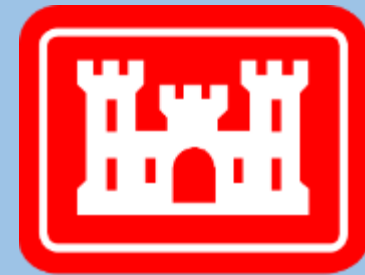


Raymark Industries, Inc. Superfund Site

Vacant Lot Neighborhood

Jim DiLorenzo, EPA
Mike Looney, USACE
Dave Heislein, USACE

January 12, 2022



**US Army Corps
of Engineers®**

To follow along with the presenters visit:

[Stratfordct.gov/Raymark](https://stratfordct.gov/Raymark)

Virtual Meeting Guidelines

- Everyone will be muted through the presentations - please stay muted to eliminate background noise.
- Hold questions until the end of each presentation.
 - Use the chat box.
 - Ask questions related to the presentation topic
 - Please be respectful of time, so everyone has a chance to speak
 - Mute yourself after speaking
- Be respectful and patient!
- Talk one at a time.
- **This meeting will be recorded.**

Vacant Lots Behind 326 Ferry Boulevard



Estimated Raymark Waste Volume = 9,000 cubic yards

AGENDA

- INTRODUCTIONS AND MEETING RULES
- BRIEF HISTORY OF RAYMARK SITE
- SUMMARY OF THE 2016 CLEANUP DECISION
- NATURE AND EXTENT OF CONTAMINATION AT VACANT LOTS BEHIND 326 FERRY BOULEVARD
- CLEANUP APPROACH FOR VACANT LOTS BEHIND 326 FB
- SCHEDULE
- Q&A

BRIEF HISTORY OF THE RAYMARK SITE

Raybestos - Manhattan Company



- Former 33-acre manufacturing facility
- Operated for 70 years (1919 to 1989)
- Made brake pads and clutch plates
- Liquid wastes discharged to unlined lagoons
- Lagoon sludge/spent solids used as fill material
- Filled low spots on their own property
- Gave away as free fill around town (most to fill wetlands)
- Current location of Stratford Crossing shopping plaza



What Is Raymark Waste?

“Raymark Waste is defined as a single soil sample containing **lead** above 400 parts per million (ppm) [or mg/Kg], **and asbestos** (chrysotile, only) greater than 1 percent, **and either copper** above 288 ppm **or polychlorinated biphenyls (PCBs)** (Aroclor 1268, only) above 1 ppm.”

**Raymark Waste Exposed at the
Raybestos Memorial Ballfield**



Soil/Sediment Contaminants of Concern (OUs 3, 4 and 6)	
	Benzo(a)anthracene
	Benzo(a)pyrene
	Benzo(b)fluoranthene
	Bis(2-ethylhexyl)phthalate
	Dibenz(a,h)anthracene
	Indeno(1,2,3-cd)pyrene
	N-Nitroso-di-n-propylamine
	Dieldrin
	Aroclor-1242
	Aroclor-1254
	Aroclor-1260
	Aroclor 1262
✘	Aroclor 1268
	Dioxin
	Arsenic
	Chromium
✘	Copper
	Thallium
✘	Lead
✘	Asbestos

What Is PHC Waste?

- Principal Hazardous Constituents (or “PHCs”) are a subset of Raymark Waste present at concentrations *“substantially higher than the cleanup levels or goals at the site.”*
- PHC waste is *not* consolidated. Sent off-site for disposal.
- Lead: Clean-up Level = 400 mg/kg. PHC = 11,000 mg/kg.
- PCBs: Clean-up Level = 1 mg/kg. PHC = 940 mg/kg.
- Not every OU6 property has PHC Waste. Vacant lots do.
- About 10% of the overall Raymark Waste volume.

