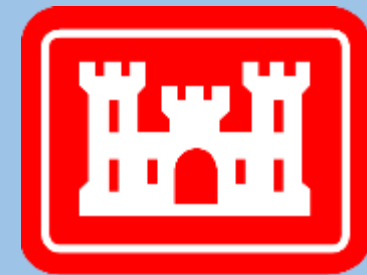


**Quail St/Wooster Park
Neighborhood**

**Raymark
Industries, Inc.
Superfund Site
Stratford, CT**

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

September 22, 2021

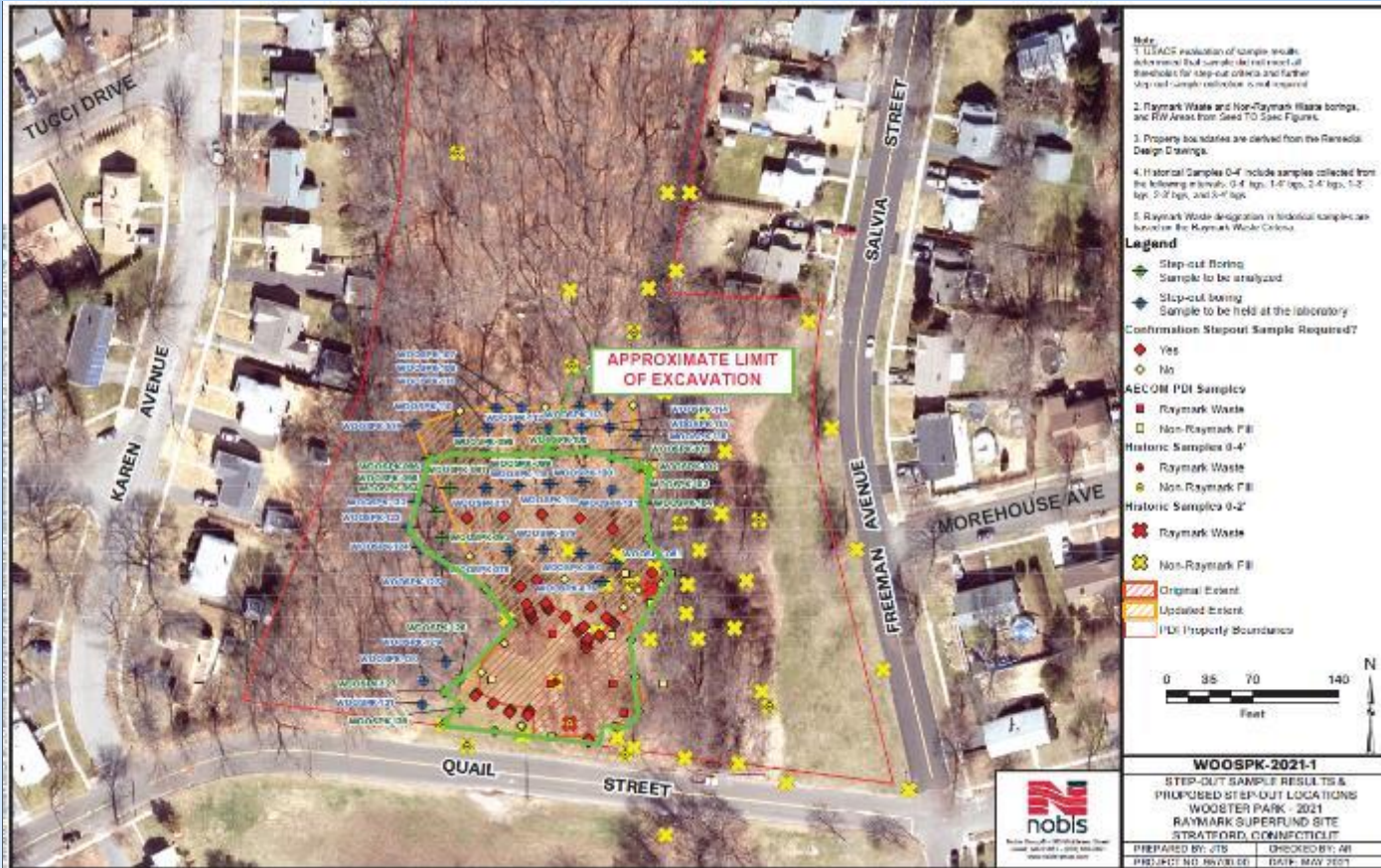


**US Army Corps
of Engineers®**

Virtual Meeting Guidelines

- Everyone will be muted through the presentations - please stay muted to eliminate background noise.
- Hold questions until the end of the 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.**

RAYMARK WASTE LOCATION



Raymark Waste



Park Area

AGENDA

- I. CALL TO ORDER
- II. WELCOME, INTRODUCTIONS, VIRTUAL MEETING GUIDELINES
- III. BRIEF HISTORY OF THE RAYMARK SITE & SUMMARY OF THE CLEANUP DECISION
(September 2016 Record of Decision or ROD)
- IV. NATURE AND EXTENT OF CONTAMINATION LOCATED NORTH OF QUAIL ST
- V. CLEANUP APPROACH AND TRUCK ROUTES FOR QUAIL ST. AREA OF WOOSTER
PARK
- VI. SCHEDULE
- VII. QUESTIONS

BRIEF HISTORY OF THE RAYMARK SITE AND SUMMARY OF THE 2016 ROD

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 in soil 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**

