



**DEPARTMENT OF THE NAVY**  
**NAVAL TRAINING CENTER**  
**2601A PAUL JONES ST**  
**GREAT LAKES, ILLINOIS 60088-5000**

NTCGLAKESINST 5090.11A  
N45

**SEP 17 1990**

NTC GREAT LAKES (COMPLEX<sup>3</sup>) INSTRUCTION 5090.11A

From: Commander, Naval Training Center, Great Lakes

Subj: STORM WATER POLLUTION PREVENTION & MANAGEMENT PLAN

Ref: (a) OPNAVINST 5090.1B, Environmental and Natural Protection Plan  
(b) 35 Illinois Administrative Code, Subtitle C, Chapter I  
(c) 40 Code of Federal Regulations Parts 400-471  
(d) NPDES Permit No. ILR002630  
(e) Memorandum of Understanding between NTC Great Lakes and the Lake County Storm Water Management Commission

Encl: (1) Storm Water Pollution Prevention Plan (SWPPP)  
(2) Memorandum of Understanding (MOU) between Naval Training Center (NTC) Great Lakes and the Lake County Storm Water Management Commission

1. Purpose. To Promulgate and implement the Storm Water Pollution Prevention and Management Plan for all commands and activities within NTC Great Lakes (Complex<sup>3</sup>).

2. Cancellation. NTCGLAKESINST 5090.11. This instruction has been substantially revised and should be reviewed in it's entirety.

3. Background. References (a) through (c) require that storm water management plans are established to ensure the proper management of storm water impacted by industrial activities and construction activities. Proper storm water management practices are required in order to:

a. Meet the regulatory requirements of references (a) through (d).

b. Prevent harm to facilities, property, and persons due to periodic flooding.

c. Ensure new development does not increase flood and drainage hazards or conditions susceptible to erosion.

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d. Create no new financial burdens on the Navy or surrounding community for flood control projects or relief operations.

e. Protect, preserve, and promote the orderly development of land and water resources.

f. Protect buildings and improvements from flood damage to the greatest extent possible.

g. Conserve the natural hydraulic, hydrologic, water quality and other beneficial functions of flood prone areas, regulatory floodplains, and wetlands.

h. Promote the command's standing as a Steward of the Environment and demonstrate a spirit of cooperation with local communities using reference (e).

4. Policy. This instruction implements requirements of enclosure (1), the Storm Water Pollution Prevention Plan (SWPPP), and enclosure (2), the Memorandum of Understanding (MOU) between the Navy and the Lake County Storm Water Management Commission. The SWPPP and MOU provide a comprehensive storm water management program for NTC Great Lakes (Complex<sup>3</sup>).

5. Action

a. Environmental Compliance Board (ECB). The ECB shall review storm water management actions for commands and tenants at NTC Complex<sup>3</sup>. The ECB shall ensure these actions meet the requirements of this instruction. The ECB shall act to disseminate information on compliant storm water management practices to represented commands and tenants.

b. Assistant Chief Of Staff Installations and Environment (ACOS I & E). The ACOS I & E shall maintain a complex-wide storm water management program, to include:

(1) ensuring all applicable NTC Complex<sup>3</sup> projects are reviewed for storm water impacts.

(2) implementing a storm water monitoring program.

(3) providing resources in support of program guidance, technical project reviews, and plan implementation.

(4) acting as liaison with regulatory agencies and local communities on storm water issues.

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(5) updating the SWPPP, storm water discharge permits, and regulatory or community agreements as required to maintain compliance.

c. Commanding Officer, Navy Public Works Center (CO, PWC). The CO, PWC shall provide technical support for: reviewing project designs, preparing designs with storm water control features, and storm water management program implementation.

d. All NTC Great Lakes (Complex<sup>3</sup>) Commands and Tenants. Shall adhere to the requirements established in enclosures (1) and (2), as applicable.

  
C. B. MARTIN  
Chief of Staff, Operations

Distribution:  
NTCGLAKESINST 5216.5M  
Lists I, II (Case A), III-A, B, C

**STORM WATER POLLUTION  
PREVENTION PLAN (SWPPP)  
For  
NAVAL TRAINING CENTER,  
GREAT LAKES, ILLINOIS**

**AUGUST 1997**

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## **I. INTRODUCTION**

This SWPPP is developed in accordance with federal and state regulations for NTC, Great Lakes. NTC is located in Lake County, Illinois approximately 35 miles north of Chicago. Established in 1904, the base covers approximately 1,640 acres and has 1,053 buildings. The base has separate storm and sanitary sewer systems and provisions for emergency sewer treatment for overflows. The sanitary sewer flows into and is treated by the North Shore Sanitary Sewer District. The storm sewer system discharges into three separate bodies of water:

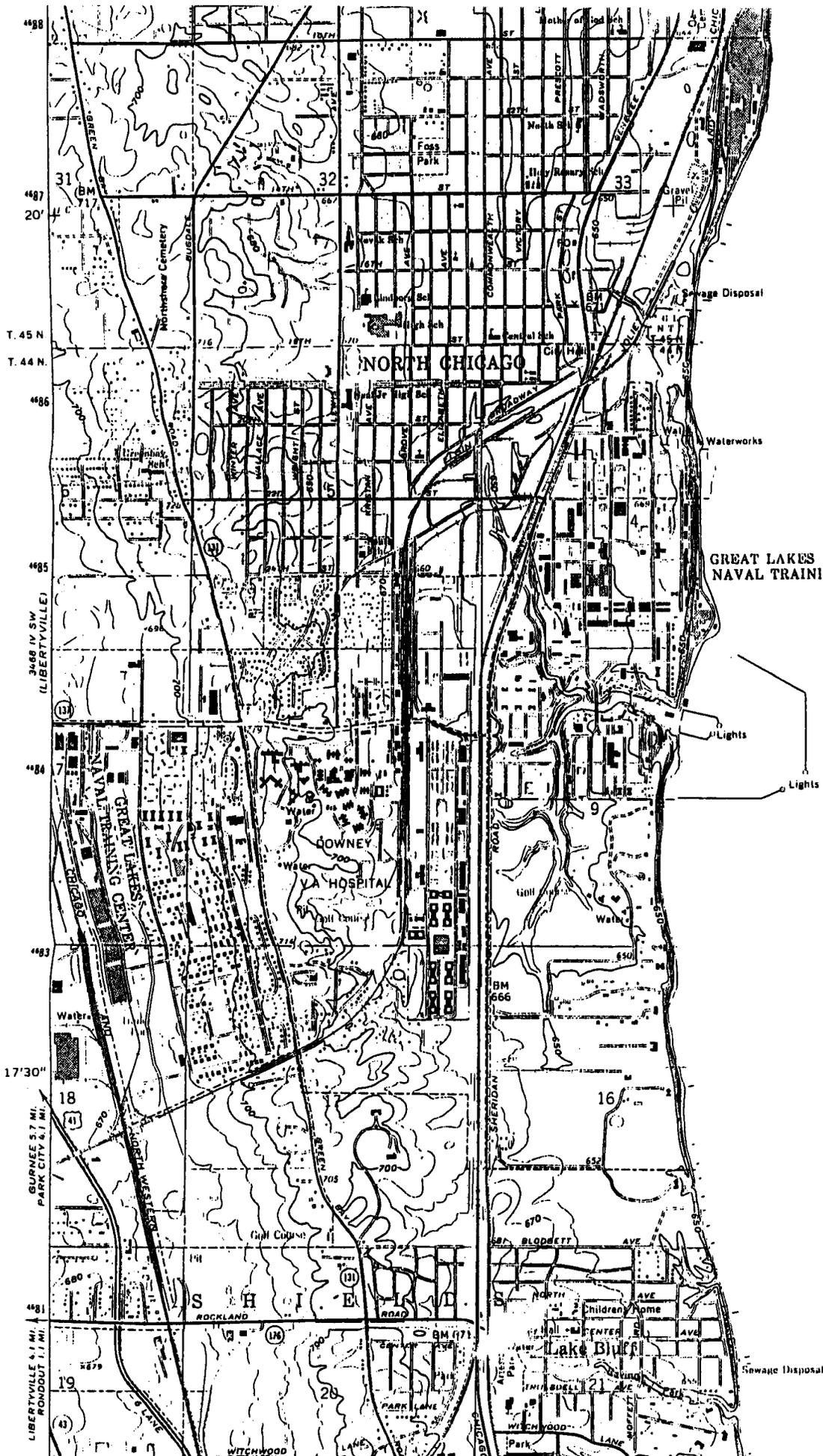
- Lake Michigan
- Pettibone Creek
- Skokie River

Section 402(p) of the Water Quality Act of 1987 requires that operators of facilities that discharge storm water associated with industrial activity, obtain permits under the National Pollutant Discharge Elimination System (NPDES) to control the quality of storm water discharges. In response to this statute, on November 16, 1990 the U. S. Environmental Protection Agency (USEPA) promulgated final regulations for permit applications associated with storm water discharge from industrial activities (USEPA storm water regulations: 55 Congressional Federal Register (CFR) 47989, 56 CFR 12097, 56 CFR 56547, 57 CFR 11393, 40 CFR Parts 122 through 124; and additional regulations promulgated by State and local regulatory agencies; USEPA, 1990; p. 47990).

Under these regulations, federal facilities, including the U. S. Navy (NAVY), were required to submit on or before October 1, 1992, a permit application (group or individual) or a Notice Of Intent (NOI) for coverage by a general permit. As a result of this submission, NTC has been included in this program under the state of Illinois' General Permit No. ILR002630. The Illinois permit requires NTC to develop a "SWPPP" including elements of "Best Management Practices" (BMPs) designed to minimize pollution through source control. The definition of "storm water discharge associated with industrial activity" identifies only point-sources discharges.

Section 502(14) of the Clean Water Act (CWA) and amendments of 1987 defines that "point source" broadly includes "any discernible, confined and discrete conveyance. These conveyances include but are not limited to: any pipe, ditch, tunnel, conduit, well, discrete fissure, or container from which pollutants are or may be discharged to "Waters of the United States." The term "Waters of the United States" is generally defined as surface water, including lakes, rivers, streams, wetlands, and coastal waters.

**II. TOPOGRAPHIC SITE MAP  
Of  
NAVAL TRAINING CENTER  
Great Lakes, Illinois**



AQUEDUCT

AQUEDUCT

AQUEDUCT

Inlake

GREAT LAKES  
NAVAL TRAINING CENTER

Lights

Lights

Sewage Disposal

4898  
487  
20'  
T. 45 N.  
T. 44 N.  
486  
485  
3466 IV SW (LIBERTYVILLE)  
484  
483  
17'30"  
GURNEE 5.7 MI. PARK CITY 4.1 MI.  
481  
LIBERTYVILLE 6.1 MI. RONDOUT 1.1 MI.