EPA Response Actions

- **1993 Removal Action**
 - Raymark Waste excavated from 46 residential properties and Wooster School (100,000 cy).
 - Transported/stored at former Raymark facility.
- **April 25, 1995 – Raymark added to Superfund List**
- **July 1995 – 1st Record of Decision**
 - Former Raymark facility demolished.
 - 100,000 cy of Raymark Waste consolidated with 500,000 cy of existing Raymark Waste under a low-permeability cap.
 - Over 500 properties were sampled.
- **September 2016 – Consolidation and Groundwater Record of Decision**

Operable Units

- OU1: Former facility. Capped. O&M
- OU2: Groundwater/Vapor Intrusion
- **OU3: Upper Ferry Creek**
- **OU4: Raybestos Memorial Ball Field**
- OU5: Shore Road Boat Club
- **OU6: Additional Fill Properties (22 known)**
- OU7: Lower Ferry Creek
- OU8: Beacon Point Boat Launch
- OU9: Short Beach Park/Stratford Landfill



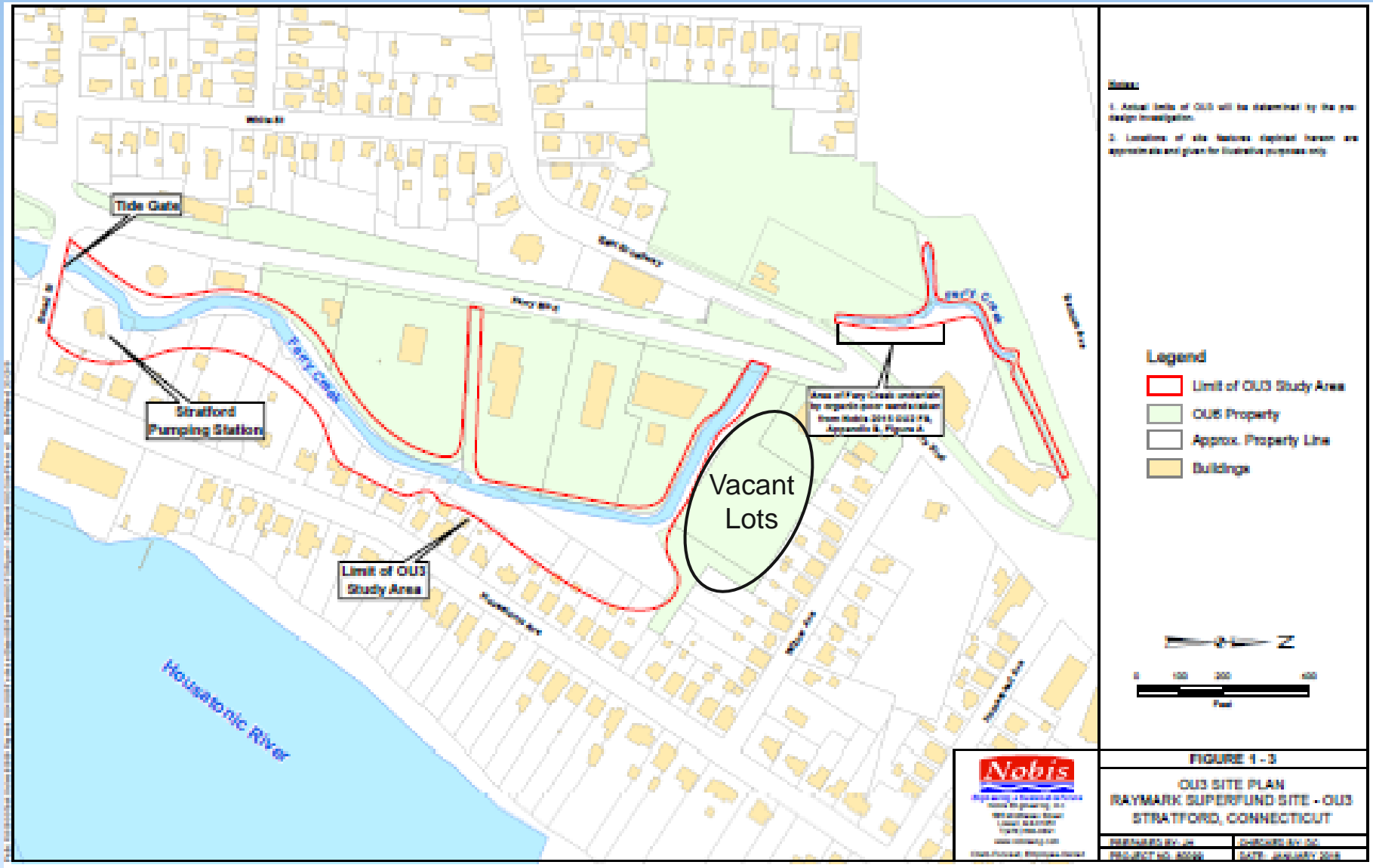
OUs in **GREEN**
are the
Consolidation
Remedy

