April 1, 2021

Welcome! Thank you for joining us.

We will be getting started shortly…

Connecticut Avenue NW

Reversible Lane Operations and Safety Study

Public Meeting No. 1

GOVERNMENT OF THE DISTRICT OF COLUMBIA
MURIEL BOWSER, MAYOR

WEBEX LOGISTICS

Welcome to our Virtual Public Meeting!

WEBEX LOGISTICS

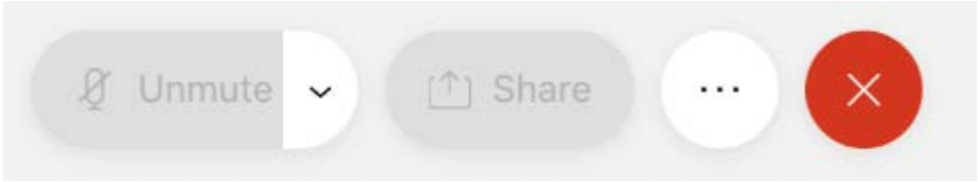
- We're all learning how to conduct virtual public meetings in this format, so please be patient with us.
- To begin, we will review some basic controls to help you participate on this platform.

Please Note: This is an open meeting and as required by DC Code 2-578, this meeting is being recorded, and the recording will be made available to the public.

  - The video file (with both audio and video) will be shared on the project team's website at *https://ddot.dc.gov/page/connecticut-avenue-nw-reversible-lane-safety-and-operations-study* within 14 business days after the final meeting has ended.
  - If you do not wish to have your voice recorded, please do not ask to speak. You may enter any questions or comments in the Q&A, which we will review in the next few slides.

If you need technical support during this meeting, please call **202-705-7859**.

Using Webex – Audio & Video



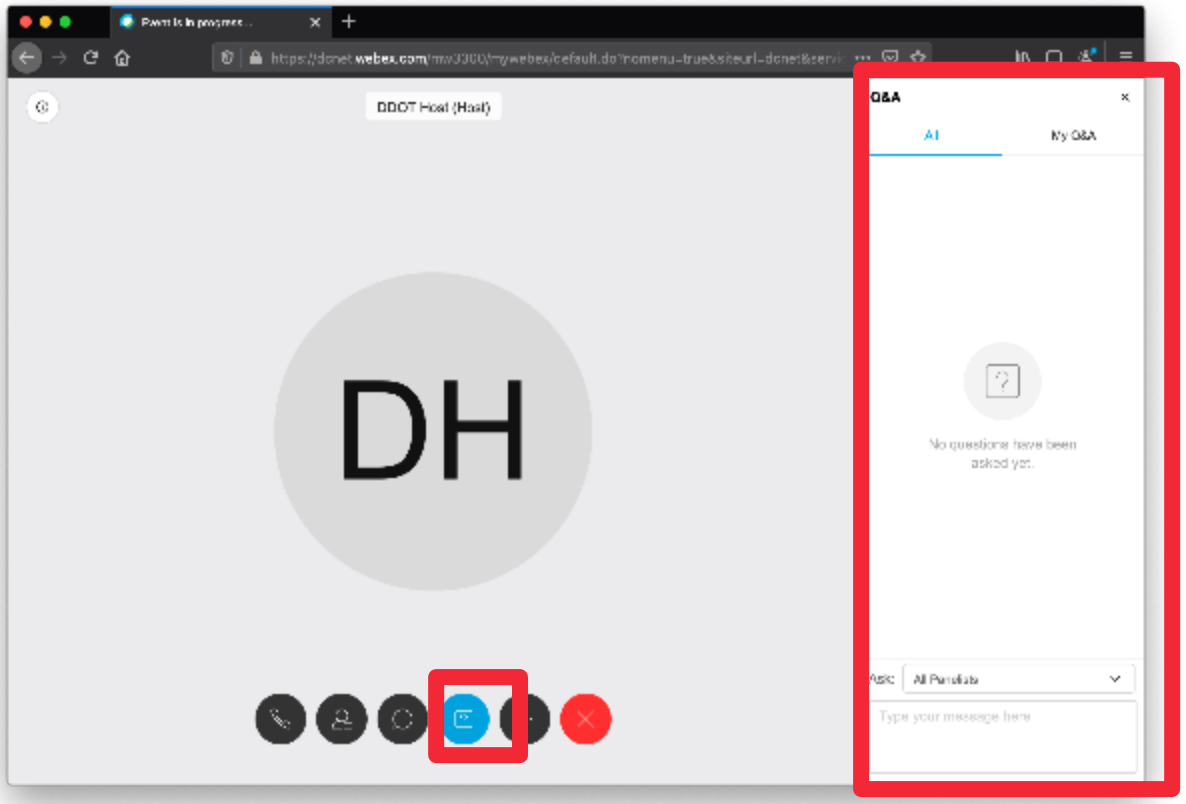
Audio/Muting

- Everyone is on mute. You cannot unmute yourself. We can unmute you during the Q&A and Comment period. This helps ensure the meeting runs smoothly and there are no auditory disruptions during the presentation.
- To request to speak, you will need to use the **Raise Hand** feature, which we will cover shortly.

Video

- Your video camera is off by default and you will not be able to share video. To reduce the bandwidth of the meeting, only the Project Team will be sharing video to improve the overall meeting quality for all participants.

Using Webex – Q&A via Browser



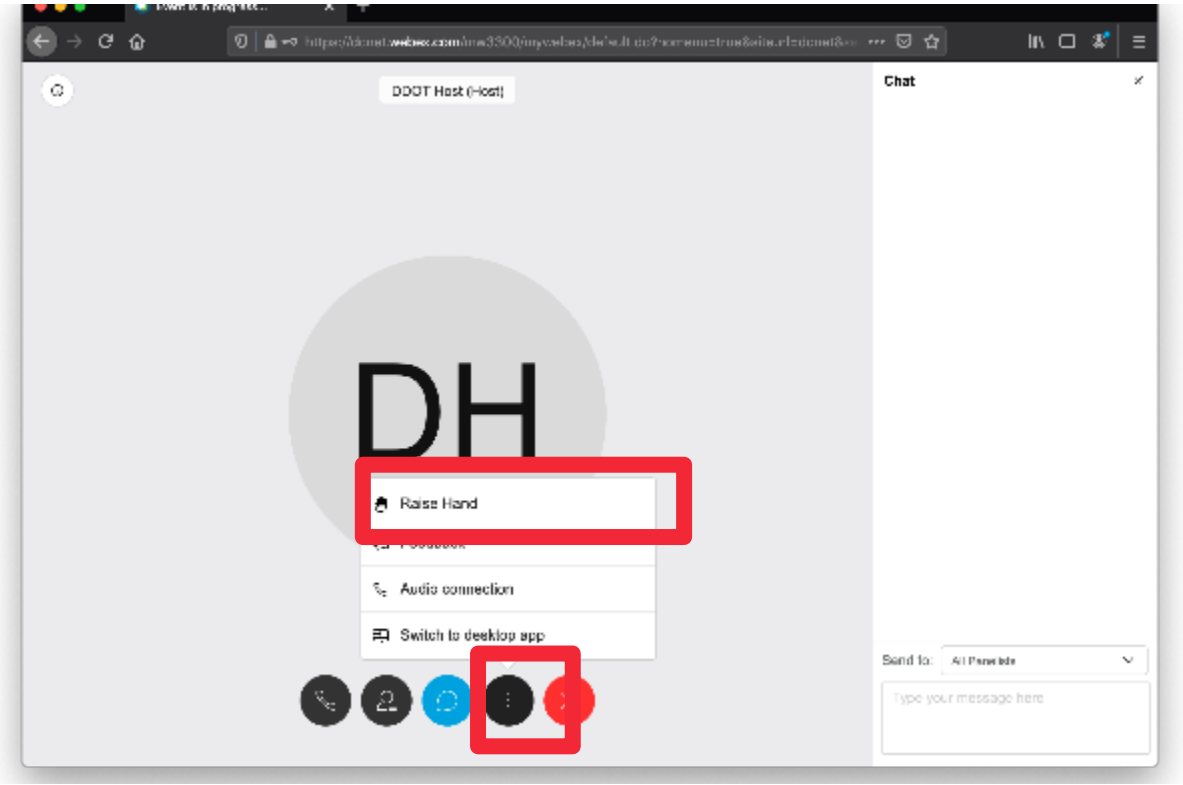
If you have a question during the presentation, send it via the Q&A feature.

Note: If you have called in by telephone, you cannot access the Q&A.

To Send a Question:

- Click the "**question mark icon**" from the controls at the bottom of the browser window.
- A new panel will appear. In the "**Ask**" field, select **All Panelists**.
- Click the text box to type your question and press the Enter key to send it.

Using Webex – Raise Hand via Browser



If you have called in and you have a question/comment, please use the **Raise Hand** option on your phone. This indicates to the Project Team that you would like to speak.

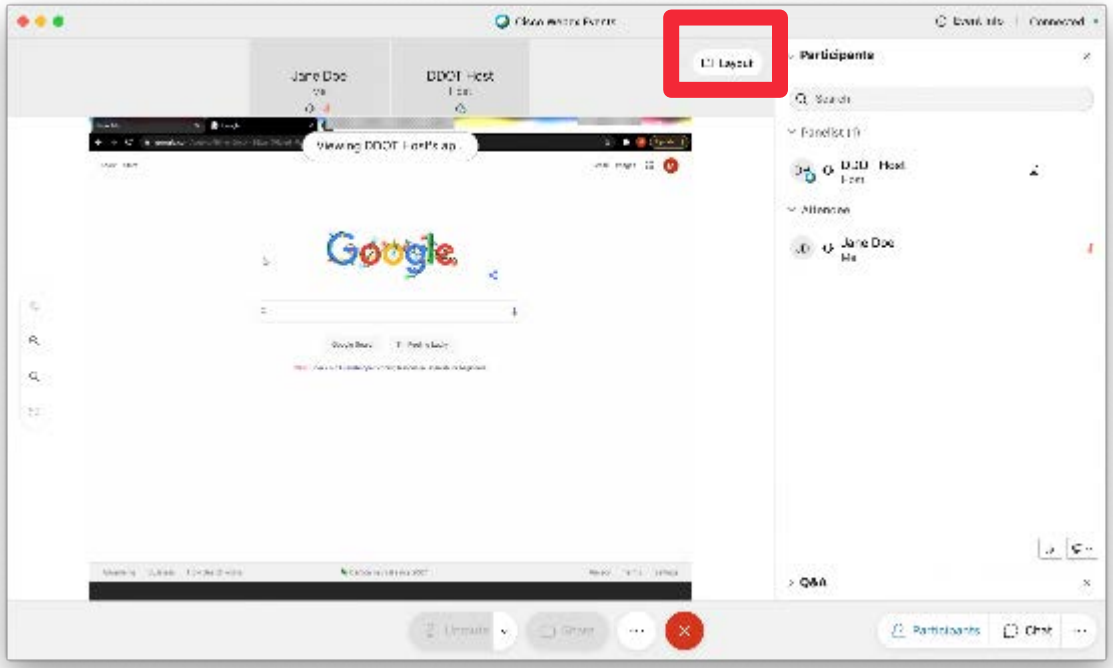
- **Dial *3** to use the Raise Hand function.
- To virtually raise your hand, click the **"three dot icon**" from the controls at the bottom of the browser window. Select the **Raise Hand** option.

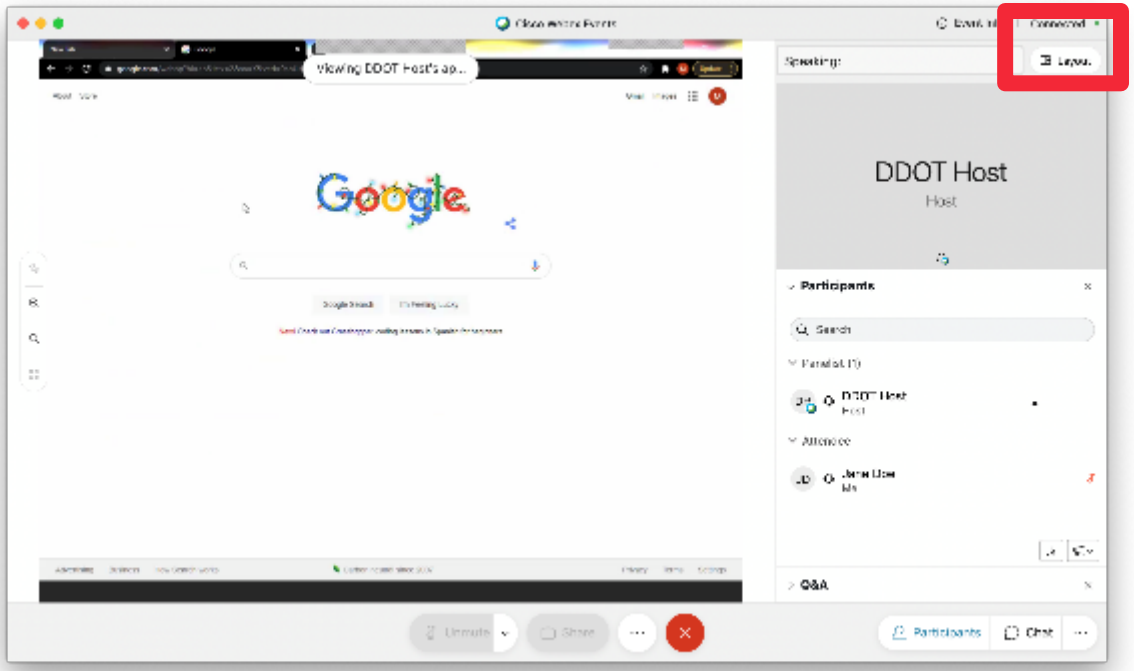
Using Webex – ASL Interpretation

We recommend changing your view from the **Stack** view to the **Side-by-side** view.

To Change your View:

- Click the **Layout icon** located on the upper right side of the main window.
- The default view is **Stack**, and the second view is **Side-by-side** view, which moves the video to the right panel next to the shared content. The ASL Interpreter will be in the larger box on the panel.





INTRODUCTION

1.

Project Team Introduction

- **Ed Stollof:** DDOT Project Manager
- **Cynthia Lin:** DDOT Deputy Project Manager
- **Michael Glickman:** AMT, Consultant Project Manager
- **Charlotte Ducksworth/Ian Swain:** Public Involvement Consultant, Commun-ET
- **Anne-Marie Turner:** Safety, Sam Schwartz Engineering
- **DDOT Subject Matter Experts:**
  - Traffic Engineering: Zu-xuan Deng, Yi Zhao (TESD)
  - Active Transportation: George Branyan, Mike Goodno, Will Handsfield
  - Parking: David Lipscomb (PGTD)
  - Loading/Freight: Laura MacNeil
  - Transit Priority: Megan Kanagy and Yohannes Bennehoff (TDD)
  - Ward 3 Planning and Sustainability Representative: Ted VanHouten

Meeting Agenda

1. Introduction
2. Project Overview
3. Public Outreach
4. Project Background
5. Existing Conditions
6. Alternatives Development
7. First-Level Evaluation: All Concepts
8. Second-Level Evaluation: Concepts B & C
    a. *Safety and Mobility*
    b. *Parking and Loading*
    c. *Modeling*
    d. *Traffic Diversions*
    e. *Traffic Levels of Service*
9. Questions and Answers
10. Closing

Meeting Objectives

- Identify study goals and potential concepts that may fulfill the goals
- Understand why the study is being completed
- Illustrate multimodal conditions
- Identify tradeoffs, benefits and technical issues associated with each Concept
  - Show why Concepts B and C have "risen to the top"
- Understand the traffic and parking impacts of each Concept

Are there feasible design alternatives/solutions that you believe DDOT may not have considered given the goals and guiding principles of the study? Please let us know.

Project Goals

Reduce vehicle crashes; improve safety for all modes

Consider a Protected Bicycle Lane

Assess the feasibility of removing reversible lane operation

CONNECTICUT AVENUE NW

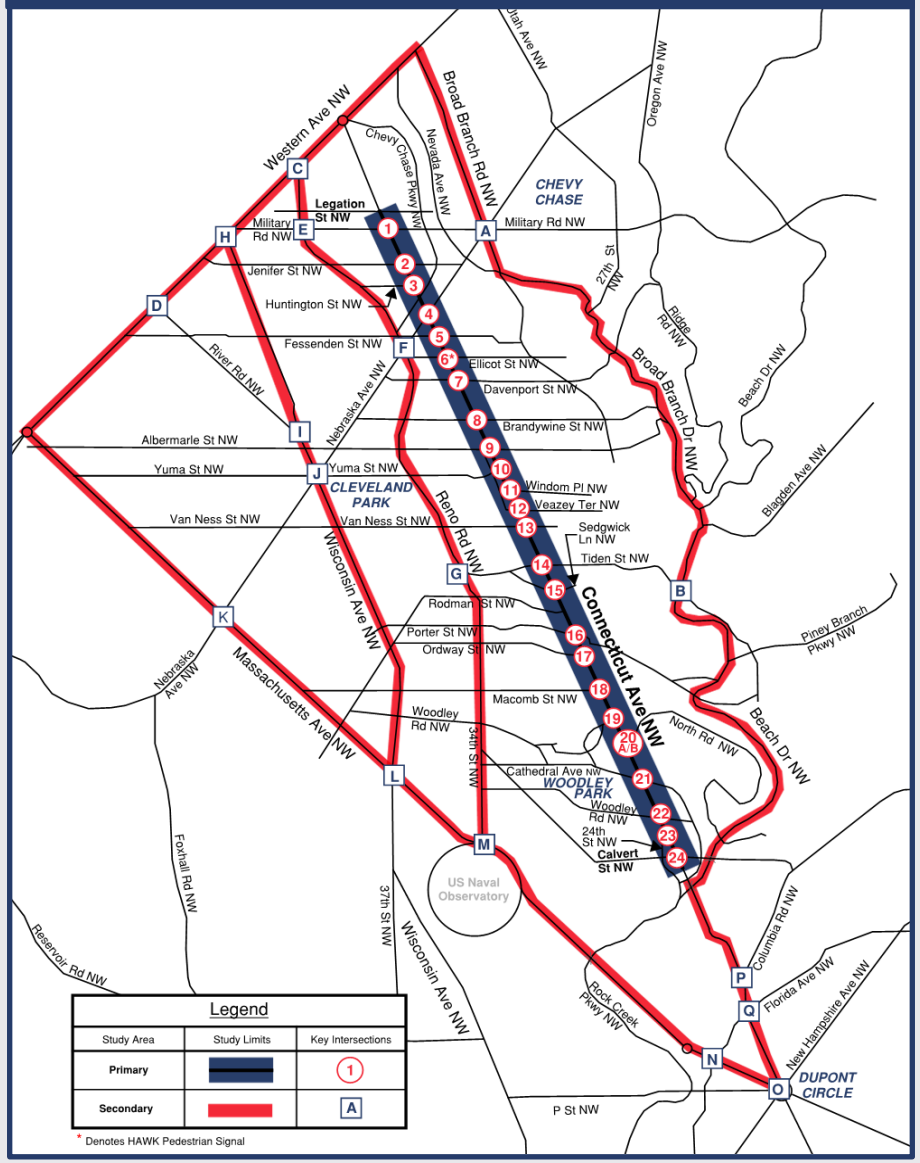
"The District Department of Transportation is studying the feasibility of removing the reversible lane system as part of the District of Columbia's Vision Zero initiative, which aims to eliminate traffic deaths and serious injuries by 2024. The purpose of the Connecticut Avenue NW Reversible Lane Safety and Operations Study is to assess the multimodal (vehicular, transit, bicycle, and pedestrian) operational and safety impacts associated with removing or maintaining/ improving the existing reversible lane system."

