THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE (SPCC) PLAN

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1.0 INTRODUCTION

The Oil Pollution Prevention Regulation, which is documented in Title 40, Part 112 of the Code of Federal Regulations (40 CFR § 112), requires the preparation and implementation of a Spill Prevention, Control, and Countermeasure (SPCC) Plan for any non-transportation-related on-shore or off-shore facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil or oil products and meets the following criteria discussed in 40 CFR § 112.1:

(1) Oil storage capacity of the facility is greater than:

- 1,320 U.S. gallons in total aboveground oil storage (only aboveground containers with a capacity of 55 U.S. gallons or greater are counted, not including the capacity of permanently closed containers, motive power containers, hot-mix asphalt containers, heating oil containers used solely at a single-family residence, pesticide application equipment and related mix containers, and milk product containers and associated piping and appurtenances;

  and/or

- 42,000 U.S. gallons in total completely buried oil storage (not including the capacity of completely buried containers and connected underground piping, underground ancillary equipment, and containment systems that are currently subject to all of the technical requirements of the Federal underground storage tank (UST) program under 40 CFR § 280 or all of the technical requirements of a State UST program approved under 40 CFR § 281).

(2) The facility, which due to its location, could reasonably be expected to discharge oil in quantities that may be harmful into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act). As defined in 40 CFR § 110.3, discharges of oil into or upon the navigable waters of the United States or adjoining shorelines that may be considered harmful include discharges that:

- Violate applicable water quality standards; or

- Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

Considering applicable aboveground oil containers with a storage capacity of 55 gallons or greater, the total aboveground oil storage capacity for the University of North Carolina at Chapel Hill (UNC-Chapel Hill) facilities included in this SPCC Plan is approximately 342,000 gallons. For completely buried oil storage containers that are not subject to all of the technical requirements of the North Carolina UST Regulation (15A NCAC 02N), the total volume of completely buried oil storage for the facilities included in this SPCC Plan is approximately 6,000 gallons. Based on the total volume and location of aboveground oil storage, UNC-Chapel Hill must prepare and implement an SPCC Plan in accordance with the applicable requirements of 40 CFR § 112. The purpose of this SPCC Plan is to describe the SPCC program implemented at UNC-Chapel Hill that minimizes the potential for oil discharges and addresses all relevant spill prevention, control, and countermeasures necessary to prevent oil discharges

from reaching navigable waters. This SPCC Plan specifically excludes the Cogeneration Facility, Manning Drive Steam Plant, and UNC Health Care System, all of which provide a separate SPCC Plan for each respective facility.

Definition of "Oil"

As defined in 40 CFR § 112.2, the definition of "oil" includes 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; and other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil.

Definition of "Discharge"

As defined in 40 CFR § 112.2, the definition of "discharge" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under Section 402 of the Clean Water Act (CWA); discharges resulting from circumstances identified, reviewed, and made a part of the public record with respect to a permit issued or modified under Section 402 of the CWA, and subject to a condition in such permit; or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under Section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of 40 CFR § 112, the term discharge shall not include any discharge of oil that is authorized by a permit issued under Section 13 of the River and Harbor Act of 1899 (33 U.S.C. 407).

Definition of "Navigable Waters"

As defined in 40 CFR § 120.2, the term "navigable waters" of the United States includes the following:

(i) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;
(ii) Tributaries;
(iii) Lakes and ponds, and impoundments of jurisdictional waters; and
(iv) Adjacent wetlands.

Certification of the Applicability of the Substantial Harm Criteria

As a requirement of the Oil Pollution Act of 1990, any non-transportation-related on-shore facility that, because of its location, could reasonably be expected to cause "substantial harm" to the environment in the event of an oil discharge (as determined by the substantial harm criteria listed in Appendix C, Attachment C-1 of 40 CFR § 112) shall prepare a Facility Response Plan (FRP) in accordance with 40 CFR § 112.20 and submit the FRP to the Environmental Protection Agency (EPA) Regional Administrator. If the facility does not meet any of the substantial harm criteria listed in Appendix C, Attachment C-1 of 40 CFR § 112, the facility owner or operator is not required to prepare and submit an FRP. However, the facility owner or operator shall complete the certification form contained in Appendix C, Attachment C-II of 40 CFR § 112 ("Certification of the Applicability of the Substantial Harm Criteria") and maintain the form at the facility.

The Certification of the Applicability of the Substantial Harm Criteria for UNC-Chapel Hill is included in **Appendix A** of this SPCC Plan. The certification form documents that UNC-Chapel Hill is not reasonably expected to cause substantial harm to the environment in the event of an oil discharge at the facilities included in this SPCC Plan. Therefore, an FRP is not required for UNC-Chapel Hill.

2.0 PROFESSIONAL ENGINEER CERTIFICATION OF SPCC PLAN

As discussed in 40 CFR § 112.3(d)(1), a licensed Professional Engineer (PE) must review and certify an SPCC Plan for compliance with the applicable requirements of 40 CFR § 112. As discussed in 40 CFR § 112.3(d)(2), PE certification of an SPCC Plan shall in no way relieve the facility owner or operator of the duty to prepare and fully implement the SPCC Plan in accordance with the requirements of 40 CFR § 112. The PE certification of the UNC-Chapel Hill SPCC Plan is included in **Appendix B**.

3.0 FACILITY MANAGEMENT APPROVAL OF SPCC PLAN

As discussed in the introductory paragraph of 40 CFR § 112.7, an SPCC Plan must have the full approval of facility management at a level of authority to commit the necessary resources to fully implement the SPCC Plan. The facility management approval of the UNC-Chapel Hill SPCC Plan is included in **Appendix B**.

4.0 SPCC PLAN AVAILABILITY

As discussed in 40 CFR § 112.3(e), a complete copy of this SPCC Plan shall be maintained at UNC-Chapel Hill and shall be available to the EPA Regional Administrator for on-site review during normal working hours. A complete copy of this SPCC Plan is maintained at the UNC-Chapel Hill Department of Environment, Health & Safety located at 1120 Estes Drive, Chapel Hill, North Carolina 27599-1650.

5.0 EPA REPORTING REQUIREMENTS FOR SPECIFIC OIL DISCHARGE VOLUMES

As discussed in 40 CFR § 112.4(a), whenever a facility has discharged more than 1,000 U.S. gallons of oil in a single discharge that may be harmful, or has discharged more than 42 U.S. gallons of oil in each of two discharges within any 12-month period that may be harmful, the facility shall submit the following information to the EPA Regional Administrator within 60 days of the discharge incident:

1. Name of the facility;
2. Name(s) of the person submitting the information;
3. Location of the facility;
4. Maximum storage or handling capacity of the facility and normal daily throughput;
5. Corrective action and countermeasures taken, including a description of equipment repairs and replacements;
6. Adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
7. The cause of such discharge including a failure analysis of the system or subsystem in which the failure occurred;
8. Additional preventive measures taken or contemplated to minimize the possibility of recurrence; and
9. Such other information as the EPA Regional Administrator may reasonably require pertinent to the SPCC Plan or discharge.

As defined in 40 CFR § 110.3, discharges of oil into or upon the navigable waters of the United States or adjoining shorelines that may be considered harmful include discharges that:

- Violate applicable water quality standards; or

- Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

Note: The oil discharge volume criterion referenced in 40 CFR § 112.4(a) refers to the volume of oil that actually discharges into or upon navigable waters, not the total volume of oil that is spilled. Oil discharges as a result of natural disasters, acts of war, or terrorism are not applicable.

According to UNC-Chapel Hill personnel, the facilities included in this SPCC Plan have not experienced an oil discharge that meets either of the volume criterion listed in 40 CFR § 112.4(a). In the event of an oil discharge that meets either of the volume criterion listed in 40 CFR § 112.4(a), UNC-Chapel Hill shall submit the discharge reporting information to the EPA Regional Administrator within 60 days at the following address:

U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, Georgia 30303-8960
(404) 562-9900

As discussed in 40 CFR § 112.4(c), a facility shall also send a complete copy of the discharge reporting information to the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located. Upon receipt of the information, the State agency or agencies may conduct a review and make recommendations to the EPA Regional Administrator as to further procedures, methods, equipment, and other requirements necessary to prevent and to contain oil discharges from the facility. The agency in charge of oil pollution control activities within the State of North Carolina is the North Carolina Department of Environmental Quality (NCDEQ) Division of Waste Management, Underground Storage Tank Section. The mailing address for the NCDEQ regional office is listed as follows:

Mailing:
North Carolina Department of Environmental Quality
Division of Waste Management, Underground Storage Tank Section
Raleigh Regional Office
1628 Mail Service Center
Raleigh, North Carolina 27699-1628

Office Location:
3800 Barrett Drive
Raleigh, North Carolina 27609
(919) 571-4700

As discussed in 40 CFR § 112.4(d), facility management shall amend the SPCC Plan if the EPA Regional Administrator finds that the SPCC Plan does not meet the requirements of 40 CFR § 112, or that amendment is necessary to prevent and contain oil discharges from a facility. As discussed in 40 CFR § 112.4(e), a facility may submit written information, views, and arguments within 30 days from receipt of the proposed amendment by the EPA Regional Administrator. After considering all relevant material presented, the EPA Regional Administrator will either notify the facility of any required amendment or rescind the notice. If amendment is required, the facility shall amend the SPCC Plan within 30 days after such notice unless the EPA Regional Administrator specifies an alternative effective date. The

amendment to the SPCC Plan shall be implemented by the facility as soon as possible, but not later than six months following preparation of the amendment unless the EPA Regional Administrator specifies an alternative date. Information regarding an appeal to amendment decisions made by the EPA Regional Administrator is discussed in 40 CFR § 112.4(f).

6.0 REVIEW AND AMENDMENT OF SPCC PLAN

As discussed in 40 CFR § 112.5(a), a facility shall amend the SPCC Plan when there is a change in the design, construction, operation, or maintenance at the facility that materially affects the potential for an oil discharge to navigable waters. Examples of changes that may require amendment of the SPCC Plan include, but are not limited to:

- Commissioning or decommissioning of oil storage containers;
- Replacement, reconstruction, or movement of oil storage containers;
- Replacement, reconstruction, or installation of oil-containing piping systems;
- Construction or demolition that might alter secondary containment structures;
- Changes of product or service; or
- Revision of standard operation or maintenance procedures related to oil handling or oil storage.

If an SPCC Plan amendment is required, the amendment shall be prepared within six months of the change at the facility. Implementation of the amendment shall occur as soon as possible but not later than six months following preparation of the amendment. Documentation of amendments to the UNC-Chapel Hill SPCC Plan is included in **Appendix C**.

As discussed in 40 CFR § 112.5(b), a facility shall complete a review and evaluation of the SPCC Plan at least once every five years from the certification date of the SPCC Plan. As a result of the review and evaluation, the facility shall amend the SPCC Plan within six months of the review to include more effective discharge prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of an oil discharge to navigable waters. Following amendment of the SPCC Plan, the amendment shall be implemented as soon as possible, but not later than six months following preparation of the amendment. The facility shall document the completion of the SPCC Plan review and evaluation, and shall sign a statement as to whether the SPCC Plan will be amended. Documentation of the review and evaluation of the UNC-Chapel Hill SPCC Plan is included in **Appendix C**.

As discussed in 40 CFR § 112.5(c), a licensed PE shall certify any technical amendment to the SPCC Plan when there is a change in the design, construction, operation, or maintenance at the facility that materially affects the potential for an oil discharge. The PE certification shall be prepared in accordance with the requirements of 40 CFR § 112.3(d)(1) and 40 CFR § 112.3(d)(2). Non-technical amendments, such as changes to names or contact information, do not require certification by a licensed PE. Documentation of technical amendments to the UNC-Chapel Hill SPCC Plan is included in **Appendix C**.

7.0 GENERAL REQUIREMENTS FOR SPCC PLANS

As discussed in the introductory paragraph of 40 CFR § 112.7:

- An SPCC Plan must have the full approval of facility management at a level of authority to commit the necessary resources to fully implement the Plan. The facility management approval of the UNC-Chapel Hill SPCC Plan is included in **Appendix B**.

- If an SPCC Plan does not follow the sequence of applicable SPCC requirements specified in 40 CFR § 112, then the SPCC Plan shall include a section that references the location of applicable SPCC requirements within the Plan. A cross-reference to the applicable SPCC requirements listed in 40 CFR § 112.7 and 40 CFR § 112.8 is presented in the **Table of Contents** section of this SPCC Plan.

- If an SPCC Plan calls for additional facilities, procedures, methods, or equipment not yet fully operational, these items shall be discussed in the Plan including the details of installation and operational start-up. As of the most recent certification date for this SPCC Plan, the facilities, procedures, methods, and equipment included in this Plan are fully operational.

7.1 Facility Conformance with SPCC Requirements [40 CFR § 112.7(a)(1)]

UNC-Chapel Hill is required to prepare and implement an SPCC Plan based on the following criteria established under 40 CFR § 112.1:

- The total aboveground oil storage capacity for the facilities included in this SPCC Plan exceeds 1,320 U.S. gallons (considering applicable aboveground containers with a capacity of 55 U.S. gallons or greater); and

- Due to the location of aboveground oil storage containers and related oil loading/unloading activities, the facilities included in this SPCC Plan could reasonably be expected to discharge oil in quantities that may be harmful into or upon the navigable waters of the United States. As defined in 40 CFR § 110.3, discharges of oil into or upon the navigable waters of the United States that may be considered harmful include discharges that:

    - Violate applicable water quality standards; or

    - Cause a film or sheen upon or discoloration of the surface of the water, or cause a sludge or emulsion to be deposited beneath the surface of the water.

In accordance with 40 CFR § 112.7(a)(1), the UNC-Chapel Hill SPCC Plan has been prepared in writing and conforms to the applicable SPCC requirements of 40 CFR § 112. Furthermore, this SPCC Plan has been prepared in accordance with good engineering practices and has the full approval of UNC-Chapel Hill management at a level of authority to commit the necessary resources to fully implement the SPCC Plan. Additional discussion of facility conformance with the applicable parts of 40 CFR § 112 is provided in the individual sections of this SPCC Plan.

On behalf of UNC-Chapel Hill, the UNC-Chapel Hill SPCC Plan is administered by the UNC-Chapel Hill Department of Environment, Health & Safety (EHS). The contact information for the Department of EHS is listed as follows:

UNC-Chapel Hill
Department of Environment, Health & Safety
1120 Estes Drive
Chapel Hill, North Carolina 27599-1650
(919) 962-5507

7.2 Allowable Deviation from SPCC Requirements [40 CFR § 112.7(a)(2)]

As discussed in 40 CFR § 112.7(a)(2), an SPCC Plan is required to comply with all applicable requirements listed in 40 CFR § 112. However, the SPCC Plan may deviate from the requirements listed in the following paragraphs of 40 CFR § 112.7 and 40 CFR § 112.8 if equivalent environmental protection is provided by some other means of spill prevention, control, or countermeasure:

- 40 CFR § 112.7(g): Security
- 40 CFR § 112.7(h)(2): Facility Tank Car and Tank Truck Loading/Unloading Rack (Disconnection of Oil Transfer Lines prior to Departure)
- 40 CFR § 112.7(h)(3): Facility Tank Car and Tank Truck Loading/Unloading Rack (Inspection of Lowermost Drain and Outlets prior to Departure)
- 40 CFR § 112.7(i): Brittle Fracture Evaluation
- 40 CFR § 112.8: All requirements except the secondary containment requirements specified in 40 CFR §112.8(c)(2) and 40 CFR § 112.8(c)(11)

The UNC-Chapel Hill SPCC Plan deviates from specific requirements listed in 40 CFR § 112.8(c)(8) and 40 CFR § 112.8(d)(5); however, the reasons for deviation and the alternate measures to achieve equivalent environmental protection are described in detail in **Section 8.3** of this SPCC Plan.

7.3 Facility Description and Diagram [40 CFR § 112.7(a)(3)]

UNC-Chapel Hill is a publicly-funded university located in Chapel Hill, North Carolina. Campus areas that provide oil storage include the Main Campus, Mason Farm Area, Rizzo Center Meadowmont, Carolina North, and the Bingham Facility. UNC-Chapel Hill maintains approximately 170 bulk aboveground storage tanks (ASTs), 474 transformers, and 168 hydraulic elevators that are subject to the requirements of 40 CFR § 112. UNC-Chapel Hill maintains two USTs at the Service Station that are subject to the technical requirements of the North Carolina UST Regulation and are exempt from SPCC requirements; however, the fuel transfer, fuel dispensing, and oil removal operations associated with the USTs are subject to the general secondary containment requirements of 40 CFR § 112.7(c). UNC-Chapel Hill also maintains two USTs at the Horace Williams Airport that are exempt from SPCC requirements. The Horace Williams Airport USTs are empty of fuel and are planned for permanent closure in approximately 2023. The EPA maintains four ASTs, one UST, and two hydraulic elevators on the UNC-Chapel Hill campus that are subject to the requirements of 40 CFR § 112. Verizon Wireless maintains one AST on the UNC-Chapel Hill campus that is subject to the requirements of 40 CFR § 112.

Land usage for the facilities included in this SPCC Plan generally consists of administrative buildings, academic buildings, residence halls, recreational facilities, athletic facilities, roadways, parking structures,

landscaped areas, wooded areas, and navigable waters. U.S. Geological Survey (USGS) topographic maps that encompass the facilities included in this SPCC Plan are listed as follows:

Figure 1 USGS Topographic Map – Main Campus
Figure 2 USGS Topographic Map – Mason Farm Area
Figure 3 USGS Topographic Map – Rizzo Center Meadowmont
Figure 4 USGS Topographic Map – Carolina North
Figure 5 USGS Topographic Map – Bingham Facility

Stormwater runoff from the Main Campus, Mason Farm Area, Rizzo Center Meadowmont, and Carolina North generally discharges into the Little Creek and Lower Morgan Creek watersheds, which are located within the Cape Fear 6 watershed. The Cape Fear 6 watershed discharges into Jordan Lake. The locations of the campus tracts within the Cape Fear 6 watershed are shown in **Figure 6**. The locations of the campus tracts in relation to the smaller watersheds within the Cape Fear 6 watershed are shown in **Figure 7**. Stormwater runoff at the Bingham Facility generally discharges into an unnamed creek located approximately 400 feet east of the facility (within the Cape Fear 4 watershed shown in **Figure 6**). The unnamed creek discharges into Collins Creek at a location approximately 1,600 feet southeast of the facility. Collins Creek discharges into the Haw River at a location approximately four miles south of the facility.

Facility diagrams that mark the contents and approximate locations of applicable bulk oil storage containers are included in **Appendix D**. As required under 40 CFR § 112.7(a)(3), USTs that are exempt from the requirements of 40 CFR § 112 are identified on the respective facility diagrams for the Horace Williams Airport and the Service Station.

The approximate locations of oil transfer stations and connecting pipes are also shown on the facility diagrams in **Appendix D**. As noted in the EPA *SPCC Guidance for Regional Inspectors*, a facility may represent oil transfer piping in a less detailed manner on a facility diagram as long as more detailed drawings are maintained elsewhere at the facility. Due to the complexity of providing a detailed representation of oil transfer piping on the facility diagrams in **Appendix D**, the approximate location of piping is shown on the facility diagrams. More detailed drawings of oil transfer piping (where applicable) are maintained at UNC-Chapel Hill.

A facility diagram that shows the approximate locations of active transformers is included as **Figure 8**. The approximate locations of inactive transformers are shown on the facility diagram for the Electric Distribution Operations Center in **Appendix D**. A facility diagram that shows the approximate locations of hydraulic elevators is included as **Figure 9**. The transformers and hydraulic elevators are considered oil-filled operational equipment since the equipment includes oil storage containers in which the oil is present solely to support the function of the equipment. As noted in the EPA *SPCC Guidance for Regional Inspectors*, oil-filled operational equipment may be too difficult to fully represent on a facility diagram due to the relative location, number, complexity, and/or design of the equipment; therefore, the equipment may be represented on a facility diagram in a less detailed manner as long as the oil storage information is represented in a separate table or log within the SPCC Plan. Since facility diagrams for transformers and hydraulic elevators will become too complicated when adding the oil storage information for each transformer and elevator, the oil storage information is included in **Tables 3** and **4**, and described in **Sections 7.4** and **7.21**.

7.4 Oil Types and Storage Capacities [40 CFR § 112.7(a)(3)(i)]

Each bulk oil storage container identified by UNC-Chapel Hill for inclusion in this SPCC Plan is listed in **Tables 1** and **2**. The majority of the containers store heating oil used to operate emergency generators. Other containers store gasoline, diesel, E85 ethanol, new motor oil, used oil, or heat transfer fluid. The USTs located at the Horace Williams Airport and the Service Station are subject to the technical requirements of the North Carolina UST Regulation and are exempt from SPCC regulations. The fuel transfer, fuel dispensing, and oil removal operations associated with the USTs located at the Service Station are subject to the general secondary containment requirements of 40 CFR § 112.7(c). The USTs located at the Horace Williams Airport are empty of fuel and are planned for permanent closure in approximately 2023.

UNC-Chapel Hill maintains approximately 333 active electric transformers and 141 inactive transformers that are subject to the applicable SPCC requirements of 40 CFR § 112. The transformers contain mineral oil used as insulating fluid. The oil storage capacity for each applicable transformer ranges from approximately 55 gallons to 760 gallons depending on the size of the transformer. The transformers are listed in **Table 3** and further described in **Section 7.21**.

UNC-Chapel Hill maintains approximately 168 hydraulic elevators that are subject to the applicable SPCC requirements of 40 CFR § 112. The EPA maintains two hydraulic elevators on the UNC-Chapel Hill campus that are subject to the applicable SPCC requirements of 40 CFR § 112. The hydraulic elevators are equipped with reservoir tanks that contain hydraulic oil. The oil storage capacity for each applicable hydraulic elevator reservoir tank ranges from approximately 55 gallons to 250 gallons depending on the size of the elevator and the number of stories in the respective building. The hydraulic elevators are listed in **Table 4** and further described in **Section 7.21**.

UNC-Chapel Hill also maintains a Landfill Gas Generator, which is equipped with a reservoir tank that is subject to the applicable SPCC requirements of 40 CFR § 112. The reservoir tank contains oil that is used for lubrication of the generator. Fuel used to operate the generator consists of landfill gas only.

UNC-Chapel Hill contractors and independent contractors who operate bulk oil storage containers at the facilities included in this SPCC Plan are responsible for managing their respective storage containers in accordance with the requirements of 40 CFR § 112 and the applicable requirements of this SPCC Plan. Since the bulk oil storage containers are under the operational control of the contractors and are temporarily maintained at a project site, the storage containers are not identified in this SPCC Plan. UNC-Chapel Hill notifies the contractors of their responsibility for spill prevention through the UNC-Chapel Hill Design and Construction Guidelines.

7.5 Discharge Prevention Measures [40 CFR § 112.7(a)(3)(ii)]

The discharge prevention measures for the oil storage containers included in this SPCC Plan are described in **Sections 7.7** and **7.13**. The discharge prevention measures performed during oil delivery, oil disposal, oil removal, and fuel dispensing operations are described in **Section 7.13**. The recommended oil transfer procedures for preventing oil discharges during oil loading/unloading operations are discussed in **Appendix E**. The oil transfer procedures include recommended best management practices (BMPs) and applicable references to the Department of Transportation (DOT) Loading and Unloading Requirements for flammable and combustible liquids (49 CFR § 177.834 and 49 CFR § 177.837).

7.6 Discharge or Drainage Controls [40 CFR § 112.7(a)(3)(iii)]

The discharge or drainage controls for the oil storage containers included in this SPCC Plan (including secondary containment, equipment, and procedures for the control of oil discharges) are described in **Sections 7.13**, **7.21**, **8.2**, and **8.3**.

7.7 Countermeasures for Discharge Discovery, Response, and Cleanup [40 CFR § 112.7(a)(3)(iv)]

The countermeasures for oil discharge discovery, response, and cleanup are described in **Section 7.13** and in **Appendix F**.

7.8 Disposal of Recovered Materials [40 CFR § 112.7(a)(3)(v)]

The procedures for disposal of recovered oil and oil-absorbed materials following an oil discharge are described in **Appendix F**.

7.9 Contact List and Phone Numbers for Discharges [40 CFR § 112.7(a)(3)(vi)]

The contact list and phone numbers for discharge response and notification are included in **Appendix F**.

7.10 Discharge Notification to Federal, State, and Local Agencies [40 CFR § 112.7(a)(4)]

The procedures for notifying the U.S. National Response Center (NRC), NCDEQ, and local agencies of an oil discharge are described in **Appendix F**. The required oil discharge reporting information is included in **Appendix G**.

7.11 Organization of Discharge Response Procedures [40 CFR § 112.7(a)(5)]

The oil discharge response procedures for the UNC-Chapel Hill SPCC Plan are documented in **Appendix F**. In accordance with 40 CFR § 112.7(a)(5), the procedures and supporting information are organized in a manner that is readily usable by facility personnel during an emergency.

7.12 Approximate Direction, Rate of Flow, and Quantity of Potential Discharges [40 CFR § 112.7(b)]

In accordance with 40 CFR § 112.7(b), the approximate direction of flow for reasonable potential oil discharges from bulk oil storage containers is shown on the facility diagrams in **Appendix D**. The approximate direction of flow for reasonable potential oil discharges from applicable active transformers is represented by the campus drainage descriptions included in **Section 7.3** and the predicted drainage outfall locations shown in **Figure 8** and listed in **Table 3**. The approximate direction of flow for reasonable potential oil discharges from applicable inactive transformers is shown on the facility diagram for the Electric Distribution Operations Center in **Appendix D**. The predicted drainage outfall location for the Electric Distribution Operations Center is the Kudzu Canyon outfall listed in **Table 3**. The approximate direction of flow for reasonable potential oil discharges from applicable hydraulic elevators is represented by the campus drainage descriptions included in **Section 7.3** and the predicted drainage outfall locations shown in **Figure 9** and listed in **Table 4**.

The approximate rate of flow and total quantity of oil for reasonable potential discharges from applicable major equipment is listed in **Table 5**. The factors that can influence the direction of flow, rate of flow, and total quantity of discharged oil include, but are not limited to, the following:

1. Size and location of the outlet for each potential equipment failure;
2. Physical properties of the oil product;
3. Topography and material of the ground surface on which the oil is released;
4. Secondary containment and drainage barriers; and
5. Response time by facility personnel, oil transport contractors, and/or emergency response contractors to contain and clean up the discharged oil.

7.13 General Secondary Containment Requirements [40 CFR § 112.7(c)]

As discussed in 40 CFR § 112.7(c), a facility shall provide appropriate containment and/or diversionary structures or equipment to prevent an oil discharge to navigable waters. The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary container, such as a tank, will not escape the containment system before cleanup occurs. In determining the method, design, and capacity to meet the general secondary containment requirements of 40 CFR § 112.7(c), a facility need only address the typical failure mode and the most likely quantity of oil that would be discharged (i.e., not necessarily a complete or major container failure). Furthermore, secondary containment may be either active and/or passive in design to comply with the general secondary containment requirements of 40 CFR § 112.7(c). As discussed in the EPA *SPCC Guidance for Regional Inspectors*, active containment measures are those measures that require deployment or other specific action by facility personnel, such as application of absorbent material, socks, booms, or other barriers, to prevent the most likely quantity of discharged oil from reaching navigable waters. These measures may be deployed either before the start of an activity involving the handling of oil, or in reaction to a discharge, as long as the active measure is designed to prevent a most likely oil discharge from reaching navigable waters. At a minimum, a facility must use at least one of the following discharge prevention systems or its equivalent to meet the general secondary containment requirements of 40 CFR § 112.7(c):

1. Dikes, basins, or retaining walls sufficiently impervious to contain discharged oil;
2. Curbing or drip pans;
3. Sumps and collection systems;
4. Culverting, gutters, or other drainage systems;
5. Weirs, booms, or other barriers;
6. Spill diversion ponds;
7. Retention ponds; or
8. Sorbent materials.

As noted in the EPA *SPCC Guidance for Regional Inspectors*, all areas and equipment with the potential for an oil discharge are subject to the general secondary containment requirements of 40 CFR § 112.7(c). Areas and equipment include, but are not limited to, bulk storage containers, mobile/portable containers, oil-filled operational equipment, oil-filled manufacturing equipment, oil transfer piping, and oil loading/unloading areas.

The general secondary containment measures for addressing the typical failure mode and the most likely quantity of oil that would be discharged from applicable areas and equipment included in this SPCC Plan are discussed in this section.

Aboveground Storage Tanks

The secondary containment system for each bulk oil AST included in this SPCC Plan is listed in **Table 1** and shown on each respective facility diagram in **Appendix D**. Leak detection measures for each AST are also listed in **Table 1**. The general secondary containment system for each AST is capable of containing the most likely quantity of oil that would be discharged from the primary tank and preventing the discharge from reaching navigable waters. Specific secondary containment for the bulk oil ASTs is described in **Section 8.3**. General secondary containment for applicable oil-filled operational equipment is described in **Section 7.21**.

EPA Requirements for Double-Wall ASTs

According to the EPA Office of Solid Waste and Emergency Response (OSWER) Memorandum No. 9360.8-38 (dated August 9, 2002), the EPA believes that double-wall ASTs shall be equipped with the following protective measures to serve as an equivalent oil discharge prevention system for meeting the general secondary containment requirements of 40 CFR § 112.7(c) and the specific secondary containment requirements of 40 CFR § 112.8(c)(2):

1. The entire double-wall AST is shop fabricated (i.e., not constructed on site);
2. The inner tank is an Underwriters' Laboratory (UL) listed steel tank;
3. The outer wall is constructed in accordance with nationally accepted industry standards (e.g., American Petroleum Institute, Steel Tank Institute, American Concrete Institute);
4. The interstitial space between the inner tank and outer wall must be capable of inspection for the presence of oil;
5. Product transfers into the inner tank are constantly monitored by personnel; and
6. Overfill prevention measures include an overfill alarm and an automatic flow restrictor or flow shutoff device.*

* As an alternative to the overfill prevention measures specified above, the EPA allows active and/or passive secondary containment methods that provide environmental protection equivalent to the protective measures of both an overfill alarm and an automatic flow restrictor or flow shutoff device.

The majority of double-wall ASTs listed in **Table 1** are shop fabricated and equipped with a UL-listed inner steel tank and an outer wall constructed in accordance with nationally accepted industry standards. The interstitial space between the inner tank and outer wall of each double-wall AST is equipped with either an automated liquid sensing device or is capable of visual inspection for the presence of oil. Product transfers into the ASTs are constantly monitored by facility personnel and the oil transport contractor. The majority of double-wall ASTs that receive oil deliveries are not equipped with both an overfill alarm and an automatic flow restrictor or shutoff device; however, the following combination of existing protective measures is equivalent to both an overfill alarm and an automatic flow restrictor/shutoff device for preventing overfill spills from reaching navigable waters:

- Each double-wall AST that receives oil deliveries is equipped with a direct vision liquid level gauge, overfill alarm, or overfill prevention valve;
- The oil transport contractor is in direct control of the oil transfer operation and can quickly shut off oil transfer in the unlikely event of a tank overfill through a vent or other outlet; and
- Spill cleanup materials are readily available in sufficient quantities to provide active containment of the most likely discharge volume from a tank overfill that occurs outside of secondary containment.

All of the double-wall ASTs listed in **Table 1** that receive oil deliveries are equipped with a combination of protective measures that provide environmental protection equivalent to the protective measures of both an overfill alarm and an automatic flow restrictor/shutoff for preventing overfill spills from reaching navigable waters. The double-wall generator day tanks included in this SPCC Plan do not receive oil from an oil transport contractor, and therefore, are not subject to the overfill prevention requirements of the EPA OSWER Memorandum No. 9360.8-38. However, each day tank is equipped with a high level shutoff device that shuts off the incoming oil when the oil level within the tank reaches the high level sensor.

The double-wall used oil ASTs located at the Finley Golf Course Facility, Grounds Services, and Landfill Gas Generator were not manufactured with both an overfill alarm and an automatic flow restrictor or shutoff device; therefore, the ASTs do not fully comply with the overfill prevention requirements referenced in the EPA OSWER Memorandum No. 9360.8-38. Facility personnel who perform oil disposal operations transfer the oil into each AST at a low flow rate and have a direct view of the oil level within each AST through the fill port. In addition, the used oil AST located at the Finley Golf Course Facility is equipped with a liquid level gauge and a spill container at the fill port that is appropriate for containing the most likely discharge volume from a tank overfill at the fill port. The used oil ASTs located at Grounds Services are contained within a sheltered concrete containment dike that is appropriate for containing the most likely discharge volume from a tank overfill. The used oil AST located at the Landfill Gas Generator is equipped with a liquid level gauge, and the facility personnel who perform oil transfer activities are equipped with spill cleanup materials in sufficient quantities for active containment of the most likely discharge volume from a tank overfill. Therefore, the protective measures in place for each AST during oil transfer operations provide environmental protection equivalent to the protective measures of both an overfill alarm and an automatic flow restrictor/shutoff for preventing overfill spills from reaching navigable waters.

The double-wall heat transfer fluid AST located at the EPA Building was not manufactured with both an overfill alarm and an automatic flow restrictor or shutoff device; however, the AST does not receive oil deliveries and only serves as an emergency holding tank for containing heat transfer fluid in the event that the boiler within the building malfunctions and the heat transfer fluid must be diverted to the AST. According to EPA personnel, the capacity of the AST exceeds the volume of heat transfer fluid within the boiler piping system. In addition, the AST is equipped with a liquid level gauge for monitoring the volume of heat transfer fluid that is diverted to the AST during an emergency. Therefore, the protective measures in place for the AST during fluid transfer operations provide environmental protection equivalent to the protective measures of both an overfill alarm and an automatic flow restrictor/shutoff for preventing overfill spills from reaching navigable waters.

The ConVault® AST located at Fordham Hall was not manufactured with an electronic leak detection device nor a monitoring port that provides manual inspection of the interstitial space; therefore, the AST does not fully comply with the leak detection requirements referenced in the EPA OSWER Memorandum No. 9360.8-38, which requires that the interstitial space of a double-wall AST must be capable of inspection for the presence of oil. ConVault® ASTs are equipped with the following construction features for preventing oil discharges to navigable waters:

- Primary steel tank shop-fabricated in accordance with UL Standard 142;
- ¼-inch styrofoam insulation surrounding the primary tank;
- Secondary containment consisting of a 30 mil. (0.76 mm) high-density polyethylene (HDPE) liner surrounding the styrofoam insulation and primary tank;

- Six-inch monolithic concrete exterior (minimum design strength of 4,000 psi and reinforced with ½" steel rebar) that provides a non-corrosive, durable exterior and provides protection for the secondary containment liner;
- Unitized monolithic concrete support legs that provide approximately four inches of clearance above the underlying concrete pad to allow for visual inspection of the AST exterior bottom;
- UL Standard 2085 listing for insulated/secondary aboveground storage tanks and National Fire Protection Association (NFPA) 30/30A fire code safety standards; and
- Pressure testing (twice) at the factory prior to delivery at the facility.

Installing a leak detector pipe into the interstitial space of the AST may damage the integrity of the concrete shell, secondary containment liner, insulation layer, or possibly the primary tank, and is therefore not practicable. Based on the construction features of the ConVault® AST and the weekly visual inspections performed by facility personnel, the protective measures provide environmental protection equivalent to the leak detection requirements referenced in the EPA OSWER Memorandum No. 9360.8-38 for preventing tank leaks from reaching navigable waters.

The double-wall used oil ASTs located at Grounds Services were not manufactured with an electronic leak detection device nor a monitoring port that provides manual inspection of the interstitial space; therefore, the ASTs do not fully comply with the leak detection requirements referenced in the EPA OSWER Memorandum No. 9360.8-38, which requires that the interstitial space of a double-wall AST must be capable of inspection for the presence of oil. The inner and outer walls of each used oil AST consists of high density polyethylene designed to contain used oil. Installing a leak detector pipe into the interstitial space of the ASTs may damage the integrity of the outer tank shell and is therefore not practicable. In the unlikely event that an oil discharge escapes both the primary tank and outer wall of either used oil AST, the discharge would most likely consist of a small leak that can be contained within the sheltered concrete containment dike and visually detected during regularly scheduled inspections of the ASTs by facility personnel. Based on the construction features of the used oil ASTs, the concrete containment dike, and visual inspections performed by facility personnel, the protective measures provide environmental protection equivalent to the leak detection requirements referenced in the EPA OSWER Memorandum No. 9360.8-38 for preventing tank leaks from reaching navigable waters.

Piping

As noted in the EPA *SPCC Guidance for Regional Inspectors*, oil transfer piping failures are normally caused by poor workmanship, improper installation, corrosion, or other forms of deterioration. Furthermore, the *SPCC Guidance* document states that the SPCC requirements for piping are intended to prevent oil discharges from aboveground or buried piping due to corrosion, operational accidents, or collision. Oil transfer piping is subject to the general secondary containment requirements of 40 CFR 112.7(c), which may consist of active and/or passive containment to address the typical failure mode and the most likely quantity of oil that would be discharged from the piping.

The following facilities included in this SPCC Plan are equipped with aboveground oil transfer piping installations that are not fully equipped with passive secondary containment and present a significant risk of oil discharge to navigable waters based on the close proximity of floor drains or storm drains to the piping locations:

- Bondurant Hall
- Brinkhous-Bullitt Building
- Cardinal Parking Deck

- Caudill Labs
- Davis Library
- Dean Smith Student Activities Center
- Fetzer Gymnasium
- Fordham Hall
- Hooker Research Center
- ITS Franklin
- Joyner / Alexander Residence Halls
- Kenan Stadium Fire Pump Room
- Kerr Hall
- Koury Oral Health Sciences Building
- Marsico Hall
- Mary Ellen Jones Building
- McColl Building Fire Pump Room
- Morehead Chemistry Labs / Murray Hall
- Phillips Hall
- Rams Head Center
- Taylor Campus Health Services Building
- Taylor Hall / MBRB
- Thurston-Bowles Building

Although the oil piping at each of these locations is not fully equipped with passive secondary containment, the piping appears to be in good condition and is constructed in accordance with accepted industry standards. Furthermore, the location of the piping presents a minimal risk of damage by vehicular impact.

The most likely discharges from piping include small volume leaks at a joint, which are normally preceded by oil staining at the joint prior to a discharge and can be detected by facility personnel during regularly scheduled inspections. Each of these facility locations is equipped with a spill kit consisting of absorbent pads, absorbent socks, and granular absorbent in adequate supply to contain and clean up the most likely discharges from piping. Active containment using spill cleanup materials is appropriate for preventing the most likely discharges from reaching navigable waters as long as facility personnel inspect the piping during each regularly scheduled inspection and promptly clean up the discharges upon discovery. During each regularly scheduled inspection, facility personnel shall ensure that the spill materials at each piping location are readily available and in adequate supply to contain and clean up the most likely oil discharges from a pipe leak.

Oil Delivery Operations

According to the EPA Office of Emergency Management Fact Sheet – *Streamlined Requirements for Mobile Refuelers* (December 2006), mobile refuelers are exempt from the specific secondary containment requirements of 40 CFR § 112.8(c)(2) and 40 CFR § 112.8(c)(11) and are only required to adhere to the general secondary requirements of 40 CFR § 112.7(c). The exemption also applies to contractors who perform delivery and removal operations for other oil products at an SPCC-regulated facility. As discussed in the EPA *SPCC Guidance for Regional Inspectors*, the general secondary containment measures shall be designed to address the typical failure mode during oil transfer and the most likely quantity of oil that would be discharged.

NOTE: Although the USTs located at the Service Station are subject to the technical requirements of the North Carolina UST Regulation and are exempt from SPCC requirements, the loading/unloading operations for each UST are subject to the general secondary containment requirements of 40 CFR § 112.7(c).

According to UNC-Chapel Hill personnel, oil delivery operations for applicable oil storage containers included in this SPCC Plan are supervised by the oil transport contractor and at least one facility employee. The most likely discharges during oil transfer operations include small volume spills from an overfill at a fill port or vent on the receiving container, or from the end of the dispenser nozzle or hose attachment upon removal from a fill port. For the majority of oil storage containers included in this SPCC Plan, the oil transport contractor is in direct control of the oil transfer operation at the fill port using a hand operated dispenser that regulates the oil flow rate from the contractor's truck to the receiving container. The oil transport contractor can shut off the dispenser immediately upon observation of an overfill; therefore, the most likely discharges should consist of small volume spills that can be contained and cleaned up using spill cleanup materials. The oil transport contractor is equipped with a spill kit on the contractor's truck that normally consists of absorbent materials in adequate supply to contain and clean up the most likely discharges. Additionally, facility personnel who supervise oil delivery operations are also equipped with a spill kit on their respective trucks that normally consists of absorbent materials. Active containment using spill cleanup materials is appropriate for preventing the most likely discharges from reaching navigable waters as long as the oil transport contractor promptly cleans up the discharges upon discovery.

For the oil storage containers that receive oil using a hose connection at the fill port, the oil transport contractor is in direct control of the oil transfer operation using a pump located on the contractor's truck. The oil transport contractor can shut off the oil transfer pump or close a ball valve on the transfer hose immediately upon observation of an overfill; therefore, the most likely discharges should consist of small volume spills that can be contained and cleaned up using spill cleanup materials. Active containment using spill cleanup materials is appropriate for preventing the most likely discharges from reaching navigable waters as long as the oil transport contractor promptly cleans up the discharges upon discovery.

NOTE: As shown in the facility diagrams in **Appendix D**, the following facility locations were observed to have floor drains or storm drains within approximately 10 feet of the oil storage containers:

- Bondurant Hall
- Brinkhous-Bullitt
- Craige Parking Deck
- General Storeroom
- Health Sciences Library
- Kenan Center
- Kenan Stadium Fire Pump
- Kerr Hall
- McColl Building Fire Pump

Based on the close proximity of the oil storage containers to the drains, spill cleanup materials shall be staged adjacent to each storage container prior to initiating oil transfer to ensure that active containment will prevent the most likely discharges from entering the drains.

Fuel Dispensing Operations

Fuel dispensing operations are performed by facility personnel using the fuel dispensers located at Athletics Outdoor Facility Operations, Electric Distribution Operations Center, Finley Golf Course Facility, General Storeroom, Grounds Services, and the Service Station. The most likely discharges during fuel dispensing operations include small volume spills from an overfill at a fill port or from the end of the dispenser nozzle upon removal from a fill port. The facility personnel who perform fuel dispensing operations are in direct control of the transfer operation at the fill port using a hand operated dispenser that regulates the fuel flow rate. As an added protective measure, emergency fuel shutoff switches are located in close proximity to the fuel dispensers. Facility personnel can shut off a dispenser immediately upon observation of an overfill; therefore, the most likely discharges should consist of small volume spills that can be contained and cleaned up using spill cleanup materials. Each facility location where fuel dispensing occurs is equipped with a spill kit that normally consists of absorbent materials in adequate supply to contain and clean up the most likely discharges. Active containment using spill cleanup materials is appropriate for preventing the most likely discharges from reaching navigable waters as long as facility personnel promptly clean up the discharges upon discovery. Prior to performing fuel transfer, facility personnel shall ensure that spill cleanup materials are readily available and in adequate supply to contain and clean up the most likely discharges.

UNC-Chapel Hill utilizes two mobile fuel ASTs that are mounted on the back of facility trucks for providing fuel for emergency generator tanks located on the UNC-Chapel Hill campus. The most likely discharges during fuel dispensing operations include small volume spills from an overfill at a fill port or vent on the receiving container, or from the end of the dispenser nozzle upon removal from a fill port. The facility personnel who perform fuel dispensing operations are in direct control of the transfer operation at the fill port using a hand operated dispenser that regulates the fuel flow rate. Facility personnel can shut off a dispenser immediately upon observation of an overfill; therefore, the most likely discharges should consist of small volume spills that can be contained and cleaned up using spill cleanup materials maintained on the facility truck. The spill cleanup materials normally consist of absorbent materials in adequate supply to contain and clean up the most likely discharges. Active containment using spill cleanup materials is appropriate for preventing the most likely discharges from reaching navigable waters as long as facility personnel promptly clean up the discharges upon discovery. Prior to performing fuel transfer, facility personnel shall ensure that the spill cleanup materials on the facility truck are readily available and in adequate supply to contain and clean up the most likely discharges.

Oil Disposal and Removal Operations

Oil disposal operations are performed by facility personnel for the used oil ASTs located at Electric Distribution Operations Center, Finley Golf Course Facility, Grounds Services, and Landfill Gas Generator. Oil disposal operations are also performed by facility personnel for the used oil UST located at the Service Station. Although the used oil UST located at the Service Station is subject to the technical requirements of the North Carolina UST Regulation and is exempt from SPCC requirements, the oil transfer operations are subject to the general secondary containment requirements of 40 CFR § 112.7(c).

The most likely discharges during oil disposal operations include small volume spills from an overfill at a fill port or vent on the receiving container, or from an accidental spill at the fill port. Facility personnel who perform oil disposal operations transfer the oil into each AST at a low flow rate and have a direct view of the oil level within each AST through the fill port. Facility personnel can stop the flow of oil immediately upon observation of an overfill or spill; therefore, the most likely discharges should consist of small volume spills that can be contained and cleaned up using spill cleanup materials. As added

protective measures, the AST fill port located at the Finley Golf Course Facility and the UST fill port located at the Service Station are each equipped with a spill container that is appropriate for containing the most likely discharges at the fill port. The Service Station UST is also equipped with an audible high level alarm for the primary tank that can be heard in the main office. The AST fill ports located at Electric Distribution Operations Center and Grounds Services are contained within sheltered concrete containment dikes that are appropriate for containing the most likely discharges during oil transfer. Each facility location where oil disposal occurs is equipped with a spill kit that normally consists of absorbent materials in adequate supply to contain and clean up the most likely discharges. Active containment using spill cleanup materials is appropriate for preventing the most likely discharges from reaching navigable waters as long as facility personnel promptly clean up the discharges upon discovery. Prior to performing oil transfer, facility personnel shall ensure that spill cleanup materials are readily available and in adequate supply to contain and clean up the most likely discharges.

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According to UNC-Chapel Hill personnel, oil removal operations are supervised by the oil transport contractor and at least one facility employee. The most likely discharges during oil removal operations include small volume spills from the end of a transfer hose upon removal from an extraction port. The most likely discharges can be contained and cleaned up using spill cleanup materials provided by the oil transport contractor. Active containment using spill cleanup materials is appropriate for preventing the most likely discharges from reaching navigable waters as long as the oil transport contractor promptly cleans up the discharges upon discovery.

7.14 Practicability of Secondary Containment Requirements [40 CFR § 112.7(d)]

In accordance with 40 CFR § 112.7(d), the secondary containment measures for the facilities included in this SPCC Plan are determined to be practicable for meeting the secondary containment requirements listed in the following paragraphs of 40 CFR § 112.7 and 40 CFR § 112.8:

- 40 CFR § 112.7(c): General Secondary Containment Requirements
- 40 CFR § 112.8(c)(2): Specific Secondary Containment Requirements for Bulk Oil Storage Containers
- 40 CFR § 112.8(c)(11): Specific Secondary Containment Requirements for Mobile or Portable Oil Storage Containers

The general secondary containment requirements are discussed in **Section 7.13**. The specific secondary containment requirements are discussed in **Section 8.3**.

7.15 Inspections, Tests, and Records [40 CFR § 112.7(e)]

As discussed in 40 CFR § 112.7(e), inspections and tests required under 40 CFR § 112.7 and 40 CFR § 112.8 shall be conducted in accordance with written procedures developed for the facility. Records of inspections and tests are maintained electronically at UNC-Chapel Hill for a period of at least three (3) years. Additional discussion regarding inspections and tests for oil storage containers, piping, and related equipment is included in **Section 8.3**.

7.16 Personnel, Training, and Discharge Prevention Procedures [40 CFR § 112.7(f)]

Personnel Training [40 CFR § 112.7(f)(1)]

As discussed in 40 CFR § 112.7(f)(1), facility personnel involved with oil-handling equipment and procedures shall be trained by facility management in the following:

- Operation and maintenance of equipment to prevent oil discharges;
- Discharge procedure protocols;
- Applicable pollution control laws, rules, and regulations;
- General facility operations; and
- The contents of the SPCC Plan.

According to UNC-Chapel Hill personnel, the facility personnel involved with oil-handling equipment and procedures undergo annual on-line SPCC training through the Health and Safety Management Information System (HASMIS) sponsored by UNC-Chapel Hill. Records of personnel training are maintained electronically in the HASMIS system at UNC-Chapel Hill. UNC-Chapel Hill shall also ensure that the applicable EPA personnel and Verizon Wireless personnel involved with oil-handling equipment and procedures undergo annual SPCC training as described in 40 CFR § 112.7(f)(1).

Personnel Accountable for Discharge Prevention [40 CFR § 112.7(f)(2)]

In accordance with 40 CFR § 112.7(f)(2), UNC-Chapel Hill, the EPA, and Verizon Wireless have designated personnel who are accountable for discharge prevention at the respective facilities included in this SPCC Plan. The contact names and phone numbers for the designated personnel are listed in **Table 1** and **Table 2**. The contact information is also listed in the Oil Discharge Response and Notification Procedures in **Appendix F**.

Discharge Prevention Briefings [40 CFR § 112.7(f)(3)]

In accordance with 40 CFR § 112.7(f)(3), UNC-Chapel Hill, through the Department of EHS, shall conduct discharge prevention briefings with applicable UNC-Chapel Hill, EPA, and Verizon Wireless personnel at least once per year to assure adequate understanding of the SPCC Plan. The discharge prevention briefings shall be conducted as part of the annual SPCC training. The briefings shall highlight and describe known oil discharges that have required notification of the NRC and/or state and local agencies. The briefings shall also highlight and describe failures, malfunctioning components, and any recently developed precautionary measures to prevent discharge incidents.

According to UNC-Chapel Hill personnel, the facility personnel involved with oil-handling equipment and procedures undergo discharge prevention briefings at least once per year as part of the on-line SPCC training sponsored by UNC-Chapel Hill. UNC-Chapel Hill shall also ensure that the applicable EPA personnel and Verizon Wireless personnel involved with oil-handling equipment and procedures undergo discharge prevention briefings as described in 40 CFR § 112.7(f)(3).

If necessary, amendments to the SPCC Plan shall be implemented in accordance with the requirements of 40 CFR § 112.5 to improve preventive measures and response to potential oil discharge incidents. The requirements for SPCC Plan amendments are described in **Section 6.0** of this SPCC Plan.

7.17 Security [40 CFR § 112.7(g)]

In accordance with 40 CFR § 112.7(g), the security measures to prevent oil discharges at the facilities included in this SPCC Plan are discussed as follows:

Oil Handling, Processing, and Storage Areas

The oil storage containers, oil transfer piping, fuel dispensers, and other associated equipment that are equipped with security fencing or located inside locked building rooms are identified on the respective facility diagrams in **Appendix D**. For the applicable major equipment that is not equipped with security fencing or located inside locked building rooms, UNC-Chapel Hill provides adequate security measures to secure and control access to the oil handling, processing, and storage areas through the use of locks on fill ports, locked access panels to outdoor generators, prevention of unauthorized access to fuel dispenser pump starter controls, adequate facility lighting, and a 24-hour campus police patrol service.

Master Flow and Drain Valves

UNC-Chapel Hill provides adequate security measures to secure the master flow and drain valves for applicable oil storage containers through the use of security fencing or locked building rooms (where applicable), adequate facility lighting, and a 24-hour campus police patrol service.

Oil Pump Starter Controls

UNC-Chapel Hill provides adequate security measures to prevent unauthorized access to oil pump starter controls through the use of locked access panels to outdoor generators, locked doors to generator rooms and applicable buildings, locked gates at specific equipment locations, security measures to prevent unauthorized use of fuel dispenser starter controls, adequate facility lighting, and a 24-hour campus police patrol service.

Loading/Unloading Connections

UNC-Chapel Hill provides adequate security measures to secure the loading/unloading connections of oil transfer piping through the use of locks on fill ports, locked access panels to outdoor generators, locked doors to generator rooms and applicable buildings, locked gates at specific equipment locations, adequate facility lighting, and a 24-hour campus police patrol service.

Lighting

UNC-Chapel Hill provides adequate security lighting to assist in the discovery of oil discharges and to prevent discharges from occurring through acts of vandalism. In addition, UNC-Chapel Hill prevents acts of vandalism through the use of locks on fill ports, locked access panels to outdoor generators, locked doors to generator rooms and applicable buildings, locked gates at specific equipment locations, and a 24-hour campus police patrol service.

7.18 Facility Tank Car and Tank Truck Loading/Unloading Rack [40 CFR § 112.7(h)]

As defined in 40 CFR § 112.2 and further discussed in the EPA *SPCC Guidance for Regional Inspectors*, a loading/unloading rack is a fixed structure (such as a platform or gangway) necessary for loading or unloading a tank truck or tank car. A loading/unloading rack includes a loading or unloading arm, which

is typically a moving piping assembly that may include fixed piping or a combination of fixed and flexible piping (i.e., hoses). The loading/unloading arm may also include any combination of valves, pumps, shut-off devices, overfill sensors, or personnel safety devices.

Oil transfer operations for the applicable storage containers included in this SPCC Plan involve a single hose connected directly from an oil transport truck to a port on each container and do not utilize a loading/unloading rack. Therefore, the requirements of 40 CFR § 112.7(h) for loading/unloading racks do not apply to this SPCC Plan. However, oil transfer operations are subject to the general secondary containment requirements of 40 CFR § 112.7(c), which are discussed in **Section 7.13**.

7.19 Field-Constructed Aboveground Containers [40 CFR § 112.7(i)]

All of the aboveground oil storage containers included in this SPCC Plan were delivered to UNC-Chapel Hill as shop-built containers (i.e., not field-constructed on site). Therefore, the requirements of 40 CFR § 112.7(i) for field-constructed aboveground containers do not apply to this SPCC Plan.

7.20 Conformance with Applicable State Rules, Regulations, and Guidelines [40 CFR § 112.7(j)]

In accordance with 40 CFR § 112.7(j), a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures of 40 CFR § 112 is provided in the individual sections of this SPCC Plan. A complete discussion of conformance with the applicable rules, regulations, and guidelines for discharge prevention and containment procedures established by the State of North Carolina is included in **Appendix F**.

7.21 Alternative Requirements for Qualified Oil-Filled Operational Equipment [40 CFR § 112.7(k)]

As discussed in the EPA *SPCC Guidance for Regional Inspectors*, oil-filled operational equipment is 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 device. Oil-filled operational equipment is not considered a bulk storage container and does not include oil-filled manufacturing equipment (i.e., flow-through process). Examples of oil-filled operational equipment include, but are not limited to, hydraulic systems, lubricating systems (such as for pumps, compressors, and other rotating equipment), gear boxes, machining coolant systems, heat transfer systems, transformers, circuit breakers, electrical switches, wind turbines, and other systems containing oil that is inherent to the apparatus or device. Piping that is intrinsic to the oil-filled operational equipment in a closed-loop system is considered to be a component of the equipment. Piping not intrinsic to the oil-filled operational equipment (e.g., flowlines, transfer piping, or piping associated with a process) is not considered to be part of the equipment. Since oil-filled operational equipment is not considered a bulk storage container, the equipment is subject to the general secondary containment requirements of 40 CFR § 112.7(c) and is not subject to the specific (sized) secondary containment requirements of 40 CFR § 112.8(c)(2).

UNC-Chapel Hill maintains approximately 333 active transformers that are classified as oil-filled operational equipment and are subject to the requirements 40 CFR § 112. The transformers contain mineral oil used as insulating fluid. The location description and approximate oil storage capacity for each active transformer are listed in **Table 3**. The oil storage capacity for each applicable active transformer ranges from approximately 55 gallons to 760 gallons depending on the size of the transformer. The approximate locations of the active transformers are shown in **Figure 8**.

UNC-Chapel Hill stores approximately 141 inactive transformers at the Electric Distribution Operations Center that are classified as oil-filled operational equipment and are subject to the requirements of 40 CFR § 112. The transformers contain mineral oil used as insulating fluid. The oil storage capacity for each applicable inactive transformer ranges from approximately 55 gallons to 650 gallons depending on the size of the transformer. The approximate locations of the inactive transformers are shown on the facility diagram for the Electric Distribution Operations Center in **Appendix D**.

UNC-Chapel Hill maintains approximately 168 hydraulic elevators that are classified as oil-filled operational equipment and are subject to the requirements of 40 CFR § 112. The elevators are equipped with reservoir tanks that contain hydraulic oil. The building name and approximate oil storage capacity for each reservoir tank are listed in **Table 4**. The EPA maintains two hydraulic elevators on the UNC-Chapel Hill campus that are subject to the requirements of 40 CFR § 112. The oil storage capacity for each applicable hydraulic elevator reservoir tank ranges from approximately 55 gallons to 250 gallons depending on the size of the elevator and the number of stories in the respective building. The approximate locations of the hydraulic elevators are shown in **Figure 9**.

UNC-Chapel Hill also maintains a Landfill Gas Generator, which is equipped with an oil reservoir tank that is subject to the requirements of 40 CFR § 112. The generator is classified as oil-filled operational equipment since the oil in the reservoir tank is used for lubrication of the generator and not for fueling of the generator. Fuel used to operate the generator consists of landfill gas only. The approximate location of the oil reservoir tank is shown on the facility diagram for the Landfill Gas Generator in **Appendix D**.

As discussed in 40 CFR § 112.7(k), a facility with oil-filled operational equipment that meets the qualification criteria described in 40 CFR § 112.7(k)(1) may choose to implement alternative SPCC requirements in lieu of implementing general secondary containment for all of the equipment. The qualification criteria are listed as follows:

- In the three years prior to the certification date of the SPCC Plan, the facility has not experienced an oil discharge from any oil-filled operational equipment that meets the following criteria:

    - Single oil discharge exceeding 1,000 U.S. gallons that was determined to be harmful as defined in 40 CFR § 110.3; or

    - Two oil discharges each exceeding 42 U.S. gallons within any 12-month period that were determined to be harmful as defined in 40 CFR § 110.3.

    As defined in 40 CFR § 110.3, discharges of oil into or upon the navigable waters of the United States or adjoining shorelines that may be considered harmful include discharges that:

    - Violate applicable water quality standards; or

    - Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

    Note: The oil discharge volume criterion (either 1,000 or 42 U.S. gallons) refers to the volume of oil that actually discharges into or upon navigable waters or adjoining shorelines, not the total volume of oil that is spilled. Oil discharges as a result of natural disasters, acts of war, or terrorism are not applicable.

According to UNC-Chapel Hill personnel, the facilities included in this SPCC Plan have not experienced an oil discharge from applicable oil-filled operational equipment that meets the criteria described in 40 CFR § 112.7(k)(1). Therefore, UNC-Chapel Hill has chosen to implement the alternative SPCC requirements listed in 40 CFR § 112.7(k)(2) in lieu of implementing general secondary containment measures for all of the applicable oil-filled operational equipment included in this SPCC Plan. The alternative SPCC requirements are listed as follows:

- Establish and document procedures for inspections (or a monitoring program) to detect equipment failure and/or an oil discharge for all oil-filled operational equipment subject to SPCC requirements;

- Provide within the SPCC Plan an Oil Spill Contingency Plan (OSCP) that follows the requirements of 40 CFR § 109; and

- Provide within the SPCC Plan a written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil that discharges from oil-filled operational equipment to navigable waters.

UNC-Chapel Hill, through the Electric Distribution Operations Center, has implemented a preventive maintenance and inspection program for the applicable transformers included in this SPCC Plan. The active transformers undergo preventive maintenance and inspections at least once per year by qualified facility personnel who are knowledgeable of the transformer equipment and the insulating fluid. In addition, the inactive transformers located at the Electric Distribution Operations Center are inspected at least once per year by qualified facility personnel who are knowledgeable of the transformer equipment and the insulating fluid. Copies of the inspection records for the transformers are maintained at the Electric Distribution Operations Center for a period of at least three (3) years.

UNC Chapel Hill, through Facilities Operations – Life Safety Services, has implemented a preventive maintenance and inspection program for the applicable hydraulic elevators included in this SPCC Plan. The hydraulic elevators undergo preventive maintenance and inspections on a bi-weekly basis by qualified UNC-Chapel Hill subcontractor personnel who are knowledgeable of the elevator equipment and hydraulic oil. Copies of the inspection records for hydraulic elevators are maintained at the Facilities Operations Office for a period of at least three (3) years.

UNC-Chapel Hill, through the Cogeneration Facility, has implemented a preventive maintenance and inspection program for the Landfill Gas Generator included in this SPCC Plan. The generator undergoes preventive maintenance and inspection on a monthly basis by qualified facility personnel who are knowledgeable of the generator equipment and the lubrication oil. Copies of the inspection records for the generator are maintained at the Cogeneration Facility for a period of at least three (3) years.

The OSCP for applicable oil-filled operational equipment is included in **Appendix H** and has been prepared in accordance with the requirements of 40 CFR § 109. The OSCP includes the written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil that discharges from oil-filled operational equipment to navigable waters.

8.0 SPECIFIC REQUIREMENTS FOR SPCC PLANS

8.1 Conformance with General and Specific Requirements for SPCC Plans [40 CFR § 112.8(a)]

In accordance with 40 CFR § 112.8(a), the UNC-Chapel Hill SPCC Plan conforms with the applicable requirements of 40 CFR § 112.7 and the specific discharge prevention and containment procedures of 40 CFR § 112.8. Any allowable deviations from the requirements are addressed in the applicable sections of this SPCC Plan with a description of the reasons for deviation and the alternate measures to achieve equivalent environmental protection.

8.2 Facility Drainage [40 CFR § 112.8(b)]

Drainage from Diked Areas [40 CFR § 112.8(b)(1)]

In accordance with 40 CFR § 112.8(b)(1), the containment dikes that provide secondary containment for specific ASTs listed in **Table 1** are equipped with valves to prevent potential oil discharges from entering the stormwater drainage system. If the containment dikes must be drained to remove retained water, facility personnel inspect the retained water to ensure that oil is not discharged from the dikes prior to opening the drain valves. If retained water indicates the presence of oil, facility personnel notify the Department of EHS to arrange for a waste disposal contractor to remove the retained water for proper disposal.

The underground concrete vault that contains the AST located at the Ambulatory Care Center is equipped with a sump pump that is manually activated by facility personnel to remove retained water that occasionally accumulates within the vault following precipitation events. The retained water is pumped into a bucket to inspect the condition of the water prior to pumping to the ground surface. If the retained water indicates the presence of oil, facility personnel notify the Department of EHS to arrange for a waste disposal contractor to remove the retained water for proper disposal.

Manual Valves on Diked Areas [40 CFR § 112.8(b)(2)]

In accordance with 40 CFR § 112.8(b)(2), the containment dikes that provide secondary containment for specific ASTs listed in **Table 1** are equipped with valves that are constructed of manual, open-and-close design for the drainage of retained water within the dikes. Prior to opening the valves, facility personnel follow the inspection requirements of 40 CFR § 112.8(c)(3) to ensure that oil is not discharged from the dikes to navigable waters.

Drainage Systems for Containment of Discharges from Undiked Areas [40 CFR § 112.8(b)(3)]

As discussed in 40 CFR § 112.8(b)(3), facility drainage systems that are designed for containment of potential oil discharges from undiked areas (such as where piping is located outside containment walls or tank truck discharges may occur outside the loading/unloading area) must flow into ponds, lagoons, or catchment basins that will retain oil or return it to the facility. Catchment basins must not be located in areas subject to periodic flooding.

As noted in the EPA *SPCC Guidance for Regional Inspectors*, the drainage system requirements of 40 CFR § 112.8(b)(3) apply only when a facility chooses to utilize a drainage system to meet the general secondary containment requirements of 40 CFR § 112.7(c) or the specific secondary containment requirements of 40 CFR § 112.8(c)(2) for containment of potential oil discharges from undiked areas.

The facilities included in this SPCC Plan do not utilize a drainage system designed for containment of potential oil discharges from undiked areas; therefore, the requirements of 40 CFR § 112.8(b)(3) do not apply to this SPCC Plan. A discussion of secondary containment for potential oil discharges from undiked areas is included in **Section 7.13**.

Diversion System for Containment of Discharges from Undiked Areas [40 CFR § 112.8(b)(4)]

As discussed in 40 CFR § 112.8(b)(4), if facility drainage systems that are used for containment of potential oil discharges from undiked areas are not engineered to flow into ponds, lagoons, or catchment basins, the final outlet of all ditches inside the facility must be equipped with a diversion system that would, in the event of an uncontrolled oil discharge, retain oil within the facility grounds. The facilities included in this SPCC Plan do not utilize a drainage system designed for containment of potential oil discharges from undiked areas; therefore, the requirements of 40 CFR § 112.8(b)(4) do not apply to this SPCC Plan.

Pump Requirements for Drainage Treatment Systems [40 CFR § 112.8(b)(5)]

As discussed in 40 CFR § 112.8(b)(5), if facility drainage waters are treated in more than one treatment unit, and such treatment is continuous and requires pump transfer, the facility must provide two "lift" pumps and permanently install at least one of the pumps. Regardless of which techniques are used, facility drainage systems that are utilized for containment of potential oil discharges must be designed so that oil discharges do not reach navigable waters as a result of equipment failure or human error at a facility.

The facilities included in this SPCC Plan do not utilize an on-site wastewater treatment system to treat drainage waters; therefore, the requirements of 40 CFR § 112.8(b)(5) do not apply to this SPCC Plan.

8.3 Bulk Storage Containers [40 CFR § 112.8(c)]

Storage Container Compatibility [40 CFR § 112.8(c)(1)]

In accordance with 40 CFR § 112.8(c)(1), the bulk storage containers included in this SPCC Plan consist of materials and construction that are compatible with the oil stored and the conditions of storage such as pressure and temperature. The type of oil, storage capacity, and construction material for each bulk storage container are listed in **Tables 1** and **2**.

Specific Secondary Containment Requirements [40 CFR § 112.8(c)(2)]

As discussed in 40 CFR § 112.8(c)(2), a facility must construct all applicable aboveground bulk storage container installations (except mobile refuelers and other non-transportation-related tank trucks) so that a secondary means of containment is provided for the entire capacity of the largest single container plus sufficient freeboard to contain precipitation. Diked areas must be sufficiently impervious to contain discharged oil. A drainage trench enclosure arranged so that any oil discharge will terminate and be safely confined in a facility catchment basin or holding pond shall also suffice for meeting the specific secondary containment requirements of 40 CFR § 112.8(c)(2).

As noted in the EPA *SPCC Guidance for Regional Inspectors*, the specific secondary containment requirements of 40 CFR § 112.8(c)(2) are intended to address a major failure (i.e., the entire capacity) of a bulk storage container. Secondary containment structures such as dikes, berms, and retaining walls can

be considered sufficiently impervious to contain discharged oil as long as the structures allow for cleanup to occur in time to prevent an oil discharge to navigable waters.

The specific secondary containment system for each bulk AST included in this SPCC Plan is listed in **Table 1** and shown on the respective facility diagram in **Appendix D**. The outer wall of each double-wall AST and the containment dikes for single-wall ASTs (not exposed to precipitation) provide a secondary means of containment for the entire capacity of each respective primary tank volume and are sufficiently impervious to contain discharged oil. According to the EPA *SPCC Guidance for Regional Inspectors*, oil-filled operational equipment are not considered bulk storage containers; therefore, the oil-filled operational equipment included in this SPCC Plan are not subject to the specific secondary containment requirements of 40 CFR § 112.8(c)(2).

The single-wall ASTs included in this SPCC Plan that are exposed to precipitation are equipped with containment dikes that provide containment for the entire capacity of each respective primary tank volume and are sufficiently impervious to contain discharged oil. As noted in the EPA *SPCC Guidance for Regional Inspectors*, the EPA believes that the proper standard for sufficient freeboard to contain precipitation is the amount necessary to contain precipitation from a 25-year, 24-hour storm event. Based on the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Data Server, the precipitation amount for a 25-year average recurrence interval and 24-hour precipitation event in the Chapel Hill area is approximately 6.5 inches. As shown in the containment dike capacity calculations in **Table 6**, the containment dikes included in this SPCC Plan provide adequate storage volume for the entire capacity of each respective AST plus sufficient freeboard to contain precipitation during a 25-year, 24-hour storm event in the Chapel Hill area. Therefore, the containment dikes provide adequate secondary containment to meet the specific secondary containment requirements of 40 CFR § 112.8(c)(2).

The AST that is associated with the Kenan Stadium South generator is contained within a large brick dike that also contains several transformers. The AST and transformers are positioned on concrete pads, and the surrounding surface material within the dike consists of concrete and mulch. Although a portion of the diked area includes an earthen surface, the containment system is sufficiently impervious to prevent potential oil discharges from reaching navigable waters before cleanup occurs. Based on visual inspection of the containment dike by the certifying PE, the containment dike provides containment for the entire capacity of the largest single AST plus sufficient freeboard to contain precipitation during a 25-year, 24-hour storm event in the Chapel Hill area.

Drainage Procedure for Diked Areas [40 CFR § 112.8(c)(3)]

As discussed in 40 CFR § 112.8(c)(3), a facility is not allowed to drain uncontaminated rainwater from diked areas into a storm drain or into an open watercourse, lake, or pond unless the facility personnel perform the following:

1. Normally keep the bypass valve sealed closed when not in use for drainage purposes;

2. Inspect the retained rainwater to ensure that its presence will not cause an oil discharge to navigable waters that could:
   - Violate applicable water quality standards; or
   - Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

3. Open the bypass valve and reseal it following drainage under responsible supervision; and

4. Keep adequate records of such drainage events.

The containment dikes that provide secondary containment for the associated ASTs listed in **Table 1** are equipped with valves to prevent potential oil discharges from entering the stormwater drainage system. If the containment dikes must be drained to remove retained water, facility personnel inspect the retained water to ensure that oil is not discharged from the dikes prior to opening the drain valves. If retained water indicates the presence of oil, facility personnel notify the Department of EHS to arrange for a waste disposal contractor to remove the retained water for proper disposal. If retained water does not indicate the presence of oil, facility personnel observe the drainage of the containment dikes and close the valves following drainage. In accordance with 40 CFR § 112.8(c)(3), records of drainage events shall be documented on an inspection record and maintained for a period of at least three (3) years.

