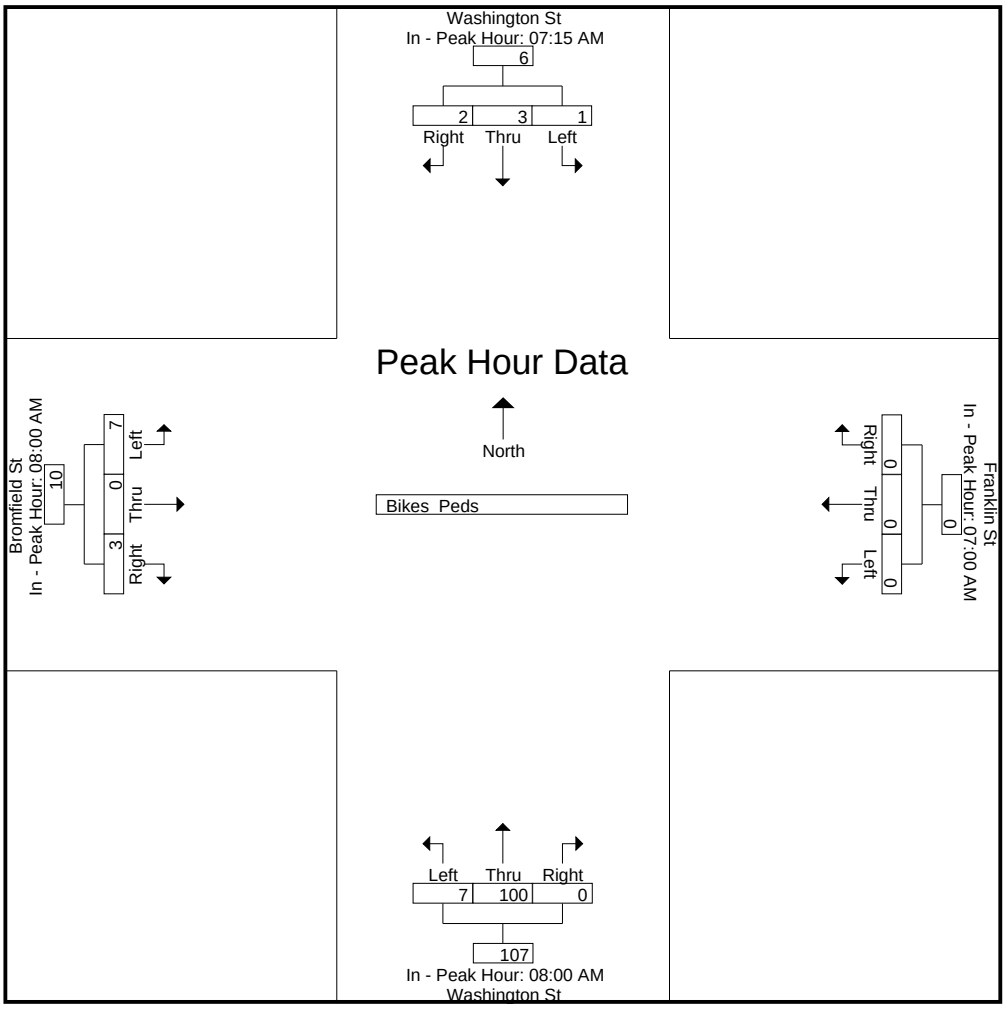
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 12

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:00 AM				08:00 AM				08:00 AM				
+0 mins.	**1**	0	**1**	**2**	0	0	0	0	**3**	23	0	26	2	0	0	2	
+15 mins.	0	0	0	0	0	0	0	0	0	**32**	0	**32**	2	0	0	2	
+30 mins.	0	**2**	0	2	0	0	0	0	1	27	0	28	0	0	**2**	2	
+45 mins.	0	1	1	2	0	0	0	0	3	18	0	21	**3**	0	1	**4**	
Total Volume	1	3	2	6	0	0	0	0	7	100	0	107	7	0	3	10	
% App. Total	16.7	50	33.3		0	0	0		6.5	93.5	0		70	0	30		
PHF	.250	.375	.500	.750	.000	.000	.000	.000	.583	.781	.000	.836	.583	.000	.375	.625	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 1

Groups Printed- Cars - Trucks

	Washington St From North			Franklin St From East			Washington St From South			Bromfield St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	2
Total	0	0	0	0	0	0	1	4	0	0	0	0	5
05:00 PM	0	0	2	0	0	0	0	2	0	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
05:45 PM	0	1	0	0	0	0	2	3	0	0	0	0	6
Total	0	1	2	0	0	0	2	10	0	0	0	0	15
Grand Total	0	1	2	0	0	0	3	14	0	0	0	0	20
Apprch %	0	33.3	66.7	0	0	0	17.6	82.4	0	0	0	0	
Total %	0	5	10	0	0	0	15	70	0	0	0	0	
Cars	0	1	2	0	0	0	3	13	0	0	0	0	19
% Cars	0	100	100	0	0	0	100	92.9	0	0	0	0	95
Trucks	0	0	0	0	0	0	0	1	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0	7.1	0	0	0	0	5

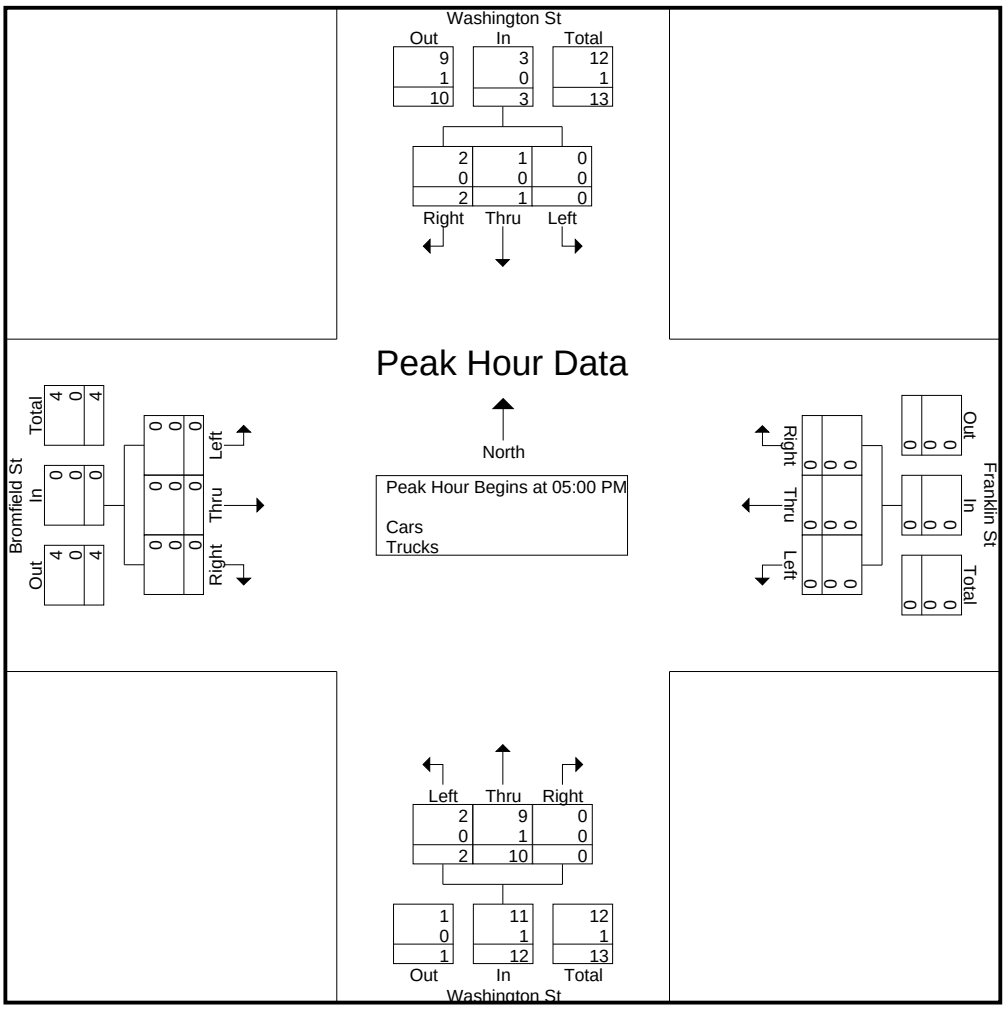
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 2

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	**2**	**2**	0	0	0	0	0	2	0	2	0	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	**3**	0	3	0	0	0	0	3
05:45 PM	0	**1**	0	1	0	0	0	0	**2**	3	0	**5**	0	0	0	0	**6**
Total Volume	0	1	2	3	0	0	0	0	2	10	0	12	0	0	0	0	15
% App. Total	0	33.3	66.7		0	0	0		16.7	83.3	0		0	0	0		
PHF	.000	.250	.250	.375	.000	.000	.000	.000	.250	.833	.000	.600	.000	.000	.000	.000	.625
Cars	0	1	2	3	0	0	0	0	2	9	0	11	0	0	0	0	14
% Cars	0	100	100	100	0	0	0	0	100	90.0	0	91.7	0	0	0	0	93.3
Trucks	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0	0	0	10.0	0	8.3	0	0	0	0	6.7



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

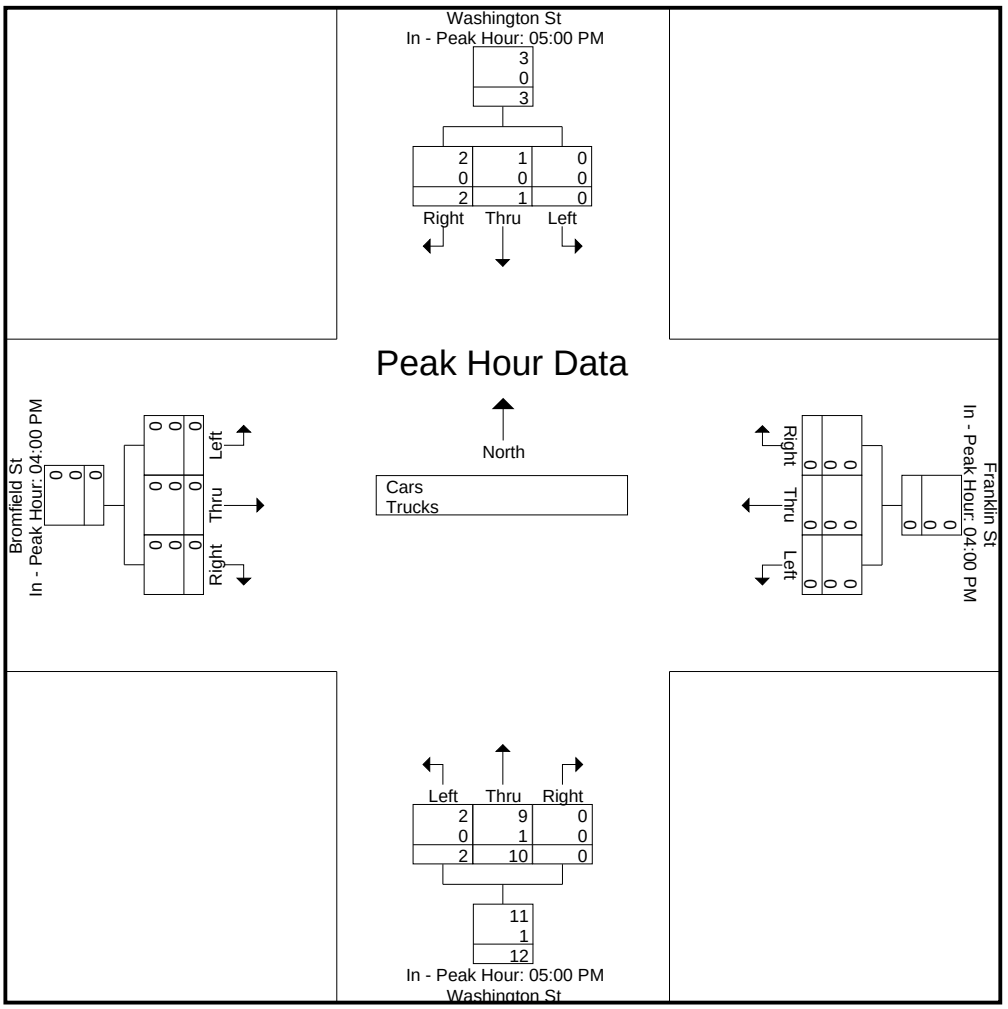
File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 3

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				05:00 PM				04:00 PM			
+0 mins.	0	0	**2**	**2**	0	0	0	0	0	2	0	2	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	**3**	0	3	0	0	0	0
+45 mins.	0	**1**	0	1	0	0	0	0	**2**	3	0	**5**	0	0	0	0
Total Volume	0	1	2	3	0	0	0	0	2	10	0	12	0	0	0	0
% App. Total	0	33.3	66.7		0	0	0		16.7	83.3	0		0	0	0	
PHF	.000	.250	.250	.375	.000	.000	.000	.000	.250	.833	.000	.600	.000	.000	.000	.000
Cars	0	1	2	3	0	0	0	0	2	9	0	11	0	0	0	0
% Cars	0	100	100	100	0	0	0	0	100	90	0	91.7	0	0	0	0
Trucks	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	10	0	8.3	0	0	0	0



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016

Groups Printed- Cars

	Washington St From North			Franklin St From East			Washington St From South			Bromfield St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	2
Total	0	0	0	0	0	0	1	4	0	0	0	0	5
05:00 PM	0	0	2	0	0	0	0	2	0	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
05:45 PM	0	1	0	0	0	0	2	2	0	0	0	0	5
Total	0	1	2	0	0	0	2	9	0	0	0	0	14
Grand Total	0	1	2	0	0	0	3	13	0	0	0	0	19
Apprch %	0	33.3	66.7	0	0	0	18.8	81.2	0	0	0	0	
Total %	0	5.3	10.5	0	0	0	15.8	68.4	0	0	0	0	

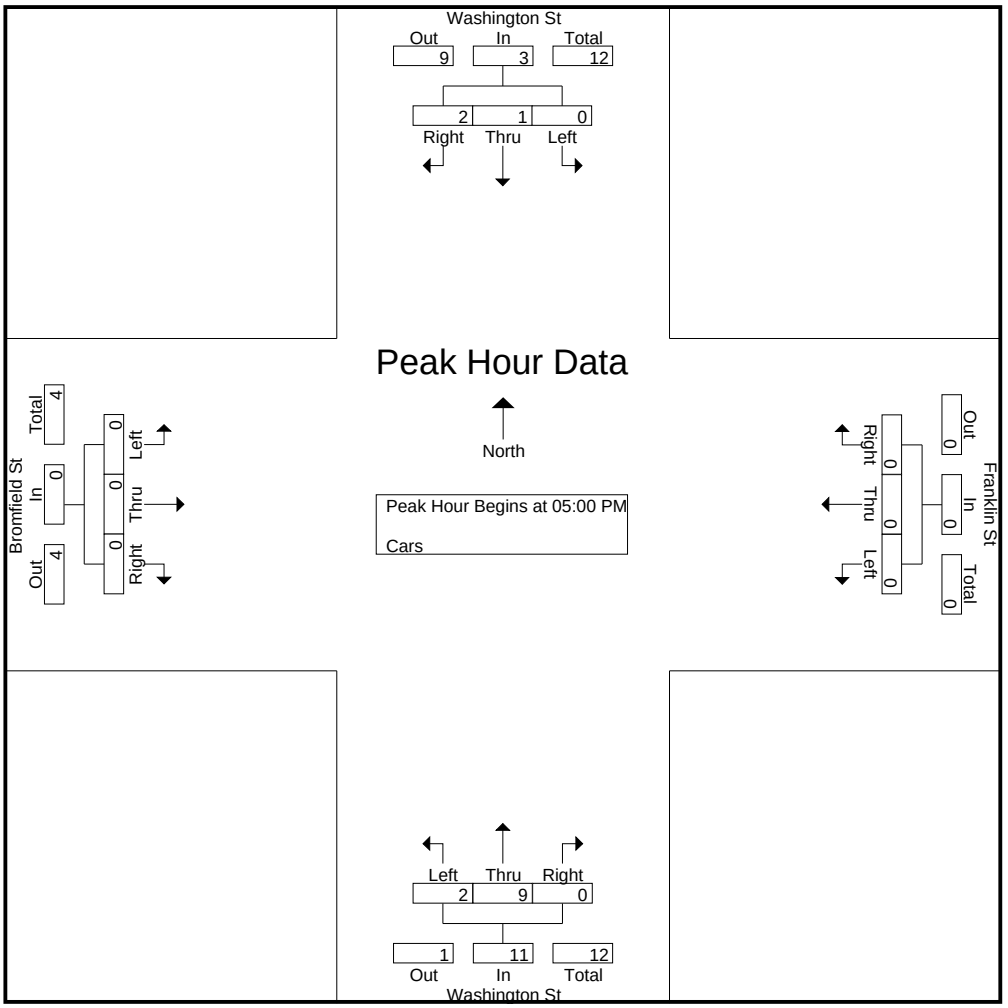
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 5

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	**2**	**2**	0	0	0	0	0	2	0	2	0	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	**3**	0	3	0	0	0	0	3
05:45 PM	0	**1**	0	1	0	0	0	0	**2**	2	0	**4**	0	0	0	0	**5**
Total Volume	0	1	2	3	0	0	0	0	2	9	0	11	0	0	0	0	14
% App. Total	0	33.3	66.7		0	0	0		18.2	81.8	0		0	0	0		
PHF	.000	.250	.250	.375	.000	.000	.000	.000	.250	.750	.000	.688	.000	.000	.000	.000	.700



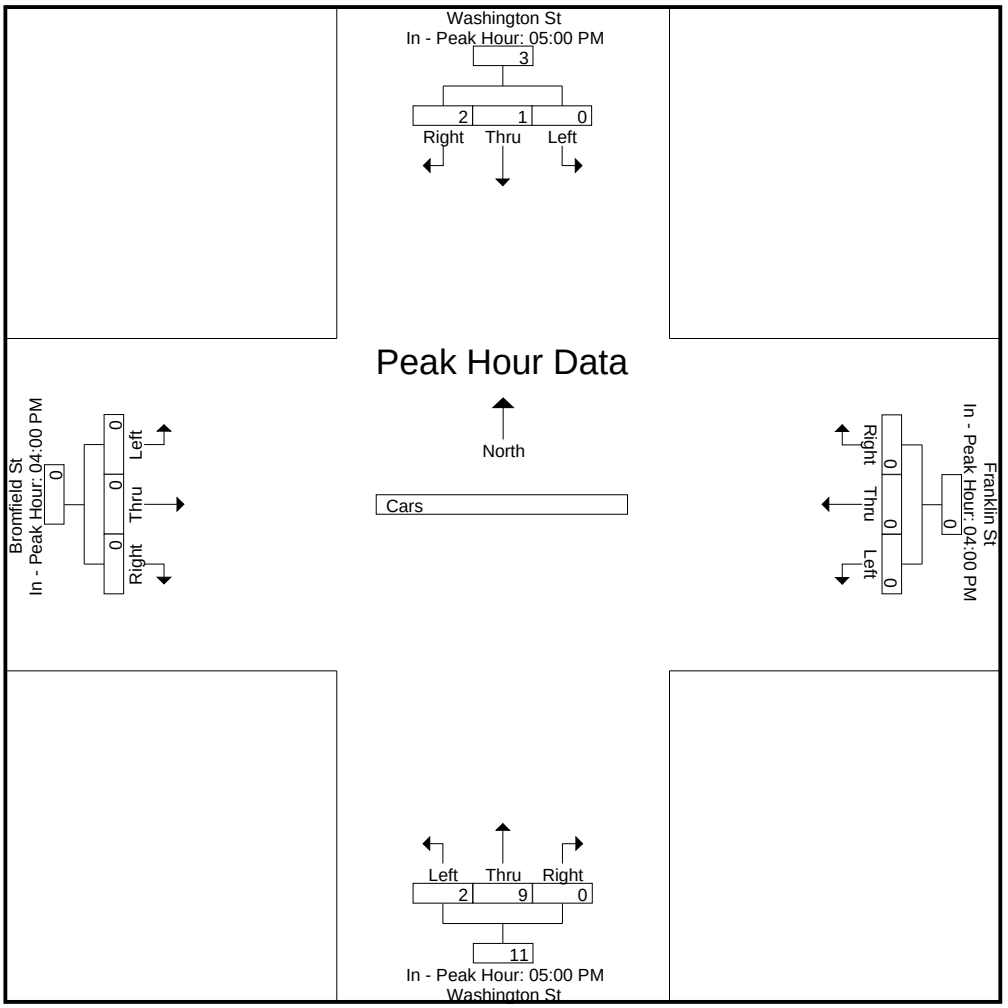
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 6

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				04:00 PM				05:00 PM				04:00 PM				
+0 mins.	0	0	**2**	**2**	0	0	0	0	0	2	0	2	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	**3**	0	3	0	0	0	0	
+45 mins.	0	**1**	0	1	0	0	0	0	**2**	2	0	**4**	0	0	0	0	
Total Volume	0	1	2	3	0	0	0	0	2	9	0	11	0	0	0	0	
% App. Total	0	33.3	66.7		0	0	0		18.2	81.8	0		0	0	0		
PHF	.000	.250	.250	.375	.000	.000	.000	.000	.250	.750	.000	.688	.000	.000	.000	.000	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016

Groups Printed- Trucks

	Washington St From North			Franklin St From East			Washington St From South			Bromfield St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	1	0	0	0	0	1
Apprch %	0	0	0	0	0	0	0	100	0	0	0	0	
Total %	0	0	0	0	0	0	0	100	0	0	0	0	

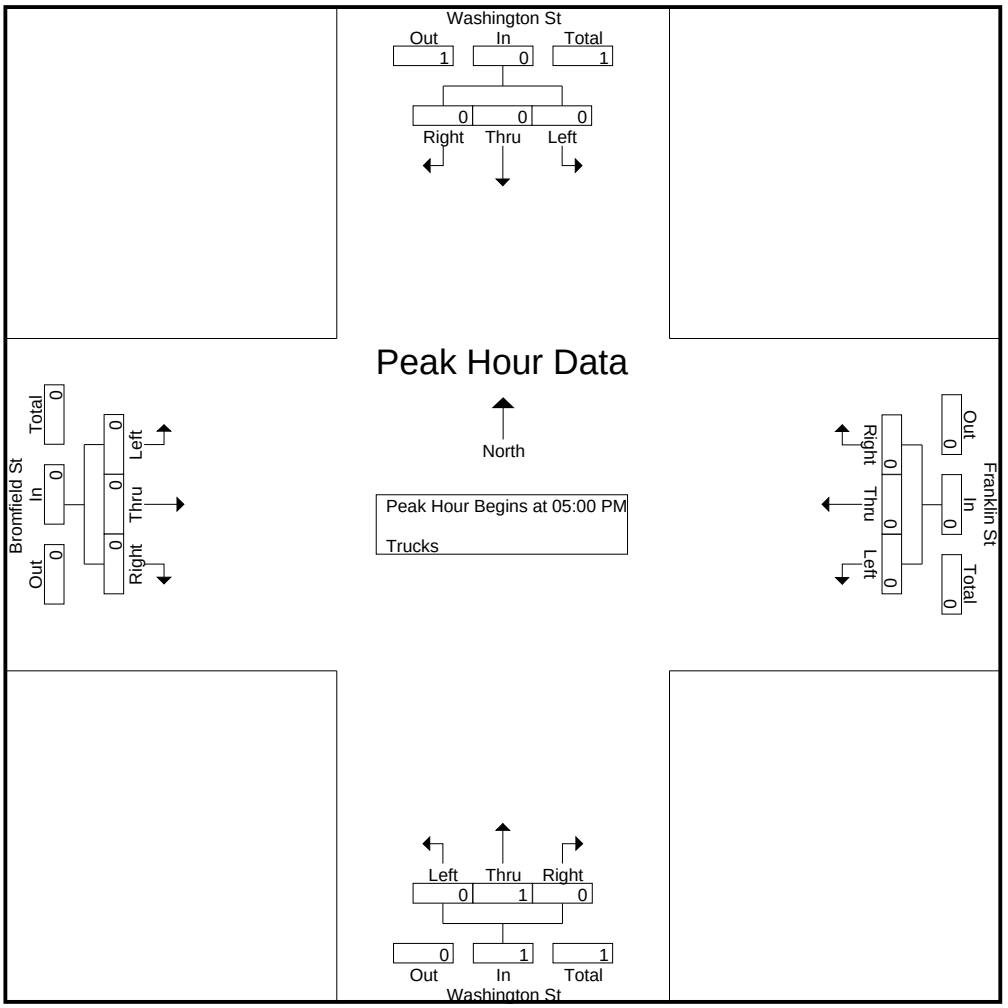
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 8

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

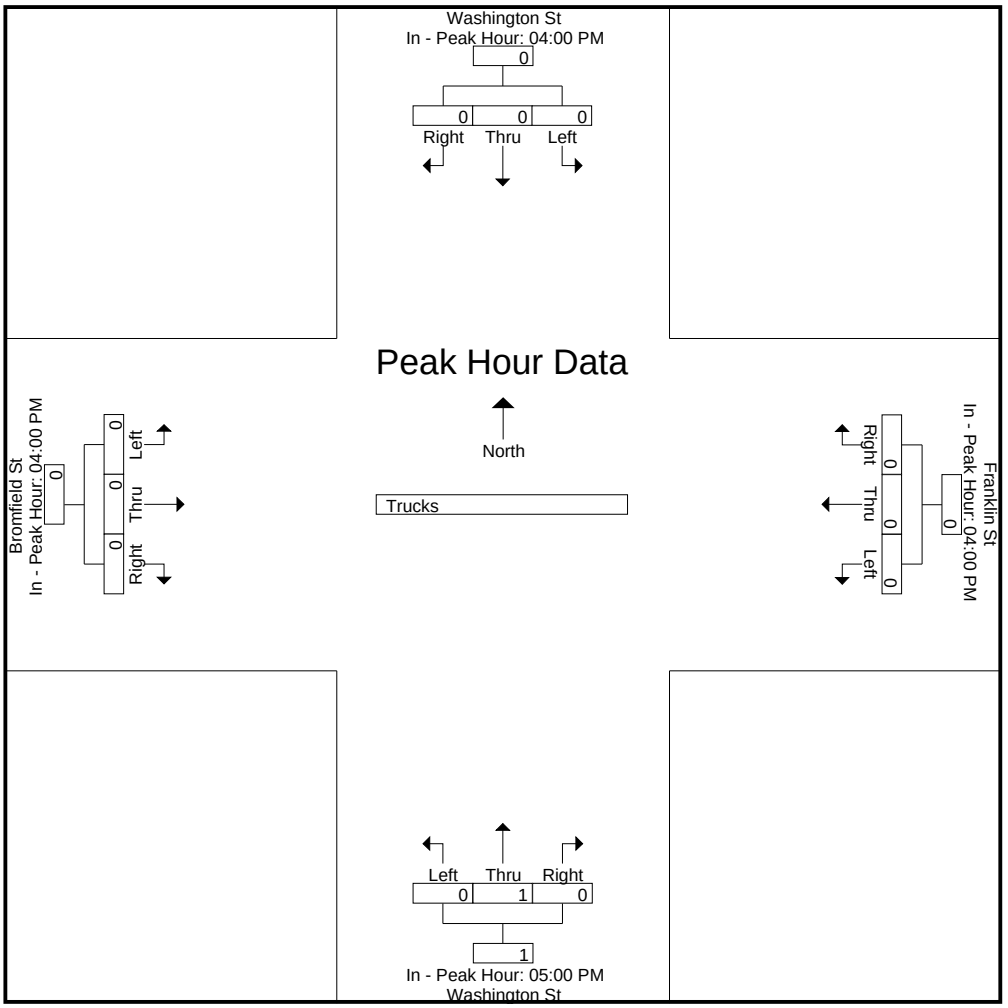
File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 9

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				05:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016

Groups Printed- Bikes Peds

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	3	143	0	0	0	268	0	3	0	44	1	0	0	491	946	7	953
04:15 PM	0	0	3	127	0	0	0	266	1	6	0	36	0	0	0	480	909	10	919
04:30 PM	0	2	6	214	0	0	0	374	0	3	0	31	2	0	0	542	1161	13	1174
04:45 PM	0	2	4	174	0	0	0	345	0	4	0	46	0	0	0	495	1060	10	1070
Total	0	4	16	658	0	0	0	1253	1	16	0	157	3	0	0	2008	4076	40	4116
05:00 PM	0	4	11	212	0	0	0	446	2	10	0	43	0	0	0	627	1328	27	1355
05:15 PM	0	1	18	237	0	0	0	413	0	4	0	50	1	0	1	612	1312	25	1337
05:30 PM	0	3	11	210	0	0	0	458	3	5	0	49	0	0	1	559	1276	23	1299
05:45 PM	0	1	8	174	0	0	0	358	0	7	0	53	1	0	0	543	1128	17	1145
Total	0	9	48	833	0	0	0	1675	5	26	0	195	2	0	2	2341	5044	92	5136
Grand Total	0	13	64	1491	0	0	0	2928	6	42	0	352	5	0	2	4349	9120	132	9252
Apprch %	0	16.9	83.1		0	0	0		12.5	87.5	0		71.4	0	28.6				
Total %	0	9.8	48.5		0	0	0		4.5	31.8	0		3.8	0	1.5		98.6	1.4	

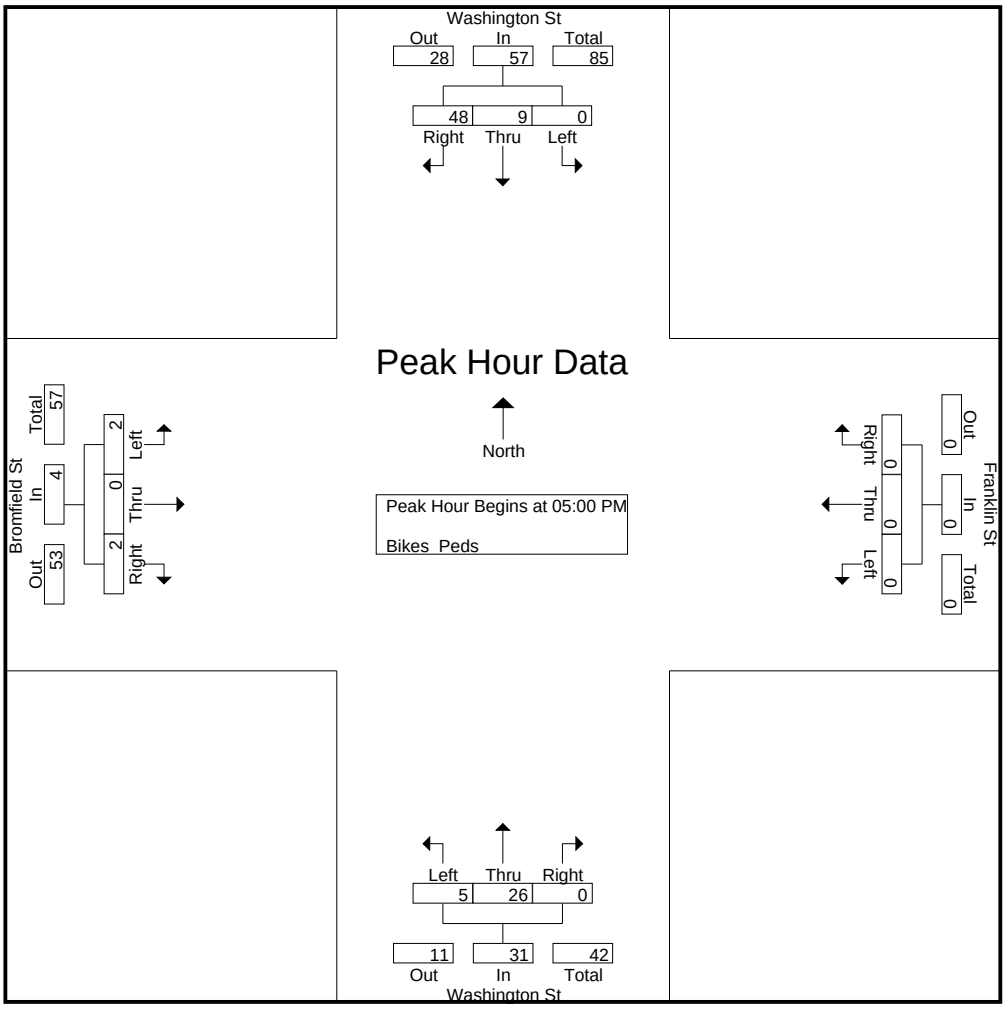
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 11

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	**4**	11	15	0	0	0	0	2	**10**	0	**12**	0	0	0	0	**27**
05:15 PM	0	1	**18**	**19**	0	0	0	0	0	4	0	4	**1**	0	**1**	**2**	25
05:30 PM	0	3	11	14	0	0	0	0	**3**	5	0	8	0	0	1	1	23
05:45 PM	0	1	8	9	0	0	0	0	0	7	0	7	1	0	0	1	17
Total Volume	0	9	48	57	0	0	0	0	5	26	0	31	2	0	2	4	92
% App. Total	0	15.8	84.2		0	0	0		16.1	83.9	0		50	0	50		
PHF	.000	.563	.667	.750	.000	.000	.000	.000	.417	.650	.000	.646	.500	.000	.500	.500	.852



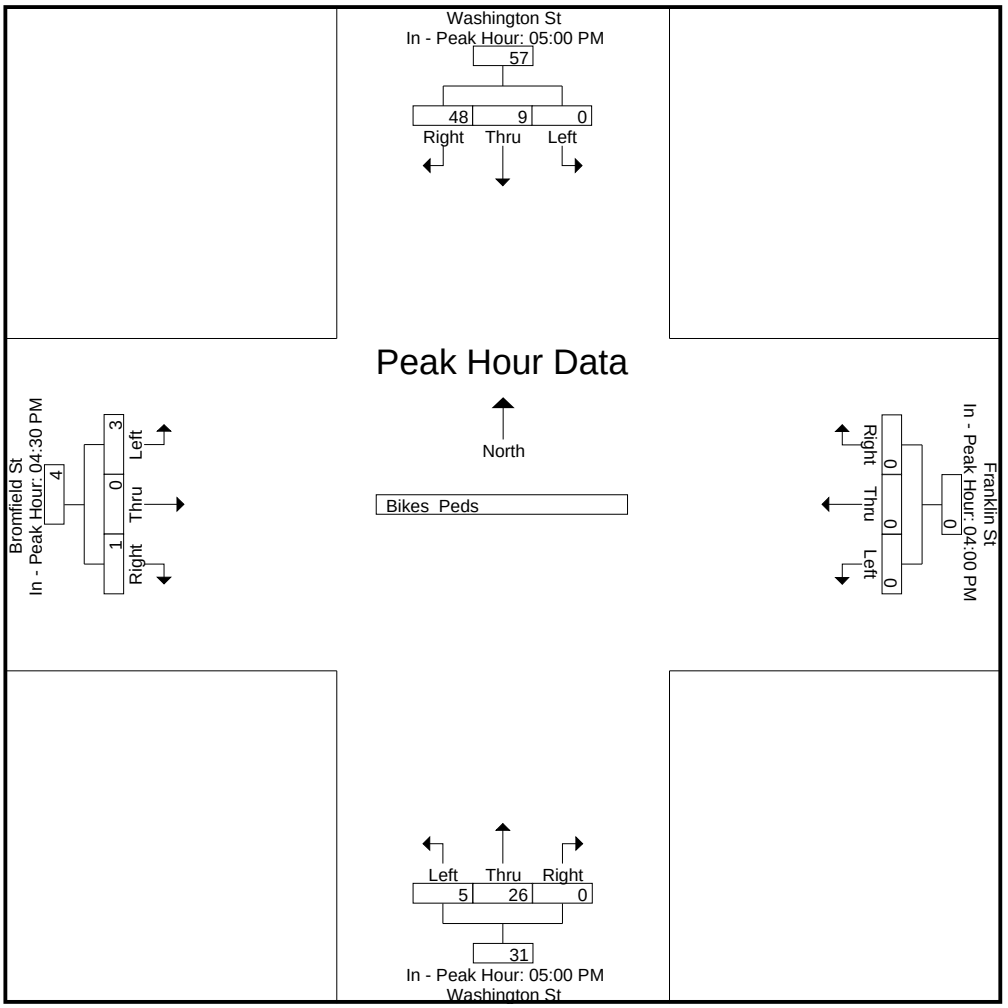
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Franklin St / Bromfield St
City/State : Boston, MA
Weather : Clear

File Name : 80190004
Site Code : 80190004
Start Date : 10/26/2016
Page No : 12

	Washington St From North				Franklin St From East				Washington St From South				Bromfield St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				04:00 PM				05:00 PM				04:30 PM				
+0 mins.	0	**4**	11	15	0	0	0	0	2	**10**	0	**12**	**2**	0	0	**2**	
+15 mins.	0	1	**18**	**19**	0	0	0	0	0	4	0	4	0	0	0	0	
+30 mins.	0	3	11	14	0	0	0	0	**3**	5	0	8	0	0	0	0	
+45 mins.	0	1	8	9	0	0	0	0	0	7	0	7	1	0	**1**	2	
Total Volume	0	9	48	57	0	0	0	0	5	26	0	31	3	0	1	4	
% App. Total	0	15.8	84.2		0	0	0		16.1	83.9	0		75	0	25		
PHF	.000	.563	.667	.750	.000	.000	.000	.000	.417	.650	.000	.646	.375	.000	.250	.500	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016

Groups Printed- Cars - Trucks

	Washington St From North			Milk St From East			Washington St From South			Sidewalk From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	0	0	34	0	4	3	0	0	0	41
07:15 AM	0	0	0	0	0	42	0	6	0	0	0	0	48
07:30 AM	0	0	0	0	0	39	0	3	2	0	0	0	44
07:45 AM	0	0	0	0	0	39	0	3	5	0	0	0	47
Total	0	0	0	0	0	154	0	16	10	0	0	0	180
08:00 AM	0	0	0	0	0	52	1	3	1	0	0	0	57
08:15 AM	0	0	0	0	0	50	0	5	4	0	0	0	59
08:30 AM	0	0	0	0	0	38	0	3	2	0	0	0	43
08:45 AM	0	0	0	0	0	48	0	5	2	0	0	0	55
Total	0	0	0	0	0	188	1	16	9	0	0	0	214
Grand Total	0	0	0	0	0	342	1	32	19	0	0	0	394
Apprch %	0	0	0	0	0	100	1.9	61.5	36.5	0	0	0	
Total %	0	0	0	0	0	86.8	0.3	8.1	4.8	0	0	0	
Cars	0	0	0	0	0	318	1	26	15	0	0	0	360
% Cars	0	0	0	0	0	93	100	81.2	78.9	0	0	0	91.4
Trucks	0	0	0	0	0	24	0	6	4	0	0	0	34
% Trucks	0	0	0	0	0	7	0	18.8	21.1	0	0	0	8.6

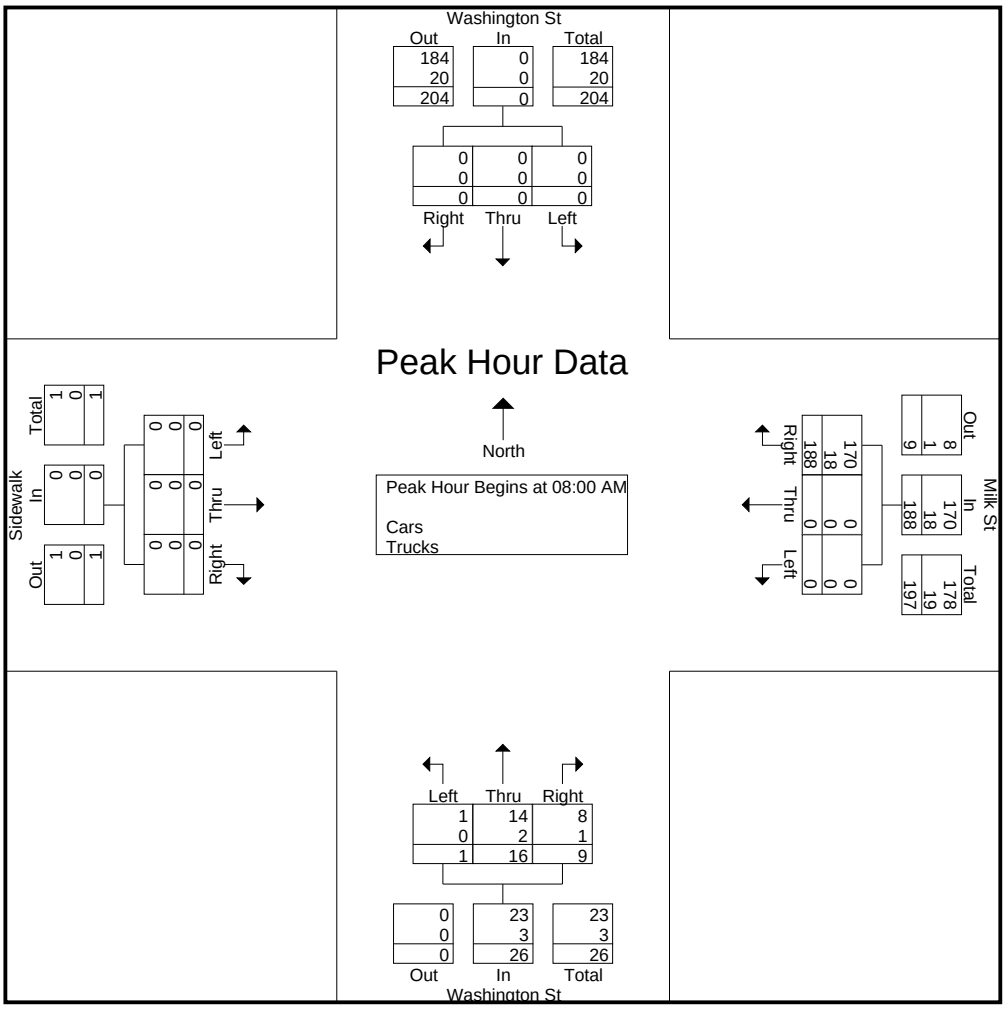
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 2

