AGENDA

• Review Of Stuart Street Zoning By BPDA (10 Min.)
• Responses to CAC Questions (20 Min.)
• Streetscape And Pedestrian Analysis (40 Min.)
• CAC Comments (20 Min.)
• Public Comments (20 Min.)
• Next Steps (5 Min.)
PROJECT STATUS - KEY DATES

• PNF Filing • March 29, 2016
• ENF Filing • April 15, 2016
• CAC #1 • April 28, 2016
• BPDA Scoping Session • May 11, 2016
• Back Bay Public Meeting • May 11, 2016
• CAC #2 • May 12, 2016 (Site Visit)
• MEPA Scoping Session • May 18, 2016
• South End Public Meeting • May 18, 2016
• CAC #3 • May 26, 2016
• BCDC Public Meeting • June 07, 2016
• CAC #4 • June 15, 2016
• CAC #5 • June 29, 2016
• CAC #6 • July 13, 2016

• BPDA Scoping Determination • August 30, 2016
• CAC #7 • October 6, 2016
• DPIR/DEIR Filing • January 31, 2017
• CAC #8 • February 23, 2017
• Public Meeting • March 01, 2017
• CAC #9 • March 13, 2017
• CAC #10 • March 29, 2017
• Public Meeting • April 04, 2017
• CAC #11 • April 06, 2017
• BCDC Subcommittee Meeting • April 11, 2017 (Tentative)
• MEPA DEIR Comment Period Closes • March 10 – April 18, 2017
• BPDA DPIR Comment Period Closes • April 18, 2017
REVIEW OF STUART STREET ZONING
Stuart Street Planning Study

Overview for Back Bay/South End Gateway Project CAC

CAC Meeting #10: March 29, 2017
Context and Study Area
c. 2008
Community Process

- **Stuart Street Planning Study 2008-2011**
  - 15+ *Advisory Group Meetings* (open to public)
    - Dana Masterpolo, BVNA
    - Jo Campbell, BVNA
    - Ann Gleason, NABB
    - Sandra Silver, Ellis
    - Nathaniel Margolis, John Hancock
    - Meg Mainzer-Cohen, BBA
    - Ted Pietras, SEBA

- **Development Guidelines**
  - September 2015: Public Meeting

- **Zoning Article 48 + Map 1S**
  - January 2016: Public Meeting
  - February 2016: BRA Board Holds Public Hearing and Recommends Adoption of Zoning
  - March 2016: Zoning Commission Holds Public Hearing and Adopts Zoning

- **Project Website**: all relevant documents were posted, including the PowerPoint presentations, the Draft and Final Development Guidelines, and the Draft Zoning Text and Map

- Meetings were advertised in *Boston Courant* and on the BRA website Calendar

- Meetings were very well attended, with residents and business representation from the Back Bay, Bay Village and South End
Study Components

Environmental Impacts
- Wind
- Shadows
- Utility Infrastructure
- Groundwater

Transportation
- Public Transit Access
- Automobile Traffic
- Loading and Servicing
- Parking

Economics and Real Estate
- Financial Viability: Total GSF
- Financial Viability: Floorplates
- Retail Capacity

Urban Design
- Public Realm Contribution
- Pedestrian Connectivity
- Ground-Level Active Uses
- Streetscape Definition
- View Corridors
- Skyline Design and Composition
- Program and Use Mix
Initial Zoning Analysis
c. 2008
PDAs

c. 2008
Sites Studied
Massing Alternatives
Massing Alternatives
Massing Alternatives
Massing Alternatives
Urban Design Considerations

- Urban Design: Reinforce unique districts; create transitions between districts
- Urban Design: Fill the gaps
- Urban Design: Activate ground floors uses
- Urban Design: Skyline design
- Urban Design: Increase Pedestrian Connectivity

- Preliminary Environmental Analysis
- Typical Building Sizes
- Building Typologies
- Historic Buildings
Transportation

level of service

quantitative factors
- parking ratios
- trip counts
- access and movement

transportation analysis

qualitative factors
- transit station design
- streetscape design
- parking/loading locations and design
March 21st Shadow Study

8:00am

2 hours allowed on Copley Square from 8am – 2:30pm March - October
March 21st Shadow Study

