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SOLID WASTE MANAGEMENT UNIT 177/ RTC (SWMU 177) UNDERGROUND STORAGE
TANK SEARCH CNC CHARLESTON SC
6/1/1999
CHARLESTON ENVIRONMENTAL DETACHMENT



**SWMU 177/RTC
UNDERGROUND STORAGE TANK SEARCH
NAVAL BASE CHARLESTON
CHARLESTON SC**

Prepared for:

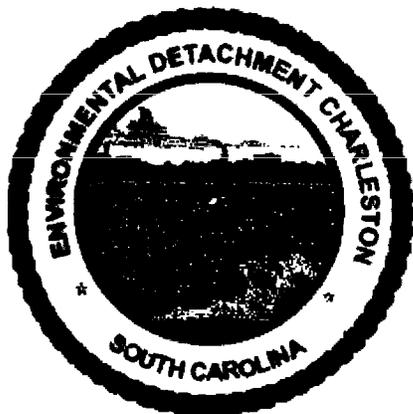
**DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC**



Prepared by:

**Supervisor of Shipbuilding, Conversion and Repair,
USN, (SUPSHIP) Portsmouth Va.,
Environmental Detachment Charleston, S.C.
1899 North Hobson Ave.
North Charleston, SC 29405-2106**

June 1, 1999



UST = Compliance
SCAN ALL
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BY

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DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION AND REPAIR, USN
PORTSMOUTH, VIRGINIA, ENVIRONMENTAL DETACHMENT CHARLESTON
1898 NORTH HOBSON AVENUE, BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

IN REPLY REFER TO:

Ser 262

JUN 17 1999

MEMORANDUM

From: Director, Supervisor of Shipbuilding, Conversion and Repair, USN, Portsmouth, Va.
Environmental Detachment Charleston, SC (SPORTENVDETCASN)

To: Southern Division Naval Facilities Engineering Command
(Code 1876, David Dodds)

Subj: SOLID WASTE MANAGEMENT UNIT (SWMU) 177 UNDERGROUND STORAGE
TANK (UST) SEARCH FINDINGS.

1. The **Environmental Detachment Charleston (DET)**, was tasked by Southern Division Naval Facilities Engineering Command (SDIV) to perform a UST search in the area of Building RTC 4.
2. An electromagnetic search was performed on 20 May 1999 along with a historical building plan review. No UST's were identified as a result of the search. Enclosed is a report on the survey and findings.
3. Questions should be addressed to Jed Heames, Interim Measures Work Leader at (843) 743-6306 ext. 123.

Respectfully,

A handwritten signature in black ink, appearing to read "J. A. Heames".

J. A. Heames

Copy to:
File

RECORDS SEARCH:

The DET performed a record search of past building plans associated with RTC 1 (main facility on the property). NOAA personnel also provided site plans developed for NOAA during a construction phase. The record review found that in 1948 the northwest wing of RTC 1 was a diesel generator room. Site drawings of the diesel generator room also show there was a 1000 gallon diesel fuel UST on the east side of the northwest wing. This was designated as anomaly 2 on Figure 1. Partial copies of building plans are provided showing the diesel generator room and associated UST in the attached plastic sleeve.

EM-61 ELECTROMAGNETIC SEARCH:

The DET performed an electromagnetic search of the area surrounding RTC-4 on 20 April 1999. The area was sectioned off in grids and a complete survey was performed. The interior of RTC-4 and within close proximity of the concrete pads holding the diesel generator, AST and A/C chillers were not surveyed due to magnetic interference (See Figure 1 for survey grids). The search identified several anomalies. Most of these anomalies were dismissed based on visual identity i.e. monitoring well caps, storm drains, electrical vault covers, sewer lines etc. Two anomalies were found that indicated subsurface metal objects. Anomaly 1 of Figure 1 is located in a grassy area near RTC-1. Utilizing a push rod it was found a hard object existed approximately one foot below ground surface. A small area was excavated and concrete was encountered. NOAA personnel provided site plans showing a concrete pad had existed in that area as the foundation for an A/C chiller. During a construction phase the A/C chiller was removed and its foundation remained. It has since been covered with topsoil and sod. The concrete pad presumably contains rebar or wire reinforcement that registered during the electromagnetic survey. Anomaly 2 of Figure 1 is located next to RTC 1 where the 1948 building plans show a 1000 gallon diesel fuel UST existed. A survey of this area did not identify a subsurface metal object consistent with a 1000 gallon UST. Another detection identified as anomaly 3 of Figure 1 is located to the north of the former diesel generator room. Based on NOAA site plans this anomaly is located where a sewer line exists. The