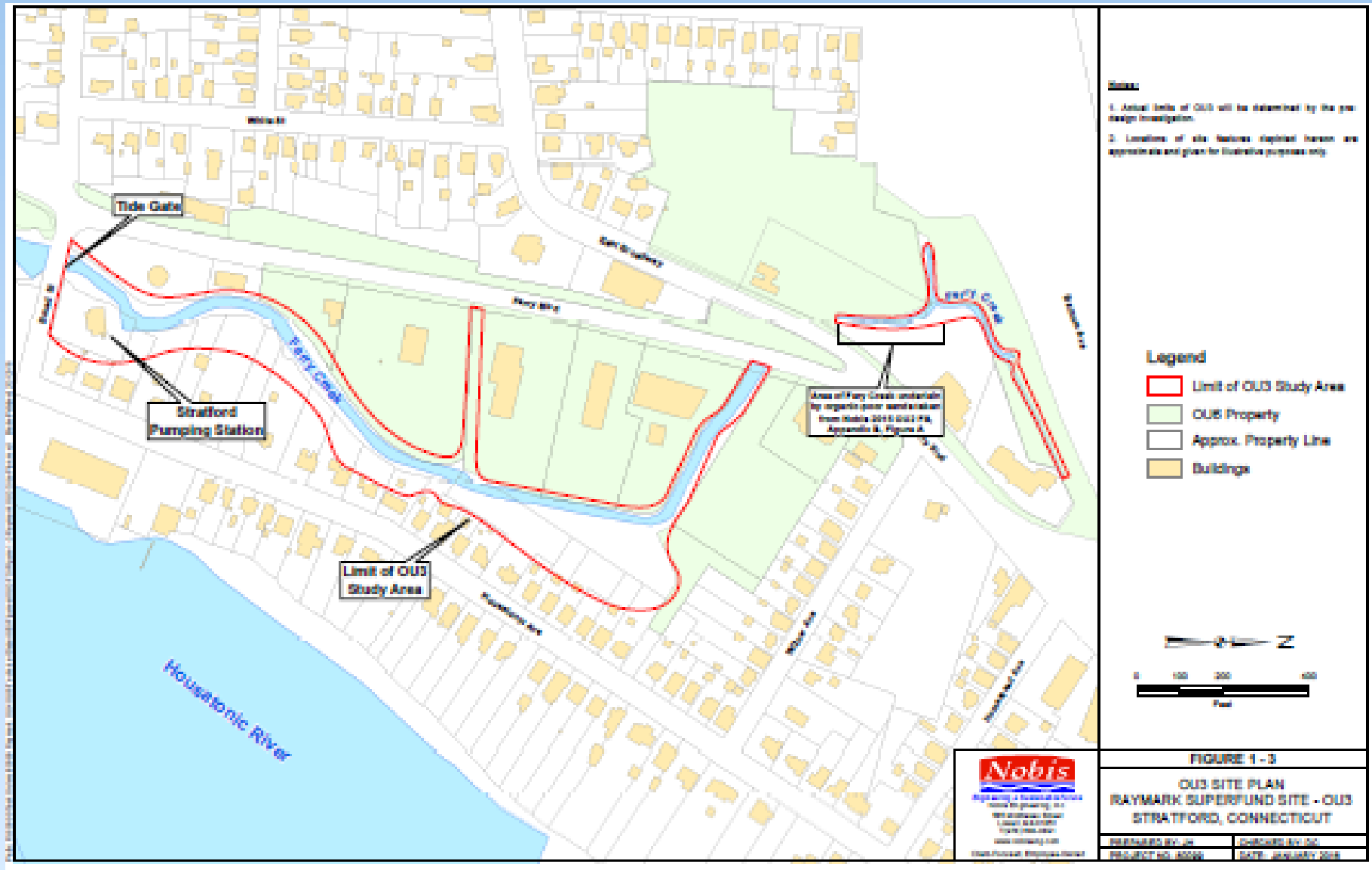


Soil/Sediment Contaminants of Concern (OUs 3, 4 and 6)
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Bis(2-ethylhexyl)phthalate
Dibenz(a,h)anthracene
Indeno(1,2,3-cd)pyrene
N-Nitroso-di-n-propylamine
Dieldrin
Aroclor-1242
Aroclor-1254
Aroclor-1260
Aroclor 1262
★ Aroclor 1268
Dioxin
Arsenic
Chromium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

EPA's Response

- 1993 Removal Action - 46 residential properties and Wooster School
- April 25, 1995 – Raymark added to Superfund List
- July 1995 – 1st ROD issued (OU1) – consolidated, capped, Stratford Crossing
- July 2011 – 2nd ROD issued – cap 576/600 East Broadway
- September 2016 – 3rd ROD issued – current clean-up work
 - Excavate about 105,000 cubic yards of soil and sediment from OU3 and OU6
 - Transport most waste to OU4 for consolidation and capping
 - Transport PHC waste (worst) to haz-waste facility (~ 10%)
 - Backfill excavations and restore properties
 - Estimated cost is \$95 million
- Other operable units – OU2, OU5, OU7, OU8 and OU9

Upper Ferry Creek Study Area (OU3)



Additional Properties Study Area (OU6)



	OU6 PROPERTY LOCATION	PROPERTY TYPE
1	200 Ferry Boulevard	Active business
2	230 Ferry Boulevard	Active business
3	250 Ferry Boulevard	Active business
4	280 Ferry Boulevard	Active business
5	300 Ferry Boulevard	Active business
6/7	Lot Behind 326 Ferry Boulevard (and adjacent vacant lot)	Vacant/lightly vegetated
8	326 Ferry Boulevard	Active business
9	336 Ferry Boulevard	Active business
10	Lot Abutting I-95	Vacant/lightly vegetated
11	Connecticut Right-of-Way	Vacant/lightly vegetated
12	250 East Main Street	Active business
13	251 East Main Street	Active business
14	304 East Main Street	Active business
15	340 East Main Street	Active business
16	380 East Main Street	Active business
17	DPW Lot	Active municipal
18	★ Wooster Park	Recreational
19	Third Avenue Property	Residential
20	Lockwood Avenue	Vacant/wetlands
21	Beacon Point Area of Concern #1	Recreational
22	Beacon Point Area of Concern #3	Recreational

■ = DONE

Quail Street Area Community Impacts

- Air quality



- Construction noise / vibration



- Truck traffic



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

- Mitigating Impacts

- Air monitoring
- Mitigating measures (e.g. wetting)



TRUCKS/CONTAINERS



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



Why is Cleanup Necessary?