PROJECT OVERVIEW

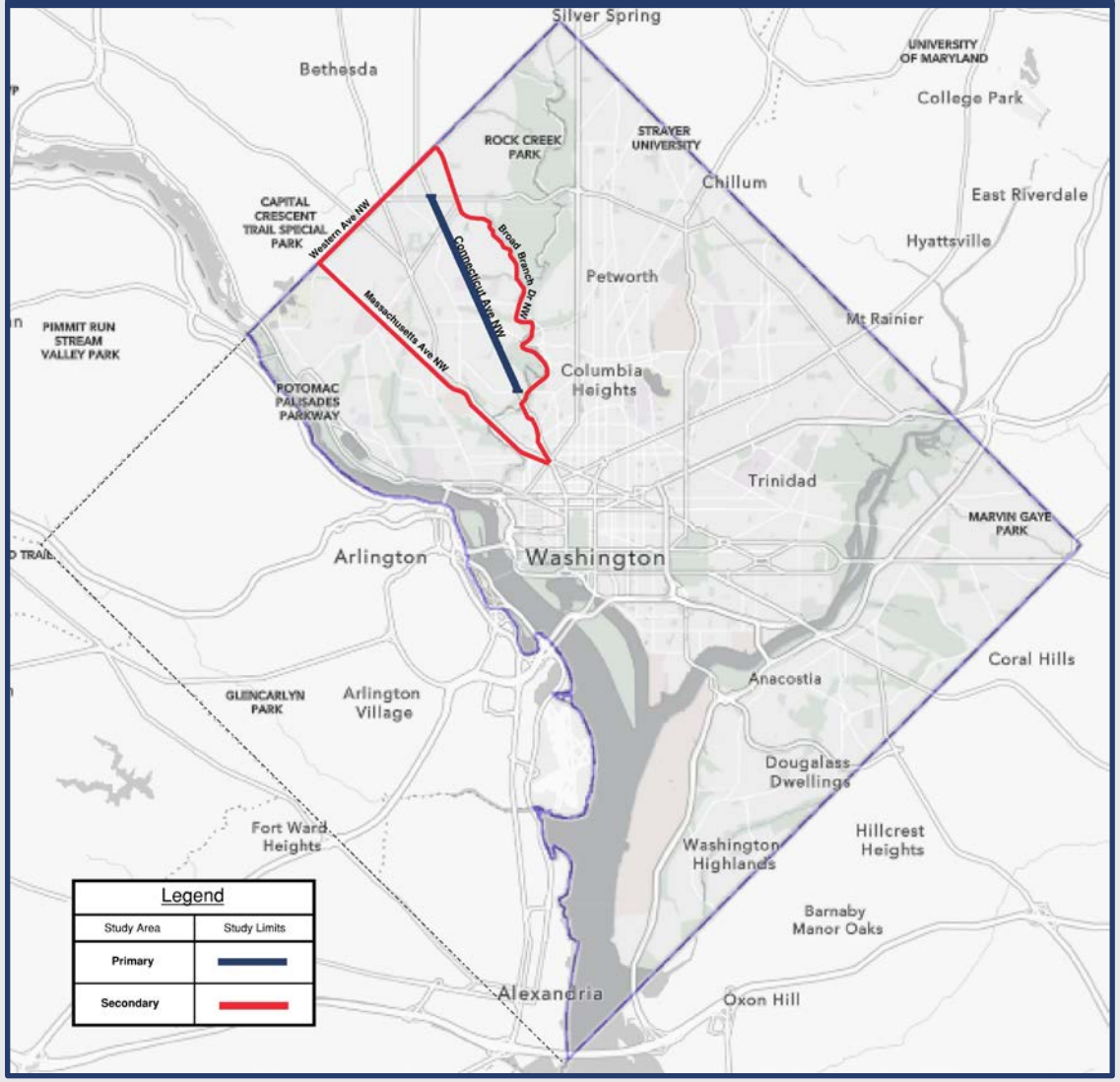
2.

Primary and Secondary Study Areas

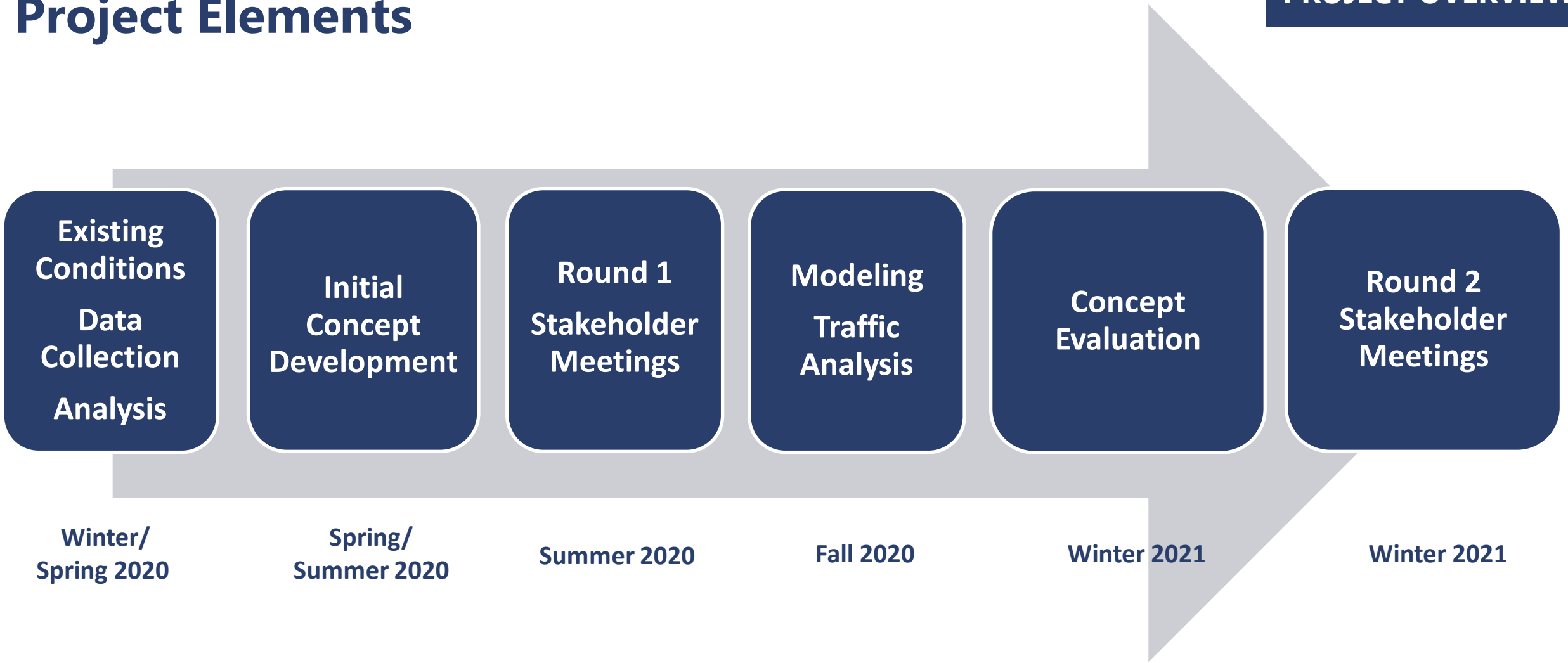
STUDY AREA INTERSECTIONS



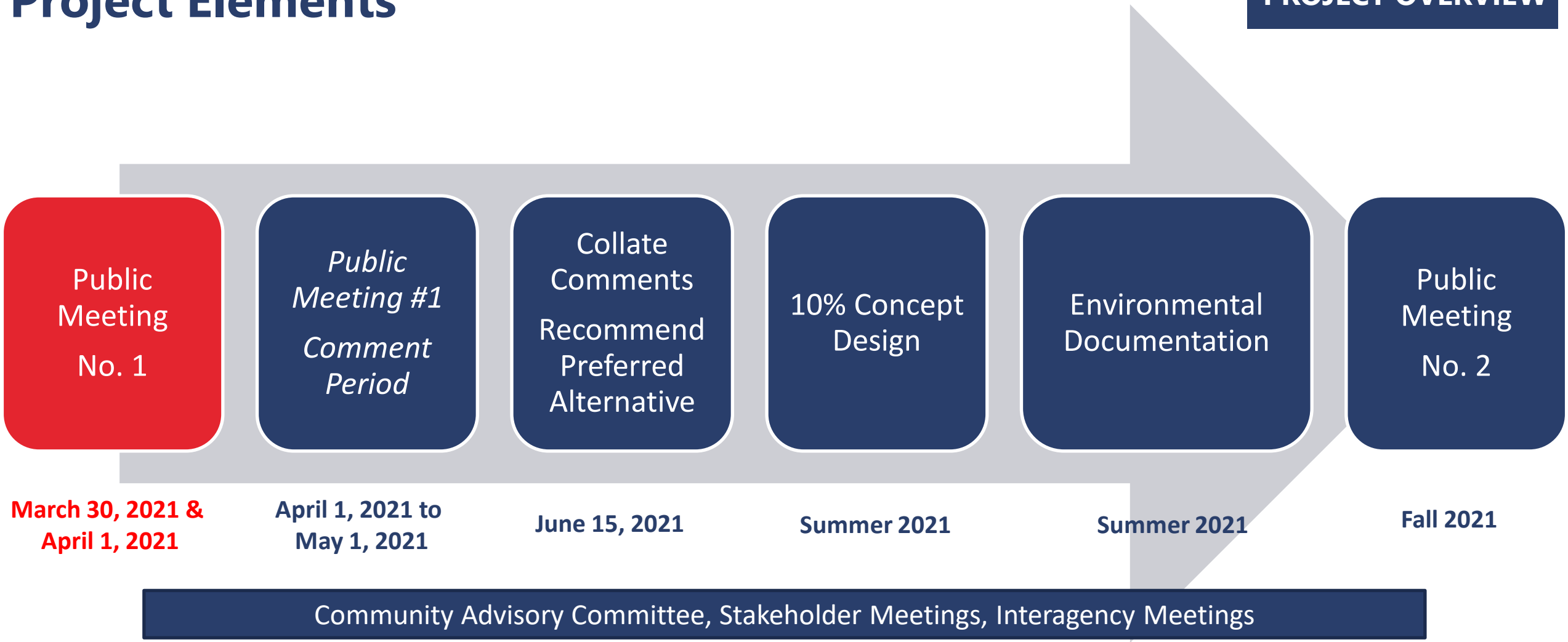
REGIONAL CONTEXT



Project Elements



Project Elements



PUBLIC OUTREACH:

COMMUNITY, STAKEHOLDER AND AGENCY ENGAGEMENT

3.

Community, Stakeholder and Agency Engagement

PUBLIC OUTREACH

- Community Advisory Committee (CAC) & Advisory Neighborhood Commissions (ANCs)
- Stakeholder Meetings
- Interagency Meetings
- Public Meetings
- Website

COMMUNITY ADVISORY COMMITTEE (CAC) MEMBERS

- David Cristeal, ANC 3F01
- Robert Deyling, Chair, ANC 3F Streets and Sidewalks Committee
- Beau Finley, ANC 3C04
- Chris Fromboluti, ANC 3G07
- Eileen McCarthy, Chair, Pedestrian Advisory Council (PAC)
- Lee Brian Reba, ANC 3C01
- Josh Rising, W3BA
- Randy Speck, ANC 3G03
- Tom Quinn, ANC 3E04

Stakeholder Meetings Held

PUBLIC OUTREACH

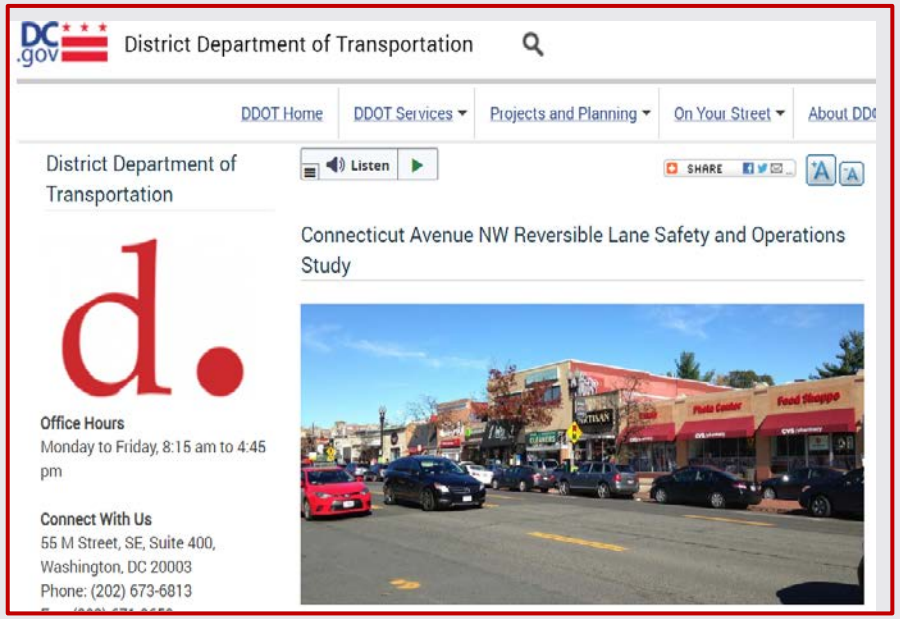
ORGANIZATION	DATE
Montgomery County, MD Meeting	03-05-2020
CAC Meeting No.1	04-30-2020
CAC Meeting No. 2	06-11-2020
Ward 3 Vision	06-22-2020
Cleveland Park Main Street	06-25-2020
W3BA	06-29-2020
ANC 3/4G	07-13-2020
ANC 3E	07-16-2020
Van Ness Main Street	07-17-2020
ANC 3C	07-20-2020
ANC 3F	07-21-2020
Interagency Meeting	07-22-2020
Woodley Park Community Association	07-23-2020
Cleveland Park Citizens Association	07-29-2020
D.C. Office of Planning & DOEE	07-29-2020
HSEMA, MOCRs	07-30-2020
Curbside Survey Meeting-Main Streets	08-21-2020
Smithsonian Zoo	09-02-2020
Howard University School of Law	09-03-2020

ORGANIZATION	DATE
Curbside Survey Update- Main Streets	09-17-2020
DPW	09-19-2020
Cleveland Park Smart Growth (Alt E)	09-28-2020
CAC Meeting No. 3	10-01-2020
Woodley Park Main Street	11-12-2020
Van Ness Main Street	11-18-2020
WABA (ALT D-2) Meeting	12-02-2020
WABA and W3BA (Joint Meeting)	12-08-2020
CFA	01-08-2021
CAC Meeting #4	01-13-2021
Smithsonian Zoo	01-21-2021
UDC	02-03-2021
ANC 3E	02-11-2021
Combined Main Streets Presentation	02-16-2021
SHPO/Andrew Lewis	02-17-2021
ANC 3-4G	02-22-2021
ANC 3C, Woodland-Normanstone, CPSG, CPCA	02-23-2021
Residential/Property Management	02-23-2021
ANC 3F	02-24-2021
Woodley Park Citizens Association	02-25-2021

Contact Information

Project Email
Conn-Ave-revstudy@dc.gov

Project Website
https://ddot.dc.gov/page/connecticut-avenue-nw-reversible-lane-safety-and-operations-study



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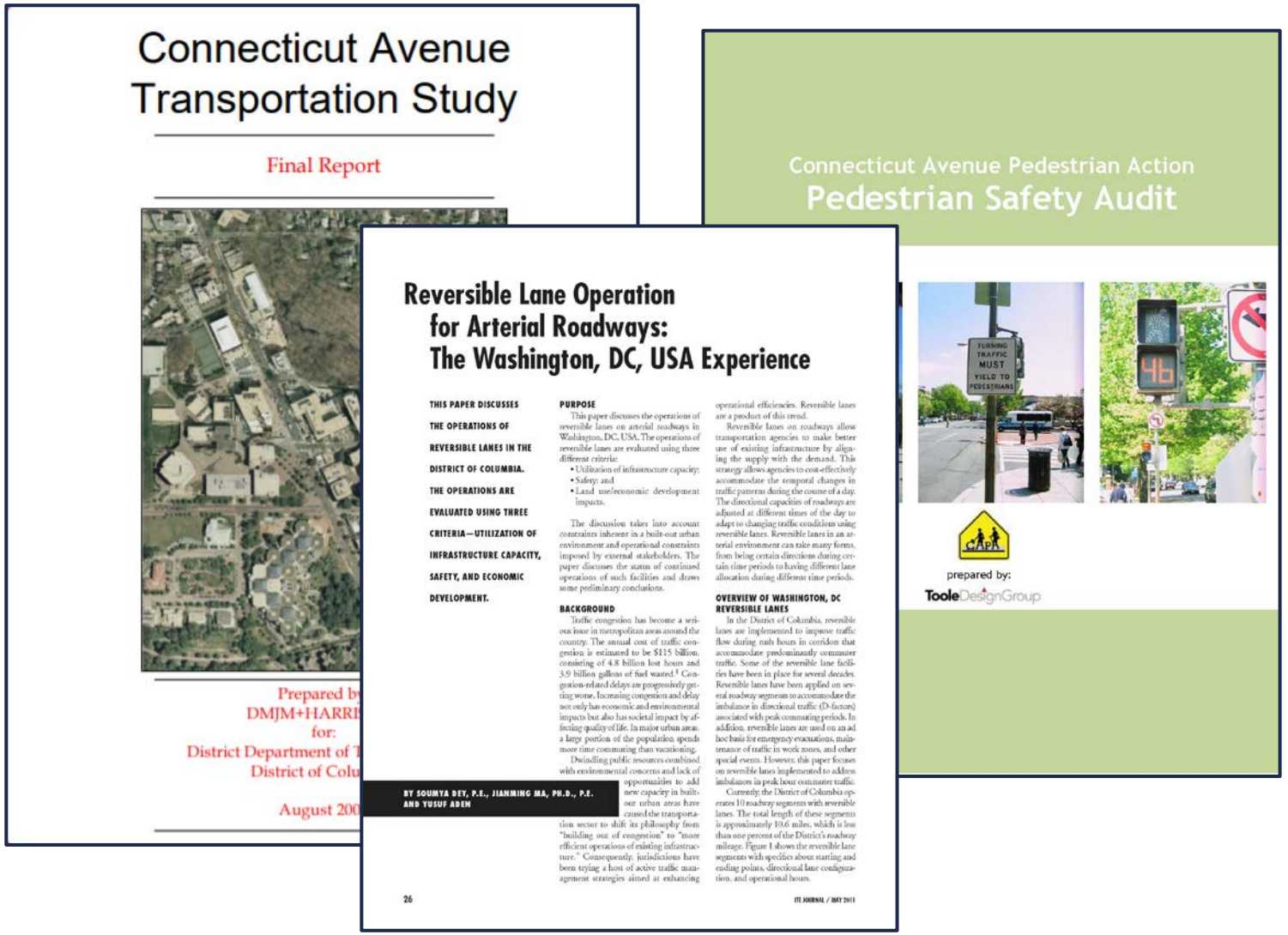
Ian Swain, Community Engagement Specialist
Managing Partner, Commun-ET, LLC
Email: Iswain@commun-et.com

PROJECT BACKGROUND

4.

