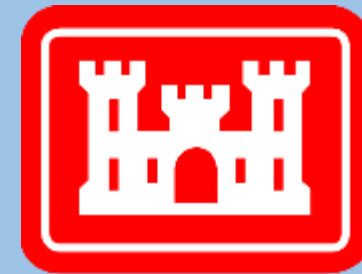


Community Advisory Group

Raymark Industries,
Inc. Superfund Site
Stratford, CT

Jim DiLorenzo, EPA
Mike Looney, USACE
Rachel MacPhee, USACE
Alivia Coleman, Health Dept.

July 26, 2023



**US Army Corps
of Engineers®**

To download presentation slides visit:

Stratfordct.gov/Raymark

Hybrid Meeting Guidelines

Virtual Attendees:

- Everyone will be muted throughout the presentations - please stay muted to eliminate background noise.
- Hold questions until the end of each presentation.
 - Use the chat box.
 - Mute yourself after speaking.

Everyone:

- Ask questions related to the presentation topic.
- Please be respectful of time, so everyone has a chance to speak.
- Be respectful and patient.
- Talk one at a time.
- **This meeting will be recorded.**

AGENDA

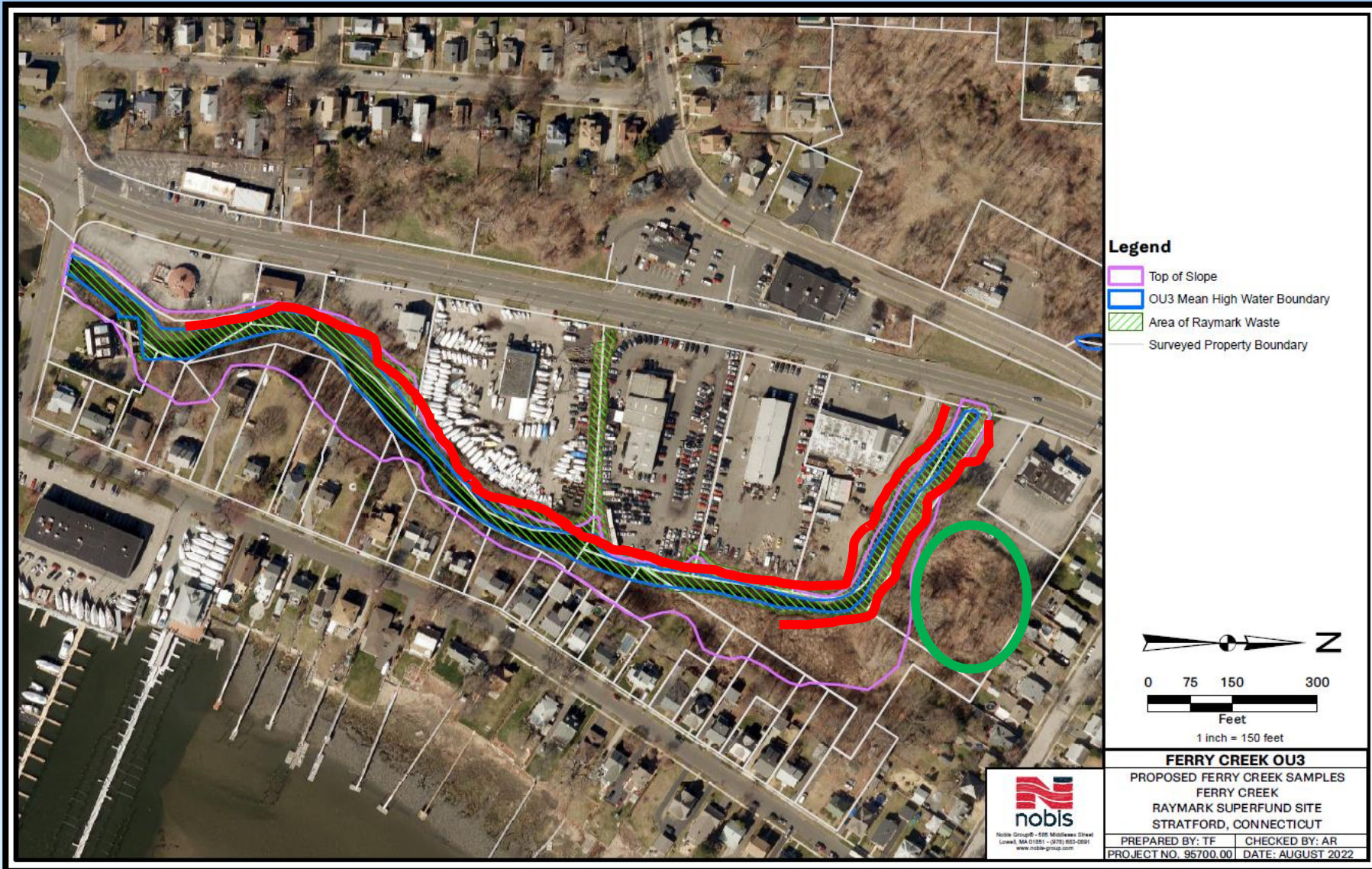
- INTRODUCTIONS AND MEETING RULES
- OPERABLE UNIT 3 and 6 (OU3, OU6) UPDATES
- RAYBESTOS MEMORIAL FIELD (OU4)
- STORMWATER CONVEYANCE SYSTEM
- PENDING EPA DECISION DOCUMENTS
 - HOUSATONIC BOAT CLUB/SHORE RD (OU5) RECORD OF DECISION (ROD)
 - EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD)
- OVERALL PROJECT BUDGET AND SCHEDULE

OU3/OU6 Updates

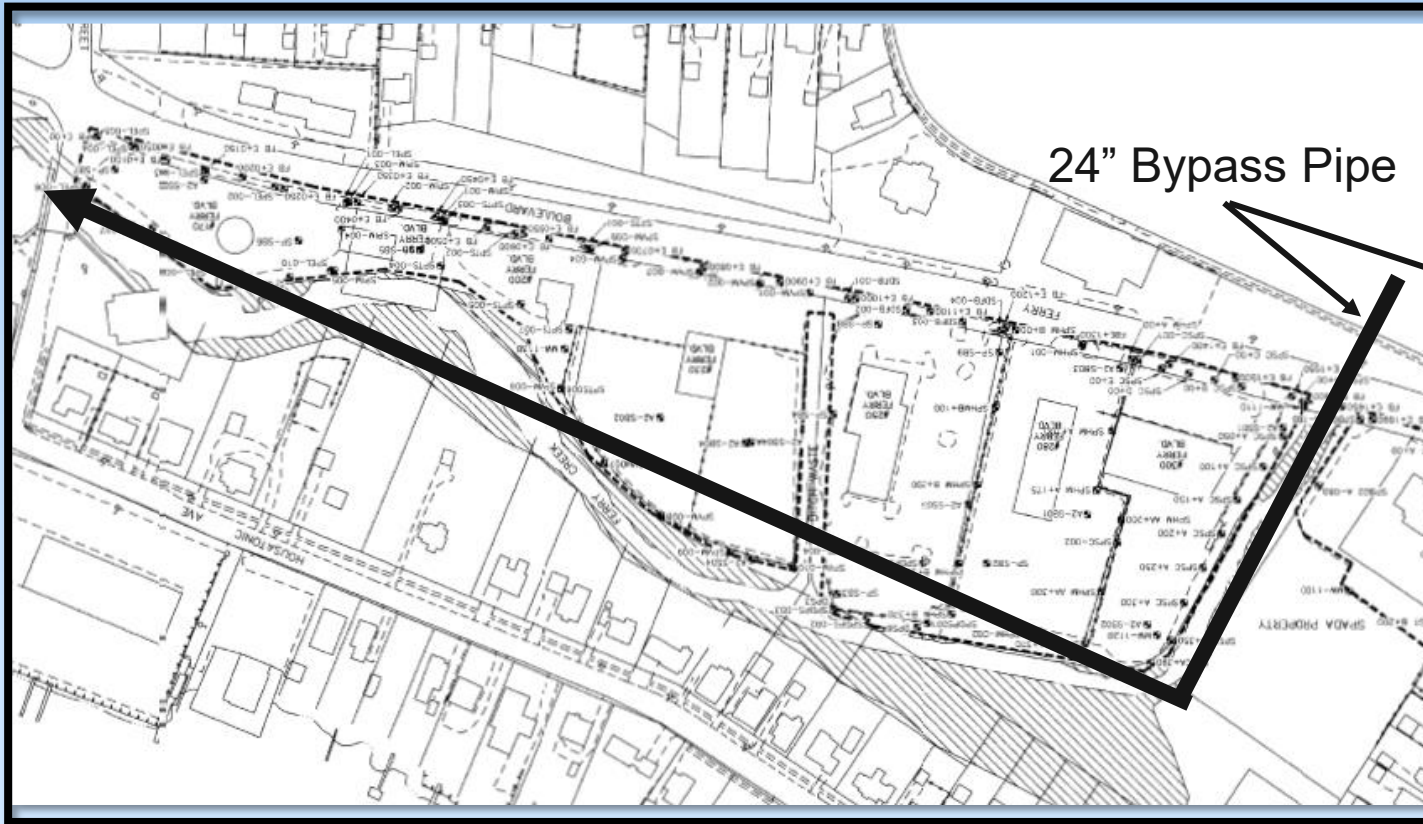
OU3 Ferry Creek Remediation

OVERVIEW

- Ferry Blvd to Broad Street
- About 1/3 mile
- Channel: 2ft of sediment
- Portions of banks (red): 4ft
- Vol estimate is 12,000 CY
- 277cy PHC removed
- Water treatment plant (green circle)
- Mobilized March to June
- Began excavation late June
- About 9 months (with mob)



