Spill Prevention Control and Countermeasures (SPCC) Plan

For:

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Cross Reference with SPCC Rule Provisions

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§112.4(a) and (d)	Reporting to Regional Administrator	Section 2.1
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§112.7	General requirements for SPCC Plans for all facilities and all oil types: discussion of facility's conformance with rule requirements; deviations from Plan requirements; facility characteristics that must be described in the Plan; spill reporting information in the Plan; emergency procedures; management approval; and regulatory cross-reference.	Throughout plan
§112.7	Management Approval	Section 6.0
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§112.7(a)(3)	Facility description and diagram	Section 3.1, Figures 1-2
§112.7(a)(3)(i)	List type of oil and capacity	Section 3.3, Table 2, Appendices C-F
§112.7(a)(3)(ii)	Discharge prevention measures	Section 3.4, Appendix I
§112.7(a)(3)(iii)	Drainage controls	Sections 3.7, 4.1, and 4.3
§112.7(a)(3)(iv)	Countermeasures	Section 3.5, Tables 3-5, Figure 3
§112.7(a)(3)(v)	Methods of disposal	Section 3.5
§112.7(a)(3)(vi)	Contact list	Sections 2.1 and 3.5, Tables 4-5
§112.7(a)(4)	Notification procedures	Sections 2.1 and 3.5, Tables 4-5
§112.7(a)(5)	Response plan	Section 3.5
§112.7(b)	Fault analysis	Section 3.6, Appendices C-F
§112.7(c)	Secondary containment	Section 3.7, Appendices C-F



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§112.7(d)	Contingency planning	Section 3.8
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§112.7(f)(1)	Employee training and discharge prevention procedures	Sections 3.10 and 3.15
§112.7(f)(2)	Designated person	Section 3.2
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§112.7(h)(1)	Loading/unloading (excluding offshore facilities) - secondary containment	N/A, Section 3.12
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§112.7(i)	Brittle fracture evaluation requirements	Section 3.13
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§112.7(k)	Qualified oil-filled operational equipment	Sections 3.14 and 3.15
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- C. Table of Aboveground Storage Tanks (ASTs) and 55-gallon Drums
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1.0 INTRODUCTION

A Spill Prevention, Control, and Countermeasure (SPCC) Plan is required to be prepared and implemented to comply with U.S. Environmental Protection Agency (EPA) regulations of Title 40, Code of Federal Regulations, Part 112 (40 CFR 112) as well as Title 26 of the Code of Maryland Regulations Subtitle 10 (COMAR 26.10).

Facilities are subject to SPCC regulations if: the total aboveground storage tank (AST) capacity exceeds 1,320 gallons or the underground storage tank (UST) capacity exceeds 42,000 gallons, AND the facility can be reasonably expected to discharge oil into or upon the navigable waters of the United States. [40 CFR 112.1] The University of Maryland (UMD) meets the applicability criteria and has prepared a SPCC Plan accordingly.

The SPCC Plan is not required to be filed with EPA, but a copy must be available for onsite review by the Regional Administrator.

In addition, UMD maintains an Emergency Response and Contingency Plan and a Health and Safety Plan, which are stored onsite for review.

2.0 REQUIREMENTS OF THE SPCC PLAN

[40 CFR 112.1 (e)] In order to comply with the federal regulations governing the implementation of this SPCC Plan, UMD is required to:

- Review the SPCC Plan and update as necessary;
- Respond to a spill in accordance with the site-specific procedures as documented in this SPCC Plan;
- Notify the appropriate state and federal agencies in the event of a reportable spill;
- Perform regular inspections;
- Follow all procedures in place by the University for material handling and transfers;
- Train employees on aspects of this SPCC Plan; and
- Keep records of the previously described tasks.

The details of these requirements are discussed in this SPCC Plan.

2.1 REPORTING

All oil spills are to be immediately reported to the Maryland Department of the Environment (MDE), but no later than two (2) hours after becoming aware of the spill [COMAR 26.10.01.04]. Spill reporting procedures and the MDE Spill Report Form are included in Appendix A. The additional reporting requirements for EPA and the State of Maryland are covered in 40 CFR Part 110 – Discharge of Oil, 40 CFR Part 112 - Oil Pollution Prevention regulations (the SPCC requirements), and COMAR 26.10.01.04. The specific requirements for each of these are discussed in the following paragraphs.

[40 CFR 110.6, 40 CFR 112.7 (a) (4)] Regulation requires that any discharge to navigable waters that causes a film, sheen, or discoloration of the water surface or adjoining shorelines, or causes a sludge or emulsion to be deposited beneath the water

surface or upon adjoining shorelines be reported immediately to the National Response Center (NRC) at (800-424-8802). The NRC will then notify the EPA as necessary. The NRC will ask the following information regarding the discharge:

- Facility name, address, and phone number
- Date and time of discharge
- Location of incident
- Source and cause of discharge
- Types of material(s) discharged and estimated volume
- Damage, danger or threat posed by the discharge
- Description of all affected media
- Number and types of injuries (if any)
- Possibility of an evacuation
- Weather conditions at the incident location
- Actions being used to stop and/or mitigate the discharge
- Other parties contacted regarding the discharge
- Other information to help emergency personnel respond to the incident

[40 CFR 112.4 (a)] The discharge is also to be reported to the EPA Region III Regional Administrator within sixty (60) days only when either of the following occurs:

- UMD discharges a harmful quantity of more than 1,000 gallons of oil into
 or upon the navigable waters of the United States or adjoining shorelines
 in a single event; or
- UMD discharges a harmful quantity of more than 42 gallons of oil in each of two spill events within an any 12-month period into or upon the

navigable waters of the United States or adjoining shorelines.

[40 CFR 110.3 (a)-(b)] A harmful quantity is defined by as a quantity that:

- 1. Exceeds applicable water quality standards, or
- Causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

The report sent to EPA should contain, at a minimum, the following information:

- Name of facility
- Name(s) of facility owner or operator
- Location of facility
- Maximum storage or handling capacity of the facility and normal daily throughput
- Description of facility, including maps, flow diagrams, and topographical map
- The cause(s) of the spill(s), including a failure analysis of system or subsystem in which failure occurred
- Corrective actions and/or countermeasures taken
- Description of equipment repairs and replacements made
- Additional preventive measures taken or contemplated to minimize the possibility of recurrence
- Any other pertinent information as requested by EPA

[COMAR 26.10.01.05A] A verbal report to the MDE Emergency Response Division (1-866-633-4686) must be submitted if an oil spill, release, or discharge of ANY quantity of oil occurs. Within two (2) hours after the detection of the spill,

a verbal report that includes the following information must be made:

- Time, date, location, and cause of discharge
- Type of facility involved
- Type and quantity of oil spilled
- Assistance required
- Name, address, and telephone number of persons making report
- Any other pertinent information as requested by MDE

[COMAR 26.10.01.05E] Additionally, if the spill, release, or discharge was greater than or equal to 5 gallons OR the discharge reaches the water of the state, a written report of the discharge must be submitted to MDE within ten (10) working days after completion of spill cleanup. The MDE Spill Form is included in Appendix A and can also be found online at:

https://mde.maryland.gov/programs/Crossmedia/EmergencyResponse/Documents/mdespillreport.pdf.

The form must include the following information:

- Date, time, and place of oil spill
- Amount and type of oil spilled
- A complete description of circumstances contributing to the spill
- A complete description of containment, removal, and clean-up operations, including disposal sites and costs of operations
- Procedures, methods, and precautions implemented to prevent recurrence
- Certification that the information provided is true and correct to the knowledge of the person signing the report

 Any other information considered necessary or required by MDE for a complete description of the spill incident

2.2 SPILL HISTORY

Available spill history information is described and documented on the Spill History Reports in Appendix B. There have been no known harmful quantities of oil being discharged to navigable waterways since the original SPCC Plan in 1999.

If a spill has affected nearby waterways in the last three years, detailed information regarding the spill can be found on a copy of that report. Information that should be provided on the Spill History Report includes:

- Date, time, and location of spill
- Type and quantity of material spilled
- Cause of the spill
- Cleanup personnel involved
- Indication if spill reached nearby waters

Spill history documentation is maintained at UMD within the Department of Environmental Safety, Sustainability, & Risk (ESSR). Blank Spill Reporting Forms are included in this SPCC Plan in Appendix A.

2.3 CERTIFICATION OF SUBSTANTIAL HARM DETERMINATION

Facility: University of Maryland, College Park

Total Number of Oil Storage Tanks: 86

Total Oil Storage Capacity: 696,917 Gallons Largest AST Oil Storage Capacity: 252,762 Gallons

Facility Distance to Navigable Waters: Varies; Approximately 34' (Minimum Distance)

2.3.1 Applicability of Substantial Harm Criteria

Does the University transfer oil over water to or from vessels and does the University

have a total storage capacity greater than or equal to 42,000 gallons and conduct

operations that include over-water related transfers to and from vessels? **NO**

Does the University have a total storage capacity greater than or equal to 1 million

gallons and does the University lack secondary containment that is sufficiently large

to contain the capacity of the largest aboveground oil storage tank plus sufficient

freeboard to allow for precipitation within any aboveground storage tank area? NO

Does the University have a total oil storage capacity greater than or equal to 1 million

gallons and is the University located at a distance such that a discharge from the

University could cause injury to fish and wildlife and sensitive environments? **NO**

Does the University have a total oil storage capacity greater than or equal to 1 million

gallons and is the University located at a distance such that a discharge would shut

down a public drinking water intake? **NO**

Does the University have a total oil storage capacity greater than or equal to 1 million

gallons and has the University experienced a reportable oil spill in an amount greater

than or equal to 10,000 gallons in the last five (5) years? **NO**

2.3.2 Certification

I certify under penalty of law that I have personally examined and am familiar with the

information submitted in this document, and that based on my inquiry of those individuals

responsible for obtaining this information, I believe that the submitted information is true,

accurate, and complete.

Signature: <u>Jason Basr</u>

Date: 7/5/2023

Name: Jason Baer, REM

Title: Assistant Director, Office of Environmental Affairs

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2.4 REVIEW OF THE SPCC

[40 CFR 112.4 (d)] The SPCC Plan will be amended, if after review by the EPA Region III Regional Administrator, it is judged that the information contained herein does not meet the requirements of 40 CFR 112 or an amendment is necessary to prevent and contain discharges from UMD.

[40 CFR 112.5 (a)] The SPCC Plan shall be amended within six (6) months whenever there is a change in campus design, construction, operation, or maintenance that materially affects the campus's spill potential, and implemented as soon as possible, but not later than six (6) months following preparation of the amendment.

[40 CFR 112.5 (b)] The SPCC Plan must be reviewed at least once every five (5) years and amended to include more effective prevention and control technology, if such technology will significantly reduce the likelihood of a spill event, has been proven in the field, and is available. UMD will implement the amendment as soon as possible, but not later than six (6) months following preparation of the amendment.

In some cases, a registered Professional Engineer (PE) must certify technical changes. If upon review it is determined that the SPCC Plan continues to reflect the conditions of the University at that time or only non-technical changes are required, the Plan does not need to be sealed by a PE. Any time the SPCC Plan is reviewed; the person(s) performing the review must sign and date the SPCC. No amendment to the SPCC Plan that affects the engineering or operational practices of UMD shall satisfy the requirements of 40 CFR 112.5 unless it has been certified by a PE in accordance with 40 CFR 112.3(d).

ESSR staff will complete a review and evaluation of the SPCC Plan at least once every five (5) years. In signing page 9 of this SPCC Plan, the signer/signee attests they have completed review and evaluation of the SPCC Plan for UMD on the signed date and will or will not amend the Plan as a result per 40 CFR 112.5(b). The reviews will be documented on the next page.

Table 1. SPCC Log of Review and Technical Changes

Review/ Revision Date	Details / Comments	Amended Plan (Y/N)	Signature
Dec. 1999	Original SPCC Plan	N/A	Signed and Stamped 1999
Feb. 2003	5-Year Review & Update	Yes	Signed and Stamped 2003
June 2008	5-Year Review & Update	Yes	Signed and Stamped 2008
Feb. 2014	5-Year Review & Update	Yes	Signed and Stamped 2014
June 2016	Administrative changes	No	Not signed 2016
October 2019	5-Year Review & Update	Yes	Signed and Stamped Oct. 2019
November 2019	Updated Sections 3.13 and 4.5 to reflect API standards	Yes	Signed and Stamped Nov. 2019
March 5, 2021	Update Tank Lists	No	Not signed 2021
May 2, 2022	Updated UMD contact list; Replace of Phillip Riggs with Mark Alexander	Yes	Not signed 2022
June 6, 2022	Updated Tank Lists and Summary of All Fuel & Oil Storage	Yes	Not signed 2022
June 23, 2023	5-Year Review, updates to comply with COMAR regulation changes, and updates container list and maps	Yes	Signed and Stamped June 23, 2023

3.0 GENERAL SPCC PLAN REQUIREMENTS

3.1 LOCATION AND CAMPUS DESCRIPTION

[40 CFR 112.7 (a) (1)] UMD's SPCC Plan developed herein conforms to the requirements of the regulation. Full approval of management is included within this SPCC Plan.

[40 CFR 112.7 (a) (2)] This SPCC Plan does not deviate from any requirement of 40 CFR 112 as allowed by 40 CFR 112.7(a)(2) (environmental equivalence) and 40 CFR 112.7(d) (impracticability of secondary containment).

[40 CFR 112.7 (a) (3)] UMD is located in College Park, Maryland 20742 within Prince George's County. UMD is approximately 4 miles from the northeast border of Washington, D.C. The campus core is generally bounded by University Boulevard to the north and west, Baltimore Avenue (Route 1) to the east, and Knox Road to the south. Baltimore Avenue bisects the southeastern portion of the campus. The campus consists of over 350 buildings on 1,335 acres of land. The campus consists of paved, unpaved, and construction areas. Accordingly, a significant portion of the campus is considered impervious. The campus is located in a suburban area surrounded by light commercial and residential areas.

The UMD campus maintains a Phase II Municipal Separate Storm Sewer System (MS4) that operates under General Discharge Permit No. 13-SF-5501. The University is permitted by State Discharge Permit No. 08-DP-2618 (NPDES permit MD0063801) to discharge contact and noncontact cooling water, boiler blowdown, condensate, and stormwater runoff from twelve (12) outfalls. These outfalls discharge to Campus Creek, Guilford Run and the Paint Branch. Water from these discharge points ultimately flows to the Anacostia River and to the Chesapeake Bay. The UMD main campus operates under Oil Operations Permit (OOP) No. 2014-OPT-3522 and the Severn Building (#810), located 1.3 miles northwest of the main campus, operates under OOP No. 2018-OPT-6551.

Due to the fact the Severn Building (#810) contains an aboveground storage capacity over the 10,000-gallon limit which would require a PE signature, UMD included the off-campus facility in the coverage of this SPCC Plan. Additional offsite, non-contiguous properties, owned and operated by UMD, around the UMD campus are not included in this SPCC Plan due to the total volume of

their aggregate aboveground storage capacity being less than 1,320 gallons. A site vicinity map is attached as Figure 1.

3.2 FACILITY INFORMATION

Facility Information

Name of Facility: University of Maryland, College Park

Street: 1101 Main Administration Building, 7901 Regents Dr.

City: College Park State: MD ZIP Code: 20742

County: Prince George's County

Facility Owner and Operator:

Name: University of Maryland, College Park

Address: 1101 Main Administration Building, 7901 Regents Drive

City, State, Zip Code: College Park, MD 20742

SPCC Plan Contacts:

Primary:

Name: Jason Baer, Assistant Director, Office of Environmental Affairs

Telephone Number: 301-405-3163

Email address: jbaer123@umd.edu

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Name: Kaitlyn Peterson, Environmental Specialist, Office of Environmental Affairs

Telephone Number: 301-405-8604

Email address: Kpeter13@umd.edu

The following sections summarize the oil product storage capacities and their potential failures (e.g., tank overflow, rupture or leakage), containment capacities, flow directions, and flow rates.

3.3 CONTAINER CAPACITIES AND DESCRIPTION

[40 CFR 112.7 (a) (3) (i)] The following sections describe each of the various oil storage container types identified that are operated at the UMD. A summary of the various container types and volumes is listed in Table 2. A detailed list is contained in Appendices C through F.

Table 2: Summary of All Fuel & Oil Storage at University of Maryland

Type/Category	Type of Fuel/Oil	Total Number of Containers	Total Capacity (gallons) ¹
	Gasoline; Fuel Oil; Diesel;		
ASTs	Used Oil; Hydraulic Oil;		
	Motor Oil; Food Grease	81	623,183
Portable ASTs	Diesel (Portable)	4	858
Portable Small (≥55-			
gallons)Quantity Oil	Hydraulic Oil; Food Grease;		
Containers*	Waste Oil (Portable)	60	3,300
Lube Oil Reservior	Lube Oil	1	95
Hydraulic Elevators**	Hydraulic	110	13,750
Transformers**	Mineral Oil	158	55,731
*Estimated maximum number of drums **These volumes are appoximated	Total:	414	696,917

3.3.1 Aboveground Storage Tanks (ASTs)

The University currently has a total of eighty-one (81) permanently installed ASTs and four (4) portable ASTs. Due to the nature of operations and construction projects at UMD, the addition and removal of ASTs occurs often. An updated table of ASTs is located in Appendix C and will be continuously updated as ASTs are added or removed from UMD.

3.3.2 Underground Storage Tanks (USTs)

There are no underground oil/fuel storage tanks at UMD.

3.3.3 Portable Storage Tanks

There are four (4) portable storage tanks at UMD. One (1) 110-gallon diesel fuel tank is mounted on a truck and used for mobile refueling of diesel fired emergency generators, one (1) 200-gallon diesel fuel portable generator, one (1) 80-gallon diesel fuel portable generator, and one (1) 468-gallon portable generator. When not in use, the portable ASTs are stored beneath a covered concrete pad adjacent to the X1 parking lot at the Severn Building (#210). A spill sock is placed

at the low point of the concrete pad where it drains to the parking lot to prevent oil from reaching the stormwater system.

3.3.4 Small Quantity Oil Containers (Drums)

The number and location of 55-gallon drums varies day-to-day. It is estimated that there are currently a maximum of fifty (50) 55-gallon drums containing petroleum products and ten (10) 55-gallon drums of used food grease stored at various locations within UMD. These locations include, but are not limited to, the following:

- Energy Plant (#001) containing a maximum of six (6) 55-gallons drums of petroleum products;
- Manufacturing Building (#148) containing a maximum of one (1) 55-gallons drum of petroleum products;
- Ellicott Area Dining Hall (#257) containing a maximum of four (4) 55-gallons drums of food oil products;
- Golf Course Indoor Practice Facility (#309) containing a maximum of four (4) 55-gallons drums of food oil products;
- Xfinity Center (#360) containing a maximum of two (2) 55-gallons drums of food oil products;
- Shuttle Bus Facility (#424) containing a maximum of thirty (30) 55-gallons drums of petroleum products; and
- Severn Building & Motor Pool (#812) containing a maximum of thirteen (13) 55-gallons drums of petroleum products.

3.3.5 Oil-Filled Operating Equipment

There are one hundred and ten (110) oil-filled operating equipment (hydraulic elevators) at UMD, which are described in Appendix D. Regular maintenance and inspections of the oil-filled operating equipment are performed by the UMD Elevator Shop within Facilities Management. An audit of their maintenance and inspection records is performed quarterly.

There are one hundred fifty-eight (158) oil-filled electrical components (transformers) at UMD, which are described in Appendix E. Regular maintenance and inspections of the oil-filled electrical

components are performed by College Park Energy. An audit of their maintenance and inspection records is performed annually.

3.3.6 Oil Water Separators/Food Grease Interceptors

UMD has twelve (12) oil/water separators (OWSs). Eleven (11) of the twelve (12) OWSs are used for wastewater treatment which are not subject to SPCC requirements according to 40 CFR 112.1(d)(6):

- One (1) 1,000-gallon OWS located in the southeast corner of the Steam Plant (#001);
- Two (2) 1,600-gallon OWSs located at the Shuttle Bus Facility (#424). One is located adjacent to the fueling area of the 20,000-gallon diesel tank, the other is located outside of the Shuttle Bus Facility maintenance shop;
- One (1) 1,600-gallon OWS on the outside of the Motor Pool (Severn Bldg. #810);
- One (1) 1,600-gallon OWS located in the northeast corner of the fueling island of the Severn Building (#810);
- One (1) 1,600-gallon OWS located in the southwestern corner of Building #426;
- One (1) 1,600-gallon OWS located on the ground level in the Mowatt Lane Parking Garage (#404);
- One (1) unknown size* OWS located outside of the southwest side of the ground level of Terrapin Trail Parking Garage (#403);
- One (1) unknown size* OWS located within the Stadium Drive Parking Garage (#218);
- One (1) unknown size* OWS located outside of the Regents Drive Parking Garage (#202); and
- One (1) unknown size* OWS located outside of the Union Lane Parking Garage (#179)
 *UMD is currently working to determine the size of the OWSs associated with the parking garages. The SPCC will be updated to reflect this information when resolved.

The one (1) at UMD subject to the provisions of 40 CFR 112.7 is the following:

• A 600-gallon OWS located within the dike at the Plant Operations and Maintenance (#006) fueling area is used in conjunction with the secondary containment dike.

In addition to the OWSs, UMD has nineteen (19) food grease interceptors (FGI). FGIs are classified as wastewater pre-treatment equipment, which is not regulated according to 40 CFR 112.1(d)(6). Each FGI is located at a food service dining facility listed below:

- One (1) 7,500-gallon FGI tank is located in the loading dock of the South Campus Dining Hall (#026 SDH);
- One (1) 4,000-gallon FGI tank is located in the loading dock of the Stamp Student Union (#163 SSU);
- One (1) 1,800-gallon FGI tank is located in the upper parking lot island Denton Area Dining hall (#251);
- One (1) 1,800-gallon FGI tank is located in the parking lot of the Ellicott Area Dining Hall (#257);
- One (1) 4,000-gallon FGI tank is located in the interior loading dock of the Xfinity Center (#360);
- One (1) 1,500-gallon FGI tank is located in the rear patio of the Gossett Football Team House (#379);
- One (1) 1,800-gallon FGI tank is located at the rear of Capital One Maryland Stadium Tyser Tower (#361);
- One (1) 500-gallon FGI tank is located in the front stand #S023 of the Capital One Maryland Stadium Stand Concessions (#363);
- One (1) 1,800-gallon FGI tank is located in the exterior loading dock of the Golf Course Club House (#166);
- One (1) 275-gallon FGI tank is located in the interior mechanical room of the Clarice Smith Performing Arts Center (#386);
- One (1) 500-gallon FGI tank is located in the exterior loading dock of the Van Munching Hall (#039);
- One (1) 1,200-gallon FGI tank is located at the rear exterior of the University House Event Center (#164); and
- Seven (7) 1,000-gallon FGI tanks are located in the Sorority Greek Houses parking lot:
 - o Greek House 170 Alpha Delta Pi (#170)
 - o Greek House 171 Phi Sigma Sigma (#171)

- o Greek House 172 Alpha Chi Omega (#172)
- o Greek House 173 Delta Phi Epsilon (#173)
- o Greek House 174 Sigma Delta Tau (#174)
- o Greek House 175 Delta Gamma (#175)
- o Greek House 176 Alpha Phi (#176)

The OWSs are inspected on a monthly basis in accordance with the UMD procedures. Monthly inspections are completed using the Monthly Checklist in Appendix G. Solids, oils, and other sediments are removed from the OWSs, as needed, and appropriately disposed offsite. The engineering drawings for the OWS and associated piping are located in Appendix H.

The FGIs and food grease oil containers and drums are regularly maintained by UMD Dining Services. The FGIs are maintained monthly by a third-party contractor, Valley Proteins, Inc., except for the seven (7) located at the Sorority Greek Houses. Those are maintained annually by Atlantic Wastewater Solutions, LLC. The food grease oil containers and drums are recycled on an as-need basis by Valley Proteins, Inc.

3.4 DISCHARGE PREVENTION MEASURES

[40 CFR 112.7 (a) (3) (ii)] Measures taken to prevent discharge to navigable water include, but are not limited to:

- Design and maintenance of the secondary containment for oil storage containers described in this SPCC Plan.
- Inspections conducted in accordance with inspection schedules outlined in Section 3.9 and Appendices J and K.
- Proper loading and unloading procedures outlined in Section 3.12 and Appendix I.
- Design and maintenance of bulk storage containers in accordance with 40 CFR 112 and COMAR 26.10.17/.18, as applicable.
- Design and maintenance of oil transfer systems and oil-filled operating equipment in accordance with 40 CFR 112.
- Annual training for all UMD personnel who handle oil products outlined in Section 3.10.

[40 CFR 112.7 (a) (3) (iii)] Secondary containment in compliance with 40 CFR 112.7 (c) is presented in Sections 3.7 and 4.3 of this SPCC Plan. In addition, UMD drainage is managed in compliance with 40 CFR 112.8 (b) as discussed in Section 4.1 of this SPCC Plan.

3.5 SPILL EVENTS

In the event of a non-hazardous or non-toxic spill, the operator shall utilize the following procedures:

- 1. Close any open valves and/or turn off all pumps.
- Contain or prevent the migration of the spill without endangering yourself or other personnel. NOTE: DO NOT PUT YOURSELF OR EMPLOYEES IN LIFE THREATENING SITUATIONS.
- The personnel on call shall classify the spill and check the Safety Data Sheets (SDS) for the hazard level. Refer to Section 2.1 regarding reporting requirements.
- 4. Clean up the spill.
 - a. Oil: Place absorbent material on the spilled oil. After the oil has been absorbed, immediately remove the oil/absorbent mixture and dispose of properly.
 - b. <u>Fuel</u>: Follow the SDS cleanup procedures. Spilled petroleum that contaminates soils will require excavation and proper remediation and restoration of the site.

[40 CFR 112.7 (a) (3) (iv) - (vi)]; [40 CFR 112.7 (a) (4)]; [40 CFR 112.7 (a) (5)] Figure 3 illustrates the process for discovery, notification, and response to an oil release. Discharges are classified as either "minor" or "major," depending on the volume and characteristics of the material released. Table 3 can be used to determine whether a discharge is to be classified as "minor" or "major." Contact lists and phone numbers are presented in Tables 4 and 5.

Table 3: Classification of Discharges

Minor Discharge	Quantity of discharge is small (typically involves less than 10 gallons of oil)	
Discharge that poses no significant	 Discharged material is easily stopped and controlled at time of discharge 	
harm or threat to human health and safety or to the environment.	Discharge is localized near the source	
sayety or to the environment.	Discharged material is not likely to reach water	
	Discharge poses little risk to human health or safety	
	There is little risk of fire or explosion	
Major Discharge	 Quantity of discharge is large enough to spread beyond immediate discharge area 	
	Discharged material enters water	
Discharge that cannot be safely controlled or cleaned up by UMD	Discharge requires special equipment or training to cleanup	
personnel.	 Discharge poses a hazard to human health or safety 	
	There is risk of fire or explosion	

Figure 3: Response Action Flowchart

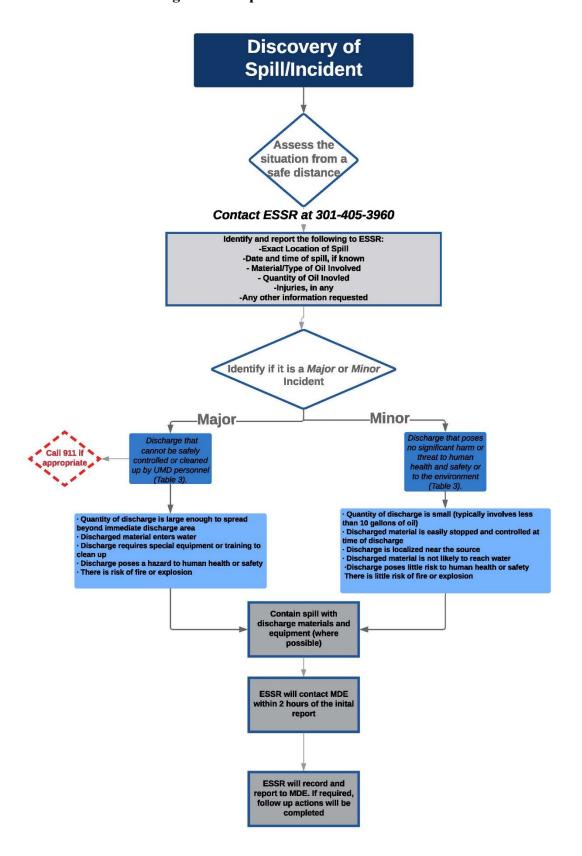


Table 4: University of Maryland Contacts List

Staff Names	Individual Responsibilities	Contact Info
Jason Baer, Assistant Director, Office of Environmental Affairs, UMD	Primary Contact; Maintain and Implement SPCC	(o) 301-405-3163 (c) 202-441-6391; jbaer123@umd.edu
Kaitlyn Peterson, Environmental Regulatory Compliance Manager, Office of Environmental Affairs, UMD	Primary Contact; Maintain and Implement SPCC; Conduct annual trainings	(o) 301-405-8604 (c) 202-308-8273; Kpeter13@umd.edu
Kristofer Bird, Environmental Specialist, Office of Environmental Affairs, UMD	Primary Contact; Maintain and Implement SPCC; Perform Inspections; Conduct annual trainings.	(o) 301-405-3960 (c) 202-308-9466 Kbird@umd.edu
Mark Schultz, Coordinator for VPAF-FM-O&M-Electric, UMD	Secondary Contact; Implement proper filling procedures and spill response for generators.	(o) 301-405-2222 (c) 443-301-3837; mschult4@umd.edu
Mark Alexander, Operations Manager for College Park Energy, LLC	Secondary Contact; Implement proper filling procedures and spill response for transformers.	(o) 301-405-0426 (c) 240-241-3486, mark.alexander@engie.com
Gregory Thompson, Assistant Director, Dining Services	Secondary Contact; Implement proper filling procedures and spill response for dining services and FGIs.	(c) 240-417-5035 gkt@umd.edu
Martin Culp, Supervisor Construction, VPAF-FM-O&M- Electric, UMD	Secondary Contact; Implement proper filling procedures and spill response for elevators.	(o) 301-405-7074, mculp@umd.edu
Scott Lupin, Associate Director of Environmental Affairs, UMD	Tertiary Contact	(o) 301-405-3698; slupin@umd.edu
Maureen Kotlas, Executive Director, Department of Environmental Safety, Sustainability & Risk, UMD	Tertiary Contact	(o) 301-405-3960; mkotlas@umd.edu

Table 5: Off-Site Notification List

Agency	Phone Number
Local Police Department -College Park PD -UMD PD	(301) 405-3333 (301) 405-3555 or 911
Emergency Response Services -Triumvirate Environmental -Ace Environmental	(800) 966-9282 (410) 354-8030
National Response Center (NRC)	(800) 424-8802
MDE Emergency Spill Response	(866) 633-4686

3.6 POTENTIAL SPILL PREDICTIONS, VOLUMES, RATES, AND CONTROLS

[40 CFR 112.7 (b)] An overflow from ASTs could potentially occur during loading/unloading operations. To prevent overflows, the ASTs are to be continually attended during loading/unloading. Leaks could potentially occur from worn or corroded seals, valves, fittings, or walls.

All the tanks and containers at UMD could potentially rupture through acts of vandalism, extreme weather conditions, or an accidental strike by an object hard enough to penetrate the tank wall. Various measures discussed in this SPCC Plan are designed to prevent such releases and, should they occur, contain the released oil.

The rate of flow from any release is dependent on the type of spill, quantity of liquid that is discharged, and the slope of the land.

The majority of ASTs at UMD are located in areas that are flat with minimal relief. Any spill will be contained, cleaned up, and properly disposed of. All ASTs at UMD have secondary containment, fuel level indicators, and/or protection from vehicles. Associated piping and pipe supports are believed to be designed and installed by reputable companies. It is believed that the design and installation were in a manner that will minimize abrasion and corrosion and allow for expansion and contraction. In the event of associated piping leaking or suffering a catastrophic event, the spill would be minimal and contained within the immediate area and subject to immediate clean up.

Appendices C-F contain the maximum amount of potential discharges (capacities), direction and location that a potential spill/discharge would travel, and the distance of each equipment from entering navigable waters. There are seven (7) fuel transfer areas around the UMD campus:

- Loading and Unloading area at the Plant Operations and Maintenance (#006) parking lot K2;
- Refueling area at the Severn (#810) fueling island;
- Refueling area at the Shuttle Bus Facility (#424) fueling station;
- Refueling area at the Grounds Operations & Maintenance Building (#328)
 fueling station;
- Refueling area at the University of Maryland's Golf Course Maintenance (#314) fueling station;
- Refueling area at the SECU Stadium Maintenance Building (#369) fueling station;
- 100-gallon UMD Mobile Refueler with a pump rate of 20 GPM.
 - o all other areas are located near the generator tanks for fuel unloading.

The Severn and the Shuttle Bus Facility loading/unloading areas are equipped with zipper drains leading to an OWS in the event of a spill. A 600-gallon OWS located within the dike at the Plant Operations and Maintenance (#006) fueling area is used conjunction with the secondary containment dike; a 1,600-gallon wastewater OWS is located in the northeast corner of the fueling island of the Severn Building (#810), and a 1,600-gallon wastewater OWS is located adjacent to the fueling area of the Shuttle Bus Facility (#424). The OWSs located at the Shuttle Bus Facility (#424) and the Severn Building (#810) are exempt as discussed in Section 3.3.6. The Grounds Operations & Maintenance Building, University of Maryland's golf Course Maintenance (#314) and SECU Stadium Maintenance Building loading/unloading areas are equipped with spill kits and pig mats to be deployed over stormwater inlets in the event of a spill. A 3rd party contractor delivers fuel to the loading/unloading and refueling areas and is responsible for the transfer operations. In the event of a major equipment failure, spill kits are available within the vicinity. Active measures are used to meet SPCC requirements at the unloading areas as described in Section 3.7.

The mobile refueler is located in the bed of a truck and is used to refuel most of the generator ASTs around the UMD campus. The mobile refueler parks near the equipment to unload fuel accordingly and those areas are marked on the map accordingly as unloading areas. The truck is equipped with a spill kit to contain and clean and spills. The mobile refueler is parked beneath a covered concrete pad in the Severn Building (#810) X1 parking lot.

There are three (3) portable diesel generators varying in capacity from 80 to 468-gallons. These generators are used to provide buildings and facilities around the University of Maryland campus with emergency power when needed. When not in use, the portable oil storage tanks are parked beneath a covered concrete pad adjacent to the X1 parking lot at the Severn Building (#810).

A table of the transfer area fault analysis is located in Appendix F. This table has been prepared by considering the average time required to respond to a spill in highly populated and manned areas, which may involve actions such as shutting off a pump or closing a valve. Further details on tank loading and unloading are discussed in Section 3.12.

3.7 CONTAINMENT AND DIVERSIONARY STRUCTURES

[COMAR 26.10.17.07, COMAR 26.10.18.06, 40 CFR 112.7 (c)] The stationary ASTs at UMD have appropriate containment by use of secondary containment, dikes, or through the use of double-wall tank construction. The secondary containment for these bulk storage tanks is in accordance with 40 CFR 112.8 (c) (2). Fulfilling this requirement also meets the general containment requirement of 40 CFR 112.7 (c) for these tanks.

UMD has taken measures to be prepared for potential spills by providing emergency spill response kits. These kits are located at each fuel tank location and consist of essential items such as personal protective equipment, oil absorbent booms and mats, and approved containers for storing and removing used spill response materials and equipment. They also include emergency response directions and contact lists. If a spill occurs, the designated spill response kit in the immediate area is used initially to mitigate and control the spill. Trained personnel from UMD are then dispatched to the scene with additional supplies, such as spill pads, absorbent, shovels, and other necessary equipment, to effectively clean up the spill and remediate any environmental impacts. This comprehensive approach ensures that UMD is well-equipped to handle spills and protect the environment and public health in case of any emergencies. Additional details on the secondary containment systems are provided in Section 4.3.

The hydraulic elevators are each contained within a sealed room which is not equipped with floor drains. Secondary containment is determined to be impractical for the pad-mounted transformers as they are factory sealed electrical components that contain mineral oil for cooling purposes. EPA rules do not require the specific secondary containment requirements under 40 CFR 112.8(c) for oil-filled electrical equipment, such as a transformer, because they do not meet the definition of a bulk storage container in 40 CFR 112.2. However, they must meet the general secondary containment requirements under 40 CFR 112.7(c) or the alternative requirements for OFOE per 40 CFR 112.7(k). UMD will meet the alternative requirements under 40 CFR 112.7(k), which is discussed in Section 3.14.

Construction contractors on UMD property are expected, as a part of their contract, to have ample secondary containment for all of their heavy equipment and any additional ASTs with a storage capacity 55-gallons and above. UMD staff will routinely conduct a visual check to ensure the contractors are adhering with 40 CFR 112.8 (c) (2).

Secondary containment for mobile/portable tanks is addressed in Section 4.8.

Secondary containment for loading/unloading of fuels, lube oil reservoirs, and piping are met through active control measures and/or containment.

3.8 PRACTICABILITY OF CONTAINMENT

[40 CFR 112.7 (d)] UMD has determined that use of containment and diversionary structures or readily available equipment to prevent discharged oil from reaching navigable waters is practical and effective at UMD. Additionally, UMD is implementing the alternative requirements for oil-filled operating equipment as allowed per 40 CFR 112.7(k), which is discussed in Section 3.14.

3.9 INSPECTIONS

[40 CFR 112.7 (e)] Monthly, quarterly, and annual inspections of ASTs in addition to the quarterly inspections of the 55-gallon drums are scheduled and completed by ESSR trained personnel and are performed using the inspection forms included in Appendices J and K.

[COMAR 20.10.01.02B] In June 2022, MDE adopted new regulations under the Oil Pollution Control chapter of COMAR. Within these regulations includes the definition of an AST, oil-filled operational equipment, size provisions, and applicable oil types. ASTs are defined as a storage tank has previously stored oil, except for a storage tank placed out-of-service to store a non-oil

product in accordance with COMAR 26.10.17 or 26.10.18 with a storage capacity of greater than 250 gallons. The definition does not include a storage tank on a farm or private residence with a capacity to store 1,100 gallons or less of motor fuel or heating oil for noncommercial or personal use or oil-filled operational equipment. MDE furthermore defines oil-filled operation equipment as "equipment that includes an oil storage container or multiple containers in which the oil is present solely to support the function of the apparatus or the device, including:

- Hydraulic systems;
- Lubricating systems for pumps, compressors, and other rotating equipment;
- Gear boxes;
- Machining coolant systems;
- Heat transfer systems;
- Transformers;
- Circuit breakers;
- Electrical switches; and
- Other systems containing oil solely to enable the operation of the device.

With the majority of UMD's ASTs associated with emergency generators fitting the criteria of oil-filled operational equipment, those tanks will be formally inspected on an alternative quarterly schedule basis due to their high visibility and constant use, while the tanks that do not meet any of the AST exclusions will be inspected monthly. As the single lube oil reservoir falls under oil operational equipment, it will be inspected on a quarterly basis at the facility. A list of the ASTs and their inspection schedule is located in Appendix C. If any concerns arise during quarterly inspections of an AST, the inspection frequency for that particular AST would be adjusted to monthly until the concerns have been addressed and resolved to ensure the safety and compliance of the storage tank

Additionally, the 55-gallon drums will be formally inspected on an alternative quarterly basis due to the high visibility and constant use of the 55-gallon drums. The ESSR personnel conducting the AST inspections will visually check the condition of the 55-gallon drums monthly and perform a formal inspection quarterly. The drums containing food-oil grease are emptied and visually inspected monthly by a 3rd party contractor who recycles the food-oil grease.

Additionally, if at any time problems are discovered during routine operations, the problem and corrective measures will be addressed by trained staff. Inspections are signed by the inspector and maintained electronically on the UMD computer network as well as hardcopies within the Environmental Service Facility (344). Hardcopies will be stored for three (3) years as required.

Oil-filled electrical (Transformers) and operational equipment (Hydraulic Elevators) are inspected once a year by their designated section. Transformers are inspected by College Park Energy and records of those inspections are maintained within their office in the Central Heating Plant (Bldg. #001). Hydraulic elevators are inspected once a year by Elevator Shop staff of Facilities Management, and records of those inspections are maintained within the Elevator Shop office in South Campus Dining (Bldg. #026).

[COMAR 26.10.17.10 and COMAR 26.10.18.09] To comply with these regulations, both shop-fabricated and field-erected AST systems must be designed, constructed, installed, and maintained in a manner that prevents leaks and spills. Additionally, the regulations require that all ASTs, regardless of type, be periodically inspected for corrosion, leaks, and other forms of damage.

Shop-fabricated ASTs are situated on supports elevated above the ground to prevent corrosion. Field-erected ASTs greater than 10,000 gallons are situated on supports elevated above the ground to meet the regulation's requirements with the exception of two (2) 252,762-gallon tanks. In accordance with the regulatory guidelines specified in *COMAR 26.10.18.09*, it is crucial to highlight that the two (2) tanks being reviewed are adequately situated on a concrete pad. Notably, these tanks have received MDE approval to employ ultrasonic thickness (UT) testing results, while strictly adhering to the inspection schedule outlined in API 651 standards.

[COMAR 26.10.17.12 (A)(2) and (3), and COMAR 26.10.18.11(B)(2) and (3)] To comply with regulations, visual inspections of both shop-fabricated and field-erected AST systems are required to be conducted monthly. As per the definition of an AST system outlined in COMAR 20.10.01.02B, an AST system includes an AST, as well as connected aboveground and underground piping, ancillary equipment, appurtenances, dispensers, loading racks, and secondary containment.

These inspections will be carried out by ESSR personnel as part of their regular work activities or while responding to preventative maintenance work orders. The inspection findings will be documented using the Inspection Forms included in Appendices J and K.

ASTs that do not meet the definition of an AST system under *COMAR 26.10.01.02B* will be visually inspected on a quarterly basis as an alternative.

[COMAR 26.10.17.12(C)(1), COMAR 26.10.18.11(D)(1), and 40 CFR 112.7(e)] In addition to the periodic inspections, annual inspections will be conducted encompassing the aforementioned items and the following:

- Primary/emergency vents;
- Testing of level gauges;
- Electrical wiring and boxes;
- O-rings, and gaskets;
- Tank supports; and
- Tank foundation.

These inspections will be performed by ESSR staff as part of their regular work activities or while responding to preventative maintenance work orders and will be recorded on the Inspection Form included in Appendix J. All completed inspections will also be stored in an additional inspection binder on site. Formal inspections for shop-fabricated and field-erected ASTs are described further in Section 4.5.

3.10TRAINING

[40 CFR 112.7 (f) (1)] ESSR will maintain, implement, and train all personnel who handle oil products annually. In addition, ESSR regularly trains its alternative personnel on spill prevention measures, cleanup procedures, reporting requirements and other important information from this SPCC Plan. Training materials and documentation are included in Appendix L. The training materials are also available online for on-demand access for UMD personnel who manage oil with a volume of 55-gallons or more. Records of the in-person training are stored electronically on the UMD computer network and the online training records are stored within either the BioRAFT or Workday database records.

[40 CFR 112.7 (f) (3)] Employees are to receive annual refresher training either online or at the regularly scheduled safety meetings. The following, at a minimum, are emphasized at these meetings:

- Familiarity with the SPCC Plan
- Changes in the SPCC Plan
- Spill prevention and response procedures
- Materials handling and storage
- Inspection and recordkeeping activities
- Any reported spills
- New management practices

3.11 SITE SECURITY

[40 CFR 112.7 (g)] The UMD oil storage is located within several facilities around the campus. Each facility handling, processing, or storing oil is locked and/or secured when the facility is unattended. The two (2) 252,762-gallon and one (1) 8,000-gallon tanks are located within a concrete diked area with limited access. Access to the associated fuel pumps access is limited to Facilities Management personnel. The University of Maryland University Police perform regular patrols on campus. UMD Public Safety also maintains an extensive camera monitoring system across campus.

All existing drain valves are locked in the closed position to prevent any discharge during nonoperation or non-standby status.

All existing tanks and drums at UMD that have oil dispensers are kept in the locked/off position when the pump is in a non-operating or standby status.

The loading/unloading connections on pipelines are capped when not in service or when in standby service for an extended time.

Adequate lighting is provided. There is lighting around the buildings, storage facilities, and loading/unloading areas.

3.12 TANK LOADING/UNLOADING

The UMD off-loading areas are located in Parking Lot # K2, adjacent to the Central Heating Plant (CHP) fuel tanks, in Parking Lot #X1 adjacent to the refueling area at Severn Building (#810) fueling island, the refueling area at the Shuttle Bus Facility (#424), the refueling area at the Grounds Operations & Maintenance Building (#328), the refueling area at the University of Maryland's Golf Course Maintenance (#314), the refueling area at the SECU Stadium Maintenance Building (#369), and the mobile refueler owned and operated by UMD personnel. Generators serviced by the mobile refueler loading and unloading areas are adjacent to the generator itself. When refueling is needed, the mobile fueler parks next to the fuel port and proceeds to refuel the generator.

Independent vendors operate the tank trucks; thus, the vendors are responsible for ensuring their operations are performed in accordance with applicable local, state, and federal regulations. The vendors are required to verify all truck drivers have proper training and must be US Department of Transportation (USDOT) licensed. All suppliers must comply with USDOT regulations in 49 CFR 177 and UMD standard operating procedures. Oil vendors must ensure that the driver understands the site layout, knows the protocol for entering the facility and unloading product, and has the necessary equipment to respond to a discharge from the vehicle or fuel delivery hose. Similar precautions are undertaken during the removal of used oil from the facility. Oil vendors are responsible for cleaning up any spills caused by their delivery operations. Prior to filling, the liquid levels of the AST must be measured, recorded using the checklist in Appendix I, and kept on record for at least 3 years.

The mobile refueler is used to refuel the diesel tanks associated with generators located throughout the UMD campus. The mobile refueler is equipped with a single-walled 110-gallon AST fixed within the bed of a truck. The truck has a spray-on liner in the bed along will spill response materials stored within the storage compartments. Liquid levels are checked prior to filling to minimize spills.

UMD is committed to ensuring the safe transfer of material to and from all oil storage tanks. Oil transfer on campus is either from a tanker truck to a bulk storage tank, the mobile refueler to a storage tank, removal of food oil grease, or the unloading of drums of oil. Regardless, the potential for discharges during transfer operations is of concern at this facility and as such transfers are

monitored to minimize spills and containers are visually inspected for capacity when possible prior to the transfer of material.

[40 CFR 112.7 (h)] This section requires certain measures for tank car and tank truck loading/unloading racks. Although UMD does perform some loading/unloading activities, it does not operate a loading/unloading rack as defined in SPCC regulations. As a result, the requirements of this section do not apply.

3.13 BRITTLE FRACTURE ANALYSIS

[40 CFR 112.7 (i)] There are two (2) field-constructed oil ASTs located at the CHP. The two (2) 252,762-gallon #2 fuel oil bulk storage tanks were constructed in 1973 and 2001 respectively. Both tanks were originally built to API Standard 650. An API Standard 653 external In-Service inspection was conducted by a certified inspector every five (5) years until 2015. In 2015, an API Standard 653 internal inspection was performed by a certified inspector on tank 2A. In 2009, an API Standard 653 internal inspection was performed by a certified inspector on tank 2B. Currently, both tanks are in service and an API Standard 653 external In-Service inspection will continue to be completed every five (5) years and an API Standard 653 internal inspection will be completed every twenty (20) years.

If the two (2) 252,762-gallon #2 fuel oil bulk storage tanks undergo a repair, alteration, or reconstruction, they will be evaluated and inspected by a certified API inspector. In the event the tanks fail their inspection, appropriate actions will be taken to rectify the deficiencies.

3.14 ALTERNATIVE REQUIREMENTS FOR OIL-FILLED OPERATIONAL EQUIPMENT

[40 CFR 112.7 (k) (1-2)] UMD meets the qualification requirements listed in 40 CFR 112.7(k) (1) and therefore will use alternative requirements to secondary containment to prevent an oil discharge from the oil-filled operating equipment. The alternative requirements consist of:

- Establish and document the procedures for inspections and/or a monitoring program for detecting equipment failure and/or a discharge.
 - Transformers are visually inspected annually by College Park Energy. Inspections are maintained within the Central Heating Plant (Bldg. #001) facility.

- Hydraulic Elevators are visually inspected annually by qualified elevator technicians from the Elevator Shop in UMD Facility Maintenance. Regular maintenance is conducted on an as-needed basis. Records are maintained within the Elevator Shop office in South Campus Dining (Bldg. #026).
- A written commitment of manpower, equipment, and materials needed to expeditiously control and cleanup any quantity of oil discharged that is harmful.

[40 CFR 112.7 (k) (2) (ii) (A)] This SPCC Plan will serve as an oil spill contingency plan following the provisions of 40 CFR 109.

3.15 RECORDKEEPING

All documentation regarding inspections, training, spill reports, and any other requirements stated in this plan will be stored onsite for a period of at least three (3) years.

3.16 STATE REQUIREMENTS

[40 CFR 112.7 (j)] The University of Maryland meets the state-level requirements set forth by MDE by implementing the provisions and regulations set forth in this SPCC Plan.

- Spill reporting procedures are detailed in Sections 2 and 3.5;
- Inspection frequencies and implementation are detailed in Section 3.9;
- Performance standards, piping, and corrosion protection are detailed in Section 3.9;
- Transfer activities in loading/unloading areas are detailed in Section 3.12;
- Formal testing and inspections for AST systems are detailed in Section 4.5; and
- Buried, out-of-service, and aboveground piping is detailed in Sections 4.9-11.

[COMAR 26.10.01.09-11] UMD has two (2) Individual OOPs; one for the main campus and one for the Severn Building (#810) due to having an aggregate storage capacity of 10,000 gallons or greater. UMD registers and maintains registration of each AST system located at the facility as a part of the application process for a renewal in accordance with COMAR 26.10.01.11. The inventory at UMD is kept up to date by ESSR personnel and is submitted to MDE during the OOP renewal process.

4.0 SPCC REQUIREMENTS FOR ON-SHORE FACILITIES

Since UMD is classified as a non-production facility, it is subject to the SPCC requirements listed in 40 CFR 112.8 and as addressed in the following sections.

4.1 CAMPUS DRAINAGE

[40 CFR 112.8 (b) (1 & 2)] There are three (3) stationary, diked oil/fuel storage areas at UMD. All drain valves are maintained in the normal closed position and all retained rainwater will be inspected/tested prior to discharge by/under the supervision of a responsible person. Records of the discharge event are maintained in accordance with this SPCC Plan. The dike drainage form is located within Appendix M.

[40 CFR 112.8 (b) (3-5)] The regulations specify performance requirements for systems used to drain undiked areas with the potential for a discharge. These provisions apply only when the facility owner/operator chooses to use a facility drainage system to meet general secondary containment requirements under 40 CFR 112.7(c) or a more specific containment requirement under 40 CFR 112.7(h)(1), 112.8(c)(2) or 112.12(c)(2). UMD does not use a facility drainage system to meet general secondary containment requirements and therefore, these regulations do not apply.