NORTH CHICAGO

GREAT LAKES  
NAVAL TRAINING CENTER

DOWNEY  
HOSPITAL

Lake Bluff

ROCKLAND

WILSON

WILSON

WILSON

WILSON

WILSON

WILSON

WILSON

WILSON

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### III. SITE DISCHARGE MAPS

NTC has identified 18 sites within the confines of its property that contain activities that could potentially be sources of pollution to storm water discharges as defined by Illinois NPDES Permit No. ILR002630. These identified sites are:

#### **PETROLEUM BULK FUEL STORAGE (SIC Code 5171)**

SITE	LOCATION	NAME	DWG No.
A	Powerhouse	Fuel Oil Storage Tank Area	3.1
B	Building 326	Fuel Oil Storage Tank	3.2

#### **TRANSPORTATION FACILITIES (SIC Code 42 & 44)**

SITE	LOCATION	NAME	
C	Building 1506	PWC Vehicle Maintenance Facility, Storage Yard, & Fuel Station	3.3
D	Building 144	NEX/MWR Vehicle Maintenance Facility	3.4
E	Building 51	Boat Storage Area	3.5
F	Building 2110	Auto Hobby Shop & Yard	3.6
G	Building 2710	NEX Gas Station	3.7
H	Building 3216	Fuel Station & CBU - 401 Vehicle Maintenance Facility & Yard	3.8
I	Building 1712	Naval Reserve Vehicle Maintenance	3.3
J	Building 3311	Golf Course Maintenance	3.9
K	Building 11/12	Powerhouse Vehicle Fueling Areas	3.10
L	Building 52	Naval Reserve Landing Craft Maintenance	3.11
M	Building 106	NEX/MWR Vehicle Maintenance	

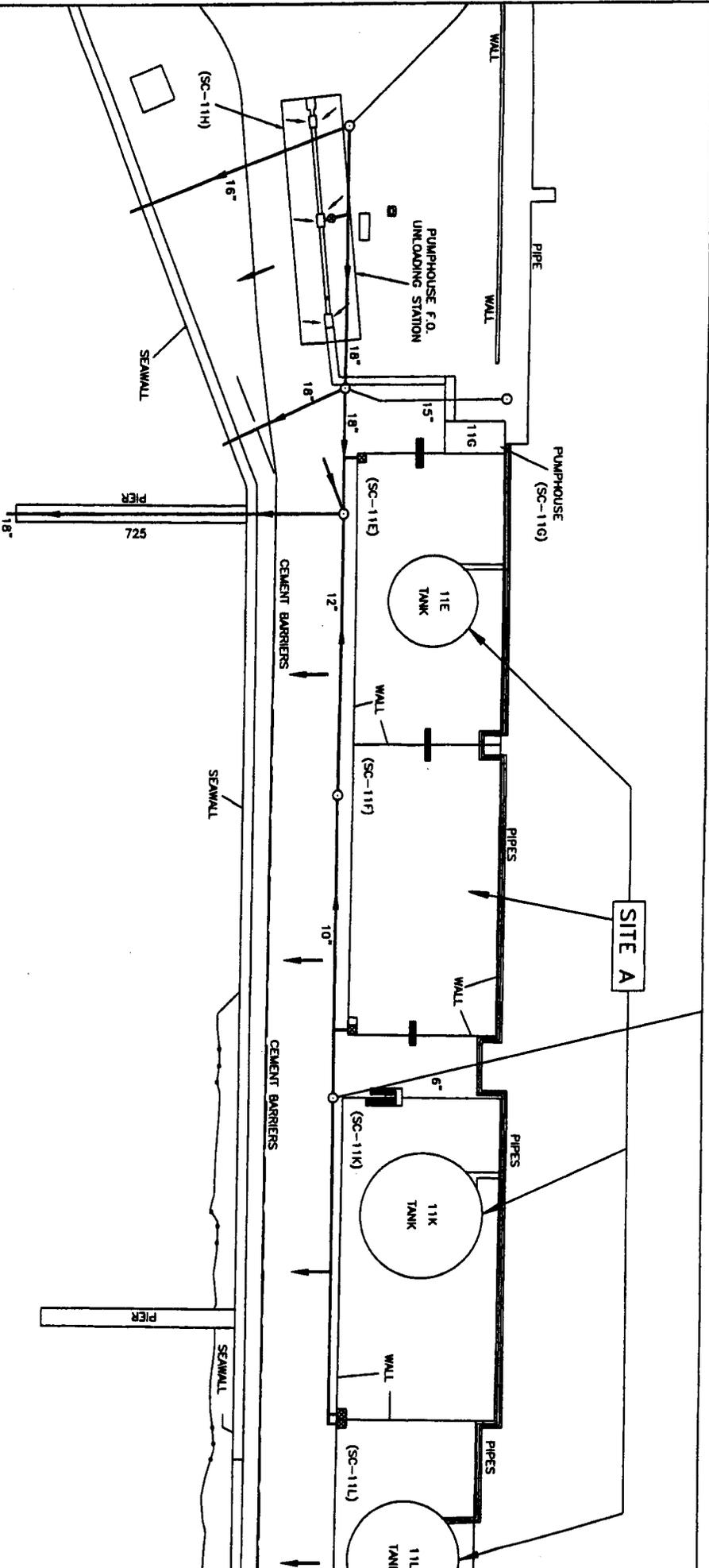
#### **RECYCLING/STORAGE FACILITIES**

SITE	LOCATION	NAME	
N	Building 3212C	DRMO Storage Facility & Yard	3.8
O	Building 1517	PWC Recycling/Storage Yard	3.3
P	Building 3502	NTC HM Storage/Supply	

#### **LANDFILLS**

Q	Forrestal Village	Supply Side Landfill	3.12
R	Golf Course	Golf Course Landfill	3.10

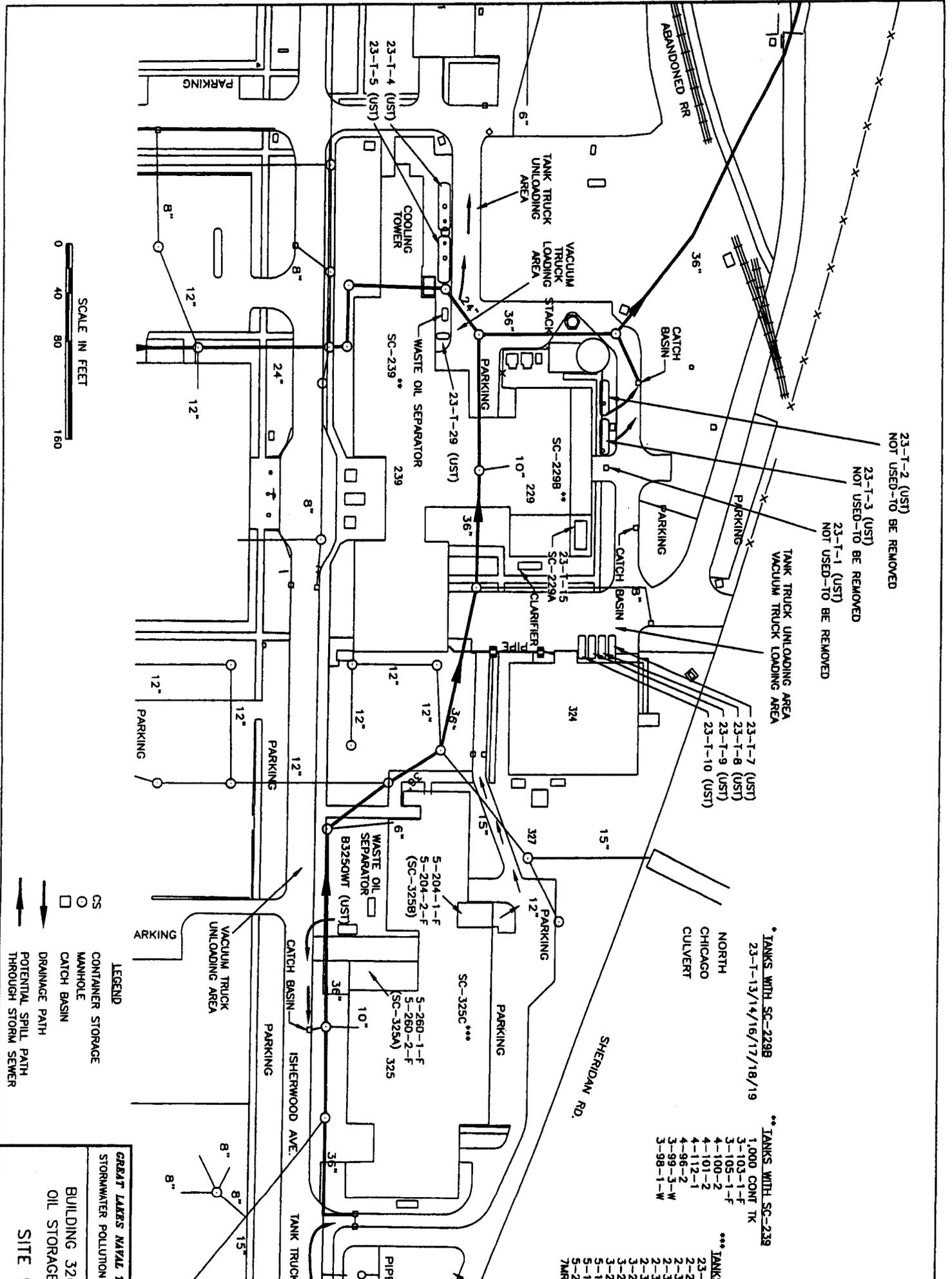
The following section contains individual site maps of these areas.



LAKE MICHIGAN

GREAT LAKES NAVAL TRAIL  
STORMWATER POLLUTION PREVENTION  
POWERHOUSE F.O. UNLOADING STATION  
STORAGE TANK  
SITE A





23-T-2 (UST)  
NOT USED-TO BE REMOVED

23-T-3 (UST)  
NOT USED-TO BE REMOVED

23-T-1 (UST)  
NOT USED-TO BE REMOVED

TANK TRUCK UNLOADING AREA  
VACUUM TRUCK UNLOADING AREA

23-T-7 (UST)  
23-T-8 (UST)  
23-T-9 (UST)  
23-T-10 (UST)

\* TANKS WITH SC-2298  
23-T-13/14/16/17/18/19

\*\* TANKS WITH SC-239  
1,000 CONT TK

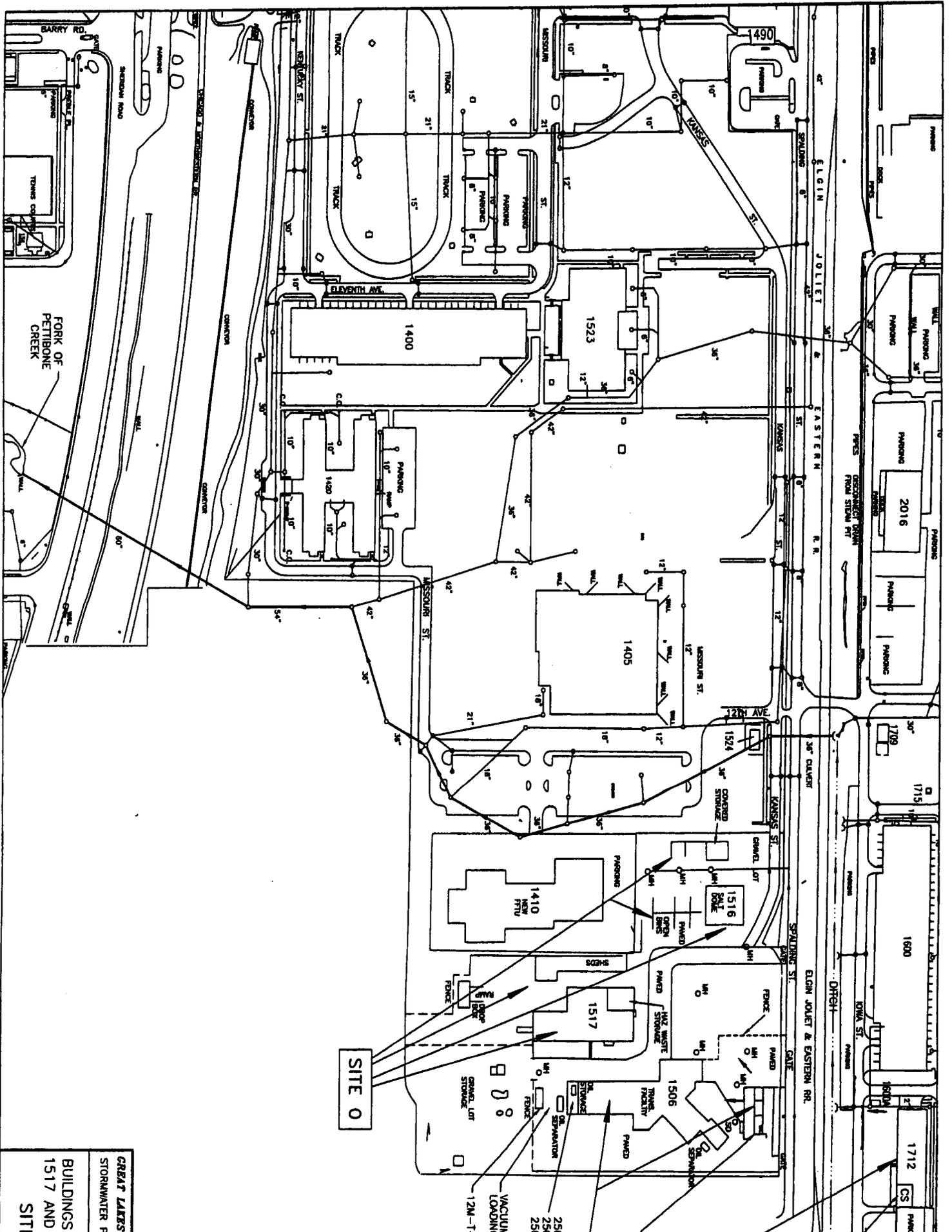
- 3-103-1-F
- 3-105-1-F
- 4-100-1-F
- 4-100-2
- 4-101-2
- 4-112-1
- 4-96-2
- 3-99-3-W
- 3-98-1-W