Corrosion Protection of Completely Buried Metallic Storage Tanks [40 CFR § 112.8(c)(4)]

The facilities included in this SPCC Plan do not utilize completely buried metallic storage tanks that are subject to SPCC requirements; therefore, the corrosion protection requirements of 40 CFR § 112.8(c)(4) do not apply to this SPCC Plan.

Corrosion Protection of Partially Buried or Bunkered Metallic Storage Tanks [40 CFR § 112.8(c)(5)]

The facilities included in this SPCC Plan do not utilize partially buried metallic storage tanks that are subject to SPCC requirements; therefore, the corrosion protection requirements of 40 CFR § 112.8(c)(5) do not apply to this SPCC Plan.

Storage Container Integrity Tests and Inspections [40 CFR § 112.8(c)(6)]

As discussed in 40 CFR § 112.8(c)(6), each applicable aboveground bulk storage container shall be tested or inspected for integrity on a regular schedule and when material repairs are performed. The frequency and type of testing and inspections shall be determined in accordance with industry standards and shall take into account the container size, configuration, and design (such as containers that are shop-built, field-erected, skid-mounted, elevated, equipped with a liner, double-walled, or partially buried). Furthermore, tests and inspections shall be performed by qualified personnel in accordance with industry standards. Examples of integrity tests include, but are not limited to, visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other systems of non-destructive testing. Container supports and foundations must also be inspected. Additionally, the outside of the containers must be frequently inspected for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of tests and inspections shall be maintained at the facility for a period of time as specified by the referenced industry standard, but no less than a period of three (3) years as specified in 40 CFR § 112.7(e). According to the EPA *SPCC Guidance for Regional Inspectors (December 16, 2013)*, oil-filled operational equipment are not considered bulk storage containers; therefore, the oil-filled operational equipment included in this SPCC Plan are not subject to the integrity testing requirements of 40 CFR § 112.8(c)(6). However, the equipment is visually inspected on a periodic basis as discussed in **Section 7.21**.

One of the applicable and widely used industry standards for evaluation of aboveground bulk storage containers is the Steel Tank Institute (STI) *SP001 Standard for Inspection of Aboveground Storage Tanks*, which outlines "good engineering practice" for integrity testing of ASTs. The SP001 Standard applies to the inspection of shop-fabricated tanks, field-erected tanks, and portable containers, as well as the associated secondary containment systems, valves, piping, and appurtenances. Furthermore, the SP001 Standard defines three categories of ASTs based on existing safeguards to prevent oil discharges from entering the environment. Using the category and volume of an AST, the SP001 Standard establishes the type and frequency of inspections for the AST. The AST categories, types of inspections, and inspection frequencies established by the SP001 Standard are presented in **Appendix I**.

Inspections and tests for aboveground bulk storage containers included in this SPCC Plan are performed in accordance with the STI SP001 Standard. According to the AST categories established by the STI SP001 Standard, the aboveground bulk storage containers included in this SPCC Plan are categorized as Category 1 ASTs, which are containers equipped with spill control (such as a dike/berm, double-wall containment, or other suitable secondary containment system) and with continuous release detection method (CRDM), which is a means of visually detecting liquid releases from a container. Based on the AST volumes presented in **Appendix I**, the aboveground bulk storage containers require periodic visual inspections performed by qualified personnel. Facility personnel who perform the visual inspections are qualified in accordance with the SP001 Standard based on their knowledge of the oil storage equipment, oil storage operations, and the characteristics of the stored oil. UNC-Chapel Hill maintains electronic inspection records that include applicable inspection items referenced in the STI SP001 Standard Inspection Checklists. The inspection records also address applicable inspection items required under 40 CFR § 112.7 and 40 CFR § 112.8. Applicable inspection items are shown on the example inspection checklists included in **Table 7**. In accordance with the SP001 Standard, the completed inspection records are maintained at UNC-Chapel Hill for a period of at least three (3) years.

The following bulk oil ASTs included in this SPCC Plan are greater than 5,000 gallons in storage capacity:

- Bingham Facility (6,000-gallon generator tank);
- Burnett-Womack Building (5,200-gallon generator tank);
- Genetic Medicine Research Building (8,000-gallon generator tank);
- Genome Sciences Building (8,000-gallon generator tank);
- Koury Oral Health Sciences Building (10,000-gallon generator tank);
- Marsico Hall (8,000-gallon generator tank);
- Rams Head Center (8,000-gallon generator tank);
- Service Station (8,000-gallon fuel tank); and
- Taylor Hall / MBRB (8,000-gallon generator tank).

According to the SP001 Standard Table of Inspection Schedules in **Appendix I**, Category 1 ASTs that are greater than 5,000 gallons in storage capacity require formal external inspections every 20 years from the date of AST installation. The formal external inspection schedule for each applicable AST included in this SPCC Plan is specified in **Table 1**. The formal external inspections shall be performed in accordance with the external inspection guidelines of the STI SP001 Standard. The tank inspector that performs the formal external inspections shall be certified by one or more of the following standards:

- STI Certified SP001 AST Tank System Inspector; and/or
- American Petroleum Institute (API) Standard 653 Authorized Inspector Certification with STI SP001 Adjunct Certification

Based on the inspection findings, the certified tank inspector will recommend that the next formal external inspection be performed at the 20-year interval established by the SP001 Standard or at an earlier interval if necessary. Additionally, the certified tank inspector may recommend a formal internal inspection for a particular tank based on the findings from the formal external inspection. In accordance with the SP001 Standard, documentation of formal inspections shall be maintained at UNC-Chapel Hill for the life of each AST.

Monitoring of Steam Return and Exhaust Lines for Discharges [40 CFR § 112.8(c)(7)]

As discussed in 40 CFR § 112.8(c)(7), steam return and exhaust lines (associated with an internal heating coil system) that discharge into an open watercourse must be monitored for oil contamination resulting from defective internal heating coils. Alternatively, the steam return and exhaust lines may be passed through a settling tank, skimmer, or other separation or retention system to ensure oil contamination from defective internal heating coils does not discharge to an open watercourse.

Internal heating coils are not utilized for any bulk storage containers included in this SPCC Plan; therefore, the requirements of 40 CFR § 112.8(c)(7) do not apply to this SPCC Plan.

Overfill Prevention Devices [40 CFR § 112.8(c)(8)]

As discussed in 40 CFR § 112.8(c)(8), a facility must provide at least one of the following overfill prevention devices for each bulk oil storage container:

1. High liquid level alarm with an audible or visual signal at a constantly attended operation or surveillance station;

2. High liquid level pump cutoff device set to stop flow at a predetermined container content level;

3. Direct audible or code signal communication between the container gauger and the pumping station; or

4. A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If this device is used, a person must be present to monitor gauges and the overall filling of bulk storage containers.

Additionally, in accordance with 40 CFR § 112.8(c)(8(v), liquid level sensing devices must be regularly tested to ensure proper operation.

The overfill prevention devices for each applicable bulk storage container included in this SPCC Plan are listed in **Tables 1** and **2**. The majority of the bulk oil storage containers that receive oil are equipped with at least one overfill prevention device that meets the requirements of 40 CFR § 112.8(c)(8). According to UNC-Chapel Hill personnel, applicable liquid level sensing devices are tested at least once per year to ensure proper operation. The generator day tanks included in this SPCC Plan do not receive oil from an oil transport contractor; however, each day tank is equipped with a high level shutoff device that shuts off the incoming oil when the oil level within the tank reaches the high level sensor. As noted in the EPA *SPCC Guidance for Regional Inspectors*, oil-filled operational equipment are not considered bulk storage containers; therefore, the oil-filled operational equipment included in this SPCC Plan are not subject to the overfill prevention requirements of 40 CFR § 112.8(c)(8).

The AST located at the Friday Center is not equipped with an unused port to install an applicable overfill prevention device as described in 40 CFR § 112.8(c)(8). Installing an additional port into an existing AST may damage the integrity of the AST and is therefore not practicable. According to UNC-Chapel Hill personnel, the oil transport contractor and at least one facility employee are present to constantly monitor all oil transfers into the AST. The oil transport contractor is in direct control of the oil transfer at the fill port using a hand operated dispenser that regulates the oil flow rate from the contractor's truck to the AST. In addition, the fill port is located within a containment dike that is sufficiently impervious to contain the most likely discharge volume from a tank overfill. Therefore, the combination of protective measures in place for the AST during oil filling operations provide environmental protection equivalent to the overfill prevention requirements of 40 CFR § 112.8(c)(8) for preventing overfill spills from reaching navigable waters.

The used oil ASTs located at Electric Distribution Operations Center and Grounds Services are not equipped with unused ports to install applicable overfill prevention devices as described in 40 CFR § 112.8(c)(8). Facility personnel who perform oil disposal operations transfer the oil into each AST at a low flow rate and have a direct view of the oil level within each AST through the fill port. In addition, the fill ports for the ASTs are located within sheltered concrete containment dikes that are sufficiently impervious to contain the most likely discharge volume from tank overfills. Therefore, the combination of protective measures in place for the ASTs during oil filling operations provide environmental protection equivalent to the overfill prevention requirements of 40 CFR § 112.8(c)(8) for preventing overfill spills from reaching navigable waters.

Observation of Effluent Treatment Systems [40 CFR § 112.8(c)(9)]

The facilities included in this SPCC Plan do not utilize effluent treatment systems to meet any oil discharge prevention requirements of 40 CFR § 112.7 or 40 CFR § 112.8; therefore, the requirements of 40 CFR § 112.8(c)(9) for observation of effluent treatment systems do not apply to this SPCC Plan. The oil/water separator located at the Service Station is used exclusively for treatment of wastewater associated with the car wash bay and is exempt from SPCC requirements as specified in 40 CFR § 112.1(d)(6).

Correction of Visible Discharges [40 CFR § 112.8(c)(10)]

In accordance with 40 CFR § 112.8(c)(10), facility personnel (or a designated repair contractor) shall promptly correct visible discharges which result in a loss of oil from the oil storage containers or associated piping and equipment. Accumulations of discharged oil shall be promptly contained and cleaned up.

Mobile or Portable Storage Containers [40 CFR § 112.8(c)(11)]

As discussed in 40 CFR § 112.8(c)(11), a facility must position or locate mobile or portable storage containers to prevent oil discharges to navigable waters. Except for mobile refuelers and other non-transportation-related tank trucks, the facility shall furnish a secondary means of containment for mobile or portable storage containers, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container plus sufficient freeboard to contain precipitation. According to the EPA Office of Emergency Management Fact Sheet – *Streamlined Requirements for Mobile Refuelers* (December 2006), when mobile or portable storage containers (such as drums, skids, railcars, and totes) are in a stationary, unattended mode and not under the direct oversight or control of facility personnel, the

specific (sized) secondary containment requirements of 40 CFR § 112.8(c)(2) apply to the containers. When mobile or portable storage containers are involved in on-site movement, (such as being towed by vehicles or locomotives, or moved to/from a designated operational area), the general secondary containment requirements of 40 CFR § 112.7(c) apply to the containers.

UNC-Chapel Hill utilizes two mobile fuel ASTs that are mounted on the back of facility trucks for providing fuel for emergency generator tanks located on the UNC-Chapel Hill campus. Each AST consists of double-wall steel construction. The facility trucks that contain the ASTs are normally parked at the Generator Shop after business hours. The ASTs meet the definition of a mobile refueler as described in 40 CFR § 112.2; therefore, the ASTs are exempt from the specific secondary containment requirements of 40 CFR § 112.8(c)(2) and are only subject to the general secondary requirements of 40 CFR § 112.7(c). When the mobile fuel ASTs are involved in on-site movement, the most likely discharges include small volume leaks from a cap, drain port, or other outlet that is not fully secured or tightened in the closed position. The most likely discharges can be identified by facility personnel who are in control of equipment movement and cleaned up using spill cleanup materials stored on the facility truck. Active containment using spill cleanup materials is appropriate for preventing the most likely discharges from reaching navigable waters as long as facility personnel promptly clean up the discharges upon discovery.

UNC-Chapel Hill utilizes three tow-behind mobile emergency generators that are used for providing emergency power on the UNC-Chapel Hill campus. The mobile emergency generators are normally stored at the Generator Shop after business hours. Each emergency generator is equipped with a double-wall steel AST that provides diesel fuel to the generator. The double-wall construction meets the specific secondary containment requirements of 40 CFR § 112.8(c)(2) when the ASTs are in a stationary, unattended mode and not under the direct oversight or control of facility personnel. When the mobile emergency generators are involved in on-site movement, the general secondary containment requirements of 40 CFR § 112.7(c) apply to the equipment. The most likely discharges include small volume leaks from a cap, drain port, or other outlet that is not fully secured or tightened in the closed position. The most likely discharges can be identified by facility personnel who are in control of equipment movement and cleaned up using spill cleanup materials stored on the facility tow truck. Active containment using spill cleanup materials is appropriate for preventing the most likely discharges from reaching navigable waters as long as facility personnel promptly clean up the discharges upon discovery.

8.4 Facility Transfer Operations, Pumping, and Facility Process [40 CFR § 112.8(d)]

Protection of Buried Piping [40 CFR § 112.8(d)(1)]

As discussed in 40 CFR § 112.8(d)(1), buried oil transfer piping that is installed or replaced on or after August 16, 2002 must be provided with a protective wrapping or coating. In addition, the buried piping must be cathodically protected or otherwise satisfy the corrosion protection standards for piping referenced in 40 CFR § 280 or in accordance with a State program approved under 40 CFR § 281. If a section of buried piping is exposed for any reason, the facility must carefully inspect the piping for deterioration. If corrosion damage is discovered, the facility must undertake additional examination and corrective action as indicated by the magnitude of the damage.

According to UNC-Chapel Hill personnel, buried oil transfer piping has been installed or replaced (on or after August 16, 2002) at the Bingham Facility, Carmichael Residence Hall, Cheek-Clark Building, Fordham Hall, Genetic Medicine Research Building, Genome Sciences Building, ITS Manning, Joyner/Alexander Residence Halls, Marsico Hall, Service Station, and Taylor Campus Health Services

Building. The buried piping installations consist of single-wall piping (either copper, plastic, or metal) contained within a conduit that serves as secondary containment for the oil piping and provides protection from corrosion for metal piping. Therefore, the protective measures for the buried piping provide environmental protection equivalent to the protection requirements of 40 CFR § 112.8(d)(1) for preventing pipe leaks from impacting the environment.

Piping Not In-Service or in Standby Service for Extended Period of Time [40 CFR § 112.8(d)(2)]

As required by 40 CFR § 112.8(d)(2), if aboveground oil transfer piping is out of service or in standby service for an extended period of time, facility personnel shall cap or blank-flange the terminal connection at the transfer point of the piping and label the transfer point as to its origin. According to UNC-Chapel Hill personnel, all aboveground oil transfer piping that is either out of service or in standby service for an extended period of time meets the requirements of 40 CFR § 112.8(d)(2).

Design of Pipe Supports [40 CFR § 112.8(d)(3)]

In accordance with 40 CFR § 112.8(d)(3), the supports for the aboveground oil transfer piping included in this SPCC Plan appear to be properly designed for minimizing abrasion and corrosion and allowing for expansion and contraction. The majority of pipe supports are constructed of steel and secured to the walls, foundations, floors, or ground surface at each respective oil storage location. Pipe supports are included in the piping inspections performed by facility personnel. If the pipe supports experience excessive abrasion or corrosion, the supports shall be replaced by facility personnel (or a designated repair contractor) to prevent potential failing of the supports.

Inspection and Testing of Valves, Piping, and Appurtenances [40 CFR § 112.8(d)(4)]

According to UNC-Chapel Hill personnel, facility personnel perform a visual inspection of aboveground oil transfer piping, valves, and appurtenances during the inspections of the applicable oil storage containers. In accordance with 40 CFR § 112.8(d)(4), facility personnel (or a designated repair contractor) shall conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement. Documentation of integrity and leak testing of buried piping shall be maintained at UNC-Chapel Hill for a period of at least three (3) years.

Warning Procedure to Protect Piping and Oil Transfer Operations from Vehicles [40 CFR § 112.8(d)(5)]

In accordance with 40 CFR § 112.8(d)(5), facility personnel and the oil transport contractors are constantly present during oil transfer operations to provide warnings to drivers of vehicles that could potentially endanger the transfer operations. The warnings may consist of directing vehicle drivers away from the oil transfer areas or temporarily stopping vehicles until transfer operations are completed.

The permanent aboveground piping installations for the oil storage containers included in this SPCC Plan are protected by barriers, curbing, or other physical obstacles or are not located in areas where vehicles could reasonably endanger the piping. The protective measures for the piping provide environmental protection that is equivalent to the warning requirements of 40 CFR 112.8(d)(5) for preventing vehicles from endangering the piping.

TABLES

TABLE 1
ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
Ackland Art Museum (Generator Tank)	1988	100	Heating Oil	Steel	Concrete Dike	Liquid Level Gauge	Visual Inspection of Tank and Dike	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Ambulatory Care Center (Generator Tank)	2010	1,000	Heating Oil	Steel	Steel Outer Wall and Concrete Vault	Liquid Level Monitor Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Athletics Outdoor Facility Operations (Diesel Fuel Tank)	2000	250	Diesel Fuel	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port	Interstitial Monitoring Port	Aboveground (Hose) Spill Cleanup Materials for Fuel Dispenser	Monthly Visual	Casey Carrick (336) 250-1300 (M)
Avery Residence Hall (Generator Tank)	1997	300	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Bell Tower Parking Deck (Generator Tank)	2010	850	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Bingham Facility (Bingham 1 Generator Tank)	2002	6,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Underground (Plastic in PVC)	Weekly Visual E-20 (2022)	Wes Brown (919) 883-7182 (M)
Bingham Facility (Bingham 1 Day Tank)	1986	100	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Bingham Facility (Bingham 2 Generator Tank)	2008	600	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Bingham Facility (Bingham 3 Generator Tank)	2009	2,875	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Bingham Facility (Wastewater Generator Tank)	2008	700	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Bioinformatics Building (Generator Tank)	2002	1,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve High Level Alarm Concrete Dike	Interstitial Monitoring Port	Aboveground (Steel) Underground (Plastic in PVC)	Weekly Visual	Wes Brown (919) 883-7182 (M)

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TABLE 1
ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
Bioinformatics Building (Day Tank)	2002	60	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Bondurant Hall (Generator Tank)	2005	2,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Interstitial Monitoring Port	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Brinkhous-Bullitt Building (Generator Tank)	2005	4,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Monitor Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Brinkhous-Bullitt Building (Day Tank)	2005	165	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Burnett-Womack Building (Generator Tank)	2005	5,200	Heating Oil	Steel	ConVault Enclosure	Liquid Level Monitor Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual E-20 (2025)	Wes Brown (919) 883-7182 (M)
Burnett-Womack Building (Day Tank)	2005	125	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Cardinal Parking Deck (Generator Tank)	2006	1,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve	Interstitial Monitoring Port	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Carmichael Auditorium (Generator Tank)	2009	1,600	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Carmichael Residence Hall (Generator Tank)	2009	1,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve High Level Alarm Concrete Containment Dike	Interstitial Monitoring Port	Aboveground (Steel) Aboveground (Copper) Underground (Copper in PVC)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Carolina Inn (Generator Tank)	2000	100	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Carrington Hall Addition (Generator Tank)	1997	450	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge (not at fill location) Spill Container at Fill Port Overfill Prevention Valve High Level Alarm (not at fill location)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)

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TABLE 1
ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
Caudill Labs (Generator Tank)	2002	4,500	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge (not at fill location) Spill Container at Fill Port Overfill Prevention Valve High Level Alarm (not at fill location)	Electronic Leak Detection	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Caudill Labs (Day Tank)	2002	150	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Cheek-Clark Building (Generator Tank)	2002	250	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port	Interstitial Monitoring Port	Aboveground (Copper) Underground (Copper in PVC)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Craige Parking Deck (Generator Tank)	2015	815	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Craige Residence Hall (Generator Tank)	2005	320	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Davie Hall (Generator Tank)	2015	2,060	Heating Oil	Steel	Steel Outer Wall (with Concrete Fill)	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Not Applicable (Concrete Fill in Interstitial Space)	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Davis Library (Generator and Fire Pump Tank)	2005	550	Heating Oil	Steel	Concrete Dike	Liquid Level Gauge Concrete Dike	Visual Inspection of Tank and Dike	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Dean Smith Student Activities Center (Generator Tank)	2005	1,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge	Interstitial Monitoring Port	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Dogwood Parking Deck (Generator Tank)	2006	125	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Manual Check of Leak Detection Wiring	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Ehringhaus Residence Hall (Generator Tank)	1998	320	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Electric Distribution Operations Center (Diesel Fuel Tank)	1996	1,000	Diesel Fuel	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve	Interstitial Monitoring Port	None Spill Cleanup Materials for Fuel Dispenser	Monthly Visual	Sean Cooper (919) 962-8394 (O) (984) 234-2934 (M)
Electric Distribution Operations Center (Generator Tank)	1999	500	Heating Oil	Steel	Steel Enclosure	Liquid Level Gauge	Visual Inspection of Tank and Enclosure	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)

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TABLE 1
ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
Electric Distribution Operations Center (Transformer Oil Drums)	Unknown	55 per drum (10-15 drums)	Transformer Oil	Steel	Concrete Dike	Not Applicable	Visual Inspection of Drums and Dike	None	Monthly Visual	Sean Cooper (919) 962-8394 (O) (984) 234-2934 (M)
Electric Distribution Operations Center (Used Oil Drums)	Unknown	55 per drum (10-15 drums)	Used Oil	Steel	Concrete Dike	Concrete Dike	Visual Inspection of Drums and Dike	None	Monthly Visual	Sean Cooper (919) 962-8394 (O) (984) 234-2934 (M)
Energy Services Building (Generator Tank)	2006	500	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
EPA Building (Day Tank)	1995	150	Heating Oil	Steel	Concrete Dike	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Monthly Visual	Kaitlin Hartman (919) 541-3310 (O) (919) 541-5783 (M)
EPA Building (Trailer Generator Tank)	2008	200	Diesel Fuel	Steel	Steel Catch Pan	Liquid Level Gauge	Visual Inspection of Tank and Catch Pan	Generator on Tank	Monthly Visual	Kaitlin Hartman (919) 541-3310 (O) (919) 541-5783 (M)
EPA Building (Auxiliary Generator Tank)	2008	75	Diesel Fuel	Steel	Steel Catch Pan	Liquid Level Gauge	Visual Inspection of Tank and Catch Pan	Generator on Tank	Monthly Visual	Kaitlin Hartman (919) 541-3310 (O) (919) 541-5783 (M)
EPA Building (Emergency Holding Tank)	1997	700	Petro-Therm Heat Transfer Fluid	Steel	Steel Outer Wall	Liquid Level Gauge Overfill Containment within Boiler Room Piping	Interstitial Monitoring Port	Aboveground (Steel)	Monthly Visual	Kaitlin Hartman (919) 541-3310 (O) (919) 541-5783 (M)
EPA Building (Diesel Fuel Drums)	Replaced Monthly	55 per drum (Up to 5 drums)	Diesel Fuel	Steel	Storage Room Catch Basin	Not Applicable	Visual Inspection of Drums and Catch Basin	None	Monthly Visual	Kaitlin Hartman (919) 541-3310 (O) (919) 541-5783 (M)
Fetzer Gymnasium (Generator Tank)	2001	1,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port	Interstitial Monitoring Port	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Finley Golf Course Facility (Gasoline Fuel Tank)	1998	1,000	Gasoline Fuel	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port	Interstitial Monitoring Port	None Spill Cleanup Materials for Fuel Dispensers	Monthly Visual	Carl Oliveira (919) 962-0586 (O) (919) 619-2478 (M)
Finley Golf Course Facility (Diesel Fuel Tank)	1998	1,000	Diesel Fuel	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port	Interstitial Monitoring Port	None	Monthly Visual	Carl Oliveira (919) 962-0586 (O) (919) 619-2478 (M)
Finley Golf Course Facility (Used Oil Tank)	Unknown	150	Used Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port	Interstitial Monitoring Port	None	Monthly Visual	Carl Oliveira (919) 962-0586 (O) (919) 619-2478 (M)
Fordham Hall (Generator Tank)	2006	1,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port	Visual Inspection of ConVault Exterior, Concrete Pad, and Ground Surface	Aboveground (Steel) Underground (Copper in PVC) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)

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TABLE 1
ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
Friday Center (Generator Tank)	1991	350	Heating Oil	Steel	Concrete Dike	Concrete Dike	Visual Inspection of Tank and Dike	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
General Storeroom (Diesel Fuel Tank)	2006	4,000	Diesel Fuel	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve	Interstitial Monitoring Port	None Spill Cleanup Materials for Fuel Dispenser	Monthly Visual	Wes Brown (919) 883-7182 (M)
Generator Shop (Mobile Fuel Tanks)	2009	90 per tank (2 tanks)	Diesel Fuel	Steel	Steel Outer Wall	Liquid Level Gauge	Interstitial Monitoring Port	Aboveground (Hose) Spill Cleanup Materials on Trucks	Monthly Visual	Wes Brown (919) 883-7182 (M)
Generator Shop (Mobile Generator Tank)	2001-2003	80 (3 tanks)	Diesel Fuel	Plastic	Steel Outer Wall	Liquid Level Gauge	Interstitial Monitoring Port	Generator on Tank Spill Cleanup Materials on Trucks	Monthly Visual	Wes Brown (919) 883-7182 (M)
Genetic Medicine Research Building (Generator Tank)	2008	8,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Monitor Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Underground (Plastic in PVC)	Weekly Visual E-20 (2028)	Wes Brown (919) 883-7182 (M)
Genetic Medicine Research Building (Day Tank)	2008	350	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Genome Sciences Building (Generator Tank)	2011	8,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Monitor Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Underground (Plastic in PVC)	Weekly Visual E-20 (2031)	Wes Brown (919) 883-7182 (M)
Genome Sciences Building (Day Tank)	2011	1,200	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Glaxo Building (Generator Tank)	2005	2,500	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Global Education Center (Generator Tank)	2006	239	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Goodmon Building (UNC-CH Generator Tank)	2002	300	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Goodmon Building (Verizon Wireless Generator Tank)	Unknown	150	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Verizon Wireless EHS (800) 566-9347

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TABLE 1
ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
Grounds Services (Diesel Fuel Tank)	1998	1,000	Diesel Fuel	Steel	ConVault Enclosure	Liquid Level Gauge High Level Alarm	Interstitial Monitoring Port	Aboveground (Steel) Spill Cleanup Materials for Fuel Dispenser	Monthly Visual	Alice Moore (919) 883-9224 (M)
Grounds Services (Gasoline Fuel Tank)	1998	4,000	Gasoline Fuel	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port High Level Alarm	Interstitial Monitoring Port	Aboveground (Steel) Spill Cleanup Materials for Fuel Dispenser	Monthly Visual	Alice Moore (919) 883-9224 (M)
Grounds Services (Biodiesel Fuel Tank)	2013	2,000	Biodiesel Fuel	Steel	Steel Outer Wall	Liquid Level Gauge	Interstitial Monitoring Port	Aboveground (Steel) Spill Cleanup Materials for Fuel Dispenser	Monthly Visual	Alice Moore (919) 883-9224 (M)
Grounds Services (Used Oil Containers)	1998	165 per drum (2 containers)	Used Oil	Plastic	Plastic Outer Wall Concrete Dike	Concrete Dike	Visual Inspection of Drums and Dike	None	Monthly Visual	Alice Moore (919) 883-9224 (M)
Hamilton Hall (Generator Tank)	2006	200	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Health Sciences Library (Generator Tank)	2005	500	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Hill Alumni Center (Generator Tank)	2000	250	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port	Interstitial Monitoring Port	Aboveground (Copper) Aboveground (Copper in PVC)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Hinton James Residence Hall (Generator Tank)	2002	320	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Hinton James Residence Hall (Generator Tank)	2009	1,100	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Hooker Research Center (Generator Tank)	2005	4,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge (not at fill location) Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
House Undergraduate Library (Generator Tank)	2002	250	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
ITS Franklin (Generator Tank)	2006	1,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve	Electronic Leak Detection	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)

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ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
ITS Franklin (Day Tank)	2006	429	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
ITS Manning (Generator Tank)	2006	4,000	Heating Oil	Steel	Steel Outer Wall and Concrete Vault	Liquid Level Monitor Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Underground (Plastic in PVC)	Weekly Visual	Wes Brown (919) 883-7182 (M)
ITS Manning (Day Tank)	2006	275	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Jackson Circle Parking Deck (Generator Tank)	2006	420	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Joyner/Alexander Residence Halls (Generator Tank)	2005	800	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Underground (Plastic in PVC) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Kenan Center (Generator Tank)	1998	270	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Manual Check of Rupture Basin Drain Valve	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Kenan Stadium (Fire Pump Tank)	2009	200	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Interstitial Monitoring Port	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Kenan Stadium Football Center (Generator Tank)	1998	230	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Kenan Stadium North (New) (Generator Tank)	1998	100	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Kenan Stadium North (Old) (Generator Tank)	1990	90	Heating Oil	Steel	Concrete Dike	Liquid Level Gauge	Visual Inspection of Tank and Dike	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Kenan Stadium South (Generator Tank)	1990	90	Heating Oil	Steel	Brick Wall	Liquid Level Gauge Brick Wall	Visual Inspection of Tank and Concrete Pad	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Kerr Hall (Generator Tank)	1997	1,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Interstitial Monitoring Port	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)

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TABLE 1
ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
Knapp-Sanders Building (Generator Tank)	2002	270	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Koury Oral Health Sciences Building (Generator Tank)	2011	10,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Monitor Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual E-20 (2031)	Wes Brown (919) 883-7182 (M)
Landfill Gas Generator (Used Oil Tank)	2013	270	Used Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Interstitial Monitoring Port	None Spill Cleanup Materials for Used Oil Disposal	Monthly Visual	Jamie Hoggard (919) 843-4402 (O) (919) 428-1585 (M)
Landfill Gas Generator (Oil Reservoir Tank)	2013	> 55 gallons	Motor Oil	Steel	Generator Enclosure	Not Applicable (oil-filled operational equipment)	Visual Inspection of Tank	Aboveground (Steel) inside generator enclosure	Monthly Visual	Jamie Hoggard (919) 843-4402 (O) (919) 428-1585 (M)
Lineberger Cancer Research Center (Generator Tank)	1994	1,200	Heating Oil	Steel	Concrete Dike	Liquid Level Gauge Concrete Dike	Visual Inspection of Tank and Dike	Aboveground (Steel) Underground (Copper in PVC)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Lineberger Cancer Research Center (Generator Tank)	1997	1,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Interstitial Monitoring Port	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Lineberger Cancer Research Center (Day Tank)	1997	100	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Loudermilk Center for Excellence (Generator Tank)	2011	900	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Loudermilk Hall (Generator Tank)	1999	150	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Marsico Hall (Generator Tank)	2013	8,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Monitor High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Underground (Steel in Steel)	Weekly Visual E-20 (2033)	Wes Brown (919) 883-7182 (M)
Marsico Hall (Day Tank)	2011	1,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel) Underground (Steel in Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Mary Ellen Jones Building (Generator Tank)	2006	4,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port	Interstitial Monitoring Port	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)

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TABLE 1
ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
Mary Ellen Jones Building (Day Tank)	2006	75	Heating Oil	Steel	Steel Outer Wall	Liquid Level Monitor High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
McColl Building (Generator Tank)	1997	335	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
McColl Building (Fire Pump Tank)	1997	130	Heating Oil	Steel	Steel Dike	Liquid Level Gauge Steel Basin	Visual Inspection of Tank and Dike	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
McGavran-Greenberg Hall (Generator Tank)	2022	2,256	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
McIver/Kenan/Alderman Residence Halls (Generator Tank)	2005	1,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
McLean Hall (Generator Tank)	1998	200	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Medical B Building (Generator Tank)	2011	500	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Memorial Hall (Generator Tank)	2005	125	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Morehead Chemistry Labs / Murray Hall (Generator Tank)	2009	5,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Monitor Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Morehead Chemistry Labs (Day Tank)	2009	150	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Morrison Residence Hall (Generator Tank)	2002	320	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Murray Hall (Day Tank)	2009	150	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)

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TABLE 1
ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
Neurosciences Research Building (Generator Tank)	2000	3,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Underground (Plastic in PVC)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Neurosciences Research Building (Day Tanks)	2000	100 per tank (2 tanks)	Heating Oil	Steel	Steel Outer Wall	Liquid Level Monitor High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Northeast Chiller Plant (Generator Tank)	2006	1,900	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Parker Residence Hall (Generator Tank)	1996	350	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Paul Green Theatre (Generator Tank)	2000	200	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Phillips Hall (Generator Tank)	1994	1,000	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Phillips Hall (Generator Tank)	2006	3,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Phillips Hall (Day Tank)	2006	150	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Physicians Office Building (Generator Tank)	2007	1,400	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Public Safety Building (Generator Tank)	2007	1,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve	Interstitial Monitoring Port	Aboveground (Copper) Aboveground (Copper in PVC)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Rams Head Center (Generator Tank)	2005	8,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual E-20 (2025)	Wes Brown (919) 883-7182 (M)
Rizzo Conference Center Steven D. Bell Hall (Generator Tank)	2016	800	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)

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TABLE 1
ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
School Leadership Development Center (Generator Tank)	2002	200	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Service Station (E85 Ethanol Tank)	2008	8,000	E85 Ethanol	Steel	Steel Outer Wall	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Underground (Plastic in PVC) Spill Cleanup Materials for Fuel Dispenser	Monthly Visual E-20 (2028)	Alice Moore (919) 883-9224 (M)
Service Station (New Oil Drums)	Replaced Monthly	55 per drum (Up to 3 drums)	Motor Oil	Steel	Service Station Building Oil/Water Separator	Not Applicable	Visual Inspection of Drums and Floor Surface	Aboveground (Hose) Aboveground (Copper)	Monthly Visual	Alice Moore (919) 883-9224 (M)
Service Station (New Oil Drums)	Replaced Monthly	55 per drum (Up to 4 drums)	Motor Oil	Steel	Service Station Building	Not Applicable	Visual Inspection of Drums and Floor Surface	None	Monthly Visual	Alice Moore (919) 883-9224 (M)
Tarrson Hall (Generator Tank)	1998	500	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Tate-Turner-Kuralt Building (Generator Tank)	1996	150	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Taylor Campus Health Services Building (Generator Tank)	2005	1,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port	Electronic Leak Detection	Aboveground (Steel) Underground (Copper in PVC) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Taylor Hall / MBRB (Generator Tank)	2000	8,000	Heating Oil	Steel	ConVault Enclosure	Liquid Level Gauge Spill Container at Fill Port Overfill Prevention Valve High Level Alarm	Electronic Leak Detection	Aboveground (Steel) Underground (Copper in PVC) Underground (Plastic in PVC) Spill Cleanup Materials for Aboveground Piping	Weekly Visual E-20 (2020)	Wes Brown (919) 883-7182 (M)
Taylor Hall / MBRB (Day Tank)	2000	350	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Shutoff	Electronic Leak Detection	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)
Thurston-Bowles Building (Generator Tank)	1994	2,000	Heating Oil	Steel	Concrete Dike	Liquid Level Gauge	Visual Inspection of Tank and Dike	Aboveground (Steel) Spill Cleanup Materials for Aboveground Piping	Weekly Visual	Wes Brown (919) 883-7182 (M)
Thurston-Bowles Building (Day Tank)	1994	100	Heating Oil	Steel	Spill Blocker Berm for Generator Room	Liquid Level Gauge High Level Shutoff High-High Level (Fuel Return)	Visual Inspection of Tank and Floor Surface	Aboveground (Steel)	Weekly Visual	Wes Brown (919) 883-7182 (M)

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TABLE 1
ABOVEGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Overfill Prevention and Containment Devices	Leak Detection	Oil Transfer Piping/Hose	Inspection Schedule	Facility Tank Manager
Van Hecke-Wettach Hall (Generator Tank)	1998	150	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)
Wilson Library (Generator Tank)	2011	366	Heating Oil	Steel	Steel Outer Wall	Liquid Level Gauge High Level Alarm	Electronic Leak Detection	Generator on Tank	Weekly Visual	Wes Brown (919) 883-7182 (M)

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TABLE 2
UNDERGROUND STORAGE TANKS

Tank Identification	Date Installed	Volume (Gallons)	Tank Contents	Primary Tank Material	Secondary Containment	Oil Transfer Piping	Cathodic Protection		Overfill Prevention and Containment Devices	Leak Detection	Inspection Schedule	Emergency Contact
							Tank	Piping				
EPA Building (Generator Tank)	1995	6,000	Heating Oil	FRP	FRP	Aboveground (Steel) Underground (Copper in PVC)	NA	NA	Liquid Level Gauge (not at fill location) Spill/Overfill Container Overfill Prevention Valve	Observation Wells	Monthly (Aboveground)	Kaitlin Hartman (919) 541-3310 (W) EPA BAS (24-Hour) (919) 541-5783

Notes:
FRP = Fiberglass-Reinforced Plastic.
NA = Not Applicable.

TABLE 3
TRANSFORMERS

Facility ID	Location Description	Rated KVA	Type	Estimated Volume (Gallons)	Date Installed	Creek Name	Outfall Name
3805	104 and 106 Bernard St	15	POLE MOUNT CSP	12	04/10/13	Meeting of the Waters	Smith Center
2328	206 and 210 Branson St	50	POLE MOUNT CSP	50	07/12/68	Meeting of the Waters	Smith Center
2689	211 BRANSON ST	50	POLE MOUNT CSP	50	12/01/69	Meeting of the Waters	Smith Center
2707	211 BRANSON ST	50	POLE MOUNT CSP	50	12/01/69	Meeting of the Waters	Smith Center
4636	211 BRANSON ST	50	POLE MOUNT CSP	33	09/17/97	Meeting of the Waters	Smith Center
2242	214 and 216 Branson St	50	POLE MOUNT CSP	50	01/01/01	Meeting of the Waters	Smith Center
4967	300 Mason Farm Rd, Odum Village	15	POLE MOUNT CSP	15	02/07/14	Edmond Jones Branch	South of Grounds
4857	540 PAUL HARDIN RAM VILLAGE	500	PAD MOUNT DEAD LOOP	220	01/13/06	Meeting of the Waters	Smith Center
4220	609 and 611 Hibbard Dr, 101 and 102 Bernard Dr	38	POLE MOUNT CSP	28	04/11/13	Meeting of the Waters	Smith Center
4716	617 ODUM VILLAGE	100	POLE MOUNT CSP	41	01/09/03	Meeting of the Waters	Smith Center
2448	ABERNATHY	150	PAD MOUNT LIVE RADIAL	100-200	03/07/68	Tanbark Branch	Caldwell St Ext Crossing
4913	ACC Food Service (Courtyard Cafe)	150	PAD MOUNT DEAD LOOP	125	03/12/12	Edmond Jones Branch	South of Grounds
4459	ACKLAND	225	PAD MOUNT LIVE RADIAL	150	10/21/80	Mill Race Branch	East of Cobb Terrace
4577	Airport Drive near MLK Jr intersection	15	POLE MOUNT CSP	15	05/30/03	Cole Springs Branch	Kudzu Canyon
4799	ALDERMAN DORM	300	PAD MOUNT DEAD LOOP	201	03/24/04	Battle Branch	Battle Creek-Forest Theatre
4764	Alexander Res Hall	300	PAD MOUNT DEAD LOOP	182	05/19/05	Meeting of the Waters	Boshamer
2446	ALUMNI BLDG	150	PAD MOUNT LIVE LOOP	100-200	10/08/69	Battle Branch	Battle Creek-Forest Theatre
4629	AMBULATORY CARE CENTER	1500	PAD MOUNT DEAD LOOP	395	10/23/91	Edmond Jones Branch	South of Grounds
4866	Ambulatory Patient Care Facility South	1500	PAD MOUNT DEAD LOOP	432	01/08/08	Meeting of the Waters	South of ACC
4978	Ambulatory Patient Care Facility South ('Bed Tower')	1500	PAD MOUNT DEAD LOOP	479	08/19/13	Meeting of the Waters	South of ACC
4532	ANDERSON PAVILION	1500	PAD MOUNT LIVE RADIAL	300-650	05/05/85	Meeting of the Waters	South of ACC
5005	Animal Shelter Dr.	50		50	Unknown	Booker Creek	Crow Branch Creek
5006	Animal Shelter Drive, feeds Carolina North Transportation Admin and Operations buildings	50		21	Unknown	Booker Creek	Crow Branch Creek
5007	Animal Shelter Drive, feeds Carolina North Transportation Admin and Operations buildings	50		21	Unknown	Booker Creek	Crow Branch Creek
5008	Animal Shelter Drive, feeds Carolina North Transportation Admin and Operations buildings	50		36	Unknown	Booker Creek	Crow Branch Creek
4958	Art Studio	75	PAD MOUNT DEAD LOOP	98	05/19/14	Cole Springs Branch	Kudzu Canyon
4685	ART STUDIO/AOB	750	PAD MOUNT DEAD LOOP	375	08/23/03	Cole Springs Branch	Kudzu Canyon
4971	At EHS for Facilities Parking lot lights and bus charger	50	MINIPAK DEAD RADIAL	33	04/17/14	Cole Springs Branch	Kudzu Canyon
4837	AT KENAN LABS BUT FEEDS CAUDILL LABS	2500	PAD MOUNT DEAD RADIAL	528	04/27/05	Meeting of the Waters	Boshamer
2291	AVERY DORM	500	PAD MOUNT LIVE RADIAL	200-300	10/01/78	Meeting of the Waters	Boshamer
4590	AYCOCK FAMILY MEDICINE	750	PAD MOUNT DEAD RADIAL	295	12/01/89	Meeting of the Waters	Meeting of the Waters 15-501
4803	Baity Hill 1101 Mason Farm Road	500	PAD MOUNT DEAD LOOP	243	05/26/05	Meeting of the Waters	Meeting of the Waters 15-501
4838	Baity Hill 1351 Mason Farm Road	750	PAD MOUNT DEAD LOOP	369	05/26/05	Meeting of the Waters	Meeting of the Waters 15-501
4842	Baity Hill 1401 Mason Farm Road	750	PAD MOUNT DEAD LOOP	369	08/01/05	Meeting of the Waters	Meeting of the Waters 15-501
4843	BAITY HILL 1501 Mason Farm Rd	750	PAD MOUNT DEAD LOOP	369	08/01/05	Meeting of the Waters	Meeting of the Waters 15-501
4826	Baity Hill 1600 Baity Hill Dr	750	PAD MOUNT DEAD LOOP	385	12/06/04	Meeting of the Waters	Meeting of the Waters 15-501
4863	Baity Hill 1700 Baity Hill Dr	750	PAD MOUNT DEAD LOOP	358	06/16/05	Meeting of the Waters	Meeting of the Waters 15-501
4840	Baity Hill 1800 Baity Hill Dr	750	PAD MOUNT DEAD LOOP	385	12/02/05	Meeting of the Waters	Meeting of the Waters 15-501
4839	Baity Hill 1900 Baity Hill Dr	750	PAD MOUNT DEAD LOOP	369	12/02/05	Meeting of the Waters	Meeting of the Waters 15-501
4841	Baity Hill 2000 Baity Hill Dr	750	PAD MOUNT DEAD LOOP	369	12/02/05	Meeting of the Waters	Meeting of the Waters 15-501
4801	BAITY HILL HOUSE	300	PAD MOUNT DEAD LOOP	201	12/02/04	Meeting of the Waters	Meeting of the Waters 15-501
4681	BATTLE HALL	300	PAD MOUNT DEAD LOOP	209	12/05/00	Mill Race Branch	East of Cobb Terrace
4748	BEARD HALL	750	PAD MOUNT DEAD LOOP	340	09/22/01	Meeting of the Waters	Boshamer
4818	BELL TOWER	50	MINIPAK DEAD LOOP	50	08/01/04	Meeting of the Waters	Boshamer
3424	Berryhill Hall inside building	1000	PAD MOUNT LIVE RADIAL	250-550	09/01/71	Meeting of the Waters	Boshamer
3425	Berryhill Hall inside building	1000	PAD MOUNT LIVE RADIAL	250-550	09/14/71	Meeting of the Waters	Boshamer
4594	BETWEEN MED B & SOUTH CHILLER	300	PAD MOUNT DEAD LOOP	184	11/03/04	Edmond Jones Branch	South of Grounds
3027	Bingham and Greenlaw	750	PAD MOUNT LIVE RADIAL	250-400	04/02/70	Meeting of the Waters	Boshamer
4759	BIOINFORMATICS	750	PAD MOUNT DEAD LOOP	250-400	06/14/02	Edmond Jones Branch	South of Grounds
4780	BIOINFORMATICS	750	PAD MOUNT DEAD LOOP	250-400	06/14/02	Edmond Jones Branch	South of Grounds
4789	Bondurant Hall	1000	PAD MOUNT DEAD LOOP	462	02/15/05	Meeting of the Waters	Boshamer
4930	Boshamer stadium	1500	PAD MOUNT DEAD LOOP	580	11/07/08	Meeting of the Waters	Boshamer

TABLE 3
TRANSFORMERS

Facility ID	Location Description	Rated KVA	Type	Estimated Volume (Gallons)	Date Installed	Creek Name	Outfall Name
4880	Botanical Garden Visitor Education Center	300	PAD MOUNT DEAD LOOP	157	11/25/08	Meeting of the Waters	Meeting of the Waters
3851	BRINKHOUS-BULLITT	1000	PAD MOUNT LIVE RADIAL	240	01/11/73	Meeting of the Waters	Boshamer
3852	BRINKHOUS-BULLITT	1000	PAD MOUNT LIVE RADIAL	240	01/01/73	Meeting of the Waters	Boshamer
3853	BRINKHOUS-BULLITT	1500	PAD MOUNT LIVE RADIAL	360	01/11/73	Meeting of the Waters	Boshamer
4834	BURNETT WOMACK	2500	PAD MOUNT DEAD LOOP	528	03/03/05	Meeting of the Waters	Smith Center
4767	BURNETT-WOMACK	300	PAD MOUNT DEAD LOOP	201	03/03/05	Meeting of the Waters	Smith Center
2447	CALDWELL HALL	150	PAD MOUNT DEAD LOOP	100-200	09/20/67	Battle Branch	Battle Creek-Forest Theatre
4858	Cameron Sub special projects	50	MINIPAK DEAD LOOP	49	05/07/08	Pritchard Branch	South of Cogen
4914	CAMERON SUBSTATION	150	PAD MOUNT DEAD LOOP	125	05/07/08	Pritchard Branch	South of Cogen
4350	CARDINAL PARKING DECK HEALTH AFFAIRS EMPLOYEES ENTRANCE	300	PAD MOUNT LIVE RADIAL	150-225	03/20/75	Meeting of the Waters	Smith Center
4487	CARDINAL PARKING DECK HEALTH AFFAIRS VISITOR'S PARKING	225	PAD MOUNT LIVE RADIAL	150	05/11/79	Meeting of the Waters	Smith Center
4813	Carmichael Auditorium	500	PAD MOUNT DEAD LOOP	224	06/04/09	Meeting of the Waters	Boshamer
4916	Carmichael Auditorium	750	PAD MOUNT DEAD LOOP	330	12/08/08	Meeting of the Waters	Boshamer
4702	CARMICHAEL DORM	500	PAD MOUNT DEAD LOOP	271	05/27/99	Meeting of the Waters	Boshamer
4645	Carolina North, Municipal Dr., Carolina Conduit laydown yard	10	POLE MOUNT CSP	10	12/21/11	Booker Creek	Crow Branch Creek
4625	Carolina Hall (Saunders), also feeds Bynum and Steele, wo863836	500	PAD MOUNT DEAD LOOP	251	01/14/13	Battle Branch	Battle Creek-Forest Theatre
4593	CAROLINA INN	750	PAD MOUNT DEAD LOOP	250-400	09/10/94	Tanbark Branch	Caldwell St Ext Crossing
5004	Carolina North	25		20	Unknown	Crow Branch	Crow Branch Creek
4997	Carolina North Garage 1, also feeds land office and street dept. building	50		50	Unknown	Crow Branch	Crow Branch Creek
4998	Carolina North Garage 1, also feeds land office and street dept. building	50		18	Unknown	Crow Branch	Crow Branch Creek
4999	Carolina North Garage 1, also feeds land office and street dept. building	50		18	Unknown	Crow Branch	Crow Branch Creek
4995	Carolina North Garage 2	50		50	Unknown	Crow Branch	Crow Branch Creek
4788	CARRINGTON HALL	750	PAD MOUNT DEAD LOOP	397	07/09/03	Meeting of the Waters	Boshamer
4774	Carroll	500	PAD MOUNT DEAD LOOP	224	01/23/08	Meeting of the Waters	Boshamer
4980	Chapman Golf Team Facility	150	PAD MOUNT DEAD LOOP	157	01/12/15	Finley GC Unnamed Trib	Morgan Creek
4849	Chapman Hall	2500	PAD MOUNT DEAD LOOP	528	04/12/05	Meeting of the Waters	Boshamer
4618	CHI PHI FRAT	75	PAD MOUNT DEAD LOOP	75-200	04/01/05	Meeting of the Waters	Boshamer
4581	CHYDARU	25	POLE MOUNT CSP	20	03/28/90	Lower Morgan Floodplain North	Morgan Creek
4610	Chydaru Aviary	30	POLE MOUNT CONV	25	10/15/07	Finley GC Unnamed Trib	Morgan Creek
4707	CHYDARU HAZARDOUS WASTE MONITORING STATION SITE	25	POLE MOUNT CSP	18	02/28/03	Lower Morgan Floodplain North	Morgan Creek
4709	CHYDARU HAZARDOUS WASTE MONITORING STATION SITE	25	POLE MOUNT CSP	18	06/25/99	Lower Morgan Floodplain North	Morgan Creek
4426	Clinic Wing Building	750	PAD MOUNT LIVE RADIAL	250-400	01/01/65	Meeting of the Waters	Smith Center
4805	COBB HALL	500	PAD MOUNT DEAD LOOP	243	06/09/05	Battle Branch	Battle Creek-Forest Theatre
4753	Cogen Black Start - near entrance to Gore Admin Building	2000	PAD MOUNT DEAD LOOP	500-600	02/12/02	Pritchard Branch	South of Cogen
4754	Cogen Black Start near Gore Admin Building	5000	PAD MOUNT DEAD LOOP	760	02/12/02	Pritchard Branch	South of Cogen
4591	COGEN FIRE PUMP	300	PAD MOUNT DEAD LOOP	150-225	02/17/93	Pritchard Branch	South of Cogen
4926	Cogen tunnel at railhead	75	PAD MOUNT DEAD LOOP	129	12/10/08	Pritchard Branch	South of Cogen
4730	COKER HALL	500	PAD MOUNT DEAD LOOP	255	03/11/03	Meeting of the Waters	Boshamer
4630	CONE KENFIELD INDOOR TENNIS CENTER	750	PAD MOUNT DEAD RADIAL	295	10/23/91	Friday Center Unnamed Trib	Cone Kenfield Tennis Facility
4797	CONNOR DORM	300	PAD MOUNT DEAD LOOP	201	04/30/03	Meeting of the Waters	Boshamer
4595	CRAIGE DORM	500	PAD MOUNT DEAD LOOP	220	06/06/95	Meeting of the Waters	Smith Center
4738	Craige North	750	PAD MOUNT DEAD LOOP	350	11/15/01	Meeting of the Waters	Smith Center
4820	Craige North Telecom room	75	MINIPAK DEAD RADIAL	75	12/16/04	Meeting of the Waters	Smith Center
4946	Craige Parking Deck	500	PAD MOUNT DEAD LOOP	207	12/13/13	Meeting of the Waters	Smith Center
4547	DANIELS BLDG	750	PAD MOUNT LIVE RADIAL	250-400	11/14/86	Meeting of the Waters	Boshamer
4993	Davie Hall	300	PAD MOUNT	183	09/03/15	Battle Branch	Battle Creek-Forest Theatre
4510	DAVIS LIBRARY	2500	PAD MOUNT LIVE RADIAL	586	07/20/82	Meeting of the Waters	Boshamer
4695	DAY CARE	75	PAD MOUNT DEAD LOOP	121	06/17/98	Friday Center Unnamed Trib	South of Friday Center
4553	DEAN SMITH CENTER	750	PAD MOUNT DEAD LOOP	400	05/08/96	Meeting of the Waters	Smith Center
4554	DEAN SMITH CENTER	750	PAD MOUNT DEAD RADIAL	400	05/08/96	Meeting of the Waters	Smith Center
4676	DEAN SMITH CENTER	750	PAD MOUNT DEAD LOOP	377	04/01/98	Meeting of the Waters	Smith Center
4720	DEAN SMITH CENTER	500	PAD MOUNT DEAD LOOP	225	04/23/03	Meeting of the Waters	Smith Center

TABLE 3
TRANSFORMERS

Facility ID	Location Description	Rated KVA	Type	Estimated Volume (Gallons)	Date Installed	Creek Name	Outfall Name
4732	DENTAL SCHOOL	300	PAD MOUNT DEAD LOOP	223	03/24/03	Meeting of the Waters	Smith Center
4854	Dey Hall to feed lights in Polk	50	MINIPAK DEAD LOOP	49	09/26/06	Meeting of the Waters	Boshamer
1740	Dey Hall vault	100	CONV RADIAL LIVE	40-200	10/01/64	Meeting of the Waters	Boshamer
1743	Dey Hall vault	100	CONV RADIAL LIVE	40-200	10/01/64	Meeting of the Waters	Boshamer
4714	Dey Hall vault	100	POLE MOUNT CSP	41	01/21/16	Meeting of the Waters	Boshamer
4972	Dogwood Deck Walkway - feeds hospital lights and Hospital Dr traffic lights	50	MINIPAK DEAD RADIAL	33	07/11/14	Meeting of the Waters	Smith Center
4682	DOGWOOD PARKING DECK	300	PAD MOUNT DEAD LOOP	207	03/02/99	Meeting of the Waters	Smith Center
4657	East Chiller Plant	300	PAD MOUNT DEAD LOOP	164	12/07/12	Meeting of the Waters	Smith Center
4586	EDDIE SMITH INDOOR TRACK	750	PAD MOUNT DEAD LOOP	250-400	05/30/01	Meeting of the Waters	Boshamer
4622	EDDIE SMITH INDOOR TRACK	300	PAD MOUNT DEAD RADIAL	150-225	03/12/02	Meeting of the Waters	Boshamer
4624	EHRINGHAUS DORM	500	PAD MOUNT DEAD LOOP	251	06/10/96	Meeting of the Waters	Meeting of the Waters 15-501
4503	EHRINGHAUS INTRAMURAL FIELD	75	MINIPAK DEAD RADIAL	75-200	09/01/92	Meeting of the Waters	Boshamer
4584	EHRINGHAUS INTRAMURAL FIELD	75	PAD MOUNT DEAD RADIAL	75-200	09/01/92	Meeting of the Waters	Boshamer
4777	EHS BLDG	300	PAD MOUNT DEAD RADIAL	182	12/21/05	Cole Springs Branch	Kudzu Canyon
5000	EHS Ground Water Treatment	15		12	Unknown	Crow Branch	Crow Branch Creek
5001	EHS Ground Water Treatment	15		12	Unknown	Crow Branch	Crow Branch Creek
5002	EHS Ground Water Treatment	15		15	Unknown	Crow Branch	Crow Branch Creek
4959	Electric Distribution Operations Center	75	PAD MOUNT DEAD LOOP	98	03/12/14	Cole Springs Branch	Kudzu Canyon
4642	ELECTRIC DISTRIBUTION SHED	10	POLE MOUNT CSP	10	06/07/95	Elkin Hills-Colonial Hts Unnamed Trib	Kudzu Canyon
4824	Energy Services	150	PAD MOUNT DEAD LOOP	181	09/28/06	Cole Springs Branch	Kudzu Canyon
4654	EPA BLDG	2000	PAD MOUNT DEAD LOOP	500-600	09/24/93	Edmond Jones Branch	South of Grounds
4655	EPA BLDG	2000	PAD MOUNT DEAD LOOP	500-600	09/24/93	Edmond Jones Branch	South of Grounds
4651	EPA TRAILERS	25	POLE MOUNT CSP	18	05/23/05	Edmond Jones Branch	South of Grounds
4652	EPA TRAILERS	25	POLE MOUNT CSP	18	05/23/05	Edmond Jones Branch	South of Grounds
4653	EPA TRAILERS	25	POLE MOUNT CSP	18	05/23/05	Edmond Jones Branch	South of Grounds
4557	ESTES DR COMMUTER PARKING LOT	25	POLE MOUNT CSP	20	05/12/89	North Haven - Elkin Hills Unnamed Trib	Crow Branch Creek
4859	Everett Dorm	75	MINIPAK DEAD LOOP	75	04/06/10	Battle Branch	Battle Creek-Forest Theatre
4901	FACILITIES CHILLER	1500	PAD MOUNT DEAD LOOP	435	05/11/07	Cole Springs Branch	Kudzu Canyon
4776	Facilities Services Shop	500	PAD MOUNT DEAD LOOP	224	06/27/05	Cole Springs Branch	Kudzu Canyon
4501	FETZER GYM	1500	PAD MOUNT LIVE RADIAL	300-650	08/26/80	Meeting of the Waters	Boshamer
4728	Finley Club House	150	PAD MOUNT DEAD RADIAL	141	08/09/00	Morgan Creek	Morgan Creek
4649	FINLEY GOLF COURSE IRRIGATION PUMPS AND CONTROLS	10	POLE MOUNT CSP	10	07/27/01	Morgan Creek	Morgan Creek
4705	FINLEY GOLF COURSE MAINTENANCE AND SNACK BAR	25	POLE MOUNT CSP	18	09/23/99	Morgan Creek	Morgan Creek
4708	FINLEY GOLF COURSE MAINTENANCE AND SNACK BAR	25	POLE MOUNT CSP	18	09/23/99	Morgan Creek	Morgan Creek
4710	FINLEY GOLF COURSE MAINTENANCE AND SNACK BAR	25	POLE MOUNT CSP	18	09/23/99	Morgan Creek	Morgan Creek
4607	FINLEY GOLF COURSE PICKUP STATION AT THE CREEK	30	POLE MOUNT CSP	25	03/25/99	Morgan Creek	Morgan Creek
4587	FINLEY GOLF COURSE PUMP HOUSE	150	PAD MOUNT DEAD LOOP	100-200	03/30/99	Finley GC Unnamed Trib	Morgan Creek
4608	FINLEY GOLF COURSE WELL AND GREENHOUSE	50	POLE MOUNT CSP	50	03/23/90	Morgan Creek	Morgan Creek
4875	Finley Golf Course, green #12 fan	75	MINIPAK DEAD LOOP	75	04/21/11	Chapel Creek	Morgan Creek
4421	FINLEY GOLF MAINT SHED	150	POLE MOUNT CSP	100-200	09/09/81	Morgan Creek	Morgan Creek
4179	FINLEY SOFTBALL FIELD	38	POLE MOUNT CSP	28	01/22/97	Chapel Creek	Chapel Creek
4597	FORDHAM HALL	1500	PAD MOUNT DEAD LOOP	350	01/31/90	Meeting of the Waters	Boshamer
4948	Frank Porter Graham Student Union	1000	PAD MOUNT DEAD LOOP	269	12/27/11	Meeting of the Waters	Boshamer
4786	FRIDAY CENTER	750	PAD MOUNT DEAD LOOP	397	07/31/15	Friday Center Unnamed Trib	South of Friday Center
4952	Friday Center	1500	PAD MOUNT DEAD LOOP	476	05/22/12	Friday Center Unnamed Trib	South of Friday Center
4611	FRIDAY CENTER LIGHTS	15	POLE MOUNT CSP	15	11/29/90	Friday Center Unnamed Trib	South of Friday Center
4736	FRIDAY CENTER PARK & RIDE PARKING LOT	50	MINIPAK DEAD LOOP	51	09/18/02	Friday Center Unnamed Trib	South of Friday Center
4796	GARDNER HALL	300	PAD MOUNT DEAD LOOP	201	10/20/05	Meeting of the Waters	Boshamer
4628	General Administration Chiller	500	PAD MOUNT DEAD LOOP	251	09/08/15	Chapel Creek	Chapel Creek
4961	General Storeroom, also feeds Service Station	300	PAD MOUNT DEAD LOOP	122	04/05/14	Cole Springs Branch	Kudzu Canyon
4953	Genetic Medicine	2500	PAD MOUNT DEAD LOOP	535	03/19/12	Edmond Jones Branch	South of Grounds
4945	Genetic Medicine Research	2500	PAD MOUNT DEAD LOOP	650	02/16/10	Edmond Jones Branch	South of Grounds

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Facility ID	Location Description	Rated KVA	Type	Estimated Volume (Gallons)	Date Installed	Creek Name	Outfall Name
4933	Genomic Sciences	1500	PAD MOUNT DEAD LOOP	527	04/05/11	Meeting of the Waters	Boshamer
4934	Genomic Sciences	1500	PAD MOUNT DEAD LOOP	527	03/30/11	Meeting of the Waters	Boshamer
4740	George Moses Horton Residence Hall	750	PAD MOUNT DEAD LOOP	350	11/28/01	Meeting of the Waters	Smith Center
4815	GERRARD HALL	50	MINIPAK DEAD LOOP	49	02/19/04	Meeting of the Waters	Boshamer
4551	GILES F HORNEY BLDG	300	PAD MOUNT DEAD LOOP	150-225	03/03/88	Cole Springs Branch	Kudzu Canyon
4960	Giles F. Horney Building	150	PAD MOUNT DEAD LOOP	104	04/23/14	Cole Springs Branch	Kudzu Canyon
4572	Glaxo	300	PAD MOUNT DEAD RADIAL	1300	06/30/10	Edmond Jones Branch	South of Grounds
4790	Global Education	1500	PAD MOUNT DEAD LOOP	466	10/30/06	Meeting of the Waters	Boshamer
4662	GRAHAM DORM also feeds Aycock	300	PAD MOUNT DEAD LOOP	167	04/09/98	Battle Branch	Battle Creek-Forest Theatre
4660	Graham Memorial	150	PAD MOUNT DEAD LOOP	107	06/15/15	Mill Race Branch	South of Graham
4990	Grimes Res Hall	75	PAD MOUNT DEAD LOOP	158	08/07/15	Battle Branch	Battle Creek-Forest Theatre
4694	Grounds and Med B	75	PAD MOUNT DEAD LOOP	121	04/05/07	Edmond Jones Branch	South of Grounds
4650	Grounds gas pumps	10	POLE MOUNT CSP	10	05/23/05	Edmond Jones Branch	South of Grounds
4560	Grounds Maintenance	25	POLE MOUNT CSP	16	02/06/14	Edmond Jones Branch	South of Grounds
4775	Hamilton Hall	500	PAD MOUNT DEAD LOOP	224	06/15/07	Battle Branch	Battle Creek-Forest Theatre
4504	HANES ART CENTER	750	PAD MOUNT LIVE RADIAL	370	08/11/81	Mill Race Branch	East of Cobb Terrace
4887	Hanes Hall	300	PAD MOUNT DEAD LOOP	190	04/09/08	Meeting of the Waters	Boshamer
4706	Hazardous waste monitor station	25	POLE MOUNT CSP	18	02/28/03	Lower Morgan Floodplain North	Morgan Creek
4787	Health Sciences Library	750	PAD MOUNT DEAD LOOP	397	04/30/03	Meeting of the Waters	Smith Center
4659	HEDRICK BLDG	1500	PAD MOUNT DEAD RADIAL	300-650	06/20/94	Lower Morgan Floodplain North	Morgan Creek
3164	Hedrick Building Park and Ride	25	POLE MOUNT CONV	20	09/05/06	Friday Center Unnamed Trib	Morgan Creek
0036	Hedrick Building parking lot	15	POLE MOUNT CSP	15	11/11/75	Friday Center Unnamed Trib	Morgan Creek
3077	HIBBARD DR	50	POLE MOUNT CSP	50	11/09/07	Meeting of the Waters	Smith Center
4234	HIBBARD DR	10	POLE MOUNT CSP	10	11/12/07	Meeting of the Waters	Smith Center
4821	HIBBARD DR POLE P019	25	POLE MOUNT CSP	18	08/09/04	Edmond Jones Branch	Smith Center
4816	Hickerson House, also feeds Love House and Presidents Garage Apartment	50	MINIPAK DEAD LOOP	49	03/21/13	Battle Branch	Battle Creek-Forest Theatre
4810	Hill Hall	300	PAD MOUNT DEAD LOOP	182	12/21/15	Mill Race Branch	East of Cobb Terrace
4860	Hinton James	750	PAD MOUNT DEAD LOOP	358	05/14/08	Meeting of the Waters	Smith Center
4673	Homestead Substation service	75	PAD MOUNT DEAD RADIAL	108	09/21/12	Booker Creek	Booker Creek
4512	HOOKER FIELD	25	MINIPAK DEAD RADIAL	20	09/11/90	Meeting of the Waters	Boshamer
4833	HOOKER RESEARCH CTR	2500	PAD MOUNT DEAD LOOP	528	03/24/04	Meeting of the Waters	Smith Center
4712	Horizon Day Care, Chapel Hill North	50	POLE MOUNT CSP	31	05/23/05	Crow Branch	Crow Branch Creek
4486	Hospital Chiller Plant #2	2000	PAD MOUNT LIVE RADIAL	600	06/04/80	Meeting of the Waters	Smith Center
4518	Hospital Chiller Plant #2	1000	PAD MOUNT LIVE RADIAL	250-550	06/17/83	Meeting of the Waters	Smith Center
4922	Hospital Chiller Plant 1, Chiller 1	2500	PAD MOUNT DEAD LOOP	506	02/23/07	Meeting of the Waters	Smith Center
4921	Hospital Chiller Plant 1, Chiller 2	2500	PAD MOUNT DEAD LOOP	506	02/23/07	Meeting of the Waters	Smith Center
4923	Hospital Chiller Plant 1, Chiller 3	2500	PAD MOUNT DEAD LOOP	506	02/23/07	Meeting of the Waters	Smith Center
4924	Hospital Chiller Plant 1, Chiller 4	2500	PAD MOUNT DEAD LOOP	506	02/23/07	Meeting of the Waters	Smith Center
4920	Hospital Chiller Plant 1, Control T-A	2500	PAD MOUNT DEAD LOOP	580	02/23/07	Meeting of the Waters	Smith Center
4919	Hospital Chiller Plant 1, Control T-B	2500	PAD MOUNT DEAD LOOP	580	02/23/07	Meeting of the Waters	Smith Center
4983	Hospital Infirmary	150	PAD MOUNT DEAD LOOP	159	09/24/15	Meeting of the Waters	Smith Center
4070	Hospital Paint Shop	150	PAD MOUNT LIVE RADIAL	100-200	02/27/76	Meeting of the Waters	Smith Center
4747	Howell Hall	150	PAD MOUNT DEAD LOOP	210	06/15/08	Battle Branch	Battle Creek-Forest Theatre
4335	HW AIRPORT AHEC HANGAR STORAGE	25	POLE MOUNT CSP	20	02/18/81	Cole Springs Branch	Kudzu Canyon
2620	HW AIRPORT PARKING LOT	25	POLE MOUNT CSP	20		Cole Springs Branch	Kudzu Canyon
14-850	INSIDE COGEN PLANT	Cogeneration Plant SPCC Plan				Pritchard Branch	South of Cogen
14-860	INSIDE COGEN PLANT	Cogeneration Plant SPCC Plan				Pritchard Branch	South of Cogen
15-850	INSIDE COGEN PLANT	Cogeneration Plant SPCC Plan				Pritchard Branch	South of Cogen
15-860	INSIDE COGEN PLANT	Cogeneration Plant SPCC Plan				Pritchard Branch	South of Cogen
18-850	INSIDE COGEN PLANT	Cogeneration Plant SPCC Plan				Pritchard Branch	South of Cogen
4750	ITS Manning	2500	PAD MOUNT DEAD LOOP	560	11/21/15	Meeting of the Waters	Smith Center
5017	ITS Manning	2500	PAD MOUNT DEAD LOOP	570	05/21/16	Meeting of the Waters	Smith Center