4.2 MATERIALS AND CONSTRUCTION

[40 CFR 112.8 (c) (1)] All of the stationary ASTs are constructed of metal. 55-gallon drums are constructed of either metal or high-density polyethylene (HDPE) plastic. All ASTs and drums are compatible with the liquids that they contain. The ASTs are also suitable for the pressure and temperature conditions that they encounter.

4.3 SECONDARY CONTAINMENT

[COMAR 26.10.17.07, COMAR 26.10.18.06, 40 CFR 112.8 (c) (2)] All of the ASTs at UMD have proper containment through double-walled construction or specific secondary containment measures. Refer to Appendix C with the details of each tank and its secondary containment.

[40 CFR 112.8 (c) (3)] There are three (3) stationary, diked oil/fuel storage areas at UMD. The diked areas are discussed in Section 4.1.

4.4 CORROSION PROTECTION

[40 CFR 112.8 (c) (4)]; [40 CFR 112.8 (c) (5)] UMD has no USTs and no partially buried tanks.

4.5 TANK TESTING AND INSPECTIONS

[COMAR 26.10.17.12(D), COMAR 26.10.18.11(E)-(H), 40 CFR 112.8 (c) (6)] Each AST will be visually inspected and subjected to integrity testing such as hydrostatic, radiographic, ultrasonic, acoustic emissions, or other non-destructive shell testing if required. The frequency of inspections and integrity testing is based on the tank manufacturer's recommendations in addition to the Steel Tank Institute (STI) SP001 standard and the American Petroleum Institute (API) 653 standard, except as noted above. Visual inspections will be done at least once a month/quarter depending on the tank by ESSR staff using the inspection forms in Appendix J in addition to the annual inspections that are done using the inspection forms provided in Appendix K. Inspection frequencies are detailed in Section 3.9.

All tanks with double-walled containment should have the interstitial space monitored frequently (monthly/quarterly) to ensure that the inner tank has not failed and remove condensation that could cause corrosion. Integrity testing of all tanks is also needed whenever material repairs are made.

Figure 4 below is the STI SP001 6th Edition schedule of formal inspections required.

AST Type and Capacity in U.S. gallons (liters) Category 1 Category 2 Category 3 0 - 1100Р Р P, E&L(10) (0-4164 liters) [P, E&L(5), I(10)] 1101 - 5,000 Р P, E&L(10) (4168-18,927 liters) Shop-Fabricated [P, L(2), E(5)] [P, E(10), I(20)] [P, E&L(5), I(10)] **ASTs** 5,001 - 30,000 P, E(20) (18,931-113,562 liters) [P, E(5), L(10)] [P, L(1), E(5)] 30.001 - 75.000 P, E(20) P, E&L(5), I(15) P, E&L(5), I(10) (113,566-283,906 liters) P** Р Р Portable Containers

Figure 4: Table of Inspection Schedules from SP001

Plastic portable container - every 7 years

Steel portable container - every 12 years

Stainless Steel portable container - every 17 years

Continuous Release Detection Method (CRDM)

P - Periodic AST inspection (PI)

 $E-Formal\ External\ Inspection\ by\ certified\ inspector\ (FEI)$

^{**} Owner shall either discontinue use of portable container for storage or have the portable container DOT (Department of Transportation) tested and recertified per the following schedule (refer to Section 9.0):

^{*}Note the following:

- I Formal Internal Inspection by certified inspector (FII)
- L Leak test by owner or owner's designee (LT)
- () indicates maximum inspection interval in years. For example, E (5) indicates formal external inspection every five years.

Based on these requirements, seven (7) of the ASTs at UMD require additional integrity inspections in accordance with STI SP001.

- One (1) 6,000-gallon double-walled diesel fuel tank at Lab for the Physical Sciences (#796) is required to have a formal external inspection once every twenty (20) years.
- One (1) 8,000-gallon diked double-walled diesel fuel tank at the Plant Operations and Maintenance (#006) is required to have a formal external inspection once every twenty (20) years.
- Two (2) 10,000-gallon double-walled gasoline fuel tanks at the Severn Building (#810) are required to have a formal external inspection once every twenty (20) years.
- One (1) 10,000-gallon double-walled E-85 fuel tank at the Severn Building (#810) is required to have a formal external inspection once every twenty (20) years.
- One (1) 12,000-gallon double-walled #2 fuel oil tank at the Severn Building (#810) is required to have a formal external inspection once every twenty (20) years.
- One (1) 20,000-gallon double-walled diesel fuel tank at the Shuttle Bus Facility (#424) is required to have a formal external inspection once every twenty (20) years.

[COMAR 26.10.18.11] The two (2) 252,762-gallon #2 fuel oil bulk storage tanks at the Plant Operations and Maintenance (#006) were constructed in 1973 and 2001 respectively. Both tanks were originally built to API 650 standard. These two ASTs will be inspected in accordance with the API 653 standard. These tanks are required to have monthly routine in-service inspections, a formal external inspection once every five (5) years and an internal inspection once every twenty (20) years (or sooner based on the inspection results).

API 653 standard dictates the internal inspections shall not exceed 10 years unless the tank has one of more leak prevention, detection, corrosion mitigation or containment safeguards.

The two 252,762-gallon #2 fuel oil bulk storage tanks at the Plant Operations and Maintenance (#006) are currently on a twenty (20) year internal inspection schedule with the next internal inspection scheduled for 2029.

Mobile/portable containers, such as 55-gallon drums, are visually inspected quarterly.

Records of inspections and testing are kept on site and are stored electronically on the UMD computer network.

[40 CFR 112.8 (c) (7)] This section is not applicable because there are no internal heating coils used on the ASTs at UMD.

4.6 TANK INSTALLATION FAIL-SAFE ENGINEERED

[COMAR 26.10.17.08, COMAR 26.10.18.07, 40 CFR 112.8 (c) (8)] The ASTs at UMD have visual level gauges and all tanks are constantly attended while being filled. Mobile/portable containers are visually checked prior and after being filled.

[COMAR 26.10.17.08, COMAR 26.10.18.07, 40 CFR 112.8 (c) (8) (v)] Level gauges are visually inspected monthly for AST systems and quarterly for ASTs excluded from the definition in COMAR 26.10.01 (02) (B) to ensure proper operation and tested annually for accuracy for all ASTs.

4.7 EFFLUENT MONITORING AND VISIBLE OIL LEAKS

[40 CFR 112.8 (c) (9)] This section is not applicable to UMD because there are no treatment facilities at this location.

[40 CFR 112.8 (c) (10)] All oil leaks from piping, tanks, process equipment (including, but not limited to, seams, gaskets, piping, pumps, valves, rivets and bolts), are immediately reported to the ESSR office and properly reported in accordance with UMD oil response procedures. Immediate attention will be given to stopping and repairing the leaking equipment. The area where the release occurs shall be cleaned up and the site restored.

4.8 MOBILE OR PORTABLE OIL STORAGE TANKS

[40 CFR 112.8 (c) (11)] There are four (4) portable storage tanks at UMD. One (1) 110-gallon diesel fuel tank is mounted in the bed of a truck. The truck bed is equipped with a spray on liner and contains a spill kit in the event of a spill. The portable fuel tank is used to transport fuel to refuel the generator tanks around the campus. There are three (3) portable double-walled diesel generators varying in capacity from 80 to 468-gallons. These generators are used to provide buildings and facilities around the University of Maryland campus with emergency power when

needed. When not in use, the portable oil storage tanks are parked beneath a covered concrete pad adjacent to the X1 parking lot at the Severn Building (#810). A spill sock is placed at the low point of the concrete pad where it drains to the parking lot to prevent oil from reaching the stormwater system.

UMD has multiple 55-gallon drums around the campus. The exact number varies day to day. Section 3.3.4 lists the various locations where the 55-gallon drums are stored. Where the 55-gallon drums are located outdoors, they are contained either within a storage shed on top of a spill pallet, a 2 drums low-profile workstation, or a single 95-gallon salvage drum. Based on the number of 55-gallon drums stored indoors, appropriately sized spill pallets are being utilized.

4.9 BURIED AND OUT OF SERVICE PIPE

[40 CFR 112.1 (d) (6)] The buried piping for the OWS tanks to treat wastewater are exempt from protective wrapping, coating, and cathodic protection.

[COMAR 26.10.17.06, COMAR 26.10.18.05, and 40 CFR 112.8 (d) (1)] UMD does not have any USTs nor out of service piping. UMD does have underground double-walled piping located at the Severn Building (Bldg. #810). The alarm system for the interspatial monitoring system is inspected monthly in compliance with the Oil Operations Permit (Permit # 2018-OPT-6551). The underground double-walled piping was installed prior to 2002 and therefore, is exempt from 40 CFR 112.8 (d) (1).

Additionally, UMD has underground supply and return lines for the 252,762-gallon #2 Fuel Oil tank 2A, which penetrates the secondary containment dike. The supply and return lines had precision tightness testing completed in November of 2022 and is conducted annually, as stated in the University of Maryland 's OOP. The test detects a 0.10 gallon per hour release of oil at 1.5 times the operating pressure and performed for a minimum of 1 hour.

The supply and return line piping were installed prior to 2002 and therefore, is exempt from protective wrapping, coating, and cathodic protection requirements.

UMD has a 600-gallon OWS located within the dike at the CHP fueling area. The OWS is inspected monthly by CHP personnel in compliance with the 40 CFR 112.8(c)(6). The buried piping for the OWS at the CHP was installed prior to 2002 and therefore, is exempt from this regulation.

Oil associated piping engineering drawings are located in Appendix H.

[40 CFR 112.8 (d) (2)] If a section of pipe is taken out of service for an extended period of time, it shall be blind-flanged or capped.

4.10 PIPE SUPPORTS DESIGN

[40 CFR 112.8 (d) (3)] All above ground pipe supports at UMD have been properly designed to minimize abrasion and corrosion and to allow for expansion and contraction of the pipes. Available engineering drawings are located in Appendix H. All other oil associated piping is depicted on the SPCC facility map (Figure 2).

4.11 ABOVEGROUND PIPING

[COMAR 26.10.17.06 and 40 CFR 112.8 (d) (4)] The aboveground piping, valves, pipe fittings, drip pans, pipe supports, and other associated appurtenances serving the ASTs will be visually inspected as specified in Section 3.9 with more detailed inspections done annually using the checklists in Appendices J and K. There are twenty-six (26) ASTs that have aboveground piping. These ASTs and piping are identified on the SPCC facility map (Figure 2) and in Appendix H. Aboveground piping systems connected to shop-fabricated ASTs are constructed of carbon steel, alloy steel, or stainless-steel piping, and are designed and constructed in accordance with recognized industry standards. The piping system is also liquid-tight, properly supported, and protected against physical damage. Furthermore, the University ensures that any piping system installed above ground or inside of a building is not constructed with low melting point materials, materials that soften on fire exposure, or non-ductile materials.

[40 CFR 112.8 (d) (5)] Employees and contractors are aware of the hazards near the truck unloading areas. If an area onsite is observed to be in danger of being damaged by vehicular traffic, guard posts, or other precautionary measures will be employed.

5.0 SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN CERTIFICATION

[40 CFR 112.3 (d) (1)] I hereby certify that I or an employee of Trinity Consultants have visited and examined University of Maryland (UMD) at College Park, and being familiar with the provisions of this Spill Prevention, Control, and Countermeasures (SPCC) regulations codified at 40 Code of Federal Regulations (CFR) Part 112 et seq. (40 CFR 112) and this SPCC plan, attest that this carefully thought-out SPCC plan was prepared in accordance with good engineering practices, including consideration of applicable industry standards and with the requirements of 40 CFR 112. Procedures for required inspections and testing have been established and this plan is adequate for this facility. Amendments subsequent to the date of this certification must be documented and certified, separately, by a Registered Professional Engineer as described in Section 2.0 of this plan.

Certifying Engineer: Divya Harrison, P.E.

Engineering Seal:

5.0 SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN CERTIFICATION

[40 CFR 112.3 (d) (1)] I hereby certify that I or an employee of Trinity Consultants have visited and examined University of Maryland (UMD) at College Park, and being familiar with the provisions of this Spill Prevention, Control, and Countermeasures (SPCC) regulations codified at 40 Code of Federal Regulations (CFR) Part 112 et seq. (40 CFR 112) and this SPCC plan, attest that this carefully thought-out SPCC plan was prepared in accordance with good engineering practices, including consideration of applicable industry standards and with the requirements of 40 CFR 112. Procedures for required inspections and testing have been established and this plan is adequate for this facility. Amendments subsequent to the date of this certification must be documented and certified, separately, by a Registered Professional Engineer as described in Section 2.0 of this plan.

Certifying Engineer: Divya Harrison, P.E.

Signature:

Certification Date: November 11, 2019

Engineering Seal:

5.0 SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN CERTIFICATION

[40 CFR 112.3 (d) (1)] I hereby certify that I or an employee of Trinity Consultants have visited and examined University of Maryland (UMD) at College Park, and being familiar with the provisions of this Spill Prevention, Control, and Countermeasures (SPCC) regulations codified at 40 Code of Federal Regulations (CFR) Part 112 et seq. (40 CFR 112) and this SPCC plan, attest that this carefully thought-out SPCC plan was prepared in accordance with good engineering practices, including consideration of applicable industry standards and with the requirements of 40 CFR 112. Procedures for required inspections and testing have been established and this plan is adequate for this facility. Amendments subsequent to the date of this certification must be documented and certified, separately, by a Registered Professional Engineer as described in Section 2.0 of this plan.

Certifying	Engineer:	Divva	Harrison.	P.E.
COL CHI Y INI	THE THEORY	T 1 7 60	THEFT I ID OILS	T .T.

Signature:

Certification Date: October 8, 2019

Engineering Seal:

6.0 SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN MANAGEMENT APPROVAL

[40 CFR 112.7] We hereby certify that the management of UMD at College Park extends its full approval of this SPCC plan and will commit the necessary resources to fully implement it as described herein. We understand that although this plan has been certified by a Registered Professional Engineer; I, Carlo Colella, as Vice President & Chief Administrative Officer, maintain financial responsibility for the implementation of this SPCC Plan; and I, Maureen Kotlas, the Executive Director of Environmental Safety, Sustainability & Risk, maintain the authority to implement and enforce the preparation of this SPCC plan, ensure proper implementation of the provisions contained within, and compliance with the SPCC regulations. We certify that this SPCC plan will be reviewed and evaluated at least once every five years, as described, and documented in Section 2.0 of this plan.

Corlo Colella	Jul 14, 2023	
Carlo Colella	Date	
Vice President & Chief Administrative O	fficer	
Mauren M. Katlas	7/7/2023	
Maureen Kotlas	Date	

Executive Director, Department of Environmental Safety, Sustainability & Risk



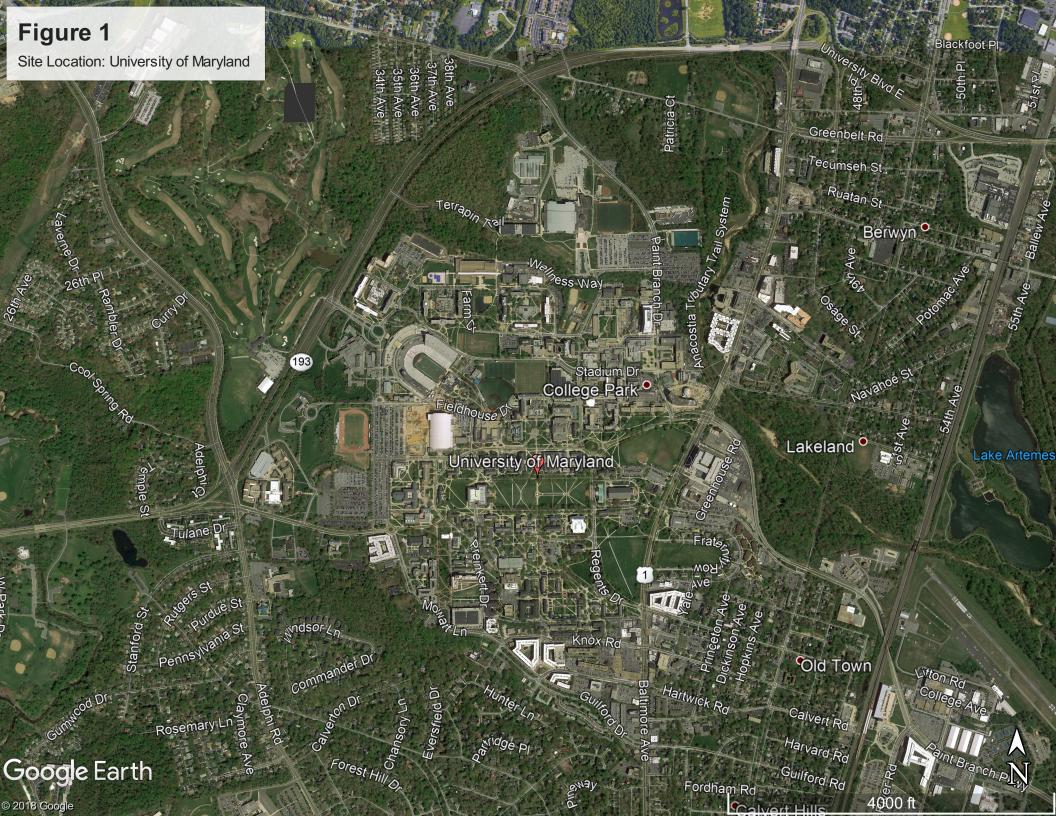
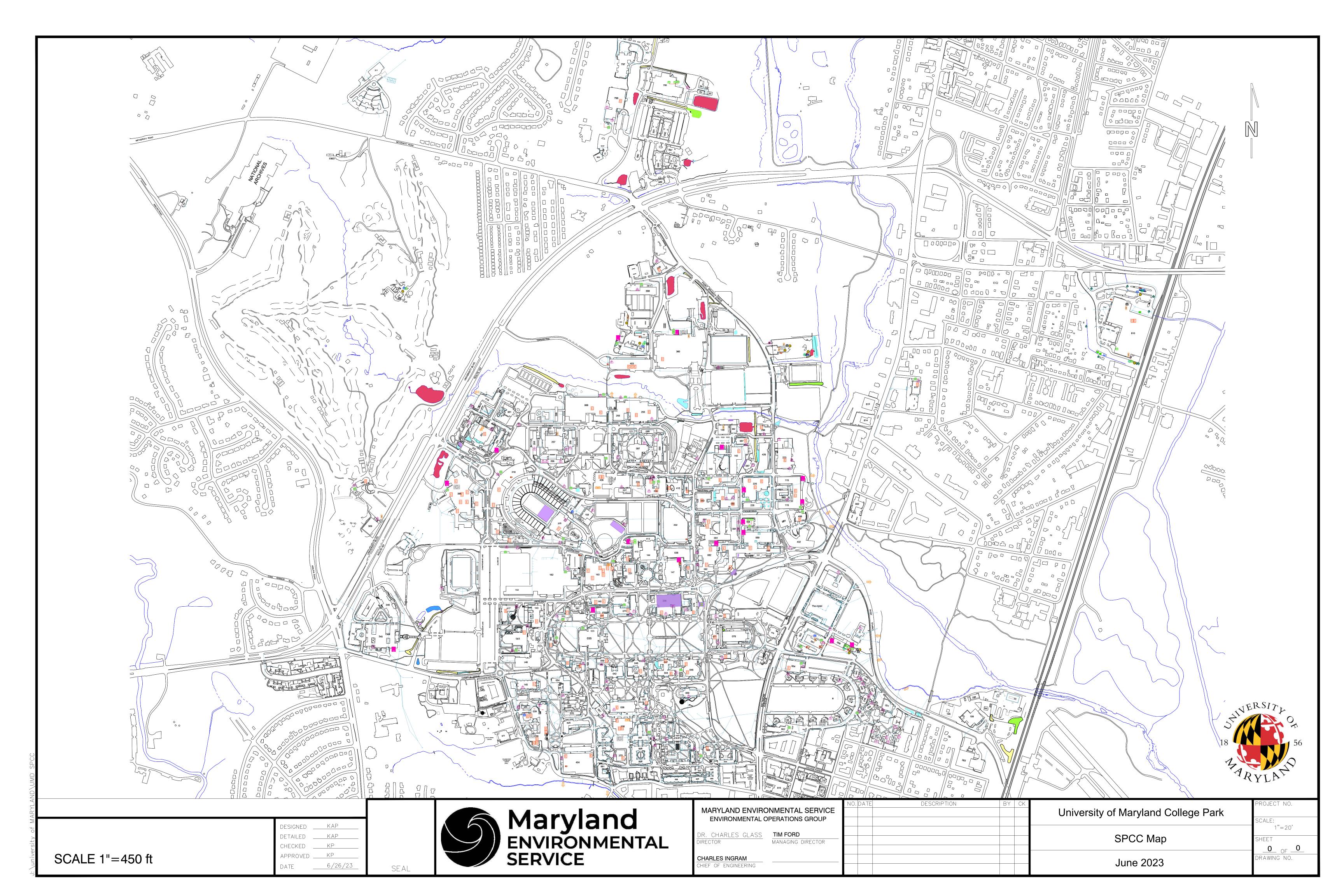


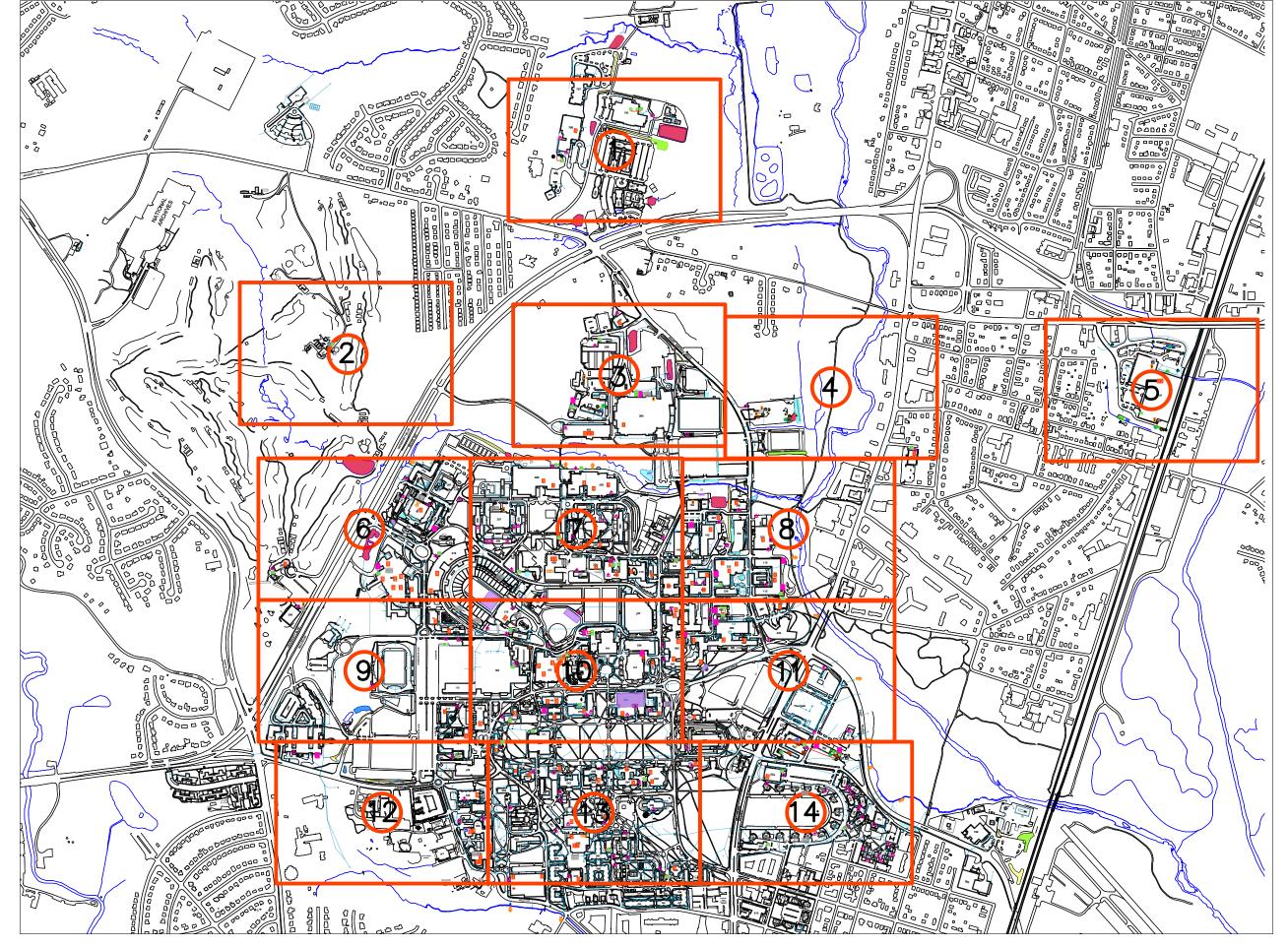
Figure 2 University of Maryland University Site Map





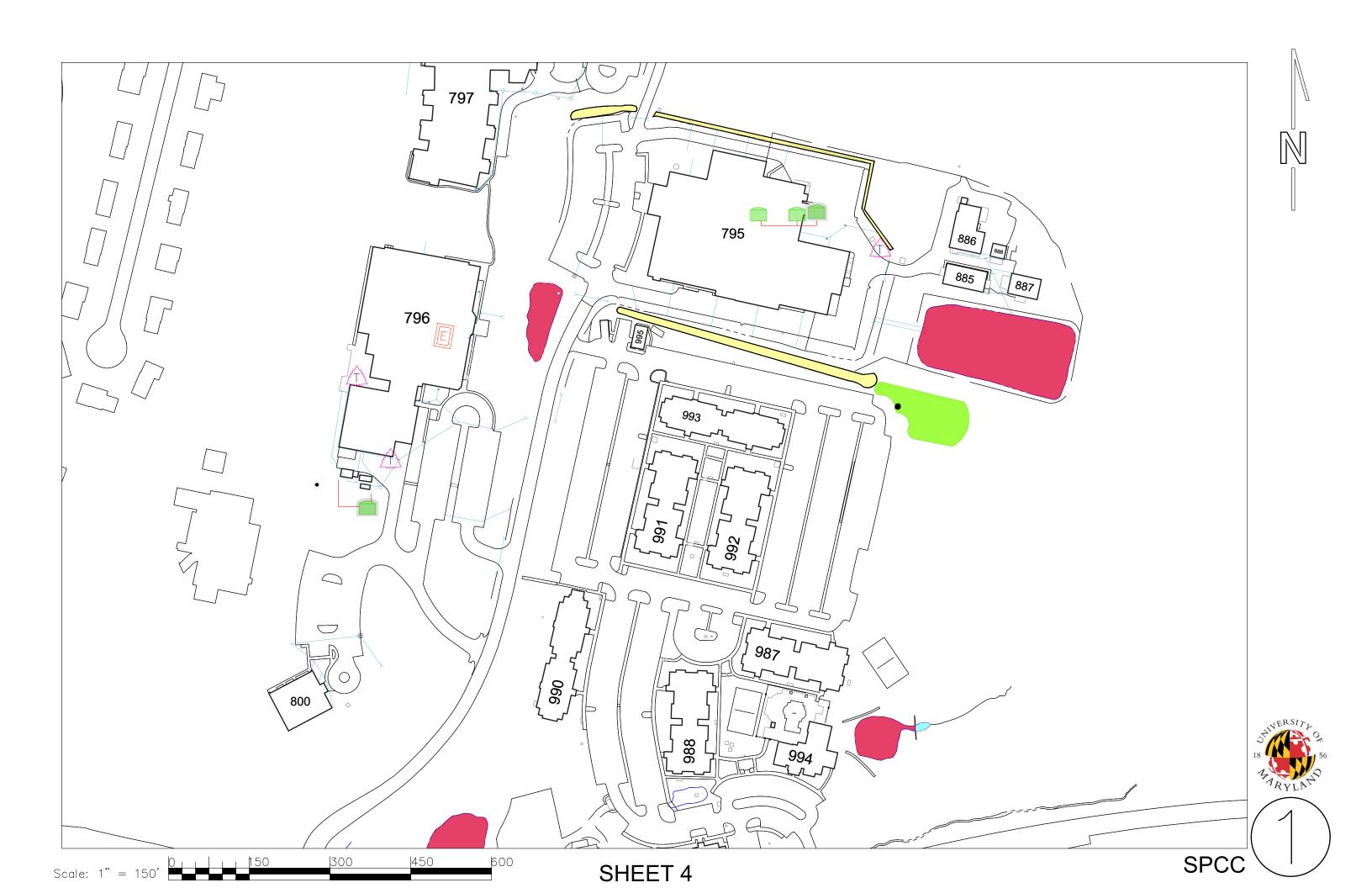
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ABOVEGROUND PIPING						
ABOVE GROUND TANK	GASOLINE	DIESEL	PRIVATELY OWNED			
HYDRAULIC OIL	FOOD OIL	WASTE OIL	MOTOR OIL			
FUEL UNLOADING AREA						
DRUM STORAGE		OD O				
LUBE OIL RESERVOIR		L				
ELEVATOR		E				
FUEL DELIVERY AREA		(E)				
MOBILE TANK		<u> </u>				
GENERATOR(PORTABLE)						
GREASE CONTAINER						
NPDES OUTFALLS		XXX				
OIL/WATER SEPARATOR						
SPILL KIT						
STORMCEPTOR						
TRANSFORMER						
TRANSFORMER PAD (MULTIPLE						
TURBINE & COMPRESSOR	T/C					
UNDERGROUND PIPING						

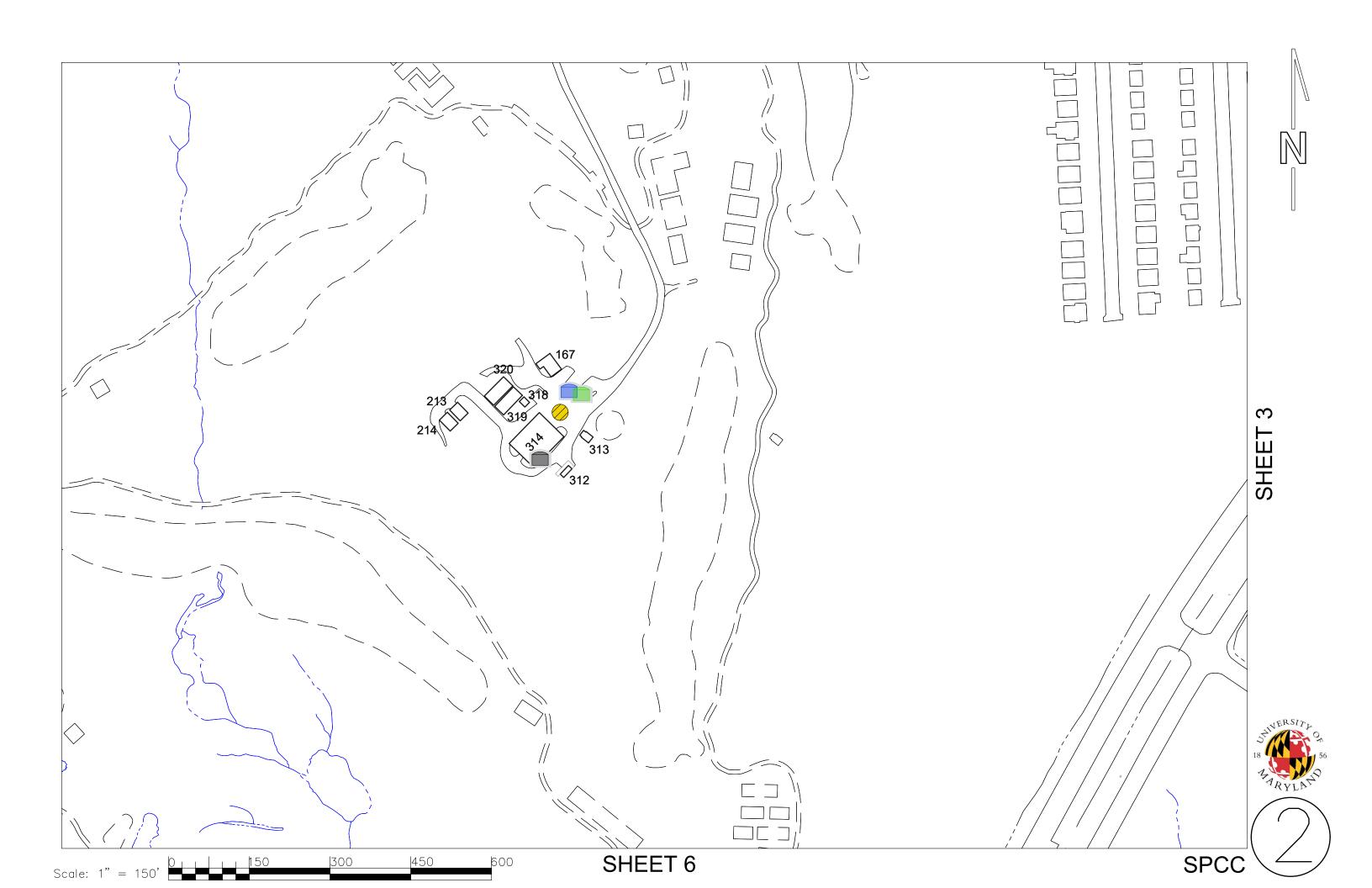
	ORM FEATURE IMARY TYPE
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LANDSCAPE INFILTRATION	
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OTHER	
PERMEABLE PAVEMENT	
POND	
RAIN GARDEN	
RAINWATER HARVESTING	
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SAND FILTER	
SWALE	
UNDERGROUND STRUCTURAL TREAT	MENT
WETLAND	
AREA UNDER CONSTRUCTION	

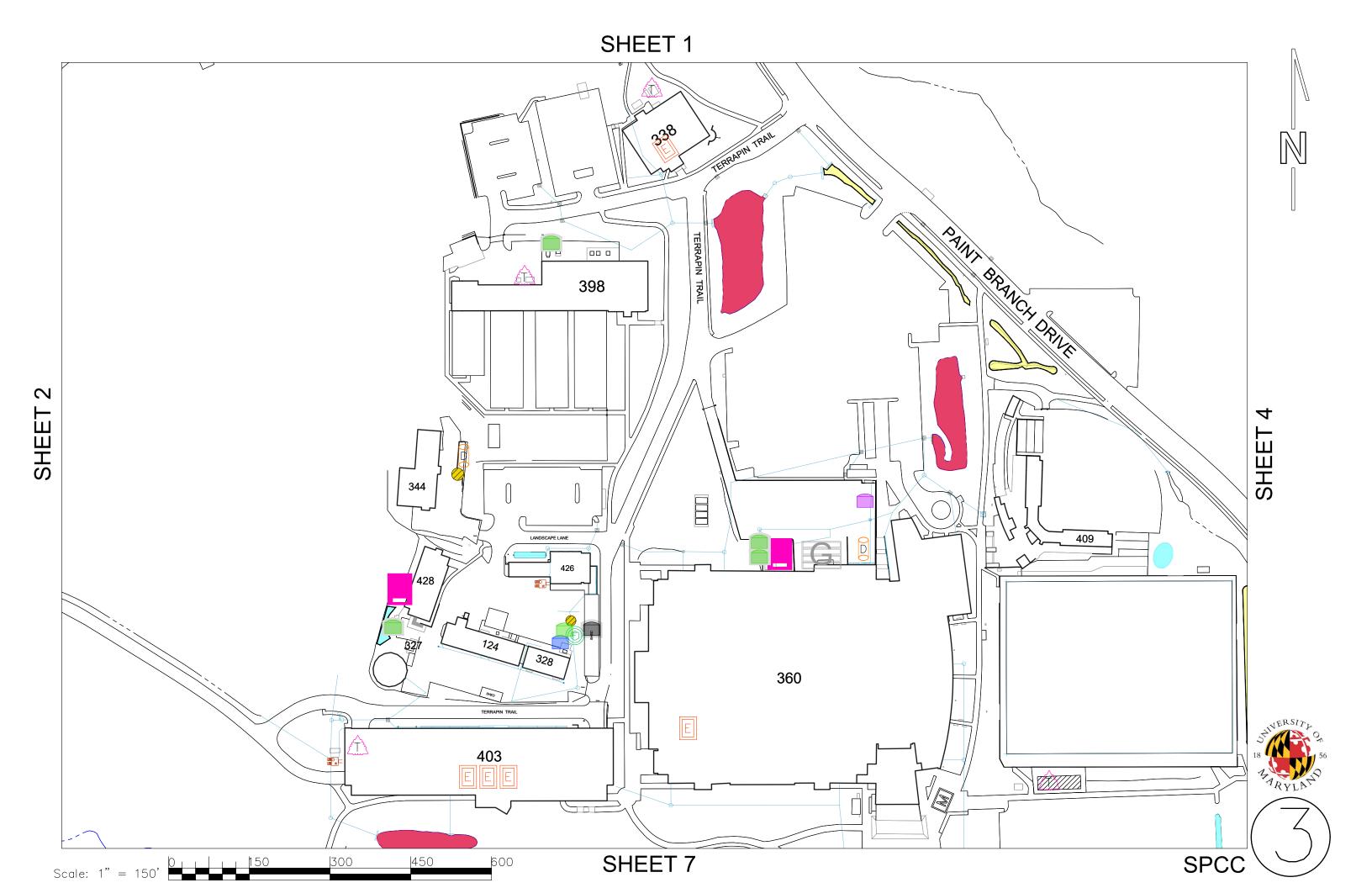


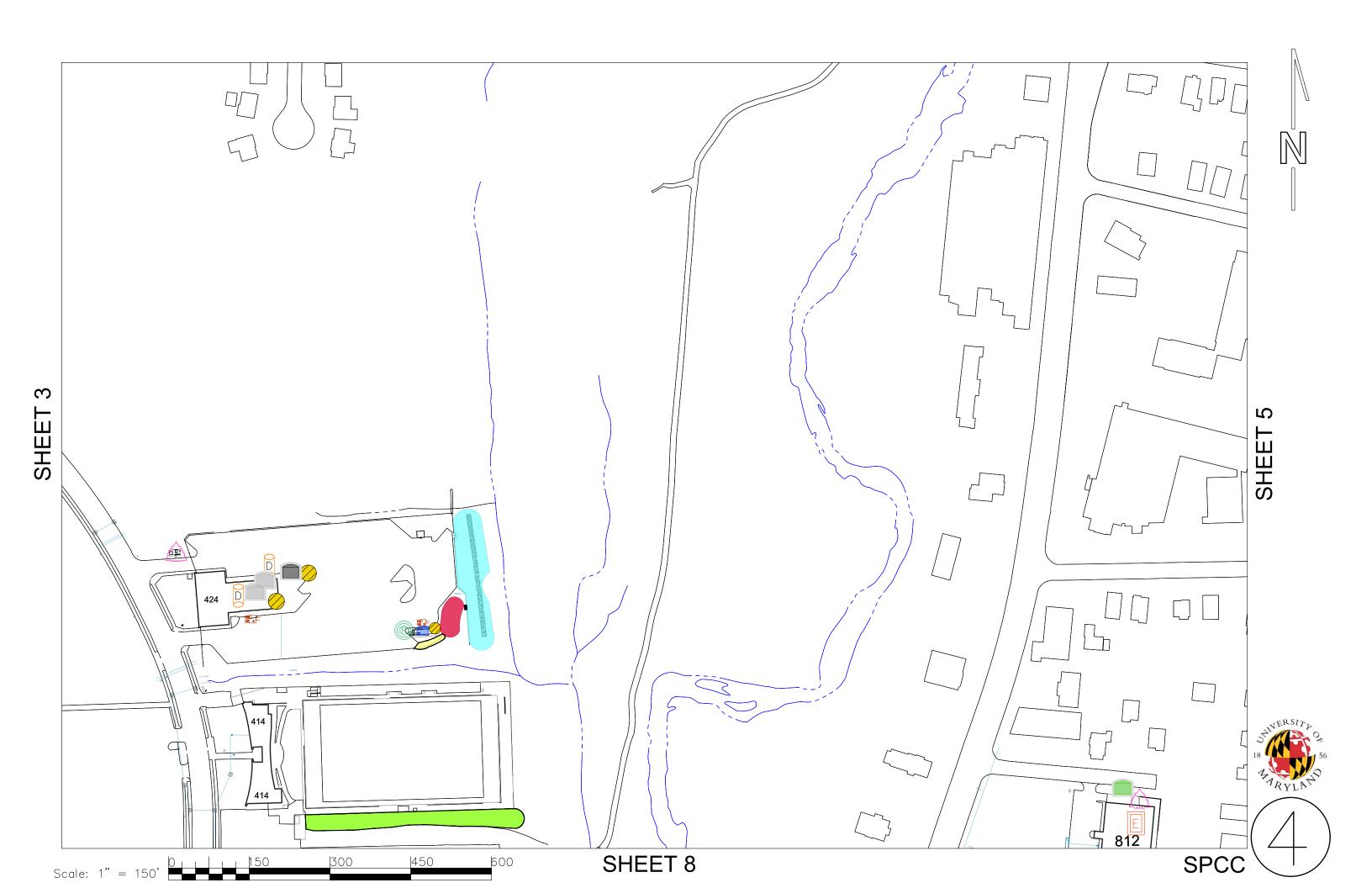


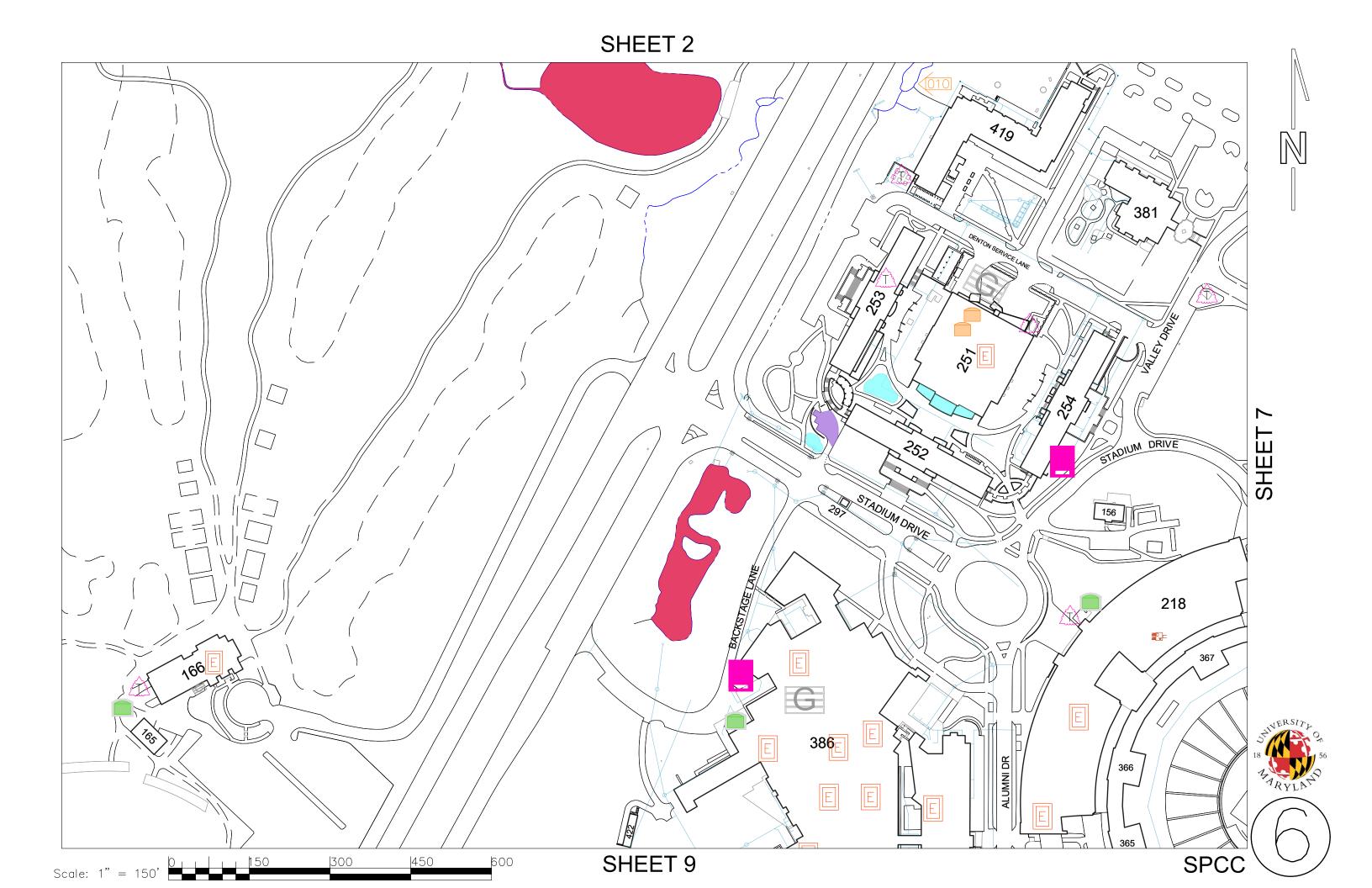
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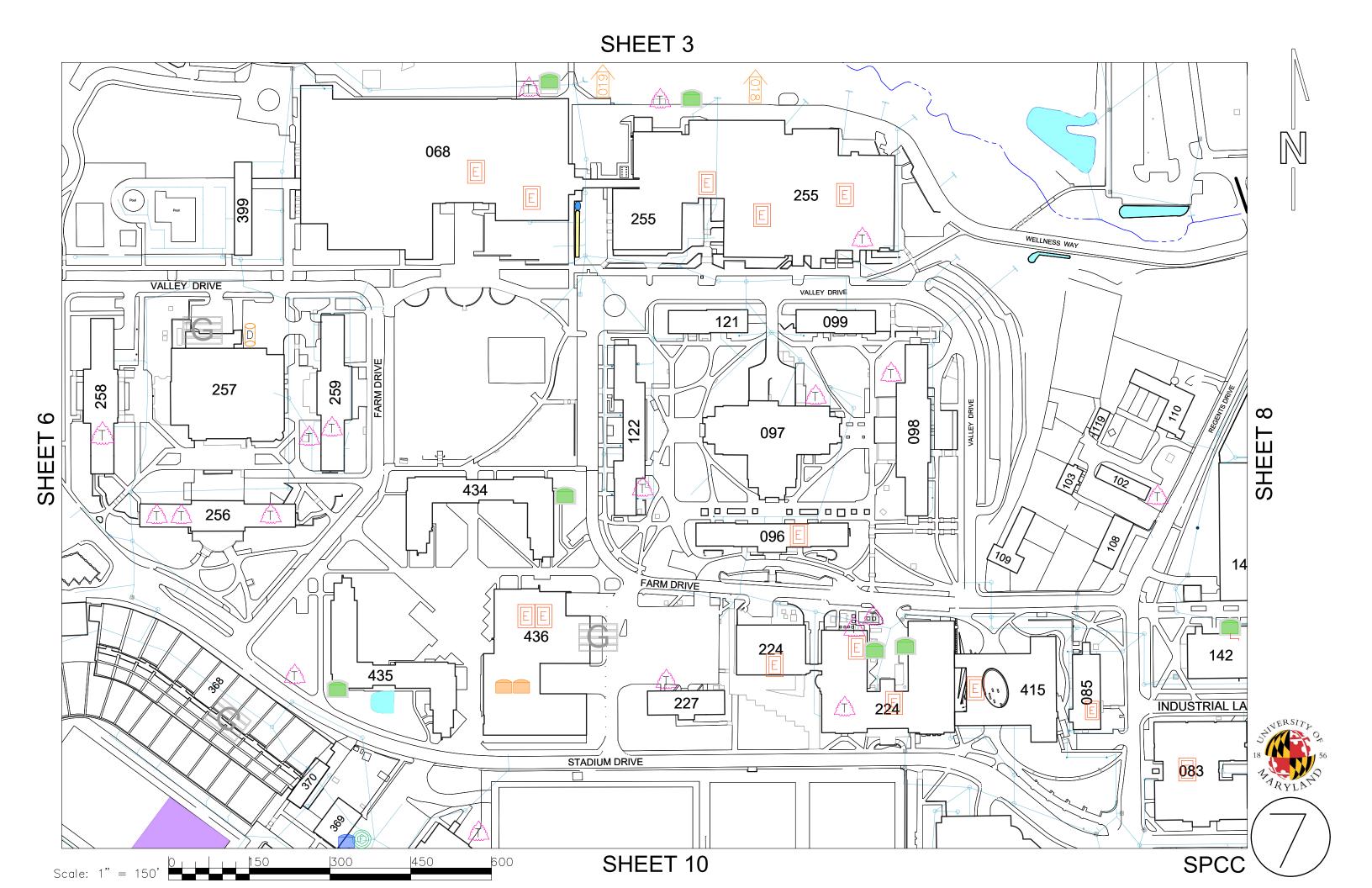


