



Metropolitan Water Tunnel Program

Public Information Session

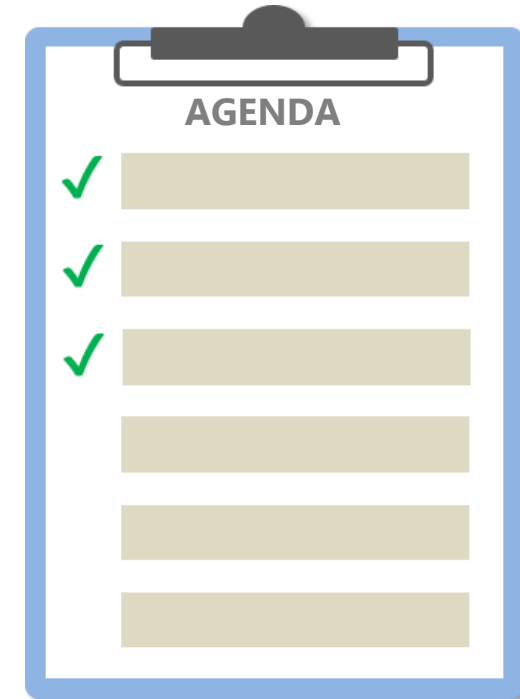
Needham Dewatering Drainage Line

July 16, 2026



Agenda

- MWRA – Introduction
- Metropolitan Water Tunnel Program Overview
- Needham Dewatering Drainage Line Overview
- Questions?

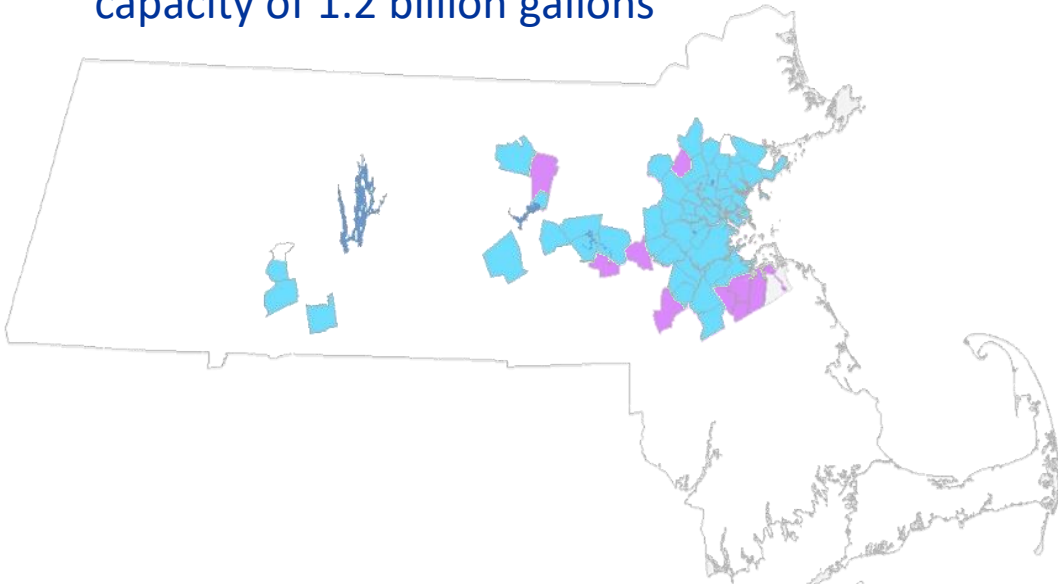




MWRA – Who We Are.... What We Do ...

The MWRA ...

- provides wholesale water and wastewater services to over 3.1 million customers in 61 communities
- delivers an average of 200 million gallons per day to its water customers
- collects and treats an average of 350 million gallons of wastewater per day, with a peak capacity of 1.2 billion gallons



We have ...

- 5 years of storage for water supply
- State of the art water treatment facility
- 102 miles of active transmission mains and tunnels (plus 43 miles on standby), including a number of deep rock pressure tunnels
- 284 miles of distribution mains with over 4,700 valves
- 12 pump stations and several covered storage tanks
- ~ 85% of our water is delivered by gravity

We Must....