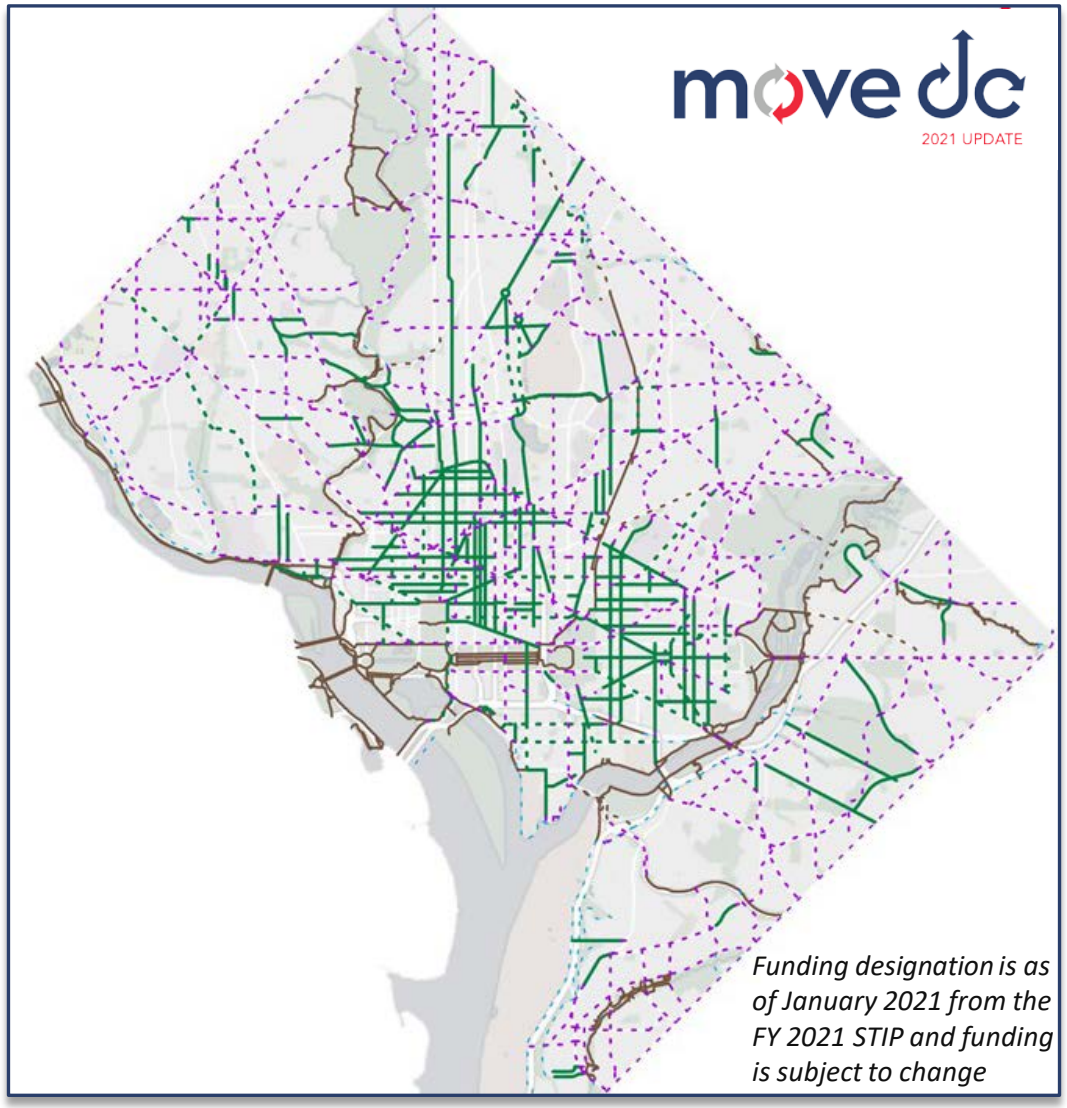
Background: Prior Studies

- 2003 Connecticut Avenue/Cleveland Park Traffic Operations' study
- 2011 Institute of Transportation Engineers Study
- Connecticut Avenue Pedestrian Action (CAPA) Pedestrian Safety Audit (February 2011)



Background: Prior Studies

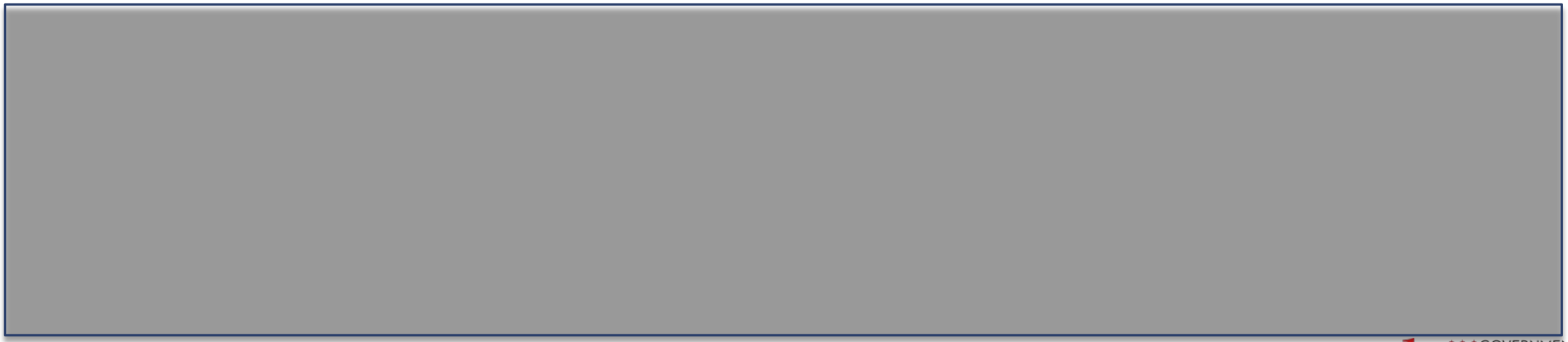
- 2014 moveDC and 2021 moveDC Update
  - Connecticut Avenue identified as a Bike Priority Corridor in moveDC
- Connecticut Avenue, NW Corridor Crosswalk Safety Project, (February 2015), ANC 3/4 G
- Cleveland Park Bicycle Analysis (2016)
- 2018 ANC Resolutions for Reversible Lane Study
  - ANC 3C (May 21, 2018)
  - ANC 3F (March 20, 2018)
  - ANC 3 /4 G (October 22, 2018)
- Community involvement in shaping RFQ



Cleveland Park Streetscape/Drainage Improvement Project

Background

- Overview of Project
  - Scope: Streetscape, Drainage, Roadway and Pedestrian Safety
  - Design: Completed 2020
  - Schedule: Advertisement Planned for FY 2021
- Status of Service Lane:
  - Includes One (1) Parking/Loading Lane and One (1) Travel Lane
  - Four (4) of the 26 existing spaces to be removed for new connection to Connecticut Avenue (with dedicated traffic signals for exiting vehicles)
- Connecticut Avenue Reversible Lane Project would not impact to the Cleveland Park Project – *Projects are independent*.



EXISTING CONDITIONS

5.

Connecticut Avenue NW – Existing Characteristics

- Roadway Classification: Principal Arterial
- Speed Limit: 30 mph
- Right-of-Way: Varies from 100’ to 140’
- Curb-to-Curb: 60’ Width includes Six (6) 10’ lanes
- Daily Volumes: 23,600 (~ Calvert St) – 31,800 (~ Porter St)
- AM and PM Peak Period Traffic Operations (Pre-COVID)
  - 2.7 Mile Two (2) Lane Reversible Lane System
  - Four (4) Peak and Two (2) Off-Peak Direction Traffic Lanes
  - Lane Usage: Approx. 70% of motorists use two (2) of the four (4) peak direction lanes.

Connecticut Avenue NW Reversible Lanes – Circa 1970

Connecticut Avenue NW Reversible Lanes – 2021

Parking Regulations and Supply

- **Unregulated Parking -** most of the parking along the Connecticut Avenue NW corridor is unregulated parking.
- **Time Limited Parking -** scattered throughout the corridor within and outside of the primary commercial activity centers.
- **Metered Parking** - predominantly located near commercial activity centers such as Cleveland Park, Van Ness, and Woodley Park.
- **Loading** - primarily located near the three Corridor commercial activity centers.

Parking Regulation	Description	Supply
Unregulated Parking	Parking allowed at all times and days. No parking during AM and/or PM peak hours	274 spaces
2-Hour Parking	2 Hour time limited parking (9:30 am-4:00 pm). No parking during AM and PM peak hours	150 spaces
2-Hour & 3 ½ Hour Metered Parking	Time limited paid parking ($2.30/hr.), No parking during AM and PM peak hours	185 spaces
Loading Zone	Signed, on street metered zones exclusively for commercial vehicles for up to two hours at a time during off peak periods	577'/24 spaces

Pedestrians

- Continuous network of sidewalks, crosswalks and streetscape elements
- Consider impacts to access in design alternatives
- Top five AM/Midday/PM Pedestrian Intersections
  - Windom Place NW, Veazey Terrace NW, Woodley Road NW/ Calvert Street NW/ Yuma Street NW
- Key Issues
  - Cyclists/Scooters/Pedestrian conflicts on sidewalks
  - Pedestrian conflicts at bus stops
  - Slower walkers need more time to cross the street
  - Long pedestrian wait times
  - Vehicles not following pedestrian laws

Top 10 intersections with pedestrian activity

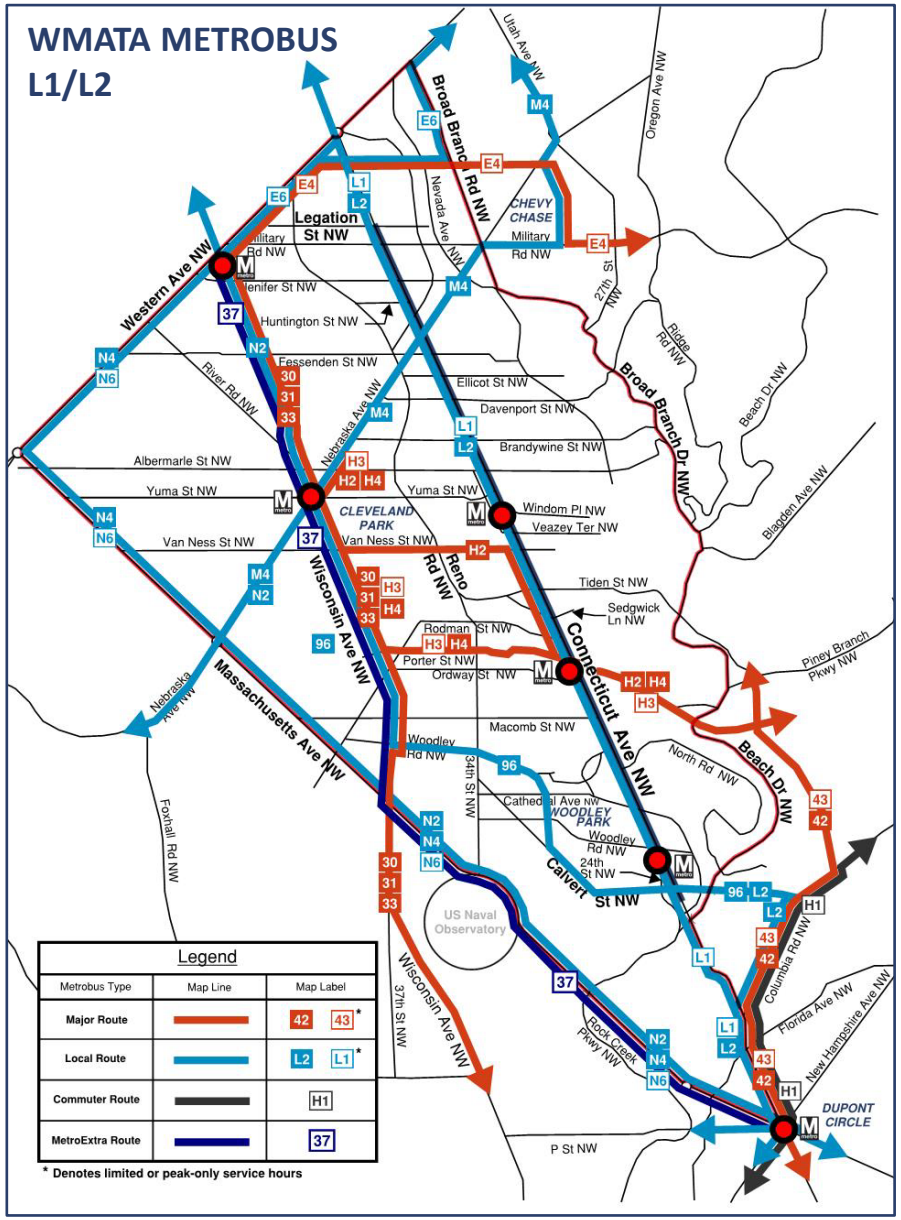
Bicycles

- Connecticut Avenue NW is designated as a Protected Bicycle Facility in moveDC
- Bicycle level of stress (BLOS) along the corridor ranges from fair to poor conditions
- Intersections with greatest bicycle volumes are between Porter Street NW to Calvert Street NW

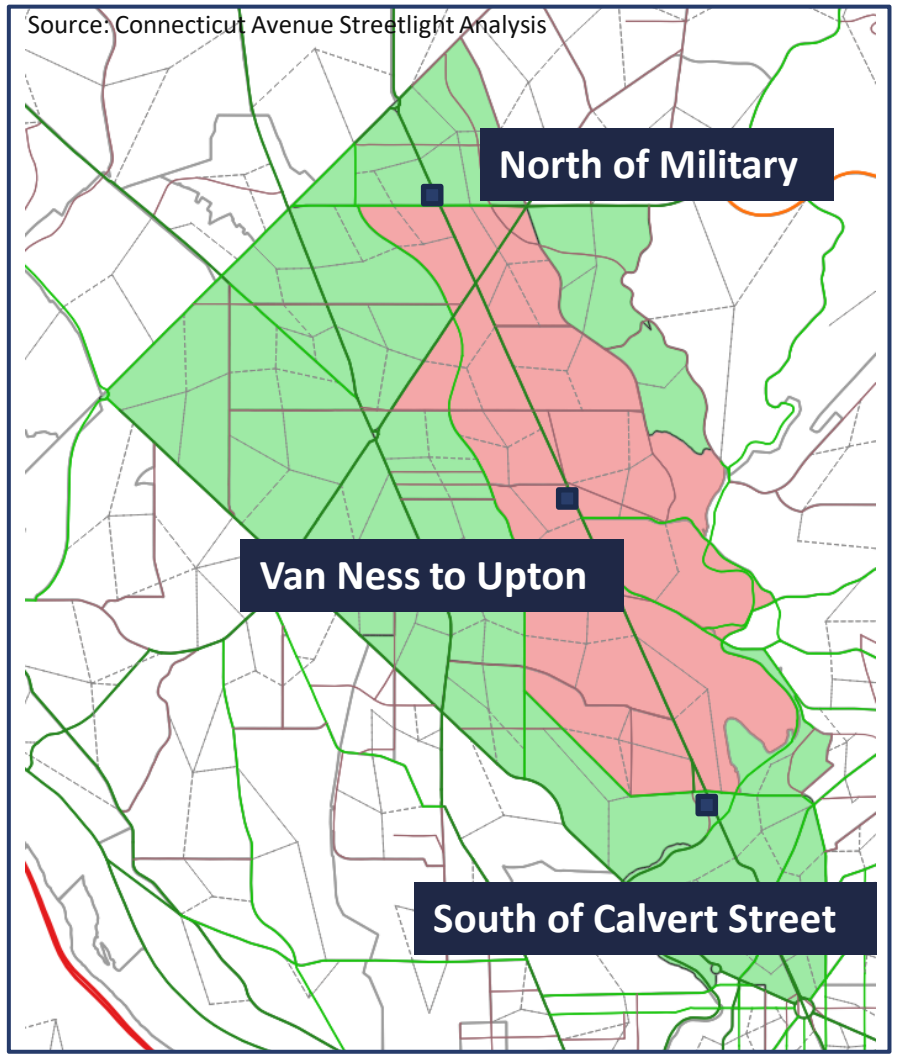
Top 10 intersections with bicycle activity

Transit

- WMATA Metrorail Red Line, DC Circulator, WMATA Metrobus Routes L1 and L2
- Average Daily Ridership: 4,300 boardings
  - L1: 791; L2: 3,462
- Approximately 50 bus stops along the corridor
- High-frequency in the peak hour/ peak direction
  - AM Peak SB: 8 minutes
  - PM Peak NB: 4 to 5 minutes
- WMATA fall 2019 boarding and alightings
  - Veazey Terrace/Connecticut Avenue: highest transit activity (1,200 boardings/ alightings

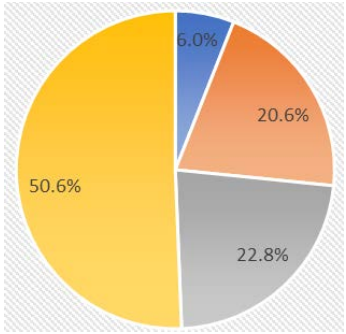


Origins and Destinations - Connecticut Avenue NW



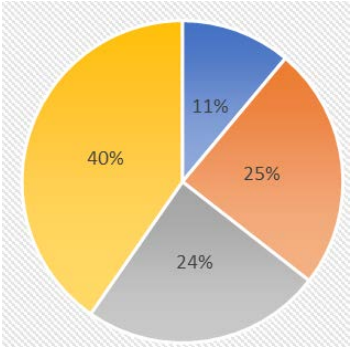
North of Military

	%
From/to Study Area	6.0%
From Study Area to Region	20.6%
From Region to Study Area	22.8%
Through Study Area (to/from Region)	50.6%
Total	100.0%



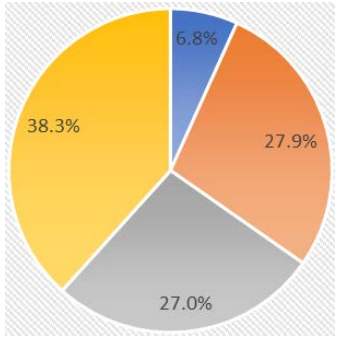
Van Ness to Upton

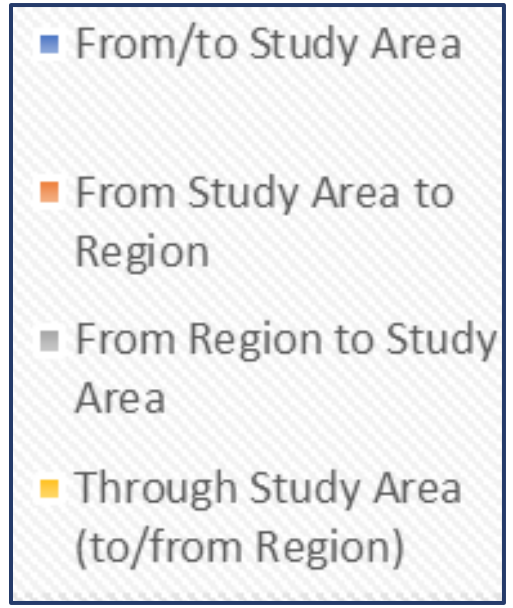
	%
From/to Study Area	11.1%
From Study Area to Region	24.4%
From Region to Study Area	24.2%
Through Study Area (to/from Region)	40.3%
Total	100.0%



South of Calvert Street

	%
From/to Study Area	6.8%
From Study Area to Region	27.9%
From Region to Study Area	27.0%
Through Study Area (to/from Region)	38.3%
Total	100.0%