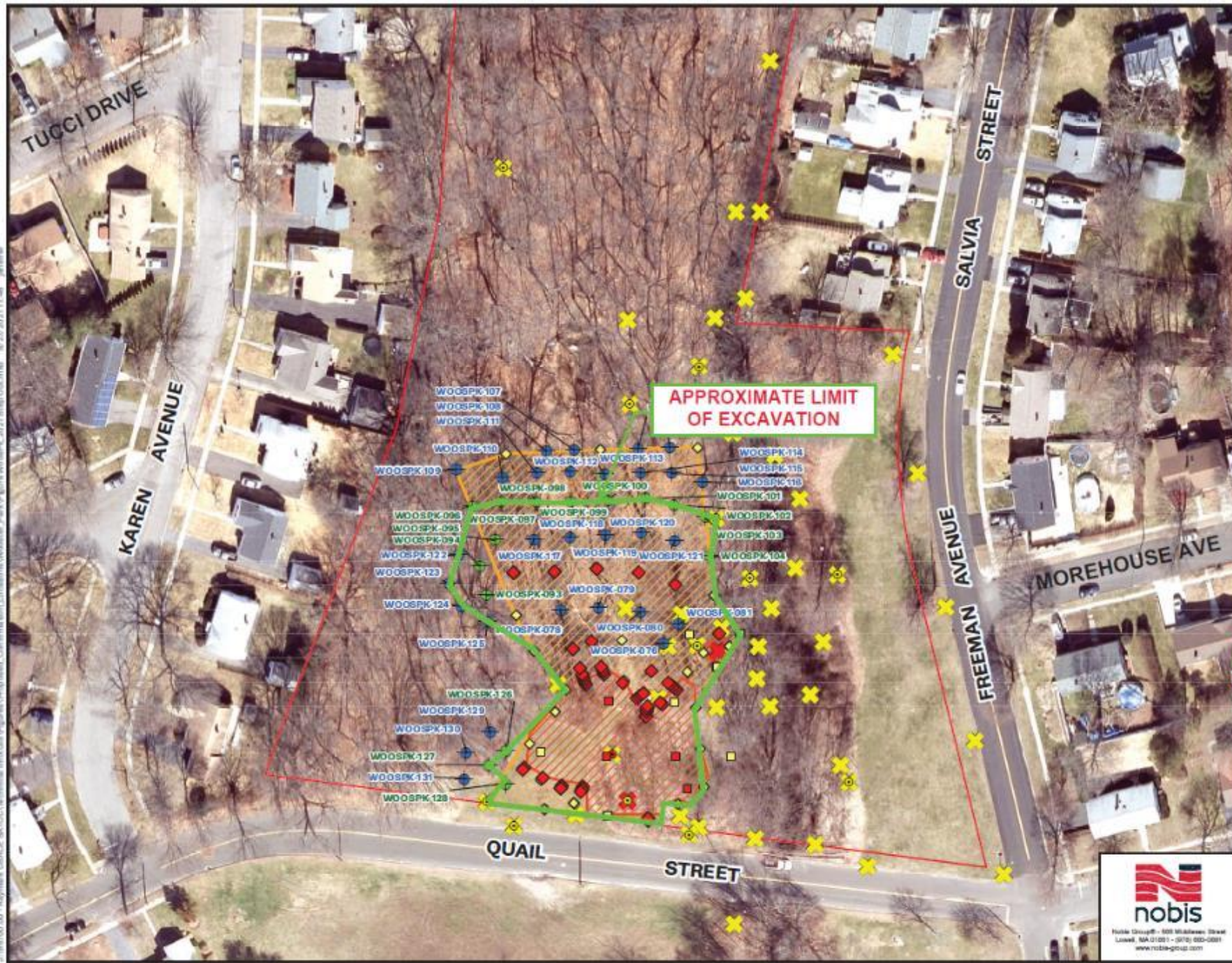
- Buried waste near the surface on many properties
- Erosion will continue to expose more waste
- Future workers/anyone digging
- Resources to effectively manage the consolidated area



