

2022-2023 RiverRenew Stakeholder Advisory Group

Meeting No. 5

November 17, 2022

Recap from September Meeting

- Provided a summary of noise variances with the City of Alexandria
- Tunnel Project Update
- Community Outreach Update

Tonight's Presentation

- SAG Feedback
- Tunnel Project Update
- Community Outreach Update
- Major Takeaways

SAG Feedback



Review and **monitor construction/program progress**



Communicate progress to the community by leveraging existing networks



Identify concerns and **receive input** from the public



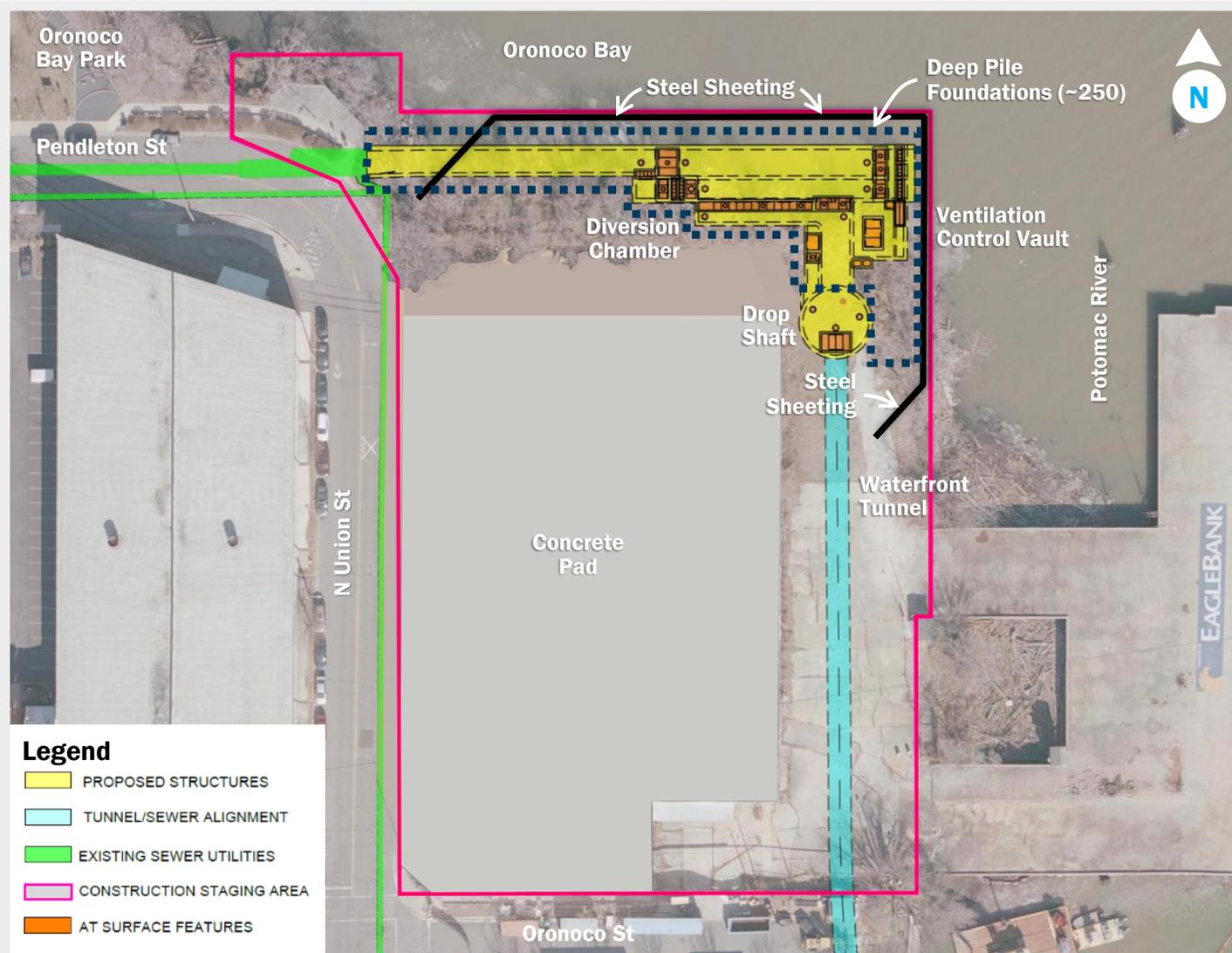
Provide recommendations regarding mitigation of construction impacts

Tunnel Project Update

Summary of RiverRenew Tunnel Project noise variances permitted by the City of Alexandria.

Site	Activity	Noise variance	Hauling	Dates
Pendleton Street	Shaft excavation	5 a.m. – 11 p.m. (Mon-Fri)	7 a.m. – 6 p.m. (Mon-Fri)	Dec 2022 – May 2023
	TBM removal	24/7	7 a.m. – 6 p.m. (Mon-Fri)	Oct 2023 – Dec 2023
AlexRenew	Tunnel construction	24/7	7 a.m. – 6 p.m. (Mon-Fri)	Aug 2022 – Oct 2023

Pendleton Street Site design and construction update.



Design Progress

Actual Planned As of Oct 31, 2022



Construction Progress



Nov 2024 ▲

Major Activities

- Shaft slurry wall construction complete
- Preparing site for shaft excavation

Pile driving at the Pendleton Street Site will start mid-January 2023 and last through May 2023.

- 250 steel H-piles to depth of 100-feet
- Vertical and angled
- Foundation for diversion facility and promenade
- Accelerated schedule to meet milestone
- 9 a.m. – 6 p.m., Mon-Fri



Rendering of final restored Pendleton St Site

Rendering of Pendleton St Site during shaft excavation and pile driving phase

Video of steel pile driving using a diesel impact hammer.



How do we measure noise level and what does it mean?

Noise level is measured in **decibels** (dB). The higher the decibels, the louder the noise. A **dBA** is a weighted scale for judging loudness that corresponds to the hearing threshold of the human ear.

Leq represents the total decibels logged over a time period.



Overhead
Commercial
Jet

140 dBA



Lawnmower

90 dBA



Hairdryer

85 dBA



Noisy
Restaurant

80 dBA



City Street

75 dBA



Alexandria
Background

73 dBA



Normal
Conversation

60 dBA

Estimated limits of noise associated with pile driving operations at Pendleton Street Site.