Additional Properties (OU6)

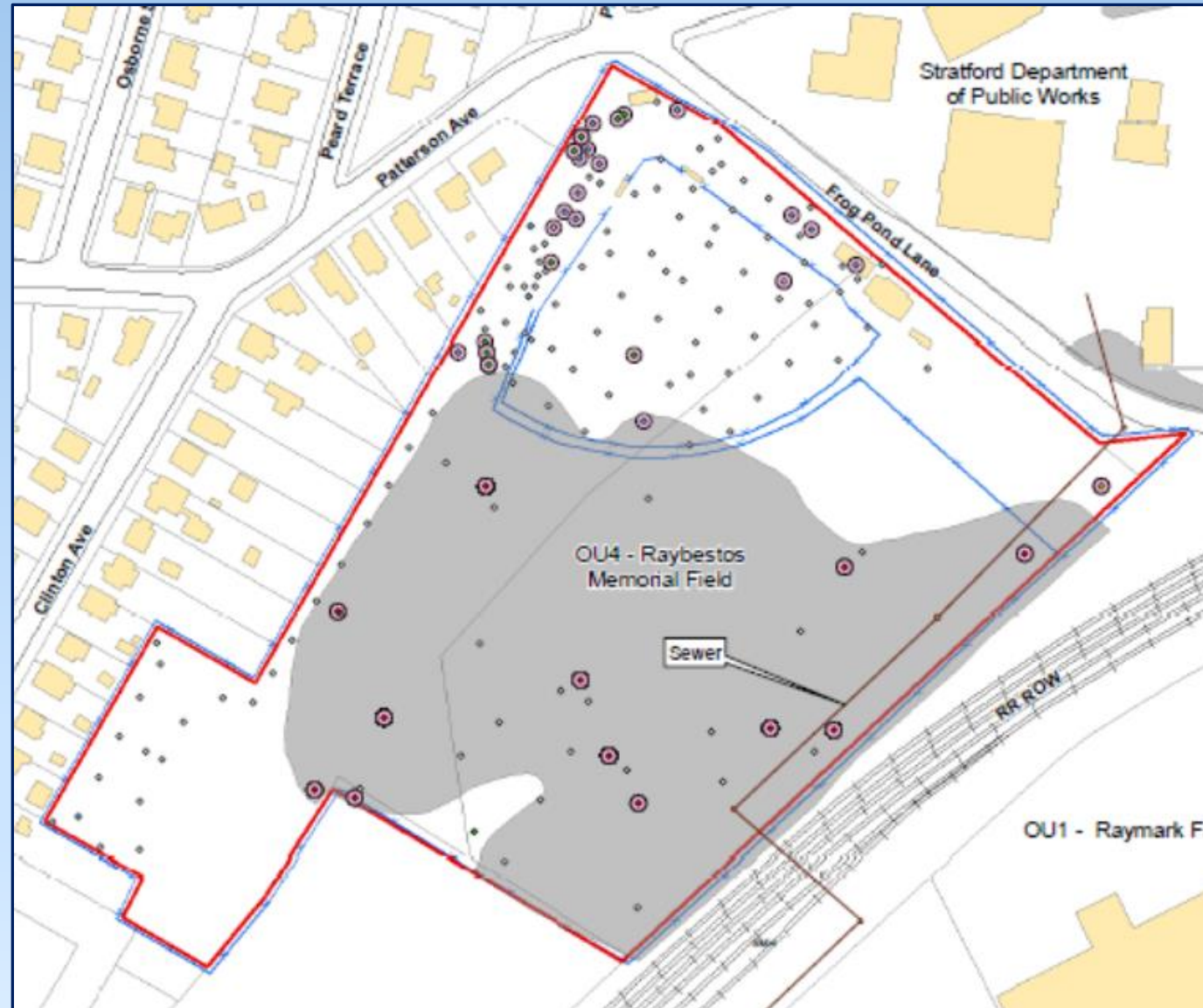


OU6 PROPERTY LOCATION	PROPERTY TYPE
190 Ferry Boulevard	Active business
200 Ferry Boulevard	Active business
230 Ferry Boulevard	Active business
250 Ferry Boulevard	Active business
280 Ferry Boulevard	Active business
300 Ferry Boulevard	Active business
Vacant Lots Behind 326 Ferry Boulevard	Vacant/lightly vegetated
Dot Lot Abutting I-95 North	Vacant/lightly vegetated
171 Ferry Boulevard	Active business
Connecticut DOT Right-of-Way	Vacant/lightly vegetated
250 East Main Street Front	Active business
250 East Main Street Rear	Active business
302 East Main Street	Vacant/business
304 East Main Street	Vacant/business
340 East Main Street	Vacant/business
360 East Main Street	Vacant/business
380 East Main Street	Active business
DOT Lot Abutting I-95 South (DOT lead)	Vacant/lightly vegetated
Quail Street/Wooster Park Area	Vacant/lightly vegetated
Third Avenue Property	Residential
Lockwood Avenue	Vacant/wetlands
Beacon Point Area of Concern #1	Vacant/lightly vegetated
Beacon Point Area of Concern #3	Vacant/wetlands/active business

Upper Ferry Creek Study Area (OU3)



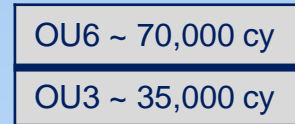
Raybestos Memorial Ballfield (OU4)



SUMMARY OF THE 2016
CLEANUP DECISION
“The Consolidation Remedy”

2016 ROD for OU3/OU4/OU6

- Excavate about 105,000 cubic yards of soil and sediment
 - Entire creek channel sediment to 2 feet
 - OU6 properties, Ferry Creek banks, and wetland soil to 4 feet
- Transport most waste to OU4 for consolidation
- Transport PHC waste (worst) to haz-waste facility (~ 10%)
- Backfill excavations and restore properties