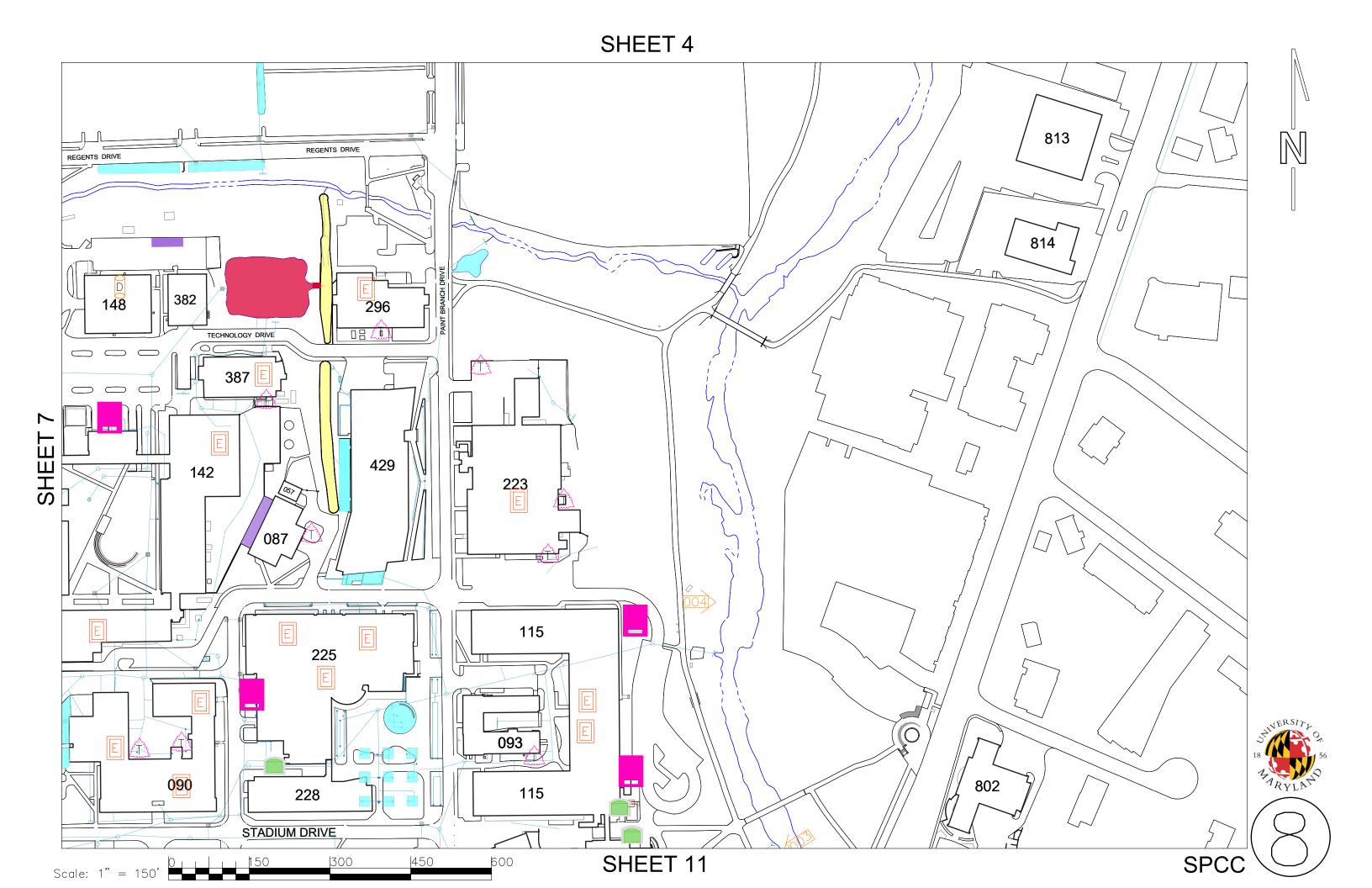


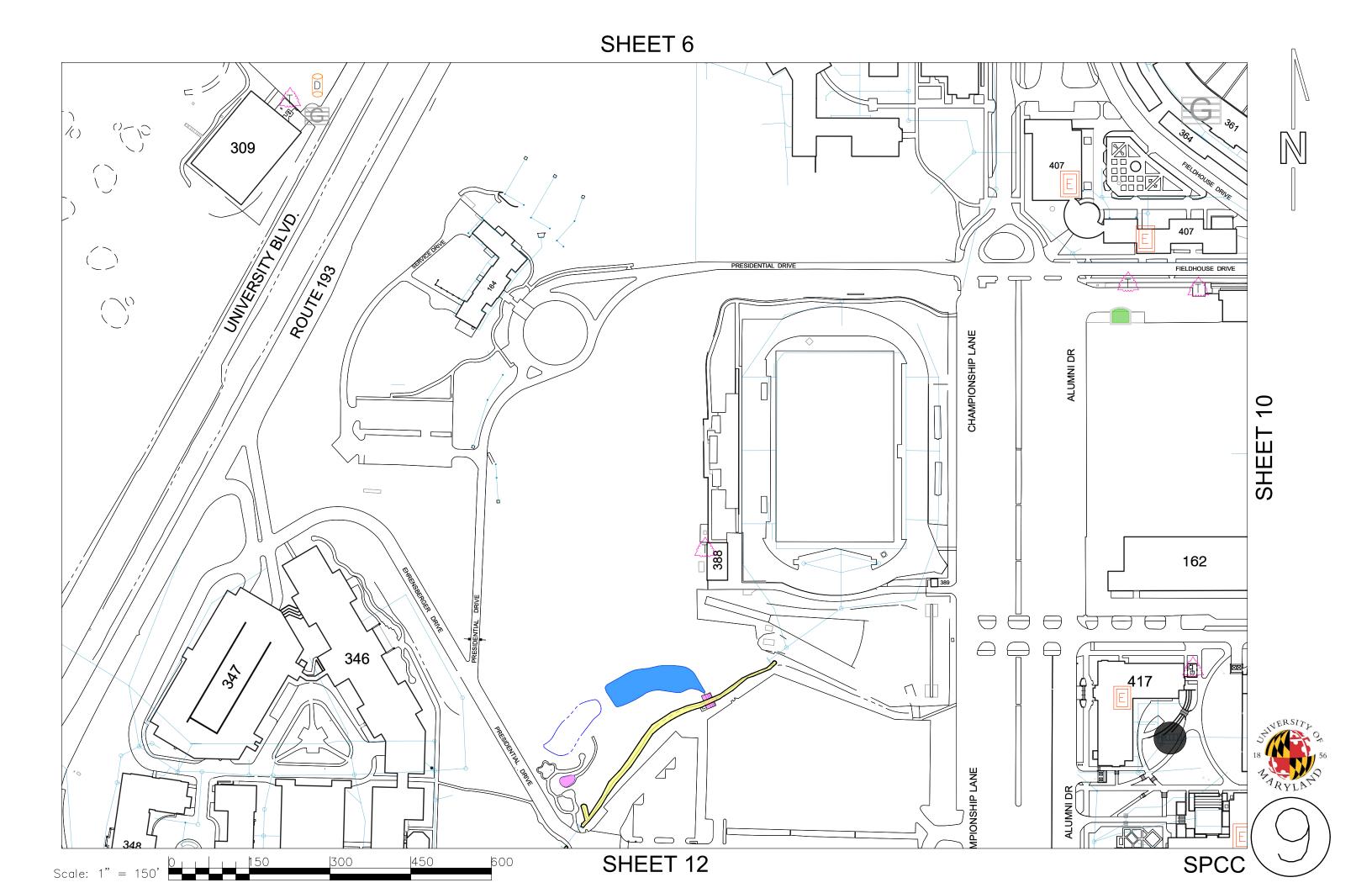


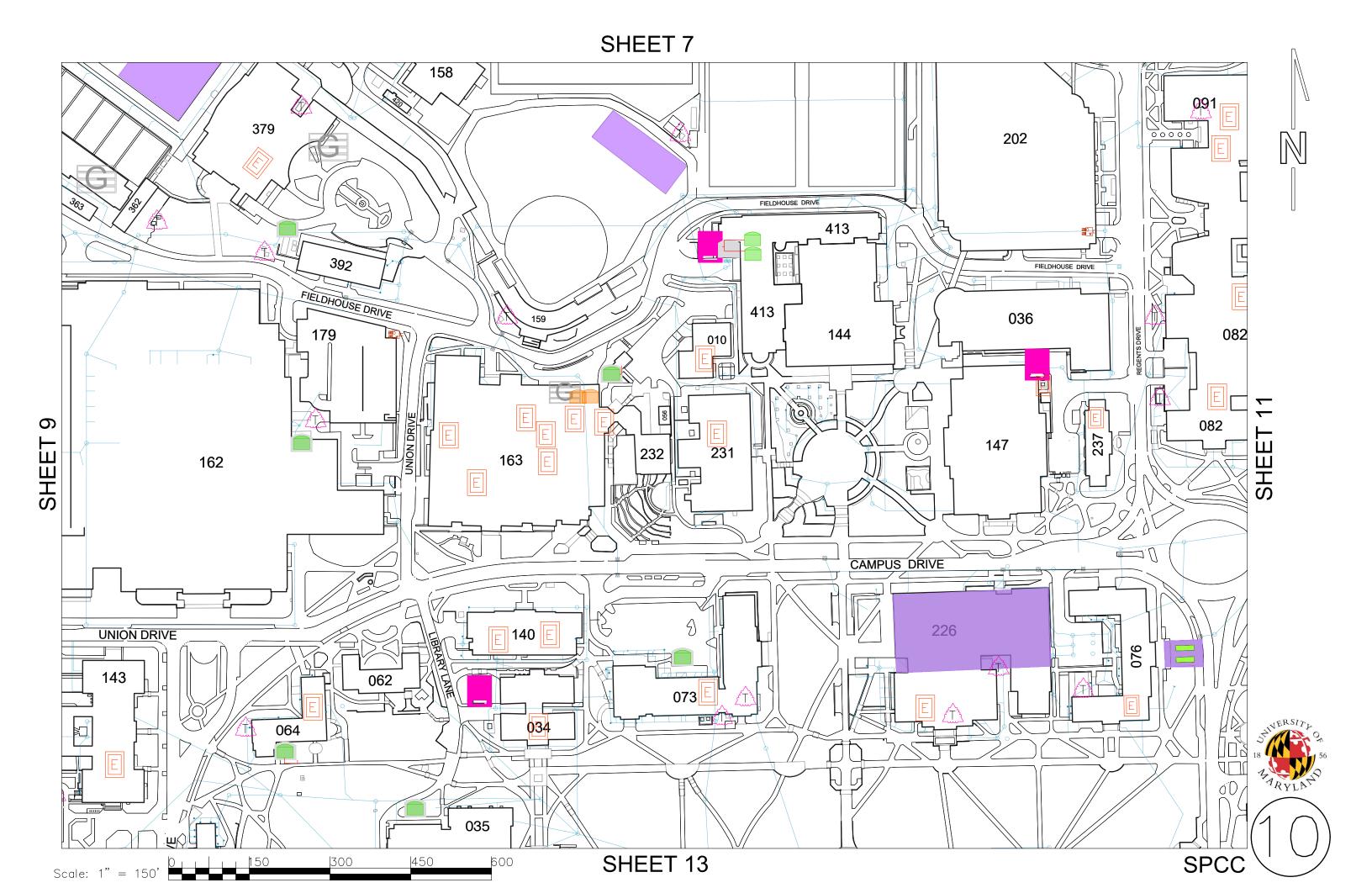


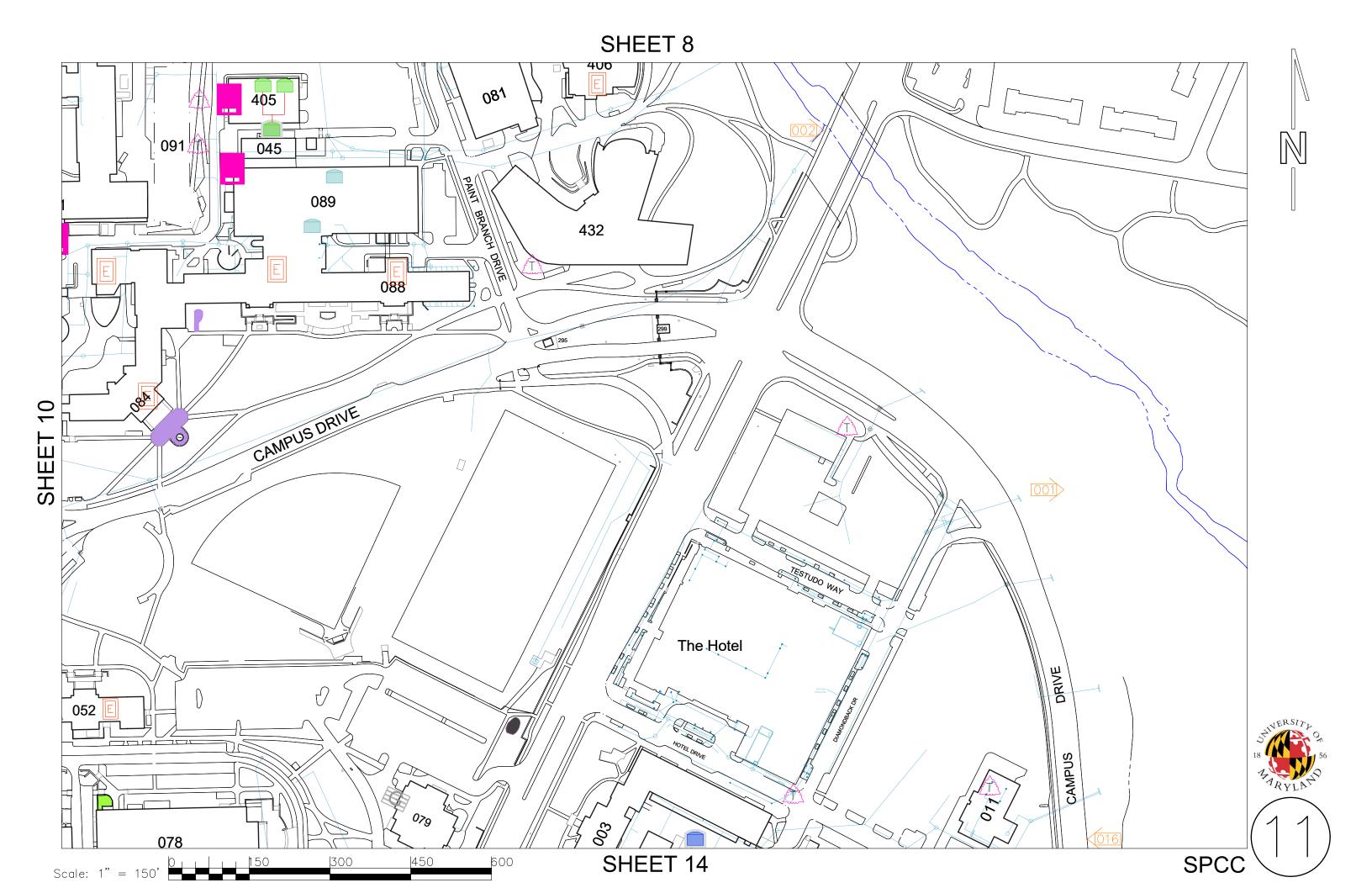


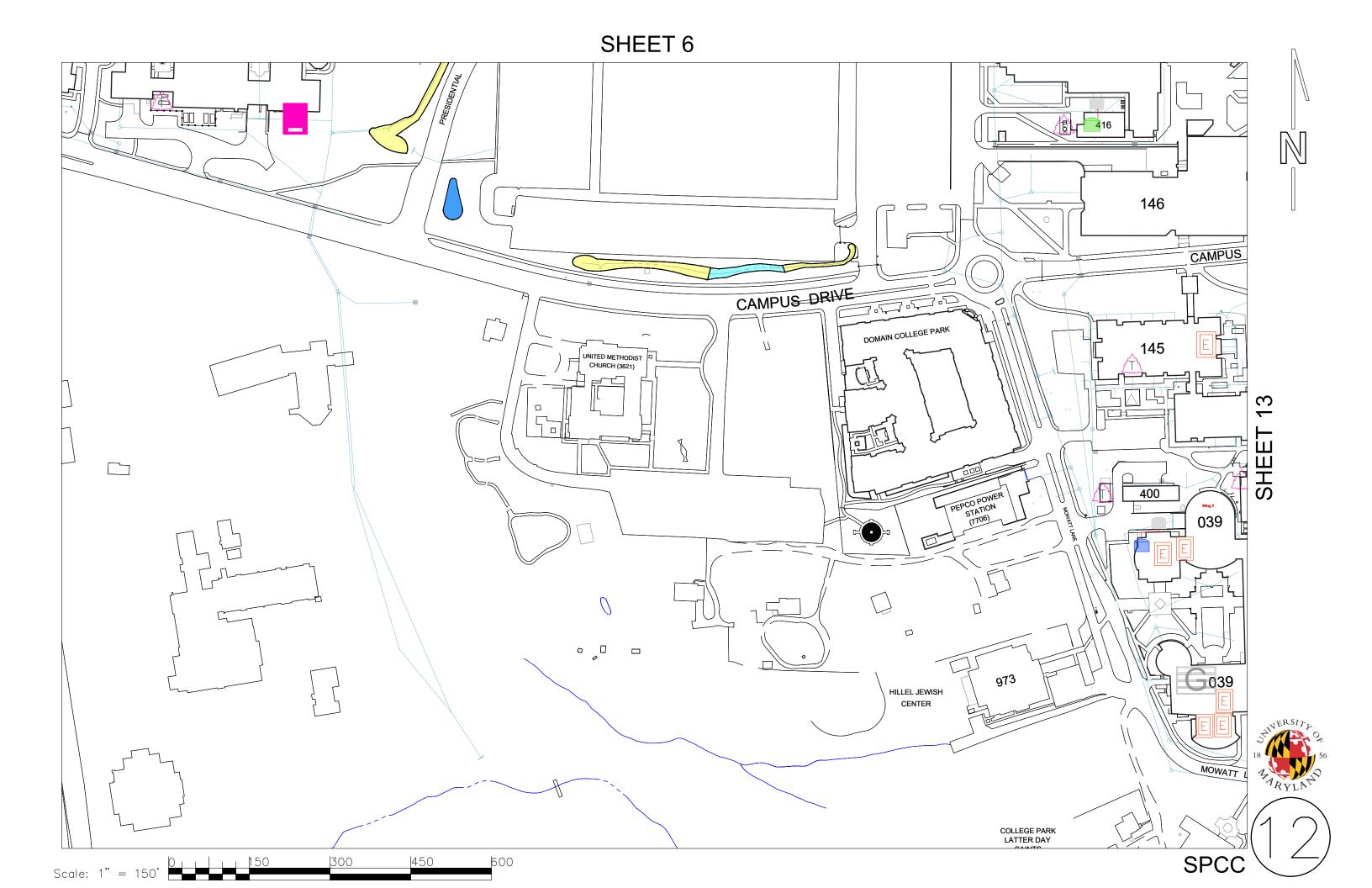


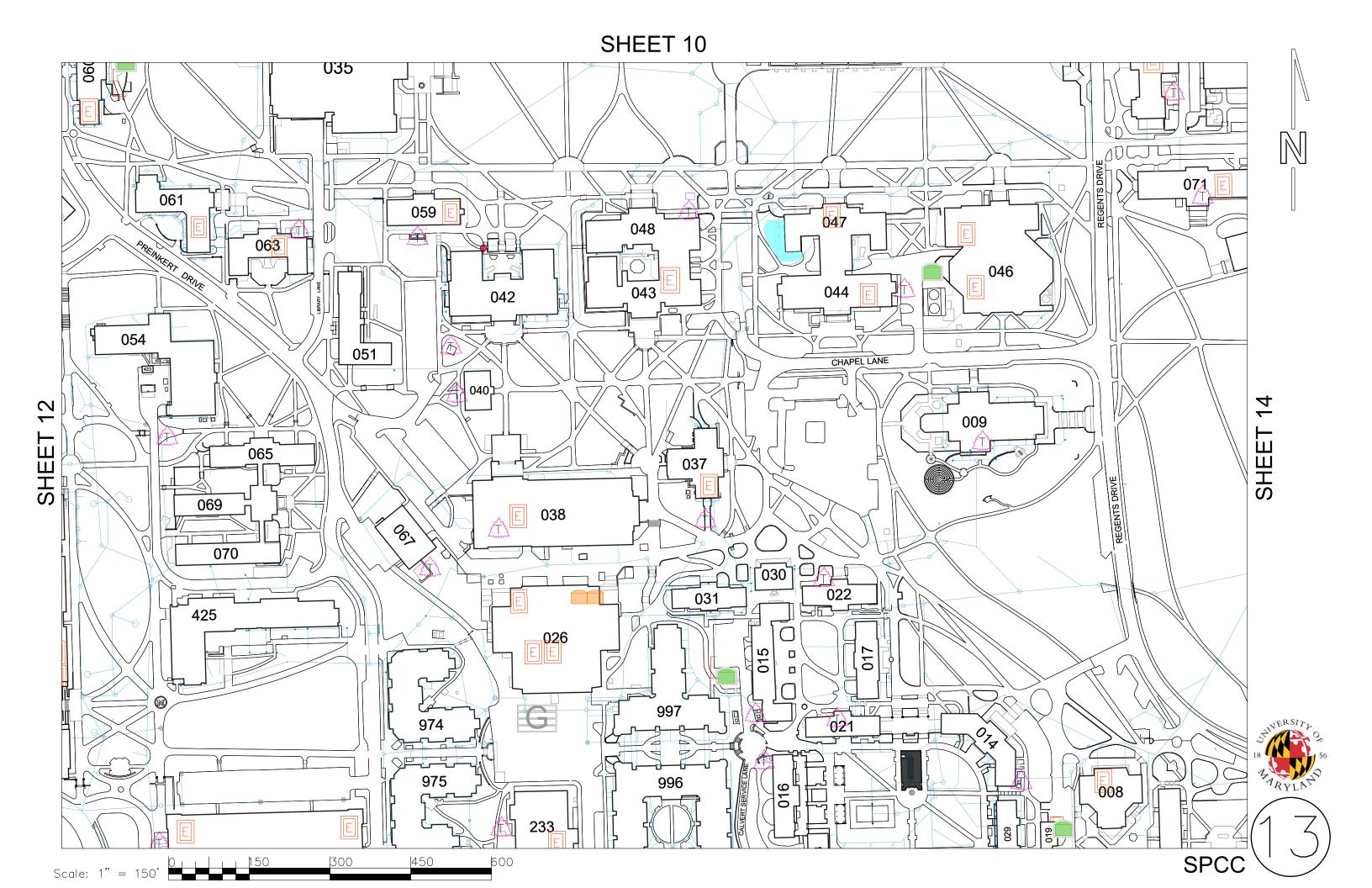


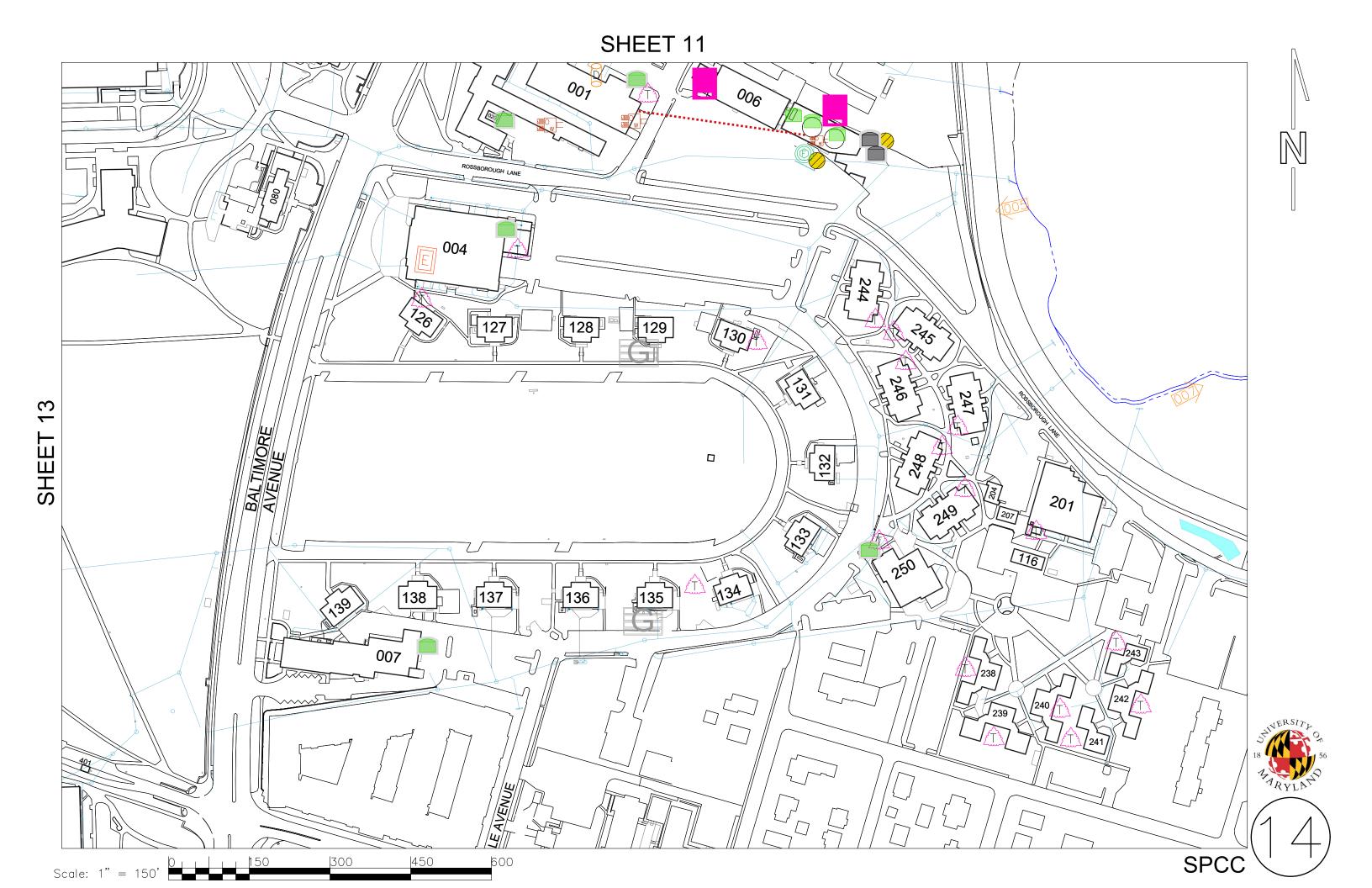












Appendix A Spill Reporting Forms & Procedures

EMERGENCY RESPONSE PROCEDURES FOR OIL SPILLS

ATTEMPT TO STOP THE FLOW OF OIL FROM SPEADING AND FURTHER IMPACTING THE ENVIRONMENT.

ALWAYS USE REQUIRED PPE.

- **Control**: close any valves or plug or patch any leaks.
- Contain: use spill containment equipment including absorbent pads and protective booms to prevent further spreading of the oil.
- **Notify:** UMD's Office of Environmental Affairs Unit <u>ASAP</u> by phone at 405-3990 with the following information:
 - 301-Time & location of spill
 - 302-Type & quantity of oil spilled
 - 303-Source & cause of spill
 - 304-Description of containment, removal & cleanup operations

The Office of Environmental Affairs will then report to MDE 24-Hour Emergency Response Hotline within 2 Hours of recognizing the oil spill. MDE: 1-866-633-4686

If the spill reaches navigable waters, then the Office of Environmental Affairs Unit will also notify the National Response Center at 800-424-8802.

ALWAYS REPORT INCIDENT TO YOUR SUPERVISOR!

MARYLAND DEPARTMENT of the ENVIRONMENT 1800 WASHINGTON BOULEVARD BALTIMORE , MARYLAND. 21230 (410) 537-3000 1-800-633-6101 (within Maryland)

http://www.mde.state.md.us



State of Maryland Department of the Environment Emergency Response Division 1800 Washington Blvd. Suite #105 Baltimore, Maryland. 21230-1721



24 HOUR SPILL REPORTING (Toll Free) 1-866-633-4686 EMERGENCY RESPONSE OFFICE (410) 537-3975 RESPONSE OFFICE FACSIMILE (410) 537-3932

PURSUANT TO THE PROVISIONS OF STATE LAW AND REGULATION; (COMAR 26.10.01.03) "A PERSON DISCHARGING OR PERMITTING THE DISCHARGE OF OIL, OR WHO EITHER ACTIVELY OR PASSIVELY PARTICIPATES IN THE DISCHARGE OR SPILLING OF OIL, EITHER FROM A LAND BASED INSTALLATION, INCLUDING VEHICLES IN TRANSIT, OR FROM ANY VESSEL SHIP OR BOAT OF ANY KIND, SHALL REPORT THE INCIDENT IMMEDIATELY TO THE ADMINISTRATION." "THE REPORT OF AN OIL SPILL OR DISCHARGE SHALL BE MADE TO THE ADMINISTRATION IMMEDIATELY, BUT NOT LATER THAN TWO HOURS AFTER DETECTION OF THE SPILL."

*** FIRE DEPARTMENT PERSONNEL. SEE REVERSE

ADC Map Coord	Date of spi	II: Mo	/ Day / Y	r. 20	7	Time of spill	:	Hours (24	hour clock)
	Fire Depa	rtment Report	No.:		F	Police Depa	rtment Repor	t No.:	
Location of spill - Street address:		Product Name:	Product Name:			<u>Capacity</u> of Vessel, Vehicle or Tank: Gallons			
City / Town MD County Zip			(Indicate Gasoline, Diesel, Heating Oil, Chemical Name Container Type: (Indicate AST, UST, Transformer, Saddle etc.)			Estimate		N Vessel, Vehic	e or Tank: Gallons Gallons
Transportation Incident:		☐ Contained on Land			Vehicle Tag	Number and State			
(Indicate Type of Auto, Truck, Trixed Facility Incic	lent:	, 	☐ Entered Storm Drain or Ditch ☐ Entered Sanitary Sewer ☐ Is Below Ground ☐ Entered surface waters:			Waterway Name	DOT or ICC MC Number: Hull Numbers and Name:		
Person(s) Respon						any Responsible for Spill: (N/A if private citizen			
Address:			Complete Both Sections Addre			ne: ress:			
City/State:				City/Sta	//State: Zip:				
Phone: Drivers Lic.No.			Phone		Phone:	e:Employer ID No			
Cause of Spill: Motor Vehicle Personnel Erro Tank/Containel Mechanical Fa Transfer Accide	or/Vandalism r/Pipe Leak ilure	Spill Mitiga MDE ERI Federal: State: Local:	Groups that <u>Pa</u> ation: Res D # Dr:	ponsible	e Party	Sorbent Di Sorbent Pa Sorbent Bo Sorbent So Overpack	ust: ads: ooms: weeps: Drums :	<u>u</u> to contain/clea Bags each each each each cach steel	or bales or bales or bales or bales
Responsible Party: Describe circumstances contributing to the spill. (Additional space on back) [Optional for FD or Gov't Personnel				ov't Personnel]					
Responsible Party : Descr	ribe Containment ,	Removal and Clea	n-up operations , inclu	ding dispo	sal. (Additio	onal space on b	eack) [Optional for FD or Go	ov't Personnel]
Responsible Party : Proce	edures, Methods ar	d Precautions inst	ituted to prevent recuri	rance of th	e spill. (Ad	ditional space o	n back) [Optional for FD or Go	ov't Personnel]
Print Name:	THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF HIS OR HER KNOWLEDGE AT THE TIME THE REPORT WAS COMPLETED. Print Name: Company or Fire Department:								
Address : Telephone				-		-			
•					•				

MARYLAND DEPARTMENT of the ENVIRONMENT 1800 WASHINGTON BOULEVARD BALTIMORE, MARYLAND. 21230 (410) 537-3000 1-800-633-6101 (within Maryland)

http://www.mde.state.md.us



State of Maryland Department of the Environment Emergency Response Division 1800 Washington Blvd. Suite #105 Baltimore , Maryland. 21230-1721



24 HOUR SPILL REPORTING (Toll Free)1-866-633-4686 EMERGENCY RESPONSE OFFICE (410) 537-3975 RESPONSE OFFICE FACSIMILE (410) 537-3932

PURSUANT TO THE PROVISIONS OF STATE LAW AND REGULATION; (Environmental Article 4-401 (i); the "Person Responsible for the discharge includes, The owner of the discharged oil, The owner, operator and / or the person in charge of the oil storage facility, vessel, barge, or vehicle involved at the time of or immediately before the discharge; and Any person who through act or ommission, causes the discharge."

* * * <u>Fire Department</u> * * * and <u>Local</u> or <u>State Government Agencies</u> : Unless you are the responsible party as defined above , Please indicate 'Unknown " in any box reuesting information that is unknown or unavailable to you at the time of report.				
This Space for continuation ar	nd additional information.			
	S THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF HIS OR HER KNOWLEDGE AT THE TIME THE REPORT WAS COMPLETED. Company or Fire Department:			
Address :	City / State / Zip			
Telephone	Signature			



UMD Spill History Report

Date	Spill Amount	Details/ Comments (Please Attach copies of Report Forms)
12/04/2018	15 Gallons	An unknown employee dumped used cooking oil/grease into an unlined dumpster in the loading dock. None was observed entering the stormwater system. The leaking dumpster was removed for repair. Sorbent was used to clean the oil on the pavement and disposed of in the dumpster.
08/05/2019	1.5-2 Gallons	An unknown employee overfilled the waste oil AST at the shuttle bus facility. Approx 1.5-2 gallons of oil spilled onto the surrounding concrete and a small patch of soil. None was observed entering the stormwater system. There were already oil sorbent pads deployed prior to the notification of the spill. Loose oil absorbent was used (1 bag) and all cleaning materials in addition to 1 55-gallon drum of soil was removed and disposed of through the University's TSDF.
12/09/2020	200 gallons	A nozzle on the fuel dispenser failed to shut off and resulted in an overflow of diesel fuel during the refueling of one of the buses at the Shuttle Bus facility. All fuel was contained on the containment pad at the fueling site. No fuel entered the environment. OEA deployed absorbent materials to the ground surface. A vacuum truck was used to pump water and fuel from the containment OWS in the middle of the fuel pad.
03/03/2021	1-2 gallons	At approximately 2:45 am an alert went out about a small spill that occurred at the Shuttle Bus fuel island. The alert mentioned that the spill was from the dispenser nozzle and that all the fuel spilled had been contained to the containment pad and oil/water separator. Upon investigation, it was noted the pump house had fuel pooled in the bottom of the structure and that some had leaked out into the adjacent ground. Absorbent material was used on the ground surface and roughly 4-in of contaminated soil was removed.
06/14/2021	2 gallons	Greentech was fuel polishing the diesel fuel at the portable generator located in the loading docks near Terp Trader. During the process, the line disconnected and spilled approximately 2 gallons of diesel fuel. Greentech immediately shut off the fuel and deployed pig absorbent pads to the affected area. A small amount of fuel did enter the zipper drain down the side but did not pool or enter the stormwater system. The pig absorbent mats collected all standing fuel in the affected areas. Two oil socks were deployed into the zipper drain to collect any fuel that would be washed into the stormwater system via a storm event.
08/06/2021	10 gallons	Around 1630 on 8/6/21, approximately 10 gallons of oil overflowed from the used oil tank while transferring oil from a portable oil tank into the used oil tank. Two technicians from the Shuttle Bus facility immediately used loose absorbent to contain and absorb the spill. UMD Fire Marshall and 3 shuttle bus technicians finished cleaning up the spill using the absorbent dust and pads from the spill kit next to the tank. All the spilled oil was contained within the impervious area around the oil tank.
11/22/2021	12 gallons	At approximately 4:28 PM the Fire Marshal's Office was dispatched to the Shuttle Bus Facility for a diesel fuel spill. JRP Fueling was delivering diesel fuel to the Shuttle Bus Facility when a seal between the tank and a discharge valve failed. After containing the initial spill of approximately 8 gallons, the contractor (JRP Fueling) called in another tanker to pump the initial leaking fuel tanker out. After the tanker was fulling emptied to the best of their abilities, the initial tanker started his tanker to leave UMD. However, once the tanker was put into gear, diesel began to spill again from the same discharge valve (approximately an additional 4 gallons).
12/06/2021	2 gallons	At approximately 1600, a call was placed to the University of Maryland CRC of a spill being formed under a vehicle at the Severn Building. The CRC contacted the UMD Fire Marshall's who, in turn, sent out a message to those on call. Once on site, it was discovered that a vehicle was leaking its transmission fluid onto the pavement below.
05/31/2022	>1 gallon	OEA was notified of a small hydraulic oil spill outside on the Washington Quad at approximately 1:45 PM on Tuesday, 5/31/22. After arriving at the scene, a small puddle (1 inch in diameter) of hydraulic oil resting on a brick pathway was observed under a hydraulic loader, which had recently been in use by Facilities Management. The puddle was cleaned up using spill pads, and the loader was turned off and put in an idle position. In doing so, the hydraulic oil leaked a little further, which was cleaned up again. The tank had stopped leaking entirely and was towed away to the repair shop as OEA left the premises.
08/10/2022	>1 gallon	IRU responded to a fuel leak at the Severn fuel island. An employee was fueling at the E85 ethanol tank when the handle got stuck when trying to remove it from the vehicle and a small amount spilled on the fuel pad. By the time IRU arrives, the fuel had dissipated.
12/22/2022	5 gallons	At 8:30am on Friday, 12/2/22, Valley Proteins was here to pick up food waste oil from Building #251. As he was pumping oil for the barrels, the hose disconnected from the truck spilling about 5 gals of food waste oil on the driveway, heading for the street. He reattached the hose to the truck and continued pumping oil for the barrels. After he finished, he moved his truck and tried pumping up some of the oil into his truck. Building #251 had a 1/2 bag of oil dry in the building. After contacting Dining Services Maintenance, we received another 5 bags. Using the oil dry and kitchen rags, we were able to prevent the oil from flowing completely down the street.
04/17/2023	23 gallons	The trash truck driver (Kenneth) struck a discarded refrigerator with the truck. When the refrigerator fell over, it punctured and ruptured the saddle tank in the bottom corner. PGFD Station 841 was the first to arrive on scene and deployed 20 bags of absorbent onto the initial spill. Additionally, they pumped approximately 30 gallons from the saddle tank to prevent additional diesel from spilling. UMD personnel arrive on scene and deployed an additional 6 bags of absorbent onto the pavement.
4/19/2023	3 gallons	At 1856 hours UMPD and The Office of the Fire Marshal were dispatched to the Shuttle Bus Facility (424) for a spill of an unknown product and quantity. Upon arrival, Shuttle Bus Facility personnel informed us that approximately 3 gallons of a hydraulic fluid/oil mix had spilled over approximately 50 - 60 yards. The cause of the spill appeared to be from the failure of an oil feed line to the clutch fan of a shuttle bus. The shuttle bus was at the fuel pump when the failure of the line occurred. A good portion of the product spilled in the area of the fuel pump. Some of the product flowed naturally into the oil/water separator located at the pump. The bus then drove to the opposite end of the lot causing a trail of this mixture to cover an estimated area of 50 - 60 yards. There did not appear to be any contamination to the environment as everything was contained to the parking lot and the oil/water separator. Shuttle Bus Facility personnel recovered as much of the product as possible using 8 bags of Pig Dry Loose Absorbent and brooms.

UMD Spill History Report



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24 HOUR SPILL REPORTING (TOII Free) 1-866-633-4686 EMERGENCY RESPONSE OFFICE (410) 537-3975 RESPONSE OFFICE FACSIMILE (410) 537-3932

PURSUANT TO THE PROVISIONS OF STATE LAW AND REGULATION; (COMAR 26.10.01.03) "A PERSON DISCHARGING OR PERMITTING THE DISCHARGE OF OIL, OR WHO EITHER ACTIVELY OR PASSIVELY PARTICIPATES IN THE DISCHARGE OR SPILLING OF OIL, EITHER FROM A LAND BASED INSTALLATION, INCLUDING VEHICLES IN TRANSIT, OR FROM ANY VESSEL SHIP OR BOAT OF ANY KIND, SHALL REPORT THE INCIDENT IMMEDIATELY TO THE ADMINISTRATION." "THE REPORT OF AN OIL SPILL OR DISCHARGE SHALL BE MADE TO THE ADMINISTRATION IMMEDIATELY, BUT NOT LATER THAN TWO HOURS AFTER DETECTION OF THE SPILL."

*** FIRE DEPARTMENT PERSONNEL. SEE REVERSE

ADC Map Coord Date of spill: Mo. 1 2	/ Day <u>0 4</u> / Y	r. 20 <u>1</u>	<u>8</u> T	Γime of spill	II: <u>0 9 1 7</u> Hours (24 hour clock)
Fire Department Report	t No.: N/A		F	Police Depa	artment Report No.: N/A
Location of spill - Street address: Denton Dining Hall 3951 Denton Service Lane City / Town College Park, MD MD County Prince Georges Zip 20742	Product Name: Cooking Oil / Food Grease (Indicate Gasoline, Diesel, Heating Oil, Chemical Name or UN ID etc.) Container Type: Dumpster (Indicate AST, UST, Transformer, Saddle Tank, Drum			,	Capacity of Vessel, Vehicle or Tank: 1,210 Gallons Amount IN Vessel, Vehicle or Tank: 20 Gallons Estimated Amount Spilled: 15 Gallons
Transportation Incident: N/A (Indicate Type of Auto, Truck, Train, Aircraft or Watercraft etc.) Fixed Facility Incident: Institutional Facility (Indicate Type of Industrial, Commercial, Residential etc.)	Contained on Land Entered Storm Drain or Dito Entered Sanitary Sewer Is Below Ground Entered surface waters:			Waterway Name	Vehicle Tag Number and State: N/A DOT or ICC MC Number: N/A Hull Numbers and Name: N/A
Name: University of Maryland Dining Services Address: 3951 Denton Service Lane City/State: College Park, MD Zip: 20742 Phone: 301-405-0562	river if Vehicle)	Be Sure to Complete Both Sections Don't Forget to Sign Below	Name:_ Address City/Sta Phone:	University of Ma S: 4716 Pontiac ate: College Po 301-405-3990	
■ Motor Vehicle Accident ■ Personnel Error/Vandalism □ Tank/Container/Pipe Leak □ Mechanical Failure □ Transfer Accident □ Contracto	Groups that <u>Pa</u> ation: Res D #	ponsible #	e Party	Sorbent Do Sorbent Pa Sorbent Bo Sorbent Sv	rads: 12 each or bales each or bales
Responsible Party : Describe circumstances contributing to the	spill. (Additional space	e on back)			[Optional for FD or Gov't Personnel
An unknown employee dumped used cooking oil / grease in	to a dumpster located	d adjacent f	to the Deni	ton Dining Hall	Il loading dock. Dining Services staff notified the Office of
Environmental Affairs (OEA) about the leaking oil at 9:17	am. When OEA staf	ff arrived, s	sawdust ha	ad been deplo	oyed to contain the spill. OEA staff deployed additional
spill response materials inside the dumpster and on the ground. The					
Responsible Party: Describe Containment, Removal and Clear	1-up operations, includ	soqsib gnit	al. (Addition	nal space on ba	pack) [Optional for FD or Gov't Personnel
Oil sorbent booms and pads were deployed to contain the spilled cooking oil / food grease. The spill did not reach the stormdrain system or waters of the state. All oil was contained to the paved parking area near the loading dock. All spill cleanup materials were disposed of in a dumpster. The leaking dumpster was removed for repair.					
Responsible Party: Procedures, Methods and Precautions instit	tuted to prevent recurra	ance of the	spill. (Addi	itional space or	on back) [Optional for FD or Gov't Personnel
Dining Services staff are attempting to identify the employee	who dumped the coo	king oil / fo	ood grease	into the dump	oster. Staff will be retrained regarding proper oil disposal.
THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PRO' Print Name: Jason Baer, Assistant Director, Office of Environme Address: 4716 Pontiac Street, Suite, 0103 Telephone 301-405-3163		any or F City / S	Fire Dep State / Zi		University of Maryland

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* * * FIRE DEPARTMENT PERSONNEL. SEE REVERSE * * *

ADC Map Coord Date of spill: Mo. <u>0</u> <u>8</u>	/ Day <u>0</u> <u>5</u> / Yr	r. 20 <u>1</u>	<u>9</u> Tir	me of spill	l: <u>1</u> <u>3</u> <u>0</u> <u>0</u> Hours (24 hour clock)
Fire Department Report	No.:		Po	olice Depa	artment Report No.:
Location of spill - Street address: 8537 Paint Branch Dr	Product Name: Waste Oil				<u>Capacity</u> of Vessel, Vehicle or Tank: Gallons
City / Town College Park MD County Prince Georges Zip 20742	(Indicate Gasoline, Diesel, Heating Oil, Chemical Name or UN ID etc.) Container Type: AST (Indicate AST, UST, Transformer, Saddle Tank, Drum)				Amount IN Vessel, Vehicle or Tank: Gallons Estimated Amount Spilled: 1.5-2 Gallons
•	etc.)	Transioni	lei, Saudie	Tank, Druin	1.5-2 Gallons
Transportation Incident:	Contained oEntered Sto		n or Ditch	า	Vehicle Tag Number and State:
(Indicate Type of Auto, Truck, Train, Aircraft or Watercraft etc.) Fixed Facility Incident: Institutional	☐ Entered Sar☐ Is Below Gro ☐ Entered surf	ound		Waterway Name	DOT or ICC MC Number: N/A Hull Numbers and Name:
(Indicate Type of Industrial, Commercial, Residential etc.)					N/A
Name: Shuttle Bus Facility Address: 8537 Paint Branch Dr City/State: College Park, MD Zip: 20742 Phone: (301) 314-7269	iver if Vehicle)	Be Sure to Complete Both Sections Don't Forget to Sign Below	Name: Ut Address: City/Stat Phone: 3	1101 Main A 7901 Regent e: College P 301-405-1000	dministration Building ts Drive Park, MD Zip: 20742
 Motor Vehicle Accident Personnel Error/Vandalism ☐ Tank/Container/Pipe Leak ☐ Mechanical Failure ☐ Transfer Accident Spill Mitigat ☐ MDE ERI ☐ Federal : ☐ State : ☐ Local : 	Groups that Pale Ition: Responsible Respon	ponsible #	Party S	Sorbent D Sorbent P Sorbent B Sorbent S Overpack	ads: each or bales ooms: each or bales
An unknown individual overfilled the waste oil	tank located out	side of	the maint	onanco el	
discovered on Monday, August 5, 2019 at approximately 13:00. Most of the spill was covered by sorbent pads prior to the discovery by the reporting individual. A small amount of the spill had entered the grass/ground adjacent to the waste oil tank. Responsible Party: Describe Containment, Removal and Clean-up operations, including disposal. (Additional space on back) [Optional for FD or Gov't Personnel]					
The entirety of the spill was cleaned up by collect	ting the saturated	sorbent	pads, pla	cing 1 bag	g of sheen clean loose absorbent to absorb the
remaining oil, and a 55-gallon drum of the c	ontaminated soil	l was re	moved. A	All cleanir	ng materials were cleaned up and properly
disposed of through the University's TSDF.					
Responsible Party : Procedures, Methods and Precautions insti	tuted to prevent recurra	ance of the	e spill. (Addit	ional space o	on back) [Optional for FD or Gov't Personnel]
Shuttle Bus personnel will be retrained in proper	er disposal proced	dures. Ir	addition	to the trai	ning, a longer nipple will be installed between
the tank and the locking cap to prevent overfills in the future as well as a the installation of a combination tank gauge and audible / visual alarm.					
Print Name: Kaitlyn Peterson, Office of Environmental Affairs		any or	Fire Depa	artment:_	Ublnที่เหล่ารที่เป่าฮก์ โฟกสาyland
Address: 4716 Pontiac Street, 0103 Telephone 301-405-8604		-	State / Zipgnature		oark, MD 20742 Son Baer

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* * * FIRE DEPARTMENT PERSONNEL. SEE REVERSE * * *

ADC Map Coord Date of spill: Mo. 1 2	? / Day <u>0 9</u> / Yr. 20 <u>2</u> <u>0</u>	Time of spill:	<u>1</u> <u>5</u> <u>4</u> <u>5</u> Hours (24 hour clock)		
Fire Department Repo	rt No.:	Police Depar	tment Report No.:		
Location of spill - Street address: 8537 Paint Branch Drive, Bldg. 424 City / Town College Park MD County Prince George's	Product Name: Ultra Low Sulfur Diesel Fuel (Indicate Gasoline, Diesel, Heating Oil, Chemical Nam Container Type: AST / Fuel Dispenser	Heating Oil, Chemical Name or UN ID etc.) Amount IN Vessel, Veh			
Zip 20742	(Indicate AST, UST, Transformer, Saddle		Estimated <u>Amount Spilled:</u> 200 Gallons		
Transportation Incident: (Indicate Type of Auto, Truck, Train, Aircraft or Watercraft etc.) Fixed Facility Incident: Institutional (university) - shuttle bus maintenance facility (Indicate Type of Industrial, Commercial, Residential etc.)	■ Contained on Land ■ Entered Storm Drain or Dit ■ Entered Sanitary Sewer ■ Is Below Ground ■ Entered surface waters:	name (L)	Vehicle Tag Number and State: N/A DOT or ICC MC Number: N/A Hull Numbers and Name: N/A		
Name: Edwin Brown (facility maintenance manager - evening Address: 8537 Paint Branch Drive, Bldg. 424 City/State: College Park, MD Zip: 2079 Phone: (301) 314-8631	shift) Complete Both Sections 42 Don't Forget Complete Both Addres Addres City/St Phone	University of Mary SS: 1101 Main Adr 7901 Regents ate: College Pa : 301-405-3960	ministration Building		
 □ Motor Vehicle Accident □ Personnel Error/Vandalism □ Tank/Container/Pipe Leak □ MDE ER □ Federal □ State : □ Local : □ Contract 	I Groups that <u>Participated</u> in ation: Responsible Party BD # #	Sorbent Du Sorbent Pa Sorbent Bo Sorbent Sw Overpack D	ds: 10 each or bales or bales each or bales each or bales or bales. Drums: 1 each or bales each or bales or bales.		
Responsible Party : Describe circumstances contributing to the			[Optional for FD or Gov't Personnel]		
A nozzle on the fuel dispenser failed to shut off					
All fuel was contained on the containment pad at the fueling facility. MDE was notified of the spill by phone at approximately 5:30 pm, once the situation had been assessed and cleanup operations had been initiated. Responsible Party: Describe Containment, Removal and Clean-up operations, including disposal. (Additional space on back) [Optional for FD or Gov't Personnel]					
The Office of Environmental Affairs respond	ed for the University. Absorbent	t materials w	ere used to remove the fuel on the ground		
surface. All liquid was contained to the containment pad at the fueling facility. A vacuum truck was used to pump water and fuel from the					
containment sump in the middle of the fueling facility. No fuel entered the environment. All fuel spilled was contained and cleaned up.					
Responsible Party: Procedures, Methods and Precautions instituted to prevent recurrance of the spill. (Additional space on back) [Optional for FD or Gov't Personnel]					
We will contact a contractor to service the fuel dispenser and ensure that it is operating properly.					
THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PI Print Name: Jason Baer Address: 4716 Pontiac Street, #0103 (Seneca Building)	ROVIDED IS TRUE AND CORRECT TO THE BEST OF COMPANY OF FIRE DECENTION OF CITY / State / 2	partment:_\	University of Maryland		
Telephone 202-441-6391 (cell)	Signature		ion Basi		

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*** FIRE DEPARTMENT PERSONNEL. SEE REVERSE

ADC Map Coord Date of spill: Mo. C	6 / Day 1 4 / \	Yr. 20 <u>2</u> <u>1</u>	Time of spill	l: <u>1</u> <u>1</u> <u>2</u> <u>5</u> Hours (24 hour clock)	
Fire Department Re	port No.:		Police Depa	artment Report No.:	
Location of spill - Street address: Severn Building	Product Name	:		<u>Capacity</u> of Vessel, Vehicle or Tank: 210 Gallons	
5245 Greenbelt Road		I, Heating Oil, Chemical Nar	me or UN ID etc.)	Amount IN Vessel, Vehicle or Tank:	
City / Town College Park MD County Prince George's	Container Type Portable AST Genera			Estimated <u>Amount Spilled:</u> Gallons	
Zip 20740	(Indicate AST, UST etc.)	T, Transformer, Sadd	le Tank, Drum	2 Gallons	
Transportation Incident:	■ Contained	on Land orm Drain or Di	itch	Vehicle Tag Number and State:	
(Indicate Type of Auto, Truck, Train, Aircraft or Watercraft etc.)	☐ Entered Sa			DOT or ICC MC Number:	
Fixed Facility Incident:	☐ Is Below G		Vaterway Name		
(Indicate Type of Industrial, Commercial, Residential etc.)	— ☐ Entered su	irface waters:	~>	Hull Numbers and Name:	
Person(s) Responsible for Spill:	(Driver if Vehicle)	Be Sure Comp	oany Respo	onsible for Spill: (N/A if private citizen.)	
Name:		Complete Name	: Greentech Fuel	Management	
Address:		sections Addre	SS: 1675 Hosfeld	d Drive	
City/State: Zip:		City/S	tate: Westmins	ster/MD Zip: 21157	
Phone:		Forget Phone	e: <u>(877)587-7183</u>	3	
Drivers Lic.No	State:	to Sign Below Fed. E	mployer ID	No	
Cause of Spill: □ Motor Vehicle Accident Spill Mitigation: ■ Responsib □ Personnel Error/Vandalism □ MDE ERD # # ■ Federal: □ Mechanical Failure □ State: University of Maryland □ Transfer Accident □ Local: □ Contractor:			Sorbent D Sorbent P Sorbent B Sorbent S Overpack	ads: 30+ each or bales	
Responsible Party : Describe circumstances contributing	to the spill. (Additional space	ce on back)		[Optional for FD or Gov't Personnel]	
Greentech was fuel polishing the die	sel fuel at the por	rtable generat	or located	in the loading docks near Terp Trader.	
During the process, the	line disconnected	d and spilled a	pproximate	ely 2 gallons of diesel fuel.	
Responsible Party : Describe Containment , Removal and	Clean-up operations , incl	uding disposal. (Addi	tional space on b	pack) [Optional for FD or Gov't Personnel]	
Greentech immediately shut off the fue	l and deployed pig	absorbent pad	ds to the aff	fected area. In addition to this, Greentech	
also created a dam-like structure from pig absorbent pads in front of the adjacent zipper drain to prevent fuel from entering.					
A small amount of fuel did enter the zippe	r drain down the sid	e but did not po	ol or enterin	g the stormwater system. The pig (see back)	
Responsible Party : Procedures, Methods and Precautions instituted to prevent recurrance of the spill. (Additional space on back) [Optional for FD or Gov't Personnel]					
The facility will deploy drain covers prior to future maintenance conducted in exposed areas. Contractors will be asked					
to deploy preventative ma	aintenance items s	such as drip p	ans or oil b	pooms in the event of a spill.	
THE UNDERSIGNED CERTIFIES THAT THE INFORMATION Print Name: Kaitlyn Peterson		ORRECT TO THE BEST		NOWLEDGE AT THE TIME THE REPORT WAS COMPLETED. University of Maryland	
Address: 4716 Pontiac Street		_ City / State /			
Telephone (202)308-8273		Signatur			

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PURSUANT TO THE PROVISIONS OF STATE LAW AND REGULATION; (Environmental Article 4-401 (i); the "Person Responsible for the discharge includes, The owner of the discharged oil, The owner, operator and / or the person in charge of the oil storage facility, vessel, barge, or vehicle involved at the time of or immediately before the discharge; and Any person who through act or ommission, causes the discharge."