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



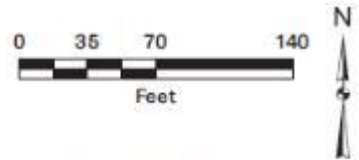
NATURE AND EXTENT OF CONTAMINATION ON QUAIL STREET PROPERTY



- Note:**
- 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.
 - Raymark Waste and Non-Raymark Waste borings, and RW Areas from Seed TO Spec Figures.
 - Property boundaries are derived from the Remedial Design Drawings.
 - 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.
 - Raymark Waste designation in historical samples are based on the Raymark Waste Criteria.

Legend

- ◆ Step-out Boring Sample to be analyzed
 - ◆ Step-out boring Sample to be held at the laboratory
- Confirmation Stepout Sample Required?
- ◆ Yes
 - ◇ No
- AECOM PDI Samples
- Raymark Waste
 - Non-Raymark Fill
- Historic Samples 0-4'
- Raymark Waste
 - Non-Raymark Fill
- Historic Samples 0-2'
- ✖ Raymark Waste
 - ✖ Non-Raymark Fill
- ▨ Original Extent
 - ▨ Updated Extent
 - ▭ PDI Property Boundaries



WOOSPK-2021-1
 STEP-OUT SAMPLE RESULTS &
 PROPOSED STEP-OUT LOCATIONS
 WOOSTER PARK - 2021
 RAYMARK SUPERFUND SITE
 STRATFORD, CONNECTICUT

PREPARED BY: JTS	CHECKED BY: AR
PROJECT NO. 95700.00	DATE: MAY 2021

CLEANUP APPROACH

Wooster Park Remediation

- **Expected start Nov.1**
- **Tree and vegetation clearing to start mid to late October**
- **Approx. 4-month duration for work**
- **Set up noise /visual barrier and engineering controls**
- **Work in phases to keep trucks off contaminated soil**
- **Approximately 6,000 CY Raymark Waste to be excavated**
- **Restore to 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**



Wooster Park Restoration

- Remediation complete late winter, restoration planting in spring
- Restore to existing grade with fill and topsoil to support plantings
- Similar native species for replanting, no invasive
- 12' to 15' spacing on center
- Approximately 1 Acre of remediated and restored area

Remediation/
Restoration Area



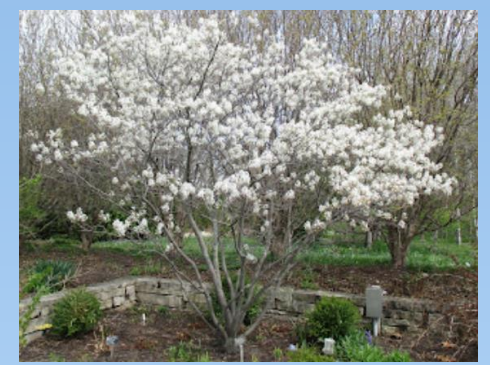
• Red Maple



• Maple Leaf Viburnum



• Swamp White Oak



• Serviceberry



• Sweet Pepperbush



• Tupelo

Consolidation Area – OU4 Ballfield



<https://www.ipcamlive.com/5fc7c13309700>



- 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 impermeable engineered cap
- Design to support post closure use