Dual-Phase Dewatering System

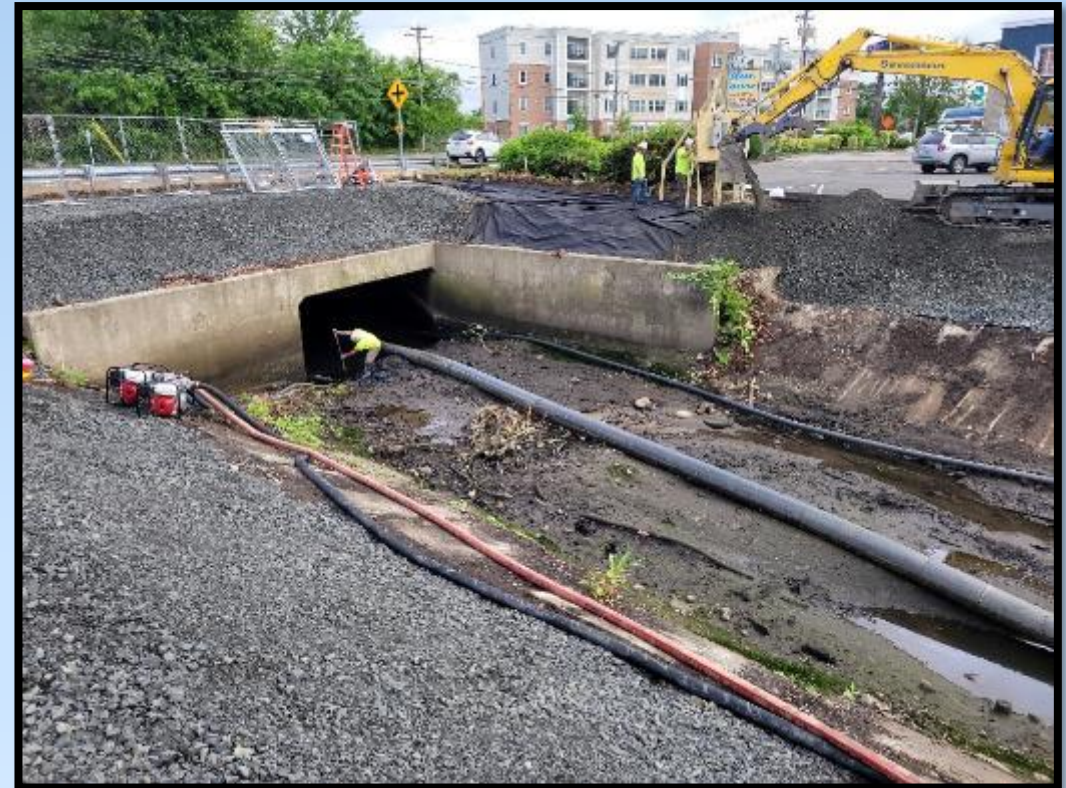


OU3 Box Culvert Cleaning

Box culvert inlet at East Broadway

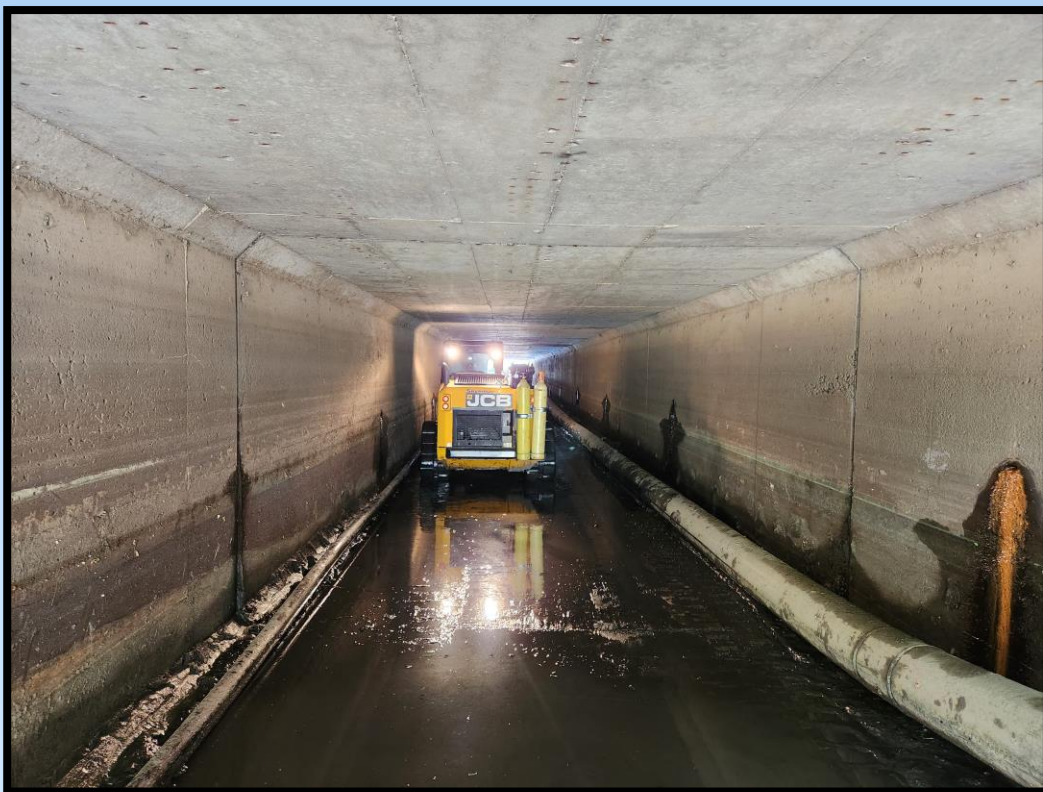


Box culvert outlet at Ferry Blvd



OU3 Box Culvert Cleaned

Cleaned 10ft x 8ft box culvert



Outlet of cleaned culvert



OU3 Construction Road

Looking towards Willow Ave

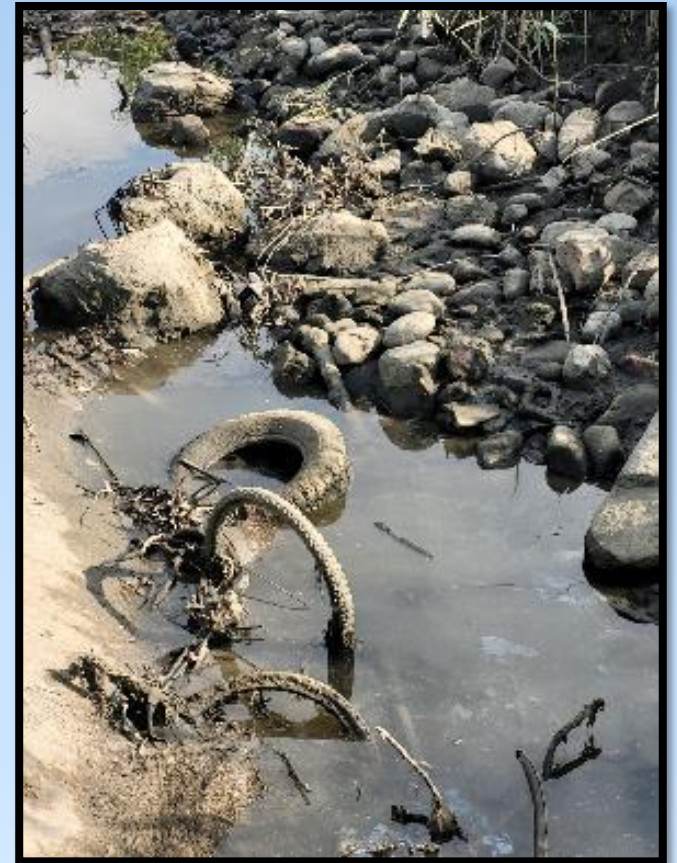


Looking towards Broad Street



OU3 Excavation

Temporary Dams and Debris



Removing 4 to 6 Feet of Sediment on Average



OU3 Banks

Bank Along Rear EPA Office Lot



Bank Along Rear Vacant Lot



Before



After

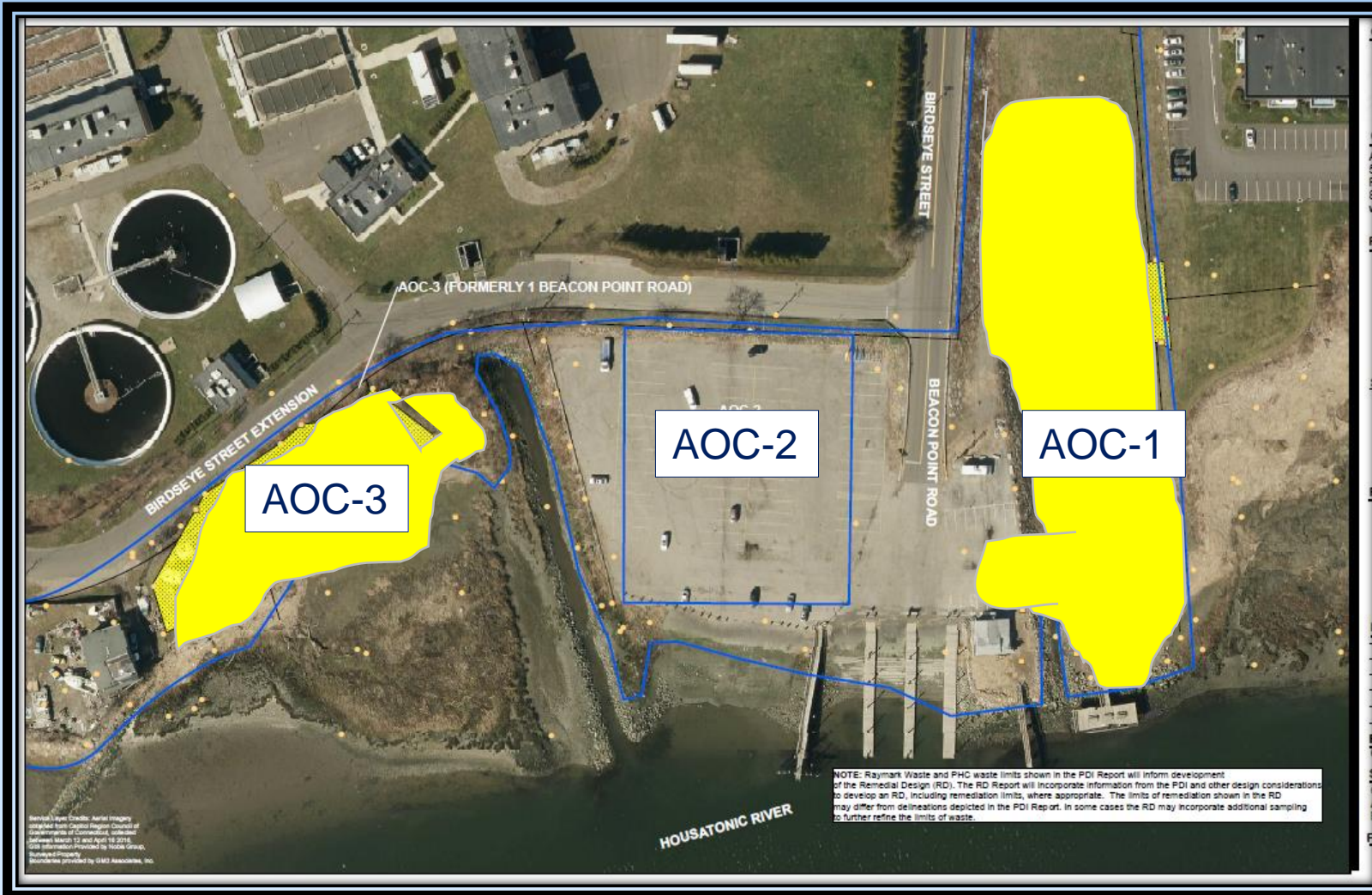


OU3 Status

- About 4,000cy removed
- 727cy of PHC removed
- About 450ft complete – Ferry Blvd to behind Blasius
- About 25 to 30% complete by volume and length
- ~~Three~~ Four major rain events since excavation started - No significant problems
- Excavation complete in November

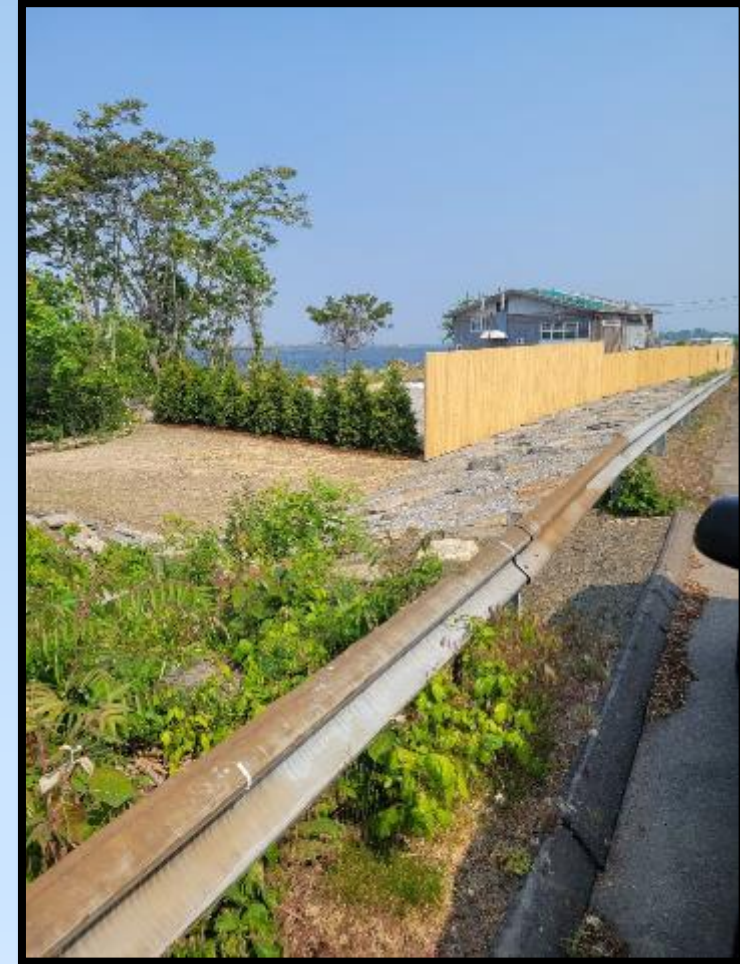


Beacon Point Area



- AOC-1/AOC-3 complete
- AOC-2 – no excavation (deep)
- Nov 27, 2022 to March 23, 2023
- Dock/parking reopened on June 26th
- RW: 11,484 yds (925 trucks)
- **PHC: 457 yds (53 trucks)**

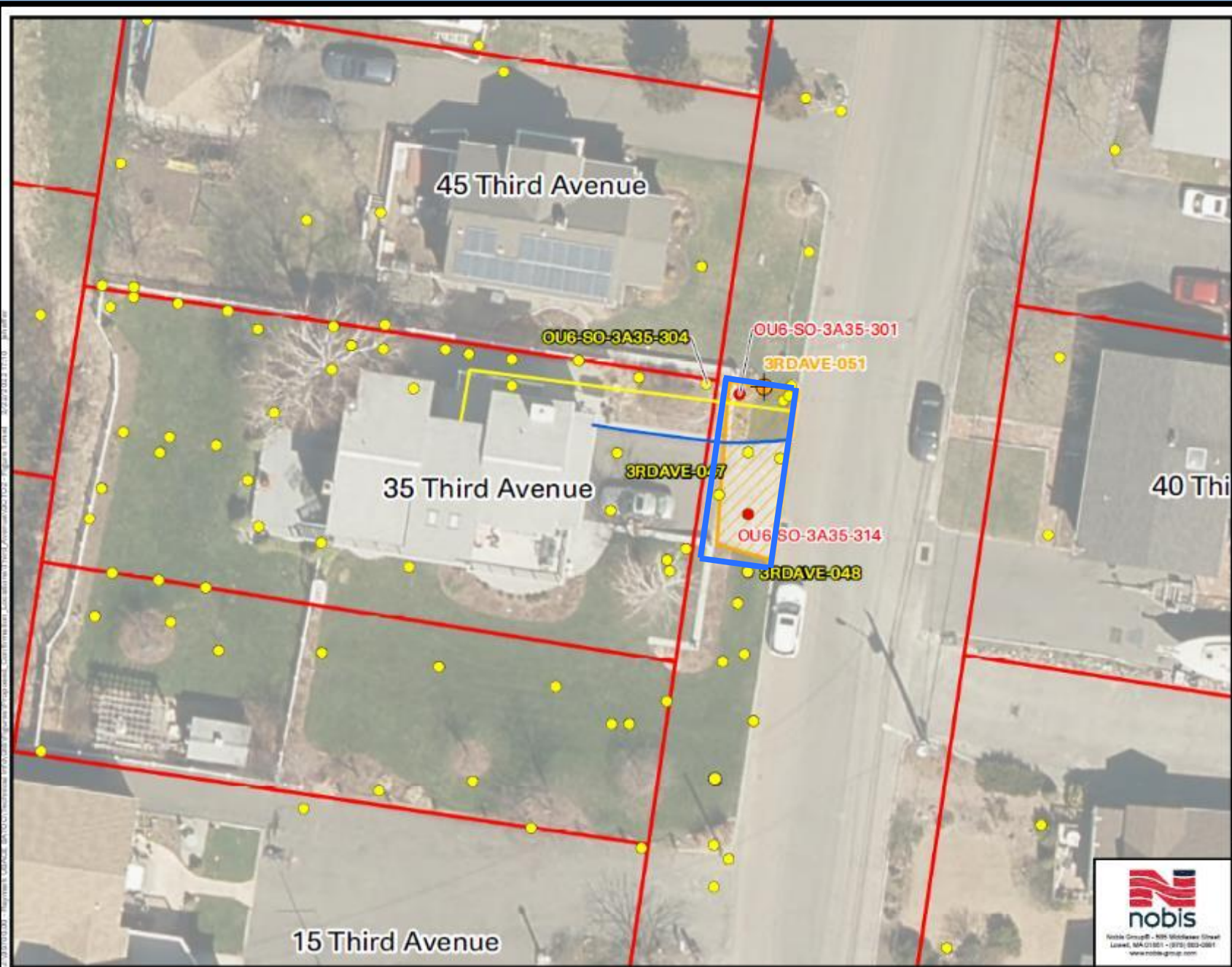
Restoration at Beacon Point



OU3/OU6 Remediation Tracking Table

Area	Location	Excavation Dates	Volume (cy)	Truck Trips?	No. Prop	Notes
September 2020 to May 2023 – 18 properties completed						
Beacon Point AOC-1	Town/Condo	Nov 27, 2022 to June 26, 2023	9,095	727	2	Phase 3 ELUR needed
			131	13	2	
