

Quail St/Wooster Park  
Neighborhood

Raymark  
Industries, Inc.  
Superfund Site  
Stratford, CT

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

May 12, 2021



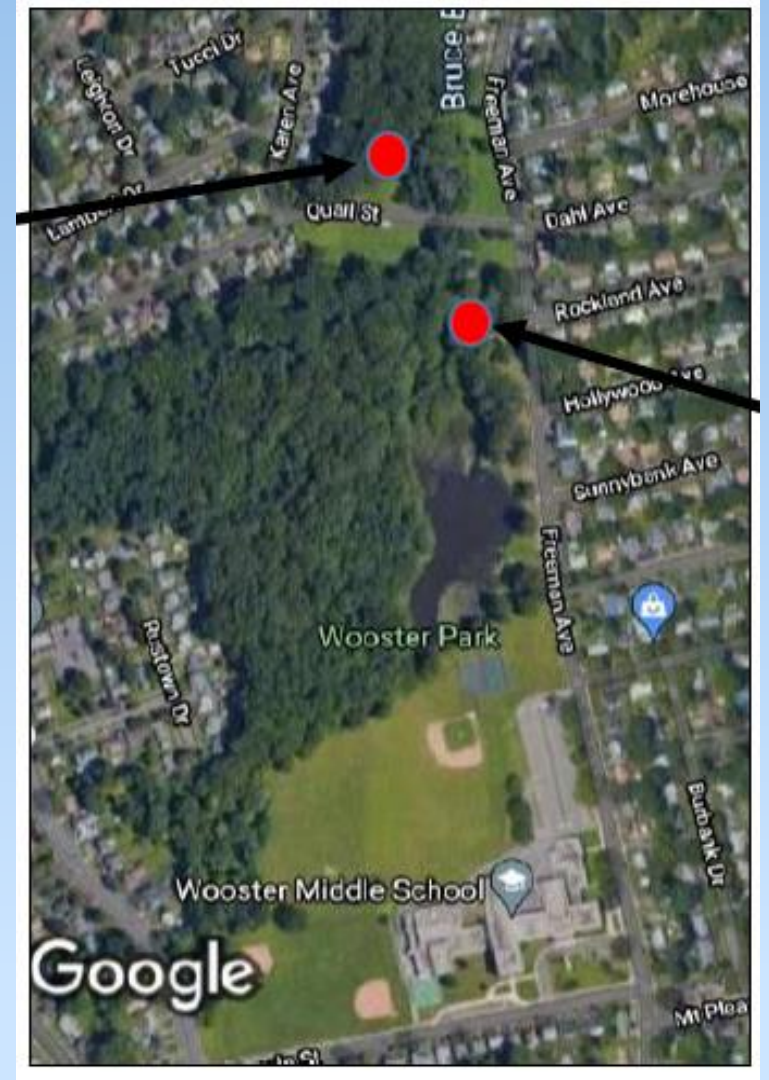
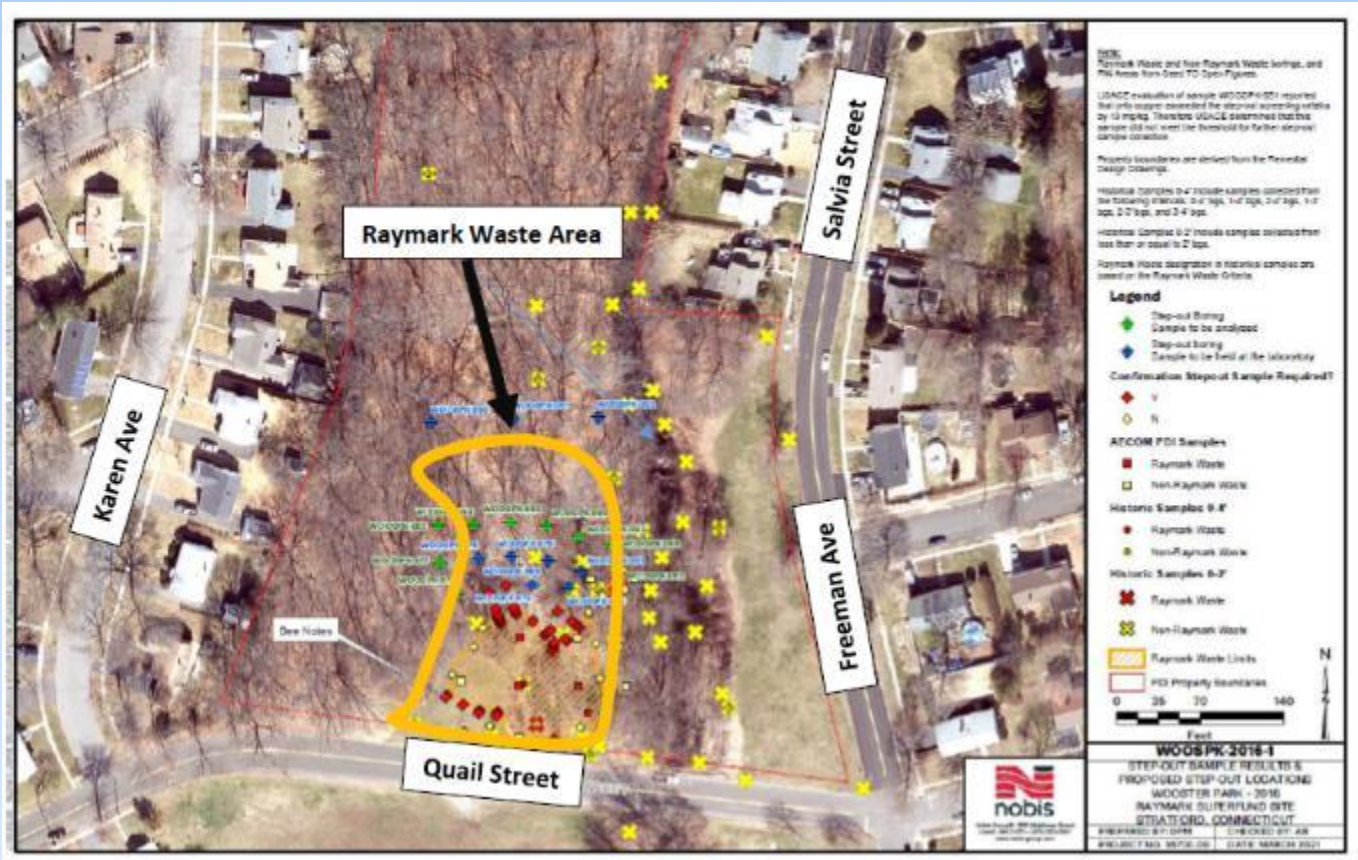
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# Virtual Meeting Guidelines