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Facility ID	Location Description	Rated KVA	Type	Estimated Volume (Gallons)	Date Installed	Creek Name	Outfall Name
5021	ITS Manning	2500	PAD MOUNT DEAD LOOP	570	05/21/16	Meeting of the Waters	Smith Center
4779	Jackson Circle Parking Deck	300	PAD MOUNT DEAD RADIAL	182	04/17/06	Meeting of the Waters	Smith Center
4763	JACKSON HALL	150	PAD MOUNT DEAD LOOP	141	02/24/03	Battle Branch	Battle Creek-Forest Theatre
4769	JOYNER DORM	500	PAD MOUNT DEAD LOOP	243	07/01/02	Battle Branch	Battle Creek-Forest Theatre
4809	Joyner Hall fire pump	300	PAD MOUNT DEAD LOOP	182	05/19/05	Meeting of the Waters	Boshamer
4541	KENAN CENTER	500	PAD MOUNT LIVE RADIAL	200-300	12/17/85	Meeting of the Waters	Smith Center
4574	KENAN DORM	300	PAD MOUNT DEAD LOOP	150-225	06/14/89	Battle Branch	Battle Creek-Forest Theatre
4672	KENAN DRIVE PARKING DECK	300	PAD MOUNT DEAD LOOP	150-225	03/09/96	Meeting of the Waters	Smith Center
1925	KENAN LABS	1500	PAD MOUNT LIVE RADIAL	445	08/28/95	Meeting of the Waters	Boshamer
3623	KENAN LABS	500	PAD MOUNT LIVE RADIAL	200-300	10/27/71	Meeting of the Waters	Boshamer
3624	KENAN LABS	500	PAD MOUNT LIVE RADIAL	200-300	10/27/71	Meeting of the Waters	Boshamer
4898	Kenan Music Building	2500	PAD MOUNT DEAD RADIAL	596	02/28/08	Tanbark Branch	Caldwell St Ext Crossing
4814	KENAN STADIUM NORTH	500	PAD MOUNT DEAD LOOP	224	08/09/09	Meeting of the Waters	Boshamer
4550	KENAN STADIUM NORTH GATE	300	PAD MOUNT DEAD LOOP	150-225	04/11/88	Meeting of the Waters	Boshamer
4665	KENAN STADIUM NORTH GATE	500	PAD MOUNT DEAD RADIAL	197	07/02/97	Meeting of the Waters	Boshamer
4802	KENAN STADIUM SOUTH	500	PAD MOUNT DEAD LOOP	243	07/31/09	Meeting of the Waters	Boshamer
4664	Kenan Stadium South Gate	500	PAD MOUNT DEAD RADIAL	197	09/09/15	Meeting of the Waters	Boshamer
4783	KENAN STADIUM SOUTH GATE 6 - TV	750	PAD MOUNT DEAD LOOP	385	08/05/02	Meeting of the Waters	Boshamer
4626	KENAN STADIUM WEST GATE	500	PAD MOUNT DEAD RADIAL	251	07/02/97	Meeting of the Waters	Boshamer
4743	Kerr Hall	750	PAD MOUNT DEAD LOOP	350	11/28/01	Meeting of the Waters	Boshamer
4749	KNAPP	750	PAD MOUNT DEAD LOOP	315	10/22/01	Meeting of the Waters	Boshamer
4633	KOURY NATATORIUM	500	PAD MOUNT DEAD LOOP	218	11/01/92	Meeting of the Waters	Smith Center
4949	Koury Oral Health Sciences, building 210A	2500	PAD MOUNT DEAD RADIAL	533	03/29/11	Meeting of the Waters	Smith Center
4927	Landfill Gas Generator feed	75	PAD MOUNT DEAD LOOP	129	01/03/13	Booker Creek	Crow Branch Creek
4935	Landfill Gas Generator feed out to Duke	1500	PAD MOUNT DEAD LOOP	527	01/03/13	Booker Creek	Crow Branch Creek
4703	LAUNDRY Cheek Clark	300	PAD MOUNT DEAD RADIAL	177	11/06/97	Pritchard Branch	South of Cogen
4500	LENOIR HALL	500	PAD MOUNT LIVE RADIAL	200-300	08/22/80	Meeting of the Waters	Boshamer
4794	Lenoir Hall	1000	PAD MOUNT DEAD LOOP	243	06/29/11	Meeting of the Waters	Boshamer
4281	LEWIS DORM	100	PAD MOUNT LIVE LOOP	40-200	05/11/92	Battle Branch	Battle Creek-Forest Theatre
4516	LINEBERGER	1000	PAD MOUNT LIVE RADIAL	250-550	06/03/83	Meeting of the Waters	Smith Center
4517	LINEBERGER	500	PAD MOUNT LIVE RADIAL	200-300	06/03/83	Meeting of the Waters	Smith Center
4940	Loudermilk Center for Excellence	2500	PAD MOUNT DEAD LOOP	652	04/20/11	Meeting of the Waters	Boshamer
4830	LOUDERMILK, MEADOWMONT	750	PAD MOUNT DEAD LOOP	397	02/05/04	Meadowmont Unnamed Trib	Little Creek
4804	MacNider Hall	500	PAD MOUNT DEAD LOOP	243	12/09/04	Meeting of the Waters	Smith Center
4985	Mangum and Manly Res Halls	150	PAD MOUNT DEAD LOOP	159	08/05/15	Battle Branch	Battle Creek-Forest Theatre
4538	MANNING DR PARKING LOT PK200 SKIPPER BOWLES DR	100	PAD MOUNT LIVE RADIAL	40-200	10/24/85	Meeting of the Waters	Meeting of the Waters 15-501
3674	MANNING DR WATER TOWER	150	PAD MOUNT LIVE RADIAL	100-200	08/21/04	Meeting of the Waters	Smith Center
4964	Manning Hall	300	PAD MOUNT DEAD LOOP	122	04/10/15	Battle Branch	Battle Creek-Forest Theatre
4847	MANNING STEAM PLANT	2500	PAD MOUNT DEAD LOOP	620	11/02/06	Meeting of the Waters	Smith Center
4931	Manning Steam Plant	2500	PAD MOUNT DEAD LOOP	735	10/24/07	Meeting of the Waters	Smith Center
4766	MANNING SUBSTATION	300	PAD MOUNT DEAD LOOP	201	06/24/05	Meeting of the Waters	Smith Center
4932	Marsico Hall, Biomedical Research Imaging Center	2500	PAD MOUNT DEAD LOOP	735	05/24/12	Meeting of the Waters	Smith Center
4943	Marsico Hall, Biomedical Research Imaging Center	2500	PAD MOUNT DEAD LOOP	614	05/24/12	Meeting of the Waters	Smith Center
4944	Marsico Hall, Biomedical Research Imaging Center	2500	PAD MOUNT DEAD LOOP	614	05/24/12	Meeting of the Waters	Smith Center
4917	Mary Ellen Jones - temp	750	PAD MOUNT DEAD LOOP	290	06/15/16	Meeting of the Waters	Smith Center
2757	MASON FM RD	50	POLE MOUNT CSP	50	12/31/69	Meeting of the Waters	Smith Center
4739	Maurice J. Koury Residence Hall	750	PAD MOUNT DEAD LOOP	350	11/21/01	Meeting of the Waters	Meeting of the Waters 15-501
4751	MBRB	1000	PAD MOUNT DEAD LOOP	250-550	10/26/01	Edmond Jones Branch	South of Grounds
4752	MBRB	1000	PAD MOUNT DEAD LOOP	250-550	10/26/01	Edmond Jones Branch	South of Grounds
4950	MBRB	2500	PAD MOUNT DEAD RADIAL	533	11/05/12	Edmond Jones Branch	South of Grounds
4688	MCCOLL	1500	PAD MOUNT DEAD LOOP	300-650	11/01/96	Meeting of the Waters	Smith Center
4918	McGavran-Greenberg	750	PAD MOUNT DEAD LOOP	279	12/16/15	Meeting of the Waters	Smith Center

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4800	MCIVER DORM	300	PAD MOUNT DEAD LOOP	150-225	03/24/04	Battle Branch	Battle Creek-Forest Theatre
4773	McLean chiller	500	PAD MOUNT DEAD LOOP	224	08/04/05	Meadowmont Unnamed Trib	Little Creek
4760	McLean Hall Addition	75	PAD MOUNT DEAD LOOP	128	08/04/05	Meadowmont Unnamed Trib	Little Creek
4981	McLean Hall expansion	500	PAD MOUNT	200-300	Unknown	Meadowmont Unnamed Trib	Little Creek
3082	MED B	300	PAD MOUNT LIVE RADIAL	150-225	10/16/73	Edmond Jones Branch	South of Grounds
4819	Med School building 52 off Mason Farm Rd	75	PAD MOUNT DEAD RADIAL	75	07/22/05	Edmond Jones Branch	South of Grounds
4623	MED School WINGS E & F	300	PAD MOUNT DEAD RADIAL	150-225	11/14/92	Meeting of the Waters	Boshamer
4513	Medical School Wings B, C, and D	500	PAD MOUNT LIVE RADIAL	200-300	04/01/85	Meeting of the Waters	Smith Center
4778	MEMORIAL HALL	300	PAD MOUNT DEAD LOOP	182	12/06/04	Meeting of the Waters	Boshamer
4785	MEMORIAL HALL	1500	PAD MOUNT DEAD LOOP	505	12/06/04	Meeting of the Waters	Boshamer
4701	MITCHELL HALL	300	PAD MOUNT DEAD RADIAL	169	08/15/00	Meeting of the Waters	Boshamer
4528	MOREHEAD CHEMISTRY LABS	750	PAD MOUNT LIVE RADIAL	250-400	09/01/85	Meeting of the Waters	Boshamer
4400	MOREHEAD PLANETARIUM	1000	PAD MOUNT LIVE RADIAL	250-550	Unknown	Battle Branch	Battle Creek-Forest Theatre
4573	MOREHEAD PLANETARIUM	300	PAD MOUNT DEAD LOOP	150-225	06/07/93	Battle Branch	Battle Creek-Forest Theatre
4864	MORRISON RESIDENCE HALL	750	PAD MOUNT DEAD LOOP	305	12/21/05	Meeting of the Waters	Boshamer
4996	Municipal Drive, May feed lights on drive	25		20	Unknown	Crow Branch	Crow Branch Creek
4770	MURPHEY HALL	500	PAD MOUNT DEAD LOOP	243	06/14/02	Meeting of the Waters	Boshamer
4897	Murray Hall and Venable	2500	PAD MOUNT DEAD LOOP	596	06/25/09	Meeting of the Waters	Boshamer
3676	NAVY FIELD	500	PAD MOUNT LIVE LOOP	200-300	08/19/74	Meeting of the Waters	Boshamer
4689	NAVY FIELD	150	PAD MOUNT LIVE RADIAL	134	06/05/98	Meeting of the Waters	Boshamer
4792	NC Cancer Hospital	1500	PAD MOUNT DEAD RADIAL	466	03/06/09	Meeting of the Waters	Smith Center
4928	NC Cancer Hospital	1000	PAD MOUNT DEAD LOOP	425	09/15/15	Meeting of the Waters	Smith Center
4929	NC Cancer Hospital	1000	PAD MOUNT DEAD LOOP	425	03/24/15	Meeting of the Waters	Smith Center
5010	NC Cancer Hospital	1000	PAD MOUNT DEAD LOOP	306	09/16/15	Meeting of the Waters	Smith Center
4658	NC Neurosciences Hospital	2500	PAD MOUNT DEAD LOOP	500-700	Unknown	Meeting of the Waters	Smith Center
4704	NCMH CHILLER #2 EXPANSION	1500	PAD MOUNT DEAD RADIAL	300-650	09/25/97	Meeting of the Waters	Smith Center
4956	NCMH CHILLER #2 EXPANSION	1500	PAD MOUNT DEAD LOOP	333	04/16/13	Meeting of the Waters	Smith Center
4637	NEAR GLOBAL EDUCATION	10	POLE MOUNT CSP	10	05/11/05	Meeting of the Waters	Boshamer
4666	Neuroscience Research Building	1000	PAD MOUNT DEAD LOOP	441	05/20/99	Meeting of the Waters	Smith Center
4697	Neuroscience Research Building	500	PAD MOUNT DEAD LOOP	271	05/20/99	Meeting of the Waters	Smith Center
4690	NEW EAST	150	PAD MOUNT DEAD LOOP	143	12/29/99	Battle Branch	Battle Creek-Forest Theatre
4825	NEW WEST BLDG	150	PAD MOUNT DEAD LOOP	181	02/13/06	Mill Race Branch	East of Cobb Terrace
4807	North Carolina Area Health Education Center	500	PAD MOUNT DEAD LOOP	243	12/02/08	Meeting of the Waters	Boshamer
4942	North Chiller Plant, Chiller 4 and 6	3750	PAD MOUNT DEAD LOOP	782	02/15/10	Meeting of the Waters	Boshamer
4941	North Chiller Plant, Chiller 5 and 7	3750	PAD MOUNT DEAD LOOP	782	02/15/10	Meeting of the Waters	Boshamer
4951	North Chiller Plant, Chillers 1,2, and 3	3000	PAD MOUNT DEAD RADIAL	700	02/22/11	Meeting of the Waters	Boshamer
4882	North Chiller Plant, feeds Bell Tower Deck	300	PAD MOUNT DEAD LOOP	191	02/15/10	Meeting of the Waters	Boshamer
4939	North Chiller Plant, MSWBD-1	2500	PAD MOUNT DEAD LOOP	652	02/15/10	Meeting of the Waters	Boshamer
4938	North Chiller Plant, MSWBD-2	2500	PAD MOUNT DEAD LOOP	652	02/15/10	Meeting of the Waters	Boshamer
4937	North Chiller Plant, MSWBD-3	2500	PAD MOUNT DEAD LOOP	652	02/15/10	Meeting of the Waters	Boshamer
4936	North Chiller Plant, MSWBD-4	2500	PAD MOUNT DEAD LOOP	652	02/15/10	Meeting of the Waters	Boshamer
4811	Northeast Chiller	500	PAD MOUNT DEAD LOOP	224	01/03/06	Battle Branch	Battle Creek-Forest Theatre
4850	Northeast Chiller	2500	PAD MOUNT DEAD LOOP	528	01/03/06	Battle Branch	Battle Creek-Forest Theatre
4852	Northeast Chiller	2500	PAD MOUNT DEAD LOOP	528	01/03/06	Battle Branch	Battle Creek-Forest Theatre
4869	Northeast Chiller	2500	PAD MOUNT DEAD LOOP	555	01/03/06	Battle Branch	Battle Creek-Forest Theatre
4870	Northeast Chiller	2500	PAD MOUNT DEAD LOOP	555	01/03/06	Battle Branch	Battle Creek-Forest Theatre
4871	Northeast Chiller	2500	PAD MOUNT DEAD LOOP	555	01/03/06	Battle Branch	Battle Creek-Forest Theatre
4876	Northeast Chiller	2500	PAD MOUNT DEAD LOOP	555	01/03/06	Battle Branch	Battle Creek-Forest Theatre
4877	Northeast Chiller	2500	PAD MOUNT DEAD LOOP	555	01/03/06	Battle Branch	Battle Creek-Forest Theatre
4795	NROTC BLDG	150	PAD MOUNT DEAD LOOP	141	03/01/04	Meeting of the Waters	Boshamer
4559	Odum Village 105, 107, 109 Bernard St.	25	POLE MOUNT CSP	16	02/21/13	Meeting of the Waters	Smith Center
3558	Odum Village 302,304,306,700,702	50	POLE MOUNT CSP	50	08/13/14	Edmond Jones Branch	South of Grounds

TABLE 3
TRANSFORMERS

Facility ID	Location Description	Rated KVA	Type	Estimated Volume (Gallons)	Date Installed	Creek Name	Outfall Name
4181	Odum Village 600 Hibbard/200 Branson	38	POLE MOUNT CSP	30	07/31/13	Meeting of the Waters	Smith Center
4968	Odum Village 701 and 703, 705 and 707	38	POLE MOUNT CSP	30	09/24/13	Edmond Jones Branch	Williamson Drive Crossing
4966	Odum Village 709 and 711 Hibbard	15	POLE MOUNT CSP	15	Unknown	Edmond Jones Branch	Williamson Drive Crossing
4644	Odum Village East Dr and Mason Farm Rd	10	POLE MOUNT CONV	10	06/12/07	Edmond Jones Branch	South of Grounds
4970	Odum Village, 219 Mason Farm Rd	38	POLE MOUNT CSP	30	06/01/15	Meeting of the Waters	Smith Center
4822	Odum Village, 223 Jackson Circle	25	POLE MOUNT CSP	18	06/01/15	Meeting of the Waters	Smith Center
2997	Odum Village, 223 Mason Farm Rd	50	POLE MOUNT CSP	50	06/01/15	Meeting of the Waters	Smith Center
4969	Odum Village, 225 Mason Farm Rd	38	POLE MOUNT CSP	30	06/01/15	Meeting of the Waters	Smith Center
4120	Odum Village, 237 Jackson Circle	50	POLE MOUNT CSP	50	06/01/15	Meeting of the Waters	Smith Center
4641	Odum Village, 306 Mason Farm Rd	10	POLE MOUNT CSP	10	08/13/08	Edmond Jones Branch	South of Grounds
4648	Odum Village, Branson St.	10	POLE MOUNT CSP	10	12/13/16	Meeting of the Waters	Smith Center
4620	OLD EAST	150	PAD MOUNT DEAD RADIAL	100-200	01/08/92	Battle Branch	Battle Creek-Forest Theatre
4182	Old Softball field	38	POLE MOUNT CSP	28	07/01/01	Chapel Creek	Chapel Creek
4621	OLD WEST	150	PAD MOUNT DEAD LOOP	100-200	03/01/92	Mill Race Branch	East of Cobb Terrace
4488	Patient Support Wing ('Burn Center')	1500	PAD MOUNT LIVE RADIAL	600	05/22/80	Meeting of the Waters	Smith Center
4489	Patient Support Wing ('Burn Center')	1500	PAD MOUNT LIVE RADIAL	600	05/22/80	Meeting of the Waters	Smith Center
4473	PAUL GREEN THEATRE	500	PAD MOUNT LIVE RADIAL	200-300	06/17/77	Battle Branch	Battle Creek-Forest Theatre
4679	PAUL GREEN THEATRE ADDITION	300	PAD MOUNT DEAD LOOP	209	06/05/98	Battle Branch	Battle Creek-Forest Theatre
4737	Paul Hardin	750	PAD MOUNT DEAD LOOP	350	11/21/01	Meeting of the Waters	Boshamer
4529	PAUL HARDIN RES HALL - MANNING DR STOP LT	25	MINIPAK DEAD LOOP	51	11/27/02	Meeting of the Waters	Boshamer
4536	PEABODY HALL	300	PAD MOUNT LIVE RADIAL	175	02/15/86	Meeting of the Waters	Boshamer
4619	PERSON HALL	75	PAD MOUNT DEAD RADIAL	75-200	03/01/92	Mill Race Branch	East of Cobb Terrace
4575	PHILLIPS HALL	750	PAD MOUNT DEAD RADIAL	250-400	03/06/89	Meeting of the Waters	Boshamer
4585	PHILLIPS HALL	500	PAD MOUNT DEAD RADIAL	200-300	12/18/89	Meeting of the Waters	Boshamer
4867	Physicians Office Building	1500	PAD MOUNT DEAD LOOP	432	08/22/07	Meeting of the Waters	Smith Center
4609	Physics and Astronomy Observatory	25	POLE MOUNT CSP	20	03/23/90	Morgan Creek	Morgan Creek
4853	Porthole Alley construction temporary	75	MINIPAK DEAD LOOP	75	12/12/16	Mill Race Branch	East of Cobb Terrace
4874	President's House	75	MINIPAK DEAD LOOP	75	03/21/13	Battle Branch	Battle Creek-Forest Theatre
4398	Public Relations Trailer 3	50	PAD MOUNT LIVE RADIAL	50	02/03/77	Meeting of the Waters	Boshamer
4680	PUBLIC SAFETY BLDG	300	PAD MOUNT DEAD LOOP	209	04/09/99	Meeting of the Waters	Smith Center
4746	QUAIL HILL CHANCELLOR'S HOUSE	75	PAD MOUNT DEAD LOOP	200	07/12/06	Chapel Creek	Chapel Creek
4976	Rams Head Center	2500	PAD MOUNT DEAD LOOP	539	02/14/14	Meeting of the Waters	Boshamer
4856	RAM'S VILLAGE 550 PAUL HARDIN DR	500	PAD MOUNT DEAD LOOP	220	01/12/06	Meeting of the Waters	Smith Center
4855	RAM'S VILLAGE 560 PAUL HARDIN DR	500	PAD MOUNT DEAD LOOP	220	01/12/06	Meeting of the Waters	Smith Center
4888	RAM'S VILLAGE-520 WILLIAMSON DR	750	PAD MOUNT DEAD LOOP	360	01/12/06	Meeting of the Waters	Smith Center
4731	RIZZO DUBOSE HOUSE	300	PAD MOUNT DEAD LOOP	223	02/07/00	Meadowmont Unnamed Trib	Little Creek
4718	RIZZO MCLEAN RESIDENT HALL	300	PAD MOUNT DEAD LOOP	179	06/21/99	Meadowmont Unnamed Trib	Little Creek
4744	ROSNEAU HALL	1000	PAD MOUNT DEAD LOOP	400	11/16/06	Meeting of the Waters	Smith Center
4991	Ruffin Res Hall	75		158	08/05/15	Battle Branch	Battle Creek-Forest Theatre
4719	SCHOOL OF LEADERSHIP	300	PAD MOUNT DEAD LOOP	179	09/05/00	Friday Center Unnamed Trib	South of Friday Center
4831	Sitterson Hall	750	PAD MOUNT DEAD RADIAL	397	10/10/06	Meeting of the Waters	Boshamer
4498	SKIPPER BOWLES DRIVE PARKING LOT LIGHTS AND STEAM MH SUMP PUMP	50	MINIPAK DEAD LOOP	50	06/29/04	Meeting of the Waters	Smith Center
4957	Smith Building	75	PAD MOUNT DEAD LOOP	98	12/18/12	Mill Race Branch	East of Cobb Terrace
4691	SOFTBALL COMPLEX	150	PAD MOUNT DEAD LOOP	143	12/13/01	Chapel Creek	Chapel Creek
4878	SOFTBALL COMPLEX	75	PAD MOUNT DEAD LOOP	133	10/19/05	Chapel Creek	Chapel Creek
4741	SONYA STONE CENTER	750	PAD MOUNT DEAD LOOP	350	10/29/03	Meeting of the Waters	Boshamer
4965	South Building	500	PAD MOUNT DEAD LOOP	197	01/29/13	Meeting of the Waters	Boshamer
3699	SOUTH CHILLER	500	PAD MOUNT LIVE LOOP	200-300	06/15/77	Edmond Jones Branch	South of Grounds
4430	SOUTH CHILLER	1500	PAD MOUNT LIVE RADIAL	300-650	01/01/76	Edmond Jones Branch	South of Grounds
4431	SOUTH CHILLER	1500	PAD MOUNT LIVE RADIAL	300-650	01/01/76	Edmond Jones Branch	South of Grounds
4481	SOUTH CHILLER	1500	PAD MOUNT LIVE RADIAL	300-650	01/01/77	Edmond Jones Branch	South of Grounds
4791	SOUTH CHILLER	1500	PAD MOUNT DEAD LOOP	466	03/30/04	Edmond Jones Branch	South of Grounds

TABLE 3
TRANSFORMERS

Facility ID	Location Description	Rated KVA	Type	Estimated Volume (Gallons)	Date Installed	Creek Name	Outfall Name
4133	South Chiller Annex	1500	PAD MOUNT LIVE RADIAL	300-650	02/26/02	Edmond Jones Branch	South of Grounds
4668	South Chiller Annex	1500	PAD MOUNT DEAD LOOP	300-650	11/09/94	Edmond Jones Branch	South of Grounds
4669	South Chiller Annex	1500	PAD MOUNT DEAD LOOP	300-650	11/09/94	Edmond Jones Branch	South of Grounds
4724	South Chiller Annex	2500	PAD MOUNT DEAD LOOP	547	02/26/02	Edmond Jones Branch	South of Grounds
4725	South Chiller Annex	2500	PAD MOUNT DEAD LOOP	547	06/28/00	Edmond Jones Branch	South of Grounds
4726	South Chiller Annex	1500	PAD MOUNT DEAD LOOP	631	06/28/00	Edmond Jones Branch	South of Grounds
4755	SOUTH CHILLER EXPANSION 3	2500	PAD MOUNT DEAD LOOP	547	02/11/02	Edmond Jones Branch	South of Grounds
4756	SOUTH CHILLER EXPANSION 3	2500	PAD MOUNT DEAD LOOP	547	02/11/02	Edmond Jones Branch	South of Grounds
4757	SOUTH CHILLER EXPANSION 3	2500	PAD MOUNT DEAD LOOP	547	02/11/02	Edmond Jones Branch	South of Grounds
4758	SOUTH CHILLER EXPANSION 3	2500	PAD MOUNT DEAD LOOP	547	02/11/02	Edmond Jones Branch	South of Grounds
4765	South Gate Kenan Stadium - well service and lights	300	PAD MOUNT DEAD LOOP	201	07/07/08	Meeting of the Waters	Boshamer
4865	South Substation	75	PAD MOUNT DEAD LOOP	133	04/07/10	Meeting of the Waters	Meeting of the Waters
4881	Spangler Center	300	PAD MOUNT DEAD LOOP	191	11/10/06	Chapel Creek	Chapel Creek
4886	Spangler Center Annex	300	PAD MOUNT DEAD LOOP	190	11/30/06	Chapel Creek	Chapel Creek
4988	Spencer Residence Hall	150	PAD MOUNT DEAD LOOP	159	07/29/15	Battle Branch	Battle Creek-Forest Theatre
4761	STACY DORM	150	PAD MOUNT DEAD LOOP	141	04/16/03	Battle Branch	Battle Creek-Forest Theatre
4963	Storage Facility, DEHS	150	PAD MOUNT DEAD LOOP	104	04/10/14	Cole Springs Branch	Kudzu Canyon
4862	Student Academic Services Building North	1500	PAD MOUNT DEAD RADIAL	465	11/10/06	Meeting of the Waters	Boshamer
4484	STUDENT HEALTH	750	PAD MOUNT LIVE RADIAL	250-400	01/01/75	Meeting of the Waters	Boshamer
4962	Surplus Warehouse	150	PAD MOUNT DEAD LOOP	104	04/11/14	Cole Springs Branch	Kudzu Canyon
4675	SWAIN HALL	150	PAD MOUNT DEAD LOOP	118	05/14/97	Tanbark Branch	Caldwell St Ext Crossing
4977	Tarrson and Brauer Hall	1500	PAD MOUNT	300-650	06/19/14	Meeting of the Waters	Smith Center
4667	Tate-Turner-Kuralt	500	PAD MOUNT DEAD RADIAL	200-300	11/09/94	Meeting of the Waters	Boshamer
4700	TAYLOR HALL	750	PAD MOUNT DEAD LOOP	311	11/10/99	Edmond Jones Branch	South of Grounds
4677	Taylor Residence Hall	750	PAD MOUNT DEAD LOOP	377	01/13/06	Meeting of the Waters	Smith Center
4392	TEAGUE DORM	300	PAD MOUNT LIVE RADIAL	150-225	04/05/78	Meeting of the Waters	Boshamer
4851	THERMAL STORAGE TANK TOMKINS OPS CTR (T4)	2500	PAD MOUNT DEAD LOOP	528	06/14/05	Edmond Jones Branch	South of Grounds
4631	THURSTON BOWLES	1500	PAD MOUNT DEAD LOOP	600	08/31/92	Meeting of the Waters	Smith Center
4632	THURSTON BOWLES	2000	PAD MOUNT DEAD LOOP	560	09/10/92	Meeting of the Waters	Smith Center
4845	Tomkins Chilled Water Operations Center	2500	PAD MOUNT DEAD LOOP	620	06/14/05	Edmond Jones Branch	South of Grounds
4844	Tomkins Chilled Water	2500	PAD MOUNT DEAD LOOP	620	06/14/05	Edmond Jones Branch	South of Grounds
4835	Tomkins Chilled Water Plant	2500	PAD MOUNT DEAD LOOP	528	06/14/05	Edmond Jones Branch	South of Grounds
4846	TOMKINS OPS CENTER (T3)	2500	PAD MOUNT DEAD LOOP	620	06/14/05	Edmond Jones Branch	South of Grounds
4827	UNC Hospital, Old Hospital, GE Switchboard	750	PAD MOUNT DEAD LOOP	385	06/17/08	Meeting of the Waters	Smith Center
4915	UNC Hospital, Old Hospital, Westinghouse Switchboard	750	PAD MOUNT DEAD LOOP	330	07/22/08	Meeting of the Waters	Smith Center
4511	UNC Hospital, X-ray, DP Cath Labs	500	PAD MOUNT LIVE RADIAL	200-300	07/23/82	Meeting of the Waters	Smith Center
4721	VAN HECKE ADDITION	500	PAD MOUNT DEAD LOOP	200-300	10/23/98	Meeting of the Waters	Boshamer
4684	VAN HECKE LAW SCHOOL	750	PAD MOUNT DEAD RADIAL	375	12/06/96	Meeting of the Waters	Boshamer
4588	VENABLE UTILITIES CENTER	150	PAD MOUNT DEAD LOOP	100-200	05/12/02	Meeting of the Waters	Boshamer
4600	WASTE WATER RES BLDG(NOT FUSED-HOOKED STRATE PRIM)	225	POLE MOUNT CSP	150	03/23/90	Morgan Creek	Morgan Creek
4617	WATTS HILL ALUMNI	1000	PAD MOUNT DEAD RADIAL	250-550	04/01/91	Meeting of the Waters	Boshamer
4742	WELLNESS CENTER	750	PAD MOUNT DEAD LOOP	350	06/06/02	Little Creek Bottomlands	Little Creek
4485	WEST DR	15	DRY TYPE	15	02/05/79	Meeting of the Waters	Smith Center
4491	WHITEHEAD	150	PAD MOUNT LIVE RADIAL	100-200	08/01/00	Meeting of the Waters	Boshamer
4883	Williams Athletic Center	500	PAD MOUNT DEAD LOOP	193	04/04/07	Meeting of the Waters	Smith Center
4925	Wilson Court, Steam tunnel	75	PAD MOUNT DEAD LOOP	129	03/18/09	Tanbark Branch	Caldwell St Ext Crossing
4908	WILSON HALL	750	PAD MOUNT DEAD LOOP	365	08/21/06	Meeting of the Waters	Boshamer
4568	WILSON HALL ADDITION	500	PAD MOUNT DEAD LOOP	200-300	06/10/89	Meeting of the Waters	Boshamer
4812	WILSON LIBRARY	500	PAD MOUNT DEAD LOOP	224	06/25/03	Meeting of the Waters	Boshamer
4467	WILSON LIBRARY ADDITION	750	PAD MOUNT LIVE RADIAL	395	10/21/77	Meeting of the Waters	Boshamer
4798	WINSTON DORM	300	PAD MOUNT DEAD LOOP	201	04/30/03	Meeting of the Waters	Boshamer
4733	Women's and Children's Hospital	1500	PAD MOUNT DEAD LOOP	445	10/18/99	Meeting of the Waters	Smith Center

TABLE 3
TRANSFORMERS

Facility ID	Location Description	Rated KVA	Type	Estimated Volume (Gallons)	Date Installed	Creek Name	Outfall Name
4734	Women's and Children's Hospital	2500	PAD MOUNT DEAD LOOP	518	10/18/99	Meeting of the Waters	Smith Center
4890	Woollen Gymnasium	500	PAD MOUNT DEAD LOOP	182	07/12/11	Meeting of the Waters	Boshamer
4692	WUNC RADIO	300	PAD MOUNT DEAD LOOP	169	10/10/97	Finley GC Unnamed Trib	South of WUNC
4552	WUNC RADIO CHILLER	75	PAD MOUNT DEAD LOOP	120	11/06/97	Finley GC Unnamed Trib	South of WUNC
4552	WUNC RADIO TOWER	75	MINIPAK DEAD LOOP	75-200	04/09/03	Finley GC Unnamed Trib	South of WUNC
4219	YARD (Electric Distribution Operations Center)	38	POLE MOUNT CSP	28	11/17/06	Cole Springs Branch	Kudzu Canyon
1317	YARD (Electric Distribution Operations Center)	38	POLE MOUNT CSP	30	05/02/60	Cole Springs Branch	Kudzu Canyon
1534	YARD (Electric Distribution Operations Center)	25	POLE MOUNT CSP	20	09/12/62	Cole Springs Branch	Kudzu Canyon
1654	YARD (Electric Distribution Operations Center)	50	POLE MOUNT CSP	50	09/03/63	Cole Springs Branch	Kudzu Canyon
1746	YARD (Electric Distribution Operations Center)	100	CONV RADIAL LIVE	40-200	10/01/64	Cole Springs Branch	Kudzu Canyon
1818	YARD (Electric Distribution Operations Center)	38	POLE MOUNT CSP	30	08/04/64	Cole Springs Branch	Kudzu Canyon
2515	YARD (Electric Distribution Operations Center)	100	POLE MOUNT CONV	40-200	Unknown	Cole Springs Branch	Kudzu Canyon
2516	YARD (Electric Distribution Operations Center)	100	POLE MOUNT CONV	40-200	Unknown	Cole Springs Branch	Kudzu Canyon
2517	YARD (Electric Distribution Operations Center)	100	POLE MOUNT CONV	40-200	Unknown	Cole Springs Branch	Kudzu Canyon
2678	YARD (Electric Distribution Operations Center)	25	POLE MOUNT CSP	20	05/01/05	Cole Springs Branch	Kudzu Canyon
2870	YARD (Electric Distribution Operations Center)	750	PAD MOUNT LIVE RADIAL	250-400	08/06/69	Cole Springs Branch	Kudzu Canyon
2871	YARD (Electric Distribution Operations Center)	750	PAD MOUNT LIVE RADIAL	250-400	08/06/69	Cole Springs Branch	Kudzu Canyon
3061	YARD (Electric Distribution Operations Center)	50	POLE MOUNT CSP	50	08/04/70	Cole Springs Branch	Kudzu Canyon
3663	YARD (Electric Distribution Operations Center)	50	POLE MOUNT CSP	50	Unknown	Cole Springs Branch	Kudzu Canyon
3664	YARD (Electric Distribution Operations Center)	50	POLE MOUNT CSP	50	Unknown	Cole Springs Branch	Kudzu Canyon
3694	YARD (Electric Distribution Operations Center)	150	PAD MOUNT LIVE LOOP	100-200	08/25/95	Cole Springs Branch	Kudzu Canyon
3745	YARD (Electric Distribution Operations Center)	100	POLE MOUNT CSP	40-200	Unknown	Cole Springs Branch	Kudzu Canyon
4175	YARD (Electric Distribution Operations Center)	38	POLE MOUNT CSP	30	09/07/96	Cole Springs Branch	Kudzu Canyon
4295	YARD (Electric Distribution Operations Center)	150	PAD MOUNT LIVE RADIAL	100-200	06/17/93	Cole Springs Branch	Kudzu Canyon
4296	YARD (Electric Distribution Operations Center)	150	PAD MOUNT LIVE RADIAL	100-200	01/01/77	Cole Springs Branch	Kudzu Canyon
4349	YARD (Electric Distribution Operations Center)	75	PAD MOUNT LIVE RADIAL	75-200	11/01/77	Cole Springs Branch	Kudzu Canyon
4425	YARD (Electric Distribution Operations Center)	300	PAD MOUNT LIVE RADIAL	122	05/28/84	Cole Springs Branch	Kudzu Canyon
4429	YARD (Electric Distribution Operations Center)	750	PAD MOUNT LIVE RADIAL	250-400	06/22/83	Cole Springs Branch	Kudzu Canyon
4456	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	200-300	07/21/79	Cole Springs Branch	Kudzu Canyon
4466	YARD (Electric Distribution Operations Center)	75	PAD MOUNT LIVE RADIAL	75-200	10/11/90	Cole Springs Branch	Kudzu Canyon
4483	YARD (Electric Distribution Operations Center)	150	PAD MOUNT LIVE RADIAL	100-200	Unknown	Cole Springs Branch	Kudzu Canyon
4494	YARD (Electric Distribution Operations Center)	75	PAD MOUNT LIVE RADIAL	75-200	05/15/80	Cole Springs Branch	Kudzu Canyon
4496	YARD (Electric Distribution Operations Center)	75	PAD MOUNT LIVE LOOP	75-200	05/15/80	Cole Springs Branch	Kudzu Canyon
4530	YARD (Electric Distribution Operations Center)	50	MINIPAK DEAD RADIAL	47	03/03/88	Cole Springs Branch	Kudzu Canyon
4534	YARD (Electric Distribution Operations Center)	500	PAD MOUNT LIVE RADIAL	238	08/19/87	Cole Springs Branch	Kudzu Canyon
4535	YARD (Electric Distribution Operations Center)	300	PAD MOUNT LIVE RADIAL	175	08/03/85	Cole Springs Branch	Kudzu Canyon
4555	YARD (Electric Distribution Operations Center)	300	PAD MOUNT DEAD LOOP	180	09/20/91	Cole Springs Branch	Kudzu Canyon
4556	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD RADIAL	215	Unknown	Cole Springs Branch	Kudzu Canyon
4558	YARD (Electric Distribution Operations Center)	50	POLE MOUNT CSP	27	05/23/05	Cole Springs Branch	Kudzu Canyon
4561	YARD (Electric Distribution Operations Center)	25	POLE MOUNT CSP	18	04/18/88	Cole Springs Branch	Kudzu Canyon
4565	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	220	Unknown	Cole Springs Branch	Kudzu Canyon
4566	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	220	Unknown	Cole Springs Branch	Kudzu Canyon
4567	YARD (Electric Distribution Operations Center)	150	PAD MOUNT LIVE LOOP	118	06/11/99	Cole Springs Branch	Kudzu Canyon
4570	YARD (Electric Distribution Operations Center)	150	PAD MOUNT DEAD LOOP	175	Unknown	Cole Springs Branch	Kudzu Canyon
4571	YARD (Electric Distribution Operations Center)	300	PAD MOUNT DEAD LOOP	185	Unknown	Cole Springs Branch	Kudzu Canyon
4578	YARD (Electric Distribution Operations Center)	15	POLE MOUNT CSP	15	01/30/03	Cole Springs Branch	Kudzu Canyon
4582	YARD (Electric Distribution Operations Center)	25	POLE MOUNT CSP	20	03/19/08	Cole Springs Branch	Kudzu Canyon
4583	YARD (Electric Distribution Operations Center)	75	PAD MOUNT DEAD LOOP	178	05/09/01	Cole Springs Branch	Kudzu Canyon
4589	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	220	09/21/90	Cole Springs Branch	Kudzu Canyon
4592	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD RADIAL	200-300	Unknown	Cole Springs Branch	Kudzu Canyon
4596	YARD (Electric Distribution Operations Center)	1000	PAD MOUNT DEAD RADIAL	375	07/30/10	Cole Springs Branch	Kudzu Canyon
4598	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD RADIAL	350	03/05/90	Cole Springs Branch	Kudzu Canyon

TABLE 3
TRANSFORMERS

Facility ID	Location Description	Rated KVA	Type	Estimated Volume (Gallons)	Date Installed	Creek Name	Outfall Name
4599	YARD (Electric Distribution Operations Center)	75	POLE MOUNT CSP	75-200	Unknown	Cole Springs Branch	Kudzu Canyon
4601	YARD (Electric Distribution Operations Center)	150	POLE MOUNT CSP	100-200	03/23/90	Cole Springs Branch	Kudzu Canyon
4603	YARD (Electric Distribution Operations Center)	25	POLE MOUNT CSP	20	06/27/05	Cole Springs Branch	Kudzu Canyon
4605	YARD (Electric Distribution Operations Center)	30	POLE MOUNT CSP	25	03/22/05	Cole Springs Branch	Kudzu Canyon
4612	YARD (Electric Distribution Operations Center)	15	POLE MOUNT CSP	15	07/16/90	Cole Springs Branch	Kudzu Canyon
4613	YARD (Electric Distribution Operations Center)	25	POLE MOUNT CSP	28	06/16/97	Cole Springs Branch	Kudzu Canyon
4614	YARD (Electric Distribution Operations Center)	25	POLE MOUNT CSP	28	06/16/97	Cole Springs Branch	Kudzu Canyon
4616	YARD (Electric Distribution Operations Center)	25	POLE MOUNT CSP	28	11/25/96	Cole Springs Branch	Kudzu Canyon
4627	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	251	07/12/91	Cole Springs Branch	Kudzu Canyon
4634	YARD (Electric Distribution Operations Center)	50	POLE MOUNT CSP	33	06/15/98	Cole Springs Branch	Kudzu Canyon
4635	YARD (Electric Distribution Operations Center)	50	POLE MOUNT CSP	33	08/01/96	Cole Springs Branch	Kudzu Canyon
4647	YARD (Electric Distribution Operations Center)	10	POLE MOUNT CSP	10	09/01/04	Cole Springs Branch	Kudzu Canyon
4656	YARD (Electric Distribution Operations Center)	750	PAD MOUNT DEAD LOOP	338	09/29/94	Cole Springs Branch	Kudzu Canyon
4661	YARD (Electric Distribution Operations Center)	150	PAD MOUNT DEAD LOOP	108	02/10/07	Cole Springs Branch	Kudzu Canyon
4663	YARD (Electric Distribution Operations Center)	300	PAD MOUNT DEAD RADIAL	164	01/03/97	Cole Springs Branch	Kudzu Canyon
4674	YARD (Electric Distribution Operations Center)	150	PAD MOUNT DEAD LOOP	118	06/21/99	Cole Springs Branch	Kudzu Canyon
4678	YARD (Electric Distribution Operations Center)	1000	PAD MOUNT DEAD LOOP	502	09/18/08	Cole Springs Branch	Kudzu Canyon
4683	YARD (Electric Distribution Operations Center)	300	PAD MOUNT DEAD LOOP	207	01/31/00	Cole Springs Branch	Kudzu Canyon
4687	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD RADIAL	450	01/08/09	Cole Springs Branch	Kudzu Canyon
4693	YARD (Electric Distribution Operations Center)	50	MINIPAK DEAD LOOP	51	08/01/11	Cole Springs Branch	Kudzu Canyon
4696	YARD (Electric Distribution Operations Center)	300	PAD MOUNT DEAD RADIAL	169	02/05/98	Cole Springs Branch	Kudzu Canyon
4698	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	271	03/30/99	Cole Springs Branch	Kudzu Canyon
4711	YARD (Electric Distribution Operations Center)	50	POLE MOUNT CSP	31	05/23/05	Cole Springs Branch	Kudzu Canyon
4713	YARD (Electric Distribution Operations Center)	50	POLE MOUNT CSP	31	05/23/05	Cole Springs Branch	Kudzu Canyon
4715	YARD (Electric Distribution Operations Center)	100	POLE MOUNT CSP	41	11/01/97	Cole Springs Branch	Kudzu Canyon
4717	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD RADIAL	350	03/05/98	Cole Springs Branch	Kudzu Canyon
4722	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD LOOP	469	03/15/12	Cole Springs Branch	Kudzu Canyon
4723	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD RADIAL	469	07/06/99	Cole Springs Branch	Kudzu Canyon
4727	YARD (Electric Distribution Operations Center)	1000	PAD MOUNT DEAD LOOP	535	Unknown	Cole Springs Branch	Kudzu Canyon
4729	YARD (Electric Distribution Operations Center)	300	PAD MOUNT DEAD LOOP	223	09/21/01	Cole Springs Branch	Kudzu Canyon
4735	YARD (Electric Distribution Operations Center)	50	MINIPAK DEAD LOOP	51	06/27/02	Cole Springs Branch	Kudzu Canyon
4768	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	243	05/07/09	Cole Springs Branch	Kudzu Canyon
4771	YARD (Electric Distribution Operations Center)	150	PAD MOUNT DEAD LOOP	140	Unknown	Cole Springs Branch	Kudzu Canyon
4772	YARD (Electric Distribution Operations Center)	150	PAD MOUNT DEAD LOOP	140	Unknown	Cole Springs Branch	Kudzu Canyon
4781	YARD (Electric Distribution Operations Center)	750	PAD MOUNT DEAD LOOP	369	12/03/04	Cole Springs Branch	Kudzu Canyon
4782	YARD (Electric Distribution Operations Center)	750	PAD MOUNT DEAD LOOP	385	10/24/02	Cole Springs Branch	Kudzu Canyon
4784	YARD (Electric Distribution Operations Center)	1000	PAD MOUNT DEAD LOOP	462	Unknown	Cole Springs Branch	Kudzu Canyon
4793	YARD (Electric Distribution Operations Center)	2500	PAD MOUNT DEAD LOOP	528	10/18/04	Cole Springs Branch	Kudzu Canyon
4808	YARD (Electric Distribution Operations Center)	150	PAD MOUNT DEAD LOOP	140	09/15/04	Cole Springs Branch	Kudzu Canyon
4828	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD LOOP	505	Unknown	Cole Springs Branch	Kudzu Canyon
4829	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD LOOP	505	Unknown	Cole Springs Branch	Kudzu Canyon
4832	YARD (Electric Distribution Operations Center)	750	PAD MOUNT DEAD LOOP	397	Unknown	Cole Springs Branch	Kudzu Canyon
4848	YARD (Electric Distribution Operations Center)	2500	PAD MOUNT DEAD LOOP	620	Unknown	Cole Springs Branch	Kudzu Canyon
4868	YARD (Electric Distribution Operations Center)	38	POLE MOUNT CSP	30	Unknown	Cole Springs Branch	Kudzu Canyon
4872	YARD (Electric Distribution Operations Center)	75	MINIPAK DEAD LOOP	75	Unknown	Cole Springs Branch	Kudzu Canyon
4873	YARD (Electric Distribution Operations Center)	75	MINIPAK DEAD LOOP	75	03/19/10	Cole Springs Branch	Kudzu Canyon
4884	YARD (Electric Distribution Operations Center)	750	PAD MOUNT DEAD LOOP	343	Unknown	Cole Springs Branch	Kudzu Canyon
4885	YARD (Electric Distribution Operations Center)	750	PAD MOUNT DEAD LOOP	343	Unknown	Cole Springs Branch	Kudzu Canyon
4889	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	182	Unknown	Cole Springs Branch	Kudzu Canyon
4891	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	182	02/12/09	Cole Springs Branch	Kudzu Canyon
4892	YARD (Electric Distribution Operations Center)	750	PAD MOUNT DEAD LOOP	260	Unknown	Cole Springs Branch	Kudzu Canyon
4893	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	178	07/28/09	Cole Springs Branch	Kudzu Canyon

TABLE 3
TRANSFORMERS

Facility ID	Location Description	Rated KVA	Type	Estimated Volume (Gallons)	Date Installed	Creek Name	Outfall Name
4894	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	178	09/04/09	Cole Springs Branch	Kudzu Canyon
4896	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	178	08/19/09	Cole Springs Branch	Kudzu Canyon
4899	YARD (Electric Distribution Operations Center)	2500	PAD MOUNT DEAD LOOP	596	06/15/07	Cole Springs Branch	Kudzu Canyon
4902	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD LOOP	435	12/03/07	Cole Springs Branch	Kudzu Canyon
4903	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD LOOP	435	12/03/07	Cole Springs Branch	Kudzu Canyon
4904	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD LOOP	435	12/03/07	Cole Springs Branch	Kudzu Canyon
4906	YARD (Electric Distribution Operations Center)	2500	PAD MOUNT DEAD LOOP	596	06/07/06	Cole Springs Branch	Kudzu Canyon
4907	YARD (Electric Distribution Operations Center)	2500	PAD MOUNT DEAD LOOP	596	03/30/09	Cole Springs Branch	Kudzu Canyon
4909	YARD (Electric Distribution Operations Center)	2500	PAD MOUNT DEAD LOOP	597	06/07/06	Cole Springs Branch	Kudzu Canyon
4910	YARD (Electric Distribution Operations Center)	750	PAD MOUNT DEAD LOOP	365	09/14/08	Cole Springs Branch	Kudzu Canyon
4912	YARD (Electric Distribution Operations Center)	2500	PAD MOUNT DEAD LOOP	597	06/07/06	Cole Springs Branch	Kudzu Canyon
4947	YARD (Electric Distribution Operations Center)	1000	PAD MOUNT DEAD LOOP	269	Unknown	Cole Springs Branch	Kudzu Canyon
4979	YARD (Electric Distribution Operations Center)	75		75-200	Unknown	Cole Springs Branch	Kudzu Canyon
4982	YARD (Electric Distribution Operations Center)	75	PAD MOUNT DEAD LOOP	75-200	Unknown	Cole Springs Branch	Kudzu Canyon
4984	YARD (Electric Distribution Operations Center)	150	PAD MOUNT DEAD LOOP	159	Unknown	Cole Springs Branch	Kudzu Canyon
4986	YARD (Electric Distribution Operations Center)	150	PAD MOUNT DEAD LOOP	159	Unknown	Cole Springs Branch	Kudzu Canyon
4987	YARD (Electric Distribution Operations Center)	150	PAD MOUNT DEAD LOOP	159	Unknown	Cole Springs Branch	Kudzu Canyon
4989	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	193	Unknown	Cole Springs Branch	Kudzu Canyon
4992	YARD (Electric Distribution Operations Center)	300	PAD MOUNT	173	Unknown	Cole Springs Branch	Kudzu Canyon
4994	YARD (Electric Distribution Operations Center)	500	PAD MOUNT	193	Unknown	Cole Springs Branch	Kudzu Canyon
5003	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD LOOP	300-650	Unknown	Cole Springs Branch	Kudzu Canyon
5009	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD LOOP	374	Unknown	Cole Springs Branch	Kudzu Canyon
5013	YARD (Electric Distribution Operations Center)	2500	PAD MOUNT DEAD LOOP	652	Unknown	Cole Springs Branch	Kudzu Canyon
5018	YARD (Electric Distribution Operations Center)	2500	PAD MOUNT DEAD LOOP	570	Unknown	Cole Springs Branch	Kudzu Canyon
5019	YARD (Electric Distribution Operations Center)	2500	PAD MOUNT DEAD LOOP	570	Unknown	Cole Springs Branch	Kudzu Canyon
5020	YARD (Electric Distribution Operations Center)	2500	PAD MOUNT DEAD LOOP	570	Unknown	Cole Springs Branch	Kudzu Canyon
5022	YARD (Electric Distribution Operations Center)	150	PAD MOUNT DEAD LOOP	159	Unknown	Cole Springs Branch	Kudzu Canyon
5023	YARD (Electric Distribution Operations Center)	75	PAD MOUNT DEAD LOOP	158	Unknown	Cole Springs Branch	Kudzu Canyon
5024	YARD (Electric Distribution Operations Center)	75	PAD MOUNT DEAD LOOP	158	Unknown	Cole Springs Branch	Kudzu Canyon
5025	YARD (Electric Distribution Operations Center)	300	PAD MOUNT DEAD LOOP	183	Unknown	Cole Springs Branch	Kudzu Canyon
5026	YARD (Electric Distribution Operations Center)	150	PAD MOUNT DEAD LOOP	159	Unknown	Cole Springs Branch	Kudzu Canyon
5028	YARD (Electric Distribution Operations Center)	750	PAD MOUNT DEAD LOOP	320	Unknown	Cole Springs Branch	Kudzu Canyon
4954	YARD (Electric Distribution Operations Center)	75	PAD MOUNT DEAD LOOP	207	Unknown	Elkin Hills-Colonial Hts Unnamed Trib	Overland to Bolin Creek
4073	YARD (Electric Distribution Operations Center)	300	PAD MOUNT LIVE RADIAL	150-225	08/30/82	Elkin Hills-Colonial Hts Unnamed Trib	Overland to Bolin Creek
4462	YARD (Electric Distribution Operations Center)	150	PAD MOUNT LIVE RADIAL	100-200	03/04/80	Elkin Hills-Colonial Hts Unnamed Trib	Overland to Bolin Creek
4492	YARD (Electric Distribution Operations Center)	150	PAD MOUNT LIVE RADIAL	100-200	08/12/99	Elkin Hills-Colonial Hts Unnamed Trib	Overland to Bolin Creek
4564	YARD (Electric Distribution Operations Center)	1500	PAD MOUNT DEAD LOOP	300-650	05/17/88	Elkin Hills-Colonial Hts Unnamed Trib	Overland to Bolin Creek
4615	YARD (Electric Distribution Operations Center)	25	POLE MOUNT CSP	28	06/01/97	Elkin Hills-Colonial Hts Unnamed Trib	Overland to Bolin Creek
4955	YARD (Electric Distribution Operations Center)	500	PAD MOUNT DEAD LOOP	207	Unknown	Elkin Hills-Colonial Hts Unnamed Trib	Overland to Bolin Creek

TABLE 4
HYDRAULIC ELEVATORS

Building Number	Building Name	State ID Number	Date Installed	Creek Name	Outfall Name
3	Ackland Art Museum	13265	01/17/90	Mill Race Branch	East of Cobb Terrace
607	Administrative Office Building	21924	11/06/03	Cole Springs Branch	Kudzu Canyon
607	Administrative Office Building	21923	11/06/03	Cole Springs Branch	Kudzu Canyon
121	Alderman Res Hall	22391	07/21/04	Battle Branch	Battle Creek-Forest Theatre
4	Alumni Bldg	16672	04/28/97	Mill Race Branch	East of Cobb Terrace
241	Ambulatory Care Center	14340	07/22/92	Edmond Jones Branch	South of Grounds
241	Ambulatory Care Center	14342	07/22/92	Edmond Jones Branch	South of Grounds
241	Ambulatory Care Center	14343	07/22/92	Edmond Jones Branch	South of Grounds
240	Aycock Family Medicine	13194	03/20/90	Meeting of the Waters	Meeting of the Waters 15-501
102	Aycock Res Hall	17693	07/31/98	Battle Branch	Battle Creek-Forest Theatre
631	Baity Hill 1101 Mason Farm Road	22957	07/22/05	Meeting of the Waters	Smith Center
632	Baity Hill 1351 Mason Farm Road	23488	08/01/05	Meeting of the Waters	Meeting of the Waters 15-501
633	Baity Hill 1401 Mason Farm Road	23136	08/11/05	Meeting of the Waters	Meeting of the Waters 15-501
634	Baity Hill 1501 Mason Farm Road	23188	08/16/05	Meeting of the Waters	Meeting of the Waters 15-501
635	Baity Hill 1600 Student Fam. Housing	22937	06/24/05	Meeting of the Waters	Meeting of the Waters 15-501
636	Baity Hill 1700 Student Fam. Housing	22742	04/26/05	Meeting of the Waters	Meeting of the Waters 15-501
637	Baity Hill 1800 Student Fam. Housing	22743	04/26/05	Meeting of the Waters	Meeting of the Waters 15-501
638	Baity Hill 1900 Student Fam. Housing	22939	06/24/05	Meeting of the Waters	Meeting of the Waters 15-501
639	Baity Hill 2000 Student Fam. Housing	22881	05/11/05	Meeting of the Waters	Meeting of the Waters 15-501
200	Beard Hall	4155	09/29/81	Meeting of the Waters	Boshamer
7	Bingham Hall	20656	11/27/01	Meeting of the Waters	Boshamer
429	Boshamer Stadium	26176	02/03/09	Meeting of the Waters	Boshamer
429	Boshamer Stadium	26175	01/29/09	Meeting of the Waters	Boshamer
228	Brinkhous-Bullitt Bldg	7181	09/21/73	Meeting of the Waters	Boshamer
97	Business Parking Deck	16269	08/29/97	Meeting of the Waters	Smith Center
97	Business Parking Deck	16268	08/29/97	Meeting of the Waters	Smith Center
151	Campus Y	24396	02/19/07	Meeting of the Waters	Boshamer
232	Cardinal Deck	8359	05/23/75	Meeting of the Waters	Smith Center
25	Carmichael Arena	27227	12/17/09	Meeting of the Waters	Boshamer
25	Carmichael Arena	27228	12/17/09	Meeting of the Waters	Boshamer
25	Carmichael Arena	27229	12/17/09	Meeting of the Waters	Boshamer
43	Carolina Hall	22558	09/28/04	Battle Branch	Battle Creek-Forest Theatre
86	Caudill Labs	23285	09/15/06	Meeting of the Waters	Boshamer
390	Chase Dining Hall (Rams Head)	22462	01/25/05	Meeting of the Waters	Boshamer
391	Chase Dining Hall (Rams Head)	22603	01/25/05	Meeting of the Waters	Boshamer
391	Chase Dining Hall (Rams Head)	22536	01/25/05	Meeting of the Waters	Boshamer
647	Cobb Chiller Plant	23645	07/27/06	Battle Branch	Battle Creek-Forest Theatre
648	Cobb Parking Deck	23644	07/27/06	Battle Branch	Battle Creek-Forest Theatre
122	Cobb Res Hall	23180	11/01/05	Battle Branch	Battle Creek-Forest Theatre
665	Cogen Facility Storage Bldg	27708	12/15/11	Pritchard Branch	South of Cogen
179	Cogeneration Gore Bldg	13511	03/29/93	Pritchard Branch	South of Cogen
179	Cogeneration Gore Bldg	13512	04/12/93	Pritchard Branch	South of Cogen
10	Coker Hall	4672	01/22/63	Meeting of the Waters	Boshamer
123	Connor Res Hall	21558	08/06/03	Meeting of the Waters	Boshamer
137	Craige North Res Hall	22049	07/09/02	Meeting of the Waters	Smith Center
350	Craige Parking Deck	14054	09/12/91	Meeting of the Waters	Smith Center
350	Craige Parking Deck	14055	09/12/91	Meeting of the Waters	Smith Center
350	Craige Parking Deck	14056	09/12/91	Meeting of the Waters	Smith Center
350	Craige Parking Deck	14057	09/12/91	Meeting of the Waters	Smith Center
62	Daniels Student Stores	23945	04/24/07	Meeting of the Waters	Boshamer
13	Davie Hall	9623	06/03/80	Battle Branch	Battle Creek-Forest Theatre
14	Dey Hall	4576	02/23/63	Meeting of the Waters	Boshamer
352	Dogwood Parking Deck	18293	03/19/01	Meeting of the Waters	Smith Center
352	Dogwood Parking Deck	18292	03/19/01	Meeting of the Waters	Smith Center
352	Dogwood Parking Deck	18291	03/20/01	Meeting of the Waters	Smith Center
352	Dogwood Parking Deck	18078	05/23/99	Meeting of the Waters	Smith Center
85	Dramatic Art, Center For	17720	09/09/98	Battle Branch	Battle Creek-Forest Theatre
85	Dramatic Art, Center For	17719	07/31/98	Battle Branch	Battle Creek-Forest Theatre
649	Environment, Health and Safety Bldg	23527	03/16/06	Cole Springs Branch	Kudzu Canyon
468	Fetzer Hall	9574	10/10/81	Meeting of the Waters	Boshamer
468	Fetzer Hall	9573	07/28/81	Meeting of the Waters	Boshamer
468	Fetzer Hall	9572	08/20/81	Meeting of the Waters	Boshamer

TABLE 4
HYDRAULIC ELEVATORS

Building Number	Building Name	State ID Number	Date Installed	Creek Name	Outfall Name
209	First Dental	21702	05/26/04	Meeting of the Waters	Smith Center
71	FPG Child Development Inst	6604	08/10/71	Morgan Creek	Morgan Creek
600	Franklin St, 208 W.	16222	03/29/96	Tanbark Branch	Caldwell St Ext Crossing
165	Franklin St,134 E.	17212	08/19/97	Mill Race Branch	East of Cobb Terrace
369	Friday Center, William & Ida	13349	02/19/91	Friday Center Unnamed Trib	South of Friday Center
499	General Administration Bldg	6739	02/14/71	Chapel Creek	Chapel Creek
499	General Administration Bldg	10160	03/16/82	Chapel Creek	Chapel Creek
359	Genetic Medicine Research Bldg	25324	03/07/08	Edmond Jones Branch	South of Grounds
359	Genetic Medicine Research Bldg	25325	08/05/08	Edmond Jones Branch	South of Grounds
52	Graham Memorial	18681	11/23/99	Mill Race Branch	East of Cobb Terrace
65	Graham Student Union	9617	03/01/81	Meeting of the Waters	Boshamer
65	Graham Student Union	20433	06/19/02	Meeting of the Waters	Boshamer
79	Hanes Art Center	9953	05/07/82	Tanbark Branch	Caldwell St Ext Crossing
79	Hanes Art Center	9954	05/06/82	Tanbark Branch	Caldwell St Ext Crossing
79	Hanes Art Center	9955	05/07/82	Tanbark Branch	Caldwell St Ext Crossing
19	Hanes Hall	21136	01/15/03	Meeting of the Waters	Boshamer
139	Hardin Res Hall	20052	07/09/02	Meeting of the Waters	Smith Center
578	Henry Stadium	18447	04/20/99	Meeting of the Waters	Boshamer
98	Hill Alumni Center	13871	08/27/92	Meeting of the Waters	Boshamer
98	Hill Alumni Center	13869	08/27/92	Meeting of the Waters	Boshamer
98	Hill Alumni Center	13870	08/27/92	Meeting of the Waters	Boshamer
20	Hill Hall	16208	11/28/95	Mill Race Branch	East of Cobb Terrace
358	Hooker Research Center	21917	05/26/04	Meeting of the Waters	Smith Center
168	Horney Bldg	12745	06/21/88	Cole Springs Branch	Kudzu Canyon
136	Horton Res Hall	20051	07/09/02	Meeting of the Waters	Smith Center
63	House Undergraduate Library	20707	05/01/02	Meeting of the Waters	Boshamer
55	Hyde Hall	20737	07/11/02	Mill Race Branch	East of Cobb Terrace
454	ITS Franklin	23399	09/22/05	Tanbark Branch	Caldwell St Ext Crossing
625	ITS Manning	23880	11/16/06	Meeting of the Waters	Smith Center
625	ITS Manning	23881	11/16/06	Meeting of the Waters	Smith Center
361	Jackson Circle Parking Deck	24278	07/03/06	Meeting of the Waters	Smith Center
124	Joyner Res Hall	21557	08/05/03	Meeting of the Waters	Boshamer
88	Kenan Music Bldg	25647	09/25/08	Tanbark Branch	Caldwell St Ext Crossing
125	Kenan Res Hall	22392	07/14/04	Battle Branch	Battle Creek-Forest Theatre
357	Kerr Hall	19478	08/19/02	Meeting of the Waters	Boshamer
357	Kerr Hall	19476	08/19/02	Meeting of the Waters	Boshamer
59	Knapp-Sanders Bldg	19820	02/26/02	Meeting of the Waters	Boshamer
59	Knapp-Sanders Bldg	19821	02/26/02	Meeting of the Waters	Boshamer
59	Knapp-Sanders Bldg	19819	07/23/03	Meeting of the Waters	Boshamer
59	Knapp-Sanders Bldg	21045	07/23/03	Meeting of the Waters	Boshamer
138	Koury Res Hall	20050	07/11/02	Meeting of the Waters	Meeting of the Waters 15-501
133	Lenoir Hall	17482	08/06/98	Meeting of the Waters	Boshamer
133	Lenoir Hall	17484	08/07/98	Meeting of the Waters	Boshamer
133	Lenoir Hall	17483	08/07/98	Meeting of the Waters	Boshamer
237	Lineberger Cancer Research Center	16096	09/05/97	Meeting of the Waters	Smith Center
626	Manning Drive Steam Plant	24449	09/25/07	Meeting of the Waters	Smith Center
386	Martin Luther King Jr Blvd, 730	13100	08/26/88	MLK Unnamed Trib	Bolin Creek
386	Martin Luther King Jr Blvd, 730	10754	01/24/84	MLK Unnamed Trib	Bolin Creek
569	McCaskill Soccer Center	18298	02/25/99	Meeting of the Waters	Boshamer
96	McColl Bldg	16616	06/26/97	Meeting of the Waters	Smith Center
96	McColl Bldg	16614	06/26/97	Meeting of the Waters	Smith Center
96	McColl Bldg	16611	01/22/97	Meeting of the Waters	Smith Center
96	McColl Bldg	16612	06/24/67	Meeting of the Waters	Smith Center
96	McColl Bldg	16613	06/24/97	Meeting of the Waters	Smith Center
96	McColl Bldg	16615	06/26/97	Meeting of the Waters	Smith Center
238	McGavran-Greenberg	12597	01/18/90	Meeting of the Waters	Boshamer
238	McGavran-Greenberg	12596	06/14/88	Meeting of the Waters	Boshamer
238	McGavran-Greenberg	12598	01/18/90	Meeting of the Waters	Smith Center
126	McIver Res Hall	22393	07/21/04	Battle Branch	Battle Creek-Forest Theatre
27	Memorial Hall	22601	07/21/05	Meeting of the Waters	Boshamer
27	Memorial Hall	22602	07/21/05	Meeting of the Waters	Boshamer
29	Mitchell Hall	4773	07/08/63	Meeting of the Waters	Boshamer

TABLE 4
HYDRAULIC ELEVATORS

Building Number	Building Name	State ID Number	Date Installed	Creek Name	Outfall Name
236	Molecular Biology Research Lab/Glaxo	12303	11/24/87	Edmond Jones Branch	South of Grounds
76	Morehead Addition	7255	06/04/73	Battle Branch	Battle Creek-Forest Theatre
76	Morehead Addition	7254	06/04/73	Battle Branch	Battle Creek-Forest Theatre
30	Murphey Hall	21031	12/23/02	Meeting of the Waters	Boshamer
246	NC Area Health Education Center Bldg	18079	02/23/11	Meeting of the Waters	Boshamer
245	Neurosciences Research Bldg	18504	02/21/01	Meeting of the Waters	Smith Center
35	New West	23586	06/28/06	Mill Race Branch	East of Cobb Terrace
114	Old East	14769	06/22/93	Battle Branch	Battle Creek-Forest Theatre
115	Old West	14770	06/22/93	Mill Race Branch	East of Cobb Terrace
37	Peabody Hall	21443	07/21/03	Tanbark Branch & Meeting of the Waters	Caldwell St Ext Crossing & Boshamer
658	Physicians Office Bldg	25252	05/08/08	Meeting of the Waters	Smith Center
658	Physicians Office Bldg	25163	10/04/07	Meeting of the Waters	Smith Center
430	Public Safety Bldg	19202	06/24/00	Meeting of the Waters	Smith Center
390	Rams Head Center Parking Deck	22426	08/18/05	Meeting of the Waters	Boshamer
392	Rams Head Center Parking Deck	22461	01/25/05	Meeting of the Waters	Boshamer
392	Rams Head Center Parking Deck	22537	01/25/05	Meeting of the Waters	Boshamer
390	Rams Head Recreation	22463	07/13/05	Meeting of the Waters	Boshamer
91	SASB - North	24495	05/29/07	Meeting of the Waters	Boshamer
92	SASB - South	24496	07/19/07	Meeting of the Waters	Boshamer
373	School Leadership Training Center	19320	08/13/01	Friday Center Unnamed Trib	South of Friday Center
514	Sheps Bldg	11645	03/26/87	MLK Unnamed Trib	Bolin Creek
514	Sheps Bldg	11646	03/26/86	MLK Unnamed Trib	Bolin Creek
597	Smith, Eddie Field House	19856	07/09/01	Meeting of the Waters	Boshamer
83	Sitterson Hall (incle. Brooks)	11761	01/29/87	Meeting of the Waters	Boshamer
82	Smith Student Activities Center	10896	12/26/85	Meeting of the Waters	Meeting of the Waters 15-501
82	Smith Student Activities Center	10897	11/26/85	Meeting of the Waters	Meeting of the Waters 15-501
5	South Bldg	21533	04/24/03	Meeting of the Waters	Boshamer
47	Stallings-Evans Sports Medicine Center	27306	03/04/10	Meeting of the Waters	Boshamer
50	Steele Bldg	25816	07/01/08	Battle Branch	Battle Creek-Forest Theatre
95	Stone Center	22053	04/01/04	Meeting of the Waters	Boshamer
541	Student Recreation Center	14645	01/01/90	Meeting of the Waters	Boshamer
469	Taylor Campus Health	9047	06/01/79	Meeting of the Waters	Boshamer
469	Taylor Campus Health	9048	06/01/79	Meeting of the Waters	Boshamer
242	Thurston-Bowles Bldg	28178	02/27/12	Meeting of the Waters	Smith Center
242	Thurston-Bowles Bldg	14546	07/21/94	Meeting of the Waters	Smith Center
64	Van Hecke-Wettach Hall	18840	03/04/99	Meeting of the Waters	Boshamer
64	Van Hecke-Wettach Hall	18842	07/02/99	Meeting of the Waters	Boshamer
64	Van Hecke-Wettach Hall	18841	07/06/99	Meeting of the Waters	Boshamer
660	Williamson Athletic Center	24856	09/26/07	Meeting of the Waters	Meeting of the Waters 15-501
46	Wilson Hall	5277	09/19/65	Meeting of the Waters	Boshamer
24	Wilson Library	11131	03/04/87	Meeting of the Waters	Boshamer
47	Woollen Gym	27513	07/14/10	Meeting of the Waters	Boshamer

TABLE 5
APPROXIMATE RATE OF FLOW AND QUANTITY OF OIL DISCHARGE FOR MAJOR EQUIPMENT FAILURE

Tank Identification	Reasonable Potential Source of Discharge	Estimated Flow Rate (GPM)	Estimated Volume (Gallons)
Ackland Art Museum	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 100
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Ambulatory Care Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Athletics Outdoor Facility Operations	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 250
(Diesel Fuel Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Dispenser Leak/Rupture/Overfill	< 1 to 10	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Avery Residence Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 300
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Bell Tower Parking Deck	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 850
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Bingham Facility	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 6,000
(Bingham 1 Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Bingham Facility	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 100
(Bingham 1 Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Bingham Facility	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 600
(Bingham 2 Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Bingham Facility	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 2,875
(Bingham 3 Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Bingham Facility	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 700
(Wastewater Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Bioinformatics Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Bioinformatics Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 60
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Bondurant Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 2,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Brinkhous-Bullitt Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 4,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Brinkhous-Bullitt Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 165
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Burnett-Womack Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 5,200
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000

Notes:
Estimated flow rate and volume of discharge is variable depending on the size and location of the leak or rupture and reaction time of personnel.
Volume of tank truck may vary.
GPM = Gallons Per Minute.

TABLE 5
APPROXIMATE RATE OF FLOW AND QUANTITY OF OIL DISCHARGE FOR MAJOR EQUIPMENT FAILURE

Tank Identification	Reasonable Potential Source of Discharge	Estimated Flow Rate (GPM)	Estimated Volume (Gallons)
Burnett-Womack Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 125
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Cardinal Parking Deck	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Carmichael Auditorium	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,600
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Carmichael Residence Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Carolina Inn	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 100
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Carrington Hall Addition	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 450
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Caudill Labs	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 4,500
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Caudill Labs	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 150
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Cheek-Clark Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 250
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Craige Parking Deck	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 815
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Craige Residence Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 320
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Davie Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 2,060
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Davis Library	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 550
(Generator and Fire Pump Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Dean Smith Student Activities Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Dogwood Parking Deck	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 125
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000

Notes:
Estimated flow rate and volume of discharge is variable depending on the size and location of the leak or rupture and reaction time of personnel.
Volume of tank truck may vary.
GPM = Gallons Per Minute.

