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SITE OF KNOWN BURIED ASBESTOS CONTAINING MATERIAL (ACM) BUILDING RUBBLE
REPORT NS NEWPORT RI
7/1/2011
NAVFAC MIDLANT



NAVFAC Newport RI

NAVSTA Newport RI

Report

Sites of Known
Buried ACM
Building Rubble

July 2011

**NAVAL STATION NEWPORT RHODE ISLAND
BURIED ACM BUILDING RUBBLE SITES**

INTRODUCTION:

Chiller Plant

The first encounter with buried Asbestos Containing Material (ACM) contaminated soil brought to the attention of the NAVFAC Npt Environmental Division occurred during construction of a 40' x 40' steel building awarded in September of 2008 through a GMACC to KMK CONSTRUCTION, INC. of Eliot ME. The building will be needed to house a future central chiller unit whose purpose is to serve various facilities on Coasters Harbor Island (CHI). The ACM is found immediately on the soil's surface and later more is uncovered in excavation.

Sampling, analysis and field testing lead to the determination the ACM was Category II non-friable. Through in-house research and consultation with the US EPA Region I, soil management was implemented. After the soil had been removed and stock-piled it was later to be used as on-site back fill. Soil compaction was not allowed.

P-370 Combat Training Pool

September 2007, CONSIGLI CONSTRUCTION CO. INC. OF Milford, MA is awarded Design/Build of the pool. Site preparation for the Combat Training Pool un-earths ACM that sampling, analysis and field testing determine to be categorized as Regulated Asbestos Containing Material (RACM), Category I non-friable and Category II non-friable. Here depending on the circumstance, ACM was abated or the excavated contaminated soil was removed and disposed as ACM waste. The site is relatively "clean" of ACM. It was never the intent to make the site free of ACM, but the extensive site preparation work required when building a pool, combined with the asbestos hazard abatement occurring simultaneously, resulted in removal of most of the ACM and/or ACM contaminated soil.

P-101V MARDET

October of 2007 H.V. COLLINS, Providence, RI is awarded the contract to build the NAVSUP School. Included in the award is interior and exterior renovation to Bldg. #1112CP in preparation for occupancy by the Marine Detachment. The building is on the eastern shore at the north tip of Coddington Point. Excavation for construction

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of a water-side retaining wall, un-earths a dump site for asbestos cement (A/C) panels. Sampling and laboratory analysis find the material to contain **45% Chrysotile**. The contractor is directed to submit a plan to abate the asbestos hazard ONLY in the path of intended construction (the retaining wall). An un-known quantity of A/C panels remains buried on site.

P-347 Fitness Center

August 2009 CONSIGLI CONSTRUCTION CO., INC of MILFORD MA is issued DO# 0002 to construct NAVSTA Npt new Fitness Center. Early on and while trenching to install a water line by-pass, the contractor un-earths building demolition debris. Inspection, bulk sampling and laboratory analysis by the NAVFAC Environmental Division confirms that some of the debris is ACM. TSI categorized as RACM contains **25% Chrysotile and 25% Amosite**; pieces of A/C Panels and wire with tar-like coating, Category II both contain **40% Chrysotile** Work is re-directed and the contractor is directed to submit an asbestos hazard abatement plan. The plan is to address future excavation and those contaminated soils already stock piled on site. Later, as un-related site conditions arise the hazard abatement plan is amended to include pile cap drilling. As of this writing ALL work has been stopped on the site.

Nimitz Field Lighting

Included in CONSIGLI CONSTRUCTION's award for the Fitness Center is the demolition of buildings and installation of field lighting at Nimitz Field. Trench excavation for the lighting's electric power supply uncovers pieces of ACM Thermal System Insulation (TSI) or as is commonly known, steam pipe lagging classified as RACM by EPA contains **80% Chrysotile**. Additionally found on site are pieces of an unknown brown cementitious material, sampled and analyzed, Category II found to contain **25% Chrysotile**. Once again the contractor is directed to abate ONLY the ACM/ACM contaminated soil in the way of the planned construction. No additional exploration of the site is conducted. It must be assumed that an additional asbestos hazard still remains buried at the site.

Revetment - Katy Field

AGVIQ-CH2M HILL JOINT VENTURE, Anchorage, AK is awarded a contract in July 2008 for the "Construction of

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Shoreline Revetment Structure at IR Site 9 - OFFTA, Naval Station Newport, RI". Removing shoreline soil to re-shape the footprint to resemble old aerial photos and in preparation to build a new shore revetment, pieces of Vinyl Asbestos Tile (VAT) are found. Between the start of excavation and the discovery of VAT, the contamination is spread site-wide. Later, upon closer inspection, some pieces of A/C panels are found.