- Estimated cost is \$95 million



OU6 ~ 70,000 cy
OU3 ~ 35,000 cy

Vacant Lot Area Community Impacts

- Dust/Air quality



- Construction noise / vibration



- Truck traffic



1,000 trucks trips (2-3/hour)

- Mitigating Impacts

- Engineered Controls (e.g. wetting)
- Air monitoring



TRUCKS/CONTAINERS



- 1.) Tight Cover
- 2.) Full Gasket



Why is Cleanup Necessary?

- Buried waste near the surface on many properties
- Erosion will continue to expose more waste
- Future workers/anyone digging
- Can effectively manage the consolidated area



-
- “Actionable” exposure risks
 - EPA required to mitigate risks

NATURE AND EXTENT OF CONTAMINATION AT VACANT LOTS



Blue Goose
Restaurant
(326 Ferry Blvd.)

Approximate Limit
of Raymark Waste

Raymark Project
Office
(300 Ferry Blvd.)

CLEANUP APPROACH

Vacant Lot Remediation

- Tentative start the week of Jan. 17, 2022
- Approx. 4-month duration for work
- Tree and vegetation clearing
- Set up noise / visual barrier and engineering controls
- Work in phases to keep trucks off contaminated soil
- Restore to existing grade, planting similar and native species



- Excavations are backfilled daily
- Contractor parking and equipment confined to work zone (no street parking)
- Trucks are clean before leaving work zone
- Police detail as needed



Consolidation Area – OU4 Ballfield



- Former Raybestos Memorial Ballfield
- Historically a low-lying area that was filled with approximately 100K CY of Raymark Waste
- Consolidation remedy entails placing 100K CY on top of existing waste
- Covering with low-permeability engineered cap
- Design to support post closure use

