

# Northern Bus Garage Reconstruction Project



**Spring Community Update  
Meeting**

March 16, 2021



## Meeting Etiquette

**Metro wants to hear from you. Here are a few guidelines to keep this meeting productive and mindful of all attendees:**

- You will have an opportunity to ask questions following each section of the presentation.
- To ensure we hear from as many community members as possible, please adhere to the Q&A protocol:
  -  Type questions directly into the chat
  -  Raise your hand to speak by typing your name into the chat
- When speaking:
  - Maintain a civil tone
  - Be mindful of time so that your fellow community members can share their feedback

**Anyone in violation of the meeting etiquette guidelines will be muted for the duration of the meeting.**

## Agenda

- ❑ Introductions & Project Overview
- ❑ Project Updates
- ❑ Rebuilding an Environmentally Responsible Bus Garage
- ❑ Zero Emission Bus Program Update
- ❑ What to Expect in 2021
- ❑ Questions

# Introductions & Project Overview

Northern Bus Garage Reconstruction Project

## Project Team

- ❑ Diana Levy, Director Capital Delivery WMATA
- ❑ Jim Ashe, Environmental Coordinator WMATA
- ❑ Rachel Healy, Director Sustainability WMATA
- ❑ Dave Michels, Vice President BUS Maintenance WMATA
- ❑ Philip Sheridan, Clark Construction
- ❑ Mike Randolph, STV Inc.

## Recap of Project Events

- December 2020
  - Historic Preservation Review Board (HPRB) – Conceptual Plan Approval
- January 2021
  - Meeting with ANC Leaders
- February 2021
  - DDOT Public Space Committee Hearing – Conditional approval of public occupancy of Decatur Street and Iowa Avenue under previous permits
  - Received notice of Mayor’s Agent hearing date on raze permit
- March 2021
  - Mayor’s Agent hearing



# Project Updates

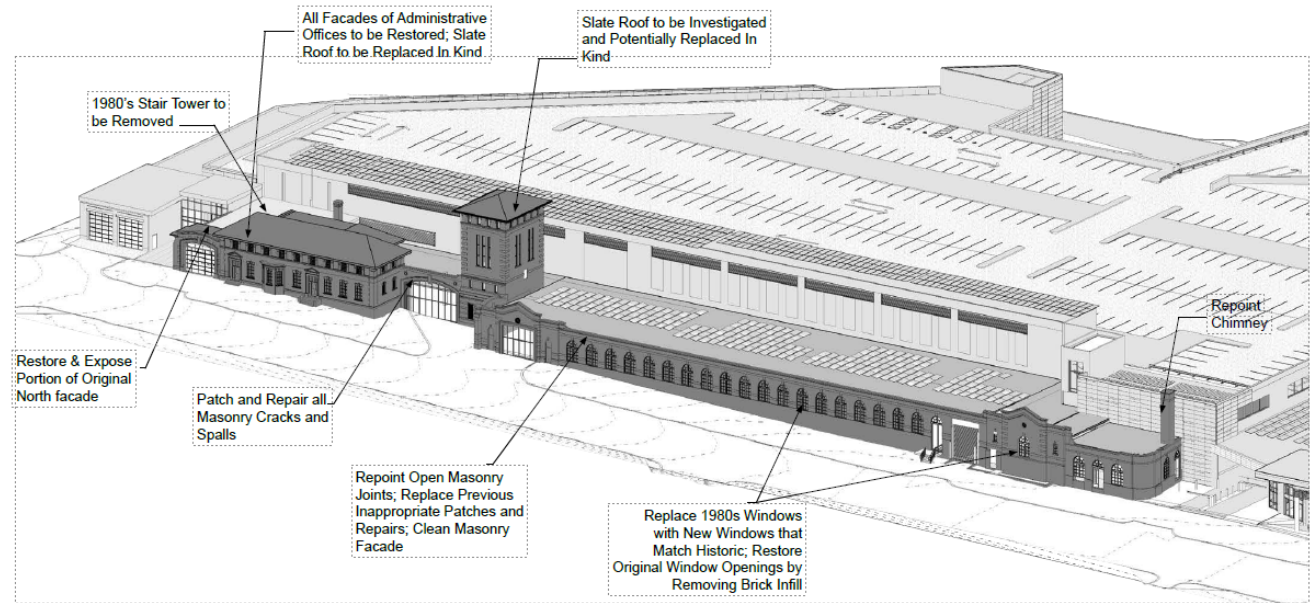
Northern Bus Garage Reconstruction Project

## DC Historic Preservation Review Board

- On December 17, HPRB unanimously approved current concept designs
- HPRB also made recommendations to further improve design aspect:
  - Color scheme of the post and beam structure at the building entrances
  - Color scheme and extension of the brick veneer above the garage doors
  - Introduce additional elements to the Arkansas Avenue wall to break down the scale of the car ramp area
- Ongoing coordination with State Historic Preservation Office (SHPO) staff
- Final designs to be presented to HPRB