Excerpt from AGVIO-CHEM Hill Joint Venture, *Work Plan Addendum November 2010* is as follows:

A sample of the tile was collected on August 3, 2010 and shipped to EMSL laboratories in Boston Massachusetts for asbestos analysis using polarized light microscopy (PLM) by EPA 600/R-93/116. Sample results indicated that the collected sample contained 3 percent chrysotile, indicating the presence of asbestos.

Because Installation Restoration sites follow a separate line of Federal (EPA) regulations, the asbestos contamination on this site is being addressed by the NAVFAC MIDLANT Remedial Project Manager. This process is complicated by the need to involve State and Federal agencies in any forward movement.

P-451 OTCN Barracks

August 2010, Absher Construction Co. of Puyallup, WA is awarded a Design/Build contract. The design phase of this project was the place to address the possible ACM buried at the proposed site. Lessons learned during construction of the Combat Pool (adjacent) did not make their way into this project. Soon after the start of site preparation, in this case, trenching for the electric power supply to site trailers, ACM is discovered buried in the soil. Excavation work is stopped and/or re-directed to another area. The way forward on this project is now a routine. Direct the contractor to submit a plan to abate the asbestos hazard as it is encountered. DO NOT CHASE the ACM contamination.

Bishop Rock Landscaping

10 November 2010, WILLIAMS BUILDING COMPANY, INC. of West Yarmouth, MA is given notice to proceed.

Project Description: The work includes the removal of wood framed pavilion and miscellaneous site features and vegetation, and the provision of a concrete, stone and

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steel pavilion with concrete foundation, repairs to riprap shore protection, paving, landscaping, site furnishings, electrical power and lighting, and incidental related work.

After some initial "scraping" of the top soil and shoreline repair, excavation begins in-board on the island. 15 April 2011, NAVFAC Npt. project QC requests an inspection of excavated soil piles. The QC is suspect of building rubble seen intermixed in the spoil piles. Sampling and laboratory analysis reveal the cementitious pieces to be A/C with 28% Chrysotile composition. Work in the known contaminated area is stopped and directed to other areas. In the meanwhile, the contractor digs test pits along the causeway and where the planned pavilion is to be erected. After NAVFAC Npt Environmental conducts a second site inspection, construction of the pavilion is given the "Go". However, the test pits dug on the causeway un-earths more of the same building rubble including pieces of A/C Panels. NAVFAC Npt. will soon send the contractor a Request for Proposal (RFP) to address ACM contamination and overall site capping. The intent is to make this family recreation site safe for all users.

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LEARNING LESSONS - BURIED ACM:

Beginning with the first known discovery of buried building rubble containing ACM debris to the most recent discovery, NAVFAC Npt. Environmental Division has been working closely with the FEAD to resolve compliance and construction issues.

Soil management was employed at first, to move the construction of the chiller plant building forward; i.e. Stock pile the excavated soil on heavy plastic sheeting, keep covered then re-use on the same site as back-fill and do not compact.

Construction of the pool with its extensive site preparation proved to be costly in the amount of removal and deposition of contaminated soil undertaken.

MARDET taught Navy, expect a lode of ACM at sites that should be considered landfills. Here one type of ACM in great quantity was found.

Fitness Center eventually ran aground due to other factors, but the first grounding was buried ACM. Here stand-by crews remained on site throughout site preparation and pile drilling and would be there today if work was on-going.

Nimitz Field Lighting though the smallest of excavation, un-covered ACM with the highest exposure risk, friable Regulated Asbestos Containing Material (RACM) directly adjacent to an athletic field.

Installation Restoration sites are the most complex due to the number of stakeholders. More at the construction phase, Navy learned early detection of ACM would have reduced/eliminated overall site contamination.

ACM soil contamination was anticipated during construction of the OTCN Barracks, but not included in the construction plan.

Bishop Rock and the associated causeway pose new challenges for both NAVFAC Npt. FEAD and Environmental Division.

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AWS Facility taught Navy, contaminated soil may lie
beneath building slabs.