- 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



# AGENDA

- INTRODUCTIONS AND MEETING RULES
- BRIEF HISTORY OF RAYMARK SITE
- SUMMARY OF THE 2016 CLEANUP DECISION
- ORGANIZATIONAL CHART FOR THE CLEANUP
- NATURE AND EXTENT OF CONTAMINATION AT QUAIL STREET / WOOSTER PARK
- CLEANUP APPROACH FOR QUAIL STREET/WOOSTER PARK
- 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** 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

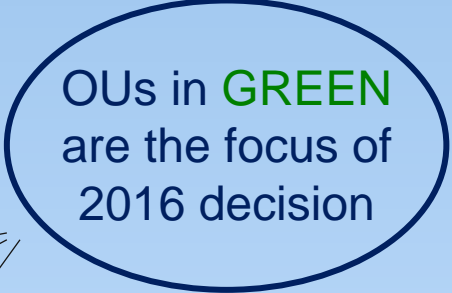
# EPA's Initial Response

- 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 – Added to Superfund List
- July 1995 – 1<sup>st</sup> Record of Decision (ROD)
  - 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.
- 2003 Stratford Crossing constructed.
- 2003 to 2005 – Vapor mitigation systems installed.



# 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 focus of  
2016 decision

# 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

# SUMMARY OF THE 2016 CLEANUP DECISION

# 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

# 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



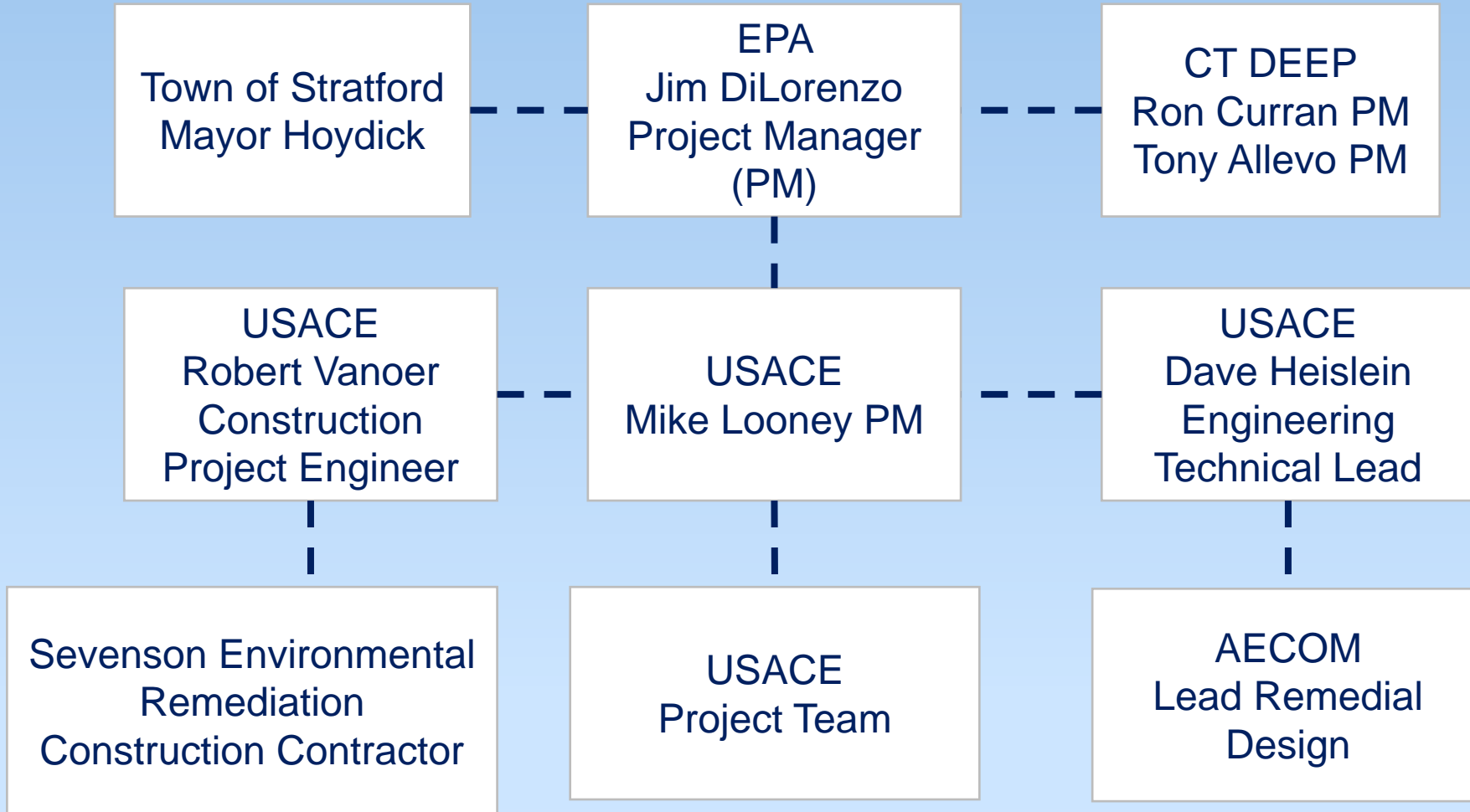
# Why is Cleanup Necessary?