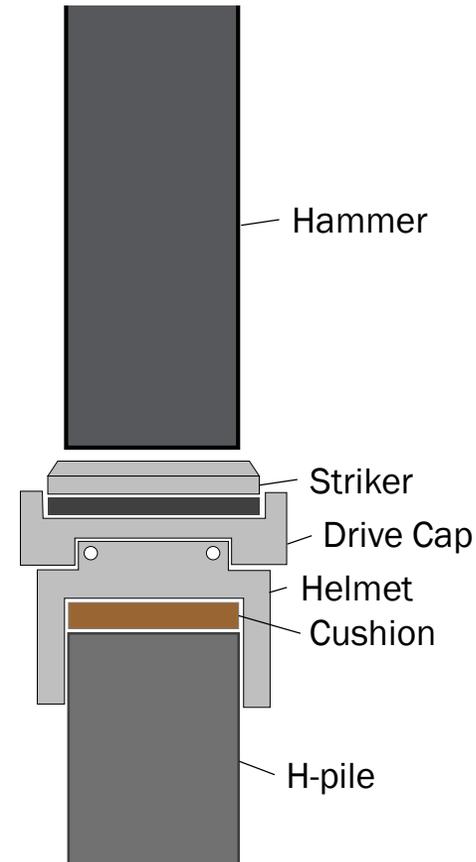
Proposed mitigations to limit noise associated with pile driving activities



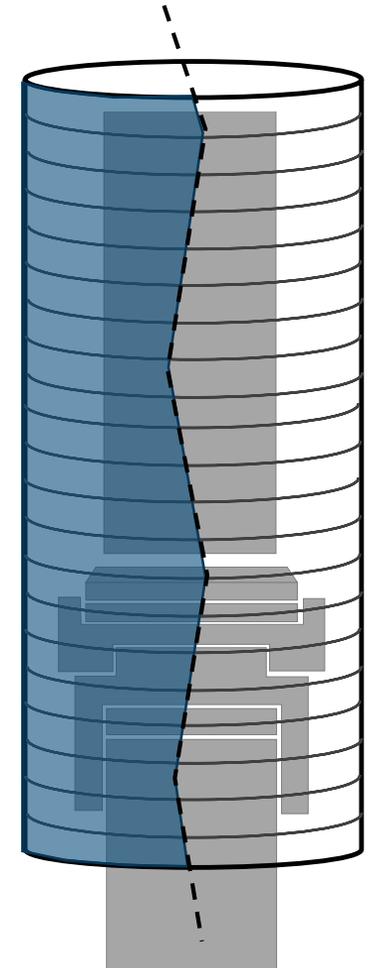
Stacked conex boxes to deflect noise away from the community.



Sound blankets along fence to dampen noise

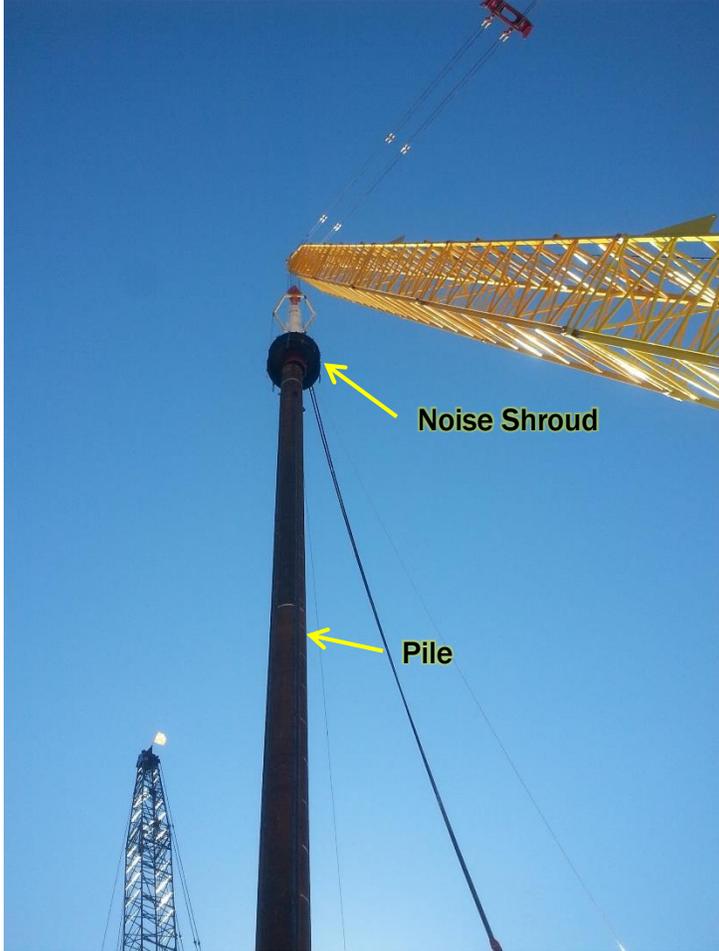
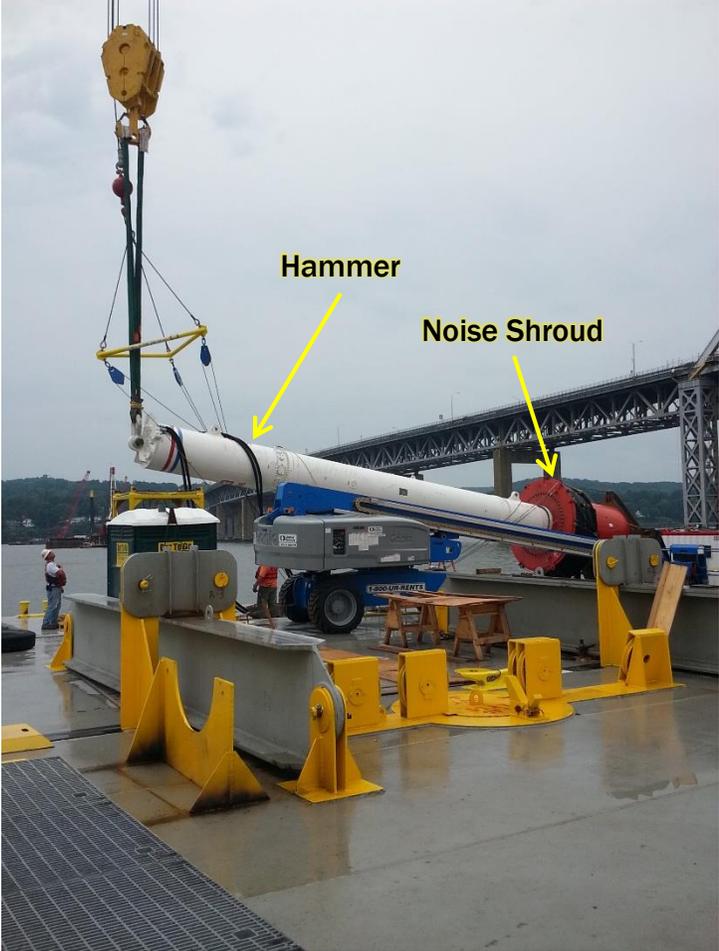