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	0	**52**	**52**	**1**	3	1	5	0	0	0	0	57
08:15 AM	0	0	0	0	0	0	50	50	0	**5**	**4**	**9**	0	0	0	0	**59**
08:30 AM	0	0	0	0	0	0	38	38	0	3	2	5	0	0	0	0	43
08:45 AM	0	0	0	0	0	0	48	48	0	5	2	7	0	0	0	0	55
Total Volume	0	0	0	0	0	0	188	188	1	16	9	26	0	0	0	0	214
% App. Total	0	0	0		0	0	100		3.8	61.5	34.6		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.904	.904	.250	.800	.563	.722	.000	.000	.000	.000	.907
Cars	0	0	0	0	0	0	170	170	1	14	8	23	0	0	0	0	193
% Cars	0	0	0	0	0	0	90.4	90.4	100	87.5	88.9	88.5	0	0	0	0	90.2
Trucks	0	0	0	0	0	0	18	18	0	2	1	3	0	0	0	0	21
% Trucks	0	0	0	0	0	0	9.6	9.6	0	12.5	11.1	11.5	0	0	0	0	9.8



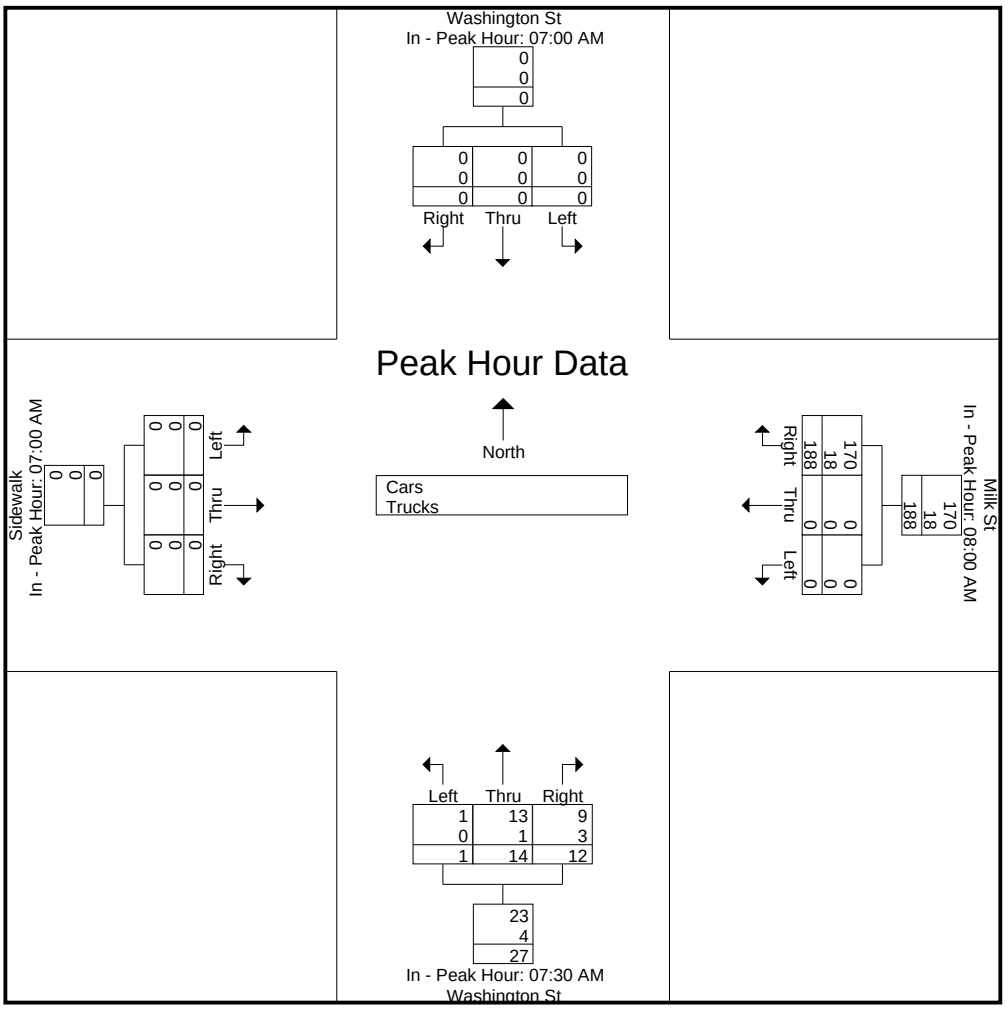
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 3

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				08:00 AM				07:30 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	**52**	**52**	0	3	2	5	0	0	0	0	
+15 mins.	0	0	0	0	0	0	50	50	0	3	**5**	8	0	0	0	0	
+30 mins.	0	0	0	0	0	0	38	38	**1**	3	1	5	0	0	0	0	
+45 mins.	0	0	0	0	0	0	48	48	0	**5**	4	**9**	0	0	0	0	
Total Volume	0	0	0	0	0	0	188	188	1	14	12	27	0	0	0	0	
% App. Total	0	0	0		0	0	100		3.7	51.9	44.4		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.904	.904	.250	.700	.600	.750	.000	.000	.000	.000	
Cars	0	0	0	0	0	0	170	170	1	13	9	23	0	0	0	0	
% Cars	0	0	0	0	0	0	90.4	90.4	100	92.9	75	85.2	0	0	0	0	
Trucks	0	0	0	0	0	0	18	18	0	1	3	4	0	0	0	0	
% Trucks	0	0	0	0	0	0	9.6	9.6	0	7.1	25	14.8	0	0	0	0	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016

Groups Printed- Cars

	Washington St From North			Milk St From East			Washington St From South			Sidewalk From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	0	0	31	0	2	2	0	0	0	35
07:15 AM	0	0	0	0	0	40	0	4	0	0	0	0	44
07:30 AM	0	0	0	0	0	38	0	3	1	0	0	0	42
07:45 AM	0	0	0	0	0	39	0	3	4	0	0	0	46
Total	0	0	0	0	0	148	0	12	7	0	0	0	167
08:00 AM	0	0	0	0	0	50	1	3	1	0	0	0	55
08:15 AM	0	0	0	0	0	48	0	4	3	0	0	0	55
08:30 AM	0	0	0	0	0	24	0	2	2	0	0	0	28
08:45 AM	0	0	0	0	0	48	0	5	2	0	0	0	55
Total	0	0	0	0	0	170	1	14	8	0	0	0	193
Grand Total	0	0	0	0	0	318	1	26	15	0	0	0	360
Apprch %	0	0	0	0	0	100	2.4	61.9	35.7	0	0	0	
Total %	0	0	0	0	0	88.3	0.3	7.2	4.2	0	0	0	

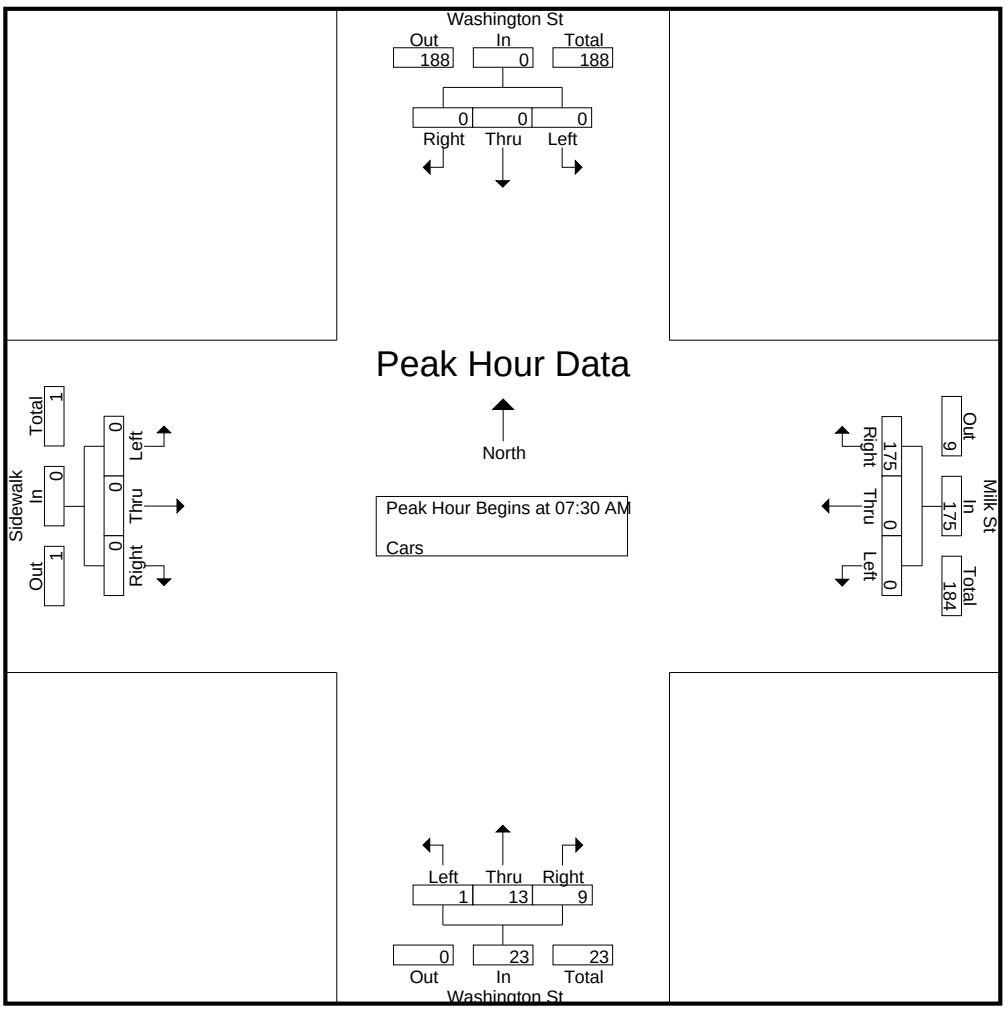
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 5

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	38	38	0	3	1	4	0	0	0	0	42
07:45 AM	0	0	0	0	0	0	39	39	0	3	**4**	**7**	0	0	0	0	46
08:00 AM	0	0	0	0	0	0	**50**	**50**	**1**	3	1	5	0	0	0	0	**55**
08:15 AM	0	0	0	0	0	0	48	48	0	**4**	3	7	0	0	0	0	55
Total Volume	0	0	0	0	0	0	175	175	1	13	9	23	0	0	0	0	198
% App. Total	0	0	0		0	0	100		4.3	56.5	39.1		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.875	.875	.250	.813	.563	.821	.000	.000	.000	.000	.900



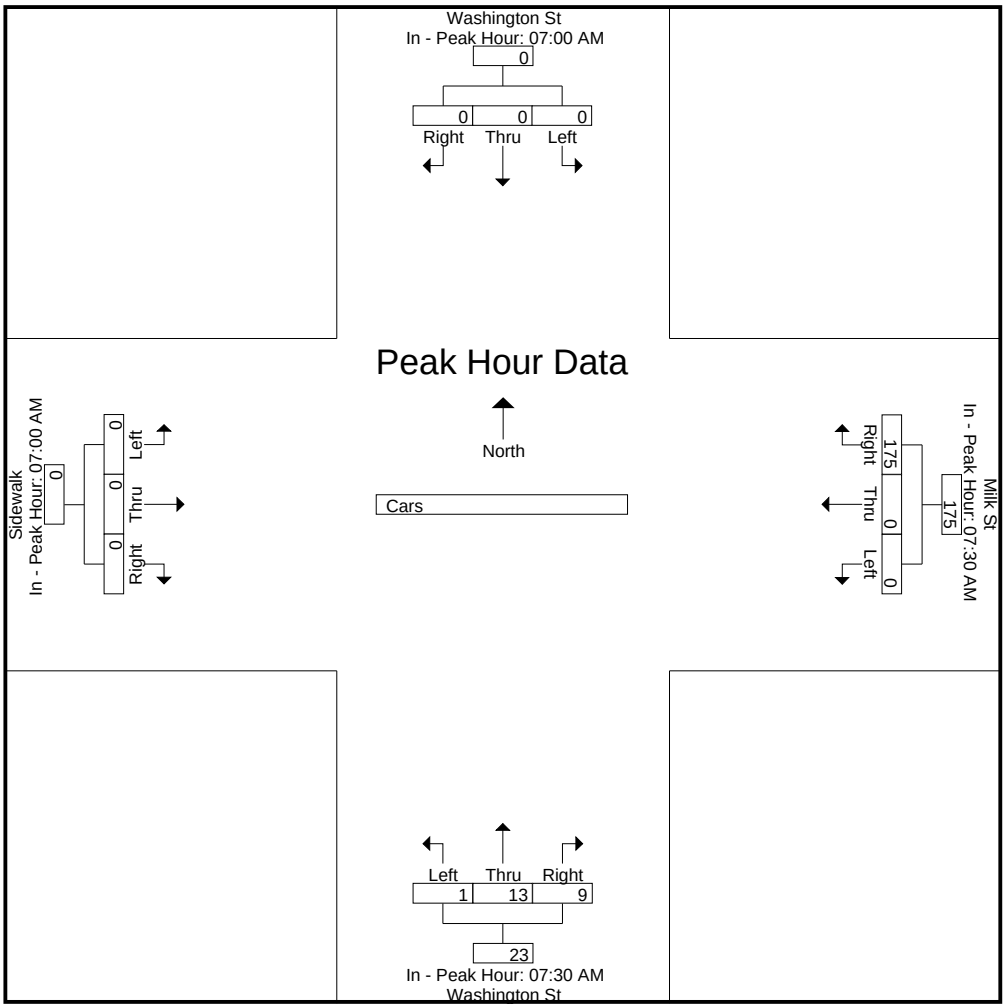
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 6

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:30 AM				07:30 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	38	38	0	3	1	4	0	0	0	0	
+15 mins.	0	0	0	0	0	0	39	39	0	3	**4**	**7**	0	0	0	0	
+30 mins.	0	0	0	0	0	0	**50**	**50**	**1**	3	1	5	0	0	0	0	
+45 mins.	0	0	0	0	0	0	48	48	0	**4**	3	7	0	0	0	0	
Total Volume	0	0	0	0	0	0	175	175	1	13	9	23	0	0	0	0	
% App. Total	0	0	0		0	0	100		4.3	56.5	39.1		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.875	.875	.250	.813	.563	.821	.000	.000	.000	.000	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016

Groups Printed- Trucks

	Washington St From North			Milk St From East			Washington St From South			Sidewalk From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	0	0	3	0	2	1	0	0	0	6
07:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	4
07:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	6	0	4	3	0	0	0	13
08:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	2	0	1	1	0	0	0	4
08:30 AM	0	0	0	0	0	14	0	1	0	0	0	0	15
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	18	0	2	1	0	0	0	21
Grand Total	0	0	0	0	0	24	0	6	4	0	0	0	34
Apprch %	0	0	0	0	0	100	0	60	40	0	0	0	
Total %	0	0	0	0	0	70.6	0	17.6	11.8	0	0	0	

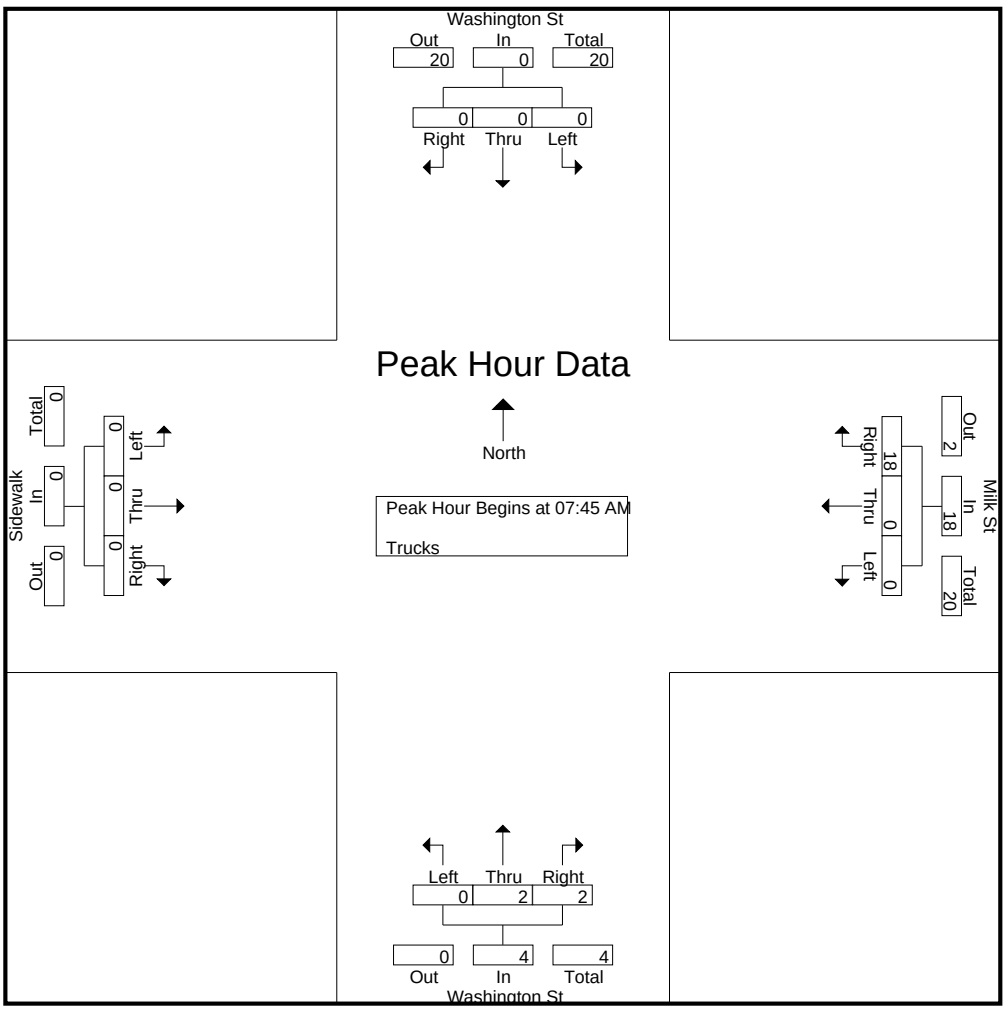
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 8

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	**1**	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	2	2	0	**1**	1	**2**	0	0	0	0	4
08:30 AM	0	0	0	0	0	0	**14**	**14**	0	1	0	1	0	0	0	0	**15**
Total Volume	0	0	0	0	0	0	18	18	0	2	2	4	0	0	0	0	22
% App. Total	0	0	0		0	0	100		0	50	50		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.321	.321	.000	.500	.500	.500	.000	.000	.000	.000	.367



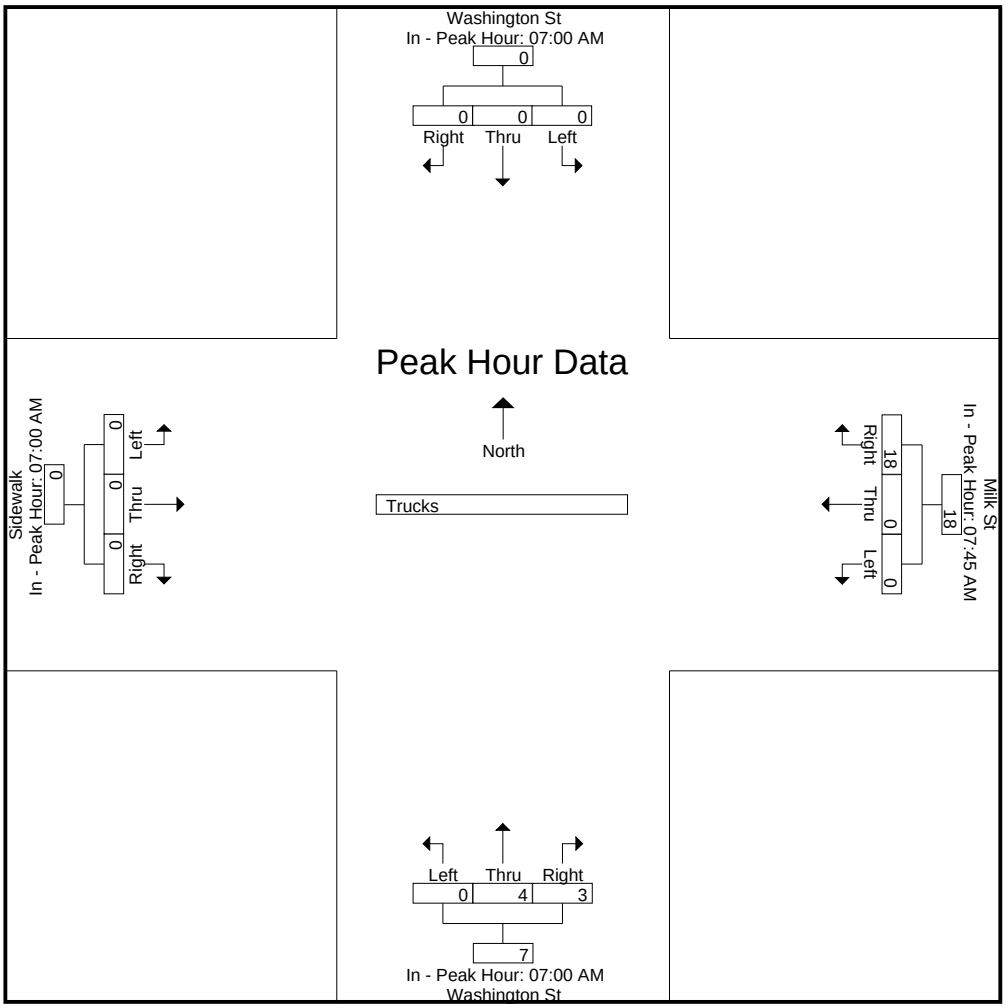
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 9

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:45 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	**2**	**1**	**3**	0	0	0	0	
+15 mins.	0	0	0	0	0	0	2	2	0	2	0	2	0	0	0	0	
+30 mins.	0	0	0	0	0	0	2	2	0	0	1	1	0	0	0	0	
+45 mins.	0	0	0	0	0	0	**14**	**14**	0	0	1	1	0	0	0	0	
Total Volume	0	0	0	0	0	0	18	18	0	4	3	7	0	0	0	0	
% App. Total	0	0	0		0	0	100		0	57.1	42.9		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.321	.321	.000	.500	.750	.583	.000	.000	.000	.000	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016

Groups Printed- Bikes Peds

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	70	0	0	1	89	0	2	2	13	0	0	0	120	292	5	297
07:15 AM	0	0	0	78	0	1	0	110	0	0	5	18	0	1	1	159	365	8	373
07:30 AM	1	0	0	68	0	0	1	129	0	4	4	20	0	2	0	229	446	12	458
07:45 AM	1	3	0	77	1	0	0	171	0	3	4	22	0	0	0	245	515	12	527
Total	2	3	0	293	1	1	2	499	0	9	15	73	0	3	1	753	1618	37	1655
08:00 AM	2	0	0	112	0	0	0	202	0	13	8	30	0	1	0	242	586	24	610
08:15 AM	0	0	0	178	1	0	4	261	1	11	18	34	0	2	0	360	833	37	870
08:30 AM	2	0	0	171	0	1	1	326	1	17	11	56	0	1	0	440	993	34	1027
08:45 AM	2	0	0	176	1	0	3	296	0	15	8	23	0	0	0	353	848	29	877
Total	6	0	0	637	2	1	8	1085	2	56	45	143	0	4	0	1395	3260	124	3384
Grand Total	8	3	0	930	3	2	10	1584	2	65	60	216	0	7	1	2148	4878	161	5039
Apprch %	72.7	27.3	0		20	13.3	66.7		1.6	51.2	47.2		0	87.5	12.5				
Total %	5	1.9	0		1.9	1.2	6.2		1.2	40.4	37.3		0	4.3	0.6		96.8	3.2	

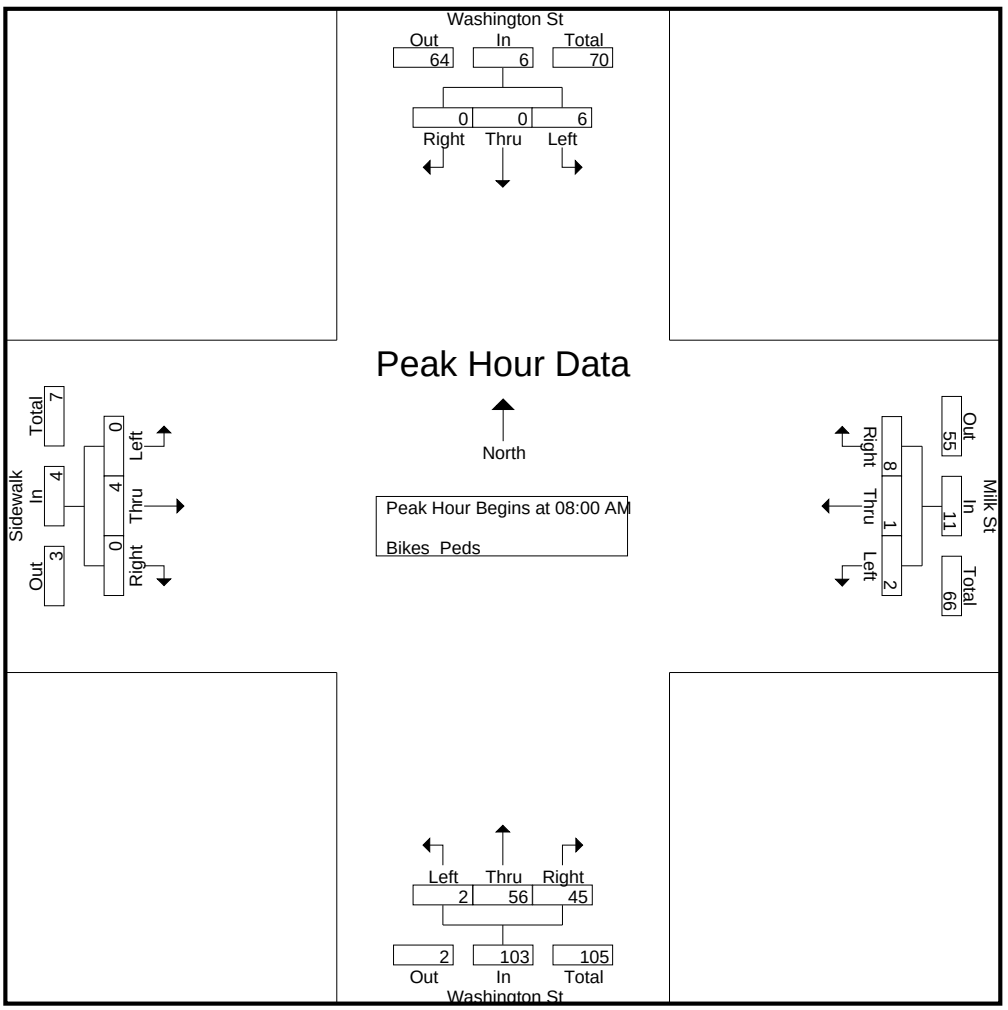
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 11

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**2**	0	0	**2**	0	0	0	0	0	13	8	21	0	1	0	1	24
08:15 AM	0	0	0	0	**1**	0	**4**	**5**	**1**	11	**18**	**30**	0	**2**	0	**2**	**37**
08:30 AM	2	0	0	2	0	**1**	1	2	1	**17**	11	29	0	1	0	1	34
08:45 AM	2	0	0	2	1	0	3	4	0	15	8	23	0	0	0	0	29
Total Volume	6	0	0	6	2	1	8	11	2	56	45	103	0	4	0	4	124
% App. Total	100	0	0		18.2	9.1	72.7		1.9	54.4	43.7		0	100	0		
PHF	.750	.000	.000	.750	.500	.250	.500	.550	.500	.824	.625	.858	.000	.500	.000	.500	.838



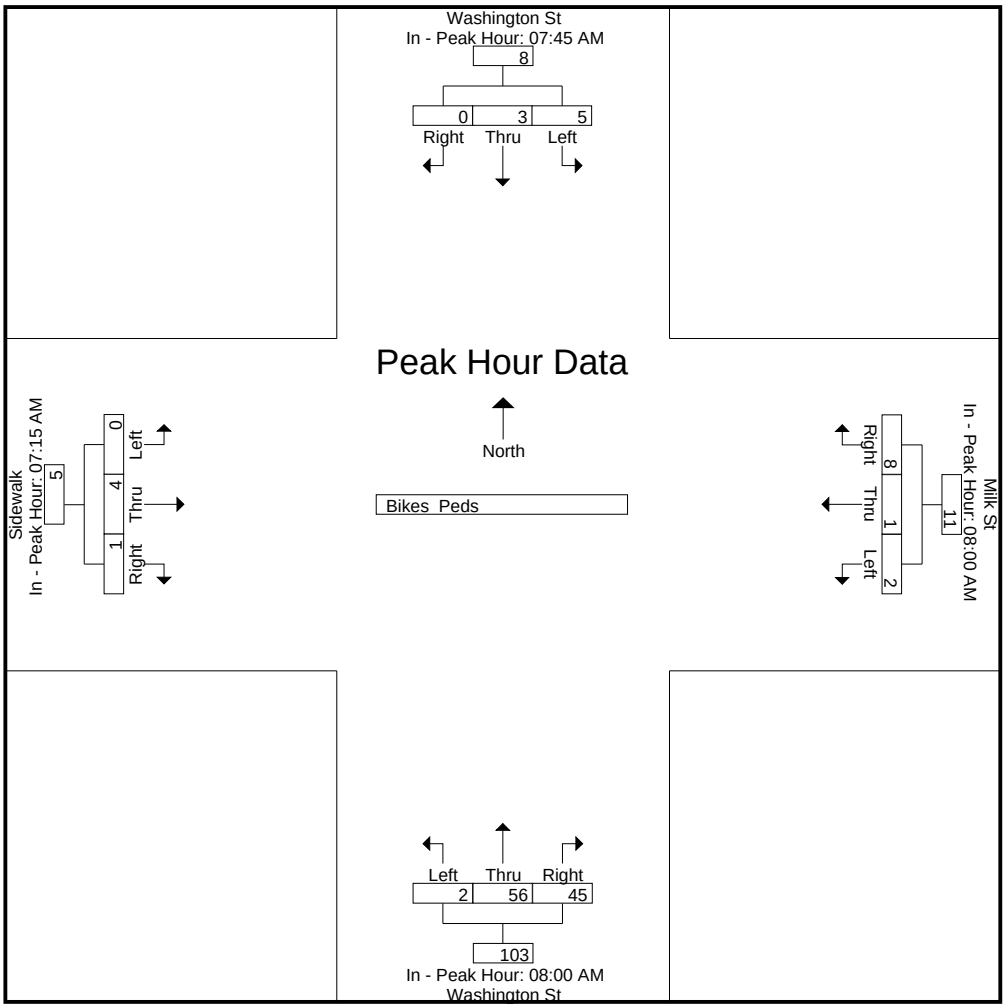
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 12

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:45 AM				08:00 AM				08:00 AM				07:15 AM				
+0 mins.	1	**3**	0	**4**	0	0	0	0	0	13	8	21	0	1	**1**	**2**	
+15 mins.	**2**	0	0	2	**1**	0	**4**	**5**	**1**	11	**18**	**30**	0	**2**	0	2	
+30 mins.	0	0	0	0	0	**1**	1	2	1	**17**	11	29	0	0	0	0	
+45 mins.	2	0	0	2	1	0	3	4	0	15	8	23	0	1	0	1	
Total Volume	5	3	0	8	2	1	8	11	2	56	45	103	0	4	1	5	
% App. Total	62.5	37.5	0		18.2	9.1	72.7		1.9	54.4	43.7		0	80	20		
PHF	.625	.250	.000	.500	.500	.250	.500	.550	.500	.824	.625	.858	.000	.500	.250	.625	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016

Groups Printed- Cars - Trucks

	Washington St From North			Milk St From East			Washington St From South			Sidewalk From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	0	45	0	4	0	0	0	0	49
04:15 PM	0	0	0	0	0	35	0	1	1	0	0	0	37
04:30 PM	0	0	0	0	0	50	0	0	1	0	0	0	51
04:45 PM	0	0	0	0	0	36	0	0	3	0	0	0	39
Total	0	0	0	0	0	166	0	5	5	0	0	0	176
05:00 PM	0	0	0	0	0	48	0	1	0	0	0	0	49
05:15 PM	0	0	0	0	0	56	0	2	0	0	0	0	58
05:30 PM	0	0	0	0	0	40	0	6	2	0	0	0	48
05:45 PM	0	0	0	0	0	61	1	1	2	0	0	0	65
Total	0	0	0	0	0	205	1	10	4	0	0	0	220
Grand Total	0	0	0	0	0	371	1	15	9	0	0	0	396
Apprch %	0	0	0	0	0	100	4	60	36	0	0	0	
Total %	0	0	0	0	0	93.7	0.3	3.8	2.3	0	0	0	
Cars	0	0	0	0	0	366	1	15	7	0	0	0	389
% Cars	0	0	0	0	0	98.7	100	100	77.8	0	0	0	98.2
Trucks	0	0	0	0	0	5	0	0	2	0	0	0	7
% Trucks	0	0	0	0	0	1.3	0	0	22.2	0	0	0	1.8

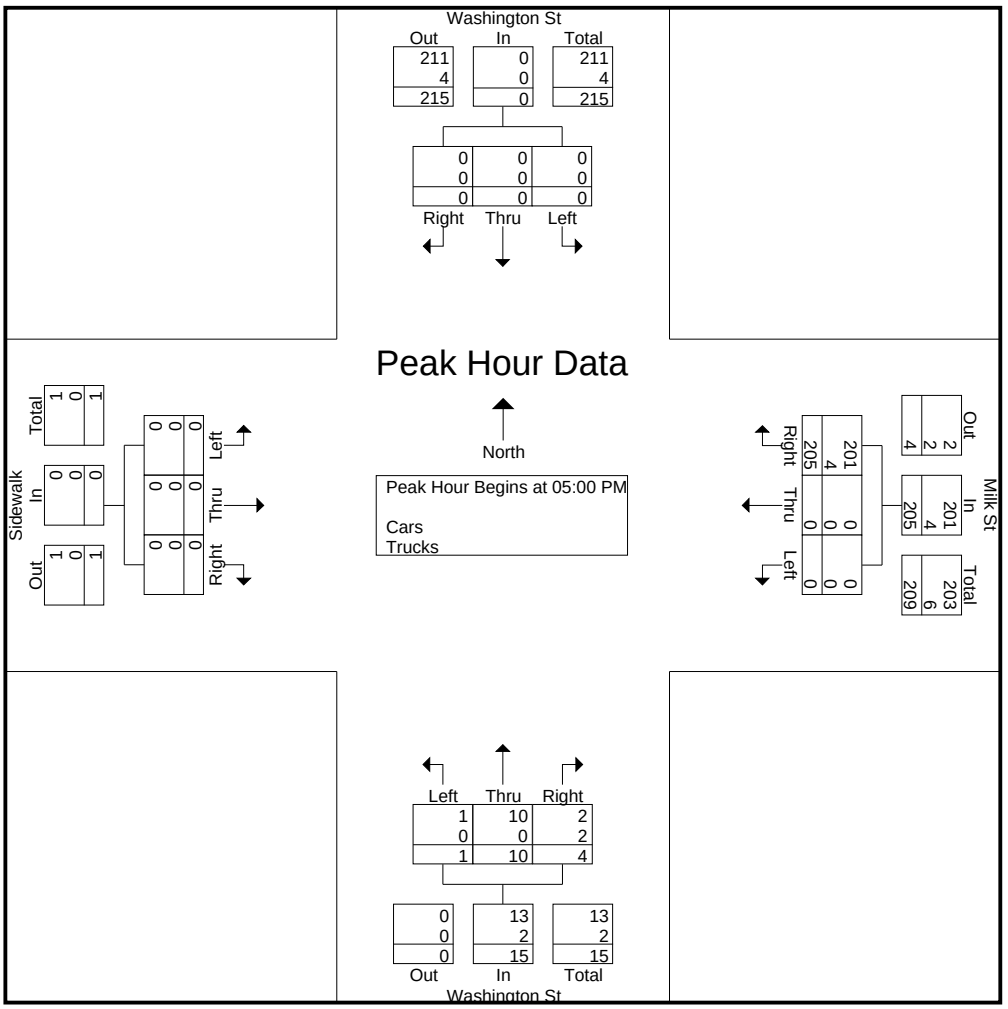
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 2

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	48	48	0	1	0	1	0	0	0	0	49
05:15 PM	0	0	0	0	0	0	56	56	0	2	0	2	0	0	0	0	58
05:30 PM	0	0	0	0	0	0	40	40	0	**6**	**2**	**8**	0	0	0	0	48
05:45 PM	0	0	0	0	0	0	**61**	**61**	**1**	1	2	4	0	0	0	0	**65**
Total Volume	0	0	0	0	0	0	205	205	1	10	4	15	0	0	0	0	220
% App. Total	0	0	0		0	0	100		6.7	66.7	26.7		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.840	.840	.250	.417	.500	.469	.000	.000	.000	.000	.846
Cars	0	0	0	0	0	0	201	201	1	10	2	13	0	0	0	0	214
% Cars	0	0	0	0	0	0	98.0	98.0	100	100	50.0	86.7	0	0	0	0	97.3
Trucks	0	0	0	0	0	0	4	4	0	0	2	2	0	0	0	0	6
% Trucks	0	0	0	0	0	0	2.0	2.0	0	0	50.0	13.3	0	0	0	0	2.7