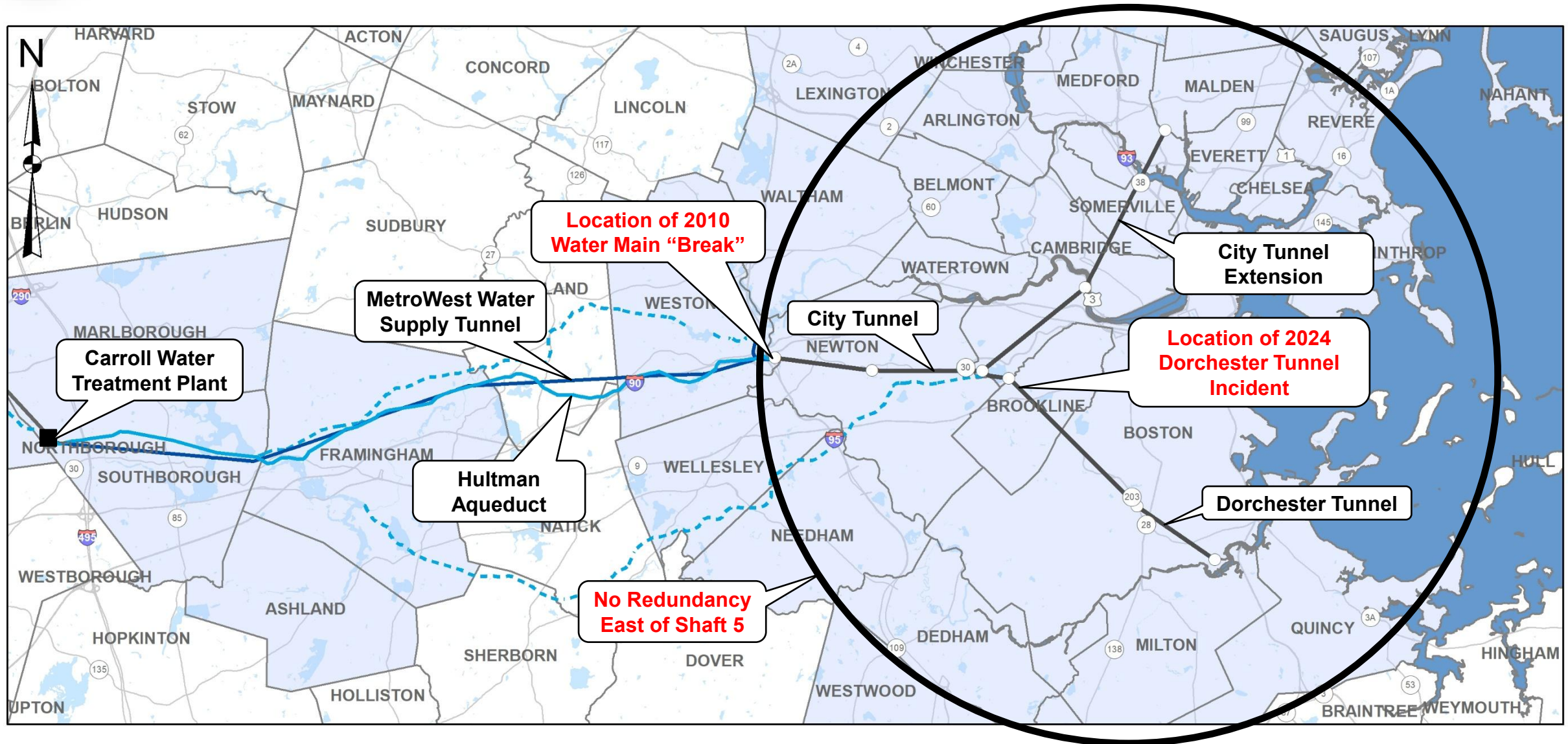
- Deliver water to protect **public health**, provide **sanitation**, and **fire protection**

We Need to....

- Have the ability to swiftly respond to a disruption in service
- Maintain and rehabilitate surface piping, key valves and tunnels on a periodic basis



Metropolitan Tunnel System Serves About 60 Percent of Water Demand in Metropolitan Area





Metropolitan Water Tunnel Program Goals

Provide Redundancy for the Metropolitan Tunnel System:

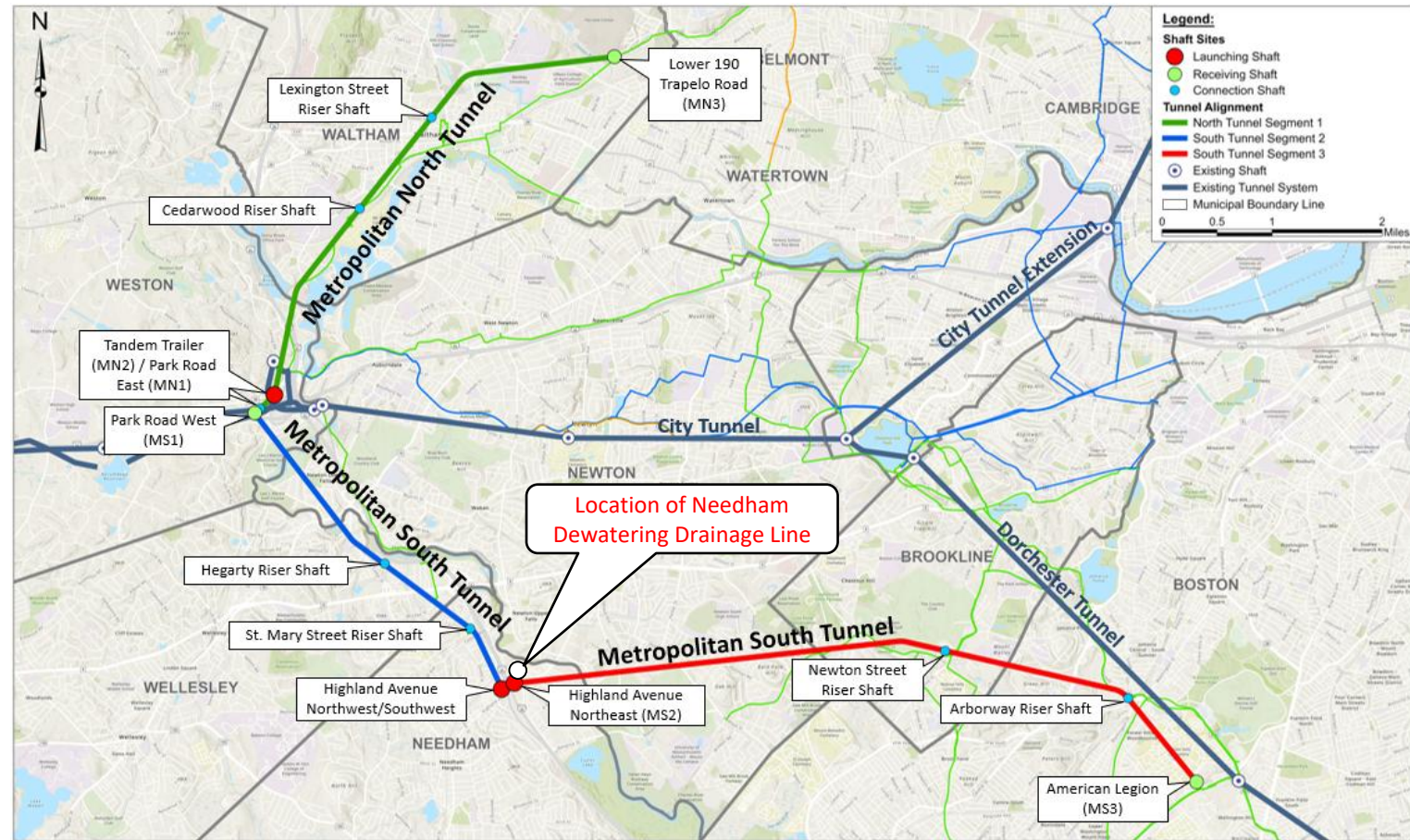
- Provide normal water service and fire protection when the existing tunnel system is out of service
- Provide the ability to perform maintenance on existing tunnels year-round
- Provide uninterrupted service in the event of an emergency shut down
- Meet high day demand flow with no seasonal restrictions
- Avoid activation of emergency reservoirs
- Meet customer expectations for excellent water quality