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



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

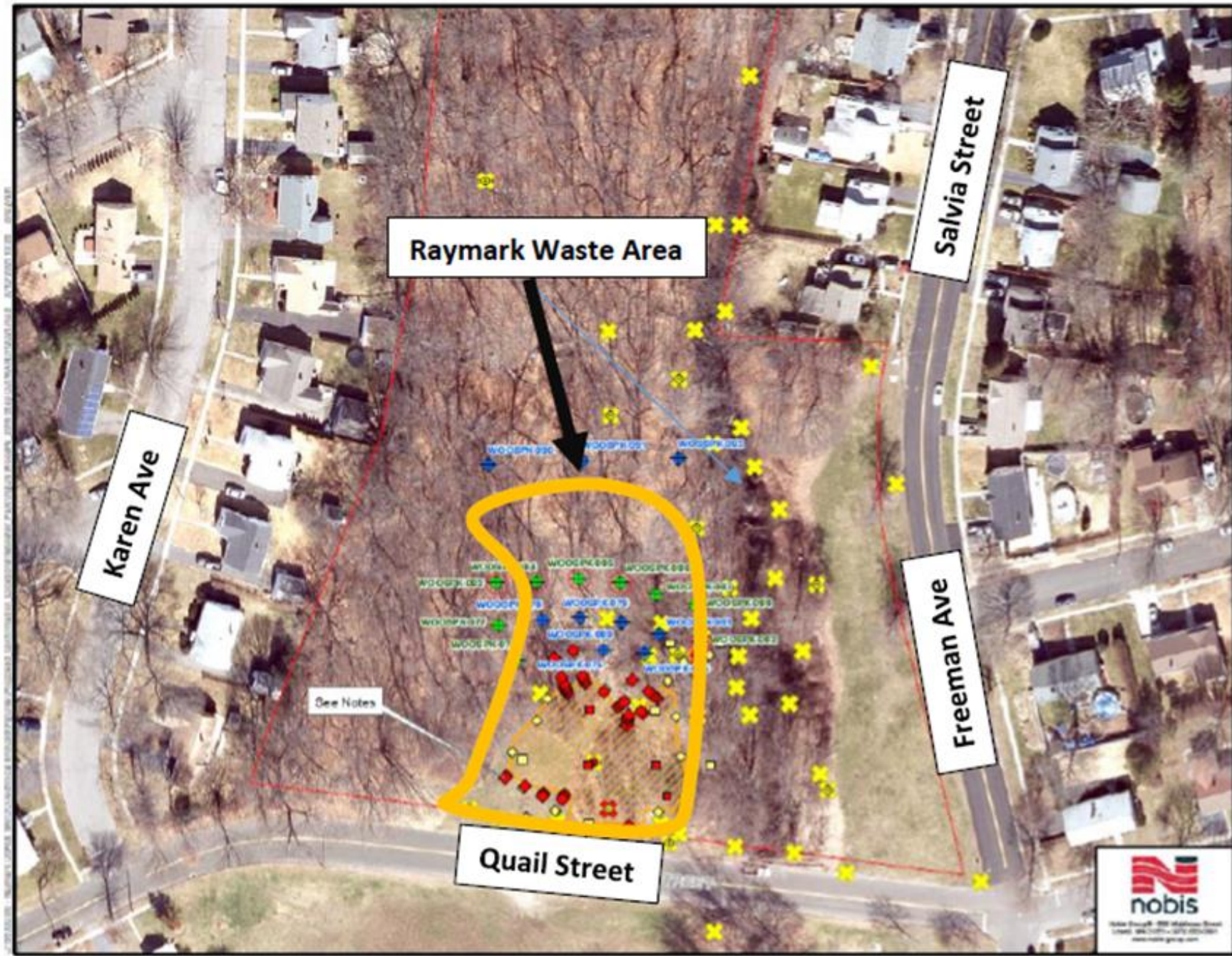
# Raymark Team Chart



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# NATURE AND EXTENT OF CONTAMINATION ON QUAIL STREET PROPERTY





**Note:**  
 Raymark Waste and Non-Raymark Waste borings, and PDI Areas from Seed TO Open Figures.

USACE evaluation of sample WOODPK-001 reported that only copper exceeded the step-out screening criteria by 13 mg/kg. Therefore USACE determined that this sample did not meet the threshold for further step-out sample collection.