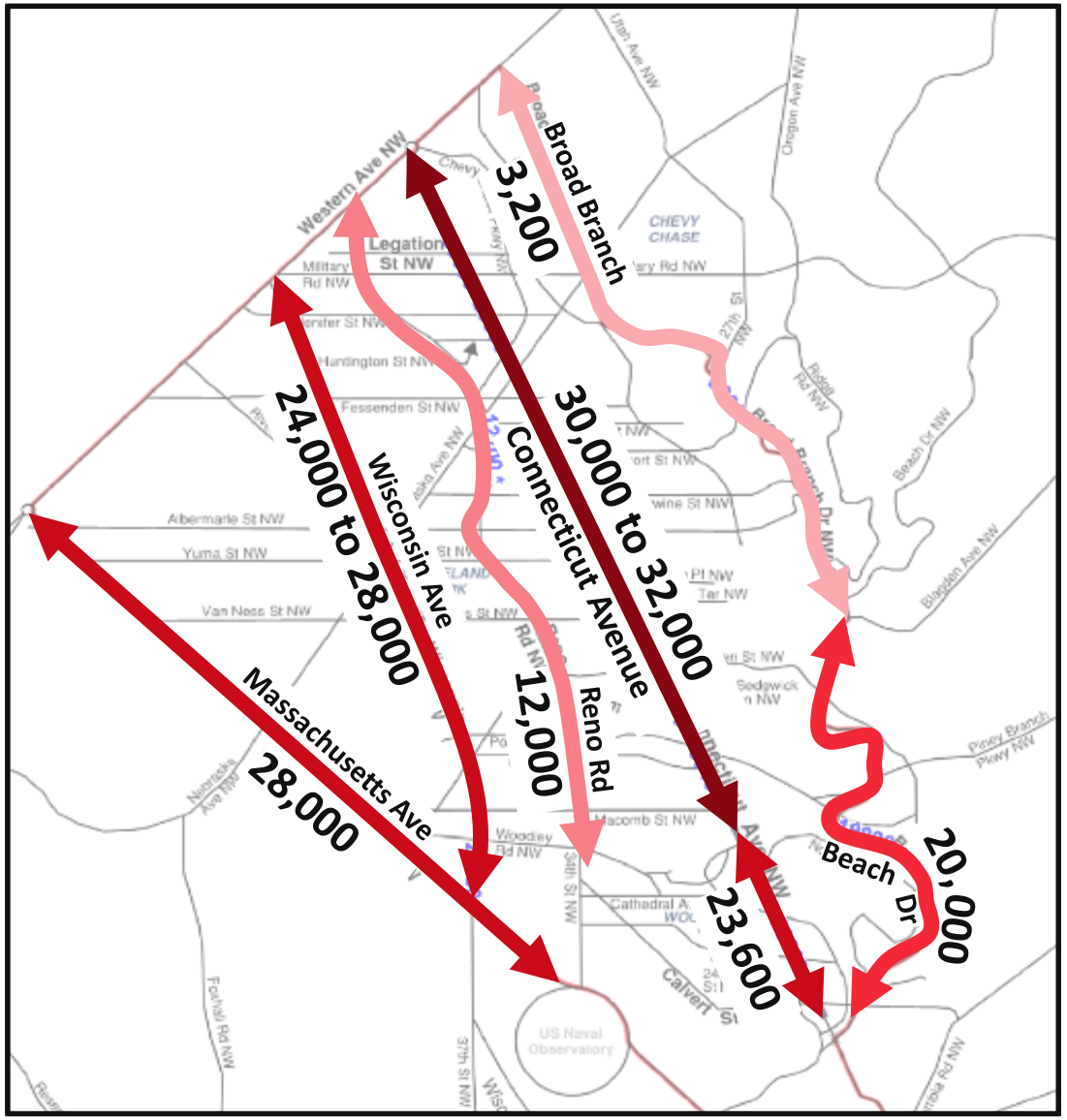




Existing (2019) Average Daily Traffic (ADT) Volumes

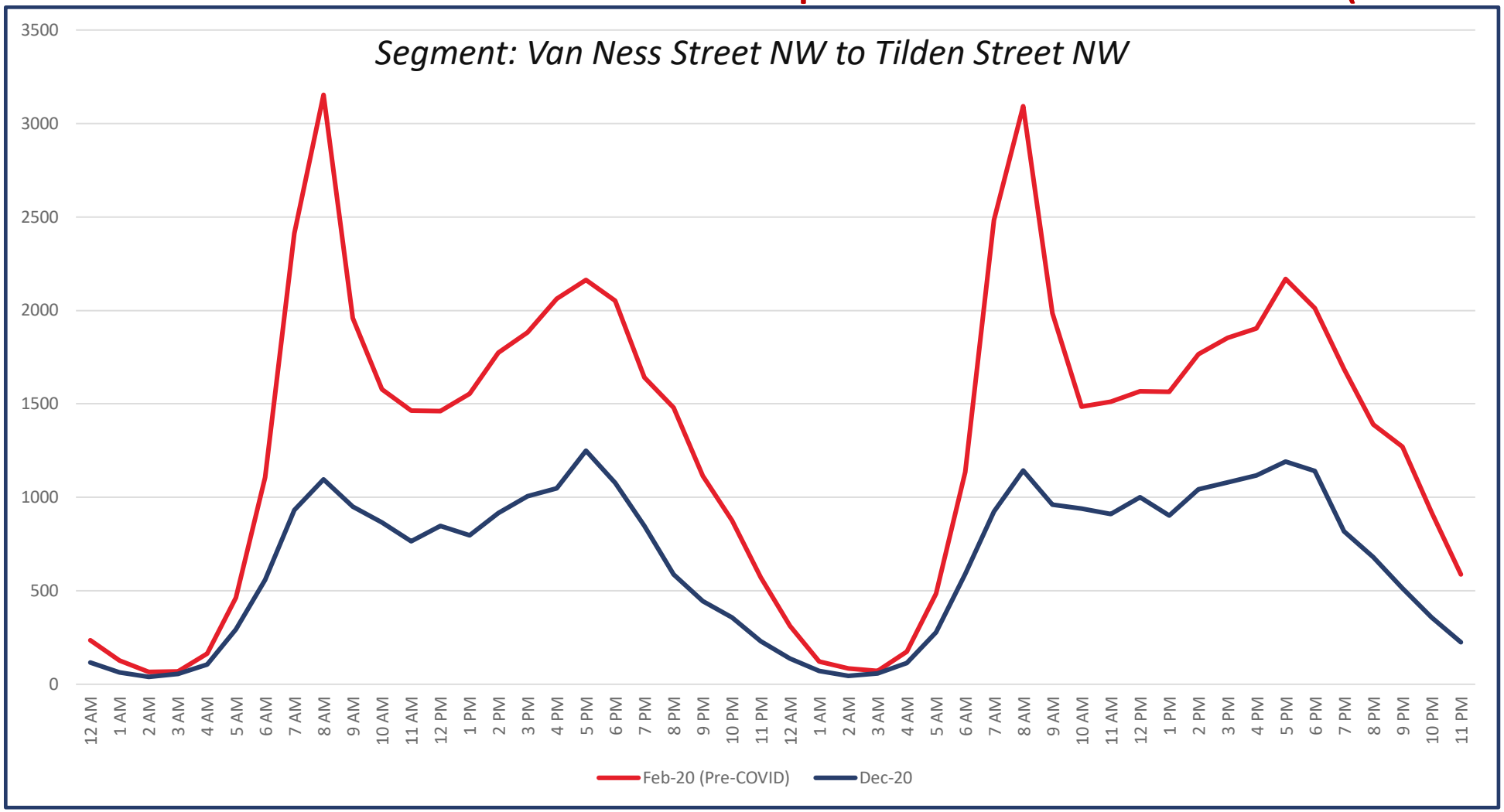
Pre-COVID Conditions

- **Connecticut Avenue NW ADTs:**
  - Western Avenue to Tilden Street: 30,000 to 32,000 vehicles per day (VPD)
  - Cathedral Avenue to Calvert Street: 23,600 VPD
- **Secondary Study Area ADTs:**
  - Wisconsin Avenue: 23,600 to 28,100 VPD
  - Reno Road: 12,100 VPD
  - Massachusetts Avenue: 28,400 VPD
  - Broad Branch Road: 3,200 VPD
  - Beach Drive: 19,900 VPD



December 2020/COVID-19 Sample Traffic Counts

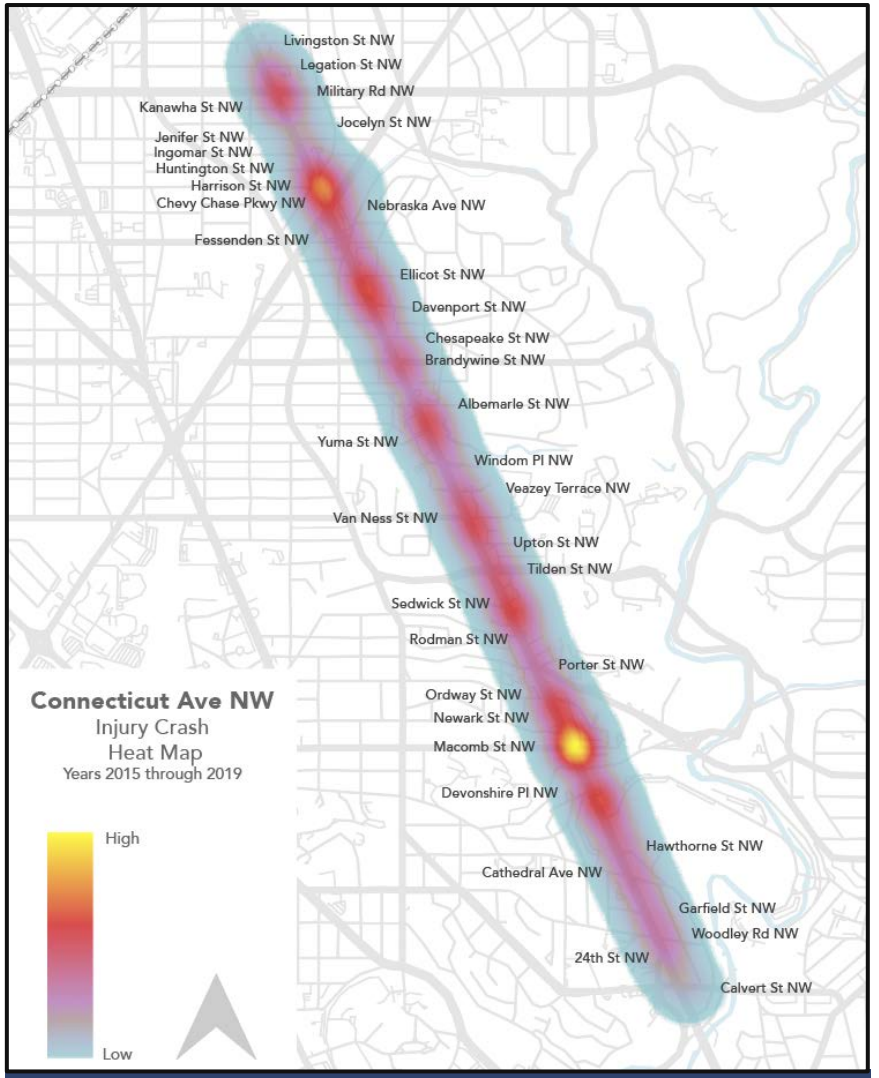
Connecticut Avenue NW 48-Hour Volume Comparison - Dec 2020 vs. Feb 2020 (Pre-COVID)



Overall, 45-49% Reduction in daily traffic volumes between Pre-COVID and COVID conditions.

Safety and Crash Analysis

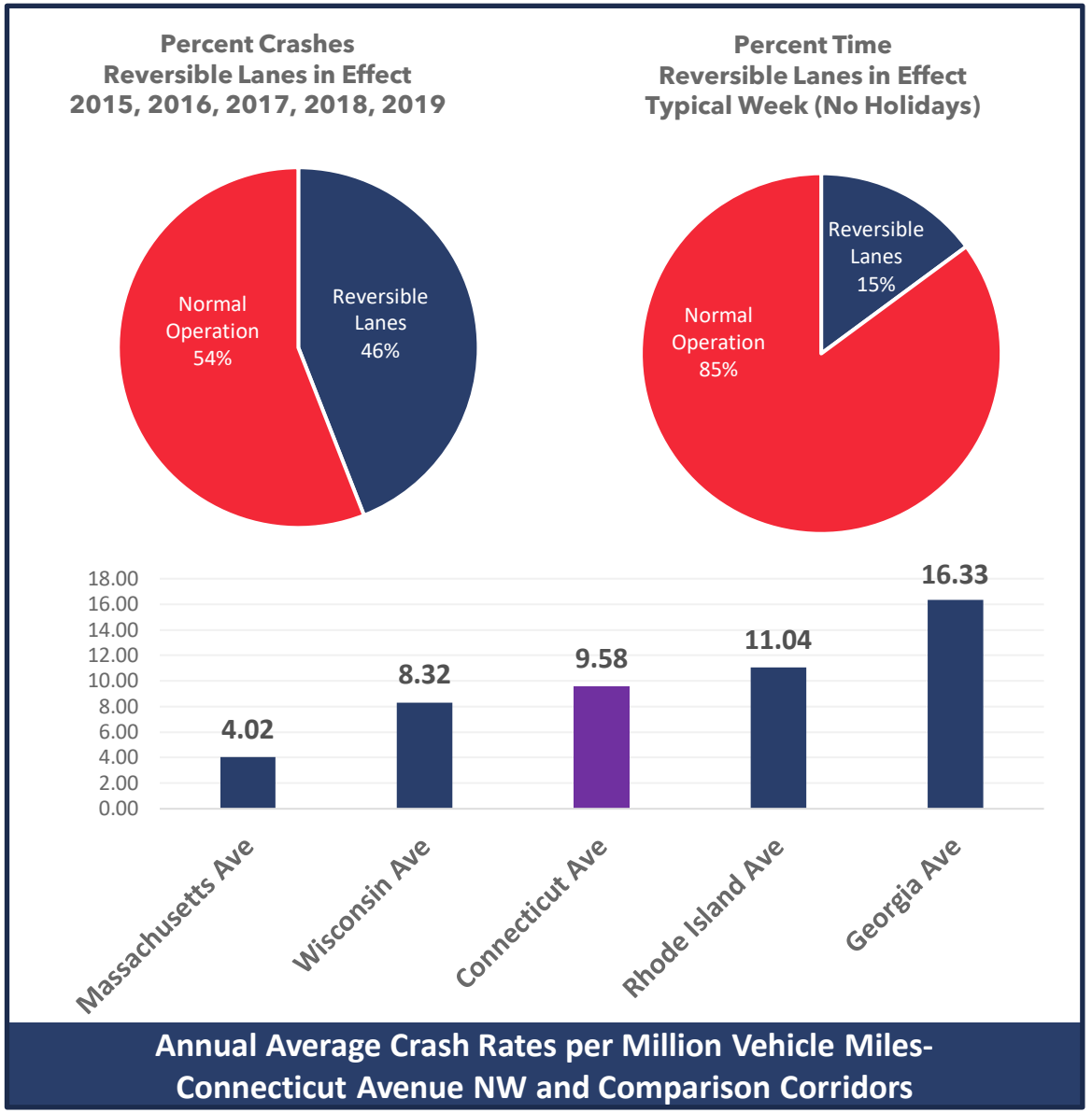
- **1,507 police-reported crashes occurred during the five-year study period (2015-2019):**
  - 401 Vehicle Crashes Resulted in Injury (177 during reversible lane hours)
  - 64 Involved Pedestrians (20 during reversible lane hours)
  - 39 Involved Bicycles (11 during reversible lanes hours)



Connecticut Avenue Injury Crashes 2015-2019

Safety and Crash Analysis

- **46% of the total crashes occur during reversible lane hours (in effect only 15% of the week):**
  - 36% of these peak hour crashes may be directly attributed to the reversible lane operation (e.g., driver confusion, left turns/U-turns from incorrect lane)
- **17% of the overall crashes may be attributed to the reversible lane operations.**
- **Average Annual Crash Rate**
  - Higher than two comparison corridors (Massachusetts Avenue and Wisconsin Avenue)
  - Lower than two other comparison corridors (Georgia Avenue and Rhode Island Avenue)

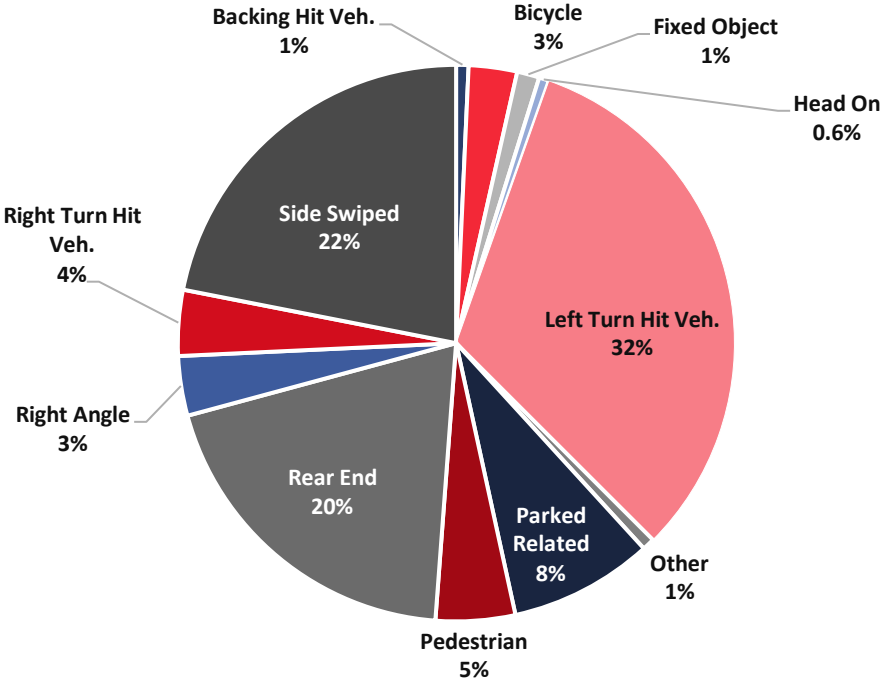


Annual Average Crash Rates per Million Vehicle Miles- Connecticut Avenue NW and Comparison Corridors

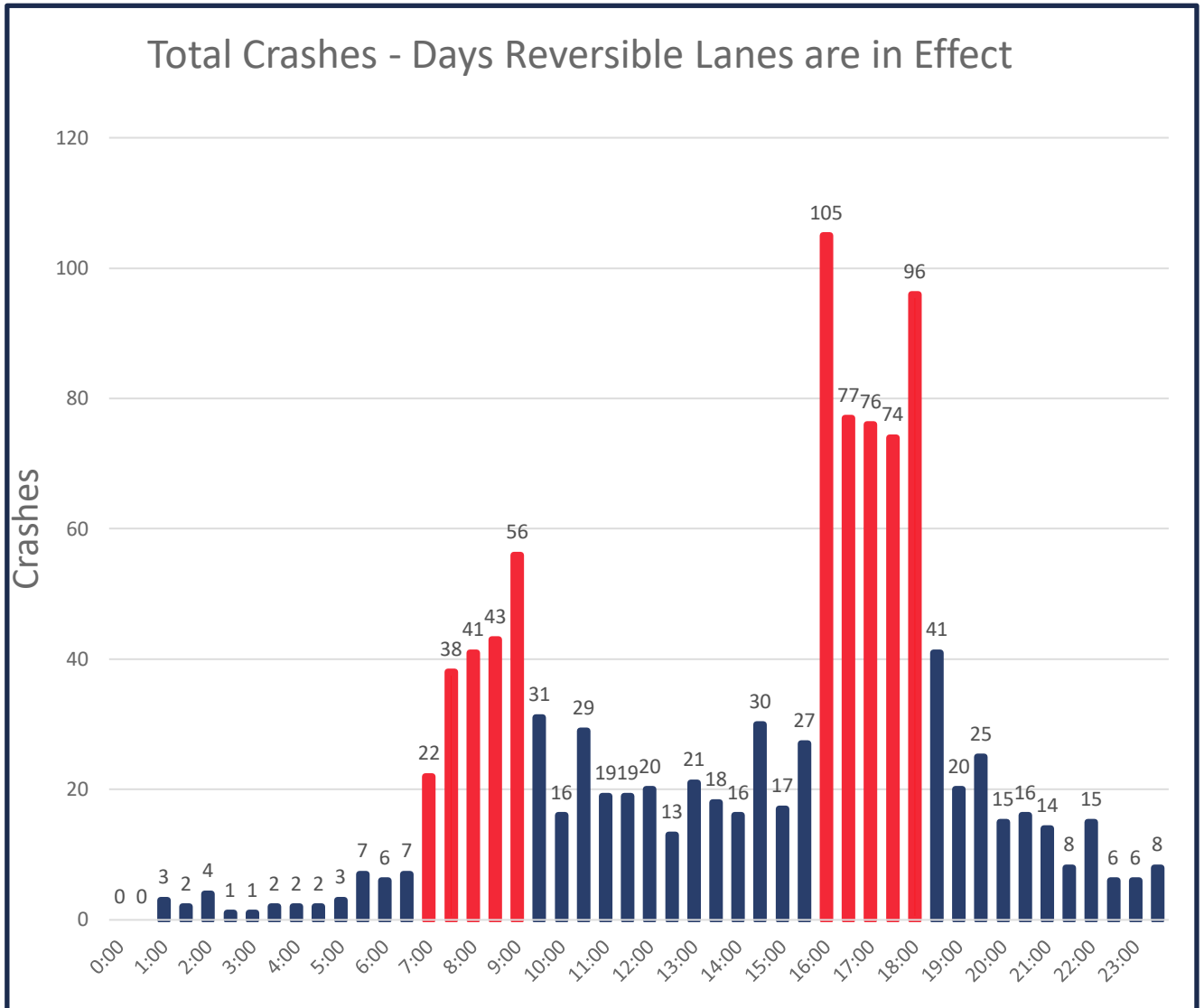
Safety and Crash Analysis

Three (3) crash types accounted almost 77% of all crashes:

- Left Turn Hit Vehicle (32%)
- Side Swiped (24%)
- Rear End (21%)



Connecticut Avenue NW Crashes by Crash Type



Connecticut Avenue NW Crashes by Time of Day

ALTERNATIVES DEVELOPMENT

6.