Beacon Point AOC-3	Town/Boat Yard	Jan 16, 2023 to May 25, 2023	2,389	191	2	Phase 3 ELUR needed
			326	52	2	
635 East Broadway	Open Space/Culvert	April 2023	277	30	1	Phase 3 – ELUR Iron/Drainage
OU3 Ferry Creek	Commercial creek bank	June to xx, 2023	3,786	384	1	Ferry Blvd to Broad St
		May 8 to 10, 2023	727	69	1	Behind car dealerships
TOTALS =		Raymark Waste	56,660	4,899	23	
		PHC Waste	6,381	598	14	

Remaining OU6 Properties



- Note:**
1. USACE evaluation of sample results determined that sample did not meet all thresholds for step-out criteria and further step-out sample collection is not required.
 2. USACE evaluation of sample results determined that sample met all thresholds for step-out criteria and further step-out sample collection is required.
 3. Raymark Waste and Non-Raymark Waste borings, and RW Areas from the Remedial Design Drawings and Pre-Design Investigation.
 4. Property boundaries are derived from the Remedial Design Drawings.
 5. According to FEMA's National Flood Hazard Layer, the property 35 Third Avenue and parcels to the north, east, and south are located in the AE EL-11 Floodplain. Parcels to the west are located in the VE EL-14 Floodplain.
 6. Historical Samples 0-4' include samples collected from the following intervals: 0-4' bgs, 1-4' bgs, 2-4' bgs, 1-3' bgs, 2-3' bgs, and 3-4' bgs.
 7. Raymark Waste designation in historical samples are based on exceeding the Raymark Waste Criteria.
 8. Locations of site features depicted hereon are approximate and given for illustrative purposes only.