Metropolitan Water Tunnel Program Overview

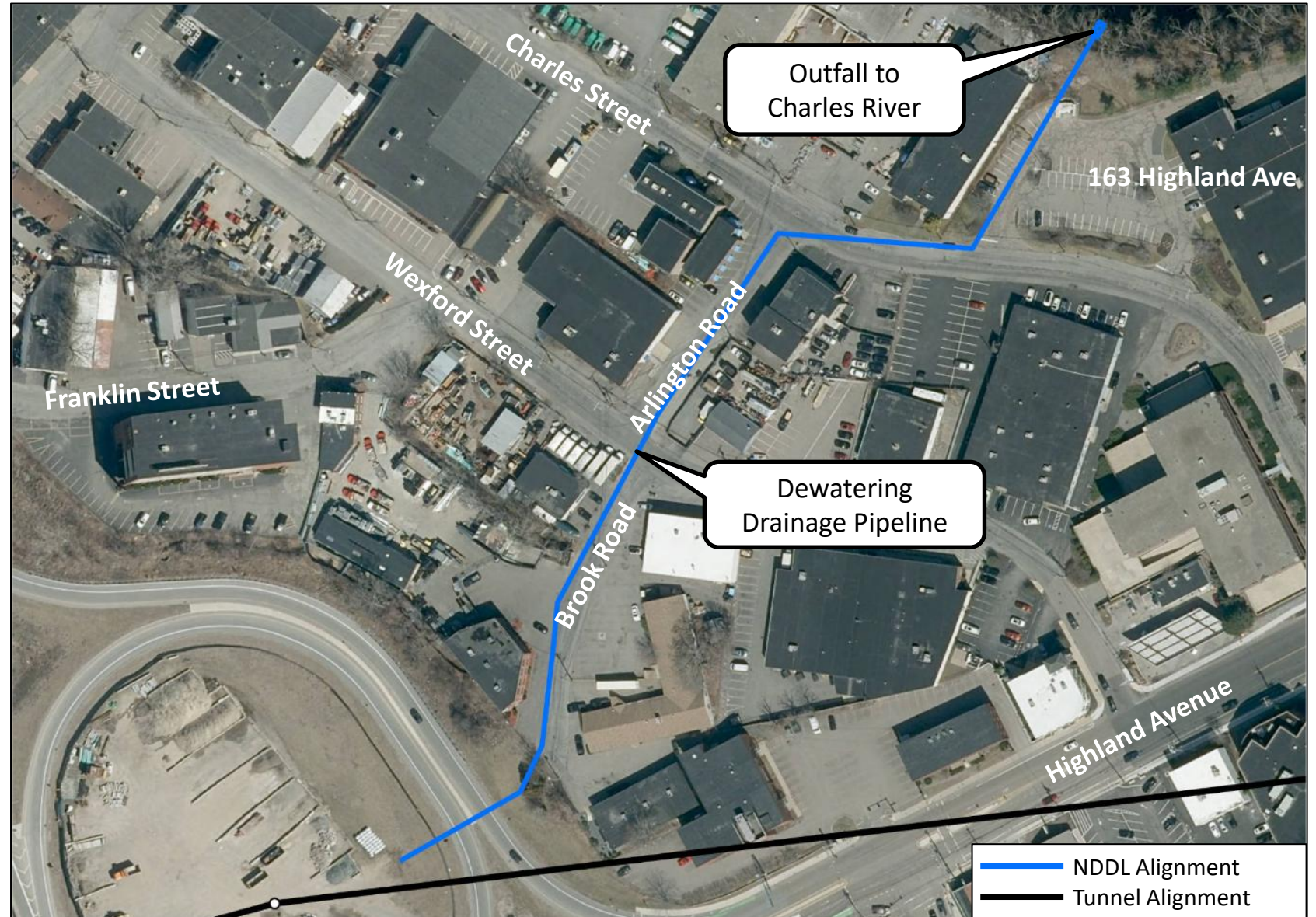
- ~15 miles of deep, hard rock, pressure water tunnels
- 13 Shaft Sites
- Tunnels will begin in Weston (I-90 / I-95)
- North Tunnel - ~5 miles, ends in Waltham
- South Tunnel - ~10 miles, ends in Mattapan near American Legion Highway
- **Early Enabling Works – Needham Dewatering Drainage Line**
- Tunnel Construction anticipated between 2028 and 2040