2 hours allowed on Copley Square from 8am – 2:30pm March - October
March 21st Shadow Study

2 hours allowed on Copley Square from 8am – 2:30pm March - October
March 21st Shadow Study

11:00am

2 hours allowed on Copley Square from 8am – 2:30pm March - October
March 21st Shadow Study

12:00pm

2 hours allowed on Copley Square from 8am – 2:30pm March - October
March 21st Shadow Study

1:00pm

2 hours allowed on Copley Square from 8am – 2:30pm March - October
March 21st Shadow Study

2:00pm

2 hours allowed on Copley Square from 8am – 2:30pm March - October
March 21st Shadow Study

2:30pm

2 hours allowed on Copley Square from 8am – 2:30pm March - October
Development Review Guidelines

Base: 10 FAR & 155’ height limit
- Building Preservation
- Increasing the City’s Affordable Housing Supply
- Review process
  - Article 80B
- Public Realm/ Pedestrian Experience
  - Street Wall Frontage Achievement
  - Transparency Achievement
  - Publicly Accessible Space
  - Ground Floor Pedestrian Entrances
  - Ground Floor Use
- Environment
  - Sustainability
  - Wind
- Shadow
- Ground Water
- Multi-modal Access
  - Traffic Studies project Area
  - Off-Street Parking Ratios
  - Parking/Service Access
  - Off-Street Parking/Service Location
  - Bicycle Accommodations
  - Alternative Transportation Off-Street Parking
  - Traffic Management
  - Loading
  - Transportation Demand Management
  - Transit

Tower: 17.5 FAR & 400’ height limit
- Building Achievement
- Sustainability
- Streetscape/Pedestrian & Bicycle Fund
- Public Art
- Mitigating Development Impacts
- Performance Criteria
  - Building Form
  - Tower GSF
  - Tower Length
  - Massing Setback
- Environment
  - Shadow Performance
  - Wind Performance
  - Ground Water
- Multi-modal Access
Max. Heights and Setbacks

- 155'
- 356'
- 280'

- Setback 15'
- St James
- Berkeley
- Arlington
- Dartmouth

- Min. Setback 25
- South End Nghd Dist
  (existing zoning continues to apply)

- "Up to 400" provided it meets shadow requirements

- "Liberty Mutual" parcel removed at request of Advisory Group

- "Bay Village Nghd District" (current regulations apply)
Zoning Map
RESPONSES TO CAC QUESTIONS
SHADOW IMPACTS TO HISTORIC RESOURCES

- New Old South Church - West and South Facade Restored Windows
  - Shading During Approximately 12 Weeks Of The Year (Nov 09 to Feb 01)
    - Duration Ranges From Approximately 10 to 100 Minutes

- Trinity Church - Christ Preaching Windows
  - Shading During Approximately 11 Weeks Of The Year (Nov 16 to Feb 01)
    - Duration Ranges From Approximately 10 to 60 Minutes

QUESTION:
• What are the Shadow Impacts To Stained Glass Windows in the New Old South Church And Trinity Church?
QUESTION:

• What Are The Square Footages Of Clarendon Plaza?
• From An Air Quality And Health Perspective, We Are Concerned With Particulate Matter 2.5 (PM$_{2.5}$), Which Refers To Tiny Particles In The Air That Are Two And One Half Microns Or Less In Width. These Particulates Primarily Come From Car, Truck, Bus And Off-Road Vehicle Exhuasts, And Other Operations That Involve The Burning Of Fuels.

• Our Project Will Provide Good Indoor Air Quality Through The Use Of MERV13 Filters For Outdoor/Supply Air. MERV Stands For Minimum Efficiency Reporting Value Per ASHRAE Standard 52.2 And MERV 13 Filters Are Able To Filter Fine Particulate Matter Like PM$_{2.5}$. Materials Will Also Be Specified That Have Low VOCs (Volatile Organic Compounds).

• The Project Will Also Improve Indoor Air Quality Through Its Construction Practices By Requiring A Construction Indoor Air Quality Management Plan Which Addresses Storage Of Materials On-Site, Protection Of Duct Work During Construction And Scheduling Or Sequencing Of Activities To Minimize Air Quality Impacts. At The End Of Construction, A Flush Out Period Or Air Quality Testing Will Be Conducted To Verify Air Quality Standards.