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CURRENT PLAN - to KEEP CONSTRUCTION MOVING FORWARD:

- Building rubble is uncovered during excavation
- Excavation must cease or move to another area on the site
 - o Wet, cover, make secure
 - o Do Not contaminate the site
- Contact NAVY
- Inspect, sample and analyze any rubble suspect to contain asbestos
- NAVY to request a proposal by contractor detailing the asbestos hazard abatement and disposal.
- Appropriate regulatory agencies will be advised
- Consult NAVSTA Npt Soil Management (currently being revised) for recording and capping remaining (un-disturbed) ACM rubble
- NAVFAC Npt Environmental to review abatement and soil management(capping) plans

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BURIED ACM BUILDING RUBBLE SITES

Site #1:

Project Name: Chiller Plant - Bldg. #1284A CHI

Contract#: N40085-08-D-2159 DO#0001

Location: 41° 30' 42.12" N
71° 19' 46.98" W

Site #2:

Project Name: P-370 Combat Training Pool

Contract#: N40085-07-C-3232

Location: 41° 31' 15.21" N
71° 19' 24.39" W

Site #3:

Project Name: P-101V - Navy Supply Corp School
MARDET Bldg. #1112CP

Contract#: N40085-C-08-2106

Location: 41° 31' 17.64" N
71° 19' 22.94" W

Site #4:

Project Name: P-347 Construct Fitness Center

Contract: # N40085-08-D-2112 DO#002

Location: 41° 30' 46.04" N
71° 19' 35.43" W

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Site #5:

Project Name: Nimitz Field Lighting
P-347 - Fitness Center

Contract: # N40085-08-D-2112 DO#0002

Location: 41° 31' 10.76" N
71° 19' 29.22" W

Site #6:

Project Name: Revetment - IR Site #9

Contract: # N62470-08-D-1006 DO# WE02

Location: 41° 30' 51.80" N
71° 19' 37.96" W

Site #7:

Project Name: P-451 OTCN Barracks

Contract: # N40085-10-C-9405

Location: 41° 31' 11.52" N
71° 19' 22.46" W

Site #8:

Project Name: Bishop's Rock Landscaping

Contract: # N40085-11-C-7201

Location: 41° 31' 03.88" N
71° 19' 50.24" W

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Site #9:

Project Name: P-082 Un-manned AWS Support Facility

Contract: # N40085-10-C-9425

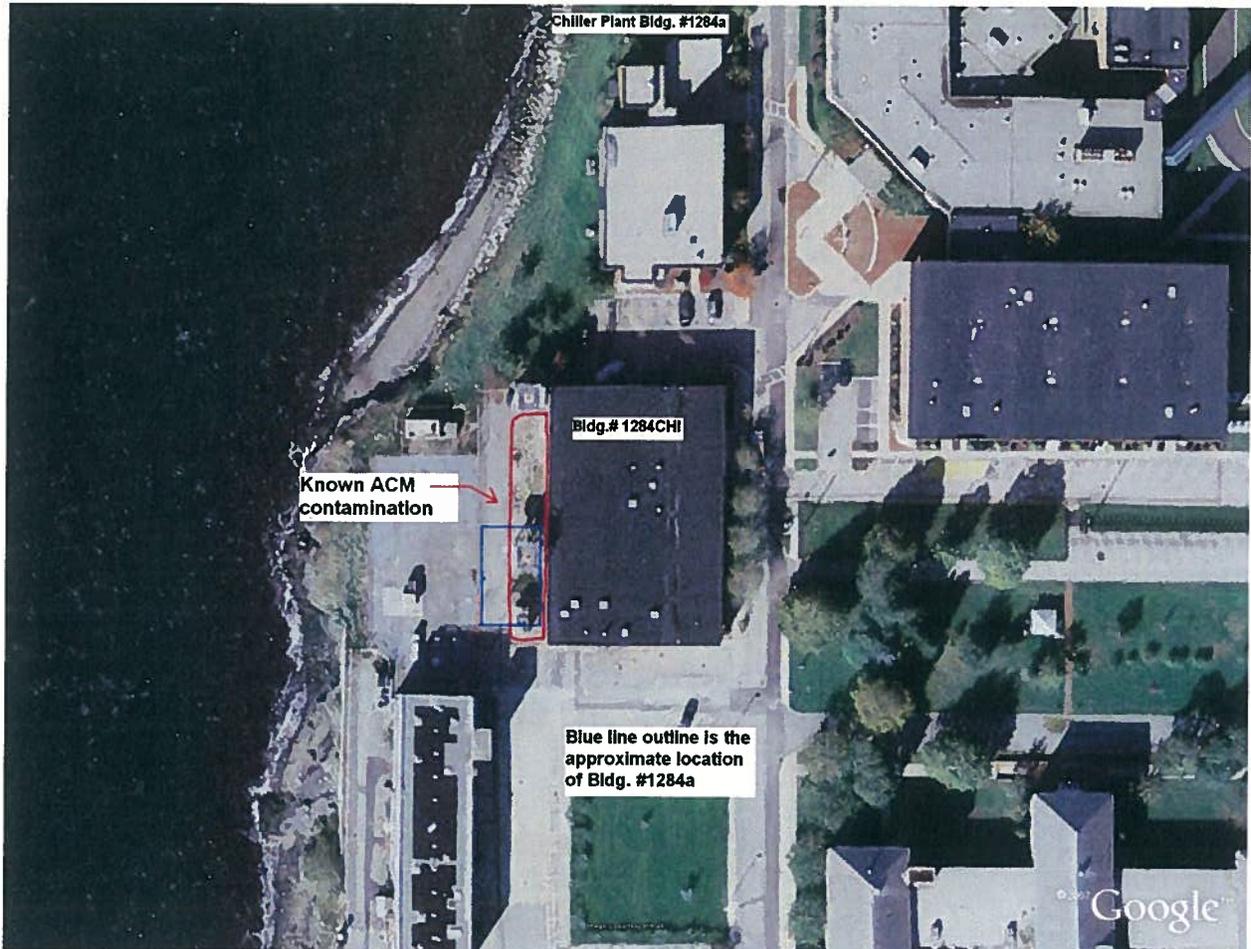
Location: 41° 32' 09.15" N
71° 18' 46.56" W