Needham Dewatering Drainage Line Overview

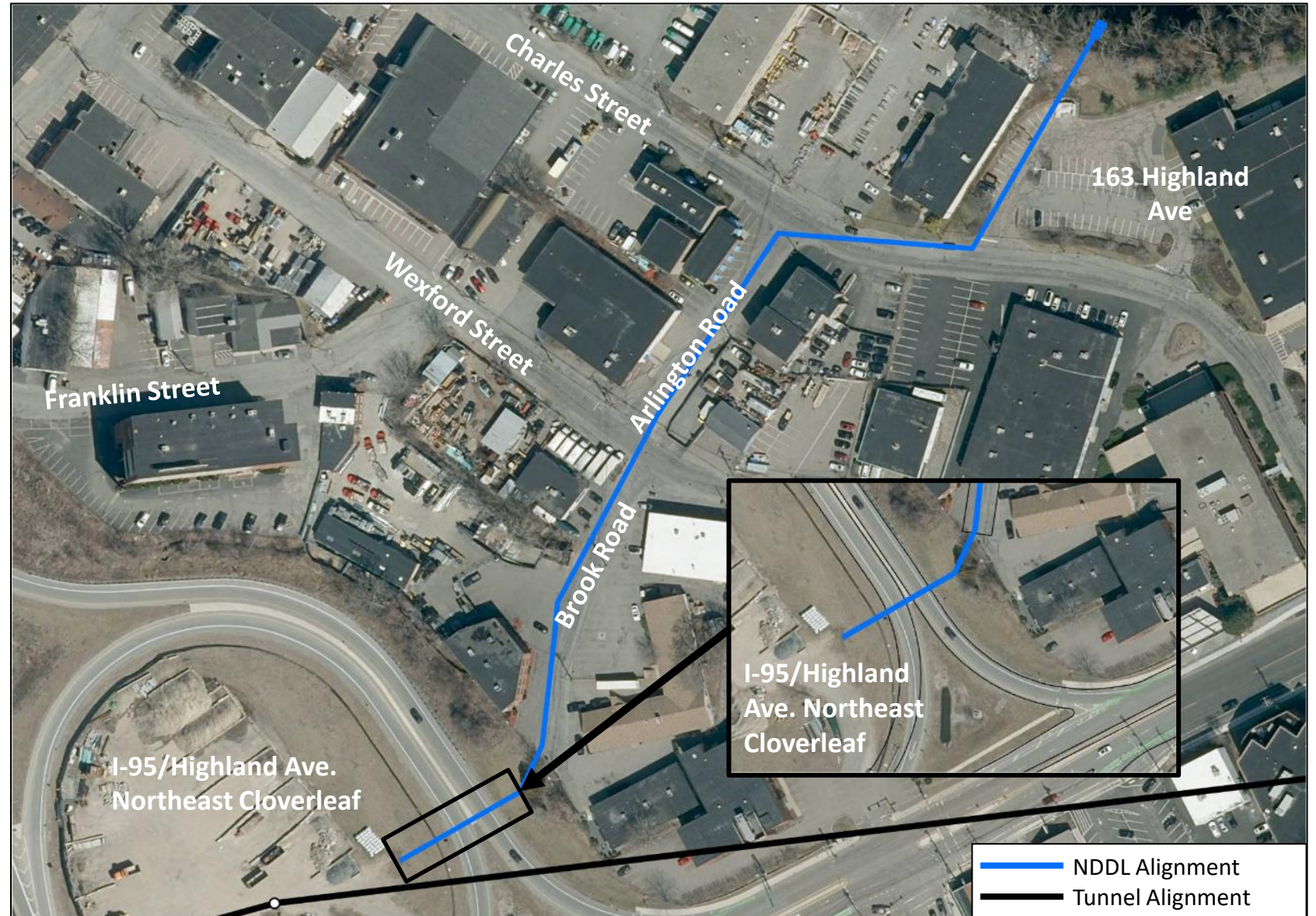
- 1,250 linear feet of 36-inch pipeline from cloverleaf, along Brook Road, Arlington Road, and Charles Street, to 163 Highland Ave. private property
- Discharge treated construction water during South Tunnel construction
- Discharge point during disinfection, flushing and commissioning
- Permanent unwatering location for the South Tunnel





Needham Dewatering Drainage Line MassDOT Trenchless Alignment

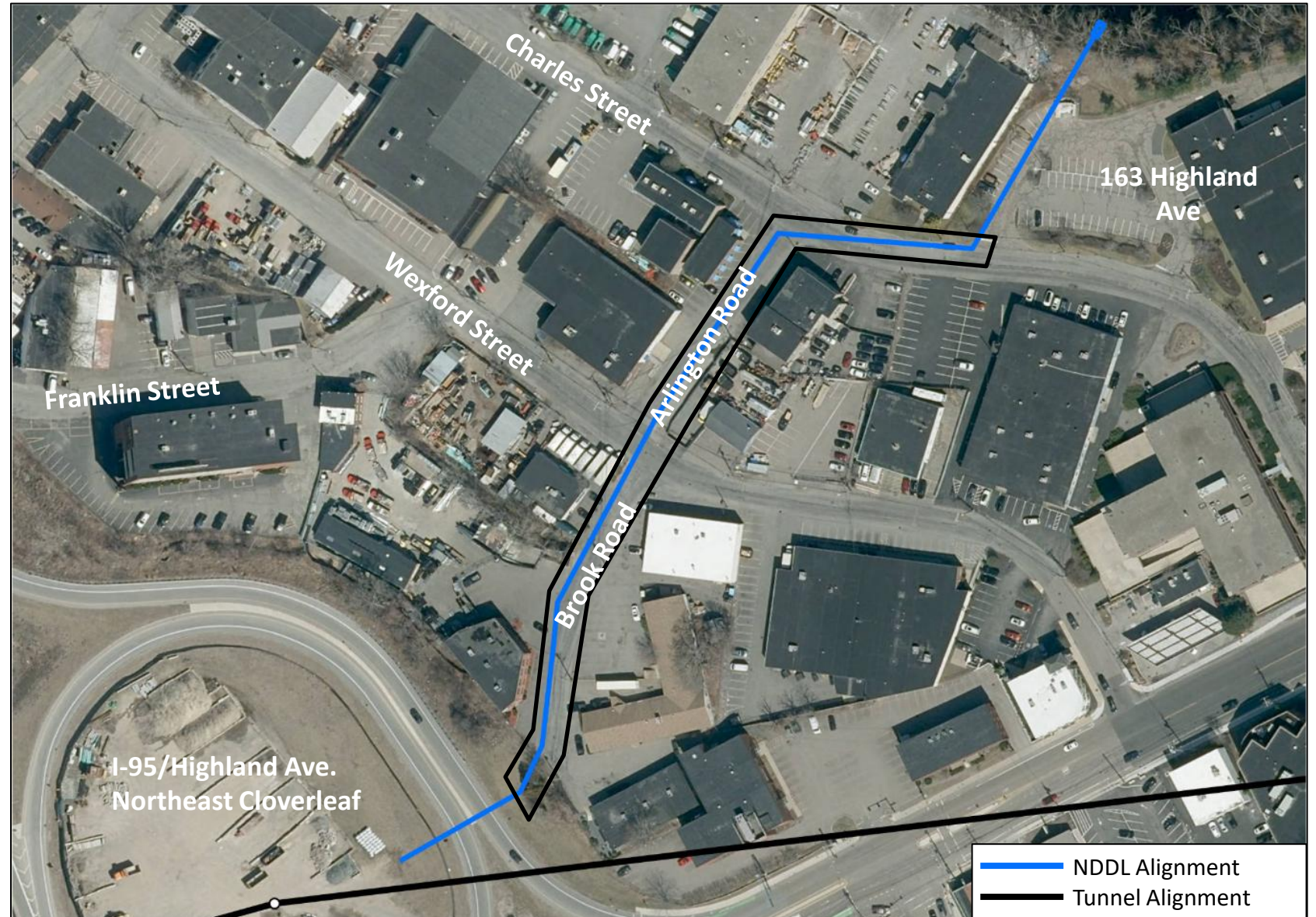
- ~150 linear feet of trenchless construction under I-95 ramp
- Construction via pipe jacking method
- No traffic disruptions expected on I-95 ramp