QUESTION:
• How Is The Project Providing Good Indoor Air Quality?
• What Types Of Filters Are Being Used?
QUESTION:
• How Would The Absence Of Certain Project Components Affect The Wind Analysis?
  How Would The Absence Of The Simon Copley Tower Affect The Wind Analysis?

• RWDI Has Addressed These Questions In Their Memo Dated March 28, 2017
PEDESTRIAN WIND CONDITIONS - CATEGORY CHANGE - NO-BUILD TO BASE SCHEME

BOSTON PROPERTIES

The Back Bay / South End Gateway Project

DEIR/DPIR

Pedestrian Wind Conditions - Category Change - No-Build to Base Scheme

Figure 6.1g

STUART STREET
STANHOPE COURT
CAHNERS PLACE
EXETER STREET
FAIRFIELD STREET
HUNTINGTON AVENUE
ST. JAMES AVENUE
BOYLSTON STREET
CLARENDON STREET
BERKELEY STREET
PROVIDENCE STREET
CHANDLER STREET
DARTMOUTH STREET
COLUMBUS AVENUE
WESTIN HOTEL
EXETER BUILDING
BOSTON PUBLIC LIBRARY
CONFERENCE CENTER
40 TRINITY COPLEY PLACE
COPLEY SQUARE
BOYLSTON COPLEY MARRIOTT HOTEL
MASSACHUSETTS TURNPIKE
STANHOPE STREET
STANHOPE STREET
GARAGE WEST
WEST
380 STUART STATION EAST RESIDENTIAL GARAGE EAST STATION WEST STATION EAST TRINITY PLACE 52
44 28 24
89 99 82 91 81 77 78 64 86 18 34 33 31 61 79 80 93 56 95 98

LEGEND:
COMFORT CATEGORY CHANGE:
Wind Comfort Reduction - Three Levels
Wind Comfort Reduction - Two Levels
Wind Comfort Reduction - One Level
No Comfort Category Change
Wind Comfort Improvement - One Level
Wind Comfort Improvement - Two Levels
Wind Comfort Improvement - Three Levels

SENSOR LOCATION:

LANDSCAPING:
Existing Marcescent Shrubs - 8' Tall
Existing Marcescent Trees - 20' Tall
Proposed Marcescent Trees - 20' Tall

Grade Level

PROVIDENCE STREET
CONFERENCE CENTER
STUART STREET
STUART STREET
QUESTION:
• What Are The Public Benefits By Phase?

- New redundant elevator to Orange Line
- Enlarged and relocated Station crosswalk and enhanced public plaza
- New Station entrance
- Dedicated bus pull-off
- New Orange Line stair
- New Station entrance
- New public plaza at Station entrance
- Potential new redundant elevator to Tracks 1/3
- Potential new redundant elevator to Track 2
- Potential new redundant elevator to Track 1
• **New Station Entrance** From Stuart Street.

• New 19’ to 26’ Wide, Accessible, Weather-Protected **Through-Block Connector** From Stuart Street.

• New Dedicated **Bus Pull-Off Area** Adjacent To The New Station Entrance On Stuart Street.

• New **Accessible Drop-Off Lane** On Stuart Street, In Proximity To New Station Entrance.

• **Widened Pedestrian Zone** Along Stuart Street.
  - Overall Increase of 9.5’, Including the Furnishing Zone.

• **New Sidewalks**, Street Trees, And Street Furniture Along Dartmouth And Stuart Streets.

• Site Accessibility Upgrades:
  a) **Reconfigured Crosswalks** At Stuart Street.
  b) **Improved Grade** At Corner Of Dartmouth And Stuart Streets.
  c) **Improved Accessible Ramp** At Dartmouth Retail Entrance.
PUBLIC BENEFITS - GARAGE WEST (CONT.)