Guiding Principles

Quality of Life	• Accommodate the needs of people who live, work, and recreate within the Connecticut Avenue corridor. • Prioritize the needs of corridor residents/businesses. • Provide sustainable, resilient, and equitable transportation options for all modes.
Safety and Vision Zero	• Reduce the number of crashes and fatalities. • Incorporate Complete Streets principles to reduce vehicle speeds along the corridor.
Traffic Operations	• Mitigate significant traffic impacts, to the extent feasible, when considering alternative concepts. • Understand diversion impacts and mitigate, where possible.
Parking and Loading	• Retain some parking and loading in Commercial areas.
Pedestrians	• Integrate pedestrian improvements into each alternative concept.
Bicycles	• Include protected bicycle lane concept(s).
Transit	• Include bus transit operational improvements.
ROW/ Construction	• The alternative must be constructed within the 60-foot curb-to-curb cross-section.

Alternatives Development Overview

- Started with four (4) DDOT Build Concepts (A, B, C and D-0) plus No-Build Concept.
- Received potential concepts from Public/CAC (Concepts D-1, D-2 and Concept E).
- No-Build, Concept A, and Concept D-0 would require MUTCD-compliant overhead signage and signals; not supported by CFA and SHPO.
- Alternatives B and C "rising to the top" in terms of potential viability.
- Alternative B removes the Reversible Lanes; no Protected Bicycle Facilities.
- Alternative C includes One-Way Protected Bicycle Lanes and removes reversible lanes.
- All Alternatives:
  - Include elements to improve safety and mobility including far-side bus stop relocations.
  - Posted speed limit reduction along Connecticut Avenue from 30 mph to 25 mph

Alternative Development Findings

- Difficult to meet full Purpose and Need.

- If we remove the reversible lanes, accommodate some parking/loading, and accommodate PBLs, PBL widths/buffers have reduced dimensions.

- If we provide for only removal of the reversible lanes (Concept B), we are not accommodating multimodal safety and accessibility goals.

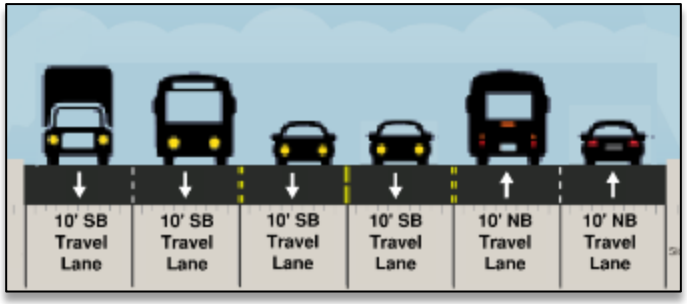
- No-Build Management Option:
  - Does not appear to meet Purpose and Need
  - Does not reduce crashes
  - Retains the Reversible Lanes
  - Does not meet the multimodal safety and accessibility goals
  - Requires overhead signage/signals to be MUTCD-compliant; not supported by CFA.

FIRST-LEVEL EVALUATION: ALL CONCEPTS

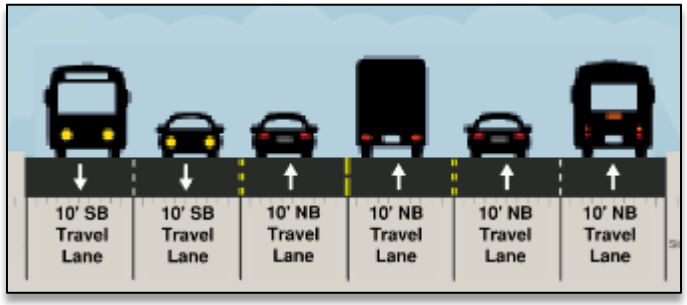
7.

No-Build Management Option

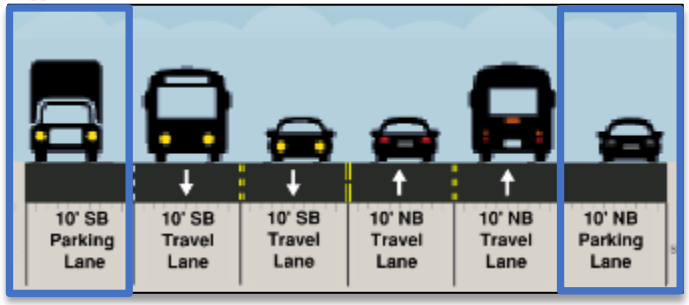
AM Peak Period



PM Peak Period



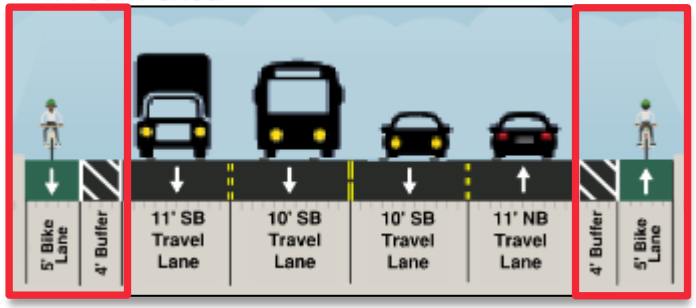
Off-Peak Periods



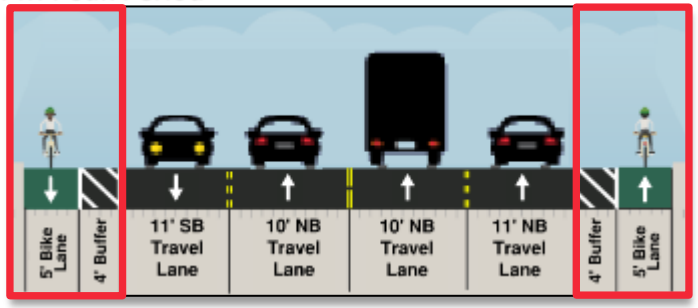
- Retains two (2) lane Reversible Lane System
- No upgrades to overhead signs/signals as required by MUTCD (not supported by CFA)
- Peak Period/Non-Peak Period Lane Operations- no change from Pre-COVID conditions
  - AM four (4) lanes inbound; two (2) lanes outbound; reverse in PM
  - Off-Peak Periods: two (2) travel lanes each direction; parking lane on the east and west sides of Connecticut Avenue
- May include intersection improvements to enhance pedestrian accessibility and safety
- Traffic Forecasts for No-Build Option developed as a baseline to measure the impacts of concepts that change Corridor number of lanes.

Concept A

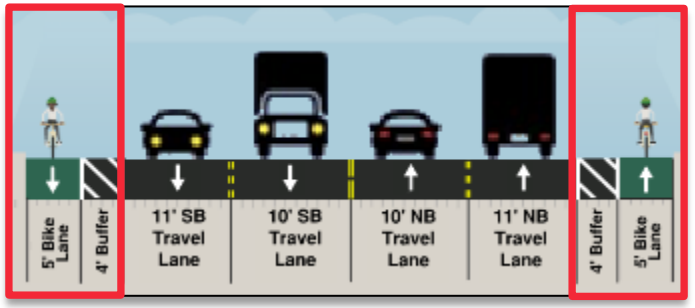
AM Peak Period



PM Peak Period



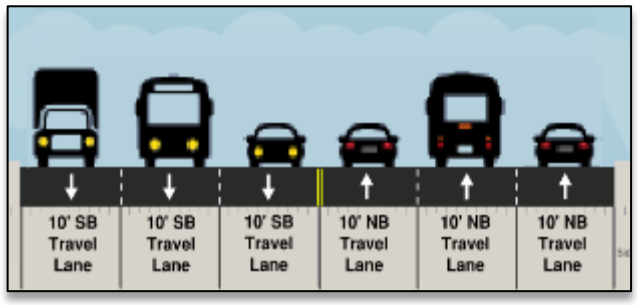
Off-Peak Periods



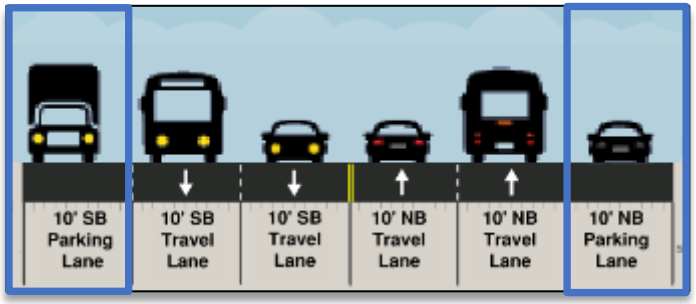
- Retains 2-lane Reversible Lane System.
- Requires upgrade of Reversible Lane System to include overhead lane-use signs and signals.
- Peak Hour Lane Operations:
  - Three (3) peak direction travel lanes/One (1) off-peak direction travel lane.
- Off-Peak Period Traffic Operations:
  - Two (2) northbound and two (2) southbound lanes.
- One-way Protected Bicycle Lanes:
  - Located on east and west sides of Connecticut Avenue.
  - Includes 5’ bike lane and 4’ buffers.
  - All parking along Connecticut Avenue to be removed.

Concept B

AM Peak & PM Peak Periods



Off-Peak Periods



- Removes Reversible Lane System
- Peak Hour Traffic Operations:
  - Three (3) northbound lanes and three (3) southbound lanes during peak hours
- Off-Peak Period Traffic Operations:
  - Two (2) northbound and two (2) southbound lanes
  - Parking/loading provided on the northbound and southbound sides of Connecticut Avenue
- No Protected Bicycle Lanes
- Parking /Loading
  - No Parking removed in this Concept
  - As in Pre-COVID conditions, parking would not be permitted during peak hours.

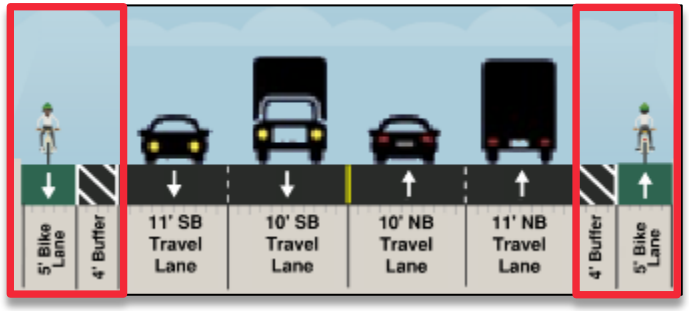
Concept B – Illustrative Rendering

Concept B – Illustrative Rendering

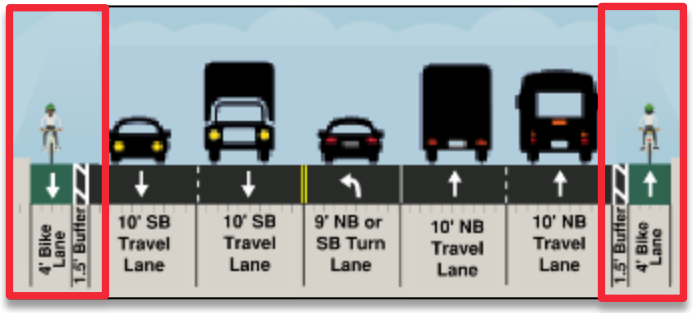
Example 6-Lane Section

Concept C

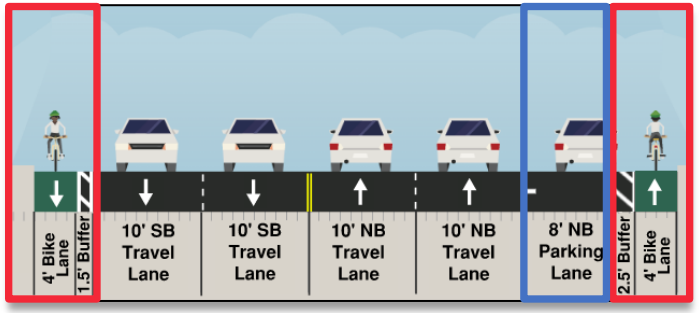
Mainline: All Periods



With Left-turn Pocket: All Periods



Option #1: NB or SB Parking & Loading Lane



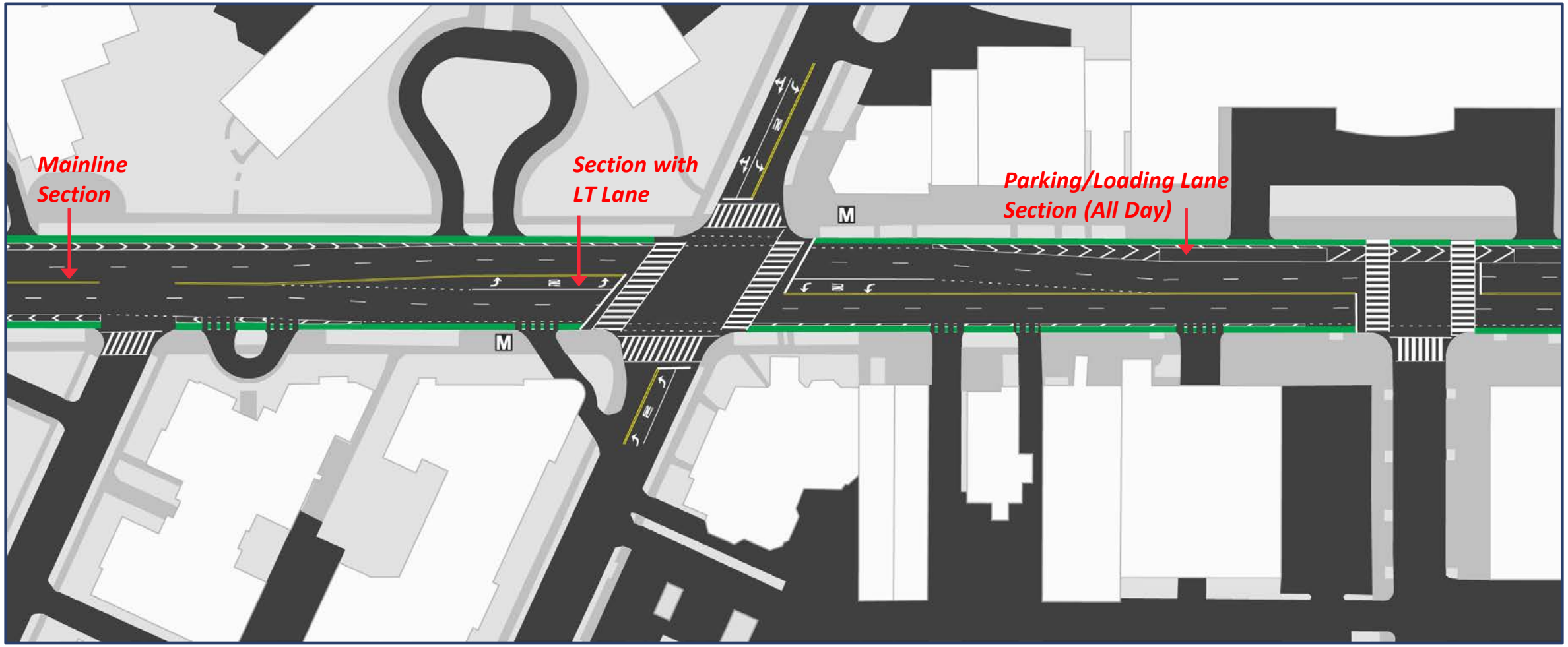
- Removes Reversible Lane System
- Peak Period/Off-Peak Period Traffic Operations:
  - Two (2) northbound travel lanes
  - Two (2) southbound travel lanes
- One-way Protected Bicycle Lanes:
  - Located on east and west sides of Connecticut Avenue
  - Reduced buffers for options that include left turn lane or parking/loading lane

Concept C – Illustrative Rendering

Concept C – Illustrative Rendering

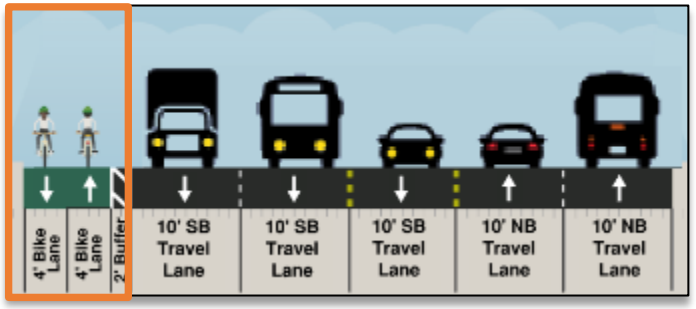
Example of Protected Bike Lane

Concept C – Typical Layout

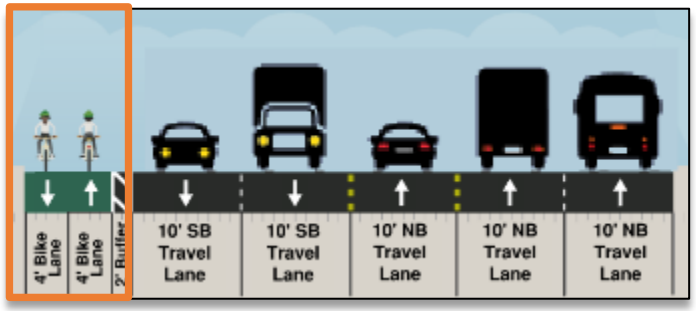


Concept D-0

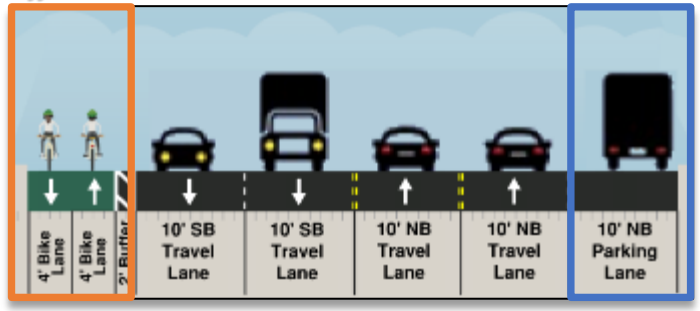
AM Peak Period



PM Peak Period



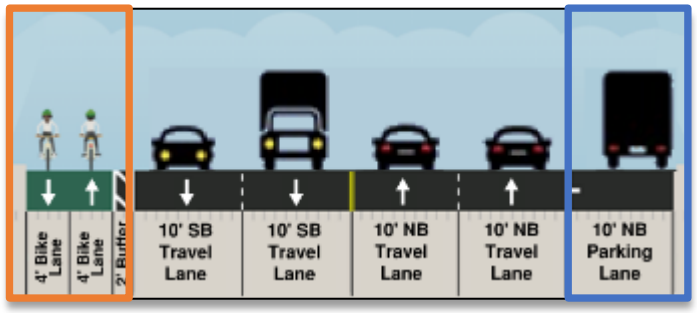
Off-Peak Period



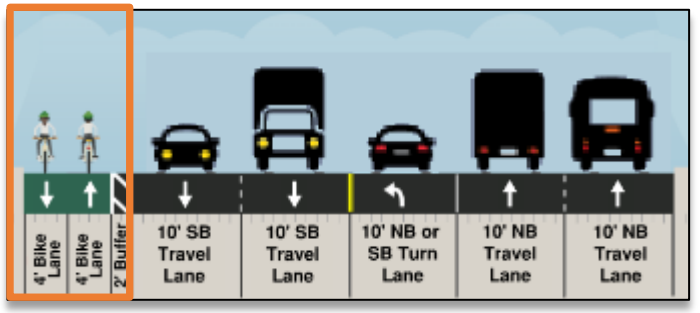
- Retains one (1) lane Reversible Lane
- Requires upgrade of Reversible Lane System per MUTCD Standard (CFA and SHPO do not support)
- Peak Hour Traffic Operations
  - Three (3) peak direction/ two (2) off-peak direction travel lanes
- Off-Peak Period Traffic Operations
  - Two (2) NB and two (2) SB travel lanes with NB Parking/Loading lane
- Two-way protected cycle track:
  - Two (2) 4-foot bike lanes and a 2-foot buffer.
- Left-turn pockets with "protected only" phasing, as required by DDOT's *Bicycle Facility Design Guide*
  - Not constructible due to Reversible Lanes.

