



# Armory Garage

57 Low Street  
Phase II ESA



## Armory Garage - Scope of Work

- ▶ Assess residual petroleum impacted soil from a former leaking underground storage tank (UST) that does not meet unrestricted use standards
- ▶ Assess the suspected presence of PCB-containing building materials in the Site building
- ▶ Assess the potential presence of mold

## Work Performed

- ▶ Installation of 8 soil borings & 4 monitoring wells
- ▶ Collection & analysis of the following media samples:
  - ▶ 8 soil samples & 4 groundwater samples
  - ▶ 4 suspect PCB-containing building materials identified during December 2020 work
  - ▶ 11 air samples for mold
  - ▶ 3 tape lift samples for mold



DRAWN BY: LAK  
 CHECKED BY: RSV  
 DATE: 10/15/2021  
 PROJECT: 20001590  
 Credere Associates, LLC  
 776 MAIN STREET  
 WESTBROOK, MAINE  
 Tel. 207.828.1272  
 Fax. 207.887.1051  
 WWW.CREDERELLC.COM

**FIGURE 2**  
**DETAILED SITE PLAN**  
 ARMORY GARAGE  
 57 LOW STREET  
 NEWBURYPORT, MASSACHUSETTS

- FORMER PUMP ISLAND
- FORMER 5000-GALLON DIESEL UST
- ⬢ 1998 MONITORING WELLS
- ⬢ 1998 MONITORING WELLS
- GENERATOR AST
- ⊕ 2021 SOIL BORING/MONITORING WELL
- ⬢ PARCEL BOUNDARY
- ⬢ SITE BOUNDARY
- ⬢ SITE BUILDING
- ▭ CHAINLINK FENCE
- ▭ MANMADE EARTHEN MOUNDS
- ▨ 1995 UST EXCAVATION
- ▨ 1998 EXCAVATION
- ▭ FORMER CONTAMINATED STONE PILES

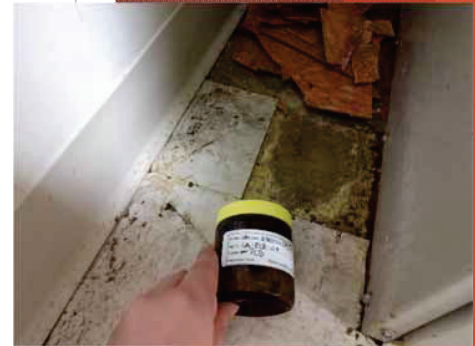
NOTES:  
 EXISTING CONDITIONS AND FEATURES SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE BASED ON INFORMATION OBTAINED FROM THE CITY OF NEWBURYPORT ONLINE GIS DATA, MASSACHUSETTS GIS PARCEL LAYER, 2019 ORTHO PHOTOS, AND FIELD WORK PERFORMED IN AUGUST AND SEPTEMBER, 2021.

## Limited Phase II ESA Results

- ▶ **Soil**: Two Samples (CA-SB-4 & CA-SB-8) contained low concentrations of both VPH and EPH compounds below the Massachusetts applicable standards
- ▶ **Groundwater**: Methyl-tert-butyl ether (MTBE) is present in one well(CA-MW-2) but below applicable Massachusetts applicable standards. No EPH compounds were detected above laboratory reporting limits

## Limited Phase II ESA Results

- ▶ **PCBs:** Two materials were identified containing PCBs >1 mg/kg and <50 mg/kg
  - ▶ CA-PCB-2: expansion gasket, black (foundation)
  - ▶ CA-PCB-4: mastic, black (below boiler in boiler room)
- ▶ **Mold:** None of the detected mold spore counts in the air samples exceeded any of the Calculated Reference Standards
- ▶ **Mold:** Pithomyces were identified at a “high” level in the tape lift samples from the Men’s Bathroom



## Findings - December 2020 HBMS

- ▶ Lead-containing paint present throughout the building
- ▶ Lead-based paint outside on flag point and adjacent to garage doors
- ▶ Asbestos is present in/on the building



## Findings - October 2021 Limited Phase II ESA

- ▶ **Residual petroleum impacted soil** onsite associated with the former leaking UST (previously cleaned up & regulatorily closed), but it is below applicable Massachusetts soil & groundwater standards
- ▶ **PCB's** are present in 2 of the 4 materials sampled greater than 1 mg/kg but less than 50 mg/kg
- ▶ **Mold** is not present in the building airspace at concentrations exceeding Site-specific calculated reference standards; however, sensitivities vary greatly by individual
- ▶ **Mold** tape lift sample results indicate that mold growth is occurring on the Men's Bathroom wall



# Recommendations & Budgetary Estimates

- ▶ **Abatement of Asbestos that will be impacted during future renovation or demolition**
  - ▶ \$33,000 to \$57,000 for the roof abatement
  - ▶ \$600 to \$1,000 for expansion gasket abatement (only if demolished)
- ▶ **Manage painted surfaces that contain lead appropriately during future renovations**
  - ▶ \$10,000 to \$15,000 encapsulation of LBP/LCP
- ▶ **PCB-containing materials below 50 mg/kg once removed during renovations must be disposed at a facility licensed to accept this waste material**
  - ▶ \$2,000 to \$5,000 PCB remediation (only if renovation)
- ▶ **Visible mold identified in the Men's Bathroom should be remediated**
  - ▶ <\$5,000 (assuming no hidden mold)

## 2021 Phase I ESA - Armory Garage

- ▶ Historical Recognized Environmental Condition (HREC) #1 - Impacts to soil associated with the former storage of contaminated ballast material onsite
- ▶ HREC #2 - Residual petroleum impacted soil from a former leaking UST (Tank 1)
- ▶ Environmental Finding (EF) #1 - Confirmed presence of ACM in/on the Site building
- ▶ EF #2 - Confirmed presence of lead paint in/on the Site building
- ▶ EF #3 - Confirmed presence of PCB-containing building materials in/on the Site building