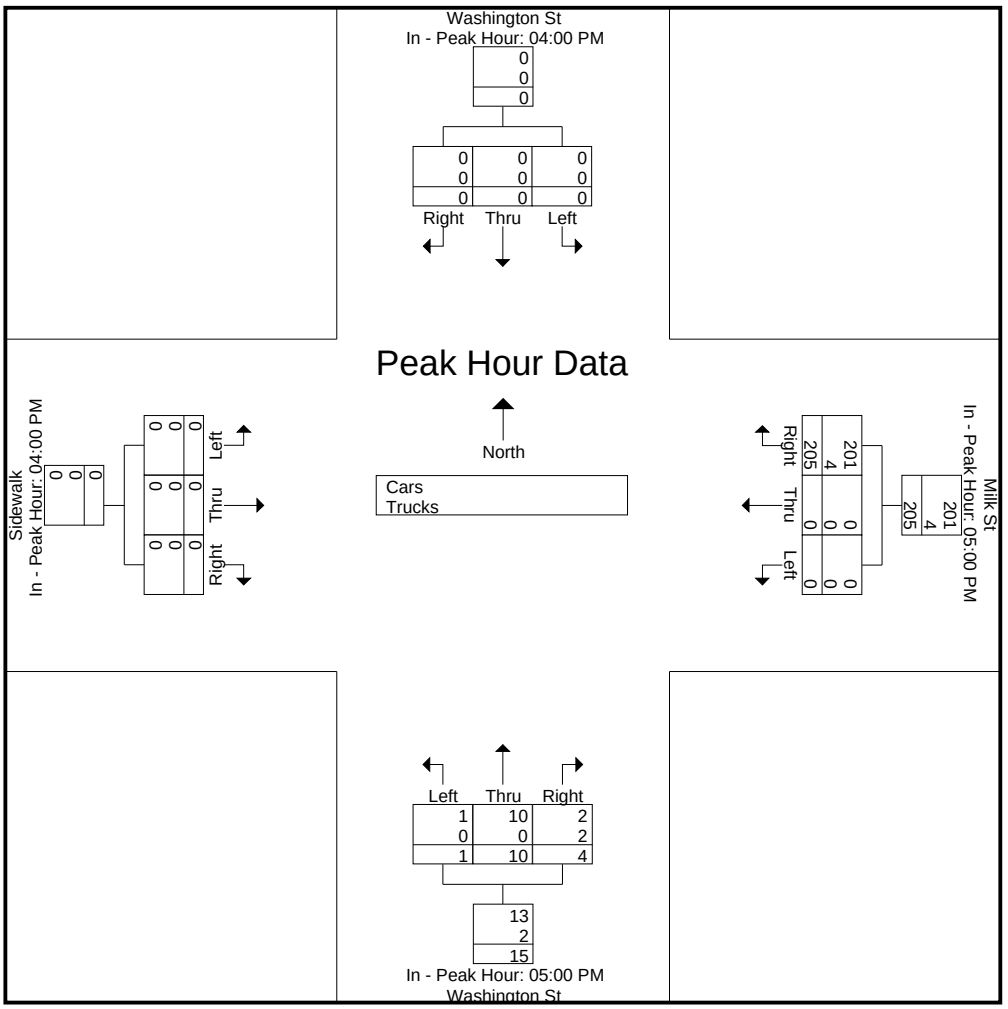
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 3

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				05:00 PM				05:00 PM				04:00 PM				
+0 mins.	0	0	0	0	0	0	48	48	0	1	0	1	0	0	0	0	
+15 mins.	0	0	0	0	0	0	56	56	0	2	0	2	0	0	0	0	
+30 mins.	0	0	0	0	0	0	40	40	0	**6**	**2**	**8**	0	0	0	0	
+45 mins.	0	0	0	0	0	0	**61**	**61**	**1**	1	2	4	0	0	0	0	
Total Volume	0	0	0	0	0	0	205	205	1	10	4	15	0	0	0	0	
% App. Total	0	0	0		0	0	100		6.7	66.7	26.7		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.840	.840	.250	.417	.500	.469	.000	.000	.000	.000	
Cars	0	0	0	0	0	0	201	201	1	10	2	13	0	0	0	0	
% Cars	0	0	0	0	0	0	98	98	100	100	50	86.7	0	0	0	0	
Trucks	0	0	0	0	0	0	4	4	0	0	2	2	0	0	0	0	
% Trucks	0	0	0	0	0	0	2	2	0	0	50	13.3	0	0	0	0	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 4

Groups Printed- Cars

	Washington St From North			Milk St From East			Washington St From South			Sidewalk From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	0	45	0	4	0	0	0	0	49
04:15 PM	0	0	0	0	0	34	0	1	1	0	0	0	36
04:30 PM	0	0	0	0	0	50	0	0	1	0	0	0	51
04:45 PM	0	0	0	0	0	36	0	0	3	0	0	0	39
Total	0	0	0	0	0	165	0	5	5	0	0	0	175
05:00 PM	0	0	0	0	0	47	0	1	0	0	0	0	48
05:15 PM	0	0	0	0	0	53	0	2	0	0	0	0	55
05:30 PM	0	0	0	0	0	40	0	6	2	0	0	0	48
05:45 PM	0	0	0	0	0	61	1	1	0	0	0	0	63
Total	0	0	0	0	0	201	1	10	2	0	0	0	214
Grand Total	0	0	0	0	0	366	1	15	7	0	0	0	389
Apprch %	0	0	0	0	0	100	4.3	65.2	30.4	0	0	0	
Total %	0	0	0	0	0	94.1	0.3	3.9	1.8	0	0	0	

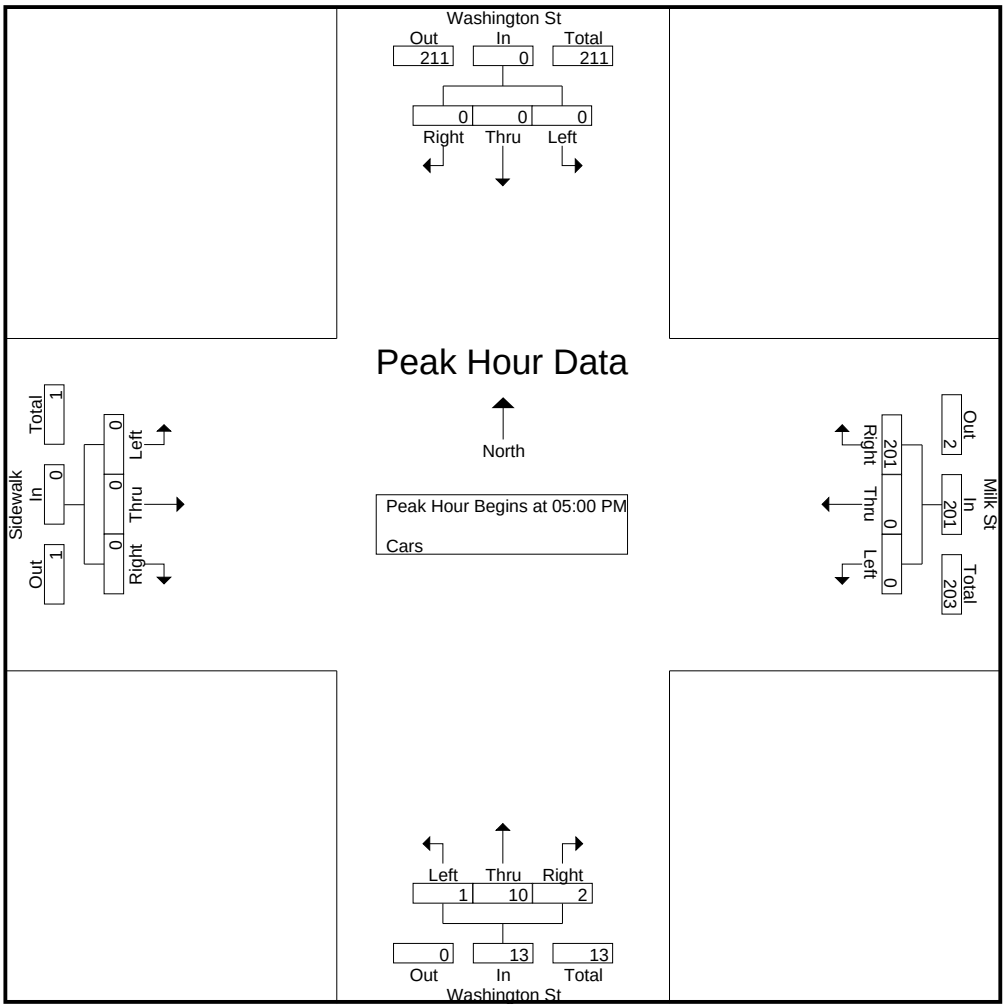
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 5

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	47	47	0	1	0	1	0	0	0	0	48
05:15 PM	0	0	0	0	0	0	53	53	0	2	0	2	0	0	0	0	55
05:30 PM	0	0	0	0	0	0	40	40	0	**6**	**2**	**8**	0	0	0	0	48
05:45 PM	0	0	0	0	0	0	**61**	**61**	**1**	1	0	2	0	0	0	0	**63**
Total Volume	0	0	0	0	0	0	201	201	1	10	2	13	0	0	0	0	214
% App. Total	0	0	0		0	0	100		7.7	76.9	15.4		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.824	.824	.250	.417	.250	.406	.000	.000	.000	.000	.849



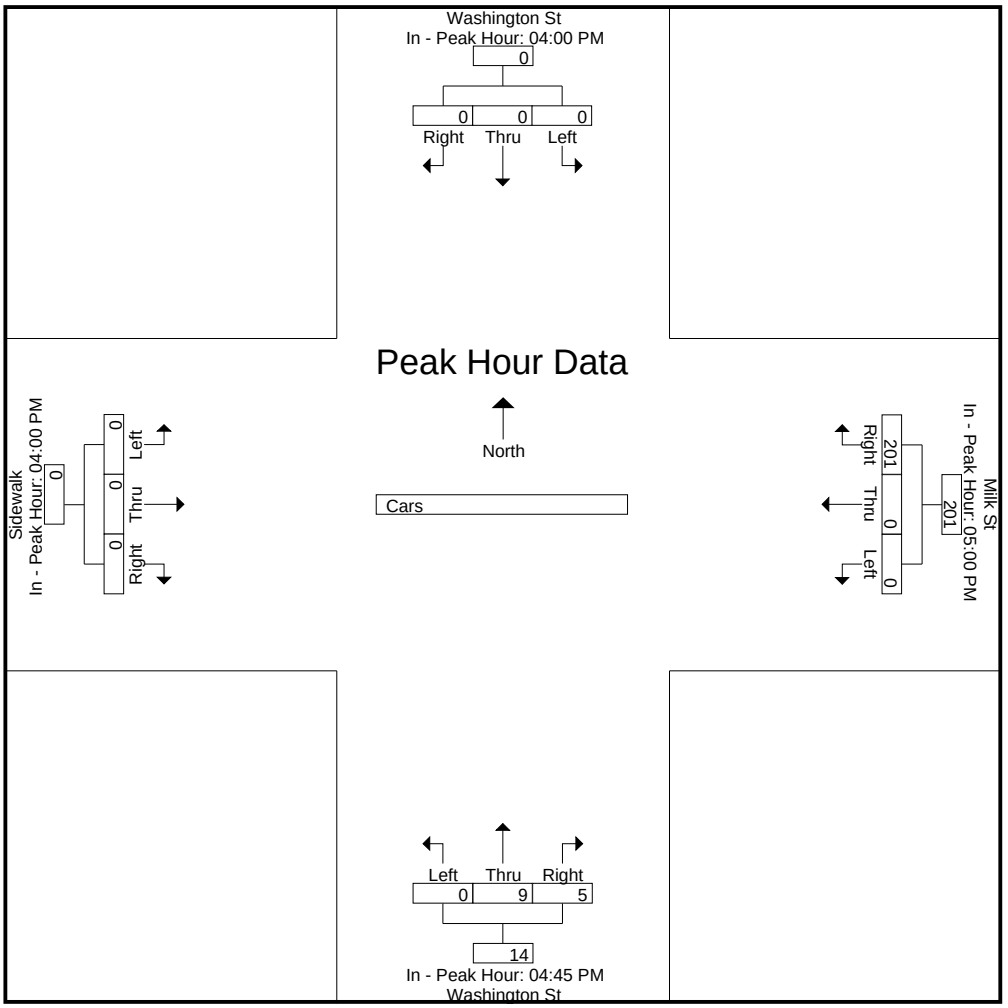
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 6

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				05:00 PM				04:45 PM				04:00 PM				
+0 mins.	0	0	0	0	0	0	47	47	0	0	**3**	3	0	0	0	0	
+15 mins.	0	0	0	0	0	0	53	53	0	1	0	1	0	0	0	0	
+30 mins.	0	0	0	0	0	0	40	40	0	2	0	2	0	0	0	0	
+45 mins.	0	0	0	0	0	0	**61**	**61**	0	**6**	2	**8**	0	0	0	0	
Total Volume	0	0	0	0	0	0	201	201	0	9	5	14	0	0	0	0	
% App. Total	0	0	0		0	0	100		0	64.3	35.7		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.824	.824	.000	.375	.417	.438	.000	.000	.000	.000	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016

Groups Printed- Trucks

	Washington St From North			Milk St From East			Washington St From South			Sidewalk From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	2	0	0	0	2
Total	0	0	0	0	0	4	0	0	2	0	0	0	6
Grand Total	0	0	0	0	0	5	0	0	2	0	0	0	7
Apprch %	0	0	0	0	0	100	0	0	100	0	0	0	
Total %	0	0	0	0	0	71.4	0	0	28.6	0	0	0	

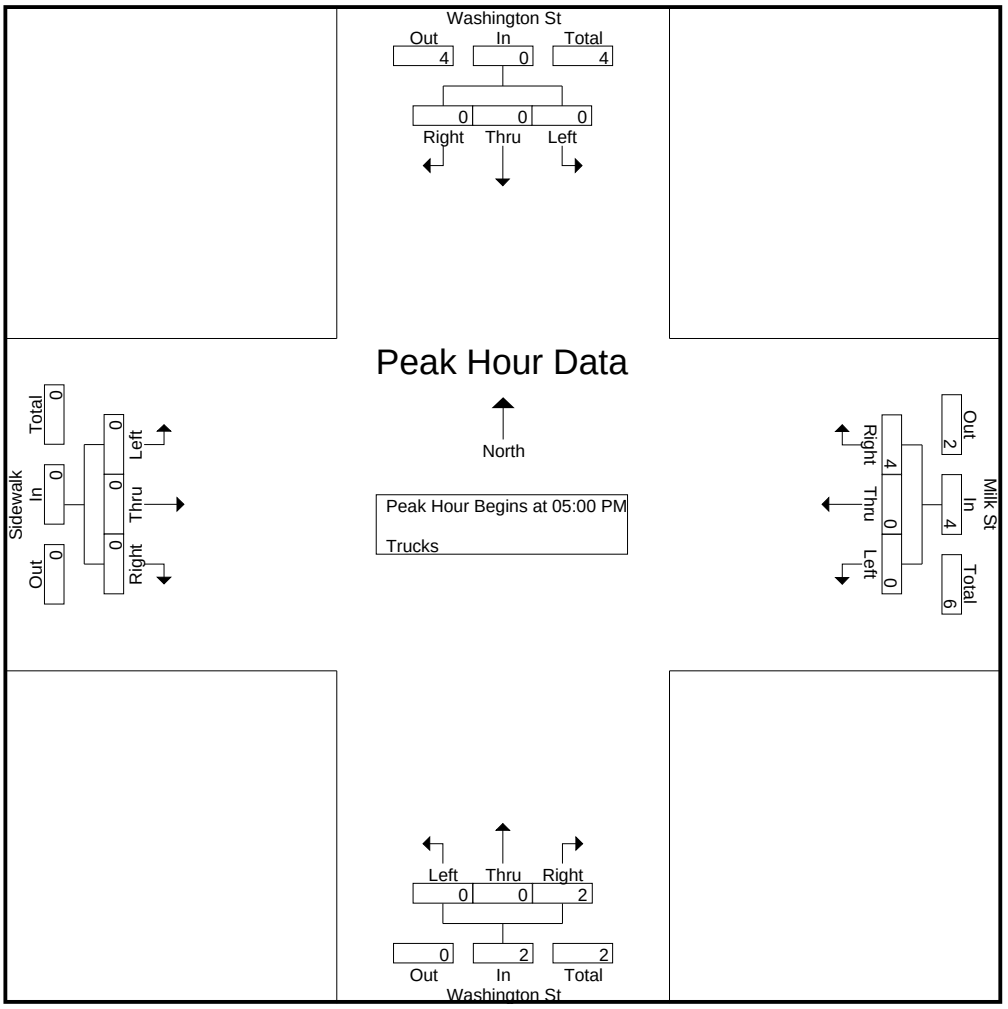
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 8

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	**3**	**3**	0	0	0	0	0	0	0	0	**3**
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	0	2
Total Volume	0	0	0	0	0	0	4	4	0	0	2	2	0	0	0	0	6
% App. Total	0	0	0		0	0	100		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.333	.333	.000	.000	.250	.250	.000	.000	.000	.000	.500



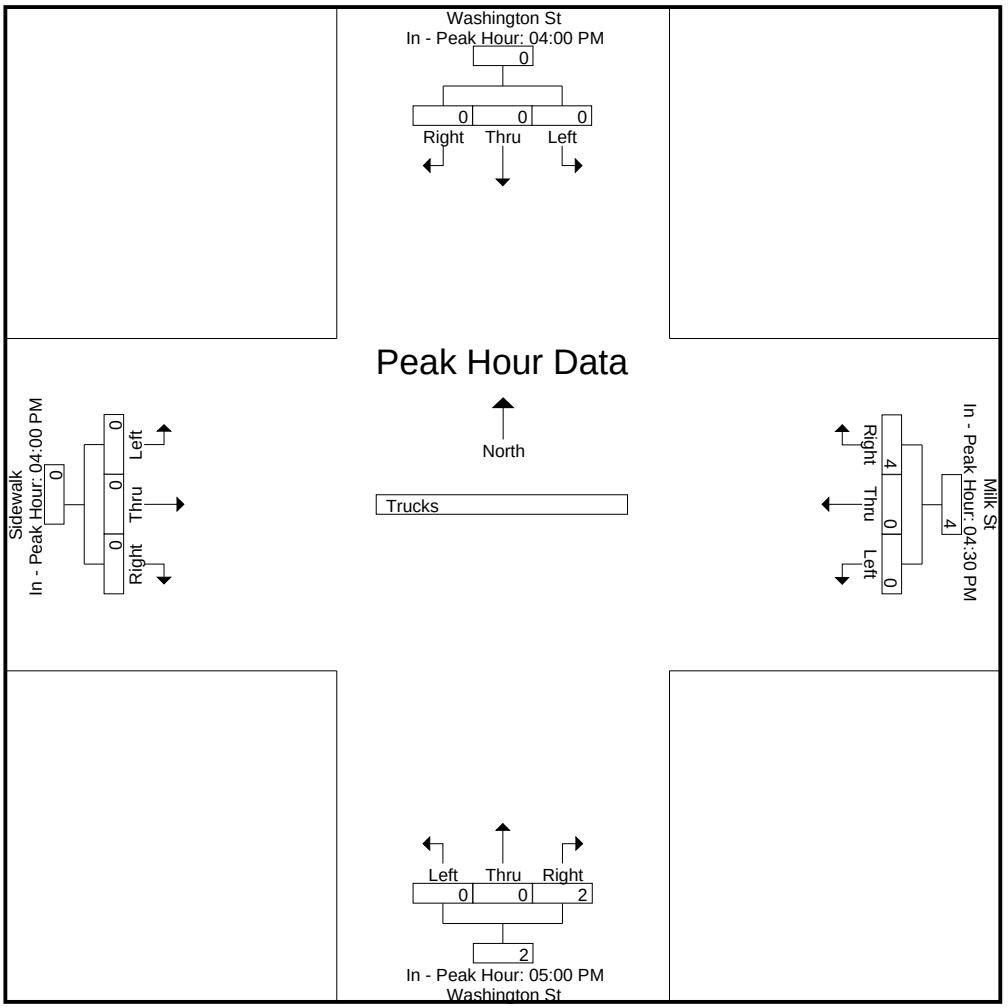
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 9

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:30 PM				05:00 PM				04:00 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	**3**	**3**	0	0	**2**	**2**	0	0	0	0	
Total Volume	0	0	0	0	0	0	4	4	0	0	2	2	0	0	0	0	
% App. Total	0	0	0		0	0	100		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.333	.333	.000	.000	.250	.250	.000	.000	.000	.000	



Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016

Groups Printed- Bikes Peds

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	92	1	0	2	323	0	2	0	46	0	0	0	244	705	6	711
04:15 PM	0	0	0	138	1	0	6	299	0	3	1	58	0	2	0	314	809	13	822
04:30 PM	0	0	0	154	1	0	3	378	0	5	1	60	0	0	0	333	925	10	935
04:45 PM	2	0	0	174	2	0	7	415	0	4	0	76	0	0	0	339	1004	15	1019
Total	2	1	0	558	5	0	18	1415	0	14	2	240	0	2	0	1230	3443	44	3487
05:00 PM	1	5	0	206	3	0	6	574	0	5	3	86	0	2	0	369	1235	25	1260
05:15 PM	2	2	0	213	5	0	14	529	0	4	0	98	0	0	0	480	1320	27	1347
05:30 PM	0	1	0	122	4	0	9	557	0	3	3	103	0	0	0	533	1315	20	1335
05:45 PM	2	1	0	134	2	0	5	442	0	8	3	59	0	0	0	384	1019	21	1040
Total	5	9	0	675	14	0	34	2102	0	20	9	346	0	2	0	1766	4889	93	4982
Grand Total	7	10	0	1233	19	0	52	3517	0	34	11	586	0	4	0	2996	8332	137	8469
Apprch %	41.2	58.8	0		26.8	0	73.2		0	75.6	24.4		0	100	0				
Total %	5.1	7.3	0		13.9	0	38		0	24.8	8		0	2.9	0		98.4	1.6	

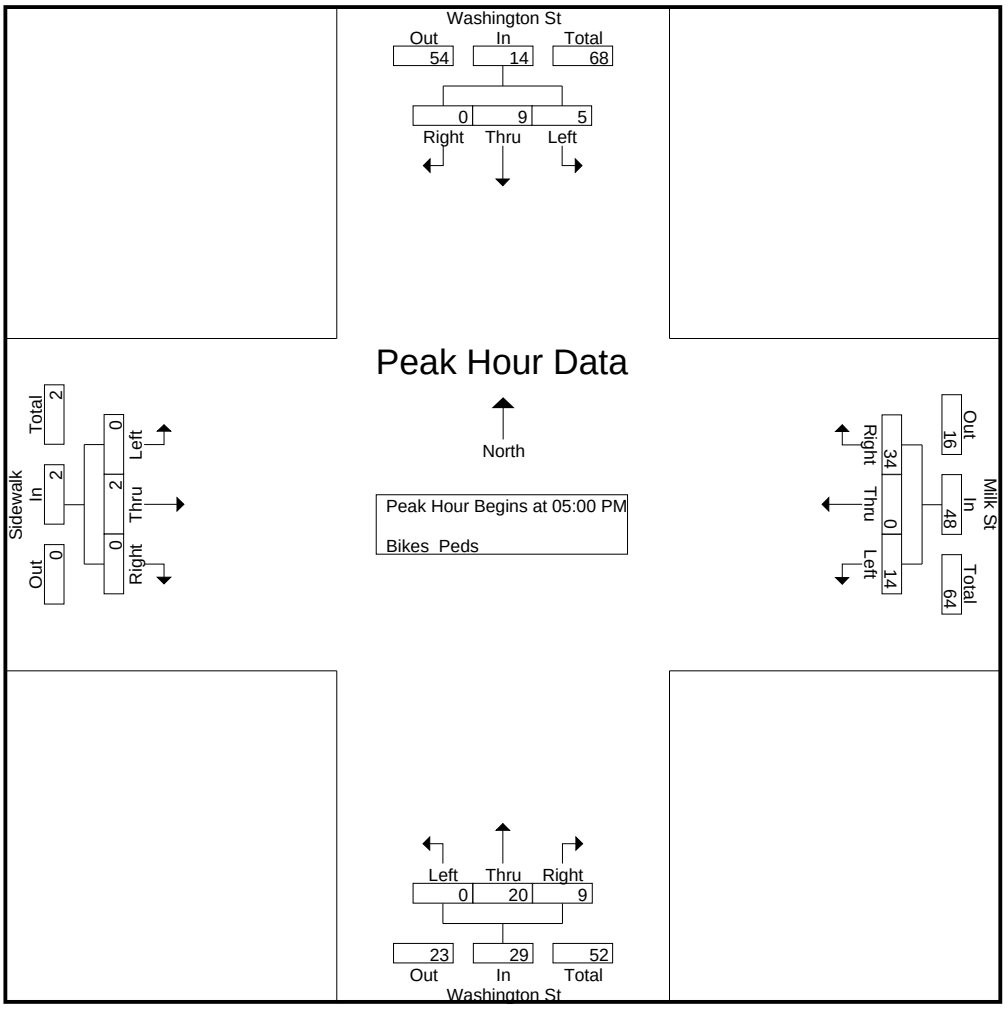
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 11

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	**5**	0	**6**	3	0	6	9	0	5	**3**	8	0	**2**	0	**2**	25
05:15 PM	**2**	2	0	4	**5**	0	**14**	**19**	0	4	0	4	0	0	0	0	**27**
05:30 PM	0	1	0	1	4	0	9	13	0	3	3	6	0	0	0	0	20
05:45 PM	2	1	0	3	2	0	5	7	0	**8**	3	**11**	0	0	0	0	21
Total Volume	5	9	0	14	14	0	34	48	0	20	9	29	0	2	0	2	93
% App. Total	35.7	64.3	0		29.2	0	70.8		0	69	31		0	100	0		
PHF	.625	.450	.000	.583	.700	.000	.607	.632	.000	.625	.750	.659	.000	.250	.000	.250	.861



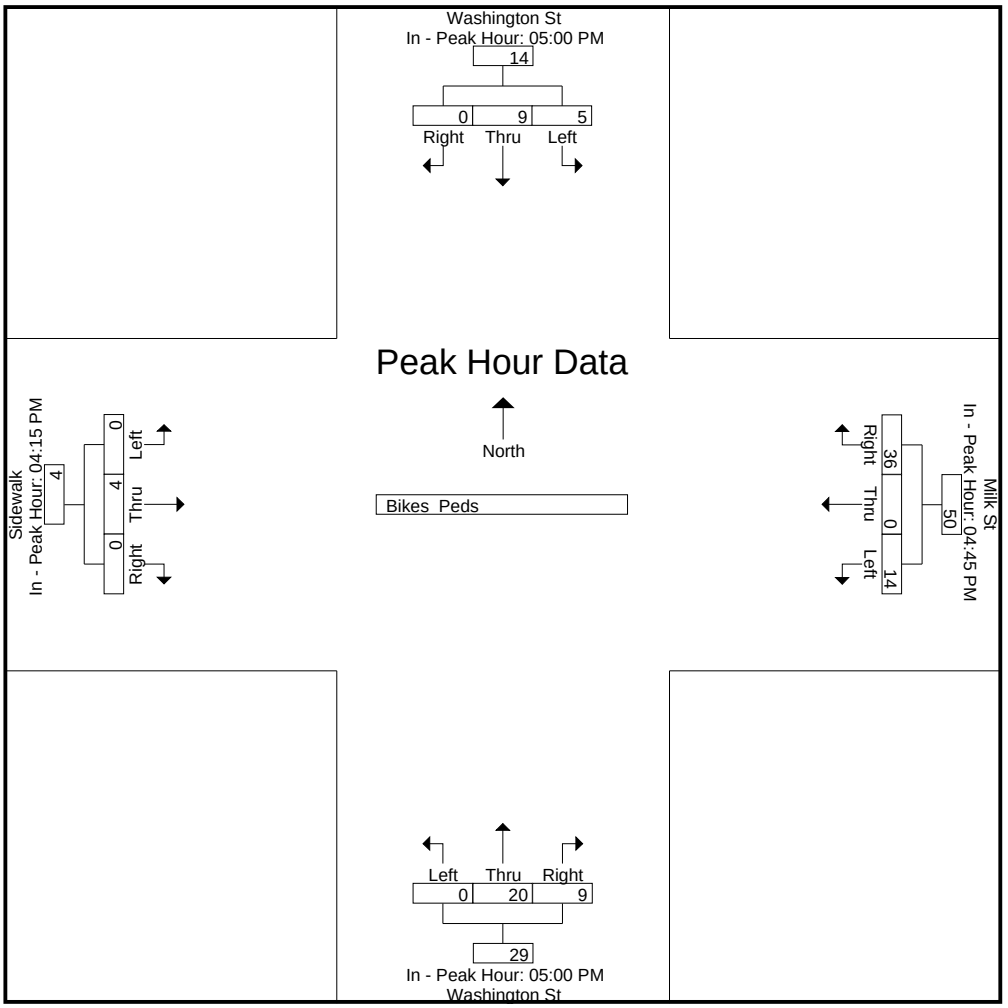
Accurate Counts

978-664-2565

N/S Street : Washington Street
E/W Street: Milk Street
City/State : Boston, MA
Weather : Clear

File Name : 80190005
Site Code : 80190005
Start Date : 10/26/2016
Page No : 12

	Washington St From North				Milk St From East				Washington St From South				Sidewalk From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				04:45 PM				05:00 PM				04:15 PM				
+0 mins.	1	**5**	0	**6**	2	0	7	9	0	5	**3**	8	0	**2**	0	**2**	
+15 mins.	**2**	2	0	4	3	0	6	9	0	4	0	4	0	0	0	0	
+30 mins.	0	1	0	1	**5**	0	**14**	**19**	0	3	3	6	0	0	0	0	
+45 mins.	2	1	0	3	4	0	9	13	0	**8**	3	**11**	0	2	0	2	
Total Volume	5	9	0	14	14	0	36	50	0	20	9	29	0	4	0	4	
% App. Total	35.7	64.3	0		28	0	72		0	69	31		0	100	0		
PHF	.625	.450	.000	.583	.700	.000	.643	.658	.000	.625	.750	.659	.000	.500	.000	.500	



Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 1

Groups Printed- Cars - Trucks

	Hawley St From North			Franklin St From East			Hawley St From South			Franklin St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	17	4	30	4	0	0	4	0	2	61
07:15 AM	0	0	0	17	2	40	2	1	0	4	0	2	68
07:30 AM	0	0	0	23	1	33	4	0	0	3	0	2	66
07:45 AM	0	0	0	15	2	36	2	1	0	2	0	0	58
Total	0	0	0	72	9	139	12	2	0	13	0	6	253
08:00 AM	0	0	0	25	5	36	6	3	0	2	0	8	85
08:15 AM	0	0	0	20	1	51	1	0	0	1	0	3	77
08:30 AM	0	0	0	10	2	44	2	1	0	2	0	1	62
08:45 AM	0	0	0	19	5	51	4	0	0	5	0	5	89
Total	0	0	0	74	13	182	13	4	0	10	0	17	313
Grand Total	0	0	0	146	22	321	25	6	0	23	0	23	566
Apprch %	0	0	0	29.9	4.5	65.6	80.6	19.4	0	50	0	50	
Total %	0	0	0	25.8	3.9	56.7	4.4	1.1	0	4.1	0	4.1	
Cars	0	0	0	133	22	320	25	6	0	23	0	23	552
% Cars	0	0	0	91.1	100	99.7	100	100	0	100	0	100	97.5
Trucks	0	0	0	13	0	1	0	0	0	0	0	0	14
% Trucks	0	0	0	8.9	0	0.3	0	0	0	0	0	0	2.5

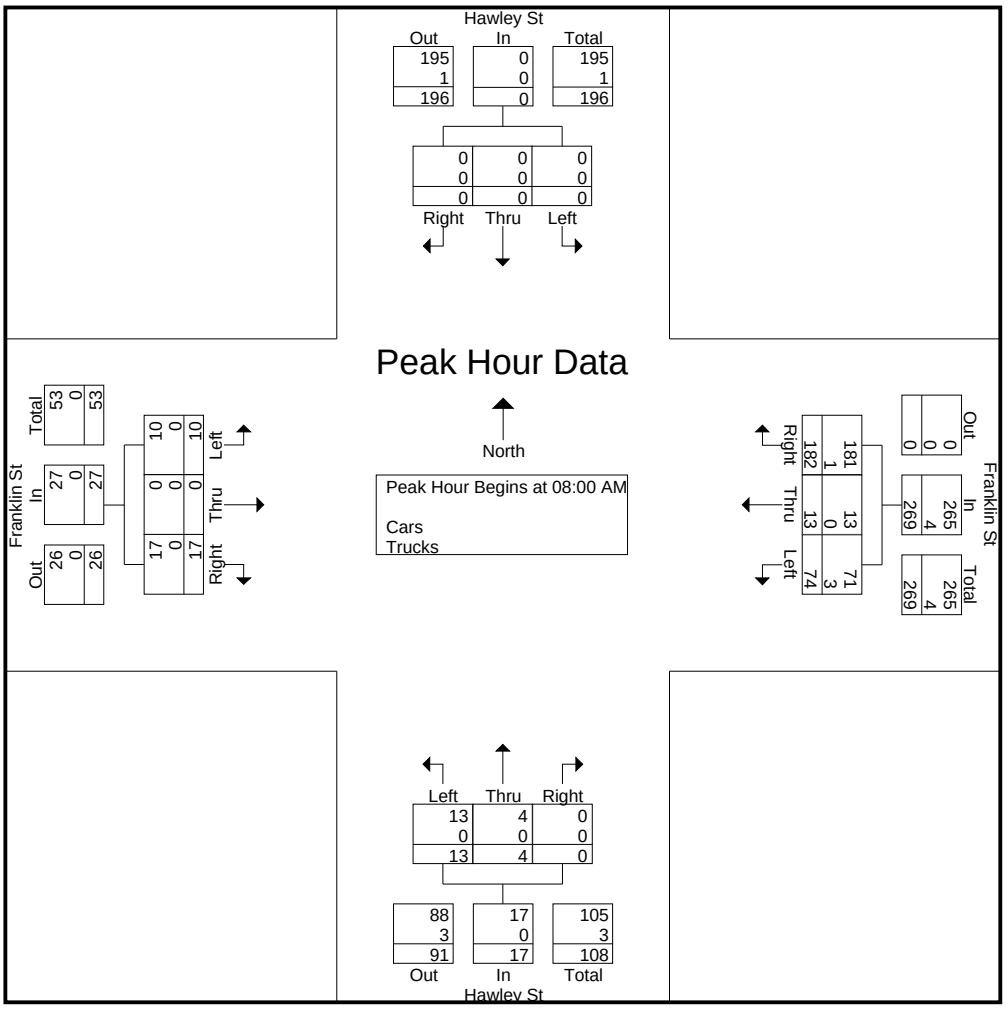
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 2

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	**25**	**5**	36	66	**6**	**3**	0	**9**	2	0	**8**	**10**	85
08:15 AM	0	0	0	0	20	1	**51**	72	1	0	0	1	1	0	3	4	77
08:30 AM	0	0	0	0	10	2	44	56	2	1	0	3	2	0	1	3	62
08:45 AM	0	0	0	0	19	5	51	**75**	4	0	0	4	**5**	0	5	10	**89**
Total Volume	0	0	0	0	74	13	182	269	13	4	0	17	10	0	17	27	313
% App. Total	0	0	0		27.5	4.8	67.7		76.5	23.5	0		37	0	63		
PHF	.000	.000	.000	.000	.740	.650	.892	.897	.542	.333	.000	.472	.500	.000	.531	.675	.879
Cars	0	0	0	0	71	13	181	265	13	4	0	17	10	0	17	27	309
% Cars	0	0	0	0	95.9	100	99.5	98.5	100	100	0	100	100	0	100	100	98.7
Trucks	0	0	0	0	3	0	1	4	0	0	0	0	0	0	0	0	4
% Trucks	0	0	0	0	4.1	0	0.5	1.5	0	0	0	0	0	0	0	0	1.3



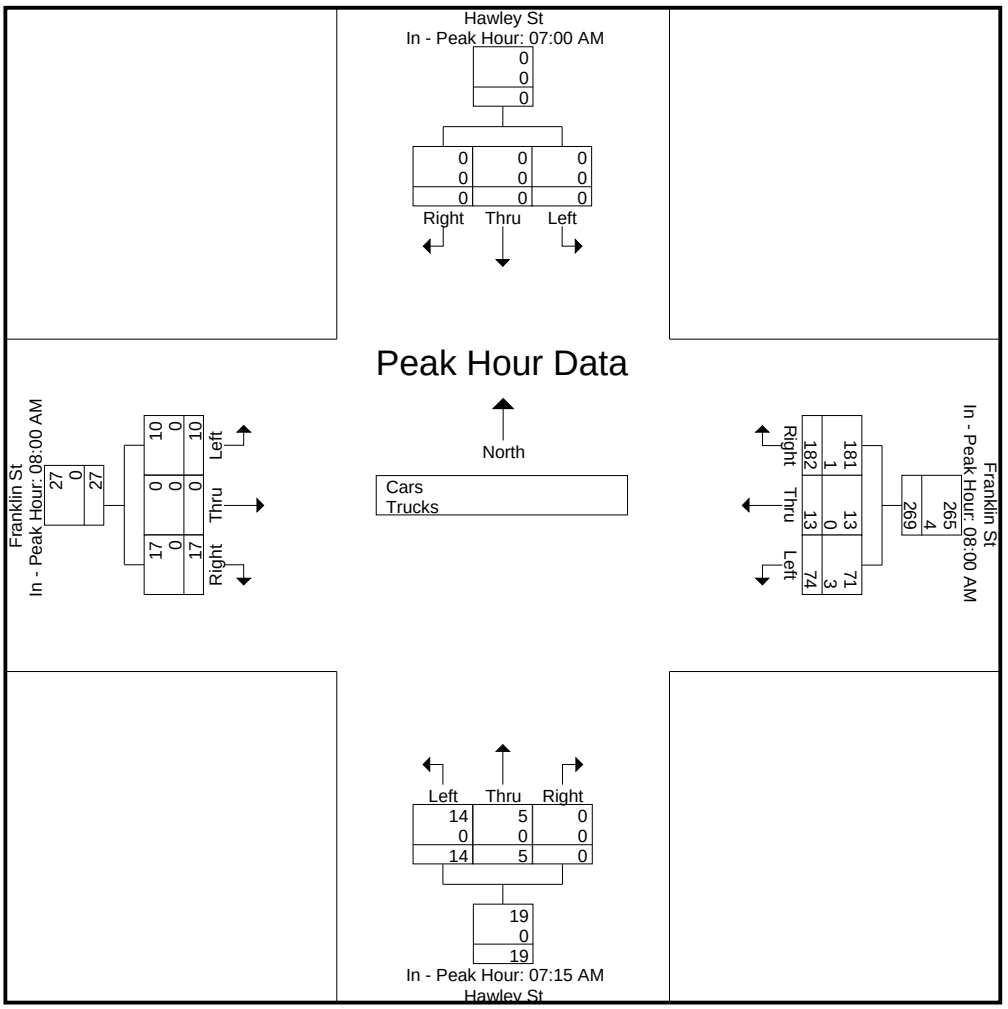
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 3

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				08:00 AM				07:15 AM				08:00 AM				
+0 mins.	0	0	0	0	**25**	**5**	36	66	2	1	0	3	2	0	**8**	**10**	
+15 mins.	0	0	0	0	20	1	**51**	72	4	0	0	4	1	0	3	4	
+30 mins.	0	0	0	0	10	2	44	56	2	1	0	3	2	0	1	3	
+45 mins.	0	0	0	0	19	5	51	**75**	**6**	**3**	0	**9**	**5**	0	5	10	
Total Volume	0	0	0	0	74	13	182	269	14	5	0	19	10	0	17	27	
% App. Total	0	0	0		27.5	4.8	67.7		73.7	26.3	0		37	0	63		
PHF	.000	.000	.000	.000	.740	.650	.892	.897	.583	.417	.000	.528	.500	.000	.531	.675	
Cars	0	0	0	0	71	13	181	265	14	5	0	19	10	0	17	27	
% Cars	0	0	0	0	95.9	100	99.5	98.5	100	100	0	100	100	0	100	100	
Trucks	0	0	0	0	3	0	1	4	0	0	0	0	0	0	0	0	
% Trucks	0	0	0	0	4.1	0	0.5	1.5	0	0	0	0	0	0	0	0	



Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016

Groups Printed- Cars

	Hawley St From North			Franklin St From East			Hawley St From South			Franklin St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	12	4	30	4	0	0	4	0	2	56
07:15 AM	0	0	0	16	2	40	2	1	0	4	0	2	67
07:30 AM	0	0	0	19	1	33	4	0	0	3	0	2	62
07:45 AM	0	0	0	15	2	36	2	1	0	2	0	0	58
Total	0	0	0	62	9	139	12	2	0	13	0	6	243
08:00 AM	0	0	0	24	5	35	6	3	0	2	0	8	83
08:15 AM	0	0	0	19	1	51	1	0	0	1	0	3	76
08:30 AM	0	0	0	10	2	44	2	1	0	2	0	1	62
08:45 AM	0	0	0	18	5	51	4	0	0	5	0	5	88
Total	0	0	0	71	13	181	13	4	0	10	0	17	309
Grand Total	0	0	0	133	22	320	25	6	0	23	0	23	552
Apprch %	0	0	0	28	4.6	67.4	80.6	19.4	0	50	0	50	
Total %	0	0	0	24.1	4	58	4.5	1.1	0	4.2	0	4.2	