- 23-T-2
- 2-278
- 2-316
- 2-323
- 2-344
- 2-384
- 3-240
- 3-272
- 3-286
- 5-1/2
- 5-1/2
- 5-1/2
- 5-222
- 7MRC

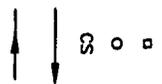


- LEGEND
- CS CONTAINER STORAGE
  - MANHOLE
  - CATCH BASIN
  - DRAINAGE PATH
  - POTENTIAL SPILL PATH THROUGH STORM SEWER

GREAT LAKES NAVAL TRAIL  
STORMWATER POLLUTION PREVENTION PLAN  
BUILDING 326 F  
OIL STORAGE TANKS  
SITE B



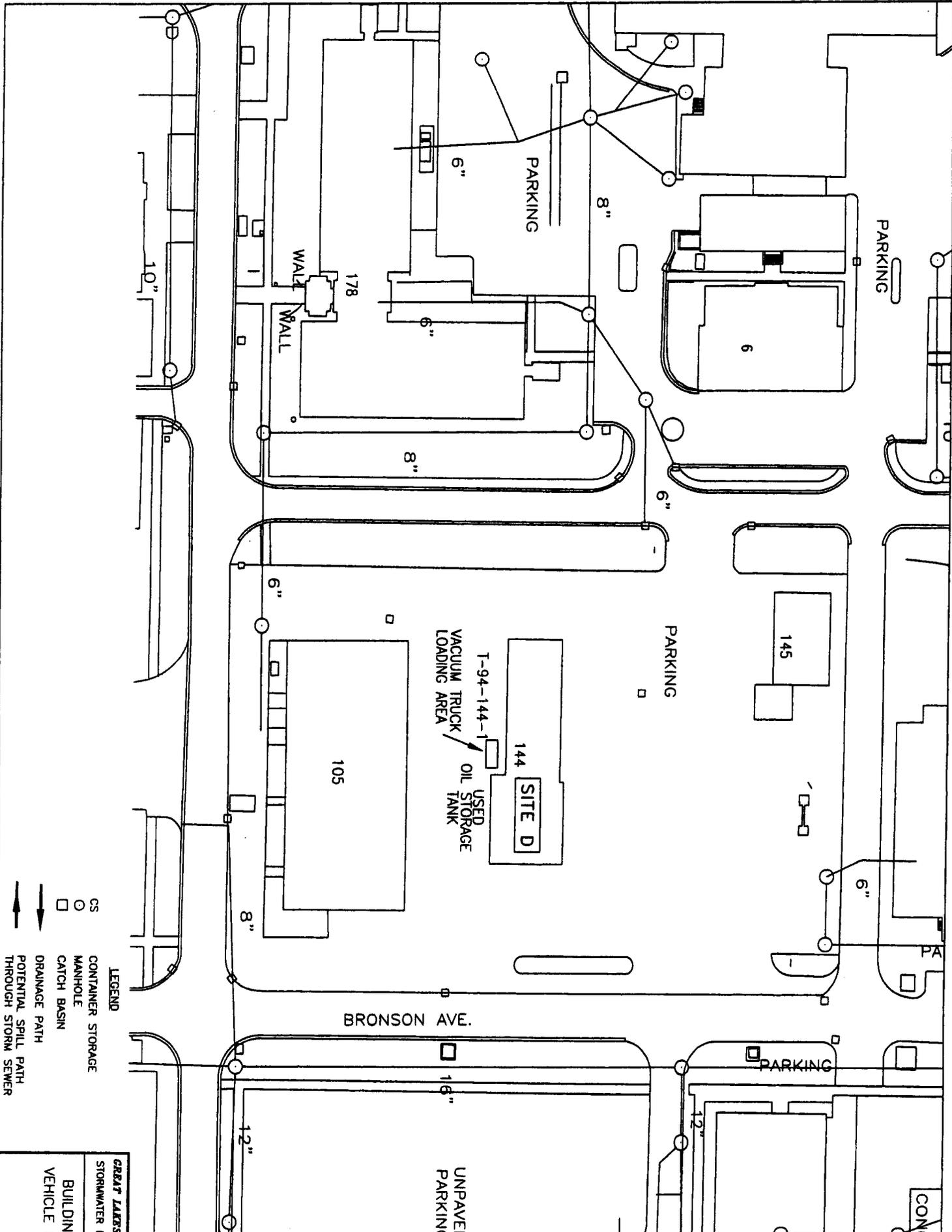
**GREAT LAKES NAVAL TRAIL**  
 STORMWATER POLLUTION PREVENTION PLAN  
 BUILDINGS 1506, 1516, 1517 AND STORAGE  
 SITES C, I



**SITE C**  
 12M-T-6 1  
 12M-T-7 1  
 12M-T-8 1  
 250 GAL AST 1  
 250 GAL AST 2  
 250 GAL AST 1  
 250 GAL AST 2  
 VACUUM TRUCK LOADING AREA