Needham Dewatering Drainage Line Public Right-of-Way Alignment

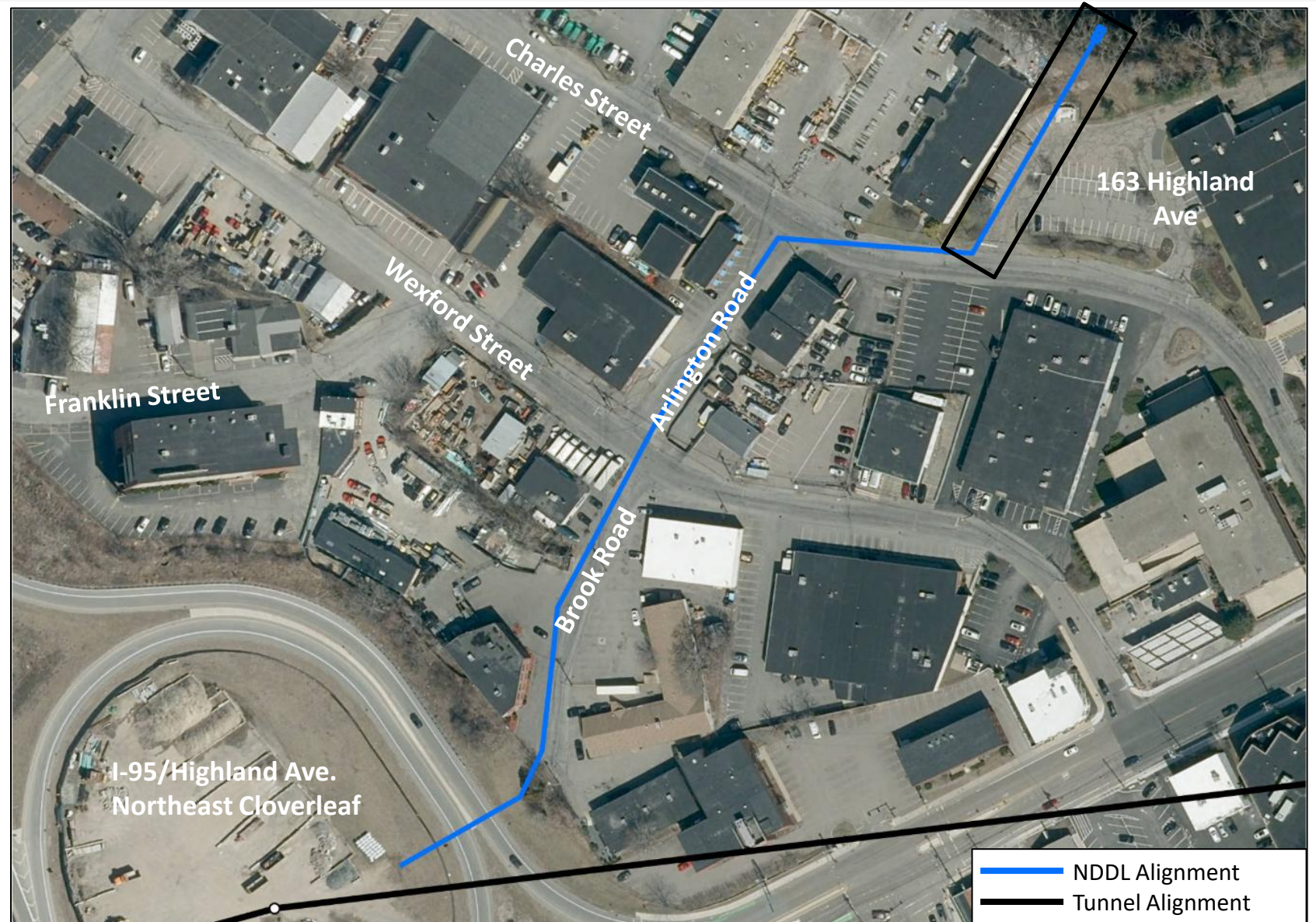
- ~850 linear feet of cut and cover in public right-of-way
 - Constructed in stages
- Work Hours
 - Night Work (7PM – 5AM)
- Needham Sewer
 - Rehabilitate or replace portions of Needham Sewer along Brook Road and Charles Street