SWMU 177

Underground Storage Tank Search

INTRODUCTION:

Solid Waste Management Unit (SWMU) 177/Reserve Training Center (RTC) is located in Zone I of the Charleston Naval Complex. SWMU 177/RTC originally consisted of two adjacent buildings, both designated as Building RTC-4. These buildings housed heavy equipment and lawn maintenance equipment. Based on the former operations at this site and visual inspections performed during the RCRA Facility Investigation (RFI), which identified several areas of stained soil, this site was designated a SWMU.

The National Oceanographic and Atmospheric Administration (NOAA) has had control of the property since the spring of 1995, during which time the original RTC 4 (24 x 60 foot metal structure) was removed and only a small concrete block structure remains identified as RTC 4. Currently there is an Above Ground Storage Tank (AST), diesel generator and three A/C chillers atop concrete pads next to RTC 4.

PAST INVESTIGATIONS:

This site was not addressed in the Final Zone I Resource Recovery Act (RCRA) Facility Investigation (RFI) Work Plan; however, the USEPA Region IV determined this site warranted a limited investigation.

Four rounds of soil sampling have been performed at SWMU 177/RTC by the Clean Contractor (EnSafe). Results of these sampling evolutions identified Semi-volatile Organic Compounds (SVOCs), specifically benzo(a)pyrene equivalents (BEQs) as the chemicals of concern.

OBJECTIVE OF INVESTIGATION:

The objective of the investigation was to search for Underground Storage Tanks (USTs) that may have been abandoned in place.

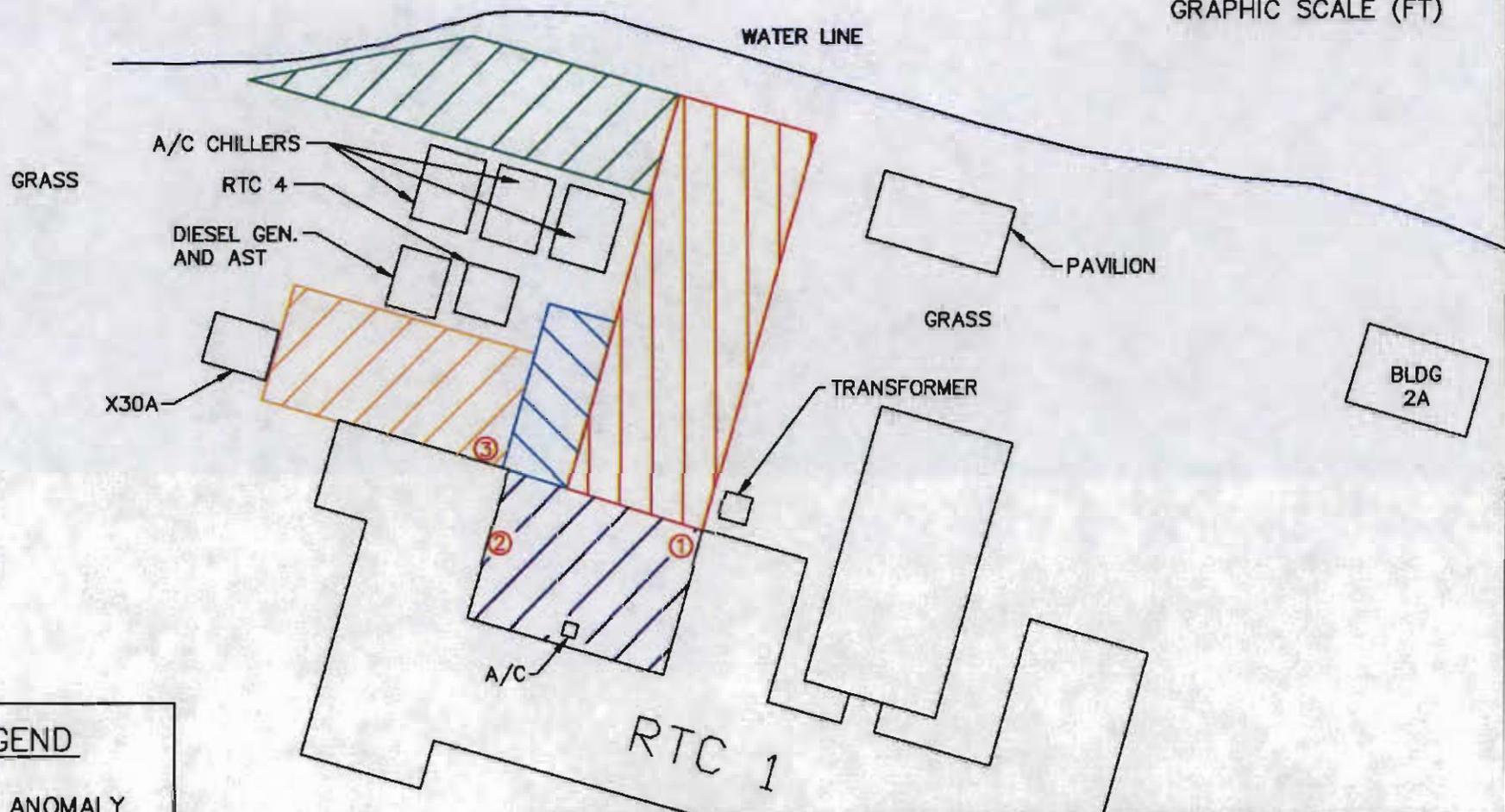
NOAA site plans indicated the sewer line was to have been removed during a construction phase by a contractor; however, NOAA personnel believe it still exists based on past problems they encountered with the contractor.