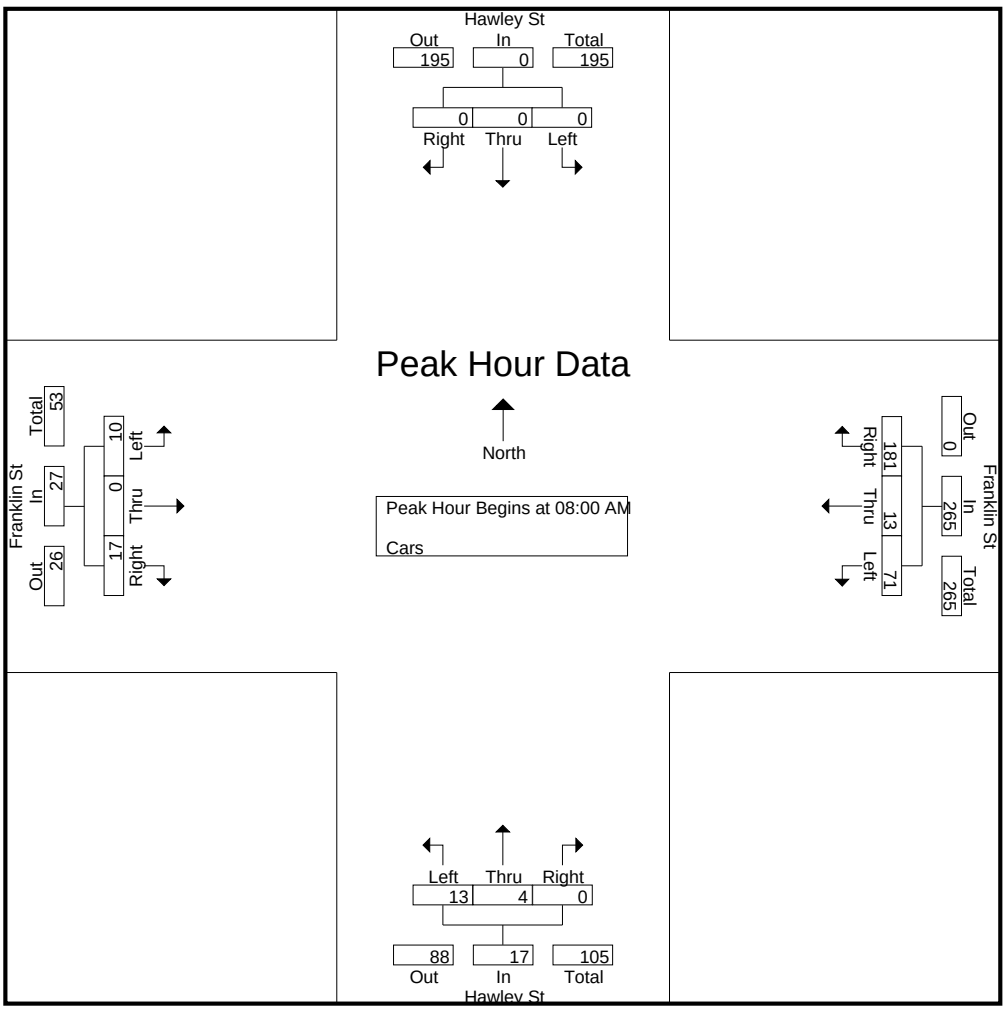
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 5

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	**24**	**5**	35	64	**6**	**3**	0	**9**	2	0	**8**	**10**	83
08:15 AM	0	0	0	0	19	1	**51**	71	1	0	0	1	1	0	3	4	76
08:30 AM	0	0	0	0	10	2	44	56	2	1	0	3	2	0	1	3	62
08:45 AM	0	0	0	0	18	5	51	**74**	4	0	0	4	**5**	0	5	10	**88**
Total Volume	0	0	0	0	71	13	181	265	13	4	0	17	10	0	17	27	309
% App. Total	0	0	0		26.8	4.9	68.3		76.5	23.5	0		37	0	63		
PHF	.000	.000	.000	.000	.740	.650	.887	.895	.542	.333	.000	.472	.500	.000	.531	.675	.878



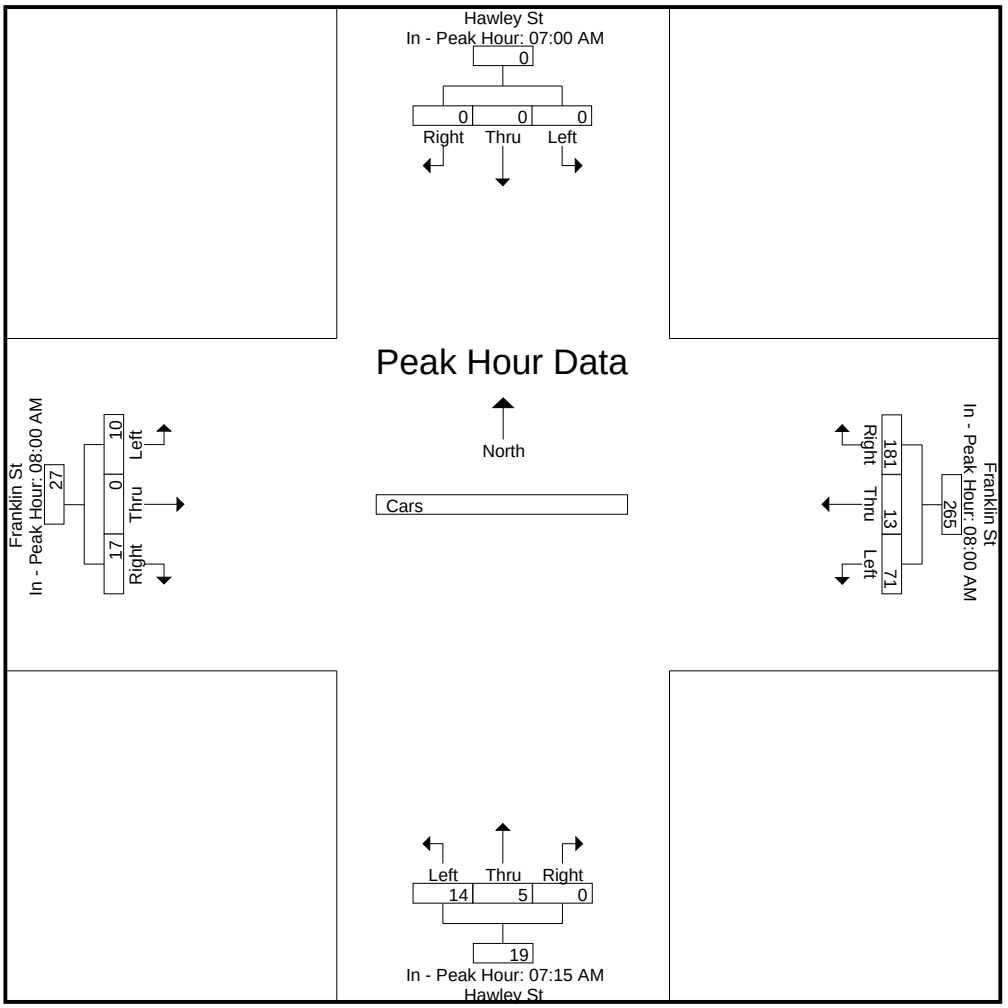
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 6

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				08:00 AM				07:15 AM				08:00 AM				
+0 mins.	0	0	0	0	**24**	**5**	35	64	2	1	0	3	2	0	**8**	**10**	
+15 mins.	0	0	0	0	19	1	**51**	71	4	0	0	4	1	0	3	4	
+30 mins.	0	0	0	0	10	2	44	56	2	1	0	3	2	0	1	3	
+45 mins.	0	0	0	0	18	5	51	**74**	**6**	**3**	0	**9**	**5**	0	5	10	
Total Volume	0	0	0	0	71	13	181	265	14	5	0	19	10	0	17	27	
% App. Total	0	0	0		26.8	4.9	68.3		73.7	26.3	0		37	0	63		
PHF	.000	.000	.000	.000	.740	.650	.887	.895	.583	.417	.000	.528	.500	.000	.531	.675	



Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016

Groups Printed- Trucks

	Hawley St From North			Franklin St From East			Hawley St From South			Franklin St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	5	0	0	0	0	0	0	0	0	5
07:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	4	0	0	0	0	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	10	0	0	0	0	0	0	0	0	10
08:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	2
08:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	3	0	1	0	0	0	0	0	0	4
Grand Total	0	0	0	13	0	1	0	0	0	0	0	0	14
Apprch %	0	0	0	92.9	0	7.1	0	0	0	0	0	0	
Total %	0	0	0	92.9	0	7.1	0	0	0	0	0	0	

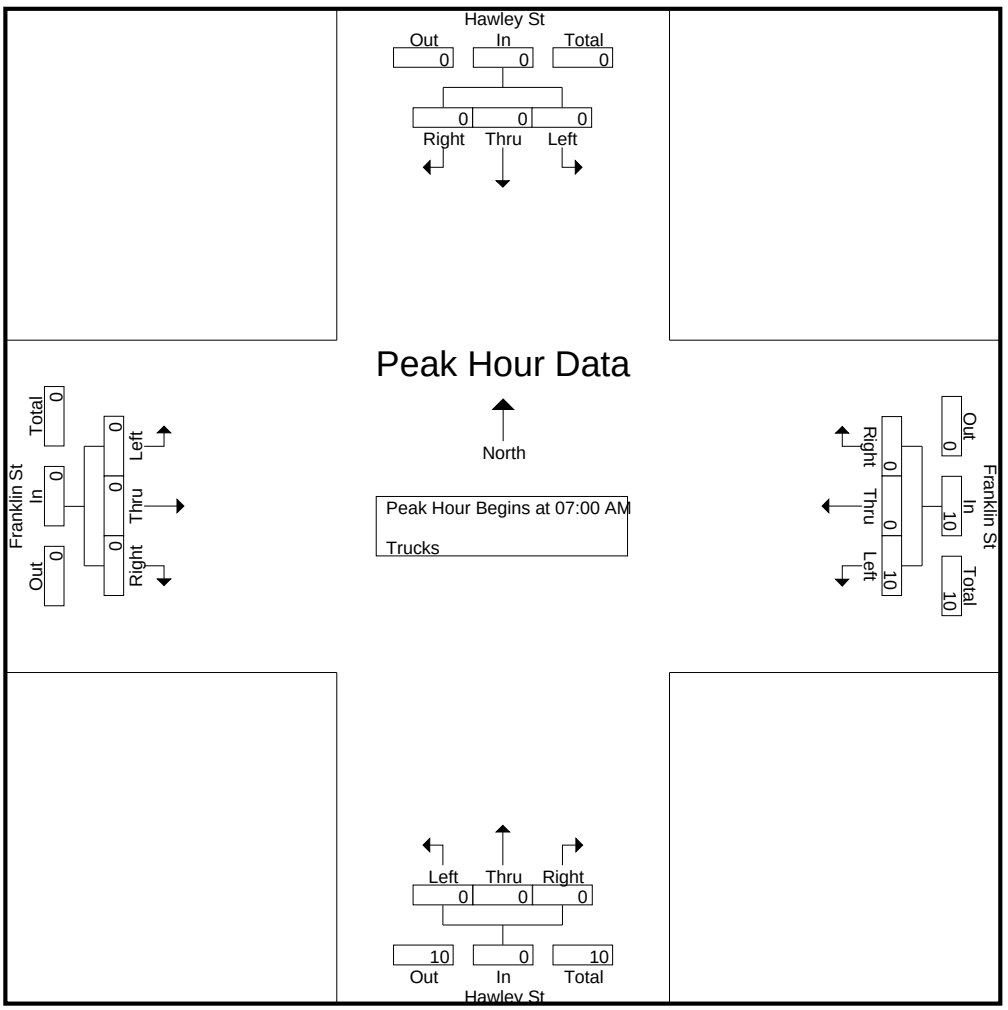
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 8

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	**5**	0	0	**5**	0	0	0	0	0	0	0	0	**5**
07:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	10	0	0	10	0	0	0	0	0	0	0	0	10
% App. Total	0	0	0		100	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.500



Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

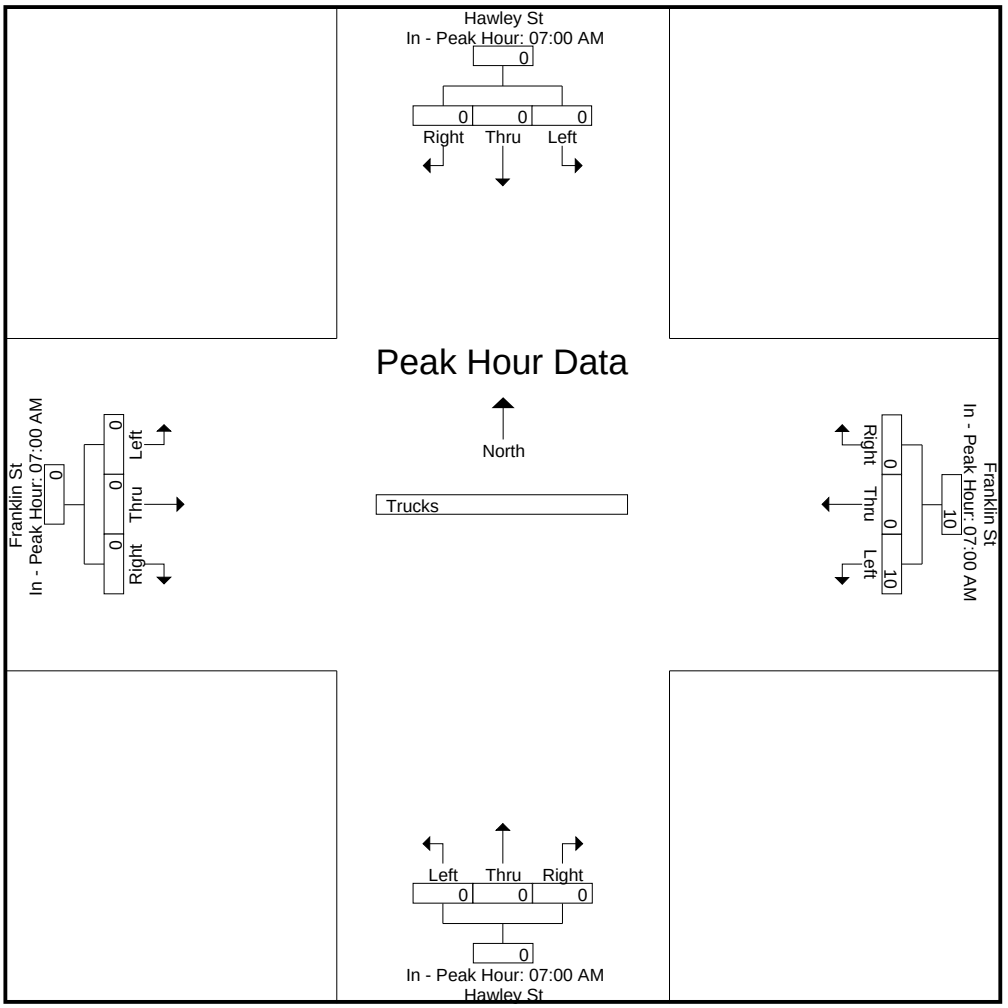
File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 9

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

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

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	**5**	0	0	**5**	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	10	0	0	10	0	0	0	0	0	0	0	0	
% App. Total	0	0	0		100	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	



Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016

Groups Printed- Bikes Peds

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	28	0	0	2	36	0	0	0	28	0	0	0	35	127	2	129
07:15 AM	0	0	0	44	0	0	0	39	0	0	0	35	0	0	0	32	150	0	150
07:30 AM	0	0	0	53	3	0	1	65	0	0	0	58	0	0	0	53	229	4	233
07:45 AM	0	0	0	67	1	0	0	70	0	0	0	61	0	0	0	64	262	1	263
Total	0	0	0	192	4	0	3	210	0	0	0	182	0	0	0	184	768	7	775
08:00 AM	0	1	1	96	1	0	0	71	0	0	0	60	0	0	0	51	278	3	281
08:15 AM	0	2	0	131	4	1	3	162	0	1	0	90	0	0	0	88	471	11	482
08:30 AM	0	0	0	108	3	2	0	153	0	0	0	109	0	0	0	89	459	5	464
08:45 AM	0	0	0	119	0	1	1	147	0	1	1	107	2	2	0	77	450	8	458
Total	0	3	1	454	8	4	4	533	0	2	1	366	2	2	0	305	1658	27	1685
Grand Total	0	3	1	646	12	4	7	743	0	2	1	548	2	2	0	489	2426	34	2460
Apprch %	0	75	25		52.2	17.4	30.4		0	66.7	33.3		50	50	0				
Total %	0	8.8	2.9		35.3	11.8	20.6		0	5.9	2.9		5.9	5.9	0		98.6	1.4	

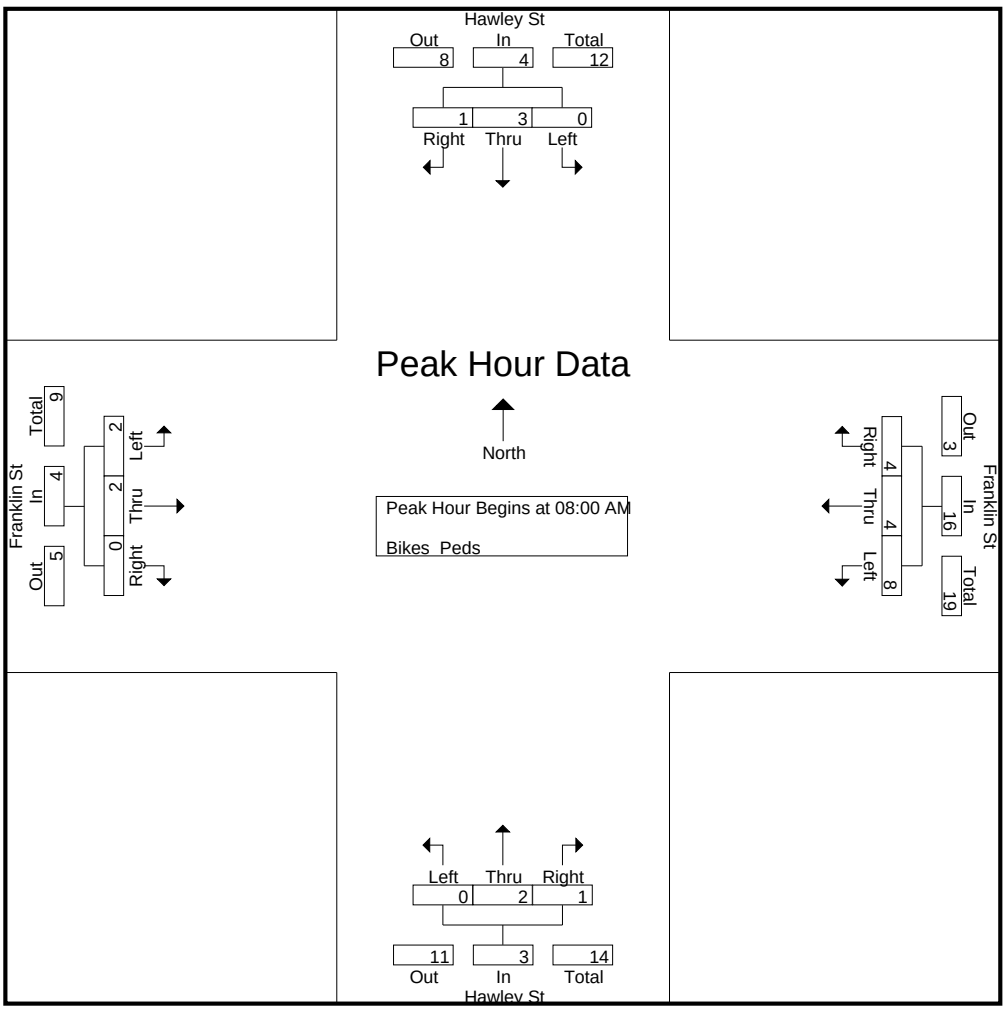
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 11

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	1	**1**	**2**	1	0	0	1	0	0	0	0	0	0	0	0	3
08:15 AM	0	**2**	0	2	**4**	1	**3**	**8**	0	**1**	0	1	0	0	0	0	**11**
08:30 AM	0	0	0	0	3	**2**	0	5	0	0	0	0	0	0	0	0	5
08:45 AM	0	0	0	0	0	1	1	2	0	1	**1**	**2**	**2**	**2**	0	**4**	8
Total Volume	0	3	1	4	8	4	4	16	0	2	1	3	2	2	0	4	27
% App. Total	0	75	25		50	25	25		0	66.7	33.3		50	50	0		
PHF	.000	.375	.250	.500	.500	.500	.333	.500	.000	.500	.250	.375	.250	.250	.000	.250	.614



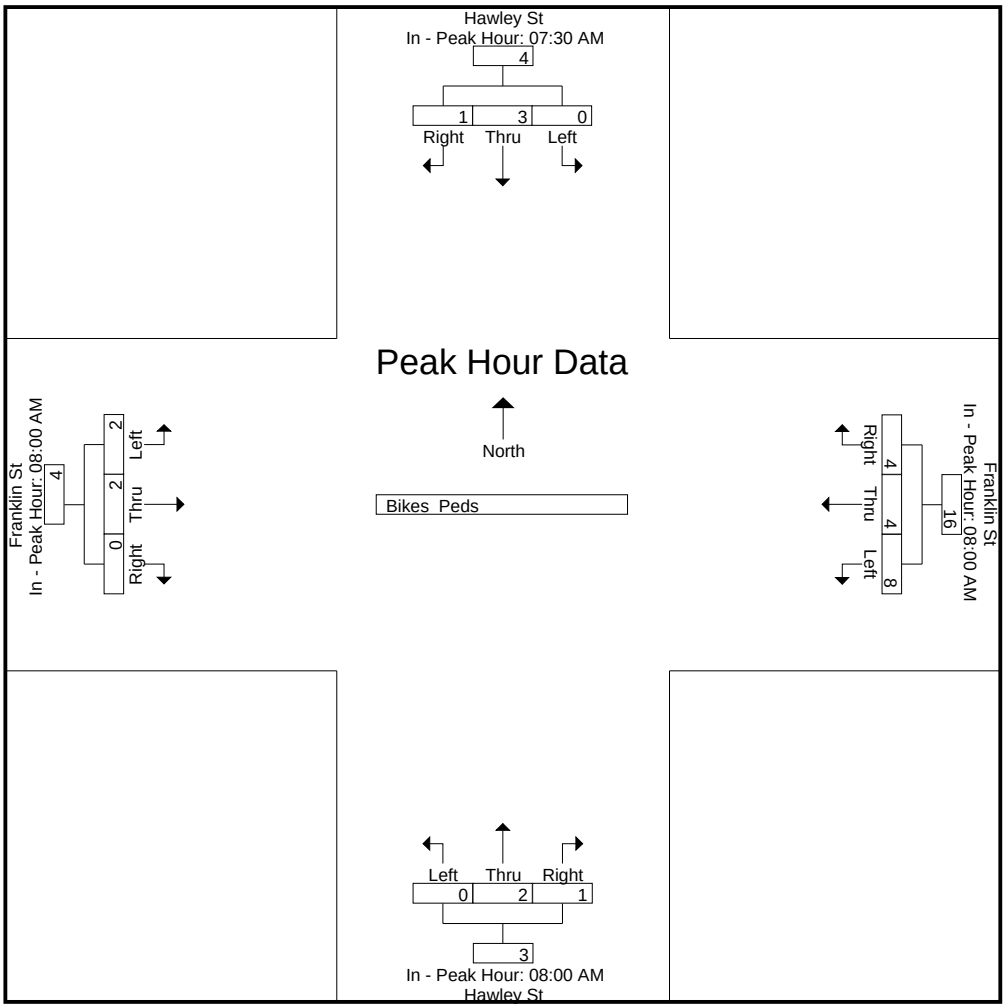
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 12

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				08:00 AM				08:00 AM				08:00 AM				
+0 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	**4**	1	**3**	**8**	0	**1**	0	1	0	0	0	0	
+30 mins.	0	1	**1**	**2**	3	**2**	0	5	0	0	0	0	0	0	0	0	
+45 mins.	0	**2**	0	2	0	1	1	2	0	1	**1**	**2**	**2**	**2**	0	**4**	
Total Volume	0	3	1	4	8	4	4	16	0	2	1	3	2	2	0	4	
% App. Total	0	75	25		50	25	25		0	66.7	33.3		50	50	0		
PHF	.000	.375	.250	.500	.500	.500	.333	.500	.000	.500	.250	.375	.250	.250	.000	.250	



Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016

Groups Printed- Cars - Trucks

	Hawley St From North			Franklin St From East			Hawley St From South			Franklin St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	14	4	15	2	1	0	3	0	4	43
04:15 PM	0	0	0	15	7	22	1	0	0	0	0	8	53
04:30 PM	0	0	0	21	5	24	1	0	0	1	0	5	57
04:45 PM	0	0	0	10	5	27	1	0	0	1	0	7	51
Total	0	0	0	60	21	88	5	1	0	5	0	24	204
05:00 PM	0	0	0	15	5	22	0	2	0	0	0	3	47
05:15 PM	0	0	0	17	6	26	0	1	0	1	0	2	53
05:30 PM	0	0	0	22	4	29	0	0	0	1	0	6	62
05:45 PM	0	0	0	23	7	28	2	1	0	2	0	7	70
Total	0	0	0	77	22	105	2	4	0	4	0	18	232
Grand Total	0	0	0	137	43	193	7	5	0	9	0	42	436
Apprch %	0	0	0	36.7	11.5	51.7	58.3	41.7	0	17.6	0	82.4	
Total %	0	0	0	31.4	9.9	44.3	1.6	1.1	0	2.1	0	9.6	
Cars	0	0	0	136	43	192	7	5	0	9	0	42	434
% Cars	0	0	0	99.3	100	99.5	100	100	0	100	0	100	99.5
Trucks	0	0	0	1	0	1	0	0	0	0	0	0	2
% Trucks	0	0	0	0.7	0	0.5	0	0	0	0	0	0	0.5

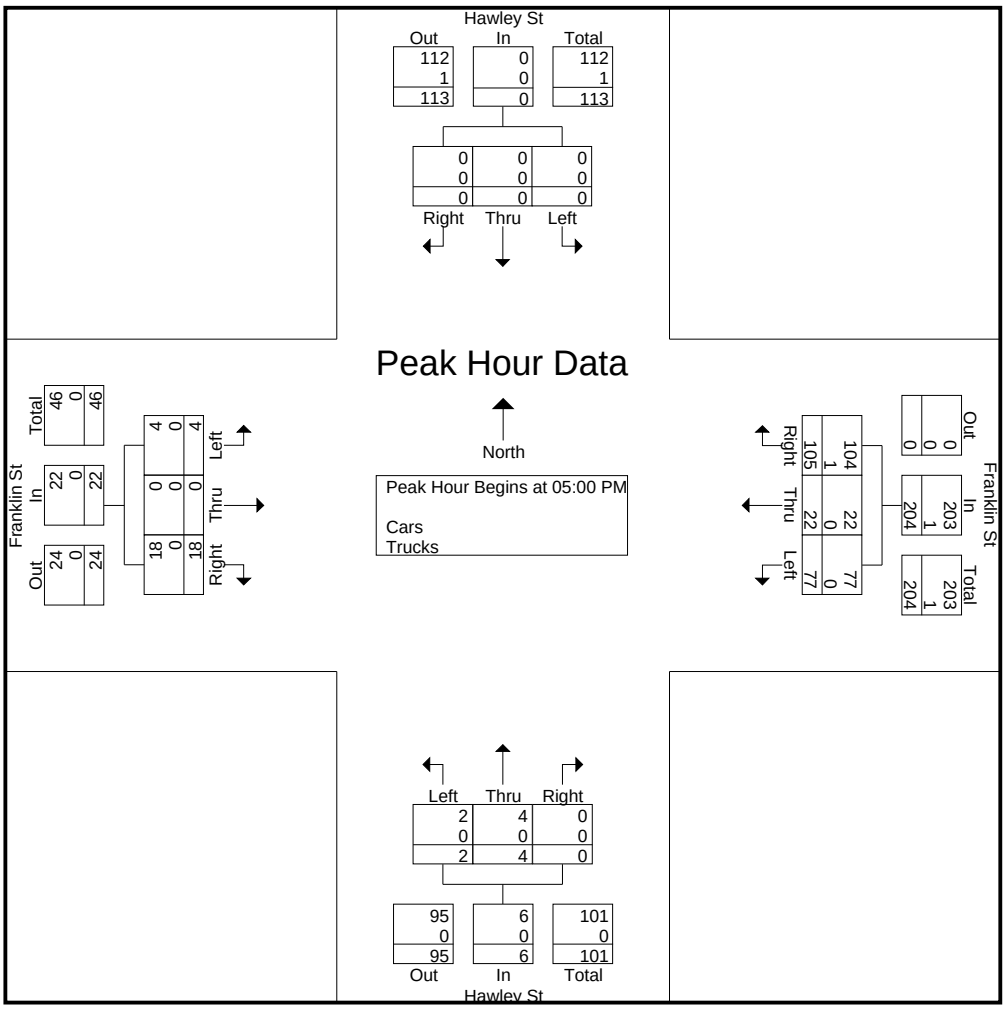
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 2

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	15	5	22	42	0	**2**	0	2	0	0	3	3	47
05:15 PM	0	0	0	0	17	6	26	49	0	1	0	1	1	0	2	3	53
05:30 PM	0	0	0	0	22	4	**29**	55	0	0	0	0	1	0	6	7	62
05:45 PM	0	0	0	0	**23**	**7**	28	**58**	**2**	1	0	**3**	**2**	0	**7**	**9**	**70**
Total Volume	0	0	0	0	77	22	105	204	2	4	0	6	4	0	18	22	232
% App. Total	0	0	0		37.7	10.8	51.5		33.3	66.7	0		18.2	0	81.8		
PHF	.000	.000	.000	.000	.837	.786	.905	.879	.250	.500	.000	.500	.500	.000	.643	.611	.829
Cars	0	0	0	0	77	22	104	203	2	4	0	6	4	0	18	22	231
% Cars	0	0	0	0	100	100	99.0	99.5	100	100	0	100	100	0	100	100	99.6
Trucks	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0	1.0	0.5	0	0	0	0	0	0	0	0	0.4



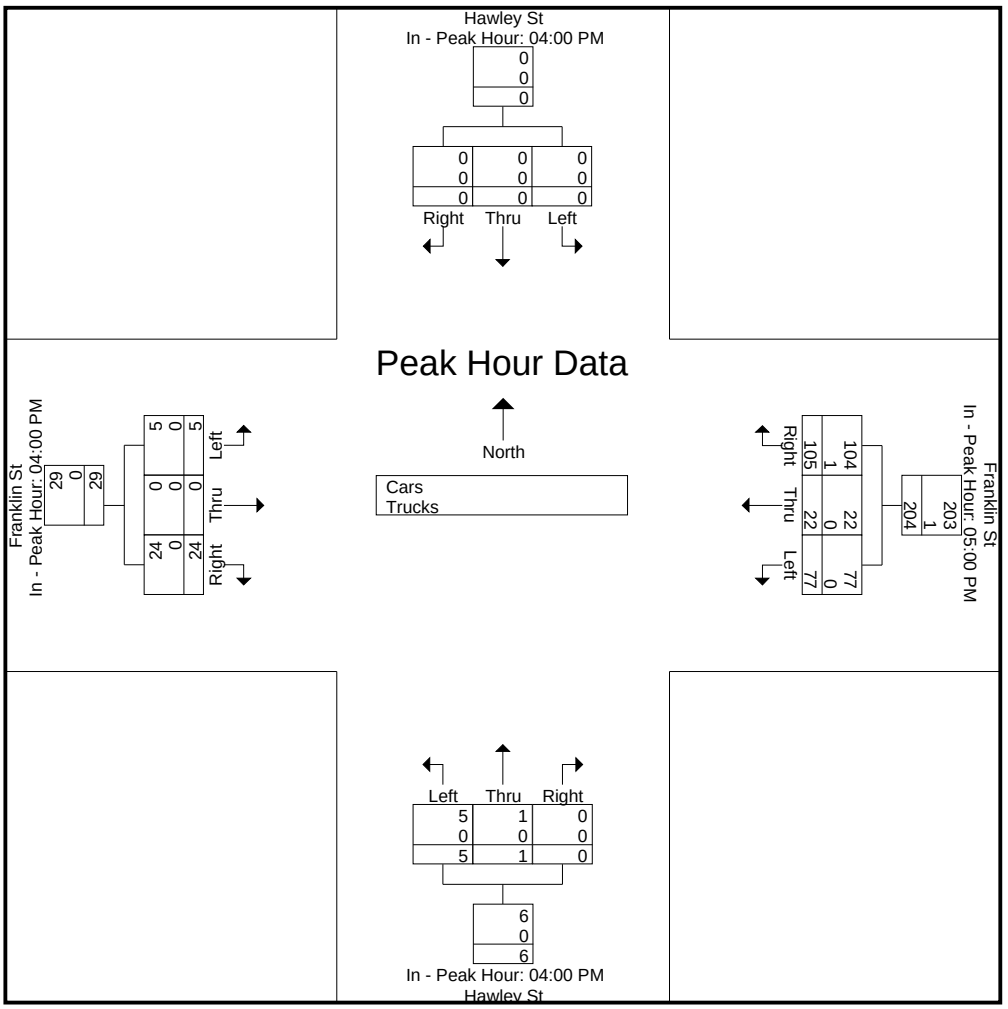
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 3

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				05:00 PM				04:00 PM				04:00 PM				
+0 mins.	0	0	0	0	15	5	22	42	**2**	**1**	0	**3**	**3**	0	4	7	
+15 mins.	0	0	0	0	17	6	26	49	1	0	0	1	0	0	**8**	**8**	
+30 mins.	0	0	0	0	22	4	**29**	55	1	0	0	1	1	0	5	6	
+45 mins.	0	0	0	0	**23**	**7**	28	**58**	1	0	0	1	1	0	7	8	
Total Volume	0	0	0	0	77	22	105	204	5	1	0	6	5	0	24	29	
% App. Total	0	0	0		37.7	10.8	51.5		83.3	16.7	0		17.2	0	82.8		
PHF	.000	.000	.000	.000	.837	.786	.905	.879	.625	.250	.000	.500	.417	.000	.750	.906	
Cars	0	0	0	0	77	22	104	203	5	1	0	6	5	0	24	29	
% Cars	0	0	0	0	100	100	99	99.5	100	100	0	100	100	0	100	100	
Trucks	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	
% Trucks	0	0	0	0	0	0	1	0.5	0	0	0	0	0	0	0	0	



Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016

Groups Printed- Cars

	Hawley St From North			Franklin St From East			Hawley St From South			Franklin St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	14	4	15	2	1	0	3	0	4	43
04:15 PM	0	0	0	15	7	22	1	0	0	0	0	8	53
04:30 PM	0	0	0	20	5	24	1	0	0	1	0	5	56
04:45 PM	0	0	0	10	5	27	1	0	0	1	0	7	51
Total	0	0	0	59	21	88	5	1	0	5	0	24	203
05:00 PM	0	0	0	15	5	21	0	2	0	0	0	3	46
05:15 PM	0	0	0	17	6	26	0	1	0	1	0	2	53
05:30 PM	0	0	0	22	4	29	0	0	0	1	0	6	62
05:45 PM	0	0	0	23	7	28	2	1	0	2	0	7	70
Total	0	0	0	77	22	104	2	4	0	4	0	18	231
Grand Total	0	0	0	136	43	192	7	5	0	9	0	42	434
Apprch %	0	0	0	36.7	11.6	51.8	58.3	41.7	0	17.6	0	82.4	
Total %	0	0	0	31.3	9.9	44.2	1.6	1.2	0	2.1	0	9.7	

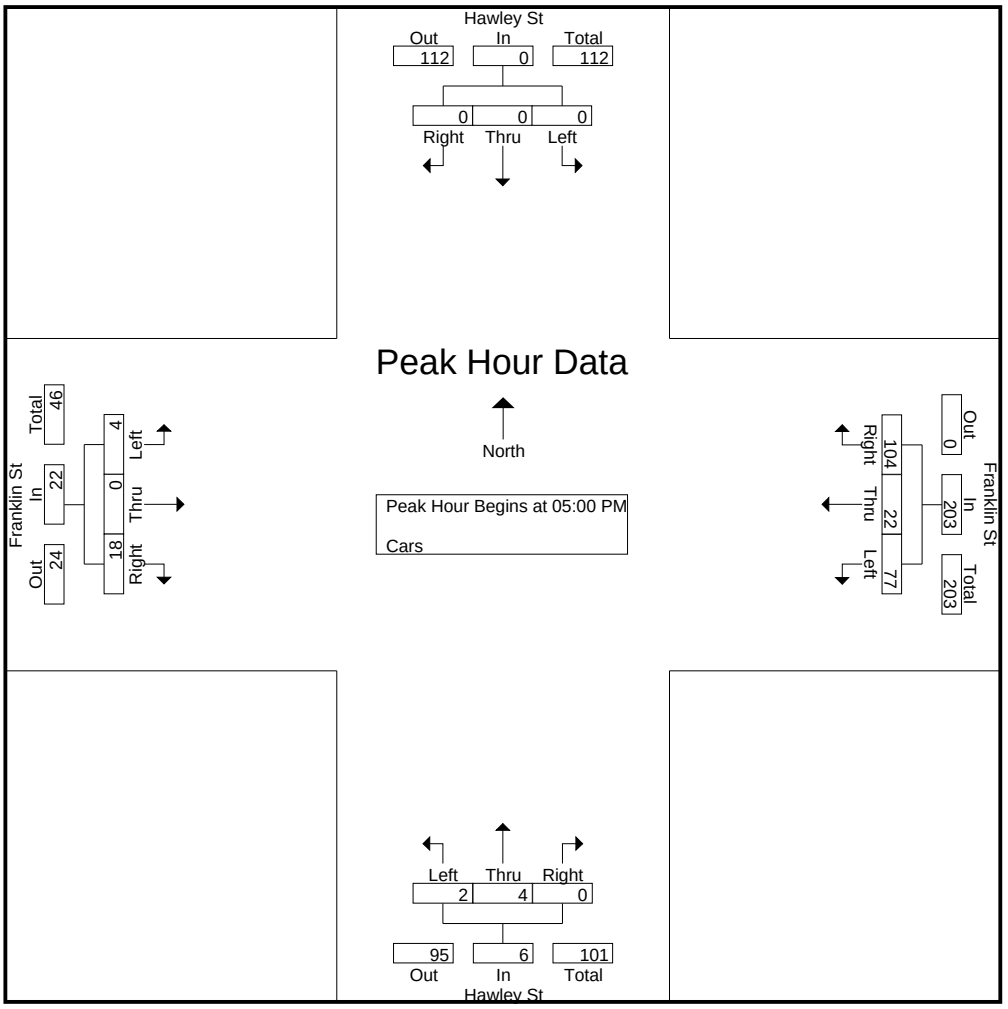
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 5

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	15	5	21	41	0	**2**	0	2	0	0	3	3	46
05:15 PM	0	0	0	0	17	6	26	49	0	1	0	1	1	0	2	3	53
05:30 PM	0	0	0	0	22	4	**29**	55	0	0	0	0	1	0	6	7	62
05:45 PM	0	0	0	0	**23**	**7**	28	**58**	**2**	1	0	**3**	**2**	0	**7**	**9**	**70**
Total Volume	0	0	0	0	77	22	104	203	2	4	0	6	4	0	18	22	231
% App. Total	0	0	0		37.9	10.8	51.2		33.3	66.7	0		18.2	0	81.8		
PHF	.000	.000	.000	.000	.837	.786	.897	.875	.250	.500	.000	.500	.500	.000	.643	.611	.825