Needham Dewatering Drainage Line Outfall

- ~250 linear feet of cut and cover on private property
- Outfall constructed to the bank of the Charles River
- Cofferdam utilized for outfall construction
- Excavation conducted from riverbank
- Work Hours
 - Private Property (7AM – 5PM)





Needham Dewatering Drainage Line Existing Utilities

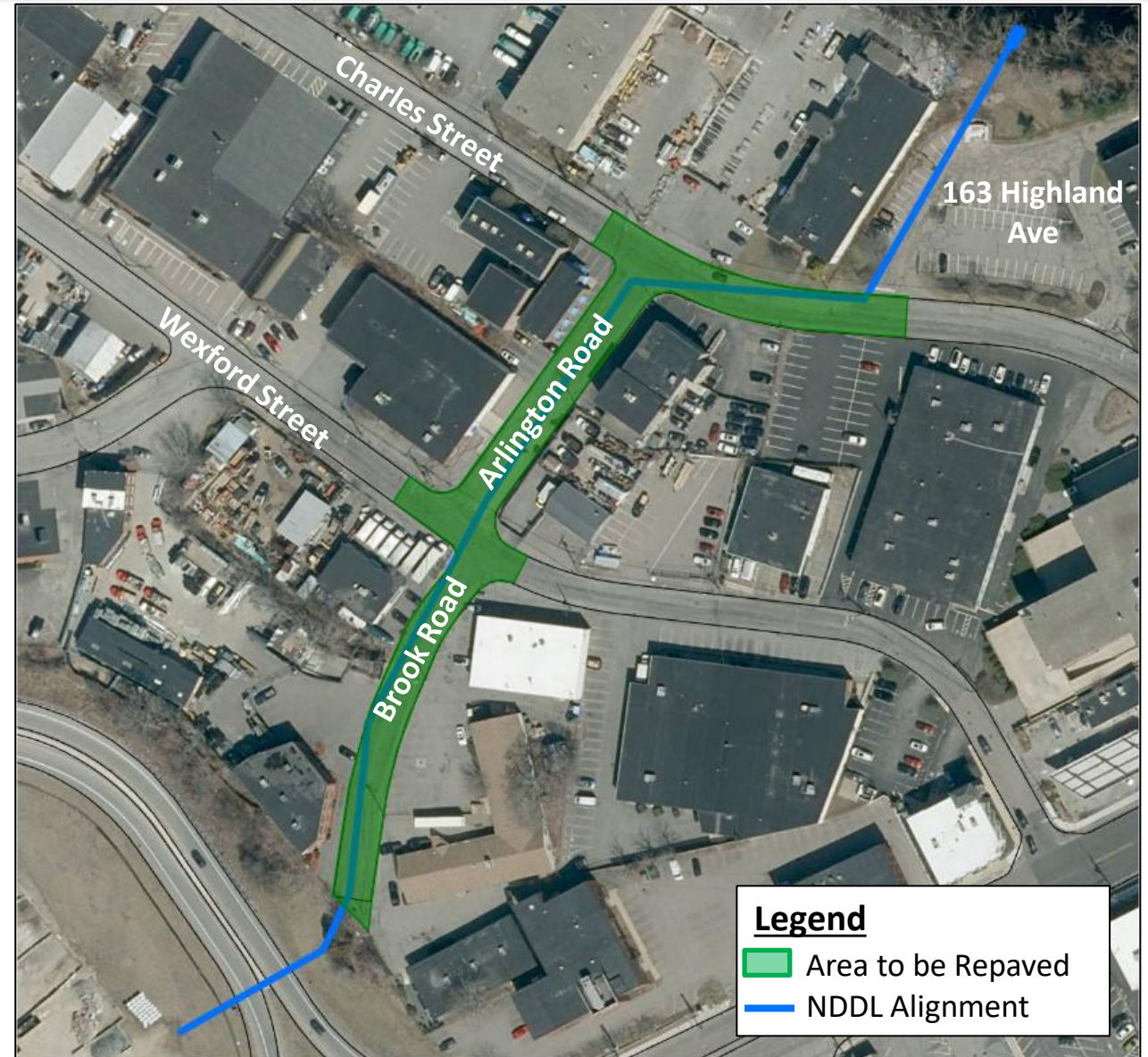
- Sections of existing utilities will be removed and replaced, supported and protected, or newly lined
- Bypasses will be installed when utilities are being replaced to ensure no loss of service
- Most utilities effected are in public rights-of-way
- Remove and replace ~300-foot-long section of vitrified clay pipe
- Work to be conducted in Town of Needham Sewer Easement
- Work Hours
 - Needham Sewer Easement (7AM – 5PM)