**SITE O**

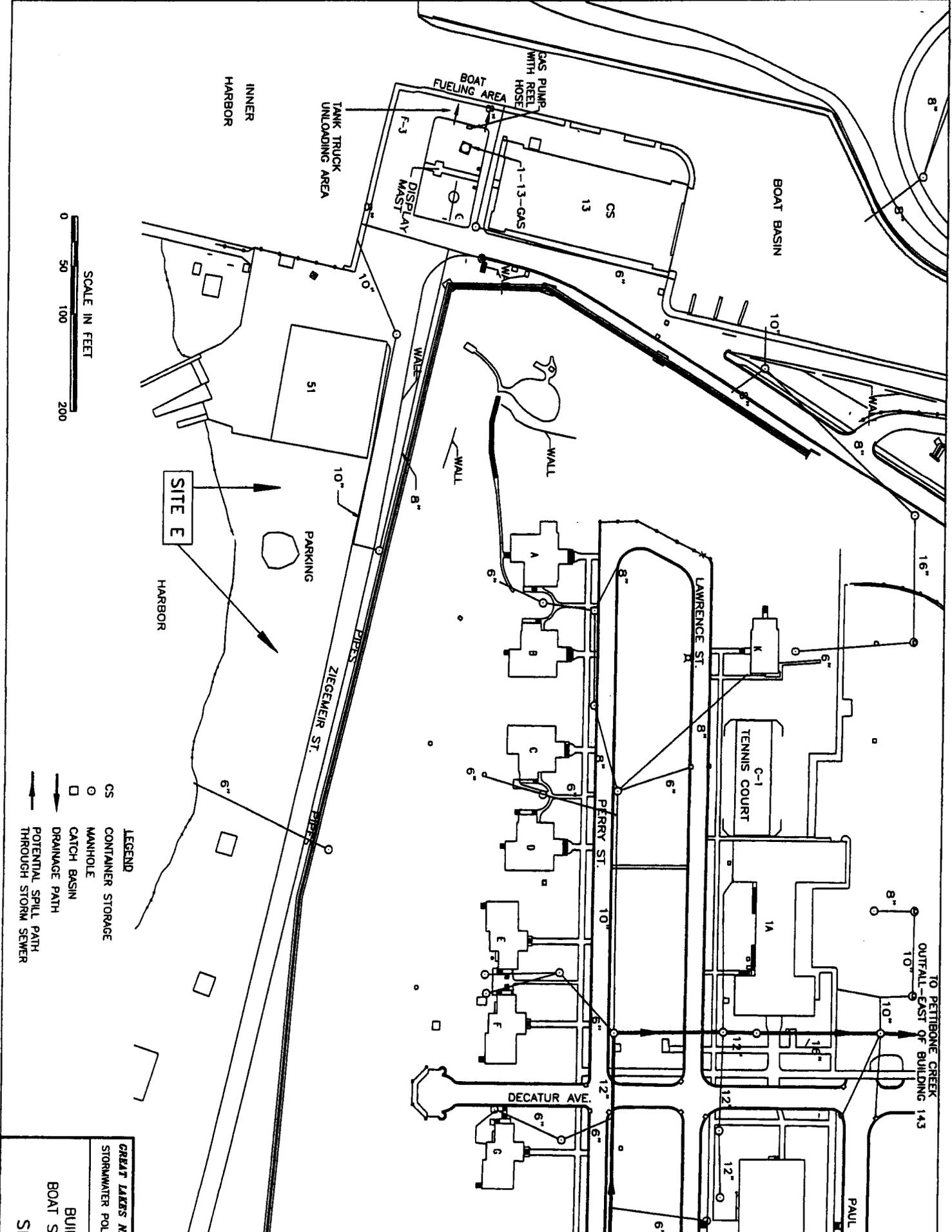
12M-T-5 600 GAL



**LEGEND**

- CS ○ CONTAINER STORAGE
- MANHOLE
- CATCH BASIN
- DRAINAGE PATH
- POTENTIAL SPILL PATH THROUGH STORM SEWER

GREAT LAKES NAVAL TR...  
 STORMWATER POLLUTION P...  
 BUILDING 144 N...  
 VEHICLE MAINTENANCE  
 SITE D

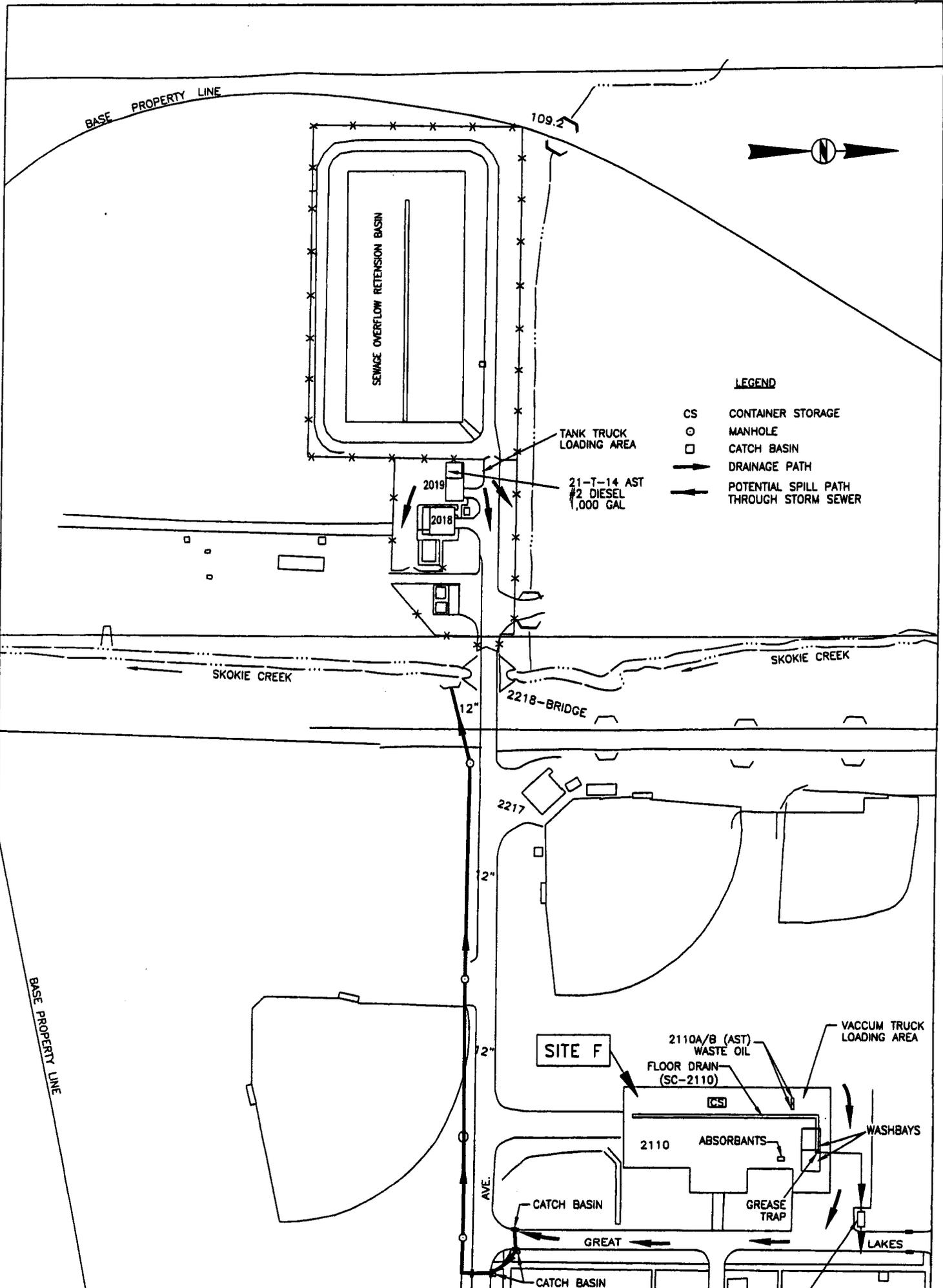


SCALE IN FEET  
 0 50 100 200

**LEGEND**

- CS CONTAINER STORAGE
- MANHOLE
- CATCH BASIN
- DRAINAGE PATH
- POTENTIAL SPILL PATH THROUGH STORM SEWER

**GREAT LAKES METAL TRAIL**  
 STORMWATER POLLUTION PREVENTION  
 BUILDING 5  
 BOAT STORAGE  
 SITE E



**LEGEND**

- CS CONTAINER STORAGE
- O MANHOLE
- CATCH BASIN
- DRAINAGE PATH
- - - - - POTENTIAL SPILL PATH THROUGH STORM SEWER

TANK TRUCK LOADING AREA

21-T-14 AST  
#2 DIESEL  
1,000 GAL

SKOKIE CREEK

SKOKIE CREEK

2218-BRIDGE

2217

SITE F

2110A/B (AST)  
WASTE OIL

VACCUM TRUCK LOADING AREA

FLOOR DRAIN  
(SC-2110)

CS

2110

ABSORBANTS

WASHBAYS

CATCH BASIN

GREASE TRAP

GREAT

LAKES

CATCH BASIN

BASE PROPERTY LINE

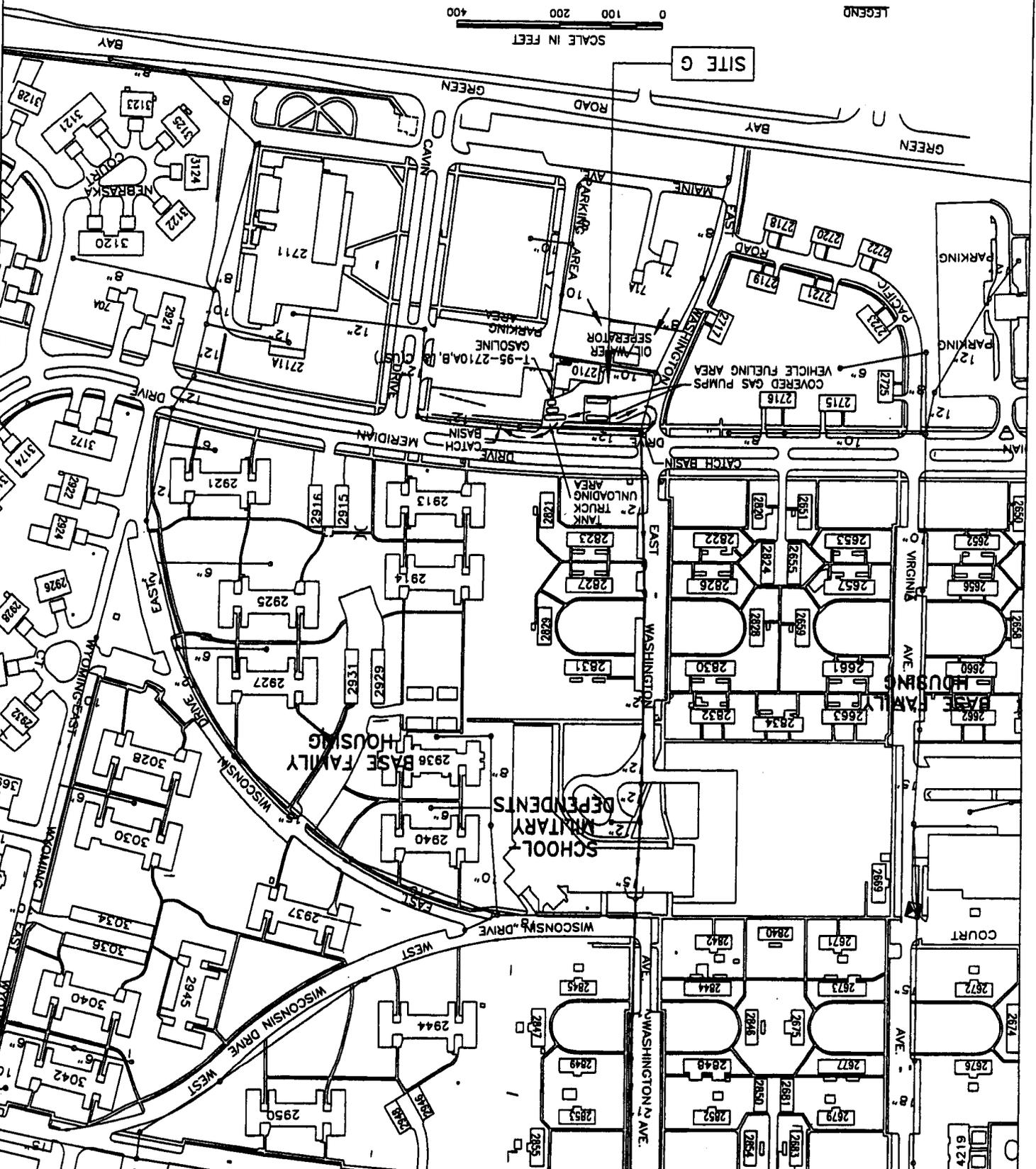
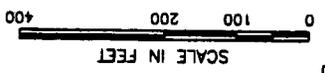
BASE PROPERTY LINE

AVE.

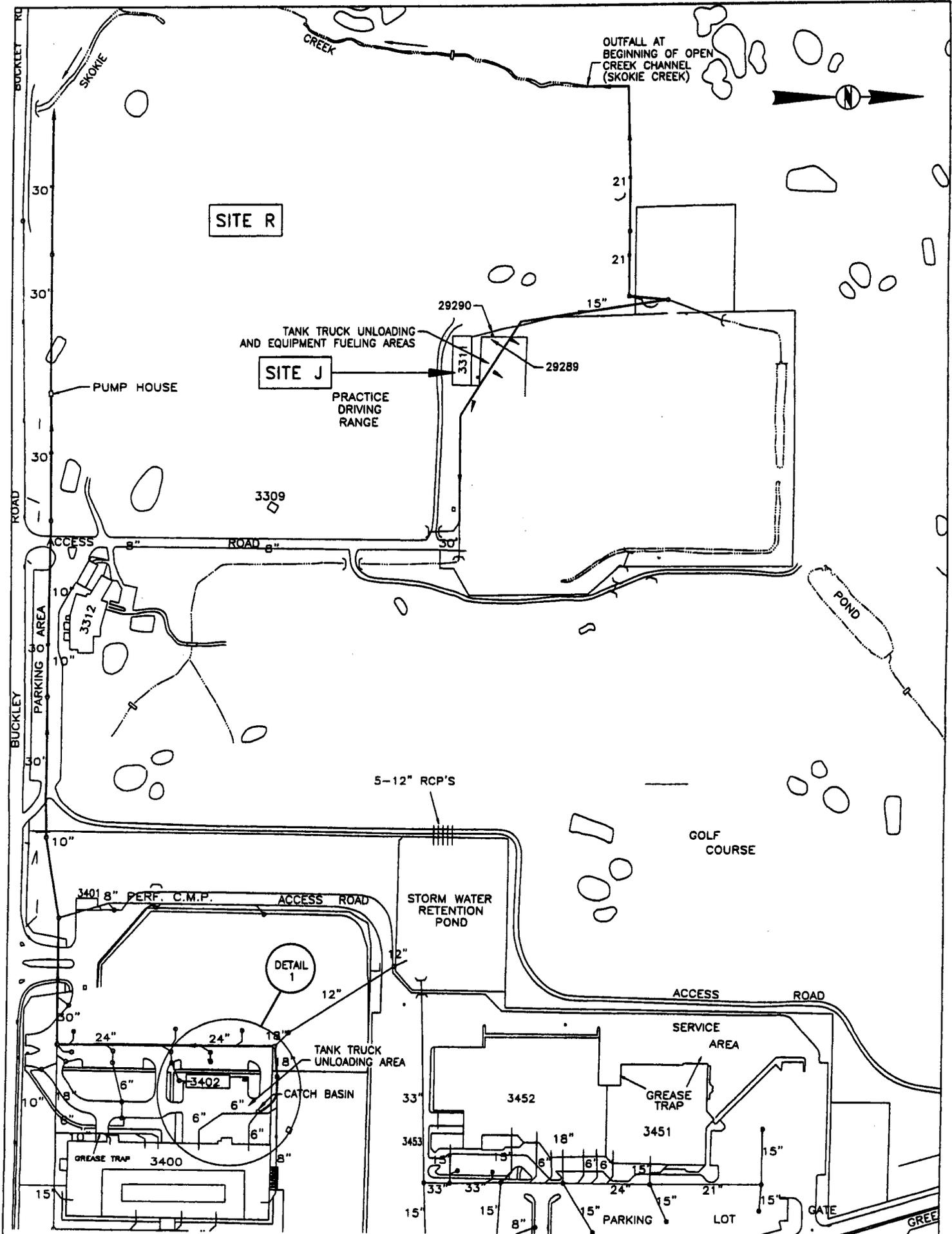
CHECK BY  
 DRAWN BY TJA  
 DATE 10/06/98  
 SCALE AS SHOWN  
 CAD NO. SWPPP37  
 PRJ NO. SWPPP-01  
 FIGURE 3.7