Legend

- Proposed Confirmation Boring
 - Post Construction Confirmation Sample
- Raymark Waste detected? (0-4')
 - Yes
 - No
- Historical Samples 0-4'
 - Raymark Waste
 - Non-Raymark Waste
- Water Line
- Natural Gas Line
- Raymark Waste Limits
- Stratford Parcels

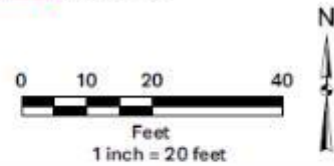


FIGURE 1 - 35 THIRD AVE 0-4FT BGS

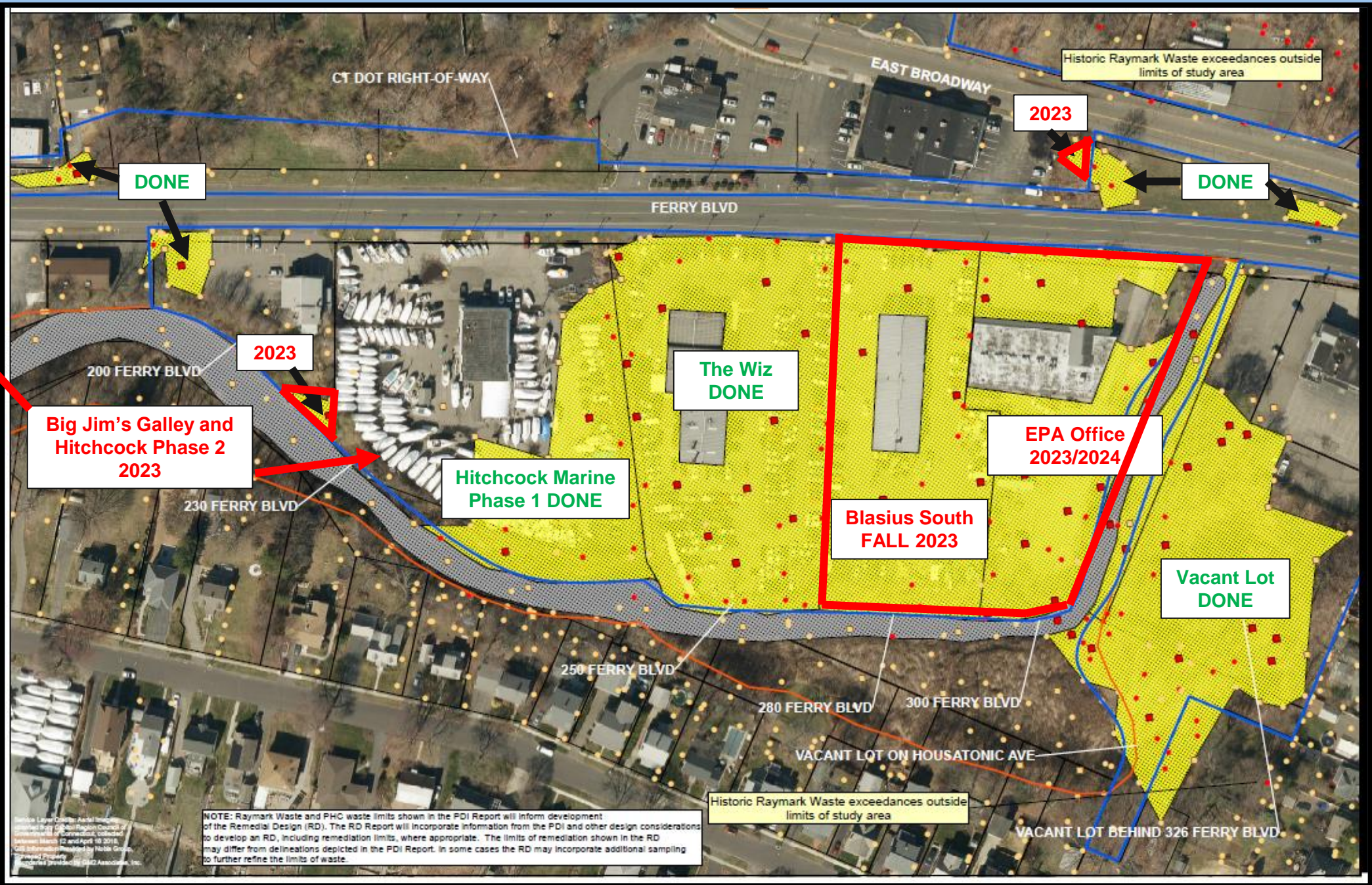


GCTO2
 35 THIRD AVENUE
 RAYMARK SUPERFUND SITE
 STRATFORD, CONNECTICUT

PREPARED BY: JTS	CHECKED BY: AR
PROJECT NO. 95700.00	DATE: FEBRUARY 2022

Third Ave ROW

August 2023



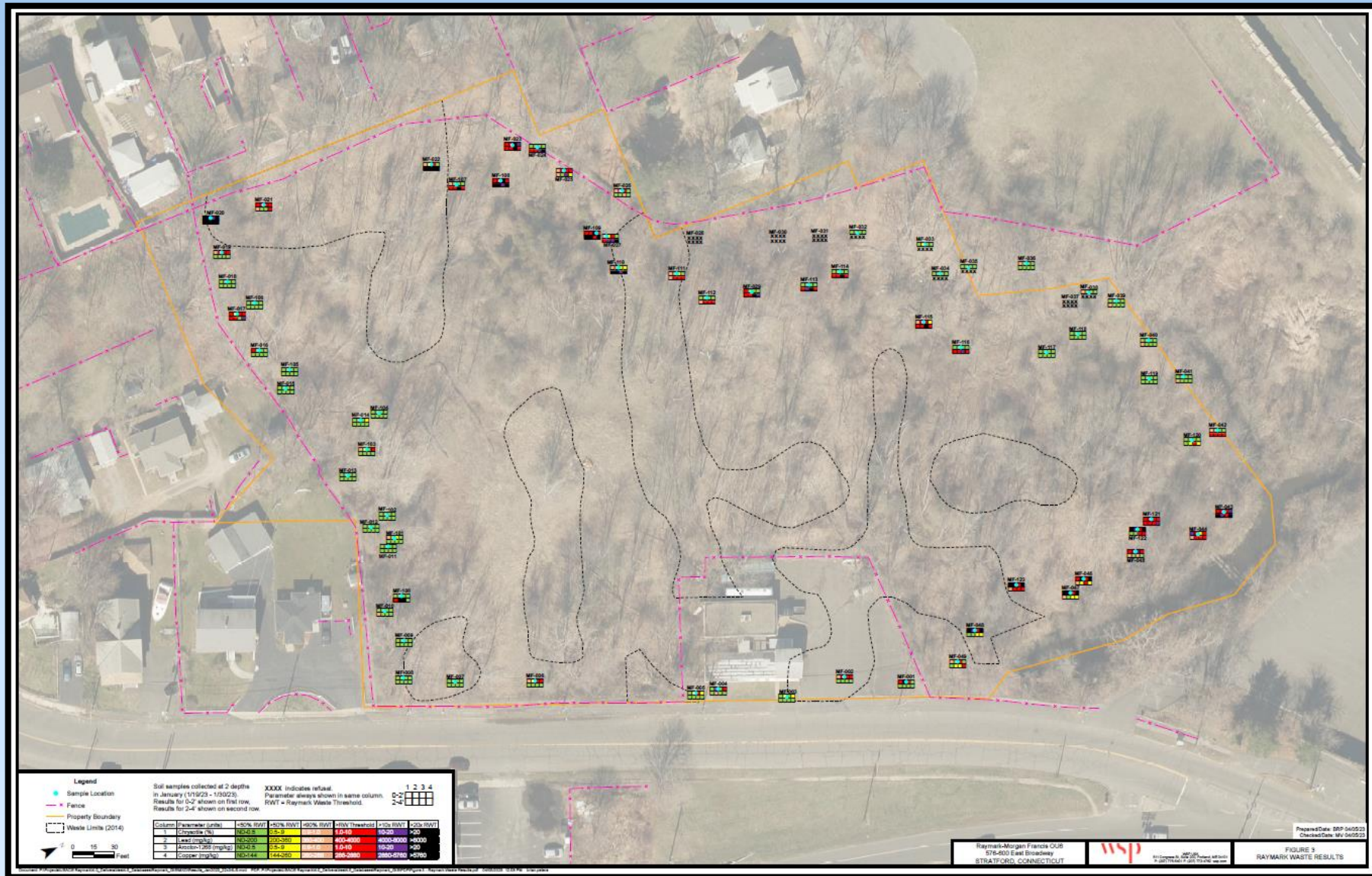
Lockwood Ave (2023-2024)



