

Section 106 Consulting Parties Meeting #8 for the Washington Union Station (WUS) Expansion Project

June 30, 2020

Meeting Instructions:

Ways to Participate in Today's Meeting:

- Webex platform (using computer audio or dial-in audio)
- Dial-in only

There will be several opportunities for questions and discussion. If you wish to comment, or ask a question:

1. If participating by Webex platform:
 - Click on the “raise hand” feature
 - We will notify you when it is your turn to speak
2. If participating by phone, we will invite you to speak during discussion periods.

REMINDER: Please mute yourself when not speaking.

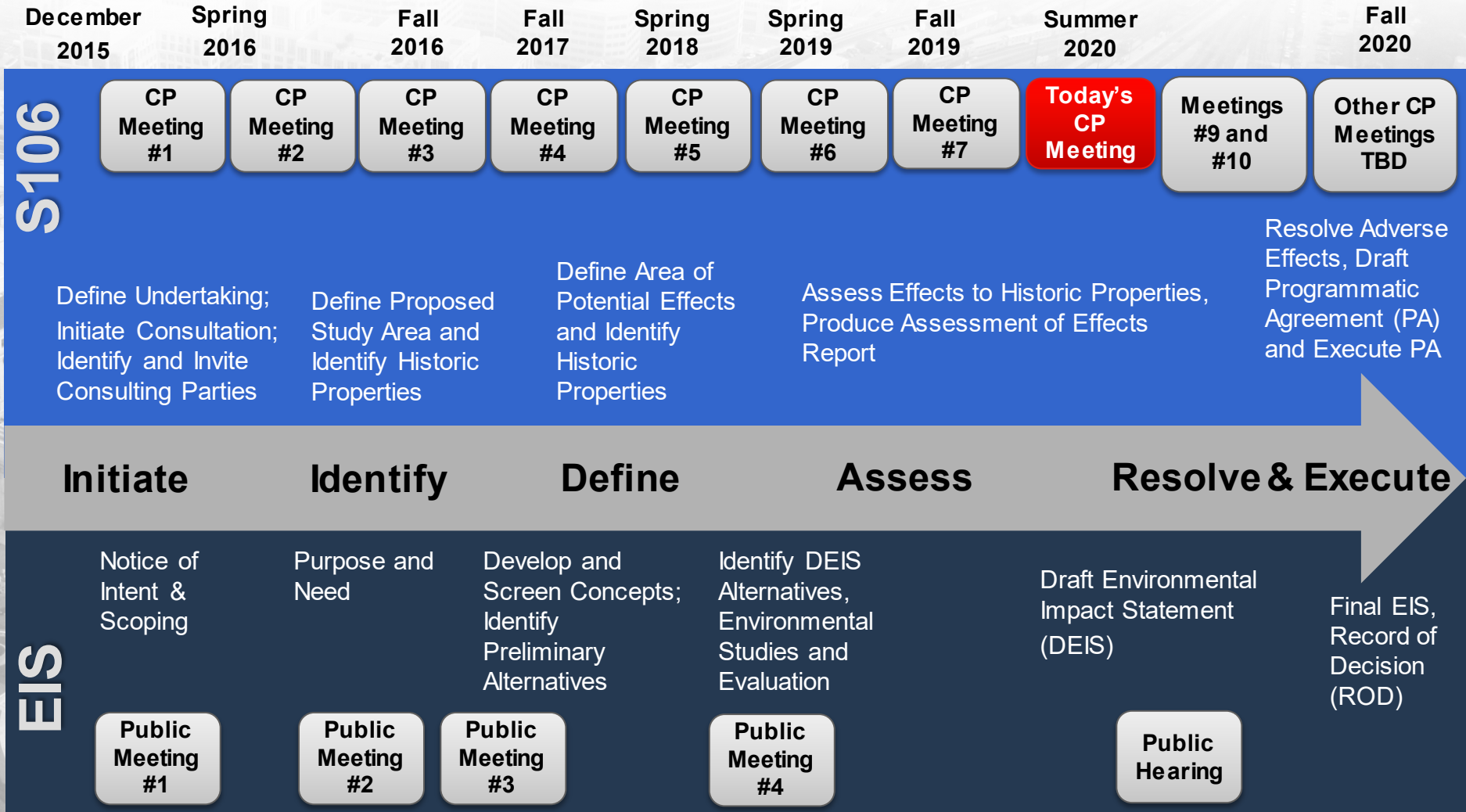
Meeting Purpose:

1. Aid Consulting Party review of the Draft Assessment of Effects (AOE) Report by:

- Discussing the methodology used to conduct the traffic analysis for the Draft Environmental Impact Statement (DEIS)
- Explaining how the traffic analysis informed the Assessment of Effects to historic properties

2. Questions, comments, and open discussion

NEPA & Section 106 Process to Date



Opportunities for Comment on Draft AOE and DEIS during the Public Review Period

Notice of
Availability
June 12, 2020

100+
Days

End of Review
Period
September 28,
2020

Comment Opportunities at Meetings

**CP Meeting #8
June 30, 2020**

**Public Hearing on
July 14, 2020
(Open to Public)**

**CP Meetings #9
and #10 TBD**

Comment Opportunities Anytime

Email a comment to:

info@wusstationexpansion.com

Write and mail a comment to:

David Valenstein
Office of Railroad Policy and
Development
USDOT Federal Railroad
Administration (MS-20 RPD-10)
1200 New Jersey Avenue, SE
Washington, DC 20590

Section 106 and DEIS Comparison

	Section 106	DEIS
Impact/Effect Categories	Effects may be adverse or non-adverse	Impacts may be beneficial or adverse and negligible, minor, moderate, or major
How Impacts/Effects are Determined	Project is compared to existing conditions	Project is compared to the No-Action Alternative and existing conditions
Impacts/Effects	Adverse effects are found when the Project would alter any characteristics of a historic property that qualify it for the National Register in a manner that would diminish its integrity	Assessment of adverse impacts vary by impact analysis category

Traffic Analysis

Explanation of Methodology and
Approach as Conducted for the DEIS

Traffic Analysis in an Environmental Impact Statement

Why is a traffic analysis conducted?

- Determine impacts to traffic system
- Complement analysis of other transportation modes
- Inform evaluation of Air Quality and Noise & Vibration impacts

What goes into developing the traffic analysis for an EIS?

- Determine the existing conditions
- Estimate future increases in traffic levels using a model
- Evaluate the traffic conditions based on a set of measures of effectiveness (MOEs)
- Identify impacts to traffic system based on these results

Traffic Analysis in an Environmental Impact Statement

What is the basis of comparison for determining operational impacts?

- The operational analysis year is 2040
- All Action Alternatives are compared to the No-Action Alternative to determine impacts.
- A comparison to existing conditions is also provided.
- The No-Action Alternative represents the future condition in the absence of the Project.

Why is the analysis year 2040?

- Consistency with FRA's *NEC FUTURE* and regional plans
- Horizon year for Project implementation

Traffic Analysis in an Environmental Impact Statement

What MOEs does the DEIS evaluate? What do they tell us?

- *Level of Service*: A relative grade for traffic operations and delay (A-F)
- *Delay*: Additional travel time compared to free-flow, due to traffic congestion
- *Queue*: Length of line of vehicles waiting to pass through an intersection
- These MOEs help to explain the level of traffic congestion, including backups at key intersections during peak hours.

What are the MOE thresholds?

- *Level of Service*: Decrease to F
- *Delay*: Increase by 5 seconds
- *Queue*: Increase by 150 feet

Traffic Analysis in an Environmental Impact Statement

What are some examples of what the traffic analysis cannot tell us?