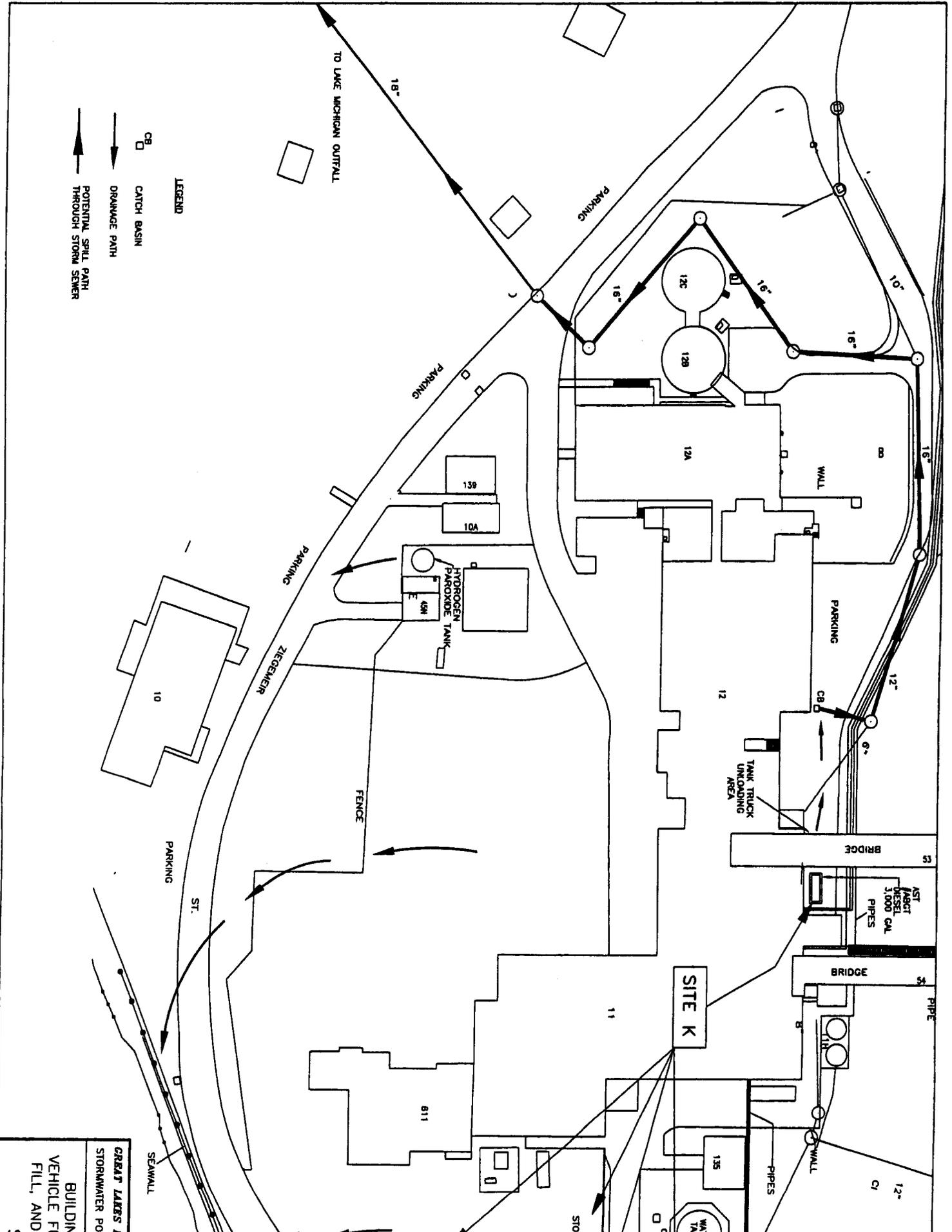
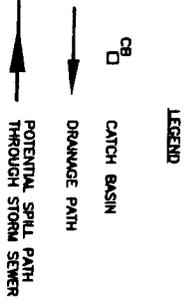
GREAT LAKES NAVAL TRAINING CENTER  
 STORMWATER POLLUTION PREVENTION PLAN  
 BUILDING 2710  
 NEX GAS STATION  
 SITE G

CATCH BASIN  
 MANHOLE  
 DRAINAGE PATH  
 POTENTIAL SPILL PATH  
 THROUGH STORM SEWER







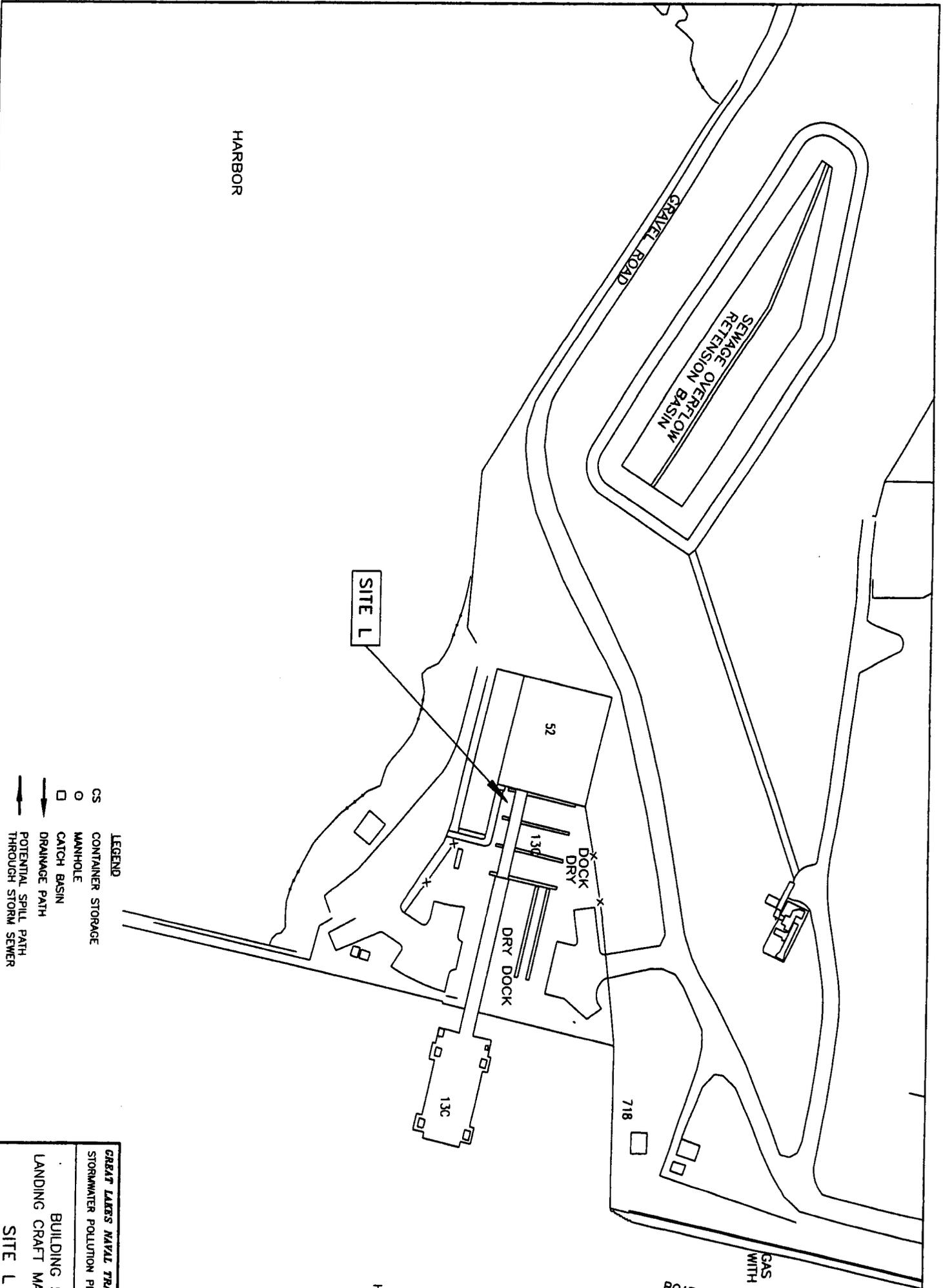


**GREAT LAKES NAVAL TRAIL**  
STORMWATER POLLUTION PREVENTION PLAN

**BUILDING 11 AREA**  
VEHICLE FUELING,  
FILL, AND STORAGE

**SITE K**

0 50 FT



HARBOR

SEWAGE OVERFLOW  
RETENSION BASIN

GRAVEL ROAD

SITE L

52

130

DRY DOCK

13C

718

BOAT

GAS P...

LEGEND

- CS CONTAINER STORAGE
- MANHOLE
- CATCH BASIN
- DRAINAGE PATH
- POTENTIAL SPILL PATH
- THROUGH STORM SEWER

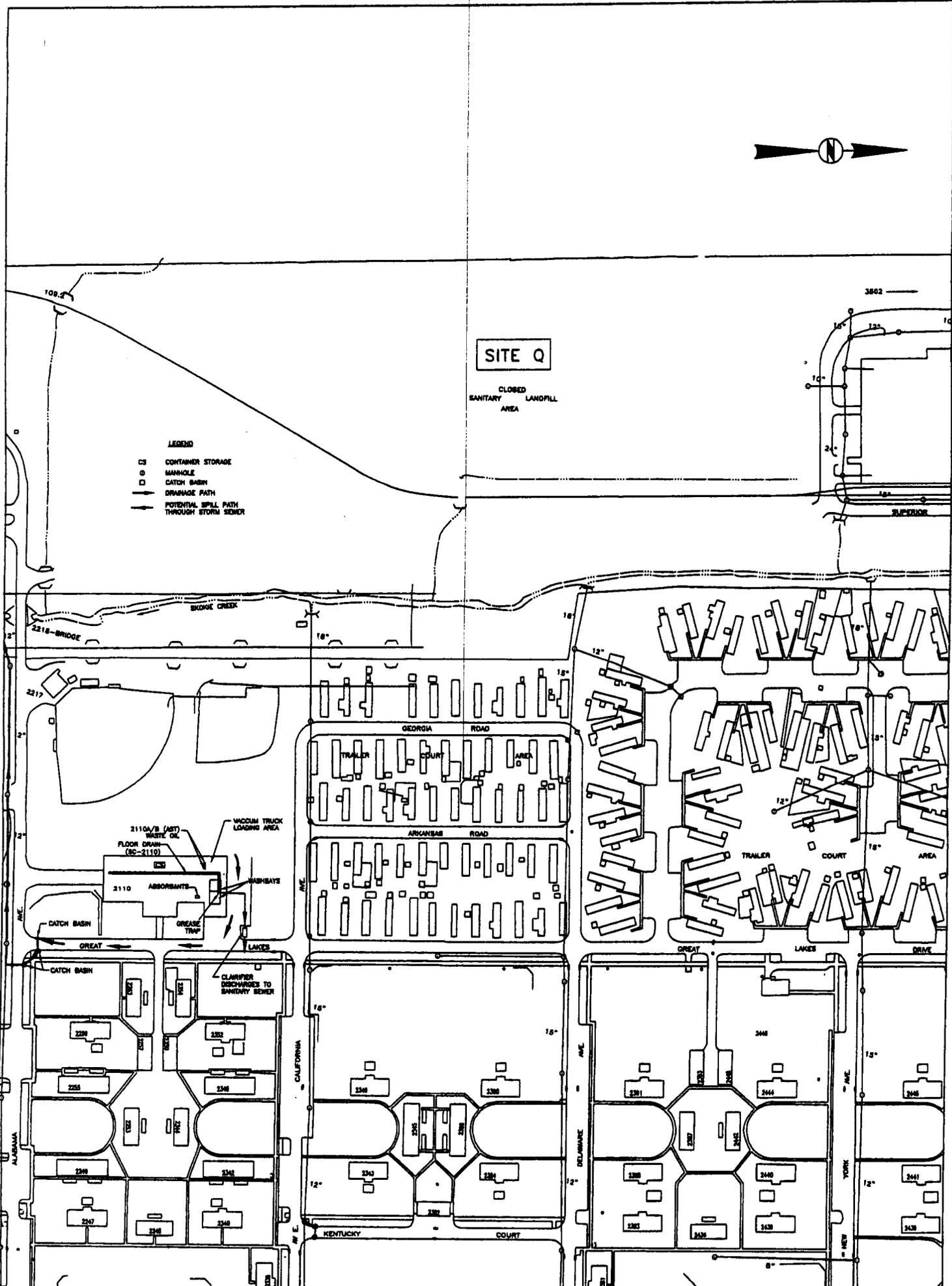
GREAT LAKES NAVAL TRAIL  
STORMWATER POLLUTION PREVENTION  
BUILDING 5  
LANDING CRAFT MAIN  
SITE L