- 4.8 acres
- About 20,000cy of Raymark Waste. No PHC.
- Phase 1 tidal wetlands
- Phase 2 upland/inland wetland
- Various channels and culverts (stormwater, Selby Pond, Ferry Blvd wetland)
- Bulkhead around upland
- Coastal resiliency (1 foot)

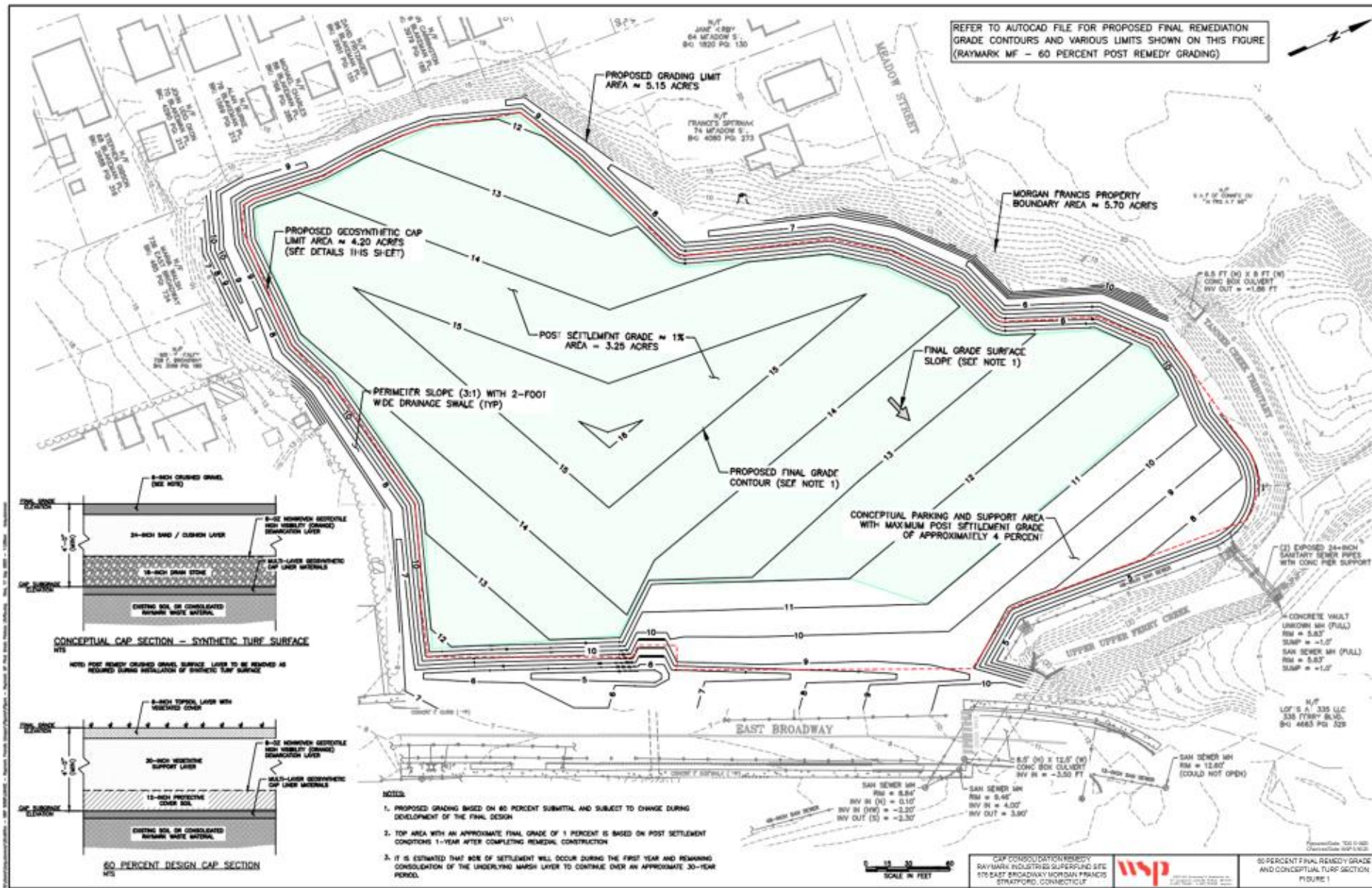
OU6 Morgan Francis
576/600 East Broadway

576/600 East Broadway - Morgan Francis

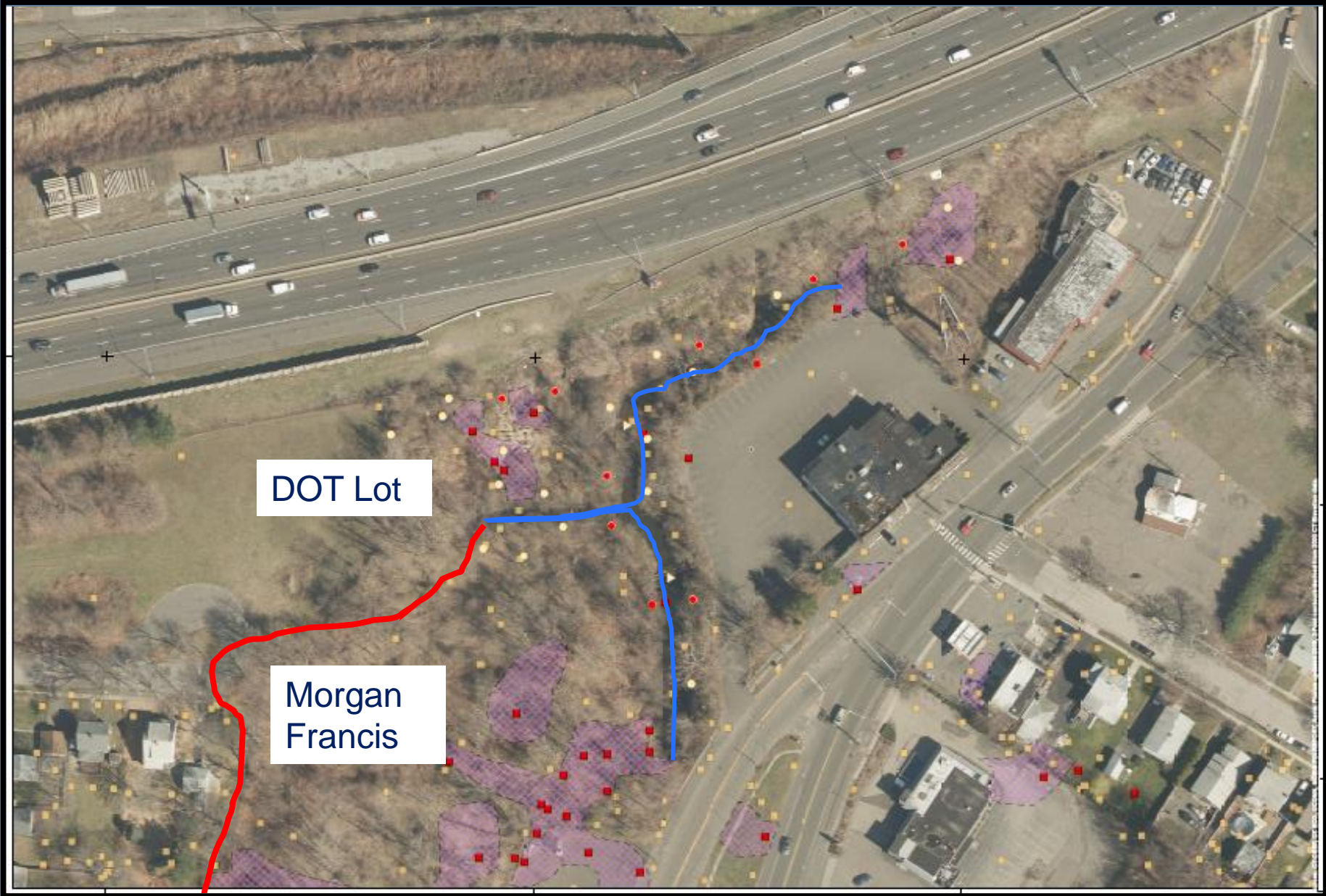


- 2011 ROD
 - 44,000cy RW (low)
 - Cap in place
- Update design
 - Recreational use
 - Consolidate adjacent RW
 - 60% design done
- Contracting in 2024
- Expect cleanup to start early 2025