- How future changes in transportation may affect mobility
- What percentage of travelers may “bail out” as congestion worsens
- Whether cars may make illegal turns that are prohibited by existing access controls

Does the DEIS just evaluate vehicular traffic?

- The DEIS evaluates transportation impacts for intercity, transit, pedestrian, and bicycle modes, as well
- This meeting focuses on explaining the vehicular traffic analysis

Three-Step Analysis Approach

To estimate traffic impacts associated with the Project, FRA undertook a three-step process:

1. Estimate Trip Generation for all Alternatives
2. Identify the Area and Local Trip Distribution
3. Develop the Station Site Trip Distribution

Throughout the process, we worked with DDOT to refine traffic analysis assumptions, approaches, and strategies for mitigation.

Estimating Trip Generation

FRA estimated the total number of trips during AM and PM peak hours in 2040 and the mode splits of those trips for all Alternatives:

- Trips are generated by **transportation modes**, including:
 - Intercity rail and bus
 - Commuter rail
 - WMATA Metrorail
- Trips are also generated by **land uses** at the Station
- These trips are **assigned to different modes** based on reported data from service operators and in coordination with DDOT
- Peak-hour vehicular traffic is principally generated by intercity service, predominantly Amtrak, and also by land uses
 - Commuter rail and local transit are not substantial generators of vehicular traffic



Estimating Trip Generation

What is included in the analysis of the Existing Conditions and Alternatives?

**Existing Conditions
(2017)**

**Existing Traffic
Conditions**

**No-Action Alternative
(2040)**

**Background Traffic
Growth**

**Burnham Place
Traffic**

**DC Streetcar
Extensions/
H St Bridge**

**Growth in Station
Activity**

**Action Alternatives
(2040)**

**Background Traffic
Growth**

**Burnham Place
Traffic**

**DC Streetcar
Extensions/
H St Bridge**

**Larger Growth in
Station Activity**

**Federal Air-rights
Development**

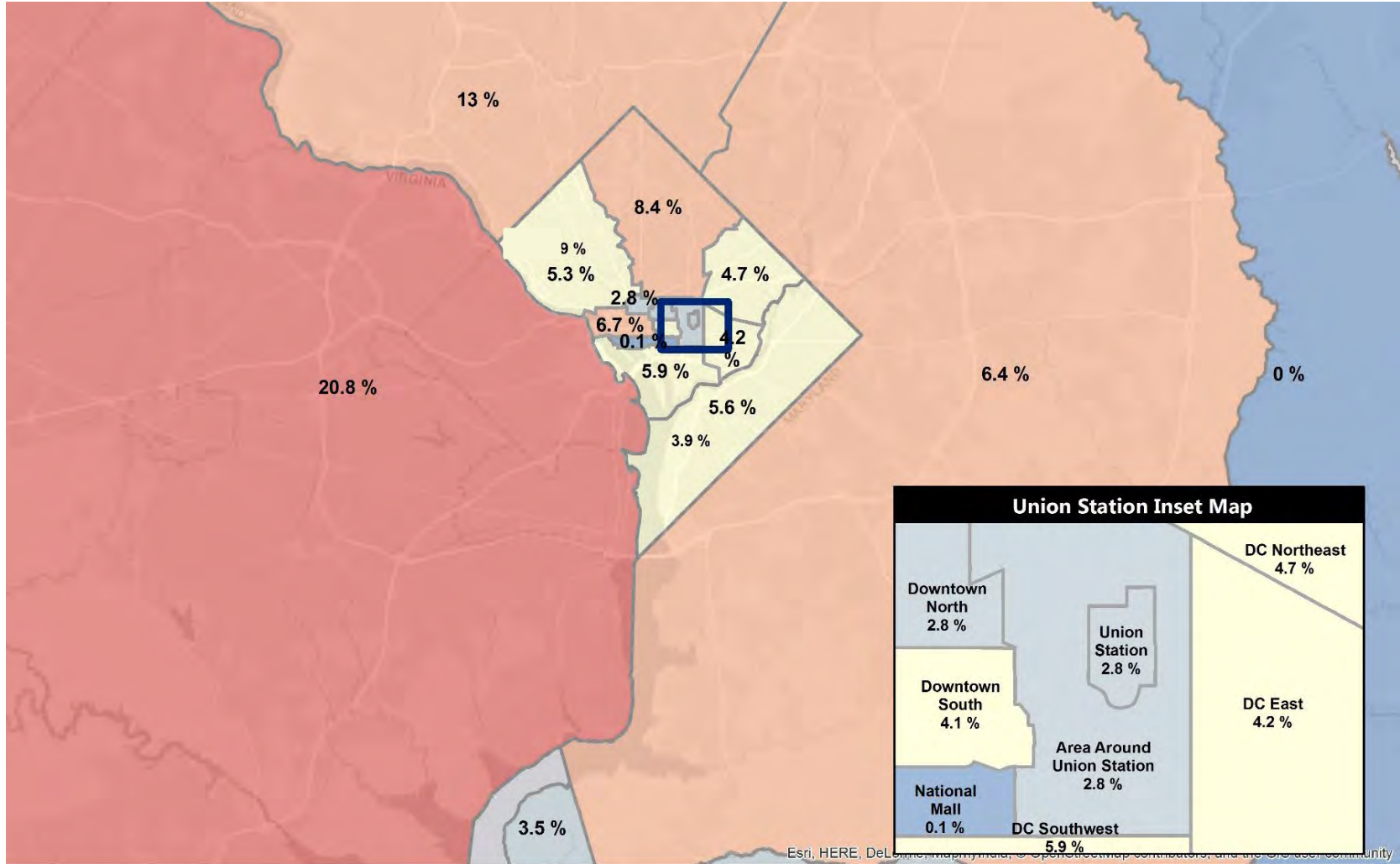
Area and Local Trip Distribution

With an understanding of the number of trips generated in the Alternative scenarios, FRA then distributed those trips through the broader area street network.

- FRA used geospatial tools to distribute trips to different roadways based on:
 - Regional model information about **origin of travelers** to WUS
 - Real-world traffic data about **traveler route choice**
- Based on this analysis, FRA estimates that approximately **70%** of WUS-related traffic is headed to and from the west during peak hours



Area Trip Distribution



**Union Station
Regional Trips by
Percentage of Total Trips**

- <1% of Vehicles to/from Station
- 1.1-4% of Vehicles to/from Station
- 4.1-6% of Vehicles to/from Station
- 6.1-15% of Vehicles to/from Station
- 15.1-21% of Vehicles to/from Station



Traffic Study Area



Station Site Trip Distribution




Vehicular trips are distributed around the Station based on the location of different station activities.