ENGINEERING CONTROLS

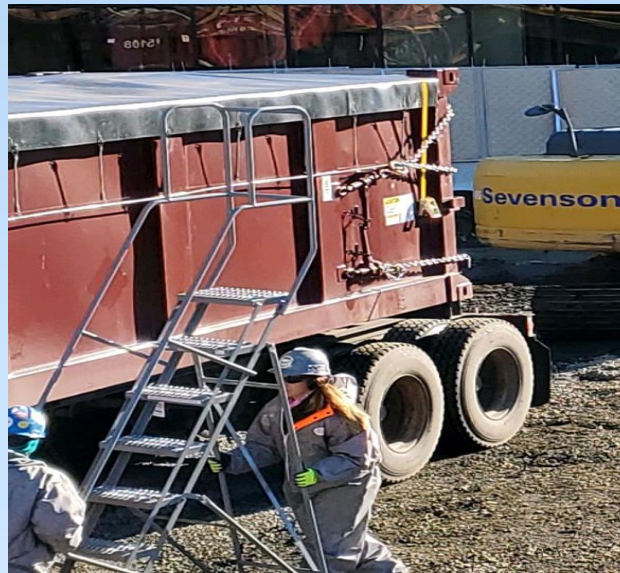
- Apply water, material always wet



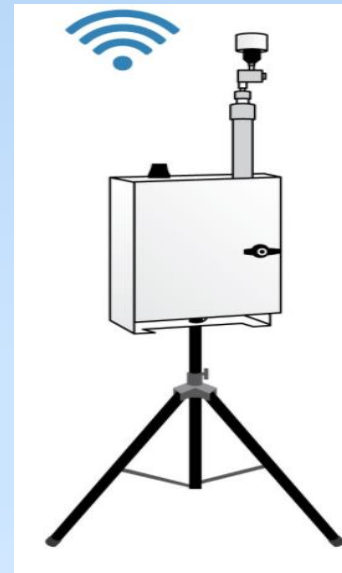
- Perimeter concrete barrier, steel fence, heavy duty sound blanket



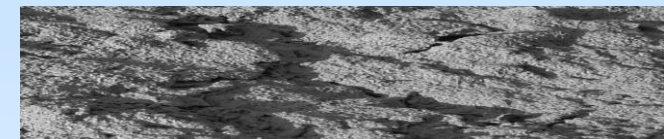
- Erosion Control



- Tightly sealed trucks / containers with gasketed gates



- Real time air monitoring



- Posi shell cover system

AIR MONITORING

Perimeter Air Monitoring - Equipment

- Perimeter monitoring at OU4 and OU6 properties
- Monitoring of personnel immediately in the work area (OSHA).
- Vacant Lot Meters include:
 - One upwind dust meter and chemical sample station outside work area closest to houses
 - One upwind dust meter and chemical sample station next to work area
 - One downwind dust meter and chemical sample station next to work area
 - Personnel monitoring on construction worker within the work area

Meteorological Station



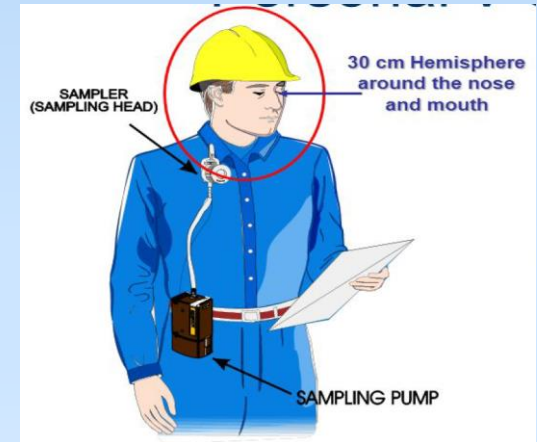
Chemical Sampling Port



Dust Monitoring Station



Personnel Monitoring



Raymark Air Monitoring Program

- Dust Action Level protect workers and abutting community
 - OU4/OU6 Dust Action Levels included chemicals at each property
 - Dust Action Level incorporated additional safety factors
 - Lower safety threshold – STOP WORK before any potential risk to workers or community
- Chemical samples from OU4/OU6 stations and personnel
 - Samples sent to lab for analysis (3 days)
 - Individual chemicals monitored for worker safety and community safety
- Separate Dust Action Level when restoring Site with clean residential quality backfill/loam and trees