Note: Global Positioning System (GPS) locations were generated utilizing US ACE Google Earth program and on-screen "pointing". This program is made available through Navy Marine Corps Intranet (NMCI).

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Site #1

Chiller Plant - Bldg. #1284a



USACE Google Earth has not been updated since the construction
of Bldg. #1284a

See blue outline for approximate location

During site preparation for the Chiller Plant Building,
demolition debris was discovered on the surface soil.

Samples of this debris were laboratory analyzed and found to
contain 40% Chrysotile
See next photo

ACM contaminated soil was addressed thru soil management and
used as back fill on site

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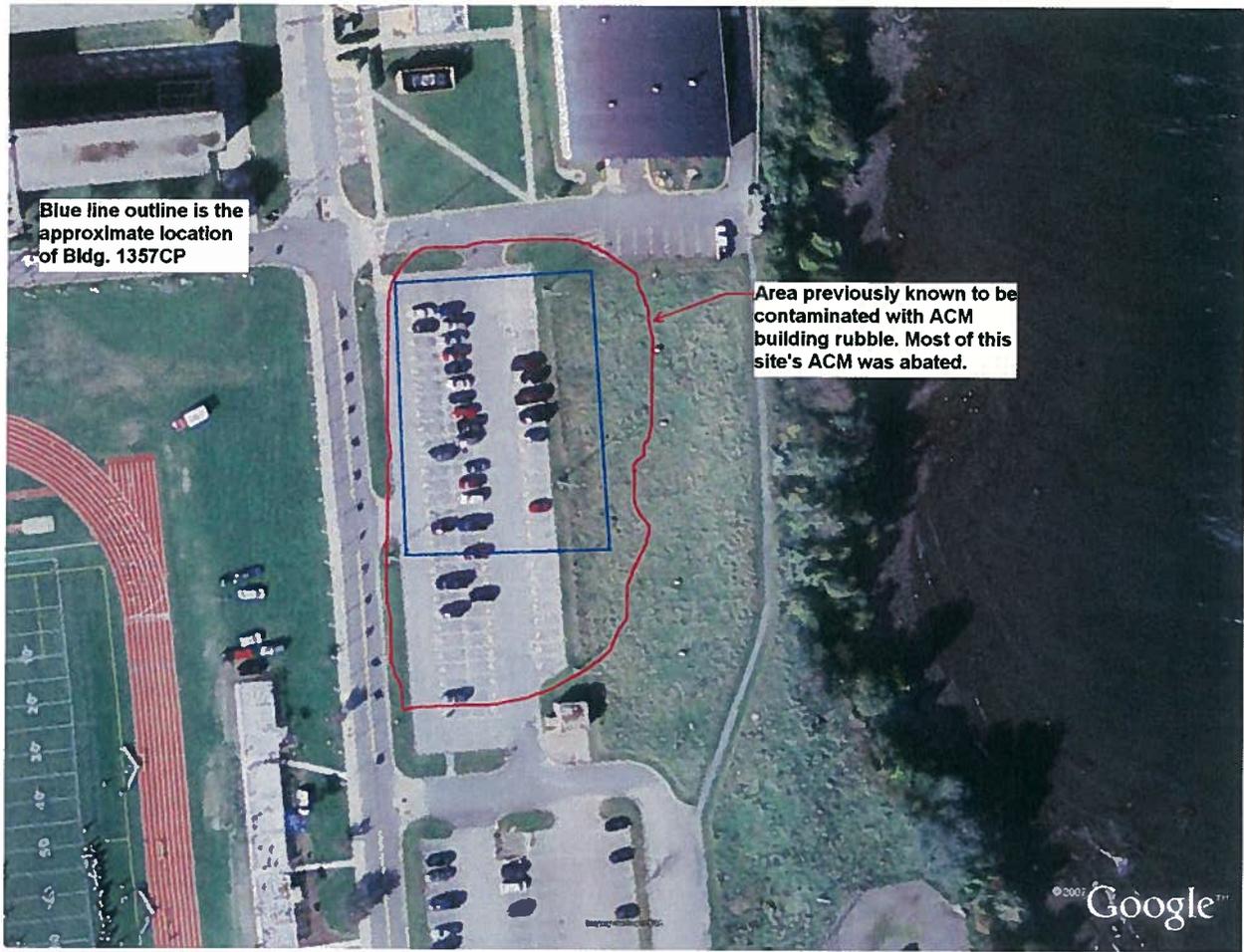
The small excavator in the upper left indicates what little soil was disturbed before noting the suspect material.