TABLE 5
APPROXIMATE RATE OF FLOW AND QUANTITY OF OIL DISCHARGE FOR MAJOR EQUIPMENT FAILURE

Tank Identification	Reasonable Potential Source of Discharge	Estimated Flow Rate (GPM)	Estimated Volume (Gallons)
Ehringhaus Residence Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 320
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Electric Distribution Operations Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Diesel Fuel Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Dispenser Leak/Rupture/Overfill	< 1 to 10	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Electric Distribution Operations Center	AST Leak/Rupture	< 1 to Instantaneous	1 to 500
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Electric Distribution Operations Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 55 per drum
(Transformer Oil Drums)			
Electric Distribution Operations Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 55 per drum
(Used Oil Drums)	AST Overfill	< 1 to 5	< 1 to 5
	Removal Truck Hose Leak/Rupture	< 1 to 10	< 1 to 10
	Removal Truck Tank Leak	< 1 to Instantaneous	< 1 to 3,000
Energy Services Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 500
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
EPA Building	UST Overfill	< 1 to 60	< 1 to 10
(Generator Tank)	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
EPA Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 150
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
EPA Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 200
(Trailer Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
EPA Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 75
(Auxiliary Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
EPA Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 700
(Emergency Holding Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
EPA Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 55 per drum
(Diesel Fuel Drums)			
Fetzer Gymnasium	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Finley Golf Course Facility	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Gasoline Fuel Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Dispenser Leak/Rupture/Overfill	< 1 to 10	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Finley Golf Course Facility	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Diesel Fuel Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Dispenser Leak/Rupture/Overfill	< 1 to 10	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Finley Golf Course Facility	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 150
(Used Oil Tank)	AST Overfill	< 1 to 5	< 1
	Removal Truck Hose Leak/Rupture	< 1 to 10	< 1 to 10
	Removal Truck Tank Leak	< 1 to Instantaneous	< 1 to 3,000
Fordham Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000

Notes:
Estimated flow rate and volume of discharge is variable depending on the size and location of the leak or rupture and reaction time of personnel.
Volume of tank truck may vary.
GPM = Gallons Per Minute.

TABLE 5
APPROXIMATE RATE OF FLOW AND QUANTITY OF OIL DISCHARGE FOR MAJOR EQUIPMENT FAILURE

Tank Identification	Reasonable Potential Source of Discharge	Estimated Flow Rate (GPM)	Estimated Volume (Gallons)
Friday Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 350
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
General Storeroom	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 4,000
(Diesel Fuel Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Dispenser Leak/Rupture/Overfill	< 1 to 10	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Generator Shop	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 90 per tank
(Mobile Fuel Tanks)	AST Overfill	< 1 to 10	< 1 to 5
	Fuel Dispenser Leak/Rupture/Overfill	< 1 to 10	< 1 to 10
Generator Shop	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 80 per tank
(Mobile Generator Tanks)	AST Overfill	< 1 to 10	< 1 to 5
Genetic Medicine Research Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 8,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Genetic Medicine Research Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 350
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Genome Sciences Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 8,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Genome Sciences Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,200
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Glaxo Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 2,500
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Global Education Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 239
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Goodmon Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 300
(UNC-CH Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Goodmon Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 150
(Verizon Wireless Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Grounds Services	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Diesel Fuel Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Dispenser Leak/Rupture/Overfill	< 1 to 10	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Grounds Services	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 4,000
(Gasoline Fuel Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Dispenser Leak/Rupture/Overfill	< 1 to 10	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Grounds Services	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 2,000
(Biodiesel Fuel Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Grounds Services	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 165 per drum
(Used Oil Drums)	AST Overfill	< 1 to 5	< 1
	Removal Truck Hose Leak/Rupture	< 1 to 10	< 1 to 10
	Removal Truck Tank Leak	< 1 to Instantaneous	< 1 to 3,000

Notes:
Estimated flow rate and volume of discharge is variable depending on the size and location of the leak or rupture and reaction time of personnel.
Volume of tank truck may vary.
GPM = Gallons Per Minute.

TABLE 5
APPROXIMATE RATE OF FLOW AND QUANTITY OF OIL DISCHARGE FOR MAJOR EQUIPMENT FAILURE

Tank Identification	Reasonable Potential Source of Discharge	Estimated Flow Rate (GPM)	Estimated Volume (Gallons)
Hamilton Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 200
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Health Sciences Library	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 500
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Hill Alumni Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 250
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Hinton James Residence Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 320
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Hinton James Residence Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,100
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Hooker Research Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 4,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
House Undergraduate Library	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 250
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
ITS Franklin	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
ITS Franklin	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 429
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
ITS Manning	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 4,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
ITS Manning	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 275
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Jackson Circle Parking Deck	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 420
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Joyner/Alexander Residence Halls	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 800
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Kenan Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 270
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Kenan Stadium	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 200
(Fire Pump Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Kenan Stadium Football Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 230
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000

Notes:
Estimated flow rate and volume of discharge is variable depending on the size and location of the leak or rupture and reaction time of personnel.
Volume of tank truck may vary.
GPM = Gallons Per Minute.

TABLE 5
APPROXIMATE RATE OF FLOW AND QUANTITY OF OIL DISCHARGE FOR MAJOR EQUIPMENT FAILURE

Tank Identification	Reasonable Potential Source of Discharge	Estimated Flow Rate (GPM)	Estimated Volume (Gallons)
Kenan Stadium North (New) (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 100
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Kenan Stadium North (Old) (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 90
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Kenan Stadium South (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 90
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Kerr Hall (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Knapp-Sanders Building (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 270
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Koury Oral Health Sciences Building (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 10,000
	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Landfill Gas Generator (Used Oil Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 270
	AST Overfill	< 1 to 5	< 1
	Removal Truck Hose Leak/Rupture	< 1 to 10	< 1 to 10
	Removal Truck Tank Leak	< 1 to Instantaneous	< 1 to 3,000
Landfill Gas Generator (Oil Reservoir Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to approximately 200
Lineberger Cancer Research Center (1,200-Gallon Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,200
	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Lineberger Cancer Research Center (1,000-Gallon Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Lineberger Cancer Research Center (Day Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 100
	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Loudermilk Center for Excellence (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 900
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Loudermilk Hall (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 150
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Marsico Hall (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 8,000
	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Marsico Hall (Day Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Mary Ellen Jones Building (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 4,000
	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000

Notes:
Estimated flow rate and volume of discharge is variable depending on the size and location of the leak or rupture and reaction time of personnel.
Volume of tank truck may vary.
GPM = Gallons Per Minute.

TABLE 5
APPROXIMATE RATE OF FLOW AND QUANTITY OF OIL DISCHARGE FOR MAJOR EQUIPMENT FAILURE

Tank Identification	Reasonable Potential Source of Discharge	Estimated Flow Rate (GPM)	Estimated Volume (Gallons)
Mary Ellen Jones Building (Day Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 75
	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
McColl Building (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 335
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
McColl Building (Fire Pump Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 130
	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
McGavran-Greenberg Hall (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 2,256
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
McIver/Kenan/Alderman Residence Halls (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
McLean Hall (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 200
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Medical B Building (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 500
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Memorial Hall (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 125
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Morehead Chemistry Labs / Murray Hall (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 5,000
	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Morehead Chemistry Labs (Day Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 150
	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Morrison Residence Hall (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 320
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Murray Hall (Day Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 150
	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Neurosciences Research Building (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 3,000
	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Neurosciences Research Building (Day Tanks)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 100 per tank
	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Northeast Chiller Plant (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,900
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Parker Residence Hall (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 350
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Paul Green Theatre (Generator Tank)	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 200
	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000

Notes:
Estimated flow rate and volume of discharge is variable depending on the size and location of the leak or rupture and reaction time of personnel.
Volume of tank truck may vary.
GPM = Gallons Per Minute.

TABLE 5
APPROXIMATE RATE OF FLOW AND QUANTITY OF OIL DISCHARGE FOR MAJOR EQUIPMENT FAILURE

Tank Identification	Reasonable Potential Source of Discharge	Estimated Flow Rate (GPM)	Estimated Volume (Gallons)
Phillips Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(1,000-Gallon Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Phillips Hall	AST Leak/Rupture	< 1 to Instantaneous	1 to 3,000
(3,000-Gallon Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Phillips Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 150
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Physicians Office Building	AST Leak/Rupture	< 1 to Instantaneous	1 to 1,400
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Public Safety Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Rams Head Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 8,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Rizzo Conference Center	AST Leak/Rupture	< 1 to Instantaneous	1 to 800
Steven D. Bell Hall	AST Overfill	< 1 to 60	< 1 to 10
(Generator Tank)	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
School Leadership Development Center	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 200
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Service Station	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 8,000
(E85 Ethanol Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Dispenser Leak/Rupture/Overfill	< 1 to 10	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Service Station	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 55 per drum
(New Oil Drums)	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Service Station	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 55 per drum
(New Oil Drums)			
Tarrson Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 500
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Tate-Turner-Kuralt Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 150
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Taylor Campus Health Services Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 1,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Taylor Hall / MBRB	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 8,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Taylor Hall / MBRB	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 350
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10

Notes:
Estimated flow rate and volume of discharge is variable depending on the size and location of the leak or rupture and reaction time of personnel.
Volume of tank truck may vary.
GPM = Gallons Per Minute.

TABLE 5
APPROXIMATE RATE OF FLOW AND QUANTITY OF OIL DISCHARGE FOR MAJOR EQUIPMENT FAILURE

Tank Identification	Reasonable Potential Source of Discharge	Estimated Flow Rate (GPM)	Estimated Volume (Gallons)
Thurston-Bowles Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 2,000
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Thurston-Bowles Building	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 100
(Day Tank)	AST Overfill	< 1 to 10	< 1 to 10
	Aboveground Piping Leak	< 1 to 5	< 1 to 10
Van Hecke-Wettach Hall	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 150
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Wilson Library	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 366
(Generator Tank)	AST Overfill	< 1 to 60	< 1 to 10
	Fuel Truck Hose Leak/Rupture	< 1 to 60	< 1 to 10
	Fuel Truck Tank Leak	< 1 to Instantaneous	< 1 to 4,000
Hydraulic Elevators	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 250 per tank
(Oil Reservoir Tanks)			
Transformers	AST Leak/Rupture	< 1 to Instantaneous	< 1 to 760 per transformer

Notes:
Estimated flow rate and volume of discharge is variable depending on the size and location of the leak or rupture and reaction time of personnel.
Volume of tank truck may vary.
GPM = Gallons Per Minute.

TABLE 6
CONTAINMENT DIKE CAPACITY CALCULATIONS

Tank Identification	Containment Dike Capacity Calculations
Ackland Art Museum (Generator Tank)	**AST and Containment Dike Capacities:** AST Capacity = 100 gallons. Containment Dike Capacity = (5.75 feet x 10.2 feet x 0.82 feet) x (7.48 gallons/ft^3) = 360 gallons **Available Freeboard for Precipitation:** Required Wall Height to contain Tank Volume = (Tank Volume) / (Containment Dike Surface Area) Required Wall Height to contain Tank Volume = (100 gallons x ft^3/7.48 gallons) / (5.75 feet x 10.2 feet) Required Wall Height to contain Tank Volume = 0.23 feet Available Freeboard for Precipitation = Dike Wall Height - Required Wall Height to contain Tank Volume Available Freeboard for Precipitation = 0.82 feet - 0.23 feet Available Freeboard for Precipitation = 0.59 feet 25-year, 24-hour Precipitation Event in the Chapel Hill Area = 5.7 to 6.5 inches = 0.48 to 0.54 feet* Therefore, the containment dike provides secondary containment for the entire capacity of the largest single container (including electrical conduits and other fixed objects) plus sufficient freeboard to contain a 25-year, 24-hour precipitation event. **Available Freeboard for Precipitation (Alternate Calculation #1):** Available Freeboard Volume = Containment Dike Capacity - Tank Capacity Available Freeboard Volume = 360 gallons - 100 gallons Available Freeboard Volume = 260 gallons Available Freeboard for Precipitation = (Available Freeboard Volume) / (Interior Dike Length x Interior Dike Width) Available Freeboard for Precipitation = (260 gallons x ft^3/7.48 gallons) / (5.75 feet x 10.2 feet) Available Freeboard for Precipitation = 0.59 feet **Available Freeboard for Precipitation (Alternate Calculation #2):** Precipitation Volume = (Interior Dike Width x Interior Dike Length) x (25-year, 24-hour Precipitation Event Height) Precipitation Volume = (5.75 feet x 10.2 feet) x (0.54 feet) x (7.48 gallons/ft^3) Precipitation Volume = 237 gallons AST Capacity + Precipitation Volume = 337 gallons, which is less than the Containment Dike Capacity of 360 gallons. *National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Data Server

TABLE 6
CONTAINMENT DIKE CAPACITY CALCULATIONS

Tank Identification	Containment Dike Capacity Calculations
Friday Center (Generator Tank)	**AST and Containment Dike Capacities:** AST Capacity = 350 gallons. Containment Dike Capacity = (4.75 feet x 9.38 feet x 2.17 feet) x (7.48 gallons/ft^3) = 723 gallons **Available Freeboard for Precipitation:** Required Wall Height to contain Tank Volume = (Tank Volume) / (Containment Dike Surface Area) Required Wall Height to contain Tank Volume = (350 gallons x ft^3/7.48 gallons) / (4.75 feet x 9.38 feet) Required Wall Height to contain Tank Volume = 1.05 feet Available Freeboard for Precipitation = Dike Wall Height - Required Wall Height to contain Tank Volume Available Freeboard for Precipitation = 2.17 feet - 1.05 feet Available Freeboard for Precipitation = 1.12 feet 25-year, 24-hour Precipitation Event in the Chapel Hill Area = 5.7 to 6.5 inches = 0.48 to 0.54 feet* Therefore, the containment dike provides secondary containment for the entire capacity of the largest single container (including electrical conduits and other fixed objects) plus sufficient freeboard to contain a 25-year, 24-hour precipitation event. **Available Freeboard for Precipitation (Alternate Calculation #1):** Available Freeboard Volume = Containment Dike Capacity - Tank Capacity Available Freeboard Volume = 723 gallons - 350 gallons Available Freeboard Volume = 373 gallons Available Freeboard for Precipitation = (Available Freeboard Volume) / (Interior Dike Length x Interior Dike Width) Available Freeboard for Precipitation = (373 gallons x ft^3/7.48 gallons) / (4.75 feet x 9.38 feet) Available Freeboard for Precipitation = 1.12 feet **Available Freeboard for Precipitation (Alternate Calculation #2):** Precipitation Volume = (Interior Dike Width x Interior Dike Length) x (25-year, 24-hour Precipitation Event Height) Precipitation Volume = (4.75 feet x 9.38 feet) x (0.54 feet) x (7.48 gallons/ft^3) Precipitation Volume = 180 gallons AST Capacity + Precipitation Volume = 530 gallons, which is less than the Containment Dike Capacity of 723 gallons. *National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Data Server

TABLE 6
CONTAINMENT DIKE CAPACITY CALCULATIONS

Tank Identification	Containment Dike Capacity Calculations
Kenan Stadium North (Old) (Generator Tank)	**AST and Containment Dike Capacities:** AST Capacity = 90 gallons. Containment Dike Capacity = (5.55 feet x 8.8 feet x 0.88 feet) x (7.48 gallons/ft^3) = 321 gallons **Available Freeboard for Precipitation:** Required Wall Height to contain Tank Volume = (Tank Volume) / (Containment Dike Surface Area) Required Wall Height to contain Tank Volume = (90 gallons x ft^3/7.48 gallons) / (5.55 feet x 8.8 feet) Required Wall Height to contain Tank Volume = 0.25 feet Available Freeboard for Precipitation = Dike Wall Height - Required Wall Height to contain Tank Volume Available Freeboard for Precipitation = 0.88 feet - 0.25 feet Available Freeboard for Precipitation = 0.63 feet 25-year, 24-hour Precipitation Event in the Chapel Hill Area = 5.7 to 6.5 inches = 0.48 to 0.54 feet* Therefore, the containment dike provides secondary containment for the entire capacity of the largest single container (including electrical conduits and other fixed objects) plus sufficient freeboard to contain a 25-year, 24-hour precipitation event. **Available Freeboard for Precipitation (Alternate Calculation #1):** Available Freeboard Volume = Containment Dike Capacity - Tank Capacity Available Freeboard Volume = 321 gallons - 90 gallons Available Freeboard Volume = 231 gallons Available Freeboard for Precipitation = (Available Freeboard Volume) / (Interior Dike Length x Interior Dike Width) Available Freeboard for Precipitation = (231 gallons x ft^3/7.48 gallons) / (5.55 feet x 8.8 feet) Available Freeboard for Precipitation = 0.63 feet **Available Freeboard for Precipitation (Alternate Calculation #2):** Precipitation Volume = (Interior Dike Width x Interior Dike Length) x (25-year, 24-hour Precipitation Event Height) Precipitation Volume = (5.55 feet x 8.8 feet) x (0.54 feet) x (7.48 gallons/ft^3) Precipitation Volume = 197.3 gallons AST Capacity + Precipitation Volume = 287.3 gallons, which is less than the Containment Dike Capacity of 321 gallons. *National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Data Server

TABLE 6
CONTAINMENT DIKE CAPACITY CALCULATIONS

Tank Identification	Containment Dike Capacity Calculations
Lineberger Cancer Research Center (1,200-Gallon Generator Tank)	**AST and Containment Dike Capacities:** AST Capacity = 1,200 gallons. Containment Dike Capacity = (13.83 feet x 20.17 feet x 3.0 feet) x (7.48 gallons/ft^3) = 6,260 gallons **Available Freeboard for Precipitation:** Required Wall Height to contain Tank Volume = (Tank Volume) / (Containment Dike Surface Area) Required Wall Height to contain Tank Volume = (1,200 gallons x ft^3/7.48 gallons) / (13.83 feet x 20.17 feet) Required Wall Height to contain Tank Volume = 0.58 feet Available Freeboard for Precipitation = Dike Wall Height - Required Wall Height to contain Tank Volume Available Freeboard for Precipitation = 3.0 feet - 0.58 feet Available Freeboard for Precipitation = 2.42 feet 25-year, 24-hour Precipitation Event in the Chapel Hill Area = 5.7 to 6.5 inches = 0.48 to 0.54 feet* Therefore, the containment dike provides secondary containment for the entire capacity of the largest single container (including electrical conduits and other fixed objects) plus sufficient freeboard to contain a 25-year, 24-hour precipitation event. **Available Freeboard for Precipitation (Alternate Calculation #1):** Available Freeboard Volume = Containment Dike Capacity - Tank Capacity Available Freeboard Volume = 6,260 gallons - 1,200 gallons Available Freeboard Volume = 5,060 gallons Available Freeboard for Precipitation = (Available Freeboard Volume) / (Interior Dike Length x Interior Dike Width) Available Freeboard for Precipitation = (5,060 gallons x ft^3/7.48 gallons) / (13.83 feet x 20.17 feet) Available Freeboard for Precipitation = 2.43 feet **Available Freeboard for Precipitation (Alternate Calculation #2):** Precipitation Volume = (Interior Dike Width x Interior Dike Length) x (25-year, 24-hour Precipitation Event Height) Precipitation Volume = (13.83 feet x 20.17 feet) x (0.54 feet) x (7.48 gallons/ft^3) Precipitation Volume = 1,127 gallons AST Capacity + Precipitation Volume = 2,327 gallons, which is less than the Containment Dike Capacity of 6,260 gallons. *National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Data Server

TABLE 6
CONTAINMENT DIKE CAPACITY CALCULATIONS

Tank Identification	Containment Dike Capacity Calculations
Thurston-Bowles Building (Generator Tank)	**AST and Containment Dike Capacities:** AST Capacity = 2,000 gallons. Containment Dike Capacity = (10.33 feet x 22.0 feet x 3.0 feet) x (7.48 gallons/ft^3) = 5,100 gallons **Available Freeboard for Precipitation:** Required Wall Height to contain Tank Volume = (Tank Volume) / (Containment Dike Surface Area) Required Wall Height to contain Tank Volume = (2,000 gallons x ft^3/7.48 gallons) / (10.33 feet x 22.0 feet) Required Wall Height to contain Tank Volume = 1.18 feet Available Freeboard for Precipitation = Dike Wall Height - Required Wall Height to contain Tank Volume Available Freeboard for Precipitation = 3.0 feet - 1.18 feet Available Freeboard for Precipitation = 1.82 feet 25-year, 24-hour Precipitation Event in the Chapel Hill Area = 5.7 to 6.5 inches = 0.48 to 0.54 feet* Therefore, the containment dike provides secondary containment for the entire capacity of the largest single container (including electrical conduits and other fixed objects) plus sufficient freeboard to contain a 25-year, 24-hour precipitation event. **Available Freeboard for Precipitation (Alternate Calculation #1):** Available Freeboard Volume = Containment Dike Capacity - Tank Capacity Available Freeboard Volume = 5,100 gallons - 2,000 gallons Available Freeboard Volume = 3,100 gallons Available Freeboard for Precipitation = (Available Freeboard Volume) / (Interior Dike Length x Interior Dike Width) Available Freeboard for Precipitation = (3,100 gallons x ft^3/7.48 gallons) / (10.33 feet x 22.0 feet) Available Freeboard for Precipitation = 1.82 feet **Available Freeboard for Precipitation (Alternate Calculation #2):** Precipitation Volume = (Interior Dike Width x Interior Dike Length) x (25-year, 24-hour Precipitation Event Height) Precipitation Volume = (10.33 feet x 22.0 feet) x (0.54 feet) x (7.48 gallons/ft^3) Precipitation Volume = 918 gallons AST Capacity + Precipitation Volume = 2,918 gallons, which is less than the Containment Dike Capacity of 5,100 gallons. *National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Data Server

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Ackland Art Museum (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. Inspect containment area for leaks, cracks, and oil stains. Verify drain valves for the containment area are securely closed (as applicable). If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Ambulatory Care Center (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Inspect containment area for leaks, cracks, and oil stains. Verify drain valves for the containment area are securely closed (as applicable). If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Athletics Outdoor Facility Operations (Diesel Fuel Tank)	**Monthly** Check for locks on fill ports and interstitial monitoring ports. Check for lock on fuel dispenser control switch. Check liquid level gauge for proper operation. Inspect tank and dispenser for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Avery Residence Hall (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Bell Tower Parking Deck (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Bingham Facility (Bingham 1 Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Bingham Facility (Bingham 2 Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Bingham Facility (Bingham 3 Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Bingham Facility (Wastewater Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Bioinformatics Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Inspect containment area for leaks, cracks, and oil stains. Verify drain valves for the containment area are securely closed (as applicable). If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Bondurant Hall (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. Inspect piping and piping supports from remote fill to tank for leaks, excessive corrosion, damage, and other deterioration. Verify drain plug is installed in floor drain next to generator. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Brinkhous-Bullitt Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Burnett-Womack Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Cardinal Parking Deck (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. Verify drain plug is installed in floor drain next to generator. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Carmichael Auditorium (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Carmichael Residence Hall (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Inspect containment area for leaks, cracks, and oil stains. Verify drain valves for the containment area are securely closed (as applicable). If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Carolina Inn (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Carrington Hall Addition (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Caudill Labs (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. Inspect piping and piping supports from remote fill to tank for leaks, excessive corrosion, damage, and other deterioration. **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Cheek-Clark Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Craige Parking Deck (Generator Tank)	**Weekly** Check for lock on fill port. Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Craige Residence Hall (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Davie Hall (Generator Tank)	**Weekly** Check for lock on fill port. Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Davis Library (Generator and Fire Pump Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. Inspect containment area for leaks, cracks, and oil stains. Verify drain valves for the containment area are securely closed (as applicable). If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Dean Smith Student Activities Center (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Dogwood Parking Deck (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Ehringhaus Residence Hall (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Electric Distribution Operations Center (Diesel Fuel Tank)	**Monthly** Check for locks on fill ports and interstitial monitoring ports. Check for lock on fuel dispenser control switch. Check liquid level gauge for proper operation. Inspect tank and dispenser for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Electric Distribution Operations Center (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Electric Distribution Operations Center (Transformer Oil Drums)	**Monthly** Inspect drums for leaks, corrosion, cracks, damage, and other deterioration. Inspect containment berm for evidence of leaks or spills from drums. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Electric Distribution Operations Center (Used Oil Drums)	**Monthly** Inspect drums for leaks, corrosion, cracks, damage, and other deterioration. Inspect containment berm for evidence of leaks or spills from drums. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Energy Services Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
EPA Building (Generator Tank)	**Monthly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Inspect ground surface near fill port for evidence of oil spills. Check tank manhole for presence of oil or water. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near generator for evidence of leaks. Check liquid level gauge in generator room for proper operation. Check leak detection sensor in containment berm sump (generator room) for proper operation. If water in tank manhole needs to be pumped out: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the UNC Department of EHS. 3. If no oil sheen, pump out the water under supervision. **Semiannual** Verify tank vents are clear of obstructions. Gauge both observation wells for presence of oil. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
EPA Building (Trailer Generator Tank)	**Monthly** Check for locks on fill port and interstitial monitoring port (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Verify drain valves for tank are securely closed (as applicable). Inspect catch basin for leaks, cracks, and oil stains. Verify drain valve for the containment basin is securely closed. If catch basin needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the UNC Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
EPA Building (Auxiliary Generator Tank)	**Monthly** Check for locks on fill port and interstitial monitoring port (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Verify drain valves for tank are securely closed (as applicable). Inspect catch basin for leaks, cracks, and oil stains. Verify drain valve for the containment basin is securely closed. If catch basin needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the UNC Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
EPA Building (Emergency Holding Tank)	**Monthly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to boiler for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to boiler for excessive corrosion, damage, and other deterioration. Verify drain valves for tank are securely closed (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

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EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
EPA Building (Diesel Fuel Drums)	**Monthly** Inspect drums for leaks, corrosion, cracks, damage, and other deterioration. Inspect catch basin for evidence of leaks or spills from drums. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Fetzer Gymnasium (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Finley Golf Course Facility (Gasoline and Diesel Fuel Tanks)	**Monthly** Check for locks on fill ports and interstitial monitoring ports. Check liquid level gauges for proper operation. Inspect tanks and dispenser for leaks, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Check for lock on fuel dispenser control switch. Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring ports for leaks from tanks. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Finley Golf Course Facility (Used Oil Tank)	**Monthly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port (dip stick) for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Fordham Hall (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Friday Center (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Inspect containment area for leaks, cracks, and oil stains. Verify drain valves for the containment area are securely closed (as applicable). If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
General Storeroom (Diesel Fuel Tank)	**Monthly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank and dispenser for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Check for lock on fuel dispenser and electrical control switch. Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Generator Shop (Mobile Fuel Tanks)	**Monthly** Inspect tank and dispenser for leaks, corrosion, cracks, damage, and other deterioration. Check liquid level gauge for proper operation. Verify drain valves for tank are securely closed. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Generator Shop (Mobile Generator Tanks)	**Monthly** Inspect tank for leaks, corrosion, cracks, damage, and other deterioration. Check liquid level gauge for proper operation. Verify drain valves for tank are securely closed. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

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EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Genetic Medicine Research Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Genome Sciences Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Glaxo Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Global Education Center (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

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EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Goodmon Building (UNC-CH Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Goodmon Building (Verizon Wireless Generator Tank)	**Monthly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the UNC-Chapel Hill Department of Environment, Health & Safety at (919) 962-5507.
Grounds Services (Gasoline/Diesel/Biodiesel Fuel Tanks)	**Monthly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauges for proper operation. Inspect tanks and dispensers for leaks, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Inspect fill piping on gasoline tank for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping and joints from biodiesel tank for leaks, excessive corrosion, damage, and other deterioration. Check high level alarms for proper operation. Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Grounds Services (Used Oil Drums)	**Monthly** Check for locks on fill ports. Inspect tanks for leaks, cracks, damage, and other deterioration. Inspect containment berm for evidence of leaks from tanks. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Hamilton Hall (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Health Sciences Library (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Hill Alumni Center (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Hinton James Residence Hall (320-Gallon Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Hinton James Residence Hall (1,100-Gallon Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Hooker Research Center (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
House Undergraduate Library (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
ITS Franklin (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
ITS Manning (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Verify drain plug is installed in floor drain next to generator. **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Jackson Circle Parking Deck (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Joyner/Alexander Residence Halls (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Kenan Center (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **Annual** Open drain valve for rupture basin to check for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Kenan Stadium (Fire Pump Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Kenan Stadium Football Center (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Kenan Stadium North (New) (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Kenan Stadium North (Old) (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Inspect containment area for leaks, cracks, and oil stains. Verify drain valves for the containment area are securely closed (as applicable). If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Kenan Stadium South (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Kerr Hall (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Knapp-Sanders Building (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Koury Oral Health Sciences Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. Inspect piping and piping supports from remote fill to tank for leaks, excessive corrosion, damage, and other deterioration. **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Landfill Gas Generator (Used Oil Tank)	**Monthly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Inspect oil reservoir tank inside generator compartment for leaks, corrosion, cracks, damaged, and other deterioration. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Lineberger Cancer Research Center (1,200-Gallon Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Inspect containment area for leaks, cracks, and oil stains. Verify drain valves for the containment area are securely closed (as applicable). If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Lineberger Cancer Research Center (1,000-Gallon Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Verify drain plug is installed in floor drain next to generator. Inspect containment area for leaks, cracks, and oil stains. Verify drain valves for the containment area are securely closed (as applicable). If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Loudermilk Center for Excellence (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Loudermilk Hall (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Marsico Hall (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. Inspect piping and piping supports from remote fill to tank for leaks, excessive corrosion, damage, and other deterioration. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Mary Ellen Jones Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. Verify drain plug is installed in floor drain next to generator. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
McColl Building (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
McColl Building (Fire Pump Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. Inspect absorbent barriers for piping, replace as needed. Inspect containment area for leaks, cracks, and oil stains. Verify drain valves for the containment area are securely closed (as applicable). If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vent is clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
McGavran-Greenberg Hall (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
McIver/Kenan/Alderman Residence Halls (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
McLean Hall (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Medical B Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Memorial Hall (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Morehead Chemistry Labs / Murray Hall (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. Inspect piping and piping supports from remote fill to tank for leaks, excessive corrosion, damage, and other deterioration. **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Morehead Chemistry Labs (Day Tank)	**Weekly** Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). **Semiannual** Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Morrison Residence Hall (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Neurosciences Research Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. Check leak detection sensors in day tank rupture basin for proper operation. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Northeast Chiller Plant (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vent is clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Parker Residence Hall (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Paul Green Theatre (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Phillips Hall (1,000-Gallon Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Phillips Hall (3,000-Gallon Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Physicians Office Building (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Public Safety Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Rams Head Center (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. Check interstitial monitoring port for leaks from tank. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Rizzo Conference Center Steve D. Bell Hall (Generator Tank)	**Weekly** Check for lock on fill port. Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
School Leadership Development Center (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Service Station (E85 Ethanol Tank)	**Monthly** Check for locks on fill ports and interstitial monitoring ports. Check liquid level gauge for proper operation. Check high level alarm for proper operation. Inspect tank for leaks, corrosion, cracks, damage, and other deterioration. Inspect ground surface near tank and piping for evidence of leaks or spills. Inspect all piping and joints from tank for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports for excessive corrosion, damage, and other deterioration. Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Service Station (New Oil Drums)	**Monthly** Inspect drums for leaks, corrosion, cracks, damage, and other deterioration. Inspect floor surfaces for evidence of leaks or spills from drums. **Semiannual** Inspect oil/water separator for the presence of oil. Contact the Department of EHS if oil is detected in the oil/water separator. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Tarrson Hall (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Tate-Turner-Kuralt Building (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Taylor Campus Health Services Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

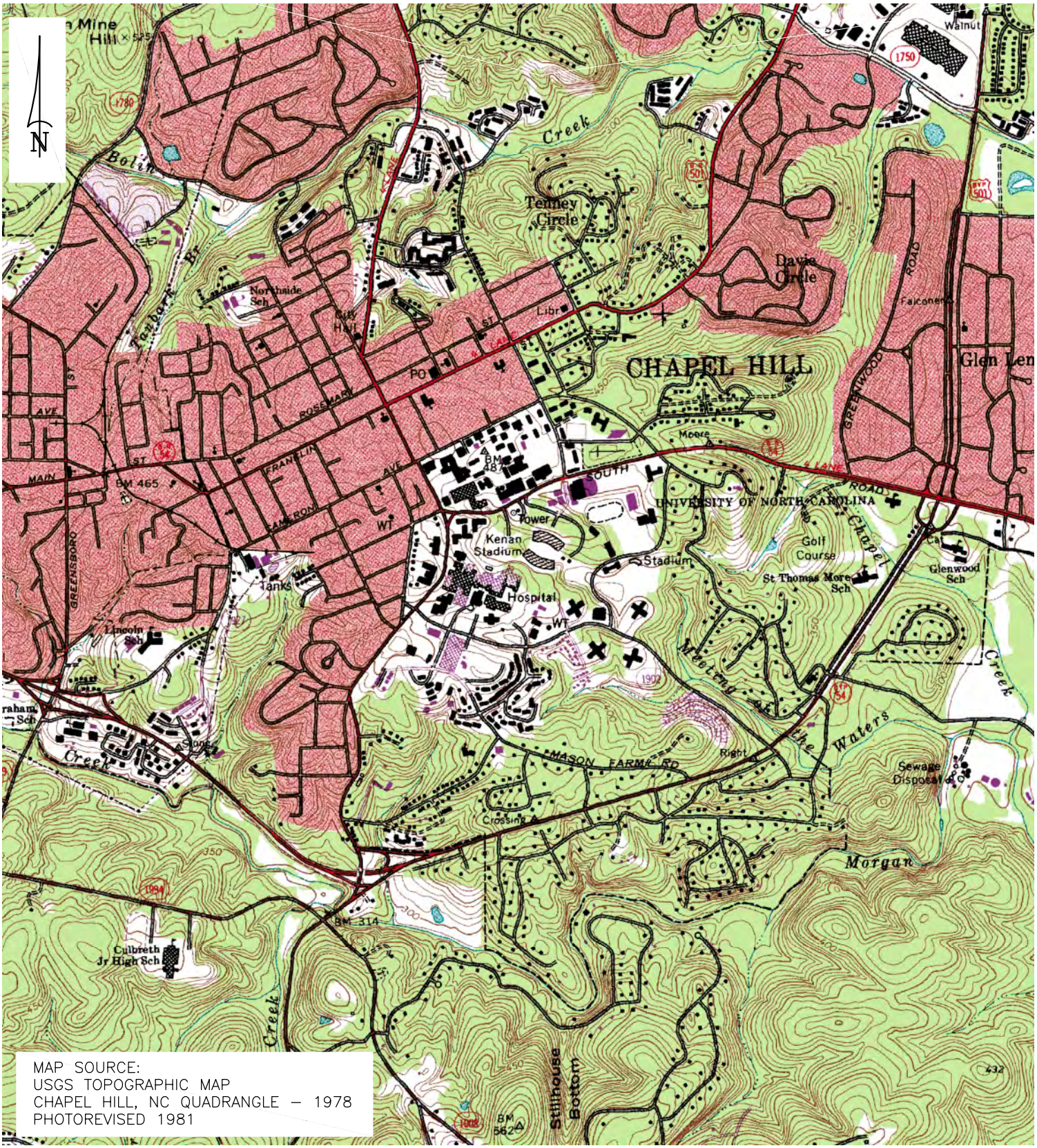
TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Taylor Hall / MBRB (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. Check junction box next to main tank for accumulated water. Inspect containment area for leaks, cracks, and oil stains. If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Thurston-Bowles Building (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). Check for spill cleanup materials. Inspect containment area for leaks, cracks, and oil stains. Verify drain valves for the containment area are securely closed (as applicable). If containment area needs to be drained: 1. Is oil sheen present on accumulated water? (Yes/No). 2. If oil sheen is present, contact the Department of EHS. 3. If no oil sheen, drain the water under supervision and close the drain valve (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Van Hecke-Wettach Hall (Generator Tank)	**Weekly** Inspect tank and piping for leaks, corrosion, cracks, damage, and other deterioration. Inspect area near tank for evidence of leaks. Verify drain valves for tank are securely closed. Check liquid level gauge for proper operation. **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

TABLE 7
EXAMPLE INSPECTION CHECKLISTS

Tank Identification	Inspection Schedule
Wilson Library (Generator Tank)	**Weekly** Check for locks on fill ports and interstitial monitoring ports (as applicable). Check liquid level gauge for proper operation. Inspect tank for corrosion, cracks, damage, deterioration and inspect tank area for leaks. Inspect all piping and joints from tank to generator for leaks, excessive corrosion, damage, and other deterioration. Inspect all piping supports from tank to generator for excessive corrosion, damage, and other deterioration. Inspect area near generator for evidence of leaks. Verify drain valves for tank are securely closed (as applicable). Inspect day tank for leaks, corrosion, cracks, damage, and other deterioration (as applicable). Check high level and leak detection alarms (as applicable). **Semiannual** Verify tank vents are clear of obstructions. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Hydraulic Elevators	**Bi-Weekly** Inspect reservoir tank, elevator shaft, sump pit, piping, tubing, and other applicable equipment for leaks, damage, and other deterioration. Inspect area near reservoir tank for evidence of leaks. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.
Transformers	**Annual** Inspect transformer for leaks, cracks, damage, and other deterioration. Inspect area near transformer for evidence of leaks. **The following entry must be included at the end of every checklist:** Deficiencies and corrective actions must be documented on this inspection form. All oil leaks must be reported to the Department of EHS.

FIGURES



TITLE **FIGURE 1**

USGS TOPOGRAPHIC MAP
MAIN CAMPUS
THE UNIVERSITY OF NORTH CAROLINA
CHAPEL HILL, NORTH CAROLINA

ATC ASSOCIATES INC.
Raleigh, North Carolina 27604
(919) 871-0999 FAX (919) 871-0335

CAD FILE	TYPE CODE	PREP. BY	REV. BY	SCALE	DATE	PROJECT NO.
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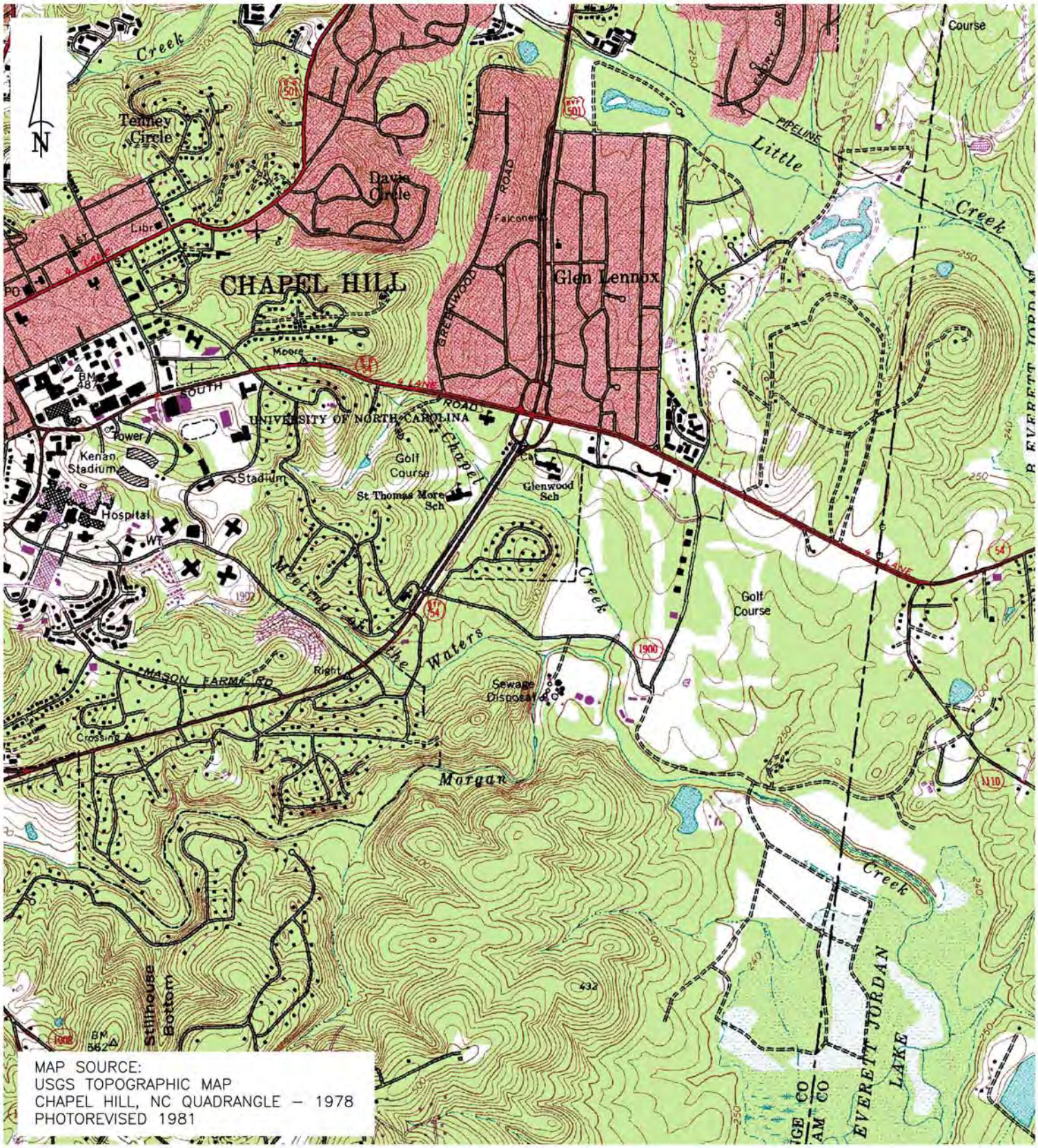
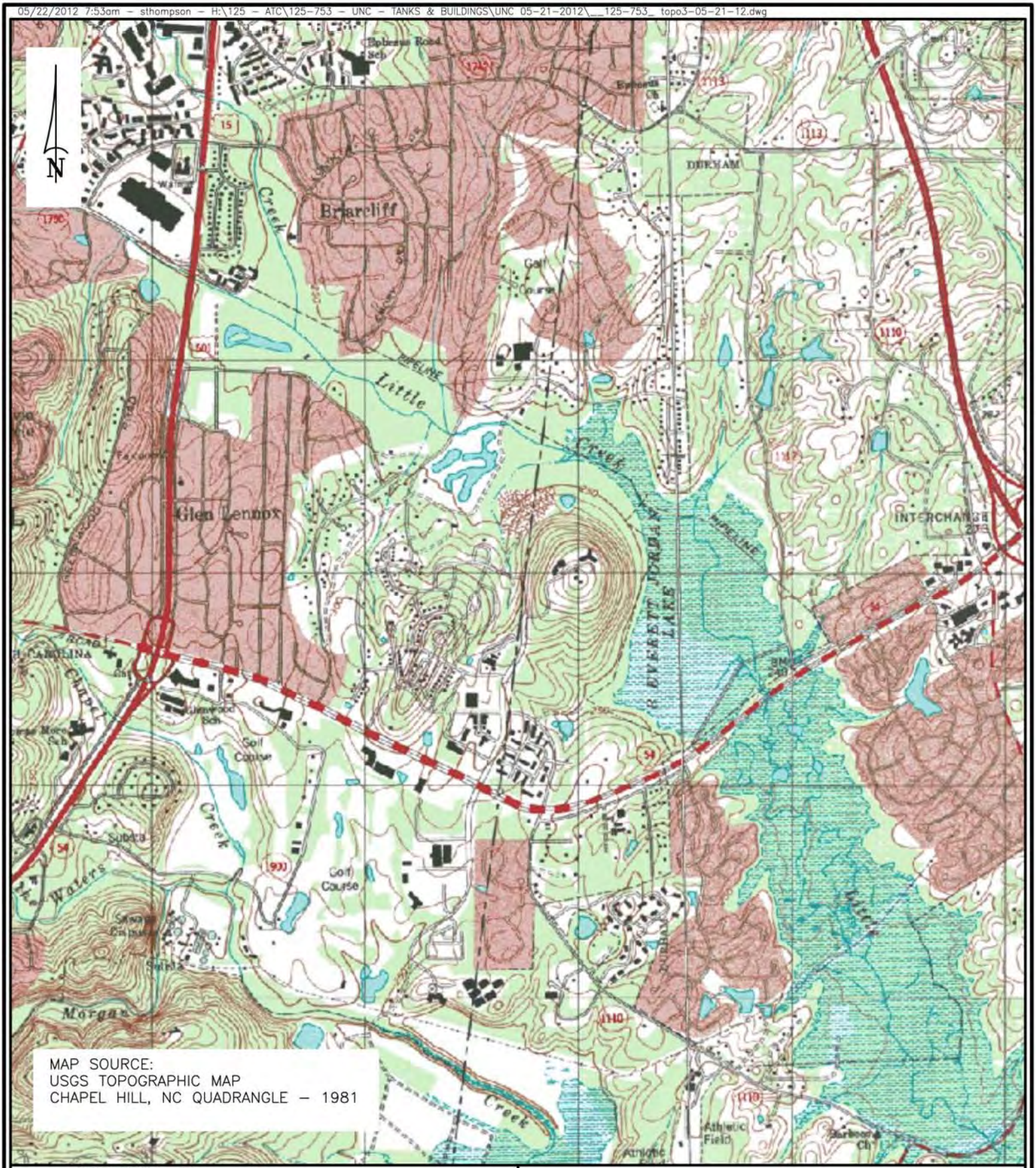


MAP SOURCE:
USGS TOPOGRAPHIC MAP
CHAPEL HILL, NC QUADRANGLE – 1978
PHOTOREVISED 1981

TITLE **FIGURE 2**
USGS TOPOGRAPHIC MAP
MASON FARM AREA
THE UNIVERSITY OF NORTH CAROLINA
CHAPEL HILL, NORTH CAROLINA

ATC ASSOCIATES INC.
Raleigh, North Carolina 27604
(919) 871-0999 FAX (919) 871-0335

CAD FILE	TYPE CODE	PREP. BY	REV. BY	SCALE	DATE	PROJECT NO.
125753.DWG		RK	RK	1: 2000	05–21–2012	45.14249.0001

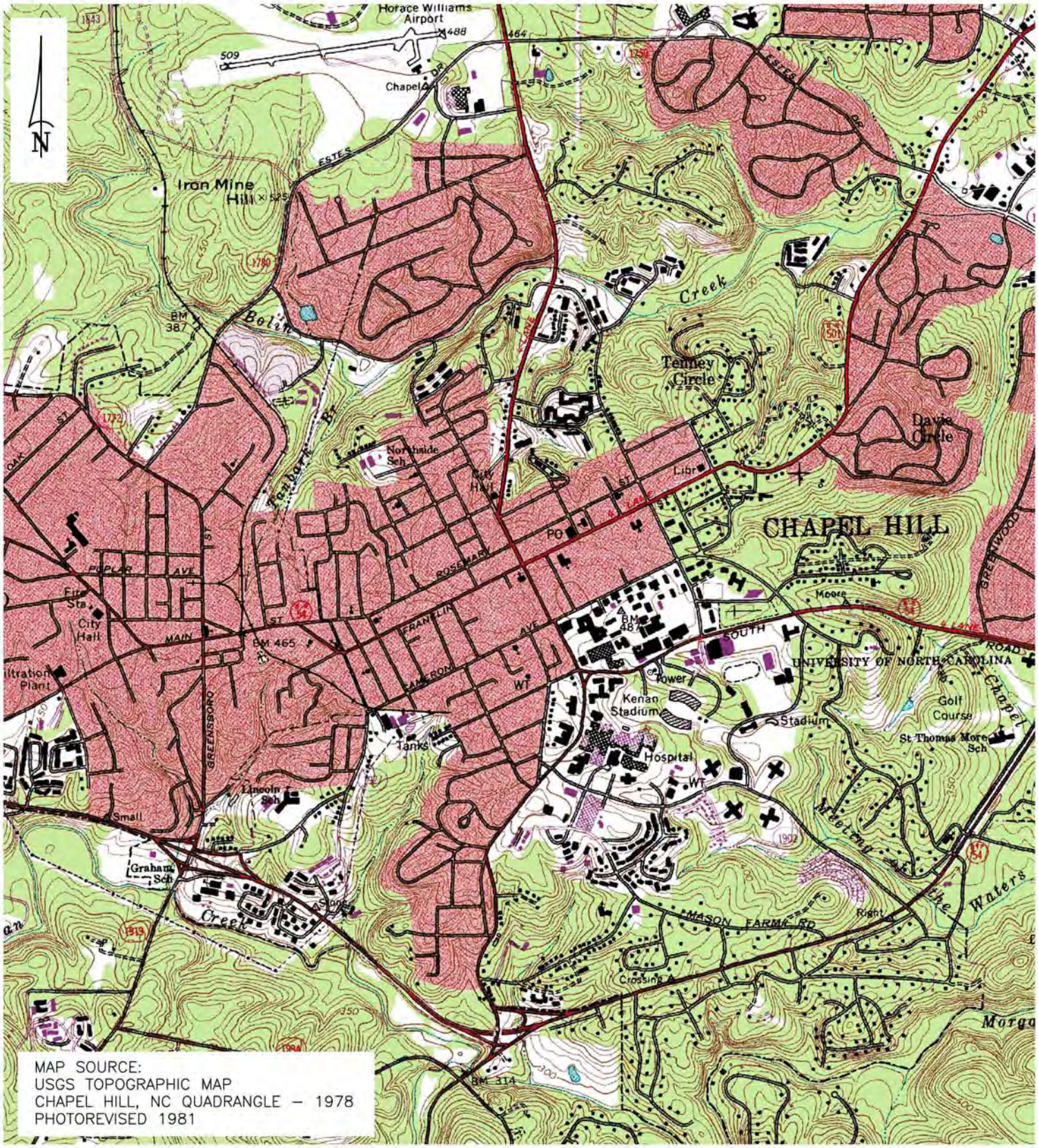


TITLE **FIGURE 3**

USGS TOPOGRAPHIC MAP
RIZZO CENTER MEADOWMONT
THE UNIVERSITY OF NORTH CAROLINA
CHAPEL HILL, NORTH CAROLINA

ATC ASSOCIATES INC.
Raleigh, North Carolina 27604 (919) 871-0999 FAX (919) 871-0335

CAD FILE	TYPE CODE	PREP. BY	REV. BY	SCALE	DATE	PROJECT NO.
125753.DWG		RK	RK	1: 2000	05–21–2012	45.14249.0001

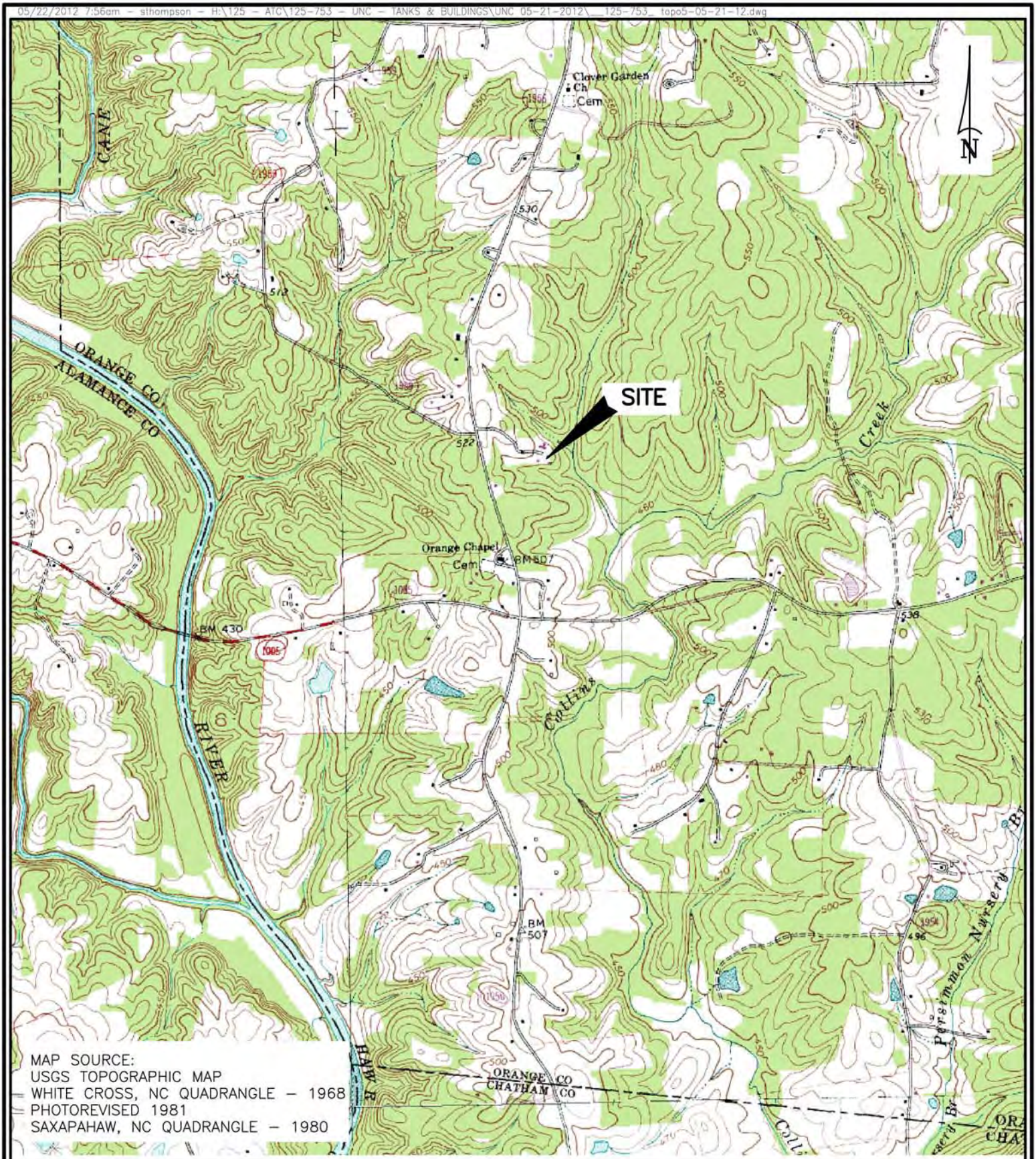


MAP SOURCE:
USGS TOPOGRAPHIC MAP
CHAPEL HILL, NC QUADRANGLE – 1978
PHOTOREVISED 1981

TITLE **FIGURE 4**
USGS TOPOGRAPHIC MAP
CAROLINA NORTH
THE UNIVERSITY OF NORTH CAROLINA
CHAPEL HILL, NORTH CAROLINA

ATC ASSOCIATES INC.
Raleigh, North Carolina 27604
(919) 871-0999 FAX (919) 871-0335

CAD FILE	TYPE CODE	PREP. BY	REV. BY	SCALE	DATE	PROJECT NO.
125753.DWG		RK	RK	1: 2000	05–21–2012	45.14249.0001



MAP SOURCE:
USGS TOPOGRAPHIC MAP
WHITE CROSS, NC QUADRANGLE – 1968
PHOTOREVISED 1981
SAXAPAHAW, NC QUADRANGLE – 1980

TITLE **FIGURE 5**

USGS TOPOGRAPHIC MAP
BINGHAM FACILITY
THE UNIVERSITY OF NORTH CAROLINA
CHAPEL HILL, NORTH CAROLINA

ATC ASSOCIATES INC.
Raleigh, North Carolina 27604
(919) 871-0999 FAX (919) 871-0335

CAD FILE	TYPE CODE	PREP. BY	REV. BY	SCALE	DATE	PROJECT NO.
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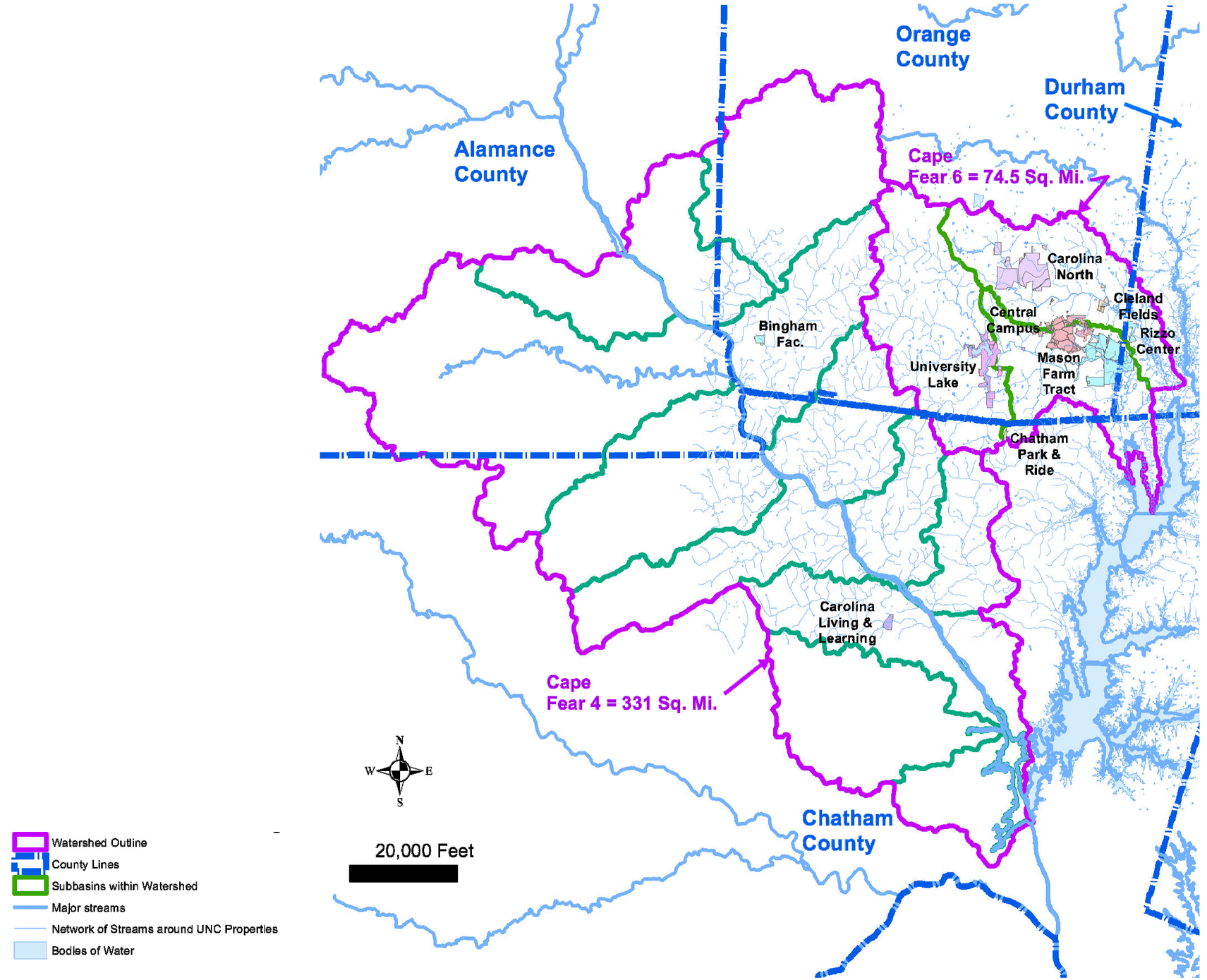


Figure 6
Cape Fear 4 and 6 Watersheds
The University of North Carolina
at Chapel Hill
Chapel Hill, North Carolina

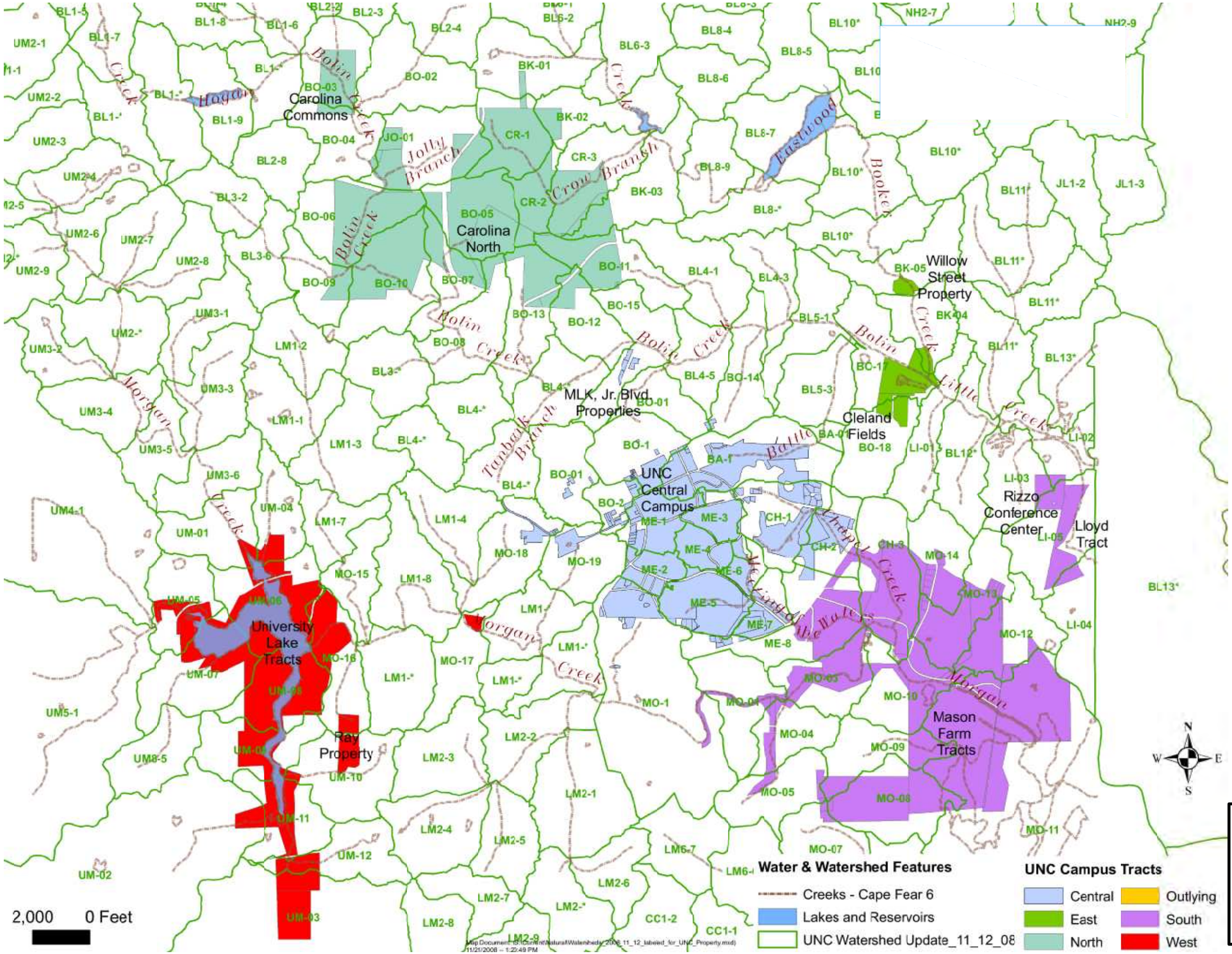


Figure 7
Creeks, Watersheds, and
UNC-Chapel Hill Properties
The University of North Carolina
at Chapel Hill
Chapel Hill, North Carolina

UNC - Chapel Hill Transformers

FIGURE 8

Battle Creek Outfall

Battle Grove

Bell Tower Outfalls

Boshamer Outfall

Dean Smith Outfall

Morgan Trib Outfall

0 500 1,000 2,000 3,000 4,000 Feet

Facilities Complex & Carolina North

Friday Center

General Administration

UNC ENVIRONMENT, HEALTH & SAFETY

Legend

Transformer Bank

- Overhead Transformer
- Padmount Transformer
- Underground Transformer

Stormwater Structures

- Curb Inlet; Curb with Grate Inlet
- Grate Inlet
- Manhole/Junction
- Other Outlet
- Pipe Inlet
- Pipe Outfall
- Slab Top Inlet
- Trench Drain
- Unknown
- Drain
- Main
- Pipe Outfall
- Major Outfall, Spill Response Location

- UNC Building
- Athletic Field
- Athletic Court
- Swimming Pool
- Open Space
- Campus Boundary
- Watershed Boundaries
- Lakes and Rivers
- Streams

3/29/2017
H:\Environmental\Transformers Map\UNC Transformers, Updated March 2017.mxd
Map created by Janet Clarke, UNC EHS. Use for investigational purposes only, as data is approximate

UNC - Chapel Hill Buildings With Hydraulic Elevators

FIGURE 9

Legend

- Major Outfall, Spill Response Location
- Pipe Outfall
- Watershed Boundaries
- UNC Building
- Buildings With Hydraulic Elevators
- Hydraulic Elevator
- Athletic Field
- Swimming Pool
- Athletic Court
- Open Space
- Campus Boundary
- Stream
- Lakes and Rivers

Battle Creek Outfall

Battle Grove

Bell Tower Outfalls

Boshamer Outfall

Dean Smith Outfall

Morgan Trib Outfall

Feet: 0, 500, 1,000, 2,000, 3,000, 4,000

Facilities Complex

ITS Franklin Annex

Sheps & 730 MLK Jr Blvd

Friday Center

FPG Child Development

General Administration

1700 Martin Luther King Jr. Blvd.

UNC ENVIRONMENT, HEALTH & SAFETY

3/6/2017

H:\Environmental\Clarke\ElevatorInventory\UNC Buildings with Hydraulic

Map created by Janet Clarke, UNC EHS. Use for investigational purposes only, as data is approximate

APPENDIX A

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA
(FROM 40 CFR § 112, APPENDIX C, ATTACHMENT C-II)

Facility Name: The University of North Carolina at Chapel Hill
Facility Address: 1120 Estes Drive Extension, Chapel Hill, North Carolina 27599-1650

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?
   Yes____ No_X__

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility 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 oil storage tank area?
   Yes____ No_X__

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the formula in 40 CFR § 112, Appendix C, Attachment C-III or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see 40 CFR § 112, Appendix E, Section 13 for availability) and the applicable Area Contingency Plan.
   Yes____ No_X__

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in 40 CFR § 112, Appendix C, Attachment C-III or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?
   Yes____ No_X__

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?
   Yes____ No_X__

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.

Matthew M. Fajack
Vice Chancellor for Finance and Administration
The University of North Carolina at Chapel Hill

3/31/17
Date

APPENDIX B

CERTIFICATION AND APPROVAL OF SPCC PLAN

PROFESSIONAL ENGINEER CERTIFICATION OF SPCC PLAN

The University of North Carolina at Chapel Hill
Spill Prevention, Control, and Countermeasure Plan

In accordance with 40 CFR § 112.3(d)(1), I hereby certify that I have visited and examined the University of North Carolina at Chapel Hill (UNC-Chapel Hill) facilities included in this SPCC Plan, and being familiar with the requirements of 40 CFR § 112, attest that this SPCC Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of 40 CFR § 112. I also certify that procedures for required inspections and testing, as referenced in this SPCC Plan, have been established and that this SPCC Plan is adequate for UNC-Chapel Hill. As described in 40 CFR § 112.3(d)(2), this certification shall in no way relieve UNC-Chapel Hill of the duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR § 112.

Professional Engineer: Rick Kleinfelter, P.E.

Signature: R D Kleinfelter

Registration No.: 025535

State of Registration: North Carolina

Date: 3/30/17

RAK 3/30/17

UNC-CHAPEL HILL APPROVAL OF SPCC PLAN

The University of North Carolina at Chapel Hill
Spill Prevention, Control, and Countermeasure Plan

In accordance with 40 CFR § 112.7, the UNC-Chapel Hill SPCC Plan has the full approval of UNC-Chapel Hill management at a level of authority to commit the necessary resources to fully implement the Plan.

Matthew M. Fajack
Vice Chancellor for Finance and Administration
The University of North Carolina at Chapel Hill

Date 3/31/17

APPENDIX C

REVIEW AND AMENDMENT OF SPCC PLAN

REVIEW AND AMENDMENT OF SPCC PLAN

In accordance with 40 CFR § 112.5(a), UNC-Chapel Hill, through the UNC-Chapel Hill Department of Environment, Health & Safety (EHS), shall amend this SPCC Plan when there is a change in the design, construction, operation, or maintenance that materially affects the potential for an oil discharge to navigable waters. Examples of changes that may require amendment of this SPCC Plan include, but are not limited to:

- Commissioning or decommissioning of oil storage containers;
- Replacement, reconstruction, or movement of oil storage containers;
- Replacement, reconstruction, or installation of oil-containing piping systems;
- Construction or demolition that might alter secondary containment structures;
- Changes of product or service; or
- Revision of standard operation or maintenance procedures related to oil handling or oil storage.

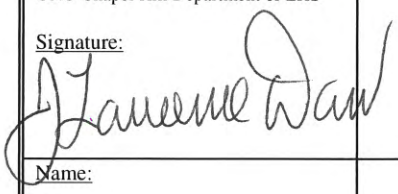
Any amendment to the SPCC Plan shall be prepared within six months of the change and implemented by UNC-Chapel Hill as soon as possible, but not later than six months following preparation of the amendment.

In accordance with 40 CFR § 112.5(b), UNC-Chapel Hill, through the Department of EHS, shall complete a review and evaluation of this SPCC Plan at least once every five years from the certification date of the Plan. As a result of the review and evaluation, UNC-Chapel Hill shall amend the SPCC Plan within six months of the review to include more effective prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of an oil discharge to navigable waters. Any amendment to the SPCC Plan shall be prepared within six months of the review and implemented by UNC-Chapel Hill as soon as possible, but not later than six months following preparation of the amendment.

In accordance with 40 CFR § 112.5(c), a licensed Professional Engineer (PE) shall certify any technical amendment to this SPCC Plan when there is a change in the design, construction, operation, or maintenance that materially affects the potential for an oil discharge. Non-technical amendments, such as changes to names or contact information, do not require certification by a licensed PE.

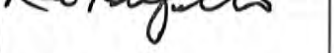
FACILITY MANAGEMENT REVIEW AND AMENDMENT OF SPCC PLAN
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

I have completed a review and evaluation of this SPCC Plan and have noted below if the Plan will or will not be amended:

UNC-Chapel Hill Reviewer	Plan Review Date	Amendment Decision (Will Amend or Will Not Amend)	Scope of Amendment
Name: J. Laurence Daw, L.G. UNC-Chapel Hill Department of EHS Signature: 	12/30/22	Will Amend with PE Certification	Technical amendments to include oil container and/or piping changes at Dean Smith Student Activities Center, McGavran-Greenberg Hall, Hooker Research Center, Kenan Labs, and Horace Williams Airport. In addition, miscellaneous text edits throughout the SPCC Plan; updates to emergency contacts list; and updates to inventory of transformers and hydraulic elevators.
Name: Signature:			
Name: Signature:			
Name: Signature:			
Name: Signature:			
Name: Signature:			

PROFESSIONAL ENGINEER REVIEW AND AMENDMENT OF SPCC PLAN
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Documentation of professional engineer certification for technical amendments to SPCC Plan.