Concept D-1 (by others)

All Periods



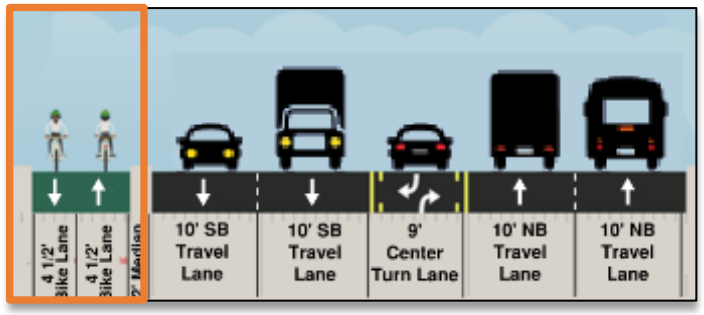
Option: Based on need for NB/SB Left-turn pockets



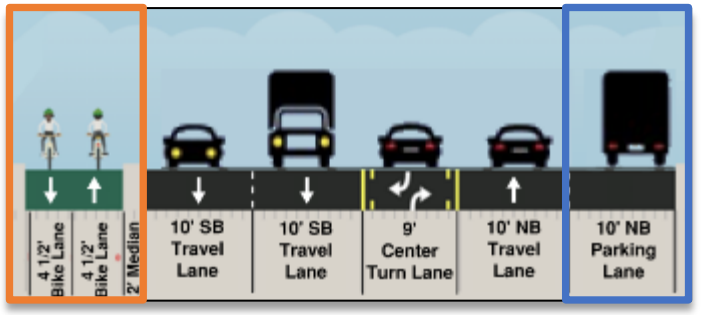
- Removes Reversible Lane System
- Traffic Operations, All Day:
  - Two (2) northbound and two (2) southbound lanes
- Two options (based on locational needs within Corridor):
  - Northbound (NB) parking/loading lane, or NB/SB left-turn pocket
- Two-way protected cycle track:
  - Two (2) 4-foot bike lanes and a 2-foot buffer
- Left-turn pockets with "protected only" phasing required for all intersections per DDOT's *Bicycle Facility Design Guide.*
  - NB/SB left turns may block left lane leaving only one lane for through movement.
  - Left-turn pockets required for two-way cycle track preclude parking.

Concept D-2 (by others)

AM and PM Peak Periods



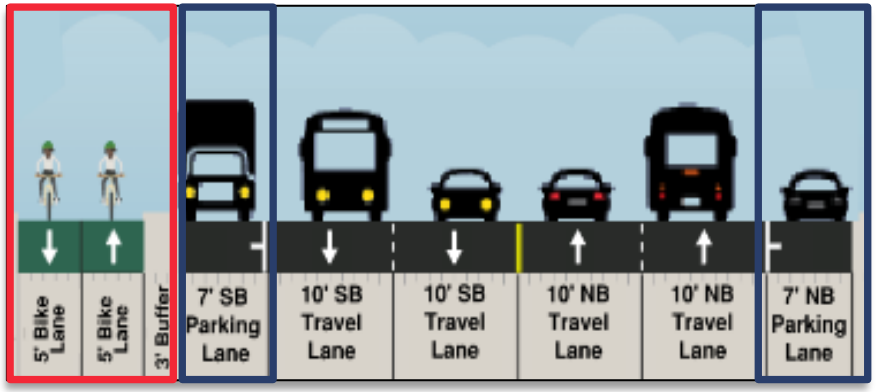
Off-Peak Period



- Removes Reversible Lane System
- Peak Period Traffic Operations:
  - Two (2) northbound and two (2) southbound lanes; two-way center left-turn lane
- Off-Peak Period Traffic Operations:
  - One (1) northbound and two (2) southbound lanes; Two-way center left-turn lane
  - Northbound parking/loading lane
- Two-way protected cycle track:
  - Two (2) 4-foot bike lanes and a 2-foot buffer
- Left-turn pockets with "protected only" phasing required for all intersections per DDOT's *Bicycle Facility Design Guide.*
  - NB/SB left turns may block left lane leaving only one lane for through movement.
  - Left-turn pockets required for two-way cycle track preclude parking.

Concept E (by others)

All Periods



- Removes Reversible Lane System
- Peak Period/Off-Peak Period Traffic Operations:
  - Two (2) northbound and two (2) southbound lanes
  - Northbound and southbound Connecticut Avenue Parking/Loading Lanes
- Two-way Protected Cycle Track on the west side of Connecticut Avenue:
  - Two (2) 5’ bike lanes and a 3’ buffer
- ROW/Construction required to accommodate 67’ cross-section (60-foot existing curb-to-curb). *Does not conform to DDOT Guiding Principles*
- Cleveland Park Streetscape Project design impact.

Concept Evaluation Criteria

- **Traffic Safety**
- **Traffic Operations**
- **Bicycle Accessibility and Comfort**
- **Pedestrian Accessibility and Comfort**
- **Transit Accessibility and Operations**
- **Parking, Loading and Pick-Up/Drop-Off**
- **Constructability/Implementation**

Embedded within the Evaluation Criteria - Consistency with District of Columbia Plans:

- moveDC
- Bicycle Master Plan
- Vision Zero
- Sustainable DC 2.0 Plan
- Bicycle and Pedestrian Safety Amendment Act of 2016

Concept Evaluation Matrix

First-Level Evaluation

			No-Build Option	Concept A	Concept B	Concept C	Concept D^0	Provided by Others *		
PROJECT PURPOSE		➢ **Improve Safety and Operations along the Corridor** ➢ **Improve Multi-modal Accessibility**						**Concept D^1**	**Concept D^2**	**Concept E**
Screen 1	**FATAL FLAW ANALYSIS**	➢ Requires Additional ROW (existing 60' curb-to-curb width)	*NO*	*NO*	*NO*	*NO*	*NO*	*NO*	*NO*	*YES*
Screen 2	**EVALUATION CRITERIA ASSESSMENT**	1. Traffic Safety	-2	-2	+1	+2	-2	+2	+2	
		2. Traffic Operations	+2	-1	+1	+1	-1	-1	-2	
		3. Bicycle Accessibility & Comfort	-2	+2	-2	+1	+1	+1	+1	
		4. Pedestrian Accessibility & Comfort	0	+1	0	+1	0	0	0	
		5. Transit Accessibility & Operations	+1	-1	+1	0	0	0	-1	
		6. Parking, Loading & Pick-up/Drop-off (PUDO)	+2	-2	+2	-1	+1	-1	+1	
		7. Constructability & Implementation	-2	-2	+1	0	-2	-2	-2	
Scoring			*-1*	*-5*	***+4***	***+4***	*-3*	*-1*	*-1*	*N/A*

KEY				
Not Desirable	***Less Desirable***	***Neutral***	***More Desirable***	***Desirable***
-2	*-1*	0	*+1*	+2

SECOND-LEVEL EVALUATION:
CONCEPTS B & C

8a.

SAFETY AND MOBILITY

Potential Safety Benefits of Concepts B & C

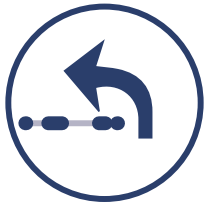
Remove Reversible Lanes - Estimated 36% reduction of crashes during peak hours (17% overall) (Concept B, C)

Remove Parking for 25’ Corner Visibility – Estimated up to 20% reduction of crashes

Add Protected Bicycle Lanes – Expected decrease in vehicular crashes, protects cyclists mid-block (Concept C)

Pedestrian Refuge Island – Estimated 26% reduction of crashes at intersections with refuge islands

Add Turn Lanes at selected intersections – Estimated 27% reduction of crashes at intersections with turn lanes (Concept C)



Left-Turn Calming Treatments – Slows left turning vehicles, reducing conflicts with pedestrians (Concept B)

Concept B - Potential Safety and Mobility Improvements

Second-Level Evaluation

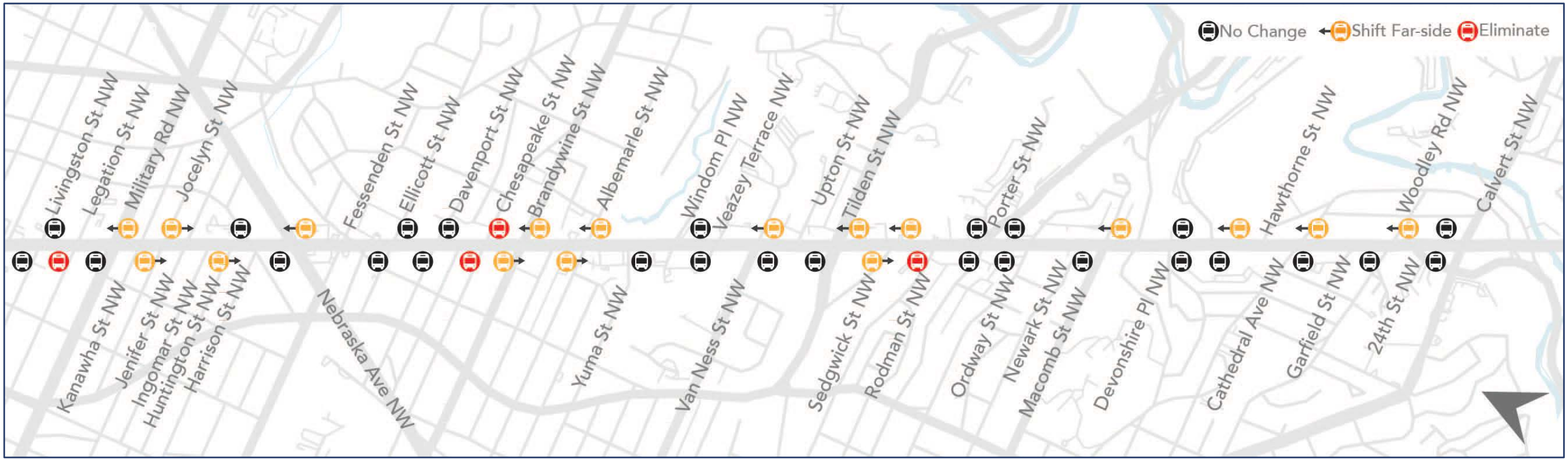
- Left Turn Calming
- Analyze intersection for approach realignment (Simplify approach or shorten side street crossing distance)
- HAWK Signal (requires additional study)
- No Right Turn on Red (requires additional study)
- Parking Clearance

Concept C - Potential Safety and Mobility Improvements

Second-Level Evaluation

- Left Turn Lane
- Right Turn Lane
- HAWK Signal (requires additional study)
- No Right Turn on Red
- Pedestrian Refuge Island
- Analyze intersection for approach realignment (Simplify approach or shorten side street crossing distance)
- Parking Clearance

Illustrative Bus Stop Relocations and Elimination



Far Side Bus Stops

- Increase pedestrian visibility and situate pedestrians to cross behind the bus.
- They reduce conflicts with right-turning vehicles, which may try to pass a stopped bus.
- Far-side bus stop times may be faster for transit service as compared to near-side locations.

SECOND-LEVEL EVALUATION:
CONCEPTS B & C

PARKING & LOADING

8b.

Parking & Loading Evaluation

Connecticut Avenue NW: Legation Street NW to Calvert Street NW

Second-Level Evaluation

- **Concept B:**
  - Removes minimal parking - 21 spaces to achieve 25’ visibility at crosswalks.
- **Concept C:**
  - Parking/loading on one side of Connecticut Avenue would be removed;
    - May alternate between northbound and southbound sides to maximize use – *to be finalized during next phase of design.*
  - Illustrative scenario
    - 288 parking spaces retained; 321 parking spaces removed.
    - 447’ (~18 spaces) of loading retained; 130’ (~6 spaces) of loading would be removed

Parking & Loading Evaluation

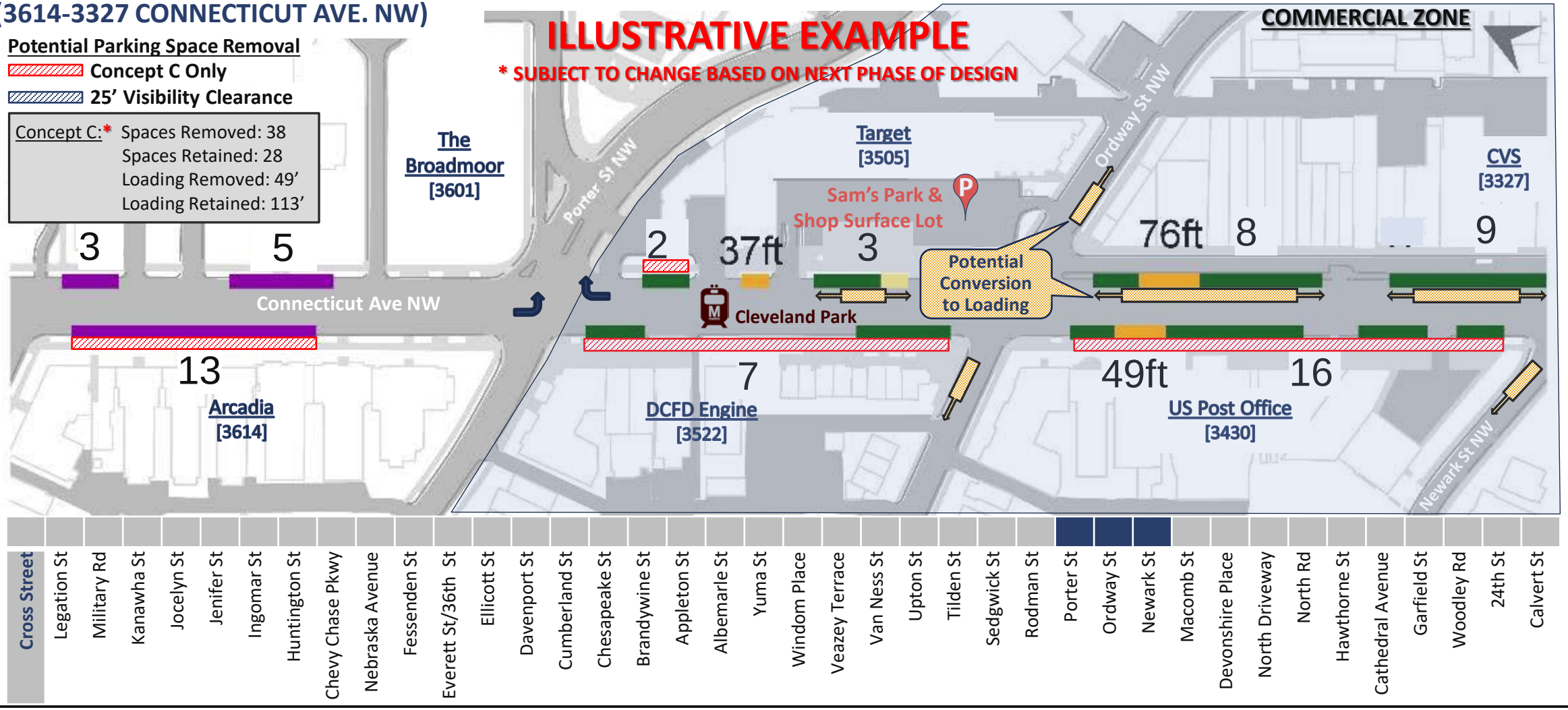
Possible Solutions for Concept C to Increase Parking & Loading

- Parking and Loading spaces would be signed for “All Day” use.
  - Provides a “gain” of 17.5% in weekly availability of parking space hours where there are currently parking restrictions.
- Modify the existing mix of parking spaces, pick-up/drop-off (PUDO) spaces and loading spaces by time-of-day.
  - Converting Residential Parking Permit (RPP) spaces to short-term PUDO or loading spaces.
  - Converting 2-hour metered parking spaces to short-term PUDO or loading spaces.
  - Utilization of midblock spaces on either side of mid-block crosswalks for loading.
- Understanding current alley access and loading opportunities and constraints.

Corridor Segment 7: Porter St to Newark St

(3614-3327 CONNECTICUT AVE. NW)

Second-Level Evaluation



Metered Parking
Non-Metered Parking
Loading
Taxicab
Diplomat Parking
Proposed Turn Lane
XX # of Parking Spaces
XX FT Loading Zone Length

Potential Parking Scenario – Concepts B & C

Second-Level Evaluation

Connecticut Avenue NW Parking & Loading *Existing Conditions*		*Total Available*
➢ Total Parking Spaces		***609***
➢ Total Parking Spaces by Roadway Segment	*1) Legation St to Jennifer St*	***61***
	2) Jennifer St to Fessenden St	***65***
	3) Fessenden St to Chesapeake St	***56***
	4) Chesapeake St to Yuma St	***66***
	5) Yuma St to Upton St	***78***
	6) Upton St to Rodman St	***73***
	7) Rodman St to Newark St	***66***
	8) Newark St to North Rd	***33***
	9) North Rd to Woodley Rd	***87***
	10) Woodley Rd to Calvert St	***24***
➢ Total Loading Area		***577 feet (~24 Spaces)***

Connecticut Avenue NW Parking & Loading *Potential Scenario for Concepts B and C* *		Concept B	Concept C
➢ Total Potential Parking Spaces Removed along the Corridor **		***21***	***321***
➢ Total Potential Parking Spaces Removed by Connecticut Avenue NW Roadway Segment	*1) Legation St to Jennifer St*	***2***	***30***
	2) Jennifer St to Fessenden St	***5***	***41***
	3) Fessenden St to Chesapeake St	***5***	***35***
	4) Chesapeake St to Yuma St	***5***	***27***
	5) Yuma St to Upton St	***1***	***45***
	6) Upton St to Rodman St	***2***	***43***
	7) Rodman St to Newark St	***0***	***38***
	8) Newark St to North Rd	***0***	***10***
	9) North Rd to Woodley Rd	***1***	***46***
	10) Woodley Rd to Calvert St	***0***	***6***
➢ Total Potential Parking Spaces Retained		***588***	***288***
➢ Total Potential Loading Area Retained along the Corridor		***577 feet (~24 Spaces)***	***447' (~18 spaces)***

* Subject To Change Based On Next Phase Of Design

** Includes removal of 21 spaces to achieve 25' visibility clearance required at Intersections.

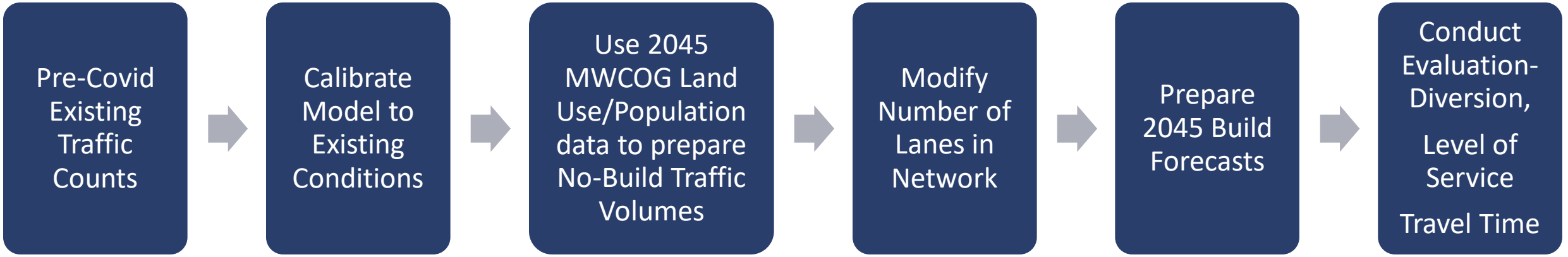
SECOND-LEVEL EVALUATION:
CONCEPTS B & C

MODELING

8c.