CONCLUSION:

Based on the record review and electromagnetic search the DET does not believe any UST's exist in the area of the survey. Anomalies that were identified were dismissed visually or through the record review as not being UST's. Petroleum soil contamination in this area is probably the result of operation and upkeep of heavy equipment, lawn maintenance equipment and diesel generator operations that occurred for several years at RTC 1 and 4.



GRAPHIC SCALE (FT)



LEGEND

-  ANOMALY
-  GRID A
-  GRID B
-  GRID C
-  GRID D
-  GRID E



ENVIRONMENTAL DETACHMENT CHARLESTON

1899 NORTH HOBSON AVENUE - BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

FIGURE 1
EM-61 MAGNETIC SEARCH
GRID AT SWMU 177

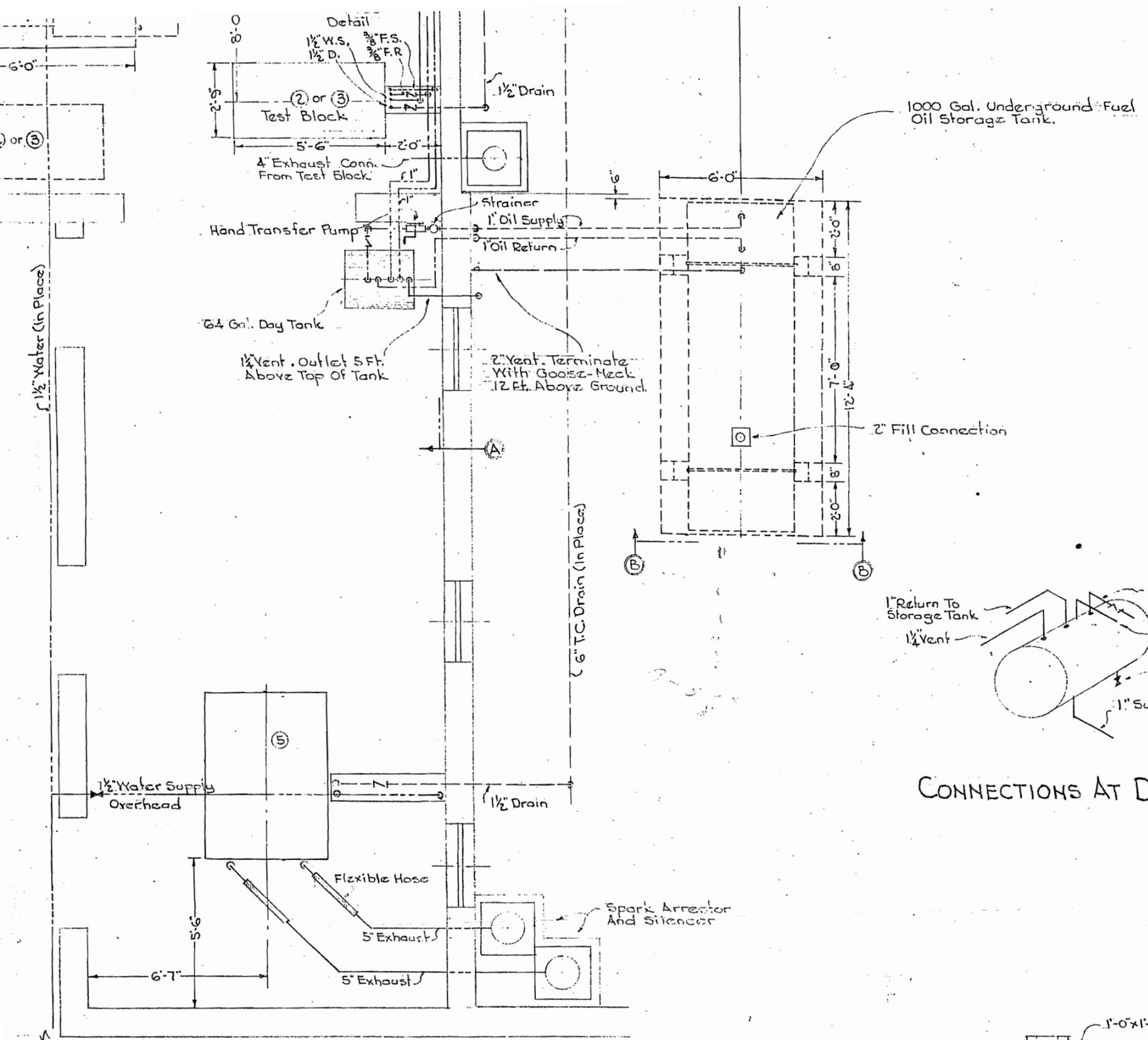
DATE:
11 JUNE 1999

PREPARED BY:
J.I. BROWNLEE

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SCALE: -

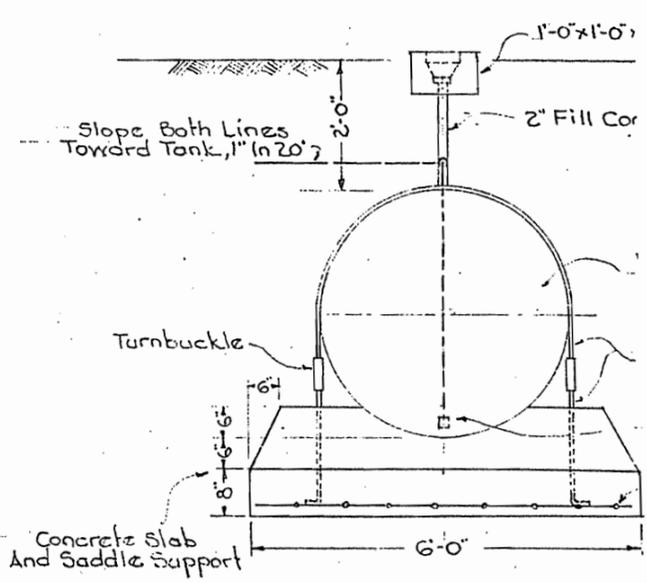
SHEET: 1 OF 1



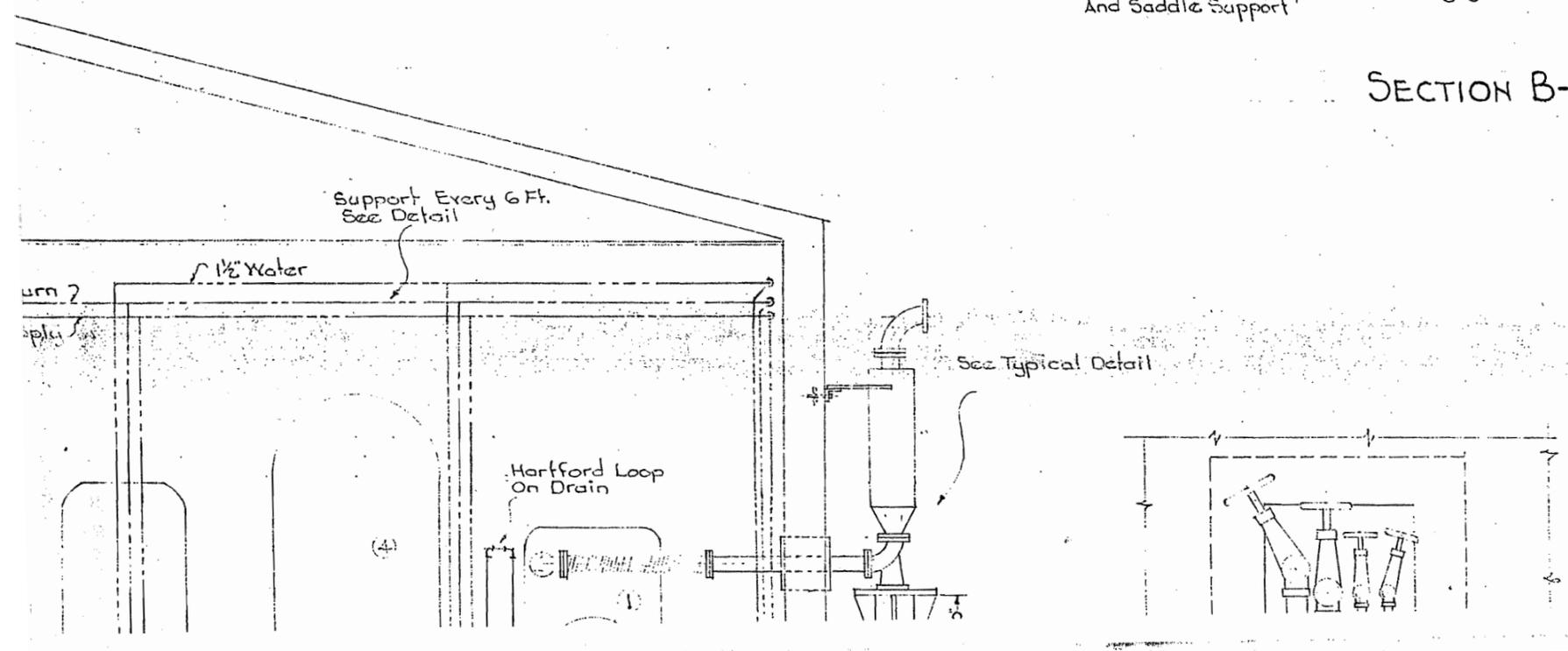
CONNECTIONS AT DA

PLAN AT DIESEL ENGINE ROOM
Scale: 1/4" = 1'-0"