60% Remedial Design



Uppermost Ferry Creek and DOT Lot



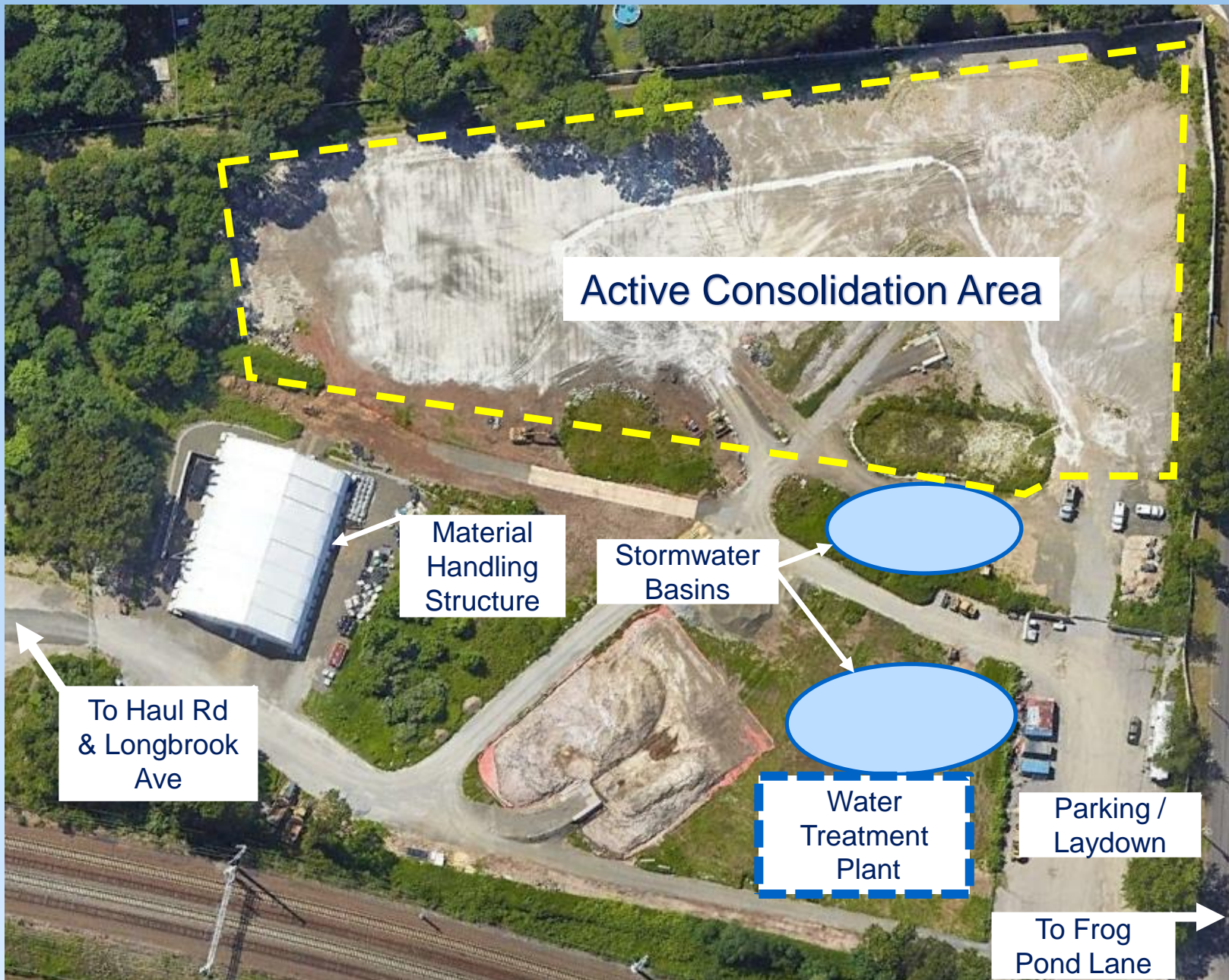
OU4 Updates

OU4 Ballfield Work Completed or Ongoing Since May



- Approximately 57,000 CY of material has been consolidated, compacted, and covered to date
- OU4 stormwater treatment plant constructed and operational
- Stormwater conveyance line construction complete, final restoration underway
- Pumpstation construction is underway
- 6 perimeter air monitors at OU4 are operating daily
- Summer operations: grading, compaction, and increased wetting in effect

OU4 Consolidation Area

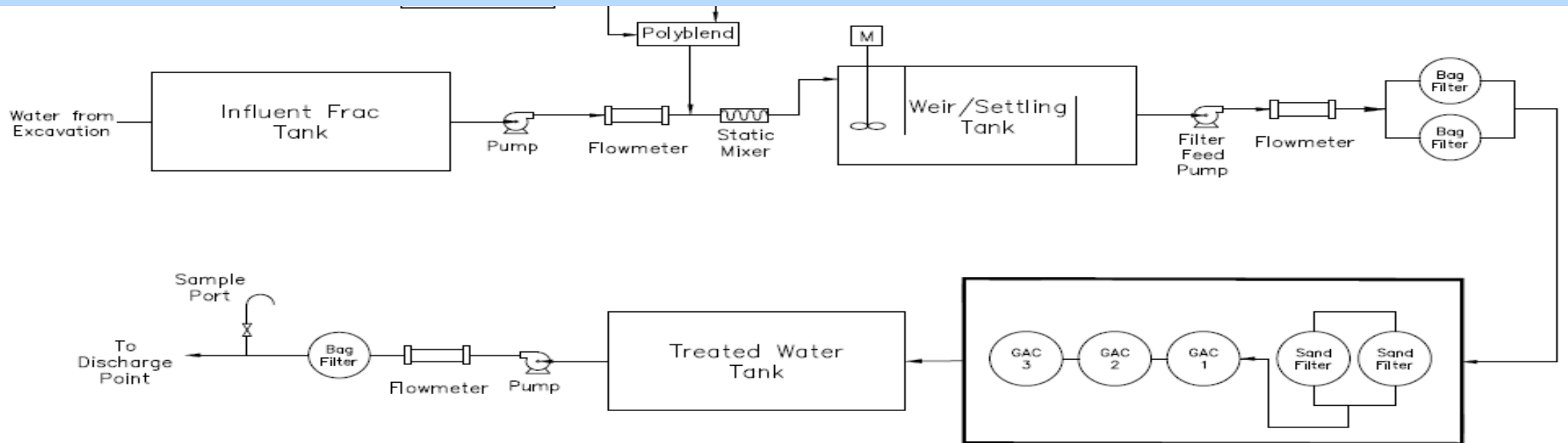


- Approximately 57,000 CY of material has been consolidated, compacted and covered

Reconfiguration of OU4 :

- New primary access road
- New stormwater basins
- Water treatment plant

OU4 Water Treatment Plant



OU4 Consolidation Area



Loading Material From Ferry Creek
(OU3)



Material Drop to Material
Handling Structure at OU4

OU4 Consolidation Area



Loading Amended Soil for Consolidation



Material Placement Within OU4 Consolidation Area

OU4 Consolidation Area



“Dust Boss” water application



Water truck

OU4 Consolidation Area



Material Grading Within
OU4 Consolidation Area



Roller Compaction

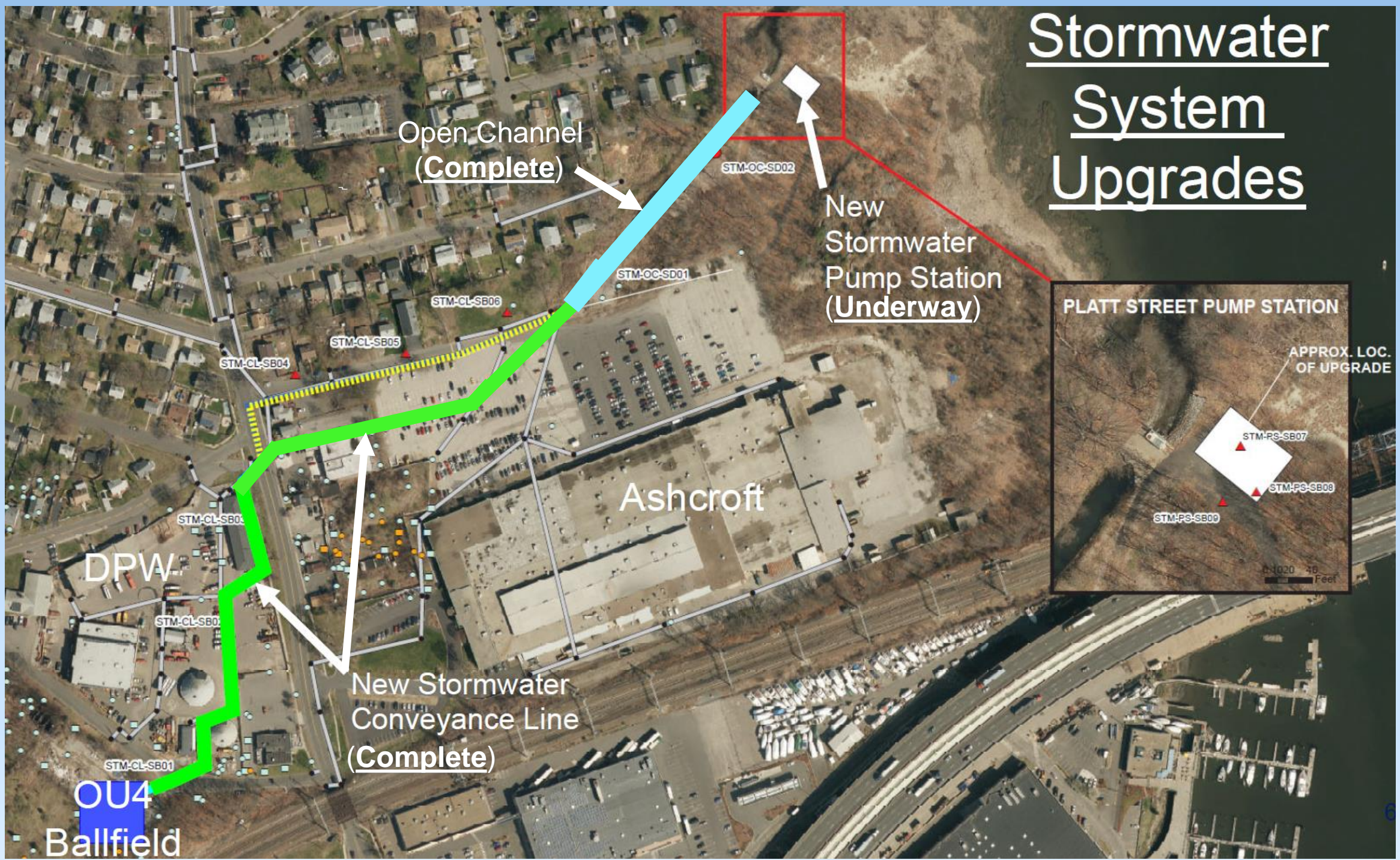
OU4 Future Concept



- 3-D model based on current design
- Site design accommodates future use by the Town
- 200' x 300' building pad for future development. Will accommodate a variety of options.
- Access from Frog Pond Lane and Longbrook Ave via Haul Road
- Site stormwater will be collected and carried via new conveyance system and pumpstation