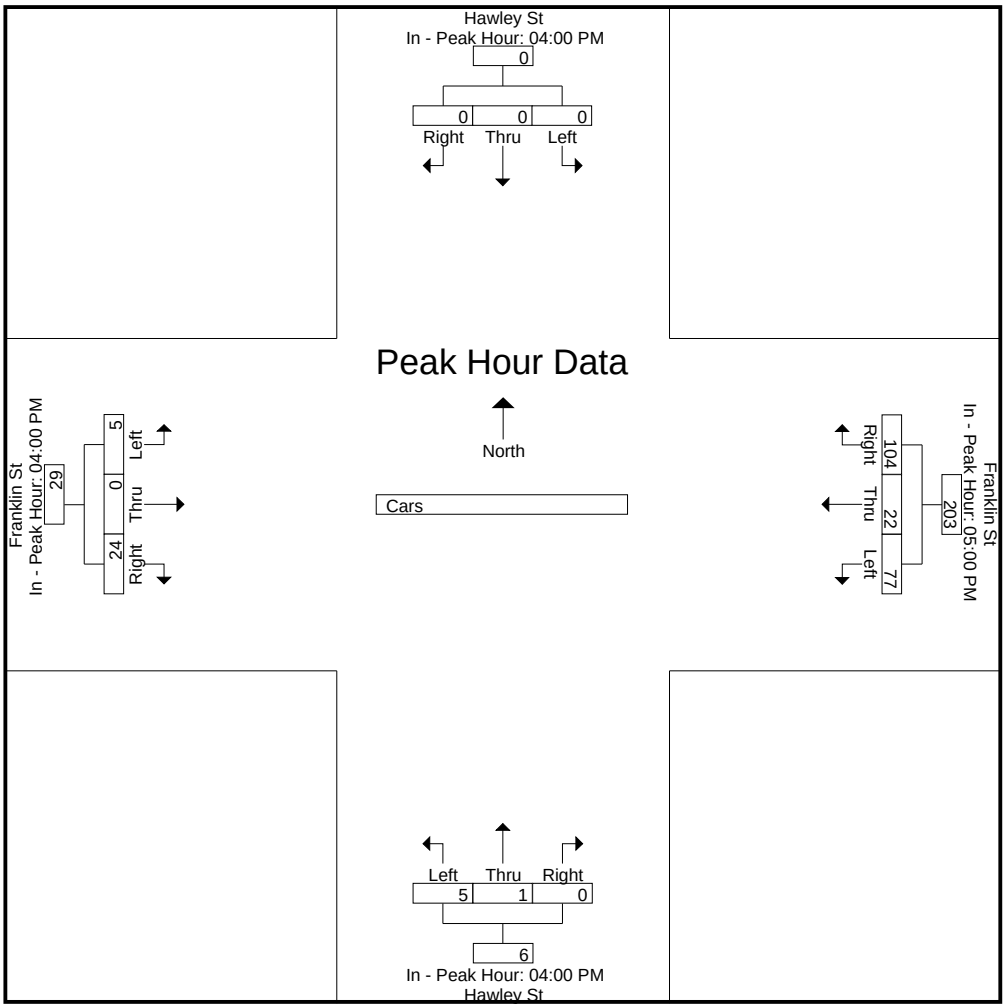
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 6

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				05:00 PM				04:00 PM				04:00 PM				
+0 mins.	0	0	0	0	15	5	21	41	**2**	**1**	0	**3**	**3**	0	4	7	
+15 mins.	0	0	0	0	17	6	26	49	1	0	0	1	0	0	**8**	**8**	
+30 mins.	0	0	0	0	22	4	**29**	55	1	0	0	1	1	0	5	6	
+45 mins.	0	0	0	0	**23**	**7**	28	**58**	1	0	0	1	1	0	7	8	
Total Volume	0	0	0	0	77	22	104	203	5	1	0	6	5	0	24	29	
% App. Total	0	0	0		37.9	10.8	51.2		83.3	16.7	0		17.2	0	82.8		
PHF	.000	.000	.000	.000	.837	.786	.897	.875	.625	.250	.000	.500	.417	.000	.750	.906	



Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016

Groups Printed- Trucks

	Hawley St From North			Franklin St From East			Hawley St From South			Franklin St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	0	0	0	1
Grand Total	0	0	0	1	0	1	0	0	0	0	0	0	2
Apprch %	0	0	0	50	0	50	0	0	0	0	0	0	
Total %	0	0	0	50	0	50	0	0	0	0	0	0	

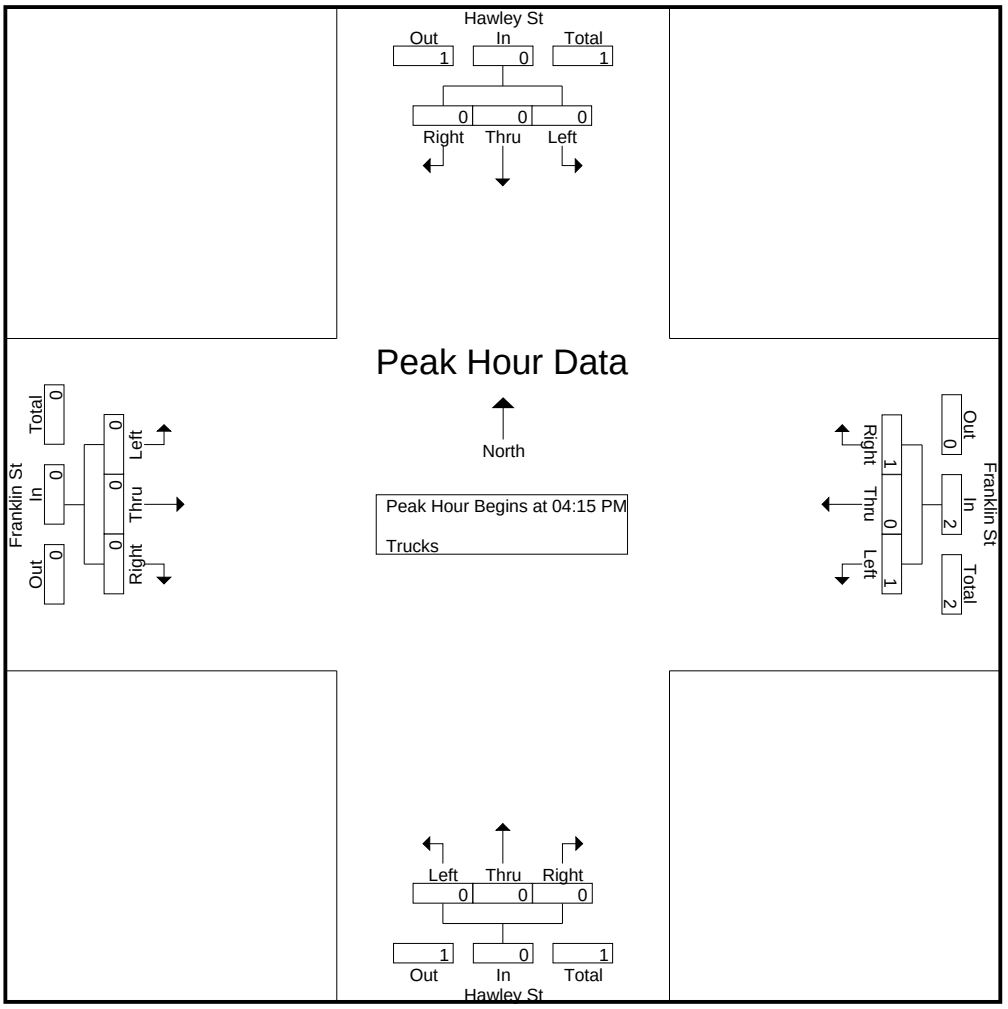
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 8

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	**1**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	2
% App. Total	0	0	0		50	0	50		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.250	.000	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000	.500



Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

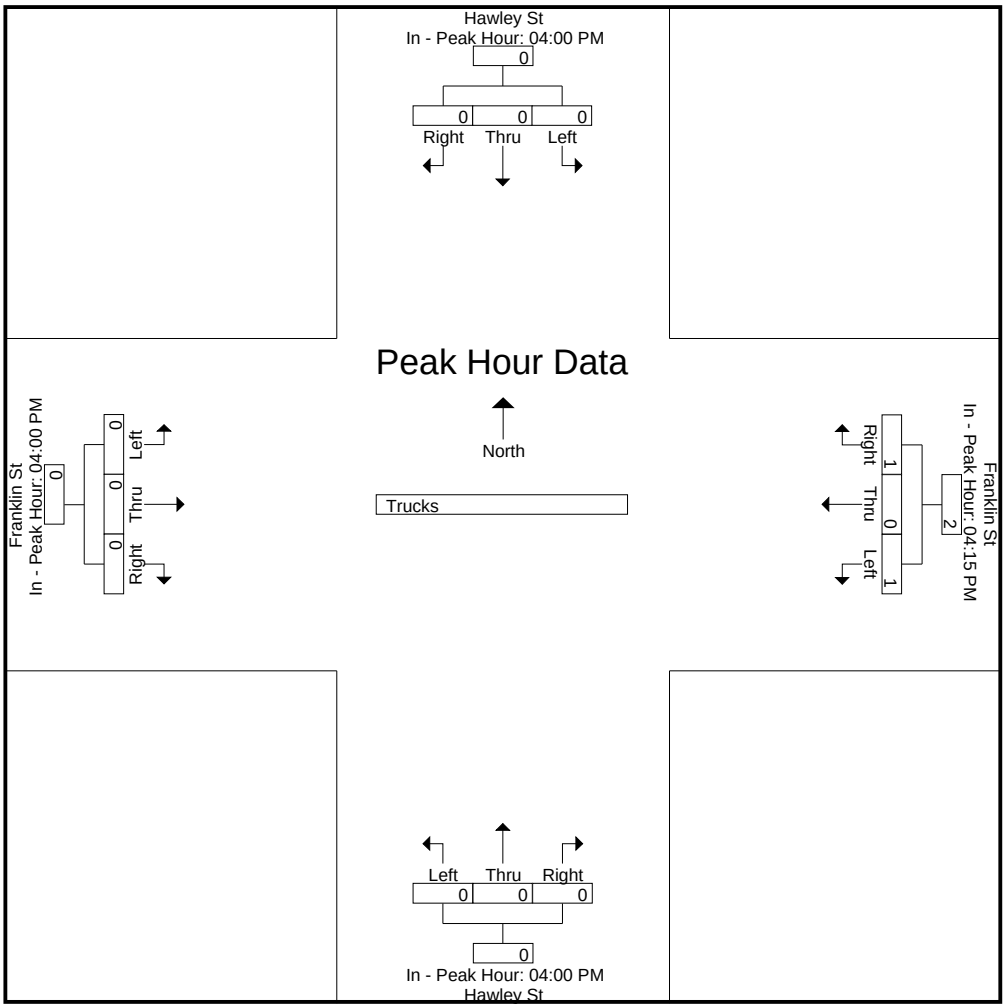
File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 9

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0
% App. Total	0	0	0		50	0	50		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.250	.000	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000



Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016

Groups Printed- Bikes Peds

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	85	1	1	1	50	0	0	0	52	0	0	0	47	234	3	237
04:15 PM	0	2	0	116	4	0	0	48	1	2	0	59	0	0	0	50	273	9	282
04:30 PM	0	2	0	116	2	4	3	44	0	0	0	57	0	0	0	56	273	11	284
04:45 PM	0	1	1	134	5	3	3	55	0	0	0	82	0	0	0	55	326	13	339
Total	0	5	1	451	12	8	7	197	1	2	0	250	0	0	0	208	1106	36	1142
05:00 PM	0	0	1	162	9	6	3	72	0	0	0	115	0	1	0	84	433	20	453
05:15 PM	0	0	0	200	7	14	2	63	0	2	1	121	0	0	0	80	464	26	490
05:30 PM	0	0	2	152	8	8	2	88	0	2	0	81	0	0	1	91	412	23	435
05:45 PM	0	0	0	148	5	9	4	52	1	0	0	93	0	0	0	65	358	19	377
Total	0	0	3	662	29	37	11	275	1	4	1	410	0	1	1	320	1667	88	1755
Grand Total	0	5	4	1113	41	45	18	472	2	6	1	660	0	1	1	528	2773	124	2897
Apprch %	0	55.6	44.4		39.4	43.3	17.3		22.2	66.7	11.1		0	50	50				
Total %	0	4	3.2		33.1	36.3	14.5		1.6	4.8	0.8		0	0.8	0.8		95.7	4.3	

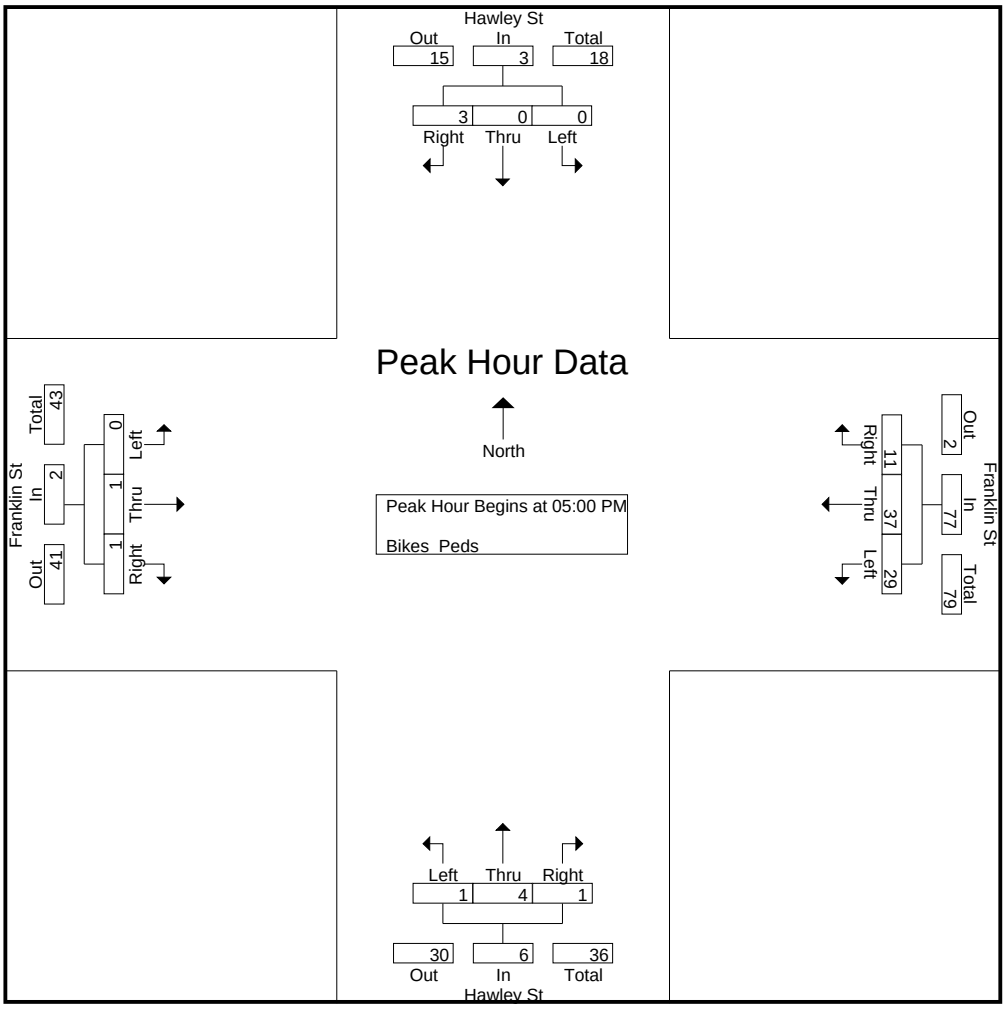
Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	1	1	**9**	6	3	18	0	0	0	0	0	**1**	0	**1**	20
05:15 PM	0	0	0	0	7	**14**	2	**23**	0	**2**	**1**	**3**	0	0	0	0	**26**
05:30 PM	0	0	**2**	**2**	8	8	2	18	0	2	0	2	0	0	**1**	1	23
05:45 PM	0	0	0	0	5	9	**4**	18	**1**	0	0	1	0	0	0	0	19
Total Volume	0	0	3	3	29	37	11	77	1	4	1	6	0	1	1	2	88
% App. Total	0	0	100		37.7	48.1	14.3		16.7	66.7	16.7		0	50	50		
PHF	.000	.000	.375	.375	.806	.661	.688	.837	.250	.500	.250	.500	.000	.250	.250	.500	.846



Accurate Counts

978-664-2565

N/S Street : Hawley Street
E/W Street: Franklin Street
City/State : Boston, MA
Weather : Clear

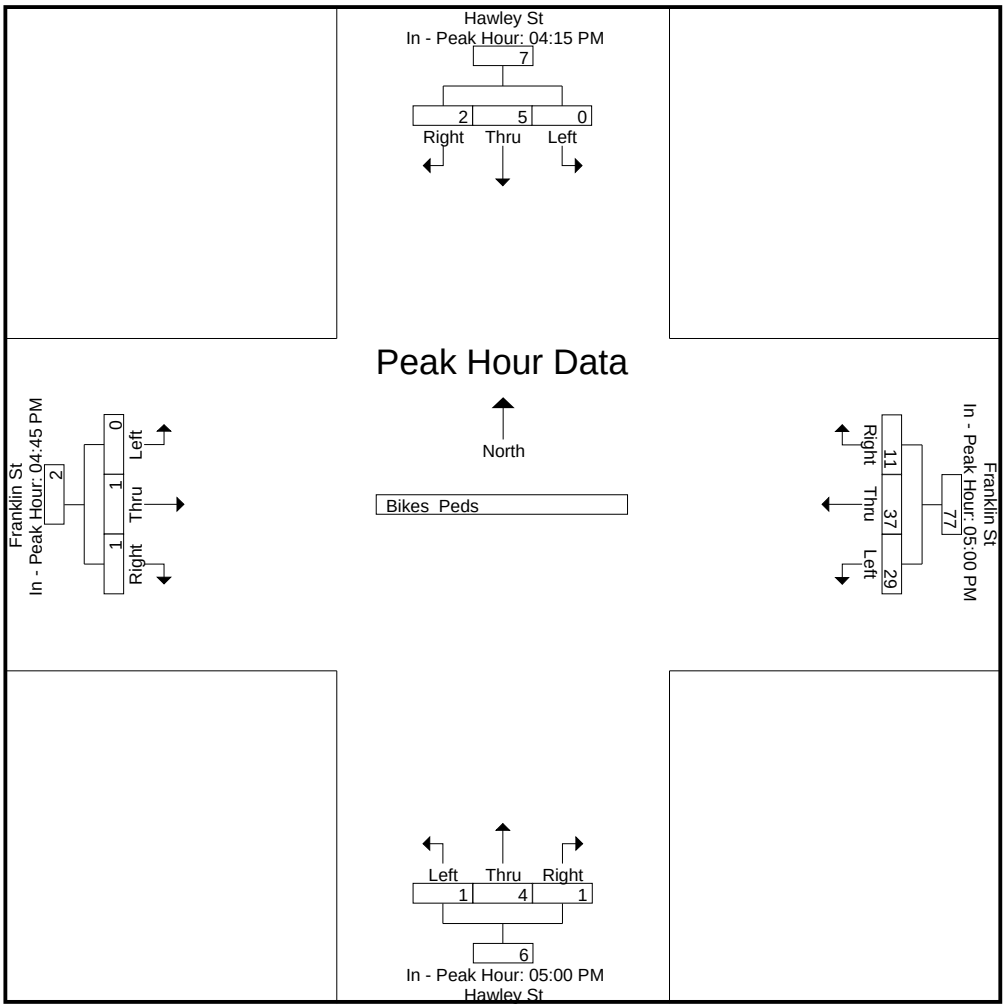
File Name : 80190006
Site Code : 80190006
Start Date : 10/26/2016
Page No : 12

	Hawley St From North				Franklin St From East				Hawley St From South				Franklin St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM				05:00 PM				05:00 PM				04:45 PM			
+0 mins.	0	**2**	0	**2**	**9**	6	3	18	0	0	0	0	0	0	0	0
+15 mins.	0	2	0	2	7	**14**	2	**23**	0	**2**	**1**	**3**	0	**1**	0	**1**
+30 mins.	0	1	**1**	2	8	8	2	18	0	2	0	2	0	0	0	0
+45 mins.	0	0	1	1	5	9	**4**	18	**1**	0	0	1	0	0	**1**	1
Total Volume	0	5	2	7	29	37	11	77	1	4	1	6	0	1	1	2
% App. Total	0	71.4	28.6		37.7	48.1	14.3		16.7	66.7	16.7		0	50	50	
PHF	.000	.625	.500	.875	.806	.661	.688	.837	.250	.500	.250	.500	.000	.250	.250	.500



Trip Generation - Proposed Program

11-21 Bromfield
Street
Trip Generation Assessment
HOWARD STEIN HUDSON
28-Oct-2019
rev. 9/14/2020

xx HARD CODED TO BALANCE (Manually change formatting)

Land Use	Size	Category	Directional Split	Average Trip Rate	Unadjusted Vehicle Trips	Assumed National Vehicle Occupancy Rate[1]	Unadjusted Person-Trips	Primary Person Trips	Transit Share[2]	Transit Person-Trips	Walk/Bike/ Other Share[2]	Walk/ Bike/ Other Trips	Auto Share[2]	Auto Person-Trips	% Taxi/ TNC[3]	Taxi/TNC Person-Trips	Assumed Local Auto Occupancy Rate for Taxis[4]	Primary Auto-Person Trips	Private Auto Trips	Taxi/TNC Auto Trips	Total Auto Trips (Private/Taxi)
Daily Peak Hour																					
Office Building[5]	382	Total		9.740	3,720	1.18	**4,390**	**4,390**	43%	**1,888**	31%	**1,360**	26%	**1,142**	7%	80	1.18	1062	**900**	**136**	**1,036**
	KSF	In	50%	4.870	1,860	1.18	**2,195**	**2,195**	43%	**944**	31%	**680**	26%	**571**	7%	40	1.18	531	**450**	**68**	**518**
		Out	50%	4.870	1,860	1.18	**2,195**	**2,195**	43%	**944**	31%	**680**	26%	**571**	7%	40	1.18	531	**450**	**68**	**518**
Shopping Center[6]	59	Total		37.750	2,228	1.82	**4,054**	**4,054**	20%	**810**	59%	**2,392**	21%	**852**	14%	120	1.82	366	**202**	**132**	**334**
	KSF	In	50%	18.875	1,114	1.82	**2,027**	**2,027**	20%	**405**	59%	**1,196**	21%	**426**	14%	60	1.82	183	**101**	**66**	**167**
		Out	50%	18.875	1,114	1.82	**2,027**	**2,027**	20%	**405**	59%	**1,196**	21%	**426**	14%	60	1.82	183	**101**	**66**	**167**
Total		Total			**5,948**		**8,444**	**8,444**		**2,698**		**3,752**		**1,994**					**1,102**	**268**	**1,370**
		In			**2,974**		**4,222**	**4,222**		**1,349**		**1,876**		**997**					**551**	**134**	**685**
		Out			**2,974**		**4,222**	**4,222**		**1,349**		**1,876**		**997**					**551**	**134**	**685**
AM Peak Hour																					
Office Building[5]	382	Total		1.16	443	1.18	**523**	**523**		**330**		**58**		**135**	7%	9	1.18	126	**107**	**16**	**123**
	KSF	In	86%	0.998	381	1.18	**450**	**450**	63%	**284**	11%	**50**	26%	**116**	7%	8	1.18	108	**92**	**8**	**100**
		Out	14%	0.162	62	1.18	**73**	**73**	63%	**46**	11%	**8**	26%	**19**	7%	1	1.18	18	**15**	**8**	**23**
Shopping Center[6]	59	Total		0.94	55	1.82	**100**	**100**		**46**		**33**		**21**	14%	3	1.82	8	**5**	**4**	**9**
	KSF	In	62%	0.583	34	1.82	**62**	**62**	46%	**29**	33%	**20**	21%	**13**	14%	2	1.82	5	**3**	**2**	**5**
		Out	38%	0.357	21	1.82	**38**	**38**	46%	**17**	33%	**13**	21%	**8**	14%	1	1.82	3	**2**	**2**	**4**
Total		Total			**498**		**623**	**623**		**376**		**91**		**156**					**112**	**20**	**132**
		In			**415**		**512**	**512**		**313**		**70**		**129**					**95**	**10**	**105**
		Out			**83**		**111**	**111**		**63**		**21**		**27**					**17**	**10**	**27**
PM Peak Hour																					
Office Building[5]	382	Total		1.15	439	1.18	**518**	**518**		**326**		**57**		**135**	7%	10	1.18	125	**106**	**18**	**124**
	KSF	In	16%	0.184	70	1.18	**83**	**83**	63%	**52**	11%	**9**	26%	**22**	7%	2	1.18	20	**17**	**9**	**26**
		Out	84%	0.966	369	1.18	**435**	**435**	63%	**274**	11%	**48**	26%	**113**	7%	8	1.18	105	**89**	**9**	**98**
Shopping Center[6]	59	Total		3.81	225	1.82	**410**	**410**		**188**		**135**		**87**	14%	12	1.82	37	**20**	**12**	**32**
	KSF	In	48%	1.829	108	1.82	**197**	**197**	46%	**90**	33%	**65**	21%	**42**	14%	6	1.82	18	**10**	**6**	**16**
		Out	52%	1.981	117	1.82	**213**	**213**	46%	**98**	33%	**70**	21%	**45**	14%	6	1.82	19	**10**	**6**	**16**
Total		Total			**664**		**928**	**928**		**514**		**192**		**222**					**126**	**30**	**156**
		In			**178**		**280**	**280**		**142**		**74**		**64**					**27**	**15**	**42**
		Out			**486**		**648**	**648**		**372**		**118**		**158**					**99**	**15**	**114**

1. 2017 National vehicle occupancy rates - 1.18:home to work; 1.82: family/personal business; 1.82: shopping; 2.1 social/recreational
2. Based on BTD Area 2 Mode Shares
3. Assume Taxi/TNC percentage
4. Local vehicle occupancy rates based on 2017 National vehicle occupancy rates
5. ITE Trip Generation Manual, 10th Edition, LUC 710 (General Office Building), average rate
6. ITE Trip Generation Manual, 10th Edition, LUC 820 (Shopping Center), average rate

Synchro Intersection Level of Service Reports

- Existing (2020) Condition

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	268	0	0	206	0	0
Future Volume (vph)	268	0	0	206	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	15	15	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1593	0	0	1791	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1593	0	0	1791	0	0
Right Turn on Red	No	No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	287			179	59	
Travel Time (s)	7.8			4.9	1.6	
Peak Hour Factor	0.92	0.92	0.81	0.81	0.25	0.25
Heavy Vehicles (%)	2%	0%	0%	5%	0%	0%
Adj. Flow (vph)	291	0	0	254	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	291	0	0	254	0	0
Turn Type	Prot			NA		
Protected Phases	1			5		
Permitted Phases						
Detector Phase	1			5		
Switch Phase						
Minimum Initial (s)	10.0			10.0		
Minimum Split (s)	35.0			20.0		
Total Split (s)	35.0			20.0		
Total Split (%)	63.6%			36.4%		
Maximum Green (s)	31.0			16.0		
Yellow Time (s)	3.0			3.0		
All-Red Time (s)	1.0			1.0		
Lost Time Adjust (s)	0.0			0.0		
Total Lost Time (s)	4.0			4.0		
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0			2.0		
Recall Mode	C-Max			None		
Walk Time (s)	24.0			10.0		
Flash Dont Walk (s)	7.0			6.0		
Pedestrian Calls (#/hr)	500			500		
Act Effct Green (s)	31.0			16.0		
Actuated g/C Ratio	0.56			0.29		
v/c Ratio	0.32			0.49		
Control Delay	7.7			19.1		
Queue Delay	0.0			9.3		
Total Delay	7.7			28.4		
LOS	A			C		
Approach Delay	7.7			28.4		
Approach LOS	A			C		
Queue Length 50th (ft)	45			64		
Queue Length 95th (ft)	83			100		
Internal Link Dist (ft)	207			99	1	
Turn Bay Length (ft)						
Base Capacity (vph)	897			521		
Starvation Cap Reductn	0			228		
Spillback Cap Reductn	0			0		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.32			0.87		

Intersection Summary

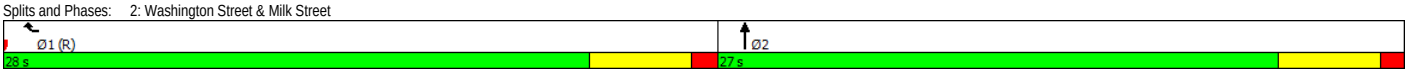
Area Type: CBD
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 49 (89%), Referenced to phase 1:EBL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 17.3 Intersection LOS: B
Intersection Capacity Utilization 35.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Washington Street & School Street

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	190	16	10	0	0
Future Volume (vph)	0	190	16	10	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.947			
Flt Protected						
Satd. Flow (prot)	0	1345	1451	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1345	1451	0	0	0
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		1018	14			
Link Speed (mph)	25		25			25
Link Distance (ft)	130		263			179
Travel Time (s)	3.5		7.2			4.9
Peak Hour Factor	0.90	0.90	0.72	0.72	0.92	0.92
Heavy Vehicles (%)	0%	10%	12%	11%	0%	0%
Adj. Flow (vph)	0	211	22	14	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	211	36	0	0	0
Turn Type		Prot	NA			
Protected Phases		1	2			
Permitted Phases						
Detector Phase		1	2			
Switch Phase						
Minimum Initial (s)		4.0	4.0			
Minimum Split (s)		28.0	18.0			
Total Split (s)		28.0	27.0			
Total Split (%)		50.9%	49.1%			
Maximum Green (s)		23.0	22.0			
Yellow Time (s)		4.0	4.0			
All-Red Time (s)		1.0	1.0			
Lost Time Adjust (s)		0.0	0.0			
Total Lost Time (s)		5.0	5.0			
Lead/Lag		Lead	Lag			
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0			
Recall Mode		C-Max	None			
Walk Time (s)		16.0	7.0			
Flash Dont Walk (s)		7.0	6.0			
Pedestrian Calls (#/hr)		200	200			
Act Effct Green (s)		32.0	13.0			
Actuated g/C Ratio		0.58	0.24			
v/c Ratio		0.17	0.10			
Control Delay		0.3	13.0			
Queue Delay		0.0	0.0			
Total Delay		0.3	13.0			
LOS		A	B			
Approach Delay	0.3		13.0			
Approach LOS	A		B			
Queue Length 50th (ft)		0	6			
Queue Length 95th (ft)		0	18			
Internal Link Dist (ft)	50		183			99
Turn Bay Length (ft)						
Base Capacity (vph)		1208	588			
Starvation Cap Reductn		0	0			
Spillback Cap Reductn		154	71			
Storage Cap Reductn		0	0			
Reduced v/c Ratio		0.20	0.07			

Intersection Summary			
Area Type:	CBD		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 54 (98%), Referenced to phase 1:WBR, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.17			
Intersection Signal Delay: 2.2		Intersection LOS: A	
Intersection Capacity Utilization 24.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Washington Street & Milk Street

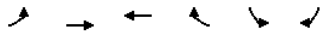


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	246	48	0	0	0	22
Future Volume (Veh/h)	246	48	0	0	0	22
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.25	0.25	0.70	0.70
Hourly flow rate (vph)	267	52	0	0	0	31
Pedestrians				78	265	
Lane Width (ft)				0.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				0	22	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				287		
pX, platoon unblocked						
vC, conflicting volume			584		558	636
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			584		558	636
tC, single (s)			4.1		6.4	*3.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	*1.0
p0 queue free %			100		100	98
cM capacity (veh/h)			780		385	1801

Direction, Lane #	EB 1	NB 1
Volume Total	319	31
Volume Left	0	0
Volume Right	52	31
cSH	1700	1801
Volume to Capacity	0.19	0.02
Queue Length 95th (ft)	0	1
Control Delay (s)	0.0	7.0
Lane LOS		A
Approach Delay (s)	0.0	7.0
Approach LOS		A

Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	38.5%	ICU Level of Service	A	
Analysis Period (min)	15			

* User Entered Value



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	11	2	0	43
Future Volume (Veh/h)	0	0	11	2	0	43
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.60	0.60	0.77	0.77
Hourly flow rate (vph)	0	0	18	3	0	56
Pedestrians		30	25		382	
Lane Width (ft)		0.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	2		32	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	403				426	432
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	403				426	432
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	87
cM capacity (veh/h)	795				393	428

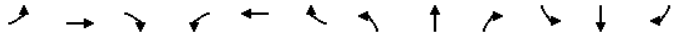
Direction, Lane #	WB 1	SB 1
Volume Total	21	56
Volume Left	0	0
Volume Right	3	56
cSH	1700	428
Volume to Capacity	0.01	0.13
Queue Length 95th (ft)	0	11
Control Delay (s)	0.0	14.7
Lane LOS		B
Approach Delay (s)	0.0	14.7
Approach LOS		B

Intersection Summary				
Average Delay		10.7		
Intersection Capacity Utilization		30.5%	ICU Level of Service	A
Analysis Period (min)		15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	0	0	13	26	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	13	26	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	15	29	0	0	0	0

Direction, Lane #	NB 1
Volume Total (vph)	44
Volume Left (vph)	15
Volume Right (vph)	0
Hadj (s)	0.46
Departure Headway (s)	4.4
Degree Utilization, x	0.05
Capacity (veh/h)	813
Control Delay (s)	7.6
Approach Delay (s)	7.6
Approach LOS	A

Intersection Summary				
Delay	7.6			
Level of Service	A			
Intersection Capacity Utilization	16.7%	ICU Level of Service		A
Analysis Period (min)	15			
Description: Counts from 2007 Millennium Tower				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	0	17	75	13	184	0	0	0	0	0	0
Future Volume (vph)	10	0	17	75	13	184	0	0	0	0	0	0
Peak Hour Factor	0.68	0.68	0.68	0.90	0.90	0.90	0.47	0.47	0.47	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	25	83	14	204	0	0	0	0	0	0

Direction, Lane #	EB 1	WB 1
Volume Total (vph)	40	301
Volume Left (vph)	15	83
Volume Right (vph)	25	204
Hadj (s)	-0.30	-0.33
Departure Headway (s)	3.8	3.6
Degree Utilization, x	0.04	0.30
Capacity (veh/h)	911	993
Control Delay (s)	7.0	8.1
Approach Delay (s)	7.0	8.1
Approach LOS	A	A

Intersection Summary				
Delay	8.0			
Level of Service	A			
Intersection Capacity Utilization	29.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	206	0	0	217	0	0
Future Volume (vph)	206	0	0	217	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	15	15	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1608	0	0	1862	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1608	0	0	1862	0	0
Right Turn on Red	No	No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	287			179	59	
Travel Time (s)	7.8			4.9	1.6	
Peak Hour Factor	0.91	0.91	0.90	0.90	0.25	0.25
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%
Adj. Flow (vph)	226	0	0	241	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	226	0	0	241	0	0
Turn Type	Prot			NA		
Protected Phases	1			5		
Permitted Phases						
Detector Phase	1			5		
Switch Phase						
Minimum Initial (s)	10.0			10.0		
Minimum Split (s)	34.0			21.0		
Total Split (s)	34.0			21.0		
Total Split (%)	61.8%			38.2%		
Maximum Green (s)	30.0			17.0		
Yellow Time (s)	3.0			3.0		
All-Red Time (s)	1.0			1.0		
Lost Time Adjust (s)	0.0			0.0		
Total Lost Time (s)	4.0			4.0		
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0			2.0		
Recall Mode	C-Max			None		
Walk Time (s)	23.0			11.0		
Flash Dont Walk (s)	7.0			6.0		
Pedestrian Calls (#/hr)	500			500		
Act Effct Green (s)	30.0			17.0		
Actuated g/C Ratio	0.55			0.31		
v/c Ratio	0.26			0.42		
Control Delay	7.6			18.6		
Queue Delay	0.0			6.3		
Total Delay	7.6			24.9		
LOS	A			C		
Approach Delay	7.6			24.9		
Approach LOS	A			C		
Queue Length 50th (ft)	35			64		
Queue Length 95th (ft)	66			118		
Internal Link Dist (ft)	207			99	1	
Turn Bay Length (ft)						
Base Capacity (vph)	877			575		
Starvation Cap Reductn	0			276		
Spillback Cap Reductn	0			0		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.26			0.81		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 38 (69%), Referenced to phase 1:EBL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay: 16.5		Intersection LOS: B	
Intersection Capacity Utilization 32.0%		ICU Level of Service A	
Analysis Period (min) 15			

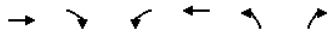
Splits and Phases: 1: Washington Street & School Street

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	207	10	4	0	0
Future Volume (vph)	0	207	10	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.959			
Flt Protected						
Satd. Flow (prot)	0	1450	1426	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1450	1426	0	0	0
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		1018	9			
Link Speed (mph)	25		25			25
Link Distance (ft)	204		258			179
Travel Time (s)	5.6		7.0			4.9
Peak Hour Factor	0.84	0.84	0.47	0.47	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	50%	0%	0%
Adj. Flow (vph)	0	246	21	9	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	246	30	0	0	0
Turn Type		Prot	NA			
Protected Phases		1	2			
Permitted Phases						
Detector Phase		1	2			
Switch Phase						
Minimum Initial (s)		4.0	4.0			
Minimum Split (s)		25.0	18.0			
Total Split (s)		29.0	26.0			
Total Split (%)		52.7%	47.3%			
Maximum Green (s)		24.0	21.0			
Yellow Time (s)		4.0	4.0			
All-Red Time (s)		1.0	1.0			
Lost Time Adjust (s)		0.0	0.0			
Total Lost Time (s)		5.0	5.0			
Lead/Lag		Lead	Lag			
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0			
Recall Mode		C-Max	None			
Walk Time (s)		13.0	7.0			
Flash Dont Walk (s)		7.0	6.0			
Pedestrian Calls (#/hr)		200	200			
Act Effct Green (s)		32.0	13.0			
Actuated g/C Ratio		0.58	0.24			
v/c Ratio		0.19	0.09			
Control Delay		0.3	14.0			
Queue Delay		0.0	0.0			
Total Delay		0.4	14.0			
LOS		A	B			
Approach Delay	0.4		14.0			
Approach LOS	A		B			
Queue Length 50th (ft)		0	5			
Queue Length 95th (ft)		0	10			
Internal Link Dist (ft)	124		178			99
Turn Bay Length (ft)						
Base Capacity (vph)		1269	550			
Starvation Cap Reductn		0	0			
Spillback Cap Reductn		162	45			
Storage Cap Reductn		0	0			
Reduced v/c Ratio		0.22	0.06			

Intersection Summary

Area Type: CBD
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 9 (16%), Referenced to phase 1:WBR, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.19
Intersection Signal Delay: 1.9 Intersection LOS: A
Intersection Capacity Utilization 25.9% ICU Level of Service A
Analysis Period (min) 15
Description: Counts from 2007 Millennium Tower

Splits and Phases: 2: Washington Street & Milk Street

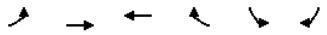


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	178	63	0	0	0	28
Future Volume (Veh/h)	178	63	0	0	0	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.25	0.25	0.70	0.70
Hourly flow rate (vph)	212	75	0	0	0	40
Pedestrians				78	367	
Lane Width (ft)				0.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				0	31	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				287		
pX, platoon unblocked						
vC, conflicting volume			654		616	694
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			654		616	694
tC, single (s)			4.1		6.4	*3.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	*1.0
p0 queue free %			100		100	97
cM capacity (veh/h)			654		317	1540

Direction, Lane #	EB 1	NB 1
Volume Total	287	40
Volume Left	0	0
Volume Right	75	40
cSH	1700	1540
Volume to Capacity	0.17	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	7.4
Lane LOS		A
Approach Delay (s)	0.0	7.4
Approach LOS		A

Intersection Summary				
Average Delay		0.9		
Intersection Capacity Utilization		36.6%	ICU Level of Service	A
Analysis Period (min)		15		

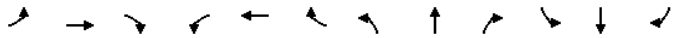
* User Entered Value



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	2	0	0	57
Future Volume (Veh/h)	0	0	2	0	0	57
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.50	0.50	0.74	0.74
Hourly flow rate (vph)	0	0	4	0	0	77
Pedestrians		75	48		405	
Lane Width (ft)		0.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	4		34	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	409				457	484
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	409				457	484
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	80
cM capacity (veh/h)	769				360	389

Direction, Lane #	WB 1	SB 1
Volume Total	4	77
Volume Left	0	0
Volume Right	0	77
cSH	1700	389
Volume to Capacity	0.00	0.20
Queue Length 95th (ft)	0	18
Control Delay (s)	0.0	16.5
Lane LOS		C
Approach Delay (s)	0.0	16.5
Approach LOS		C

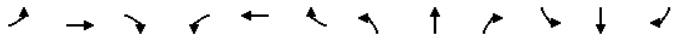
Intersection Summary				
Average Delay	15.7			
Intersection Capacity Utilization	33.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	0	0	2	14	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	2	14	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.60	0.60	0.60	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	3	23	0	0	0	0

Direction, Lane #	NB 1
Volume Total (vph)	26
Volume Left (vph)	3
Volume Right (vph)	0
Hadj (s)	0.17
Departure Headway (s)	4.1
Degree Utilization, x	0.03
Capacity (veh/h)	880
Control Delay (s)	7.2
Approach Delay (s)	7.2
Approach LOS	A