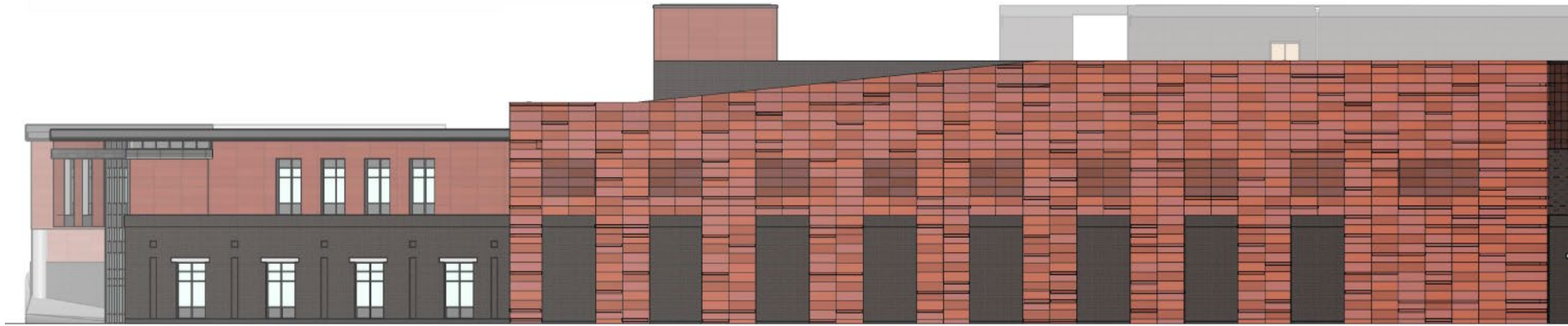
### Northern Bus Garage Preservation Treatment Approach

#### Programmatic Massing of New Construction to Historic Building





# DC Historic Preservation Review Board

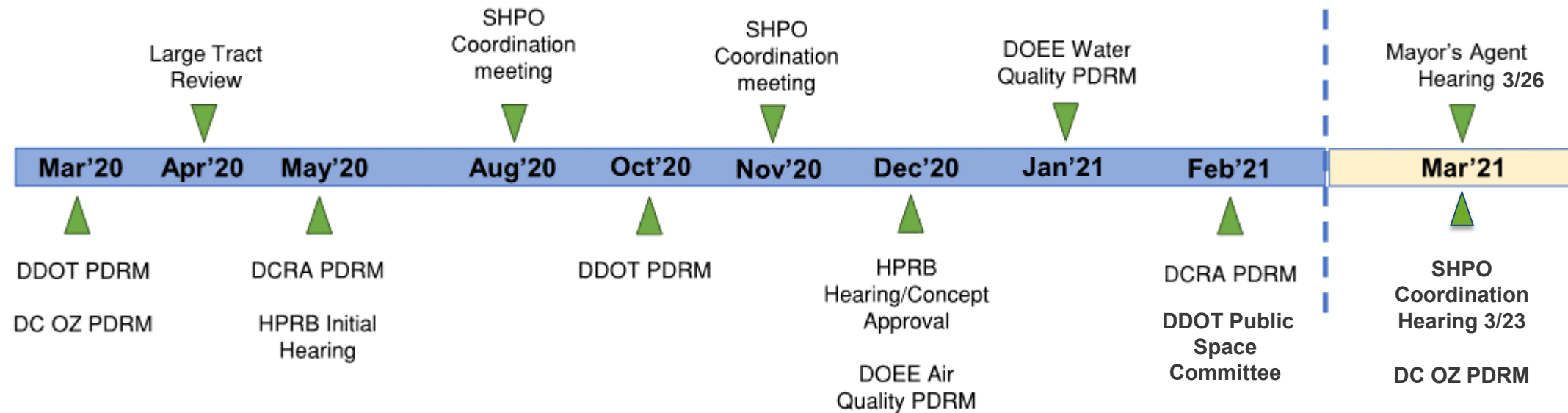


Proposed updates to Arkansas & Iowa Avenues' elevation, showing current concepts pending SHPO approval.

Vertical patterns are being introduced to “break down the scale” based on HPRB guidance