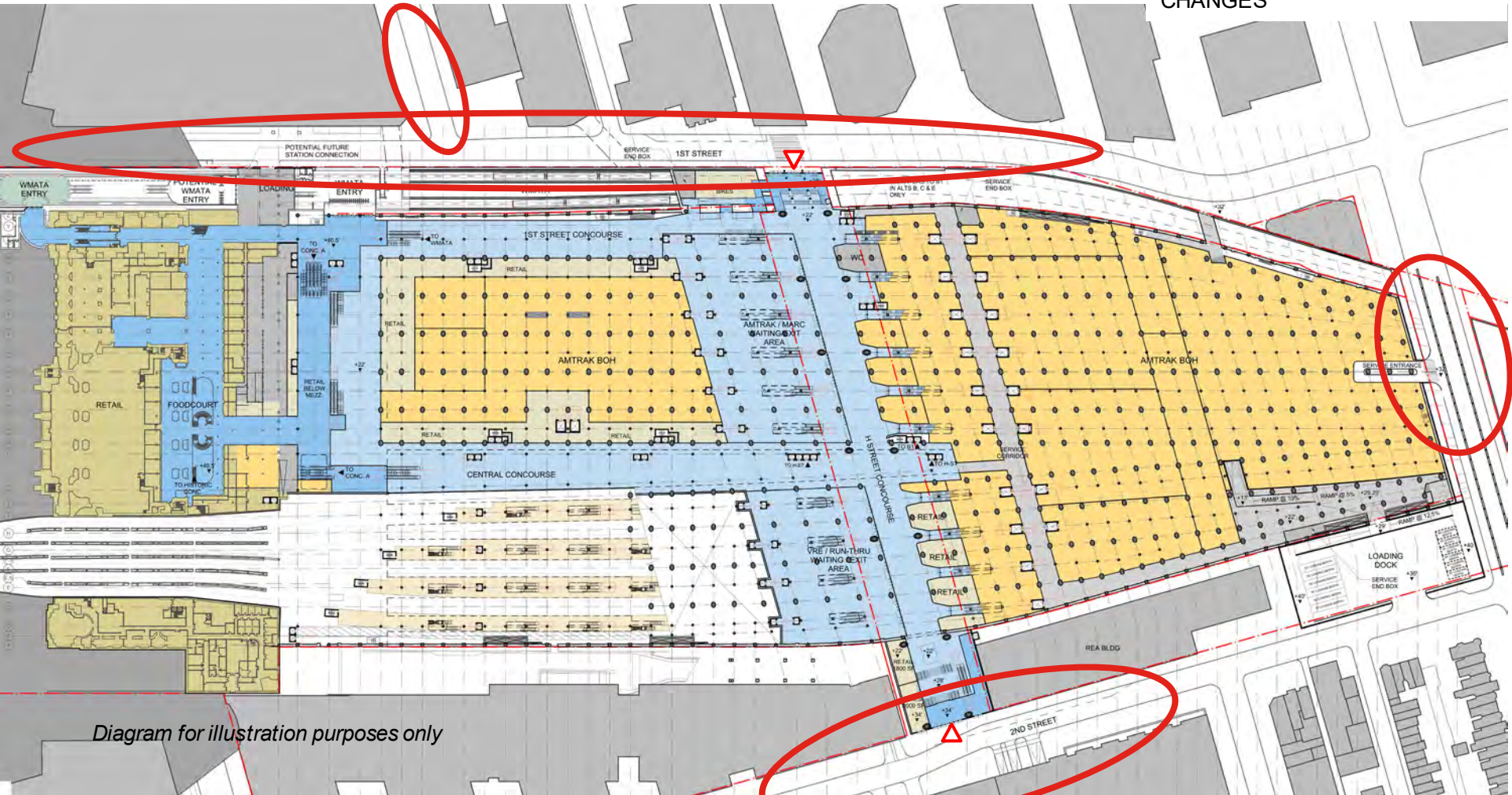
- **Pick-up/drop-off (PUDO) areas** provided at:
 - Historic Station Entrance
 - First Street at H Street Concourse
 - 2nd Street at H Street Concourse
 - H Street deck level
 - Below-ground, accessed from K Street between First and 2nd Street NE (only Alternatives B, C, D, and E)
- **Above-ground parking** accessed from H Street
 - Alternatives A, C, D, and A-C
- **Below-ground parking** accessed from K Street
 - Alternatives B, C, D, and E
- **Buses** access facility on H Street
- **Loading docks** located on First Street, 2nd Street, and H Street