Intersection Summary				
Delay	7.2			
Level of Service	A			
Intersection Capacity Utilization	33.0%	ICU Level of Service	A	
Analysis Period (min)	15			
Description: Counts from 2007 Millennium Tower				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	4	0	18	78	22	106	0	0	0	0	0	0
Future Volume (vph)	4	0	18	78	22	106	0	0	0	0	0	0
Peak Hour Factor	0.61	0.61	0.61	0.88	0.88	0.88	0.50	0.50	0.50	0.92	0.92	0.92
Hourly flow rate (vph)	7	0	30	89	25	120	0	0	0	0	0	0

Direction, Lane #	EB 1	WB 1
Volume Total (vph)	37	234
Volume Left (vph)	7	89
Volume Right (vph)	30	120
Hadj (s)	-0.45	-0.22
Departure Headway (s)	3.6	3.7
Degree Utilization, x	0.04	0.24
Capacity (veh/h)	974	965
Control Delay (s)	6.8	7.9
Approach Delay (s)	6.8	7.9
Approach LOS	A	A

Intersection Summary				
Delay	7.7			
Level of Service	A			
Intersection Capacity Utilization	27.5%	ICU Level of Service	A	
Analysis Period (min)	15			

- No-Build (2027) Condition

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	278	0	0	214	0	0
Future Volume (vph)	278	0	0	214	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1593	0	0	1629	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1593	0	0	1629	0	0
Right Turn on Red	No	No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	287			179	59	
Travel Time (s)	7.8			4.9	1.6	
Peak Hour Factor	0.92	0.92	0.81	0.81	0.25	0.25
Heavy Vehicles (%)	2%	0%	0%	5%	0%	0%
Adj. Flow (vph)	302	0	0	264	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	302	0	0	264	0	0
Turn Type	Prot			NA		
Protected Phases	1			5		
Permitted Phases						
Detector Phase	1			5		
Switch Phase						
Minimum Initial (s)	10.0			10.0		
Minimum Split (s)	35.0			20.0		
Total Split (s)	35.0			20.0		
Total Split (%)	63.6%			36.4%		
Maximum Green (s)	31.0			16.0		
Yellow Time (s)	3.0			3.0		
All-Red Time (s)	1.0			1.0		
Lost Time Adjust (s)	0.0			0.0		
Total Lost Time (s)	4.0			4.0		
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0			2.0		
Recall Mode	C-Max			None		
Walk Time (s)	24.0			10.0		
Flash Dont Walk (s)	7.0			6.0		
Pedestrian Calls (#/hr)	500			500		
Act Effct Green (s)	31.0			16.0		
Actuated g/C Ratio	0.56			0.29		
v/c Ratio	0.34			0.56		
Control Delay	7.8			21.0		
Queue Delay	0.0			12.6		
Total Delay	7.8			33.6		
LOS	A			C		
Approach Delay	7.8			33.6		
Approach LOS	A			C		
Queue Length 50th (ft)	47			67		
Queue Length 95th (ft)	86			108		
Internal Link Dist (ft)	207			99	1	
Turn Bay Length (ft)						
Base Capacity (vph)	897			473		
Starvation Cap Reductn	0			183		
Spillback Cap Reductn	0			0		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.34			0.91		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 49 (89%), Referenced to phase 1:EBL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 19.8		Intersection LOS: B	
Intersection Capacity Utilization 36.3%		ICU Level of Service A	
Analysis Period (min) 15			

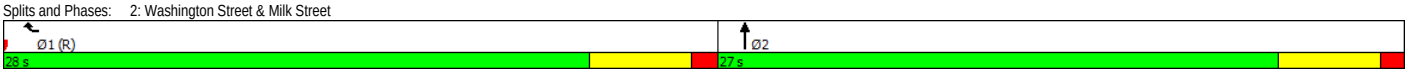
Splits and Phases: 1: Washington Street & School Street

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	198	17	10	0	0
Future Volume (vph)	0	198	17	10	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.950			
Flt Protected						
Satd. Flow (prot)	0	1345	1455	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1345	1455	0	0	0
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		1011	14			
Link Speed (mph)	25		25			25
Link Distance (ft)	130		263			179
Travel Time (s)	3.5		7.2			4.9
Peak Hour Factor	0.90	0.90	0.72	0.72	0.92	0.92
Heavy Vehicles (%)	0%	10%	12%	11%	0%	0%
Adj. Flow (vph)	0	220	24	14	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	220	38	0	0	0
Turn Type		Prot	NA			
Protected Phases		1	2			
Permitted Phases						
Detector Phase		1	2			
Switch Phase						
Minimum Initial (s)		4.0	4.0			
Minimum Split (s)		28.0	18.0			
Total Split (s)		28.0	27.0			
Total Split (%)		50.9%	49.1%			
Maximum Green (s)		23.0	22.0			
Yellow Time (s)		4.0	4.0			
All-Red Time (s)		1.0	1.0			
Lost Time Adjust (s)		0.0	0.0			
Total Lost Time (s)		5.0	5.0			
Lead/Lag		Lead	Lag			
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0			
Recall Mode		C-Max	None			
Walk Time (s)		16.0	7.0			
Flash Dont Walk (s)		7.0	6.0			
Pedestrian Calls (#/hr)		200	200			
Act Effct Green (s)		32.0	13.0			
Actuated g/C Ratio		0.58	0.24			
v/c Ratio		0.18	0.11			
Control Delay		0.3	13.2			
Queue Delay		0.0	0.0			
Total Delay		0.4	13.3			
LOS		A	B			
Approach Delay	0.4		13.3			
Approach LOS	A		B			
Queue Length 50th (ft)		0	6			
Queue Length 95th (ft)		0	19			
Internal Link Dist (ft)	50		183			99
Turn Bay Length (ft)						
Base Capacity (vph)		1205	590			
Starvation Cap Reductn		0	0			
Spillback Cap Reductn		174	93			
Storage Cap Reductn		0	0			
Reduced v/c Ratio		0.21	0.08			

Intersection Summary

Area Type: CBD
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 54 (98%), Referenced to phase 1:WBR, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.18
Intersection Signal Delay: 2.3 Intersection LOS: A
Intersection Capacity Utilization 25.3% ICU Level of Service A
Analysis Period (min) 15

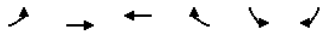
Splits and Phases: 2: Washington Street & Milk Street



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	255	50	0	0	0	23
Future Volume (Veh/h)	255	50	0	0	0	23
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.25	0.25	0.70	0.70
Hourly flow rate (vph)	277	54	0	0	0	33
Pedestrians	38			26	350	
Lane Width (ft)	12.0			0.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	3			0	29	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				287		
pX, platoon unblocked						
vC, conflicting volume			681		692	680
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			681		692	680
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			100		100	89
cM capacity (veh/h)			652		283	313

Direction, Lane #	EB 1	NB 1
Volume Total	331	33
Volume Left	0	0
Volume Right	54	33
cSH	1700	313
Volume to Capacity	0.19	0.11
Queue Length 95th (ft)	0	9
Control Delay (s)	0.0	17.8
Lane LOS		C
Approach Delay (s)	0.0	17.8
Approach LOS		C

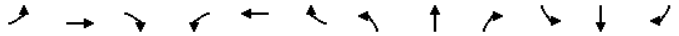
Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	35.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	11	2	0	45
Future Volume (Veh/h)	0	0	11	2	0	45
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.60	0.60	0.77	0.77
Hourly flow rate (vph)	0	0	18	3	0	58
Pedestrians		33	28		400	
Lane Width (ft)		0.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	2		33	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	421				448	452
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	421				448	452
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	86
cM capacity (veh/h)	766				373	408

Direction, Lane #	WB 1	SB 1
Volume Total	21	58
Volume Left	0	0
Volume Right	3	58
cSH	1700	408
Volume to Capacity	0.01	0.14
Queue Length 95th (ft)	0	12
Control Delay (s)	0.0	15.3
Lane LOS		C
Approach Delay (s)	0.0	15.3
Approach LOS		C

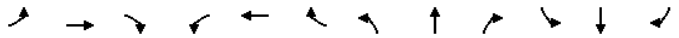
Intersection Summary				
Average Delay		11.2		
Intersection Capacity Utilization		30.9%	ICU Level of Service	A
Analysis Period (min)		15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	0	0	13	27	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	13	27	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	15	30	0	0	0	0

Direction, Lane #	NB 1
Volume Total (vph)	45
Volume Left (vph)	15
Volume Right (vph)	0
Hadj (s)	0.46
Departure Headway (s)	4.4
Degree Utilization, x	0.05
Capacity (veh/h)	813
Control Delay (s)	7.6
Approach Delay (s)	7.6
Approach LOS	A

Intersection Summary				
Delay	7.6			
Level of Service	A			
Intersection Capacity Utilization	6.7%	ICU Level of Service		A
Analysis Period (min)	15			
Description: Counts from 2007 Millennium Tower				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	0	18	78	13	192	0	0	0	0	0	0
Future Volume (vph)	10	0	18	78	13	192	0	0	0	0	0	0
Peak Hour Factor	0.68	0.68	0.68	0.90	0.90	0.90	0.47	0.47	0.47	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	26	87	14	213	0	0	0	0	0	0

Direction, Lane #	EB 1	WB 1
Volume Total (vph)	41	314
Volume Left (vph)	15	87
Volume Right (vph)	26	213
Hadj (s)	-0.31	-0.33
Departure Headway (s)	3.9	3.6
Degree Utilization, x	0.04	0.31
Capacity (veh/h)	910	993
Control Delay (s)	7.0	8.2
Approach Delay (s)	7.0	8.2
Approach LOS	A	A

Intersection Summary				
Delay	8.1			
Level of Service	A			
Intersection Capacity Utilization	23.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	213	0	0	235	0	0
Future Volume (vph)	213	0	0	235	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1608	0	0	1693	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1608	0	0	1693	0	0
Right Turn on Red	No	No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	287			179	59	
Travel Time (s)	7.8			4.9	1.6	
Peak Hour Factor	0.91	0.91	0.90	0.90	0.25	0.25
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%
Adj. Flow (vph)	234	0	0	261	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	234	0	0	261	0	0
Turn Type	Prot			NA		
Protected Phases	1			5		
Permitted Phases						
Detector Phase	1			5		
Switch Phase						
Minimum Initial (s)	10.0			10.0		
Minimum Split (s)	34.0			21.0		
Total Split (s)	34.0			21.0		
Total Split (%)	61.8%			38.2%		
Maximum Green (s)	30.0			17.0		
Yellow Time (s)	3.0			3.0		
All-Red Time (s)	1.0			1.0		
Lost Time Adjust (s)	0.0			0.0		
Total Lost Time (s)	4.0			4.0		
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0			2.0		
Recall Mode	C-Max			None		
Walk Time (s)	23.0			11.0		
Flash Dont Walk (s)	7.0			6.0		
Pedestrian Calls (#/hr)	500			500		
Act Effct Green (s)	30.0			17.0		
Actuated g/C Ratio	0.55			0.31		
v/c Ratio	0.27			0.50		
Control Delay	7.7			20.3		
Queue Delay	0.0			8.4		
Total Delay	7.7			28.7		
LOS	A			C		
Approach Delay	7.7			28.7		
Approach LOS	A			C		
Queue Length 50th (ft)	36			71		
Queue Length 95th (ft)	69			131		
Internal Link Dist (ft)	207			99	1	
Turn Bay Length (ft)						
Base Capacity (vph)	877			523		
Starvation Cap Reductn	0			219		
Spillback Cap Reductn	0			0		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.27			0.86		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 38 (69%), Referenced to phase 1:EBL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 18.7		Intersection LOS: B	
Intersection Capacity Utilization 33.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Washington Street & School Street

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	224	10	4	0	0
Future Volume (vph)	0	224	10	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.959			
Flt Protected						
Satd. Flow (prot)	0	1450	1426	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1450	1426	0	0	0
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		1018	9			
Link Speed (mph)	25		25			25
Link Distance (ft)	204		258			179
Travel Time (s)	5.6		7.0			4.9
Peak Hour Factor	0.84	0.84	0.47	0.47	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	50%	0%	0%
Adj. Flow (vph)	0	267	21	9	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	267	30	0	0	0
Turn Type		Prot	NA			
Protected Phases		1	2			
Permitted Phases						
Detector Phase		1	2			
Switch Phase						
Minimum Initial (s)		4.0	4.0			
Minimum Split (s)		25.0	18.0			
Total Split (s)		29.0	26.0			
Total Split (%)		52.7%	47.3%			
Maximum Green (s)		24.0	21.0			
Yellow Time (s)		4.0	4.0			
All-Red Time (s)		1.0	1.0			
Lost Time Adjust (s)		0.0	0.0			
Total Lost Time (s)		5.0	5.0			
Lead/Lag		Lead	Lag			
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0			
Recall Mode		C-Max	None			
Walk Time (s)		13.0	7.0			
Flash Dont Walk (s)		7.0	6.0			
Pedestrian Calls (#/hr)		200	200			
Act Effct Green (s)		32.0	13.0			
Actuated g/C Ratio		0.58	0.24			
v/c Ratio		0.21	0.09			
Control Delay		0.4	14.0			
Queue Delay		0.1	0.0			
Total Delay		0.5	14.0			
LOS		A	B			
Approach Delay	0.5		14.0			
Approach LOS	A		B			
Queue Length 50th (ft)		0	5			
Queue Length 95th (ft)		0	10			
Internal Link Dist (ft)	124		178			99
Turn Bay Length (ft)						
Base Capacity (vph)		1269	550			
Starvation Cap Reductn		0	0			
Spillback Cap Reductn		244	60			
Storage Cap Reductn		0	0			
Reduced v/c Ratio		0.26	0.06			

Intersection Summary

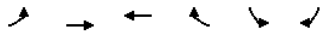
Area Type: CBD
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 9 (16%), Referenced to phase 1:WBR, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.21
Intersection Signal Delay: 1.8 Intersection LOS: A
Intersection Capacity Utilization 27.1% ICU Level of Service A
Analysis Period (min) 15
Description: Counts from 2007 Millennium Tower

Splits and Phases: 2: Washington Street & Milk Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	184	65	0	0	0	29
Future Volume (Veh/h)	184	65	0	0	0	29
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.25	0.25	0.70	0.70
Hourly flow rate (vph)	219	77	0	0	0	41
Pedestrians	147			339	100	
Lane Width (ft)	12.0			0.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	12			0	8	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				287		
pX, platoon unblocked						
vC, conflicting volume			396		504	696
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			396		504	696
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	90
cM capacity (veh/h)			1076		427	408

Direction, Lane #	EB 1	NB 1
Volume Total	296	41
Volume Left	0	0
Volume Right	77	41
cSH	1700	408
Volume to Capacity	0.17	0.10
Queue Length 95th (ft)	0	8
Control Delay (s)	0.0	14.8
Lane LOS		B
Approach Delay (s)	0.0	14.8
Approach LOS		B

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	36.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	2	0	0	59
Future Volume (Veh/h)	0	0	2	0	0	59
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.50	0.50	0.74	0.74
Hourly flow rate (vph)	0	0	4	0	0	80
Pedestrians		70	29		439	
Lane Width (ft)		0.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	2		37	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	443				472	513
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	443				472	513
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	78
cM capacity (veh/h)	715				343	358

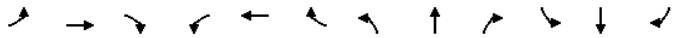
Direction, Lane #	WB 1	SB 1
Volume Total	4	80
Volume Left	0	0
Volume Right	0	80
cSH	1700	358
Volume to Capacity	0.00	0.22
Queue Length 95th (ft)	0	21
Control Delay (s)	0.0	17.9
Lane LOS		C
Approach Delay (s)	0.0	17.9
Approach LOS		C

Intersection Summary				
Average Delay	17.1			
Intersection Capacity Utilization	26.4%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	0	0	2	14	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	2	14	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.60	0.60	0.60	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	3	23	0	0	0	0

Direction, Lane #	NB 1
Volume Total (vph)	26
Volume Left (vph)	3
Volume Right (vph)	0
Hadj (s)	0.17
Departure Headway (s)	4.1
Degree Utilization, x	0.03
Capacity (veh/h)	880
Control Delay (s)	7.2
Approach Delay (s)	7.2
Approach LOS	A

Intersection Summary				
Delay	7.2			
Level of Service	A			
Intersection Capacity Utilization	26.4%	ICU Level of Service	A	
Analysis Period (min)	15			
Description: Counts from 2007 Millennium Tower				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	4	0	19	81	23	111	0	0	0	0	0	0
Future Volume (vph)	4	0	19	81	23	111	0	0	0	0	0	0
Peak Hour Factor	0.61	0.61	0.61	0.88	0.88	0.88	0.50	0.50	0.50	0.92	0.92	0.92
Hourly flow rate (vph)	7	0	31	92	26	126	0	0	0	0	0	0

Direction, Lane #	EB 1	WB 1
Volume Total (vph)	38	244
Volume Left (vph)	7	92
Volume Right (vph)	31	126
Hadj (s)	-0.45	-0.23
Departure Headway (s)	3.7	3.7
Degree Utilization, x	0.04	0.25
Capacity (veh/h)	972	965
Control Delay (s)	6.8	7.9
Approach Delay (s)	6.8	7.9
Approach LOS	A	A

Intersection Summary				
Delay	7.8			
Level of Service	A			
Intersection Capacity Utilization	22.5%	ICU Level of Service	A	
Analysis Period (min)	15			

- Build (2027) Condition

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	318	0	0	216	0	0
Future Volume (vph)	318	0	0	216	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1593	0	0	1629	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1593	0	0	1629	0	0
Right Turn on Red	No	No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	287			179	59	
Travel Time (s)	7.8			4.9	1.6	
Peak Hour Factor	0.92	0.92	0.81	0.81	0.25	0.25
Heavy Vehicles (%)	2%	0%	0%	5%	0%	0%
Adj. Flow (vph)	346	0	0	267	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	346	0	0	267	0	0
Turn Type	Prot			NA		
Protected Phases	1			5		
Permitted Phases						
Detector Phase	1			5		
Switch Phase						
Minimum Initial (s)	10.0			10.0		
Minimum Split (s)	35.0			20.0		
Total Split (s)	35.0			20.0		
Total Split (%)	63.6%			36.4%		
Maximum Green (s)	31.0			16.0		
Yellow Time (s)	3.0			3.0		
All-Red Time (s)	1.0			1.0		
Lost Time Adjust (s)	0.0			0.0		
Total Lost Time (s)	4.0			4.0		
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0			2.0		
Recall Mode	C-Max			None		
Walk Time (s)	24.0			10.0		
Flash Dont Walk (s)	7.0			6.0		
Pedestrian Calls (#/hr)	500			500		
Act Effct Green (s)	31.0			16.0		
Actuated g/C Ratio	0.56			0.29		
v/c Ratio	0.39			0.56		
Control Delay	8.3			21.1		
Queue Delay	0.0			13.3		
Total Delay	8.3			34.4		
LOS	A			C		
Approach Delay	8.3			34.4		
Approach LOS	A			C		
Queue Length 50th (ft)	55			68		
Queue Length 95th (ft)	101			110		
Internal Link Dist (ft)	207			99	1	
Turn Bay Length (ft)						
Base Capacity (vph)	897			473		
Starvation Cap Reductn	0			182		
Spillback Cap Reductn	0			0		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.39			0.92		

Intersection Summary

Area Type: CBD
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 49 (89%), Referenced to phase 1:EBL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 19.7 Intersection LOS: B
Intersection Capacity Utilization 38.9% ICU Level of Service A
Analysis Period (min) 15

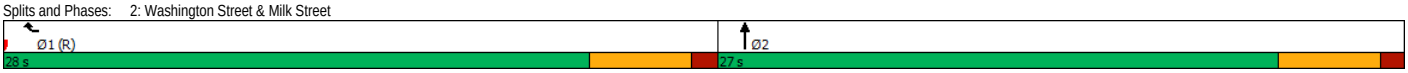
Splits and Phases: 1: Washington Street & School Street

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	200	17	10	0	0
Future Volume (vph)	0	200	17	10	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.950			
Flt Protected						
Satd. Flow (prot)	0	1345	1455	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1345	1455	0	0	0
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		1011	14			
Link Speed (mph)	25		25			25
Link Distance (ft)	130		263			179
Travel Time (s)	3.5		7.2			4.9
Peak Hour Factor	0.90	0.90	0.72	0.72	0.92	0.92
Heavy Vehicles (%)	0%	10%	12%	11%	0%	0%
Adj. Flow (vph)	0	222	24	14	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	222	38	0	0	0
Turn Type		Prot	NA			
Protected Phases		1	2			
Permitted Phases						
Detector Phase		1	2			
Switch Phase						
Minimum Initial (s)		4.0	4.0			
Minimum Split (s)		28.0	18.0			
Total Split (s)		28.0	27.0			
Total Split (%)		50.9%	49.1%			
Maximum Green (s)		23.0	22.0			
Yellow Time (s)		4.0	4.0			
All-Red Time (s)		1.0	1.0			
Lost Time Adjust (s)		0.0	0.0			
Total Lost Time (s)		5.0	5.0			
Lead/Lag		Lead	Lag			
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0			
Recall Mode		C-Max	None			
Walk Time (s)		16.0	7.0			
Flash Dont Walk (s)		7.0	6.0			
Pedestrian Calls (#/hr)		200	200			
Act Effct Green (s)		32.0	13.0			
Actuated g/C Ratio		0.58	0.24			
v/c Ratio		0.18	0.11			
Control Delay		0.3	13.2			
Queue Delay		0.0	0.0			
Total Delay		0.4	13.3			
LOS		A	B			
Approach Delay	0.4		13.3			
Approach LOS	A		B			
Queue Length 50th (ft)		0	6			
Queue Length 95th (ft)		0	19			
Internal Link Dist (ft)	50		183			99
Turn Bay Length (ft)						
Base Capacity (vph)		1205	590			
Starvation Cap Reductn		0	0			
Spillback Cap Reductn		177	95			
Storage Cap Reductn		0	0			
Reduced v/c Ratio		0.22	0.08			

Intersection Summary

Area Type: CBD
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 54 (98%), Referenced to phase 1:WBR, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.18
Intersection Signal Delay: 2.3 Intersection LOS: A
Intersection Capacity Utilization 25.4% ICU Level of Service A
Analysis Period (min) 15

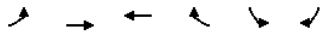
Splits and Phases: 2: Washington Street & Milk Street



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	287	71	0	0	0	31
Future Volume (Veh/h)	287	71	0	0	0	31
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.25	0.25	0.70	0.70
Hourly flow rate (vph)	312	77	0	0	0	44
Pedestrians	38			26	350	
Lane Width (ft)	12.0			0.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	3			0	29	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				287		
pX, platoon unblocked						
vC, conflicting volume			739		738	726
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			739		738	726
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			100		100	85
cM capacity (veh/h)			621		266	295

Direction, Lane #	EB 1	NB 1
Volume Total	389	44
Volume Left	0	0
Volume Right	77	44
cSH	1700	295
Volume to Capacity	0.23	0.15
Queue Length 95th (ft)	0	13
Control Delay (s)	0.0	19.3
Lane LOS		C
Approach Delay (s)	0.0	19.3
Approach LOS		C

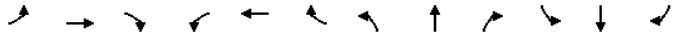
Intersection Summary				
Average Delay		2.0		
Intersection Capacity Utilization		39.7%	ICU Level of Service	A
Analysis Period (min)		15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	11	2	0	49
Future Volume (Veh/h)	0	0	11	2	0	49
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.60	0.60	0.77	0.77
Hourly flow rate (vph)	0	0	18	3	0	64
Pedestrians		33	28		400	
Lane Width (ft)		0.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	2		33	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	421				448	452
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	421				448	452
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	84
cM capacity (veh/h)	766				373	408

Direction, Lane #	WB 1	SB 1
Volume Total	21	64
Volume Left	0	0
Volume Right	3	64
cSH	1700	408
Volume to Capacity	0.01	0.16
Queue Length 95th (ft)	0	14
Control Delay (s)	0.0	15.5
Lane LOS		C
Approach Delay (s)	0.0	15.5
Approach LOS		C

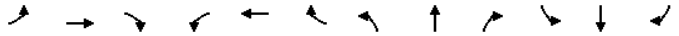
Intersection Summary				
Average Delay	11.6			
Intersection Capacity Utilization	31.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	0	0	13	27	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	13	27	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	15	30	0	0	0	0

Direction, Lane #	NB 1
Volume Total (vph)	45
Volume Left (vph)	15
Volume Right (vph)	0
Hadj (s)	0.46
Departure Headway (s)	4.4
Degree Utilization, x	0.05
Capacity (veh/h)	813
Control Delay (s)	7.6
Approach Delay (s)	7.6
Approach LOS	A

Intersection Summary				
Delay	7.6			
Level of Service	A			
Intersection Capacity Utilization	6.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	0	18	78	13	244	0	0	0	0	0	0
Future Volume (vph)	10	0	18	78	13	244	0	0	0	0	0	0
Peak Hour Factor	0.68	0.68	0.68	0.90	0.90	0.90	0.47	0.47	0.47	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	26	87	14	271	0	0	0	0	0	0

Direction, Lane #	EB 1	WB 1
Volume Total (vph)	41	372
Volume Left (vph)	15	87
Volume Right (vph)	26	271
Hadj (s)	-0.31	-0.37
Departure Headway (s)	3.9	3.6
Degree Utilization, x	0.04	0.37
Capacity (veh/h)	898	1005
Control Delay (s)	7.1	8.6
Approach Delay (s)	7.1	8.6
Approach LOS	A	A

Intersection Summary				
Delay	8.5			
Level of Service	A			
Intersection Capacity Utilization	26.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	233	0	0	241	0	0
Future Volume (vph)	233	0	0	241	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1608	0	0	1693	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1608	0	0	1693	0	0
Right Turn on Red	No	No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	287			179	59	
Travel Time (s)	7.8			4.9	1.6	
Peak Hour Factor	0.91	0.91	0.90	0.90	0.25	0.25
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%
Adj. Flow (vph)	256	0	0	268	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	256	0	0	268	0	0
Turn Type	Prot			NA		
Protected Phases	1			5		
Permitted Phases						
Detector Phase	1			5		
Switch Phase						
Minimum Initial (s)	10.0			10.0		
Minimum Split (s)	34.0			21.0		
Total Split (s)	34.0			21.0		
Total Split (%)	61.8%			38.2%		
Maximum Green (s)	30.0			17.0		
Yellow Time (s)	3.0			3.0		
All-Red Time (s)	1.0			1.0		
Lost Time Adjust (s)	0.0			0.0		
Total Lost Time (s)	4.0			4.0		
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0			2.0		
Recall Mode	C-Max			None		
Walk Time (s)	23.0			11.0		
Flash Dont Walk (s)	7.0			6.0		
Pedestrian Calls (#/hr)	500			500		
Act Effct Green (s)	30.0			17.0		
Actuated g/C Ratio	0.55			0.31		
v/c Ratio	0.29			0.51		
Control Delay	7.9			20.5		
Queue Delay	0.0			9.2		
Total Delay	7.9			29.7		
LOS	A			C		
Approach Delay	7.9			29.7		
Approach LOS	A			C		
Queue Length 50th (ft)	40			73		
Queue Length 95th (ft)	76			134		
Internal Link Dist (ft)	207			99	1	
Turn Bay Length (ft)						
Base Capacity (vph)	877			523		
Starvation Cap Reductn	0			216		
Spillback Cap Reductn	0			0		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.29			0.87		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 38 (69%), Referenced to phase 1:EBL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 35.1%		ICU Level of Service A	
Analysis Period (min) 15			

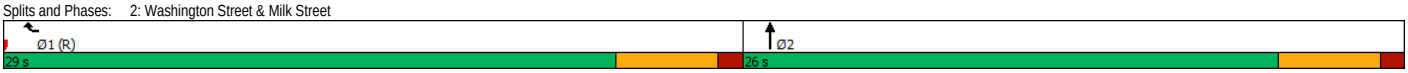
Splits and Phases: 1: Washington Street & School Street

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	230	10	4	0	0
Future Volume (vph)	0	230	10	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.959			
Flt Protected						
Satd. Flow (prot)	0	1450	1426	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1450	1426	0	0	0
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		1018	9			
Link Speed (mph)	25		25			25
Link Distance (ft)	204		258			179
Travel Time (s)	5.6		7.0			4.9
Peak Hour Factor	0.84	0.84	0.47	0.47	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	50%	0%	0%
Adj. Flow (vph)	0	274	21	9	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	274	30	0	0	0
Turn Type		Prot	NA			
Protected Phases		1	2			
Permitted Phases						
Detector Phase		1	2			
Switch Phase						
Minimum Initial (s)		4.0	4.0			
Minimum Split (s)		25.0	18.0			
Total Split (s)		29.0	26.0			
Total Split (%)		52.7%	47.3%			
Maximum Green (s)		24.0	21.0			
Yellow Time (s)		4.0	4.0			
All-Red Time (s)		1.0	1.0			
Lost Time Adjust (s)		0.0	0.0			
Total Lost Time (s)		5.0	5.0			
Lead/Lag		Lead	Lag			
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0			
Recall Mode		C-Max	None			
Walk Time (s)		13.0	7.0			
Flash Dont Walk (s)		7.0	6.0			
Pedestrian Calls (#/hr)		200	200			
Act Effct Green (s)		32.0	13.0			
Actuated g/C Ratio		0.58	0.24			
v/c Ratio		0.22	0.09			
Control Delay		0.4	14.0			
Queue Delay		0.1	0.0			
Total Delay		0.5	14.0			
LOS		A	B			
Approach Delay	0.5		14.0			
Approach LOS	A		B			
Queue Length 50th (ft)		0	5			
Queue Length 95th (ft)		0	10			
Internal Link Dist (ft)	124		178			99
Turn Bay Length (ft)						
Base Capacity (vph)		1269	550			
Starvation Cap Reductn		0	0			
Spillback Cap Reductn		264	64			
Storage Cap Reductn		0	0			
Reduced v/c Ratio		0.27	0.06			

Intersection Summary

Area Type: CBD
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 9 (16%), Referenced to phase 1:WBR, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.22
Intersection Signal Delay: 1.8 Intersection LOS: A
Intersection Capacity Utilization 27.5% ICU Level of Service A
Analysis Period (min) 15
Description: Counts from 2007 Millennium Tower

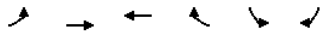
Splits and Phases: 2: Washington Street & Milk Street



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	193	83	0	0	0	40
Future Volume (Veh/h)	193	83	0	0	0	40
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.25	0.25	0.70	0.70
Hourly flow rate (vph)	230	99	0	0	0	57
Pedestrians	147			339	100	
Lane Width (ft)	12.0			0.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	12			0	8	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				287		
pX, platoon unblocked						
vC, conflicting volume			429		526	718
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			429		526	718
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	86
cM capacity (veh/h)			1046		415	396

Direction, Lane #	EB 1	NB 1
Volume Total	329	57
Volume Left	0	0
Volume Right	99	57
cSH	1700	396
Volume to Capacity	0.19	0.14
Queue Length 95th (ft)	0	12
Control Delay (s)	0.0	15.6
Lane LOS		C
Approach Delay (s)	0.0	15.6
Approach LOS		C

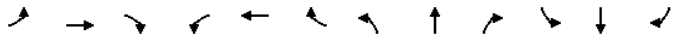
Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	38.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	2	0	0	75
Future Volume (Veh/h)	0	0	2	0	0	75
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.50	0.50	0.74	0.74
Hourly flow rate (vph)	0	0	4	0	0	101
Pedestrians		70	29		439	
Lane Width (ft)		0.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	2		37	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	443				472	513
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	443				472	513
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	72
cM capacity (veh/h)	715				343	358

Direction, Lane #	WB 1	SB 1
Volume Total	4	101
Volume Left	0	0
Volume Right	0	101
cSH	1700	358
Volume to Capacity	0.00	0.28
Queue Length 95th (ft)	0	28
Control Delay (s)	0.0	18.9
Lane LOS		C
Approach Delay (s)	0.0	18.9
Approach LOS		C

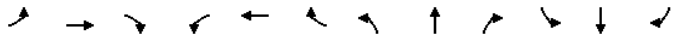
Intersection Summary				
Average Delay	18.2			
Intersection Capacity Utilization	26.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	0	0	2	14	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	2	14	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.60	0.60	0.60	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	3	23	0	0	0	0

Direction, Lane #	NB 1
Volume Total (vph)	26
Volume Left (vph)	3
Volume Right (vph)	0
Hadj (s)	0.17
Departure Headway (s)	4.1
Degree Utilization, x	0.03
Capacity (veh/h)	880
Control Delay (s)	7.2
Approach Delay (s)	7.2
Approach LOS	A

Intersection Summary				
Delay	7.2			
Level of Service	A			
Intersection Capacity Utilization	26.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	4	0	19	81	23	126	0	0	0	0	0	0
Future Volume (vph)	4	0	19	81	23	126	0	0	0	0	0	0
Peak Hour Factor	0.61	0.61	0.61	0.88	0.88	0.88	0.50	0.50	0.50	0.92	0.92	0.92
Hourly flow rate (vph)	7	0	31	92	26	143	0	0	0	0	0	0

Direction, Lane #	EB 1	WB 1
Volume Total (vph)	38	261
Volume Left (vph)	7	92
Volume Right (vph)	31	143
Hadj (s)	-0.45	-0.25
Departure Headway (s)	3.7	3.7
Degree Utilization, x	0.04	0.27
Capacity (veh/h)	958	972
Control Delay (s)	6.8	8.0
Approach Delay (s)	6.8	8.0
Approach LOS	A	A

Intersection Summary				
Delay	7.9			
Level of Service	A			
Intersection Capacity Utilization	23.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Transit Analysis

Transit Line	Station				
Orange	Downtown Crossing				
			NB/EB	SB/WB	
		5:00 AM	344	605	
		6:00 AM	1858	2516	
		7:00 AM	3078	4265	
		8:00 AM	4086	4977	
		9:00 AM	2179	2719	
		10:00 AM	1363	1655	
		11:00 AM	1405	1526	
		12:00 PM	1546	1643	
		1:00 PM	1783	1771	
		2:00 PM	2424	2142	
		3:00 PM	3612	2725	
		4:00 PM	5196	3646	
		5:00 PM	6471	4848	
		6:00 PM	4021	2886	
		7:00 PM	2278	1681	
		8:00 PM	1635	1216	
		9:00 PM	1348	1042	
		10:00 PM	1291	894	
		11:00 PM	886	619	
		12:00 AM	307	187	
			47111	43563	90674

Transit Line	Station
Green	Park Street

	NB/EB	SB/WB	
5:00 AM	166	574	
6:00 AM	654	1971	
7:00 AM	1450	3781	
8:00 AM	2095	4808	
9:00 AM	1315	2866	
10:00 AM	901	1843	
11:00 AM	925	1655	
12:00 PM	1086	1794	
1:00 PM	1226	1885	
2:00 PM	1714	2008	
3:00 PM	2372	2457	
4:00 PM	3109	3069	
5:00 PM	3351	4763	
6:00 PM	2417	3414	
7:00 PM	1590	1863	
8:00 PM	1251	1208	
9:00 PM	1257	927	
10:00 PM	1513	809	
11:00 PM	1137	518	
12:00 AM	395	179	
	29924	42392	72316

Transit Line	Station			
Red	Downtown Crossing			
		NB/EB	SB/WB	
	5:00 AM	1046	415	
	6:00 AM	4765	1506	
	7:00 AM	6395	3520	
	8:00 AM	7189	4715	
	9:00 AM	3792	2554	
	10:00 AM	2046	1456	
	11:00 AM	1755	1360	
	12:00 PM	1880	1515	
	1:00 PM	1895	1860	
	2:00 PM	2194	2537	
	3:00 PM	2628	4477	
	4:00 PM	3824	6952	
	5:00 PM	5784	8120	
	6:00 PM	4050	4772	
	7:00 PM	2102	2942	
	8:00 PM	1407	2124	
	9:00 PM	1038	1792	
	10:00 PM	805	1630	
	11:00 PM	480	1134	
	12:00 AM	181	377	
		55256	55758	111014

Transit Line	Station
Blue	State Street

	NB/EB	SB/WB	
5:00 AM	167	857	
6:00 AM	601	1437	
7:00 AM	642	2022	
8:00 AM	565	2077	
9:00 AM	518	1082	
10:00 AM	551	698	
11:00 AM	714	575	
12:00 PM	961	555	
1:00 PM	1151	609	
2:00 PM	1961	722	
3:00 PM	2938	785	
4:00 PM	3713	706	
5:00 PM	4278	636	
6:00 PM	2652	403	
7:00 PM	1672	265	
8:00 PM	1382	210	
9:00 PM	1374	185	
10:00 PM	1654	177	
11:00 PM	1645	94	
12:00 AM	677	40	
	29816	14135	43951

Figure 1. Orange Line - Build (2027) Condition
Hourly Ridership, Weekday
Load Point: Downtown Crossing

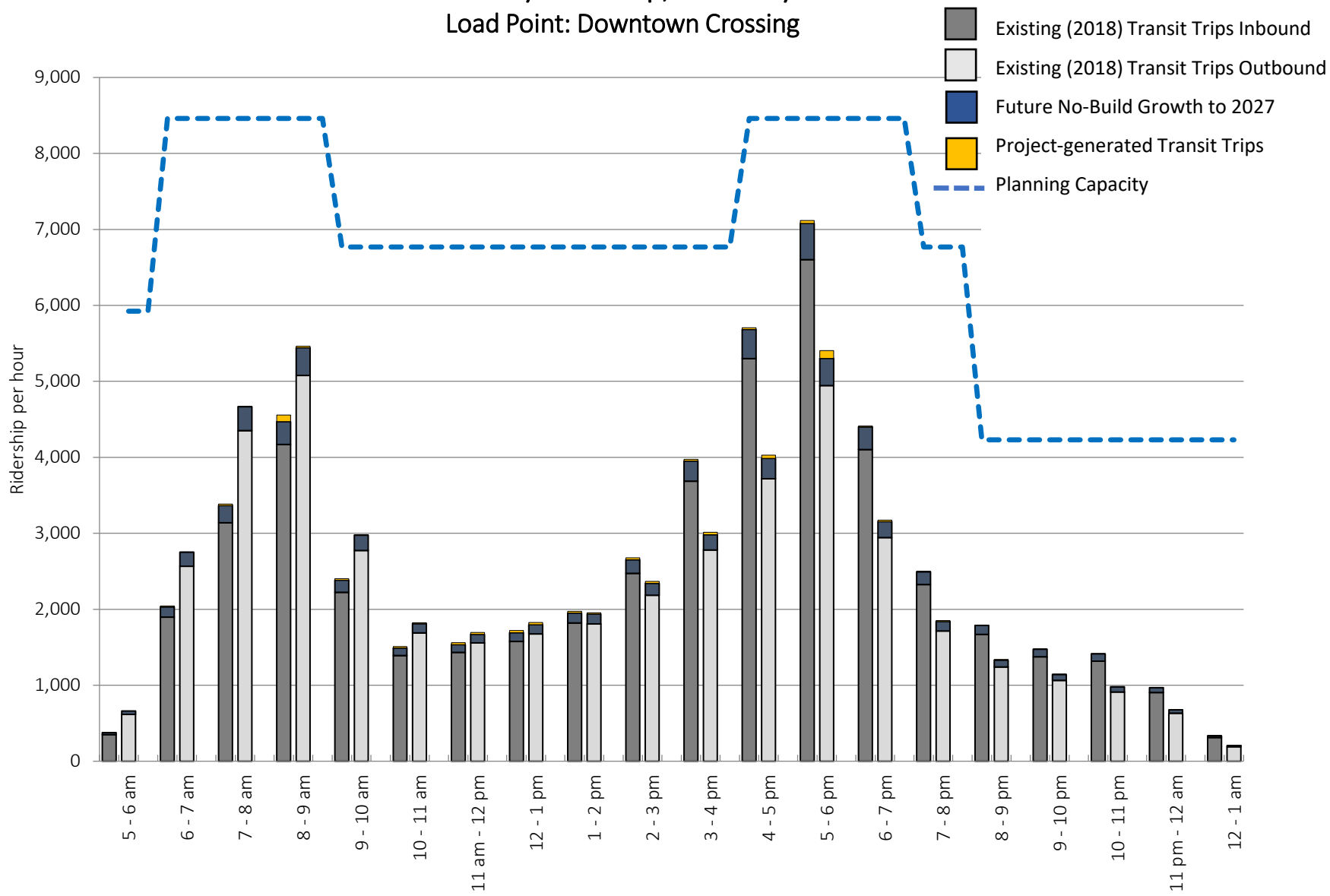


Figure 2. Green Line - Build (2027) Condition
Hourly Ridership, Weekday
Load Point: Park Street