## Agency Collaboration



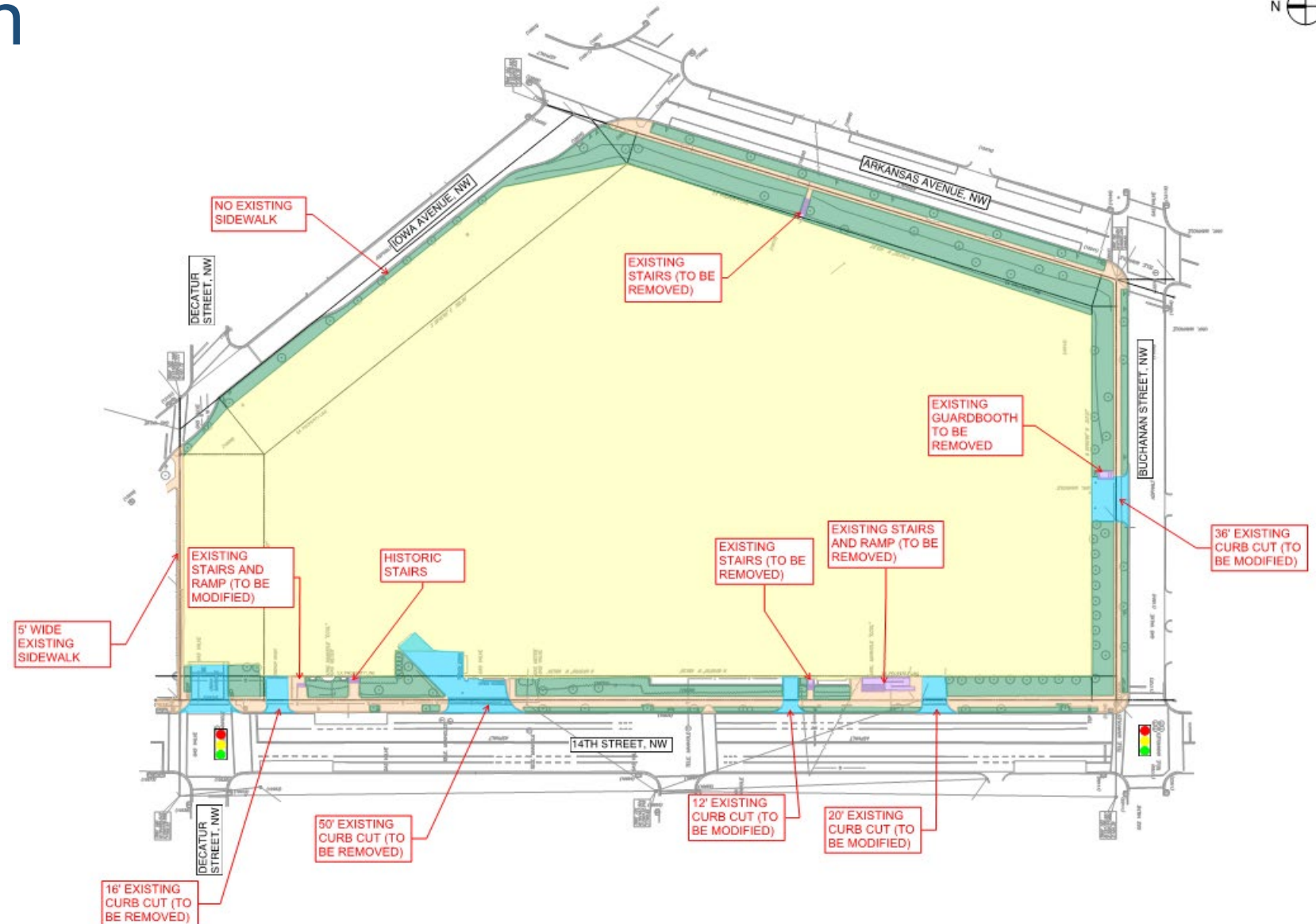
**DDOT** – DC Department of Transportation  
**DC OZ** – DC Office of Zoning  
**DCRA** – Department of Consumer and Regulatory Affairs  
**DOEE** – Department of Energy & Environment  
**HPRB** – DC Historic Preservation Review Board  
**SHPO** – State Historic Preservation Offices  
**PDRM** – Preliminary Design Review Meeting

# DDOT Coordination

ACTION	OUTCOME
Minimized Driveway Curb Cuts	Improved site operations
Maximized at-grade entrances	<ul style="list-style-type: none"> <li>• Improved ADA accessibility</li> <li>• Reduced stairs/ramps in the public space</li> </ul>
Widened from 6' to 12' east-west well-lit corridor	Created safer pedestrian/bike connectivity north of the building
Improved Iowa Avenue Cross Section making it more uniform, retaining one-way with parking on east side	<ul style="list-style-type: none"> <li>• Provides for new sidewalk and green space buffer along west side</li> <li>• Provides for enhanced pedestrian experience and screening of the building</li> </ul>
Widened 14 <sup>th</sup> Street Sidewalk from 6' to 8'	More pedestrian friendly atmosphere
Removed curb cut south of Decatur Street	Improved pedestrian safety
Rebuild traffic signal at 14 <sup>th</sup> Street and Decatur Street	Improved vehicular and pedestrian safety