Property boundaries are derived from the Remedial Design Drawings.

Historic samples 6-4' inside 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.

Historic Samples 6-2' inside samples collected from less than or equal to 2' bgs.

Raymark Waste designation in historic 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?
- ◆ Y
  - ◆ N

**AECOM PDI Samples**

- Raymark Waste
- Non-Raymark Waste

**Historic Samples 6-4'**

- Raymark Waste
- Non-Raymark Waste

**Historic Samples 6-2'**

- ✖ Raymark Waste
- ✖ Non-Raymark Waste

Raymark Waste Limits  
 PDI Property Boundaries

0 35 70 140  
 Feet

N

**WOOSPK-2016-1**  
 STEP-OUT SAMPLE RESULTS &  
 PROPOSED STEP-OUT LOCATIONS  
 WOOSTER PARK - 2016  
 RAYMARK SUPERFUND SITE  
 STRATFORD, CONNECTICUT

PREPARED BY: DFM	CHECKED BY: AR
PROJECT NO: 95700.00	DATE: MARCH 2021





# CLEANUP APPROACH

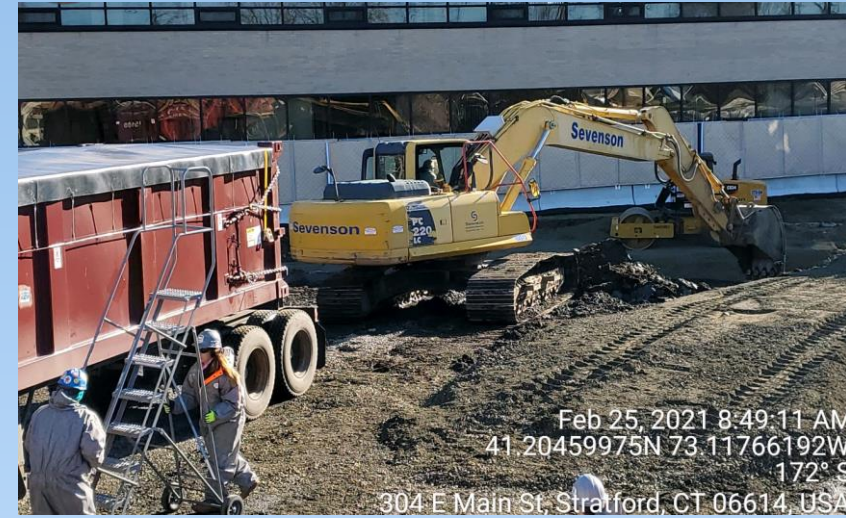


# Wooster Park Remediation

- Tentative this fall / winter
- 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 condition, 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



9'



# 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

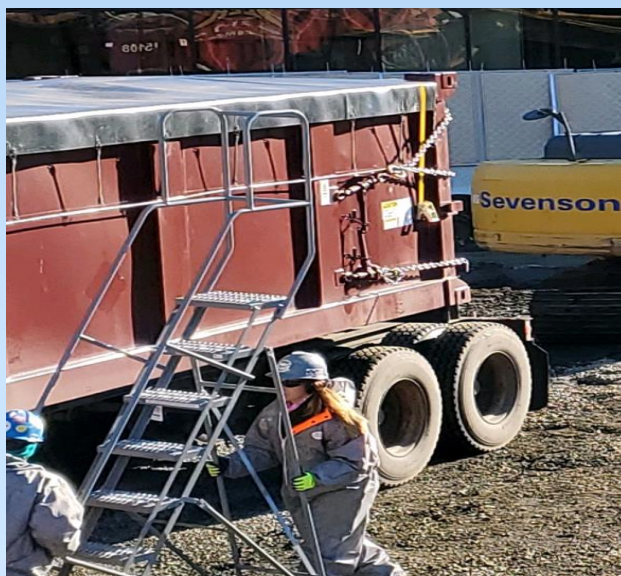


9'