Cushion to dampen contact with H-pile



Enclosure to shroud the impact hammer

Pile driving noise shroud in action on Tappan Zee Bridge project.



Pendleton Street Site pile driving outreach campaign.

- Sip 'n See:
 - Thursdays 11 a.m. – 1 p.m.
 - “Special Edition” during pile driving activities
- Social media content
- Website updates and alerts
- Email to RiverRenew group
- Targeted City eNews
- Updates through Stakeholder Advisory and Council-Board Workgroups
- Flyer distribution to local neighborhood

Some machines are so excited for a cleaner Potomac they can get a little loud...

To help keep RiverRenew on schedule, our crews need to use Wayne the Crawler Crane's impact hammer to install steel piles at the Pendleton Street site. These will provide a sturdy foundation to support the future diversion facility and promenade connecting the community to a healthier Potomac River.

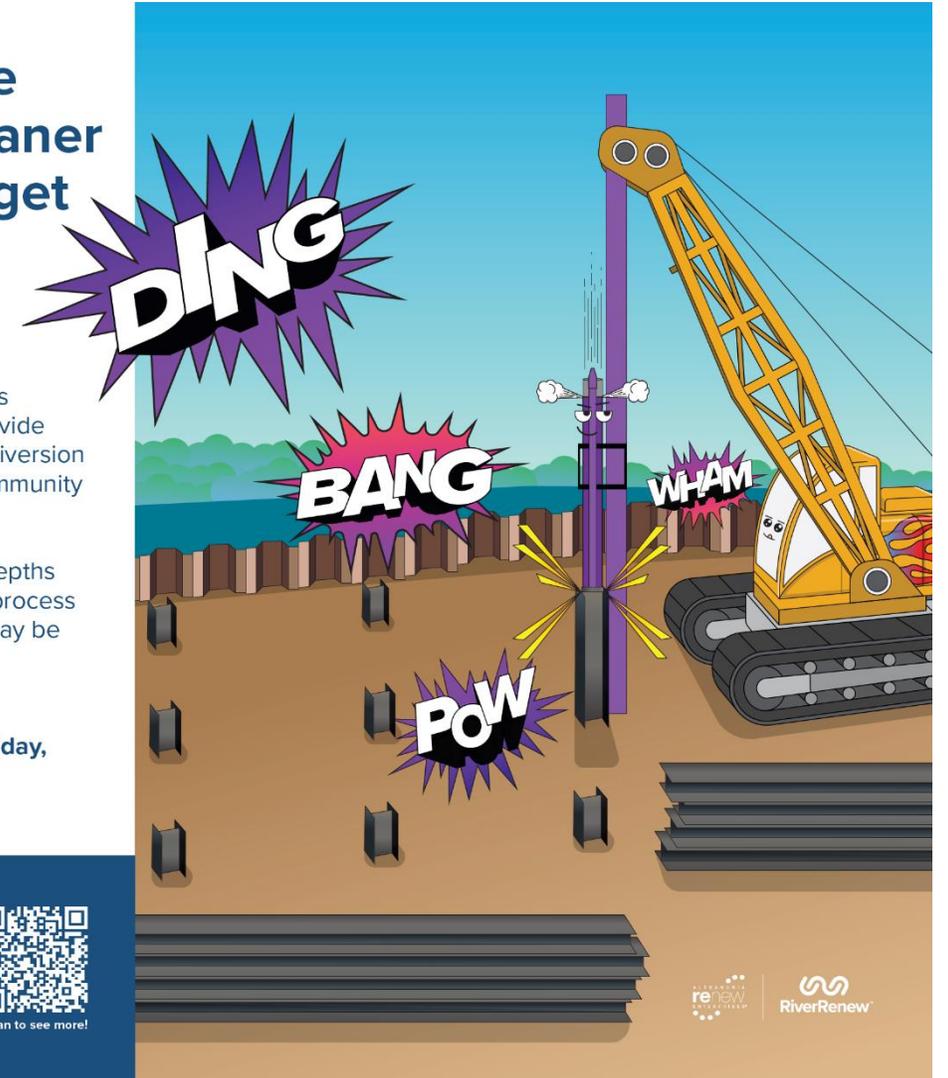
The impact hammer forces steel piles to depths of 100 feet into the soil. Unavoidably, this process emits a repeated hammering sound and may be disruptive to those sensitive to noise.

This work will occur between the hours of **9 a.m. and 6 p.m. ET, Monday through Friday**, between **mid-January** and **May 2023**.

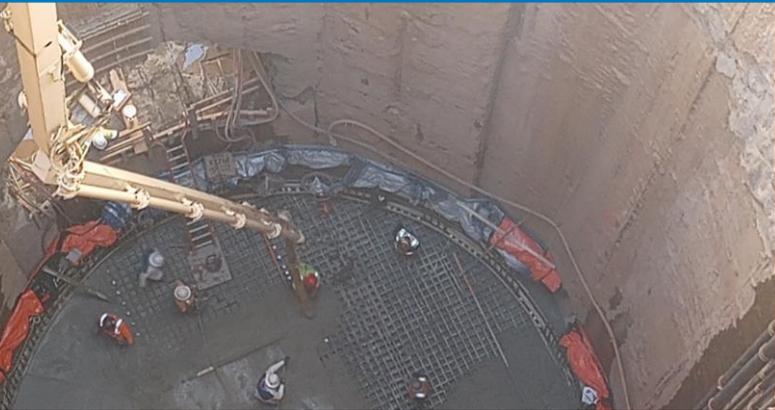
To learn more about this essential work, scan the QR code to visit [RiverRenew.com](https://www.RiverRenew.com) or email us directly at AskRiverRenew@alexrenew.com.