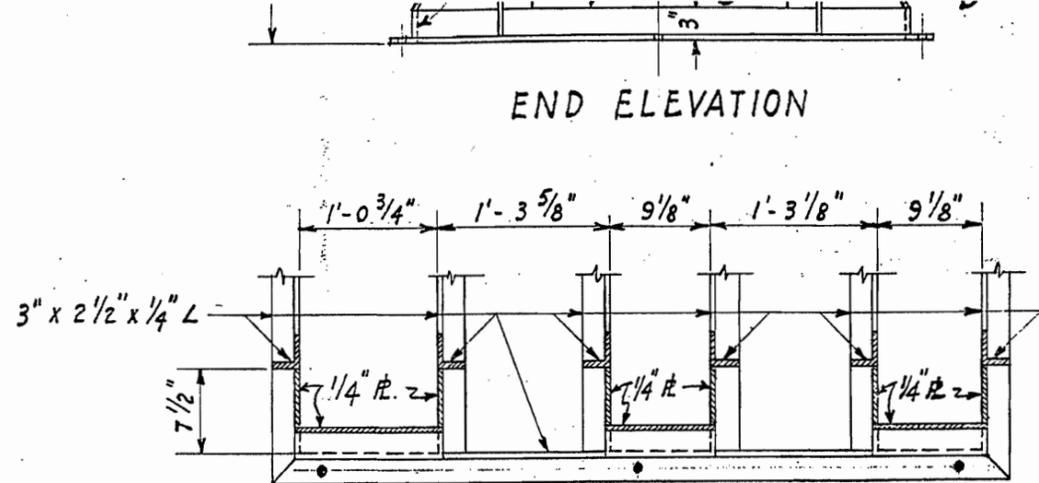
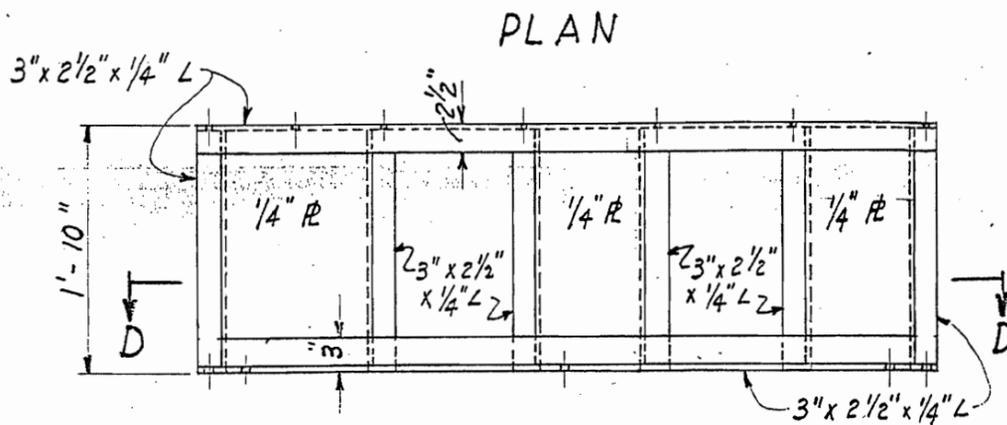
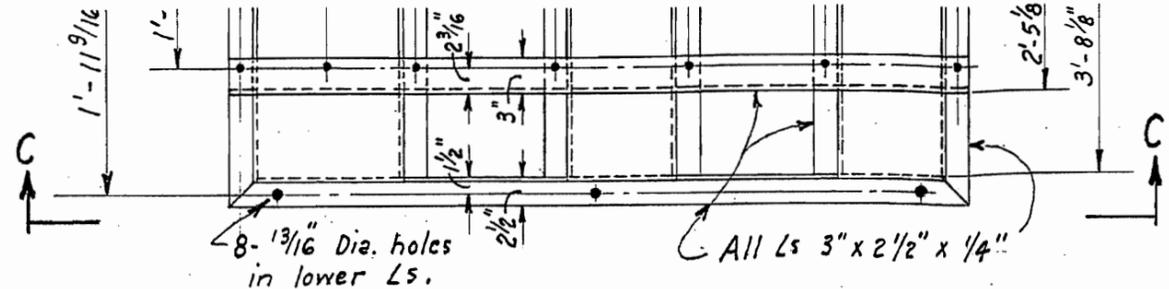
DRAWING OF DIESEL ENGINE ROOM SHOWING A 1000 GAL. TANK EXISTED IN 1948