**SITE Q**

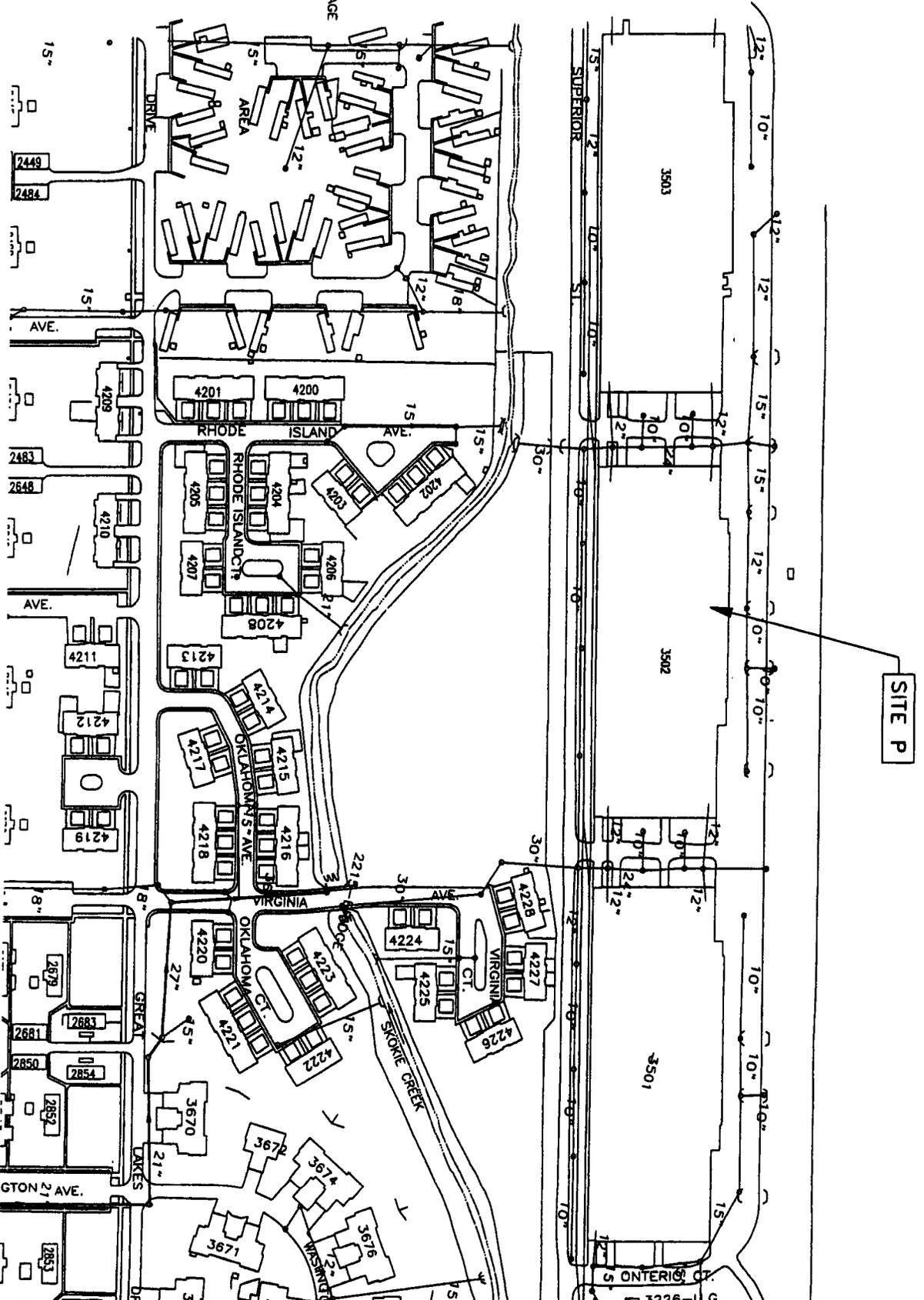
CLOSED  
SANITARY LANDFILL  
AREA

- LEGEND**
- CONTAINER STORAGE
  - MANHOLE
  - CATCH BASIN
  - DRAINAGE PATH
  - POTENTIAL SPILL PATH THROUGH STORM SEWER



**LEGEND**

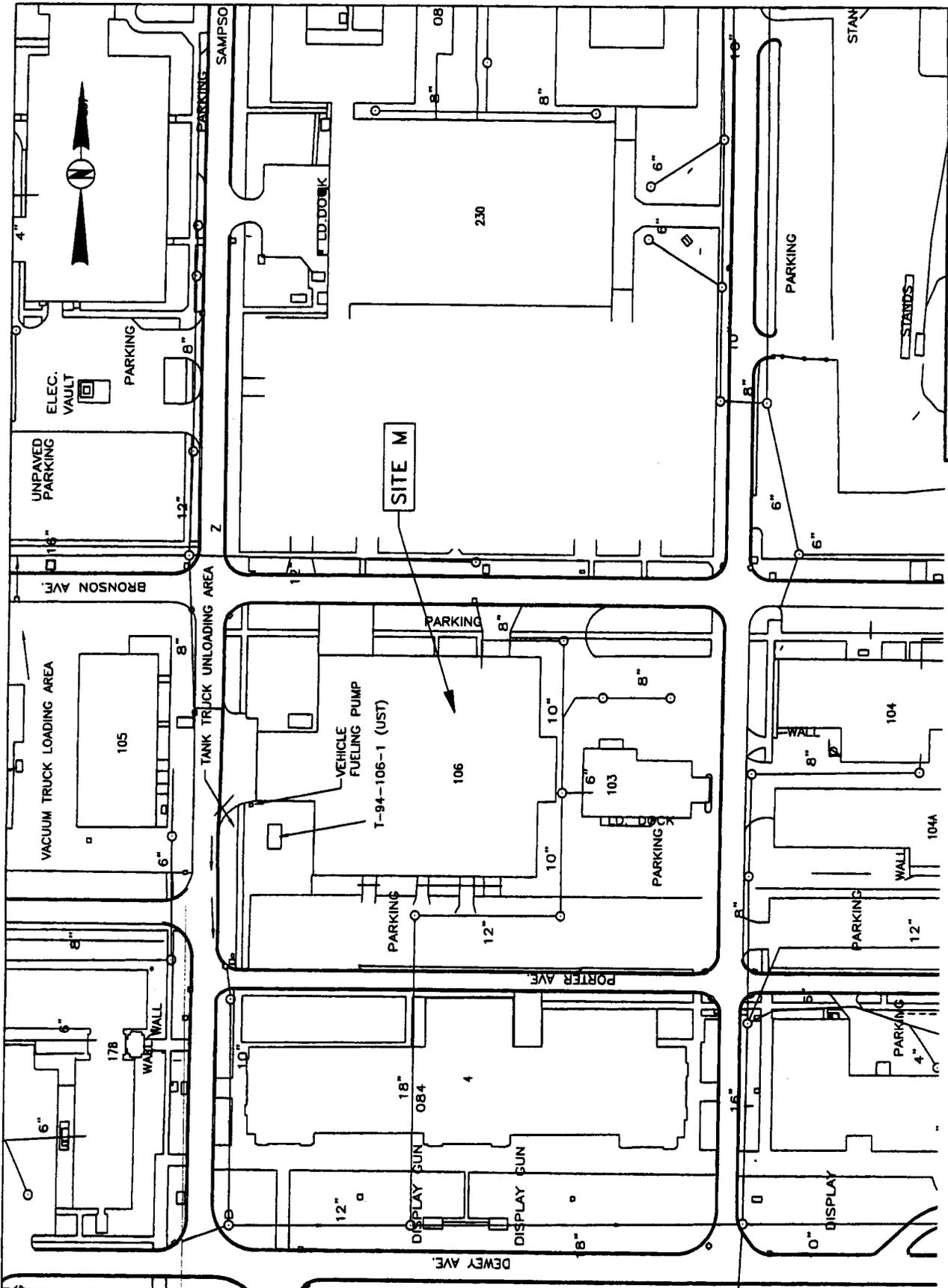
- CATCH BASIN
- MANHOLE
- CS CONTAINER STORAGE AREA
- DRAINAGE PATH
- POTENTIAL SPILL PATH THROUGH STORM SEWER



SCALE IN FEET  
 0 100 200 400

GREAT LAKES NAVAL TRAIL  
 STORMWATER POLLUTION PREVENTION  
 NTC HM STORAGE  
 SITE P





SITE M

<b>GREAT LAKES NAVAL TRAINING CENTER</b>		CHECK BY	SWH
STORMWATER POLLUTION PREVENTION PLAN		DRAWN BY	SWH
		DATE	10/06/98
		SCALE	AS SHOWN
		CAD NO.	SWPPP315
		PRJ NO.	SWPPP-01
		FIGURE	3.15



NEX/MWR VEHICLE  
MAINTENANCE  
SITE M

#### IV. SITE DESCRIPTIONS

**SITE A - Powerhouse - Fuel Oil Storage Tank Area:** The Powerhouse fuel storage area is located approximately 3/8 mile north of the NTC inner harbor and east of MacDonough Street along the Lake Michigan shore. The site consists of two 1,000,000 gallon and one 400,000 gallon above ground fuel storage tanks. The ASTs are part of a standby fueling system for the powerhouse and are used to store fuel oil. The ASTs each have individual secondary containment systems consisting of concrete dikes. Also located immediately adjacent to this site are several large out-of-service transformers. Storm water drainage in the area is channeled into Lake Michigan.

Current storm water management practices consist of periodic inspections of the containment system's integrity and compliance with the SPCC plan for the site.

**SITE B - Building 326 - Fuel Oil Storage Tank:** This site is located approximately 100 feet north of Building 325 and adjacent to Isherwood Ave. The site consists of a 210,000 gallon AST used to store fuel oil for Building 325. The AST currently has a secondary containment system consisting of earthen berm embankment. Because the AST is situated partially below the surrounding grade, there is a small likelihood of contaminated storm water migrating from the containment area to conveyance system. Curb and gutter channel storm water in the area into the base storm water system, which empties into Pettibone Creek.

Current storm water management practices consist of periodic inspections of the containment systems and compliance with the SPCC plan for the site.

**SITE C - Building 1506 - PWC Vehicle Maintenance Facility, Yard, & Fuel Station:** The PWC Vehicle Maintenance Facility is located north of Camp Moffett next to Building 1517 and east of Spalding Street. The site consists of a eighteen bay vehicle maintenance facility, a three bay enclosed truck/car wash, a vehicle storage yard, and an uncovered tank/fuel dispensing station, which includes three double walled ASTs. With the exception of fuel dispensation and vehicle storage, all vehicle maintenance activities are conducted indoors and are not subject to exposure to storm water discharges. The facility also has an oil-water separator associated with its operation. Effluent from the oil-water separator flows into the local sanitary sewer system and is not subject to storm water exposure. The site has a single UST north of the building used for waste oil storage. The vehicle yard is used to park/store PWC vehicles scheduled for maintenance and motor pool use. There are currently no structural storm water control measures associated with the vehicle storage yard. The storage yard is unpaved and is surfaced with a compacted mixture of a coarse sandy material and grade nine stone, with no obvious erosion channels. Storm water appears to drain into the

ground on-site except in deluge situations, when the water sheet flows into storm drains west and south of the main vehicle parking lot area. The fuel tanks and dispensing stations are positioned on a large reinforced concrete slab at the far west end of the storage yard. Storm water runoff sheet flows off the concrete pad and drains into the ground on- site except in deluge situations, when the water flows into storm drains east and south of the pad. Storm water entering the site's storm water system is channeled into the base storm drain system, which ultimately flows into Pettibone Creek.

Current storm water control measures associated with the site primarily consist of complying with applicable portions of the NTC SPCC Plan and housekeeping measures that include:

- No outdoor uncovered storage of dismantled vehicles, engines, and chassis
- All vehicles checked regularly for oil/fluid leaks
- No outside drum or bulk storage
- Regular and frequent inspections and maintenance of oil-water separator to prevent accidental waste oil discharge
- Regular and frequent inspections of the waste oil UST and alarm systems to prevent accidental waste oil discharge

**SITE D - Building 144 - NEX/MWR Vehicle Maintenance Facility:** This site is located north of Building 6 along Porter Ave. The site consists of a single 4,700 square foot vehicle maintenance building with four drive through maintenance bays. No vehicle refueling is performed at this site and all vehicle maintenance activities are conducted indoors and are not subject to exposure to storm water discharges. The site has a single UST used to store waste oil. The facility does not have an oil-water separator associated with its operation. The vehicle parking area is paved and curb and gutter channel storm water runoff from the site into the base storm drain which empties into Pettibone Creek.