## Existing Site Plan

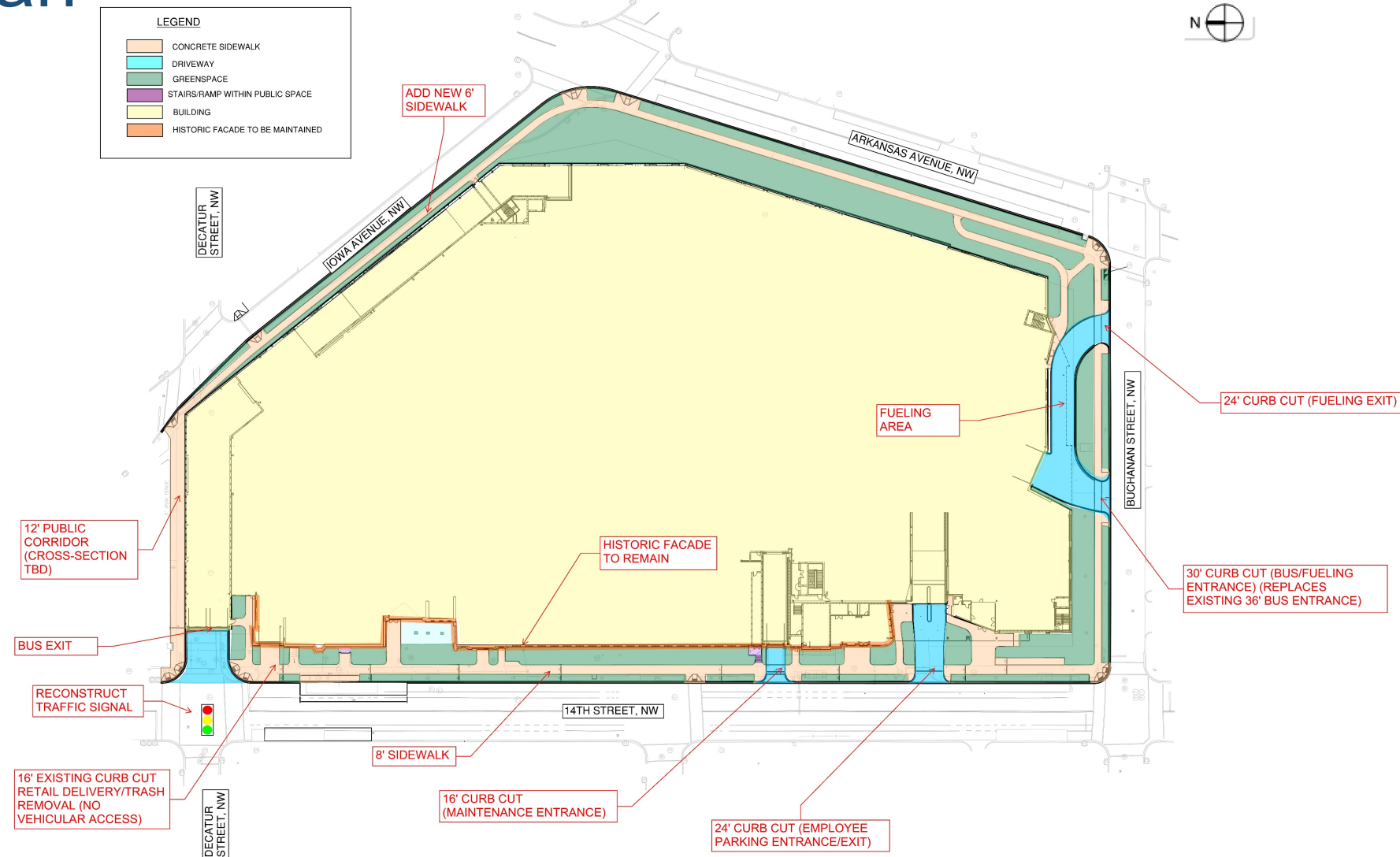
- Missing Sidewalk connection along Iowa Avenue
- Substandard sidewalk width on Decatur Street
- No Bike Rack/Seating amenities
- Large number/size of curb cuts along 14<sup>th</sup> Street



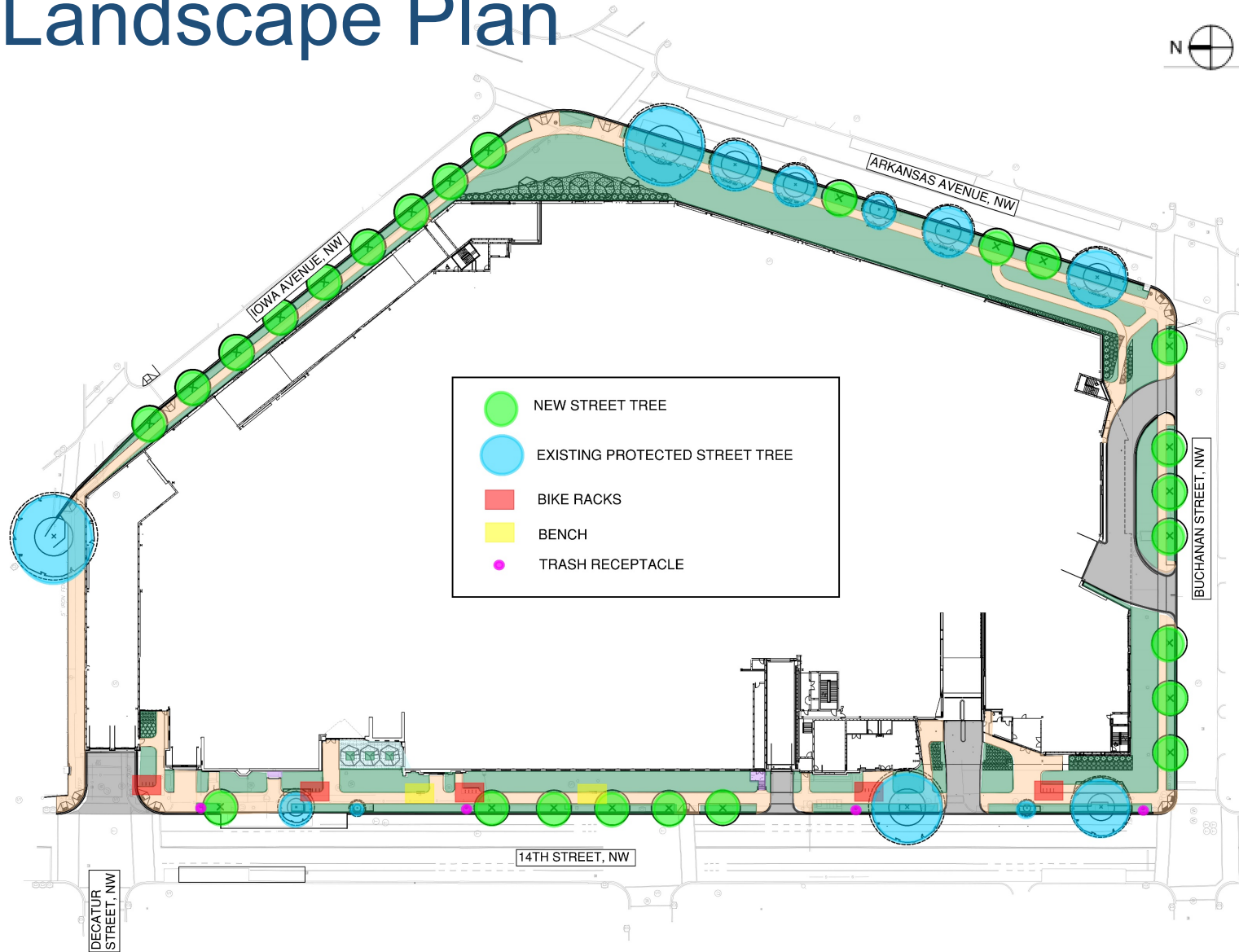
## Proposed Site Plan

Improvements since last meeting:

- 360 Perimeter Sidewalk, widened sidewalk along 14<sup>th</sup> Street and Decatur Street
- Reconstruct Traffic Signal (14<sup>th</sup>/Decatur)
- Removed large curb cut on 14<sup>th</sup> and curb cut adjacent to Decatur
- Minimized Employee Entrance width by shifting the guard booth
- Reduced Bus Entrance curb cut from existing



## Proposed Landscape Plan

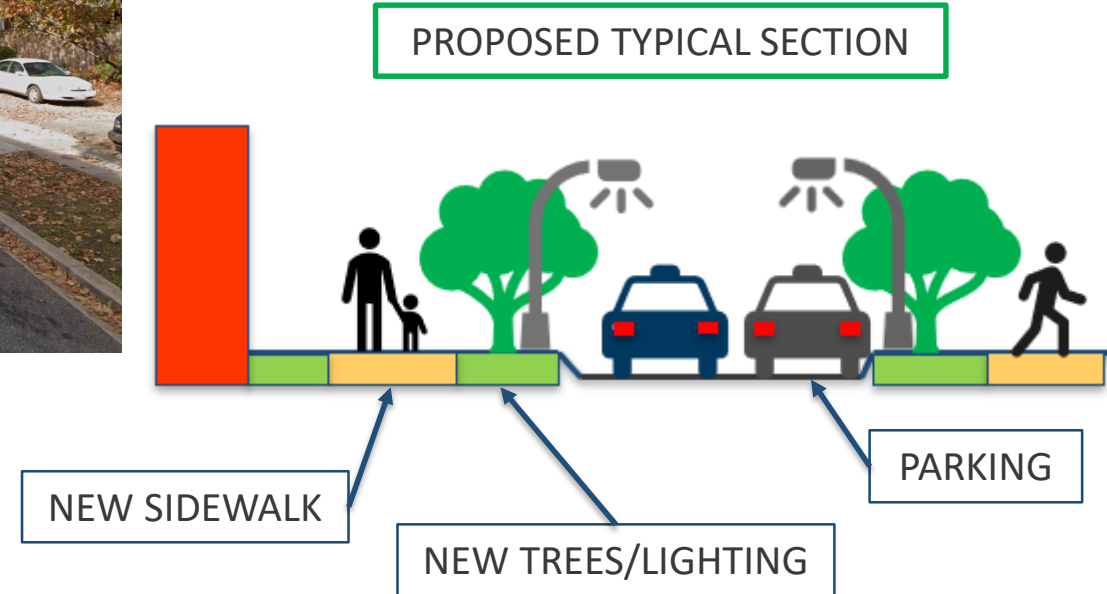


## Iowa Avenue Improvements

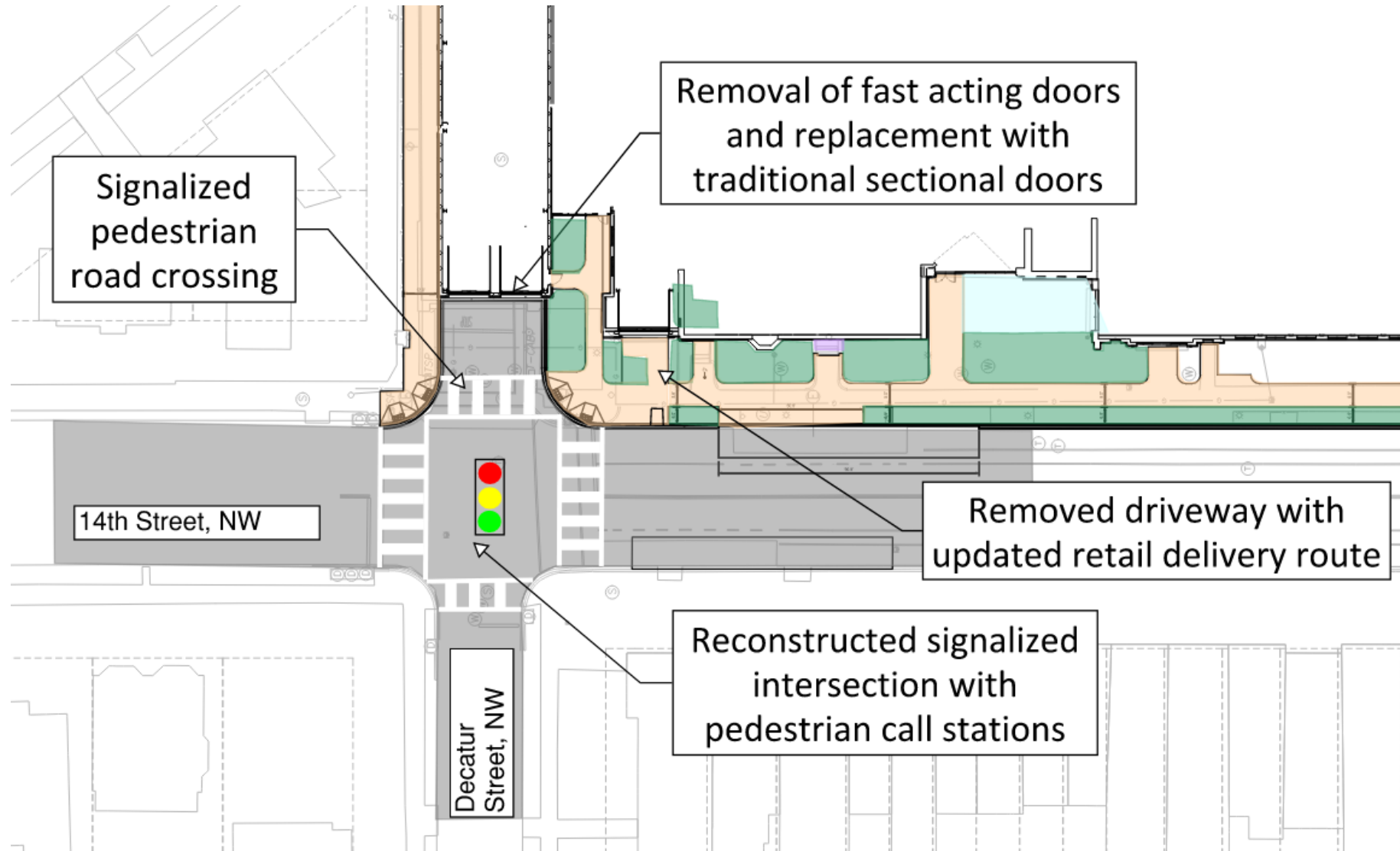
- 6' Sidewalk added on west side of Iowa Ave
- DDOT tree planting space and streetlights added on west side of Iowa Ave
- Green space landscaping buffer between sidewalk and building adding on west side of Iowa Ave
- Iowa Ave remains one-way northbound with parking on east side