Professional Engineer	Date	North Carolina PE Registration Number	Scope of Amendment
Name: Rick Kleinfelter, P.E. ATC Associates of NC, P.C. Signature: 	12/30/22	25535	Technical amendments to include oil container and/or piping changes at Dean Smith Student Activities Center, McGavran-Greenberg Hall, Hooker Research Center, Kenan Labs, and Horace Williams Airport. In addition, miscellaneous text edits throughout the SPCC Plan; updates to emergency contacts list; and updates to inventory of transformers and hydraulic elevators.
Name: Signature:			

REVIEW AND EVALUATION OF SPCC PLAN
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

I have completed a review and evaluation of this SPCC Plan and have noted below if the Plan will or will not be amended:

UNC-Chapel Hill Reviewer	Plan Review Date	Amendment Decision (Will Amend or Will Not Amend)	Scope of Amendment
Name: J. Laurence Daw, L.G. UNC-Chapel Hill Department of EHS Signature: J. Laurence Daw	3-30-17	Will Amend with PE Certification	Technical amendments to include new oil storage containers and changes to oil storage at existing facilities.
Name: Signature:			
Name: Signature:			
Name: Signature:			
Name: Signature:			
Name: Signature:			

REVIEW AND EVALUATION OF SPCC PLAN
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Documentation of professional engineer certification for technical amendments to SPCC Plan.

Professional Engineer	Plan Review Date	North Carolina Registration Number	Scope of Amendment
Name: Rick Kleinfelter, P.E. ATC Associates of NC, P.C. Signature: 	3/30/17	25535	Technical amendments to include new oil storage containers and changes to oil storage at existing facilities.
Name: Signature:			
Name: Signature:			
Name: Signature:			
Name: Signature:			
Name: Signature:			

FACILITY MANAGEMENT REVIEW AND AMENDMENT OF SPCC PLAN

In accordance with 40 CFR § 112.5(a), UNC-Chapel Hill, through the UNC-Chapel Hill Department of Environment, Health and Safety (EHS), shall amend this SPCC Plan when there is a change in the design, construction, operation, or maintenance that materially affects the potential for an oil discharge to navigable waters. Examples of changes that may require amendment of this SPCC Plan are described in **Section 6.0** of the Plan. Any amendment to the Plan shall be prepared within six months of the change and implemented by UNC-Chapel Hill as soon as possible, but not later than six months following preparation of the amendment.

In accordance with 40 CFR § 112.5(b), UNC-Chapel Hill, through the Department of EHS, shall complete a review and evaluation of this SPCC Plan at least once every five years from the certification date of the Plan. As a result of the review and evaluation, UNC-Chapel Hill shall amend the Plan within six months of the review to include more effective prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of an oil discharge to navigable waters. Any amendment to the Plan shall be prepared within six months and implemented by UNC-Chapel Hill as soon as possible, but not later than six months following preparation of the amendment.

Review and Evaluation of SPCC Plan
The University of North Carolina at Chapel Hill

I have completed a review and evaluation of this SPCC Plan and have noted below if the Plan will or will not be amended:

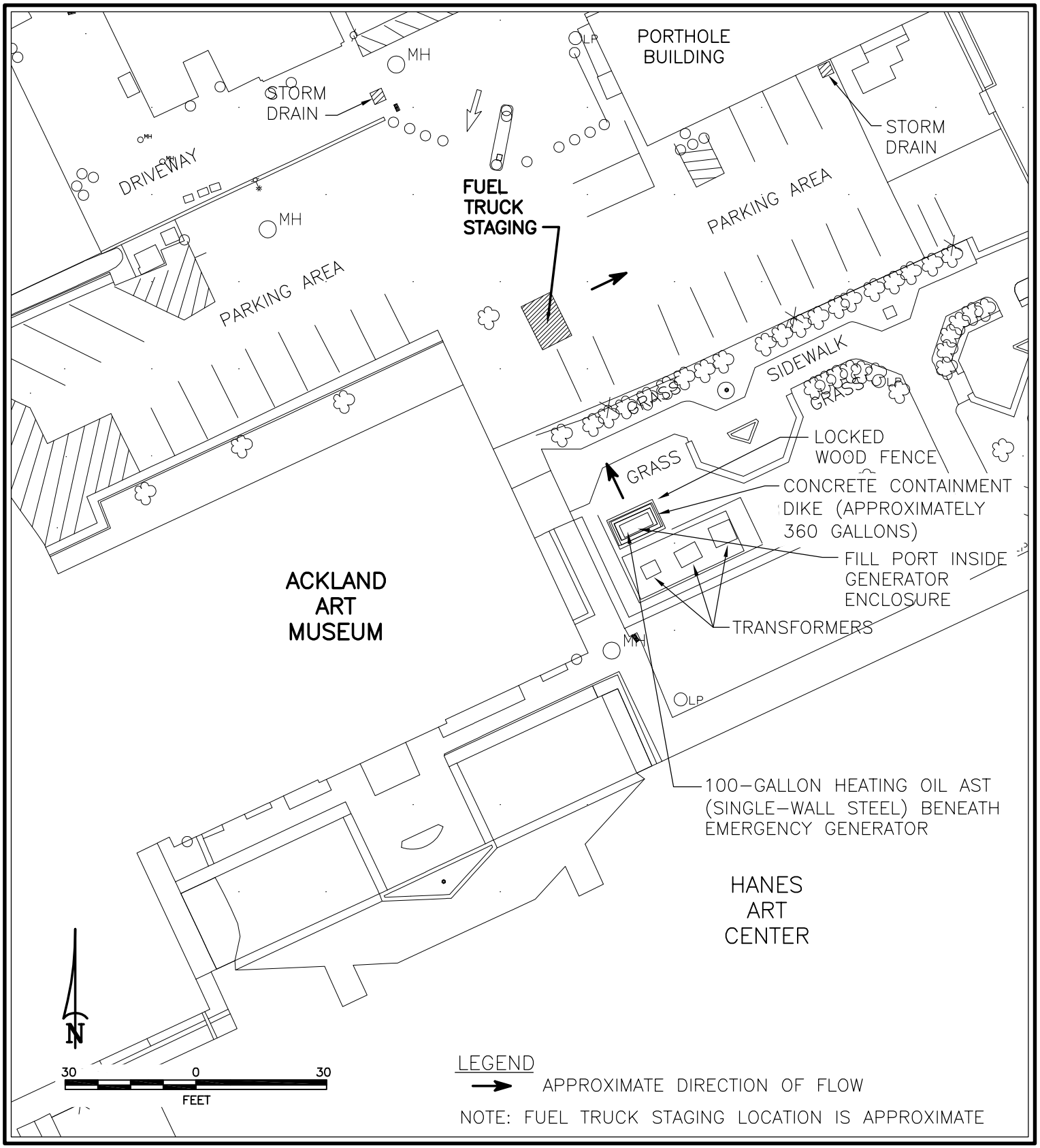
UNC-Chapel Hill Reviewer	Date	Amendment Decision	Scope of Amendment	PE Certification (Yes/No)
Name: J. Laurence Daw Signature: J. Laurence Daw	9/27/13	Will amend	Technical amendments including additional oil storage and changes to secondary containment measures	Yes
Name: Signature:				
Name: Signature:				

In accordance with 40 CFR § 112.5(c), a licensed Professional Engineer (PE) shall certify any technical amendment to this SPCC Plan when there is a change in the design, construction, operation, or maintenance that materially affects the potential for an oil discharge to navigable waters. Non-technical amendments, such as changes to names or contact information, do not require PE certification.

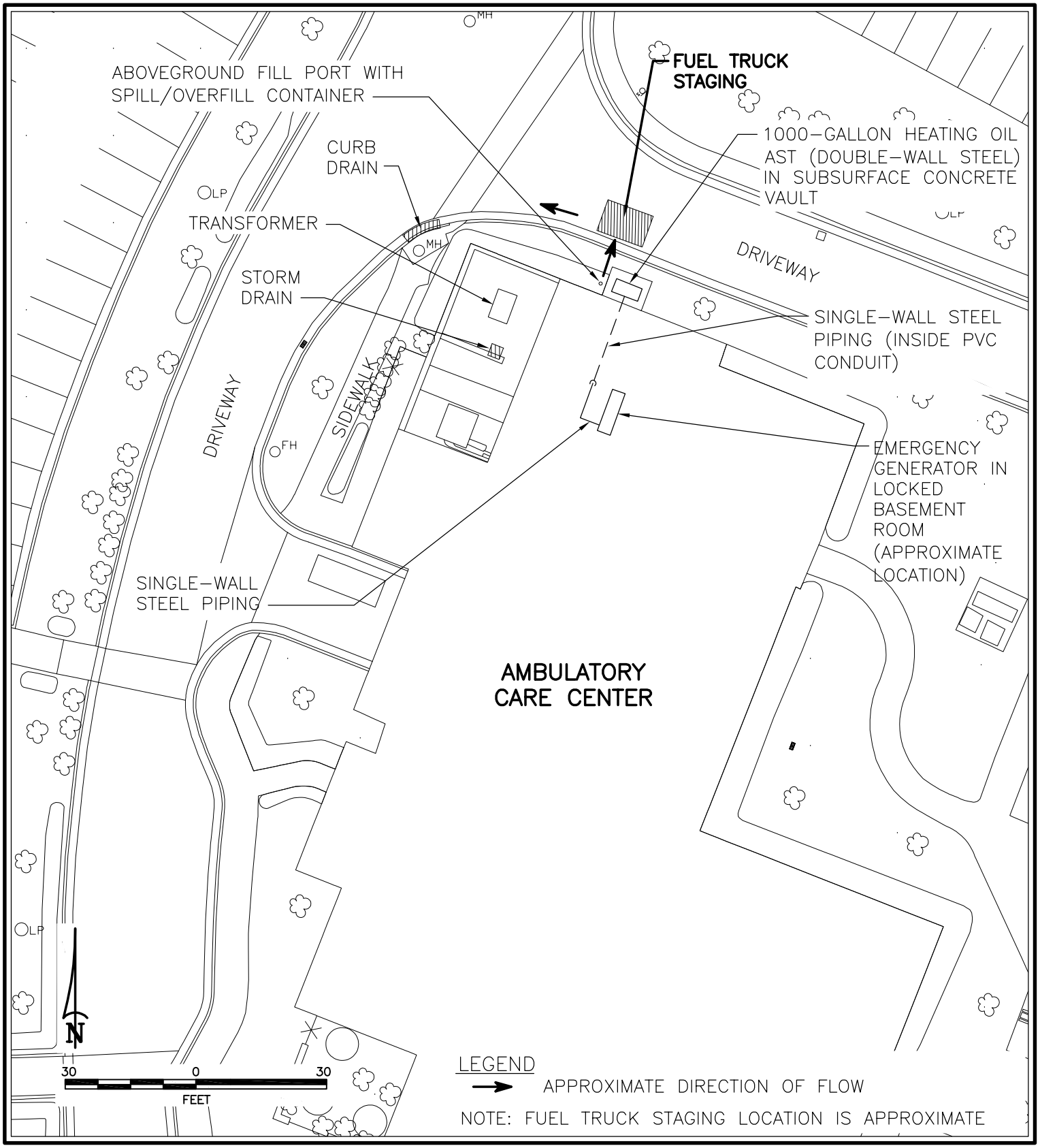
Professional Engineer	State	Registration Number	Scope of Technical Amendment	Certification Date
Name: Rick Kleinfelter Signature: R Kleinfelter	NC	025535	Technical amendments including additional oil storage and changes to secondary containment measures	9/27/13
Name: Signature:				
Name: Signature:				