ENGINEERING CONTROLS

- Apply water, material always wet

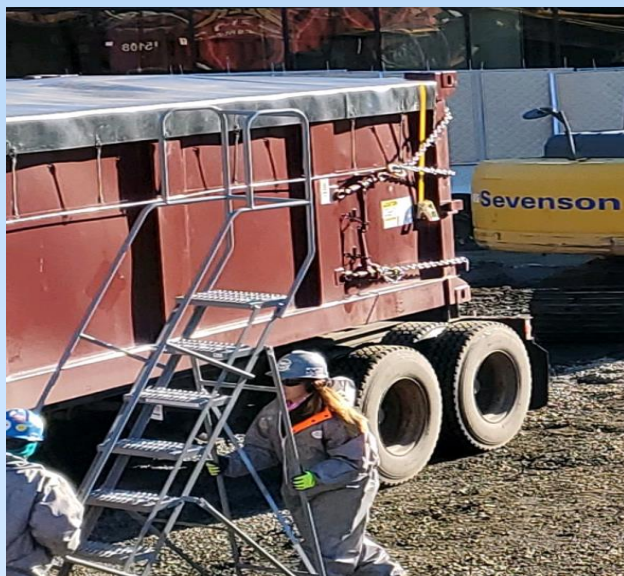


9'