Needham Dewatering Drainage Line Site Restoration

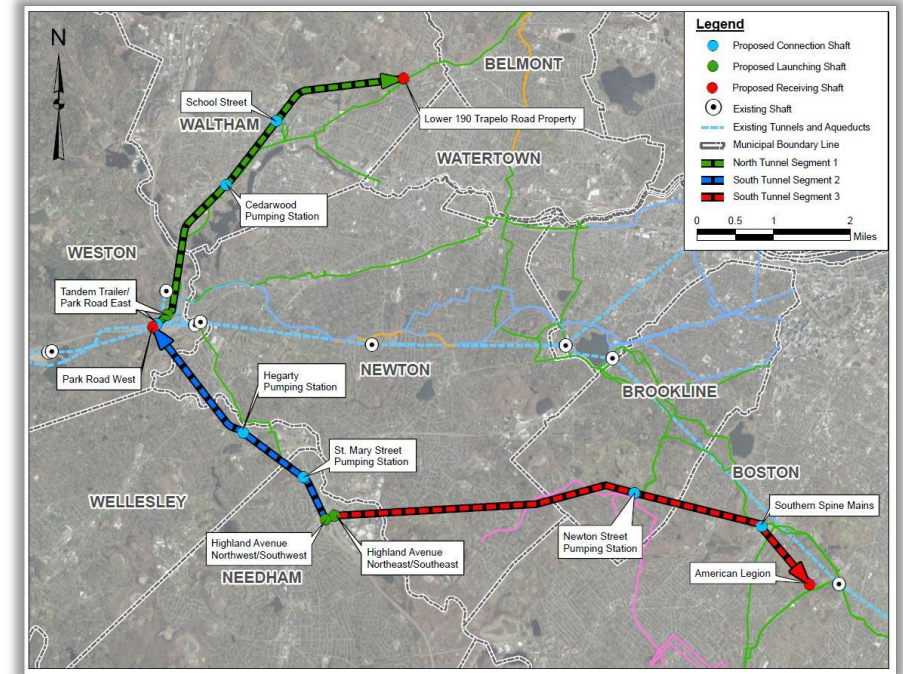
- Mill and overlay pavement in work zone curb to curb upon completion





Metropolitan Water Tunnel Program Construction Targets

- Needham Dewatering Drainage Line
 - Bid: Summer 2026
 - Construction Start: Fall 2026
 - Completion: Spring/Summer 2028
- Tunnel Construction
 - South Tunnel Construction Start: 2028
 - Completion: by 2040





Where to Find Information / How to Contact Us

- Tunnel Program Website: <https://www.mwra.com/mwtp.html>
 - Program Information
 - Reports and other Documents
 - Meeting Agendas and Minutes
- Needham - Notices and Info:
<https://www.mwra.com/mwtp/resources.html#resources>
- Program email address: Tunnels.info@mwra.com
 - Public inquiries and information requests
- Contact Us!
 - Carmine DeMaria, Community Relations Coordinator
 - 617-305-5725
 - Carmine.DeMaria@mwra.com





Metropolitan Water Tunnel Program

Thank You!