APPENDIX D

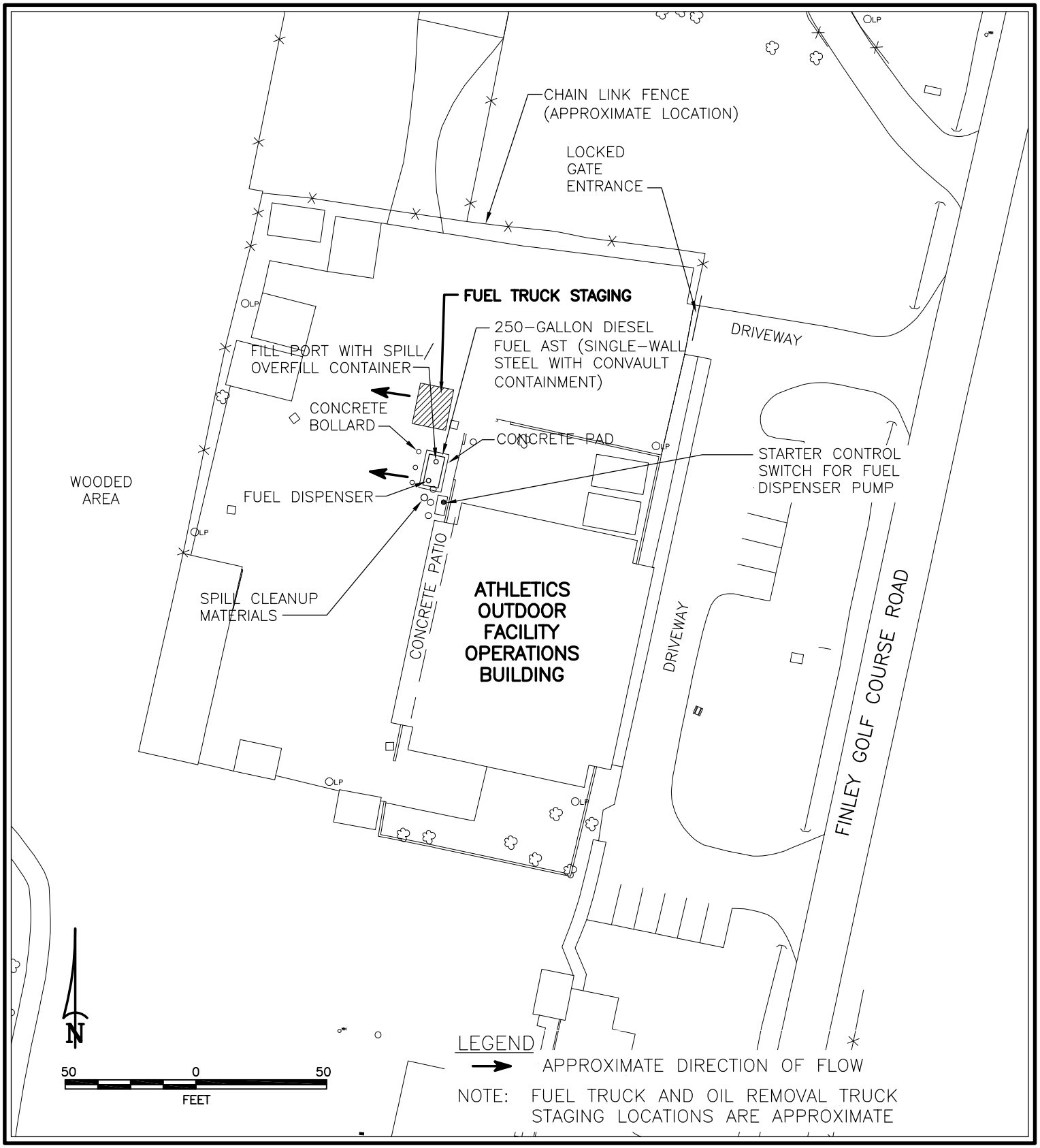
FACILITY DIAGRAMS



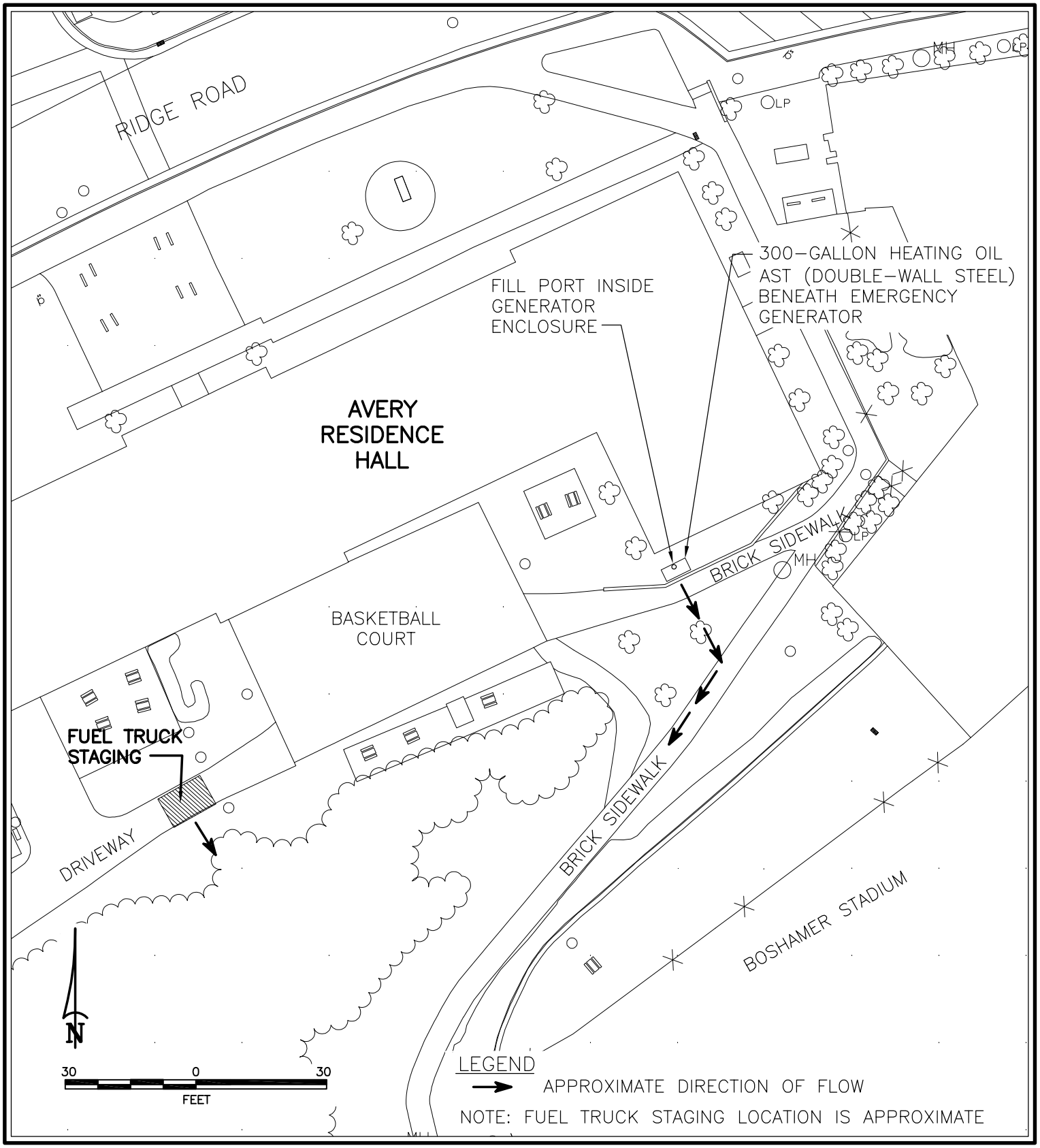
ACKLAND ART MUSEUM



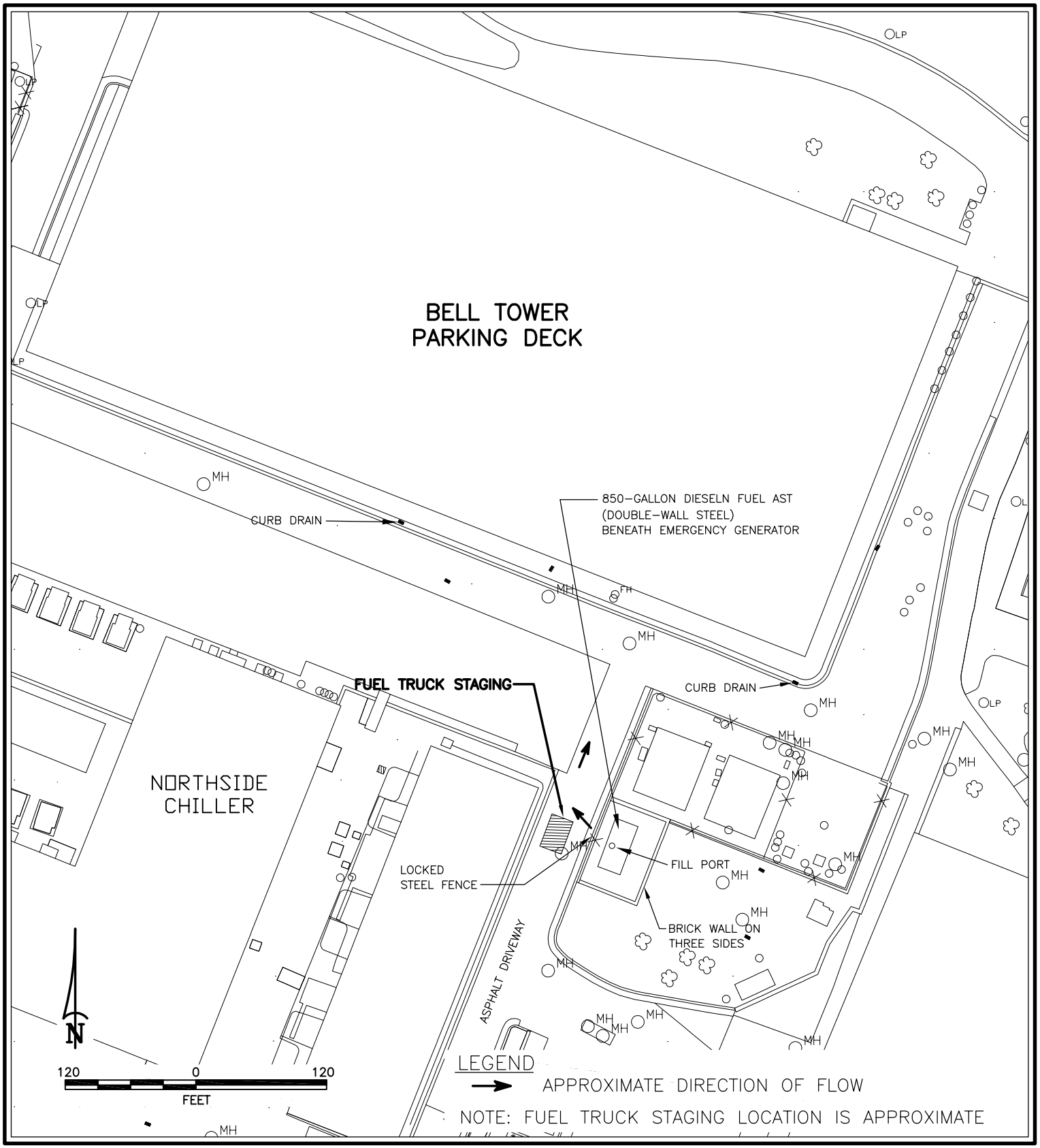
AMBULATORY CARE CENTER



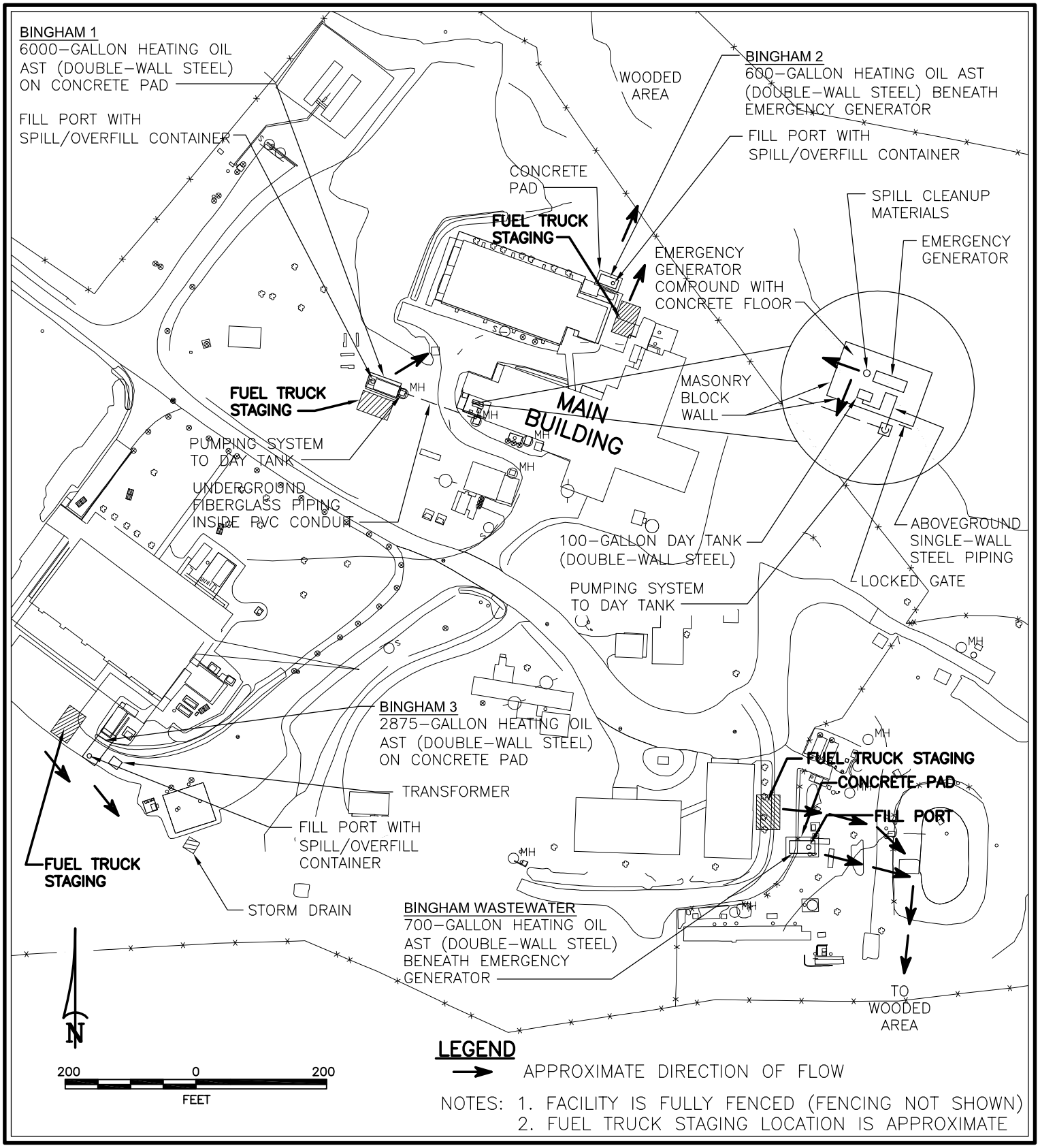
ATHLETICS OUTDOOR FACILITY OPERATIONS



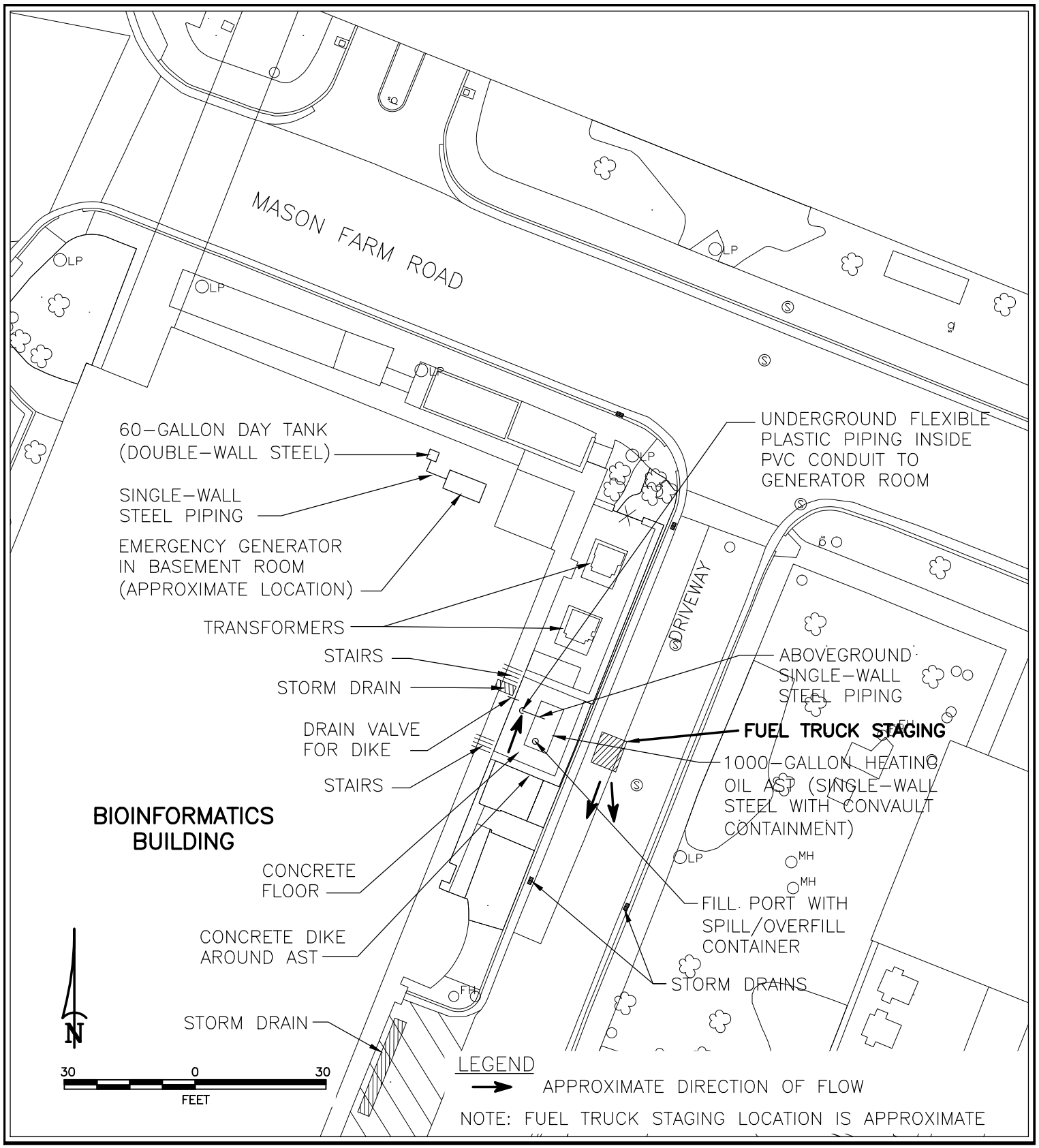
AVERY RESIDENCE HALL



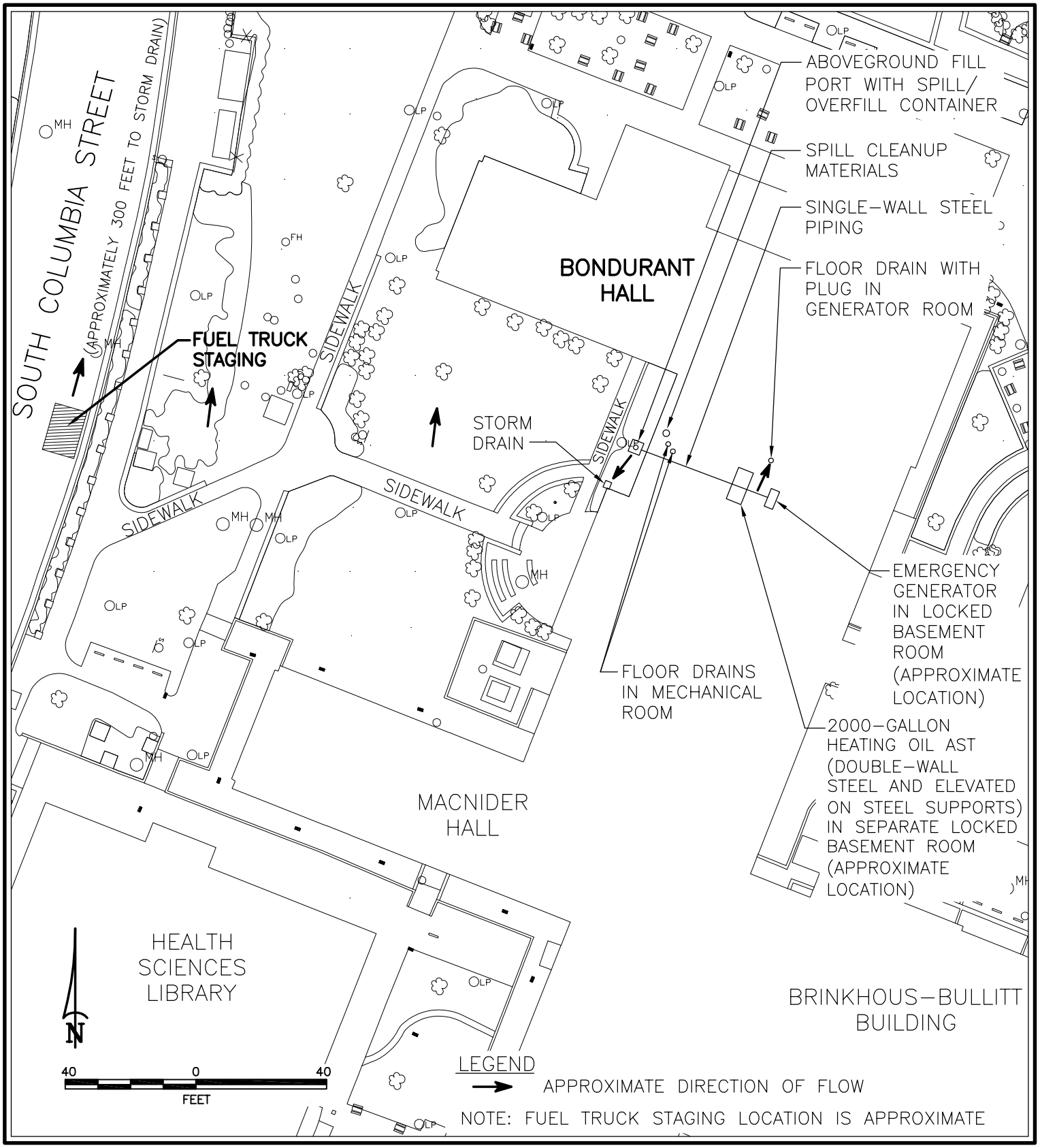
BELL TOWER PARKING DECK



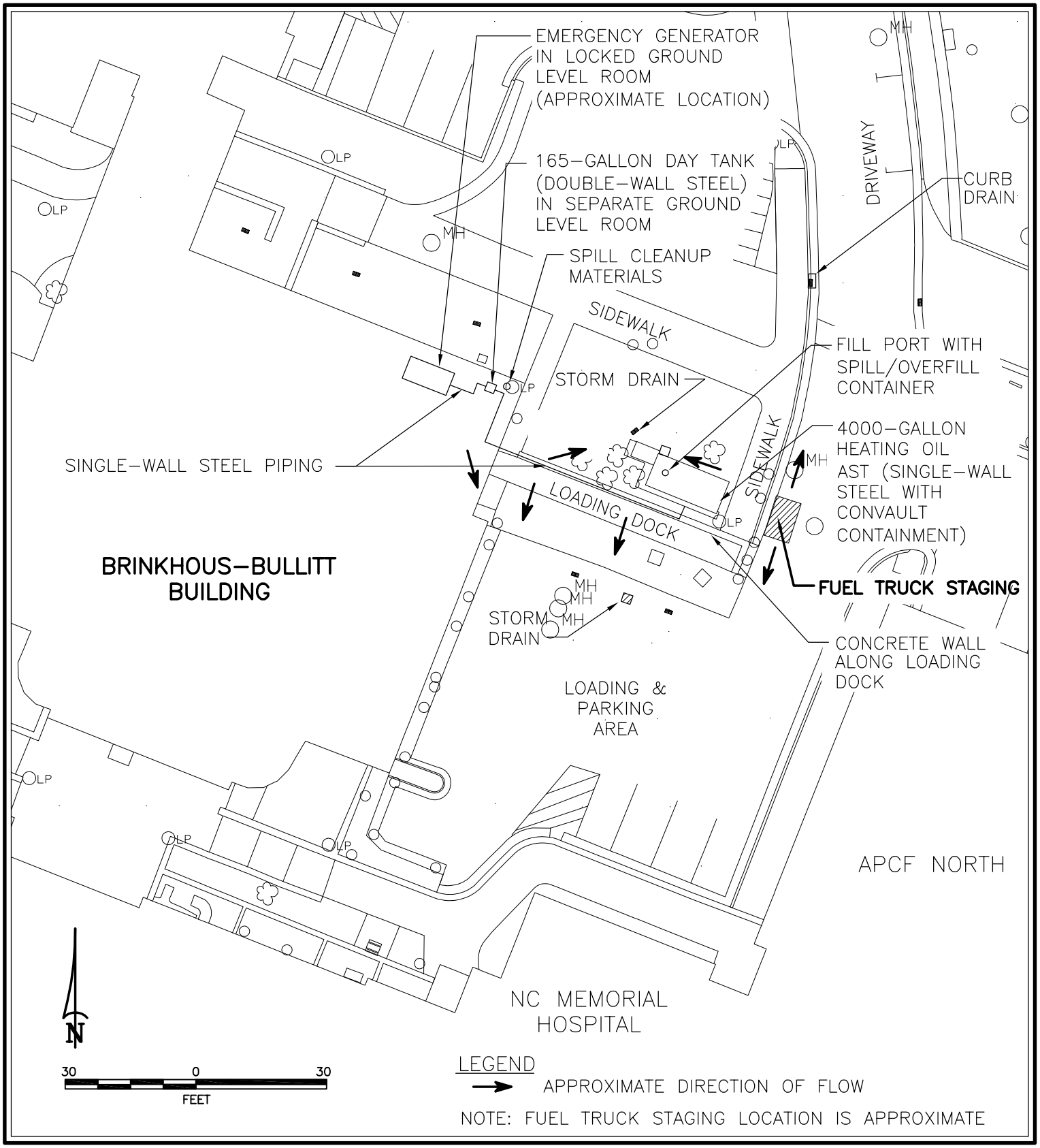
BINGHAM FACILITY



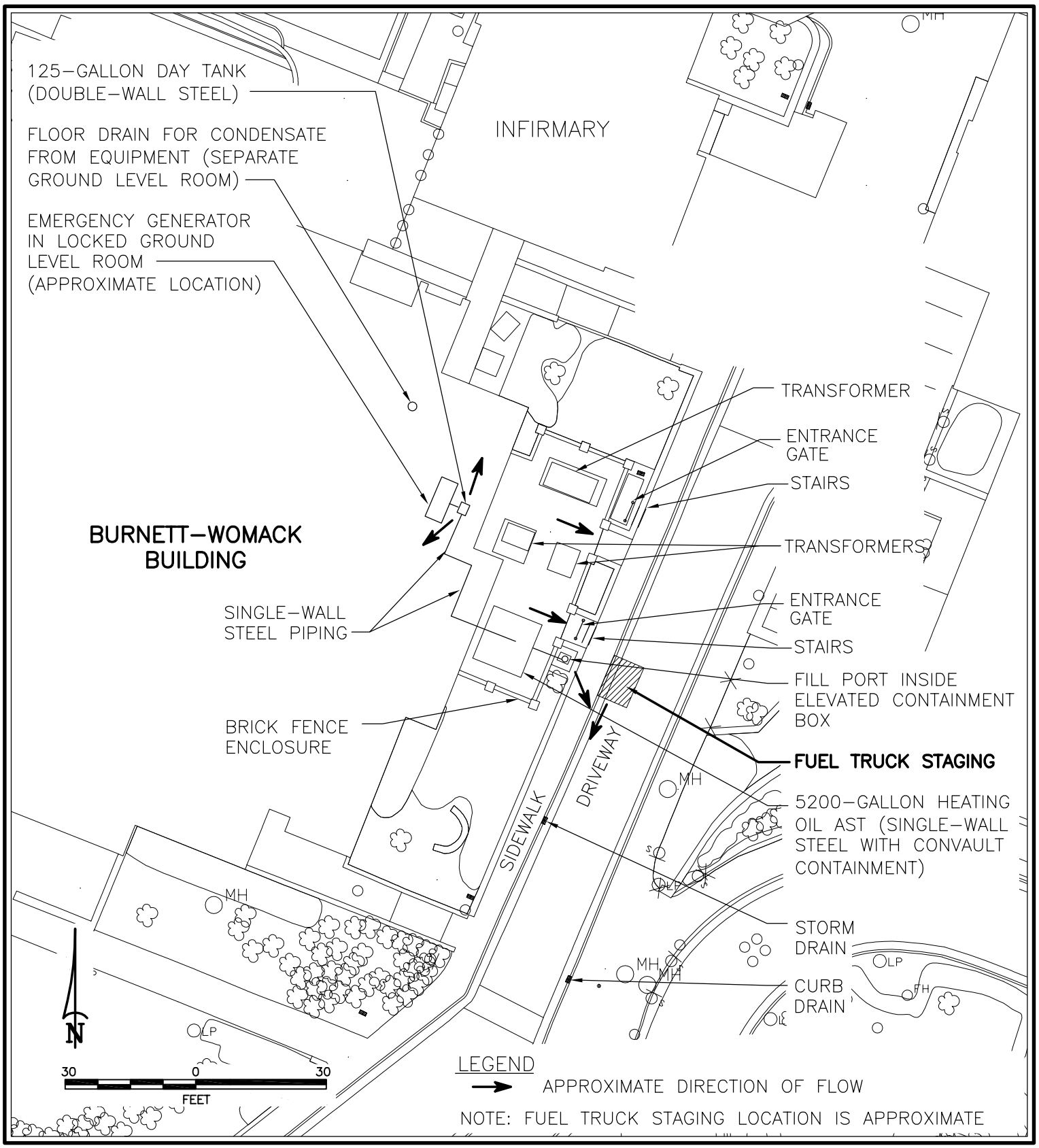
BIOINFORMATICS BUILDING



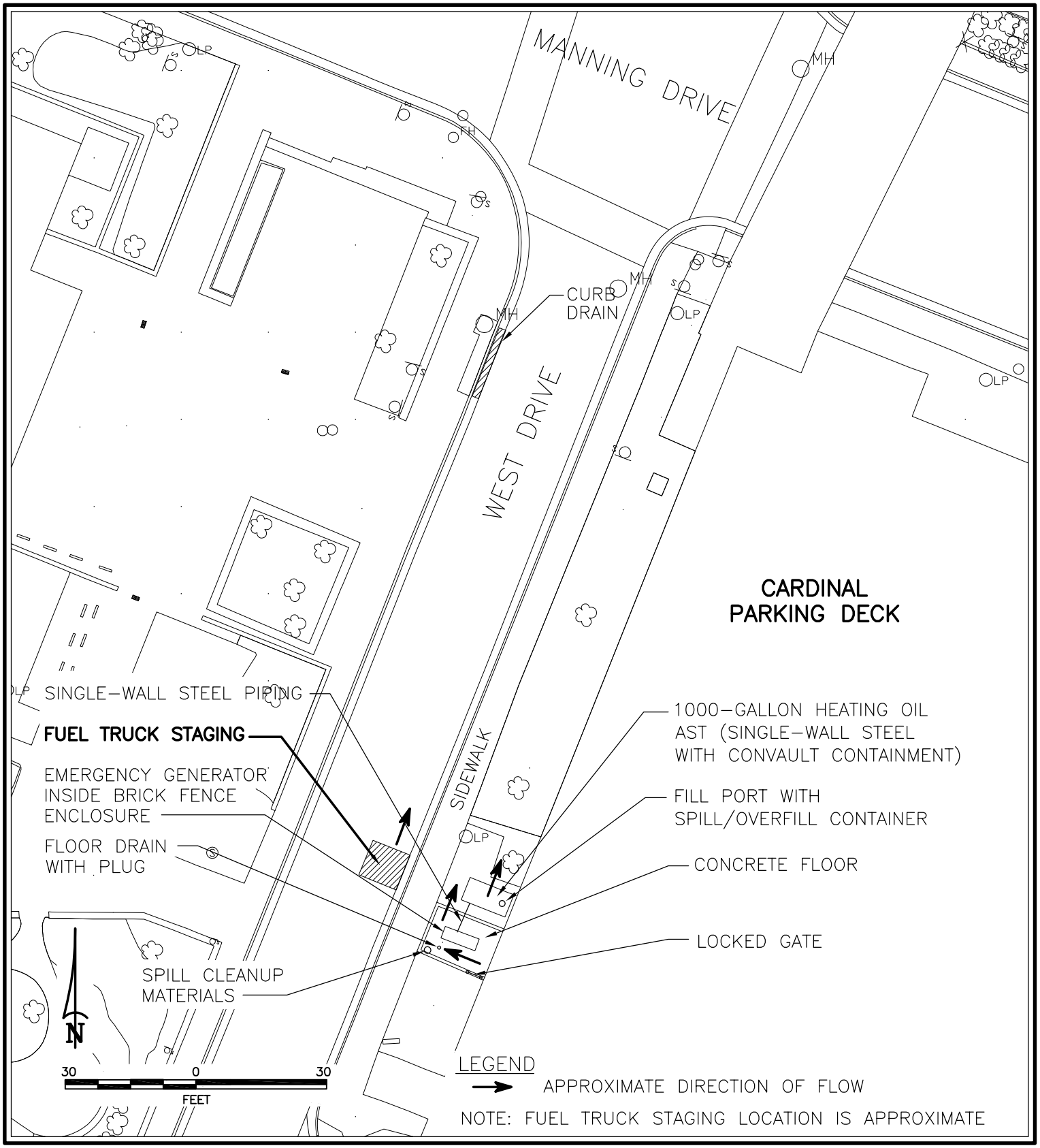
BONDURANT HALL



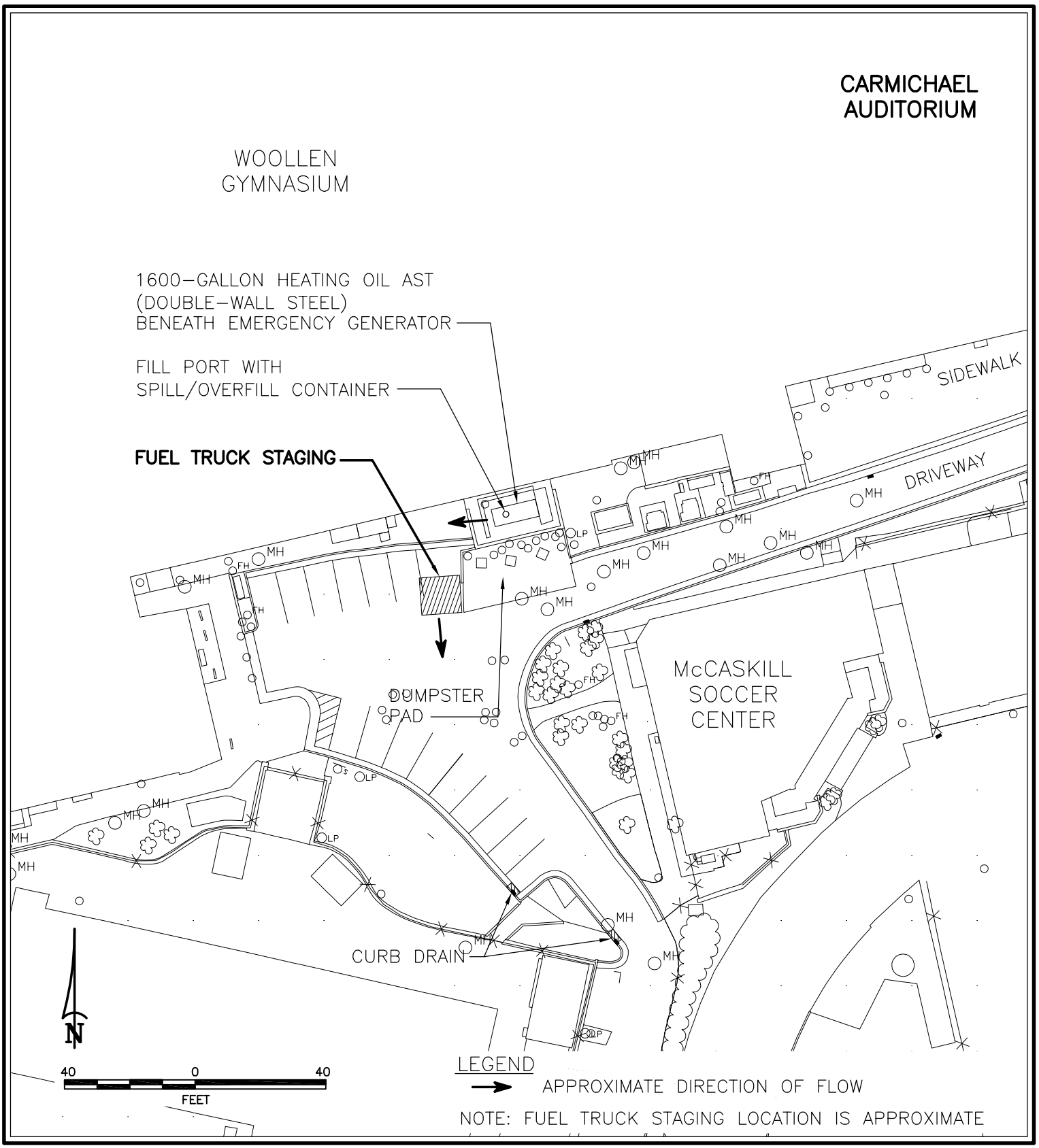
BRINKHOUS-BULLITT BUILDING



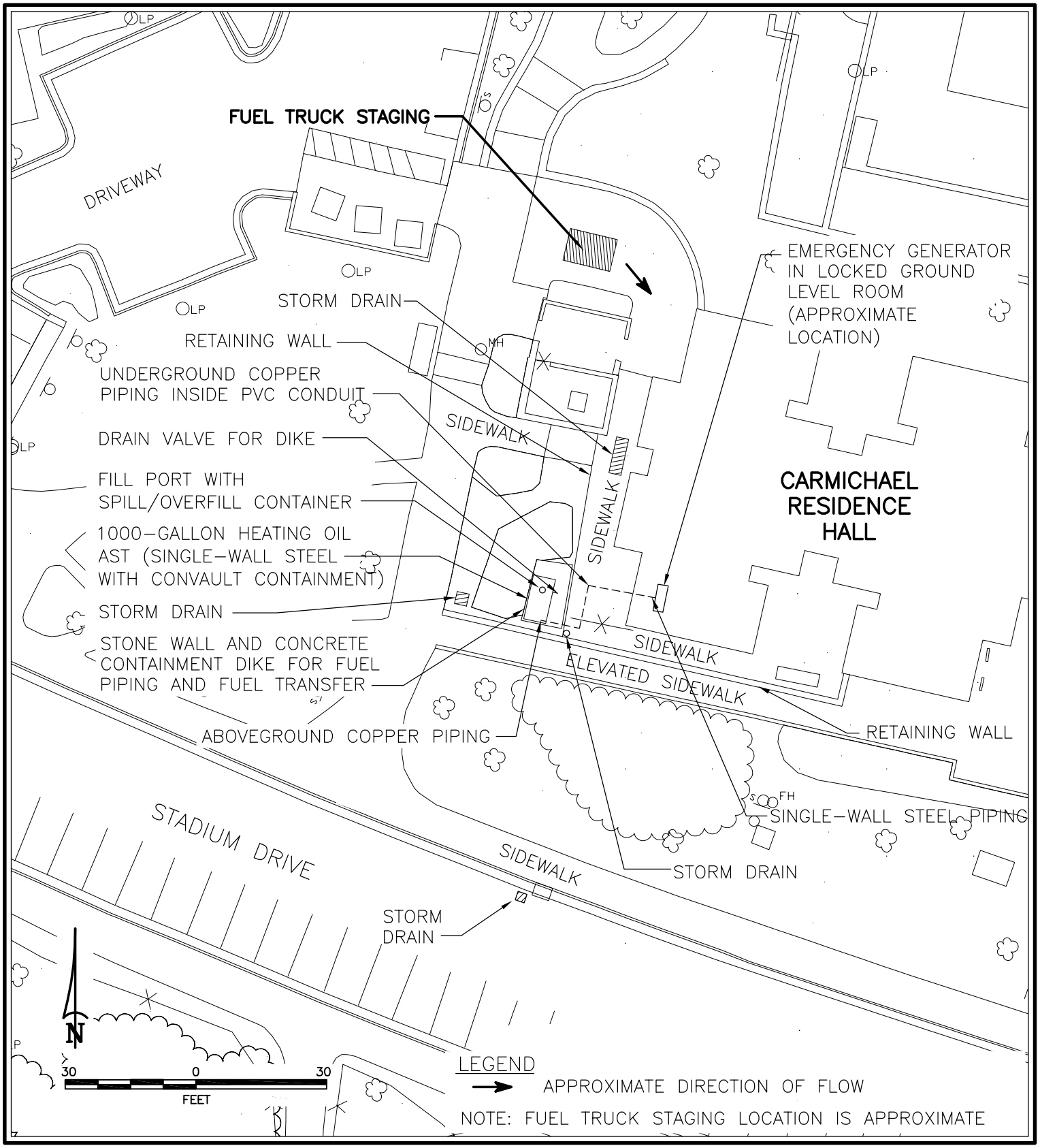
BURNETT-WOMACK BUILDING



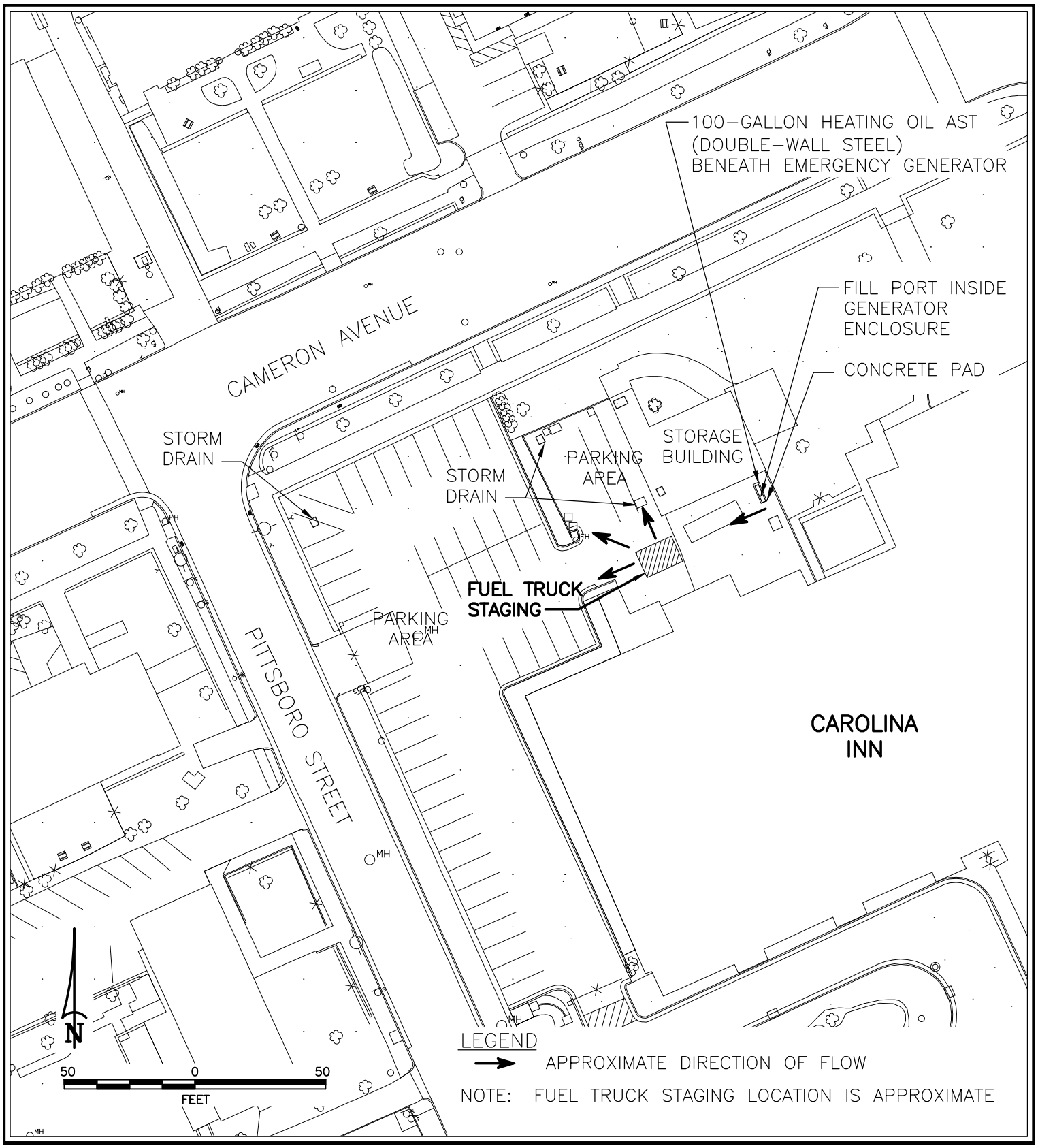
CARDINAL PARKING DECK



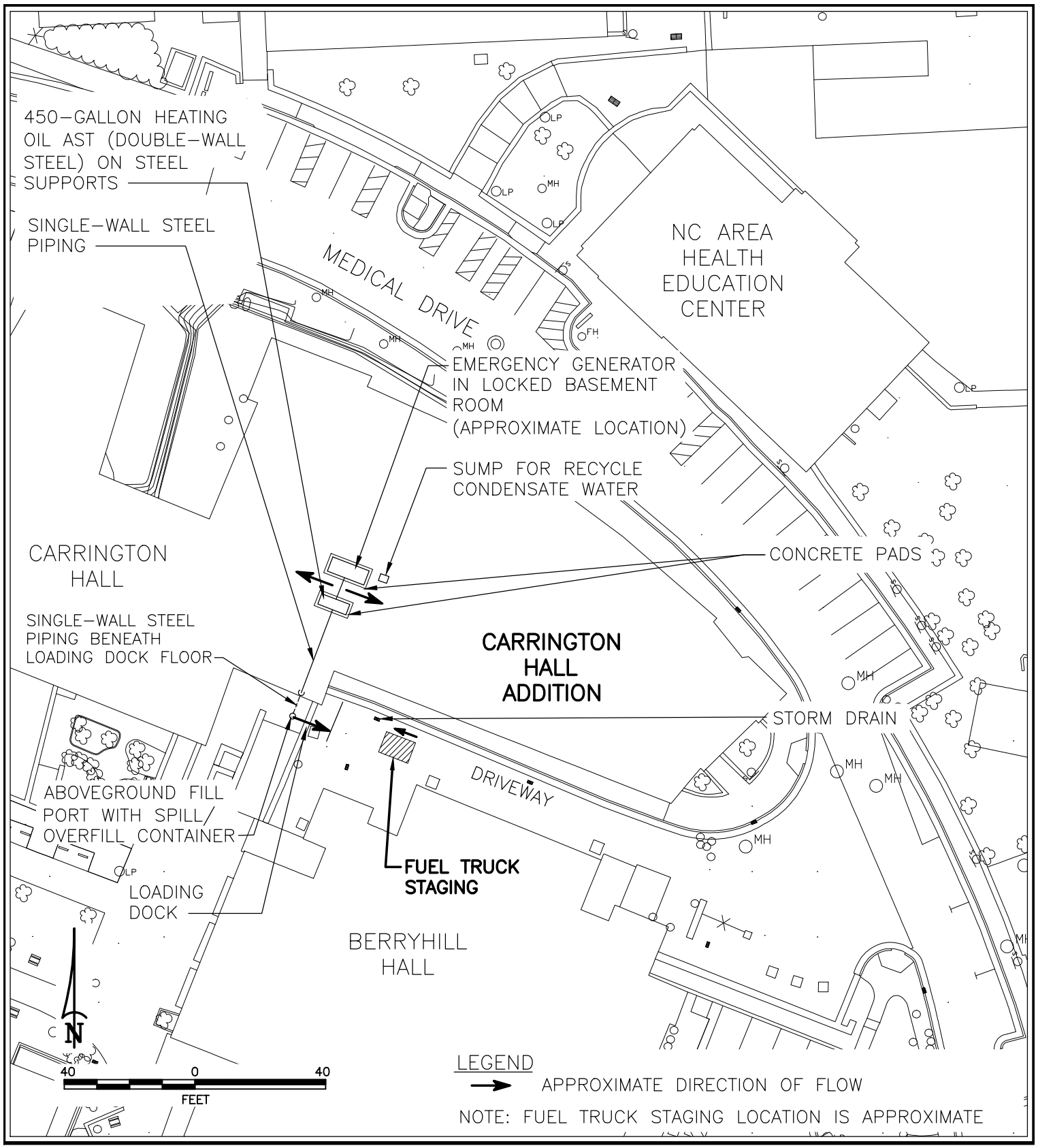
CARMICHAEL AUDITORIUM



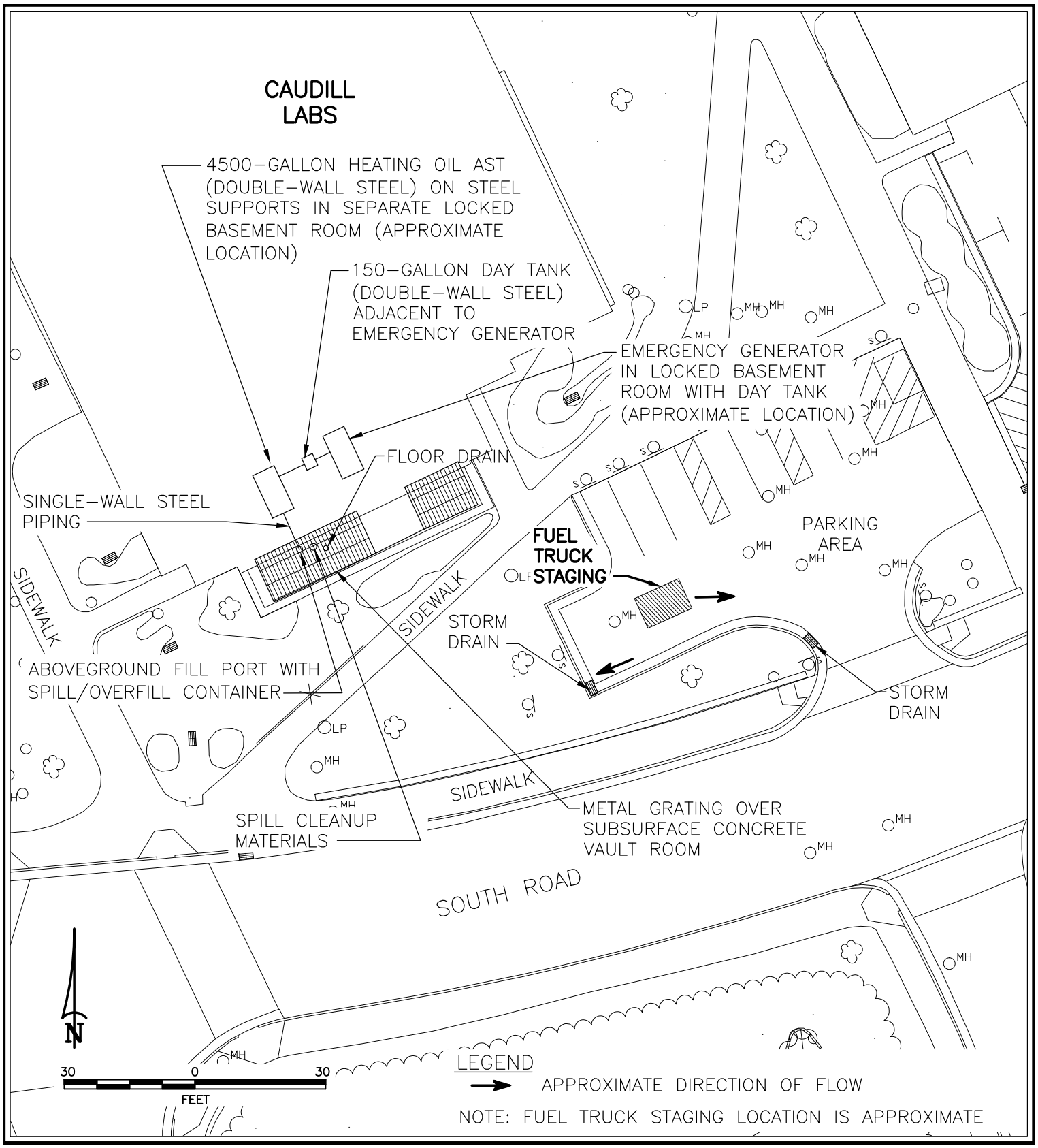
CARMICHAEL RESIDENCE HALL



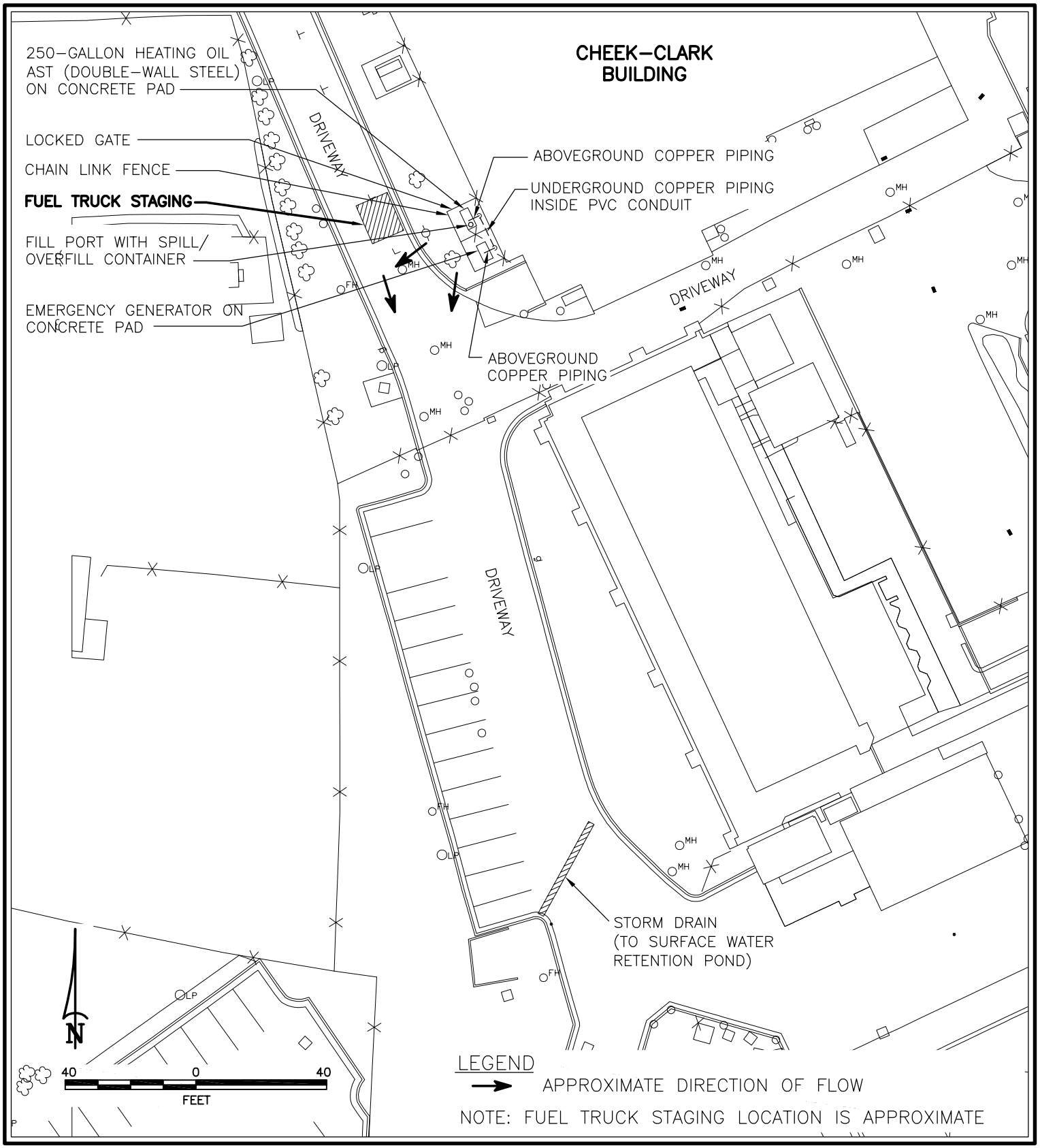
CAROLINA INN



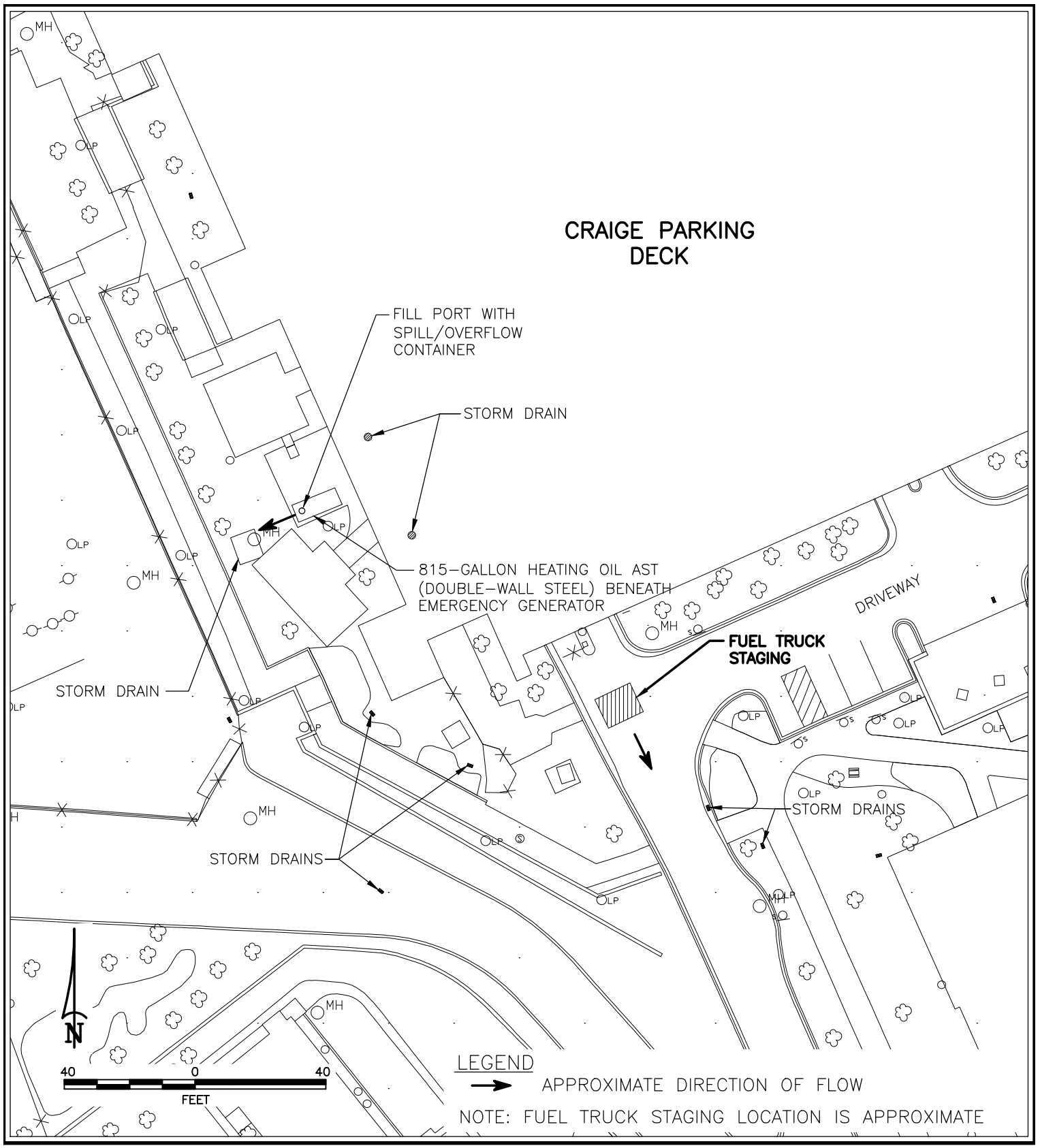
CARRINGTON HALL ADDITION



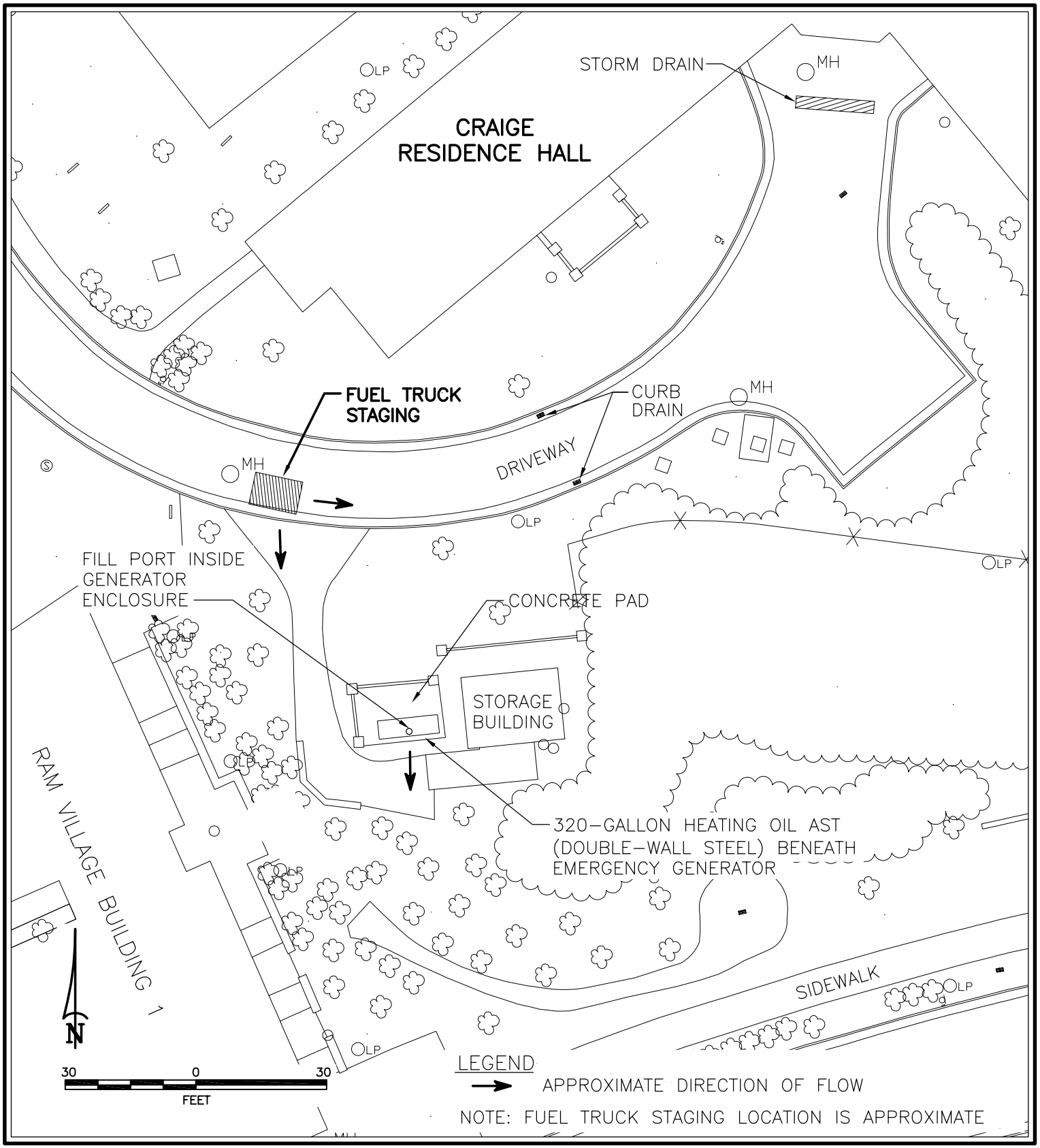
CAUDILL LABS



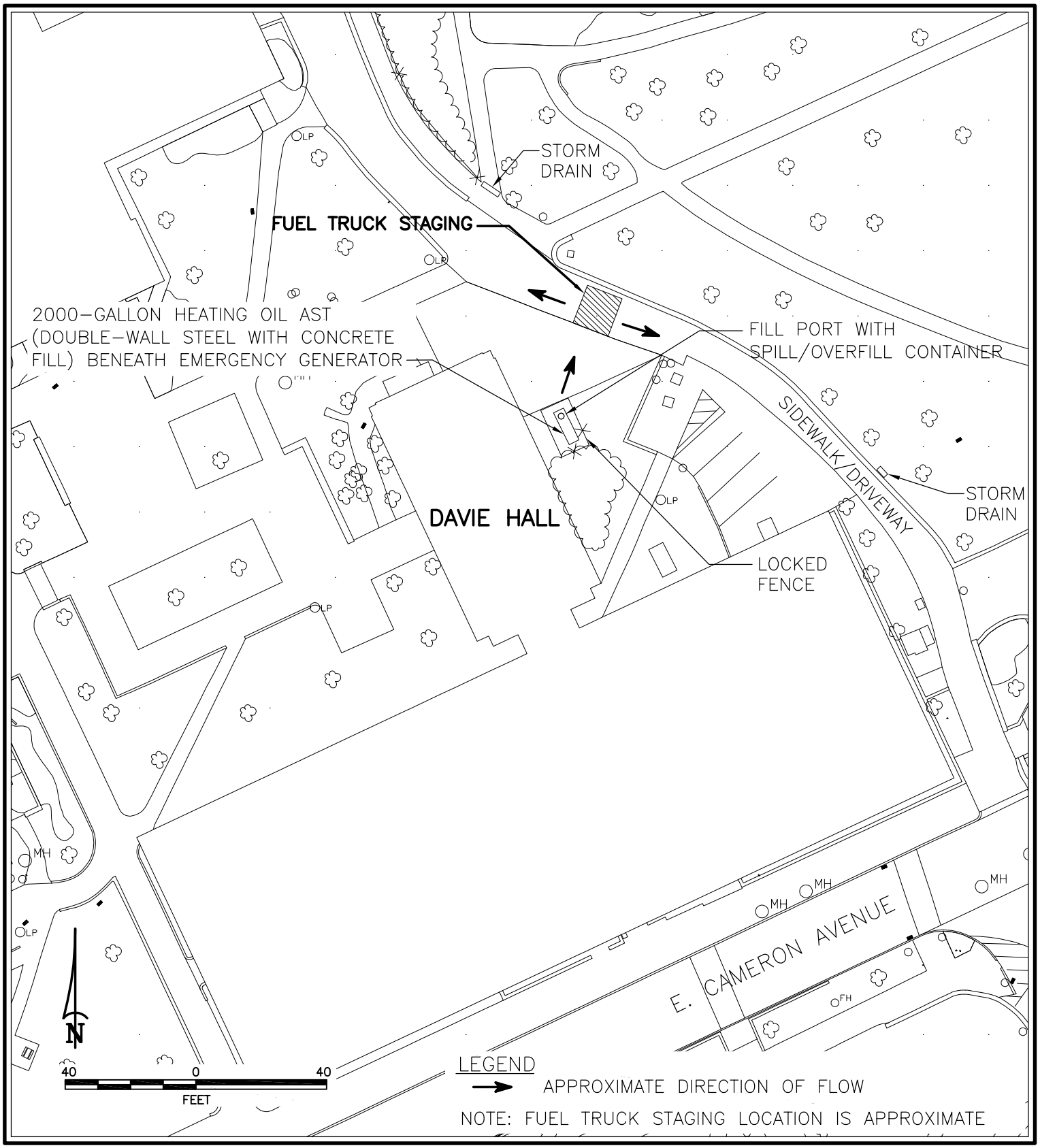
CHEEK-CLARK BUILDING



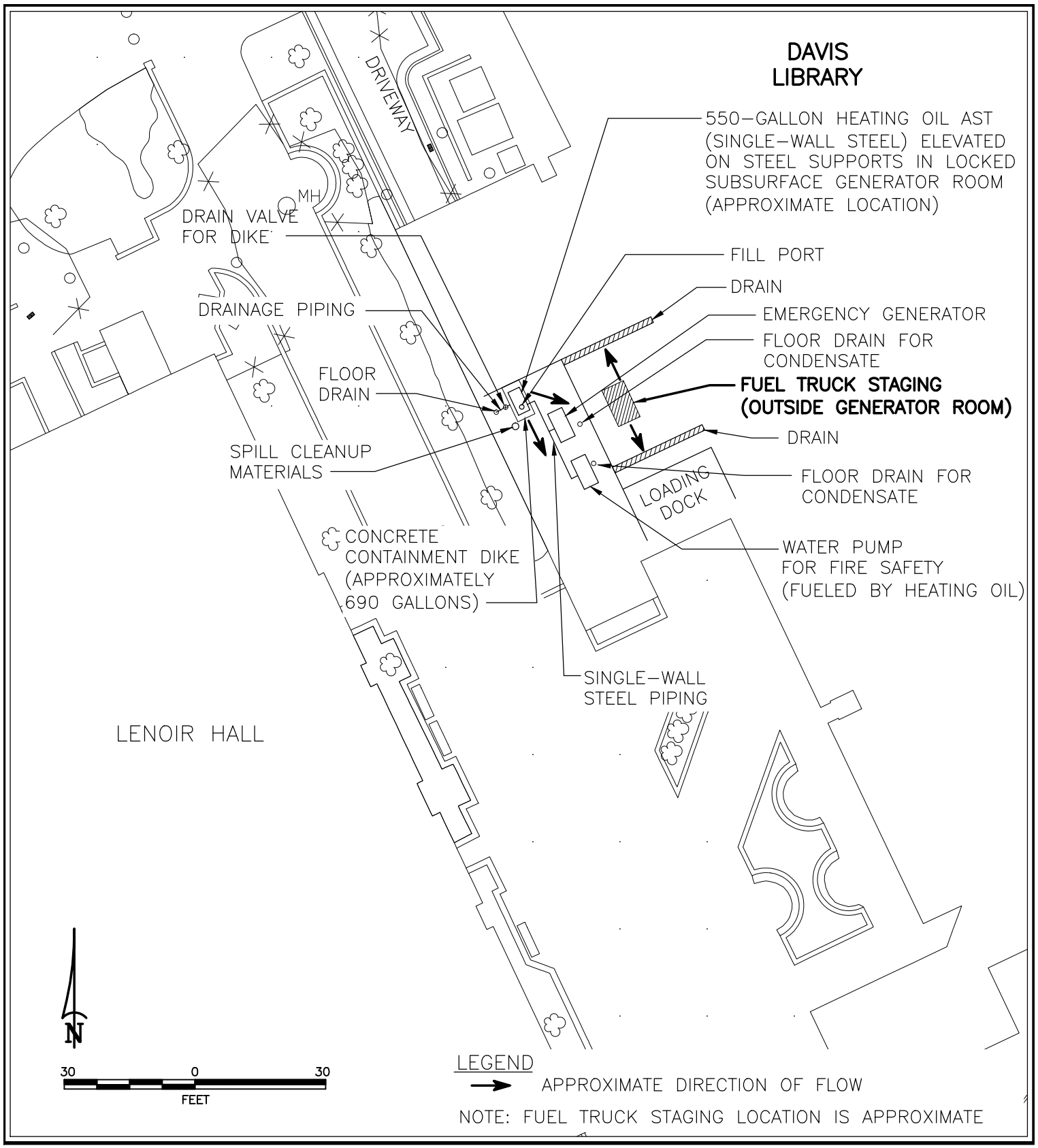
CRAIGE PARKING DECK



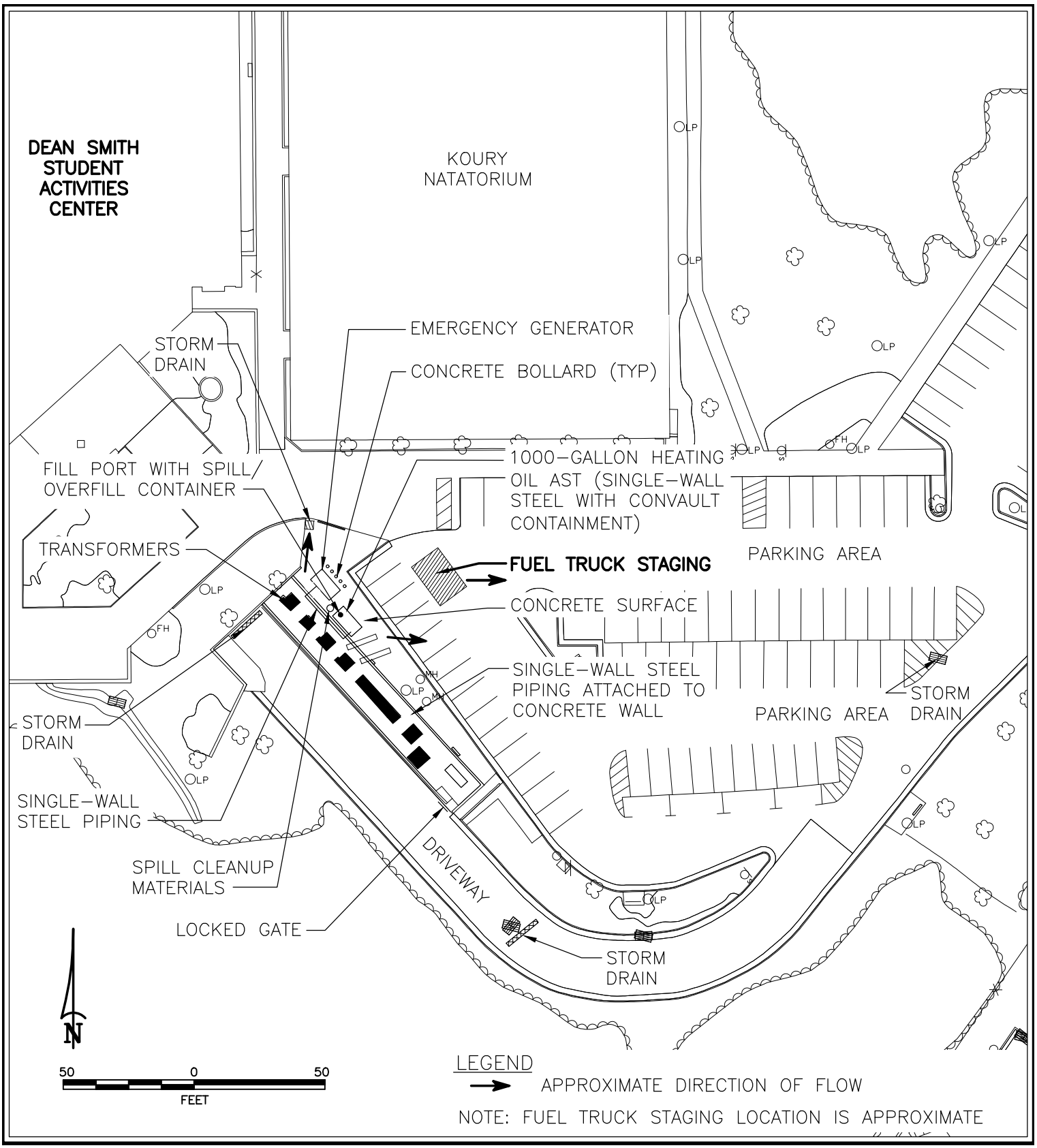
CRAIGE RESIDENCE HALL


STORM
DRAIN
FUEL TRUCK STAGING
2000–GALLON HEATING OIL AST
(DOUBLE–WALL STEEL WITH CONCRETE
FILL) BENEATH EMERGENCY GENERATOR
FILL PORT WITH
SPILL/OVERFILL CONTAINER
SIDEWALK/DRIVEWAY
STORM
DRAIN
DAVIE HALL
LOCKED
FENCE
LP
MH
FH
E. CAMERON AVENUE
N
40
0
40
FEET
LEGEND
APPROXIMATE DIRECTION OF FLOW
NOTE: FUEL TRUCK STAGING LOCATION IS APPROXIMATE