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



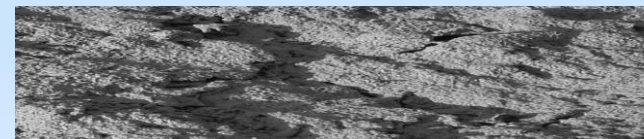
- Erosion Control



- Tightly sealed trucks / containers with gasketed gates



- Real time air monitoring

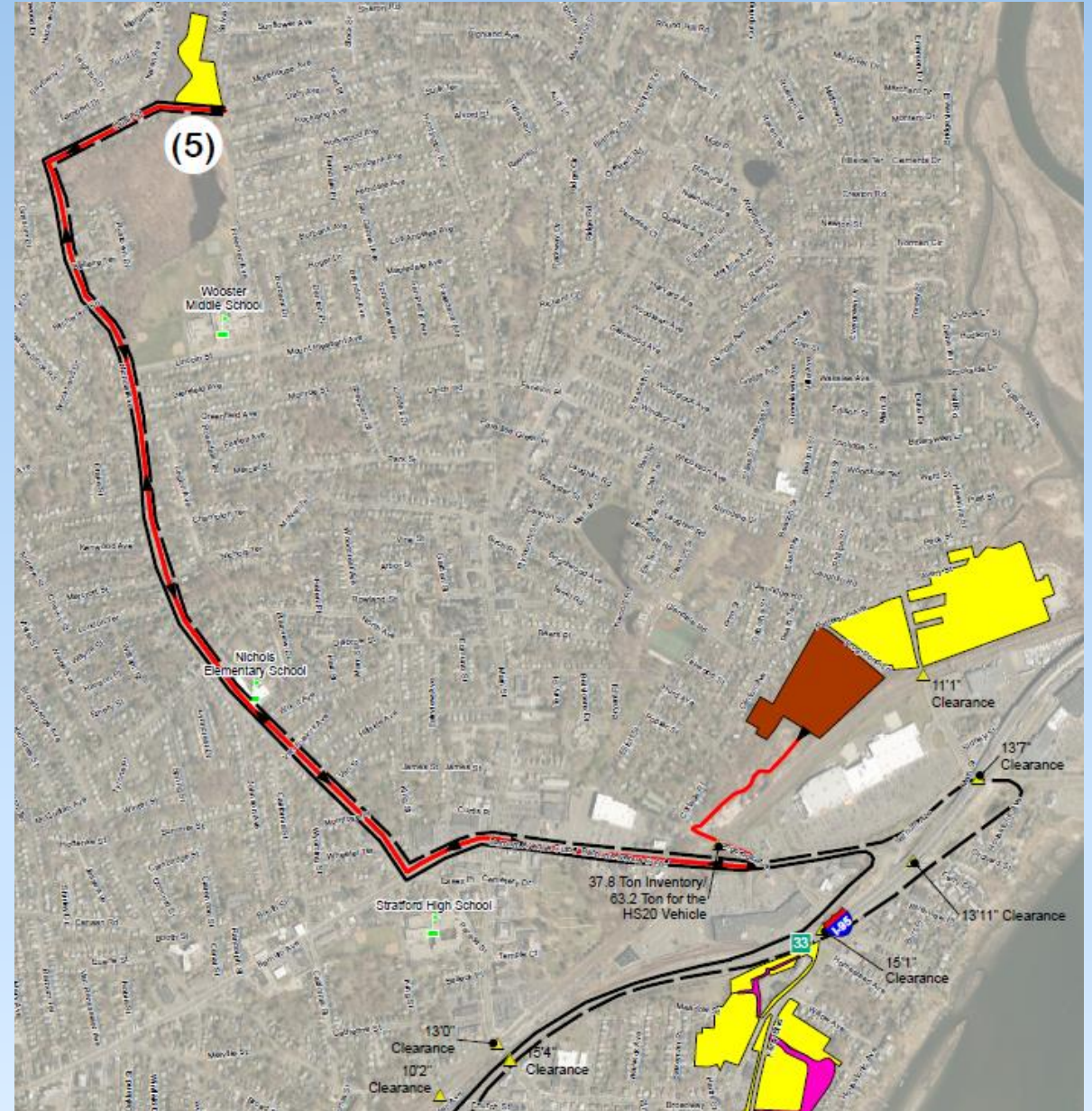


- Posi shell cover system

TRAFFIC MANAGEMENT

Traffic Management Plan

- Incorporated lessons learned
- Trucks sealed, washed and labeled
- Coordination with Other Construction Projects – Town, UI, ConnDOT, etc.
- Quail St - Nichols Ave – Barnum Ave Cutoff
- Route requirements:
 - Avoid residential streets, schools and parks wherever possible
 - Avoid school bus route times wherever possible
 - Utilize new access road from Longbrook Ave
 - Plan 1-2 trucks per hour (round trip)
 - Typ 7:00 am to 4:30 pm M-F
 - No nights or weekends.
 - Police details for truck entering/exiting



AIR MONITORING

Perimeter Air Monitoring - Equipment

- Perimeter monitoring at OU4 and OU6 properties
- Monitoring of personnel immediately in the work area (OSHA).
- Wooster Park Meters include:
 - 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