EXISTING ROADWAY



# 14<sup>th</sup> Street at Decatur Street





## Mayor's Agent Hearing

- Mayor's Agent hearing is scheduled for March 26
- Limited to Raze Permit application
- Mayor's Agent Public Hearing procedures can be found on the DC Office of Planning's website or by scanning the QR code:



<https://bit.ly/3sQmkOk>

MARCH 2021						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26 ✓	27
28	29	30	31	1	2	3

## Any Questions?

There are two ways to submit your questions



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# Rebuilding an Environmentally Responsible Bus Garage

Northern Bus Garage Reconstruction Project

## Environmental Design

- Pursuing LEED Certification from U.S. Green Building Council
  - Solar panels
  - Onsite parking for employees
  - Enclosure of Decatur St. to minimize noise impacts to community
  - Onsite stormwater retention
  - Level of LEED Certification will be determined through a combination of points awarded based on LEED points, LEED credits and LEED prerequisites.

## WMATA Workplan & DOEE Coordination

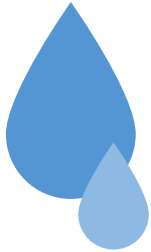
- December 2020: DOEE Letter received
  - Comprehensive Site Assessment Directive letter requiring submission of Work Plan, for investigation of contamination
- January 2021: DOEE Briefing
  - DOEE directed four wells near Arkansas and Iowa Avenues, and submission of work plan on February 18
- February/March: Investigation Workplan
  - WMATA Environmental Group requests eight additional well points to be included in the scope of investigations
  - DOEE's feedback on the workplan – five additional areas
  - WMATA will integrate the two areas into a single work plan

**Site investigations will continue in Q2-Q3 2021**

# Subsurface Contamination Remediation



Soil is excavated and taken offsite to a treatment and disposal facility



Groundwater is pumped to a treatment system for removal of the contaminants. Technology depends on the contamination. This technology is commonly called a 'pump-and-treat' system



If warranted, soil vapors can be extracted and treated

## Agency Collaboration

### ▪ DOEE Air Quality Meeting Recap

- Reviewed proposed air filtering equipment
- Reviewed air quality permit requirements for all major equipment including:
  - Emergency generator
  - Boilers
  - Hot water pressure washer
- Reviewed hazardous materials that will be stored on site for bus operations
- Reviewed site emission calculation requirements and timing of permit applications

### ▪ DOEE Water Quality Meeting Recap

- Reviewed site history
- Reviewed existing soil and groundwater impacts and mitigation plans
- Reviewed site investigation results to date
- Reviewed remediation strategy and excavation limits
- Reviewed additional investigation needs and remediation limits (Tier 1 Level)
- Future monitoring needs
- Proposed CSA work plan structure
- Regulatory limits for vapors and metals
- Soil boring permit procedures

## Air Pollution Treatment Overview

- 14 Units using Dry Scrubber Technology
- Two-stage treatment system designed to remove contaminants in the exhaust stream
  1. Particulates
  2. Gases
- Particulate Matter (PM): larger particles that are seen in the 'soot' of the diesel exhaust
  - Filtering system to be used: MERV 8 and MERV14 filters
  - ASHRAE estimates 85% and 90-95% efficiency respectively
- Gaseous components: automotive exhaust fumes, nitrogen oxides, hydrocarbons, volatile organic compounds
  - Filtering system to be used: Blended media of aluminum oxide, activated carbon, sodium bicarbonate, sodium permanganate, potassium carbonate
  - Purafil estimates 99.5% removal efficiency