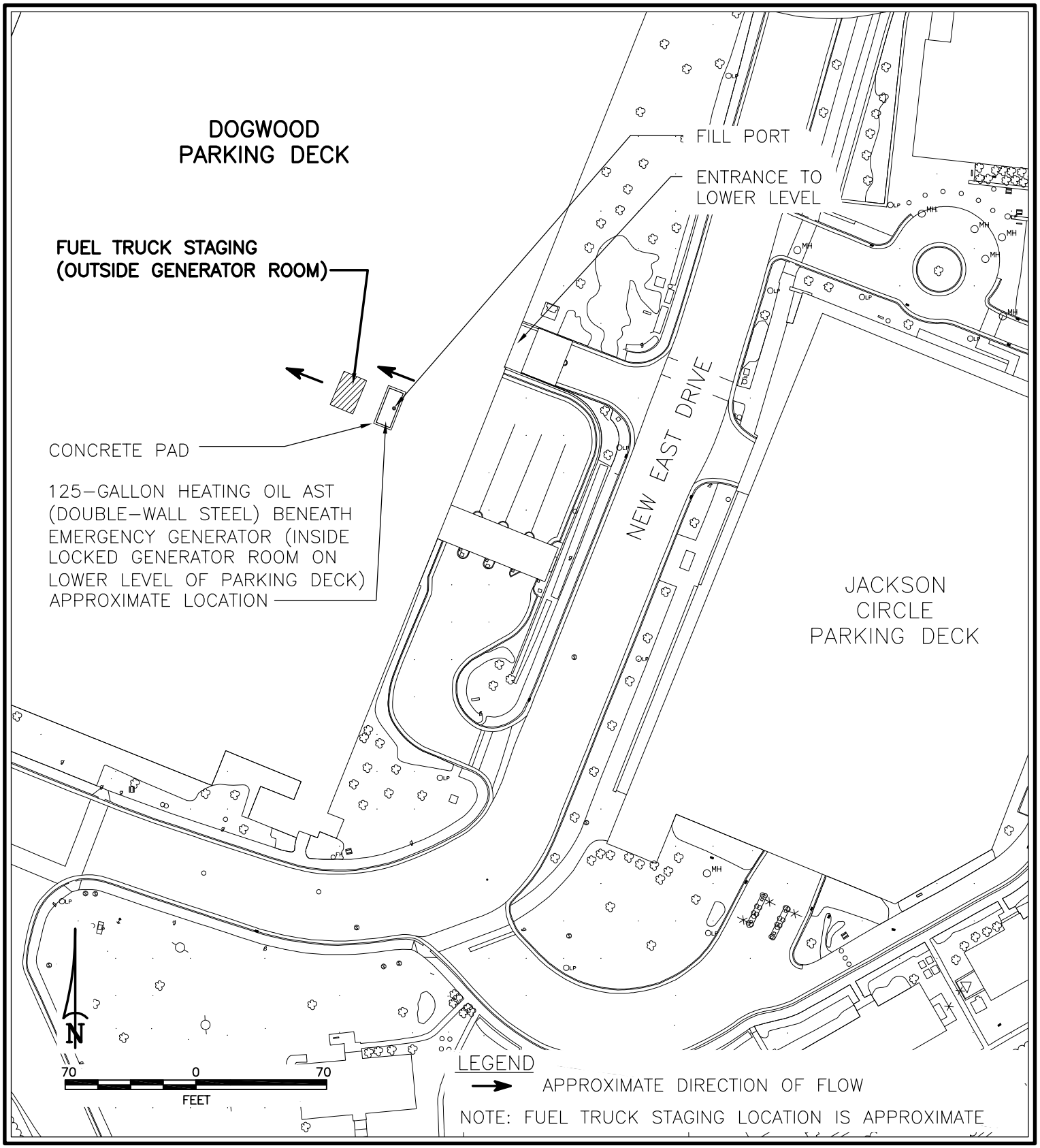
DAVIE HALL



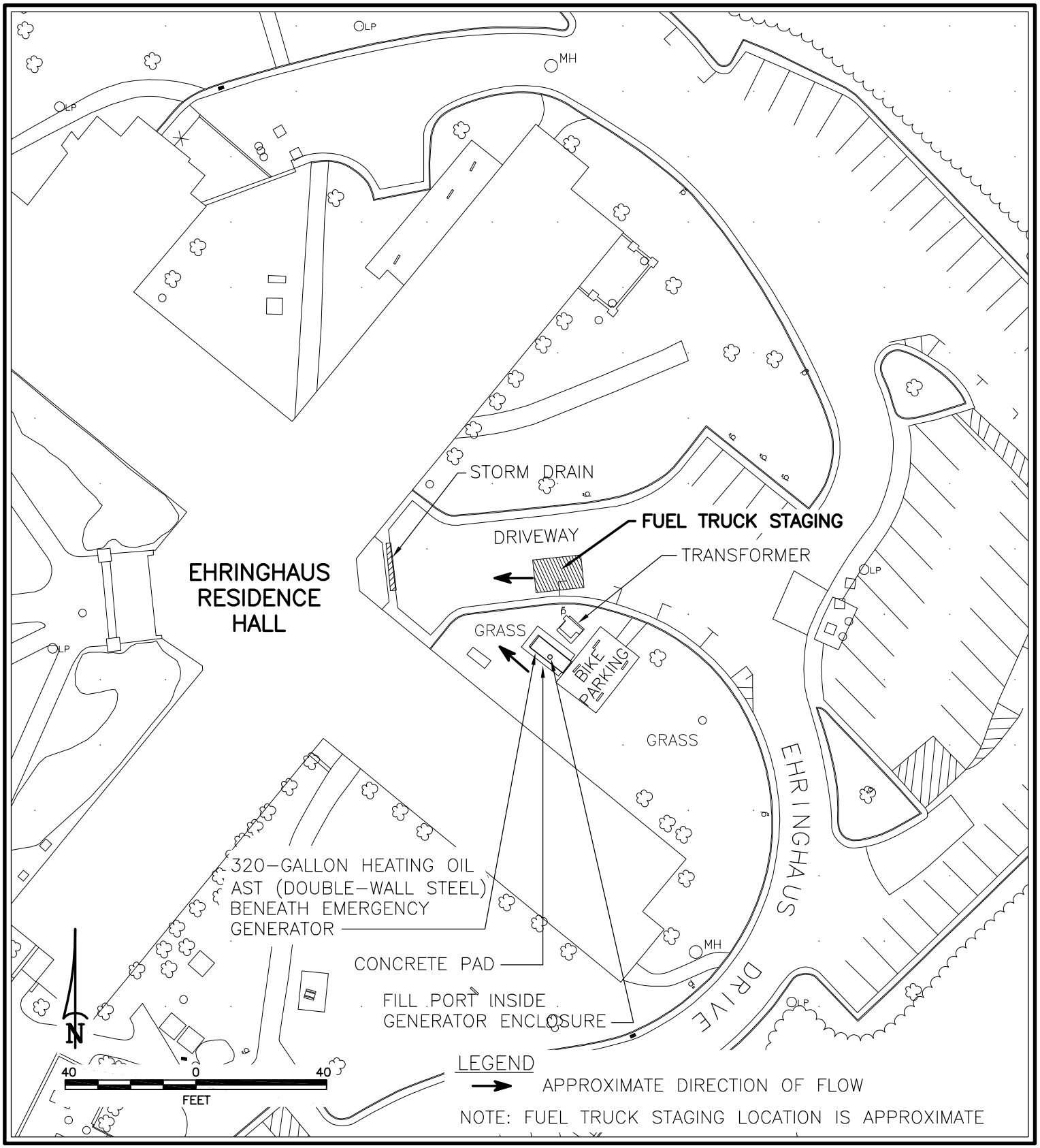
DAVIS LIBRARY



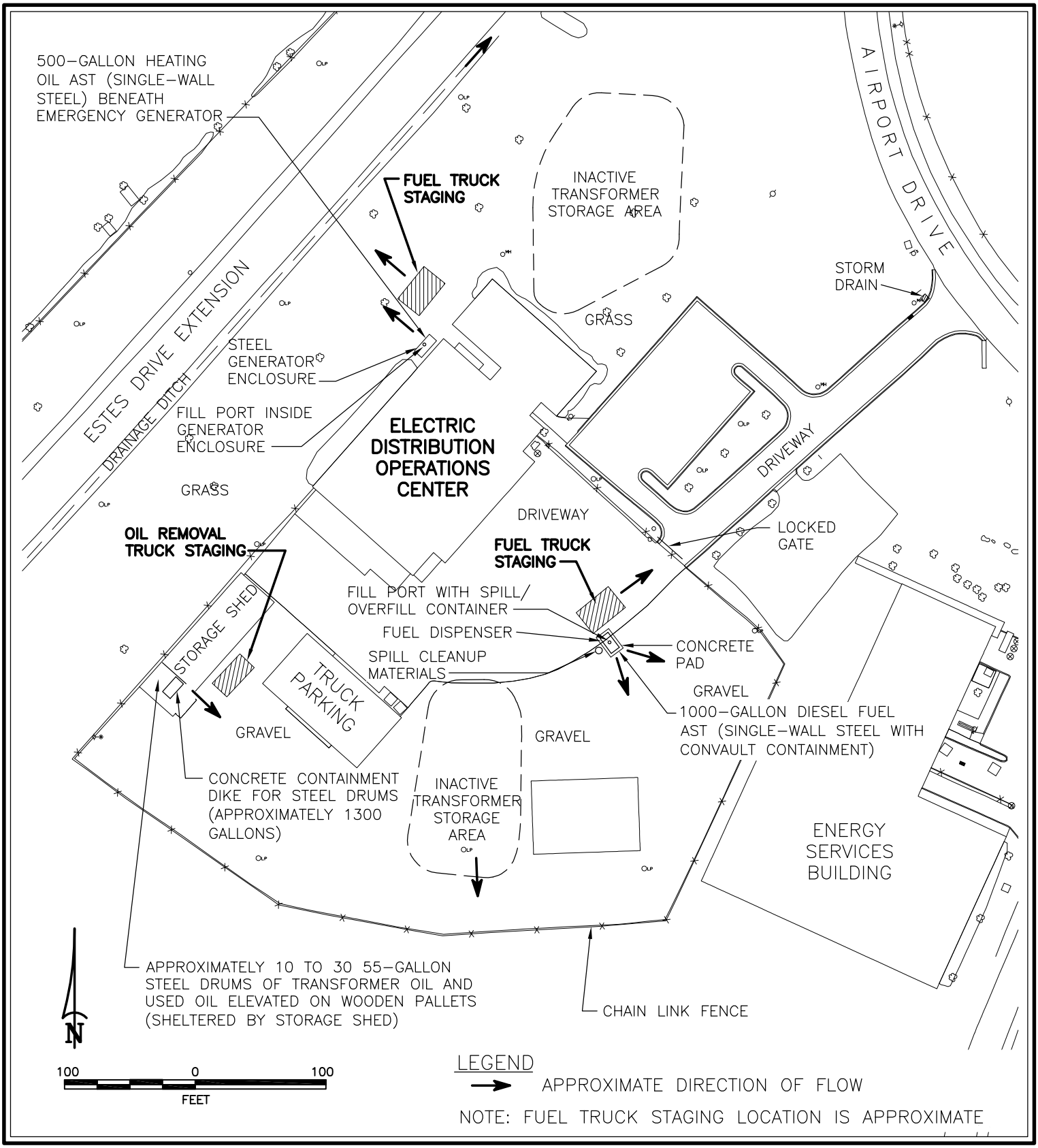
DEAN SMITH STUDENT ACTIVITIES CENTER



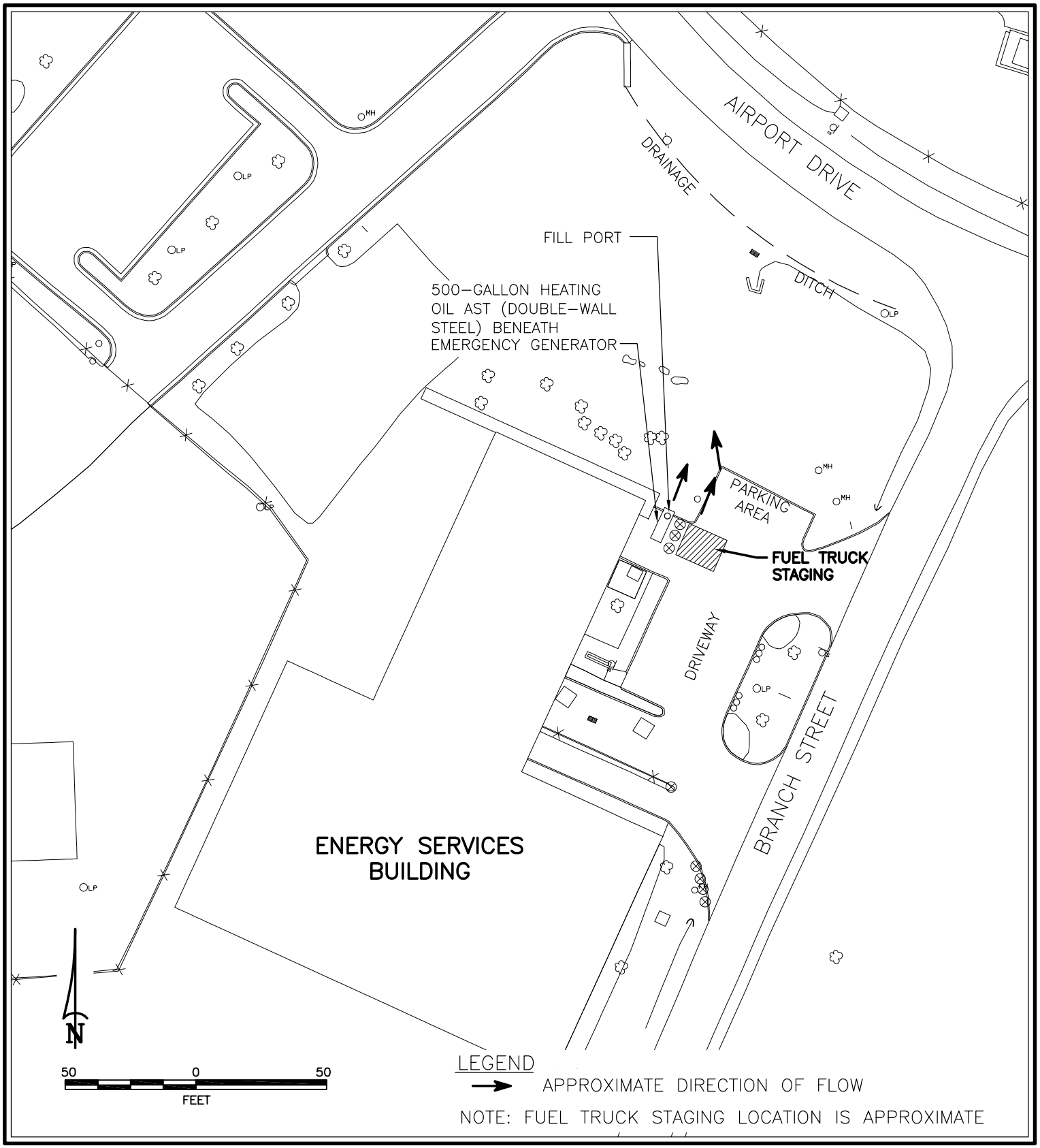
DOGWOOD PARKING DECK



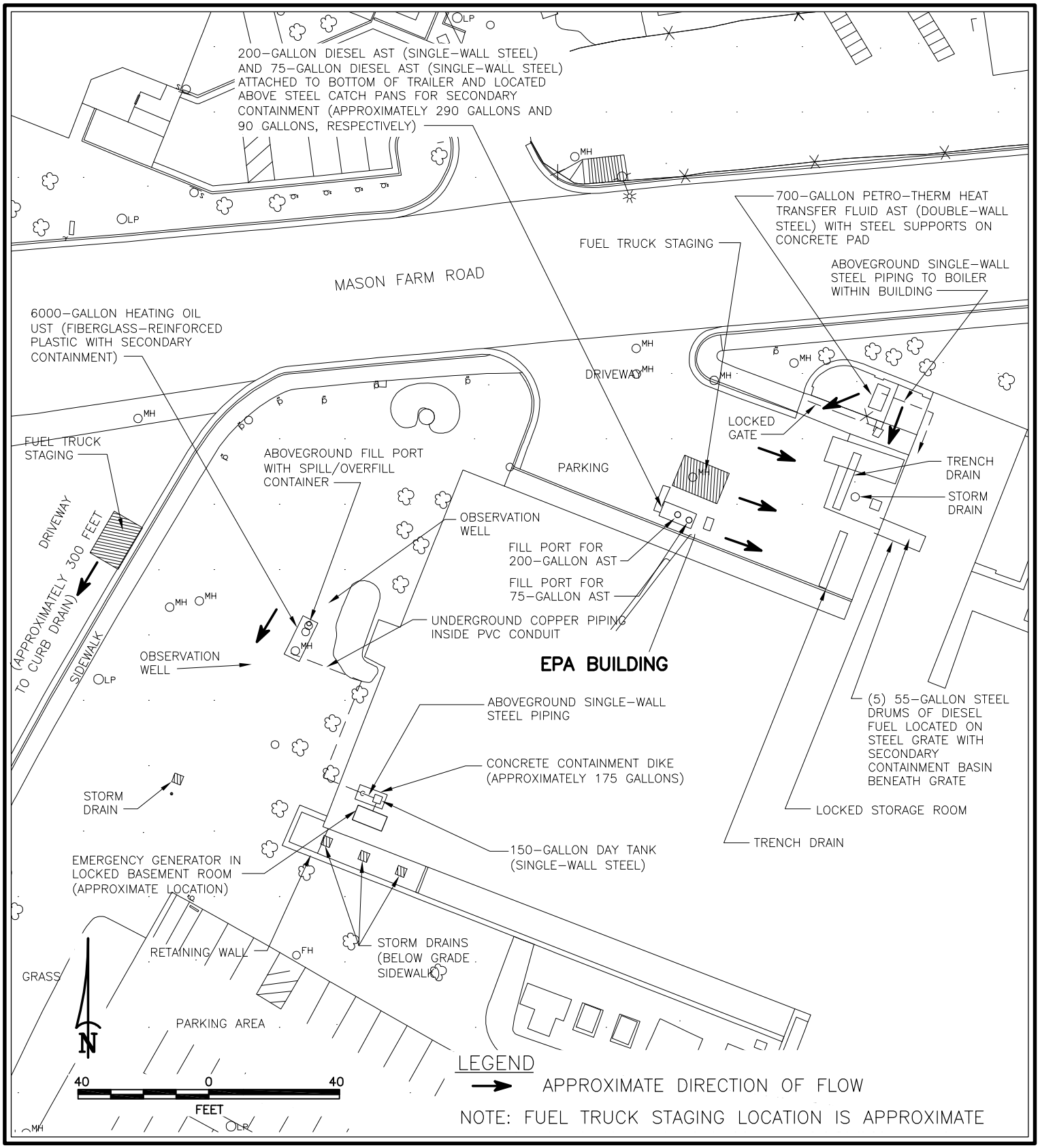
EHRINGHAUS RESIDENCE HALL



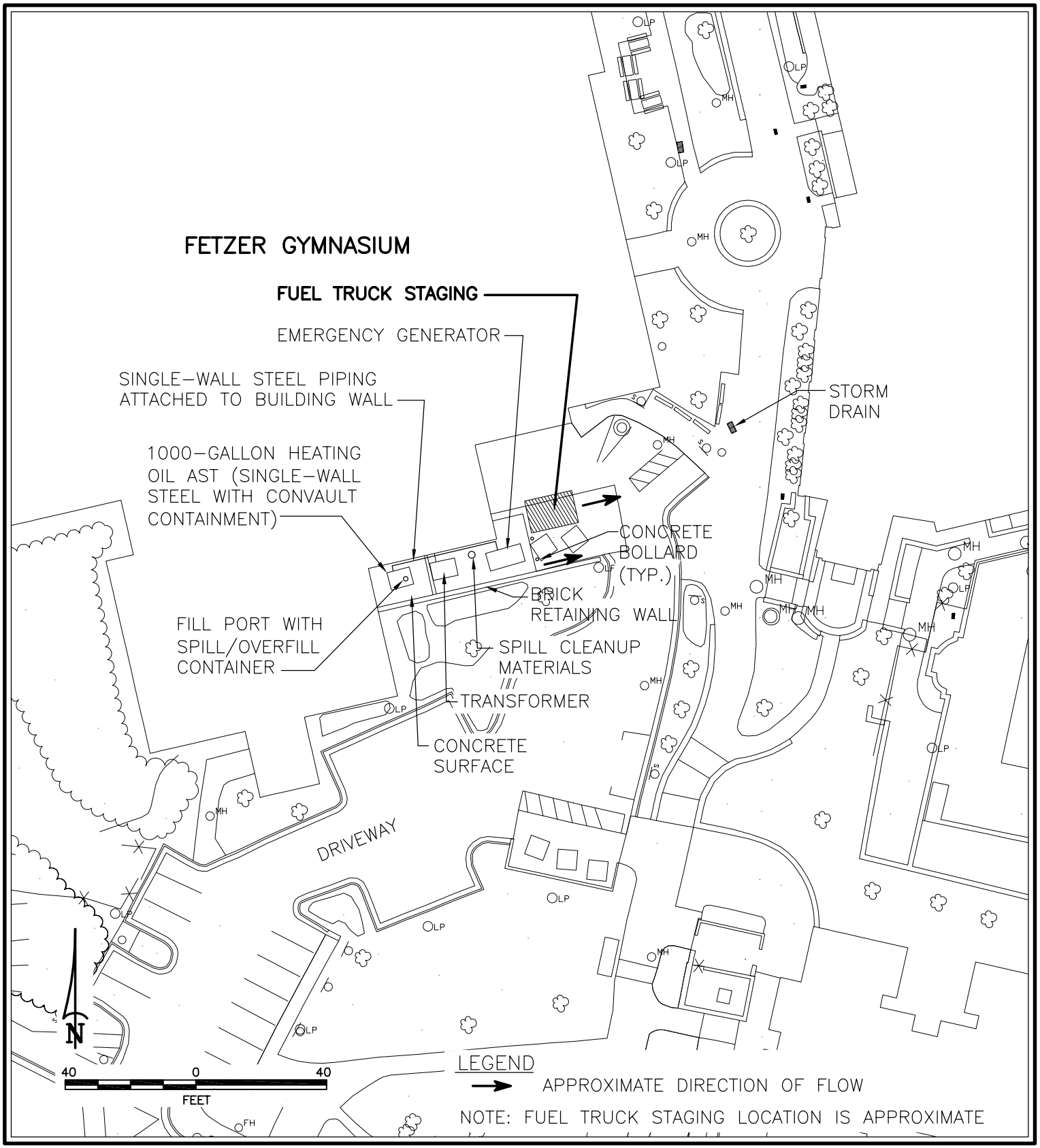
ELECTRIC DISTRIBUTION OPERATIONS CENTER



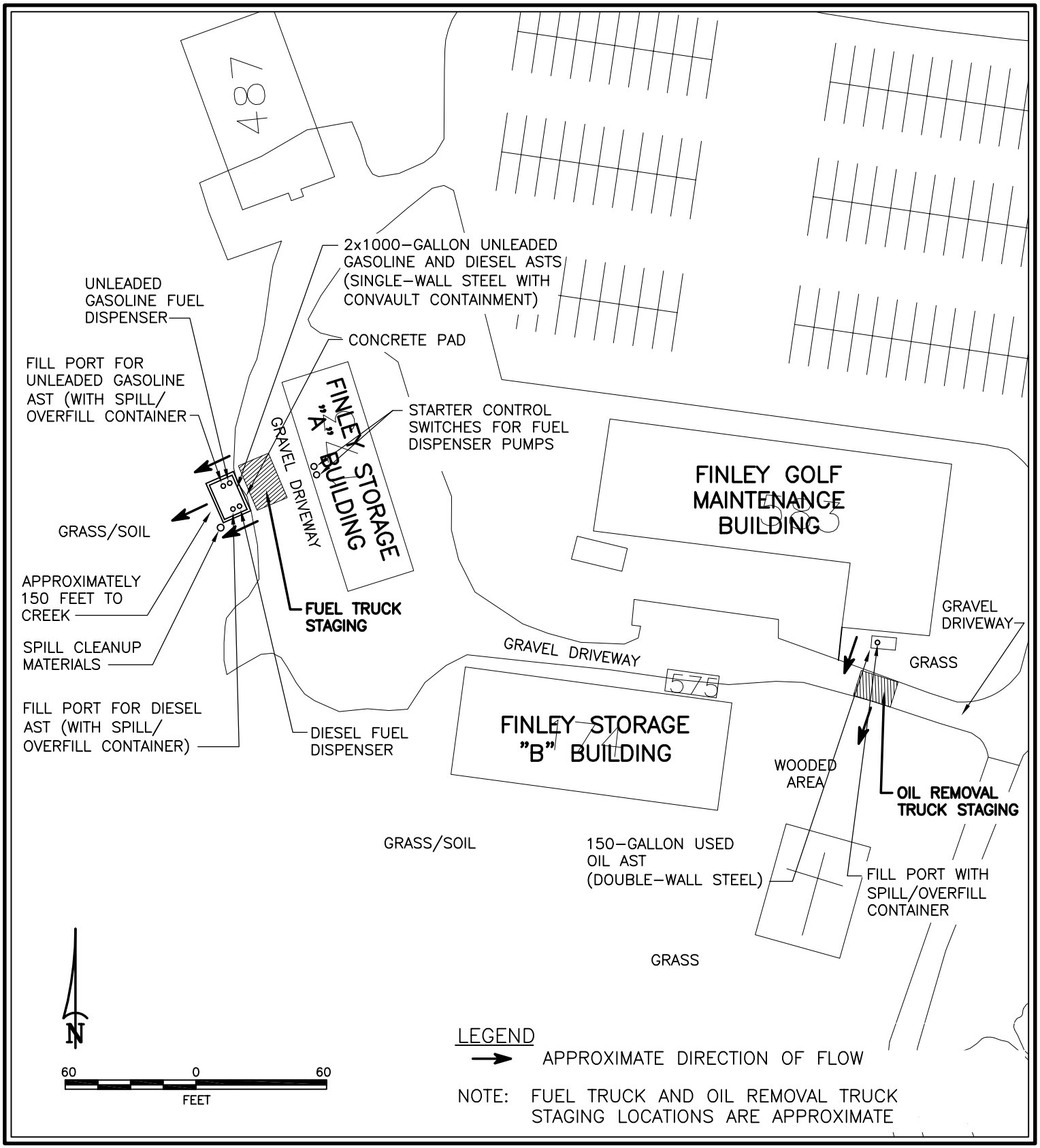
ENERGY SERVICES BUILDING



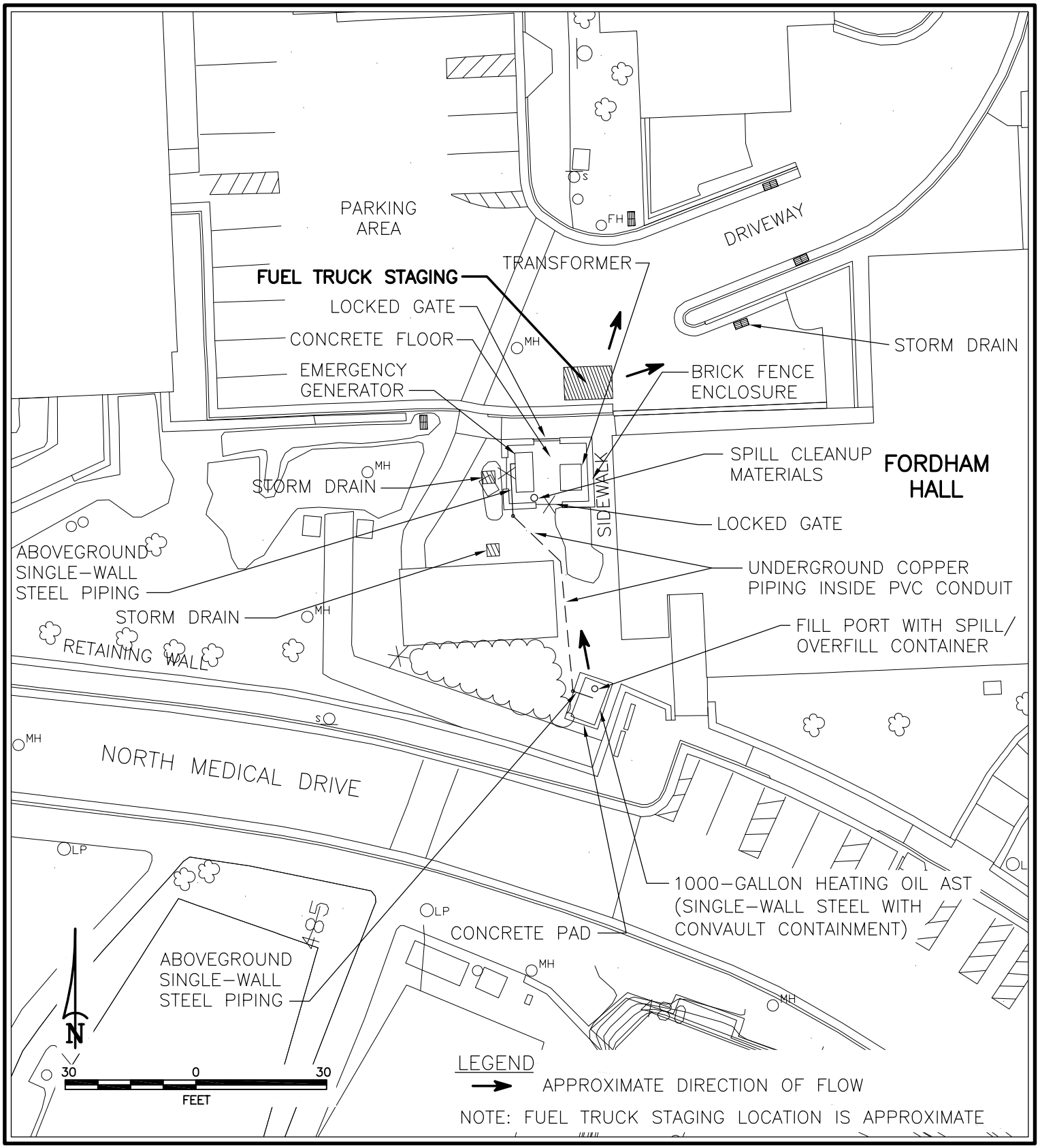
EPA BUILDING



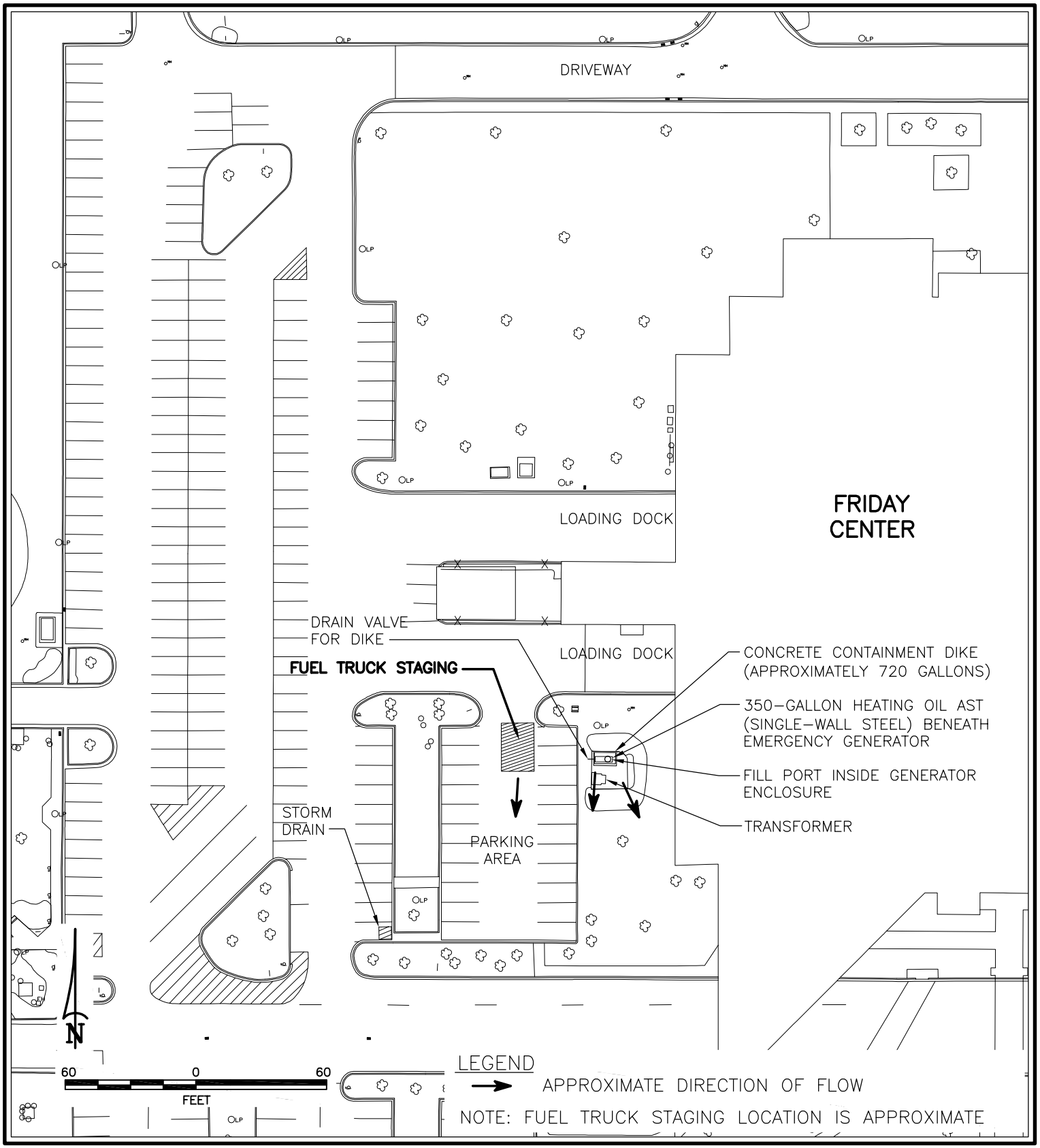
FETZER GYMNASIUM



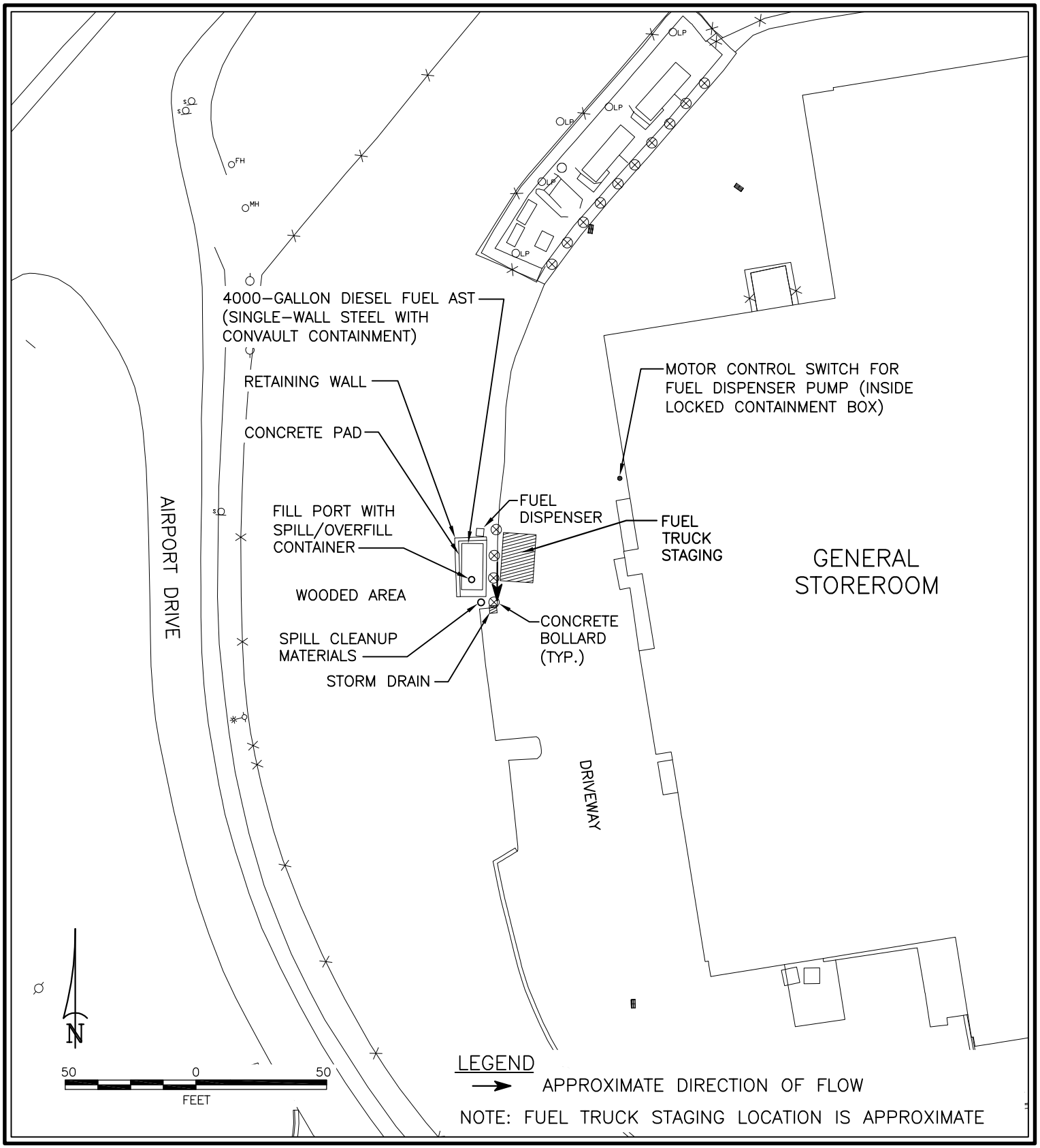
FINLEY GOLF COURSE FACILITY



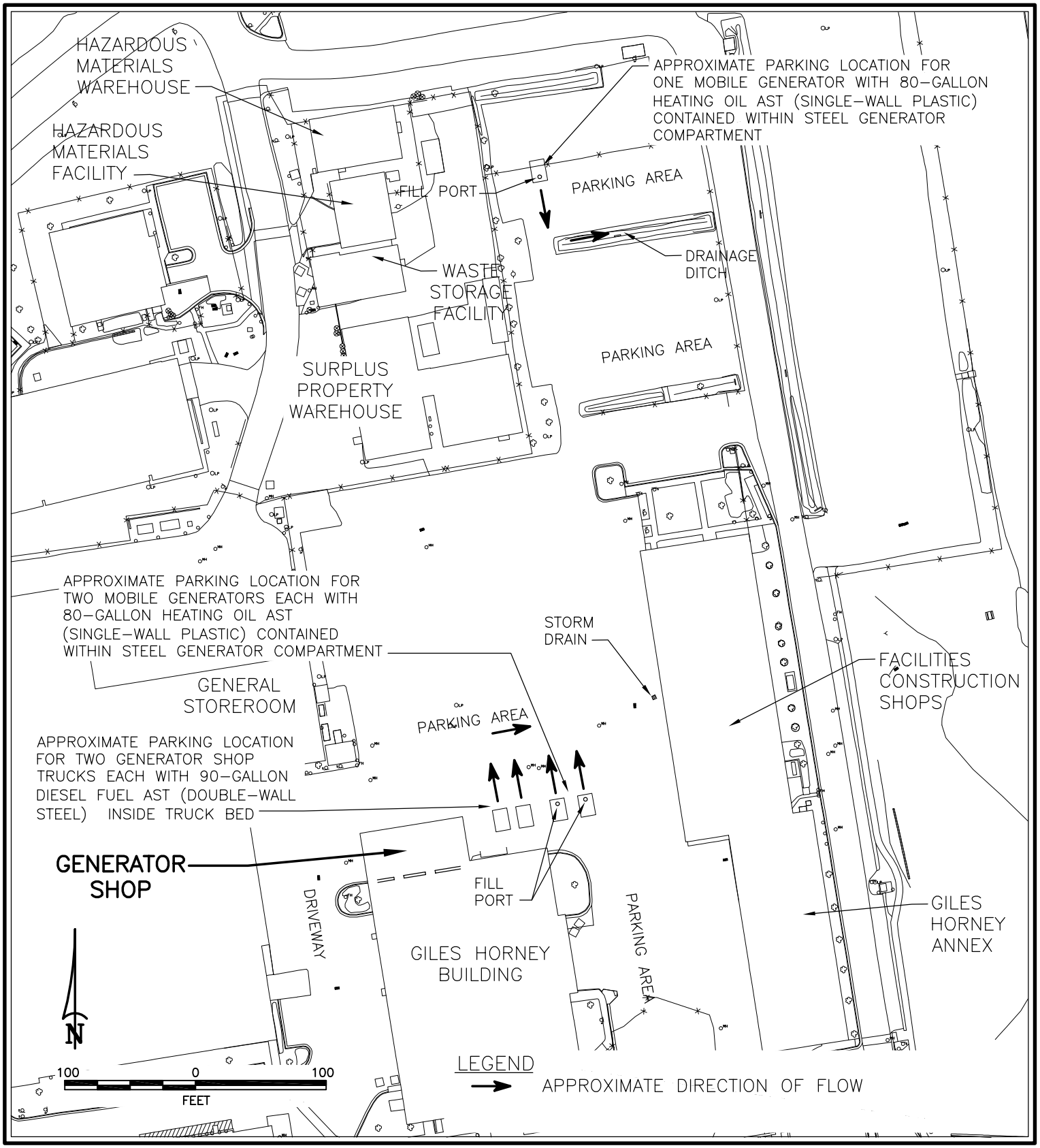
FORDHAM HALL



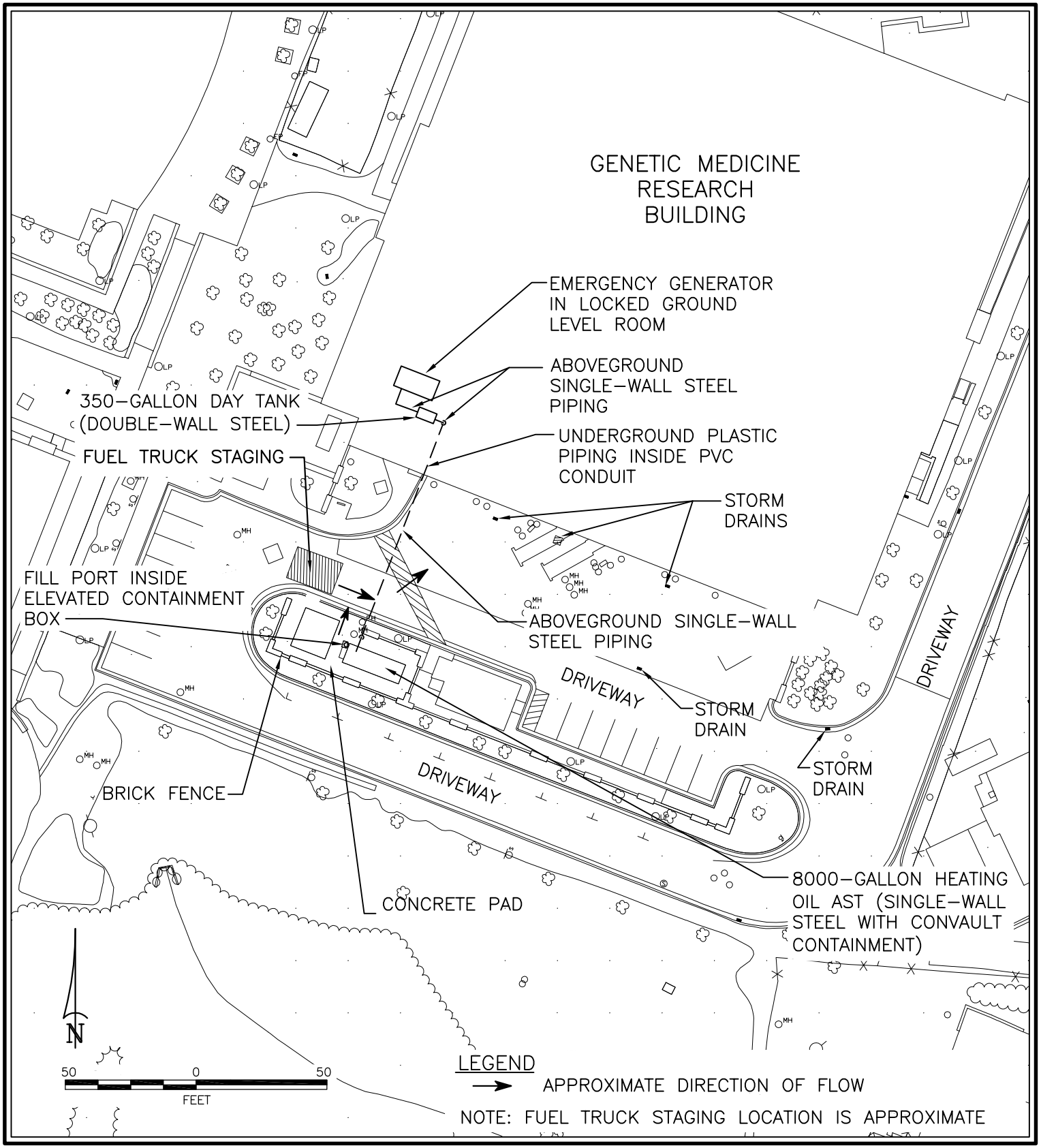
FRIDAY CENTER



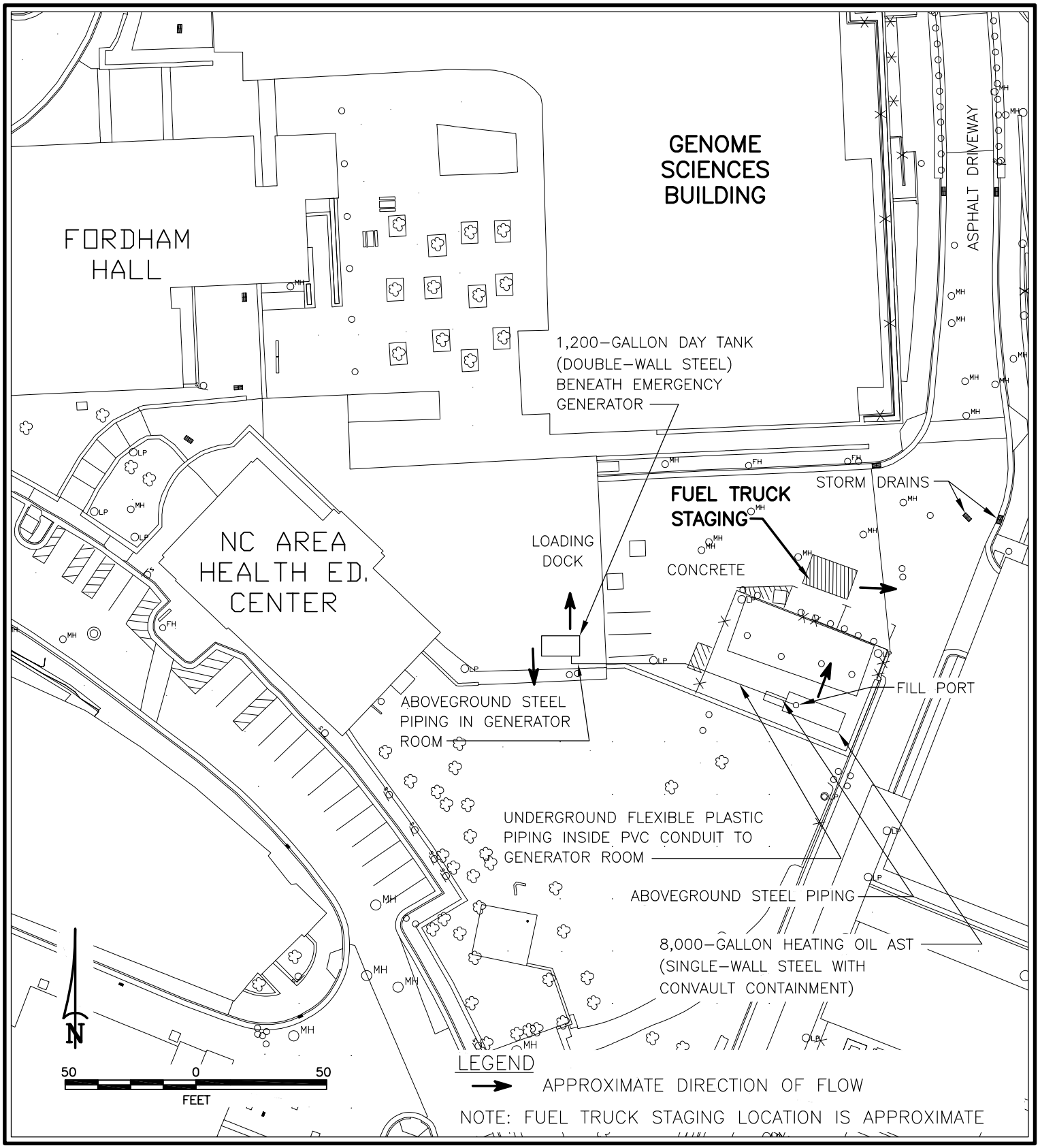
GENERAL STOREROOM



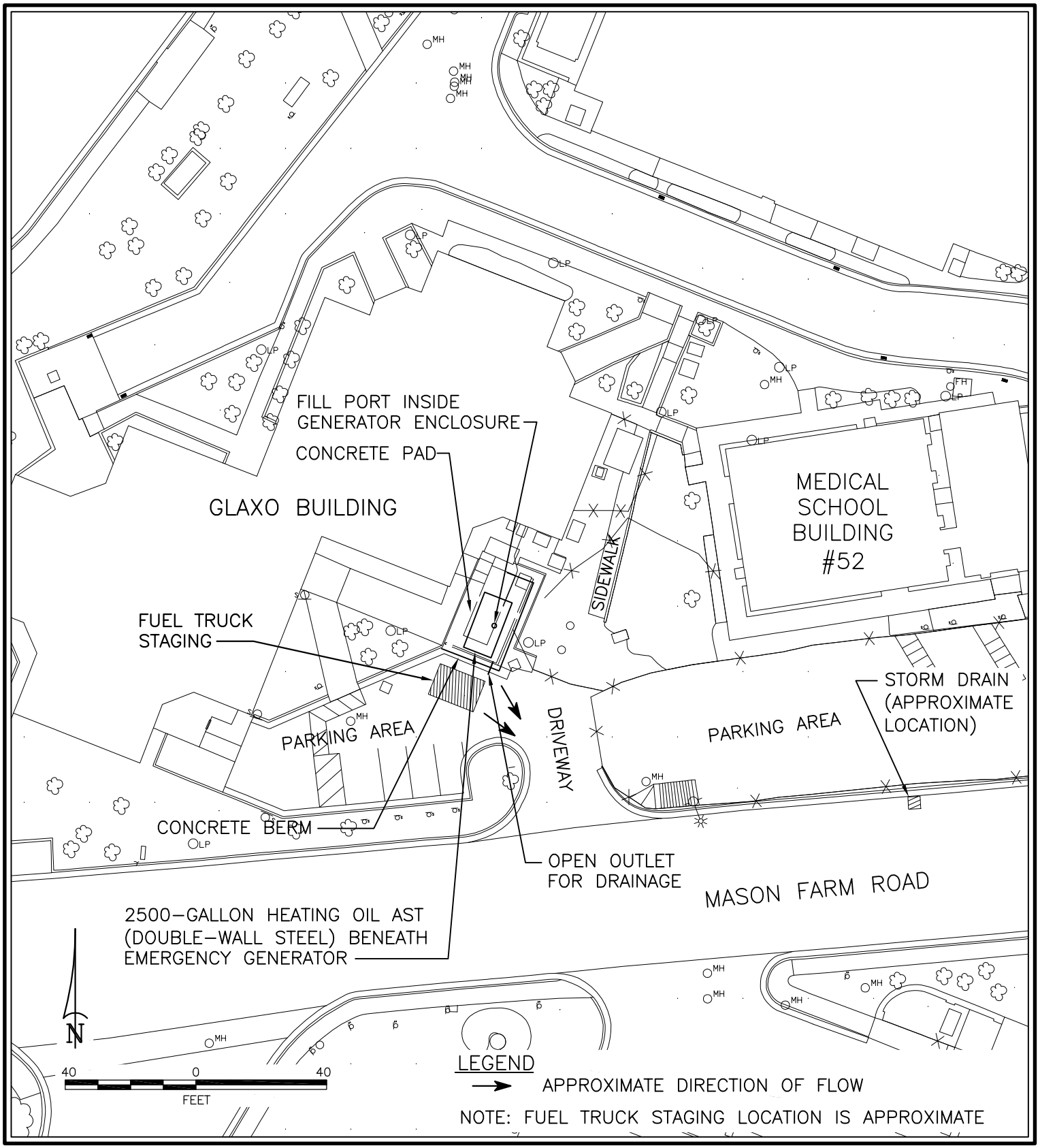
GENERATOR SHOP



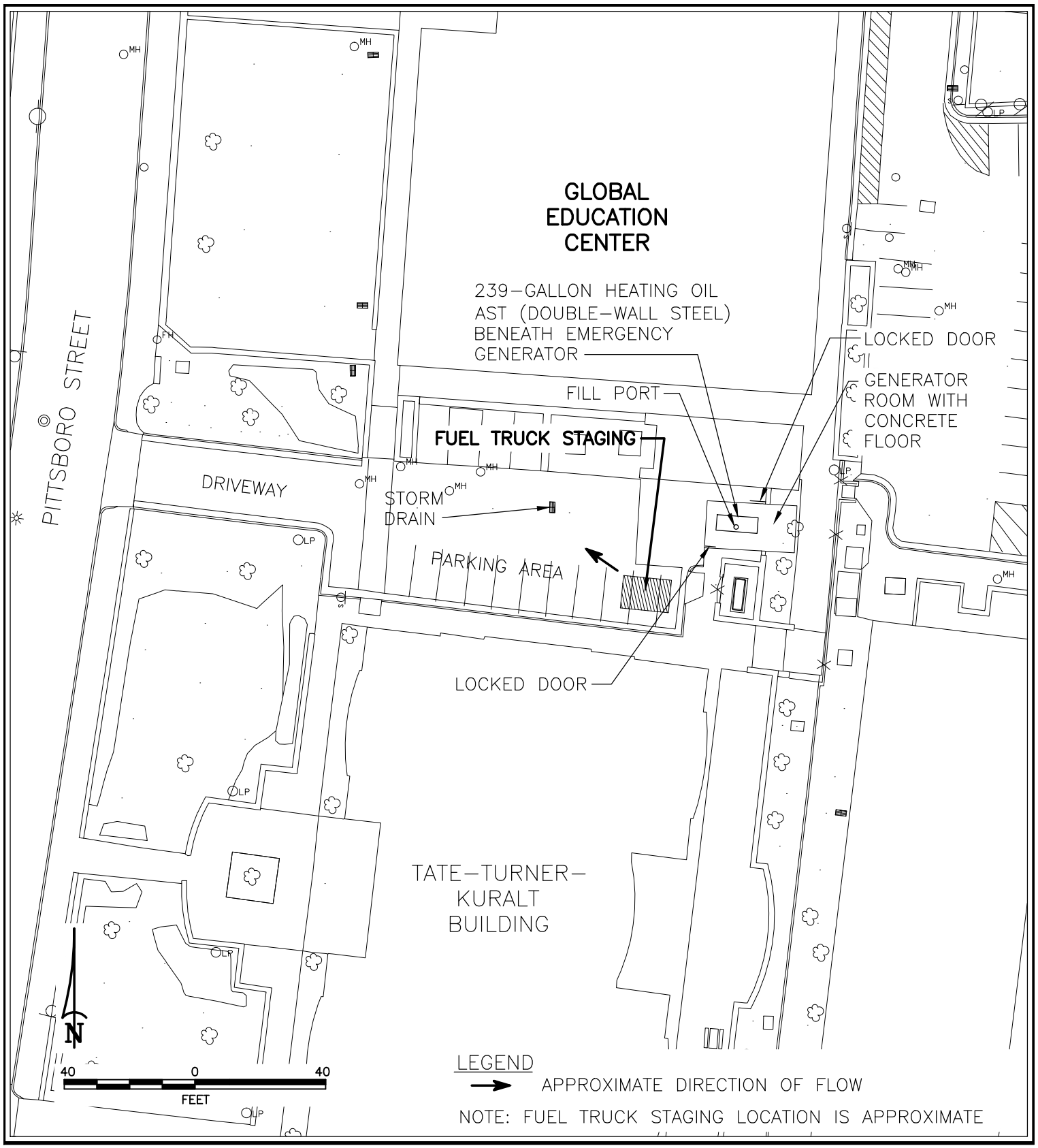
GENETIC MEDICINE RESEARCH BUILDING



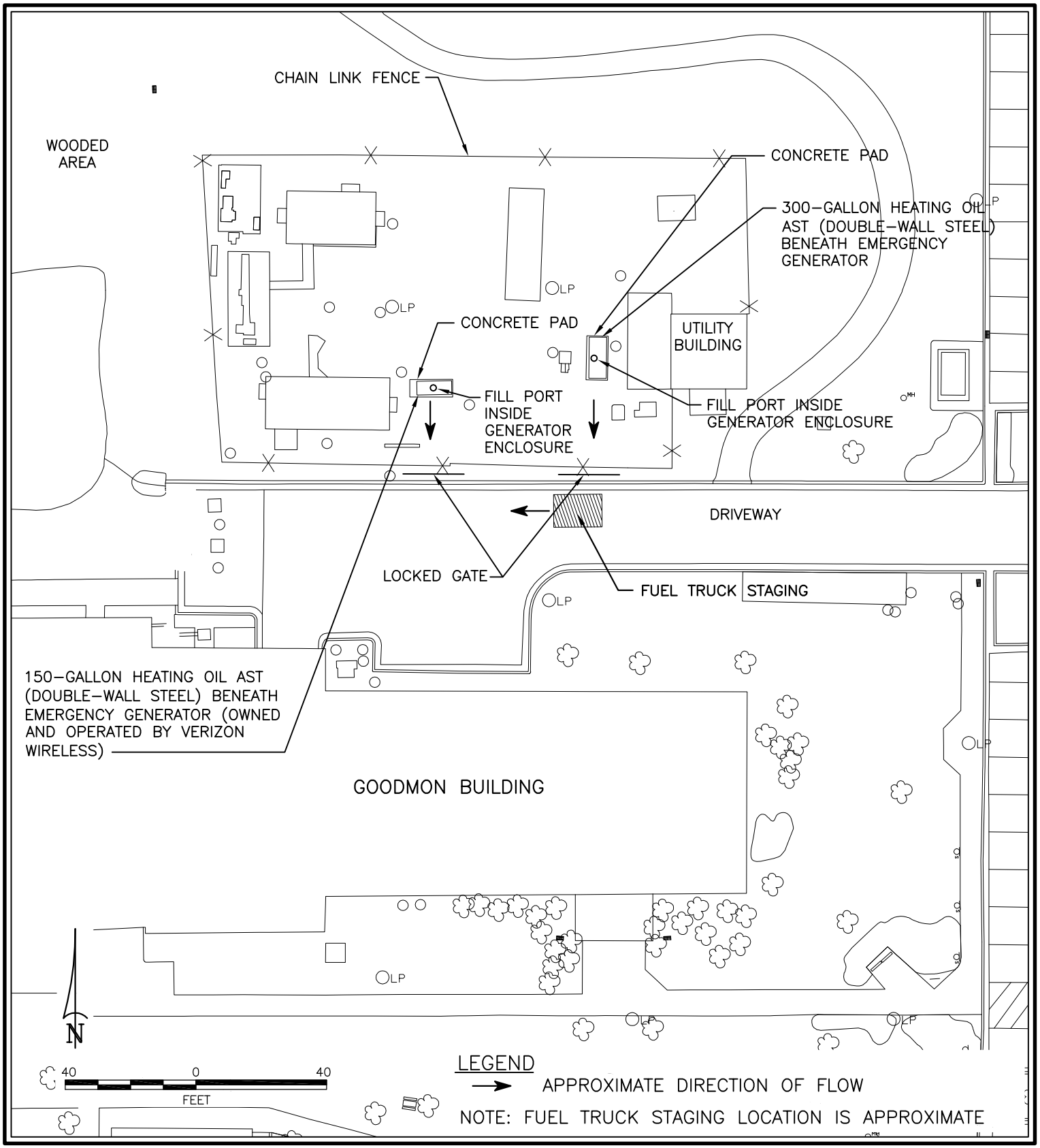
GENOME SCIENCES BUILDING



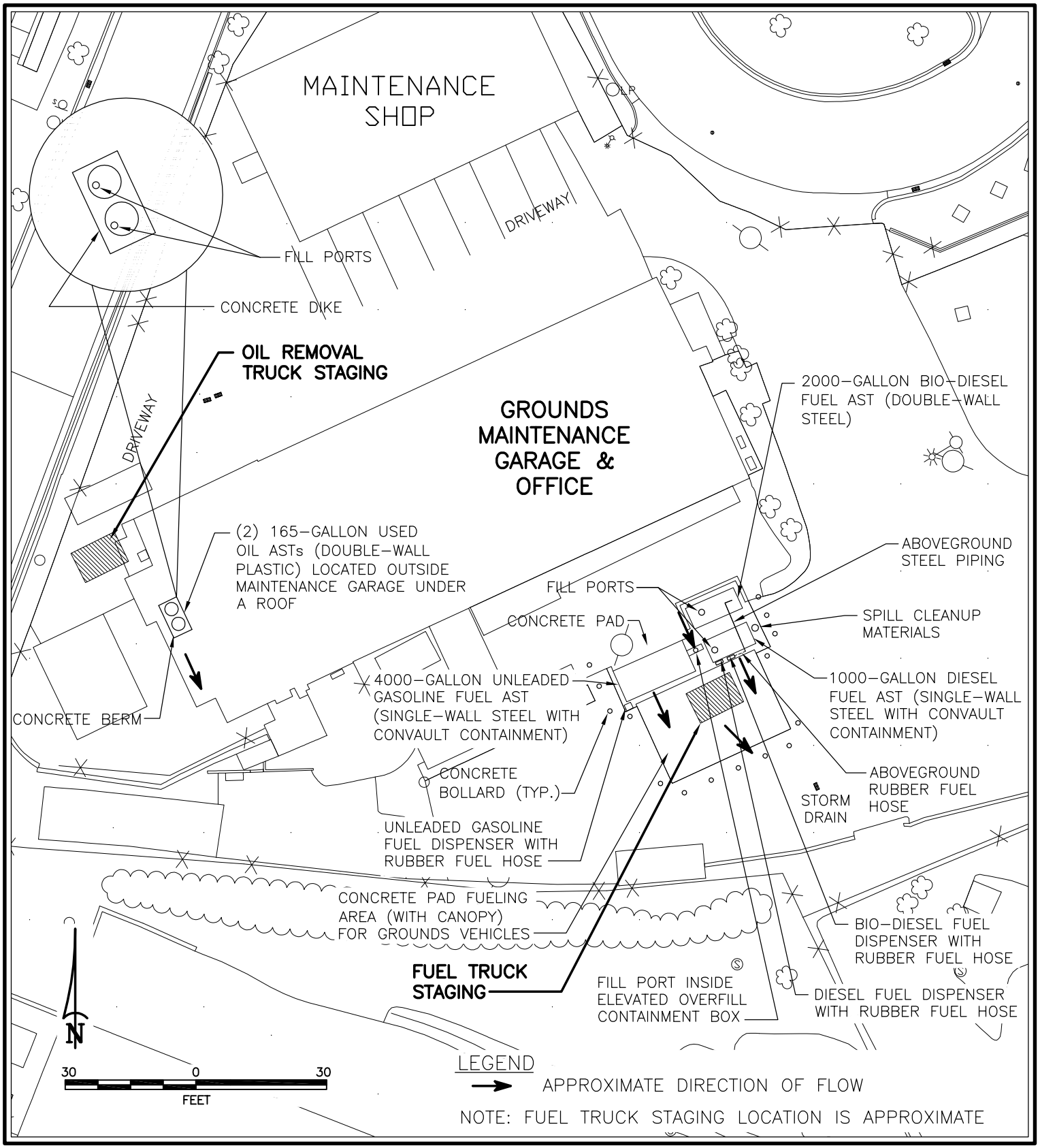
GLAXO BUILDING



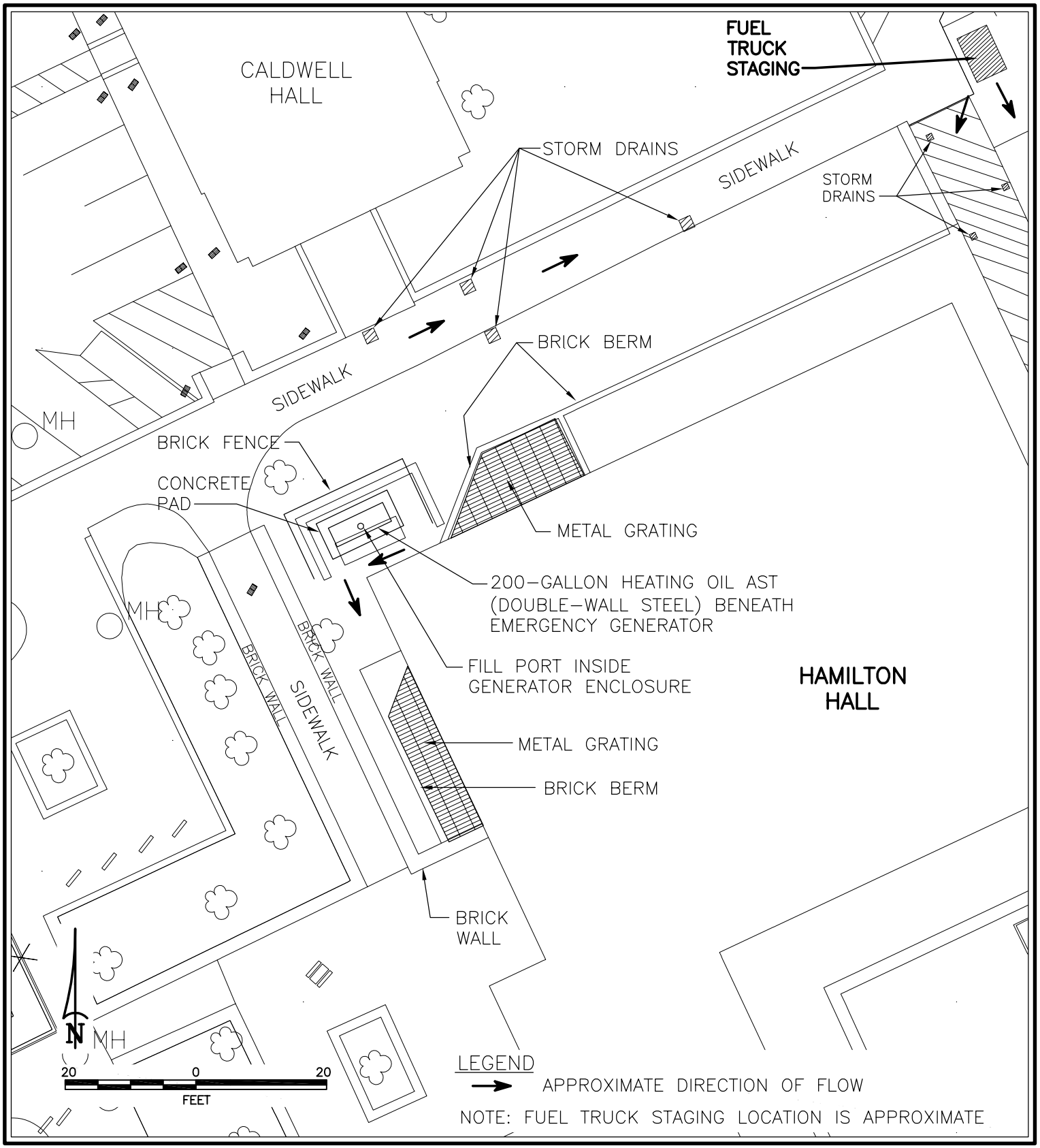
GLOBAL EDUCATION CENTER



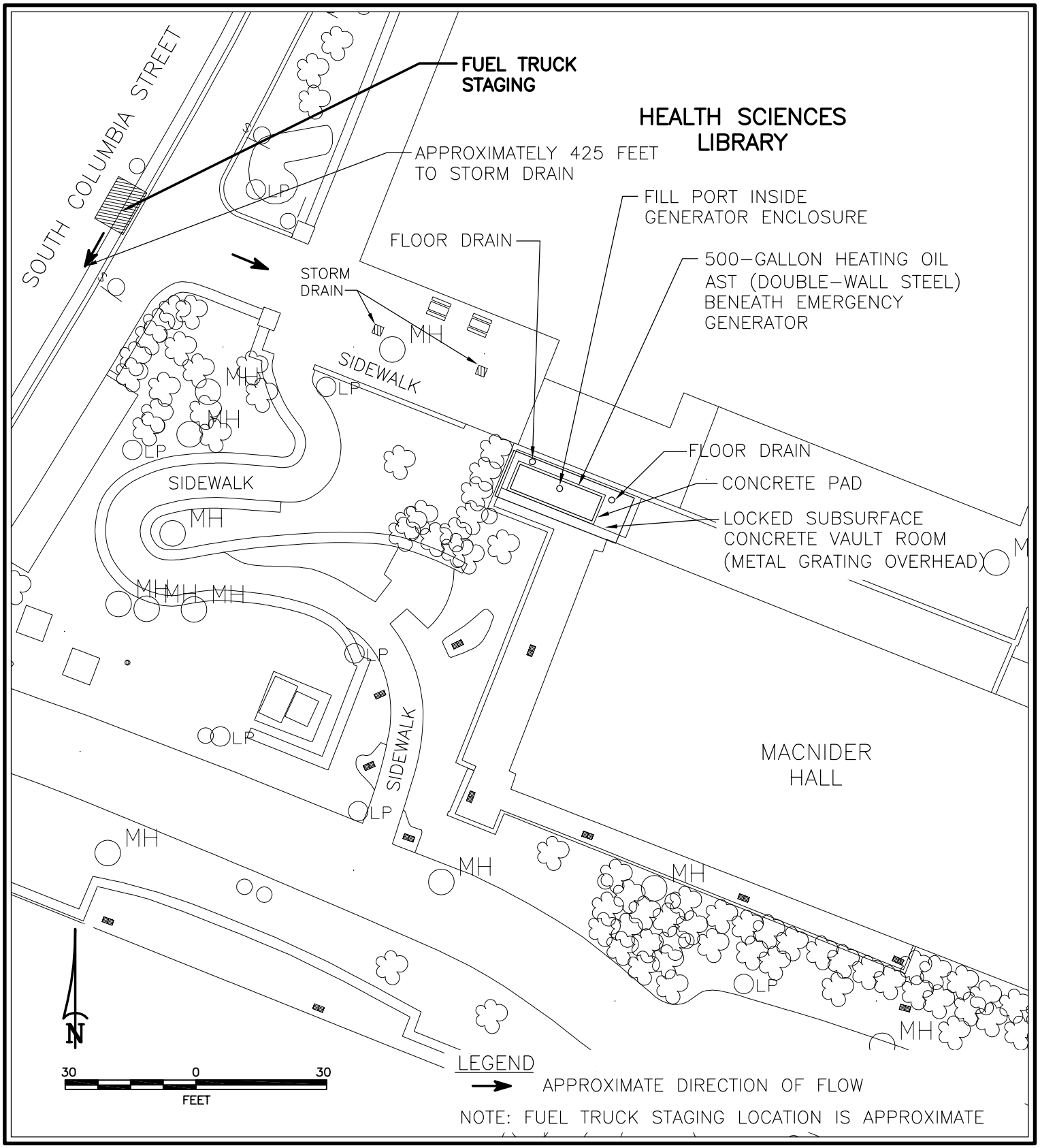
GOODMON BUILDING



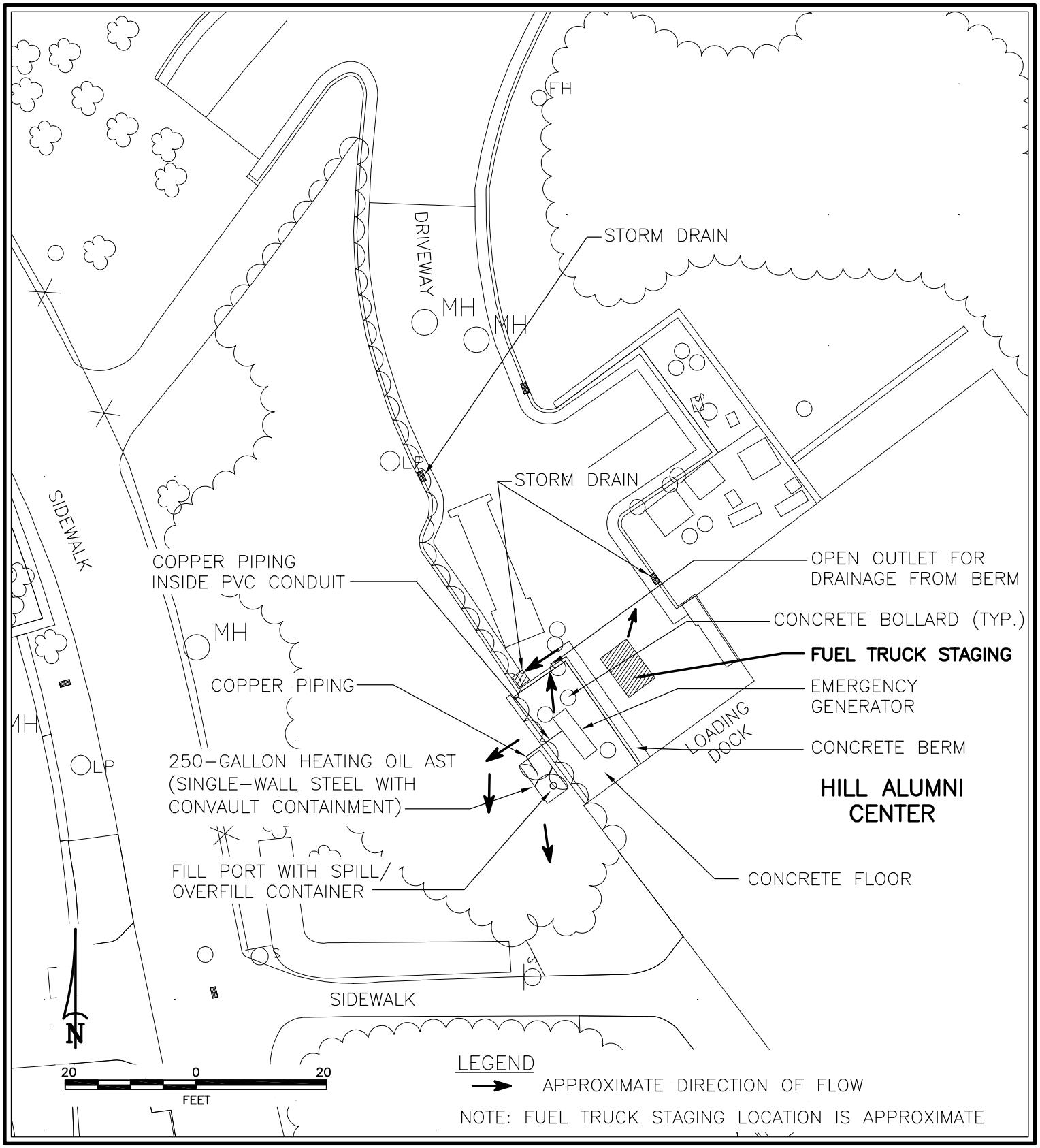
GROUNDS SERVICES



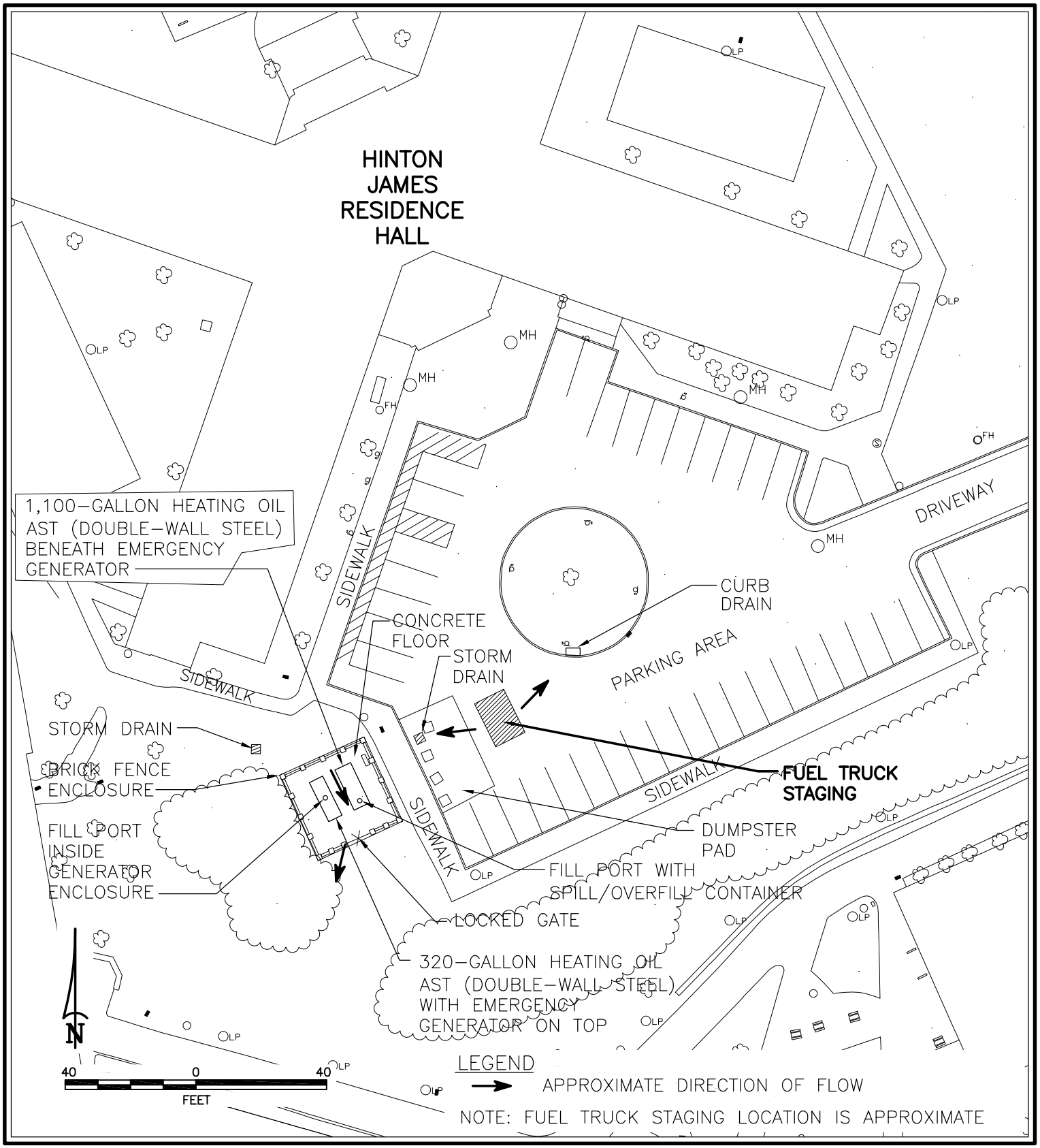
HAMILTON HALL



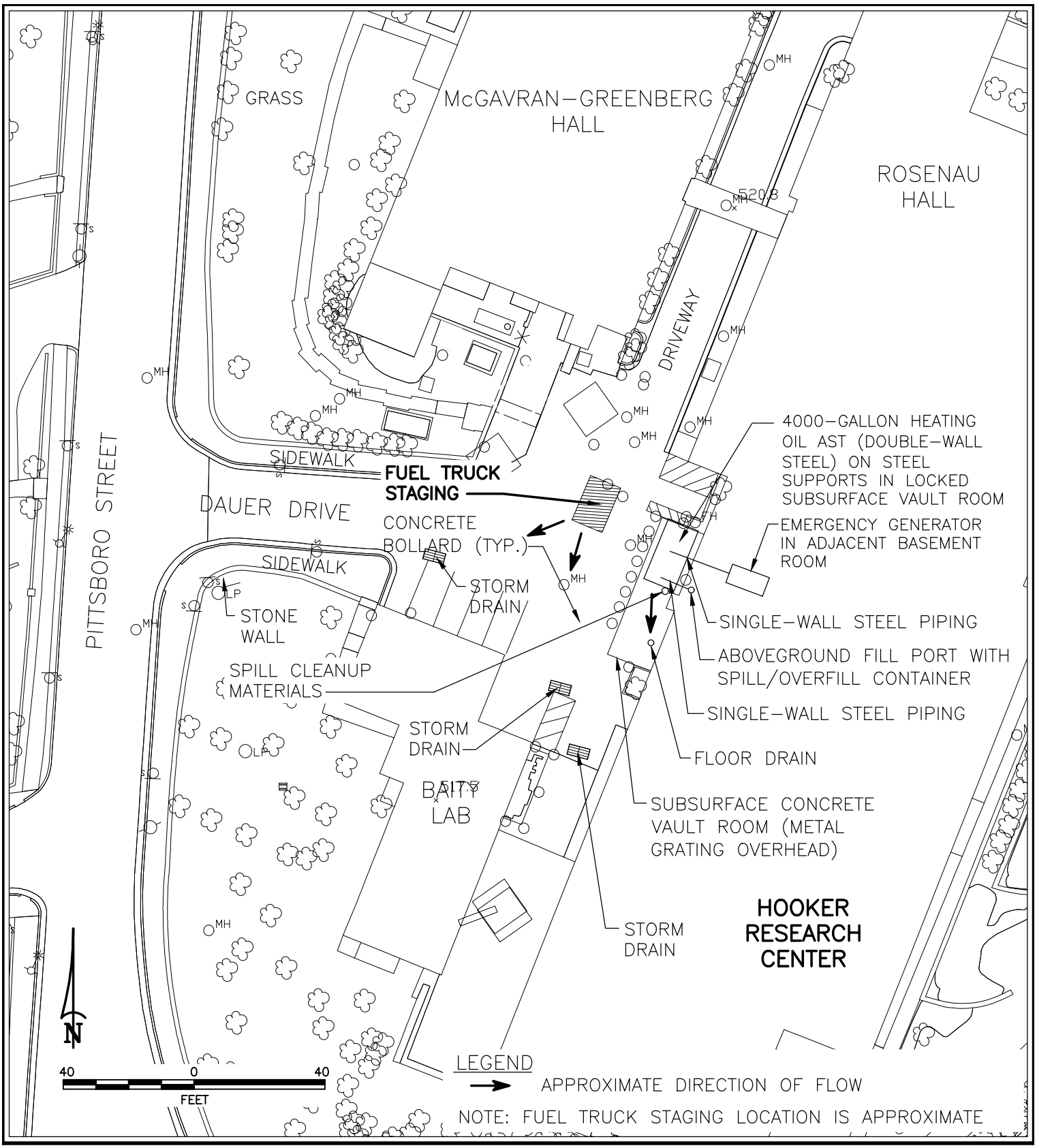
HEALTH SCIENCES LIBRARY



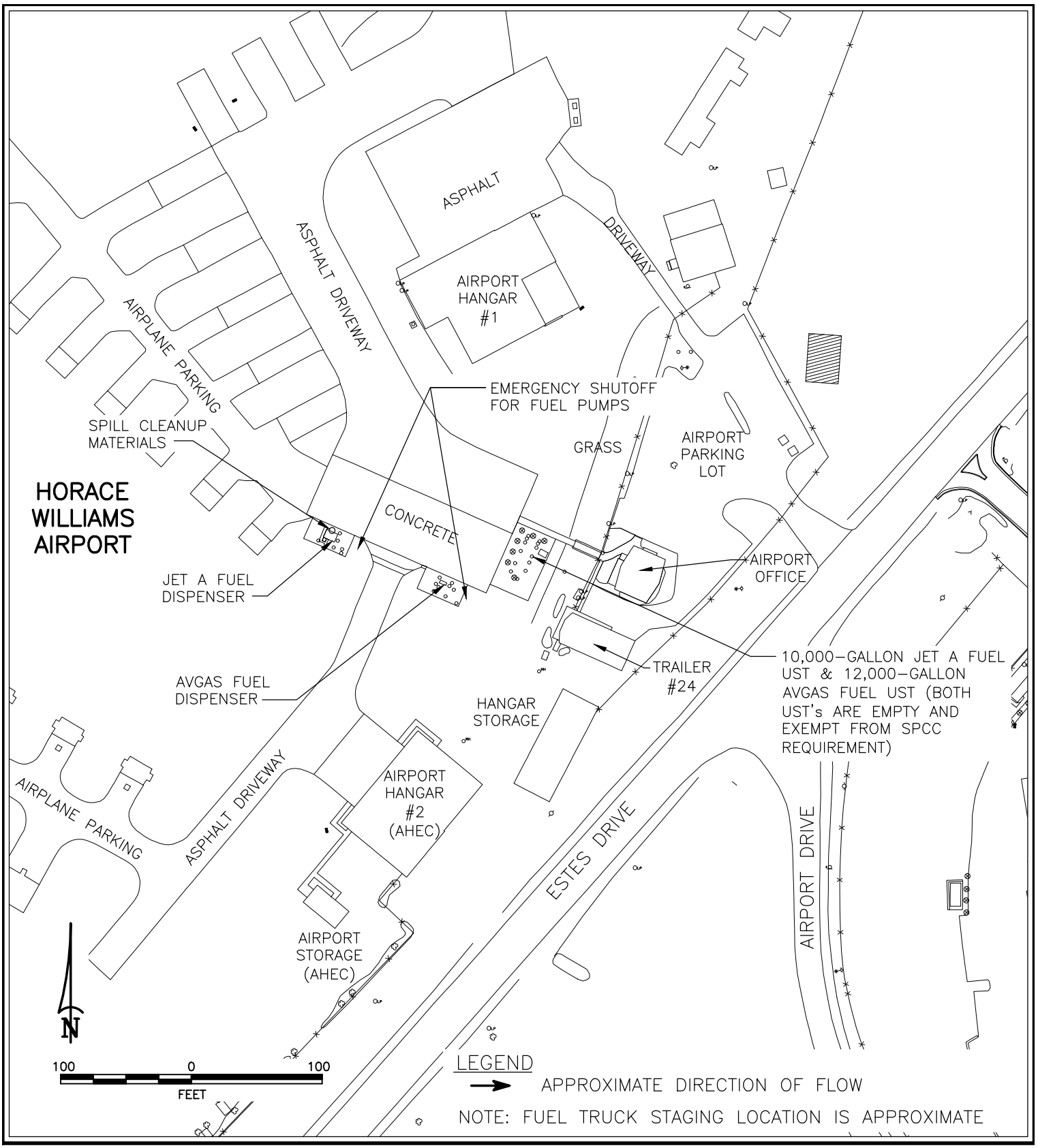
HILL ALUMNI CENTER



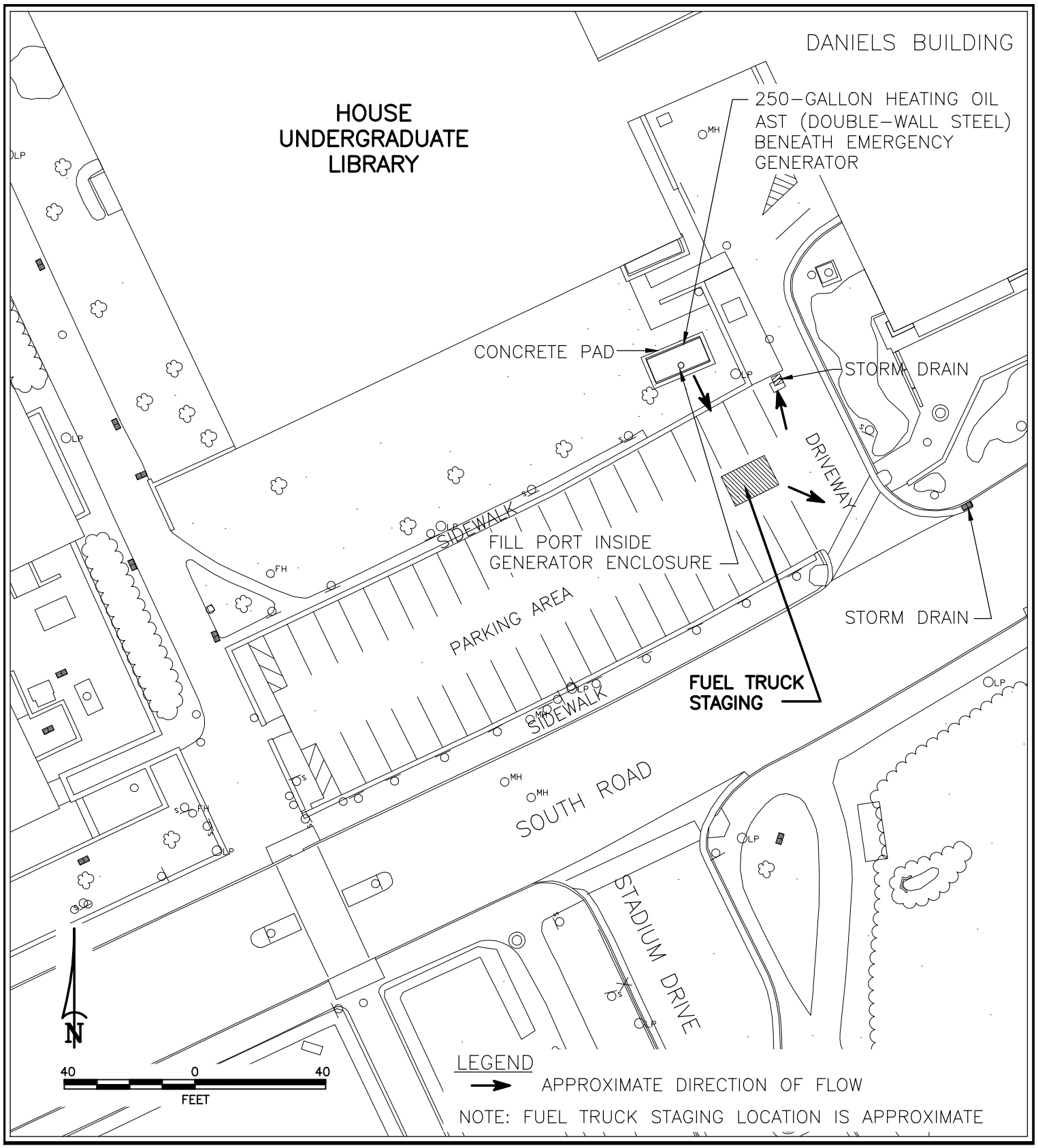
HINTON JAMES RESIDENCE HALL



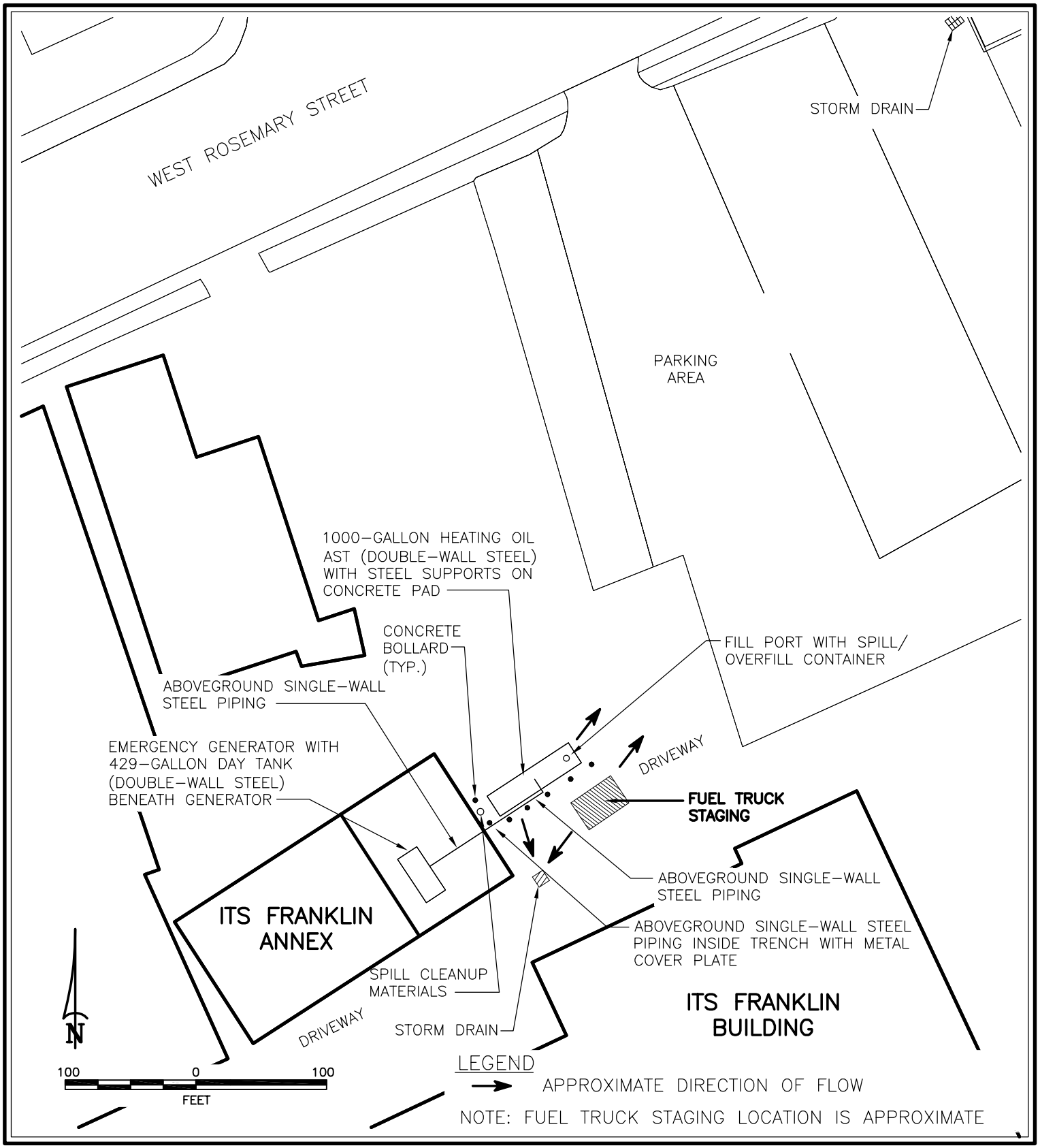
HOOKER RESEARCH CENTER



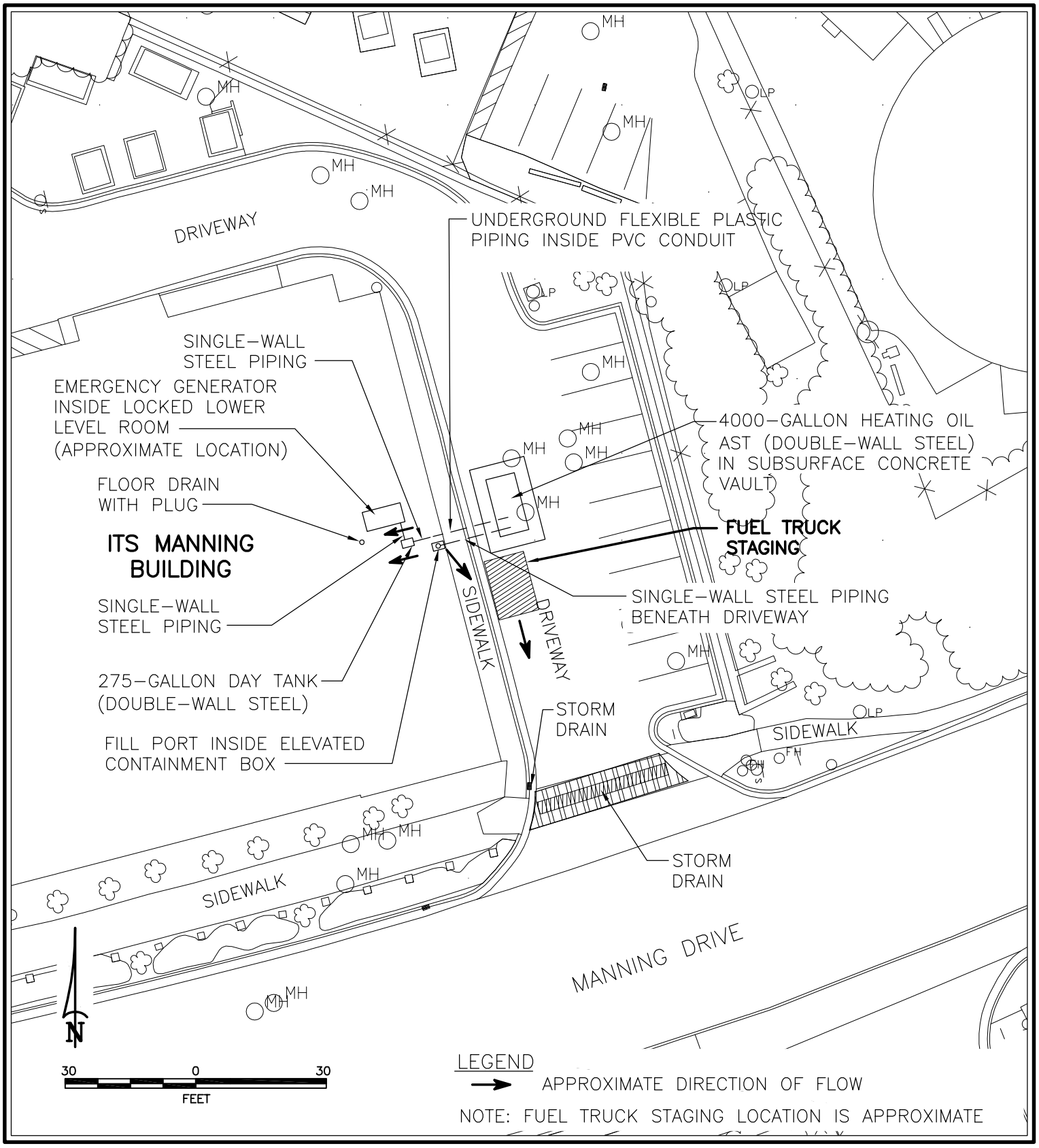
HORACE WILLIAMS AIRPORT



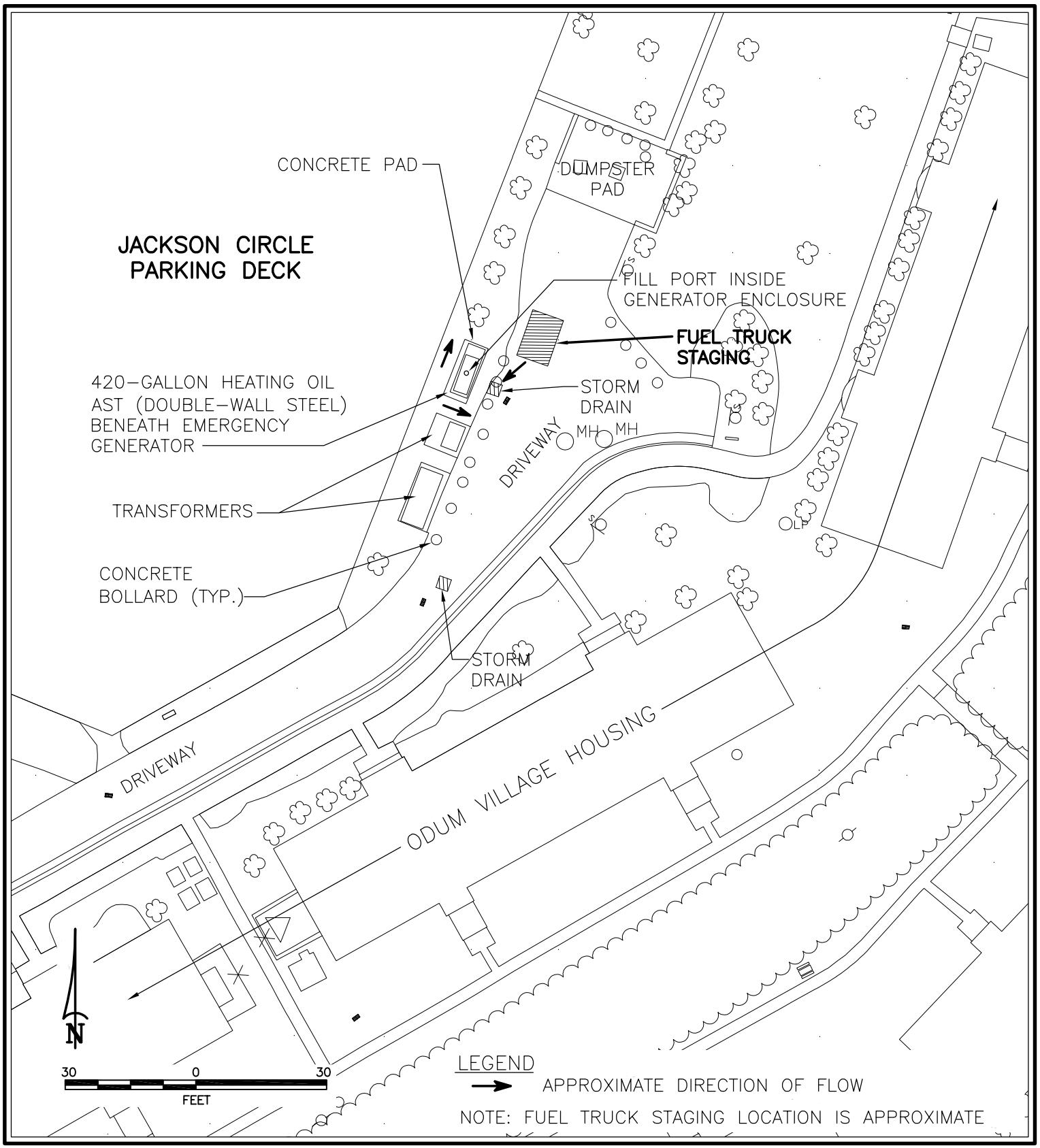
HOUSE UNDERGRADUATE LIBRARY



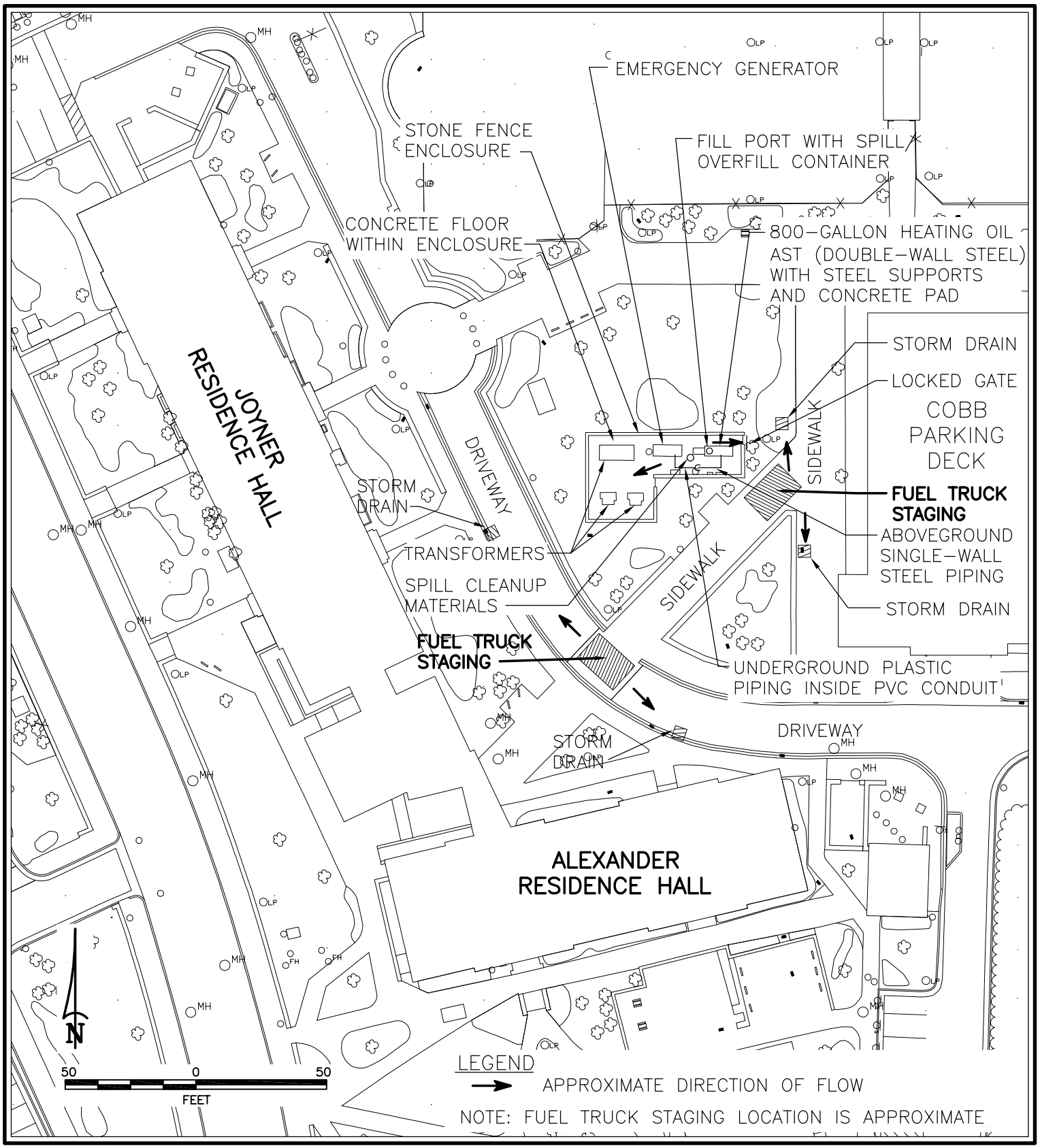
ITS FRANKLIN


DRIVEWAY
UNDERGROUND FLEXIBLE PLASTIC PIPING INSIDE PVC CONDUIT
SINGLE-WALL STEEL PIPING
EMERGENCY GENERATOR INSIDE LOCKED LOWER LEVEL ROOM (APPROXIMATE LOCATION)
FLOOR DRAIN WITH PLUG
ITS MANNING BUILDING
SINGLE-WALL STEEL PIPING
275-GALLON DAY TANK (DOUBLE-WALL STEEL)
FILL PORT INSIDE ELEVATED CONTAINMENT BOX
4000-GALLON HEATING OIL AST (DOUBLE-WALL STEEL) IN SUBSURFACE CONCRETE VAULT
FUEL TRUCK STAGING
SINGLE-WALL STEEL PIPING BENEATH DRIVEWAY
SIDEWALK
DRIVEWAY
STORM DRAIN
SIDEWALK
STORM DRAIN
SIDEWALK
MANNING DRIVE
MH
LP
FH
N
30 0 30
FEET
LEGEND
APPROXIMATE DIRECTION OF FLOW
NOTE: FUEL TRUCK STAGING LOCATION IS APPROXIMATE

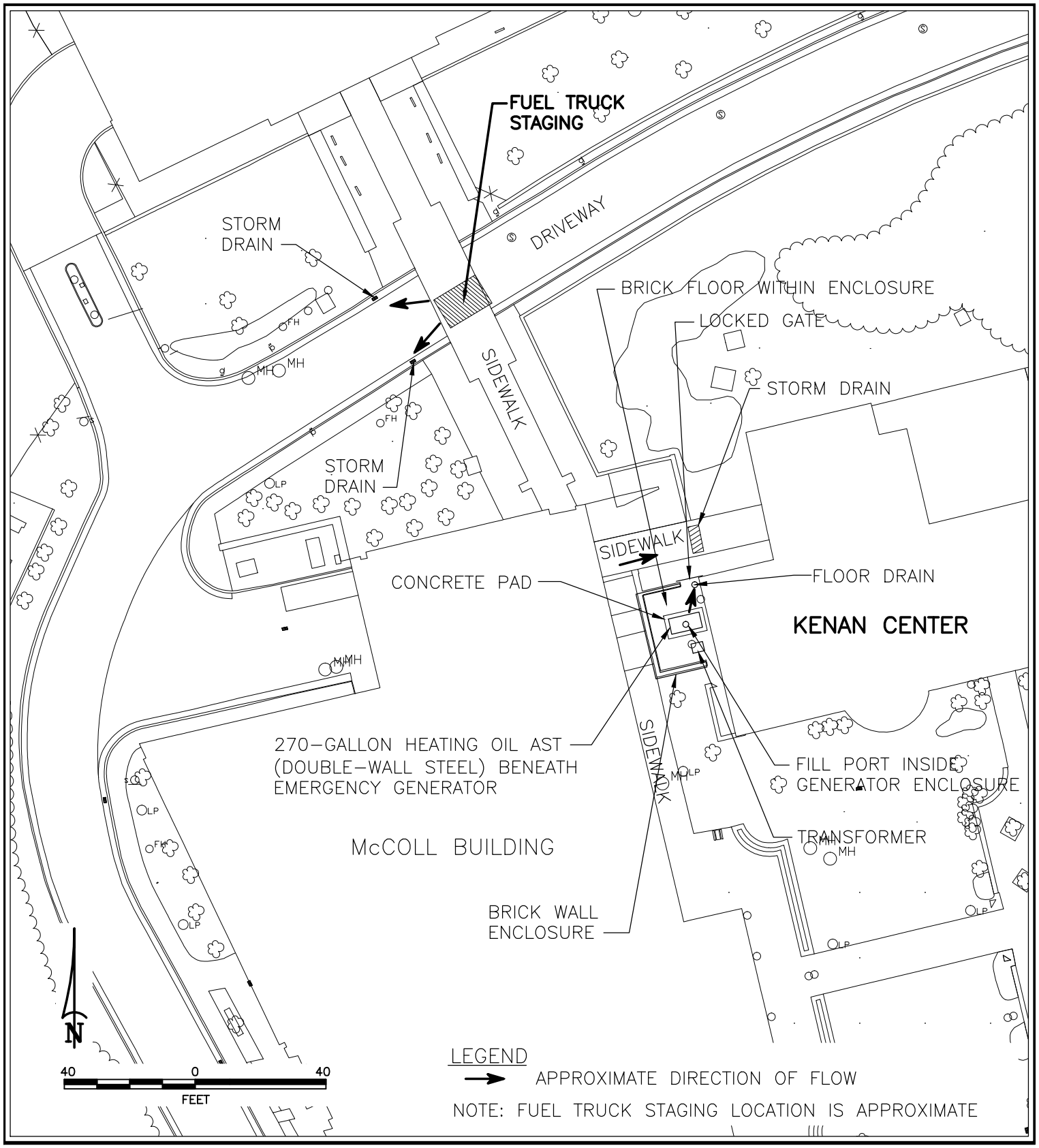
ITS MANNING



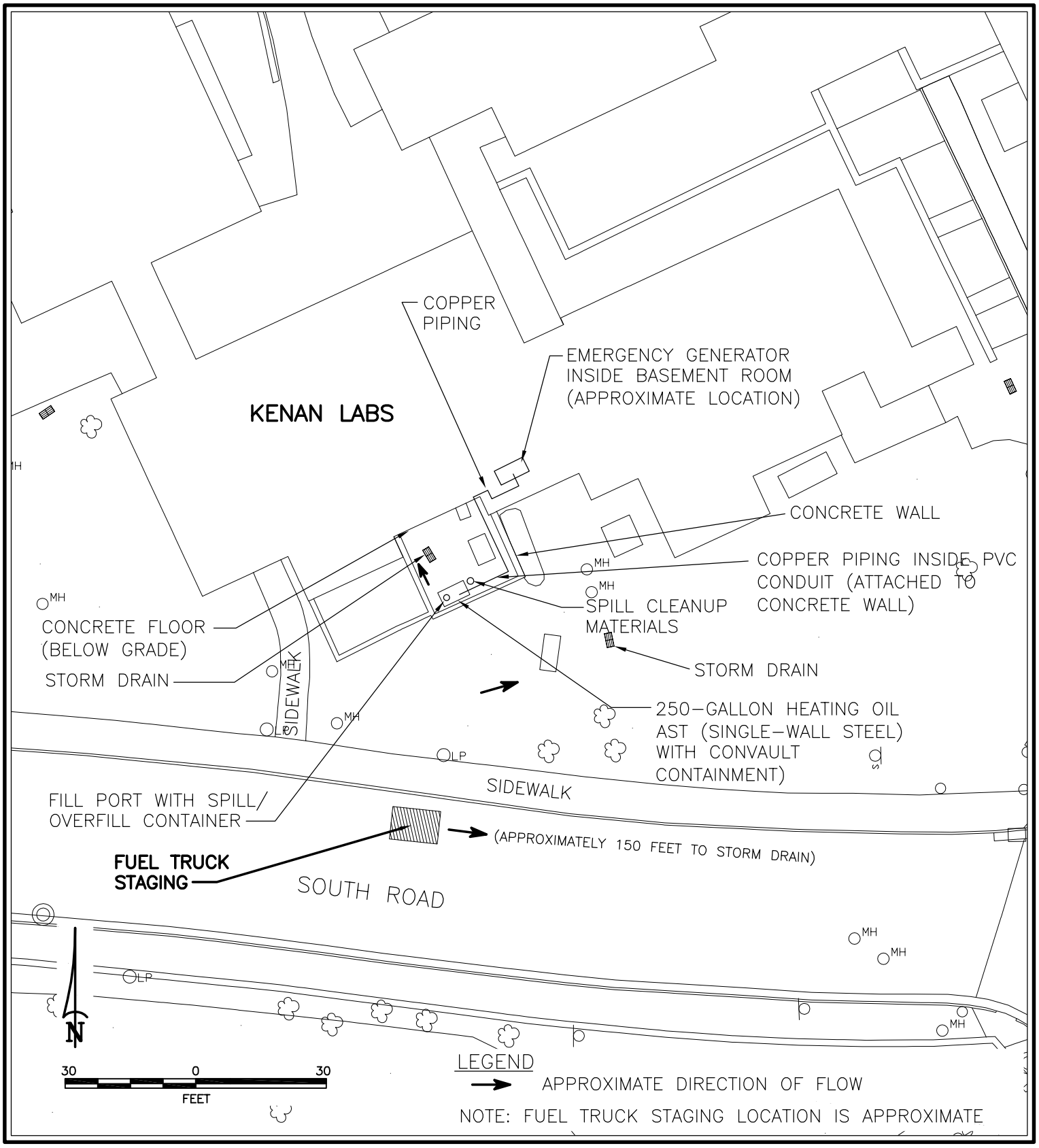
JACKSON CIRCLE PARKING DECK



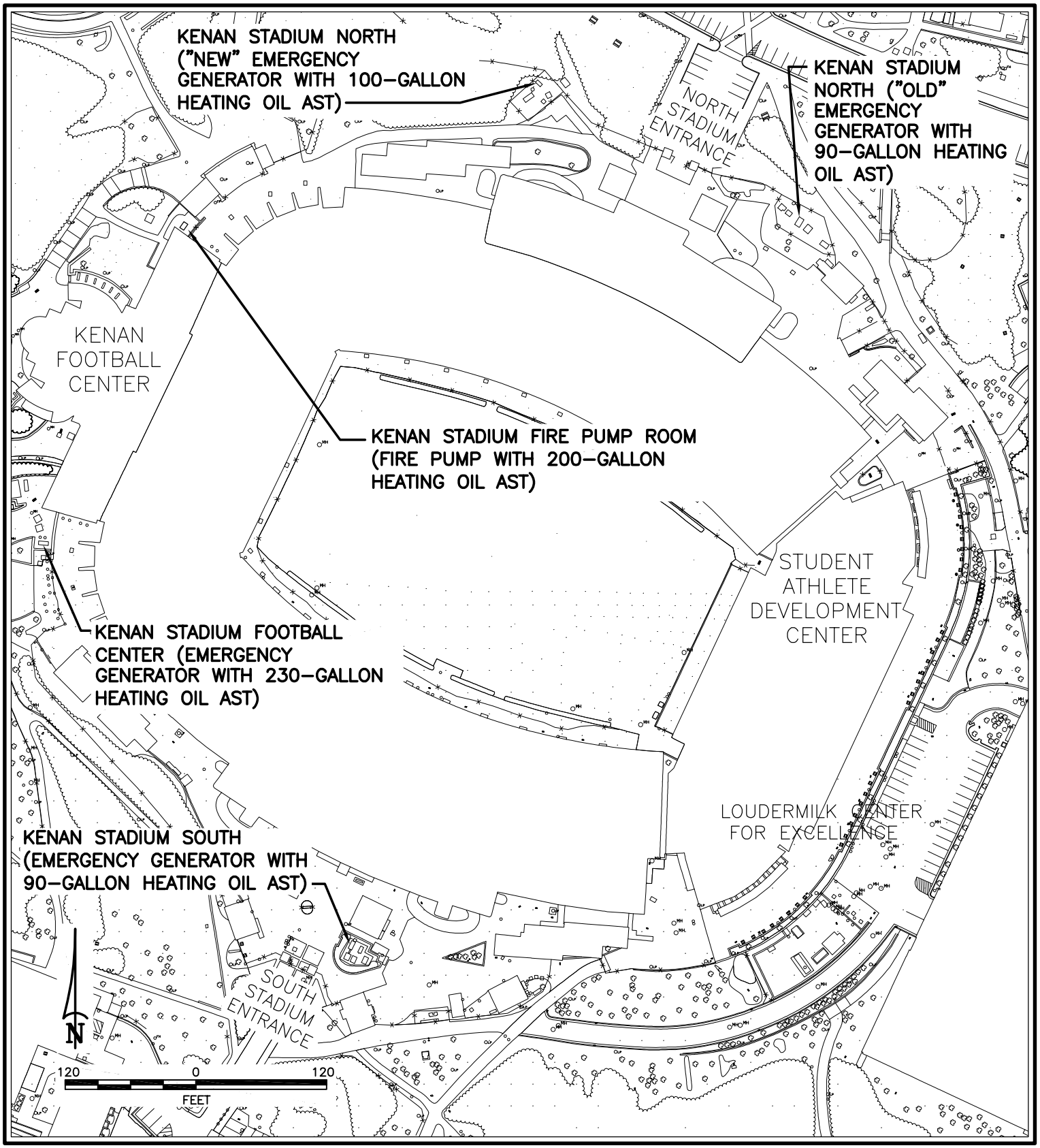
JOYNER / ALEXANDER RESIDENCE HALLS



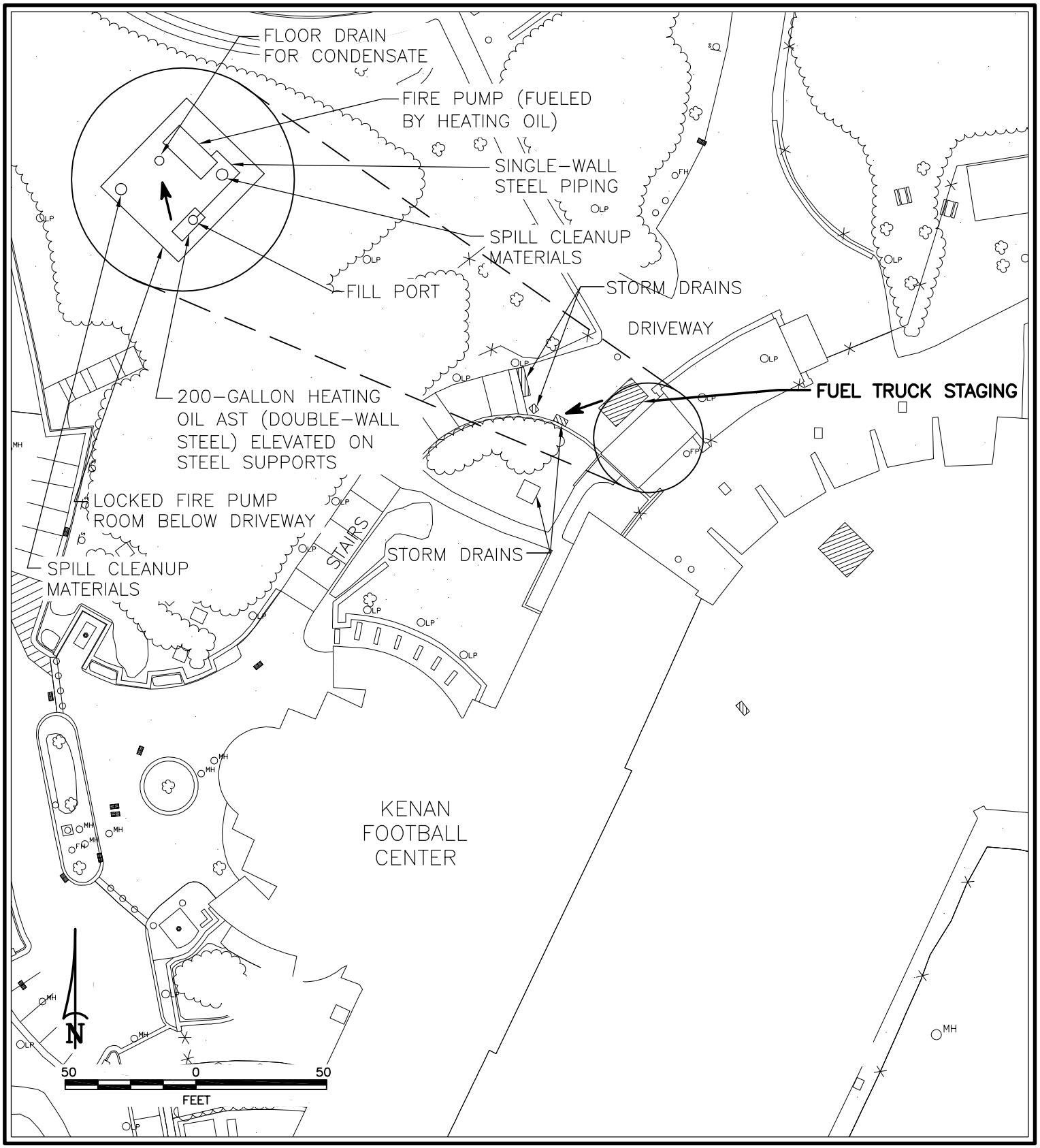
KENAN CENTER


KENAN LABS
COPPER PIPING
EMERGENCY GENERATOR INSIDE BASEMENT ROOM (APPROXIMATE LOCATION)
CONCRETE WALL
COPPER PIPING INSIDE PVC CONDUIT (ATTACHED TO CONCRETE WALL)
SPILL CLEANUP MATERIALS
STORM DRAIN
CONCRETE FLOOR (BELOW GRADE)
STORM DRAIN
250-GALLON HEATING OIL AST (SINGLE-WALL STEEL) WITH CONVAULT CONTAINMENT)
SIDEWALK
FILL PORT WITH SPILL/ OVERFILL CONTAINER
(APPROXIMATELY 150 FEET TO STORM DRAIN)
FUEL TRUCK STAGING
SOUTH ROAD
MH
LP
N
30 0 30
FEET
LEGEND
APPROXIMATE DIRECTION OF FLOW
NOTE: FUEL TRUCK STAGING LOCATION IS APPROXIMATE