Travel Demand Forecasting

Second-Level Evaluation



- **Traffic modeling and analysis consisted of the following:**
  - Preparing 2045 traffic volume forecasts consistent with land use, employment and population estimates from DC, MWCOG
  - Modifying the number of lanes
  - Estimating traffic diversions
  - Conducting level of service/capacity analyses
  - Comparing relative travel time differences between Concepts

Limitations/Assumptions in Traffic Model

- Focus on Concepts B and C since traffic model is sensitive to changes in number of lanes.
- Models are good at forecasting traffic on higher volume roads than on lower volume roads.
- Model does not consider potential mode shifts that may occur in the study area such as additional transit or Metro ridership.
- Model does not consider potential changes such as more people working from home as a direct result of dynamics created by pandemic conditions.
- The study considers a Year 2045 Planning horizon and does not consider changes in traffic volumes on a year-to-year basis.

SECOND-LEVEL EVALUATION:
CONCEPTS B & C

8d.

TRAFFIC DIVERSIONS

Traffic Diversion: General Principles

- Modeled Traffic Diversions for No-Build and Concepts B and C.
- Developed a Daily (24-Hour) Diversion volume.
- Some diversions will occur within our Secondary Study Area and on Regional Roadways.
- Model only considers potential mode shifts at the regional level and is not sensitive to local changes that may occur in the study area such as additional transit or Metro ridership.
- Distributed Daily Diversion volumes to Secondary Study Area over five (5) hours in the AM Peak Period and five (5) hours in the PM Peak Period.
- Diversions are not expected to occur during 14 of 24 hours of the day (i.e., during the off-peak periods).

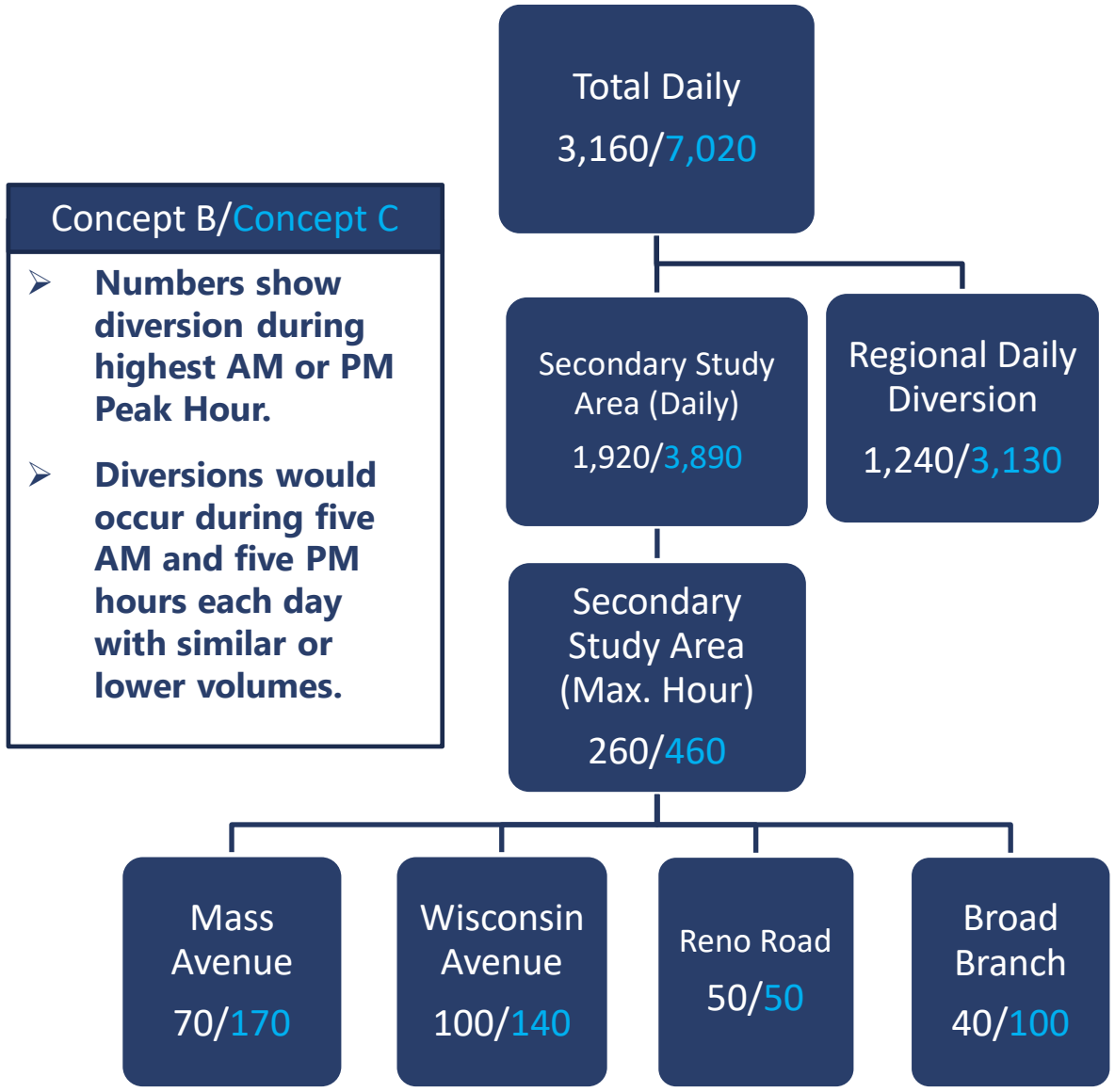
Secondary Study Area and Regional Diversions

Second-Level Evaluation

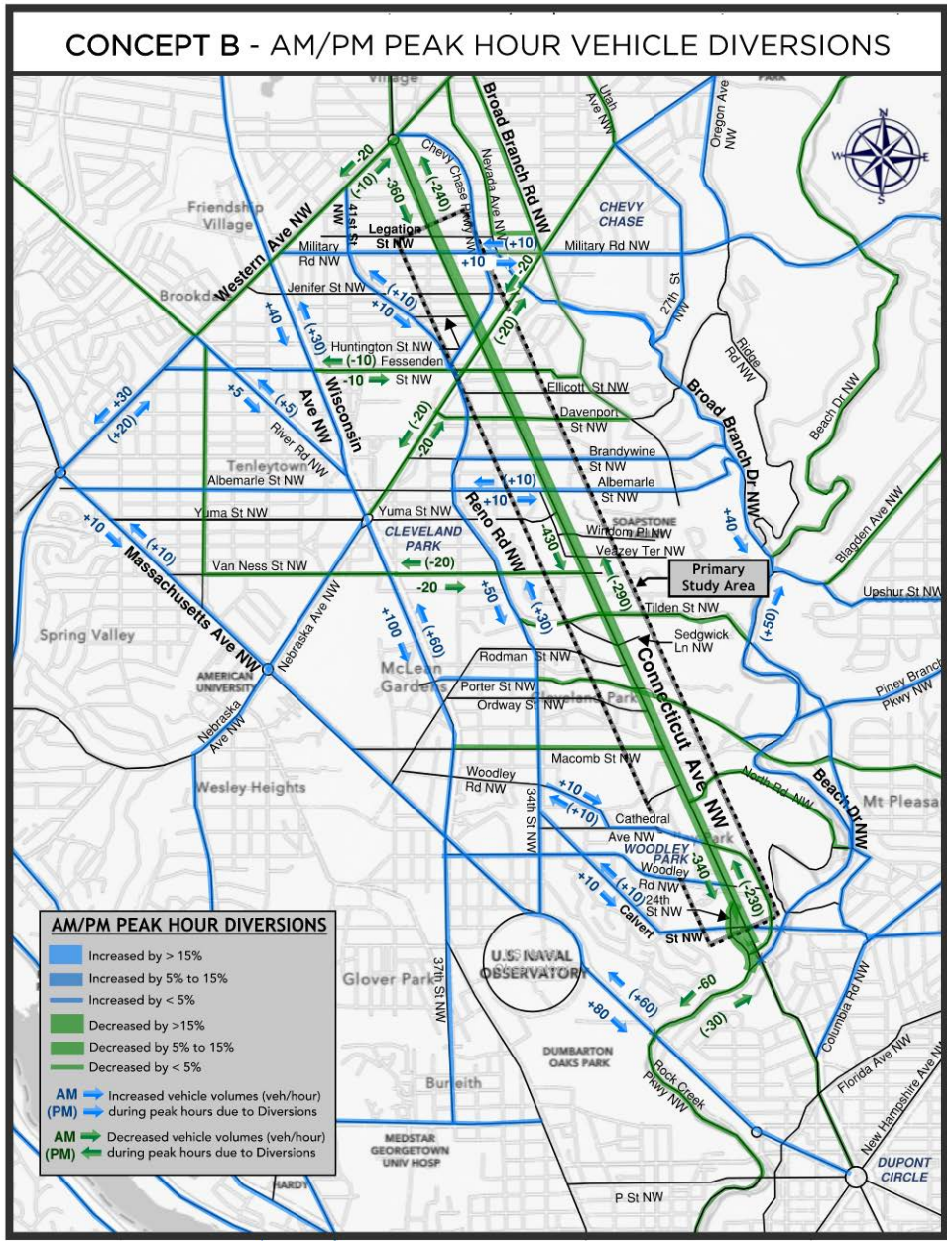
- 55-60% of traffic diversions will occur within the secondary study area, while 40-45% of people will travel on regional roadways
- Regional "diversion" roadways include Georgia Ave, Clara Barton Pkwy/ Canal Road, I-495, MacArthur Blvd, and George Washington Pkwy.
- Concept B
  - Total Daily Diversions: 3,160
  - Secondary Study Area Daily Diversions: 1,920
  - Regional Diversions: 1,240
- Concept C
  - Total Daily Diversions: 7,020
  - Secondary Study Area Daily Diversions: 3,890
  - Regional Daily Diversions: 3,130

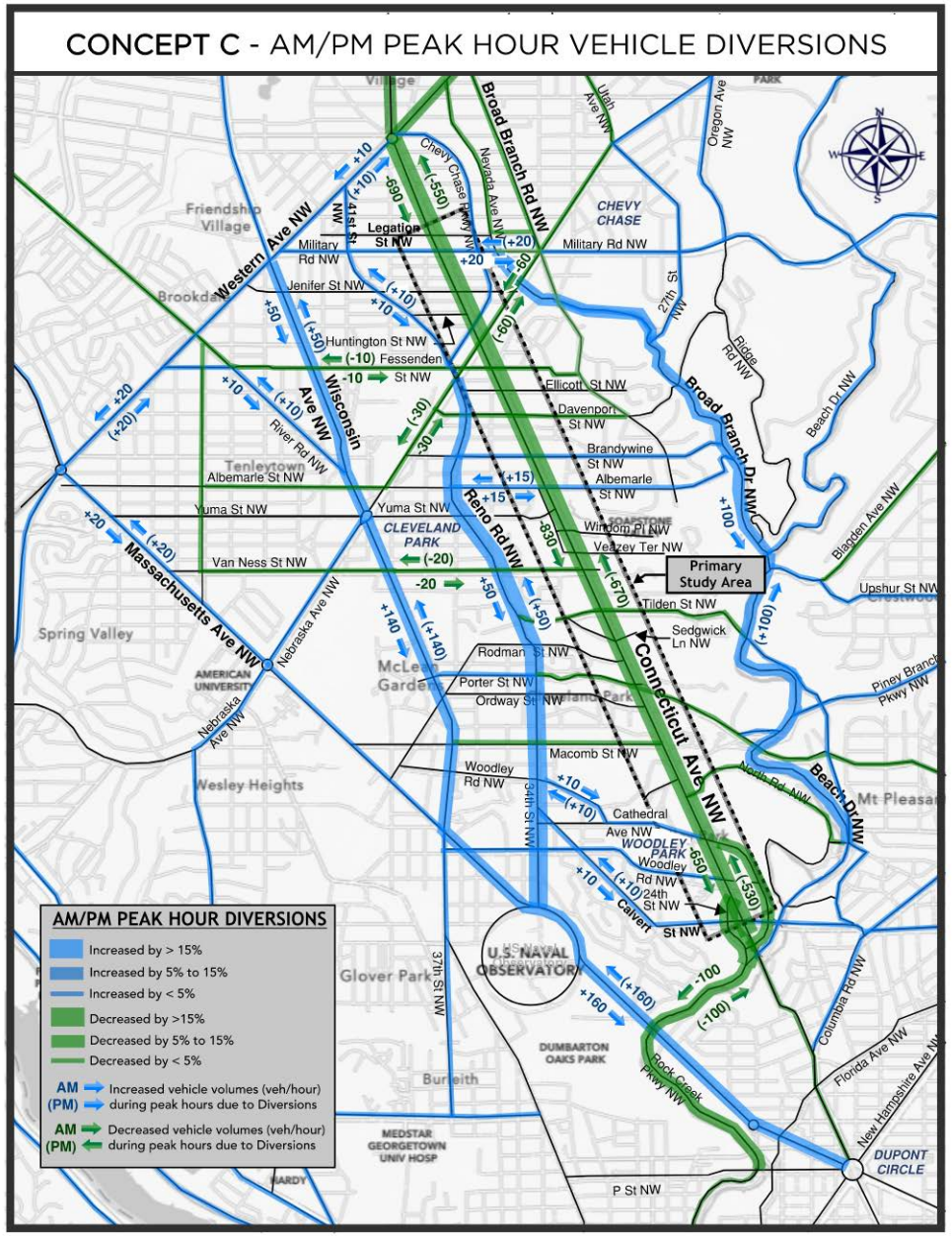
Concept B/Concept C

- **Numbers show diversion during highest AM or PM Peak Hour.**
- **Diversions would occur during five AM and five PM hours each day with similar or lower volumes.**



Concepts B and C Traffic Diversions





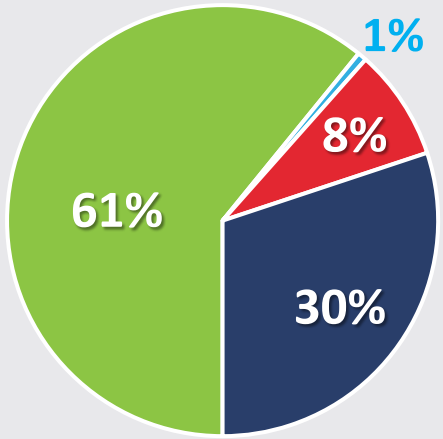
GREEN shows relative decreases in peak hour traffic volumes compared to 2045 No-Build condition.

BLUE shows relative increases in peak hour traffic volumes compared to 2045 No-Build condition.

Connecticut Avenue NW - Multimodal Volumes

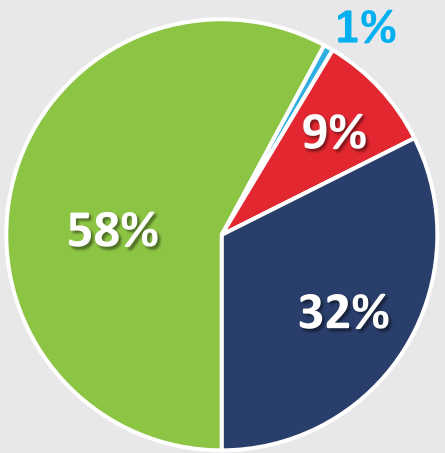
Second-Level Evaluation

No-Build



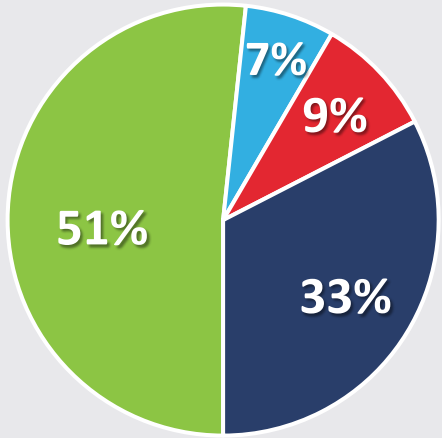
Cars – 31,350
Metrorail – 15,500
Bicycles – 300
Buses – 4,300

Concept B

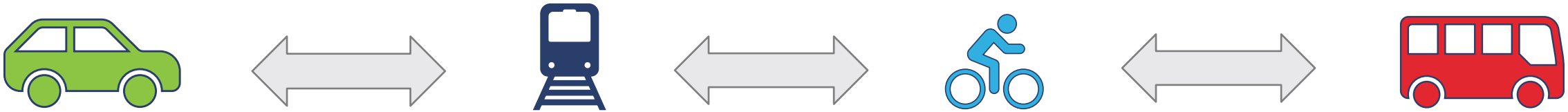


Cars – 28,250
Metrorail – 15,500
Bicycles – 300
Buses – 4,300

Concept C



Cars – 24,610
Metrorail – 15,800*
Bicycles – 3,200
Buses – 4,400*
*Includes 2% Modal Shift



SECOND-LEVEL EVALUATION:
CONCEPTS B & C

TRAFFIC LEVELS OF SERVICE & DELAY

8e.