• New **30 Short-Term** and **162 Long-Term Bicycle Parking** Spaces.
• New Workplace Opportunities For A Variety Of Business Types.
• New And Diverse Retail Opportunities.
• Approximately $5.5M and $1.1M In Housing And Jobs Linkage Payments.
• Approximately $10.1M In New Annual Real Estate Tax Revenue.
• Approximately 3,100 Permanent Jobs.
Public Benefits - Garage East

• **New Sidewalks**, Street Trees, and Street Furniture Along Clarendon Street.

• **Reconfigured Curb Alignment And Crosswalks** At Clarendon And Stanhope Streets.

• Reduced And **Realigned Garage Drive** Width.

• Site Accessibility Upgrades:
  a) **Improved Grade** Along Garage Façade.
  b) **Improved Grade** At Clarendon And Stanhope Intersection.

• New **10 Short-Term** and **120 Long-Term Bicycle Parking** Spaces.

• New Quality Housing Opportunities, In Compliance With Boston’s Applicable Inclusionary Development Policy.

• Approximately **$1.7M In New Annual Real Estate Tax Revenue.**
Public Benefits - Station East

- **New Station Entrance** From Clarendon Street.
- New 20’ Wide Accessible Weather Protected **Through-Block Connector** From Clarendon Street.
- New 11,000SF Landscaped **Public Plaza**.
- **New Sidewalks**, Street Trees, And Sidewalk Furniture Along Clarendon Street.
- **Reconfigured Crosswalks** At Clarendon Street And Columbus Avenue Intersection.
- New **Accessible Drop-Off Lane** In Proximity To New Station Entrance.
- New **Redundant Elevator To MBTA Orange Line**.
- Potential New Redundant Elevators To Commuter Rail Tracks 1/3 And Track 2, If Feasible.

**Question:** What are the public benefits by phase?
PUBLIC BENEFITS - STATION EAST (CONT.)

- **New Hubway Station** On Clarendon Street Plaza Near New Station Entrance.
- New **10 Short-Term** and **180 Long-Term Bicycle Parking** Spots.
- New Quality Housing Opportunities, In Compliance With Boston’s Applicable Inclusionary Development Policy.
- New And Diverse Retail Opportunities.
- Approximately **$3.1M In New Annual Real Estate Tax Revenue.**
PUBLIC BENEFITS - STATION WEST

• **Improved And Enhanced Station Entry Plaza** Welcoming Transit Customers And Reinforcing The Civic Nature Of The Station Entrance.

• **Relocated and Enlarged Dartmouth Street Crosswalk** - To Align With The Future Station Entrance, Significantly Improving Pedestrian Safety And Enhancing The Link Between The Station And The Southwest Corridor Park.

• **New Sidewalks**, Street Trees, And Street Furniture Along Dartmouth Street.

• New **20 Short-Term** and **18 Long-Term Bicycle Parking** Spaces.

• New And Diverse Retail Opportunities.

• Approximately **$500,000 In New Annual Real Estate Tax Revenue.**

• Approximately **75 Permanent Jobs.**
SUMMARY ECONOMIC & PUBLIC BENEFITS
PROJECT AS A WHOLE

• **Job Creation** - Approximately 2,500 Construction Jobs And Approximately 3,200 Permanent Jobs Across All Four Air Rights Development Parcels.

• **Linkage Payments** - Contribute Approximately $5,500,000 In Housing Linkage And $1,100,000 in Jobs Linkage Payments.

• **Enhanced Tax Revenues** – Generate Approximately $15.3 Million Annually In New Real Estate Tax Revenues For The City of Boston Across All Four Air Rights Development Parcels Upon Stabilization.

• **MBTA Revenue** - The Project-Generated Transit Trips Are Estimated To Contribute An Additional Approximately $4.6 to 5.8 Million In Annual Revenue For The MBTA Based On Current Fare Levels.
QUESTION:
• What Would Different Phasing Scenarios Look Like?
QUESTION:
• What WouldDifferent Phasing Scenarios Look Like?

GARAGE WEST / GARAGE EAST / STATION EAST / STATION WEST
QUESTION:
• What Would Different Phasing Scenarios Look Like?
QUESTION:

• What Would Different Phasing Scenarios Look Like?
QUESTION:
• What Would Different Phasing Scenarios Look Like?
QUESTION:
• What Would Different Phasing Scenarios Look Like?