*** Fire Department *** and Local or State Government Agencies: Unless you are the responsible party as defined above, Please indicate "

Unknown " in any box reuesting information that is unknown or unavailable to you at the time of report. This Space for continuation and additional information. Describe Containment, Removal and Clean-up operations, including disposal absorbent mats collected all standing fuel in the affected areas. Two oil socks were deployed into the zipper drain to collect any fuel that would be washed into the stormwater system via a storm event and will be replaced on Tuesday, June 15th, 2021. THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF HIS OR HER KNOWLEDGE AT THE TIME THE REPORT WAS COMPLETED. Print Name: Company or Fire Department: Address : _ _ City / State / Zip _ Telephone Signature

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* * * FIRE DEPARTMENT PERSONNEL. SEE REVERSE * * *

ADC Map Coord Date of spill: Mo. <u>0</u> <u>8</u>	/ Day <u>0</u> <u>6</u> / Y	r. 20 <u>2</u>	<u>1</u> Tim	ne of spill	: <u>1 6 3 0</u> Hours (24 hour clock)		
Fire Department Report	Fire Department Report No.: Police Department Report No.:						
Location of spill - Street address: 8537 Paint Branch Dr	Product Name: Used Oil				<u>Capacity</u> of Vessel, Vehicle or Tank: 550 Gallons		
Shuttle Bus Facility City / Town College Park MD County Prince George's Zip 20742	Container Type	· ·			Amount IN Vessel, Vehicle or Tank: 500 Gallons Estimated Amount Spilled: 10 Gallons		
Transportation Incident:	■ Contained of		D:: 1		Vehicle Tag Number and State:		
(Indicate Type of Auto, Truck, Train, Aircraft or Watercraft etc.) Fixed Facility Incident: Transportation at an Institution (Indicate Type of Industrial, Commercial, Residential etc.)	☐ Entered Storm Drain or Dite☐ Entered Sanitary Sewer☐ Is Below Ground☐ Entered surface waters:			Waterway	DOT or ICC MC Number: Hull Numbers and Name:		
Person(s) Responsible for Spill: (Dr Name: Shuttle Bus Technician Address: 8537 Paint Branch Dr	river if Vehicle)	Poth		iversity of Ma	nsible for Spill: (N/A if private citizen.) ryland-Shuttle Bus Facility ranch Dr		
City/State: College Park, Maryland Zip: 2074: Phone: (301) 314-7267 Drivers Lic.NoS	Phone			01) 314-7267	College Park, Maryland Zip: 20742 314-7267 yer ID No. 52-6002033		
 □ Motor Vehicle Accident □ Personnel Error/Vandalism □ Tank/Container/Pipe Leak □ Mechanical Failure □ Transfer Accident Spill Mitigation □ MDE ERI □ Federal : □ State : □ Local : 	Groups that Pation: Res	ponsible #	Party S S S S S S S S S O O	orbent Doorbent Pa orbent Bo orbent So orbent So Overpack	ads: 10 each or bales		
	Around 1630 on 8/6/21, approximately 10 gallons of oil overflowed from the used oil tank while transferring oil from a						
<u> </u>	portable oil tan	k into th	e used o	il tank.			
Responsible Party: Describe Containment, Removal and Clean-up operations, including disposal. (Additional space on back) [Optional for FD or Gov't Personnel] Two technicians from the Shuttle Bus facility immediately used loose absorbent to contain and absorb the spill. UMD							
Fire Marshall and 3 shuttle bus technic							
spill kit next to the tank. All of the spilled oil was contained within the impervious area around the oil tank. Responsible Party: Procedures, Methods and Precautions instituted to prevent recurrance of the spill. (Additional space on back) [Optional for FD or Gov't Personnel]							
The facility inspected their fuel level alarm to determine the reason it did not sound at the manually adjusted level of							
3/4 to 7/8 full. It was noted that the 9V ba	3/4 to 7/8 full. It was noted that the 9V battery in the alarm was low and once it was replaced, the alarm was tested and						
determined to be in working order. The used oil tank was also pumped out on 8/07/2021 and will be pumped out regularly.							
THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PROPRINT Name: Kaitlyn Peterson Address: 4716 Pontiac Street		any or l	Fire Depa	rtment: <u></u>	NOWLEDGE AT THE TIME THE REPORT WAS COMPLETED. Iniversity of Maryland ark, MD 20742		
Telephone 202-308-8273			nature _				

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State of Maryland Department of the Environment Emergency Response Division 1800 Washington Blvd. Suite #105 Baltimore, Maryland. 21230-1721



24 HOUR SPILL REPORTING (Toll Free) 1-866-633-4686 EMERGENCY RESPONSE OFFICE (410) 537-3975 RESPONSE OFFICE FACSIMILE (410) 537-3932

PURSUANT TO THE PROVISIONS OF STATE LAW AND REGULATION; (COMAR 26.10.01.03) "A PERSON DISCHARGING OR PERMITTING THE DISCHARGE OF OIL, OR WHO EITHER ACTIVELY OR PASSIVELY PARTICIPATES IN THE DISCHARGE OR SPILLING OF OIL, EITHER FROM A LAND BASED INSTALLATION, INCLUDING VEHICLES IN TRANSIT, OR FROM ANY VESSEL SHIP OR BOAT OF ANY KIND, SHALL REPORT THE INCIDENT IMMEDIATELY TO THE ADMINISTRATION." "THE REPORT OF AN OIL SPILL OR DISCHARGE SHALL BE MADE TO THE ADMINISTRATION IMMEDIATELY, BUT NOT LATER THAN TWO HOURS AFTER DETECTION OF THE SPILL."

*** FIRE DEPARTMENT PERSONNEL. SEE REVERSE

ADC Map Coord Date of spill	l: Mo. <u>1</u> <u>1</u> / Day <u>2</u> <u>2</u>	/ Yr. 20 <u>2</u> <u>1</u>	Time of spill	: <u>1 4 2</u>	<u>8</u> Hours (2	24 hour clock)
Fire Department Report No.: Police Department Report No.:						
Location of spill - Street address Shuttle Bus Facility-University of Maryland 8537 Paint Branch Dr City / Town College Park, MD MD County Prince George's Zip 20742 Transportation Incident: Fuel delivery tanker (Indicate Type of Auto, Truck, Train, Aircraft or Watercraft Fixed Facility Incident: Institutional	Diesel (Indicate Gasoline, I Container T Tanker (Low Prediction of the contain of	(Indicate Gasoline, Diesel, Heating Oil, Chemical Name or UN ID etc.) Container Type: Tanker (Low Pressure Bulk Liquid) (Indicate AST, UST, Transformer, Saddle Tank, Drum			of Vessel, Veh 5000 N Vessel, Veh 4700 Amount Spilled Number and Sta MC Number:	Gallons nicle or Tank: Gallons d: Gallons
Person(s) Responsible for Spi Name: Dennis Address: Refused to provide information City/State: Phone: Drivers Lic.No.	Be Sure to Complete Both Sections Ad	mpany Respo me: JRP Fueling/Jar dress: 10487 Lakeri #8115 y/State: Ashland, one: 804.358.9000	ny Responsible for Spill: (N/A if private citizen.) RP Fueling/James River Petroleum 10487 Lakeridge Pkwy #8115 re: Ashland, VA Zip: 23005			
☐ Tank/Container/Pipe Leak ☐ Mechanical Failure ☐ Transfer Accident	Identify All Groups that Spill Mitigation: MDE ERD # Federal: State: Local: Contractor: On-Call First Responsibiliting to the spill. (Additional	Sorbent D Sorbent P Sorbent B Sorbent S Overpack	ust: 5 ads: ooms: 4 weeps: Drums: 2	u to contain/cle Ba eac eac each each can Coptional for FD or	ags ch or bales ch or bales ch or bales ch or bales cel or Poly	
At approximately 4:28 PM the Fir	e Marshal's Office was di	spatched to the	Shuttle Bus Fa	cility for a dies	el fuel spill. The	leaking diesel
fuel was determined to be a c	ontractor spill on Univer	sity of Marylan	d property. JR	P Fueling wa	s delivering die	sel fuel to the
Shuttle Bus Facility when a seal between the tank and a discharge valve failed. After containing the initial spill of approximately Responsible Party: Describe Containment, Removal and Clean-up operations, including disposal. (Additional space on back) [Optional for FD or Gov't Personnel]						
Shuttle Bus employees deplo	yed oil booms and loo	se absorbent	to contain the	spill. The co	ntractor (JRP)	deployed oil
absorbent pads underneath	the tanker and dischar	ge valve as w	ell as a 5 gallo	on bucket to	collect the tric	kle of diesel
still leaking from the valve. Once it was determined the fuel had penetrated the soil adjacent to the parking lot, Shuttle Responsible Party: Procedures, Methods and Precautions instituted to prevent recurrance of the spill. (Additional space on back) [Optional for FD or Gov't Personnel]						
Install signage at fuel pad instru	cting all loading and unlo	pading to be do	ne with vehicle	on the fuel pa	ad where the O	WS is located.
THE UNDERSIGNED CERTIFIES THAT THE Print Name: Kaitlyn Peterson		ND CORRECT TO THE E			TIME THE REPORT WAS	S COMPLETED.
Address: 4716 Pontiac St			e / Zip College P			
Telephone (301) 405-8604		Signa				

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PURSUANT TO THE PROVISIONS OF STATE LAW AND REGULATION; (Environmental Article 4-401 (i); the "Person Responsible for the discharge includes, The owner of the discharged oil, The owner, operator and / or the person in charge of the oil storage facility, vessel, barge, or vehicle involved at the time of or immediately before the discharge; and Any person who through act or ommission, causes the discharge."

* * * Fire Department * * * and Local or State Government Agencies : Unless you are the responsible party as defined above , Please indicate ' Unknown " in any box reuesting information that is unknown or unavailable to you at the time of report. This Space for continuation and additional information. 8 gallons, the contractor (JRP Fueling) called in another tanker to pump the initial leaking fuel tanker out. After the tanker was fulling emptied to the best of their abilities, the initial tanker started his tanker in an effort to leave UMD. However, once the tanker was put into gear, diesel began to spill again from the same discharge valve (approximately an additional 4 gallons). Bus employees began to removed the contaminated soil and rocks. It was determined that the extent of the contaminated area was too expansive for the employees to handle and a contractor was contacted take over the clean-up operations. The impervious areas impacted where cleaned using loose absorbent and sweeping the material up into a 55-gallon drum. Once all the loose fuel was removed, the contaminated area was packed with loose absorbent for the night and to be re-evaluated in the morning. The following afternoon, Tuesday November 23rd, at 1:30pm, First Call Environmental was hired by the contractor (JRP) to remediate the contaminated area. First Call arrived with three (3) employees equipped with a hand shovel. It was determined this would not suffice and First Call initiated arrangements for earth-moving equipment and a roll-off to be delivered at the site. Monday, November 29th, Darnell Jackson of First Call contacted UMD stating First Call will be at Shuttle Bus circa 1:00pm on Nov 29 to begin the remediation project. UMD plans to continue to evaluate the remediation project and determine is additional work is needed due to the fact the area impacted is a sand filter BMP. On Monday, November 29th, First Call removed approximately 1 cubic yard of contaminated soil with an excavator. The soil was placed into a lined roll-off dumpster and transported to Clean Harbors Environmental in Baltimore for disposal. First Call finished and left UMD around 5 pm. THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF HIS OR HER KNOWLEDGE AT THE TIME THE REPORT WAS COMPLETED. Company or Fire Department: UIVIU-⊏55K Print Name: Kaitlyn Peterson City / State / Zip College Park, MD 20742 Address: 4716 Pontiac Street Signature Kaitlyn Peterson Telephone (301) 405-8604

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* * * FIRE DEPARTMENT PERSONNEL. SEE REVERSE * * *

ADC Map Coord Date of spill: Mo. <u>1 2</u> / Day <u>0 6</u> / Yr. 20 <u>2 1</u> Time of spill: <u>1 6 0 0</u> Hours (24 hour clock)					
Fire Department Report	Fire Department Report No.: Police Department Report No.:				
Location of spill - Street address: 5245 Greenbelt Rd.	Product Name: petroleum product			Capacity of Vessel, Vehicle or Tank: Gallons	
City / Town College Park MD County Prince George's Zip 20740	(Indicate Gasoline, Diesel, F Container Type: Vehicle (Indicate AST, UST, etc.)	:		Amount IN Vessel, Vehicle or Tank: 2 Gallons Estimated Amount Spilled: 2 Gallons	
Transportation Incident: Auto (Indicate Type of Auto, Truck, Train, Aircraft or Watercraft etc.) Fixed Facility Incident: Institutional (Indicate Type of Industrial, Commercial, Residential etc.)	Contained o	orm Drain or D nitary Sewer ound	Mare way Name Name Name Name Name Name Name Name	Vehicle Tag Number and State: 22427SG MD DOT or ICC MC Number: Hull Numbers and Name:	
Person(s) Responsible for Spill: (Dr. Name: Address: 5245 Greenbelt Rd. City/State: College Park, MD Zip: 20740 Phone: Drivers Lic.No.		Complete Both Sections Don't Forget Name City/S Phon	e: University of Ma ess: 5245 Greenb State: College P e: (301) 405-5482	rark, MD Zip: 20740	
 Motor Vehicle Accident Personnel Error/Vandalism Tank/Container/Pipe Leak Mechanical Failure Transfer Accident Local : Contractor 		Sorbent D Sorbent P Sorbent B Sorbent S Overpack	ads: 12 pads each or bales ooms: each or bales weeps: each or bales Drums: each or bales Steel or Poly		
Responsible Party : Describe circumstances contributing to the				[Optional for FD or Gov't Personnel]	
At approximately 1600, a call was place					
at the Severn Building. The CRC contacted the UMD Fire Marshall's who, in turn, sent out a message to those on call. Once on site, it was discovered that a vehicle was leaking it's transmission fluid onto the pavement below. Responsible Party: Describe Containment, Removal and Clean-up operations, including disposal. (Additional space on back) [Optional for FD or Gov't Personnel]					
The initial UMD personnel on site obtained	ed spill containr	ment materia	als and place	ed oil absorbent pads under the vehicle	
and onto the loose standing oil on the su	rrounding pave	ement. The v	ehicle was	not able to be moved due to the loss of	
all it's transmission fluid, so in the mean and Responsible Party: Procedures, Methods and Precautions inst		•			
Ensure that proper maintenance of vehicles are being preformed and pre-start up inspections are being preformed.					
Check vehicles after parking for long periods of time that there are no spills or leaks before leaving vehicle unattended.					
THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PRO Print Name: Kaitlyn Peterson Address: 4716 Pontiac Street, Suite 0103 Telephone 202-308-8273			epartment: Land	University of Maryland	

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*** Fire Department *** and Local or State Government Agencies : Unless you are the responsible party as defined above , Please indicate ' Unknown " in any box reuesting information that is unknown or unavailable to you at the time of report. This Space for continuation and additional information. the vehicle over night. At approximately 10:19 the following morning, Tuesday December 7th, the vehicle was towed from the parking lot to the Motor Pool maintenance facility. UMD Office of Environmental Affairs personnel arrived on scene at approximately 10:30 to further clean up the remaining loose standing oil and used oil absorbent pads. All clean up materials were placed in 15-gallon liners and disposed of in accordance to regulations. THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF HIS OR HER KNOWLEDGE AT THE TIME THE REPORT WAS COMPLETED. Print Name: Kaitlyn Peterson Company or Fire Department: University of Maryland Address: 4716 Pontiac Street, Suite 0103 City / State / Zip College Park, MD 20742 **Telephone** 202-308-8273 Signature



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* * * FIRE DEPARTMENT PERSONNEL. SEE REVERSE * * *

ADC Map Coord Date of sp	oill: Mo	/ Day / Y	r. 20	т	ime of spill	:	Hours (24)	nour clock)
Fire Depa	artment Report	No.:		F	Police Depa	rtment Report	t No.:	
Location of spill - Street addre	ss:	Product Name:				<u>Capacity</u>	of Vessel, Vehic	le or Tank: Gallons
City / Town MD County Zip	Container Type: (Indicate AST, UST, Transformer, Saddle Tank, Drum			Amount II	N Vessel, Vehic	le or Tank: Gallons Gallons		
Transportation Incident:		Contained of Entered Sto		n or Dite	ch	Vehicle Tag	Number and State	e:
(Indicate Type of Auto, Truck, Train, Aircraft or Water Fixed Facility Incident:	craft etc.)	☐ Entered Sar ☐ Is Below Gr ☐ Entered sur	nitary Sound	ewer	Waterway	DOT or ICC MC Number: Hull Numbers and Name:		
(Indicate Type of Industrial, Commercial, Residential	al etc.)							
Person(s) Responsible for Sp. Name: Address: City/State:	Zip:		Be Sure to Complete Both Sections Don't	Name:_ Address	s: ate:		Dill: (N/A if private	
Phone:	S	tate:	Forget to Sign Below		mplover ID			
Cause of Spill: ☐ Motor Vehicle Accident ☐ Personnel Error/Vandalism ☐ Tank/Container/Pipe Leak ☐ Mechanical Failure ☐ Transfer Accident ☐	lotor Vehicle Accident ersonnel Error/Vandalism ank/Container/Pipe Leak lechanical Failure Spill Mitigation: □ Responsible Party □ MDE ERD # # □ Federal: □ State:			Party	Sorbent Do Sorbent Pa Sorbent Bo Sorbent So Overpack	ust: ads: ooms: weeps:	u to contain/clea Bags each each each each cach steel	or bales or bales or bales or bales
Responsible Party : Describe circumstance	s contributing to the	spill. (Additional space	e on back)				Optional for FD or Go	ov't Personnel]
Responsible Party : Describe Containment	, Removal and Clea	n-up operations , inclu	ding dispos	sal. (Additio	onal space on b	ack) [Optional for FD or Go	ov't Personnel]
Responsible Party : Procedures, Methods and Precautions instituted to prevent recurrance of the spill. (Additional space on back) [Optional for FD or Gov't				ov't Personnel]				
THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF HIS OR HER KNOWLEDGE AT THE TIME THE REPORT WAS COMPLETED.								
Print Name:		Comp	any or	Fire De _l	partment:_			
Address : Telephone			-		-			
•				-				

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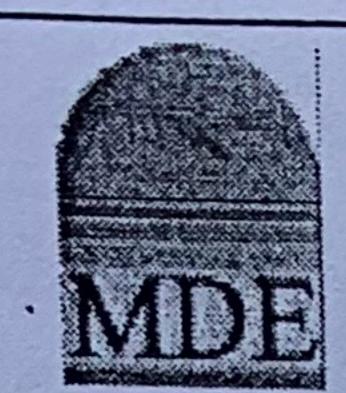
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* * * <u>Fire Department</u> * * * a Unknow	and <u>Local</u> or <u>State Government Agencies</u> : Unless you are the responsible party as defined above , Please indicate " In " in any box reuesting information that is unknown or unavailable to you at the time of report.
This Space for continuation ar	nd additional information.
	S THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF HIS OR HER KNOWLEDGE AT THE TIME THE REPORT WAS COMPLETED. Company or Fire Department:
Address :	City / State / Zip
Telephone	Signature

ND DEPARTMENT of the ENVIRONMENT ASHINGTON BOULEVARD MORE, MARYLAND. 21230 537-3000 0-633-6101 (within Maryland)

tp://www.mde.state.md.us



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Department of the Environment
Emergency Response Division
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* * * FIRE DEPARTMENT PERSONNEL, SEE REVERSE * * *

LATER THAN TWO HOURS AFTER DETECTION OF T	HE SPILL." THE REPORT OF AN OIL SPILL OR DISCHARGE SHE	MENT PERSONNEL , SEE REVERSE * * *
ADC Map Coord Date of spill: Mo.0 4	/ Day 1 1 / Yr. 20 2 3 Time of spill	: 1144 Hours (24 hour dock)
Fire Department Report	No.; Police Depa	ertment Report No.:
City/Town College Park MD. County PG China	Product Name: O. CSe Rel (Indicate Gasoline, Diesel, Heating Oil, Chemical Name or UN ID etc.) Container Type: Saddle Fank (Indicate AST, UST, Transformer, Saddle Tank, Drum etc.)	Capacity 55 of Vessel, Vehicle or Tank: Gallons Amount IN Vessel, Vehicle or Tank: Gallons Gallons Estimated Amount Spilled: Gallons
Transportation Incident: (Indicate Type of Auto, Truck, Train, Aircraft or Watercraft etc.) Fixed Facility Incident: (Indicate Type of Industrial, Commercial, Residential etc.)	Contained on Land Entered Storm Drain or Ditch Entered Sanitary Sewer Is Below Ground Entered surface waters:	Vehicle Tag Number and State: 12208 E DOT or ICC MC Number: Hull Numbers and Name:
Name: Address: City/State: Phone: 703 - 986- 8145 Drivers Lic.No.	State:	Sene ca Blog 4716 Pontiac & Sene ca Blog 4716 Pontiac & Le Panc Zip: 20742 441-6391
Cause of Spill: Motor Vehicle Accident Personnel Error/Vandalism Tank/Container/Pipe Leak Mechanical Failure Transfer Accident Transfer Accident Contract Responsible Party: Describe circumstances contributing to the	RD # # Sorbent D Sorbent P Sorbent B S	oust: ads: each or bales each or bales each or bales each or bales
functured tuel tank	trom a lettings	
	Sochment. Company getting Instituted to prevent recurrence of the spill. (Additional space) In the figure of the spill of the dual of the spill of	e on back) [Optional for FD or Gov't Personnel MPSING.
THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PORTION	Company or Fire Department Company of State / Zip Signature	THE THE TIME THE REPORT WAS COMPLETED. IT: Station 441 FGF) WILL MID 20705



6820 Webster Street

Landover Hills, Maryland. 20784 (301) 583-1830

Correction Order

			Notice	
Follow Up Date		.1st	2nd	3rd
Use Group	Construction Type Vehicle			Date 4/17/2:
Name of Business	Daiversity of Mary land		Phone 501-405-3292	7
Address	1 Hora Leonardtonin	Comp	run. ty Center 15/da 25	0
Manager Name	Jay Smith	Phone		
Owner Name	13 WILLIAM IN THE	hone		
Address of Owner	Weoak Building Bu	11din	428 College Park M	
WITH THE FOLLOW	TITLE 11 [FIRE SAFETY] OF THE PRINCE	JST ACT	IMMEDIATELY TO CORRECT TH	RECTED TO COMPLY IE LISTED ISSUES,
PRIORIOIHENE	T SCHEDULED APPOINTMENT			CODE SECTION
Abate Dangerou	s Condition: You are ordered to take	the fol	owing actions in response	11-161
to the release of	petroleum/oil that occurred on	FD Inci	Jan+ #	
at	PG	FD Inci	UCIIL #	
1) Arrange for th	e immediate removal and proper disp	osal of	all spilled petroleum	COMAR 26.10
products, recove	ed petroleum, contaminated sorbents	s, and c	ontaminated soils	
(MDE Contractor	List provided). All contaminated prod	ducts m	ust be disposed of in	
accordance with	all applicable Federal, State, and Loca	al laws.		
	1 D - L L- E H- E - Liranna on	t of the	rologo of potroleum into the	COMAR 26.10
2) Notify the Mar	yland Department of the Environment alling 410-537-3975 or 866-633-4686	within	two (2) hours of the release.	
	verview Provided)			
CONTRICT ZO. TO				
3) Compliance v	vith Fire Safety Laws, Orders, and	Notice	Notify this Office upon	11-111
compliance with	this Corrective Order by calling 301-2	262-632	5 OR 301-262-6326	
		UICED	FOODECTED	11-114
4) Non-Complia	nce - ALL ABOVE LISTED ITEMS M	1021 B	could result in prosecution.	
See reverse	Failure to comply with this Corrective	Cluel	Could restair process	
OCC ICVCISC				
			- SETAILS	
	PLEASE SEE ATTA	CHE	DFORDEIAILS	
RECEIVED BY	Jason Basol Issuel		1 + Ryan Schlegel	
			100 411 6391	DATE 4/11/
TITLE	Maria ASST Wolfer TITLE _	•	PHONE	
P.C. EORM#150	(REV. 12/01) FOR FIRE AND EMS	DIAL 91		
P.G.C. FORM#150	REV. 12/01) FOR FIRE AND EMS	DIALUI	- Stake	
	oction at our vor	winter	N 3 01 3,	

ASTs

						ASTs					
Tank ID	Bldg. Name	Bldg. #	Map #	Tank Capacity	Est. Spill Rate (gal/hr)	Contents	Containment	Туре	Details	Storm Drain Location	Receiving Outfall
55A	Gudelsky Veterinary Science	795	1	1,000	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	AST for Generator	75' E	Ditch
55C	Gudelsky Veterinary Science	795	1	80	Gradual to Instantaneous	Diesel	Double Wall	Day Tank	Day tank for Generator	75' E	Ditch
55D	Gudelsky Veterinary Science	795	1	80	Gradual to Instantaneous	Diesel	Double Wall	Day Tank	Day tank for Generator	75' E	Ditch
					Gradual to						
57	Lab for Physical Sciences	796	1	6,000	Instantaneous Gradual to	Diesel	Double Wall	HORIZ. AST	AST for Generator	75' NE	Ditch
38A	Golf Maintenance	318	2	1,000	Instantaneous Gradual to	Gasoline	Double Wall	HORIZ. AST	HORIZ. AST	600' W	Pond
38B	Golf Maintenance	318	2	500	Instantaneous Gradual to	Diesel	Double Wall	HORIZ. AST	HORIZ. AST	600' W	Pond
38C	Golf Maintenance	314	2	280	Instantaneous	Used Oil	Double Wall	HORIZ. AST	HORIZ. AST	600' W	Pond
52A	Grounds Operations	328	3	1,000	Gradual to Instantaneous	Gasoline	Double Wall	HORIZ. AST	HORIZ. AST	5' SE	Pond
52B	Grounds Operations	328	3	1,500	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	HORIZ. AST	5' SE	Pond
52C	Grounds Operations	328	3	280	Gradual to Instantaneous	Used Oil	Double Wall	HORIZ. AST	HORIZ. AST	20' SE	Pond
71	Research Greenhouse	398	3	800	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	150' NE	Pond
84	Wye Oak Building	428	3	521	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	21' SW	StormDrain
67A	Xfinity Center	360	3	500	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	145' NE	Pond
67B	Xfinity Center	360	3	500	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	115' E	Pond
					Gradual to		Double Wall				
VZW	Xfinity Center	360	3	1,050	Instantaneous Gradual to	Diesel		HORIZ. AST	Generator	103' S	Zipper Drain
11	Seneca	812	4	250	Instantaneous Gradual to	Diesel	Double Wall	HORIZ. AST	Generator	130' SW	StormDrain
78AB	Shuttle Bus	424	4	165	Instantaneous Gradual to	Motor oil	Double Wall	VERT. AST	VERT. AST	180' S	Stream
78AR	Shuttle Bus	424	4	275	Instantaneous Gradual to	Motor oil	Double Wall	VERT. AST	VERT. AST	180' S	Stream
78B	Shuttle Bus	424	4	20,000	Instantaneous Gradual to	Diesel	Double Wall	HORIZ. AST	HORIZ. AST	55' S	Pond
78C	Shuttle Bus	424	4	550	Instantaneous	Used Oil	Double Wall	HORIZ. AST	HORIZ. AST	180' S	Stream
79A	Severn	810	5	12,000	Gradual to Instantaneous	#2 Fuel Oil	Double Wall and Dike	HORIZ. AST	HORIZ. AST	39' NE	StormDrain
79B	Severn	810	5	10,000	Gradual to Instantaneous	Gasoline	Double Wall	HORIZ. AST	HORIZ. AST	58' NW	StormDrain
79C	Severn	810	5	10,000	Gradual to Instantaneous	Gasoline	Double Wall	HORIZ. AST	HORIZ. AST	58' NW	StormDrain
79F	Severn	810	5	10,000	Gradual to Instantaneous	E-85	Double Wall	HORIZ. AST	HORIZ. AST	88' E	StormDrain
79G	Severn	810	5	280	Gradual to Instantaneous	Used Oil	Double Wall	Lube Cube	AST	34' NW	StormDrain
79H	Severn	810	5	280	Gradual to Instantaneous	Motor oil	Double Wall	Lube Cube	AST	34' NW	StormDrain
					Gradual to				HORIZ. AST		Stormbrum
791	Severn	810	5	200	Instantaneous Gradual to	Diesel	Double Wall	HORIZ. AST		Contained	-
79J	Severn	810	5	-	Instantaneous Gradual to	Oil	Double Wall	Undg. Pipe	Undg. Pipe	Contained	-
89A	Severn	810	5	80	Instantaneous Gradual to	Diesel	Double Wall	HORIZ. AST	Portable Generator	Varies	Varies
89B	Severn	810	5	468	Instantaneous Gradual to	Diesel	Double Wall	HORIZ. AST	Portable Generator	Varies	Varies
89C	Severn	810	5	200	Instantaneous Gradual to	Diesel	Double Wall	HORIZ. AST	Portable Generator	Varies	Varies
90	Severn (mobile tank)	810	5	100	Instantaneous	Diesel	Sec. Containment	HORIZ. AST	Portable AST	Varies	Varies
68	Clarice Smith Performing Arts	386	6	500	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	40' NE	Stream
17A	Denton Dining Hall	251	6	183	Gradual to Instantaneous	Cooking Oil	Sec. Containment	VERT. AST	Oil Recycler	Contained	-
17B	Denton Dining Hall	251	6	183	Gradual to Instantaneous	Used Cooking Oil	Sec. Containment	VERT. AST	Oil Recycler	Contained	-
72	Golf Course Club House	166	6	100	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	34' E	Pond
42	Stadium Parking Garage	218	6	400	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	100' N	10
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55-gallon Drums											
27	Animal Science	142	7	1,000	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	AST for Generator	5' S	4
81	Atlantic Building	224	7	2,220	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	90' NW	4
20	Campus Recreation Center	068	7	576	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	50' N	Stream
96B	Johnson-Whittle Hall	435	7	555	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	SE	19
82	PSC	224	7	660	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	90' NW	4
96A	Pyon-Chen Hall	434 PCH	7	555	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	E	19
21	School of Public Health	255	7	660	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	50' W	19
23	SECU Stadium Maintenance Building	369	7	250	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	AST	60' NE	4
13A	Yahentamitsi Dining Hall	436	7	183	Gradual to Instantaneous	Cooking Oil	Sec. Containment	VERT. AST	Oil Recycler	Contained	-
13B	Yahentamitsi Dining Hall	436	7	183	Gradual to Instantaneous	Used Cooking Oil	Sec. Containment	VERT. AST	Oil Recycler	Contained	-
25	A.V. Williams	115	8	60	Gradual to Instantaneous	Diesel	Double Wall	Lube Cube	AST for Generator	NE	4
26	Computer Instructional Center	406	8	150	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	168' NE	3
95	E.A. Fernandez IDEA Factory	228	8	700	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	155' SW	3
					Gradual to						
94	Cole Field House	162	9	4,250	Gradual to	Diesel	Double Wall Double Wall	HORIZ. AST	Generator	82' NW	5
66A	Bioscience Research Bldg	413	10	1,350	Gradual to	Diesel	Double Wall		Generator	14' N 14' N	4
66B	Bioscience Research Bldg			1,350	Gradual to	Diesel		HORIZ. AST	Generator		
37	Cole Field House	162	10	275	Instantaneous Gradual to	Diesel	Double Wall	HORIZ. AST	AST for Generator	140' NE	4
19	Dorchester	064	10	60	Instantaneous Gradual to	Diesel	Double Wall	Lube Cube	AST for Generator	78' SW	5
69	H. J. Patterson	073	10	675	Instantaneous Gradual to	Diesel	Double Wall	HORIZ. AST	Generator	75' NE	4
14R	McKeldin	035	10	215	Instantaneous Gradual to	Diesel	Double Wall	HORIZ. AST	Generator	18' NE	5
6	Patuxent	010	10	1,000	Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	3' E	4
63	SCUB 3	392	10	1,350	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	100' SE	4
30A	Stamp Student Union	163	10	150	Gradual to Instantaneous	Food Grease	Double Wall	HORIZ. AST	Used Food Oil/Grease	Contained	-
30B	Stamp Student Union	163	10	150	Gradual to Instantaneous	Food Grease	Double Wall	HORIZ. AST	Used Food Oil/Grease	Contained	-
80A	Engineering Laboratory Basement	089	11	250	Gradual to Instantaneous	Hydraulic oil	Sec. Containment	HORIZ. AST	Hydraulic Tank	Contained	-
80B	Engineering Laboratory Ground Level	089	11	250	Gradual to Instantaneous	Hydraulic oil	Sec. Containment	HORIZ. AST	Hydraulic Tank	Contained	-
64A	SCUB 4	405	11	1,350	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	15' S	3
64B	SCUB 4	405	11	1,350	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	15' SW	3
64C	SCUB 4	405	11	1,000	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	AST for Generator	155' SW	3
85	SCUB 5	416	12	189	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	Contained	-
15	Van Munching	039	12	500	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	AST for Generator	Contained	-
75	Anne Arundel Hall	060	13	60	Gradual to Instantaneous	Diesel	Double Wall	Lube Cube	AST for Generator	170' NE	14
9	Calvert Hall	015	13	250	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	AST for Generator	10' SW	14
16R	Marie Mount	046	13	265	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	15' NW	5
10	SCUB 1	019	13	250	Gradual to Instantaneous	Diesel	Double Wall	Lube Cube	AST for Generator	50' E	6
18A	South Campus Dining Hall	026	13	183	Gradual to Instantaneous	Used Cooking Oil	Sec. Containment	VERT. AST	Oil Recycler	300' SW	14
18B	South Campus Dining Hall	026	13	183	Gradual to Instantaneous	Cooking Oil	Sec. Containment	VERT. AST	Oil Recycler	300' SW	14
86	Former CP Police Station	003	14	700	Gradual to Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	140' S	16

					Gradual to						
61	Leornardtown Community Cntr.	250	14	125	Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	50' NE	7
					Gradual to						
3	Plant Ops./Maint.	006	14	250	Instantaneous	Waste Oil	Double Wall	HORIZ. AST	HORIZ. AST	31' SSE	5
					Gradual to						
62	Plant Ops./Maint.	006	14	280	Instantaneous	Waste Oil	Double Wall	HORIZ. AST	HORIZ. AST	31' SSE	5
					Gradual to						
1A	Plant Ops./Maint.	006	14	8,000	Instantaneous	Diesel	Double Wall	HORIZ. AST	HORIZ. AST	20' SE	5
					Gradual to						
2A	Plant Ops./Maint.	006	14	252,762	Instantaneous	#2 Fuel Oil	Dike	VERT. AST	AST	20' SE	5
					Gradual to						
2B	Plant Ops./Maint.	006	14	252,762	Instantaneous	#2 Fuel Oil	Dike	VERT. AST	AST	20' SE	5
					Gradual to						
83	Pocomoke Building	007	14	2,400	Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	50' SE	StormDrain
	-				Gradual to						
4	Ritchie Coliseum	004	14	250	Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	5' E	5
					Gradual to						
7	Steam Plant	001	14	250	Instantaneous	Used Oil	Sec. Containment	HORIZ. AST	AST	200' N	1
					Gradual to						
65	Steam Plant	001	14	300	Instantaneous	Diesel	Double Wall	HORIZ. AST	Generator	200' N	1

55-Gallon Drums

55-Gallon Drums													
Bldg. Name	Bldg. #	Map#	Maxiumu m # of Drums	Capacity (Gal.)	Est. Spill Rate (gal/hr)	Contents	Containment	Storm Drain Location	Receiving Outfall				
					Gradual to								
Xfinity Center	360	3	2	110	Instantaneous	Used Cooking Oil	Sec. Cont.	145' NE	Pond				
					Gradual to	Waste Oil, Lube, and	Maint. Shop and						
Shuttle Bus	424	4	30	1,650	Instantaneous	Motor Oil	Sec. Cont.	265' E	Stream				
					Gradual to								
Severn	810	5	1	55	Instantaneous	Used Oil/Freon	Maint. Shop	Contained	Contained				
					Gradual to								
Severn Motor Pool	810	5	12	660	Instantaneous	Motor Oil	Maint. Shop	Contained	Contained				
					Gradual to								
Ellicott Dining Hall	257	7	4	220	Instantaneous	Used Cooking Oil	Sec. Cont.	117' NE	StormDrain				
					Gradual to		Contained in						
Manufacturing Building	148	8	1	55	Instantaneous	Hydraulic Oil	building	Contained	Contained				
					Gradual to								
Golf Course Club House	166	9	4	220	Instantaneous	Used Cooking Oil	Sec. Cont.	23' SE	Ditch				
					Gradual to								
Steam Plant	001	14	6	330	Instantaneous	Motor Oil	Sec. Cont.	200' N	1				
			Total:	3,300									

Hydraulic Elevators

	Hydraulic Elevators											
ID	Bldg. Name	Bldg. #	Capacity	Est. Spill Rate (gal/hr)	Contents	Room #	Receiving Outfall					
1	A.V. Williams	115	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1152A	Contained					
2	A.V. Williams	115	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1152A	Contained					
3	Animal Science	142	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0418	Contained					
4	Animal Science	142	Apprx. 130	Gradual to Instantaneous	Hydraulic oil	0489	Contained					
5	Annapolis Hall	800	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0104	Contained					
6	Anne Arundel Hall	060	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0113	Contained					
7	Architecture	145	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0104	Contained					
8	Arena Parking Garage	403	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	Level A	Contained					
9	Arena Parking Garage	403	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	Level A	Contained					
10	Arena Parking Garage	403	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	Level A	Contained					
11	Atlantic Building	224	Apprx. 126	Gradual to Instantaneous	Hydraulic oil	0296	Contained					
12	Benjamin Hall	143	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	107	Contained					
13	Biomolecular Sciences Building	296	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1114E	Contained					
14	Cambridge Hall	096	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0211	Contained					
15	Campus Recreation Center	068	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	B0114	Contained					
16	Campus Recreation Center	068	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	B0101	Contained					
17	Chem. & Nucl. Engineering	090	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1145	Contained					
18	Chem. & Nucl. Engineering	090	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1213	Contained					
19	Chem. & Nucl. Engineering	090	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1303	Contained					
20	Chemistry	091	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0515A	Contained					
21	Chesapeake	338	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1103	Contained					
22	Chincoteague Hall	059	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1100	Contained					
23	Clarice Smith Performing Arts	386	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1206	Contained					
24	Clarice Smith Performing Arts	386	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1232	Contained					
25	Clarice Smith Performing Arts	386	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	2175	Contained					
26	Clarice Smith Performing Arts	386	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1201	Contained					
27	Clarice Smith Performing Arts	386	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1724	Contained					
28	Clarice Smith Performing Arts	386	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1752	Contained					
29	Clarice Smith Performing Arts	386	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1524	Contained					
30	Clarice Smith Performing Arts	386	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0728	Contained					

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31	College Park Fire House	802	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	Ground Floor	Contained
32	Computer Science Instr. Center	406	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1119	Contained
33	Denton Dining Hall	251	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0119	Contained
34	Dorchester Hall	064	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0124A	Contained
35	Edward St. John	226	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0290	Contained
36	Energy Research	223	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0200	Contained
37	Football Team Building	379	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0108	Contained
38	Geology	237	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1116	Contained
39	Golf Course Club House	166	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	B0100D	Contained
40	H. J. Patterson Hall	073	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0203	Contained
41	Health Center	140	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0109	Contained
42	Health Center	140	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0170L	Contained
43	Institute for Phy. Sci. and Tech.	085	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	B0103A	Contained
44	J. M. Patterson Hall	083	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1206	Contained
45	Jimenez Hall	034	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0102B	Contained
46	Kim Engineering Building	225	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1104	Contained
47	Kim Engineering Building	225	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1104	Contained
48	Kim Engineering Building	225	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1224	Contained
49	Knight Hall	417	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1298	Contained
50	Laboratory for Physical Sciences	796	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	100	Contained
51	Laboratory for Physical Sciences	796	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0398	Contained
52	Lee Building	071	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0117C	Contained
53	LeFrak Hall	038	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0211A	Contained
54	Marie Mount Hall	046	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0407A	Contained
55	Marie Mount Hall	046	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0403A	Contained
56	Martin Hall	088	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0203A	Contained
57	Martin Hall	088	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0401A	Contained
58	Mathematics	084	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	5200A	Contained
59	Mathematics	084	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	4920	Contained
60	MFRI	199	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1205	Contained
61	MFRI	199	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1101	Contained

Michell Building						•		
Mitchell Bullong GP2 Apprx. 125 Instantaneous Hydraulic oil O116A Contained	62	Microbiology	231	Apprx. 125		Hydraulic oil	0118A	Contained
Parking Garage #5	63	Mitchell Building	052	Apprx. 125		Hydraulic oil	0116A	Contained
Parking Garage #5 404 Apprx. 125 Instantaneous Hydraulic oil NE Level G Contained	64	Nyumburu Cultural Center	232	Apprx. 125		Hydraulic oil	100	Contained
Farking Garage #5	65	Parking Garage #5	404	Apprx. 125	Gradual to	Hydraulic oil	NE Level G	Contained
Patukent	66	Parking Garage #5	404	Apprx. 125	Gradual to	Hydraulic oil	NW Level G	Contained
68 Physics 082 Apprx. 125 Gradual to instantaneous Hydraulic oil 0116 Contained 69 Physics 082 Apprx. 125 Instantaneous Hydraulic oil 580333A Contained 70 Physical Sciences Complex 415 PSC Apprx. 125 Gradual to instantaneous Hydraulic oil 880598 Contained 71 Queen Anne's Hall 061 Apprx. 125 Instantaneous Hydraulic oil 104 Contained 72 Ritchie Collseum 004 Apprx. 125 Instantaneous Hydraulic oil 1120A Contained 73 Samuel Riggs IV Alumni Bidg. 407 Apprx. 125 Instantaneous Hydraulic oil 1120A Contained 75 School Of Public Health 255 Apprx. 125 Instantaneous Hydraulic oil 0315 Contained 76 School Of Public Health 255 Apprx. 125 Instantaneous Hydraulic oil 0315 Contained 77 School Of Public Health 255 Apprx. 125 <td< td=""><td>67</td><td>Patuxent</td><td>010</td><td>Apprx. 125</td><td>Gradual to</td><td>Hydraulic oil</td><td>B0103</td><td>Contained</td></td<>	67	Patuxent	010	Apprx. 125	Gradual to	Hydraulic oil	B0103	Contained
Physics	68	Physics	082	Apprx. 125	Gradual to	Hydraulic oil	0116	Contained
To	69	Physics	082	Apprx. 125	Gradual to	Hydraulic oil	SB0333A	Contained
Texas Texa	70	Physical Sciences Complex	415 PSC	Apprx. 125	Gradual to	Hydraulic oil	B0598	Contained
Ritchie Coliseum	71	Queen Anne's Hall	061	Apprx. 125	Gradual to	Hydraulic oil	104	Contained
33 Samuel Riggs IV Alumni Bidg. 407 Apprx. 125 Instantaneous I	72	Ritchie Coliseum	004	Apprx. 125	Gradual to	Hydraulic oil	0102	Contained
	73	Samuel Riggs IV Alumni Bldg.	407	Apprx. 125	Gradual to	Hydraulic oil	1120A	Contained
School Of Public Health 255 Apprx. 125 Instantaneous Hydraulic oil 0315 Contained	74	Samuel Riggs IV Alumni Bldg.	407	Apprx. 125		Hydraulic oil	1120A	Contained
School of Public Health 255 Apprx. 125 Instantaneous Hydraulic oil 0245 Contained	75	School Of Public Health	255	Apprx. 125		Hydraulic oil	0315	Contained
School of Public Health 255 Apprx. 125 Instantaneous Hydraulic oil 0123 Contained	76	School Of Public Health	255	Apprx. 125		Hydraulic oil	0245	Contained
Seneca S12 Apprx. 125 Instantaneous Hydraulic oil O111 Contained	77	School Of Public Health	255	Apprx. 125		Hydraulic oil	0123	Contained
Severn S	78	Seneca	812	Apprx. 125		Hydraulic oil	0111	Contained
Severn Stock Apprx. 125 Instantaneous Hydraulic oil 0696 Contained	79	Severn	810	Apprx. 125		Hydraulic oil	0196	Contained
Skinner Bldg. 044 Apprx. 125 Instantaneous Gradual to Instantaneous Hydraulic oil 0101 Contained Somerset Hall 063 Apprx. 125 Gradual to Instantaneous Hydraulic oil 0101 Contained Somerset Hall 063 Apprx. 125 Gradual to Instantaneous Hydraulic oil 0118 Contained South Campus Dining Hall 026 Apprx. 125 Gradual to Instantaneous Hydraulic oil 0119 Contained South Campus Dining Hall 026 Apprx. 125 Gradual to Instantaneous Hydraulic oil 0119A Contained South Campus Dining Hall 026 Apprx. 125 Gradual to Instantaneous Hydraulic oil 0119A Contained South Campus Dining Hall 026 Apprx. 125 Gradual to Instantaneous Hydraulic oil 0119A Contained Stadium Garage (PG 3) 218 Apprx. 125 Gradual to Instantaneous Hydraulic oil NW Level G Contained Stadium Garage (PG 3) 218 Apprx. 125 Gradual to Instantaneous Hydraulic oil SW Level G Contained Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B1004 Contained Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained	80	Severn	810	Apprx. 125		Hydraulic oil	0696	Contained
Skinner Bidg. 044 Apprx. 125 Instantaneous Hydraulic oil 0101 Contained 83 Somerset Hall 063 Apprx. 125 Gradual to Instantaneous Hydraulic oil 0118 Contained 84 South Campus Dining Hall 026 Apprx. 125 Gradual to Instantaneous Hydraulic oil 0195 Contained 85 South Campus Dining Hall 026 Apprx. 125 Gradual to Instantaneous Hydraulic oil 0195 Contained 86 South Campus Dining Hall 026 Apprx. 125 Gradual to Instantaneous Hydraulic oil 0119A Contained 87 Stadium Garage (PG 3) 218 Apprx. 125 Gradual to Instantaneous Hydraulic oil 0119A Contained 88 Stadium Garage (PG 3) 218 Apprx. 125 Gradual to Instantaneous Hydraulic oil NW Level G Contained 89 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil SW Level G Contained 90 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B1004 Contained 91 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained 92 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained 93 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained 94 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained 95 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained	81	Shoemaker Hall	037	Apprx. 125		Hydraulic oil	0141	Contained
Somerset Hall O63 Apprx. 125 Instantaneous Hydraulic oil O118 Contained	82	Skinner Bldg.	044	Apprx. 125		Hydraulic oil	0101	Contained
South Campus Dining Hall O26 Apprx. 125 Instantaneous Hydraulic oil O195 Contained	83	Somerset Hall	063	Apprx. 125		Hydraulic oil	0118	Contained
South Campus Dining Hall O26 Apprx. 125 Instantaneous Hydraulic oil O119A Contained	84	South Campus Dining Hall	026	Apprx. 125		Hydraulic oil	0195	Contained
South Campus Dining Hall O26 Apprx. 125 Instantaneous Hydraulic oil O119A Contained	85	South Campus Dining Hall	026	Apprx. 125		Hydraulic oil	0119A	Contained
87 Stadium Garage (PG 3) 218 Apprx. 125 Instantaneous Hydraulic oil NW Level G Contained 88 Stadium Garage (PG 3) 218 Apprx. 125 Instantaneous Hydraulic oil SW Level G Contained 89 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B1004 Contained 90 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B2002 Contained 91 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B2002 Contained 92 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B2002 Contained 93 Stamp Student Union 164 Apprx. 125 Gradual to Instantaneous Hydraulic oil B2002 Contained 95 Stamp Student Union 165 Apprx. 125 Gradual to Instantaneous Hydraulic oil SB0240 Contained	86	South Campus Dining Hall	026	Apprx. 125		Hydraulic oil	0119A	Contained
89 Stamp Student Union 163 Apprx. 125 Instantaneous Hydraulic oil SW Level G Contained 90 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B1004 Contained 91 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained 92 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained 93 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil B0202 Contained	87	Stadium Garage (PG 3)	218	Apprx. 125		Hydraulic oil	NW Level G	Contained
90 Stamp Student Union 163 Apprx. 125 Instantaneous Hydraulic oil 81004 Contained 90 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil 80202 Contained 91 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil 80202 Contained 92 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil 80202 Contained	88	Stadium Garage (PG 3)	218	Apprx. 125	Instantaneous	Hydraulic oil	SW Level G	Contained
91 Stamp Student Union 163 Apprx. 125 Instantaneous Hydraulic oil 80202 Contained 91 Stamp Student Union 163 Apprx. 125 Gradual to Instantaneous Hydraulic oil 80202 Contained 92 Stamp Student Union 163 Apprx. 125 Gradual to Hydraulic oil SB0240 Contained	89	Stamp Student Union	163	Apprx. 125	Instantaneous	Hydraulic oil	B1004	Contained
91 Stamp Student Union 163 Apprx. 125 Instantaneous Hydraulic oil 80202 Contained 92 Stamp Student Union 163 Apprx. 125 Gradual to Hydraulic oil SB0240 Contained	90	Stamp Student Union	163	Apprx. 125		Hydraulic oil	B0202	Contained
1 92 Stamp Student Union 163 Apprx. 125 Hydraulic oil SB0240 Contained	91	Stamp Student Union	163	Apprx. 125	Instantaneous	Hydraulic oil	B0202	Contained
	92	Stamp Student Union	163	Apprx. 125		Hydraulic oil	SB0240	Contained