All Alternatives - Concourses

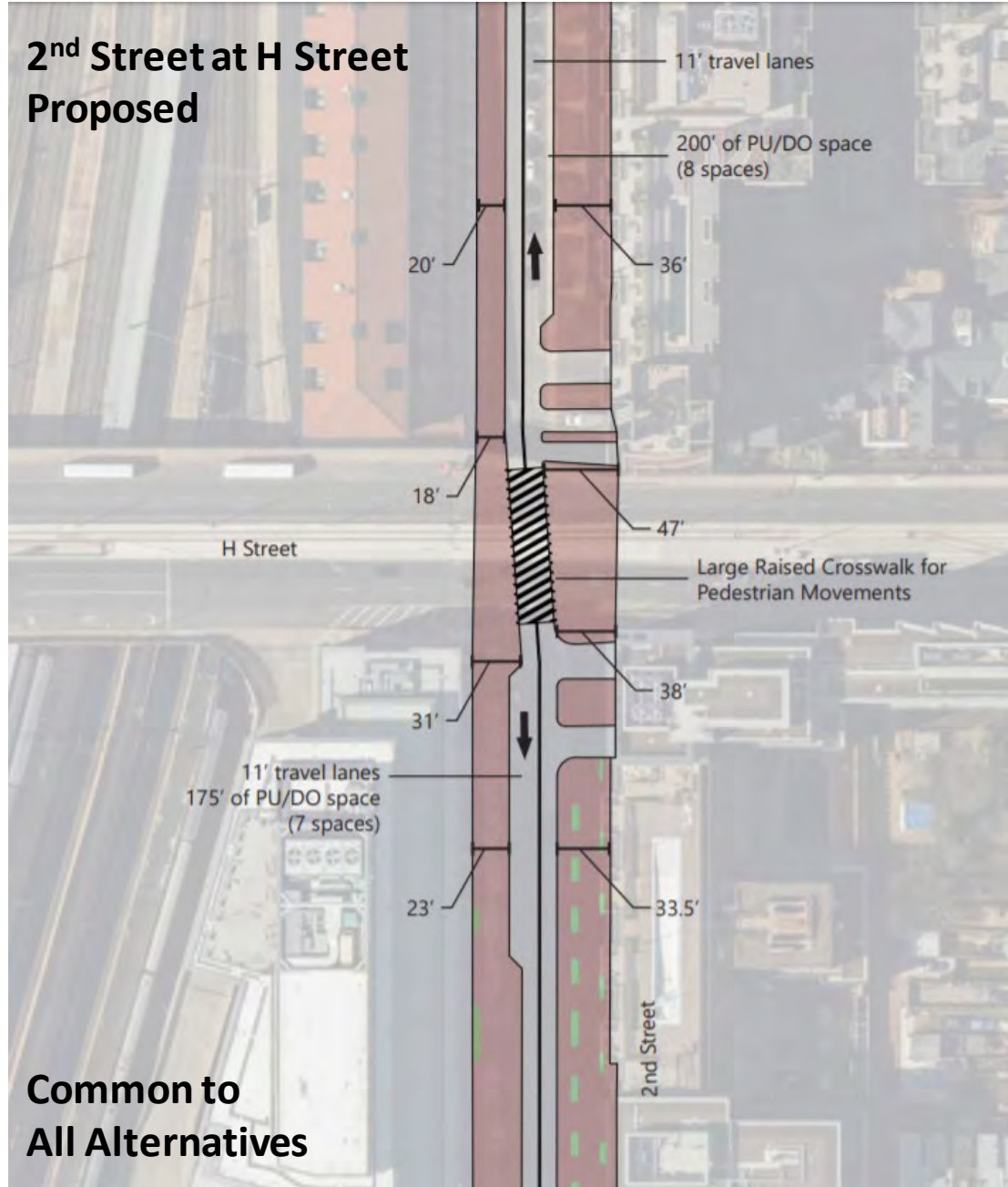
LOWER CONCOURSE LEVEL PLAN

-  CONCOURSES
-  BACK OF HOUSE
-  AREAS OF PROPOSED ROAD CHANGES



▲ SEP Pedestrian Entrance

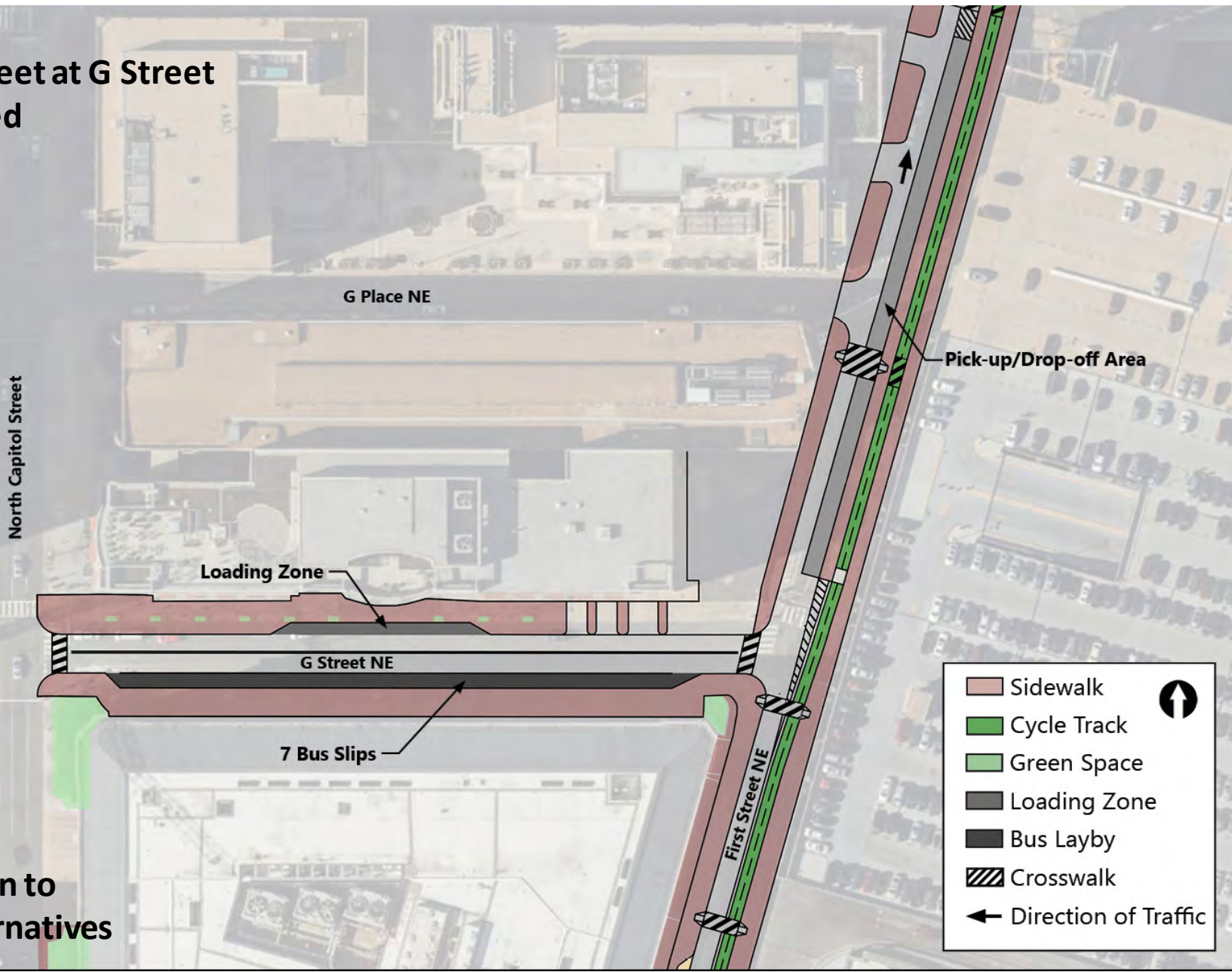
2nd Street at H Street Proposed



**Common to
All Alternatives**



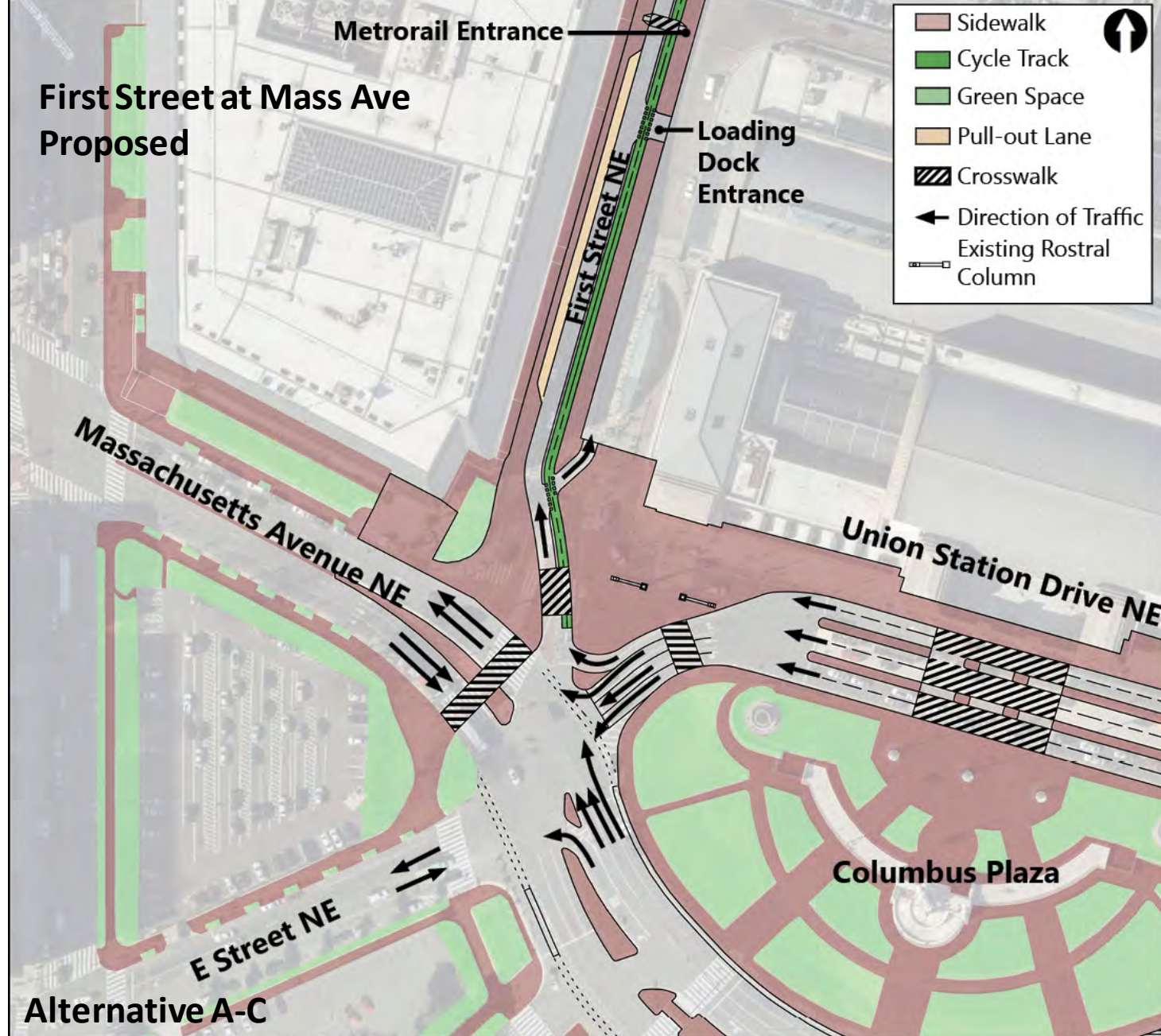
First Street at G Street Proposed