Current storm water control measures associated with the site primarily consist of complying with applicable portions of the NTC SPCC Plan and housekeeping measures that include:

- No outdoor uncovered storage of dismantled vehicles, engines, and chassis
- All vehicles checked regularly for oil/fluid leaks
- No outside drum or bulk storage
- Regular and frequent inspections of the waste oil UST and alarm systems to prevent accidental waste oil discharge

**SITE E - Building 51 - Boat Storage Area:** This site is located on the north side of the inner harbor and is used for open storage of recreational boats. The primary concern with this site is owner maintenance and repair performed on the boats. The vehicle parking areas are unpaved and currently have no structural storm water control measures associated with it. Storm water runoff from the site flows under sheet flow conditions into Lake Michigan.

Current storm water control measures associated with the site primarily consist of complying with housekeeping measures that include:

- No outdoor uncovered storage of dismantled engines
- Storage area is checked regularly for oil/fluid leaks
- No outside drum or bulk storage
- All repair activities are covered at the end of each day and individual work sites are picked up and cleaned daily

**SITE F - Building 2110 - Auto Hobby Shop & Yard:** Located in the Forrestal Village area of NTC, this site is bounded on the south by Alabama Ave., on the east by Great Lakes Drive and on the north by California Ave. The site consists of a single 18,700 square foot vehicle maintenance building with a vehicle wash area. The area around the building is used for vehicle parking. All vehicle maintenance activities are conducted indoors and are not subject to exposure to storm water discharges. The water used at the vehicle wash bays is channeled through a grease trap and clarifier before emptying into the sanitary sewer system. The facility does not have an oil-water separator associated with its operation. The vehicle parking area currently has no structural storm water control measures associated with it. Curb and gutter channel storm water runoff from the site into the base storm drain system, which empties into Skokie River to the west.

Current storm water control measures associated with the site primarily consist of complying with applicable portions of the NTC SPCC Plan and housekeeping measures that include:

- No outdoor uncovered storage of dismantled vehicles, engines, and chassis
- All vehicles checked regularly for oil/fluid leaks
- No outside drum or bulk storage

**SITE G - Building 2710 - NEX Gas Station:** Located on the corner of East Washington Avenue and Meridian Drive in Forrestal Village, the site has three USTs and a covered fuel dispensing area. The site is used for vehicle fueling operations. Storm water runoff is channeled by curb and gutter into the base storm sewer system and ultimately empties into Skokie River.

Current storm water control measures associated with the site primarily consist of complying with applicable portions of the NTC SPCC Plan and housekeeping measures that include:

- No outdoor uncovered storage of dismantled vehicles, engines, and chassis
- Site is checked regularly for oil/fluid spills and cleaned up to prevent exposure to storm water discharge.
- No outside drum or bulk storage

**SITE H - Building 3216 Fuel Station & CBU - 401 Vehicle Maintenance Facility and Yard:** This site is located in the Forrestal Village area of NTC, it is bounded on the west by Huron Street, to the east by Superior Drive, to the south by Erie Court, and to the north by Mississippi Street. NTC Supply uses the fuel station located just north of building 3216 for vehicle refueling operations. The site includes two 4,000 gallon fiberglass USTs (one diesel and the other gasoline) and a pumping station. The area surrounding the fueling operation is paved. Vehicle fueling operations are performed in the open. There are no physical structures in place to control/channel spills or storm water runoff. Storm water runoff from this section of the site flows into street storm sewers to the east and west where it is channeled into the base storm drain system that empties into Skokie River. CBU-401 vehicle maintenance activities are performed in building 3216C. All vehicle maintenance activities at this area of the site are performed indoors with the surrounding area used for vehicle parking. The facility does not have an oil-water separator associated with its operation. Vehicle washing is performed at Building 1506. The vehicle parking area is unpaved and is surfaced with compacted gravel. No obvious erosion channels are present. There are currently no structural storm water control measures associated with this site. Storm water appears to drain into the ground on-site, except in deluge situations, when storm water sheet flows from site and is channeled by curb and gutter into the base storm drain system which empties into Skokie River to the west.

Current storm water control measures associated with the site primarily consist of complying with housekeeping measures that include:

- No outdoor uncovered storage of dismantled vehicles, engines, and chassis
- All vehicles checked regularly for oil/fluid leaks
- No outside drum or bulk storage

**SITE I - Building 1712 - Naval Reserve Vehicle Maintenance:** Located next to and north of Building 1600, the site is situated west of the Elgin Joliet & Eastern Railroad between Iowa (to the east) and Ray Streets (to the west). All vehicle maintenance activities at this site are performed indoors with the surrounding area used for vehicle parking. As such, these activities are not subject to exposure from storm water

discharges. The facility does not have an oil-water separator associated with its operation. The vehicle parking area currently has no structural storm water control measures associated with it. Curb and gutter channel storm water runoff from the site into the base storm drain system, which ultimately flows into Pettibone Creek.

Current storm water control measures associated with the site primarily consist of complying with housekeeping measures that include:

- No outdoor uncovered storage of dismantled vehicles, engines, and chassis
- All vehicles checked regularly for oil/fluid leaks
- No outside drum or bulk storage
- Regular and frequent inspections of the UST and alarm systems to prevent accidental fuel discharge

**SITE J - Building 3311 - Golf Course Maintenance Facility:** This facility is located approximately 800 feet north of Buckley Road adjacent to the former fire fighting training area and approximately 1400 feet west of Building 3452. The site is used for small engine and grounds equipment repairs, vehicle fueling of grounds maintenance equipment, and storage/mixing of fertilizers, pesticides, and herbicides. With the exception of fueling operations, all maintenance activities and pesticide/herbicide mixing operations are performed indoors and are not likely to be exposed to storm water runoff. Fueling operations are performed from one AST location. The AST is a double-walled concrete tank surrounded by crash posts. The tank has two 250-gallon compartments, one for diesel fuel and the other for gasoline. The facility does not have an oil-water separator associated with its operation. The vehicle parking area currently has no structural storm water control measures associated with it. Storm water runoff from the site generally consists of sheet flow onto the golf course and driving range.

Current storm water control measures associated with the site primarily consist of complying with housekeeping measures that include:

- No outdoor uncovered storage of dismantled vehicles, engines, and chassis
- All vehicles checked regularly for oil/fluid leaks
- No outside drum or bulk storage

**SITE K - Building 11/12 - Powerhouse Vehicle Fueling Areas:** The Powerhouse site area is located approximately 1/4 mile north of the NTC inner harbor and east of MacDonough Street along the Lake Michigan shore. The site has two ASTs, a 200-gallon gasoline tank and a 3000-gallon diesel fuel tank. The tanks are located in two different areas at the site. The ASTs each have secondary containment systems; (The diesel fuel tank is constructed with a double-walled containment system while the gasoline tank has a concrete containment berm around it). Storm water drainage in the

area moves by sheet flow or is collected by storm sewer and empties into Lake Michigan.

Current storm water management practices consist of periodic inspections of the containment systems integrity and compliance with the SPCC plan for the site.

**SITE L - Building 52 - Naval Reserve Landing Craft Maintenance:** This site is located on the Lake Michigan shoreline on the south side of the Base Inner Harbor. The site consists of a single 10,100 square foot maintenance building with outdoor maintenance yard for landing craft. Maintenance activities on the landing craft are performed both indoors and outdoors. All vehicle maintenance activities are conducted indoors and are not subject to exposure. The facility does not have an oil-water separator associated with its operation. The site has no structural storm water control measures associated with it and storm water runoff moves by sheet flow into Lake Michigan.

Current storm water control measures associated with the site primarily consist of complying with applicable portions of the NTC SPCC Plan and housekeeping measures that include:

- No outdoor uncovered storage of dismantled vehicles, engines, and chassis
- All outdoor maintenance areas are cleaned up on a daily basis and covered to prevent contact with storm water
- All vehicles checked regularly for oil/fluid leaks
- No outside drum or bulk storage

**SITE M - Building 106 - NEX/MWR Vehicle Maintenance:** This site is located north of Building 4, between Bronson Avenue and Porter Avenue, along Sampson Street. The site consists of a multi-use 52,747 sq. ft. facility. The MWR Wood Working Club, the NTC Fire Department, and the NEX/MWR Vehicle Maintenance Department utilize the building. Approximately half of the building is used for vehicle maintenance. No vehicle refueling is performed at this site. All vehicle maintenance activities are conducted indoors and are not subject to exposure to storm water discharge. The site has an indoor AST for waste oil storage. Vehicles are cleaned in an indoor washbay. The facility has an oil-water separator associated with its operation. Effluent from the oil water separator flows into the local sanitary sewer system and is not subject to storm water exposure. The paved area around the building is used for vehicle parking. Storm water runoff sheet flows from the site and is channeled by curb and gutter into the base storm drain system that empties into Pettibone Creek.

Current water control measures associated with this site primarily consist of complying with applicable portions of the NTC SPCC Plan and housekeeping measures that include:

- No outdoor uncovered storage of dismantled vehicles, engines, and chassis
- All vehicles checked regularly for oil/fluid leaks
- No outside drum or bulk storage
- Regular and frequent inspections and maintenance of oil-water separator to prevent accidental waste oil discharge

**SITE N - Building 3212C - DRMO Recycling/Storage Yard:** This site is part of the DRMO complex consisting of Buildings 3212A, 3212B, and 3212C located on the south side of Buckley Road and north side of Mississippi Street. The site is used for the outdoor storage of bulk and waste materials for resale/recycling. Also located on the site are three bolted steel tanks used for bulk storage of asbestos. The site has no structural storm water control measures associated with it and storm water runoff is collected by the base storm water system and carried to Skokie River.

Current storm water control measures associated with the site primarily consist of complying with housekeeping measures that include:

- No outdoor uncovered storage of dismantled vehicles, engines, and chassis
- All material stored outdoors will be evaluated for susceptibility to exposure to storm water runoff. Tarps and covers will be employed where deemed necessary to minimize exposure to storm water.
- Where practicable, outdoor storage will be limited to temporary storage of weatherproof containerized material only.

**SITE O - Building 1517 - PWC Recycling/Storage Yard, Salt Dome, & Sand/Gravel Storage Area:** This site is located east of the Elgin Joliet & Eastern Railroad, with Building 1410 just to the south and Building 1506 adjacent to the north. The recycling/storage yard is used for the outdoor storage and segregation of salvaged material, scrap resale items, and recyclable goods. The storage area is unpaved and is surfaced with a compacted mixture of coarse sandy material and grade nine stone. There are no obvious erosion channels present. Storm water appears to drain into the ground on-site except in deluge situations. The salt dome is a fully enclosed building utilized for the storage of road salts. Uncovered concrete bins, open at one end, are used for the storage of sand and gravel. The loading areas from the salt dome and bin entrances north to the street curb are paved. Storm water runoff sheet flows off the site and is channeled by curb and gutter into the base storm water drain that empties into Pettibone Creek.

Current storm water control measures associated with the site primarily consist of complying with housekeeping measures that include:

- No outdoor uncovered storage of dismantled vehicles, engines, and chassis
- All material stored outdoors will be evaluated for susceptibility to exposure to storm water runoff. Tarps and covers will be employed where deemed necessary to minimize exposure to storm water.
- Paved loading areas and streets are scraped and swept on a regular basis to prevent accumulations of sand, gravel, salt, or mud from entering the storm water system.

**SITE P - Building 3502 - NTC HM & Supply Warehouse:** Building 3502 is located west of Superior Street, just north of the Supply Side Landfill, between Buildings 3503 and 3501. The site consists of a multi-use 126,519-sq. ft. building with a canopied concrete dock/storage area to the east, and a paved dock/parking lot to the west. The east dock is no longer used for shipping/receiving functions; the rail line providing access has been abandoned. NTC Supply operates the facility. The south bay, west side of the building, is used for HM storage and redistribution. The remainder of the building is utilized for general material storage. HM transfers are performed inside of Building 3502. The paved parking area around the west loading dock area is sloped toward a storm drain system. Storm water runoff from this drain system is then channeled into the base storm drain system that flows into Skokie River.