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93	Stamp Student Union	163	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	SB0201	Contained
94	Stamp Student Union	163	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	B0106M	Contained
95	Stamp Student Union	163	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	B0106M	Contained
96	Susquehanna Hall	233	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1126	Contained
97	Symons Hall	076	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	3313	Contained
98	Taliaferro Hall	043	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	B0105	Contained
99	Tawes Fine Arts	141	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0146	Contained
100	Tech. Advancement Prog Bldg	387	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	1111	Contained
101	Van Munching Hall	039	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	B0504	Contained
102	Van Munching Hall	039	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	B0504	Contained
103	Van Munching Hall	039	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	B0504	Contained
104	Van Munching Hall	039	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0101A	Contained
105	Van Munching Hall	039	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0101A	Contained
106	Van Munching Hall	039	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0102A	Contained
107	Van Munching Hall	039	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	0102A	Contained
108	Woods Hall	047	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	B0200D	Contained
109	Xfinity Center	360	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	2301	Contained
110	Yahentamitsi Dining Hall	436	Apprx. 125	Gradual to Instantaneous	Hydraulic oil	Basement	Contained

Total Capacity (Approx.) 13,750

Lube Oil Reservoir

97	Plant Science	036 PLS	95	Gradual to Instantaneous	Lube oil	10	Double Wall
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Total Capacity (Approx.) 95

Appendix E 18 Table of Oil-Filled 6 Electrical Equipment

Transformer ID	Bldg. Name	Bldg. #	Capacity (gallons)	Contents	Location Details	Est. Spill Rate (gal/hr)	Storm Drain Location	Receiving Outfall
1	A. James Clark Hall	429	604	Mineral Oil	Northwest 429	Gradual to Instantaneous	8' W	Tax Ditch 80' NW
2	A. James Clark Hall	429	604	Mineral Oil	Northwest 430	Gradual to Instantaneous	8' W	Tax Ditch 80' NW
3	A.V. Williams-S Wing - PH I	115	725	Mineral Oil	Southeast 115	Gradual to Instantaneous	NA to Storm Drain	004
4	A.V. Williams-N Wing - PH II	115	690	Mineral Oil	Northeast 115	Gradual to Instantaneous	61' SE	004
5	A.V. Williams-N Wing - PH II	115	690	Mineral Oil	Northeast 115	Gradual to Instantaneous	61' SE	004
6	A.V. Williams-S Wing - PH I	115	725	Mineral Oil	Southeast 115	Gradual to Instantaneous	NA to Storm Drain	004
7	Agriculture Shed	102	105	Mineral Oil	East 142	Gradual to Instantaneous	60' SW	Stream 800ft NE
8	Animal Science	142	162	Mineral Oil	Northwest 142	Gradual to Instantaneous	125' SW	004
9	Animal Science	142	242	Mineral Oil	Northwest 142 (ESW)	Gradual to Instantaneous	65' SW	004
10	Animal Science	142	242	Mineral Oil	Northwest 142	Gradual to Instantaneous	65' SW	004
11	Architecture	145	320	Mineral Oil	Room B0103	Gradual to Instantaneous	73' SE	012
12	Terripan Trail Garage	403	296	Mineral Oil	South 403	Gradual to Instantaneous	105' NE	Pond 400ft N
13	Atlantic Building	224	391	Mineral Oil	Northeast 224 (ESW)	Gradual to	34' W	004
14	Atlantic Building	224	585	Mineral Oil	Northeast 224 (ESW)	Gradual to Instantaneous	34' W	004
15	Atlantic Building	224	675	Mineral Oil	Northeast 224 (ESW)	Gradual to Instantaneous	34' W	004
16	Benjamin	143	296	Mineral Oil	Southwest 143	Gradual to Instantaneous	283' SW	005
17	Beta Theta Pi #6 Frat. Row	131	302	Mineral Oil	North 131	Gradual to Instantaneous	146' NE	005
18	Biomolecular Sciences Building	296	477	Mineral Oil	Southwest 296	Gradual to Instantaneous	100' SW	Stream 200ft NE
19	Bioscience Research Building	413 BRB	499	Mineral Oil	Northwest 413	Gradual to Instantaneous	28' SW	003
20	Brendan Iribe Center	432 IRB	604	Mineral Oil	Northwest 432 IRM	Gradual to Instantaneous	212' E	Pond
21	SECU Stadium North Lights	368	320	Mineral Oil	Southeast 256	Gradual to Instantaneous	430' E	004
22	SECU Stadium Upper Deck	368	397	Mineral Oil	Southwest 3868	Gradual to Instantaneous	70' NE	003
23	Calvert Hall	015	173	Mineral Oil	West 015	Gradual to	38' SW	007
24	Cambridge Community Center	097	496	Mineral Oil	Southwest 099	Gradual to Instantaneous	225' SW	Stream 800ft NE
25	Cambridge Hall	096	165	Mineral Oil	East 096	Gradual to Instantaneous	161' SE	004
26	Campus Recreation Center	068	523	Mineral Oil	Northeast 068	Gradual to Instantaneous	150' SW	Stream 100ft N
27	Capital One Field at Maryland Stadium	125	263	Mineral Oil	B125	Gradual to Instantaneous	109'	Storm Drain
28	Center For Young Children	381	170	Mineral Oil	Southwest 381B	Gradual to Instantaneous	150' W	Pond 500ft NE
29	Central Animal Resources	087	176	Mineral Oil	East 087	Gradual to Instantaneous	11' W	004
30	Central Heating Plant	001	418	Mineral Oil	Northeast 001	Gradual to Instantaneous	11' W	004
31	Central Heating Plant	001	213	Mineral Oil	West 006	Gradual to Instantaneous	106' NW	016
32	Chem & Nuclear Engineering	090	311	Mineral Oil	Room 1141	Gradual to Instantaneous	12' NW	004
33	Chem & Nuclear Engineering	090	257	Mineral Oil	Room 1141	Gradual to Instantaneous	12' NW	004
34	Chem & Nuclear Engineering	091	397	Mineral Oil	E Corner of Parking Lot KI	Gradual to Instantaneous	98' NW	004
35	Chemistry	091	500	Mineral Oil	Room 0102	Gradual to Instantaneous	15' E	003
36	Chemistry Wing II	091	296	Mineral Oil	South Side	Gradual to Instantaneous	52' S	003
37	Chemistry Wing III	091	423	Mineral Oil	ENE 091	Gradual to Instantaneous	60' SW	003
38	Chemistry Wing V	091	423	Mineral Oil	B091	Gradual to Instantaneous	75' SW	003
39	Chesapeake Building	338	494	Mineral Oil	North 338	Gradual to Instantaneous	219 NE	Pond 200ft SE
40	Chincoteague	059	140	Mineral Oil	East 059	Gradual to Instantaneous	NA to Outfall	005

41 Grant Semb Performing Ans Cerem From 19 366 270 Memer Johl West Jills Grant John 375 GW Rever Johl 140 Grant John 375 GW Rever John 140 Grant John 375 GW Grant John 157 GW					I		1		T
	41	Clarice Smith Performing Arts Center Trans #1	386	730	Mineral Oil	West 386	Gradual to Instantaneous	28' SW	Stream 200ft NW
44	42	Clarice Smith Performing Arts Center Trans #2	386	730	Mineral Oil	West 386		35' SW	Stream 200ft NW
	43	Cole Field House	162	267	Mineral Oil	East 162		15' N	004
College Park March March Total College Conference Center Leafe 1945 1950	44	College Park Marriott Hotel & Conference Center-East	345	256	Mineral Oil	345-2		88' SW	Storm Drain
Congrete Science Instructional Conference Control (1997) 1998	45	College Park Marriott Hotel & Conference Center-East	345	296	Mineral Oil	345-1		127' SW	Storm Drain
48 Computed section interactional contents 40 22 Mercal Cil Southwest 12 National Cil National Cil National	46	College Park Marriott Hotel & Conference Center-West	345	448	Mineral Oil	345-3		100' SW	Storm Drain
	47	Computer Science Instructional Center	406	239	Mineral Oil	Southeast 115		NA to Outfall	004
Development Area Dining Hall	48	Cumberland Hall	122	378	Mineral Oil	Southeast 122	Gradual to	205' SE	Stream 600ft N
50 Durchester Half O64 146 Mineral O21 West 1054 Graduat to Extratamental State 127 No. O55	49	Denton Area Dining Hall	251	370	Mineral Oil	Northeast 251	Gradual to	175' NE	Stream 700ft N
S1	50	Dorchester Hall	064	140	Mineral Oil	West 064	Gradual to	42' NE	005
S2	51	E.A. Fernandez IDEA Factory	228	229	Mineral Oil	North 228	Gradual to	23' N	004
Salar	52	Easton Hall	253	370	Mineral Oil	B353	Gradual to	203' SE	Storm Drain
Second Content Seco	53	Memorial Chapel	009	75	Mineral Oil	Room Elec	Gradual to	22' W	006
Signature Sign	54	Ellicott Area Dining Hall	257	458	Mineral Oil	Southwest 257B	Gradual to	63' E	Stream 500ft N
Second	55	Ellicott Hall	256	379	Mineral Oil	Room 0119	Gradual to	57' N	Stream 500ft N
S7	56	Energy Research	223	296	Mineral Oil	Southeast 223	Gradual to	30' S	Stream 300ft E
Second Color	57	Energy Research	223	512	Mineral Oil	Southeast 223	Gradual to	30' S	Stream 300ft E
Page	58	Energy Research	223	378	Mineral Oil	Northwest 223	Gradual to	100' E to stream	Stream 300ft E
	59	Engineering Laboratory	089	420	Mineral Oil	West 089	Gradual to	105' S	003
Football Team Building 379 450 Mineral OII Northeast 379 Instantaneous 20' N 004	60		093	229	Mineral Oil	South 093	Gradual to	31' W	004
Instantaneous							1		
		·							
1									
Harford Hall									
Health Center 140 257 Mineral Oil Southwest 140 Instantaneous 110 W 0.14									
Hornbake Library 147 563 Mineral Oil Northeast 147 Gradual to Instantaneous 38' SE 002							Instantaneous		
147 563 Mineral Oil Northeast 147 Instantaneous 38' SE 002							Instantaneous		
The following practice Facility 309 163 Mineral Oil Southwest 309 Instantaneous 290' E Ditch 290ft SE		Hornbake Library		563			Instantaneous		
1	70	Indoor Practice Facility	309	163	Mineral Oil	Southwest 309	Instantaneous	290' E	Ditch 290ft SE
1.M. Patterson Building 295 Mineral Oil Centeral East 083 Instantaneous 182°E 004	71	Jimenez Hall	034	198	Mineral Oil	Southeast 140	Instantaneous	45' E	005
Tawes Scub 141 457 Mineral Oil B141 Instantaneous 53' NE Storm Drain	72	J.M. Patterson Building	083 JMP	295	Mineral Oil	Centeral East 083	Instantaneous	82' E	004
The following content of the following conte	73	Tawes Scub	141	457	Mineral Oil	B141	Instantaneous	53' NE	Storm Drain
75 Juli Hall 227 325 Mineral Oil Northwest 227 Instantaneous 100°W 004 76	74	Jones Hill House	162	604	Mineral Oil	Northwest 162	Instantaneous	108' NW	Storm Drain
76 Kappa Alpha #1Frat. Row 126 302 Mineral Oil East 126 Instantaneous 240' E 005 77 Kehoe Sports Facility 388 176 Mineral Oil West 388 Gradual to Instantaneous 257' S Ditch 200ft SW 78 Kim Engineering 225 378 Mineral Oil West 225 Gradual to Instantaneous 100'E 004 79 Kim Engineering 225 378 Mineral Oil West 225 Gradual to Instantaneous 100'E 004 80 Knight Hall 417 287 Mineral Oil B417 Gradual to Instantaneous 68' SW Storm Drain 81 Golf Course Club House 166 163 Mineral Oil Southwest 166 Gradual to Instantaneous 20' NE Ditch 400ft SE	75	Jull Hall	227	325	Mineral Oil	Northwest 227	Instantaneous	100' W	004
77	76	Kappa Alpha #1Frat. Row	126	302	Mineral Oil	East 126	Instantaneous	240' E	005
78 Kim Engineering 225 378 Mineral Oil West 225 Instantaneous 100°E 004 79 Kim Engineering 225 378 Mineral Oil West 225 Gradual to Instantaneous 100°E 004 80 Knight Hall 417 287 Mineral Oil B417 Gradual to Instantaneous 68' SW Storm Drain 81 Golf Course Club House 166 163 Mineral Oil Southwest 166 Gradual to 20' NE Ditch 400ft SE	77	Kehoe Sports Facility	388	176	Mineral Oil	West 388	Instantaneous	257' S	Ditch 200ft SW
79 Kim Engineering 225 378 Mineral Oil West 225 Instantaneous 100°E 004 80 Knight Hall 417 287 Mineral Oil B417 Gradual to Instantaneous 68' SW Storm Drain 81 Golf Course Club House 166 163 Mineral Oil Southwest 166 Gradual to 20' NE Ditch 400ft SE	78	Kim Engineering	225	378	Mineral Oil	West 225	Instantaneous	100'E	004
80 Knight Hall 417 287 Mineral Oil B417 Instantaneous 68' SW Storm Drain 81 Golf Course Club House 166 163 Mineral Oil Southwest 166 Gradual to 20' NF Ditch 400ft SF	79	Kim Engineering	225	378	Mineral Oil	West 225	Instantaneous	100'E	004
81 I Golf Course Club House I 166 I 163 I Mineral Oil I Southwest 166 I I 20' NE I Ditch 400tt SE	80	Knight Hall	417	287	Mineral Oil	B417		68' SW	Storm Drain
	81	Golf Course Club House	166	163	Mineral Oil	Southwest 166		20' NE	Ditch 400ft SE

82	Edward St. John Learning & Teaching Center	226	126	Mineral Oil	South 226	Gradual to Instantaneous	NA	002
83	Laplata Hall	259	370	Mineral Oil	Room 0112	Gradual to Instantaneous	47' E	Stream 500ft N
84	Edward St. John Learning & Teaching Center	226	105	Mineral Oil	Northwest 226	Gradual to Instantaneous	89' N	002
85	Lee	071	153	Mineral Oil	Room Mech	Gradual to Instantaneous	135' ENE	005
86	Lefrak Hall	038	330	Mineral Oil	West Mech Rm.	Gradual to Instantaneous	49 SW	014
87	Leonardtown Modular	238	180	Mineral Oil	West 238	Gradual to Instantaneous	68' N	007
88	Leonardtown Modular	239	180	Mineral Oil	Southwest 239	Gradual to Instantaneous	250' E	007
89	Leonardtown Modular	240	180	Mineral Oil	East 240	Gradual to Instantaneous	11' N	007
90	Leonardtown Modular	241	170	Mineral Oil	Southwest 241	Gradual to Instantaneous	76' E	007
91	Leonardtown Modular	242	180	Mineral Oil	East 242	Gradual to Instantaneous	93' N	007
92	Leonardtown Modular	243	170	Mineral Oil	Norhtwest 243	Gradual to Instantaneous	45' W	007
93	Leonardtown Modular	244	210	Mineral Oil	Southeast 244	Gradual to Instantaneous	44' W	005
94	Leonardtown Modular	245	210	Mineral Oil	Southwest 245	Gradual to Instantaneous	23' N	005
95	Leonardtown Modular	246	210	Mineral Oil	Norhtwest 246	Gradual to Instantaneous	45' SE	006
96	Leonardtown Modular	247	210	Mineral Oil	Southwest 247	Gradual to Instantaneous	44' SE	006
97	Leonardtown Modular	248	210	Mineral Oil	Northeast 248	Gradual to	58' E	006
98	Leonardtown Modular	249	210	Mineral Oil	Northwest 249	Gradual to Instantaneous	58' N	006
99	Leonardtown Modular	250	350	Mineral Oil	Southwest 250	Gradual to Instantaneous	68' N	006
100	Leonardtown Office Building	201	144	Mineral Oil	Southwest 201	Gradual to Instantaneous	100' W	007
101	Main Admin	077	253	Mineral Oil	South 077	Gradual to Instantaneous	400' E	005
102	Manufacturing	148	348	Mineral Oil	North 148	Gradual to Instantaneous	190' SW	Pond 190ft E
103	School Of Public Health West	255	400	Mineral Oil	B255	Gradual to Instantaneous	58' E	Storm Drain
104	Mitchell	052	253	Mineral Oil	B052	Gradual to Instantaneous	388' SE	Storm Drain
105	Hagerstown Hall	258	370	Mineral Oil	Northeast 258	Gradual to Instantaneous	67' NW	Storm Drain
106	Laplata Hall	259	188	Mineral Oil	Room 0112	Gradual to Instantaneous	47' E	Stream 500ft N
107	North Field Lights/Shuttle Bus Facility	424	217	Mineral Oil	S. Nor Sub	Gradual to Instantaneous	690' SW	004
108	Oakland Hall	419	641	Mineral Oil	B419	Gradual to Instantaneous	66' SW	Storm Drain
109	SCUB III	392	257	Mineral Oil	West 392	Gradual to Instantaneous	23' N	004
110	Patuxent	010	288	Mineral Oil	Southwest 010	Gradual to Instantaneous	100' E	004
111	Physical Sciences Complex	415	589	Mineral Oil	B415	Gradual to Instantaneous	57' SE	Storm Drain
112	Physics	082	407	Mineral Oil	West 082	Gradual to Instantaneous	63' N	004
113	Physics	082	449	Mineral Oil	North 082	Gradual to Instantaneous	31' S	004
114	Plant Maintenance Shops	006	263	Mineral Oil	West 006	Gradual to Instantaneous	111' NW	016
115	Plant Sciences	036	505	Mineral Oil	South 036 (Center-SW)	Gradual to Instantaneous	14' N	002
116	Plant Sciences	036	555	Mineral Oil	South 036 (ESW)	Gradual to Instantaneous	14' N	002
117	Plant Sciences	036	555	Mineral Oil	South 036 (WSW)	Gradual to Instantaneous	14' N	002
118	Preinkert Field House	054	218	Mineral Oil	South 054	Gradual to Instantaneous	215' SW	014
119	Pyon-Chen Hall	434 PCH	397	Mineral Oil	East 436	Gradual to Instantaneous	238' NE	Storm Drain
120	Research Greenhouse	398	450	Mineral Oil	B398	Gradual to Instantaneous	200' NE	Pond 200ft E
121	Riggs Alumni Center	407	613	Mineral Oil	Southeast 407	Gradual to Instantaneous	41' W	003
122	Ritchie Coliseum	004	296	Mineral Oil	East 004	Gradual to Instantaneous	7' E	005

					T	Cradualta		
123	School Of Public Health	255	675	Mineral Oil	B255	Gradual to Instantaneous	40' SE	Storm Drain
124	Parking Garage #5	404	325	Mineral Oil	Norhtwest 404	Gradual to Instantaneous	140' SW	12
125	Thurgood Marshall Hall	433 SPP	604	Mineral Oil	Northwest 433	Gradual to Instantaneous	50' SW	Storm Drain
126	SCUB II	067	520	Mineral Oil	South 067	Gradual to Instantaneous	62' S	014
127	SCUB V	416	475	Mineral Oil	B416	Gradual to Instantaneous	145' NW	Storm Drain
128	SCUB III Addition	392	646	Mineral Oil	West 392	Gradual to Instantaneous	23' N	004
129	SCUB IV A	405	407	Mineral Oil	West Side 405	Gradual to Instantaneous	150' NW	003
130	SCUB IV B	405	423	Mineral Oil	West Side 405	Gradual to Instantaneous	165' NW	003
131	SCUB IV C	405	423	Mineral Oil	West Side 405	Gradual to Instantaneous	180' NW	003
132	SCUB IV D	405	423	Mineral Oil	East 091	Gradual to Instantaneous	140' N	003
133	Johnson-Whittle	435	397	Mineral Oil	South 435	Gradual to Instantaneous	Gradual to 35' SE	
134	SCUB VI	418	523	Mineral Oil	B419	Gradual to Instantaneous	66' SW	Storm Drain
135	SCUB VI	418	194	Mineral Oil	B419	Gradual to Instantaneous	66' SW	Storm Drain
136	Service Building Annex	005	279	Mineral Oil	East 005	Gradual to Instantaneous	155' SE	016
137	Shoemaker	037	237	Mineral Oil	South 037	Gradual to Instantaneous	62' SE	014
138	Shuttle Bus Facility	424	276	Mineral Oil	SW 107	Gradual to Instantaneous	124' NW	Wetlands 100ft NE
139	Sigma Kappa #10 Frat. Row	135	302	Mineral Oil	East 135	Gradual to Instantaneous	38' E	006
140	Skinner	044	252	Mineral Oil	East 044	Gradual to Instantaneous	9' N	005
141	Somerset Hall	063	374	Mineral Oil	Northeast 063	Gradual to	260' N	005
142	Stadium Garage #3	218	166	Mineral Oil	Northwest 218	Gradual to Instantaneous 36' SW		Stream 1000ft N
143	Susquehanna Hall	233	194	Mineral Oil	West 233	Gradual to Instantaneous	130' SW	004
144	Symons Hall	076	296	Mineral Oil	Southwest 076	Gradual to Instantaneous	45' E	002
145	Tawes Fine Arts	141	250	Mineral Oil	Northeast 141	Gradual to Instantaneous	76' NW	012
146	Laboratory for Physical Sciences	796	365	Mineral Oil	West 796	Gradual to Instantaneous	26' NE	Pond
147	Tech. Advancement Prog Bldg	387	393	Mineral Oil	Southeast 387	Gradual to Instantaneous	4' W	Pond 100ft N
148	The Hotel Parking Lot	-	100	Mineral Oil	East Adj. Campus Drive	Gradual to	36' S	001
149	Laboratory for Physical Sciences	796	423	Mineral Oil	South 796	Gradual to Instantaneous	20' SW	Pond
150	Tyser Tower	361	641	Mineral Oil	B361	Gradual to Instantaneous	38' SW	Storm Drain
151	Van Munching	039	418	Mineral Oil	Northwest 039	Gradual to Instantaneous	78' SE	012
152	Van Munching (Addition)	039	359	Mineral Oil	Northeast 039	Gradual to		78' SE
153	Varsity Sports Team House	158	165	Mineral Oil	North 158	Gradual to Instantaneous	11' W	004
154	Wind Tunnel	081	600	Mineral Oil	B081	Gradual to Instantaneous	212' E	Pond
155	Xfinity Arena A	360	542	Mineral Oil	North 360	Gradual to Instantaneous	105' NE	Pond 400ft N
156	Xfinity Arena B	360	378	Mineral Oil	North 360	Gradual to Instantaneous	105' NE	Pond 400ft N
157	Xfinity Arena C	360	370	Mineral Oil	North 360	Gradual to		Pond 400ft N
158	Yahentamitsi Dining Hall	436	499	Mineral Oil	Northeast 436	Gradual to Instantaneous	239' NE	Storm Drain
	T-1-	l Oil Storage:	FF 734		1	ocacaricous	ı	L

Total Oil Storage: 55,731

Appendix F Table of Transfer Area Fault Analysis

Appendix F Table of Transfer Area Fault Analysis

Transfer Area	Bldg. Name	Bldg. #	Map#	Company	Largest Compartment (gallons)	Flow Rate (GPM)*	Most Probable Amount Spilled**	Est. Spill Rate (gal/hr)	Product Transferred	Storm Drain Location	Receiving Outfall
Refueling Area	Golf Course Maintenance	314	2	Griffith Energy Services, Inc.	1,000	20	60	Gradual to Instantaneous	Gasoline, Diesel	732' SW	Stream
Refueling Area	Grounds Operations & Maintenance Building	328	3	Griffith Energy Services, Inc. and Carroll Fuels	1,500	20	60	Gradual to Instantaneous	Gasoline, Diesel	78' NE	Pond
Refueling Area	Shuttle Bus Facility	424	4	Carroll Fuels	3,500	350	1050	Gradual to Instantaneous	Diesel	55' S	Pond
Fuel Island	Severn	810	5	James River Petroleum	20,000	350	1050	Gradual to Instantaneous	Gasoline, E-85	58' NW	StormDrain
Refueling Area	SECU Stadium Maintenance Building	369	7	Griffith Energy Services, Inc.	250	20	60	Gradual to Instantaneous	Diesel	60' NE	4
Parking Lot K2	Plant Operations and Maintenance	006	14	Mansfield Energy- Petrol Express	8,500	300	900	Gradual to Instantaneous	Diesel	20' SE	5
Mobile Refuler	Various	Various	Various	University of Maryland	100	20	60	Gradual to Instantaneous	Diesel	Various	Various

^{*}Values are estimated

^{**}Values are estimated for a 3-minute response time

Appendix G Oil/Water Separator (OWS) SOP and Monthly Inspection

SOP 11: OIL/WATER SEPARATOR (OWS) MAINTENANCE

Oil/water separators (OWS) are structural devices intended to allow oils (and substances lighter than water) to be intercepted and be removed for disposal. Substances heavier than water settle into sludge at the bottom of the unit. The remaining water passes through the unit into the sanitary sewer system.

OWS units are generally required where petroleum-based products, wastes containing petroleum, or oily and/or flammable materials are used, produced, or stored. OWS units should not be used to manage stormwater or flow from vehicle washing facilities. High flow rates through an OWS will reduce the structure's ability to separate materials. Detergents and solvents can emulsify oil and grease, allowing the particles to enter the sewer, so these should not be disposed of in drains entering the OWS.

General OWS Maintenance Requirements

- 1. Each OWS at a facility may receive different materials in different quantities, so the cleanout schedule may not be the same for every OWS at a facility.
- 2. Employees performing inspections of an OWS must be properly trained and be familiar with the maintenance of that specific structure, since function can vary based on design. Third-party firms may be utilized to perform quarterly inspections.
- 3. Do not drain petroleum, oil, or lubricants directly to an OWS. The structures are designed to manage these materials at low and medium concentrations in sanitary sewage, not as slug loads.
- 4. Do not drain antifreeze, degreasers, detergents, fuels, alcohols, solvents, coolant, or paint to the OWS.
- 5. Separator compartment covers should be tightly sealed to ensure drainage only enters the first compartment of the OWS.
- 6. Drains should be kept free of debris and sediment to the maximum extent practicable.
- 7. Spill cleanup materials should be maintained in the area served by the OWS.

OWS Inspection Procedures

Daily inspection of an OWS should include a visual examination of the area served by the OWS for evidence of spills or leaks.

Monthly inspections of an OWS should include the following:

- 1. Visually examine the area served by the OWS for evidence of spills or leaks.
- 2. Inspect the point of discharge (i.e., sewer manhole) for evidence of petroleum bypassing the OWS.
- 3. Inspect drains for any signs of unauthorized substances entering the OWS.
- 4. Examine the OWS for signs of leaks or any malfunction.
- 5. Complete the Monthly OWS Inspection Checklist, attached, during the inspection.
- 6. Take the following measurements to benchmark function of the OWS:
 - A. Distance from rim of access cover to bottom of structure
 - B. Distance from rim of access cover to top of sludge layer
 - C. Depth of sludge layer (C = A B)

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- D. Distance from rim of access cover to the oil/water interface
- E. Distance from rim of access cover to the top of the liquid surface
- F. Depth of oil layer (F = D E)

OWS Cleaning Procedures

Cleaning of the OWS is required when there has been a spill to the OWS that exceeds ten gallons of oil, one gallon of detergent or solvent, or any material prohibited by the owner of the sanitary sewer. Cleaning is also required when the levels of accumulated sludge and/or oil meet the manufacturer's recommended levels for cleaning. This will vary based on the manufacturer of the OWS. If the manufacturer's recommendations are unknown, the following guidelines are appropriate for determining when to clean:

- 1. When sludge accumulates to 25% of the wetted height of the separator compartment; or
- 2. When oil accumulates to 5% of the wetted height of the separator compartment; or
- 3. When 75% of the retention capacity of the OWS is filled.

Cleaning should be performed a minimum of once per year. When cleaning is required, it shall be performed by licensed OWS maintenance companies. Materials removed from the OWS must be disposed of in accordance with applicable state and federal regulations.

Documentation of Cleaning and Service

The operator of the premises where the OWS is located shall maintain a log describing the date and type of all inspections, service and maintenance performed in connection with the Separator. Documentation shall include the identity of the inspector (or the identity of the person or entity that performed the service and/or maintenance). Records shall also document the amount of residue removed from the OWS each time it was cleaned, and how removed materials were disposed. This documentation shall be maintained for a minimum of five years.

Attachments

1. Monthly OWS Inspection Checklist

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Oil-Water Separator Inspection and Maintenance Checklist

Facility:						
Location/Address:						
Date:	Time:	Weather Conditions:		Date of Last Inspection:		
Inspector:			Title:			
Rain in Last 48 Hours						
Pretreatment: vegetated filter strip swale turf grass forebay other, specify:					□ none	
Site Plan or As-Built Plan Available: Yes No						

Inspection Item		Comment	Action Needed
1. PRETREATMENT			1
Sediment has accumulated.	□Yes □No □N/A		□Yes □No
Trash and debris have accumulated.	□Yes □No □N/A		□Yes □No
2. INLETS			1
Inlets are in poor structural condition.	□Yes □No □N/A		□Yes □No
Sediment, trash, or debris has accumulated and/or is blocking the inlets.	□Yes □No □N/A		□Yes □No
3. OIL CONTAINMENT CHAMBER			T
Oil volume threshold has been reached.	□Yes □No □N/A		□Yes □No
Oil-absorbing pads are saturated.	□Yes □No □N/A		□Yes □No
4. SEDIMENT COLLECTION CHAMI	BER		1
Sediment accumulation threshold has been reached.	□Yes □No □N/A		□Yes □No
Sludge accumulation threshold at bottom of chamber has been reached.	□Yes □No □N/A		□Yes □No
4. OTHER SYSTEM COMPONENTS			
Structural deterioration is evident.	□Yes □No □N/A		□Yes □No
Spills or leaks are evident.	□Yes □No □N/A		
5. OUTLETS			
Outlets in poor structural condition.	□Yes □No □N/A		□Yes □No
Sediment, trash or debris is blocking outlets.	□Yes □No □N/A		□Yes □No
Erosion is occurring around outlets.	□Yes □No □N/A		□Yes □No
6. OTHER			
Evidence of ponding water on area draining to system.	□Yes □No □N/A		□Yes □No
Evidence that water is not being conveyed through the system.	□Yes □No □N/A		□Yes □No
Additional Notes			
Wet weather inspection needed □ Yes	□ No		
viet weather inspection needed 1 ves	⊔ 1 10		

^{*}Do not enter underground detention chambers to inspect system unless Occupational Safety & Health Administration (OSHA) regulations for confined space entry are followed.

^{*}Follow inspection and maintenance instructions and schedules provided by system manufacturer and installer.

^{*} Properly dispose of all wastes.

	A	Distance from rim of access cover to bottom of structure
	В	Distance from rim of access cover to top of sludge layer
Maggiraments	C = A - B	Depth of sludge layer
Measurements	D	Distance from rim of access cover to the oil/water interface
	Е	Distance from rim of access cover to the top of the liquid surface
	F = D - E	Depth of oil layer

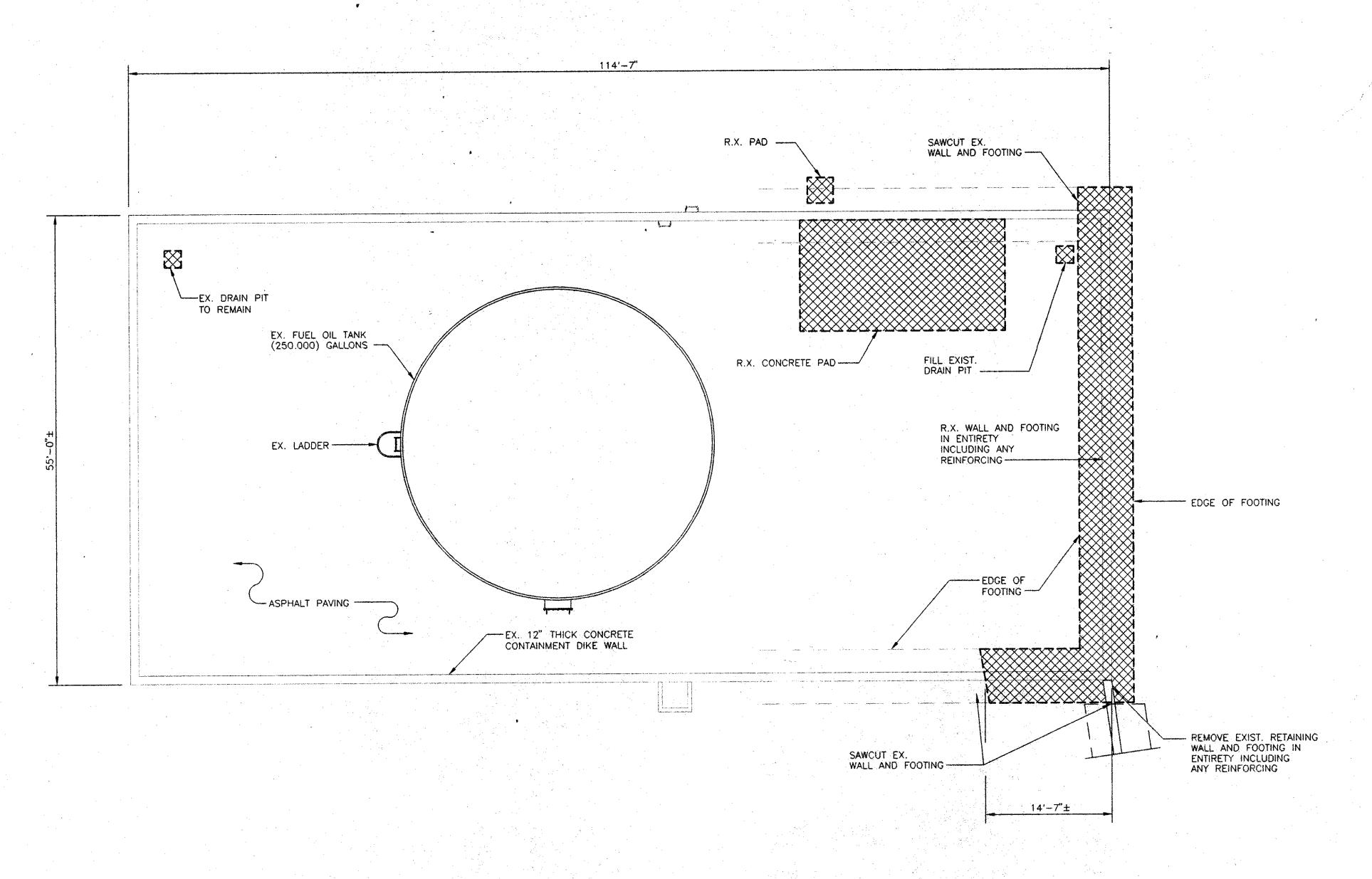
If the values for "C" and/or "F" are greater than those in the manufacturer's recommendations, the OWS must be cleaned by a licensed OWS maintenance company.

Appendix H Engineering Drawings for Oil Associated Piping



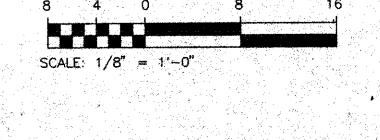
1 Field-Erected ASTs





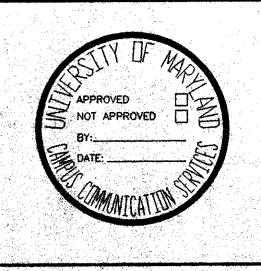
FUEL OIL CONTAINMENT DIKE - DEMOLITION

SCALE: 1/8" = 1'-0"



JACKSON & TULL CHARTERED ENGINEERS 2705 Bladensburg Road N.E. Washington D.C. 20018





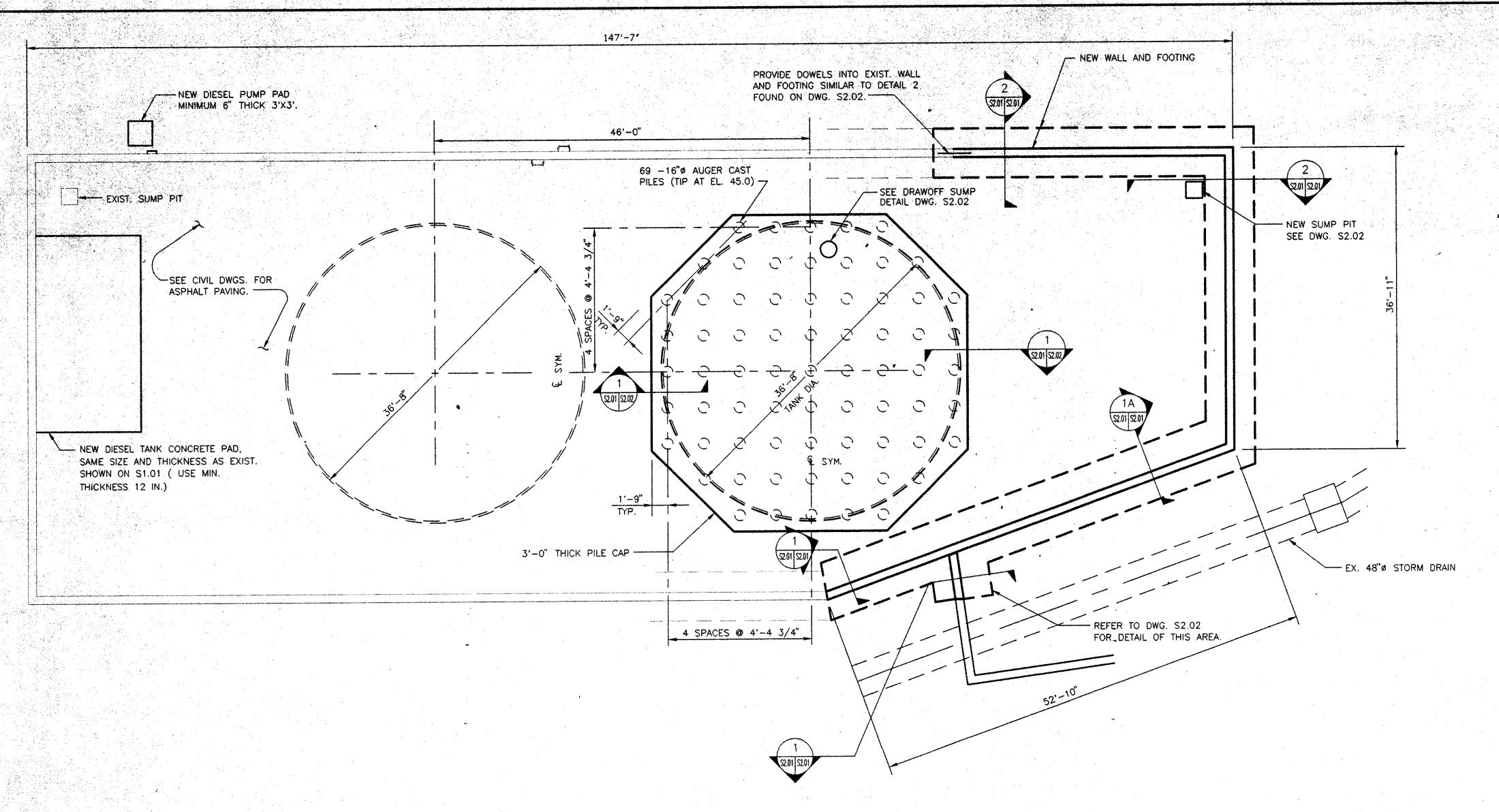
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Project: S	TORAGE	TANK ADDITION
Title: FUEL O	L CONTAINME	NT DIKE - DEMOLITION
Scale: NOTED	Bidg.no. 0001	Proj. no. E-900116
Date: 06/26/98	Own.by WRB	Chk.by
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Department of Architecture, Engineering, and Construction
The University of Maryland College Park Campus

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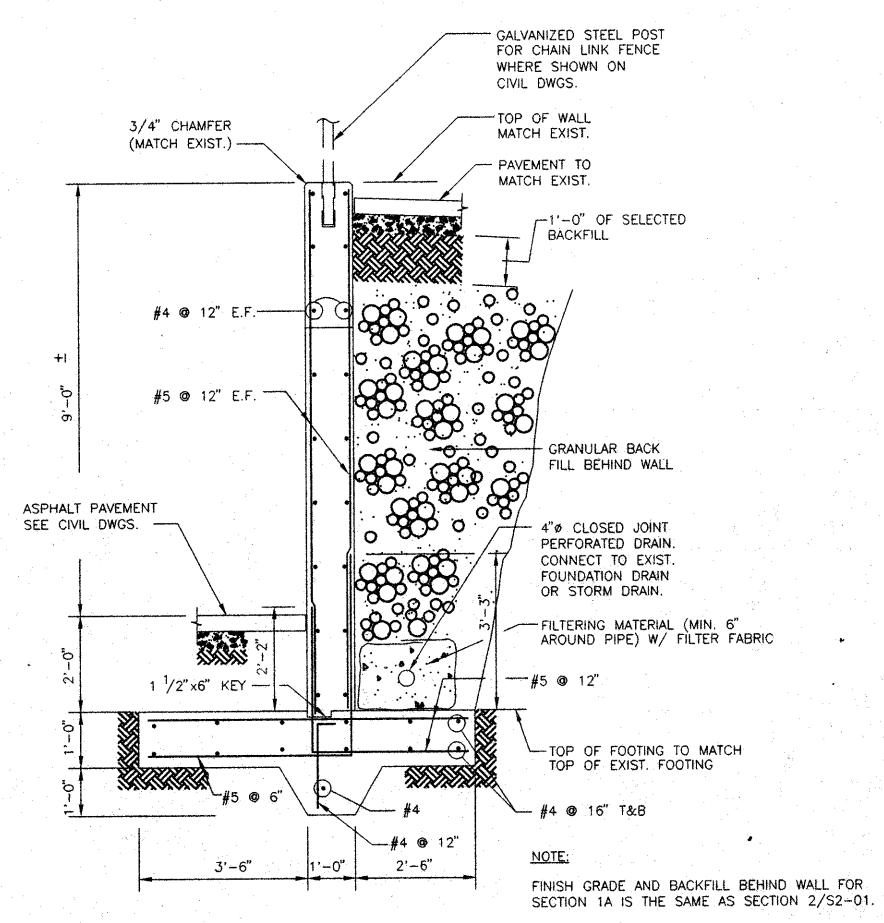
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FUEL OIL CONTAINMENT DIKE - NEW WORK

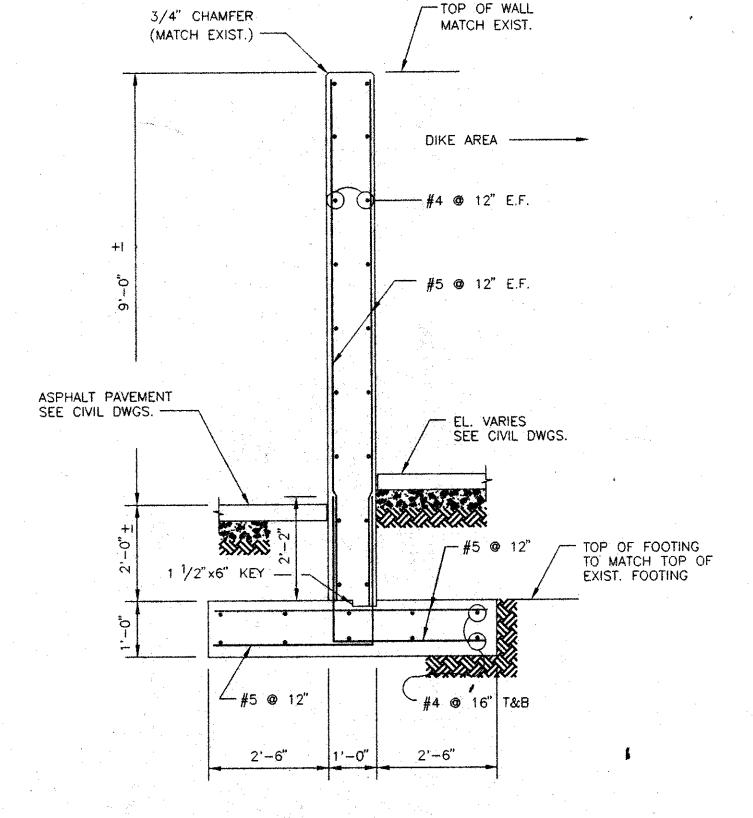
1) AUGER CAST PILE ALLOWABLE WORKING LOAD CAPACITY EQUALS 20 TONS.

SCALE: 1/8" = 1'-0"

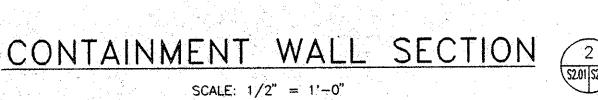


CONTAINMENT WALL SECTION SCALE: 1/2" = 1'-0"





CONTAINMENT WALL SECTION



GENERAL NOTES - STRUCTURAL DESIGN CODES AND SPECIFICATIONS

(ALL LATEST EDITIONS)

ASCE 7-93, MINIMUM DESIGN LOADS FOR BUILDINGS & STRUCTURES.

AMERICAN CONCRETE INSTITUTE (ACI). AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).

DESIGN LOADS

API STANDARD 650 - APPENDIX E

BELOW AND DEAD LOADS AS REQUIRED BY CONSTRUCTION MATERIALS.

A. THE NEW ADDITION AND MODIFICATION WAS DESIGNED FOR THE MINIMUM LIVE LOADS SHOWN

B. ALL LOADS SHOWN BELOW ARE IN POUNDS PER SQUARE FOOT UNLESS NOTED OTHERWISE

30 (SNOW) V=100 mph EXPOSURE C WIND: BASIC WIND SPEED,

Av = 0.05, Aa = 0.05SEISMIC ZONE:

C. PROVIDE ALL GUYS, BRACES, STRUTS, ETC. REQUIRED TO ACCOMODATE ALL LIVE AND DEAD LOADS ENCOUNTERED DURING THE CONSTRUCTION PROCESS.

FOUNDATIONS

- A. WALL FOOTINGS ARE DESIGNED FOR A 2500 PSF ALLOWABLE SOIL BEARING PRESSURE. II SOIL OF THIS CAPACITY IS NOT ENCOUNTERED AT THE ELEVATIONS INDICATED ON THE PLANS, NOTIFY THE CONTRACTING OFFICER PRIOR TO COMMENCING WITH THE FOUNDATION WORK.
- WHERE SPREAD FOOTINGS ARE UTILIZED THEY ARE TO BEAR ON UNFROZEN UNDISTURBED SOIL OR ENGINEERED COMPACTED FILL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT THE SOILS BELOW THE FOOTINGS REMAIN UNFROZEN.
- C. ALL COMPACTED FILL MATERIALS SHALL BE FREE OF ORGANIC MATERIAL, BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY, AND OBTAIN A MINIMUM BEARING PRESSURE AS SET FORTH ABOVE.
- D. AUGER CAST PILES ARE UTILIZED TO SUPPORT THE NEW OIL TANK. THEY ARE 16 INCH IN DIAMETER, AND TO BE PLACED WITH THEIR TIP AT ELEVATION 45. EACH PILE HAS AN ALLOWABLE CAPACITY OF 20 TONS.

STRUCTURAL STEEL

- A. FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH AISC MANUAL OF STEEL CONSTRUCTION, 9TH ED.
- B. STEEL SHAPES AND PLATES: PER OIL TANK MANUFACTURER.
- C. BOLTED CONNECTIONS SHALL BE DESIGNED, FABRICATED, AND INSTALLED IN ACCORDANCE WITH AISC SPECIFICATIONS FOR "STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".
- D. ALL BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER A325 HIGH STRENGTH BOLTS, UNLESS NOTED OTHERWISE ON PLANS.
- E. USE ETOXX ELECTRODES FOR ALL WELDS. ALL WELDERS SHALL BE CERTIFIED IN IN ACCORDANCE WITH A.W.S.
- F. SHOP PAINT STEEL IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS WITH STANDARD
- G. ANCHOR BOLTS SHALL CONFORM TO ASTM A307 OR A36.

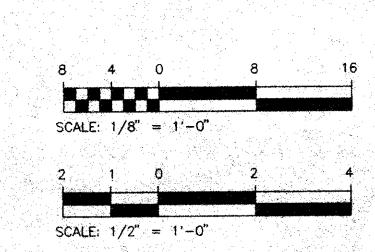
INSTRUCTIONS RUST-INHIBITING PRIMER.

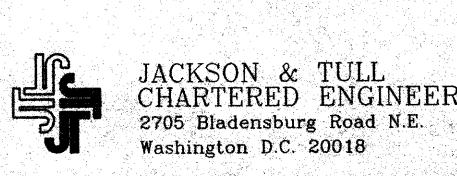
CONCRETE

- A. ALL CONCRETE WORK INCLUDING FORMING, MIXING, PLACING, AND CURING SHALL BE IN ACCORDANCE WITH ACI 318-95.
- B. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 4,000 PSI.
- C. CONCRETE REINFORCING STEEL SHALL BE ASTM A615, GRADE 60. (ASTM A706 FOR WELDABLE REBARS) SUBMIT COMPLETE SHOP AND ERECTION DRAWINGS FOR REVIEW PRIOR TO FABRICATION OR ERECTION.
- D. CONCRETE COVER FOR REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI 318-95.

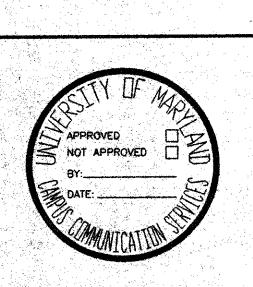
EXISTING CONSTRUCTION

- A. THE CONTRACTOR IS ADVISED THAT ALL PLANS, DIMENSIONS AND DETAILS OF THE ADJACENT EXISTING CONSTRUCTION DEPICT FIELD CONDITIONS AS KNOWN, SINCE MINOR VARIATIONS ARE TO BE EXPECTED, THE CONTRACTOR SHALL VERIFY BY FIELD MEASUREMENT ALL PLANNED DIMENSIONS OF NEW CONSTRUCTION IN RELATION TO THE EXISTING CONDITIONS. ANY DEVIATIONS IN PLANNED DIMENSIONS FROM THE CONTRACT DOCUMENTS SHALL BE APPROVED BY THE OWNER IN WRITING PRIOR TO PROCEEDING WITH THE WORK.
- B. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE EXISTING STRUCTURE DURING THE COURSE OF CONSTRUCTION AND ADVISE THE OWNER OF ANY AREAS WHERE THE STRUCTURE EXHIBITS DISTRESS OR FAILURE.