Scan to see more!



Major construction activities in the next 6 months at Pendleton Street Site.

Dec	Jan	Feb	Mar	Apr	May
Shaft Excavation			Permanent Concrete		
Near Surface Structures (NSS) Deep Foundations and Support of Excavation (SOE)					
 <p>! 5 a.m.– 11 p.m. Mon–Fri</p> <p>No anticipated impacts to sidewalks, bicycle routes, or travel lanes</p> <p>70 trucks/day</p> <p>Shaft Excavation</p>	 <p>9 a.m.–6 p.m. Mon–Fri</p> <p>No anticipated impacts to sidewalks, bicycle routes, or travel lanes</p> <p>15 trucks/day</p> <p>Near Surface Structures Deep Foundations (Pile Driving Activities)</p>	 <p>7a.m.–6p.m. Mon–Fri</p> <p>No anticipated impacts to sidewalks, bicycle routes, or travel lanes</p> <p>70 trucks/day</p> <p>Permanent Concrete Construction</p>			

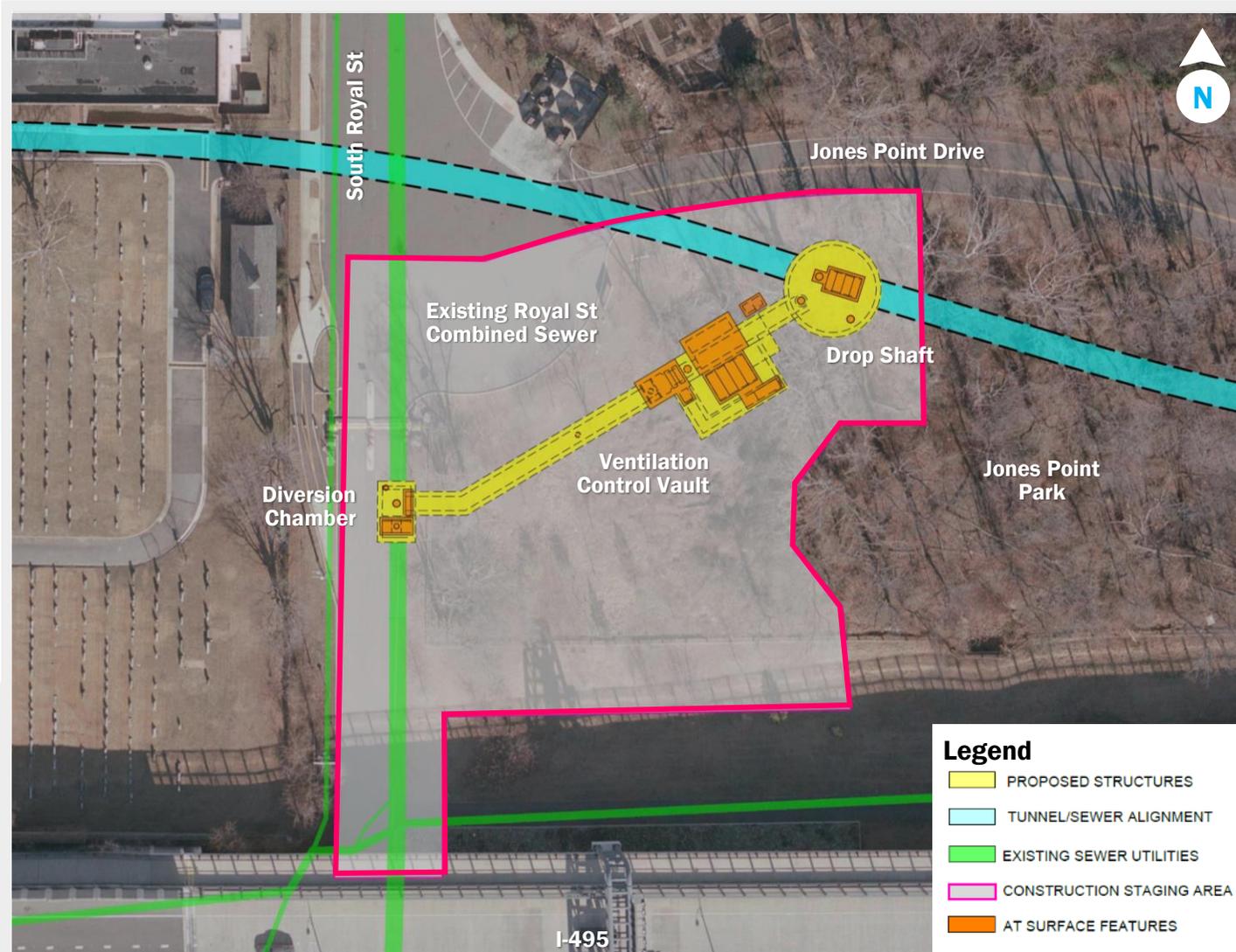


Note: Pictures representative of upcoming construction work



Variance (see Slide 5)

Royal Street Site design and construction update.