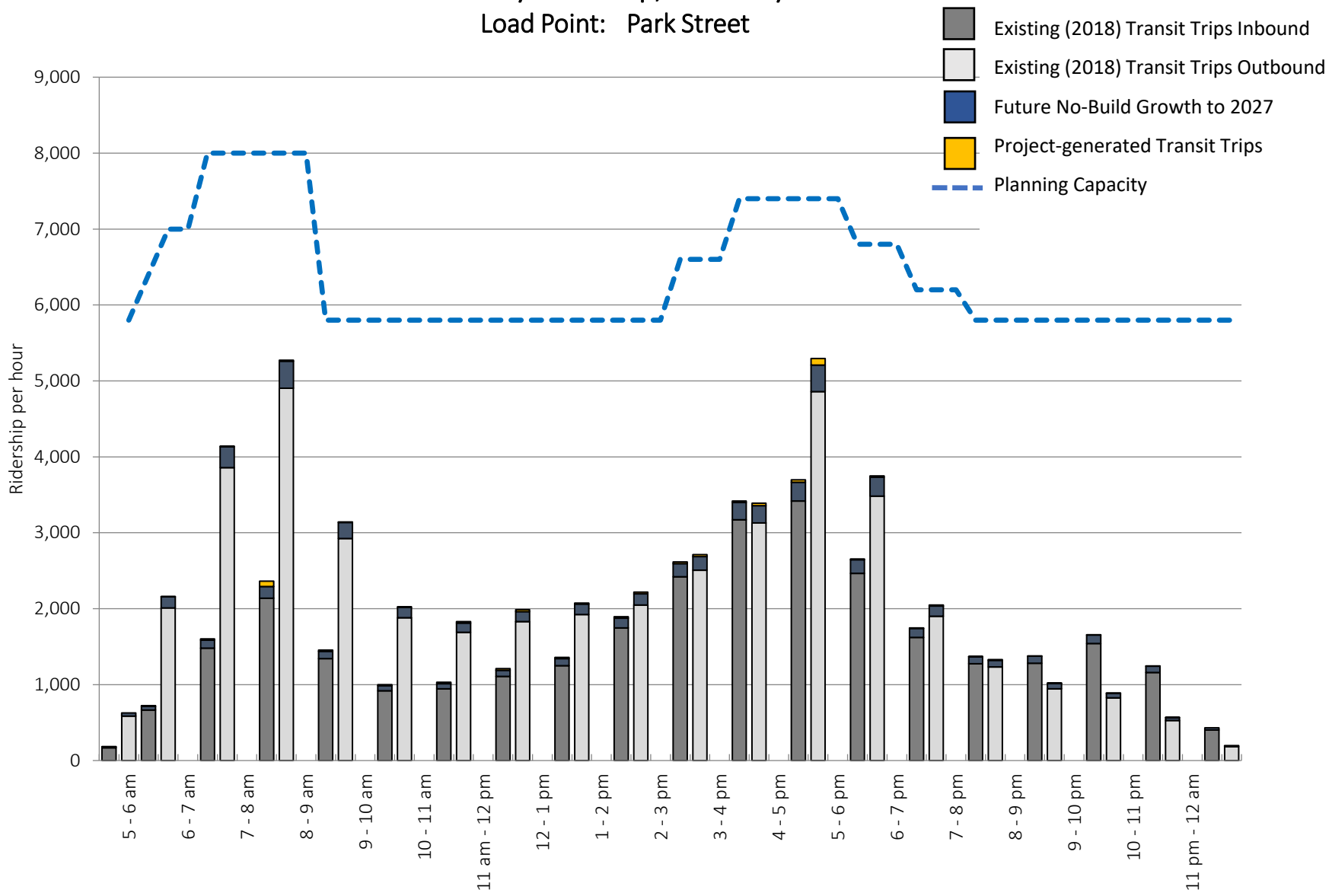


Figure 3. Red Line - Build (2027) Condition
Hourly Ridership, Weekday
Load Point: Downtown Crossing

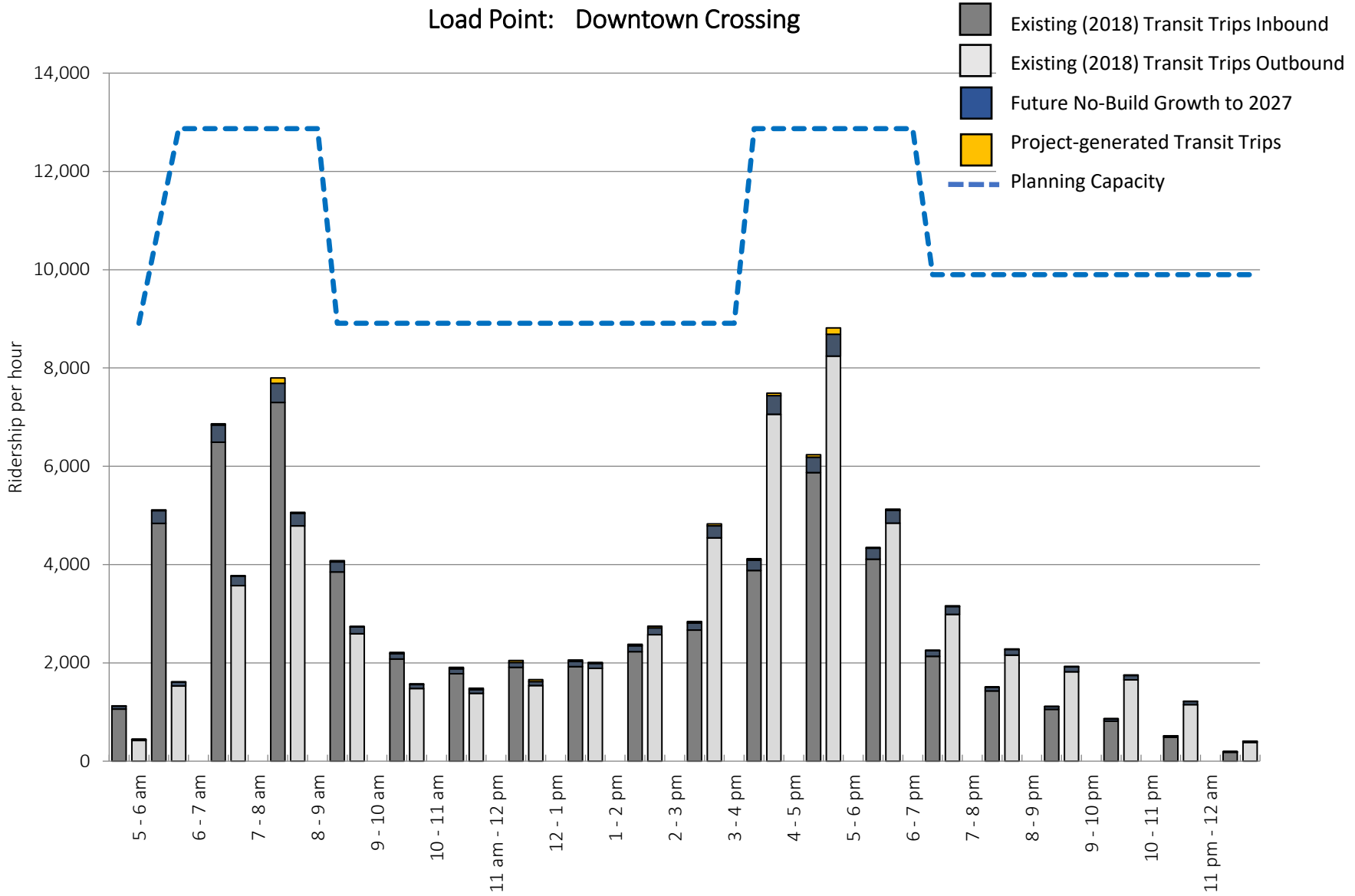
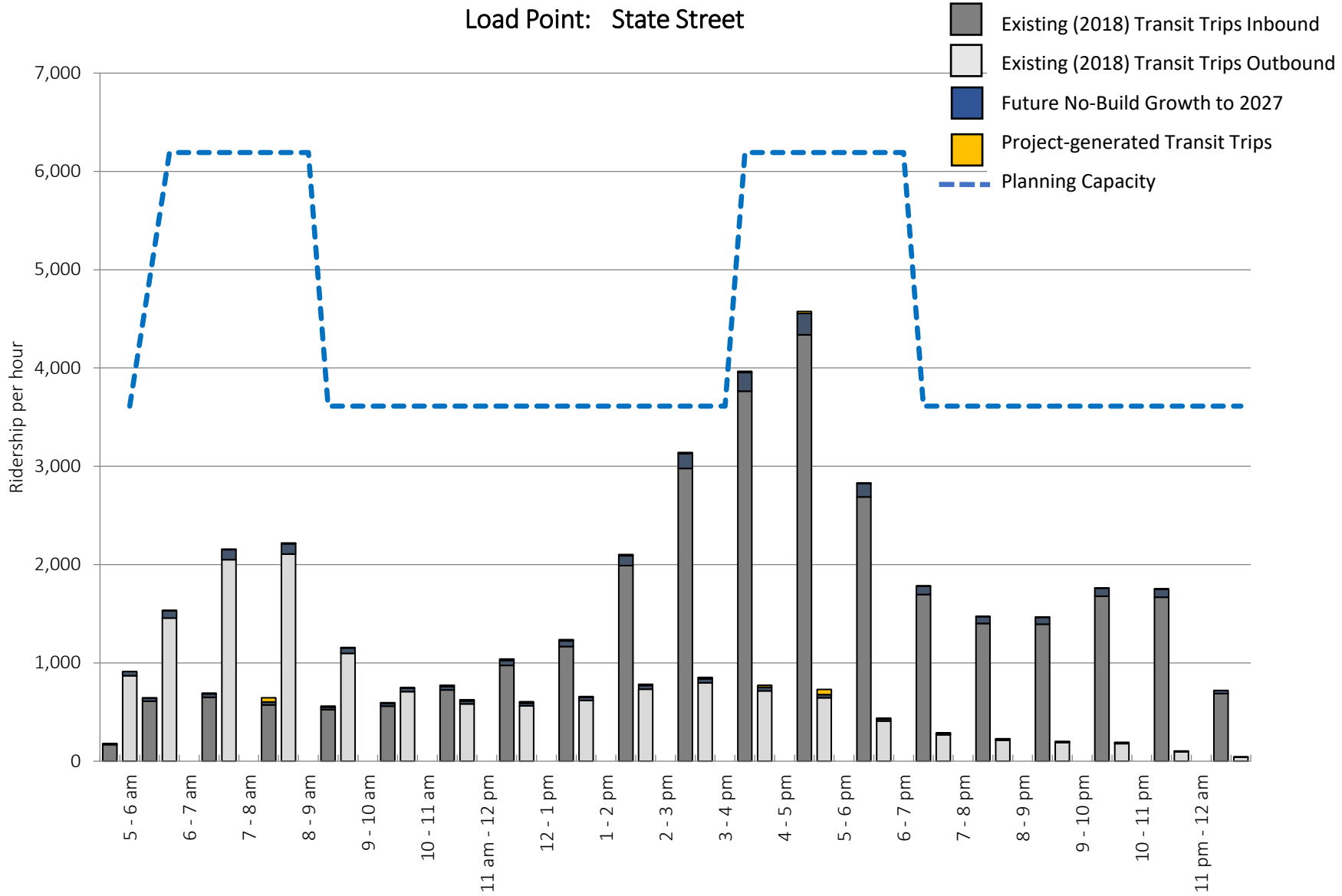


Figure 4. Red Line - Build (2027) Condition
Hourly Ridership, Weekday
Load Point: State Street



Appendix D

Wind

REPORT

11-21 BROMFIELD

BOSTON, MA

PEDESTRIAN WIND ASSESSMENT

PROJECT # 2100480

OCTOBER 16, 2020

SUBMITTED TO

Mark Rollins
Vice President, Development
mrollins@midwoodid.com

Midwood Investment & Development
One Bromfield St, Unit 4
Boston, MA 02108
T: 617.592.3975

SUBMITTED BY

Hanqing Wu, Ph.D., P.Eng.
Senior Technical Director / Principal
hanqing.wu@rwdi.com

Gregory P. Thompson, M.A.Sc.
Senior Project Manager / Principal
Greg.Thompson@rwdi.com

RWDI
600 Southgate Drive
Guelph, Ontario, Canada N1G 4P6
T: 519.823.1311 x2281
F: 519.823.1316

1. INTRODUCTION

RWDI was retained by Midwood Investment & Development to assess the potential pedestrian wind conditions around the proposed 11-21 Bromfield project in Boston, MA (Image 1). This qualitative assessment is based on the following:

- a review of the regional long-term meteorological data from Boston Logan International Airport;
- design drawings received by RWDI on September 24, 2020;
- wind-tunnel studies undertaken by RWDI for similar projects in the Boston area, including a previous design option on the same site;
- our engineering judgment, experience and expert knowledge of wind flows around buildings[1-3]; and,
- use of software developed by RWDI (Windestimator[2]) for estimating the potential wind conditions around generalized building forms.

This qualitative approach provides a screening-level estimation of potential wind conditions. Conceptual wind control measures to improve wind comfort are recommended, where necessary. In order to quantify these conditions or refine any conceptual mitigation measures, physical scale-model tests in a boundary-layer wind tunnel test will be conducted for the Draft Project Impact Report (DPIR).

Note that other wind issues, such as those related to cladding and structural wind loads, air quality, door operability, noise and vibration, etc., are not considered in the scope of this assessment.

Image 1: Rendering of the proposed project

1. C.J. Williams, H. Wu, W.F. Waechter and H.A. Baker (1999), "Experience with Remedial Solutions to Control Pedestrian Wind Problems", 10th International Conference on Wind Engineering, Copenhagen, Denmark.
2. H. Wu, C.J. Williams, H.A. Baker and W.F. Waechter (2004), "Knowledge-based Desk-Top Analysis of Pedestrian Wind Conditions", ASCE Structure Congress 2004, Nashville, Tennessee.
3. H. Wu and F. Kriksic (2012). "Designing for Pedestrian Comfort in Response to Local Climate", Journal of Wind Engineering and Industrial Aerodynamics, vol.104-106, pp.397-407.

2. SITE & BUILDING INFORMATION

The project site is currently occupied by several low and mid-rise buildings on a street block bordered by Bromfield Street to the south, Washington Street to the east, Province Court to the north, and Province Street to the east (Image 2). The existing commercial building along Province Street will remain on the block. The proposed project includes 3 levels of retail and 20 levels of office spaces. The tower setbacks slightly at several levels as shown in Image 3.

Key pedestrian areas on and around the project site include the main office entry and retail entrances, nearby sidewalks, the plaza on Franklin Street to the southeast and potential outdoor terraces at several levels on the proposed tower.

The project site is surrounded by dense downtown buildings in all directions, but surroundings to the west and southwest are relatively low (Images 4a and 4b). Beyond the Boston downtown to the east are the harbor and airport.

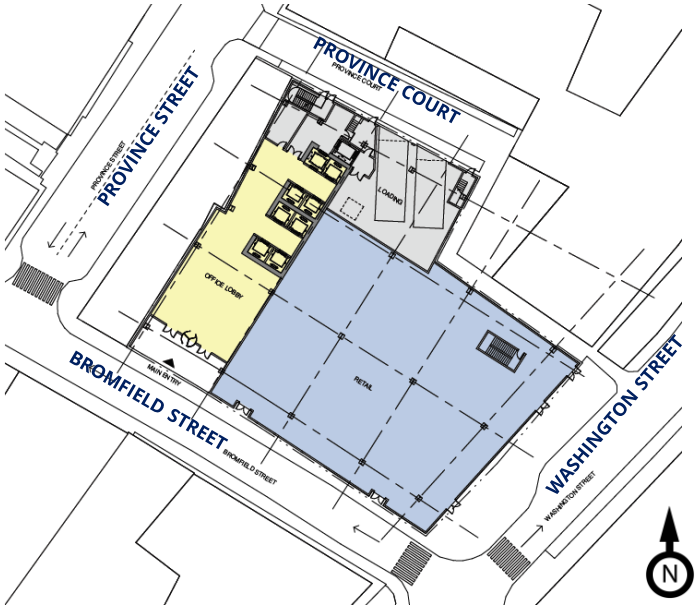


Image 2: Ground floor plan

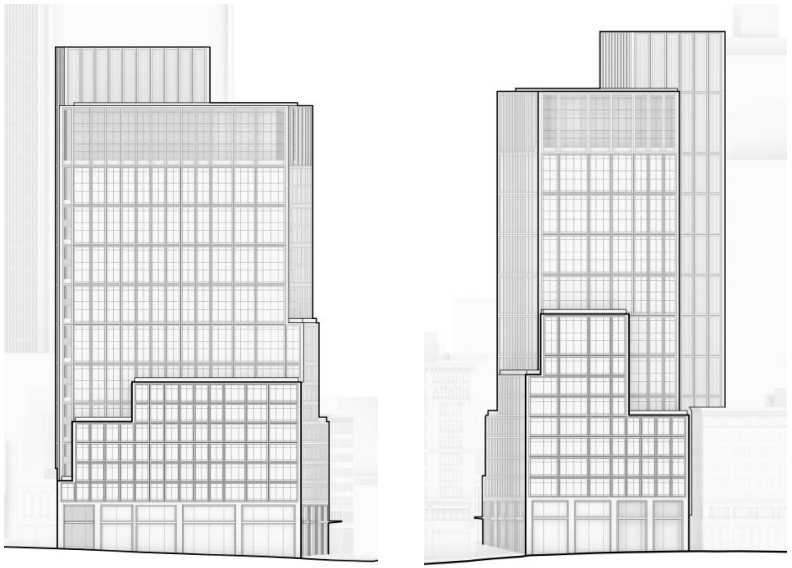


Image 3: Elevations of Bromfield Street (left) and Washington Street (right)

2. SITE & BUILDING INFORMATION

Image 4(a): Aerial view of the existing site and surroundings (credit: Google Earth)

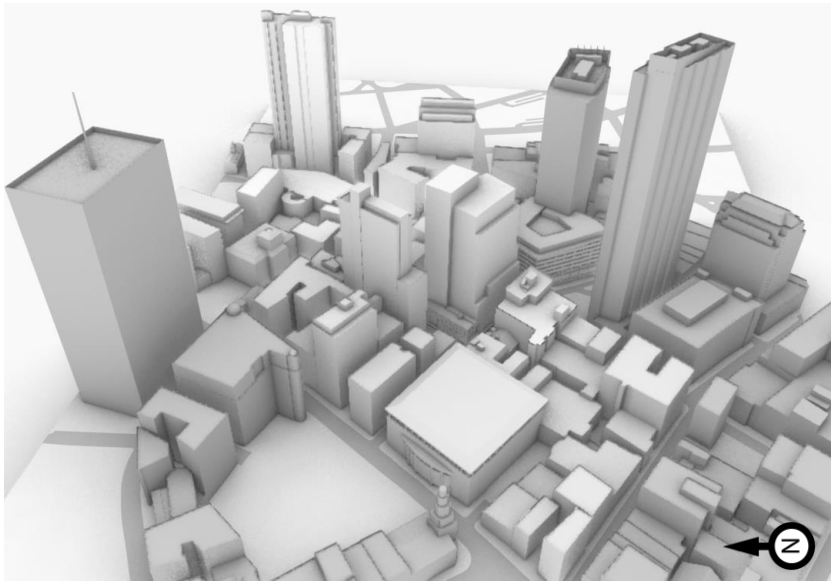
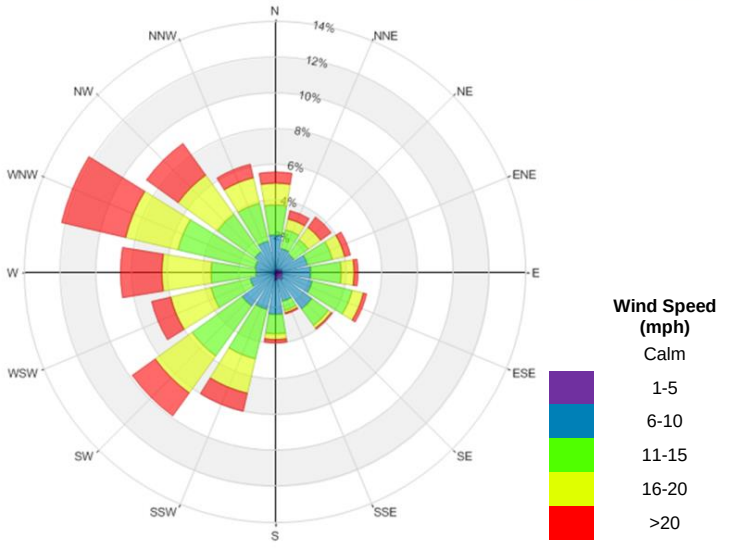


Image 4(b): 3D model of the proposed project and immediate surroundings

3. METEOROLOGICAL DATA

Wind statistics at Boston Logan International Airport between 1990 and 2019 were analyzed and Image 5 graphically depicts the distributions of wind frequency and directionality for the four seasons and for the annual period. When all winds are considered (regardless of speed), winds from the northwest and southwest quadrants are predominant. Northeasterly winds are also relatively frequent in the spring.

Strong winds with mean speeds greater than 20 mph (red bands in the wind roses) are prevalent from the west-northwest direction throughout the year, while the strong winds from the southwest and northeast are also common. These are critical wind directions focused on in the following discussions.



Annual Winds

Spring (March to May) | Summer (June to August) | Fall (September to November) | Winter (December to February)

Image 5: Directional distribution of winds approaching Boston Logan International Airport (1990 to 2019)

4. PEDESTRIAN WIND CRITERIA

The Boston Planning and Development Agency (BPDA) has adopted two standards for assessing the relative wind comfort of pedestrians, based on the work of Melbourne[4].

First, the BPDA wind design guidance criterion states that an effective gust velocity (hourly-mean wind speed + 1.5 times the root mean square wind speed) of 31 mph should not be exceeded more than one percent (1%) of the time. This criterion is hereby referred to as the gust criterion.

The second set of criteria used by the BPDA to determine the acceptability of specific locations is based on the work of Melbourne[4]. This set of criteria is used to determine the relative level of pedestrian wind comfort for activities such as sitting, standing, or walking. The criteria are expressed in terms of benchmarks for the 1-hour mean wind speed exceeded 1% of the time (i.e., the 99-percentile mean wind speed). They are shown in Table 1.

Table 1: BPDA Mean Wind Speed Criteria *

Dangerous	> 27 mph
Uncomfortable for Walking	> 19 and ≤ 27 mph
Comfortable for Walking	> 15 and ≤ 19 mph
Comfortable for Standing	> 12 and ≤ 15 mph
Comfortable for Sitting	≤ 12 mph

* Applicable to the mean wind speed exceeded one percent (1%) of the time.

Pedestrians on sidewalks will be active and wind speeds comfortable for walking are appropriate at these areas. Lower wind speeds comfortable for standing are desired for building entrances where people are apt to linger. For any outdoor terraces at and above grade, low wind speeds comfortable for sitting or standing are desired in the summer months when such amenity space is typically in use. Wind speeds rated "Uncomfortable for Walking" and/or "Dangerous" are higher than desirable for any pedestrian activity.

The following discussions on pedestrian wind conditions are based on the annual wind climate. Typically the summer and fall winds tend to be more comfortable than the annual winds while the winter and spring winds are less comfortable than the annual winds.

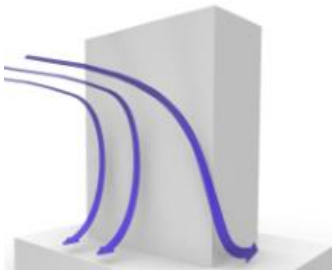
4. Melbourne, W.H., 1978, "Criteria for Environmental Wind Conditions", Journal of Industrial Aerodynamics, 3 (1978) 241 - 249.

5. PEDESTRIAN WIND CONDITIONS

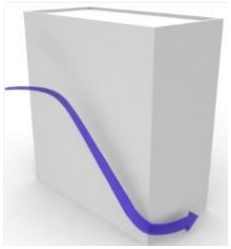
5.1 Background

Predicting wind speeds and frequencies of occurrence is complicated. It involves the assessment of building geometry, orientation, position and height of surrounding buildings, upwind terrain and the local wind climate. Over the years, RWDI has conducted thousands of wind tunnel model studies on pedestrian wind conditions around buildings, yielding a broad knowledge base. This knowledge has been incorporated into RWDI's proprietary software that allows, in many situations, for a screening-level qualitative estimation of pedestrian wind conditions without wind tunnel testing.

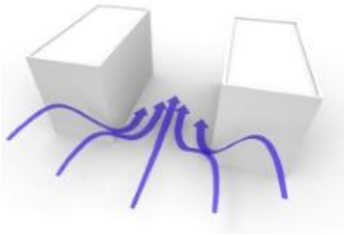
Tall buildings tend to intercept the stronger winds at higher elevations and redirect them to the ground level (Downwashing, Image 6a). These winds subsequently move around exposed building corners (Corner Acceleration, Image 6b), and along the gap between buildings (Channeling Effect, Image 6c), causing increased wind activity at grade. If these building / wind combinations occur for prevailing winds, there is a greater potential for increased wind activity and uncomfortable conditions.



a) Downwashing Flow



b) Corner Acceleration



c) Channeling Effect

Image 6: General wind flow around buildings

5.2 No Build

The existing buildings on the project site are relatively low and surrounded by similar or taller buildings in all directions. Such a setting typically does not cause any strong wind accelerations. Existing wind conditions at most areas on and immediately around the project site are likely to be comfortable for standing or sitting on an annual basis. Wind speeds are expected to meet the effective gust criterion throughout the year.

There is a public plaza along Franklin Street to the southeast of the project site (Image 7). It is sheltered by the adjacent tower from the prevailing southwesterly winds in the summer and the existing landscaping in the area is expected to reduce the wind activity further. However, winds from the west, northwest and northeast may be deflected down by the tower. As a result, low wind speeds comfortable for standing or sitting are expected on the plaza during the summer when this area is typically in use. Higher wind speeds during the winter and spring seasons may become uncomfortable from time to time.

In addition, uncomfortable and unacceptable wind conditions may currently exist around tall buildings away from the project site (e.g., along School Street to the north, Hawley Street to the southeast and a small portion of Washington Street to the south – see highlighted areas in Image 7). Due to their location and distance, these existing off-site wind conditions will not be negatively affected by the project site.

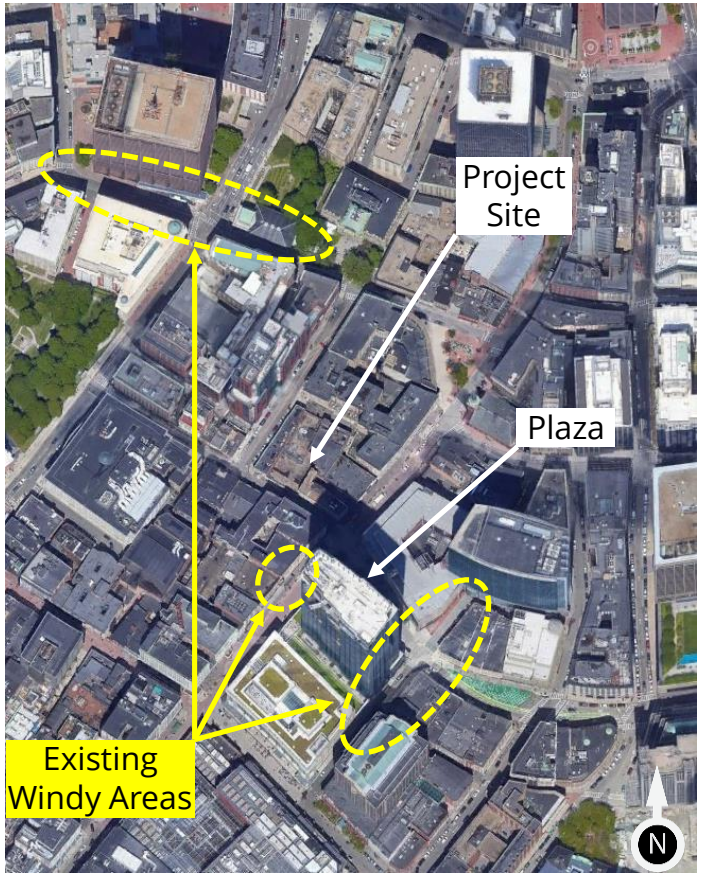


Image 7: Reference plan with existing windy areas (photo credit: Google Earth)

5.3 Build

As shown in Images 4a and 4b, the proposed building is surrounded by dense buildings in downtown Boston. The existing Lagrassa Building to the west and the Boston Jewelers Exchange Building to the north will serve as low podiums to reduce the potential impact of winds downwashing off the new building. The existing tall building across Province Street (Images 4a and 4b) will also provide sheltering from the northwest winds. Other positive features for wind control include tower setbacks (Images 1 and 3) and recessed entrances along Bromfield Street (Image 8). The following is a detailed discussion of potential wind conditions in key pedestrian areas on and around the project.

Building Entrances

The main office entrance (A in Image 8) is significantly recessed from the building façade and designed with a revolving door and a large lobby. These positive design features are expected to create comfortable wind conditions for the main entrance throughout the year.

Retail entrances along Bromfield (B1) are also recessed from the main façade which is favorable for wind comfort. High wind activity may occasionally occur near the entrances along Washington Street (B2). If required, wind control measures for these entrances can be explored after wind tunnel testing.

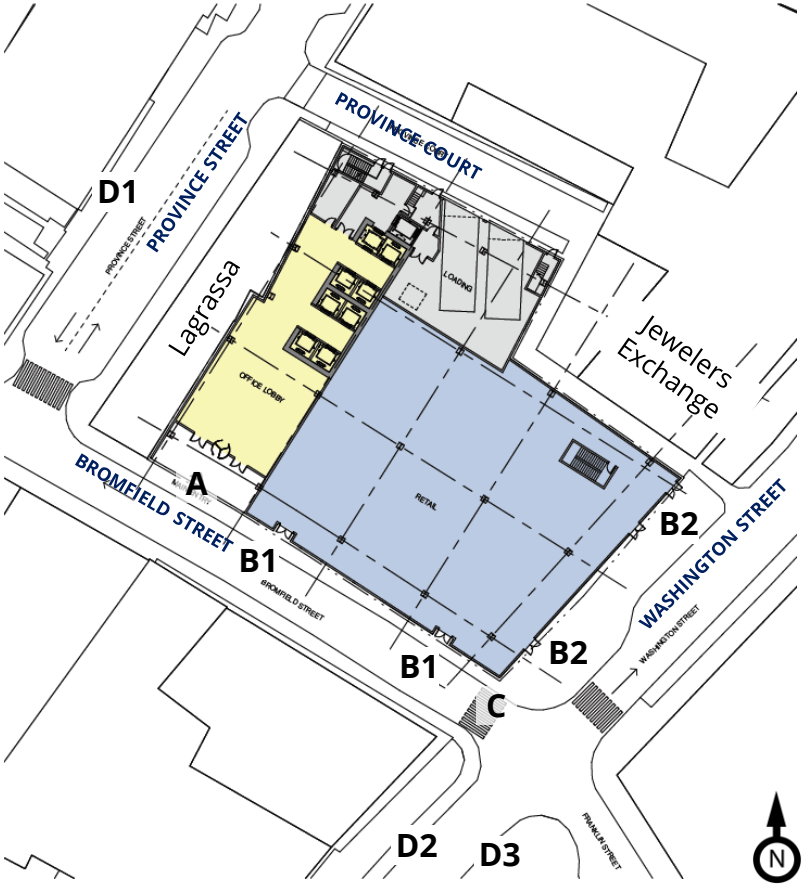


Image 8: Site plan showing key pedestrian areas at grade

5.3 Build (continued)

Sidewalks

The proposed building is taller than most of its immediate surroundings. While it is expected to shelter the adjacent sidewalks from winds for certain directions, it will also cause winds downwashing off the building facade and channeling between the existing and proposed buildings. The resultant wind conditions are generally expected to be comfortable for walking or standing on an annual basis, but uncomfortable wind speeds may occur, especially during the winter and spring seasons, in several more exposed areas. These areas include the southeast corner of the proposed building (Location C in Image 8) and some sidewalk locations along Province Street and Washington Street (Locations D1, D2 and D3 in Image 8) due to the downwashing and channeling of the prevailing winds in these areas.

No dangerous or unacceptable wind conditions are expected in these areas, but wind tunnel testing will be conducted for the DPIR in order to quantify these wind conditions and to determine the need and extent of wind control measures.

The Plaza and Off-site Windy Areas

As discussed in the previous section for No Build conditions, there is a public plaza along Franklin Street to the southeast of the proposed project (Image 7). While a slight increase in wind speeds may occur along the Washington Street sidewalks due to winds channeled along the street, the proposed building will reduce the northwest and north winds from entering the plaza. Overall, the existing wind conditions on the plaza are not expected to be affected by the proposed project.

For the three existing windy areas identified in Image 7, the proposed development is not expected to affect these wind conditions due to its distance and location.

6. SUMMARY

RWDI was retained to provide an assessment of the potential pedestrian wind conditions on and around the proposed 11-21 Bromfield project in Boston, MA. Our assessment was based on the local wind climate, the current design of the proposed project, the existing surrounding buildings, our experience with wind tunnel testing of similar buildings, and screening-level modeling.

Our findings are summarized as follows:

- The proposed building is surrounded by dense buildings in downtown Boston in all directions. Adjacent surroundings, and positive design features of the proposed project such as tower setbacks at several levels and recessed entrances along Bromfield Street will be beneficial to reduce the potential wind impact of the project.

- Suitable wind conditions are predicted at the main office entrance and retail entrances along Bromfield Street and on most sidewalks around the project.

- Slight increases in wind speeds are expected at several sidewalk locations where wind speeds may become uncomfortable, especially during the winter and spring seasons.

- The existing windy conditions are identified for several off-site areas, including the plaza along Franklin Street to the southeast. The proposed project will not have a negative impact on these conditions, due to its distance and location.

- Wind tunnel testing will be conducted for the DPIR in order to quantify these wind predictions and, if necessary, to develop wind control solutions.

7. APPLICABILITY OF ASSESSMENT

The assessment discussed in this report pertain to the proposed project in accordance with the drawings received by RWDI on September 24, 2020. In the event of any significant changes to the design, construction or operation of the building or addition of surroundings in the future, RWDI could provide an assessment of their impact wind conditions discussed in this report. It is the responsibility of others to contact RWDI to initiate this process.

Appendix E

Climate Resiliency Checklist

Boston Planning & Development Agency
Climate Resiliency Report Summary

Submitted: 10/29/2020 11:42:55

A.1 - Project Information

Project Name:	11-21 Bromfield Street			
Project Address:	11-21 Bromfield Street			
Filing Type:	Initial (PNF, EPNF, NPC or other substantial filing)			
Filing Contact:	Talya Moked	Epsilon Associates	tmoked@epsilonassociates.com	(978) 461-6223
Is MEPA approval required?	No	MEPA date:		

A.2 - Project Team

Owner / Developer:	Midwood Investment & Development
Architect:	Adrian Smith + Gordon Gill Architecture, and Arrowstreet
Engineer:	Arup (MEP / FP)
Sustainability / LEED:	Arup
Permitting:	Epsilon Associates, Inc.
Construction Management:	Gilbane

A.3 - Project Description and Design Conditions

List the principal Building Uses:	Commercial and office
List the First Floor Uses:	Commercial
List any Critical Site Infrastructure and or Building Uses:	

Site and Building:

Site Area (SF):	23744	Building Area (SF):	441000
Building Height (Ft):	325	Building Height (Stories):	23
Existing Site Elevation – Low (Ft BCB):	41.58	Existing Site Elevation – High (Ft BCB):	54.54
Proposed Site Elevation – Low (Ft BCB):	41.58	Proposed Site Elevation – High (Ft BCB):	54.54
Proposed First Floor Elevation (Ft BCB):		Below grade spaces/levels (#):	1

Article 37 Green Building:

LEED Version - Rating System:	LEED-CS v4.1	LEED Certification:	Yes
Proposed LEED rating:	Gold	Proposed LEED point score (Pts.):	69

Boston Planning & Development Agency

Climate Resiliency Report Summary

boston planning & development agency

Building Envelope:

When reporting R values, differentiate between R discontinuous and R continuous. For example, use "R13" to show R13 discontinuous and use R10c.i. to show R10 continuous. When reporting U value, report total assembly U value including supports and structural elements.

Roof:		Exposed Floor :	
Foundation Wall:		Slab Edge (at or below grade):	

Vertical Above-grade Assemblies (%'s are of total vertical area and together should total 100%):

Area of Opaque Curtain Wall & Spandrel Assembly:		Wall & Spandrel Assembly Value:	
Area of Framed & Insulated / Standard Wall:		Wall Value:	
Area of Vision Window:		Window Glazing Assembly Value:	
		Window Glazing SHGC:	
Area of Doors:		Door Assembly Value :	

Energy Loads and Performance

For this filing – describe how energy loads & performance were determined	Preliminary parametric energy modeling to determine the energy impacts of different energy conservation measures will be completed for the next filing. Additional detail and energy loads will be included in the next submission.		
Annual Electric (kWh):		Peak Electric (kW):	
Annual Heating (MMbtu/hr):		Peak Heating (MMbtu):	
Annual Cooling (Tons/hr):		Peak Cooling (Tons):	
Energy Use - Below ASHRAE 90.1 - 2013 (%):		Have the local utilities reviewed the building energy performance?:	No
Energy Use - Below Mass. Code (%):		Energy Use Intensity (kBtu/SF):	

Back-up / Emergency Power System

Electrical Generation Output (kW):		Number of Power Units:	1
System Type (kW):		Fuel Source:	Diesel

Emergency and Critical System Loads (in the event of a service interruption)

Electric (kW):		Heating (MMbtu/hr):	
		Cooling (Tons/hr):	

B – Greenhouse Gas Reduction and Net Zero / Net Positive Carbon Building Performance

Reducing greenhouse gas emissions is critical to avoiding more extreme climate change conditions. To achieve the City's goal of carbon-neutrality by 2050 the performance of new buildings will need to progressively improve to carbon net zero and net positive.

B.1 – GHG Emissions - Design Conditions

For this filing - Annual Building GHG Emissions (Tons):

For this filing - describe how building energy performance has been integrated into project planning, design, and engineering and any supporting analysis or modeling:

Preliminary parametric energy modeling will be completed to determine the energy impacts of different energy conservation measures. The parametric energy model utilizes Energy Plus as the energy modeling engine. The modeling interface uses via Rhino with Grasshopper providing the scripting for the iterative scenarios. Parametric modeling allows multiple iterations to be run quickly across a range of design scenarios. This allows a design team to explore many more options than a traditional energy model and establishes relative improvement against each other to determine an optimal design scenario. Each scenario is compared to a baseline case which is defined as ASHRAE 90.1-2013 compliant. The results of this modeling will be included in the next submission.

The energy, carbon, and sustainability goals for this project include: 25% reduction in energy use; 22-25 kBtu/SF/yr target EUI; tracking and measuring of scope 1, 2, and 3 emissions as the project and design evolves; energy-efficient HVAC systems; high indoor air quality; efficient building envelop to maximize energy performance and occupant experience; passive design strategies; efficient LED lighting; low-flow fixtures; and "solar-ready" and "energy storage-ready" design.

Describe building specific passive energy efficiency measures including orientation, massing, building envelop, and systems:

The project has focused attention on first principles of an energy efficient design to reduce loads (and energy demand) for the building by optimizing the building envelope and daylight design. Massing studies included daylighting, shading, and solar radiation analysis to inform a responsive façade design. A performance analysis and cumulative radiation analysis was completed to inform the introduction of vertical fins and horizontal shades throughout the exterior. The façade design will reduce heat load and increase thermal comfort throughout the building. The considerable amount of daylight introduced by the façade design to the interior space is a passive design strategy to offset energy use associated with electric lighting while also making the building more resilient.

In addition, a white membrane roof, a green roof and/or a solar photovoltaic (PV) system are all being considered for the roof area, each of which will contribute to the building's energy performance strategy.

Describe building specific active energy efficiency measures including high performance equipment, controls, fixtures, and systems:

Energy efficient HVAC systems are being considered for the project and include highly efficient electric variable refrigerant (VRF) heat-recovery heat pump systems; dedicated outdoor air systems (DOAS) with electric heat pumps, energy recovery wheels and fan coil units (FCUs). HVAC systems will be controlled by a Building Management System (BMS) integrated with temperature and occupancy sensors, control dampers, and temperature reset sequences.