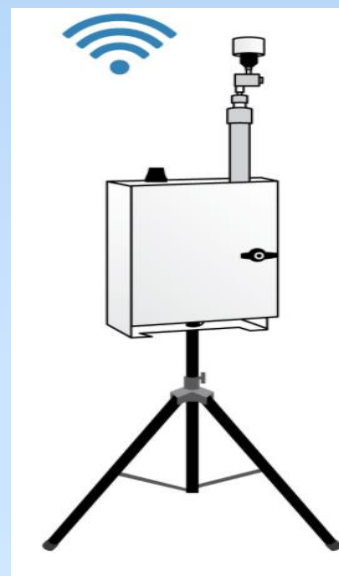
- Perimeter concrete barrier, steel fence, heavy duty sound blanket



- Erosion Control



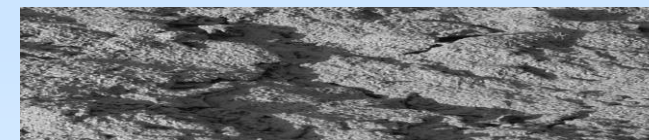
- Tightly sealed trucks / containers with gasketed gates



- Real time air monitoring



- Posi shell cover system



# 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
- Chemical samples from all OU4/6 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 the park with clean backfill/loam and trees



Air  
Monitoring

# 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





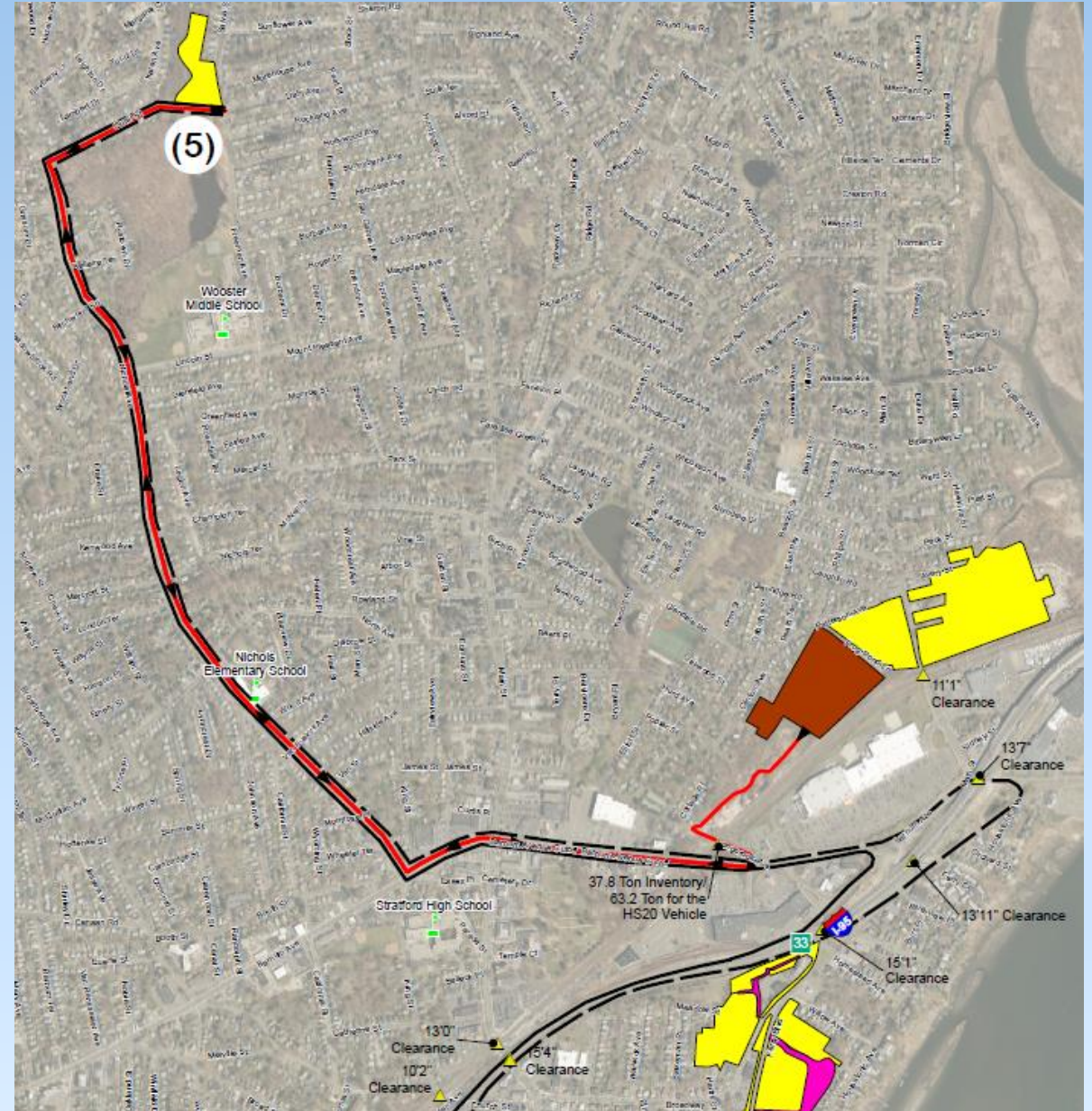
# Noise/Air Monitoring and Weekly Reporting