GARAGE WEST / GARAGE EAST / STATION EAST / STATION WEST
QUESTION:
• What Would Different Phasing Scenarios Look Like?
QUESTION:
• What Would Different Phasing Scenarios Look Like?
QUESTION:
• What Will The Garage East Lobby Look Like?
QUESTION:
• What Will The Garage East Lobby Look Like?
QUESTION:
• What Will The Garage East Lobby Look Like?
QUESTION:
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QUESTION:
• What Will The Garage East Lobby Look Like?
Sidewalk Zones

The primary objective in designing sidewalks in Boston's constrained public right-of-way is to provide a continuous system of safe, accessible pathways for pedestrians on both sidewalks immediately adjacent to high-volume pedestrian generators require special consideration. This includes sidewalks adjacent to transit stations, universities, major tourism

| Curb | Greenscape/Furnishing Zone | Pedestrian Zone | Frontage Zone |
The width and design of sidewalks will vary depending on street typology, functional classification, and demand. Below are the City of Boston’s preferred and minimum widths for each Sidewalk Zone by Street Type.

<table>
<thead>
<tr>
<th>Street Type</th>
<th>Frontage Zone</th>
<th>Pedestrian Zone*</th>
<th>Greenscape/Furnishing Zone</th>
<th>Curb Zone</th>
<th>Total Width</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Preferred</td>
<td>Minimum</td>
<td>Preferred</td>
<td>Minimum</td>
<td>Preferred</td>
</tr>
<tr>
<td>Downtown Commercial</td>
<td>2’</td>
<td>0’</td>
<td>12’</td>
<td>8’</td>
<td>6’</td>
</tr>
<tr>
<td>Downtown Mixed-Use</td>
<td>2’</td>
<td>0’</td>
<td>10’</td>
<td>8’</td>
<td>6’</td>
</tr>
<tr>
<td>Neighborhood Main</td>
<td>2’</td>
<td>0’</td>
<td>8’</td>
<td>5’</td>
<td>6’</td>
</tr>
<tr>
<td>Neighborhood Connector</td>
<td>2’</td>
<td>0’</td>
<td>8’</td>
<td>5’ (4’)*</td>
<td>5’</td>
</tr>
<tr>
<td>Neighborhood Residential</td>
<td>2’</td>
<td>0’</td>
<td>5’</td>
<td>5’ (4’)*</td>
<td>4’</td>
</tr>
<tr>
<td>Industrial Street</td>
<td>2’</td>
<td>0’</td>
<td>5’</td>
<td>5’ (4’)*</td>
<td>4’</td>
</tr>
<tr>
<td>Shared Street</td>
<td>2’</td>
<td>0’</td>
<td>Varies</td>
<td>Varies</td>
<td>N/A</td>
</tr>
<tr>
<td>Parkway</td>
<td>N/A</td>
<td>N/A</td>
<td>6’</td>
<td>5’</td>
<td>10’</td>
</tr>
<tr>
<td>Boulevard</td>
<td>2’</td>
<td>0’</td>
<td>6’</td>
<td>5’</td>
<td>10’</td>
</tr>
</tbody>
</table>

Notes: Preferred and Minimum Widths for Sidewalk Zones

- Preferred and Minimum Widths for Sidewalk Zones
- 5’ is the preferred minimum width of the Pedestrian Zone in the City of Boston. The Americans with Disabilities Act (ADA) minimum 4’ wide Pedestrian Zone can be applied using engineering judgement when retrofitting 7’ wide existing sidewalks where widening is not feasible.
- The width and design of sidewalks will vary depending on street typology, functional classification, and demand.