Perimeter Air Monitoring – Vacant Lot



Perimeter Air Monitoring – Response Actions

- Ongoing wetting during excavation, truck loading, backfill and compaction
- Dust meters reporting 15-min averages all day long
- Upwind dust + Dust Action Level will trigger text/emails to full-time site personnel
- Response actions implemented if 15-min average > Dust Action Level
 - Identify source
 - Document response actions implemented and results
 - Increase ongoing wetting of excavation, truck loading and backfill areas
- STOP WORK ORDER if four consecutive exceedances of 15-min average > Action Level
- More response actions implemented before work can restart



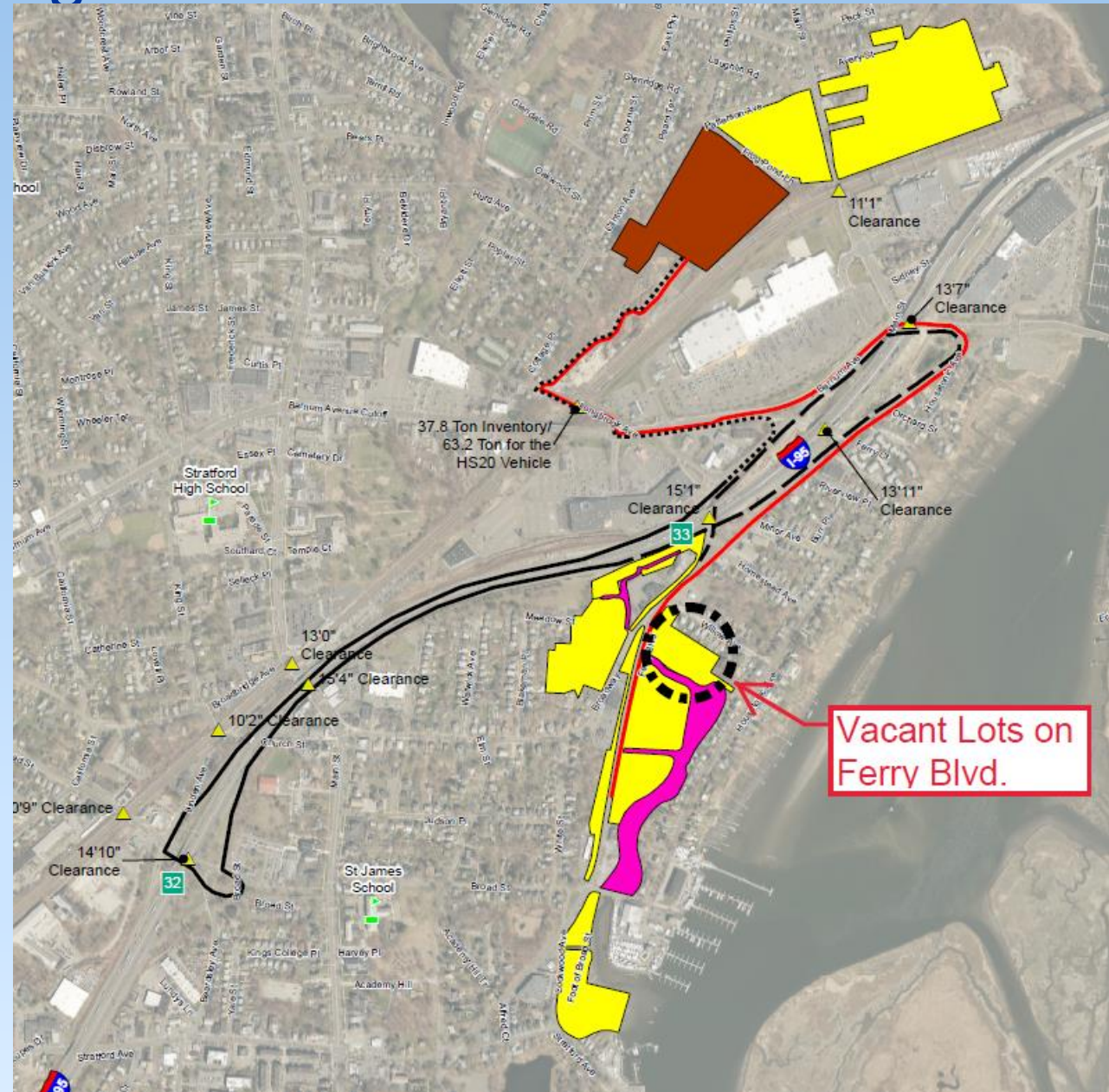
Noise/Vibration Monitoring and Weekly Reporting