NAVFAC Npt Environmental conducted an inspection which included bulk sampling. Laboratory analysis finds 40% Chrysotile in sample pieces of A/C panel

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Site #2

P-370 Combat Training Pool



USACE Google Earth site is not updated to show Bldg. #1357CP
See blue outline for approximate location

NAVFAC NEWPORT conducted an extensive removal of those soils
found to be contaminated with ACM materials.

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(Site 2 cont.)



We learn as we go. Building rubble is the "flag" to stop and investigate.

Intermixed within soil spoil piles, A/C panels in pieces and VAT sometimes still adhered to un-earthed concrete slabs.

Each find causes project delays, extra costs and site specific asbestos hazard abatement plans and implementation

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Site #3
MarDet Bldg. #1112CP



Contained in the awarded contract for the construction of the NAVY SUPPLY CORPS SCHOOL is interior and exterior renovation to Bldg. #1112CP.

During construction of the retaining wall, a dump site for A/C (Asbestos Cement) panels is un-earthed.
(See photo below)

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(Site #3 cont.)



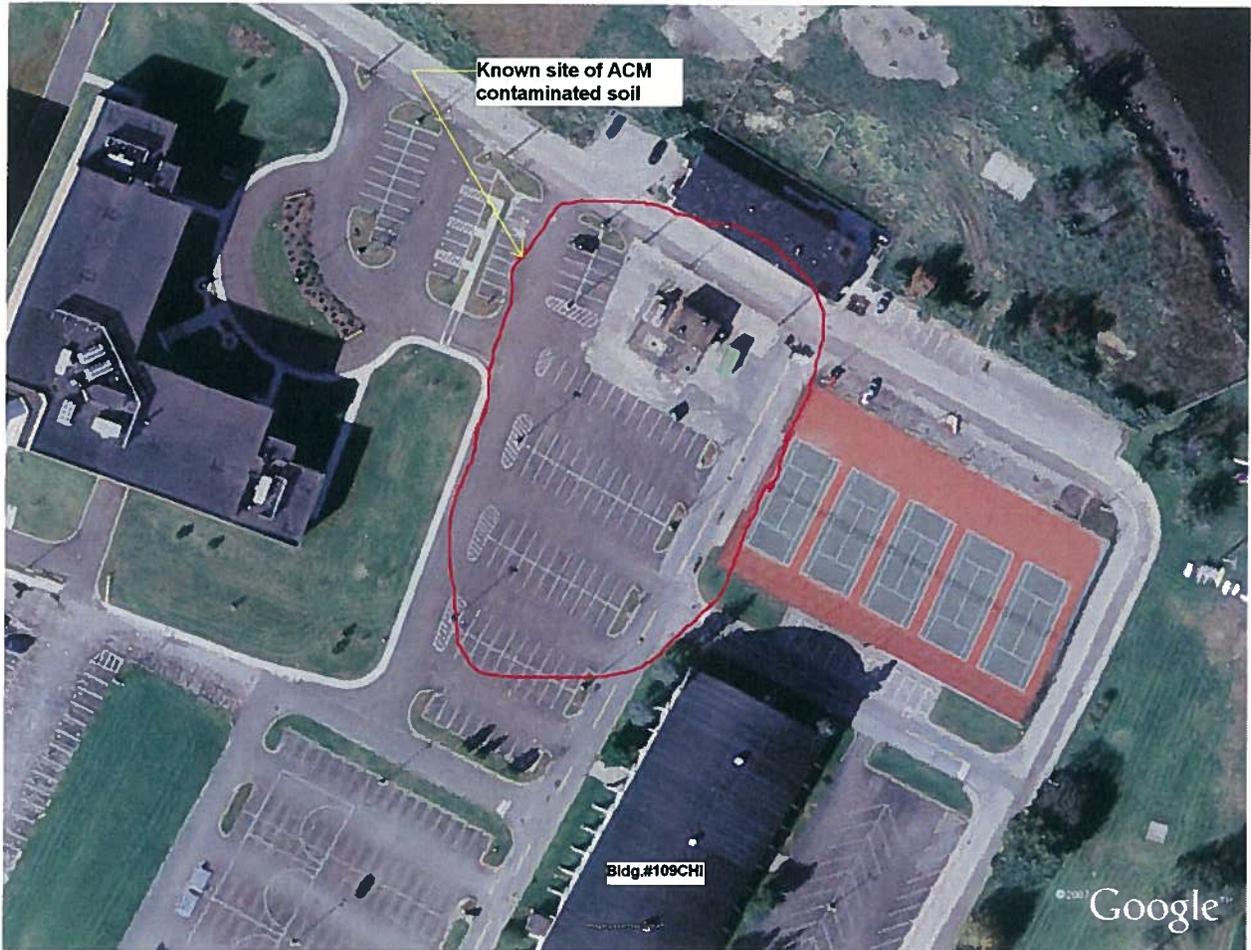
Only that ACM rubble, in the path of retaining-wall construction, is removed and disposed.