Source: Boston Complete Streets Design Guidelines 2013
Downtown Commercial

Wide Pedestrian Zones dominate Downtown Commercial streets and accommodate high volumes of pedestrian traffic. Continuous building facades provide visual interest at ground-level, with the Frontage Zone announcing building entrances and the occasional café. The Greenscape/Furnishing Zone is characterized by planters and high-quality finishes as are prominent along Federal and Boylston Streets. Street furniture, public art, and wayfinding are featured in the Greenscape/Furnishing Zone.
DARTMOUTH STREET
DARTMOUTH STREET EXISTING CONDITIONS

21.5’ CURB TO BLDG

FACE OF BUILDING

17.5’ PEDESTRIAN ZONE

29 MARCH 2017
DARTMOUTH STREET EXISTING CONDITIONS

21.5' CURB TO BUILDING

17.5' PEDESTRIAN ZONE

17.5' FACE OF BUILDING

PEDESTRIAN ZONE CURB TO BUILDING

29 MARCH 2017
SIDEWALK

8'
STUART STREET SECTION TYPICAL

PEDESTRIAN ZONE
STREETSCAPE & FURNISHINGS
STEP OFF ZONE
PEDESTRIAN ZONE
STATION ENTRY

STUART STREET LOADING ZONE

11' 1.5' 12'

STATION ENTRY

29 MARCH 2017

29 MARCH 2017
Total Entrance/Exit Distribution
AM Peak Hour (8:00 - 9:00 AM)

<table>
<thead>
<tr>
<th>Location</th>
<th>Pedestrians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dartmouth Street</td>
<td>3,569</td>
</tr>
<tr>
<td>Copley Underpass</td>
<td>1,383</td>
</tr>
<tr>
<td><strong>Total Dartmouth Street</strong></td>
<td><strong>4,952</strong></td>
</tr>
<tr>
<td>Clarendon Street</td>
<td>1,573</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,525</strong></td>
</tr>
</tbody>
</table>

Note: Excludes users of Clarendon Street underpass (Exit Only)
Total Entrance/Exit Distribution
PM Peak Hour (4:45 - 5:45 PM)

<table>
<thead>
<tr>
<th>Location</th>
<th>Pedestrians</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dartmouth Street</td>
<td>3,512</td>
<td>55%</td>
</tr>
<tr>
<td>Copley Underpass</td>
<td>658</td>
<td>10%</td>
</tr>
<tr>
<td>Total Dartmouth Street</td>
<td>4,170</td>
<td>65%</td>
</tr>
<tr>
<td>Clarendon Street</td>
<td>2,243</td>
<td>35%</td>
</tr>
<tr>
<td>Total</td>
<td>6,413</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: Excludes users of Clarendon Street underpass (Exit Only)
Dartmouth Street Station Doors

**Existing Entrance/Exit Distributions**

- **Exit**
  - 1,621 (603)
  - 357 (1,295)
  - 1,102 (271)
  - 193 (890)
  - 164 (405)
  - 357 (1,295)
  - 1,102 (271)
  - 193 (890)
  - 164 (405)

- **Enter**
  - 1,416 (410)
  - 242 (977)

**AM Peak Hour**

**PM Peak Hour**
## Pedestrian Level of Service

<table>
<thead>
<tr>
<th>HCM 2010 Walkway LOS</th>
<th>Average Pedestrian Space (ft²/ped)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>B</td>
<td>40 – 60</td>
</tr>
<tr>
<td>C</td>
<td>24 – 40</td>
</tr>
<tr>
<td>D</td>
<td>15 – 24</td>
</tr>
<tr>
<td>E</td>
<td>8 – 15</td>
</tr>
<tr>
<td>F</td>
<td>≤ 8</td>
</tr>
</tbody>
</table>

**Dartmouth Street East Sidewalk** *(between Stuart Street and Station)*  
**HCM 2010 Pedestrian Spacing Analysis**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Existing Pedestrian Flow Rate (ped/hr)</th>
<th>Existing Pedestrian Spacing (ft²/ped)</th>
<th>Future¹ Pedestrian Spacing (ft²/ped)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Hour</td>
<td>1,978</td>
<td>127 (LOS A)</td>
<td>106 (LOS A)</td>
</tr>
<tr>
<td>Peak 15-Minute</td>
<td>2,280</td>
<td>110 (LOS A)</td>
<td>92 (LOS A)</td>
</tr>
<tr>
<td>Peak 5-Minute</td>
<td>4,520</td>
<td>55 (LOS B)</td>
<td>45 (LOS B)</td>
</tr>
</tbody>
</table>

¹ Future condition assumes 20% pedestrian growth  
Note: AM volumes used due to higher pedestrian volumes
Notes:

1. Copley Underpass counts were collected March 2016.
2. Dartmouth Street crosswalk counts were collected January 2017 when Copley Underpass was closed due to construction.
3. Dartmouth crosswalk counts include J-Walkers observed within the shaded area.