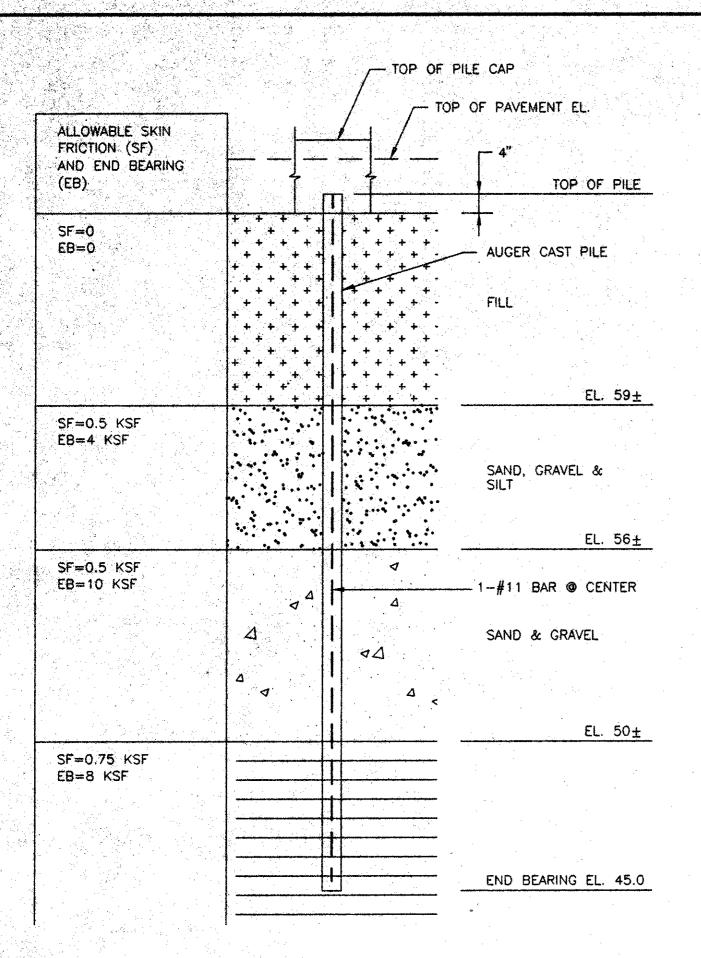




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ABOVEGROUND FUEL OIL Project: STORAGE TANK ADDITION THE: FUEL OIL CONTAINMENT DIKE AND DETAILS - NEW WORK Scale: NOTED Bldg.no. 0001 Proj. no. E-900116

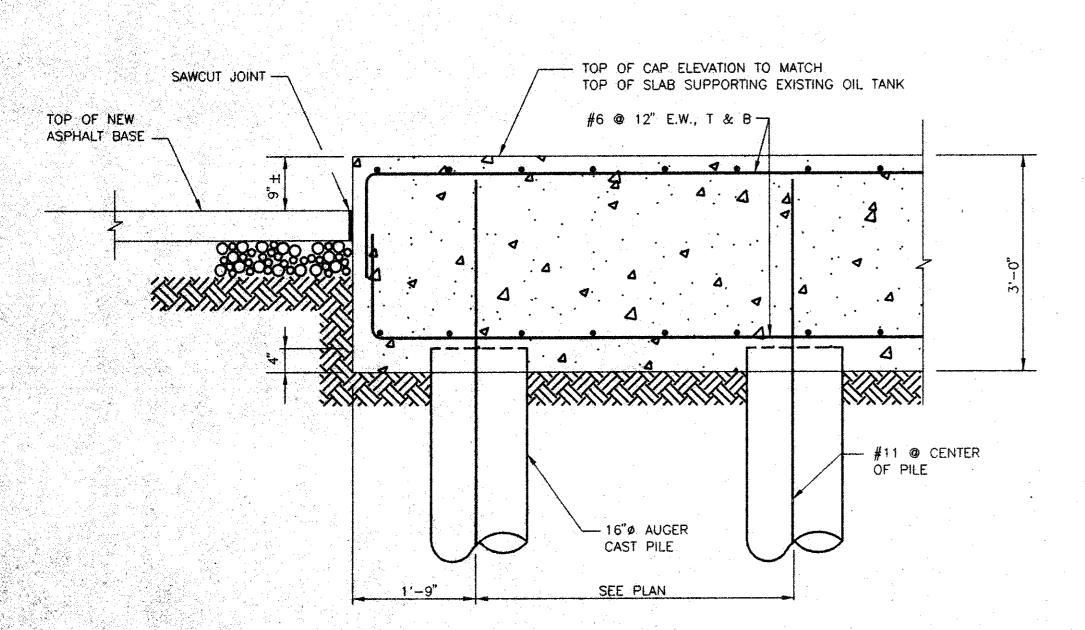
Date: 06/26/98 Dwn.by WRB Chk.by Department of Architecture, Engineering, and Construction College Park Campus The University of Maryland

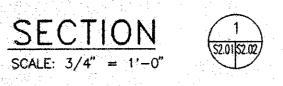


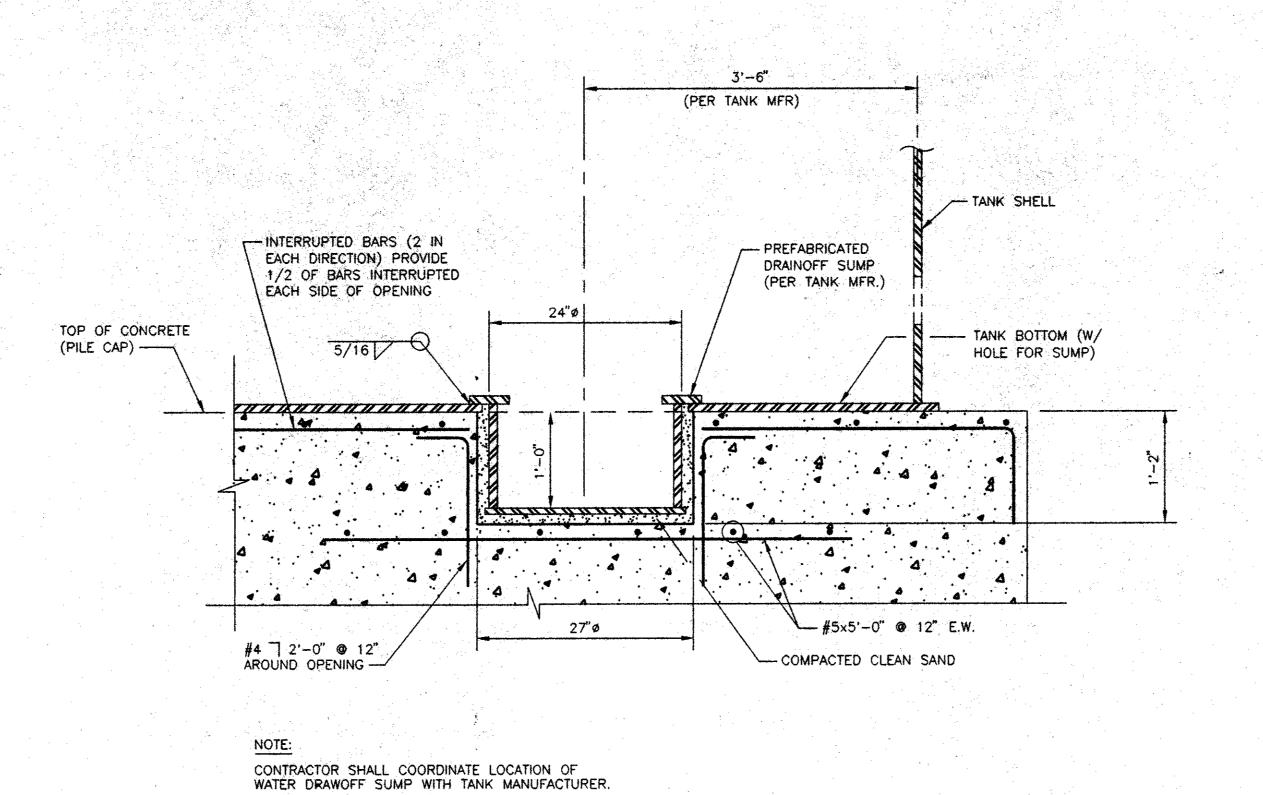
TYPICAL PILE DETAIL SCALE: NONE

NOTES: 1. THE ABOVE INFORMATION IS TAKEN FROM GEOTECHNICAL REPORT BY T.L.B. ASSOCIATES, INC. ACTUAL ELEVATIONS VARY AND SHALL BE FIELD VERIFIED.

2. THE DESIGN ALLOWABLE PILE CAPACITY IS 20 TONS.

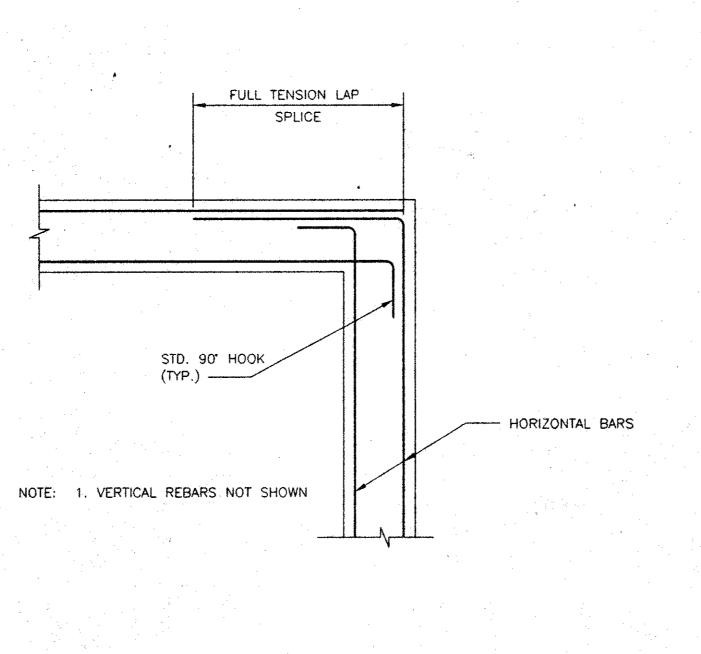






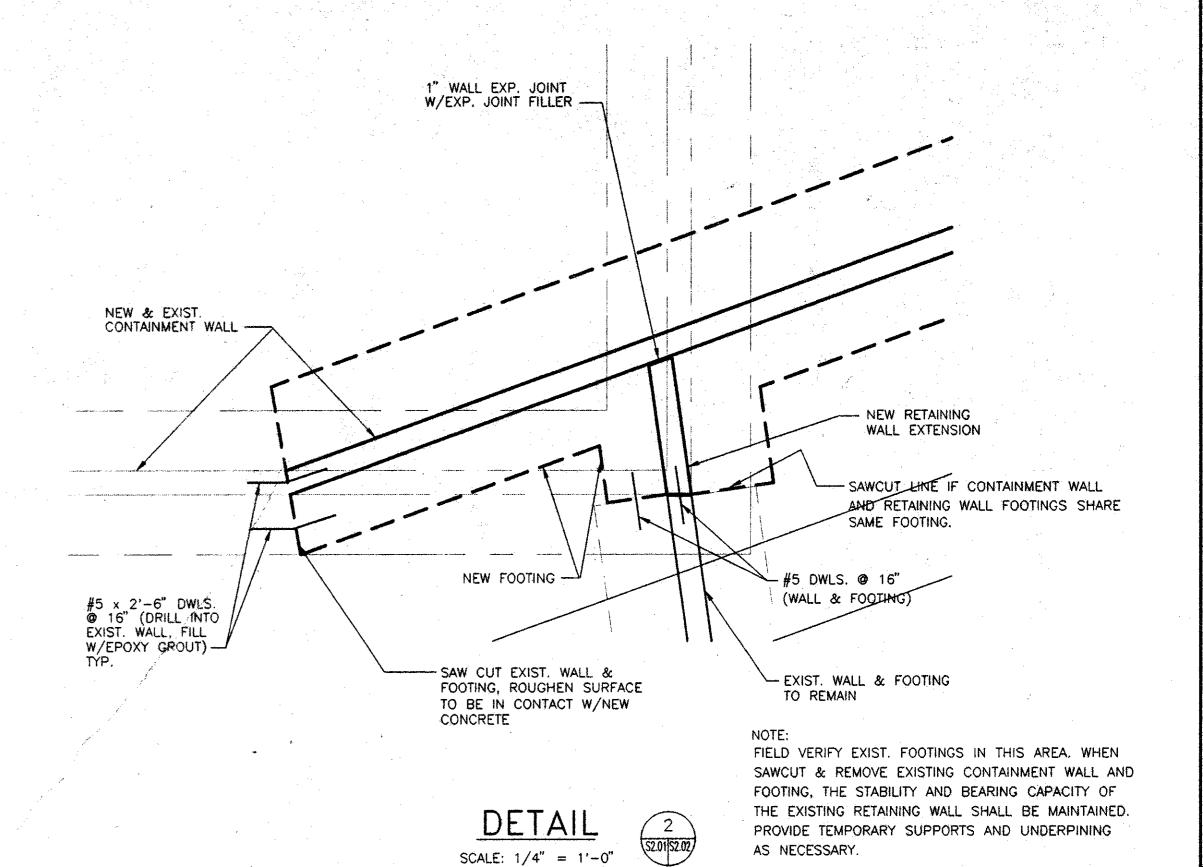
DETAIL @ DRAWOFF SUMP

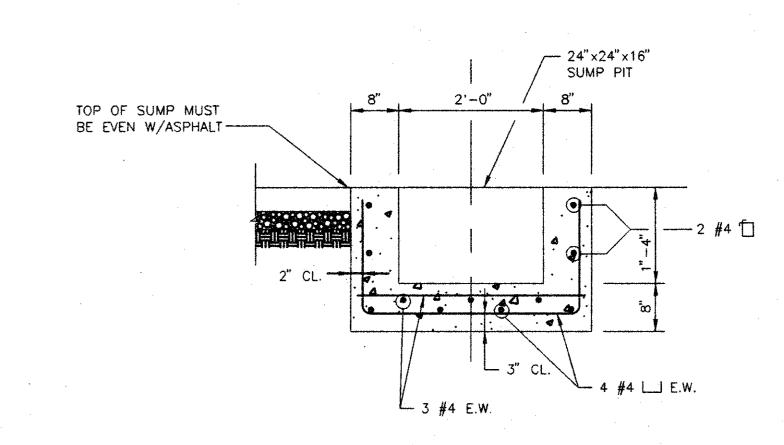
SCALE: NONE



TYPICAL DETAIL @ WALL INTERSECTION

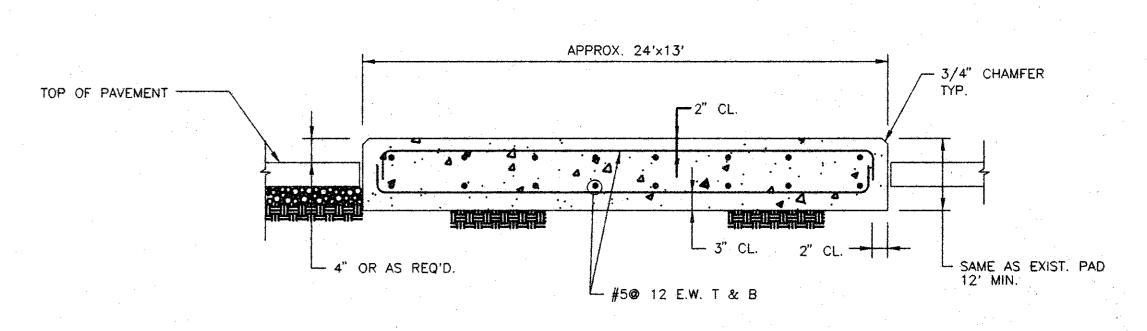
SCALE: NONE





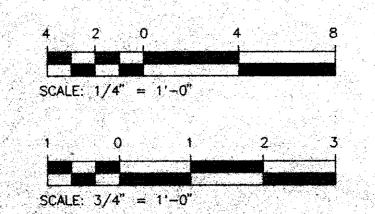
SUMP PIT DETAIL

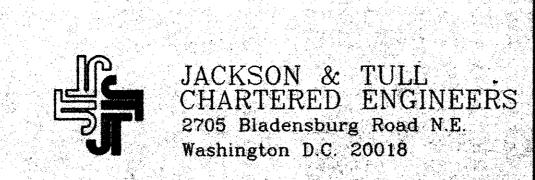
SCALE: 3/4" = 1'-0"



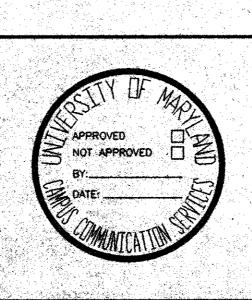
NOTE:
COORDINATE SIZE, NUMBER AND LOCATION OF ANCHOR BOLTS WITH EXISTING TANK.

DEISEL TANK PAD DETAIL
SCALE: NONE

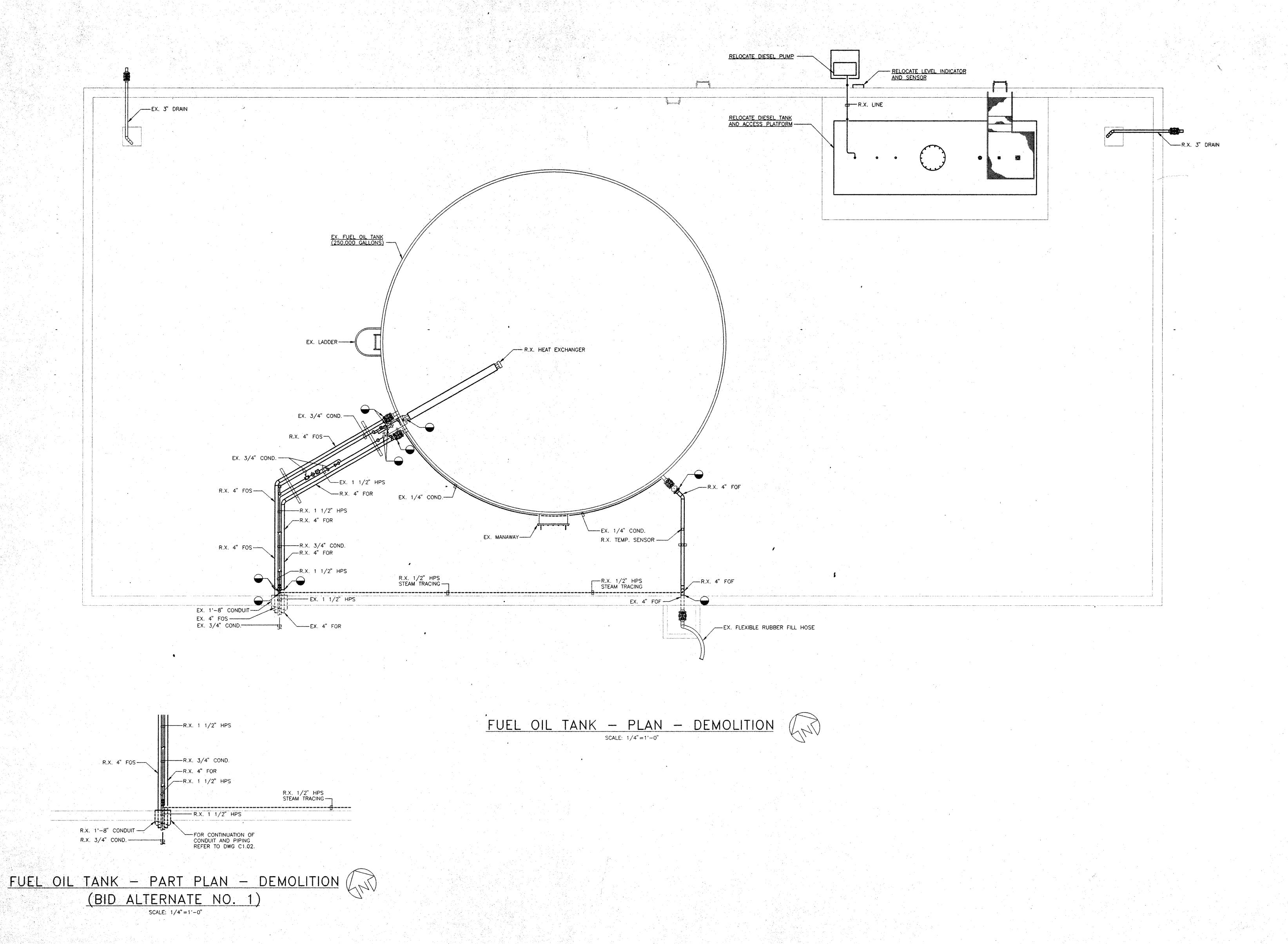








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GENERAL NOTES:

1. CONTRACTOR SHALL REMOVE ALL STEAM TRACING FROM EXISTING FUEL OIL LINES INSIDE OF CONTAINMENT DIKE.

2. CONTRACTOR SHALL REMOVE ALL INSULATION ON FOS, FOF, FOR AND STEAM LINES IN THE CONTAINMENT DIKE.

FOR AND STEAM LINES IN THE CONTAINMENT DIKE.

3. CONTRACTOR SHALL REMOVE A 10' X 10' AREA OF TANK
INSULATION TO FACILITATE HEAT EXCHANGER REPLACEMENT.

4. CONTRACTOR IS RESPONSIBLE FOR THE DRAINING AND TEMPORARY STORAGE OF THE FUEL OIL AS REQUIRED TO FACILITATE FUEL OIL PIPING REMOVAL AND INSTALLATION.

4 2 0 4 8 SCALE: 1/4" = 1'-0"





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Description By ABOVEGROUND FUEL OIL
Project: STORAGE TANK ADDITION

Title: FUEL OIL TANK - PLANS - DEMOLITION

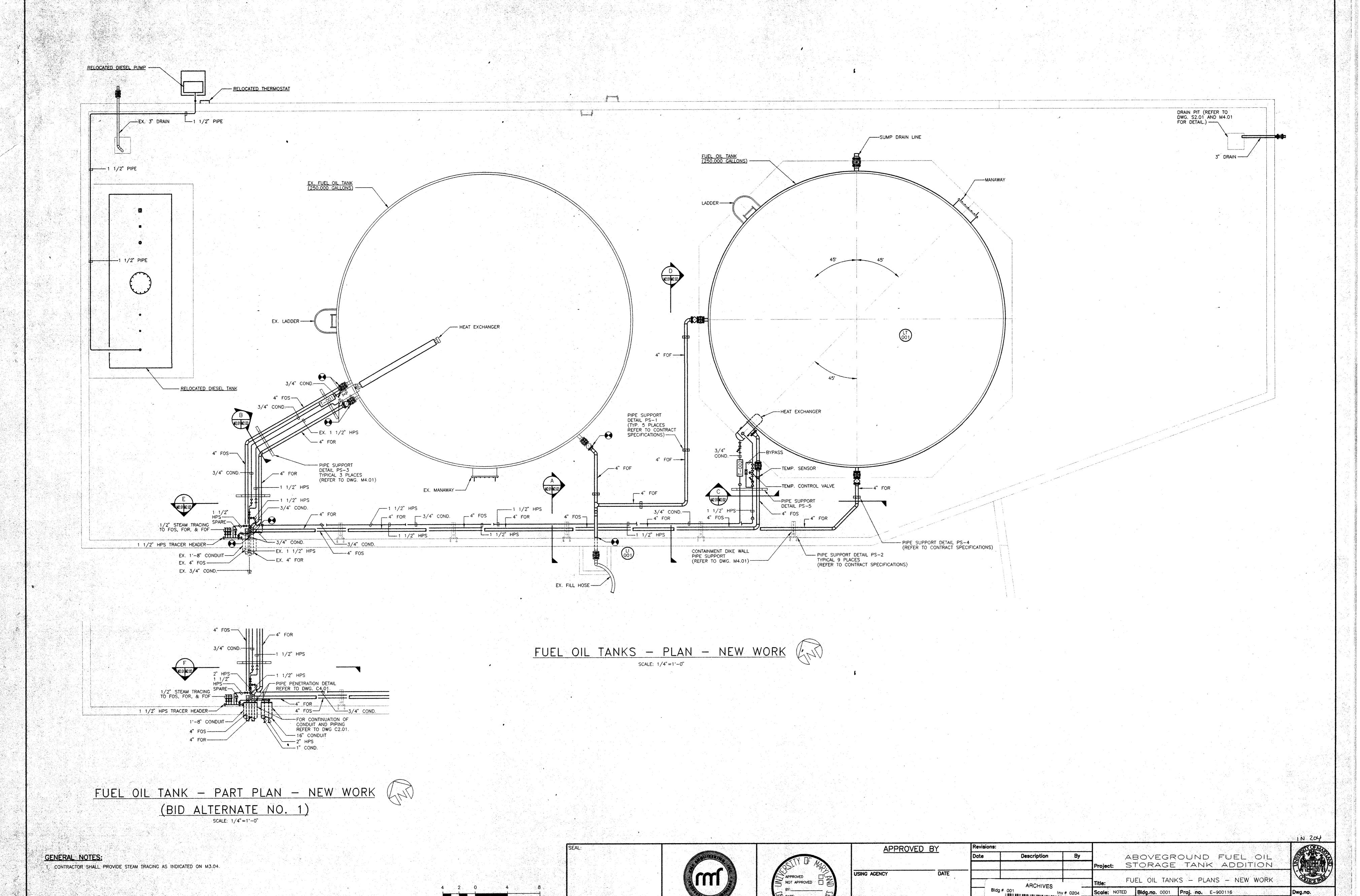
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Bldg # 001
Inv # 0203
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Date: 06/26/98 Dwn.by JML Chk.by

Department of Architecture, Engineering, and Construction

The University of Maryland

IN 203

College Park Campus



RMF ENGINEERING, INC. 190 WEST OSTEND STREET BALTIMORE, MARYLAND 21230

DATE

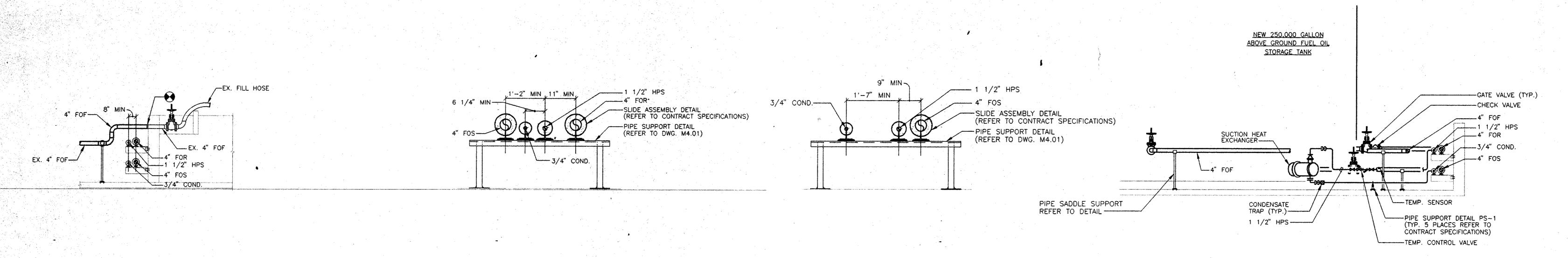
DATE

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The University of Maryland

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Date: 06/26/98 Dwn.by JML Chk.by



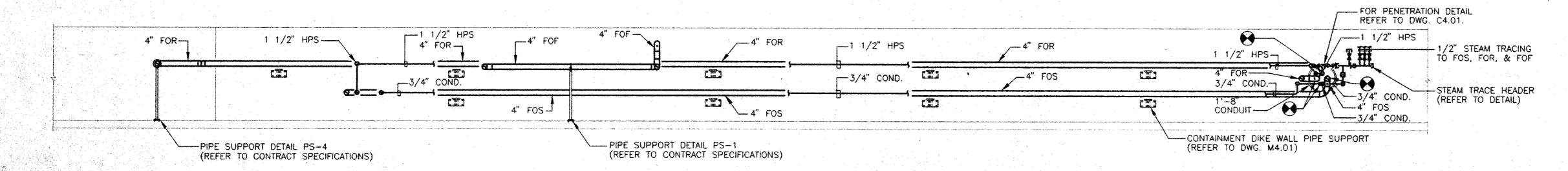
SECTION - NEW WORK

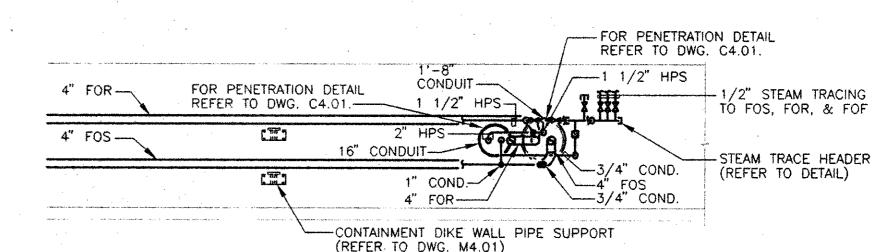
SECTION - NEW WORK (B)

SECTION - NEW WORK (C) (R201/102.02) SCALE: 3/4" = 1' - 0"

FUEL OIL TANK - SECTION - NEW WORK (2011)







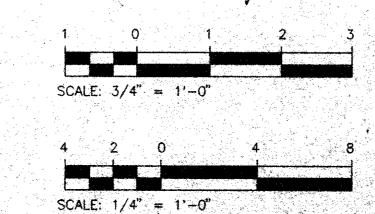
FUEL OIL PIPING - SECTION - NEW WORK SCALE: 1/4"=1'-0"

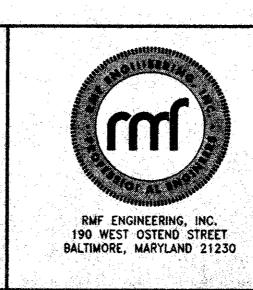


FUEL OIL PIPING - SECTION - NEW WORK (BID ALTERNATE NO. 1)



SCALE: 1/4"=1'-0"

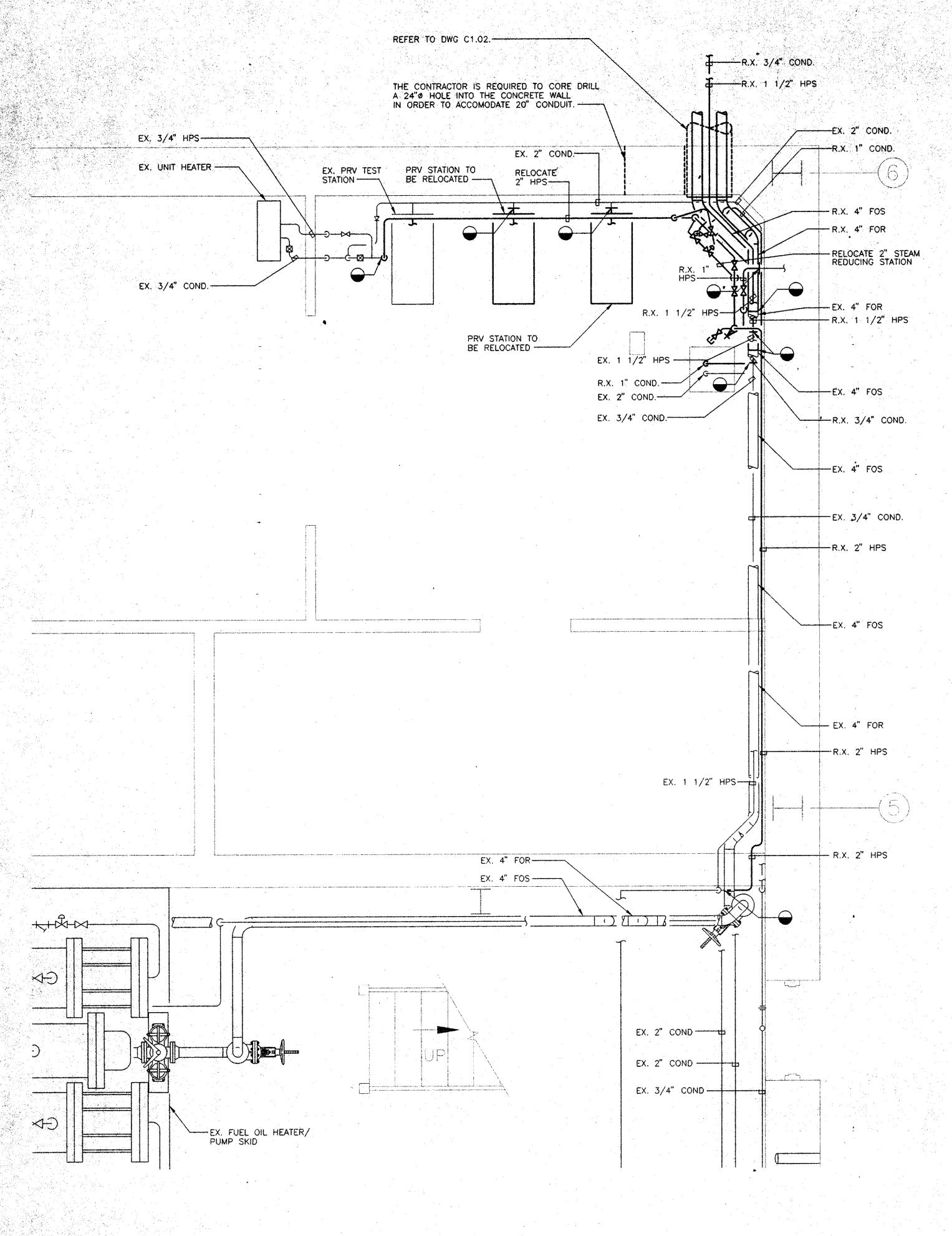


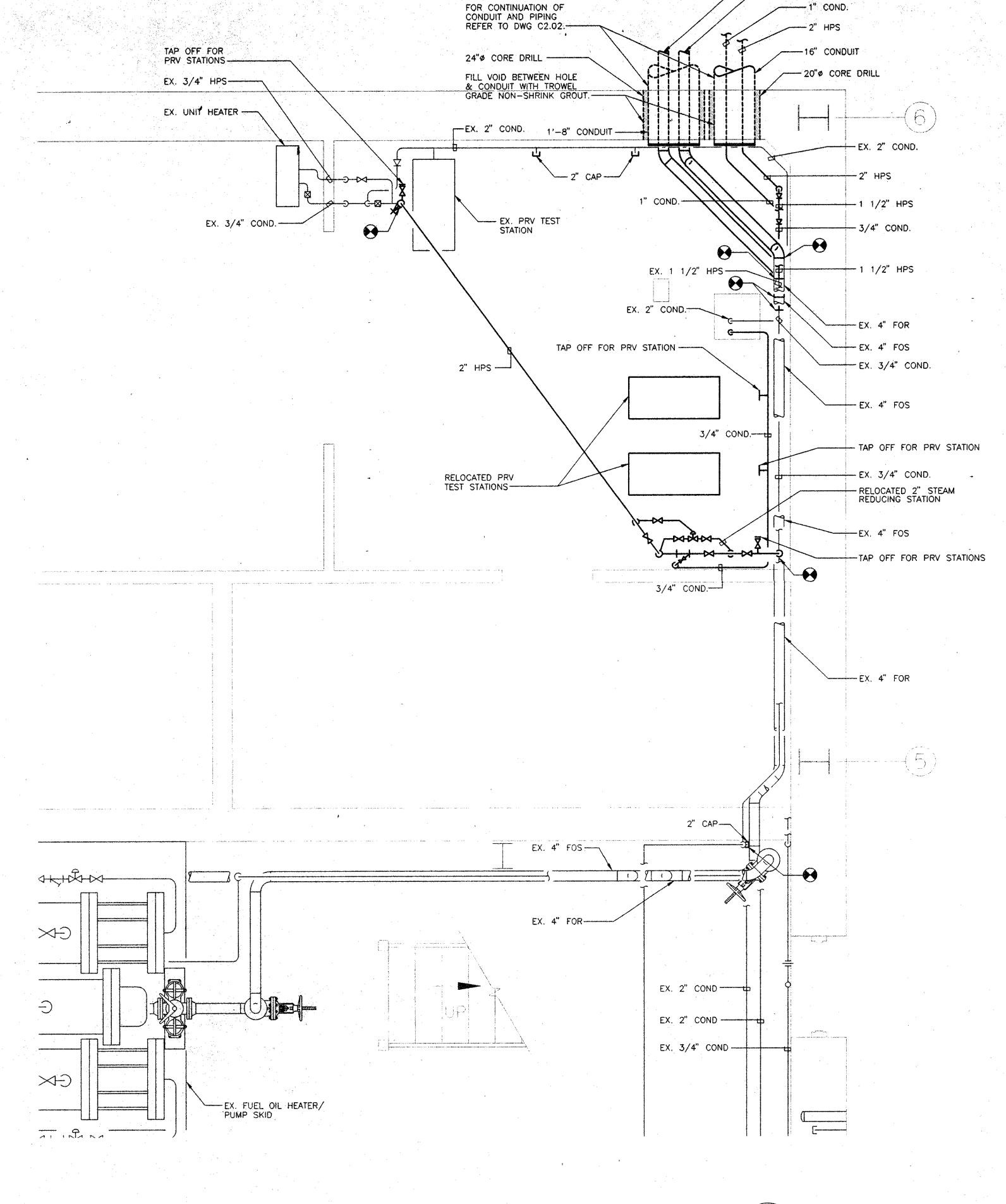




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IN 205 ABOVEGROUND FUEL OIL STORAGE TANK ADDITION FUEL OIL TANKS - SECTIONS - NEW WORK Scale: NOTED * Bldg.no. 0001 Proj. no. E-900116 Date: 06/26/98 Dwn.by JML Chk.by M2.02 Department of Architecture, Engineering, and Construction College Park Campus The University of Maryland





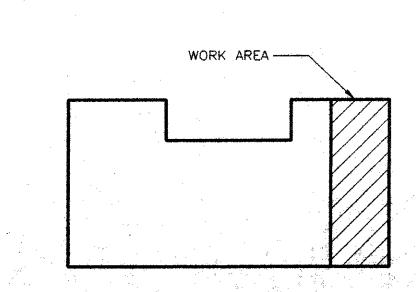
BASEMENT PART PLAN — DEMOLITION

(BID ALTERNATE NO. 1)

SCALE: 1/2"=1'0"

BASEMENT PART PLAN - NEW WORK

(BID ALTERNATE NO. 1)



KEY PLAN (

College Park Campus

IN 206

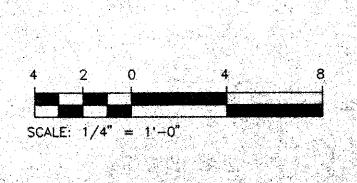
M2.03

GENERAL NOTE

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE RELOCATION OF THE PRESSURE REDUCING STATION AND THE RECONNECTION OF THE EX. UNIT HEATER.

2. REARRANGING OF SHELVES, TABLES, MATERIALS, AND RELOCATION OF PRV TEST STATIONS SHALL BE THE RESPONSIBILITY OF UMCP PLANT PERSONNEL.

3, ALL WORK IN THIS AREA SHALL BE DONE COINCIDING WITH ALL OTHER ABOVEGROUND FUEL OIL STORAGE TANK ADDITION WORK.







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ABOVEGROUND FUEL OIL

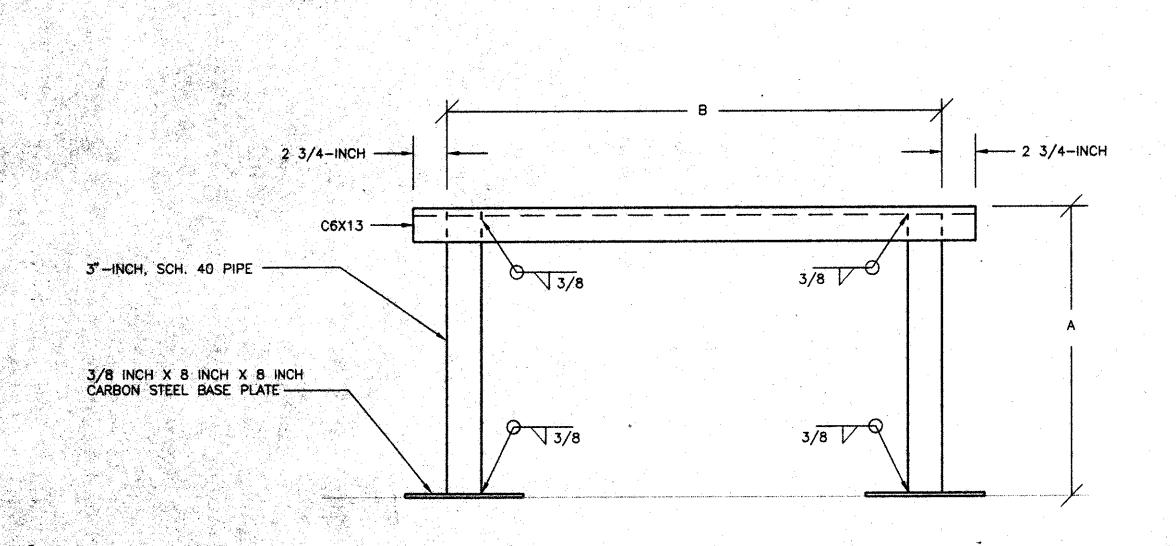
Project: STORAGE TANK ADDITION

Title: BASEMENT PART PLANS - DEMOLITION AND NEW WORK

Scale: NOTED Bldg.no. 0001 Proj. no: E-900116

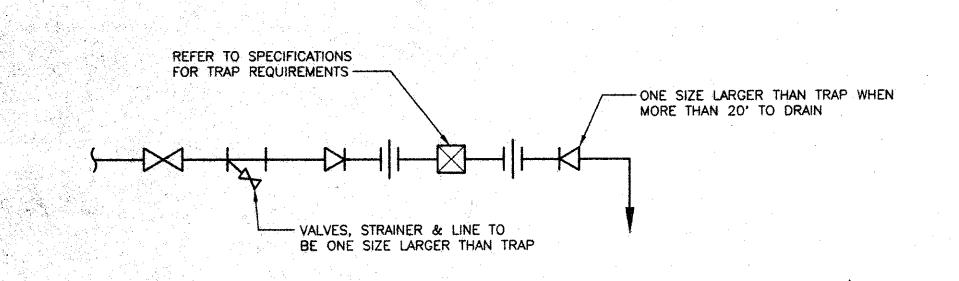
Date: 06/26/98 Dwn.by JMW Chk.by. RJB

Department of Architecture, Engineering, and Construction

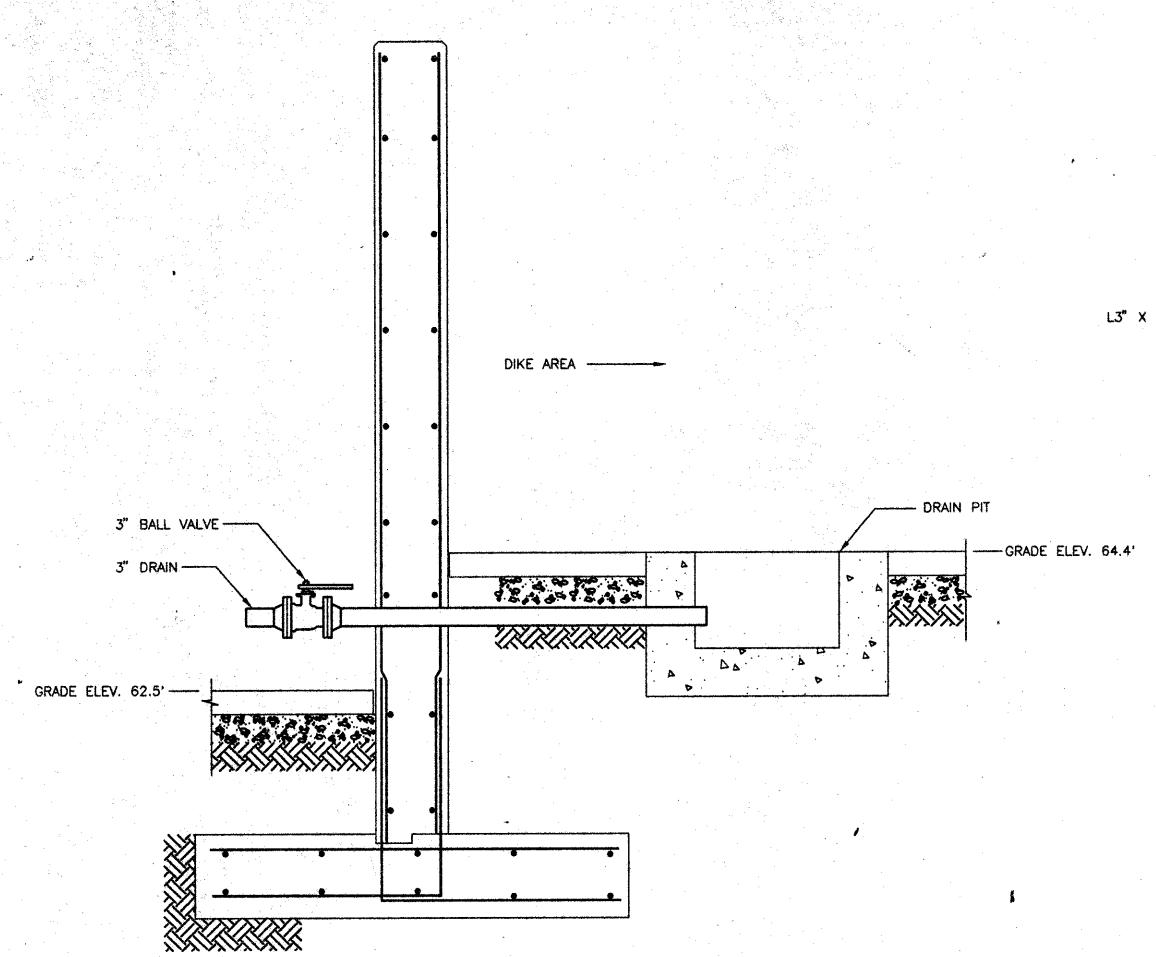


DETAIL - PIPE SUPPORT SCALE: NONE (PS-3 PS-5)

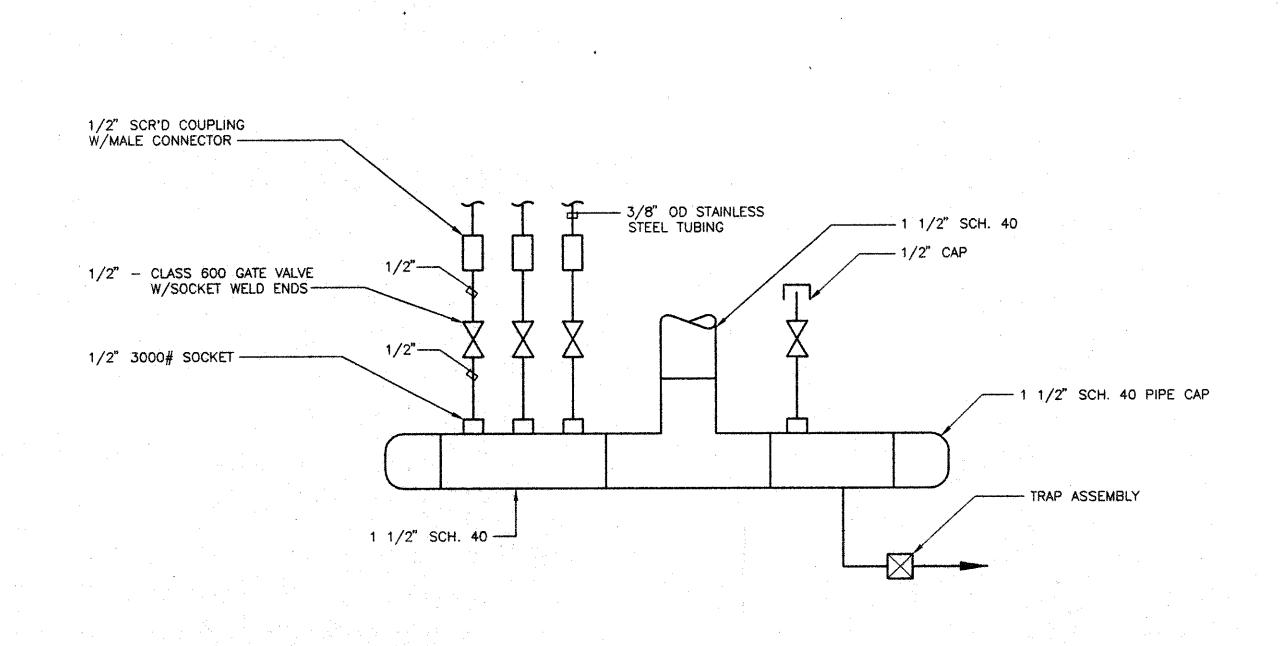
1. CONTRACTOR TO DETERMINE A & B DIMENSION BASED ON AS-BUILT CONDITION OF PIPE.