The A/C paneling pictured here tested positive for asbestos with a 45% Chrysotile content

NAVFAC Npt Environmental is alarmed by the close proximity of this site to a body of navigable water

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SITE #4
P-347 Fitness Center



P-347 is the construction of the Fitness Center.

Contaminated soil encountered during excavation was removed and disposed. No "chasing" of ACM was performed.

Contractor has a RI licensed asbestos crew and a Private Qualified Person (PQP) on site during all excavation and soil drilling activities

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(Site #4 cont.)



The site preparation for construction of the Fitness Center uncovered ACM building rubble.

In addition to the pieces of A/C panel, discarded pipe with ACM TSI still attached is un-earthed

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SITE #5
Nimitz Field Lighting



P-347 award included new lighting for Nimitz Field.

During excavation for the electric power conduits, the contractor alerted NAVY of suspect material noted in the spoil piles.

Here, as in other instances, the ACM is discovered after a nighttime rainfall, which washes the soil/mud from the debris allowing it to "stand out" on the soil pile

See next photo

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(Site #5 cont.)



Material suspect to be ACM TSI is sampled and sent for laboratory analysis.

Lab findings confirm ACM with an 80% Chrysotile composition.

Contractor is ordered to abate the asbestos hazard which now includes contaminated soil

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SITE #6

Revetment - Katy Field - OFFTA



The IR Site #9 Re-construction of the shore line revetment is to be accomplished in two (2) phases; first the western portion then the eastern portion.

As the western portion nears completion, dime-sized pieces of VAT are discovered.

Work is halted while NAVFAC MIDLANT wrestles with an economically feasible solution
See next photo

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(Site #6 cont.)