Design Progress

■ Actual ▨ Planned As of Oct 31, 2022



Construction Progress



Major Activities

- Shaft excavation completed
- Preparing for near surface structure foundations and support of excavation

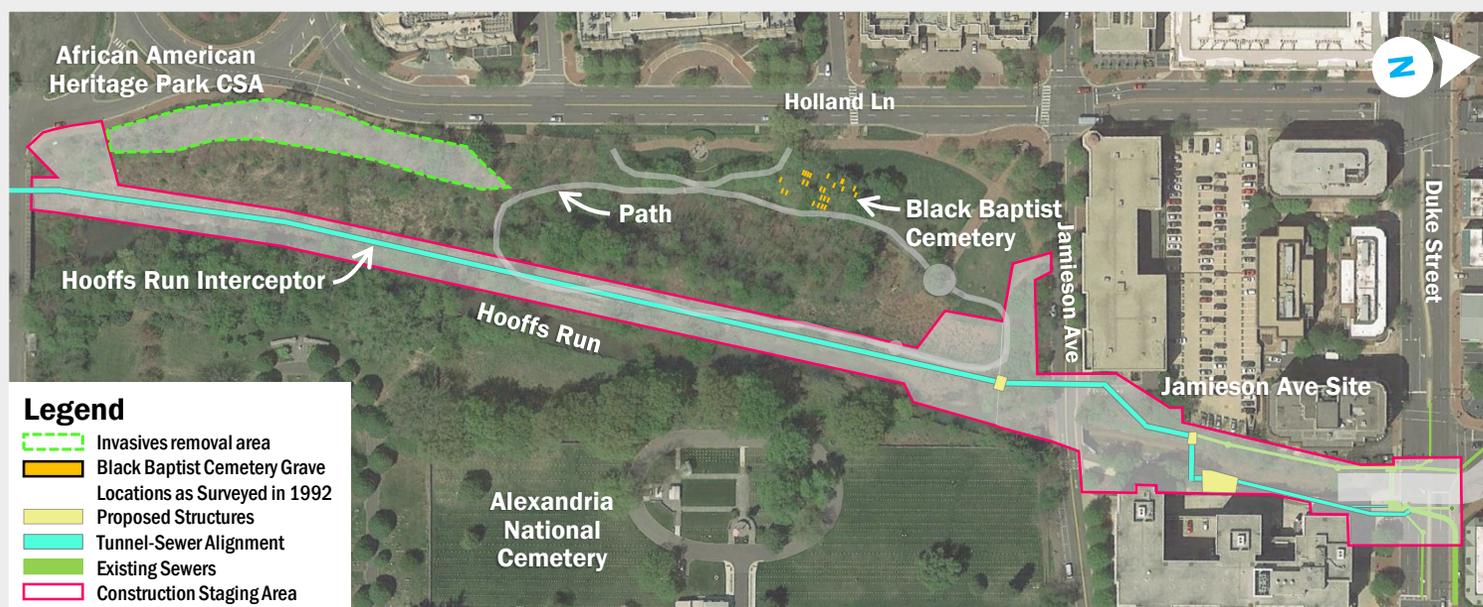
Major construction activities in the next 6 months at Royal Street Site.

Dec	Jan	Feb	Mar	Apr	May
Site Prep for SOE	Near Surface Structures Support of Excavation (SOE) and Foundation Piles			Near Surface Structures Construction	
 <p>7 a.m. – 6 p.m. Mon-Fri</p> <p>No anticipated impacts to sidewalks, bicycle routes, or travel lanes</p> <p>10 trucks/day</p>	 <p>7 a.m. – 6 p.m. Mon-Fri</p> <p>No anticipated impacts to sidewalks, bicycle routes, or travel lanes</p> <p>20 trucks/day</p>	 <p>7 a.m. – 6 p.m. Mon-Fri</p> <p>No anticipated impacts to sidewalks, bicycle routes, or travel lanes</p> <p>30 trucks/day</p>			
Site Prep for SOE and Foundation Piles	Near Surface Structures Support of Excavation and Foundation Piles			Near Surface Structures Construction	



Note: Pictures representative of upcoming construction work

Hooffs Run Interceptor design and construction update.



Design Progress

■ Actual ▨ Planned As of Oct 31, 2022

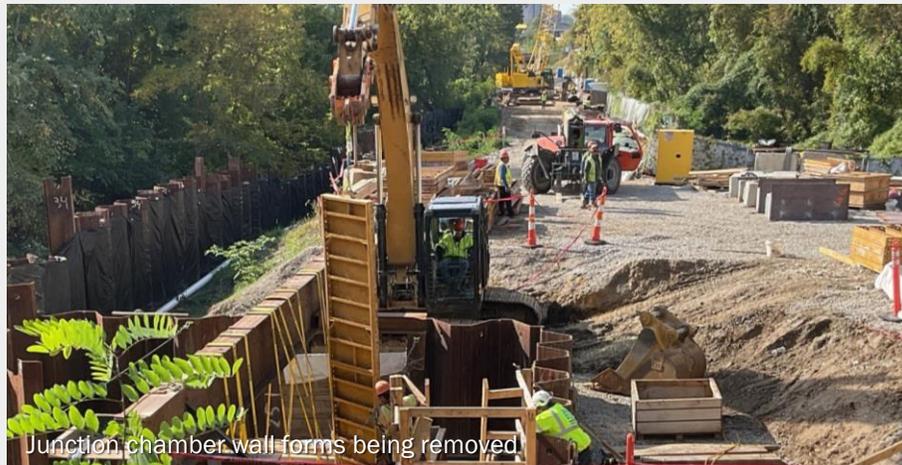


Construction Progress



Major Activities

- Jamieson Ave Site diversion chamber and extension sewer construction ongoing
- African American Heritage Park Site junction chamber construction ongoing