Exit
Enter

Dartmouth Street Crosswalk
Existing Entrance/Exit Distributions

AM Peak Hour
(PM Peak Hour)
CLARENDON STREET
CLARENDON STREET EXISTING CONDITION

12’ PEDESTRIAN ZONE

29 MARCH 2017
CLARENDON STREET EXISTING CONDITIONS

16’ PEDESTRIAN ZONE

29 MARCH 2017
CLARENDON STREET SECTION AT GARAGE

CLARENDON STREET

30'

3.5'

5'

15'

15'

6'

STEP-OFF ZONE

STREETScape & FURNISHINGS

PEDESTRIAN ZONE

PLANTING

GARAGE

29 March 2017
## Pedestrian Level of Service

<table>
<thead>
<tr>
<th>HCM 2010 Walkway LOS</th>
<th>Average Pedestrian Space $(\text{ft}^2/\text{ped})$</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>B</td>
<td>40 – 60</td>
</tr>
<tr>
<td>C</td>
<td>24 – 40</td>
</tr>
<tr>
<td>D</td>
<td>15 – 24</td>
</tr>
<tr>
<td>E</td>
<td>8 – 15</td>
</tr>
<tr>
<td>F</td>
<td>$\leq 8$</td>
</tr>
</tbody>
</table>

## Clarendon Street West Sidewalk (between Station and Stanhope)

### HCM 2010 Pedestrian Spacing Analysis

<table>
<thead>
<tr>
<th>Interval</th>
<th>Existing Pedestrian Flow Rate (ped/hr)</th>
<th>Existing Pedestrian Spacing (ft²/ped)</th>
<th>Future¹ Pedestrian Spacing (ft²/ped)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Hour</td>
<td>1,771</td>
<td>85 (LOS A)</td>
<td>74 (LOS A)</td>
</tr>
<tr>
<td>Peak 15-Minute</td>
<td>2,192</td>
<td>68 (LOS A)</td>
<td>60 (LOS A)</td>
</tr>
<tr>
<td>Peak 5-Minute</td>
<td>4,384</td>
<td>33 (LOS C)</td>
<td>29 (LOS C)</td>
</tr>
</tbody>
</table>

¹ Future condition assumes 20% pedestrian growth
Note: PM volumes used due to higher pedestrian volumes
NEXT STEPS + CONTACT INFORMATION

- Public Meeting • April 04, 2017
- CAC #11 • April 06, 2017
- BCDC Subcommittee Meeting • April 11, 2017 *(Tentative)*
- MEPA DEIR Comment Period Closes • March 10 April 18, 2017
- BPDA DPIR Comment Period Closes • April 18, 2017

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THANK YOU!
APPENDIX
Figure 4.21

Project Site

Source: Preferred Option provided by Peter Paravalos of the MBTA via email to Melissa Schrock on September 30, 2016

Existing Inbound Route
Existing Outbound Route
Proposed Inbound Route
Proposed Outbound Route

0 150 300 Feet

Existing IB/OB Bus Way
Back Bay Station
Prudential Station
Copley Station

Source: Google Maps, Inc., OpenStreetMap, USGS, NOAA, NRCAN, GeoBase, IGN, Kartallies NL, Ordnance Survey, EM Japan, MEIT, ETL China (Hong Kong), iSmaller, Mapbox, © OpenStreetMap contributors and the GIS User Community

BUS 39 REROUTING
Pelli Clarke Pelli Architects

29 MARCH 2017
BUS 39 RE-ROUTING

• Preferred Re-Routing Offers The Largest Travel Time Savings
• Will Improve Headways, Reduce Passenger Wait Time, And Increase Ridership
• Considered Holistically With Other Transit Improvements Delivered With Station East Parcel
  • New Station Entrance and Plaza on Clarendon Street
  • New Stair And Elevator To Orange Line
  • Potential New Elevators To Commuter Rail
  • Bus Shelter Improvements