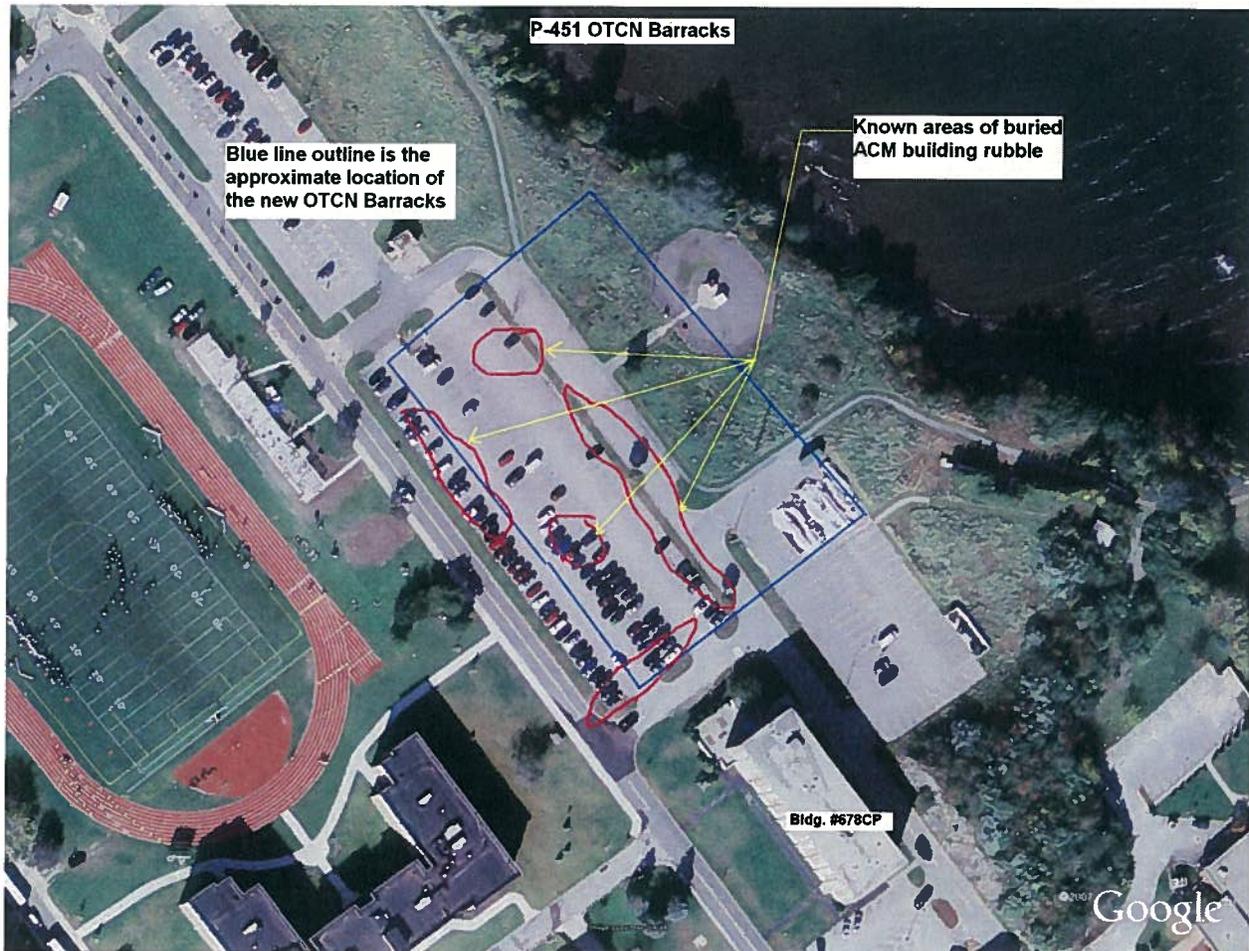


The revetment reconstruction is on "Hold" until which time a plan to address the asbestos contamination is devised.

It is the small, broken pieces of VAT strewn about the site, including the High/Low tide marks, increasing the difficulty in developing an asbestos hazard abatement plan.

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SITE #7
OTCN Barracks



During design, random test pits were dug at the site. A few "hits" indicated the potential for buried ACM building rubble.

No provisions were made in the award to address such issues if
or when they may arise
See next photo

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(Site #7 cont.)



This site has rendered an array of ACM materials some of which are A/C panels and friable ACM TSI

Until the accepted asbestos hazard abatement plan is operational, each encounter with buried ACM debris turns the site preparation away and to another on-site area.

An Environmental Specialist is retained by the contractor and is on-site during ALL excavations to watch and document as is needed

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SITE #8
Bishop's Rock



Excavated soil spoil piles are inspected on 15 April 2011.

Discovered within the soil piles and surrounding area are palm size pieces of A/C (Asbestos Cement) panels and green floor tiles.

The green floor strongly resembles those discovered on the nearby sites.

Green floor tile on neighboring sites was sampled and found to be ACM

Laboratory analysis finds 20% - 30% Chrysotile in the A/C pieces

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It is supposed that building demolition debris was deposited on this site as fill for both the causeway and the island.

NAVFAC Newport as of 23 June '11 has issued the contractor an RFP.

NAVFAC Newport awaits the contractor's estimated quantity of contaminated soil to be removed and disposed and the means and methods to do so.

See next photo

**NAVAL STATION NEWPORT RHODE ISLAND
BURIED ACM BUILDING RUBBLE SITES**

(Site #8 cont.)