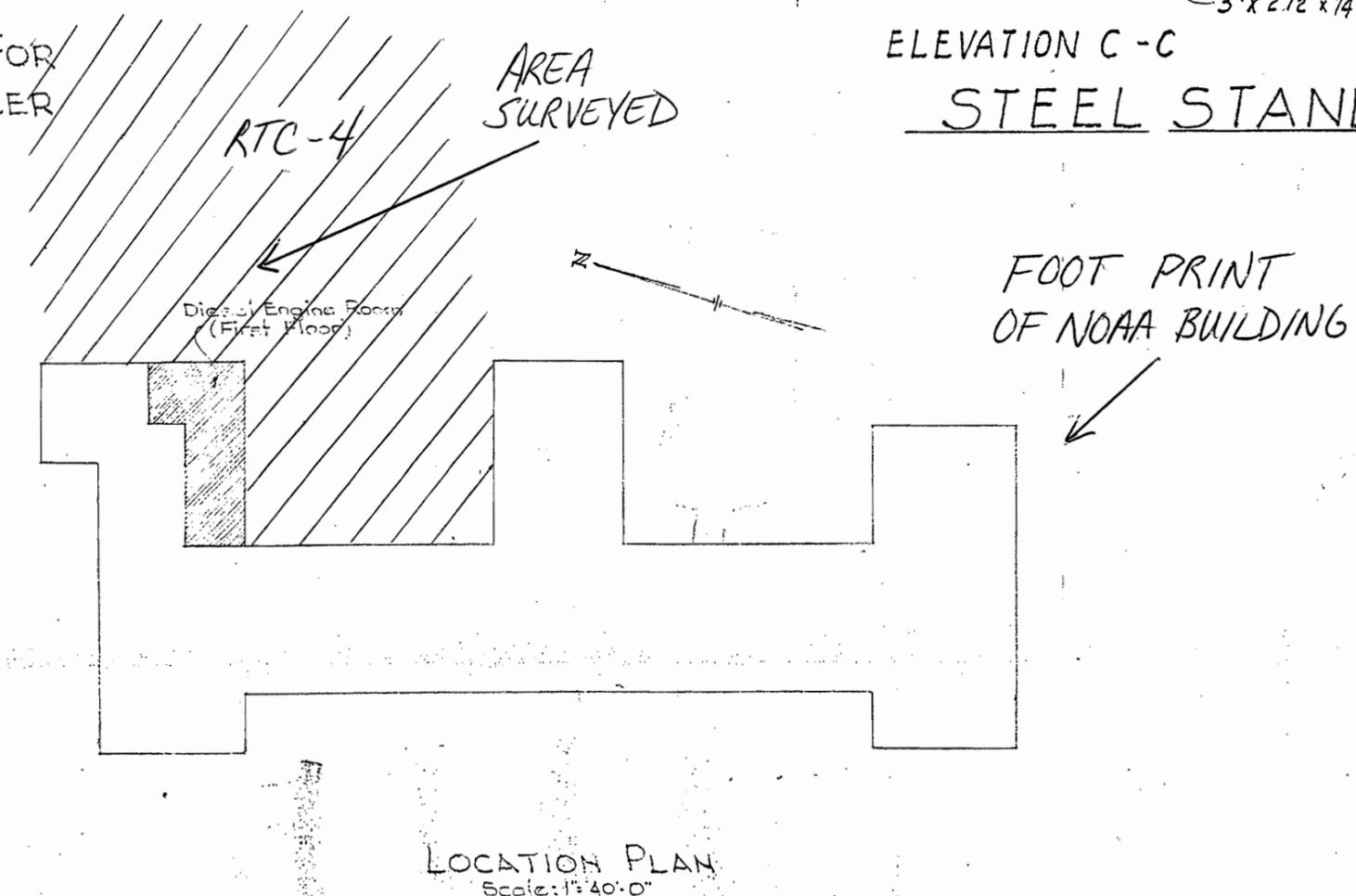
SECTION B-B



- 1/2" x 1'-6" x 1'-6" Steel Pl.
- 6" Ext. Str. Pipe
- Welded Construction
- 2'-6" x 2'-0" S.H. Pl.
- 2'-6" x 2'-6" Concrete Base.



NOTE: Use all welded construction.



STEEL STAND FOR GASOLINE ENGINE No ⑤

Scale 3/4" = 1'-0"

REVISION	DATE	DESCRIPTION	BY
△	DEC. 5, 49	DIMENSION 1'-0 3/4" WAS 1'-0 1/2"	
P.W. DRAWING NO.		SIXTH NAVAL DISTRICT	CHARLESTON, S. C.
HX 30-39		PUBLIC WORKS DEPARTMENT	
DRAWN BY A.D. Hemmison		U.S. NAVAL RESERVE TRAINING CENTER	
TRACED BY		NAVAL BASE, S.C.	
CHECKED BY NOWELL		DIESEL ENGINE ROOM	
IN CHARGE NOWELL		MECHANICAL & STRUCTURAL	
CHIEF D'EM'N Schuen		APPROVED	DATE AUG 5 1948
DESIGN SUPT.		PUBLIC WORKS OFFICER	
CONTRACT NO.			
APPROVED FOR		SCALE	SPEC. NO.
		Y.C.D. DRAWING NUMBER	
DATE:		SHEET OF	