OU4 Stormwater System

Stormwater System Upgrades



Open Channel
(Complete)

New
Stormwater
Pump Station
(Underway)

New Stormwater
Conveyance Line
(Complete)

PLATT STREET PUMP STATION

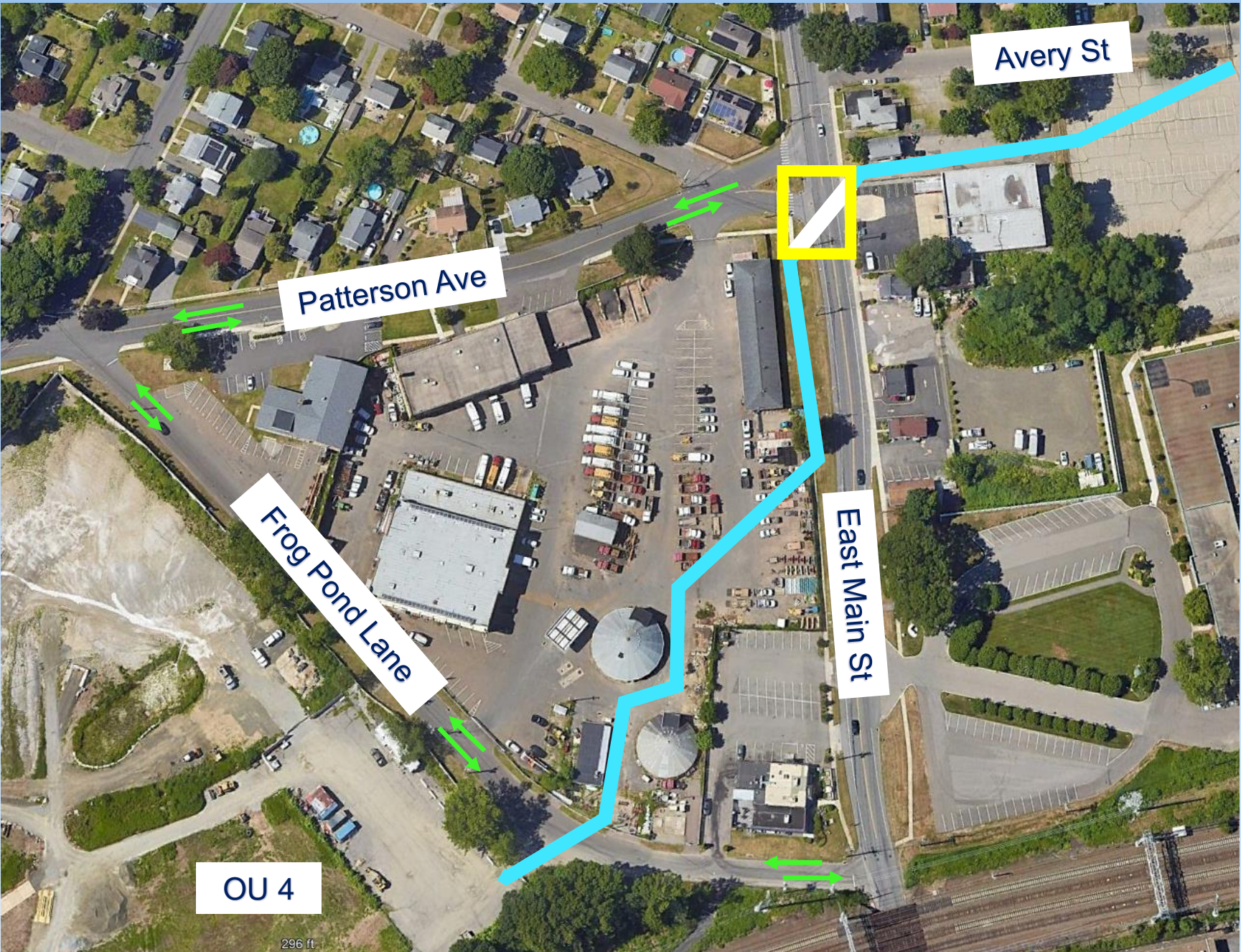
APPROX. LOC.
OF UPGRADE

Ashcroft

DPW

OU4
Ballfield

1:4020 46
Feet



Stormwater System

- Box Culvert Install Complete
- Final restoration underway

Stormwater Conveyance



Articulating Concrete Block (ACB)
Channel Armoring



Completed Outlet and Headwall

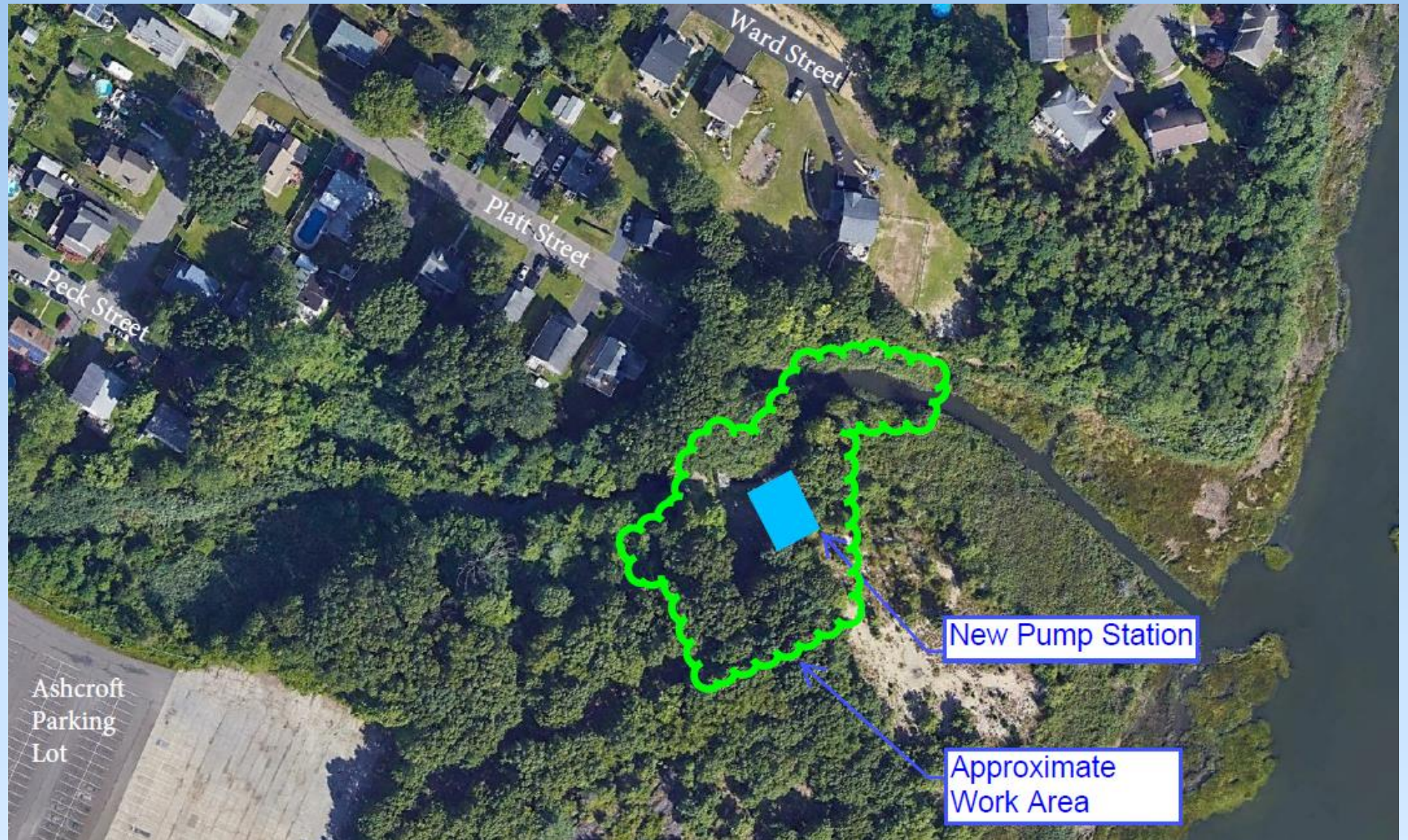
New Pump Station

- P&S Construction – Prime contractor
- Construction underway
- Construction complete end of 2024
- 4 Axial Flow Pumps
- 200 CFS Capacity
- Operates during significant storm and high-water events
- Masonry Pumphouse



Pumpstation – completed and upcoming site work

- Site preparation complete
- Sheet pile installation complete
- Dewatering well point installation complete
- Dewatering system setup complete and running
- **Excavation of building footprint underway**
- Blasting will be required to remove approximately 5-12' of underground ledge (rock) within the pumpstation footprint



Pumpstation Site



Excavation Area

Pumpstation – Ledge Removal



- Maine Drilling and Blasting
- Approach is to minimize ground vibrations as much as possible
- Home inspections were conducted in the vicinity of the work
- Vibration monitors will be deployed
- It is estimated that there will be approximately 15-20 blast events over a period of 3 weeks
- Each will generally occur between 10:00 AM and 2:00 PM
- Site will be secured from public
- Multiple 6000 lb blasting mats will be utilized

Air Monitoring

Raymark Air Monitoring Program

- Dust monitoring protects workers and abutting community
 - Dust Action Levels based on property and type of work
 - Action Levels = 0.014 (OU4) and 0.019 mg/m³ (OU3 and OU6) when Raymark Waste handled.
 - Action Levels = 0.075 mg/m³ (OU4 Early Detection Station)
 - Action Level = 0.150 mg/m³ when only clean soil handled
 - Chemical samples collected for lab analysis when Raymark Waste is handled
 - Low safety threshold – STOP WORK before any potential risk to workers or community
- Vibration monitoring conducted
 - STOP Work = 0.5 inches/second



Chemical Sampling Port

Dust Monitoring Station



Personnel Monitoring



Poor Air Quality Index

- Goal: Better tracking and identification of site-specific impacts of our work during poor Air Quality days.
 - Applies to OU4 when EPA's Air Quality Index (AQI) > 75.
 - 1 upwind and up to 2 downwind stations (based on wind direction) to consolidate our monitoring footprint around our work area.
 - Difference between upwind and downwind stations indicative of site-specific impacts to dust.
 - Continue to collect chemical data from all 5 OU4 air monitoring stations.
 - Early Detection Station will continue to be used to focus on worker safety.
 - Once the AQI drops below 75, revert to the standard procedure.