- Town Ordinance exempts construction from the Noise Ordinance
 - Noise monitoring being conducted to prevent a public nuisance
 - 8-hr avg < approx. 70 Decibels (L_{eq}) (= vacuum cleaner)
- Vibration monitoring conducted at OU4
 - Vibration warning = 0.4 inches/second
 - Vibration Threshold Limit = 0.5 inches/second (STOP WORK)
- Submitting Weekly Reports:
 - Air Monitoring Reports
 - Chemical Reports
 - Vibration and Noise Monitoring Reports
- Posted on Town Health Dept Raymark website
- Present monthly summaries at Community Action Group Meeting



Traffic Management Plan

- Incorporated lessons learned
- Trucks sealed, washed and labeled
- Coordination with Other Construction Projects – Town, UI, ConnDOT, etc.
- Ferry Blvd - Barnum Ave Cutoff – Longbrook Ave
- Route requirements:
 - Avoid residential streets, schools and parks wherever possible
 - Avoid school bus routes wherever possible
 - Utilize new access road from Longbrook Ave
 - Avoid low bridges
 - Typ 7:00 am to 4:30 pm M-Th (optional Fri)
 - No nights or weekends.
 - Police details as necessary



SCHEDULE

OU6 Area	Location	Excavation Dates	Volume (cy)	Number of truck trips?	Number of Properties	Notes
Glyne Manufacturing	380 East Main	Sept 16 -17, 2020	51.70	4	1	Phase 1 ELUR needed
Karate Studio	190 Ferry Boulevard	Dec 2 - 10, 2020	87.31	10	1	Phase 1 ELUR needed Not in 2016 ROD
Liquor Store	200 Ferry Boulevard	Dec 2 - 10, 2020	481.83	64	1	Phase 1 ELUR needed
DOT ROW along 190/200 Ferry Blvd	190/200 Ferry Boulevard ROW	Dec 2 - 10, 2020	109.30	11	1	Phase 1 ELUR needed Not in 2016 ROD
DOT Exit 33	Barnum Ave	Jan 19 – 20, 2021	345.57	19	1	DOT via Haul Road Not in 2016 ROD
Ashcroft (front), Dry Cleaner and Hair Salon	250, 304 and 340 East Main Street	Feb 16 – April 19, 2021	2,785.3	251	3	Phase 1 ELUR needed
			794.60	60	3	To Emelle, AI
302/350 East Main Street	302/350 East Main Street	Sept 15 - 16, 2021	127	9	2	Phase 2 ELUR needed Not in 2016 ROD
DOT ROW	Ferry Blvd and East Broadway	Sept 20 to Oct 1, 2021	430	47	1	Phase 2
171 Ferry Blvd	Snaxx Plus Convenience Store	October 4 to 19, 2021	389	41	1	Phase 2 ELUR needed Not in 2016 ROD
Ashcroft Rear	250 East Main Street	June 9 to Nov 3, 2021	9,281	745	1	Phase 2 ELUR needed
			377	35	1	To FTS/bind lead
Wooster Park	Quail Street	Nov 9, 2021, to Jan 5, 2022	4,872	433	1	Phase 1 ELUR needed
			130	15	1	To FTS/bind lead
TOTALS TO DATE =		Raymark Waste	18,573	1,593	14	
		PHC Waste	1,302	110	5	

OU6 Remediation Tracking Table

Remediation Schedule

- September 2020
 - All East Main Street properties remediated
 - Several properties on Ferry Boulevard remediated
 - Quail Street as Wooster Park remediation
- **Mid-January to April 2022**
 - **Remediate Vacant Lots**
 - **Approximately 4 months to complete**
- April to November 2022
 - Beacon Point, Hitchcock Marina, Third Avenue, Lockwood
- 2023
 - Remediate Ferry Creek and Remaining Ferry Boulevard properties
- 2024
 - Construct Impermeable OU4 Cap



Questions?

- Be respectful of time so everyone has a chance to speak
- Please speak one at a time.
- We will monitor the chat box for questions



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.