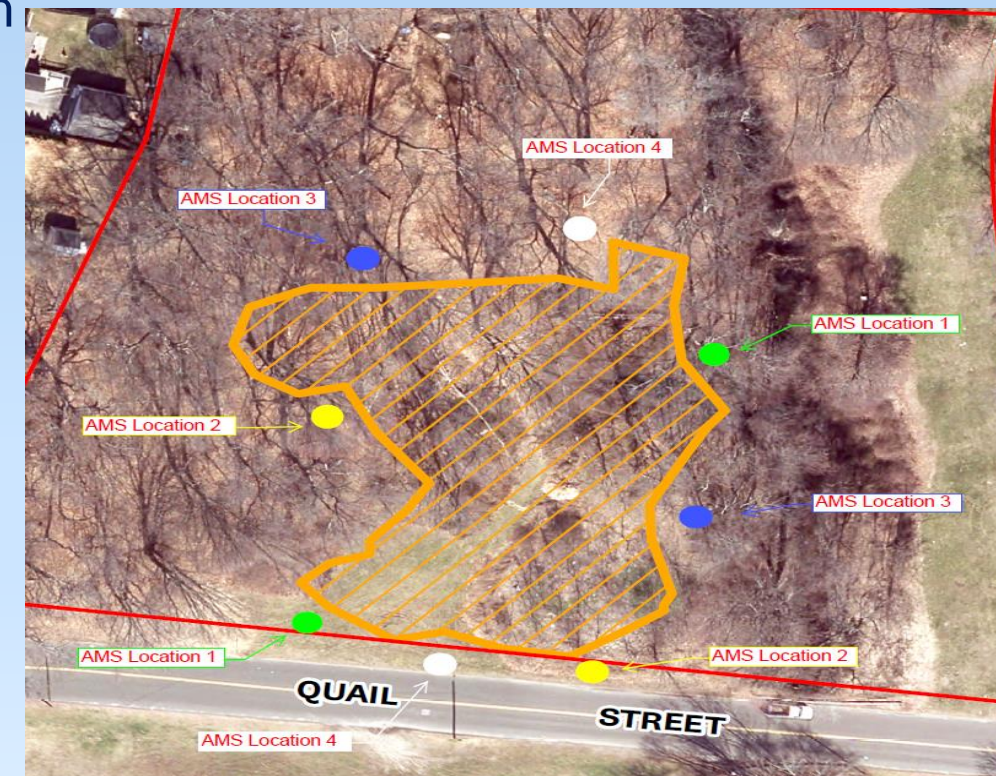


Raymark Air Monitoring Program

- Dust Action Level protect workers and abutting community
 - OU4/6 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
- Separate Dust Action Level when restoring the park with clean backfill/loam and trees
- Chemical samples from all OU4/6 stations and personnel
- Construction exempt from Town Noise Ordinance
 - Noise monitoring to prevent public nuisance
- Vibration monitoring conducted
 - STOP Work = 0.5 inches/second



Air Monitor



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 issued if four consecutive exceedances of 15-min average >DAL
- More response actions implemented before work can restart



SCHEDULE

OU6 Remediation Tracking Table

OU6 Parcel or Area	Location	Excavation Dates	Est. Volume (cy)	Actual Vol (cy)	# of truck trips?	Notes
Glyne Manufacturing	380 East Main	Sept 16 -17, 2020	40	51.70	4	ELUR needed
Karate Studio	190 Ferry Boulevard	Dec 2 - 10, 2020	100	87.31	10	ELUR needed
Liquor Store	200 Ferry Boulevard	Dec 2 - 10, 2020	500	481.83	64	ELUR needed
DOT ROW along 190/200 Ferry Blvd	190/200 Ferry Boulevard ROW	Dec 2 - 10, 2020	N/A	109.30	11	ELUR needed
DOT Exit 33	Barnum Ave	Jan 19 – 20, 2021	420	345.57	19	DOT via Haul Road
Ashcroft (front), Dry Cleaner and Hair Salon	250, 304 and 340 East Main Street	Feb 16 – April 19, 2021	5,000	2,785.3	251	ELUR needed
			PHC -750	794.60	60	To Emelle, AI
Ashcroft Rear <small>(Volume as of Sept 8)</small>	250 East Main Street	June 9 th to ???	~8,500	7,269	588	ELUR needed
			PHC – ~500	377	35	To FTS/bind lead
TOTALS TO DATE =			Non-PHC	11,130.01	947	
			PHC	1,171.60	95	

Current Remediation Schedule

- September 2020 to October 2021
 - East Main Street and Small Isolated Areas on Ferry Boulevard
- **November 2021 to February 2022**
 - **Remediate Quail Street area**
 - **Approximately 3 to 4 months to complete**
- February 2022 to October 2022
 - Remediate select OU6 properties around town (Vacant Lots on Ferry Blvd, Beacon Point, Third Ave home)
- October 2022 to late 2023
 - Remediate Ferry Creek (OU3) and Ferry Boulevard properties
- 2021 to 2024
 - Construct stormwater conveyance system and pump station
 - Construct Impermeable OU4 Cap



Questions?

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



Thank you for joining!

- Visit townofstratford.com/Raymark for updates, meeting dates, meeting recordings and slides
- Email Alivia at: acoleman@townofstratford.com with further questions, feedback or to sign up for email distribution list.