Incorporation of highly efficient LED lighting with daylighting strategies will also reduce energy consumption associated with electric lighting.

Describe building specific load reduction strategies including on-site renewable energy, clean energy, and storage systems:

The Proponent is evaluating “solar-ready” in the high roof area, meaning space for conduit routing for interconnection would be provided for a future solar PV system.

Describe any area or district scale emission reduction strategies including renewable energy, central energy plants, distributed energy systems, and smart grid infrastructure:

Renewable energy has been discussed above. As noted below, demand response will be discussed with the utilities for its feasibility.

Describe any energy efficiency assistance or support provided or to be provided to the project:

The Proponent will reach out to the Utilities to discuss opportunities for energy efficiency incentives as well as demand response once the HVAC system and lighting design have been refined further.

B.2 - GHG Reduction - Adaptation Strategies

Describe how the building and its systems will evolve to further reduce GHG emissions and achieve annual carbon net zero and net positive performance (e.g. added efficiency measures, renewable energy, energy storage, etc.) and the timeline for meeting that goal (by 2050):

The Proponent is committed to constructing a building that exceeds minimum energy code and will not preclude the advancement toward net zero, as technology becomes available over the life span of the Project. The Project is currently being designed and constructed towards this goal by reducing energy demand through incorporation of an efficient building envelope and systems, and extensive daylight design.
The Project is also working toward the goal of net zero by evaluating “solar ready” in the high roof areas, meaning space for conduit routing for interconnection would be provided.

C - Extreme Heat Events

Annual average temperature in Boston increased by about 2˚F in the past hundred years and will continue to rise due to climate change. By the end of the century, the average annual temperature could be 56° (compared to 46° now) and the number of days above 90° (currently about 10 a year) could rise to 90.

C.1 – Extreme Heat - Design Conditions

Temperature Range - Low (Deg.):	0	Temperature Range - High (Deg.):	95
Annual Heating Degree Days:	5774.5	Annual Cooling Degree Days	2873

What Extreme Heat Event characteristics will be / have been used for project planning

Days - Above 90° (#):	60	Days - Above 100° (#):	30

Number of Heatwaves / Year (#):	6	Average Duration of Heatwave (Days):	5

Describe all building and site measures to reduce heat-island effect at the site and in the surrounding area:

The Project will reduce heat island impacts through the introduction of canopy street trees and planters at the streetscape, the implementation of tenant terraces with planters throughout the tenant floors, and an upper roof terrace comprised of 40% planting (25% extensive green roof, 75% intensive green roof) and a shaded canopy structure.

C.2 - Extreme Heat – Adaptation Strategies

Describe how the building and its systems will be adapted to efficiently manage future higher average temperatures, higher extreme temperatures, additional annual heatwaves, and longer heatwaves:

The Project is utilizing first principles of an energy efficient design to reduce loads (energy demands) through passive design strategies of a high performance building envelope, daylighting and reduction in heat island effects.
Active systems will be designed to be energy efficient.

At equipment end of life, the opportunity to increase cooling capacity can be considered to further adapt to increased temperatures.

Describe all mechanical and non-mechanical strategies that will support building functionality and use during extended interruptions of utility services and infrastructure including proposed and future adaptations:

The design includes a high performing envelope, which will help to reduce thermal heat loss/heat gain during a power outage. In addition, the focus on maximizing daylighting through the façade design will help to reduce lighting needs during a power outage.

Generator power will be provided for code-required and life safety systems. The project is considering “solar-ready” as part of the design strategy on the high roof area.

D - Extreme Precipitation Events

From 1958 to 2010, there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-Year, 24-Hour Design Storm precipitation level is 5.25”. There is a significant probability that this will increase to at least 6” by the end of the century. Additionally, fewer, larger storms are likely to be accompanied by more frequent droughts.

D.1 – Extreme Precipitation - Design Conditions

What is the project design precipitation level? (In. / 24 Hours)	6

Describe all building and site measures for reducing storm water run-off:

The Project will incorporate planters along the streetscape, tenant terraces with green planters throughout the tenant floors, and an upper terrace with dedicated green roof space. These strategies will help reduce stormwater runoff and peak flows

D.2 - Extreme Precipitation - Adaptation Strategies

Describe how site and building systems will be adapted to efficiently accommodate future more significant rain events (e.g. rainwater harvesting, on-site storm water retention, bio swales, green roofs):

The stormwater system design will consider the potential for more significant rainfall events and seek out opportunities for future-proofing the system to handle increased rainfall. The landscape design at the streetscape and within the green roof will look for opportunities to further reduce stormwater through integrating permeable surfaces and additional green plantings.

E – Sea Level Rise and Storms

Under any plausible greenhouse gas emissions scenario, the sea level in Boston will continue to rise throughout the century. This will increase the number of buildings in Boston susceptible to coastal flooding and the likely frequency of flooding for those already in the floodplain.

Is any portion of the site in a FEMA Special Flood Hazard Area?	No	What Zone:	
What is the current FEMA SFHA Zone Base Flood Elevation for the site (Ft BCB)?			
Is any portion of the site in the BPDA Sea Level Rise Flood Hazard Area (see SLR-FHA online map)?	No		

If you answered YES to either of the above questions, please complete the following questions.
Otherwise you have completed the questionnaire; thank you!

E.1 – Sea Level Rise and Storms – Design Conditions

Proposed projects should identify immediate and future adaptation strategies for managing the flooding scenario represented by the Sea Level Rise Flood Hazard Area (SLR-FHA), which includes 3.2' of sea level rise above 2013 tide levels, an additional 2.5" to account for subsidence, and the 1% Annual Chance Flood. After using the SLR-FHA to identify a project's Sea Level Rise Base Flood Elevation, proponents should calculate the Sea Level Rise Design Flood Elevation by adding 12" of freeboard for buildings, and 24" of freeboard for critical facilities and infrastructure and any ground floor residential units.

What is the Sea Level Rise - Base Flood Elevation for the site (Ft BCB)?

What is the Sea Level Rise - Design Flood Elevation for the site (Ft BCB)?

First Floor Elevation (Ft BCB):

What are the Site Elevations at Building (Ft BCB)?

What is the Accessible Route Elevation (Ft BCB)?

Describe site design strategies for adapting to sea level rise including building access during flood events, elevated site areas, hard and soft barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Describe how the proposed Building Design Flood Elevation will be achieved including dry / wet flood proofing, critical systems protection, utility service protection, temporary flood barriers, waste and drain water back flow prevention, etc.:

Describe how occupants might shelter in place during a flooding event including any emergency power, water, and waste water provisions and the expected availability of any such measures:

Describe any strategies that would support rapid recovery after a weather event:

E.2 – Sea Level Rise and Storms – Adaptation Strategies

Describe future site design and or infrastructure adaptation strategies for responding to sea level rise including future elevating of site areas and access routes, barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Describe future building adaptation strategies for raising the Sea Level Rise Design Flood Elevation and further protecting critical systems, including permanent and temporary measures:

Thank you for completing the Boston Climate Change Checklist!

For questions or comments about this checklist or Climate Change best practices, please contact:
John.Dalzell@boston.gov

Appendix F

Accessibility Checklist

ARTICLE 80 – ACCESSIBILITY CHECKLIST

A Requirement of the Boston Planning & Development Agency (BPDA)
Article 80 Development Review Process

The Mayor's Commission for Persons with Disabilities works to reduce architectural barriers that impact accessibility in Boston's built environment. This Checklist is intended to ensure that accessibility is planned at the beginning of projects, rather than after a design is completed. It aims to ensure that projects not only meet minimum MAAB/ADA requirements, but that they create a built environment which provides equitable experiences for all people, regardless of age or ability.

All BPDA Small or Large Project Review, including Institutional Master Plan modifications, must complete this Checklist to provide specific detail and data on accessibility. An updated Checklist is required if any project plans change significantly.

For more information on compliance requirements, best practices, and creating ideal designs for accessibility throughout Boston's built environment, proponents are strongly encouraged to meet with Disability Commission staff prior to filing.

Accessibility Analysis Information Sources:

1. Age-Friendly Design Guidelines - Design features that allow residents to Age in Place
   https://www.enterprisecommunity.org/download?fid=6623&nid=3496
2. Americans with Disabilities Act – 2010 ADA Standards for Accessible Design
   http://www.ada.gov/2010ADAstandards_index.htm
3. Massachusetts Architectural Access Board 521 CMR
   http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html
4. Massachusetts State Building Code 780 CMR
   http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/csl/building-codebbrs.html
5. Massachusetts Office of Disability – Disabled Parking Regulations
   http://www.mass.gov/anf/docs/mod/hp-parking-regulations-summary-mod.pdf
6. MBTA Fixed Route Accessible Transit Stations
   http://www.mbta.com/riding_the_t/accessible_services/
7. City of Boston – Complete Street Guidelines
   http://bostoncompletestreets.org/
8. City of Boston – Mayor's Commission for Persons with Disabilities
   http://www.boston.gov/disability
9. City of Boston – Public Works Sidewalk Reconstruction Policy
   http://www.cityofboston.gov/images_documents/sidewalk%20policy%200114_tcm3-41668.pdf
10. City of Boston – Public Improvement Commission Sidewalk Café Policy
    http://www.cityofboston.gov/images_documents/Sidewalk_cafes_tcm3-1845.pdf
11. International Symbol of Accessibility (ISA)
    https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/guide-to-the-ada-standards/guidance-on-the-isa
12. LEED – Pilot Credits for Social Equity and Inclusion
    https://www.usgbc.org/articles/social-equity-pilot-credits-added-leed-nd-and-leed-om

Glossary of Terms:

1. ***Accessible Route*** – A continuous and unobstructed path of travel that meets or exceeds the dimensional requirements set forth by MAAB 521 CMR: Section 20
2. ***Accessible Guestrooms*** – Guestrooms with additional floor space, that meet or exceed the dimensional requirements set forth by MAAB 521 CMR: Section 8.4
3. ***Age-Friendly –*** Implementing structures, settings and polices that allow people to age with dignity and respect in their homes and communities
4. ***Housing – Group 1 Units –*** Residential Units that contain features which can be modified without structural change to meet the specific functional needs of an occupant with a disability, per MAAB 521 CMR: Section 9.3
5. ***Housing – Group 2 Units –*** Residential units with additional floor space that meet or exceed the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 9.4
6. ***Ideal Design for Accessibility –*** Design which meets, as well as exceeds, compliance with AAB/ADA building code requirements
7. ***Inclusionary Development Policy (IDP)*** – Program run by the BPDA that preserves access to affordable housing opportunities in the City. For more information visit: http://www.bostonplans.org/housing/overview
8. ***Public Improvement Commission (PIC)*** – The regulatory body in charge of managing the public right of way in Boston. For more information visit: https://www.boston.gov/pic
9. ***Social Equity LEED Credit –*** Pilot LEED credit for projects that engage neighborhood residents and provide community benefits, particularly for persons with disabilities
10. ***Visitability*** – A structure that is designed intentionally with no architectural barriers in its common spaces (entrances, doors openings, hallways, bathrooms), thereby allowing persons with disabilities who have functional limitations to visit

Today's Date:	**Your Name and Title:**

1. Project Information:

If this is a multi-phased or multi-building project, fill out a separate Checklist for each phase/building.

Project Name:	**11-21 Bromfield Street**		
Project Address(es):	**11-21 Bromfield Street** **Boston, MA 02108**		
Total Number of Phases/Buildings:	**(1) Building, Single Phase**		
Primary Contact: (Name / Title / Company / Email / Phone):	**Mark Rollins** **Vice President, Midwood Investment and Development** **mrollins@midwoodid.com** **617.592.3975**		
Owner / Developer:	**Midwood Investment & Development**		
Architect:	**Adrian Smith + Gordon Gill Architecture LLP**		
Civil Engineer:	**Howard Stein Hudson**		
Landscape Architect:	**Mikyoung Kim Design**		
Code Consultant:	**Code Red Consultants**		
Accessibility Consultant (*If you have one)*:	**n/a**		
What stage is the project on the date this checklist is being filled out?	☑SPRA / **PNF** / Expanded PNF Submitted	Draft / Final Project Impact Report Submitted	BPDA Board Approved or other: _____

2. Building Classification and Description:

This section identifies preliminary construction information about the project including size and uses.

What are the dimensions of the project? See below:

Site Area:	*23,744 SF*	Building Area:	*441,000 GSF*
First Floor Elevation:	VARIES; 0 FT BCB on Prince Street, and -6 FT BCB on all other adjacent street fronts	Any below-grade space	***Yes** / No*

What is the construction classification?	☑**New Construction**	Renovation	Addition	Change of Use

Do you anticipate filing any variances with the MAAB (Massachusetts Architectural Access Board) due to non-compliance with 521 CMR?	**NO**
If yes, is the reason for your MAAB variance: (1) technical infeasibility, **OR** (2) excessive and unreasonable cost without substantial benefit for persons with disabilities? Have you met with an accessibility consultant or	**(1) OR (2)**

Disability Commission to try to achieve compliance rather than applying for a variance? Explain:				
What are principal building uses? (using IBC definitions, select all appropriate that apply):	Residential – One - Three Unit	Residential - Multi-unit, Four+	Institutional	Educational
	☑Business	**☑Mercantile**	Factory	Hospitality
	Laboratory / Medical	Storage, Utility and Other	Other:	
List street-level uses of the building:	*Retail, and Office Lobby*			

3. Accessibility of Existing Infrastructure:

This section explores the proximity to accessible transit lines and institutions. Identify how the area surrounding the development is accessible for people with mobility impairments, and analyze the existing condition of the accessible routes to these sites through sidewalk and pedestrian ramp reports.

Provide a description of the neighborhood where this development is located and its identifying topographical characteristics:	The Project is located within the Downtown Crossing neighborhood, surrounded by retail storefronts and restaurants, as well as office and residential mid-rise and high-rise structures. The neighboring streetscapes are especially pedestrian friendly, designed with pavers (in lieu of asphalt) and large curb cuts for accessibility to adjacent sidewalks. There is a large gathering area at the Downtown Crossing T stop, across from the Project Site, with tables, chairs and stadium-style seating which encourage pedestrians to congregate for extended periods of time.
List the surrounding accessible MBTA transit lines and their proximity to development site, including commuter rail, subway stations, and bus stops:	The Project Site is highly accessible to public transit; it is within walking distance of four lines of the T and many bus lines. As previously mentioned, the Project Site is directly across from an entry to the Downtown Crossing T Stop, which provides access to both the Orange and Red Lines. The Project Site is also less than 1/4 mile from the State Street and Park Street T Stops, providing access to the Orange, Blue, Green and Red Lines. Several major bus stops, providing service to over twenty different lines, are located within 1/4 mile on Tremont Street, on Summer Street and on Federal Street.
List surrounding institutions and their proximity: hospitals, public housing, elderly and disabled housing, educational facilities, others:	The Project Site is in an extremely dense area of Boston and is surrounded by many institutions, including many universities and hospitals. Suffolk University and Tufts University are located within 1/2 mile of the Project Site. Boston University, Northeastern, Wentworth, MIT and Harvard are all within 15 minutes of the Project Site via public transit, and UMass Boston is approximately 20 minutes away. Massachusetts General Hospital is less than a mile from the Project Site, and only one stop away on the Red Line. Tufts, Beth Israel and Boston Medical Centers are also within proximity to the Project Site. Due to the Project's location within Boston Proper, any surrounding new construction residences adhere to the Inclusionary Development Policy, which requires 13% of all units to be financially subsidized. Otherwise, there are several Boston Housing Authority projects within walking distance (less than 1/2 mile) of the Project Site.
List surrounding government buildings and their proximity: libraries, community	The Project Site is less than 1/2 mile from the Massachusetts State House and the State Library of Massachusetts. The Boston Commons, which contains walking paths, outdoor skating, recreational fields, etc. is within 1/4 mile of the Project Site, and access to the

centers, recreational facilities, and related facilities:	Esplanade Cycling and Trekking Path is less than 1 mile away. There is an extension from both the Boston Commons and the Esplanade to the Back Bay Fens, which provides more running and biking trails, as well as wildlife preserves and Clemente Field. Several other libraries and recreational facilities are located nearby, managed by the many colleges and universities in proximity to the Project Site.
4. Surrounding Site Conditions – Existing: *This section identifies current condition of the sidewalks and pedestrian ramps at the development site.*	
Is the development site within a formally recognized historic district? ***If yes,*** which one?	**NO**
Are there existing sidewalks and pedestrian ramps at the development site? ***If yes***, list the existing sidewalk and pedestrian ramp slopes, dimensions, materials, and physical condition:	**YES** The Project fronts three streets: Washington Street, Bromfield Street, and Province Court. The existing sidewalks are a mix of brick and pavers, concrete, and bituminous concrete, with granite curbs and cast in place concrete at curb cuts (pedestrian ramps). The dimensions and slopes vary by street front. Washington Street's sidewalk ranges from 19 feet at loading zones to 23 feet at pedestrian intersections. Bromfield Street's sidewalk is approximately 7 feet in width, while Province Court's sidewalk is 5 feet in width.
Are the sidewalks and pedestrian ramps existing-to-remain? ***If yes,*** have they been verified as ADA/MAAB compliant (with yellow composite detectable warnings, cast in concrete)? ***If yes,*** provide description and photos. If ***no,*** explain plans for compliance:	**NO** The proposed Project's landscaping will comply with all required accessibility standards and promote multiple modes of transportation.
5. Surrounding Site Conditions – Proposed *This section identifies the proposed condition of the sidewalks and pedestrian ramps around the development site. Ideal sidewalk width contributes to lively pedestrian activity, allowing people to walk side by side and pass each other comfortably walking alone, in pairs, or using a wheelchair or walker.*	
Are the proposed sidewalks consistent with Boston Complete Streets? ***If yes***, choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, or Boulevard. Explain:	**YES** The proposed sidewalk zones are consistent with the Downtown Commercial Street and Share Street typologies, depending on street frontage..
What are the total dimensions and slopes of the proposed sidewalks? List the widths	Frontage: Washington Street Pedestrian: 10'-0" Furnishing: 17'-0"

of each proposed zone: Frontage, Pedestrian and Furnishing Zone:	Frontage: Bromfield Street Shared Pedestrian/Furnishing Zone: varies. Proposing 14'-17'-0"
List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?	Frontage: Washington Street Pedestrian: Proposed mix of color pavers and varying patterns based on zone Furnishing: Propose mixture of furnishings and plantings; materials TBD Frontage: Bromfield Street Pedestrian: Proposed mix of color pavers and varying patterns based on zone Furnishing: Propose mixture of furnishings and plantings; materials TBD
Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way? ***If yes,*** what are the proposed dimensions of the sidewalk café or furnishings and what will the remaining right-of-way clearance be?	**YES** While the Project is still in a very preliminary, conceptual design phase, the Proponent hopes to incorporate a sidewalk cafe or other furnishings for Washington Street, if the site and design allow.
If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the Public Improvement Commission (PIC)?	**NO** This is not anticipated at this time.
Will any portion of this project be going through the Public Improvement Commission (PIC)? ***If yes,*** identify PIC actions and provide details:	**YES** The Project will involve PIC as required, as the design continues to evolve.
6. Building Entrances, Vertical Connections, Accessible Routes, and Common Areas: *The primary objective in ideal accessible design is to build smooth, level, continuous routes and vertical connections that are integrated with standard routes, not relocated to alternate areas. This creates universal access to all entrances and spaces, and creates equity for persons of all ages and abilities by allowing for "aging in place" and "visitability" (visiting neighbors).*	
Are all of the building entrances accessible? Describe the accessibility of each building entrance: flush condition, stairs, ramp, lift, elevator, or other. If all of the building entrances are ***not accessible,*** explain:	**YES** All public entries to the Project will be flush conditions, except for the Loading area off Province Court. Access from Province Court to the floor elevation at Loading will require several risers, as the elevated floor provides on and off-loading convenience.
Are all building entrances well-marked with signage, lighting, and protection from weather?	**YES** All building entries will be well-marked with signage and lightings. The doors will be set back from the face of the building to provide coverage at the entry.
Are all vertical connections located within the site (interior and exterior) integrated and accessible? Describe each vertical	**YES** All interior vertical connections are accessible, via elevator. As previously described, the Loading area is elevated above street level, and accessible via stairs.

connection (interior and exterior): stairs, ramp, lift, elevator, or other. If all the vertical connections are ***not integrated and accessible,*** explain:	
Are all common spaces in the development located on an accessible route? Describe:	**YES** All common areas are planned to be accessible as a flush condition from the street level / sidewalk, and via elevator on the upper levels of the Project.
Are all of the common spaces accessible for persons with mobility impairments? (Examples: community rooms, laundry areas, outdoor spaces, garages, decks/roof decks):	**YES** The Project will endeavor for all common spaces to be accessible for persons of mobility impairment. As a Core and Shell Project, the final fit-out will be by the future Tenant.
What built-in features are provided in common public spaces? (Examples: built-in furnishings such as tables, seating; countertop heights, outdoor grills and benches). Are these accessible? Do benches and seats have armrests? Describe:	The Project is still in a very preliminary, conceptual design phase, but will plan to make considerations to accessibility when planning for built-in furnishings.
If this project is subject to Large Project Review/Institutional Master Plan, describe the accessible routes way-finding / signage package:	The Proponent will develop a signage package at a later stage of the design.
7. Accessible Housing Units (If applicable) – Residential Group 1, Group 2, and Hospitality Guestrooms *In order to create accessible housing and hospitality rooms, this section addresses the number of accessible units that are proposed for barrier-free housing and hotel rooms in this development.*	
What is the total number of proposed housing units or hotel rooms for this development?	n/a
If a residential development, how many units are for sale? How many are for rent? What is the breakdown of market value units vs. IDP (Inclusionary Development Policy) units?	n/a
If a residential development, will all units be constructed as MAAB Group 1* units, which have blocking and other built-in infrastructure that makes them adaptable for access modifications in the future? *(*this is required in all new construction)*:	n/a

If a residential development, how many fully built-out ADA (MAAB Group 2) units will there be? (*requirement is 5%*):	n/a
If a residential development, how many units will be built-out as ADA/MAAB sensory units? (*requirement is 2%):*	n/a
If a residential development, how many of the fully built-out ADA (MAAB Group 2) units will also be IDP units? ***If none***, explain:	n/a
If a hospitality development, how many of the accessible units will feature a wheel-in shower? Will accessibility features and equipment be built in or provided (built-in bench, tub seat, etc.)? ***If yes,*** provide details and location of equipment:	n/a
Do the proposed housing and hotel units that are standard, non-ADA units (MAAB Group 1) have any architectural barriers that would prevent entry or use of the space by persons with mobility impairments? (Example: stairs or thresholds within units, step up to balcony, etc.). ***If yes,*** explain:	n/a

8. Accessible Parking:

See Massachusetts Architectural Access Board Rules and Regulations 521 CMR Section 23.00 regarding accessible parking requirements and the Massachusetts Office of Disability Disabled Parking Regulations.

What is the total number of parking spaces provided at the development site? Will these be in a parking lot or garage? Will they be mechanically stacked? Explain:	No parking is planned for this Project, at this time.
How many of these parking spaces will be designated as Accessible Parking Spaces? How many will be "Van Accessible" spaces with an 8 foot access aisle? Describe:	n/a
Will visitor parking be provided? If ***yes,*** where will the accessible visitor parking be located?	**NO**
Has a drop-off area been identified? ***If yes,*** where is it located, and is it wheelchair accessible?	**YES** A drop-off zone on Bromfield Street is proposed. This will be a flush condition and is wheelchair accessible.

9. Community Impact:

Accessibility and inclusion extend past required compliance with building codes to providing an overall development that allows full and equal participation of persons with disabilities and older adults.

Has the proponent looked into either of the two new LEED Credit Pilots for (1) Inclusion, or (2) Social Equity – with a proposal that could increase inclusion of persons with disabilities? ***If yes,*** describe:	**YES** The Project is still in a very preliminary, conceptual design phase. The Project team will consider these as the Project develops.
These new LEED Pilot Credits may be awarded for filling out this checklist and evaluating ways to add features to your design that will increase equity for persons with disabilities. Have you looked at this list to assess the feasibility of adding any of these features?	**YES** The Project is still in a very preliminary, conceptual design phase but will evaluate ways to apply this checklist as the Project develops.
Is this project providing funding or improvements to the surrounding neighborhood or to adjacent MBTA Station infrastructure? (Examples: adding street trees, building or refurbishing parks, adding an additional MBTA elevator or funding other accessibility improvements or other community initiatives)? ***If yes,*** describe:	**YES** The Project is proposing to improve Bromfield Street, making it a shared street that is more pedestrian friendly. Landscaping is proposed along both Bromfield and Washington streets.
Will any public transportation infrastructure be affected by this development, during and/or post-construction (Examples: are any bus stops being removed or relocated)? ***If yes***, has the proponent coordinated with the MBTA for mitigation? Explain:	**NO**
During construction, will any on-street accessible parking spaces be impacted (during and/or post-construction)? **If yes,** what is the plan for relocating the spaces?	**NO**
Has the proponent reviewed these plans with the City of Boston Disability Commission Architectural Access staff? ***If no,*** will you be setting up a meeting before filing?	**NO** The Project is still in a very preliminary, conceptual design phase. The Project Team will proactively pursue any meetings with the City of Boston Disability Commission Architectural Access staff, as required.

10. Attachments

Include a list of all documents you are submitting with this Checklist – drawings, diagrams, photos, or any other materials that describe the accessible and inclusive elements of this project.

Provide a diagram of the accessible routes to and from the accessible parking lot/garage and drop-off areas to the development entry locations, including route distances.
Provide a diagram of the accessible route connections through the site, including distances.
Provide a diagram the accessible route to any roof decks or outdoor space (if applicable).
Provide a plan and diagram of the accessible Group 2 units, including locations and route from accessible entry.
Provide any additional drawings, diagrams, photos, or any other material that describes the inclusive and accessible elements of this project. • • • •

This completes the Article 80 Accessibility Checklist required for your project. Prior to and during the review process, Commission staff are able to provide technical assistance and design review, in order to ensure that all buildings, sidewalks, parks, and open spaces are welcoming and usable to Boston's diverse residents and visitors, including those with physical, sensory, and other disabilities.

For questions about this checklist, or for more information on best practices for improving accessibility and inclusion, visit www.boston.gov/disability, or contact our Architectural Access staff at:

ADA@boston.gov | patricia.mendez@boston.gov | sarah.leung@boston.gov |
617-635-3682 (phone) | 617-635-2726 (fax) | 617-635-2541 (tty)

The Mayor's Commission for Persons with Disabilities
Boston City Hall, One City Hall Square, Room 967, Boston MA 02201

Updated: October, 2019

Appendix G

Broadband Ready Checklist

Talya Moked

From: Google Forms <forms-receipts-noreply@google.com>
Sent: Thursday, October 29, 2020 11:50 AM
To: Talya Moked
Subject: ARTICLE 80 DESIGN REVIEW BROADBAND READY BUILDINGS QUESTIONNAIRE

Google Forms

Thanks for filling out ARTICLE 80 DESIGN REVIEW BROADBAND READY BUILDINGS QUESTIONNAIRE

Here's what we got from you:

Edit response

ARTICLE 80 DESIGN REVIEW BROADBAND READY BUILDINGS QUESTIONNAIRE

The City of Boston is working to cultivate a broadband ecosystem that serves the current and future connectivity needs of residents, businesses, and institutions. The real estate development process offers a unique opportunity to create a building stock in Boston that enables this vision. In partnership with the development community, the Boston Planning and Development Authority and the City of Boston will begin to leverage this opportunity by adding a broadband readiness component to the Article 80 Design Review. This component will take the form of a set of questions to be completed as part of the Project Notification Form. Thoughtful integration of future-looking broadband practices into this process will contribute to progress towards the following goals: 1. Enable an environment of competition and choice that results in all residents and businesses having a choice of 2 or more wireline or fixed wireless high-speed Internet providers 2. Create a built environment that is responsive to new and emerging connectivity technologies 3. Minimize disruption to the public right of way during and after construction of the building The information that is shared through the Broadband Ready Buildings Questionnaire will help BPDA and the City understand how developers currently integrate telecommunications planning in their work and how this integration can be most responsive to a changing technological landscape. Upon submission of this online form, a PDF of the responses provided will be sent to the email address of the individual entered as Project Contact. Please include the PDF in the Project Notification Form packet submitted to BPDA. If necessary, you may edit form responses prior to final submission. A link to edit the form will be generated upon submission. Learn more about the Broadband Ready Buildings Questionnaire at the link below: http://www.bostonplans.org/projects/development-review/article-80-design-review-broadband-ready-buildings

Email address *

tmoked@epsilonassociates.com

SECTION 1: GENERAL INFORMATION ABOUT PROJECT

Project name

11-21 Bromfield Street

Owner / Developer

Midwood Investment & Development

Address of project

11-21 Bromfield Street

Address cont.

Contact person for this project

Talya Moked

Contact person title

Senior Planner

Contact person email

tmoked@epsilonassociates.com

Contact person phone

Expected completion date

MM

/

DD

/

YYYY

Architect

Adrian Smith + Gordon Gill, Arrowstreet

Engineer (building systems):

Permitting:

Epsilon Associates, Inc.

Construction Management

Gilbane

SECTION 2: RIGHT OF WAY TO BUILDING

This section focuses on the following: - Point of entry planning

Point of Entry Planning

Point of entry planning has important implications for the ease with which your building's telecommunications services can be installed, maintained, and expanded over time. Please provide the following information for your building's point of entry planning (conduits from building to street for telecommunications). Please enter 'unknown' if these decisions have not yet been made or you are presently unsure.

Number of Points of Entry

Locations of Points of Entry

Quantity and size of conduits

Location where conduits connect (e.g. building-owned manhole, carrier-specific manhole or stubbed at property line)

Other information/comments

Do you plan to conduct a utility site assessment to identify where cabling is located within the street? This information can be helpful in determining the locations of POEs and telco rooms. Please enter 'unknown' if these decisions have not yet been made or you are presently unsure.

Yes

No

Unknown

SECTION 3: INSIDE OF THE BUILDING

This section focuses on the following: - Riser planning - Telecom room planning - Delivery of service within building

Riser Planning

Riser capacity can enable multiple telecom providers to serve tenants in your building. Please provide the following information about the riser plans throughout the building. Please enter ‘unknown’ if these decisions have not yet been made or you are presently unsure.

Number of risers

Distance between risers (if more than one)

Dimensions of riser closets

Riser or conduit will reach to top floor

Yes

No

Unknown

Number and size of conduits or sleeves within each riser

Proximity to other utilities (e.g. electrical, heating)

Other information/comments

Telecom Room

A well designed telecom room with appropriate security and resiliency measures can be an enabler of tenant choice and reduce the risk of service disruption and costly damage to telecom equipment. Please provide the following information about the telecom room plans. Please enter ‘unknown’ if these decisions have not yet been made or you are presently unsure.

What is the size of the telecom room?

Describe the electrical capacity of the telecom room (i.e. # and size of electrical circuits)

Will the telecom room be located in an area of the building containing one or more load bearing walls?

Yes

No

Unknown

Will the telecom room be climate controlled?

Yes

No

Unknown

If the building is within a flood-prone geographic area, will the telecom equipment will be located above the floodplain?

Yes

No

Unknown

Will the telecom room be located on a floor where water or other liquid storage is present?

Yes

No

Unknown

Will the telecom room contain a flood drain?

Yes

No

Unknown

Will the telecom room be single use (telecom only) or shared with other utilities?

Yes

No

Unknown

Other information/comments

Delivery of Service Within Building (Residential Only)

Please enter ‘unknown’ if these decisions have not yet been made or you are presently unsure. Questions 5 through 8 are for residential development only.

Will building/developer supply common inside wiring to all floors of the building?

Yes

No

Unknown

If yes, what transmission medium (e.g. coax, fiber)? Please enter ‘unknown’ if these decisions have not yet been made or you are presently unsure.

Is the building/developer providing wiring within each unit?

Yes

No

Unknown

If yes, what transmission medium (e.g. coax, fiber)? Please enter ‘unknown’ if these decisions have not yet been made or you are presently unsure.

SECTION 4: ACCOMMODATION OF NEW AND EMERGING TECHNOLOGIES

This section focuses on the following: - Cellular reception - Rooftop access

Cellular Reception

The quality of cellular reception in your building can have major impacts on quality of life and business operations. Please provide the following information on your plans to facilitate high quality cellular coverage in your building. Please enter ‘unknown’ if these decisions have not yet been made or you are presently unsure.

Will the building conduct any RF benchmark testing to assess cellular coverage?

Yes

No

Unknown

Will the building allocate any floor space for future in-building wireless solutions (DAS/small cell/booster equipment)?

Yes

No

Unknown

Will the building be providing an in-building solution (DAS/ Small cell/ booster)?

Yes

No

Unknown

If so, are you partnering with a carrier, neutral host provider, or self-installing?

Carrier

Neutral host provider

Self-installing

Rooftop Access

Building rooftops are frequently used by telecommunications providers to install equipment critical to the provision of service to tenants. Please provide the following information regarding your plans for roof access and usage. Please enter 'unknown' if these decisions have not yet been made or you are presently unsure.

Will you allow cellular providers to place equipment on the roof?

Yes

No

Unknown

Will you allow broadband providers (fixed wireless) to install equipment on the roof?

Yes

No

Unknown

Will you allow broadband providers (fixed wireless) to install equipment on the roof?

Yes

No

Unknown

SECTION 5: Supporting Competition and Choice

Having a choice of broadband providers is a value add for property owners looking to attract tenants and for tenants in Boston seeking fast, affordable, and reliable broadband service. In addition to enabling tenant choice in your building, early outreach to telecom providers can also reduce cost and disruption to the public right of way. The following questions focus on steps that property owners can take to ensure that multiple wireline or fixed wireless broadband providers can access your building and provide service to your tenants.

Do you plan to abstain from exclusivity agreements with broadband and cable providers?

Yes

No

Unknown

Do you plan to make public to tenants and prospective tenants the list of broadband/cable providers who serve the building?

Yes

No

Unknown

Broadband Provider Outreach Status

Please provide the date upon which each of the below providers were successfully contacted, whether or not they will serve the building, what transmission medium they will use (e.g. coax, fiber) and the reason they provided if the answer was ‘no’.

Comcast

Please provide the date upon which Comcast was successfully contacted, whether or not they will serve the building, what transmission medium they will use (e.g. coax, fiber) and the reason they provided if the answer was ‘no’.

Date contacted

MM

/

DD

/

YYYY

Does Comcast intend to serve the building?

Yes

No

Unknown

Transmission Medium

Coax

Fiber

Unknown

If no or unknown, why?

netBlazr

Please provide the date upon which netBlazr was successfully contacted, whether or not they will serve the building, what transmission medium they will use (e.g. coax, fiber) and the reason they provided if the answer was ‘no’.

Date contacted

MM

/

DD

/

YYYY

Does netBlazr intend to serve the building?

Yes

No

Unknown

Transmission Medium

Coax

Fiber

Unknown

If no or unknown, why?

RCN

Please provide the date upon which RCN was successfully contacted, whether or not they will serve the building, what transmission medium they will use (e.g. coax, fiber) and the reason they provided if the answer was ‘no’.

Date contacted

MM

/

DD

/

YYYY

Does RCN intend to serve the building?

Yes

No

Unknown

Transmission Medium

Coax

Fiber

Unknown

If no or unknown, why?

Starry

Please provide the date upon which Starry was successfully contacted, whether or not they will serve the building, what transmission medium they will use (e.g. coax, fiber) and the reason they provided if the answer was ‘no’.

Date contacted

MM

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DD

/

YYYY

Does Starry intend to serve the building?

Yes

No

Unknown

Transmission Medium

Coax

Fiber

Unknown

If no or unknown, why?

Verizon

Please provide the date upon which Verizon was successfully contacted, whether or not they will serve the building, what transmission medium they will use (e.g. coax, fiber) and the reason they provided if the answer was ‘no’.

Date contacted

MM

/

DD

/

YYYY

Does Verizon intend to serve the building?

Yes

No

Unknown

Transmission Medium

Coax

Fiber

Unknown

If no or unknown, why?

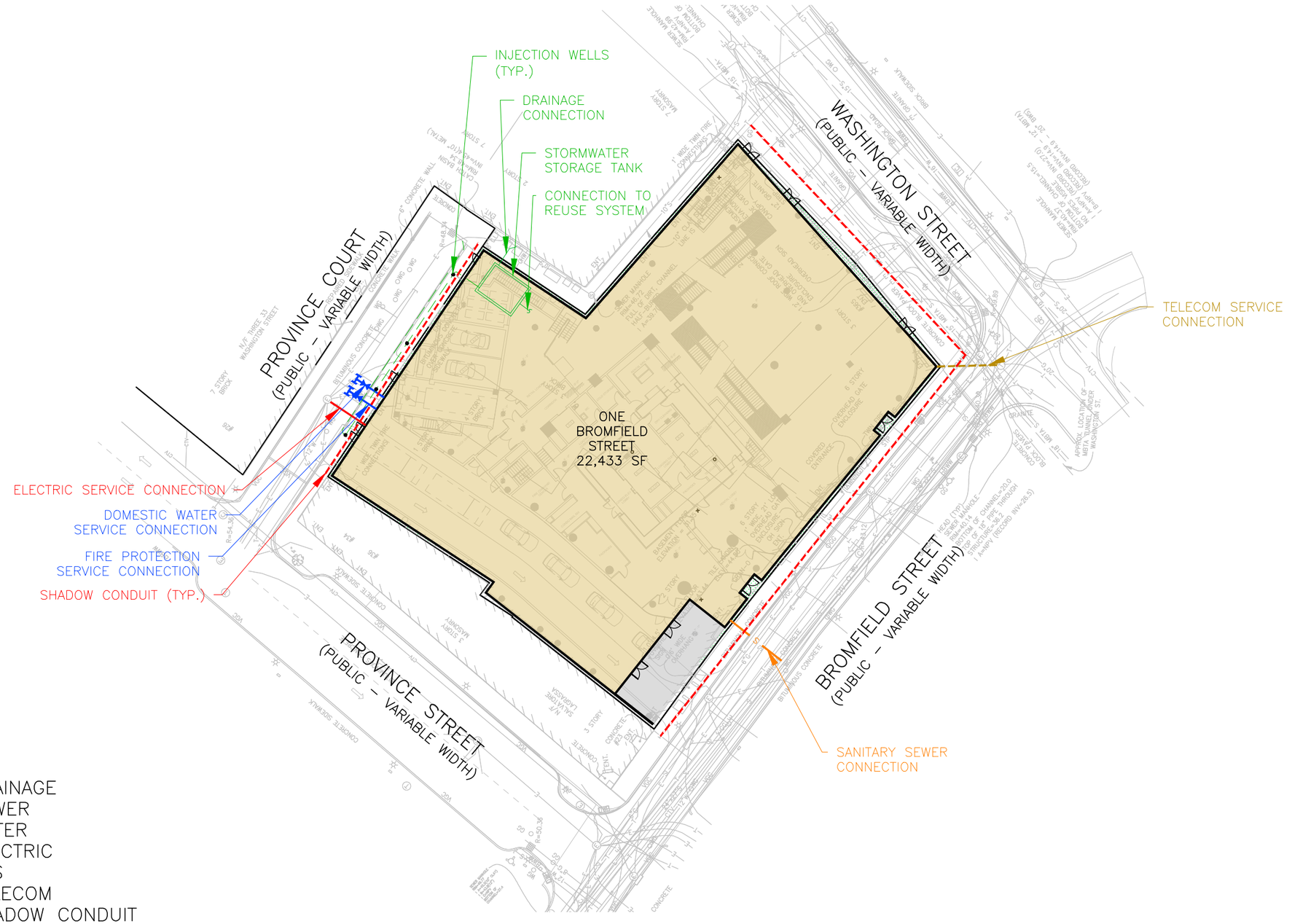
SECTION 6: FEEDBACK

The Boston Planning and Development Agency looks forward to supporting the developer community in enabling broadband choice for resident and businesses. Please provide feedback on your experience completing these questions.

Appendix H

Site Utility Plan

Utility & Drainage Exhibit



LEGEND:

- D — DRAINAGE
- S — SEWER
- W — WATER
- E — ELECTRIC
- G — GAS
- TELECOM
- SHADOW CONDUIT

Approximate Scale: 1" = 40'-0"
Date: 09-24-2020

9/25/2020 L:\08019\CURRENT\CUTSHEETS\08019 - DPIR Figure.dwg
Meghan Sweeney