Common to
All Alternatives

First Street at Mass Ave Proposed

Alternative A-C



Metrail Entrance

Loading Dock Entrance

First Street NE

Massachusetts Avenue NE

Union Station Drive NE

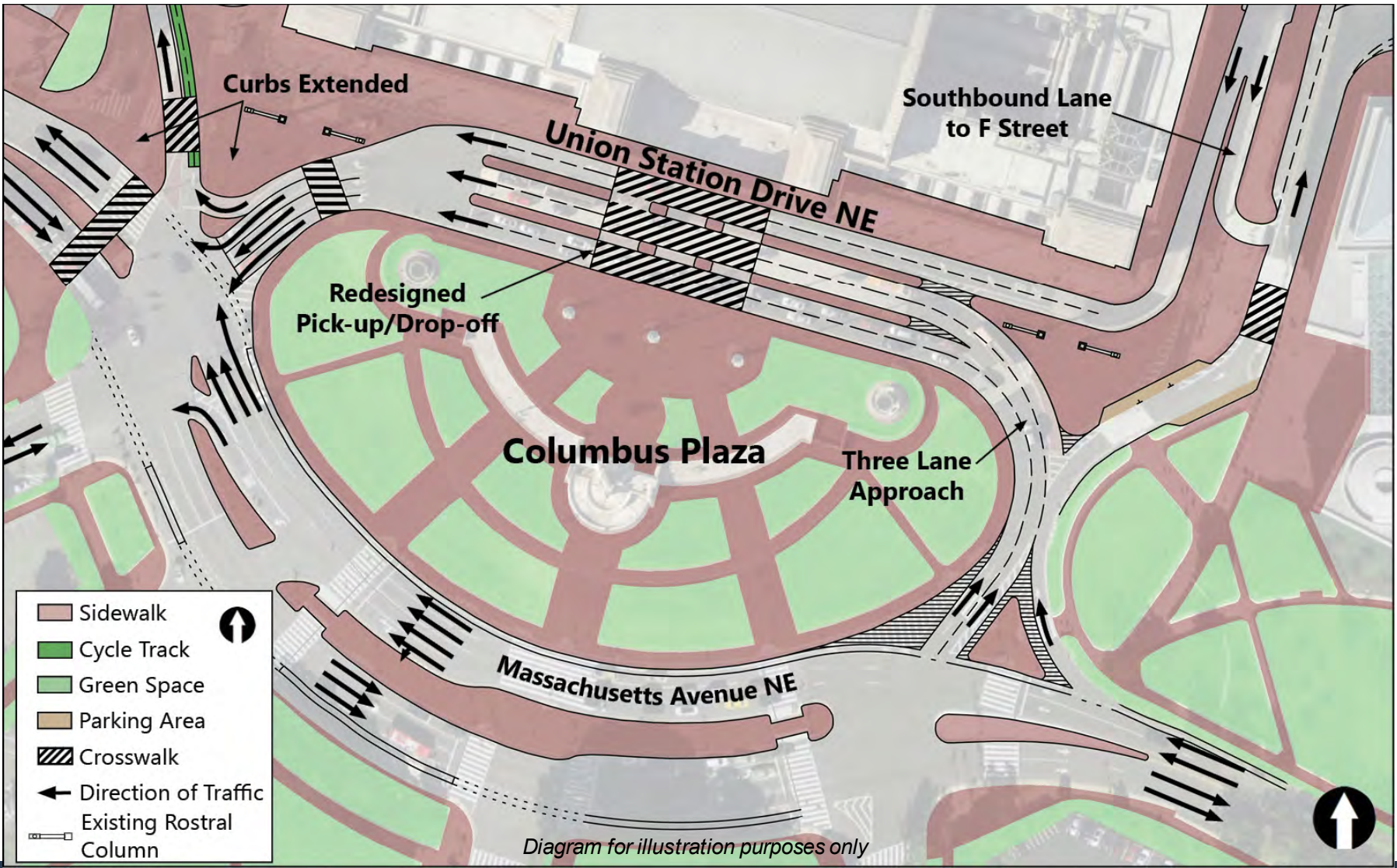
E Street NE

Columbus Plaza

- Sidewalk
- Cycle Track
- Green Space
- Pull-out Lane
- Crosswalk
- Direction of Traffic
- Existing Rostral Column
- North Arrow