## Air Pollution Technology: Maintenance

### ▪ **MERV Filters**

- Will be checked by monitoring pressure differences across the filters
- Will be monitored monthly for the first six months to determine frequency of replacement, then quarterly after that

### ▪ **Chemical Filters**

- Will be checked by sending samples to a laboratory
- Will be monitored monthly for the first six months to determine frequency of replacement, then quarterly after that

**Anticipated replacement (industry practice) every six months**

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# Zero Emission Bus Program Update

Northern Bus Garage Reconstruction Project

# Zero-Emission Bus: Transformational Investment Opportunity for Sustainability and Equity

## BENEFITS



Cleaner air, reduced greenhouse gas and tailpipe emissions



Quieter vehicles, less vibration, increased comfort



Decreased use of fossil fuels, reduced fuel costs



Reduced operation and maintenance costs

## CHALLENGES



Additional capital investment in grid infrastructure, facilities, and vehicles



Major fleet and facility investments with rapidly maturing technology



Fleet lifecycle/replacement timing



Coordination/partnership

# Zero-Emission Bus – Steps to Full Implementation

## Test and Evaluation Program

- Maturity of technology
- Operational trials
- Review interoperability

## Energy Infrastructure Investments

- Identify, fund and build utility infrastructure required to operate service

## Policies & Rate Structures

- Establish regional policies and energy rate structures

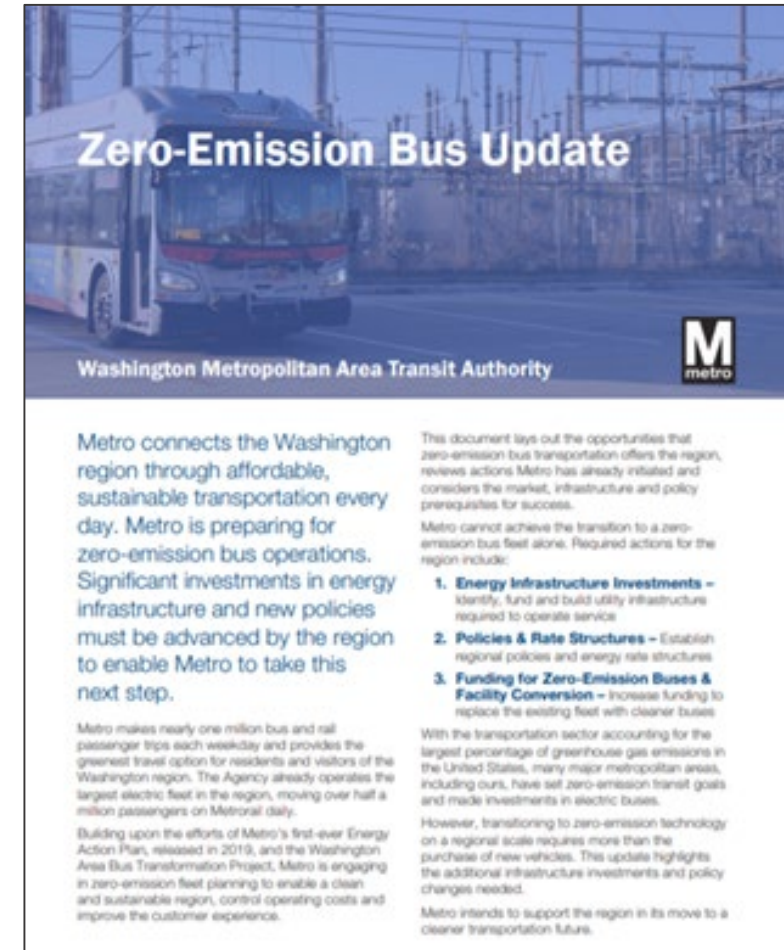
## Funding for Buses & Facility Conversion

- Increase investment to replace fleet and upgrade facilities
- Additional capital investment ~\$500M over six years; \$2B over 25

For additional information see Metro's [Zero-Emission Bus Update](#)

## Zero-Emission Bus – Progress To Date

- Awarded Federal Low-No Emission Grant
- Acquiring ~12 electric buses
- Engaging utilities
- Consulting peers and experts
- Updating Metrobus Fleet Plan
- Electric bus ready design - Northern and Bladensburg bus facilities
- Total of ~\$25M included in capital program for test and evaluation



## Test and Evaluation Status

- **Consists of 10 x 40' and 2 x 60' buses at Shepherd Parkway Garage**
- **Testing and evaluating new overhead pantograph charging standard (SAE J-3105) and interoperability + scalability of current electric bus and charger technology**

### *Completed*

- ✓ Competitive federal grant award - June 2020
- ✓ Initial electric grid analysis with Pepco
- ✓ 30% design documents
- ✓ Vehicle technical specifications
- ✓ Consulting Contracting

### **In Progress**

- Construction contract
- Charger specifications
- Bus route modeling
- Complete 60' electric bus contracting

### *Next Steps*

- Contract and finalize construction/design
- Begin infrastructure construction
- Issue solicitations for 40' buses and overhead chargers

## Project Schedule

Task	Scheduled Start	Scheduled Finish
Develop Benchmarking + Assessment Criteria	Winter 2021	Summer 2021
Bus Contracting and Production	Summer 2021	Summer 2022
Infrastructure Design and Construction	Summer 2021	Summer 2022
Commissioning and Startup	Summer 2022	Fall 2022
Test and Evaluation Deployment	Fall 2022	Winter 2023