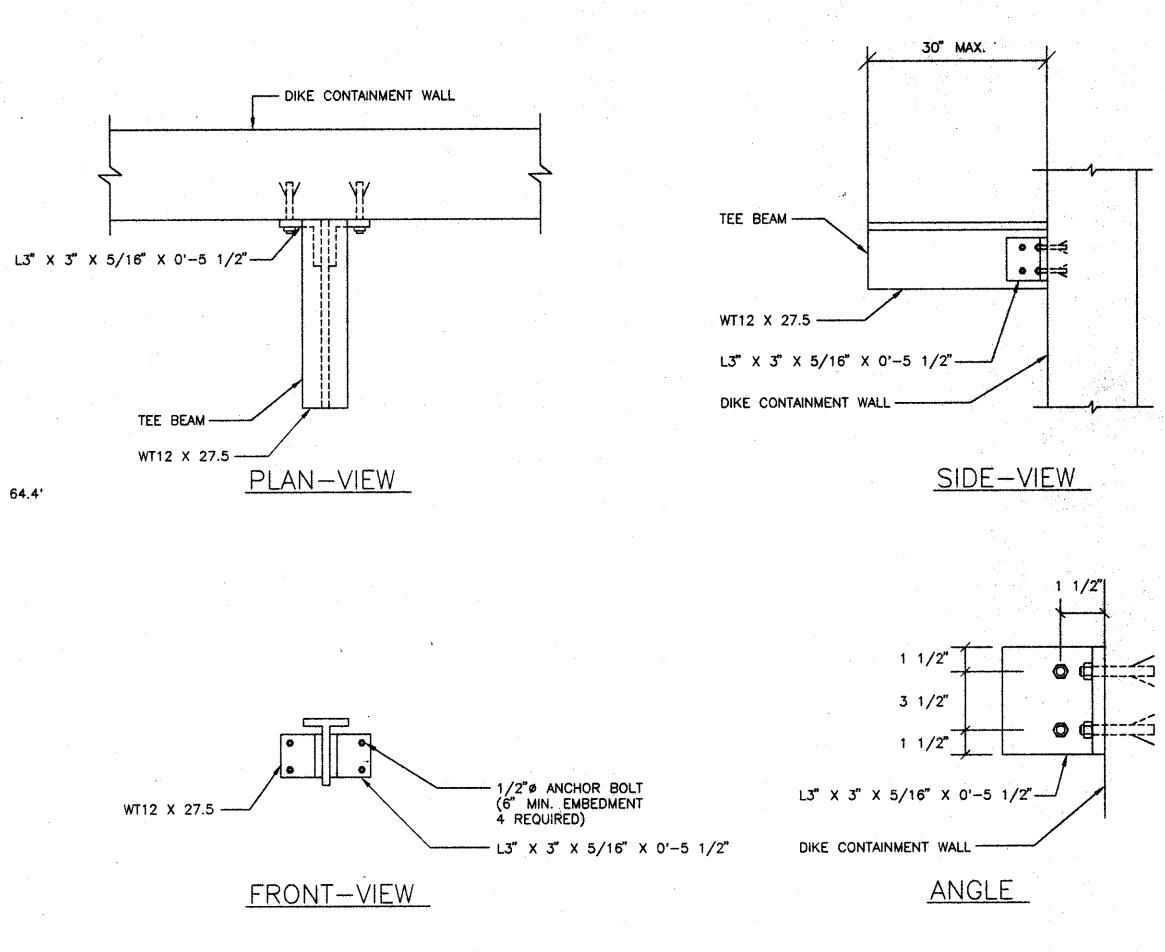
DETAIL - T-001, T-002 TRAP ASSEMBLY



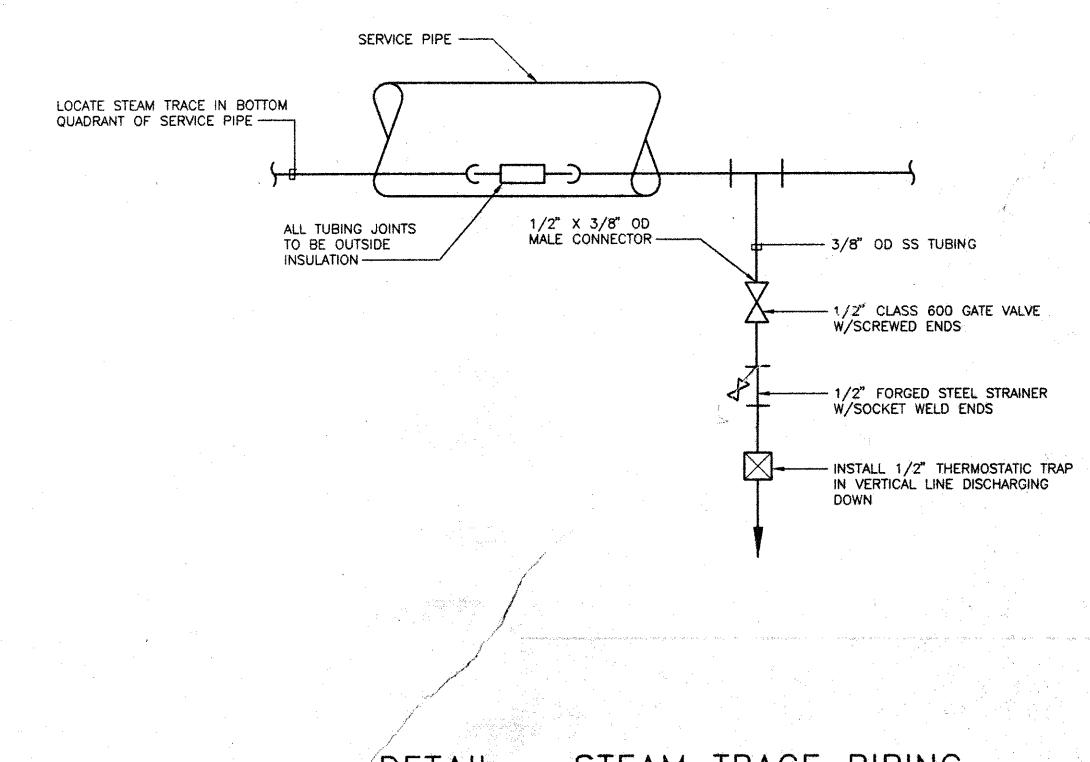
DRAIN PIT DETAIL SCALE: 3/4" = 1'-0"



DETAIL - STEAM TRACE HEADER

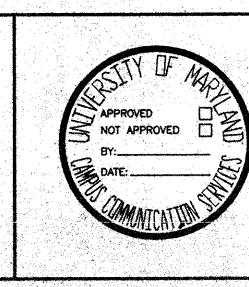


DETAIL - CONTAINMENT DIKE WALL PIPE SUPPORT



DETAIL - STEAM TRACE PIPING





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ABOVEGROUND FUEL OIL STORAGE TANK ADDITION Bldg.no. 0001 Proj. no. E-900116 Date: 06/26/98 Dwn.by

Department of Architecture, Engineering, and Construction

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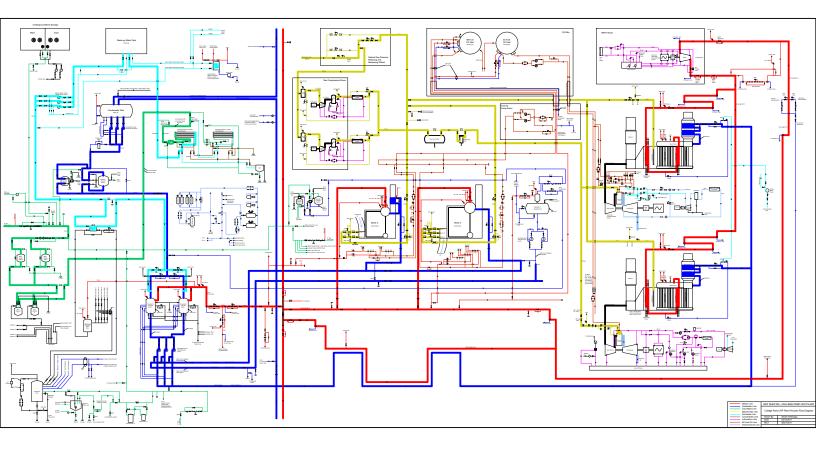
IN 211

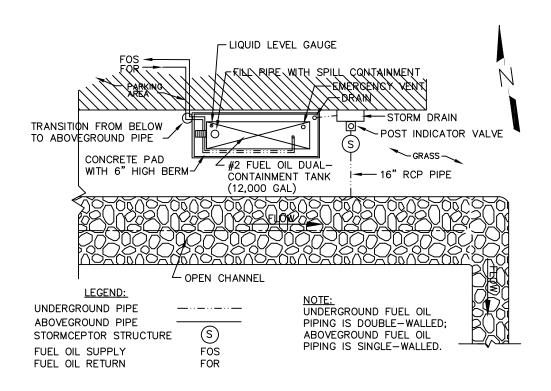
M4.01

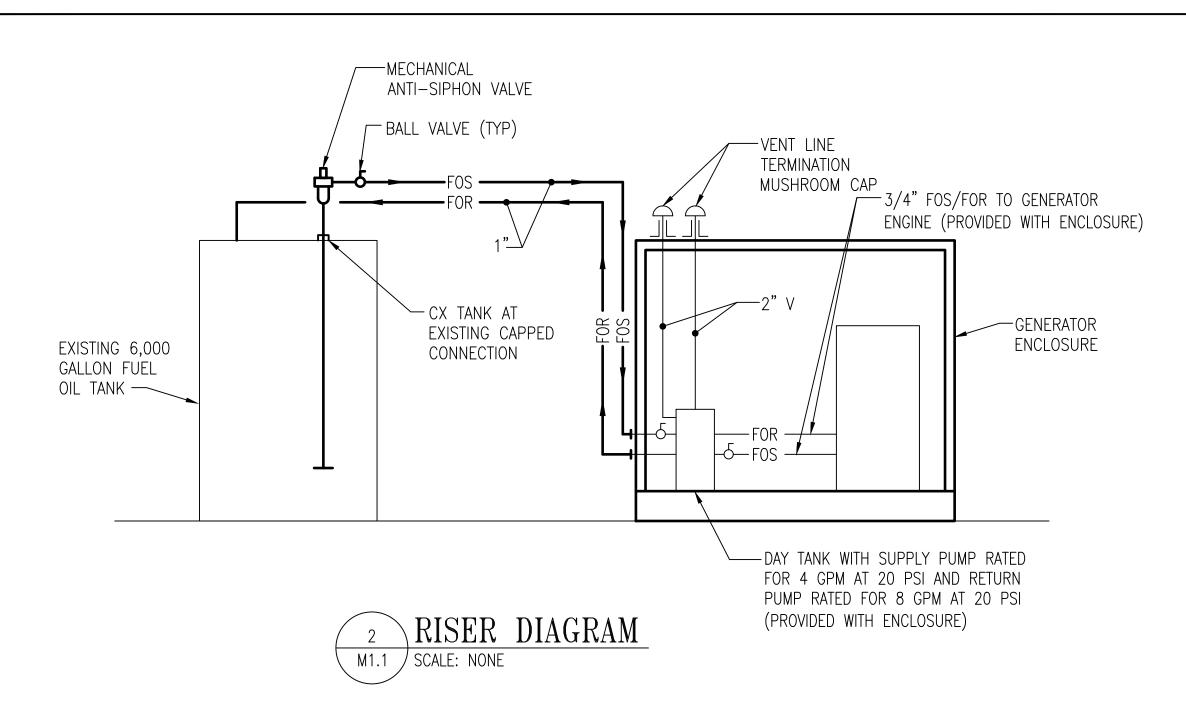


Oil Associated Piping









RECOVERY AFTER POWER FAILURE SEQUENCE OF OPERATIONS

<u>GENERAL:</u>

- 1. THE DDC SYSTEM SHALL MONITOR THE BUILDING'S POWER SOURCE SERVING SWITCHBOARD A AND SWITCHBOARD B.
- 2. UPON A POWER FAILURE TO EITHER SWITCHBOARD, THE BAS SHALL DISABLE THE CONTROL SEQUENCES FOR CHILLERS ACC-796-01-01, ACC-796-01-02, AND ACC-796-01-03.

RECOVERY AFTER POWER FAILURE SERVING SWITCHBOARD "B"

- 3. UPON RESTORATION OF POWER FROM THE GENERATOR SERVING SWITCHBOARD B (AS DETERMINED FROM MONITORING AUTOMATIC TRANSFER SWITCH POSITION), CONFIRM POWER IS AVAILABLE (NORMAL OR EMERGENCY) AT SWITCHBOARD A. ONCE POWER IS AVAILABLE AT SWITCHBOARD A:
- a. BUILDING CHILLER ACC-796-01-03 SHALL REMAIN DISABLED.
- b. ROTATE LEAD / LAG STATUS OF PROCESS COOLING CHILLERS (ACC-796-01-01 AND ACC-796-01-02) TO BE OPPOSITE OF STATUS BEFORE UTILITY POWER OUTAGE. ENABLE EXISTING PROCESS COOLING CHILLED WATER SEQUENCE OF OPERATION WITH THE FOLLOWING MODIFICATIONS:
- i. LAG PROCESS COOLING CHILLER SHALL REMAIN DISABLED. CLOSE ASSOCIATED CHILLED WATER ISOLATION VALVE.
- ii. DELAY START OF LEAD PROCESS COOLING CHILLER FOR 60 SECONDS.
- iii. MONITOR THE GENERATOR OUTPUT THROUGH THE REMOTE GENERATOR ANNUNCIATOR PANEL LOCATED IN ROOM 1209A AND PROVIDE CURRENT LIMITING SIGNAL TO CHILLER TO PREVENT EXCEEDING THE CAPACITY OF GENERATOR.

RECOVERY AFTER POWER FAILURE SERVING SWITCHBOARD A

- 4. CONFIRM POWER IS AVAILABLE AT SWITCHBOARD B AND DETERMINE IF IT IS SERVED BY NORMAL OR EMERGENCY POWER (AS DETERMINED FROM MONITORING AUTOMATIC TRANSFER SWITCH POSITION).
- 5. IF SWITCHBOARD B IS SERVED BY GENERATOR POWER, FOLLOW THE "RECOVERY AFTER POWER FAILURE SERVING SWITCHBOARD B" SEQUENCE OF OPERATION.
- 6. IF SWITCHBOARD B IS SERVED BY UTILITY POWER, FOLLOW THE "RESTORATION OF NORMAL POWER SEQUENCE OF OPERATION."

RESTORATION OF NORMAL POWER

- 7. UPON RESTORATION OF POWER FROM THE UTILITY (AS DETERMINED FROM MONITORING AUTOMATIC TRANSFER SWITCH POSITION):
 - a. ROTATE LEAD / LAG STATUS OF PROCESS COOLING CHILLERS (ACC-796-01-01 AND ACC-796-01-02) TO BE OPPOSITE OF STATUS BEFORE RESTORATION OF POWER. ENABLE EXISTING PROCESS COOLING CHILLED WATER SEQUENCE OF OPERATION.
 - b. ENABLE BUILDING CHILLER ACC-796-01-03 AFTER 120 SECOND DELAY.

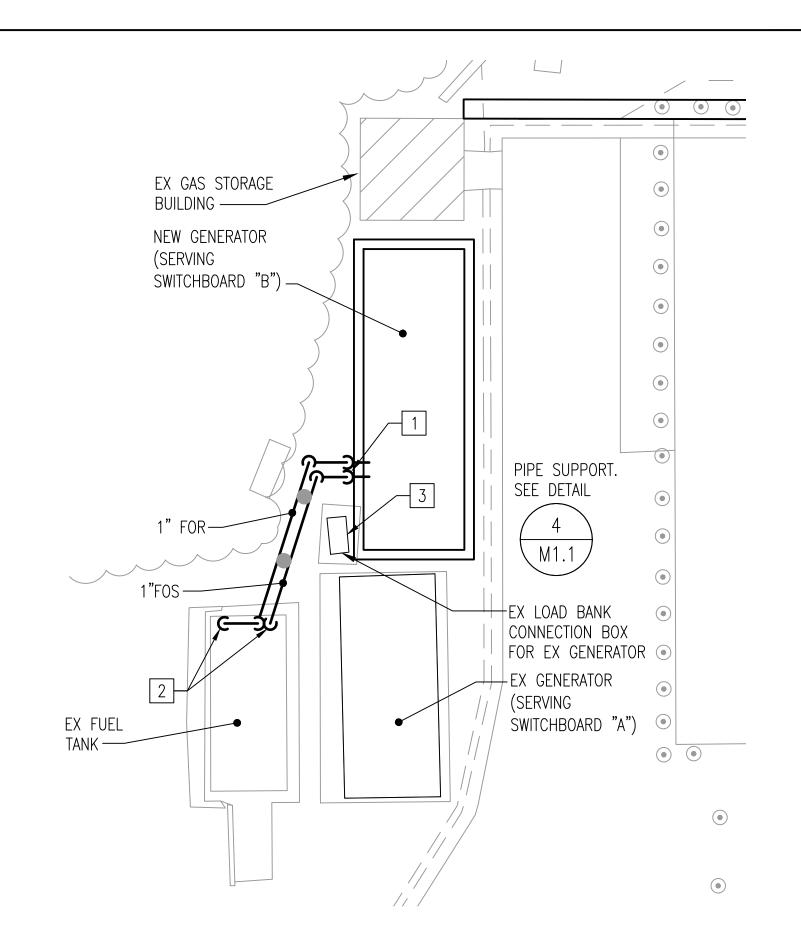
GENERATOR MONITORING SYSTEM SEQUENCE OF OPERATIONS

1. THE DDC SYSTEM SHALL MONITOR THE DAY TANK'S COMBINATION LOW FUEL / HIGH FUEL LEVEL ALARM AND LEAK DETECTOR THROUGH A MODBUS CONNECTION TO THE REMOTE GENERATOR ANNUNCIATOR PANEL LOCATED IN ROOM 1209A. ANNUNCIATE AN ALARM THROUGH THE BUILDING'S GRAPHIC USER INTERFACE WHEN ALARMS ARE ACTIVATED.

	BMS SYSTEM CONTROLLER								
POINT I.D.	DOUG DECORIDED U	Α.	40		DO	ALARM			NOTEC
#	POINT DESCRIPTION	Al	AO	DI		HI/LOW	MAINT.	FAILURE	NOTES
1	ACC796-01-0-1, CHILLER ENABLE (EX POINT)				Х				1
2	ACC-796-01-02, CHILLER ENABLE (EX POINT)				Х				1
3	ACC-796-01-03, CHILLER ENABLE (EX POINT)				Х				1
4	ACC-796-01-02, CHILLER CURRENT LIMITING		Х						1
5	ACC-796-01-03, CHILLER CURRENT LIMITING		Х						1
6	AUTOMATIC TRANSFER SWITCH POSITION			Х					1
7	REMOTE GENERATOR ANNUNCIATOR PANEL								1,2
NOTE C.	1 MONITORED TUROUCU MODDUS COMMECTION					•		•	•

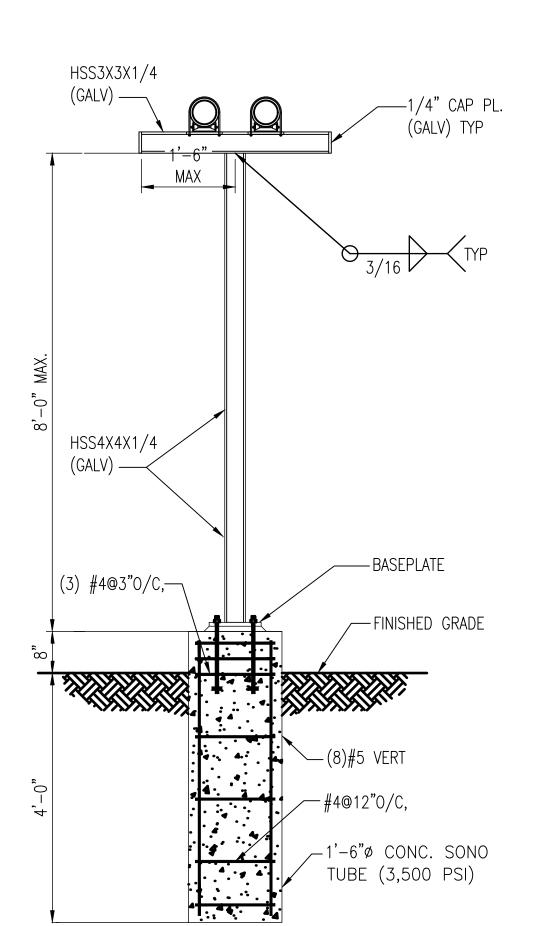
NOTES: 1. MONITIORED THROUGH MODBUS CONNECTION.
2. REFER TO ELECTRICAL DRAWINGS FOR EQUIPMENT LOCATIONS.

5 BUILDING CONTROL MODIFICATIONS
SCALE: NONE



GENERATOR SITE PLAN - NEW WORK

M1.1 SCALE: 1" = 10'



TYPICAL PIPE SUPPORT DETAIL

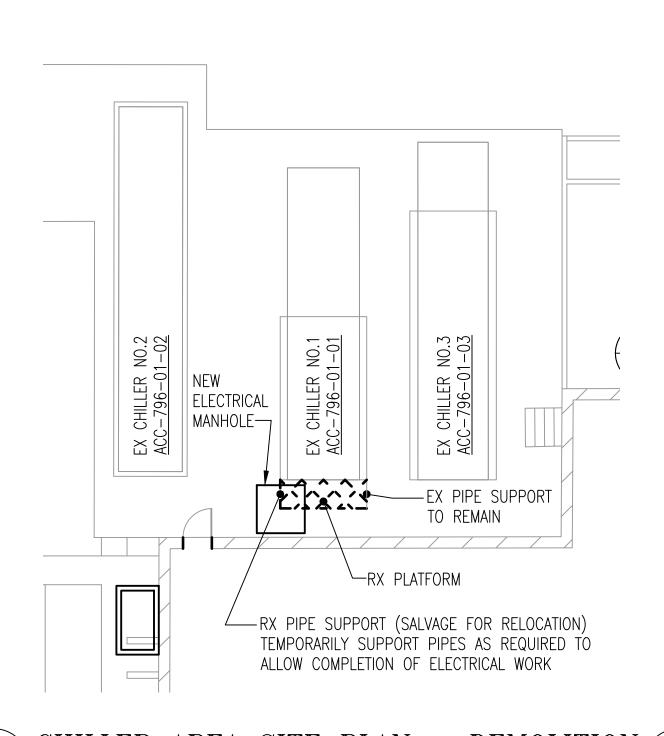
M1.1 SCALE: NONE

SPECIFIC NOTES

- 1 1" FOS & FOR DN. EXTEND TO DAY TANK LOCATED IN GENERATOR ENCLOSURE. COORDINATE LOCATION WITH GENERATOR MANUFACTURER.
- 2 CONNECT TO EX TANK THROUGH EX UNUSED 4" TANK CONNECTION.
- 3 EXISTING LOAD BANK CONNECTION CABINET WILL BE REMOVED UNDER SEPARATE CONTRACT PRIOR TO THIS CONTRACT.

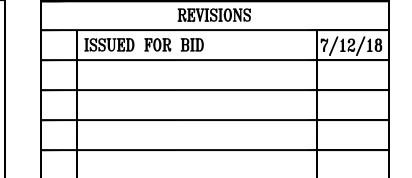
ABBREVIATIONS

- ACC AIR COOLED CHILLER
 AI ANALOG INPUT
 AO ANALOG OUTPUT
- CONC CONCRETE
- CX CONNECT TO EXISTING
- DI DIGITAL INPUT DO DIGITAL OUTPUT
- EX EXISTING
- FOR FUEL-OIL RETURN
- FOS FUEL-OIL SUPPLY
- GALV GALVANIZED
 GPM GALLONS PER MINUTE
- HSS HOLLOW STRUCTURAL SECTION
- MAX MAXIMUM
- OC ON CENTER
- PSI POUNDS PER SQUARE INCH
- PL PLATE
- REMOVE EXISTING
- TYP TYPICAL



3 CHILLER AREA SITE PLAN - DEMOLITION

M1.1 SCALE: 1" = 10'

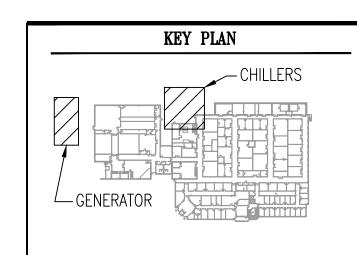


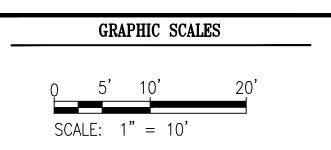


LPS ELECTRICAL
UPGRADE SWITCHBOARD B

BLDG: LABORATORY OF PHYSICAL SCIENCE
BLDG NO.: 796

UMD PROJECT NO.: 15-667-765





SIGNATURE



PROFESSIONAL CERTIFICATION.

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE
PREPARED OR APPROVED BY ME, AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF
THE STATE OF MARYLAND, LICENSE NO. 20215
EXPIRATION DATE: 10/12/2019

SIGNATURE:



MECH SITE PLAN & CONTROLS
- NEW WORK & DEMOLITION

801 South Caroline Street, Baltimore, Maryland 21231

Drawing No.

M1.1

 Scale: 1" = 10'

 Date: 7/12/2018
 Sheet 14 of 22

 Des: GGG
 Drawn: PBF
 Check: GGG



Oil/Water Separators

ARYLA



Highland Manufacturing Locations

One Highland Road Stoystown, PA 15563-0338 (814) 893-5701 FAX 893-6126

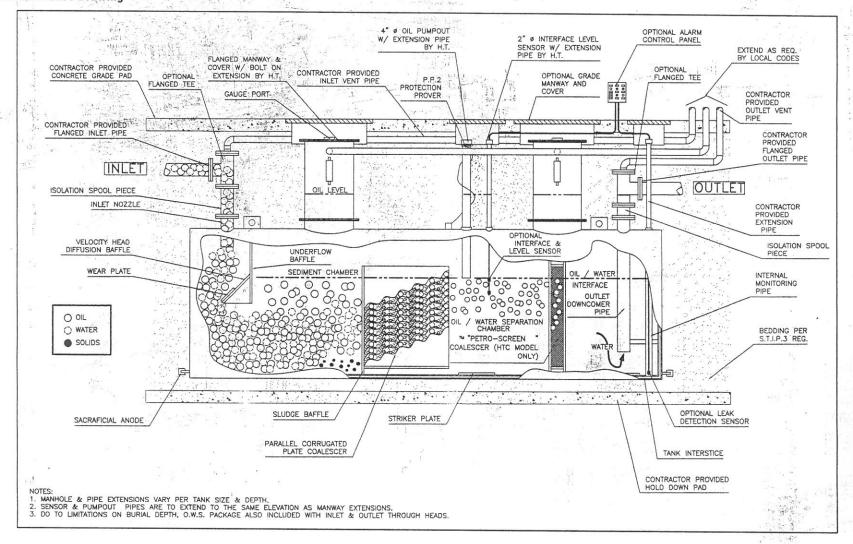
2225 Chestnut Street Lebanon, PA 17042 (717) 664-0602 FAX 664-0631

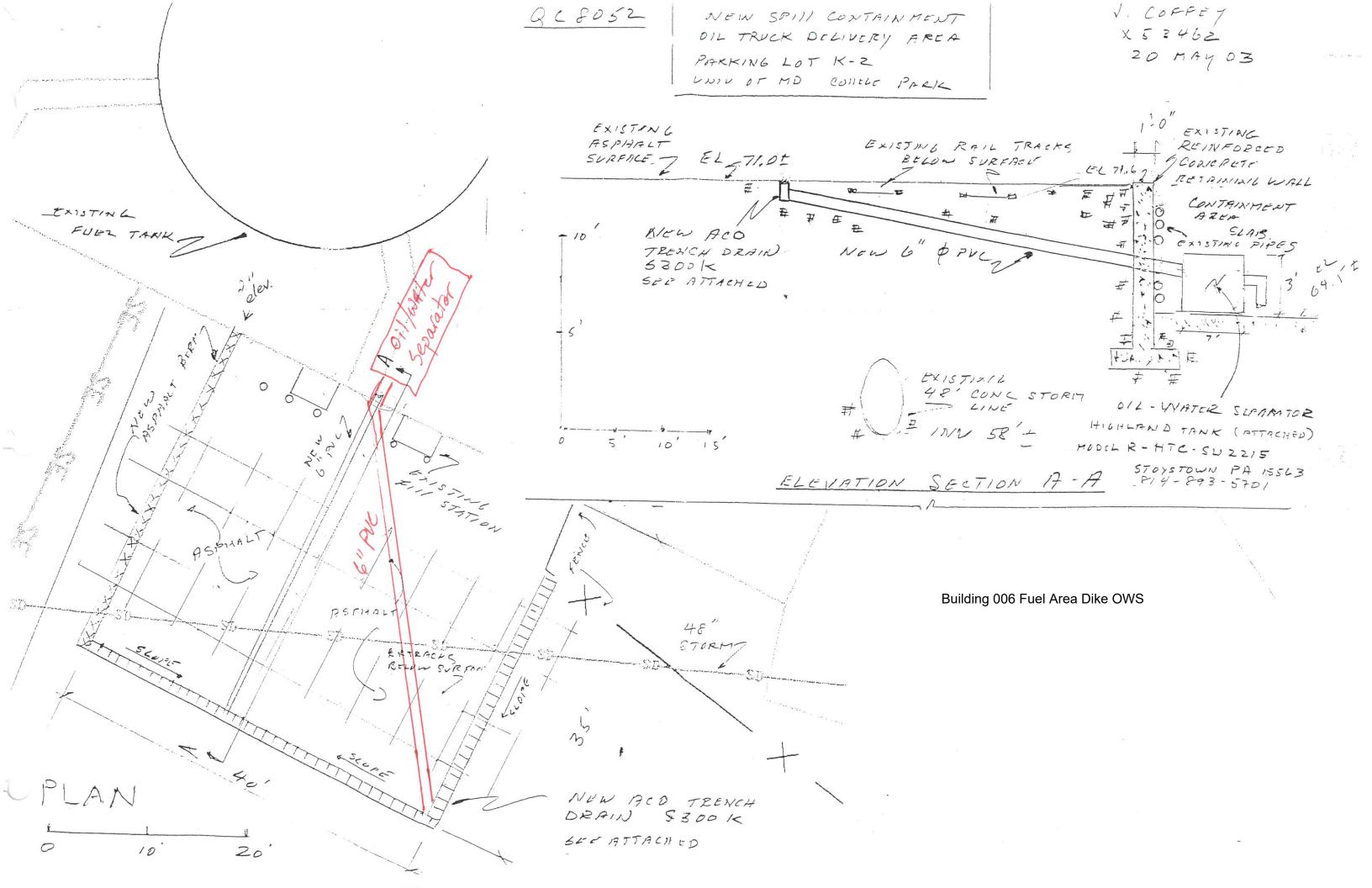
99 West Elizabethtown Road Manheim, PA 17545-9410 (717) 664-0600 FAX 664-0617 2700 Petterson Street Greensboro, NC 27407 (336) 218-0801 FAX 218-1292

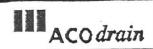
958 19th Street Watervliet, NY 12189 (518) 273-0801 FAX 273-1365 354 Route 108 Somersworth, NH 03878 (603) 692-2012 FAX 692-2014

Please visit us at www.highlandtank.com

OWS Reference Drawing







INSTALLATION DRAWING

ACO Polymer Products Inc. P.O. Box 245

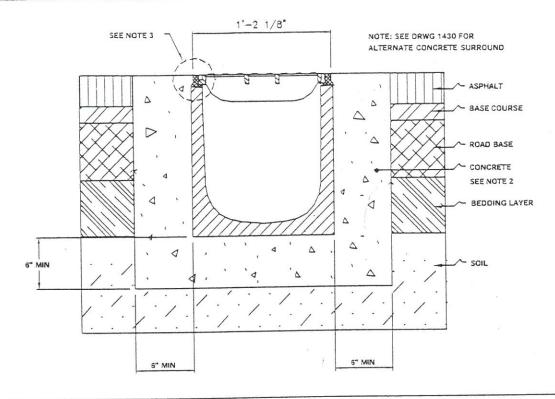
Chardon, OH 44024 PH: 440-285-7000 FX: 440-285-8517

e-mail: sales@acousa.com

DRWG# 1514 Date: 02.25.02

WWW.ACOUSA.COM

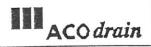
S300K: Load Class E: Asphalt



NOTES

DRWG# 1514

- 1. It is necessary to ensure the minimum dimensions shown are suitable for the existing ground conditions.
- Engineering advice may be required.
- 2. A minimum concrete strength of 3000 PSI is recommended. The concrete should be vibrated to eliminate air pockets.
- 3. The finished level of the concrete surround must be approx. 1/8" above the top of the channel edge.
- 4. Refer to ACO'S latest installation instructions for complete details.



WWW.ACOUSA.COM

Date: 02.25.02

SPECIFICATION CLAUSE

S300K Trench Drain System

ACO Polymer Products Inc. P.O. 8ox 245 Chardon, OH 44024 PH: 440-285-7000 FX: 440-285-8517 e-mail: sales@acousa.com

The surface drainage system shall be polymer concrete S300K channel system with ductile iron rail and grate as manufactured by ACO Polymer Products, Inc., Chardon, Oh.

Channels will be manufactured from polyester resin polymer concrete with an integrally cast in ductile iron rail and supplied with ductile iron grates.

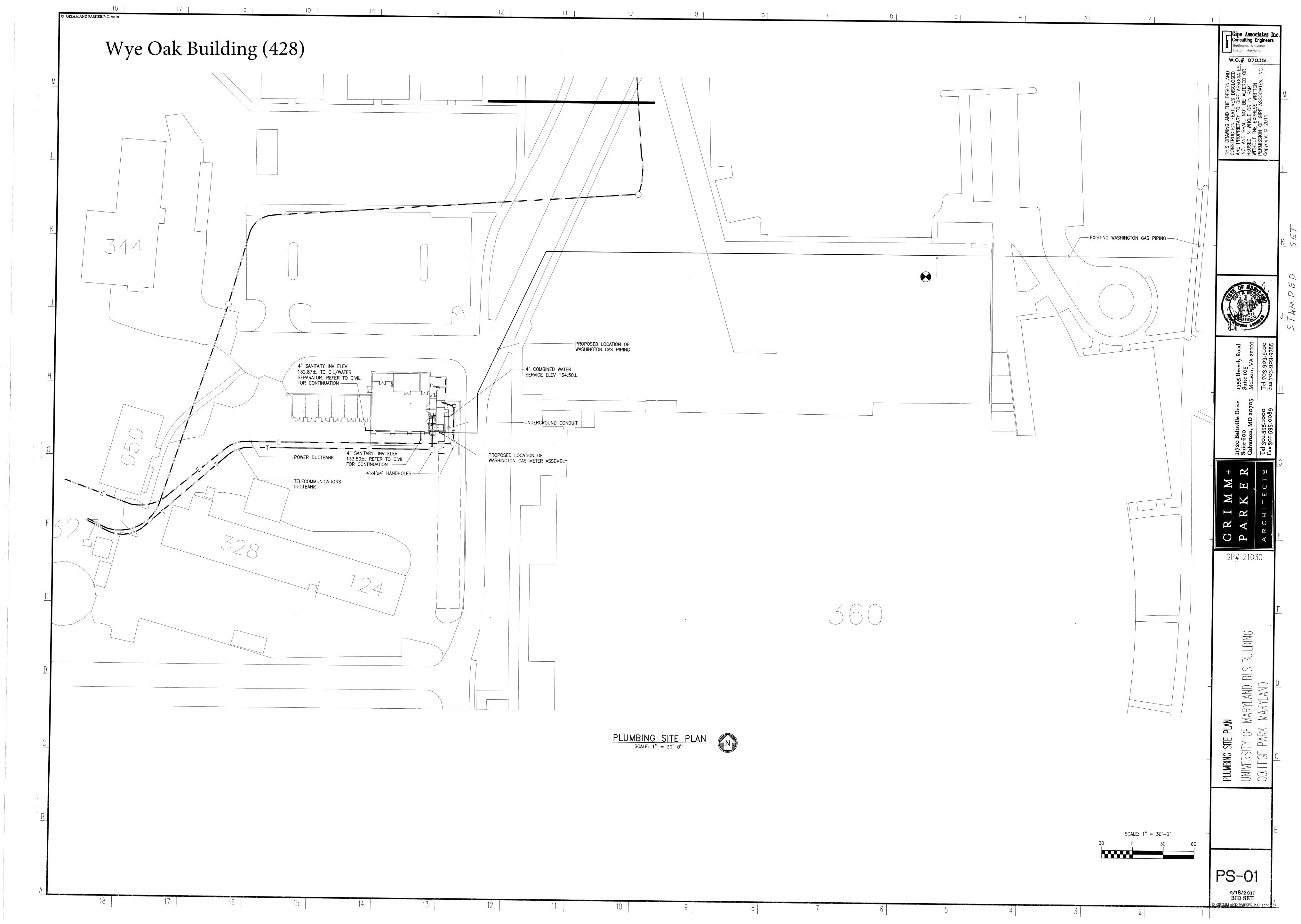
The system shall be 12 inches (300mm) nominal inside width with a 14.1 in. (360mm) overall width and a built-in slope of 0.6 %. All channels shall be interlocking with a male/female join. Each channel shall have preformed 6 in. (171mm) and 8 in. (218mm) schedule 40 drill-out on the bottom for vertical connection with underground piping.

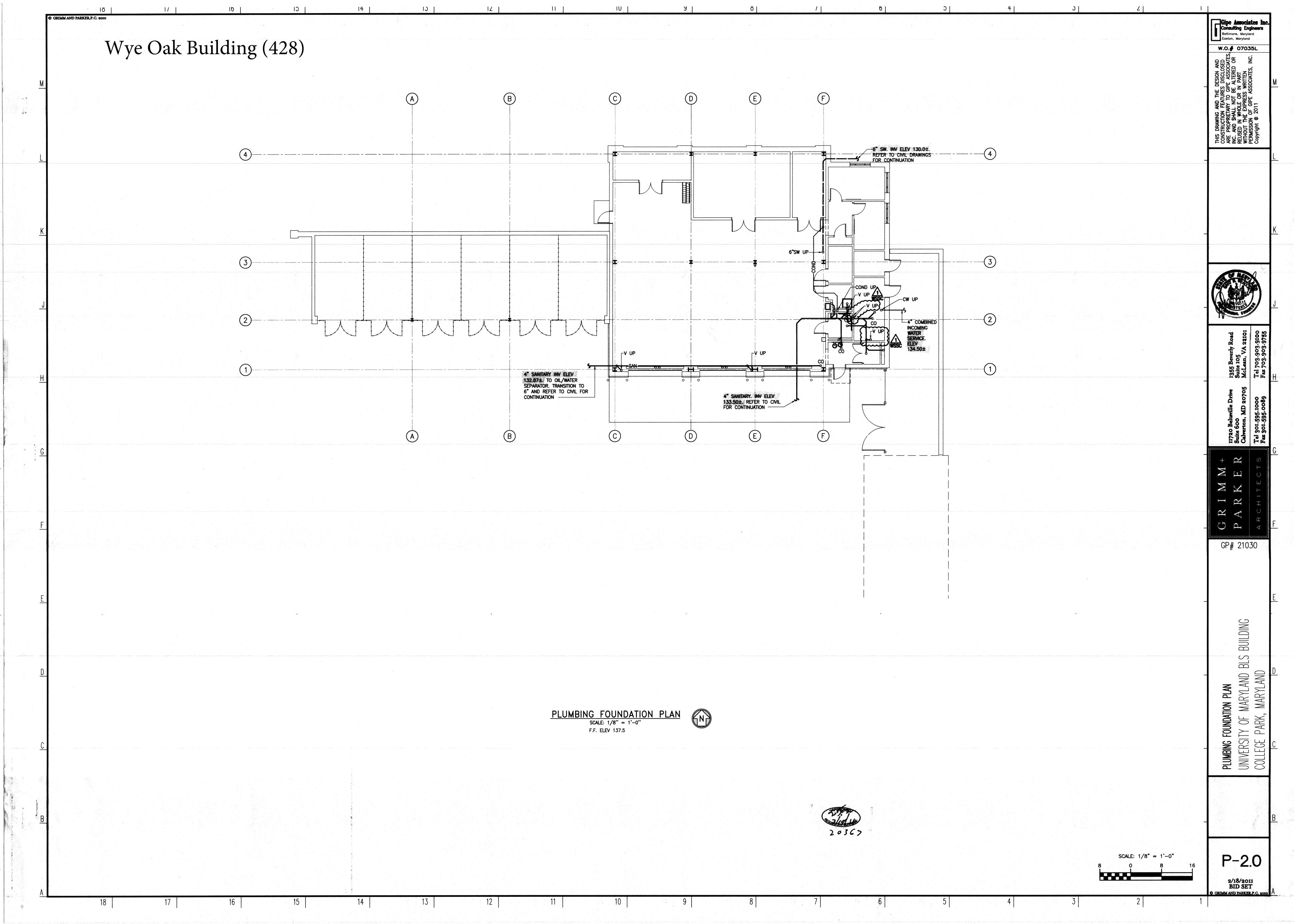
The complete drainage system shall be by ACO Polymer Products, Inc. Any deviation or partial system design and/or improper installation will void any and all warranties provided by ACO Polymer Products, Inc.

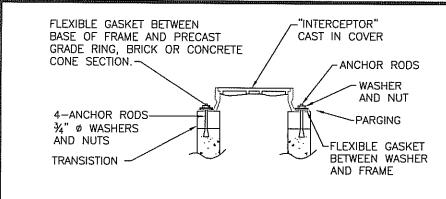
The channel sytem shall be independently certified to withstand loadings to load class F (DIN19580). Grates shall be secured using 'Powerlok' Boltless locking system. Grate and Locking system shall be fully removable from channel.

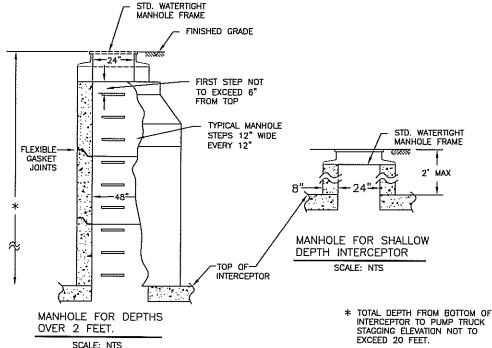
Polymer Concrete shall have material properties of: compressive strength range between 14,000-14,500 psi; flexural strength between 3600-4500 psi; tensile strength of 1500 psi. The material water absorption rate shall not exceed 0.1 % by weight and shall be resistant to prolonged salt exposure, repetitive frost cycles and chemically resistant to dilute acids and alkalis.

The system shall be installed in accordance with the manufacturer's instructions and recommendations.









GREASE OR SAND/OIL INTERCEPTOR

- TANKS AND MANHOLES IN TRAFFIC-BEARING LOCATIONS SHALL MEET OR EXCEED H20 (SHA) LOADING DESIGN.
- 6" INCHES OF BEDDING AND THE BACKFILL ALL SIDES (UP TO TOP OF TANK), SHALL BE MD#6 OR SMALLER AGGREGATE.
- BAFFLES SHALL BE 16 GAUGE (.059 INCH) OR HEAVIER, TYPE 302 OR 304 STAINLESS STEEL.
- BAFFLE TRACKS SHALL BE ¼" OR I" STAINLESS STEAL OR ALUMINUM, TRACK ANCHORS SHALL BE WELDED TO BACK OF TRACK ANCHOR IN THE WALL CASING.
- MANHOLE COVERS SHALL HAVE THE WORD "INTERCEPTOR" CAST IN

MODIFICATIONS FOR UNTRAPPED GARAGE DRAINS

- MANUFACTURER SHALL NOT INSTALL AN INLET BAFFLE.
- PLUMBER SHALL INSTALL INLET PIPE AS SHOWN ON DETAIL.
- THE TANK MUST BE VENTED AS SHOWN ON DETAIL.





DATE: 9-9-08 SHEET NO. 2 OF 2

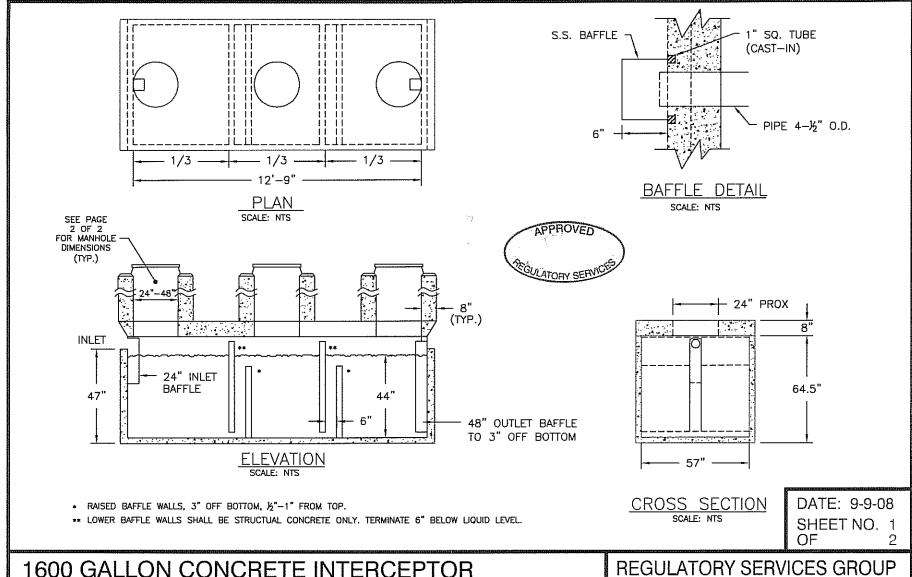
CONCRETE INTERCEPTOR DETAILS AND SPECIFICATIONS

REGULATORY SERVICES GROUP

THESE DOCUMENTS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION WHICH SHALL NOT BE REDISTRIBUTED WITHOUT PRIOR WSSC APPROVAL

WASHINGTON SUBURBAN SANITARY COMMISSION



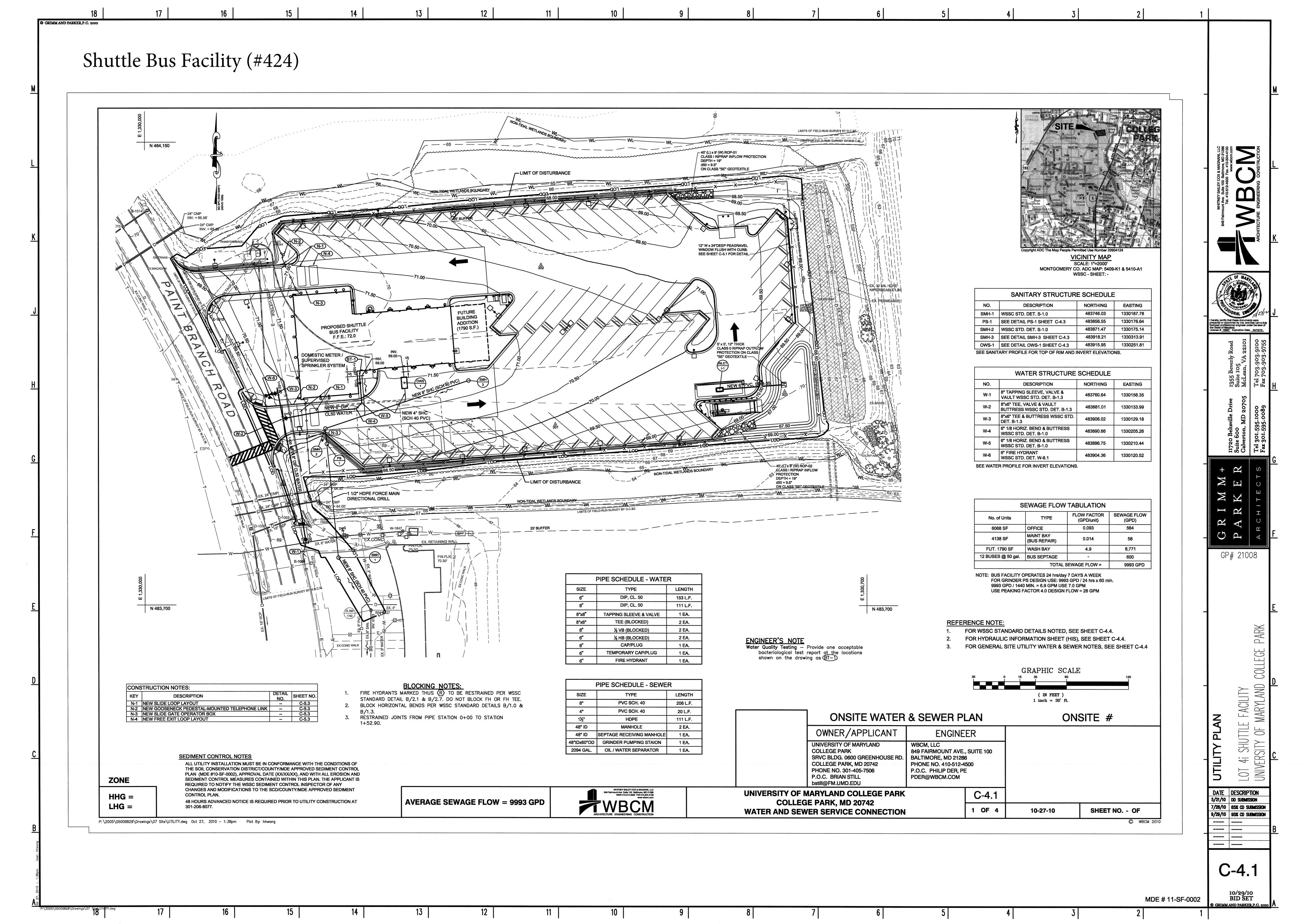


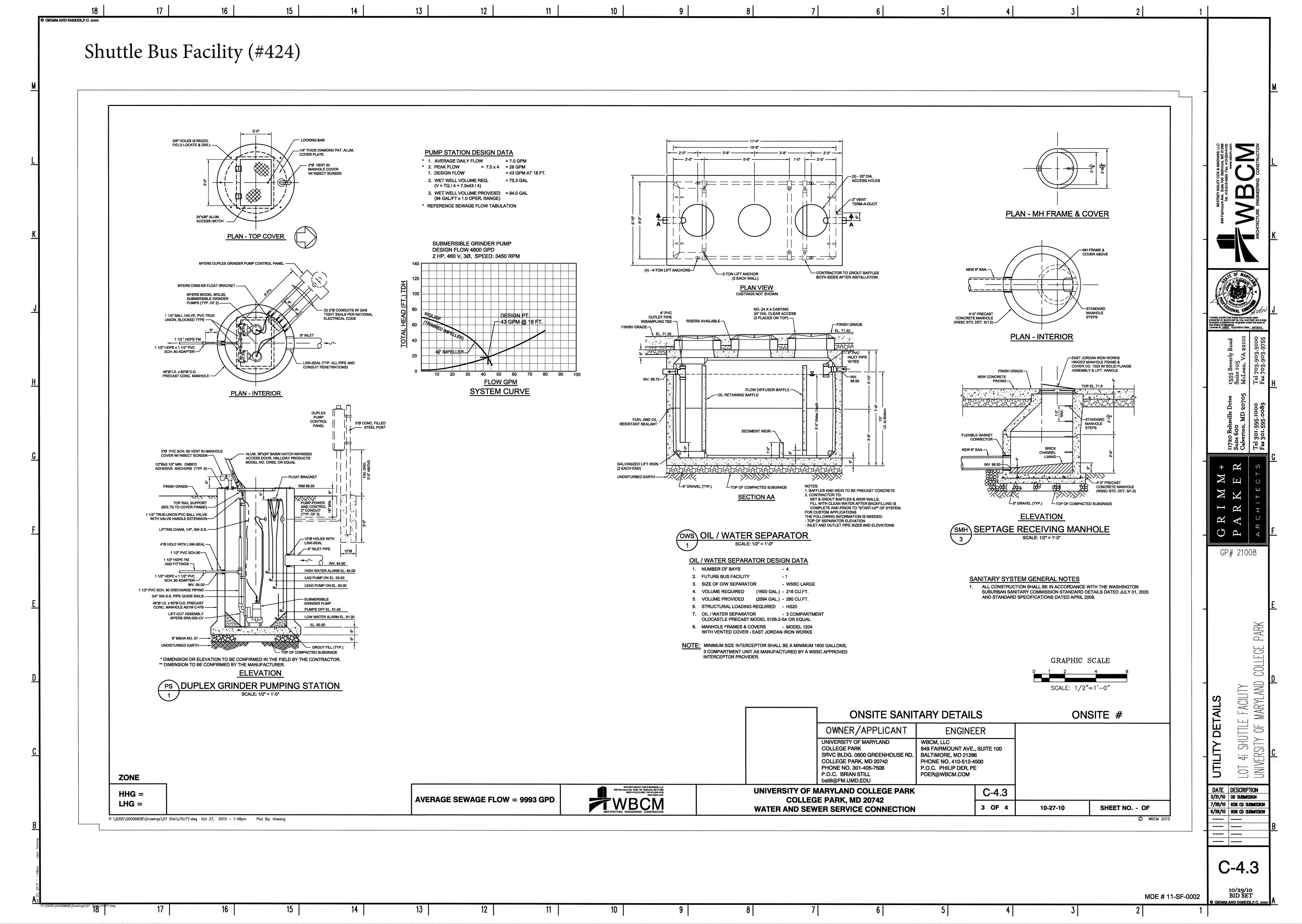
1600 GALLON CONCRETE INTERCEPTOR GREASE OR SAND/OIL

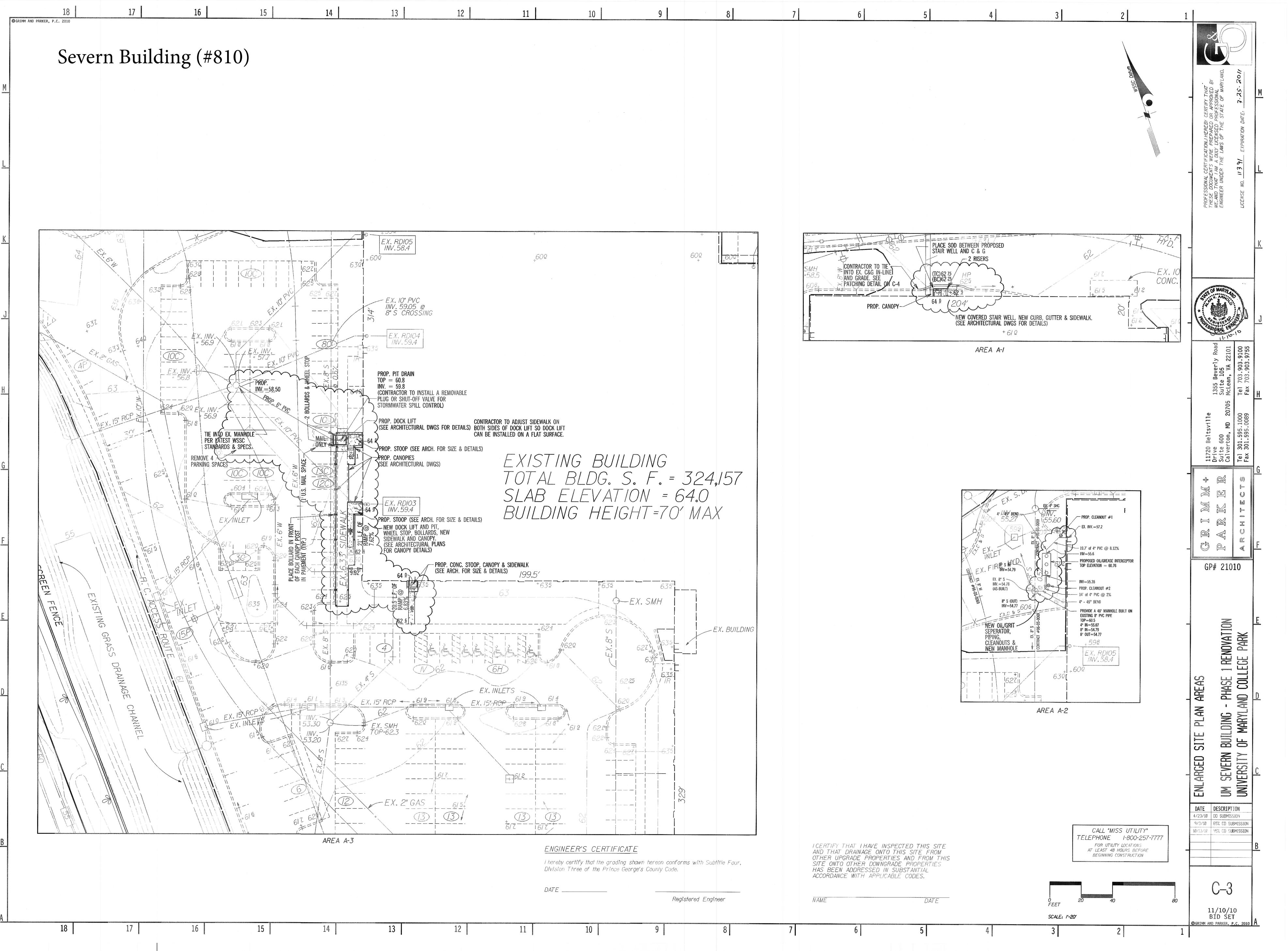
THESE DOCUMENTS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION WHICH SHALL NOT BE REDISTRIBUTED WITHOUT PRIOR WSSC APPROVAL