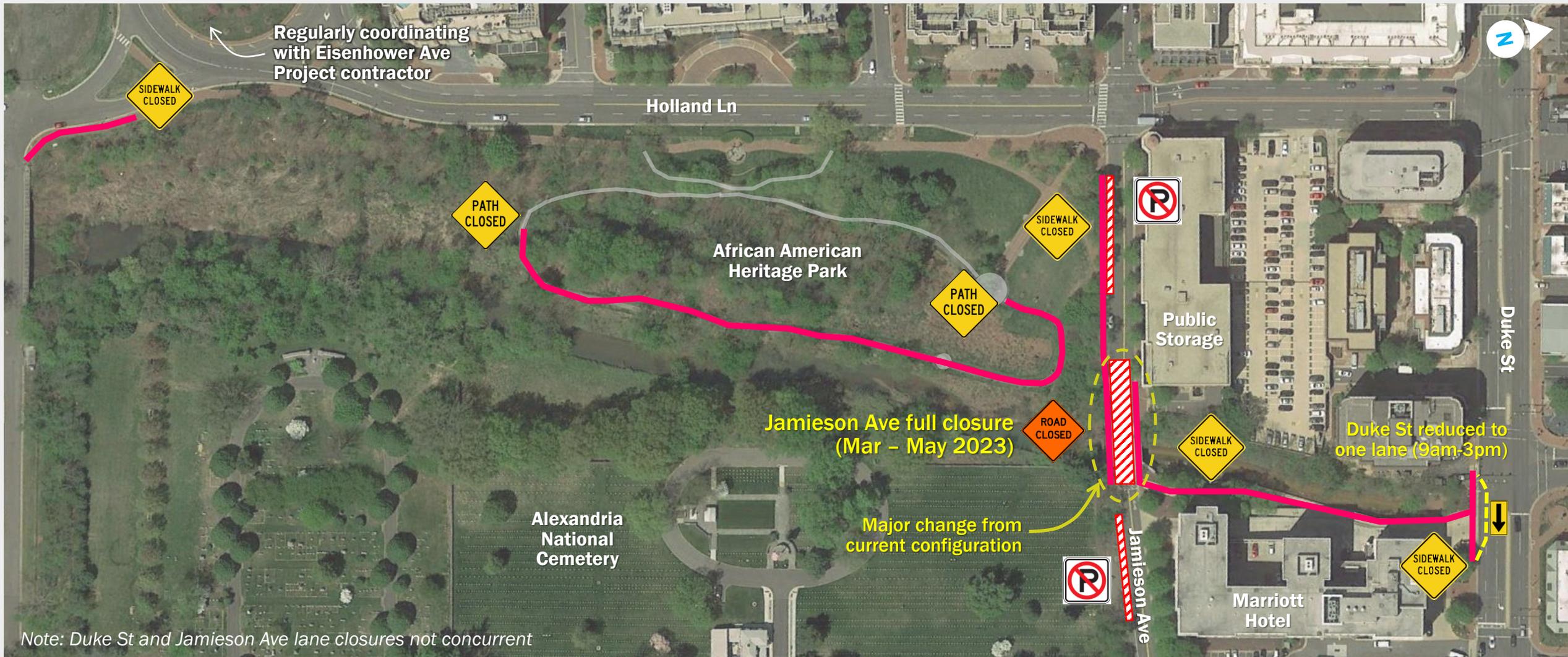


◀ African American Heritage Park Site



◀ Jamieson Avenue Site

Upcoming road and sidewalk changes associated with Hooffs Run Interceptor (March – May 2023).



Major construction activities in the next 6 months at Jamieson Avenue Site.

Dec	Jan	Feb	Mar	Apr	May
Open-Cut	Diversion Chamber and Junction Chamber			Open-Cut	



Jamieson Avenue full closure



7am-6pm
Mon-Fri

Lane and sidewalk closures:
Duke St and Jamieson Ave

10 trucks/day

Open-Cut Construction



7am-6pm
Mon-Fri

Lane and sidewalk closures:
Duke St and Jamieson Ave

30 trucks/day

**Diversion Chamber and
Junction Chamber Construction**

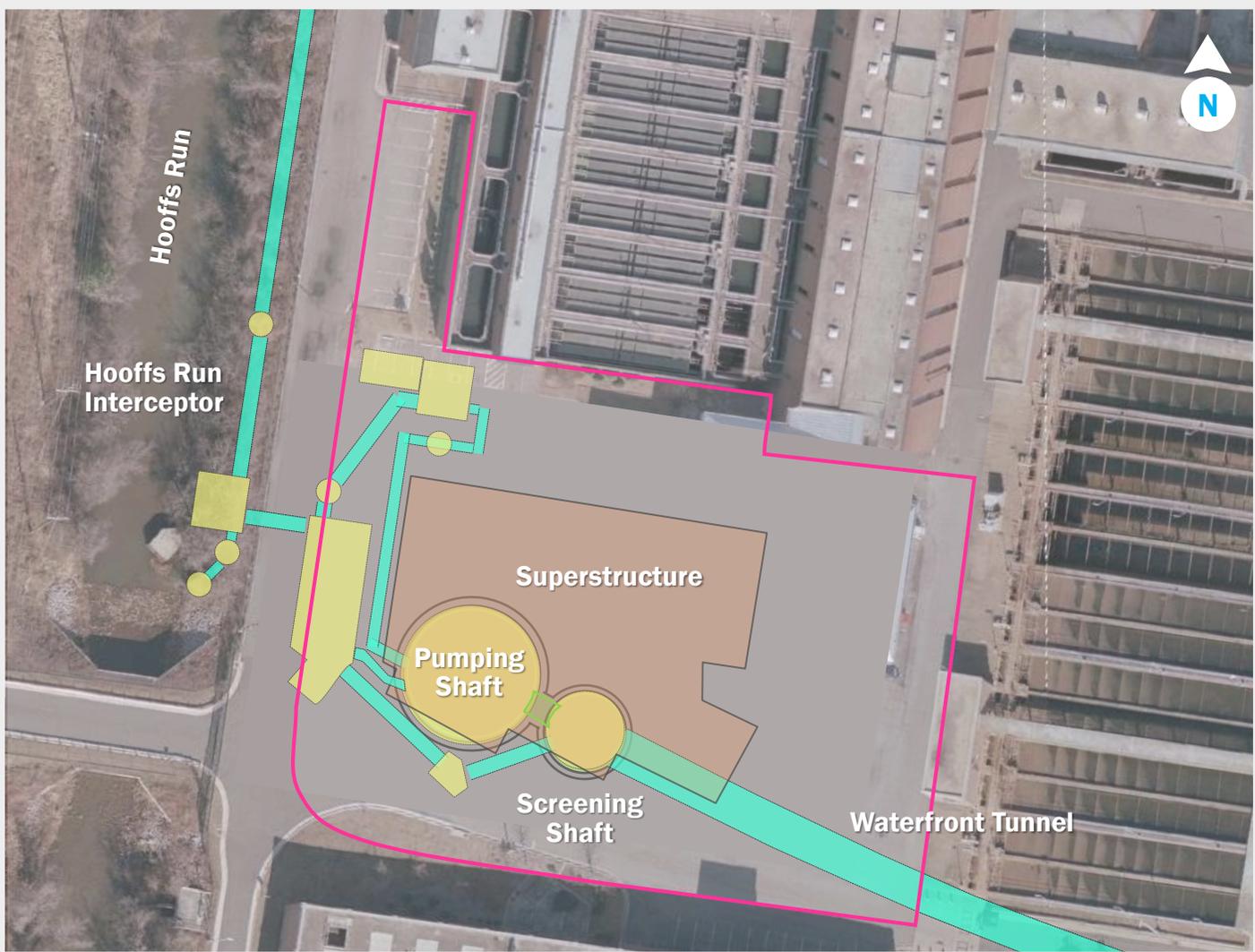


Note: Pictures representative of upcoming construction work

Major construction activities in the next 6 months at African American Heritage Park Site.