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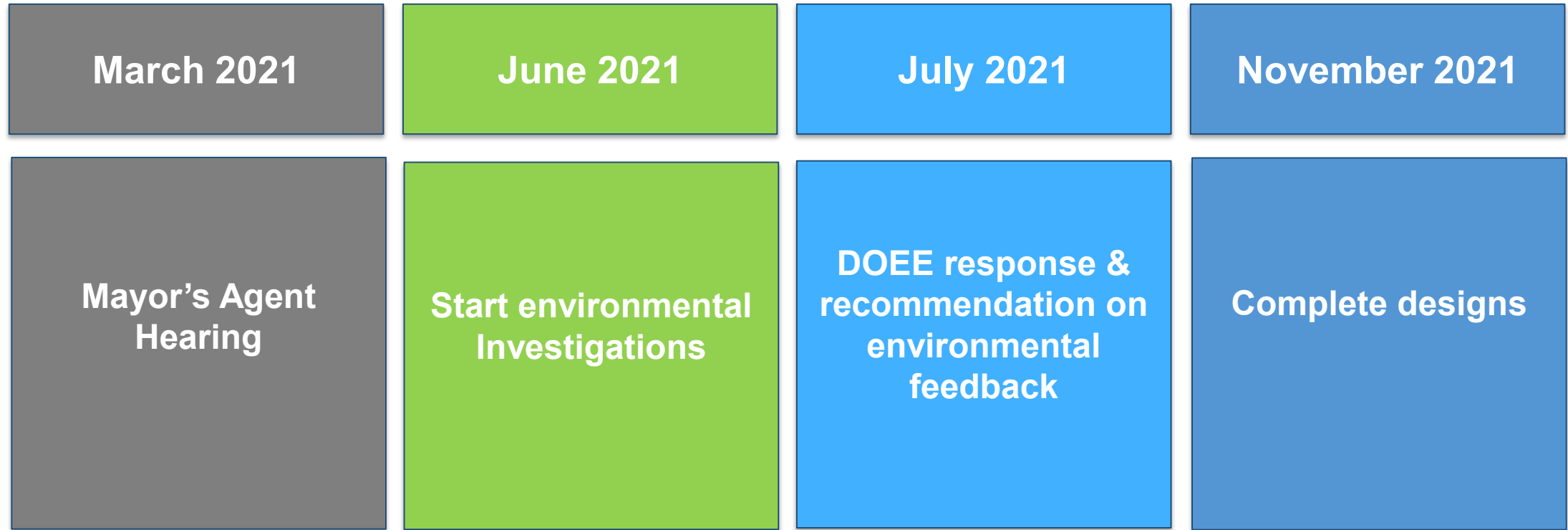


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# What to Expect in 2021

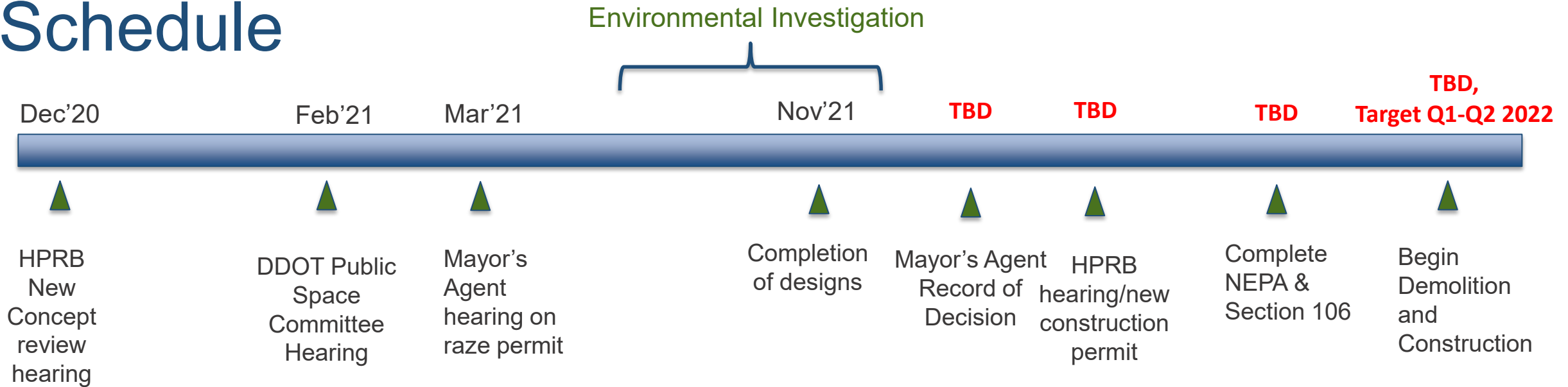
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# 2021 Project Milestones and Timeline



- Updates posted to [wmata.com/NorthernBusGarage](https://wmata.com/NorthernBusGarage) and shared via email
- Email [MCAP\\_NBG\\_Reconstruction\\_Project@wmata.com](mailto:MCAP_NBG_Reconstruction_Project@wmata.com) to join the project's community contact list or request additional information

## Schedule



Mayor's Agent clearance of raze permit as necessary for project of special merit, NEPA review, and Section 106 process must be received/completed before project can begin demolition/construction

# Upcoming Community Engagement Meetings



**Summer**

\*June 15, 2021

**Fall**

\*Sept. 21, 2021

**Winter**

\*Dec. 14, 2021

***\*Dates are subject to change***

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