- Town Ordinance exempts construction from the Noise Ordinance
  - Noise monitoring being conducted to prevent a public nuisance
  - 8-hr avg < approx. 70 Decibels ( $L_{eq}$ )
- Vibration monitoring conducted at all OU4/6 Properties
  - Vibration warning = 0.4 inches/second
  - Vibration Threshold Limit = 0.5 inches/second (STOP WORK)
- Submitting Weekly Reports:
  - Air Monitoring Reports,
  - Chemical Reports
  - Vibration 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.
- Quail St - Nichols Ave – Barnum Ave Cutoff
- 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-F
  - No nights or weekends.
  - Police details for truck entering/exiting





# SCHEDULE

# OU6 Tracking Table

OU6 Parcel or Area	Location	Dates	Est. Volume (cy)	Final Vol (cy)	# of truck trips?	Notes
Glyn Manufacturing	380 East Main	Sept 16 -17, 2020	40	42.3	4	ELUR needed
Karate Studio	190 Ferry Boulevard	Nov 1 – 15, 2020	100	104.57	10	ELUR needed
Liquor Store	200 Ferry Boulevard	Nov 1 – 15, 2020	500	497.91	64	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, 302, 304 and 340 East Main Street	Feb 1 – May 15, 2021	5,000	2,928	251	**Will return to 302 and 360 East Main St
			PHC -750	869.38	60	To Emelle, AI
<b>TOTALS TO DATE =</b>		<b>Non-PHC</b>	<b>6,060</b>	<b>3,918.35</b>	<b>348</b>	
		<b>PHC</b>	<b>750</b>	<b>869.38</b>	<b>60</b>	

# Tentative Remediation Schedule

- May – September 2021
  - Rear of Ashcroft building
  - Small isolated areas on East Main Street and Ferry Boulevard
- **October - February 2021**
  - Remediate Quail Street area
  - **Approximately 4 months to complete**
- November 2021 to October 2022
  - Remediate select OU6 properties around town
- October 2022 to late 2023
  - Remediate Ferry Creek and Ferry Boulevard properties
- 2021 to 2024
  - Construct stormwater control system
  - 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](https://townofstratford.com/Raymark) for updates, meeting dates, meeting recordings and slides
- **Next Meeting TBD**
- Email Alivia at: [acoleman@townofstratford.com](mailto:acoleman@townofstratford.com) with further questions, feedback or to sign up for email distribution list.