Dec	Jan	Feb	Mar	Apr	May
Sheeting	Open-Cut Construction	Sheeting	Open-Cut Construction		
 <p>7am-6pm Mon-Fri</p> <p>Sidewalk closures (intermittent): Jamieson Ave, Holland Ln Parking restrictions (24/7): Jamieson Path closures (24/7): AAHP</p> <p>10 trucks/day</p> <p>Support of Excavation (Sheeting) <i>Impact hammer required at times</i></p>	 <p>7am-6pm Mon-Fri</p> <p>Sidewalk closures (intermittent): Jamieson Ave, Holland Ln Parking restrictions (24/7): Jamieson Path closures (24/7): AAHP</p> <p>30 trucks/day</p> <p>Open-Cut Construction</p>				

AlexRenew design and construction update.



Design Progress

■ Actual ▨ Planned As of Oct 31, 2022



Construction Progress



Major Activities

- TBM commissioned and launched
- Near surface structure support of excavation started

Hazel the TBM launched on November 4.



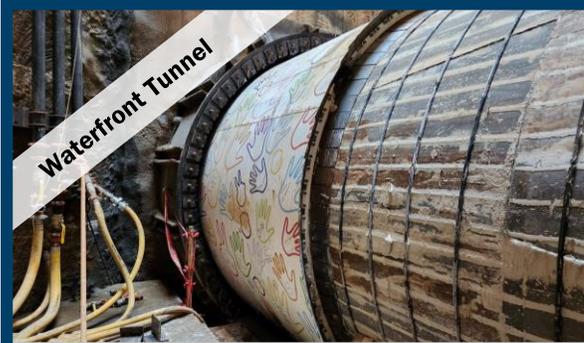
Tunnel Boring Machine
Distance traveled to date:
39 feet
Volume of soil excavated:
96 tons
Best day (overall):
5.66 feet

Track her progress at RiverRenew.com

A map of Washington, D.C., showing the location of the Hazel TBM tunnel. The map is overlaid with a dashed line representing the tunnel's path. The path starts near the Capitol Beltway and runs through the city streets. A small icon of the TBM is placed on the map to indicate its current location. The map also shows various landmarks and streets in the area.

Major construction activities in the next 6 months at AlexRenew Site.

! Variance (see slide 5)



Waterfront Tunnel

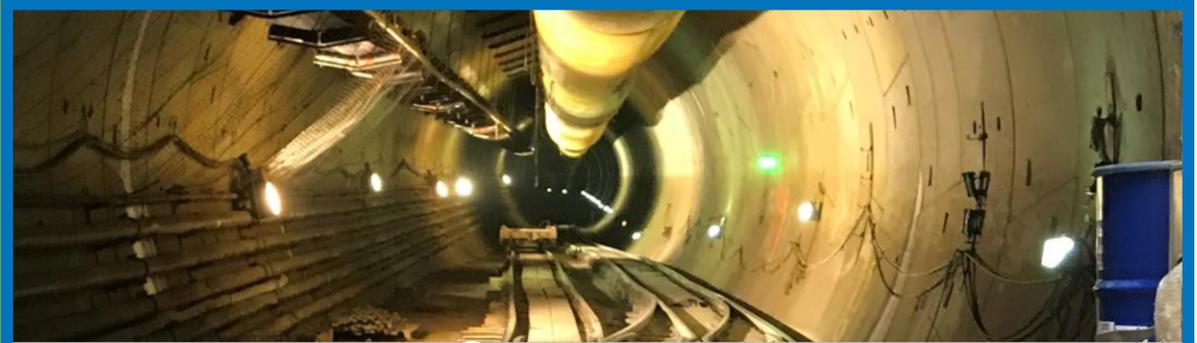
7a.m.–6p.m.
Mon–Fri

50 trucks/day



7a.m.–6p.m.
Mon–Fri

30 trucks/day



! 24 hours/day
7 days/week (Hauling 7a.m.–6p.m.)