All Alternatives – Front of Station

CIRCULATION AND ACCESS DIAGRAM FOR FRONT OF STATION



Alternatives A and B

WUS Movements

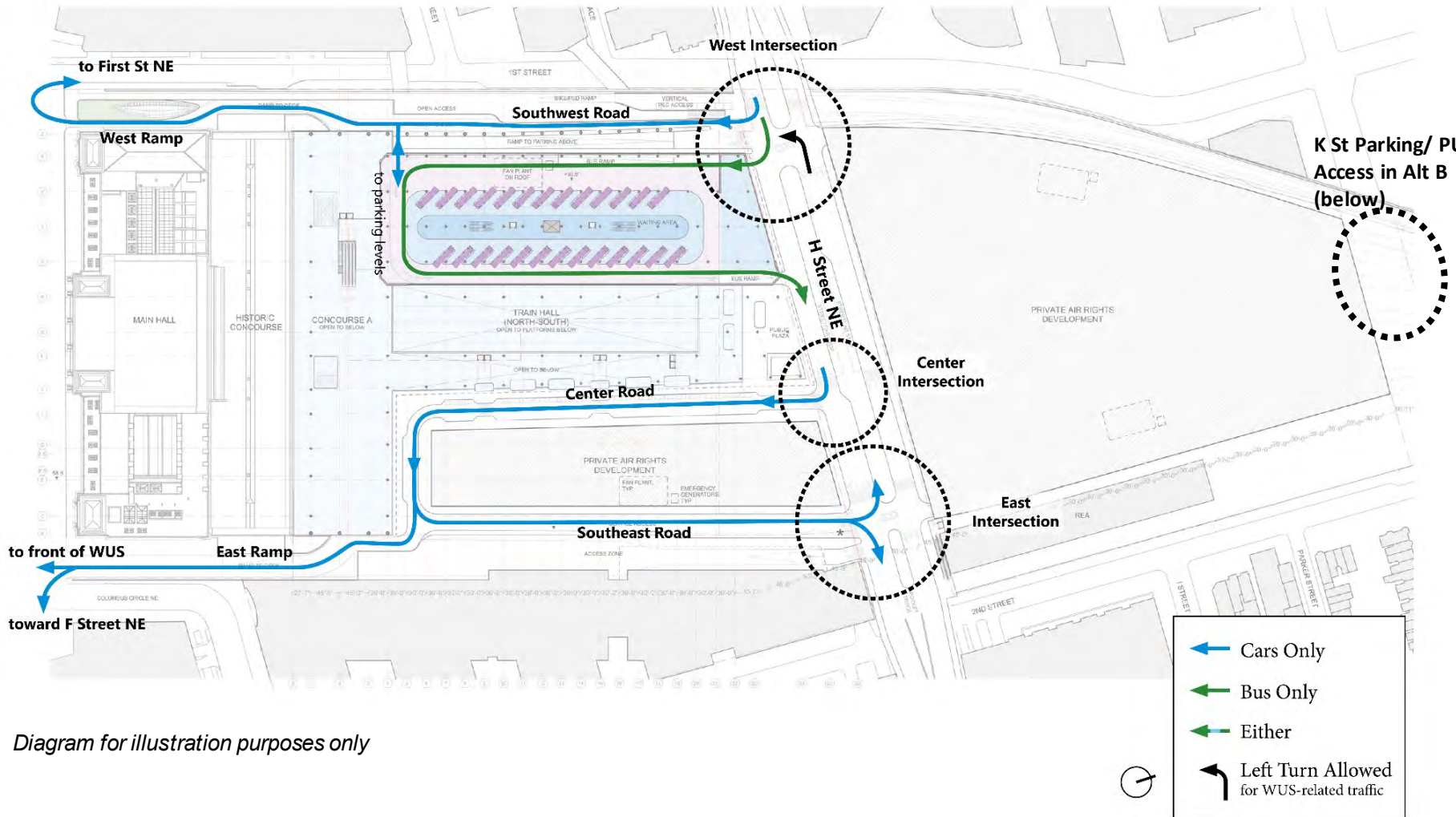
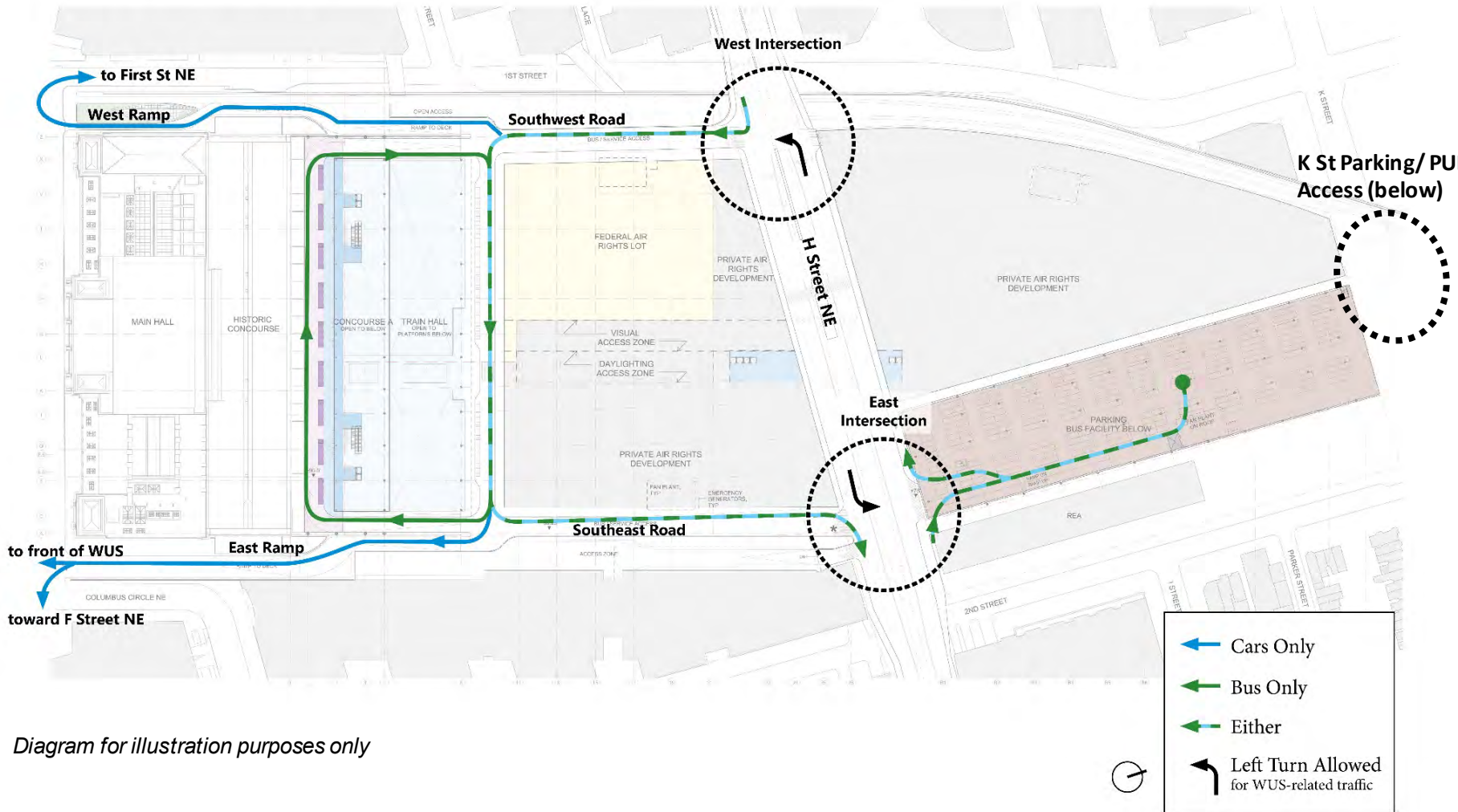


Diagram for illustration purposes only

Alternative C East WUS Movements



Alternative A-C WUS Movements

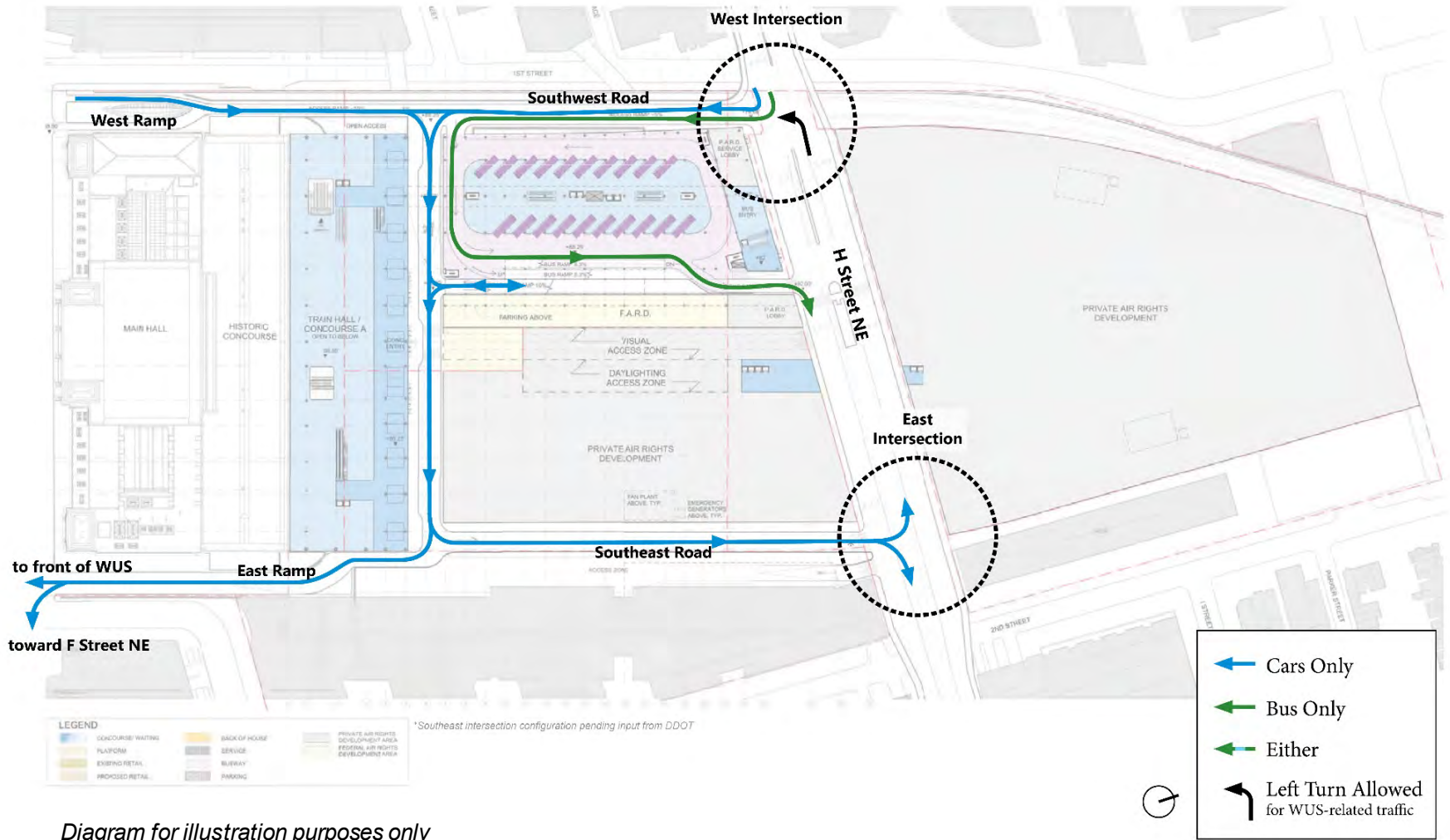


Diagram for illustration purposes only

Coordination and Refinement with DDOT

FRA has met regularly with DDOT since 2016 to develop and refine traffic analysis, including:

- Review of traffic analysis assumptions
- Coordination with H Street Bridge and Streetcar teams
- Development of a one-way circulation pattern on H Street level to reduce traffic impacts
- Identification of potential EIS mitigation and minimization strategies to address impacts



Key Findings



Key EIS Traffic Findings Across Alternatives

- Most study intersections operate at acceptable levels
- The **principal source** of station-related traffic is generated by pick-up/drop-off activity
- Certain intersections are already “failing” in the No-Action Alternative
- In the Action Alternatives, the congestion is most severe:
 - Along North Capitol Street
 - At H Street and 3rd Street NE
- Congestion on the H Street deck level varies across the alternatives. Alternative A-C best manages traffic conditions on H Street NE
- **EIS mitigation measures required** to address levels of traffic congestion

Example Intersection Impacts


Intersection + MOEs		Existing Conditions	No-Action Alternative	Alternative A	Alternative B	Alternative C East	Alternative C West	Alternative D	Alternative E	Alternative A-C
#9 H Street / 3 rd Street NE	Level of Service (LOS) AM / PM	E/C	F/C	F/D	F/D	F/F	F/D	F/C	F/D	F/D
	Increase in queue >150 feet? AM / PM		Yes / Yes	Yes / No	Yes / No	Yes / Yes	No / No	No / No	Yes / No	Yes / No
	Delay increase (>5 seconds?) AM / PM		44.7 / 7.2	84.2 / 12.4	127.8 / <5	59.1 / 79.0	64.5 / <5	46.7 / <5	64.1 / <5	56.5 / 9.8
#18 F Street / 2 nd Street NE	Level of Service (LOS) AM / PM	B/B	C/C	E/D	E/C	E/D	E/D	E/D	E/D	E/D
	Increase in queue >150 feet? AM / PM		No / No	No / No	No / No	No / No	No / No	No / No	No / No	No / No
	Delay increase (>5 seconds?) AM / PM		4.4 / 1.9	22.6 / 10.5	20.9 / 9.3	22.1 / 10.1	22.3 / 10.1	22.1 / 10.1	23.3 / 10.4	22.3 / 11.1

- **Bold red text** indicates when the Measure of Effectiveness (MOE) threshold is exceeded.
- Action Alternatives are compared against No-Action Alternative to determine impact. No-Action Alternative is compared against Existing Conditions.
- Impact to queue shown if one “lane-group” exceeds threshold.

EIS Traffic Analysis Guide

- **Chapter 3, *Alternatives*.** Description of alternatives, including transportation elements.
- **Chapter 4, *Affected Environment*.** Section 5 describes transportation existing conditions.
 - **Appendix C2, Section 5.** Detailed affected environment technical report transportation section.
- **Chapter 5, *Environmental Consequences*.** Section 5 describes transportation impacts for No-Action and Action Alternatives.
 - **Appendix C3, Section 5.** Detailed environmental consequences technical report transportation section.
- **Chapter 7, *Mitigations*.** Chapter 7 summarizes potential EIS mitigations for transportation impacts.

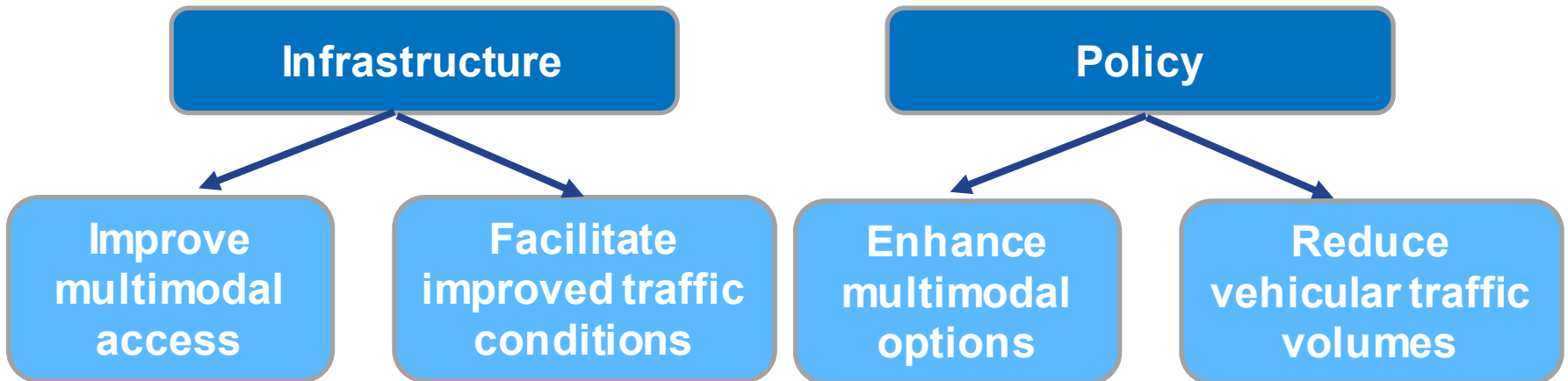




Methodology for Traffic-Related EIS Mitigation, Minimization, and Avoidance

Methodology for EIS Mitigation Approaches

- Continued coordination with DDOT, other District agencies, USRC, and Amtrak will be needed to implement EIS mitigation measures.
- Proposed EIS traffic mitigations fall into two categories:



Questions on Traffic Analysis



Break – 10 Minutes

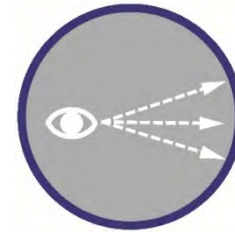


An aerial photograph of a city, likely New York City, showing a mix of historic and modern architecture. The Grand Central Terminal is prominent in the lower-left quadrant, with its iconic vaulted roof and classical facade. To its right and in the background, there are several modern, multi-story office buildings with flat roofs and large windows. The image is overlaid with a semi-transparent blue filter. The text is positioned in the upper right area of the image.

Effects of Traffic to Historic Properties

Methodology for Assessing Effects
Related to Section 106

Overview



The initial Draft AOE (April 2019) considered **physical**, **visual**, **noise** and **vibration** effects (including those from traffic) of the Project on historic properties.

Based on CP comments, the revised Draft AOE (June 2020) considers other effects from **traffic** (in addition to noise and vibration):

The revised Draft AOE Report recognizes that increased traffic volumes have the potential to result in:

- Visual effects
- Conflicts with pedestrians and bicyclists
- Disturbances impacting access to properties

All of which may diminish the integrity from which the significance of a property is derived, especially integrity of setting, feeling, and association.

Use of Traffic Analysis for Section 106 Assessment

The DEIS traffic analysis was used to assess effects to historic properties. The traffic analysis indicated which roads and intersections would experience an increase in traffic, modeling the projected intersection activity, and estimated the level of service (LOS), queuing, and increases in average delay (seconds per vehicle), in the Study Area.



Methodology to Assess Effects Generated by Traffic

Step 1

Identify historic properties located near thoroughfares that would experience an increase in traffic, according to the traffic analysis



Step 2

Qualitative analysis to consider if increase in traffic would change the existing urban environment



Step 3

Determine whether a change in setting from traffic would diminish a historic property's integrity from which the significance of the property is derived

Methodology to Assess Effects Generated by Traffic

Step 1: Identify historic properties located near thoroughfares that would see an increase in traffic, according to the traffic analysis

Traffic modeling indicates that increases would largely be concentrated along a few major thoroughfares, including North Capitol Street, H Street as well as, to a lesser extent, K Street and Massachusetts Avenue.