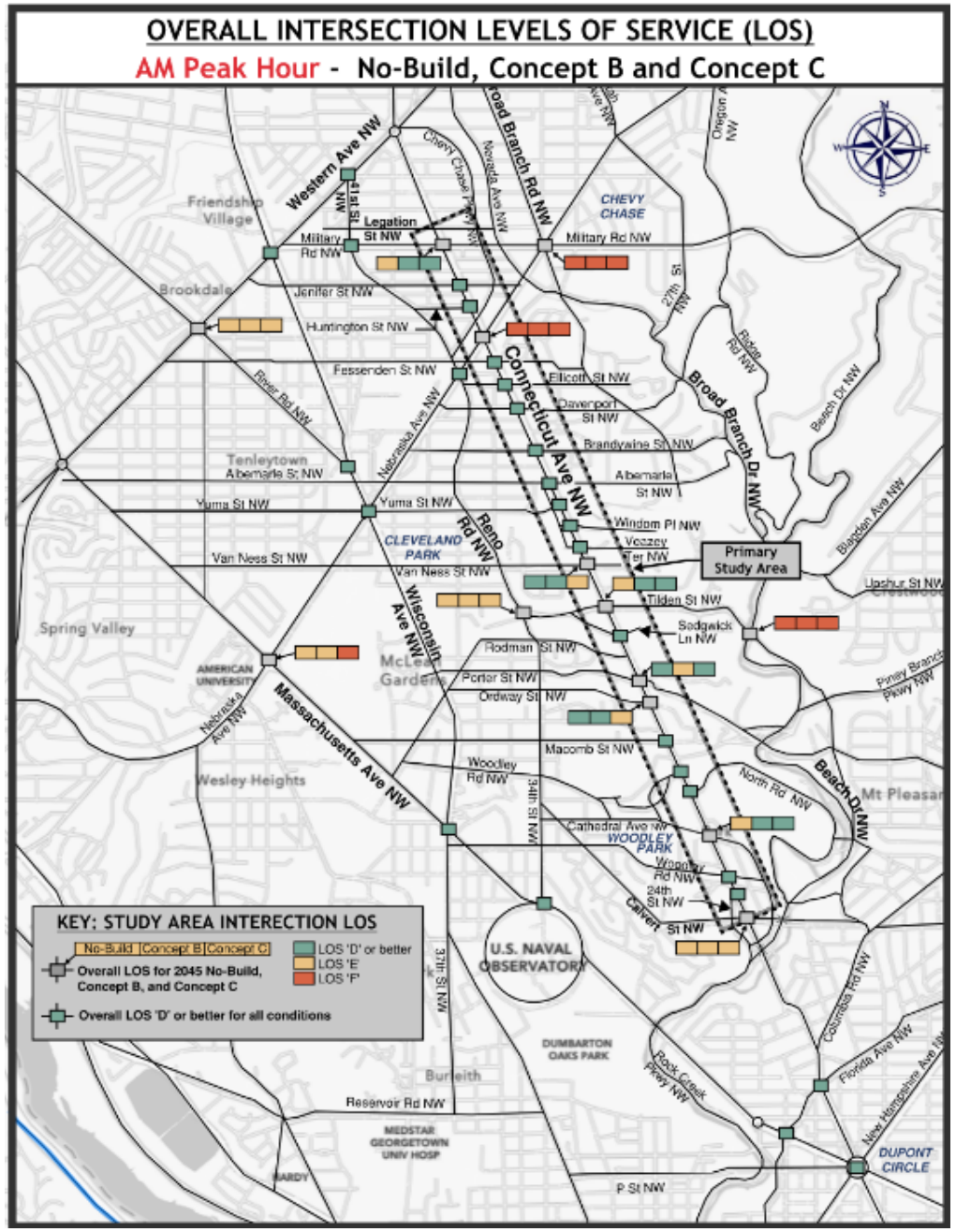
Intersection Level of Service and Delay

- Level of Service (LOS) and Delay, were reported and assessed at each of the study area intersections.
- LOS and Delay
  - See Grading System, LOS “A” to LOS “F”
  - Overall signalized LOS: Average total vehicle delay of all movements through an intersection
- LOS and Delay reported is for the highest one peak hour in the morning and the highest one peak hour in the evening.
- An intersection will likely operate better than what is reported during the balance of the day (approximately 20-22 hours).

LOS	Control Delay per vehicle (seconds per vehicle)
A	≤ 10
B	> 10-20
C	> 20-35
D	> 35-55
E	> 55-80
F	> 80

AM Peak Hour Level of Service (LOS) Results

Second-Level Evaluation



Primary & Secondary Study Areas - No-Build, Concepts B & C

AM PEAK HOUR	PRIMARY & SECONDARY STUDY AREAS		
	NO-BUILD	CONCEPT B	CONCEPT C*
# of Intersections with Overall LOS "F" (Total # of Study Area Intersections)	3 (44)	3 (44)	4 (44)

**Traffic demands are different under Concepts B and C due to capacity constraints along Connecticut Avenue*

Intersections Operating at LOS "F" under 2045 No-Build, Concept B or Concept C conditions:

Primary

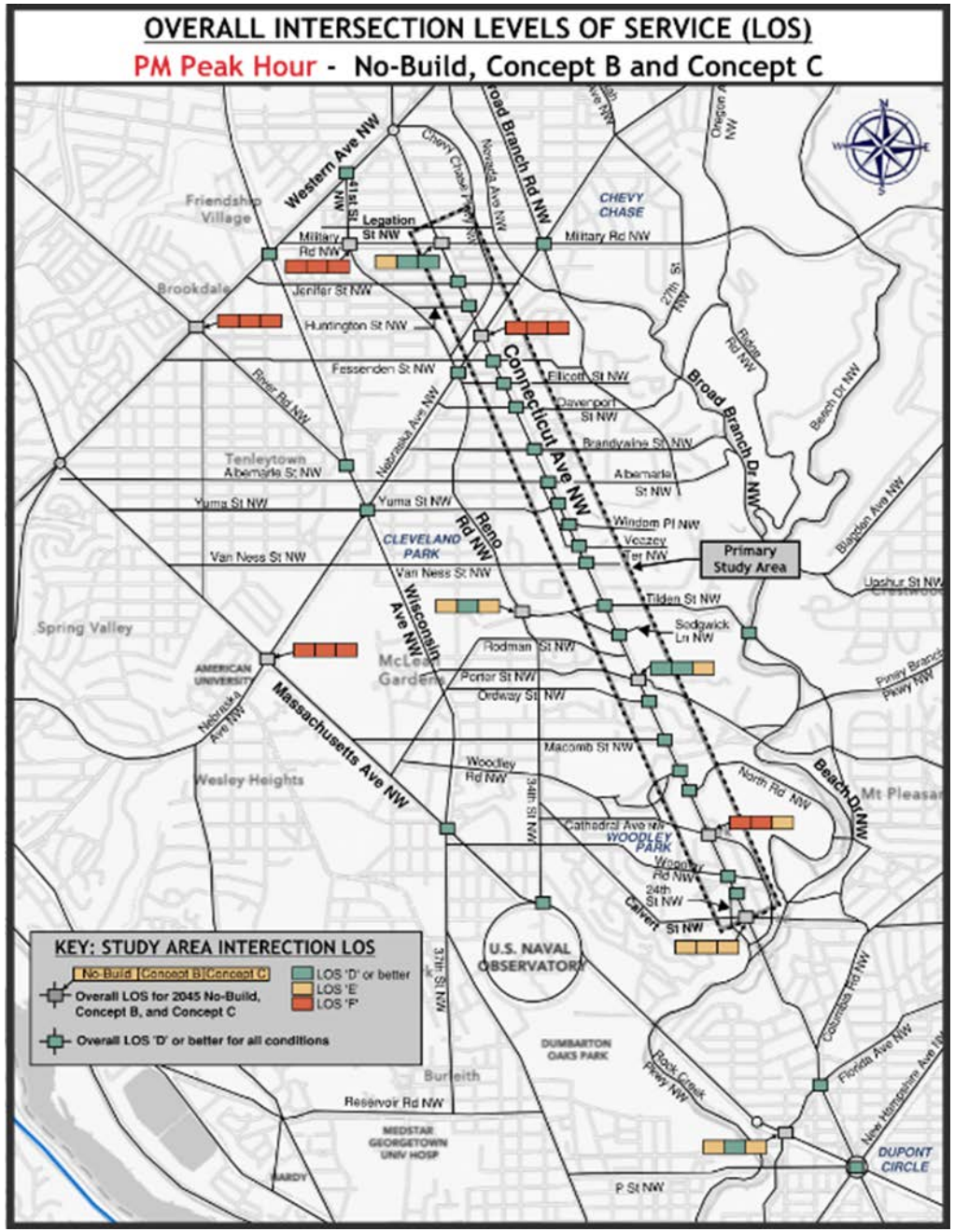
- Nebraska Ave & Connecticut Ave (All Conditions)

Secondary Study Area

- Nebraska Ave & Broad Branch Rd (All Conditions)
- Beach Dr & Park Rd/Tilden St (All Conditions)
- Nebraska Ave & Ward Circle N. ("E" to "F" - Concept C)

PM Peak Hour Level of Service (LOS) Results

Second-Level Evaluation



Primary & Secondary Study Areas - No-Build, Concepts B & C

PM PEAK HOUR	PRIMARY & SECONDARY STUDY AREAS		
	NO-BUILD	CONCEPT B	CONCEPT C*
# of Intersections with Overall LOS "F" (Total # of Study Area Intersections)	5 (44)	5 (44)	4 (44)

**Traffic demands are different under Concepts B and C due to capacity constraints along Connecticut Avenue*

Intersections Operating at LOS "F" under 2045 No-Build, Concept B or Concept C conditions:

Primary

- Nebraska Avenue & Connecticut Avenue (All Conditions)
- Cathedral Ave & Connecticut Ave ("F" to "E" - Concept C)

Secondary Study Area

- Western Ave & River Rd (All Conditions)
- Reno Rd & Military Rd (All Conditions)
- Nebraska Ave & Ward Circle N. (All Conditions)

Traffic Analysis Conclusions

- Levels of service (i.e., capacity and delay) for Concepts B and C include diversions to secondary study area and regional roadways.
- Concept C diverts more traffic than Concept B due to one (1) less travel lane.
- Study Area intersections with LOS "F" during highest *AM and PM Peak* hours:
  - 2045 No-Build: *AM/[PM]: 3/[5] of 44*
  - Concept B: *AM/[PM]: 3/[5] of 44*
  - Concept C: *AM/[PM]: 4/[4] of 44*
- Delays would result for the overall intersection as well as for individual intersection approaches.
- Modeled diversions must occur for traffic operations to operate at acceptable levels of service for some intersections along Connecticut Avenue.

Traffic Analysis Conclusions: Travel Time

- Estimated Travel Times along Connecticut Avenue (i.e., Peak Direction/Peak Hour)
  - AM Peak Hour (Southbound)
    - Concept B/ [C]: +3 minutes/[+7 minutes] compared to 2045 No-Build
  - PM Peak Hour (Northbound)
    - Concept B/ [C]: +4 minutes/[+8 minutes] compared to 2045 No-Build

Traffic Analysis – "What-if" Assessment

- What-if the magnitude of AM and PM Peak Period diversions are less then modeled?
  - Intersection delay would increase; Level of Service (LOS) "F" conditions may not be mitigated by signal timing adjustments.
  - Corridor travel times would be longer.
  - Modal shifts and behavioral changes (e.g., more teleworking) would need to occur.
- What-if Concept B and C (Year 2045) traffic volumes are 10-20% lower than modeled due to modal shifts or behavioral changes such as increased teleworking?
  - Intersections LOS would improve.
  - Corridor travel times would improve.
  - Less diversion would occur.

QUESTIONS AND COMMENTS

9.

Closing

10.

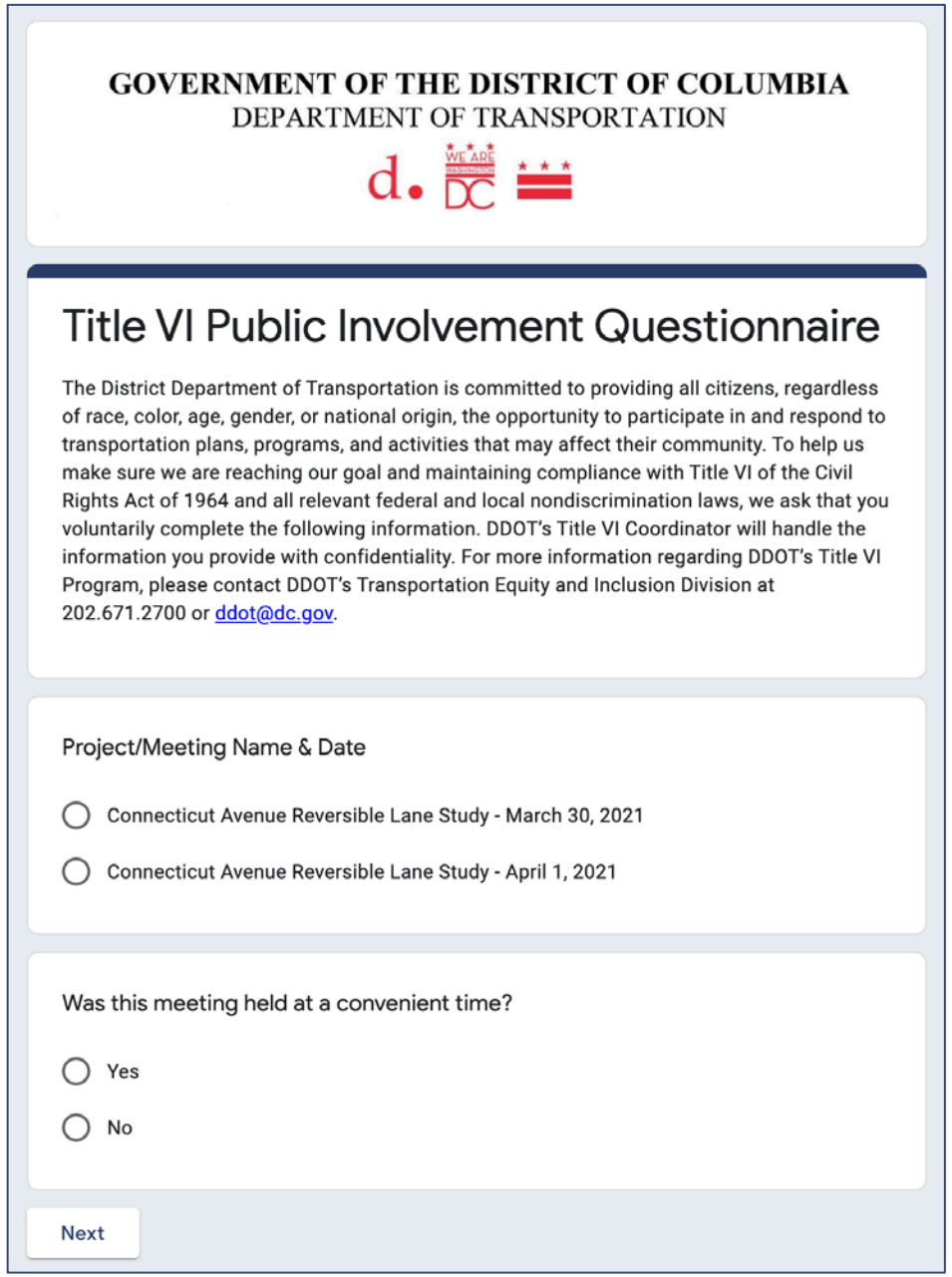
Funding and Project Cost

- This project is not currently funded for design and/or construction.
- Build Alternatives Planning-Level Construction Cost Estimates
  - Concept B: $1.9 million
  - Concept C: $4.6 million

Your Comments

- **30 Day Comment Period: We will collect your formal comments over the next 30 days.**
- **Please send your comments through the Title VI Form for documentation. This form is one of the key avenues through which DDOT documents your formal comments.**
  - ***The Title VI form will be automatically provided when you exit the WebEx General Public Meeting.***
  - *Please Click "continue" at the close of the meeting when the pop-up window appears, it will take you to the Title VI Form.*
  - *DDOT will also email the Title VI Form after the meeting; You can also access the Title VI form at rebrand.ly/ctave-titlevi*
- **Q&A during this Meeting:** We will keep a record of the Questions & Answers noted during the Public Meeting and will publish them to the project website.

Title VI Survey – rebrand.ly/CtAve-TitleVI



GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

Title VI Public Involvement Questionnaire

The District Department of Transportation is committed to providing all citizens, regardless of race, color, age, gender, or national origin, the opportunity to participate in and respond to transportation plans, programs, and activities that may affect their community. To help us make sure we are reaching our goal and maintaining compliance with Title VI of the Civil Rights Act of 1964 and all relevant federal and local nondiscrimination laws, we ask that you voluntarily complete the following information. DDOT's Title VI Coordinator will handle the information you provide with confidentiality. For more information regarding DDOT's Title VI Program, please contact DDOT's Transportation Equity and Inclusion Division at 202.671.2700 or ddot@dc.gov.

Project/Meeting Name & Date

- ○ Connecticut Avenue Reversible Lane Study - March 30, 2021
- ○ Connecticut Avenue Reversible Lane Study - April 1, 2021

Was this meeting held at a convenient time?

- ○ Yes
- ○ No

Next

As a recipient of Federal assistance, DDOT must ensure that all of its programs, activities and public meetings are conducted in compliance with Title VI of the Civil Rights Act of 1964. This Act ensures nondiscrimination based on race, color or national origin. The Title VI Public Meeting Participant Questionnaire is used to help DDOT ensure that we are informing the public and conducting our meetings in a nondiscriminatory manner, in compliance with Title VI.

Project comments and/or concerns should be submitted through this form after the Public Meeting for documentation. We appreciate anyone who is willing to complete the form.

Thank you for your participation.

What Happens Next?

- **Thank you for your attendance at the General Public Meeting and Learning Rooms today.**
- **We will collect your comments and prepare a recommendation for DDOT Management to consider.**
  - May 1st through June 15th
- **DDOT Management Recommendation by June 30th.**
- **If a Build Alternative is selected, Staff will proceed with developing a 10% Design, followed by Environmental Documentation.**
- **We anticipate holding Public Meeting #2 at the end of the project study period (Fall 2021).**

Virtual Office Hours

Please call: 1-888-484-8424

We will have telephone hours for those persons who wish to gain further information after Public Meeting #1.

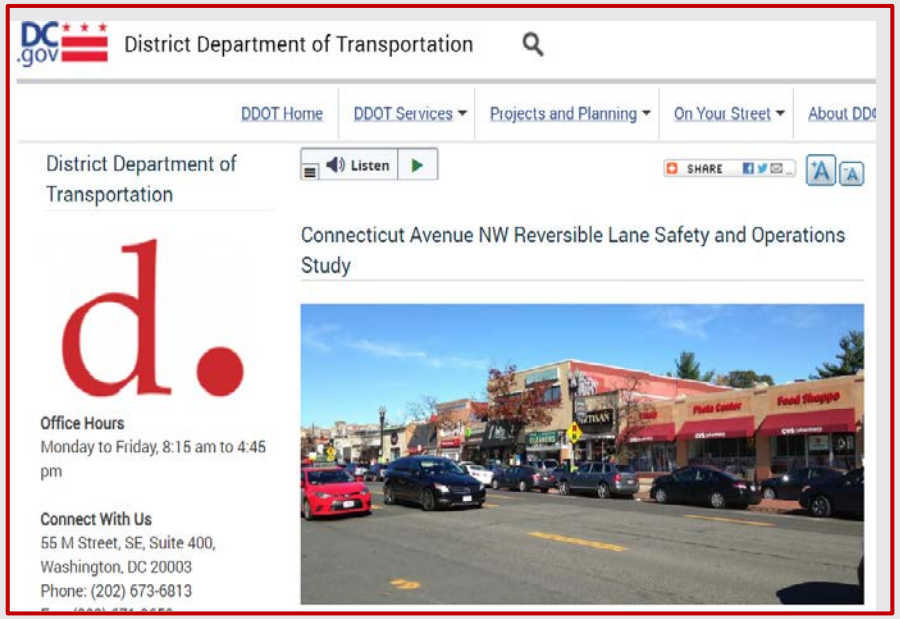
Virtual Office Hours will occur every Tuesday & Thursday from 2-4 p.m. during the 30-day public comment period.

Virtual office hours will begin on April 6th and conclude on April 29th.

Contact Information

Project Email
Conn-Ave-revstudy@dc.gov

Project Website
https://ddot.dc.gov/page/connecticut-avenue-nw-reversible-lane-safety-and-operations-study



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Cynthia Lin, Deputy Project Manager
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Ian Swain, Community Engagement Specialist
Managing Partner, Commun-ET, LLC
Email: Iswain@commun-et.com

Thank You!

Title VI Questionnaire to Follow