120 trucks/day

TBM Initial Drive Conveyor

Tunneling

Dec

Jan

Feb

Mar

Apr

May

Near Surface Struct. Support of Excavation

Microtunneling

Permanent Concrete Structures



Hooffs Run Interceptor & Pumping Station

7a.m.–6p.m.
Mon–Fri

50 trucks/day



7a.m.–6p.m.
Mon–Fri

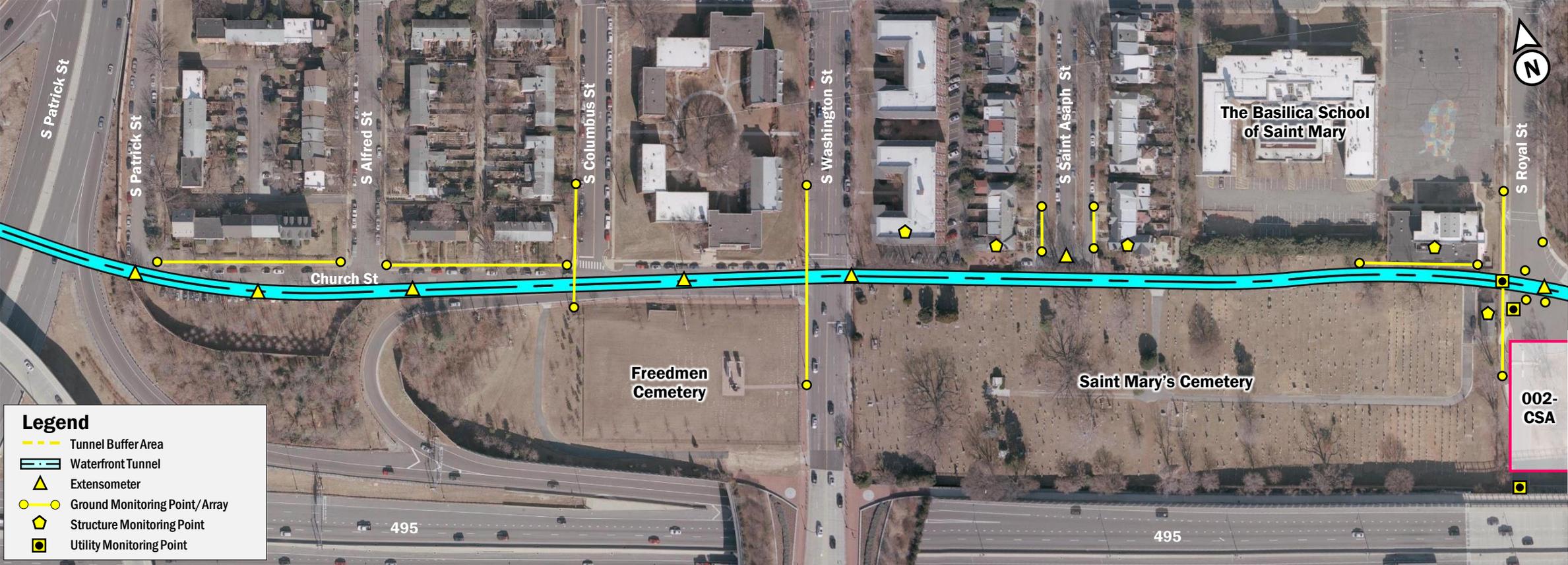
50 trucks/day



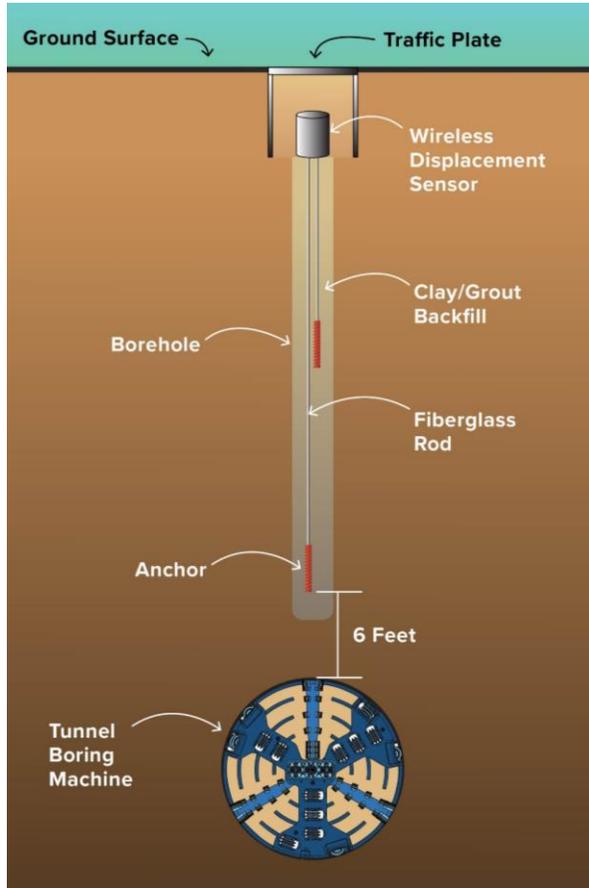
7a.m.–6p.m.
Mon–Fri

30 Trucks/day

Proposed Waterfront Tunnel instrumentation along Church Street between South Patrick and South Royal Streets.



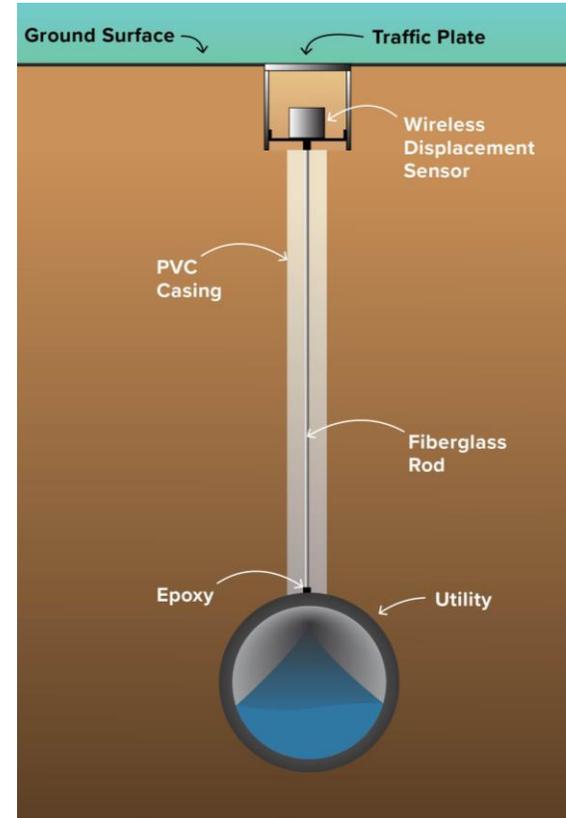
Types of instrumentation to be installed along Church Street.



Extensometers measure potential ground movement above the centerline of the tunnel boring machine.



Ground Monitoring Points are passive, surface mounted devices used to survey the ground surface before, during, and after tunnel construction.



Utility Monitoring Points measure potential utility movement.



Structural Monitoring Points are passive devices used to survey a structure before, during, and after tunnel construction.



Community Outreach Update

Upcoming community outreach.



Pendleton Street Pile Driving Campaign
Ongoing - May 2023



Alexandria Scottish Christmas Walk Parade
December 3, 2022



Sip 'n See Events

Hooffs Run: Tues 11-1
Royal St: Weds 11-1
Pendleton St: Thursdays 11-1



Outreach to Church St Residents
Dec - Jan 2023

2022-23 Stakeholder Advisory Group Meeting

- January 19



Waterfront Tunnel Tours
Spring 2023



Meeting Takeaways

- Pile driving upcoming at Pendleton Street mid-Jan – May 2023
 - Outreach campaign to notify residents is underway
 - Shaft excavation complete at Royal Street Site
 - Instrumentation to be installed along Church Street
 - Sidewalk and path impacts at AAHP ongoing
 - Jamieson Avenue full closure anticipated Mar – May 2023
 - Waterfront Tunnel construction underway
-