Air Monitoring Results

- Sustained high dust levels due high AQI have been seen periodically throughout June and July.
- Daily average action levels at all five OU4 perimeter stations and the OU4 early detection station were exceeded on 6/6, 6/7 and 6/8.
 - Early detection station – between 0.189 and 0.231.
 - Perimeter stations -between 0.024 and 0.036.
 - Elevated dust levels were seen at all three OU3 meters as well, but daily average action levels were not exceeded.



Utilizing Dustboss for dust control at OU4.

Air Monitoring Results

- New high AQI procedure was implemented on 6/30.
- OU4 early detection station exceeded its action level on 6/12 (0.076 mg/m³) and 6/30 (0.145 mg/m³), however no exceedances were identified at the perimeter stations, therefore there were no impacts to abutters.
- On 6/12 all five sample locations at OU4 and S1 and S2 at OU3 had a fiber detections on the PCM analysis.
- TEM analysis was run on all asbestos samples collected on 6/12 and came back negative for Asbestos fibers. Cellulose was detected in all samples.

Vibration Results

- On 6/6 exceedances at OU4 meters VM-1, VM-2, VM-5 between 0.604 and 0.913 in/sec.
- On 6/9 one exceedance at VM-2 at 0.865 in/sec.
 - These exceedances occurred around 1800 on 6/6 and 1515 on 6/9 and were associated with thunderstorms.
 - These exceedances occurred after work was concluded for the day and were not associated with site activities.



Loading treated PHC soil from Upper Ferry Creek into intermodal for off-site disposal at TFS.



Offloading Raymark Waste for consolidation at OU4.

Vibration Results

- On 6/12 and 6/20 exceedances at 390 East Main Street between 0.646 in/sec and 0.779 in/sec.
 - Caused by moving equipment / trench box / H Piles.
 - Short ~1-2 min duration.
 - No complaints by the abutters on either side of the work area.
 - The stormwater channel project is now complete.



Excavating in front of 390 East Main Street to install box culverts.



Excavating in front of 390 East Main Street to install box culverts.

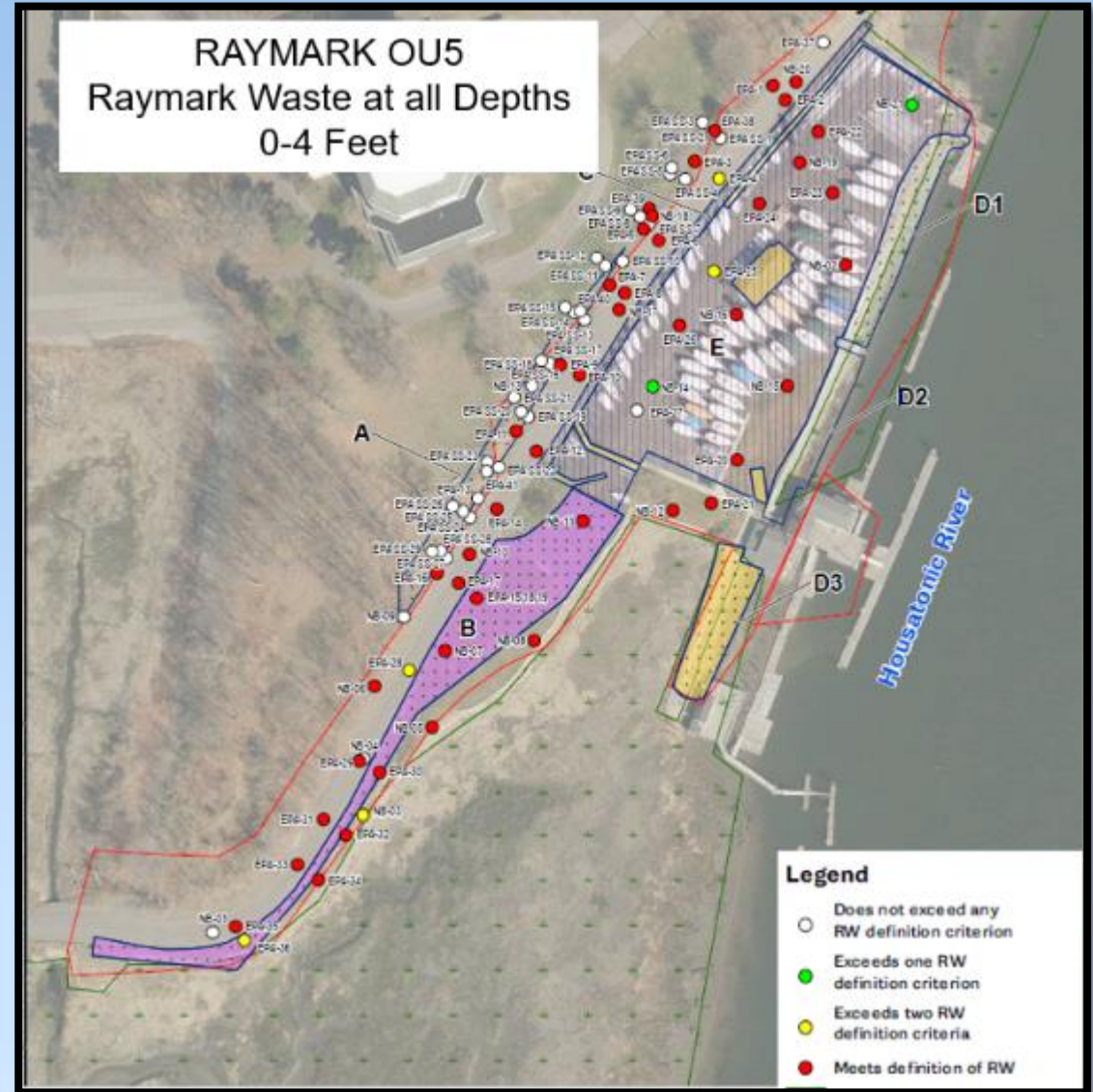
Vibration Results

- On 7/14 exceedances at all OU4 meters between 0.5285 in/sec and 0.8959 in/sec.
- On 7/18 exceedances at all OU4 meters between 0.6513 in/sec and 1.0988 in/s.
 - Exceedances on 7/14 and 7/18 were due to passing thunderstorms.
- The sound level microphone for OU4 VM-1 began failing sensor check on 7/3.
 - Cause may be moisture from recent storms.
- No additional vibration exceedances were reported this monitoring period.

Pending EPA Remedy Decisions

OU5 Housatonic Boat Club and Shore Road

- Proposed Plan to be distributed soon
- Recommends a combination of excavation and capping in place
- Considers Coastal Resiliency
- Public Information meeting on August 8th at 6:30pm
- Formal public hearing on September 6th at 6:30pm
- 30-day public comment period
- Ron Jennings is the EPA Project Manager



Explanation of Significant Differences (ESD)

- Documents “significant” changes to EPA’s previous clean-up plans (Record of Decision or ROD)
 1. Floodplain changes (Morgan Francis, Beacon Point and Lockwood Avenue)
 2. Change to plan to manage stormwater at OU4
 3. Less than 4-foot excavation at a DOT property along I95
- Information flyer/draft ESD mailed this week
- Public meeting on August 15th at 6:30pm
- 15-day comment period Aug 15th to 30th
- Plan to issue final ESD in September

Consolidation Remedy Schedule



- **OU6**

- August - 3rd Ave ROW
- Fall 2023 to Spring *2024– Lockwood Ave
- 2023 Fall – Blasius Dealership
- 2023-2024 Fall/Winter: EPA Office/Former Ski Shop

- **OU3**

- 2023 April to Dec : Ferry Creek (East Broadway to Broad St)
- Hitchcock Marine, Liquor Store, Big Jim’s Galley

- **OU4**

- 2024: Construct cap

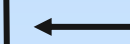
Construct Pump Station



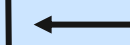
Morgan Francis Design



ESD



OU5 ROD



Raymark Budget for Consolidation Remedy – OUs 3, 4, 6

- 2016 ROD Cost Estimate - \$95 million
- Remediation costs to date - \$64 million
- Supporting infrastructure costs (barrier, haul road, stormwater) - \$38 million
- Remaining estimated costs (OU6 properties, OU4 operations and cap) - \$35 to 40 million
- Overall actual estimated cost – Approximately \$140 million
 - Increased volume including additional properties
 - Significant inflation increases in labor, fuel and materials costs
 - Project made whole and fully funded by Bipartisan Infrastructure Bill (BIL) - about \$70 million

Next CAG Meeting September 27th at 6:30pm

For more information about the Raymark Superfund Site, including copies of presentation slides, documents and meeting minutes, please visit: stratfordct.gov/raymark

Thank you for joining!

- Visit stratfordct.gov/Raymark for updates, contact information, air monitoring results, meeting dates, meeting recordings and Powerpoint slides
- Email Alivia at: acoleman@townofstratford.com with further questions, concerns, feedback or to sign up for email distribution list.