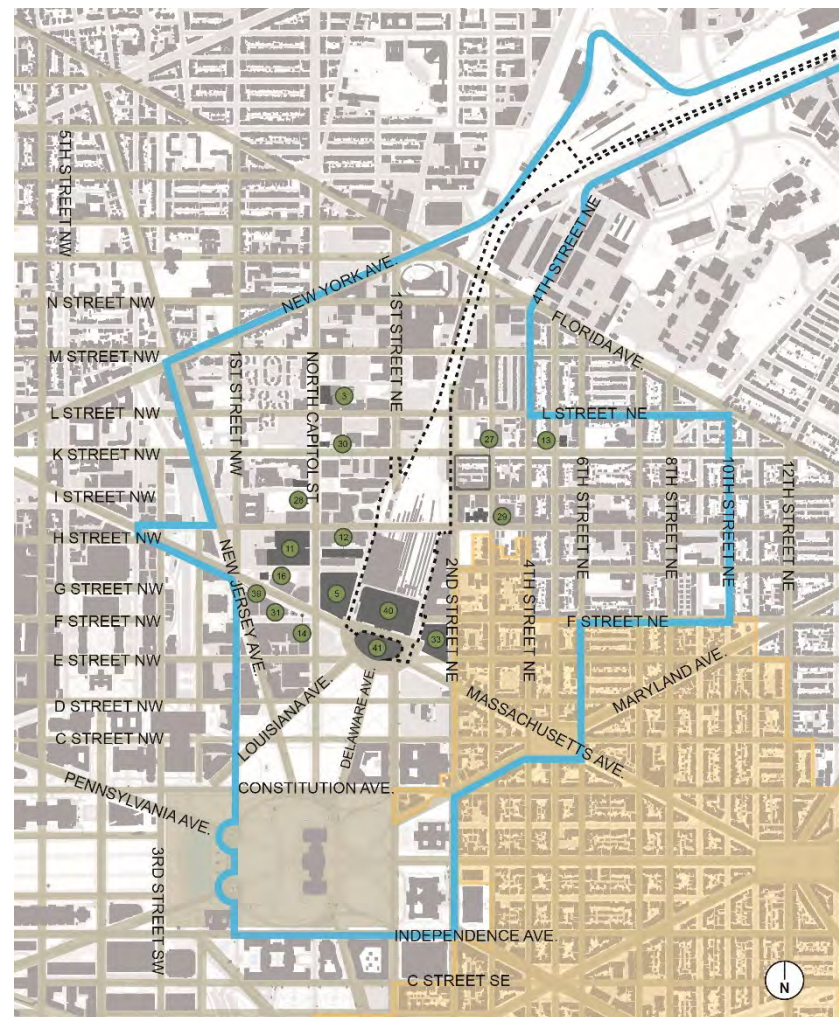


Traffic Study Area

Methodology to Assess Effects Generated by Traffic

Eighteen historic properties are located along or close to these traffic thoroughfares:

- C&P Telephone Company Warehouse
- City Post Office/Postal Museum
- GPO
- GPO Warehouse No.4
- Hayes School
- Holodomor Ukrainian Holocaust Memorial
- Joseph Gales School
- Square 750
- St. Aloysius Catholic Church
- St. Joseph's Home
- St. Phillip's Baptist Church
- SunTrust Bank (Former Childs Restaurant)
- Thurgood Marshall Federal Judiciary Building
- Victims of Communism Memorial
- WUS
- Columbus Circle
- L'Enfant-McMillan Plan
- Capitol Hill Historic District



Historic properties along thoroughfares

Methodology to Assess Effects Generated by Traffic

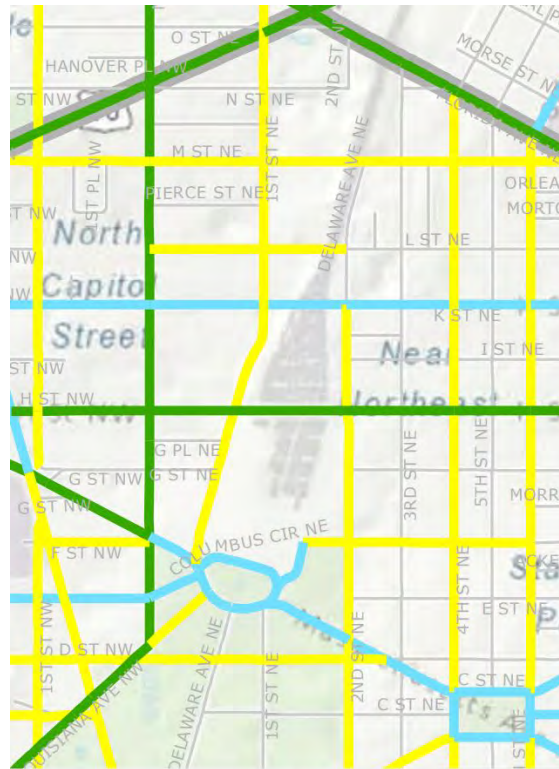
Step 2: Qualitative analysis to consider if increase in traffic would change the existing urban environment.



H Street NE



3rd and G Streets NE



D.C. Street Classification Map

Key

- Interstate
- Other Freeway and Expressway
- Principal Arterial
- Minor Arterial
- Collector

Methodology to Assess Effects Generated by Traffic

Step 3: Determine whether a change in the existing urban environment from increased traffic would diminish a historic property's integrity from which the significance of the property is derived, especially integrity of:

- Setting – physical environment of a historic property
- Feeling – expression of the aesthetic or historic sense of a particular period of time
- Association – direct link between an important historic event (or person) and the property. For association, a period appearance or setting is desirable; integrity of setting, location, design, workmanship, materials and feeling combine to convey integrity of association.

For more information refer to NPS National Register Bulletin *How to Apply the National Register Criteria for Evaluation*

Conclusions

Effects from increased traffic would vary and would depend on the existing urban environments in addition to the property type and characteristics that determine the significance of a historic property (NR criteria).

Many properties, including the City Post Office and St. Aloysius Church exist within a traffic-heavy urban environment. As individual properties, their integrity of setting, feeling, and association is less likely to be diminished by the effects of increased traffic. FRA determined that traffic effects would not cause an adverse effect to these properties.



City Post Office, Massachusetts Avenue NW



St. Aloysius Church, North Capitol Street

Conclusions Continued

The Capitol Hill Historic District exists within a quieter, mostly residential urban environment with less traffic. As a historic district, the integrity of setting, feeling, and association between the contributing buildings is especially important and sensitive to effects from increased traffic.

The Draft AOE Report concludes that cumulatively, noise and vibration effects – caused by the removal of excavation soils during construction – and potential effects from increased traffic during project operation have the potential to adversely affect the integrity of setting and feeling within the historic district. The report determines that all Action Alternatives may have a potential adverse effect on the Capitol Hill Historic District.



Capitol Hill Historic District, 3rd and F Streets NE

Discussion



Upcoming Consultation Schedule

Step 3:
Assess
Effects

Summer 2020:

- **Consulting Party Meeting #9**
 - TBD
 - Project Alternatives Discussion
- **Consulting Party Meeting #10**
 - TBD
 - Discuss findings of revised Draft AOE Report
- **Additional Consulting Party meetings as warranted**



THANK YOU

FRA encourages submission of comments on the DEIS and other documents electronically.

**Please email comments by
September 28, 2020 to:
info@wusstationexpansion.com**

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