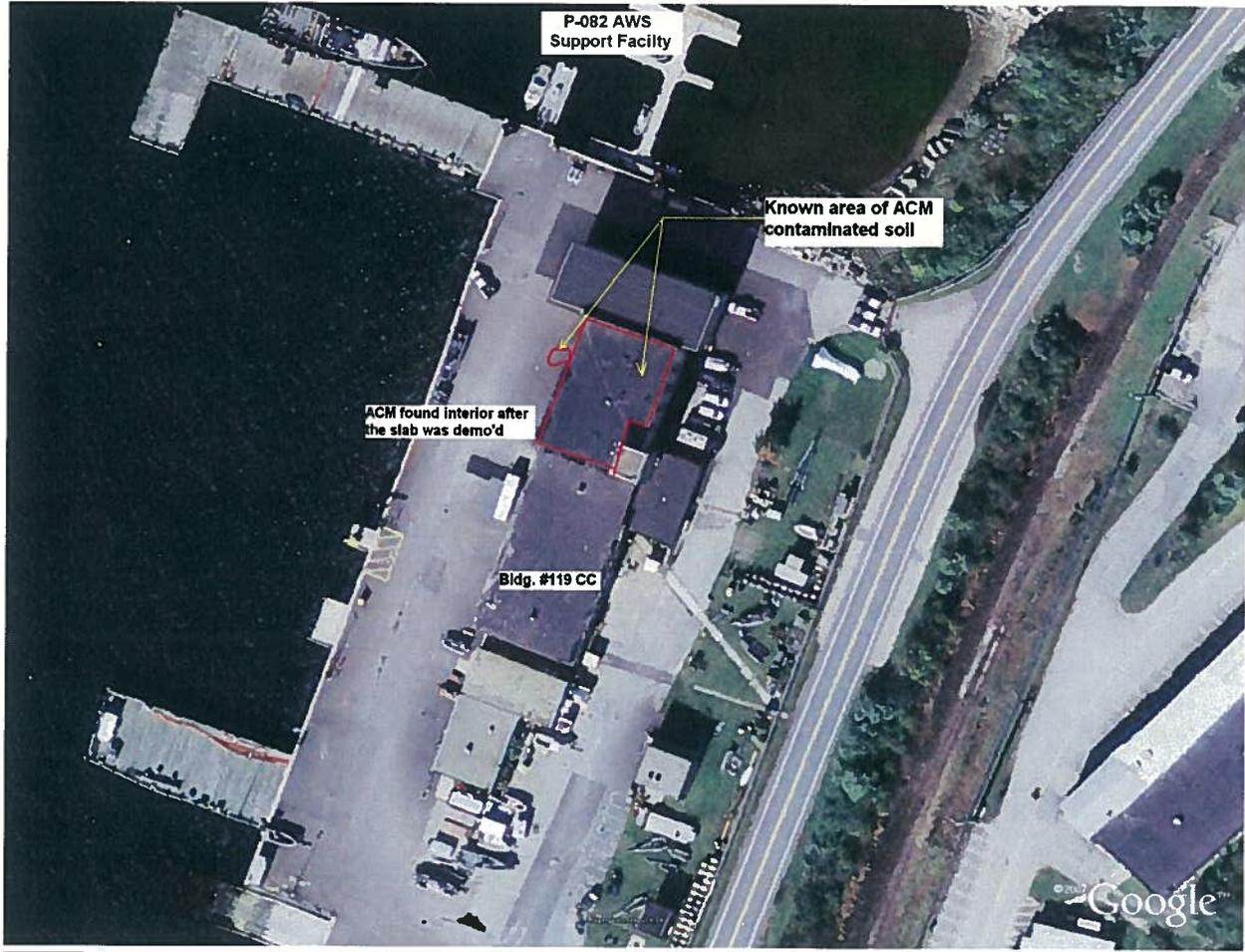


Soil piles known to be contaminated with ACM are wetted, covered and made secure until abatement plans and contract modifications are completed.

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SITE #9

P-068 AWS Support Facility



Contractor demolition of the grade level interior slab reveals
ACM contaminates; Friable Thermal System Insulation (TSI)
considered Regulated Asbestos Containing Material (RACM) by the
US EPA

See next photo

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(Site #9 cont.)



The facility's interior is gutted and its concrete slab is demolished.

During a routine inspection by NAVFAC Npt Environmental, ACM TSI is discovered. Sampling and laboratory analysis documents a 60% to 80% Chrysotile content.

NAVFAC Npt FEAD issues an RFP for removal and disposal of ACM contaminated soils