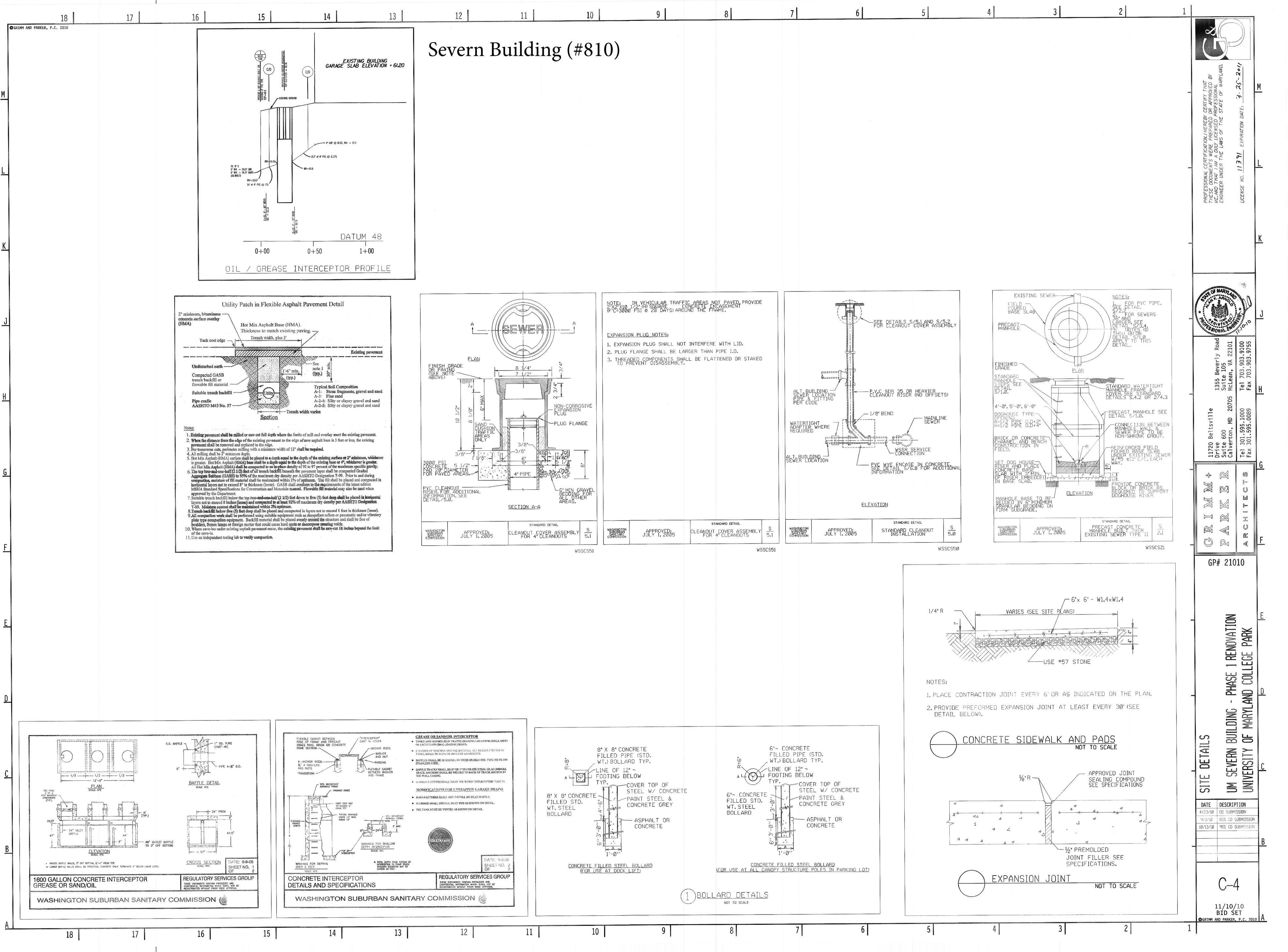
WASHINGTON SUBURBAN SANITARY COMMISSION



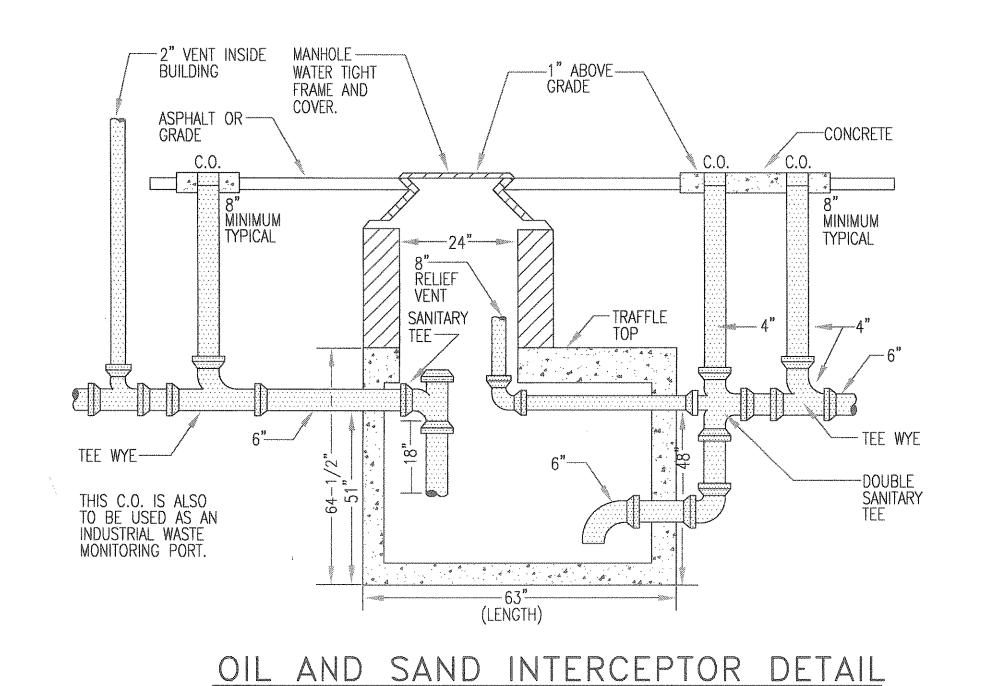








Terrapin Trail Parking Garage (#403)



GENERAL NOTES

- OBTAIN AND PAY FOR PERMITS, ARRANGE FOR INSPECTIONS BY LOCAL AUTHORITIES HAVING
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL CODES AND PROJECT
- PLUMBING CONTRACTOR SHALL VERIFY ALL INVERTS PRIOR TO CONSTRUCTION. COORDINATE SANITARY AND STORM SEWER CONNECTIONS WITH APPROPRIATE AGENCY.
- PLUMBING CONTRACTOR SHALL COORDINATE PIPING WITH ALL TRADES PRIOR TO CONSTRUCTION TO AVOID INTERFERENCE.
- STORM PIPING SHALL BE INSTALLED AT 1/8" PER FOOT SLOPE.
- STORM PIPING ABOVE GRADE SHALL BE SERVICE WEIGHT SCHEDULE 40 NO-HUB CAST IRON OR HUB AND SPIGOT CAST IRON OR P.V.C.
- GARAGE DRAINS (G.D.-1) SHALL BE "ZURN" MODEL Z-534-C 12" DIAMETER PARKING DECK DRAIN WITH SUPPORT FLANGE. SEE DRAWINGS FOR SIZE. GARAGE DRAINS (G.D.-2) SHALL BE "ZURN" MODEL Z-521 FOR PAVING ON GRADE, CAST IRON BODY BOTTOM OUTLET WITH ADJUSTABLE EXTENSION FRAME. SEE DRAWINGS FOR SIZE.

STORM SEWER PIPING

PIPE TURNING UP C.O. STORM RISER DESIGNATION SANITARY RISER DESIGNATION

GARAGE DRAIN - SANITARY

G.D.

D.D.

,G.P.M.

DECK DRAIN - STORM RAINLEADER GALLONS PER MINUTE

SANITARY PIPING 0.S.&Y. FIRE HOSE VALVE F.H.V.

SYMBOLS AND ABBREVIATIONS

EQUIPMENT DESIGNATOR EF - EXHAUST FAN CU - CONDENSING UNIT UH - UNIT HEATER L – LOUVER SAC - SUPPLEMENTAL AIR CONDITIONING UNIT MOTORIZED DAMPER SUPPLY AIR REGISTER REFRIGERANT LIQUID LINE REFRIGERANT SUCTION LINE CONDENSATE DRAIN LINE

DUCTWORK W/ 1" S.L.

4" GOOSENECK — 4" GOOSENECK ---VENT BELOW LEVEL 6 DECK. VENT BELOW $\frac{P}{3}$ S 5 (P) $\frac{S}{3}$ LEVEL 6 DECK. LEVEL 6 DECK. 6" D.D. (4392 中) 6" D.D. 6" D.D. (4392 中) 6" D.D. (4392 中) 6" D.D. (4982 中) 6" D.D. (3924 中) 6" D.D. 6" D.D. (4982 中) (4982中) _{LEVEL} 6 (4392 中) (4982 中) $(5600 \oplus)$ (4392 中) LEVEL 6 ^L 6"(4982申) └6"(4392ф) (146 GPM) 一6"(4982申) —4" GOOSENECK VENT BELOW LEVEL 6 DECK. (130 GPM) —4" GOOSENECK VENT BELOW LEVEL 6 DECK. 8 -4" GOOSENECK VENT BELOW LEVEL 6 DECK. VENT BELOW ー6"(4392中) (146 GPM) — 6"(8784中) (292 GPM) LEVEL 6 DECK. — 6"(8784中) (292 GPM) — 6"(9964ф) (330 GPM) 6" G.D. 6" G.D. 6" G.D. (349 GPM) 6"(4392¢) (146 GPM) — 6"(3924ф) (130 GPM) 6"(9964中) (330 GPM) →8"(17565¢) (569 GPM) しー6"(8784中) (292 GPM) 6" G.D. 6" G.D. 6" G.D. 6" G.D. 6" G.D. 6" G.D. | 6" G.D. 6" G.D. 6" G.D. LEVEL 4 LEVEL 4 →8"(17565¢) (569 GPM) ≻— 6"(4392ф) (146 GPM) 6" G.D. 6" G.D. 6" G.D. 6" G.D. 6" G.D. 6" G.D. LEVEL 3 LEVEL 3 ↓— 6"(4392ф) (146 GPM) ー6"(3924中) (130 GPM) ≻—8"(17565ф) (569 GPM) → 6"(9964中) (330 GPM) ← 6"(8784中) (292 GPM) 6" G.D. 6" G.D. | 6" G.D. LEVEL 2 LEVEL 2 ↓—6"(9964ф) (330 GPM) 〜6"(8784中) (292 GPM) ← 6"(8784ф) (292 GPM) ↓—6"(4392ф) (146 GPM) ー6"(3924中) (130 GPM) LEVEL 1 NO. DATE BY REVISIONS NOTES & ^L8"(9964中) (330 GPM) 10"(18748ф)— (622 GPM) 8"(8784中) (292 GPM) 8"(9964中) (330 GPM) 10"(17565中)⁻ (569 GPM) 8"(8784中)-(292 GPM) 8"(9964中)⁻¹ (330 GPM) 12"(25532¢)⁻ (914 GPM) SYMBOLS 6"(3924中) 15"(59013中) (130 GPM) (1945 GPM) 6"(4392¢)-(146 GPM) 8"(9992ф) (332 GPM) 6"(5600¢)-(186 GPM) TO INTERCEPTOR SEE DWG. MP-2 DRAWING NO. E. K. FOX & ASSOCIATES, LTD. CONSULTING ENGINEERS SANITARY/STORM RISER DIAGRAM
SCALE: NONE ARCHIVES Bidg # 403 1110 # 5-1

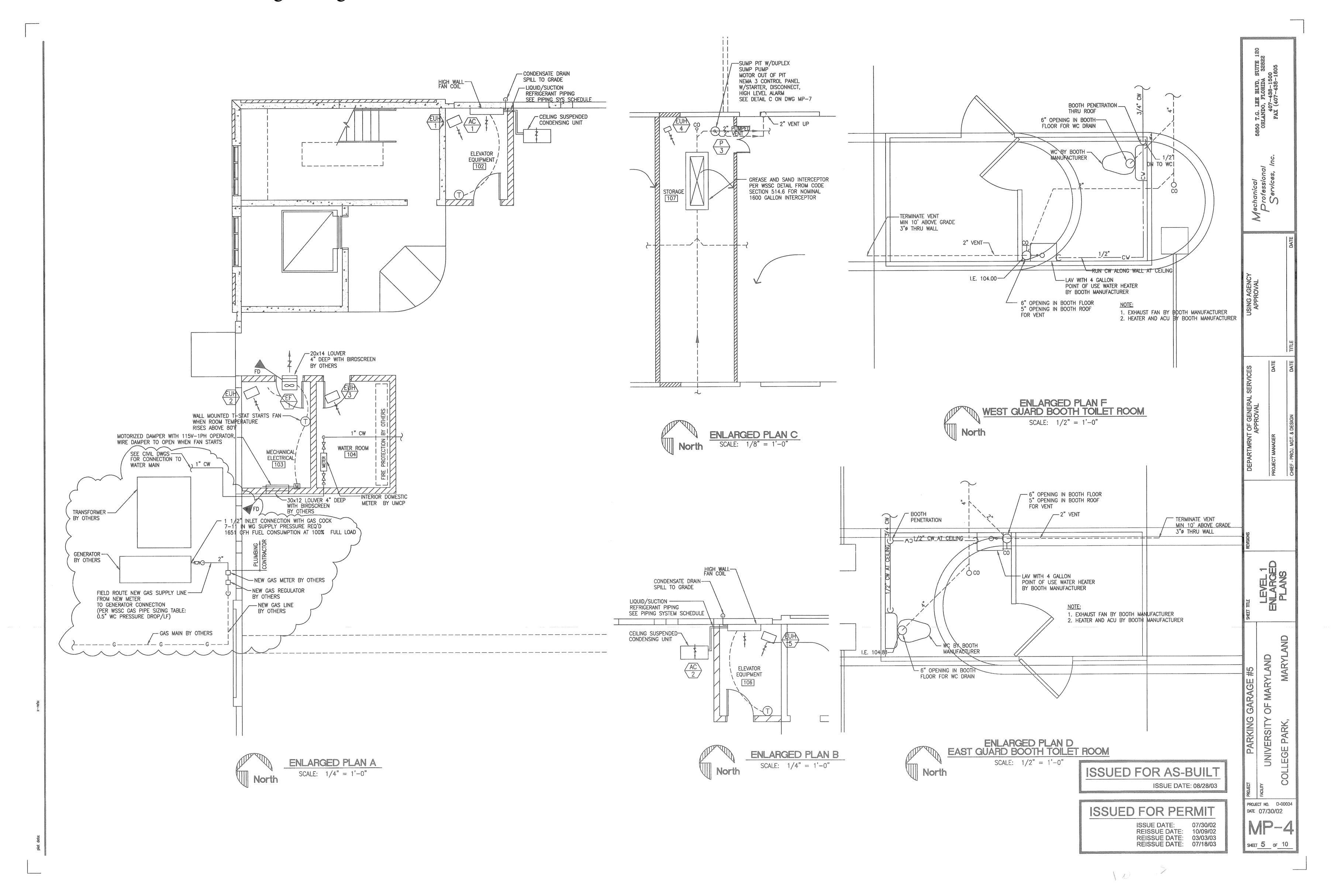
10304 Eaton Place, Suite 400 Fairfax, Virginia 22030 Tele.: (703) 273-1112 E-mail: ekfox@ekfox.com

8-25-2000

PROJECT NO. J-588.1

DESIGN DRAWN CHKD JKS KAF JKS

Mowatt Lane Parking Garage (#404)



Appendix I Loading/Unloading Procedures and Checklist



Oil Loading and Unloading Procedures:

Bulk Transfer Procedures Precautions are taken to ensure both personnel safety and prevention of spills or accidental releases during routine handling of oil. Visual checks for leaks before, during, and after material transfers provide operating personnel with the opportunity to contain releases due to faulty equipment, and to implement proper repair measures. UMD employs delivery procedures designed to prevent accidental spills and releases during the bulk transfer of oils and other materials.

• Bulk oil is delivered using the following procedures:

- o Loading and unloading is only performed under the supervision of campus personnel responsible for ensuring that proper procedures are followed.
- Oil absorbent and containment materials must be available and sufficient to prevent spills from reaching navigable waters.
- Wheel chocks or a vehicle break interlock system must be employed to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines or hoses.
- o Bonding and grounding devices must be connected before loading or unloading flammable oils from vehicle.
- Campus personnel and pump operator/driver must check all connections for tightness and that all fittings and hoses are in a safe and operable condition before beginning any pumping of oil.
- Where connections are not located within a secondary containment structure, a drip pan must be placed below the connection during the filling process.
- o The operator of the pump shall not leave the pumping process unmanned for any reason during the filling process and shall remain within close proximity (five feet) of the shutoff valve at all times.
- o When a high-level alarm is not operational or available on the container being filled, an employee must gauge the container during filling operations and be in constant communication with the pump operator.
- o After pumping is complete, the pump operator must check that all shutoff valves are locked in the closed position and there is no leakage.
- Prior to filling and departure of any tank car or tank truck, the lowermost drain and all outlets of such vehicles must be closely inspected for discharges, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge.
- o Connections of oil tank or campus piping must be securely capped, plugged, or sealed when not in service or when in standby service for an extended time.

Bulk Oil Collection/Pickup

O Used petroleum oils generated during maintenance activities transferred by UMD personnel to the used oil storage tanks. Collected used oil is periodically picked up via trucks that park adjacent the used oil tank. In general, the operator collects the used oils using a hand-held nozzle and flexible tubing from a vacuum tanker connected directly to the truck.

• Container Loading/Unloading Procedures

o Portable containers (drums, totes) of oils and oil-based products are generally delivered at the Severn Building (#810), the Central Heating Plant (#001), and the Shuttle Bus Facility (#424). The drums are then taken directly to the point of use by hand cart or fork lift. The delivery locations are strategically located that in the event of a release, response equipment would be employed, and the release would be contained as close to the source as possible.

• Portable containers are loaded and unloaded using the following procedures:

- o All containers must be closed and sealed prior to moving.
- o No obstacles should block the unloading area or delivery paths.
- o Safe lifting techniques must be used.
- o Loads must not be stacked on the transport mechanism or vehicle in a manner that blocks the operator's vision.
- Heavy objects should be loaded at the bottom of a forklift, hand truck, or pallet jack.
- o Bulky or awkward items should be secured while in transport.
- o Only trained and authorized personnel are allowed to operate a forklift or use other powered material-handling equipment.
- Containerized materials are stacked and stored properly in a stable and secure manner.

• Elevator Hydraulic Oil Tanks:

Oil is rarely added to or removed from these small tanks. When required, addition of oil is performed manually using small containers by qualified elevator service technicians. Removal of oil would only be required in the event of tank repair or replacement. In this event, oil would be manually removed from the tank by portable pumps and placed in containers.

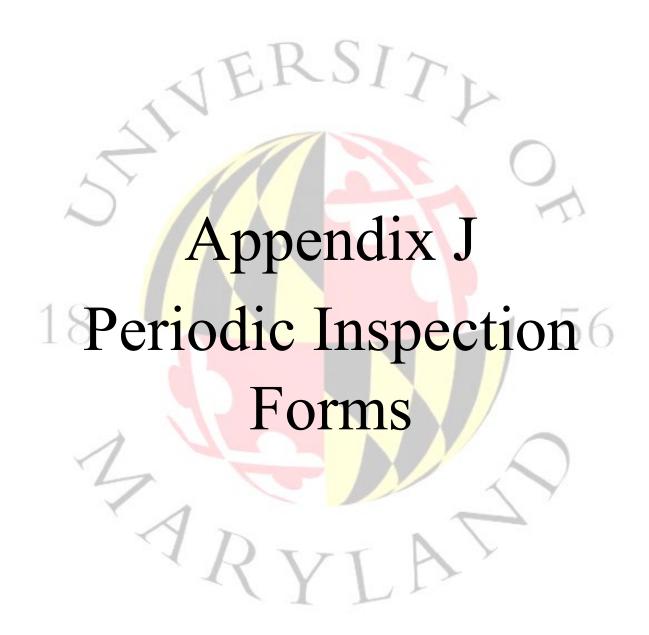
• Electrical Transformers

O Typically, oil is neither added to nor removed from transformers except in the event of repairs. Addition or removal of oil from transformers is only performed by trained and qualified electricians.

UNLOADING CHECKLIST

BULK AND SMALL TRUCK DELIVERIES

Indicate Delivery Type:				
Bulk Oil Delivery [] Small Truck Delivery []				
Delivery Date: SDS available? yes no Tank to be loaded:				
				Tank level before unloading
Tank level after unloading		gallons		
Total unloaded $[(C) = (B) - (A)]$	(C)	gallons		
1) Working radio readily available	yes	no		
2) SDS on-hand during unloading	yes	no		
3) Danger tape used to block off area	yes	no		
4) Storage tanks and related piping inspected	yes	no		
5) Drain blockage equipment deployed	yes	no		
6) Wheels Chocked	yes	no		
7) Grounded (flammable materials only)	yes	no	N/A	
8) 5-gallon drip bucket under discharge hose	yes	no		
9) Absorbent materials readily available	yes	no		
10) Valves closed when unloading is complete	yes	no		
11) Respirator nearby	yes	no		
12) Any leaks or spills	yes	no		
(if yes, provide details in comments)				
Comments:				
Signature	Printed Name/Date			
Acknowledgement of receipt of materials (UMD	Employee)			
Signature	Printed Na	Printed Name/Date		
Acknowledgement of transfer of materials (Product Delivery Representative)				



Aboveground Storage Tank (AST) Monthly Inspection Checklist

Site: University of Maryland, College ParkNotes: Near garage, fluid storage roomMap Number: 5Tank ID: 79HBuilding: Severn-810Insp. Freq: MonthlyContainment: Double WallType: AST
Contents: Motor oil Capacity: 280 gallons

Containment: Double Wall Type: AST							
		Inspection R					
Status		Item to check	Co	mments	s		
N/A Good	Needs Attention		Rust	Staining	Spillage	Missing	Other
Month 1	- Monthly Inspec	ction Inspector:		_			Date:
		Tank and foundation condition					
		Secondary containment					
		Pipe/hose connections					
		Signage-ID, Contents, NFPA					
		Level gauge					
		Exterior Coating					
		Spill Kit					
		Interstitial monitoring					
Month 2	- Monthly Inspec	ction Ins	spector:				Date:
		Tank and foundation condition					
		Secondary containment					
		Pipe/hose connections					
		Signage-ID, Contents, NFPA					
		Level gauge					
		Exterior Coating					
		Spill Kit					
		Interstitial monitoring					
Month 3	- Quarterly Insp	ection Ins	spector:				Date:
		Tank and foundation condition					
		Secondary containment					
		Pipe/hose connections					
		Signage-ID, Contents, NFPA					
		Level gauge					
		Exterior Coating					
		Spill Kit					
		Interstitial monitoring					
Month 4	- Monthly Inspec	ction Ins	spector:				Date:
		Tank and foundation condition					
		Secondary containment					
		Pipe/hose connections					
		Signage-ID, Contents, NFPA					
_		Level gauge					
		Exterior Coating					
		Spill Kit					
		Interstitial monitoring		<u> </u>			
Month 5	- Monthly Inspec		spector:	1	1	1	Date:
		Tank and foundation condition		<u> </u>			
		Secondary containment					
		Pipe/hose connections		1			
		Signage-ID, Contents, NFPA					
		Level gauge					
		Exterior Coating					
		Spill Kit					
		Interstitial monitoring					

Notes

⁻Under Tank Conditions: Identify any signs of leakage, rust, damage, or deterioration on the outside of the tank; Identify any signs of leakage, rust, damage, or deterioration on the bolts, rivets, and/or seams; Identify if vehicle protection is present; Identify if level/gauges are working properly; Identify if tank has proper signage;

 $⁻ Under Secondary \ Containment: Identify\ if\ there\ is\ any\ water/product\ in\ interstice\ of\ double-walled\ tank\ Identify\ id\ there\ is\ any\ water/product/trash\ in\ secondary\ containment$

Aboveground Storage Tank (AST) Monthly Inspection Checklist

Month 6 - Quarterly Inspection		Inspector:	Date:
	Tank and foundation condition		
	Secondary containment		
	Pipe/hose connections		
	Signage-ID, Contents, NFPA		
	Spill Kit		
	Exterior Coating		
	Level gauge		
	Interstitial monitoring		
Montl	h 7 - Monthly Inspection	Inspector:	Date:
	Tank and foundation condition		
	Secondary containment		
	Pipe/hose connections		
	Signage-ID, Contents, NFPA		
	Level gauge		
	Exterior Coating		
	Spill Kit		
	Interstitial monitoring		
Montl	h 8 - Monthly Inspection	Inspector:	Date:
	Tank and foundation condition		
	Secondary containment		
	Pipe/hose connections		
	Signage-ID, Contents, NFPA		
	Level gauge		
	Exterior Coating		
	Spill Kit		
	Interstitial monitoring		
Montl	h 9 - Quarterly Inspection	Inspector:	Date:
Montl	Tank and foundation condition	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment Pipe/hose connections	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit	Inspector:	Date:
	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring		
	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection	Inspector:	Date:
	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition		
	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment		
	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections		
	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA		
	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge		
	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating		
	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit		
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring		
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 11 - Monthly Inspection Tank and foundation condition	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 11 - Monthly Inspection Tank and foundation condition Secondary containment	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 11 - Monthly Inspection Tank and foundation condition Secondary containment	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 11 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 11 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Spill Kit Interstitial monitoring h 11 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge	Inspector:	Date:
Montl	Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 10 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Level gauge Exterior Coating Spill Kit Interstitial monitoring h 11 - Monthly Inspection Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA	Inspector:	Date:

Aboveground Storage Tank (AST) Monthly Inspection Checklist

Month 12	Annual Inspection/Annual Photo	Inspector:	Date:
	Tank and foundation condition		
	Secondary containment		
	Pipe/hose connections		
	Signage-ID, Contents, NFPA		
	Spill Kit		
	Exterior Coating		
	Primary/emergency vents		
	Test Level Gauges		
	Electrical wiring and boxes		
	O-rings, and gaskets		
	Tank supports		
	Tank foundation		
•		<u> </u>	
Inspector:		Date:	
-			
-			
-			
· · · · · · · · · · · · · · · · · · ·			
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Aboveground Storage Tank (AST) Quarterly Inspection Checklist

Notes: AST is outside, generator is inside, key S1, next to Site: University of Maryland, College Park Annapolis Map Number: Tank ID: 10 Contents: Diesel **Building:** SCUB 1 0 Insp. Freq: Quarterly Capacity: 250 gallons Containment: Double Wall **Type:** AST for Generator **Inspection Requirements** Item to check Status Comments N/A Good Needs Attention Rust Staining Spillage Missing Other **Quarter 1 Inspection Inspector:** Date: Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Spill Kit **Exterior Coating** Level gauge Interstitial monitoring **Quarter 2 Inspection Inspector:** Date: Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Spill Kit **Exterior Coating** Level gauge Interstitial monitoring **Quarter 3 Inspection Inspector:** Date: Tank and foundation condition Secondary containment Pipe/hose connections Signage-ID, Contents, NFPA Spill Kit **Exterior Coating** Level gauge Interstitial monitoring **Annual Inspection/Annual Photo Inspector:** Date: Tank and foundation condition **Secondary containment** Pipe/hose connections Signage-ID, Contents, NFPA **Spill Kit Exterior Coating Primary/emergency vents Test Level Gauges Electrical wiring and boxes** O-rings, and gaskets Tank supports

Notes:

Tank foundation

⁻Under Tank Conditions: Identify any signs of leakage, rust, damage, or deterioration on the outside of the tank; Identify any signs of leakage, rust, damage, or deterioration on the bolts, rivets, and/or seams; Identify if vehicle protection is present; Identify if level/gauges are working properly; Identify if tank has proper signage;

⁻Under Secondary Containment: Identify if there is any water/product in interstice of double-walled tank Identify id there is any water/product/trash in secondary containment

Aboveground Storage Tank (AST) Quarterly Inspection Checklist

Additional Comments and/or Items needing to be addressed:		
-		

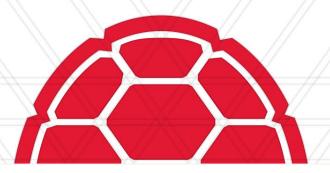
Notes:

⁻Under Tank Conditions: Identify any signs of leakage, rust, damage, or deterioration on the outside of the tank; Identify any signs of leakage, rust, damage, or deterioration on the bolts, rivets, and/or seams; Identify if vehicle protection is present; Identify if level/gauges are working properly; Identify if tank has proper signage;

⁻Under Secondary Containment: Identify if there is any water/product in interstice of double-walled tank Identify id there is any water/product/trash in secondary containment



Appendix L Training Materials



Environmental Safety, Sustainability & Risk

Spill Prevention, Control, and Countermeasures (SPCC)



Overview

The Purpose of an SPCC is to prevent the discharge of oil into navigable waters of the United States or adjoining shorelines as opposed to response and cleanup after a spill occurs.





The Federal Law

Oil Pollution Prevention Rule

- Became effective January 1974 (revised 2017).
- Authority Section 311 (j) (1) (c) of the Clean Water Act
- Promulgated under Title 40, CFR, Part 112



Oil Definitions

Oil means oil of any kind or in any form, including, but not limited to:

- fats, oils, or greases of animal, fish, or marine mammal origin
- vegetable oils, including oils from seeds, nuts, fruits, or kernels;
- other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil.



Applicability: How Much Oil?

- SPCC rule applies to facilities with:
 - >42,000 gallons buried
 - >1,320 gallons aboveground
 - This is based on storage containers ≥
 55-gallons
- Containers to include:
 - Bulk storage
 - Oil-filled equipment
 - Mobile/Portable Containers
- Containers not included in capacity:
 - Permanently Closed containers
 - UST Subject to 40 CFR 280 & 281





Spill Reporting

Facilities that discharge oil to navigable waters are subject to certain federal reporting requirements.

- 40 CFR 110, Discharge of Oil Regulation
- 40 CFR 112, Oil Pollution Prevention regulation
- State laws/regulations may differ or be more restrictive



SPCC Reporting Requirements

- Report to the EPA Regional Administrator (RA) when there is a discharge to navigable waters or adjoining shores of:
 - >1,000 Gal of oil in a single discharge
 - >42 Gal of oil in each of two discharges occurring within a 12 month period
- An owner / operator must report the discharge(s) to the EPA RA within 60 days
- All requirements found in CFR 40 112.4



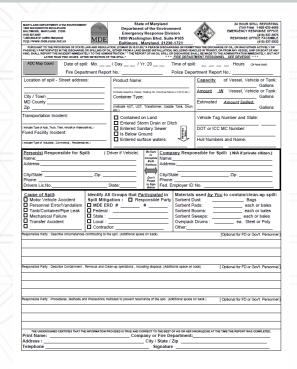
MDE Reporting Requirements

Report to MDE Emergency Response Division (1-866-633-4686) if an oil spill or discharge of **ANY QUANITY** a verbal report must be made within **TWO HOURS**

Verbal report must include:

- Time and location of discharge
- Type of facility involved
- Type and quantity of oil spilled
- Assistance required
- Name, address, telephone number of person making report
- Other pertinent info as requested by MDE

If spill is 5 Gallons or greater in quantity or if ANY QUANITY reaches navigable waters, a written report of the discharge must be submitted to MDE within 5 business days





National Response Center (NRC)



- The Discharge of Oil regulation provides the framework for determining whether an oil discharge to inland and coastal waters or adjoining shorelines should be reported to the National Response Center at 1-800-424-8802
- Any person in charge of a vessel, onshore or offshore facility must notify NRC once there is knowledge of a discharge
- NRC will relay discharge information to EPA or USCG



SPCC Plan Requirements

Each Plan Must Include:

- 1. Description of physical layout and a facility diagram.
- 2. Key personnel contact list and phone numbers for the facility response coordinator, cleanup contractors, all appropriate federal, state, local agencies to contact.
- 3. Prediction of direction, rate of flow, and total quantity of oil that COULD be discharged if the potential for equipment discharge exists.
- 4. Description of <u>containment and/or</u> <u>diversionary structures</u> to prevent discharge from reaching navigable waters.
- 5. Description of site-specific spill prevention and control measures in place.



Additional Requirements

- Plan must have MANAGEMENT APPROVAL (signature)
- Plan must be prepared under the direct supervision of a P.E. (stamped)
- Plan must be maintained on-site <u>AVAILABLE AT ALL TIMES</u> for review by EPA/MDE.
- Key Facility Personnel must be <u>trained annually</u>. FOLLOW SOPs for any response actions!!!
- Plan must include periodic INSPECTIONS.
- Plan must be <u>revised/updated</u> to reflect facility changes.
- Plan required to be reviewed/revised at least every 5 YEARS.

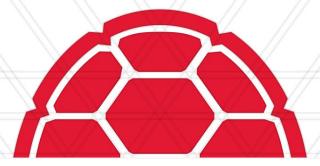


Select a section to review:

- 1. SPCC Rules Specific to Facilities

 Management and DOTS
- SPCC Rules Specific to Dining Services
- 3. SPCC Rules Specific to Farms





SPCC Rules Specific to Facilities Management and DOTS



UMD SPCC Details

- Over 85 tanks*
 - Generators, ASTs, Day Tanks, Lube Reservoirs
- Over 30 ≥ 55-gallon Drums*
 - Cooking oil, food grease, used oil, hydraulic fluid
- Over 110 Hydraulic Elevators
- Over 155 Transformers
- *Current inventory fluctuates due to construction and need





Secondary Containment

- All areas and equipment with the potential for a discharge are subject to general secondary containment provision, 112.7(c).
 - Oil-filled operational equipment
 - Loading/unloading areas
 - Piping
 - Mobile refuelers/ non-transportation related tank trucks
- Purpose is to contain or divert to prevent discharge: dikes, berms, retaining walls, curbing, drip pans, sumps, culverting, gutters, weirs, booms, spill diversion ponds, retention ponds, sorbent



Secondary Containment

Active secondary containment is when an employee personally contains a spill,

- Deploying drain covers before a spill happens.
- Deploying drain covers after a spill has occurred, but before the spill reaches a drain
- Using a spill kit in the event of an oil discharge
- Closing a gate valve prior to a discharge

Passive secondary containment does not require deployment or the action of an employee or employees to contain a spill.

- Placing containment pallets or decks under drums and other containers
- Surrounding machines and containers with berms
- Erecting retaining walls around machines and containers
- Placing drip trays under leaky machines and containers











Specific (Sized) Provision

- To address the potential of oil discharges from areas of a facility where oil is stored or handled, containment specified by SPCC rule CFR 40 112.8, requirements are intended to address a major container failure
 - Bulk storage containers, loading/unloading rack, mobile/portable containers, production tank batteries, treatment, separation installations
- Minimum containment capacity
 - Largest single compartment
 - Sufficient freeboard



Portable Containers



- Drums placed on spill pallets
- Emergency generators; utilize drip pans
- Fuel trucks parked within bermed area

Oil – Filled Operational Equipment

- Equipment that includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or the device.
 - Does not include oil-filled manufacturing equipment (flow-through process)
- Piping is considered a component if it is solely used to facilitate operation of the equipment device.



Loading/Unloading Area Containment



- Dikes, berms, or retaining walls sufficiently impervious to contain oil;
- Curbing or drip pans;
- Sumps and collection systems;
- Culverting, gutters, or other drainage systems;
- Weirs, booms, or other barriers;
- Spill diversion ponds;
- Retention ponds; or
- Sorbent materials.



Inspection & Testing 112.8(c)(6)

- Prevent discharge of oil caused by leaks, corrosion, brittle fracture, overfill, other forms of container/equipment failure
- AST are tested or inspected in accordance with industry standards
 - Integrity tests include: visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other systems of nondestructive testing.



Common visual inspection problems:



Spillage



Severely rusted and pitting occurring



Poor housekeeping, not in containment, exposed, rusting.

Visual Inspection:









Remember!

- All actions (visual inspection or testing) must be documented & maintained
 - Some standards require records to be maintained for over 3 years for comparison reasons

 Know objective: the tank IS or IS NOT suitable for continued use



Oil-Water Separators

Oil/water separators (OWS) are structural devices intended to allow oils (and substances lighter than water) to be intercepted and be removed for disposal.

Substances heavier than water settle into sludge at the bottom of the unit. The remaining water passes through the unit into the sanitary sewer system.



OWS Maintenance Requirements

- Two are located at the Shuttle Bus Facility
 - Adjacent to the 20,000-gallon fueling area
 - Outside the maintenance shop
- Do not drain petroleum, oil, or lubricants directly to an OWS. The structures are designed to manage these materials at low and medium concentrations in sanitary sewage, not as slug loads.
- Do not drain antifreeze, degreasers, detergents, fuels, alcohols, solvents, coolant, or paint to the OWS.
- Separator compartment covers should be tightly sealed to ensure drainage only enters the first compartment of the OWS.
- Drains should be kept free of debris and sediment to the maximum extent practicable.
- Spill cleanup materials should be maintained in the area served by the OWS.



Example of OWS Inspection Sheet

Inspection of Fuel Oil Dike Oil/ Water Separator Building 001

Instructions: This record will be completed every <u>Monday</u> after checking leak detector/ pumps and tanks. Place an X in the appropriate box for each item. If any response is required do so in the description and comment space provided.

<u>Item</u>	Yes	No	Description/Comments
Separation Plates installed correctly			
All piping leading to the Separator is in good condition and no leaks are present			
Oil is less than 12" from top			
Oily sheen is present on the outlet of the separator?			
Remarks:			

- Inspection done regularly
- Measured oil level
 - Inspects outlet to see if there is an oil sheen

Oil Containment: Examples

- A lightweight non-biodegradable absorbent made from 100% Canadian Sphagnum Peat Moss
- Absorbed oil passes the Toxicity
 Characteristic Leaching Procedure
 (TCLP)
- Affinity for hydrocarbons of all types
- Suppresses 90% of gasoline vapors which eliminates the danger of explosion







Thank you

Thank you for completing the SPCC Training for Facilities Management and DOTS. Please <u>click here</u> to visit the final page and conclude the training.





SPCC Rules Specific to Dining Services



The Law-Vegetable Oils and Animal Fats

Animal fats and vegetable oils are regulated under 40 CFR 112, which has identical requirements for petroleum and non-petroleum oils. Petroleum oils, vegetable oils, and animal fats share common physical properties and produce similar environmental effects.

Like petroleum oils, vegetable oils and animal fats and their constituents can:

- Cause devastating physical effects, such as coating animals and plants with oil and suffocating them by oxygen depletion;
- Be toxic and form toxic products;
- Destroy future and existing food supplies, breeding animals, and habitats;
- Produce rancid odors;
- Foul shorelines, clog water treatment plants, and catch fire when ignition sources are present; and
- Form products that linger in the environment for many years.



Proper Disposal of Fats, Oils, and Grease (FOG)

- Never put any amount of grease or oil down the drain or into unlined trash containers.
 - When grease in liquid or solid form goes down the drain, it accumulates and sticks to pipes and causes blockages that result in raw sewage back-ups.
 - FOGs leaking from an unlined trash container can leak into stormwater drains and cause an SPCC and SWPPP violations.
- Always dispose of in the correct manner.
 - 55-gallon drums
 - Grease interceptor
- Failure to do so can result in hefty fines and regulatory repercussions.



Inspections

Drum Contents: Used Cooking Oil	No. of 55+gal d	rums:	Date/Time:			
Location/Bldg. No.:	Containment:	Sec. Cont	Inspector:			
Ellicott Dining Hall / 257	Map No.: 14			Yes	No	N/A
Drum surfaces show signs or leakage or spillage						
Drum is damaged, rusted or deteriorated						
Drum is not located on spill pallet or in containme	ent					
Pumps, hoses, or valves are leaking						
Drum signage is missing, illegible or inaccurate						
Spill response kit inventory is incomplete						
Containment signage missing/damage						
Describe noted problems:						

Why?

 Prevent discharge of oil caused by leaks, corrosion, brittle fracture, overfill, other forms of container/equipment failure

How?

Visual inspection completed monthly.

What are you looking for?

- Good housekeeping
- Proper storage
- Proper clean up efforts when spills occur



Examples of Failing Inspections



Spillage and absorbent around tank, no signage.



Containment not closed, spillage, no spill kit, no signage.



Containments are stained and have grease on the exterior, they are located in close proximity to the grassy areas, no spill kits.



FOG and Stormwater

WSSC... "Sanitary sewers are designed and installed with sufficient diameter to carry the normal waste discharges from a residence or business. When cooking by-products -- fats, oils, and/or grease -- are discharged to the sewer, the FOG can cool and accumulate on the interior of the sewer pipes. Over time, this accumulation of FOGs restricts the flow and causes blockages in the sewer which can result in overflowing manholes or basement backups. Sanitary Sewer Overflows (SSOs) can discharge to storm drains and creeks, which will ultimately flow to the Chesapeake Bay."



WSSC Inspections and Enforcement

Inspections

 All Food Service Establishments (FSE) are subject to annual routine inspections. In addition, FSE's may be inspected at any time in response to complaints or reports of sewer blockages. During an inspection, WSSC FOG Investigators will verify that all required fixtures are connected to a grease treatment device and that the grease treatment device is adequately sized and installed according to the WSSC Code. Investigators may also review maintenance records or other documents related to the operation of the grease treatment device.

Enforcement

 Failure to comply with any condition of an FSE permit will subject the permittee to penalties and other enforcement action as provided for in WSSC's Food Service Establishment Enforcement Response Plan (ERP). These enforcement actions may include Notices of Violation, Compliance Directives, Civil Citations (fines up to \$1,000), or termination of water and sewer service.



BMPs for FOG

Best Management Practices (BMP's)

- (1) Do not pour, scrape, or otherwise dispose of fats, oils, and grease into sinks or drains.
- (2) Scrape pots and pans prior to washing them.
- (3) Collect fryer oil and store in barrels for recycling.
- (4) Dump mop water only to drains connected to your grease abatement system.
- (5) Use absorbents to soak up spills containing fats, oils, and grease.
- (6) Do not put food (including liquid food) including milk shake syrups, batters, and gravy down the drain.
- (7) Use strainers on sinks and floor drains to prevent solid material from entering the sewer.
- (8) Post "NO GREASE" signs near sinks and drains.
- (9) Empty the collection pan on automatic grease recovery devices before it becomes full.
- (10) Provide employees with the proper equipment for cleaning your grease trap or grease recovery device.
- (11) Direct wastewater generated from duct/range filter cleaning through the grease abatement system.
- (12) Train all kitchen staff in best management practices for grease disposal and the impacts of grease accumulation in the sewer.
- (13) Provide regular refresher training/discussion for proper disposal of fats, oils, and grease for all employees.
- (14) Inspect grease abatement devices/interceptors after pumping to ensure adequate cleaning.





Oil-Water Separators

Oil/water separators (OWS) are structural devices intended to allow oils (and substances lighter than water) to be intercepted and be removed for disposal.

Substances heavier than water settle into sludge at the bottom of the unit. The remaining water passes through the unit into the sanitary sewer system.



OWS Maintenance Requirements

- Two are located at the Shuttle Bus Facility
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- Do not drain antifreeze, degreasers, detergents, fuels, alcohols, solvents, coolant, or paint to the OWS.
- Separator compartment covers should be tightly sealed to ensure drainage only enters the first compartment of the OWS.
- Drains should be kept free of debris and sediment to the maximum extent practicable.
- Spill cleanup materials should be maintained in the area served by the OWS.



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All piping leading to the Separator is in good condition and no leaks are present			
Oil is less than 12" from top			
Oily sheen is present on the outlet of the separator?			
Remarks:			

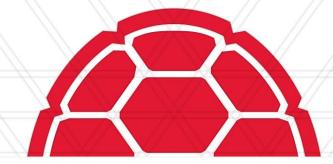
- Inspection done regularly
- Measured oil level
 - Inspects outlet to see if there is an oil sheen



Thank you

Thank you for completing the SPCC Training for Dining Services. Please <u>click here</u> to visit the final page and conclude the training.





SPCC Rules Specific to UMD Research Farms



Water Resources Reform and Development Act (WRRDA)

Became effective June 10, 2014.

Section 1049 of the Act changes certain applicability provisions of the SPCC rule for **farms**, and modifies the criteria under which a farmer may self-certify an SPCC Plan. Under WRRDA:

- A farm is not required to have an SPCC Plan if it has:
 - An aggregate aboveground storage capacity less than 2,500 gallons OR
 - An aggregate aboveground storage capacity greater than 2,500 gallons and less than 6,000* gallons; and
 - No reportable discharge history.
- A farmer can self-certify the SPCC Plan if the farm has:
 - An aggregate aboveground storage capacity greater than 6,000* gallons but less than 20,000 gallons;
 - No individual tank with a capacity greater than 10,000 gallons; and
 - No reportable discharge history.

^{*}This 6,000-gallon threshold may be adjusted by EPA, following a study to determine the appropriate exemption.



Definition of a Farm



The definition of a farm was promulgated in the December 2006 rule amendments because, at the time, EPA delayed the compliance date for farms until additional amendments to the rule were promulgated.

Additional amendments were promulgated in 2008 and farms now have the same compliance dates as other facilities.

Farm - A facility on a tract of land devoted to the production of crops or raising of animals, including fish, which produced and sold, or normally would have produced and sold, \$1,000 or more of agricultural products during a year.



Examples of Oil on a Farm

- Gasoline
- Off-road and on-road diesel fuel
- Hydraulic oil
- Lubrication oil
- Crop oil
- Vegetable oils from crops
- Adjuvant oil
- •Milk*



* Milk and Milk product containers are now exempt from the SPCC capacity calculations and rule requirements



Pesticide Application Equipment

•Exempt equipment includes:

Ground boom applicators

Airblast sprayers

Specialty aircraft that apply measured amounts of pesticides to crops and/or soil

Related mix containers

 Exemption applies to all pesticide application equipment and related mix containers, regardless of ownership or where used





Motive Power Containers Exemption

- Defined as any onboard storage containers used primarily to power the movement of a motor vehicle
- Includes self-propelled agricultural, construction, and excavation vehicles; and self-propelled cranes
- Oil transfer activities occurring within an SPCC-regulated facility continue to be regulated







Milk and Milk Product Container Exemption

All milk and milk product containers, associated piping and appurtenances are exempt from the SPCC rule

- Excluded from facility oil storage capacity calculation when determining SPCC applicability
- Exemption also includes all milk handling and transfer activities
- Milk product examples include cheese, yogurt and ice cream

Does not impact the potential liability of milk spills



Immediately report milk and other oil spills to navigable waters or adjoining shorelines to the National Response Center (NRC) at 800-424-8802 or 202-426-2675





Thank you

Thank you for completing the SPCC Training for UMD Research Farms. Please <u>click here</u> to visit the final page and conclude the training.



Certificate of Completion

THIS IS TO CERTIFY THE SUCCESSFUL
COMPLETION OF THE
SPILL PREVENTION, CONTROL, AND
COUNTERMEASURE (SPCC) ANNUAL TRAINING



Date:







Website: www.essr.umd.edu

Phone: 301-405-3960

After Hours: 301-405-3555

Email: essr@umd.edu

Appendix M Dike Drainage Instructions and Log





Secondary Containment Drainage Log

Do NOT remove the drain plug

unless draining uncontaminated stormwater (no fuel or oil).

Fill out Secondary Containment Drainage Log every time water is drained (located inside spill kit container).



<u>Instructions</u>: The information required on this form should be recorded when water from secondary containment is drained into a storm drain or the environment. **Any fuel or oil must be cleaned up prior to discharging water.** Keep all records of drainage on file for at least 3 years.

	_	
Facility	Location:	
I ucility	Locution.	

Date of Drainage	Time	Oil or Fuel Present? (if yes, record amount removed)	Name