Current storm control measures associated with the site primarily consist of complying with applicable portions of the NTC SPCC and housekeeping measures that include:

- No outside drum or bulk storage
- All material stored outdoors will be evaluated for susceptibility to exposure to storm water runoff. Tarps or covers will be employed where necessary to minimize exposure to storm water.
- Outdoor storage will be limited to temporary storage of weatherproof containerized material only

**SITE Q - Supply Side - Landfill:** Located at the extreme southwest corner of the base, this site is located between Building 3603 and Sewage Disposal Plant No. 2. The landfill was closed in 1979 and has an engineered cap. Except for the engineered cap, there are no physical or operational storm water discharge controls. Storm water runoff at the site generally moves under sheet flow conditions into Skokie River.

**SITE R - Golf Course - Landfill:** Located at the extreme northwest area of the base, this site is located west of Building 3311 and is currently used as part of the base golf course. The landfill was capped and properly closed in 1969. Except for the cap, there

are no physical or operational storm water discharge controls. Storm water runoff at the site generally moves under sheet flow deluge conditions into Skokie River.

## **V. POTENTIAL STORM WATER POLLUTANT LISTING**

Based on the kinds of activities, types of materials, and quantities used or stored, the following types of pollutants have a reasonable potential to be present in storm water discharges.

### **PETROLEUM BULK FUEL STORAGE (SIC Code 5171)**

Petroleum fuels and their constituents.

### **TRANSPORTATION FACILITIES (SIC Code 42 & 44)**

Oil and Grease

Gasoline

Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

Polynuclear Aromatic Compounds

Total Suspended Solids (Sites with unpaved vehicle storage areas)

Pesticides/Herbicides (Golf course maintenance facility)

Fertilizers (Golf course maintenance facility)

### **RECYCLING FACILITIES**

Total Suspended Solids

Lead

Asbestos

Oil and Grease

Metals

Ph

### **LANDFILLS**

None Expected

## **VI. FACILITY SIZE**

NTC, Great Lakes is located about 35 miles north of Chicago on the shores of Lake Michigan. Established originally in 1904, NTC Great Lakes encompasses approximately 1,640 acres. Great Lakes is the nation's largest training base and is now responsible for all Navy recruit training.

## **VII. SAMPLE DATA SUMMARY**

To date, none of the sites have had storm water discharge sampling performed. However, non-storm event stream sampling has been performed at both Skokie River and Pettibone Creek. Section IX contains more information regarding this testing.

## VIII. STORM WATER MANAGEMENT CONTROLS

Storm Water Pollution Prevention Personnel: The following individuals are responsible for the development, implementation, and revisions of this plan:

TITLE	NAME
Director, Environmental Department	Mark Schultz
Environmental Engineer	Mike Hanson
Environmental Engineer	Terry Aide
Storm Water Program Manager	Robert H. Walleck

Preventive Maintenance: Preventative maintenance practices have been specifically established for each site. These maintenance procedures include inspection of storm water conveyance systems for blockage and pollution discharges as well as oil-water separators and other pre-treatment devices/systems. These preventative maintenance procedures are maintained at each individual facility.

Housekeeping Practices: One of the most effective measures for storm water exposure minimization is the establishment of good housekeeping practices. Each facility shall incorporate those measures necessary to provide a clean, orderly site that minimizes the exposure of storm water to pollutants. Sites shall be cleaned up daily. NTC will conduct random inspections of these sites on a monthly basis.

Spill Prevention And Response: NTC maintains a base-wide SPCC plan that encompasses all the facilities in this plan. The plan has been incorporated into NTC Great Lakes Instruction 5090.8.

Storm Water Management Practices: The following storm water management practices/controls are currently in place:

- Containment: Bulk fuel storage sites (SITE A and B) both have secondary containment dikes that would prevent the discharge of storm water exposed to a fuel spill. Additionally, each vehicle fueling site with an AST(s) have secondary containment systems to contain both accidental releases and exposed storm water.

- Oil & Grease Separation: Of the sites noted in this plan, only the PWC Vehicle Maintenance Facility has an oil-water separator. The separator effluent empties into the local sanitary sewer system and is not typically exposed to storm water discharges.

- Waste Chemical Disposal: Waste antifreeze, oil, and degreasers are collected and either recycled or properly disposed. None of these chemicals are outdoors and each facility has a regularly set pick-up or procedure in place for disposal.

- Covered Storage: Where practicable, all bulk storage of materials susceptible to storm water pollution are stored indoors.

- Sediment and Erosion Control: Sites included in this plan with the potential for significant soil erosion appears to be limited to those with unpaved vehicle storage areas. Ideally, paving these areas would eliminate this potential problem and NTC is evaluating the funding potential of such projects. However, current preventative measures include maintenance of proper compaction and placement of soil fences or batter boards to prevent/divert soil erosion.

- Employee Training: Each facility manager shall receive training on proper storm water management procedures for their individual facilities at least on an annual basis as a minimum. These managers will then be expected to, in turn, practice and train the facility occupants.

- Inspection Procedures: NTC will establish a yearly inspection program to verify that all of the elements contained in this plan including site maps, potential pollution sources, as well as both structural and non-structural controls identified in this plan are in place and appropriate. A copy of this report shall be included in the appendix and plan modified by addendum. Should the report indicate major changes are needed or the number of addenda become sufficiently large, the plan will be revised.

## **IX. NON-STORM WATER DISCHARGE CERTIFICATION**

The following discharge locations have been tested and evaluated for non-storm water discharges:

<u>DISCHARGE POINT/LOCATION</u>	<u>PURPOSE</u>
Skokie River/Great Lakes Housing	Petroleum Spill
Supply-Side Landfill	Routine Monitoring

The results of these evaluations are included in Appendix B.

**X. APPROVALS**

Plan Preparation Approval:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**AMENDMENT APPROVAL RECORD**

<b>AMENDMENT #</b>	<b>DATE</b>	<b>APPROVAL</b>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**APPENDIX A:  
NPDES Permit No. ILR002630**



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276

Mary A. Gade, Director

217/782-0610

June 15, 1998

BOB WALLECK CODE N457E  
DEPARTMENT OF THE NAVY  
2703 SHERIDAN RD BLDG 1-A  
GREAT LAKES, IL. 60088-5600

Re: NAVAL TRAINING CENTER-GR LAKES - GREAT LAKES FACILITY  
NPDES Permit No. ILR002630  
Notice of Coverage under General Permit

Dear NPDES Permittee:

Enclosed is a copy of the reissued general NPDES permit for discharges of industrial storm water and the new annual report forms.

The permit as issued covers application requirements, a storm water pollution prevention plan, and reporting requirements. For dischargers not previously covered by an NPDES storm water permit, the storm water pollution prevention plan must be completed within 180 days of this notification of coverage and shall provide for compliance within 365 days of this notification of coverage.

Failure to meet any portion of the permit could result in civil and/or criminal penalties. The Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge.

The Permit is applied to your discharge effective on the date of this letter. You have the right to appeal the Agency's decision to cover your discharge by the General Permit to the Illinois Pollution Control Board within a 35 day period following the date of this letter.

This letter shows your facility permit number below your facility name. Please reference this number in all future correspondence. Should you have any questions concerning the Permit, please contact the Permit Section at 217/782-0610.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Thomas G. McSwiggin".

Thomas G. McSwiggin, P.E.  
Manager, Permit Section  
Division of Water Pollution Control

TGM:MED:a

Enclosure

cc: Records Unit  
Region 2

**APPENDIX B:  
Non-Storm Water Discharge Evaluations**

# PWC/EFA MIDWEST GREAT LAKES STAFF SUMMARY SHEET

ORIGINATOR:           N457E            
DEPT:           ENVIRONMENTAL            
DATE:           13 JULY 1998          

## SUBJECT/ISSUE:

NTC Great Lakes (Complex<sup>3</sup>) Instruction 5090.11A

## BACKGROUND:

SECNAVINST 5215.1C requires an annual review of Instructions. The original subject Instruction was issued on 14 August 1995.

## DISCUSSION:

Since the date that the original Instruction was issued, several organizational changes have occurred at the NTC Great Lakes (Complex<sup>3</sup>). Because of these changes, it is necessary to revise the instruction at this time.

## RECOMMENDATION:

It is recommended that the Instruction is sent to Mr. Brown, NTC, Room 237, for signature by RADM Green and then distributed to NTC Great Lakes Distribution Lists I, II (Case A), III-A, B, C, as listed under NTCGLAKESINST 5216.5M.

(Instruction 5090.11A is saved in **Word 6.0/95** as file: I90.11a and Enclosure (1) is file: swppp97, both can be found on the enclosed diskette)

CODE	RT	INIT
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NTC GREAT LAKES (COMPLEX<sup>3</sup>) INSTRUCTION 5090.11A

From: Commander, Naval Training Center, Great Lakes

Subj: STORM WATER POLLUTION PREVENTION & MANAGEMENT PLAN

Ref: (a) OPNAVINST 5090.1B, Environmental and Natural  
Protection Plan  
(b) 35 Illinois Administrative Code, Subtitle C,  
Chapter I  
(c) 40 Code of Federal Regulations Parts 400-471  
(d) NPDES Permit No. ILR002630  
(e) Memorandum of Understanding between NTC Great Lakes  
and the Lake County Storm Water Management Commission

Encl: (1) Storm Water Pollution Prevention Plan  
(2) Memorandum of Understanding between NTC Great Lakes  
and the Lake County Storm Water Management Commission

1. Purpose. To Promulgate and implement the Storm Water  
Pollution Prevention and Management Plan for all commands and  
activities within the Naval Training Center, Great Lakes  
(Complex<sup>3</sup>).

2. Cancellation. NTCGLAKESINST 5090.11

3. Background. References (a), (b), and (c) require that storm  
water management plans are established to ensure the proper  
management of storm water impacted by industrial activities and  
construction activities. Proper storm water management  
practices are required in order to:

a. Meet the regulatory requirements of references (a)  
through (d);

b. Prevent harm to facilities, property, and persons due to  
periodic flooding;

c. Ensure that new development does not increase flood  
and drainage hazards or conditions susceptible to erosion;

d. Create no new financial burdens on the Navy or  
surrounding community for flood control projects or relief  
operations;

e. Protect, preserve, and promote the orderly development  
of land and water resources;

f. Protect buildings and improvements from flood damage to the greatest extent possible;

g. Conserve the natural hydraulic, hydrologic, water quality and other beneficial functions of flood prone areas, regulatory floodplains, and wetlands.

h. Promote the Command's standing as a Steward of the Environment; and

i. Demonstrate a spirit of cooperation with local communities in accordance with reference (e).

1. Policy. This instruction implements requirements of the Storm Water Pollution Prevention Plan (SWPPP), enclosure (1), and a Memorandum of Understanding (MOU) between the Navy and the Lake County Storm Water Management Commission, enclosure (2). The SWPPP and MOU provide a comprehensive storm water management program for NTC Great Lakes (Complex<sup>3</sup>).

2. Action.

a. Environmental Compliance Board (ECB). The ECB shall review storm water management actions for commands and tenants at NTC Complex<sup>3</sup>. The ECB shall ensure these actions meet the requirements of this instruction. The ECB shall act to disseminate information on compliant storm water management practices to represented commands and tenants.

b. Assistant Chief Of Staff Installations And Environment (ACOS I & E). The ACOS I & E shall maintain a complex-wide storm water management program, to include: (1) ensuring all applicable NTC Complex<sup>3</sup> projects are reviewed for storm water impacts; (2) implementing a storm water monitoring program; 3) providing resources in support of program guidance, technical project reviews, and plan implementation; (4) acting as liaison with regulatory agencies and local communities on storm water issues; and (5) updating the Storm Water Pollution Prevention Plan, storm water discharge permits, and regulatory or community agreements as required to maintain compliance.

c. Commanding Officer, Navy Public Works Center (CO PWC). The CO PWC shall provide technical support for: reviewing project designs, preparing designs with storm water control features, and storm water management program implementation.

NTCGLAKESINST 5090.11A

d. All NTC Great Lakes (Complex<sup>3</sup>) Commands and Tenants.  
Shall adhere to the requirements established in enclosures (1)  
and (2), as applicable.

C. B. MARTIN  
Chief of Staff, Operations

Distribution:  
NTCGLAKESINST 5216.5M  
Lists I, II (Case A), III-A, B, C