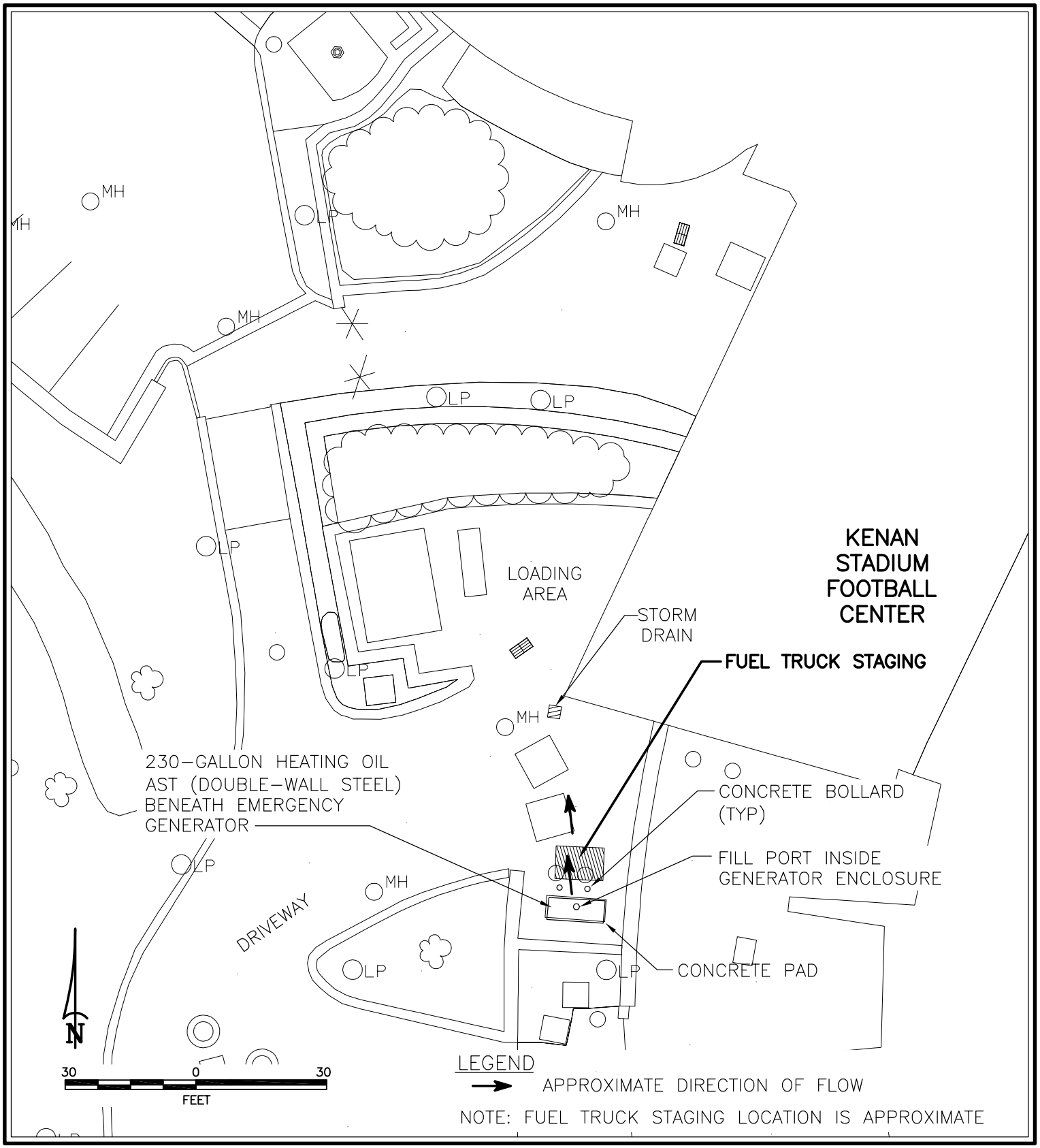
KENAN LABS



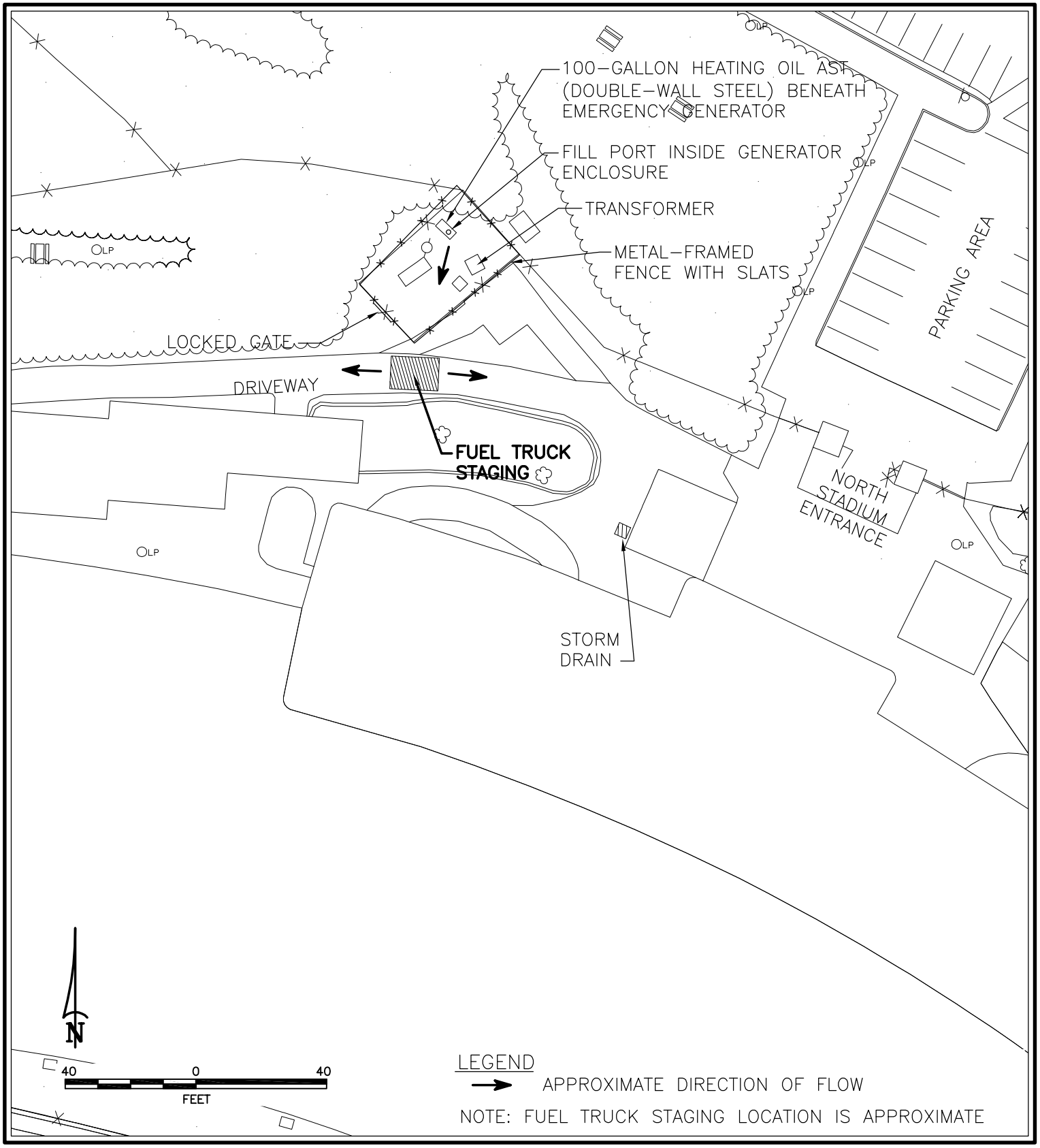
KENAN STADIUM EMERGENCY GENERATORS



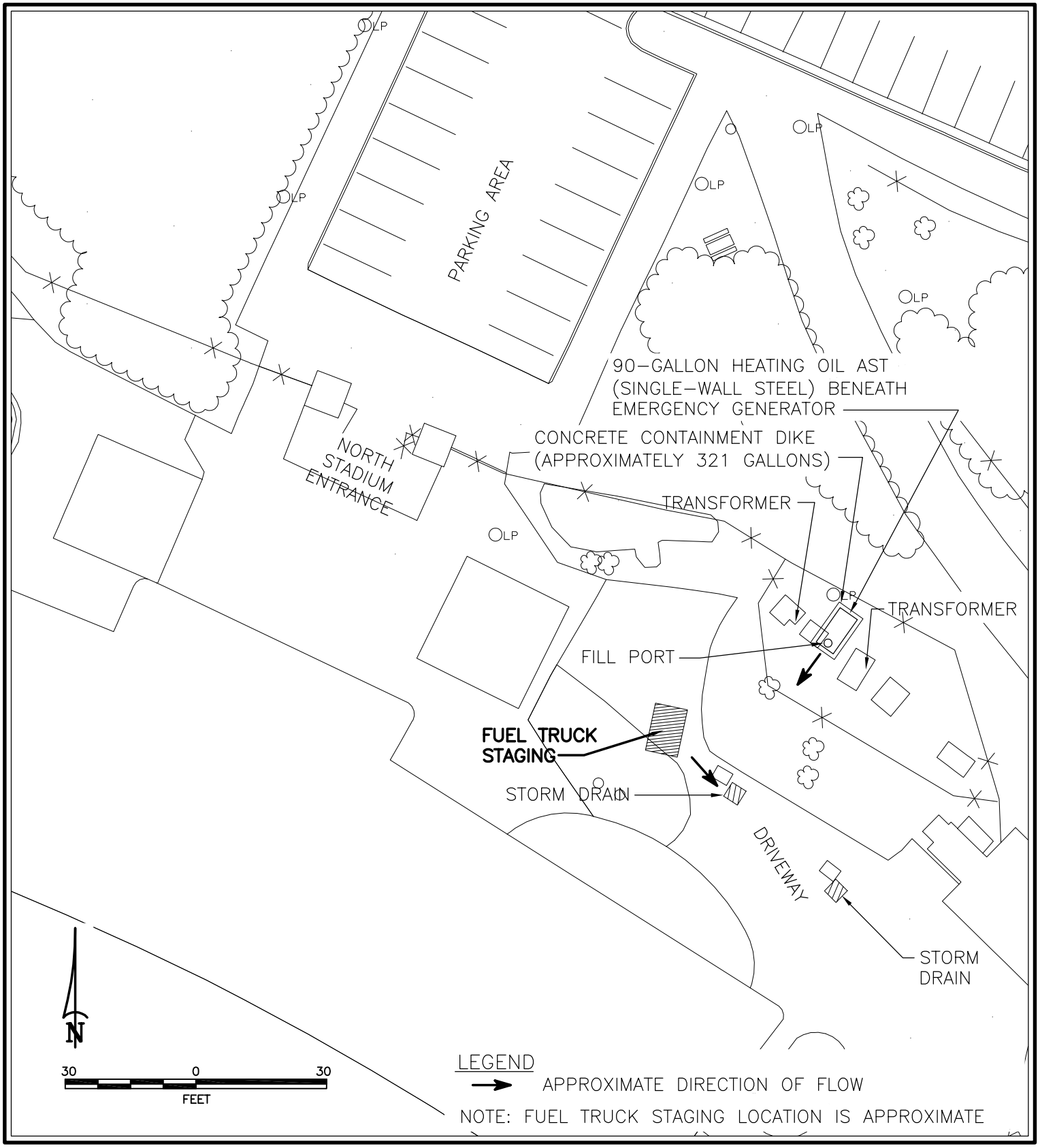
KENAN STADIUM FIRE PUMP



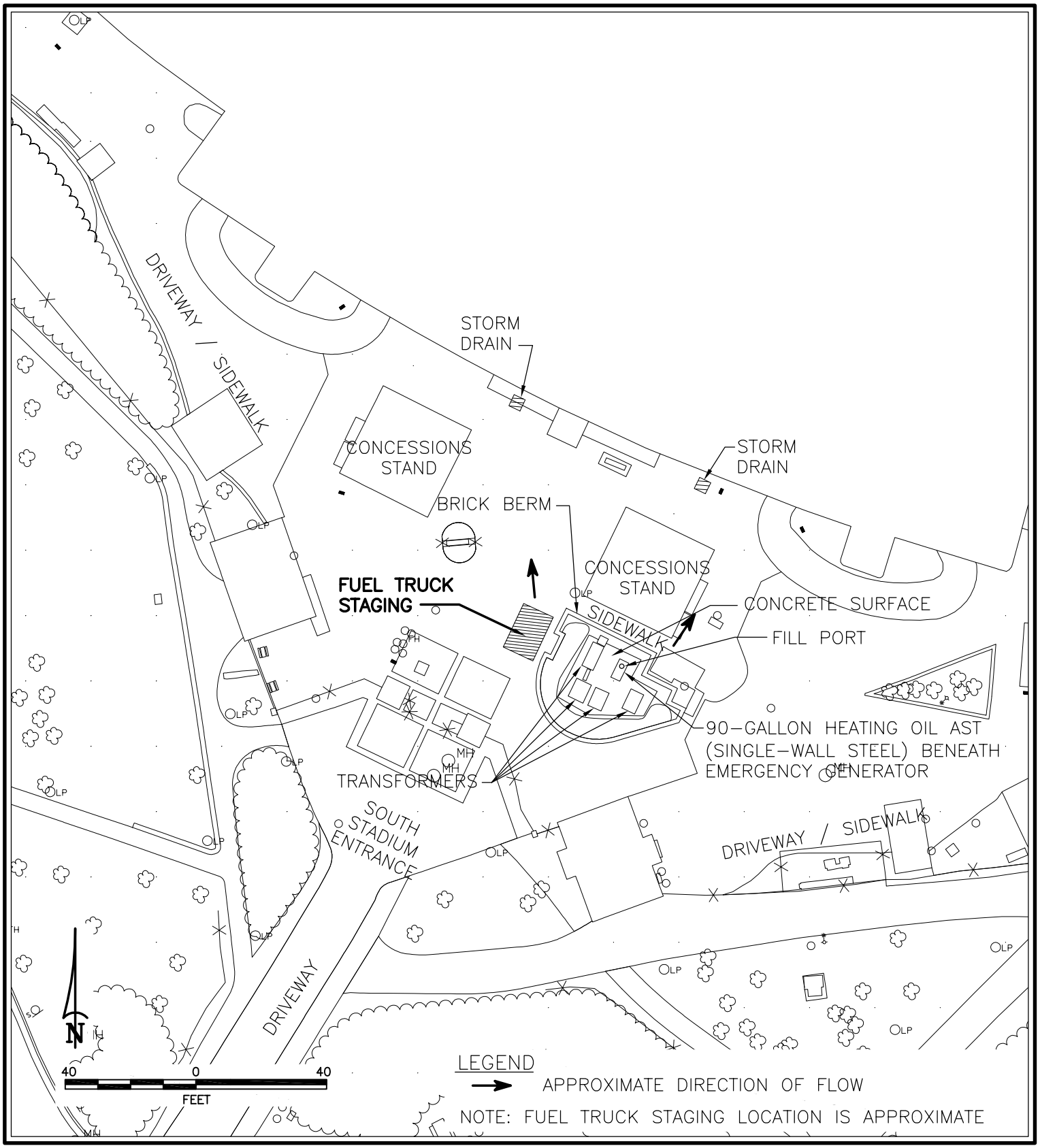
KENAN STADIUM FOOTBALL CENTER



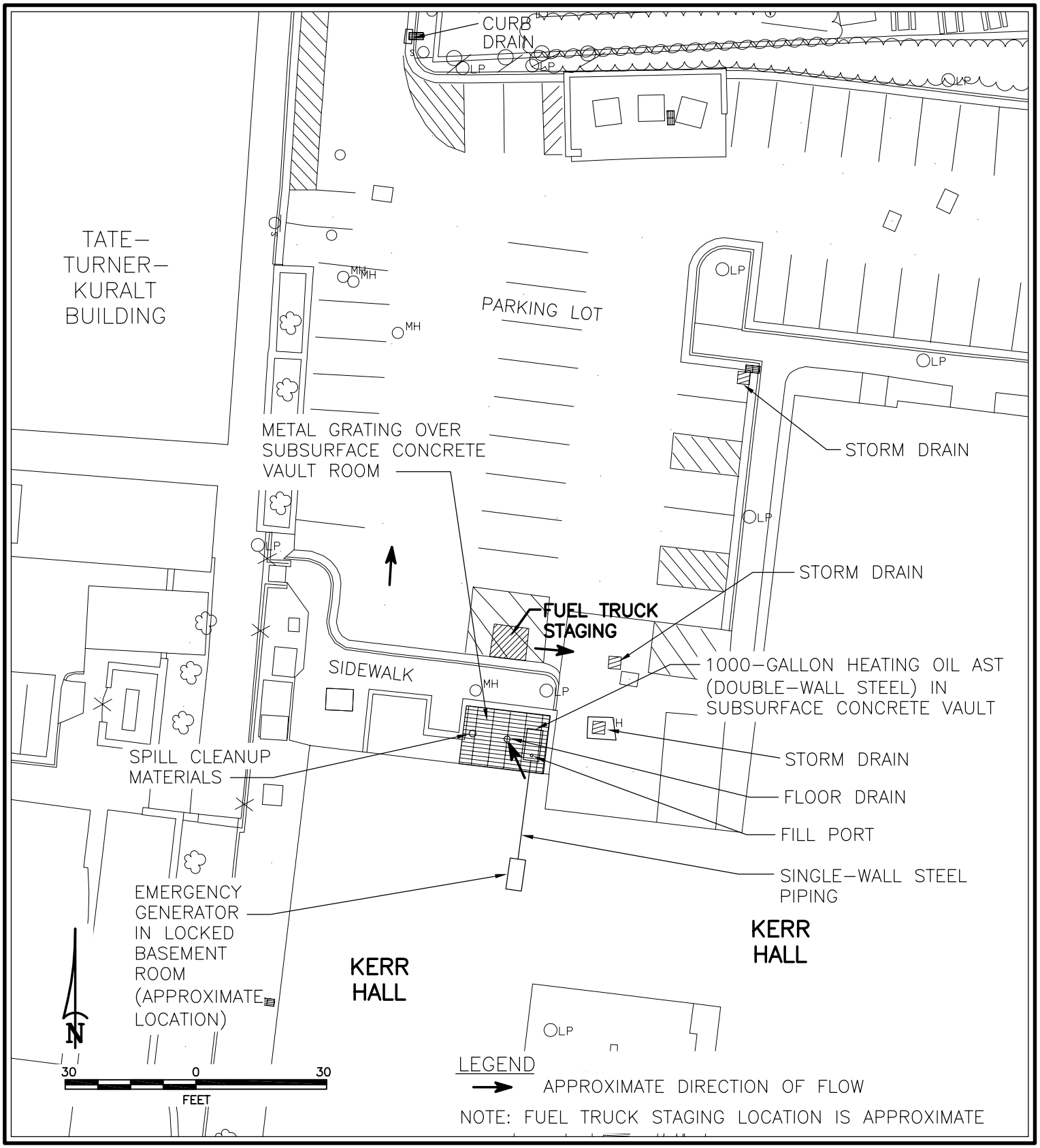
KENAN STADIUM NORTH (NEW GENERATOR)



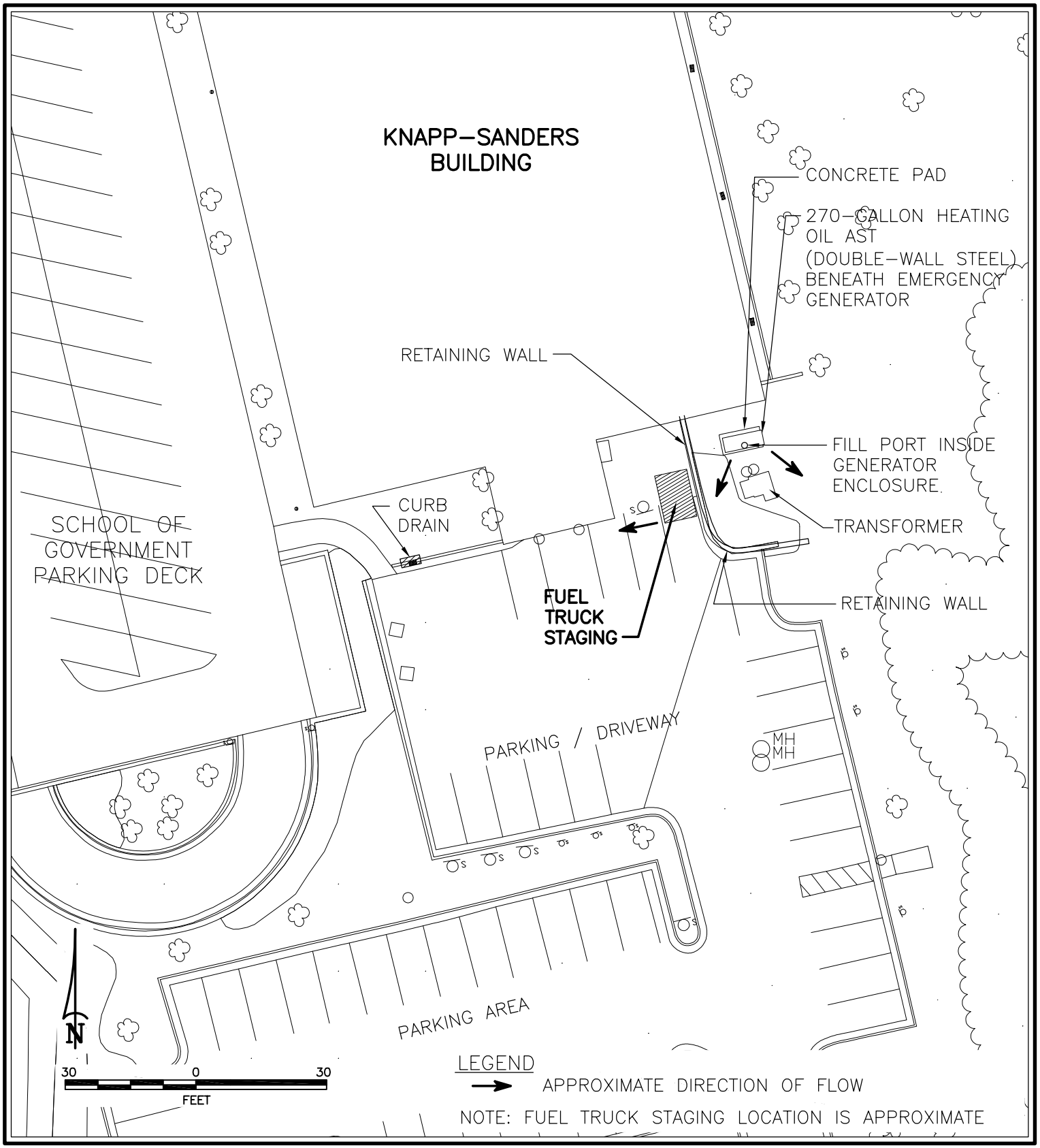
KENAN STADIUM NORTH (OLD GENERATOR)



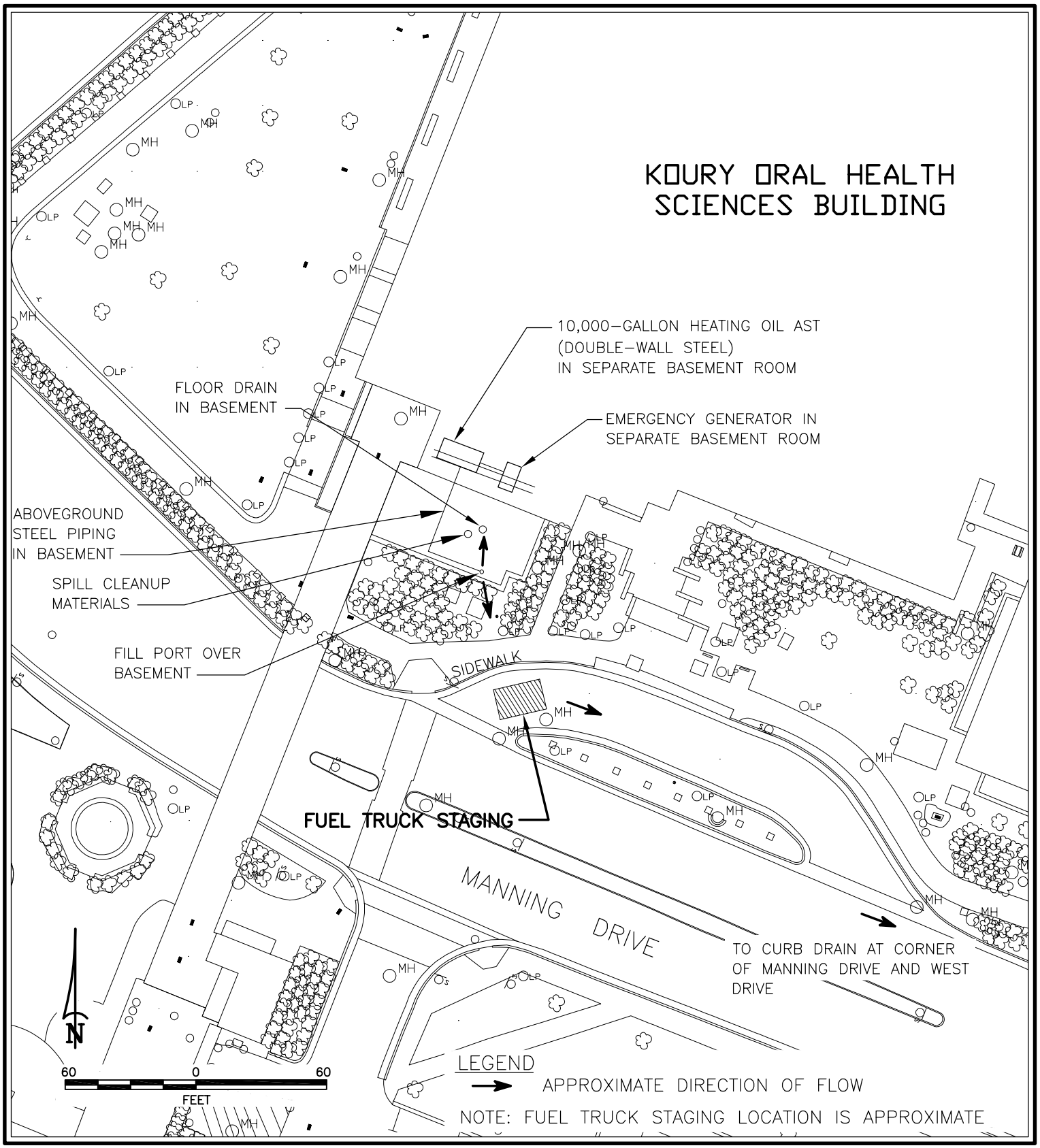
KENAN STADIUM SOUTH


CURB DRAIN
TATE–TURNER–KURALT BUILDING
PARKING LOT
METAL GRATING OVER SUBSURFACE CONCRETE VAULT ROOM
STORM DRAIN
STORM DRAIN
FUEL TRUCK STAGING
SIDEWALK
1000–GALLON HEATING OIL AST (DOUBLE–WALL STEEL) IN SUBSURFACE CONCRETE VAULT
SPILL CLEANUP MATERIALS
STORM DRAIN
FLOOR DRAIN
FILL PORT
SINGLE–WALL STEEL PIPING
EMERGENCY GENERATOR IN LOCKED BASEMENT ROOM (APPROXIMATE LOCATION)
KERR HALL
KERR HALL
N
30 0 30
FEET
LEGEND
APPROXIMATE DIRECTION OF FLOW
NOTE: FUEL TRUCK STAGING LOCATION IS APPROXIMATE

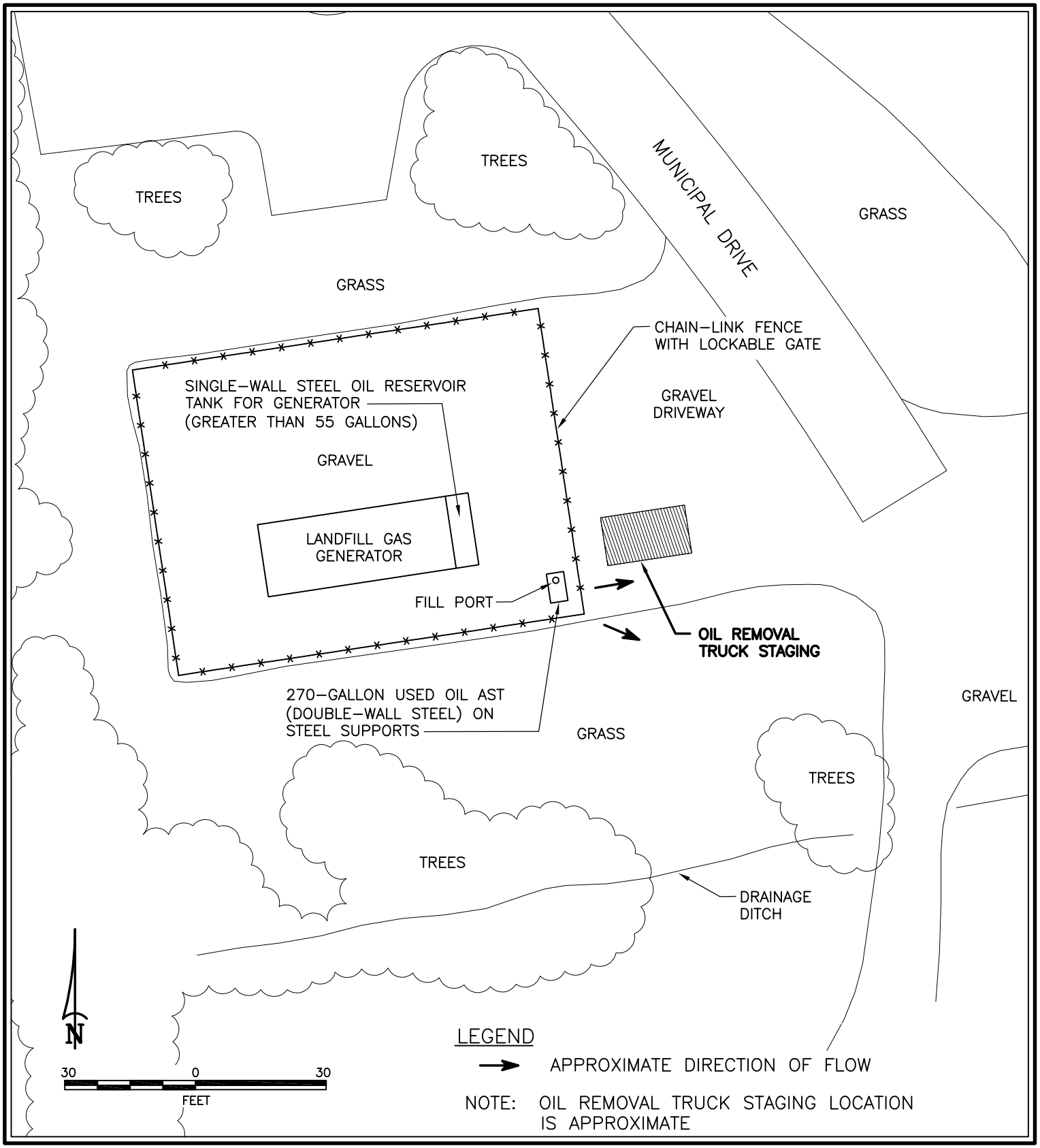
KERR HALL



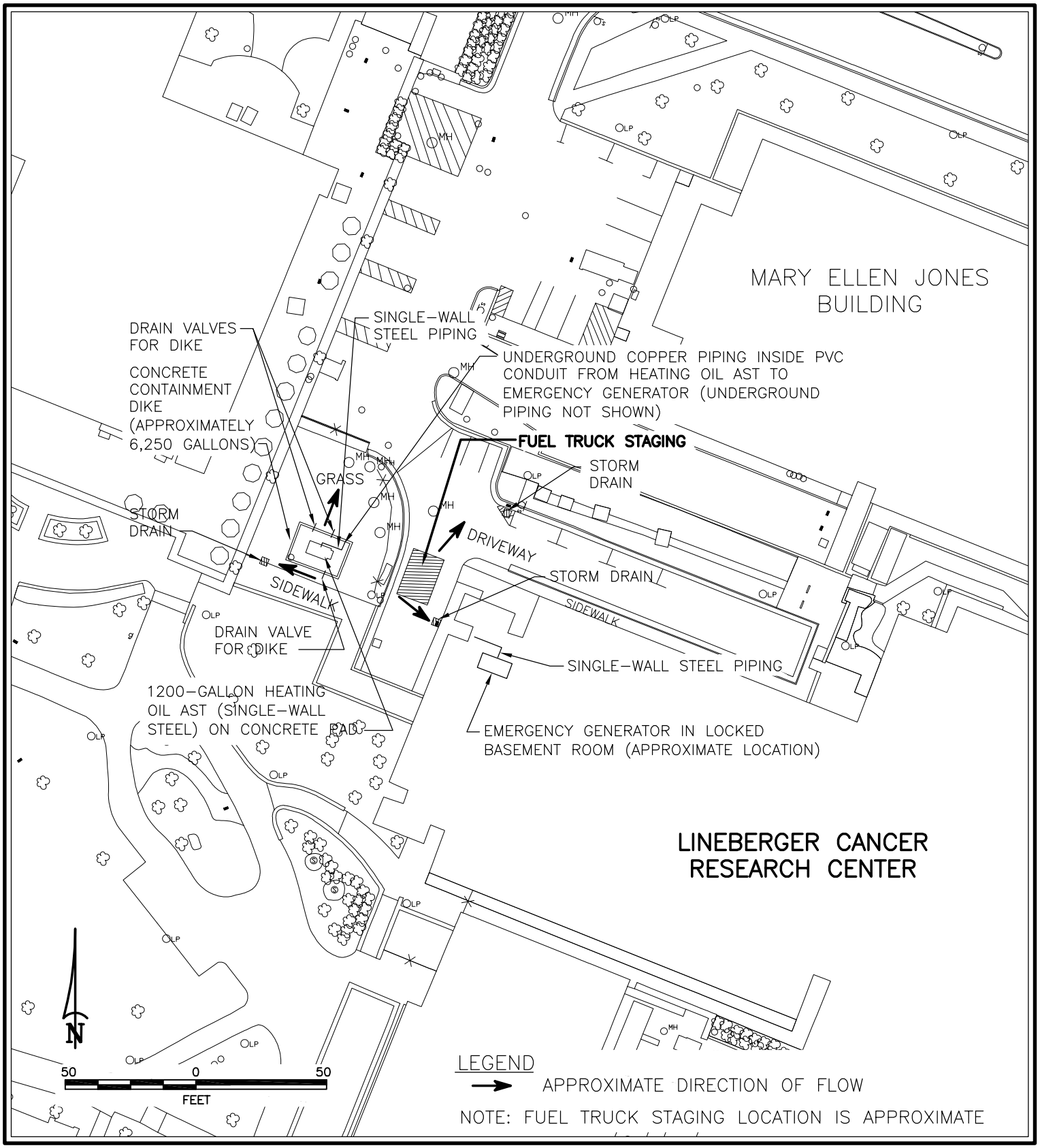
KNAPP-SANDERS BUILDING



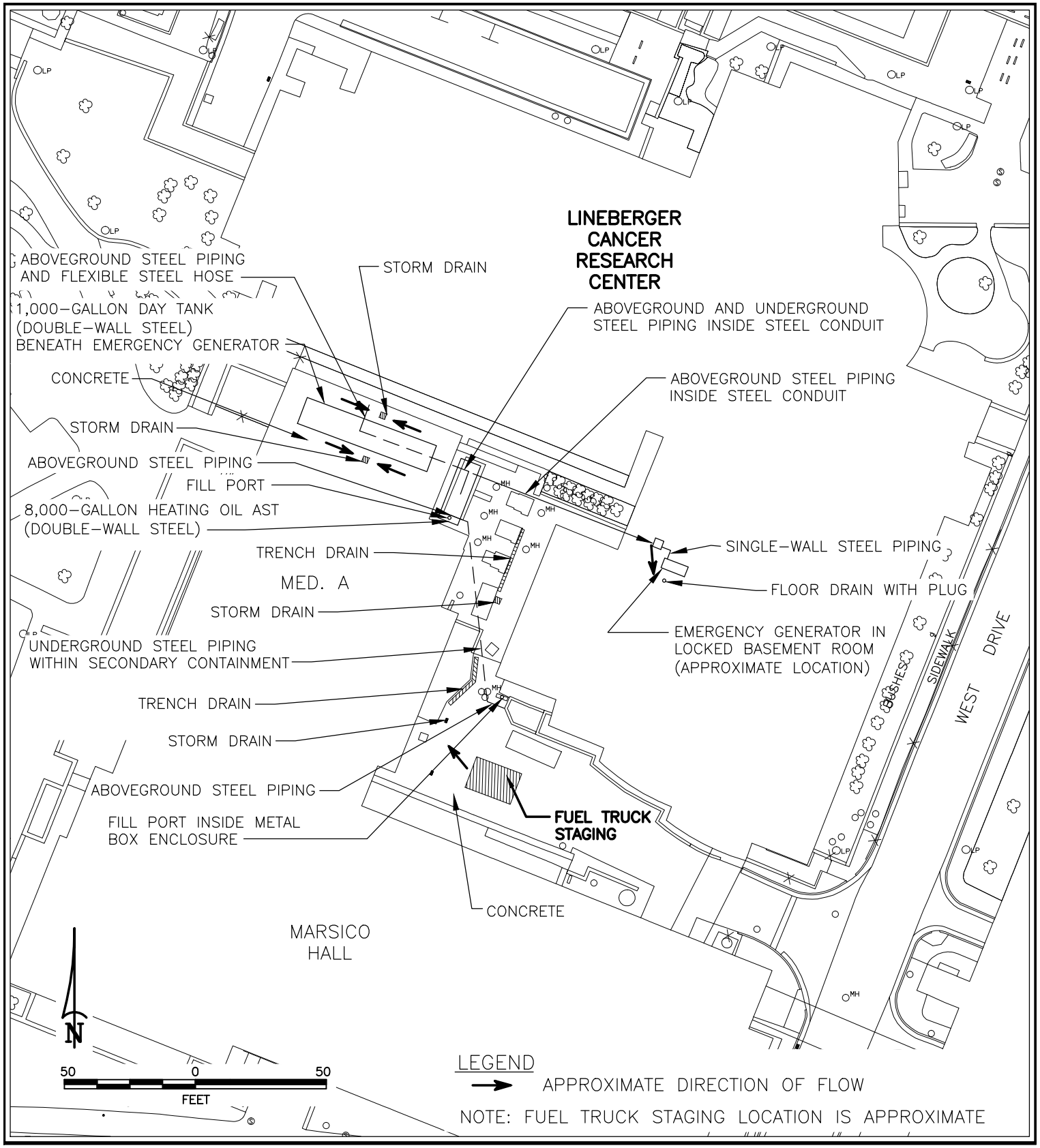
KOURY ORAL HEALTH SCIENCES BUILDING



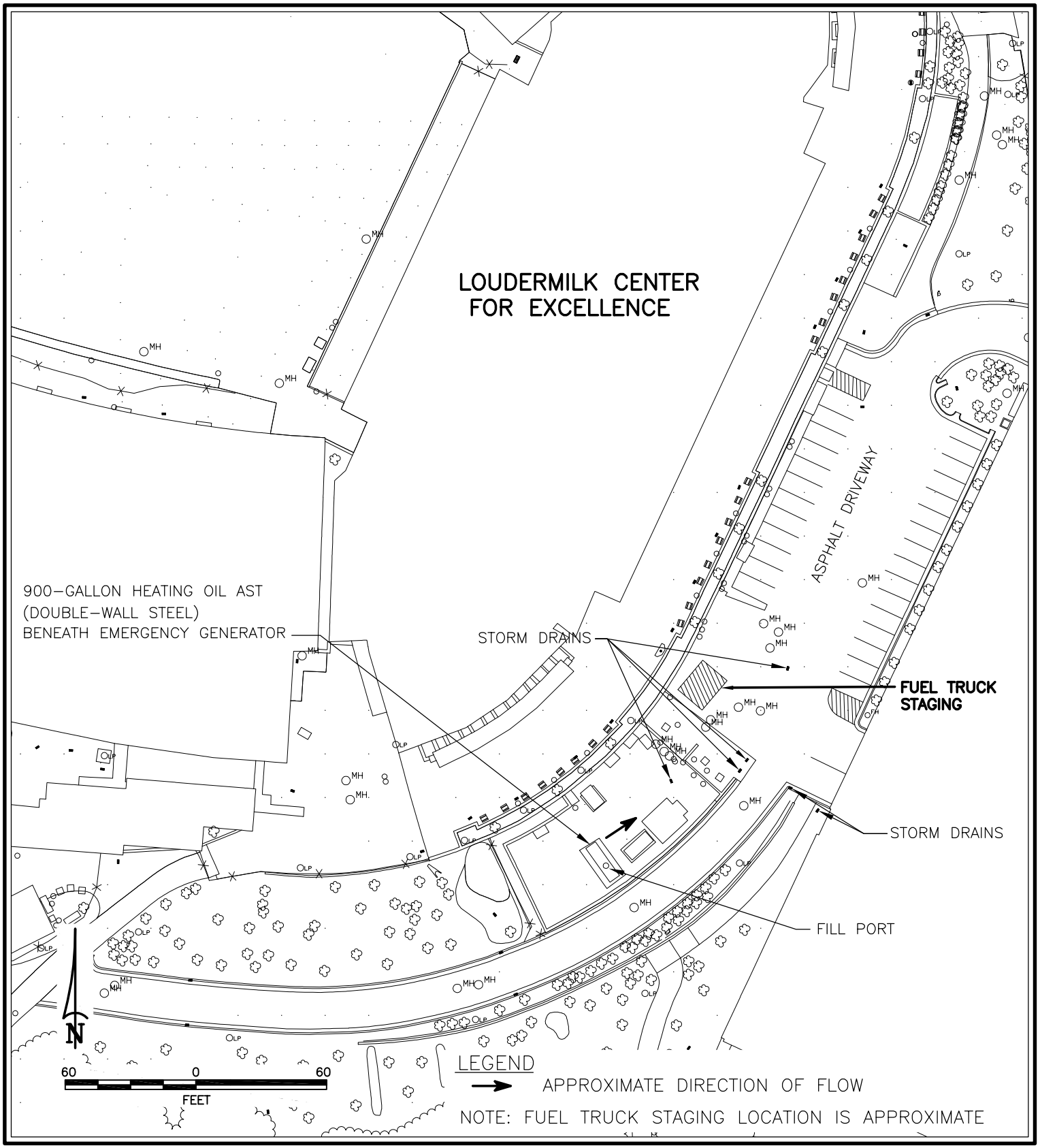
LANDFILL GAS GENERATOR



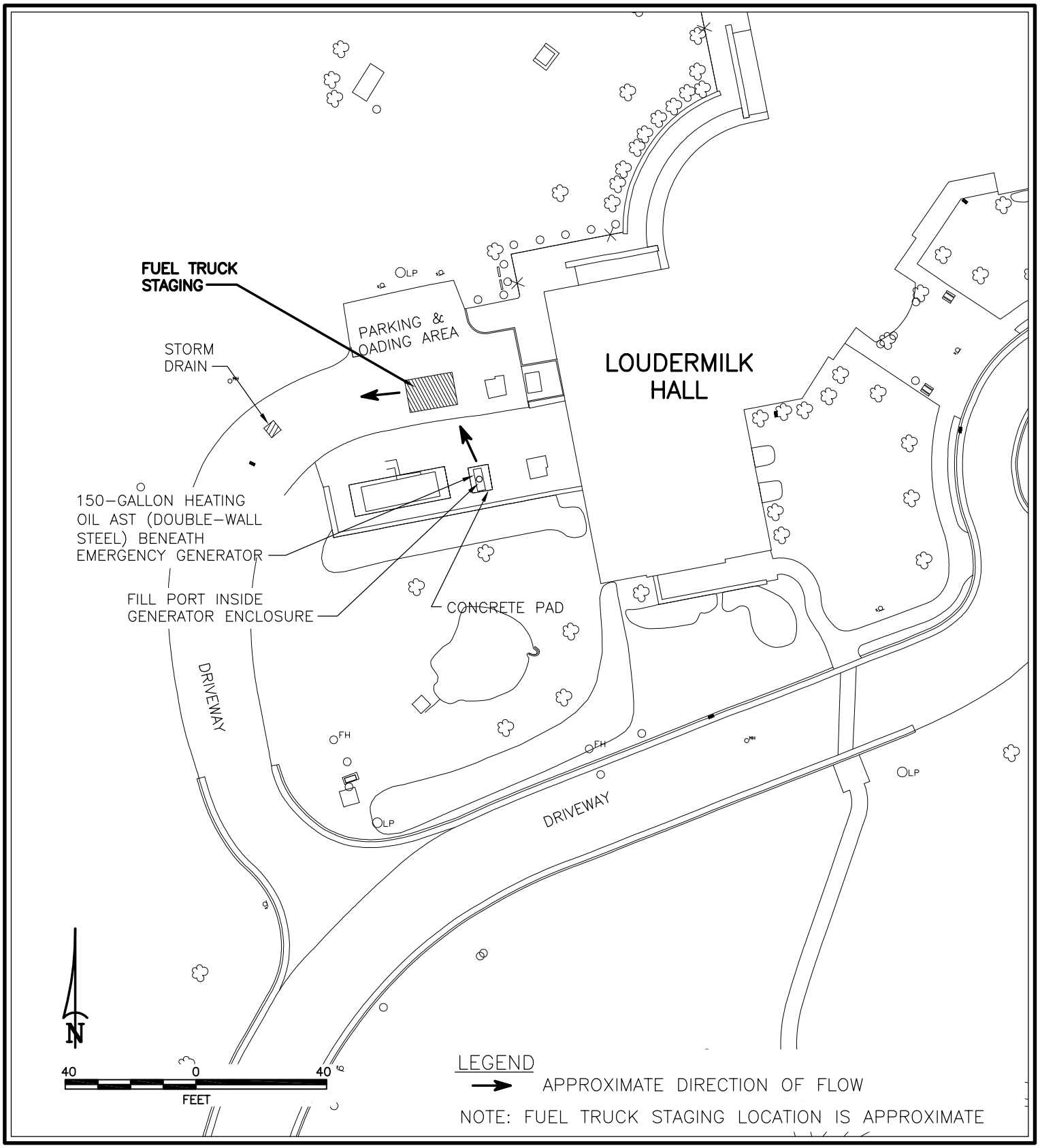
LINEBERGER CANCER RESEARCH CENTER



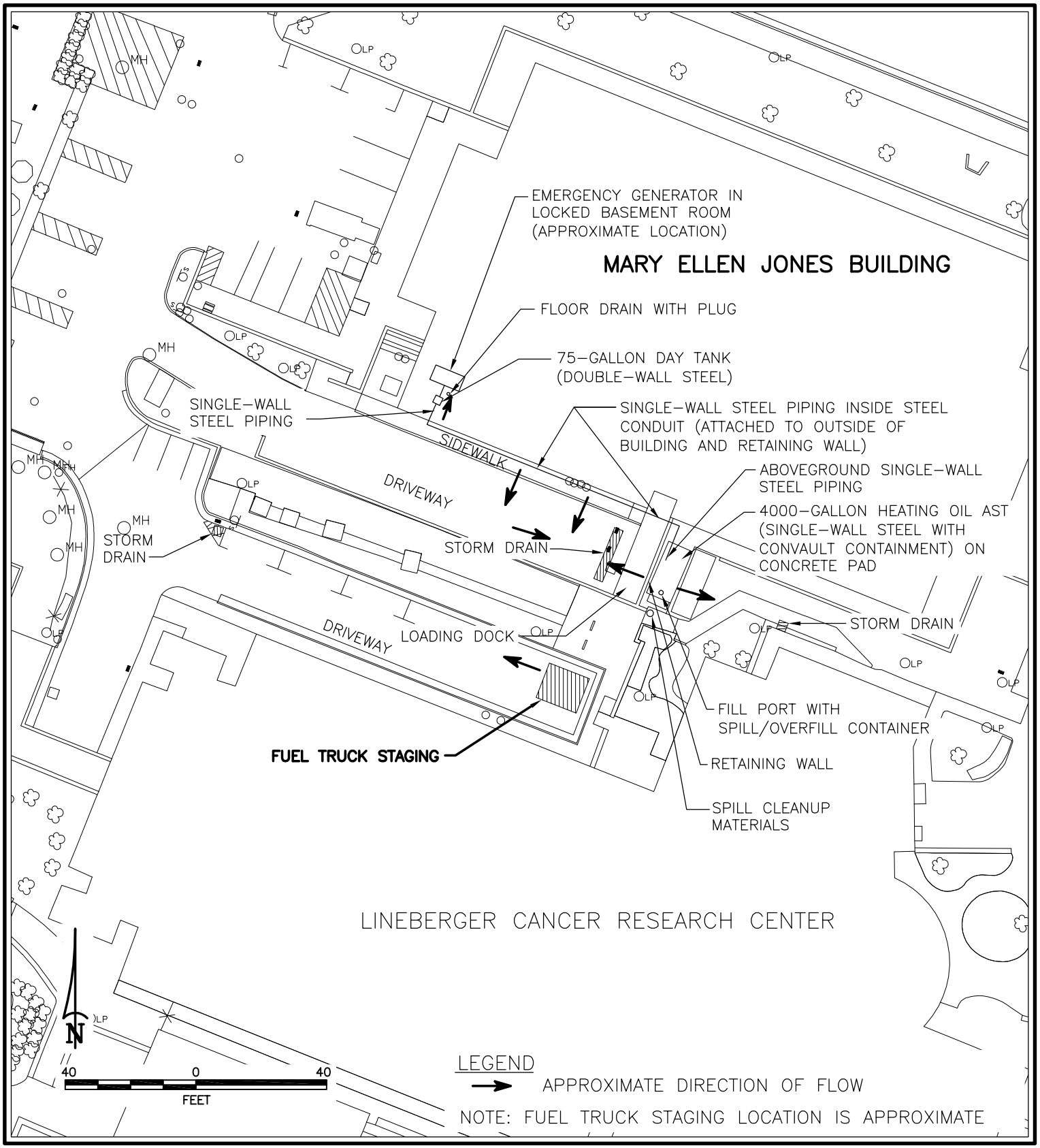
LINEBERGER CANCER RESEARCH CENTER AND MARSICO HALL



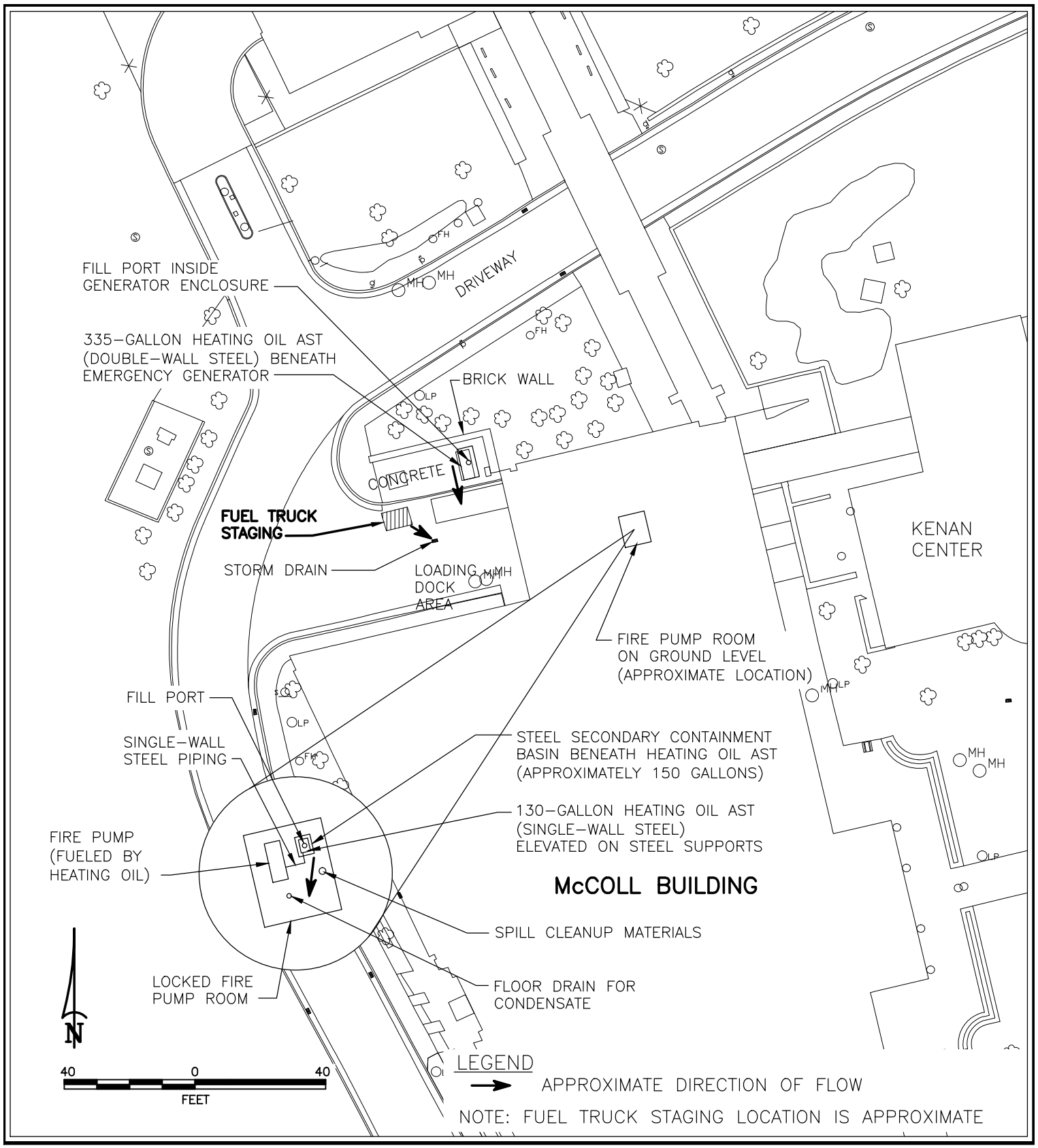
LOUDERMILK CENTER FOR EXCELLENCE



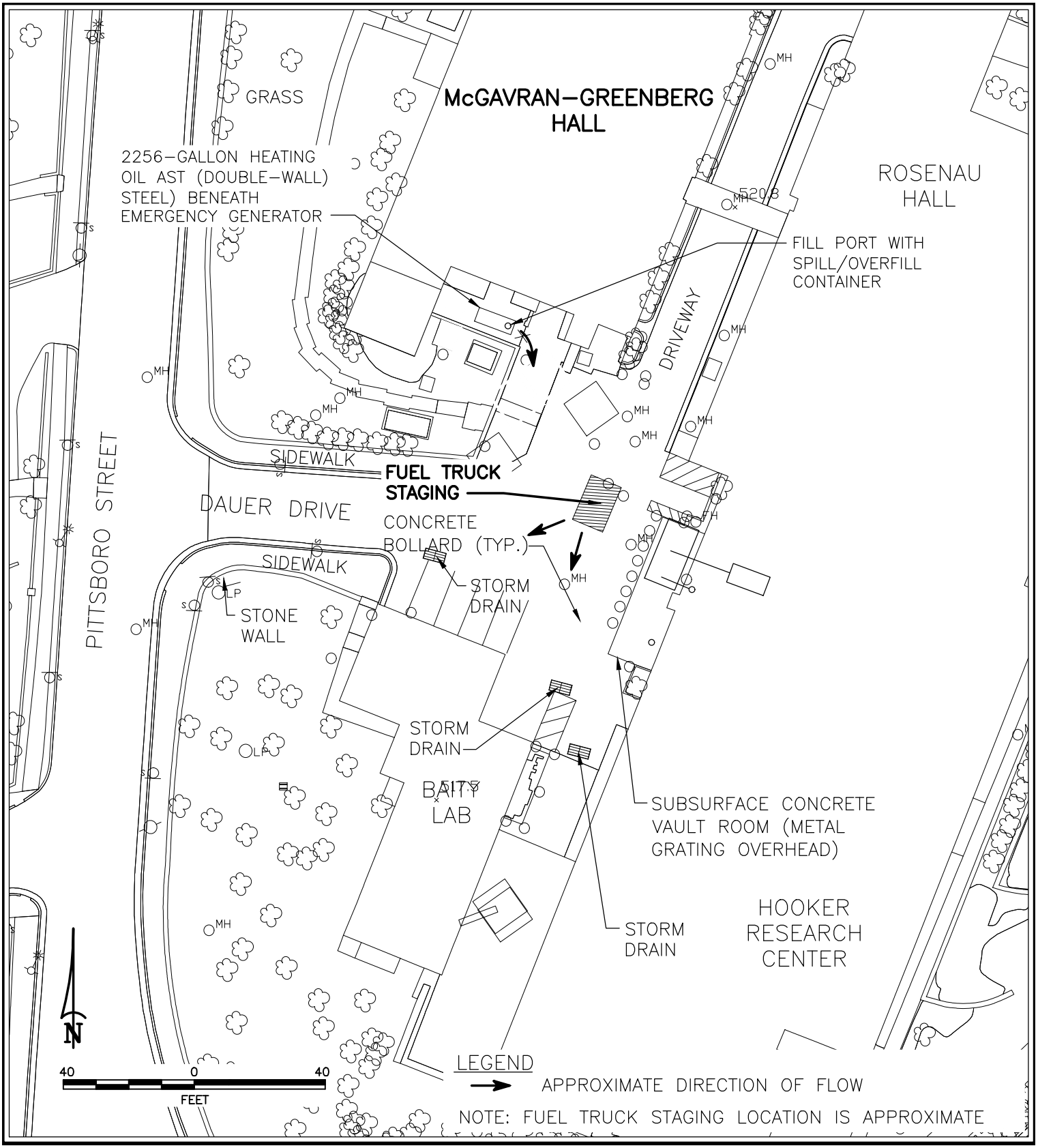
LOUDERMILK HALL



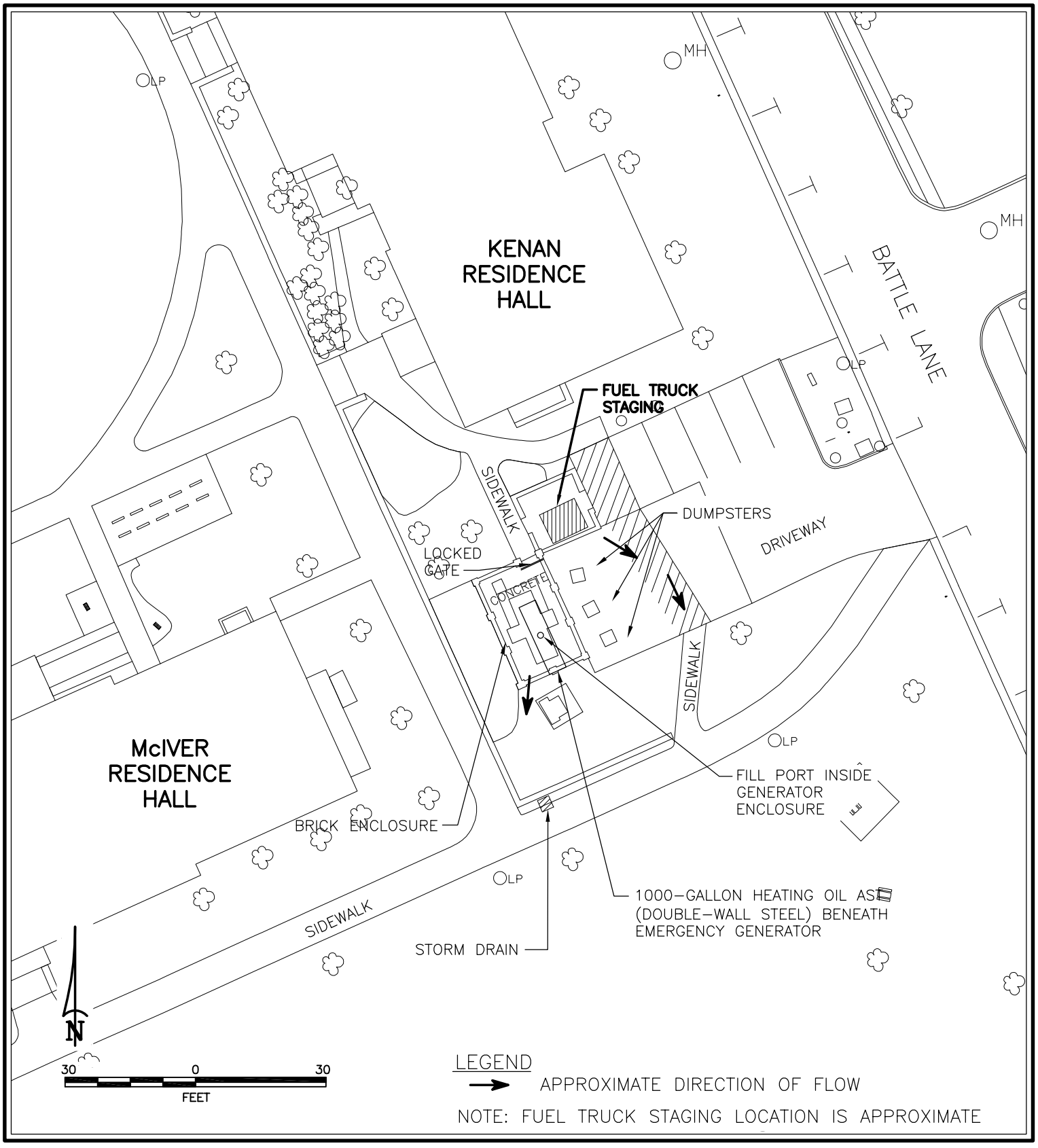
MARY ELLEN JONES BUILDING



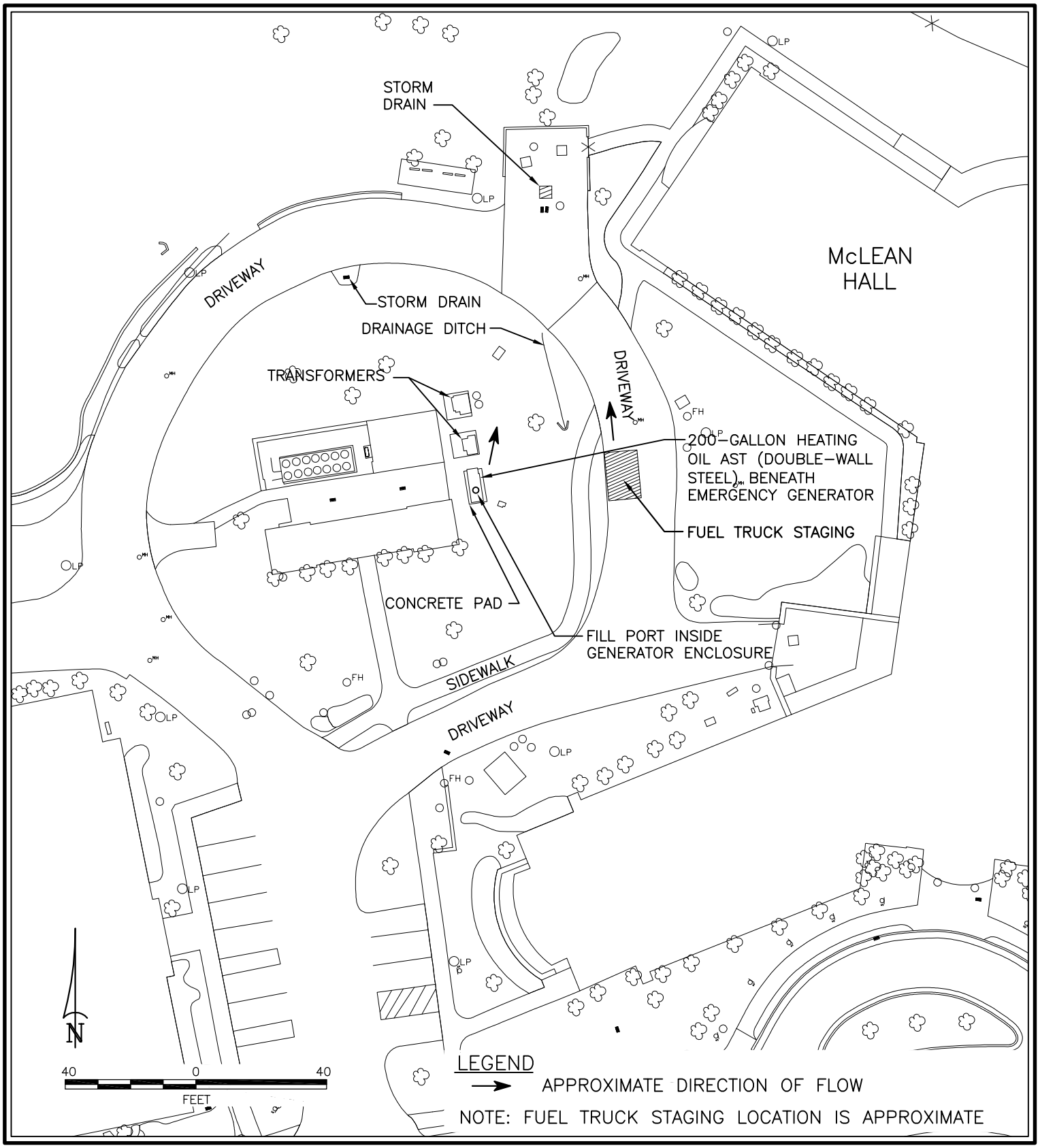
McCOLL BUILDING



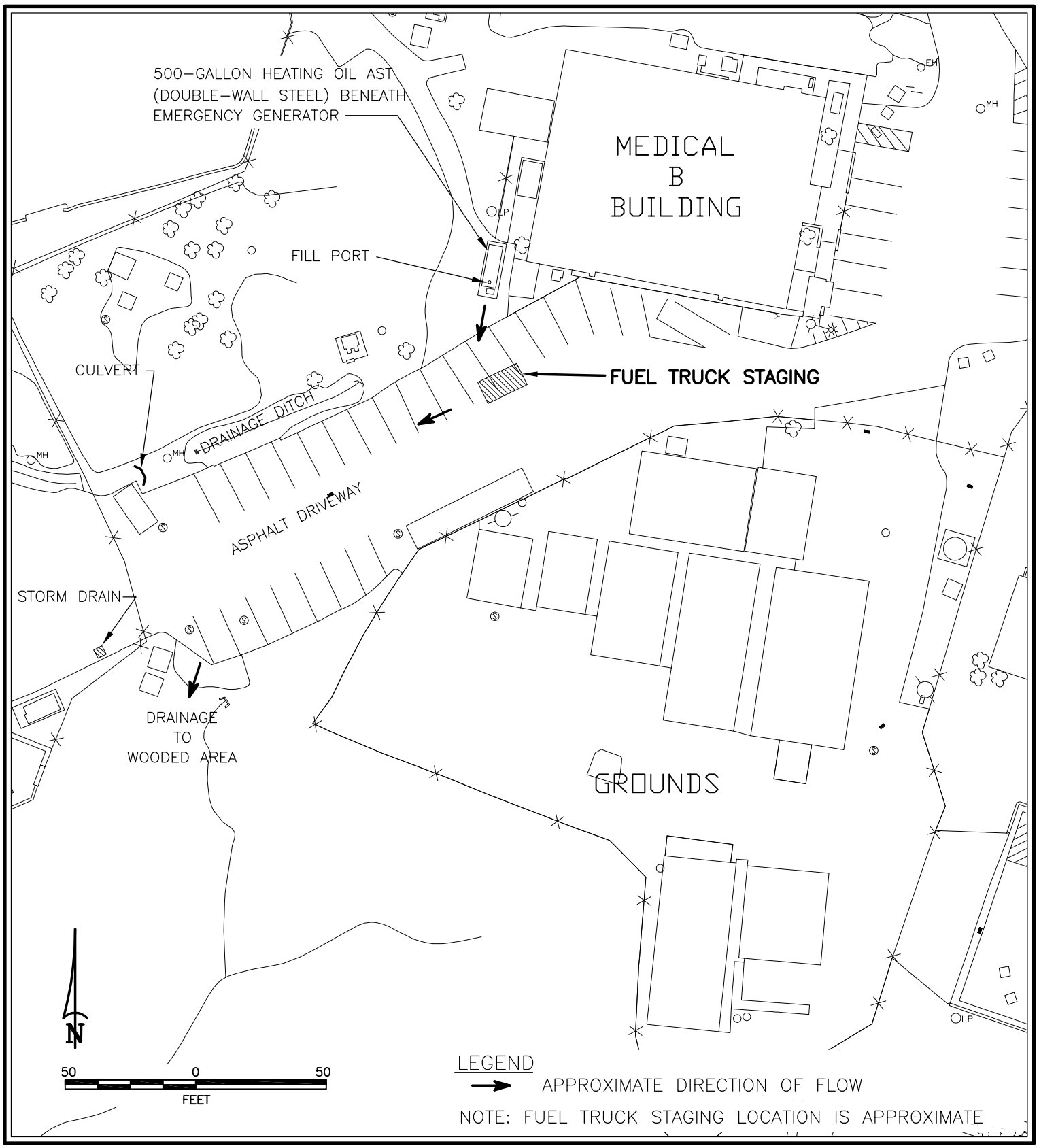
McGAVRAN-GREENBERG HALL



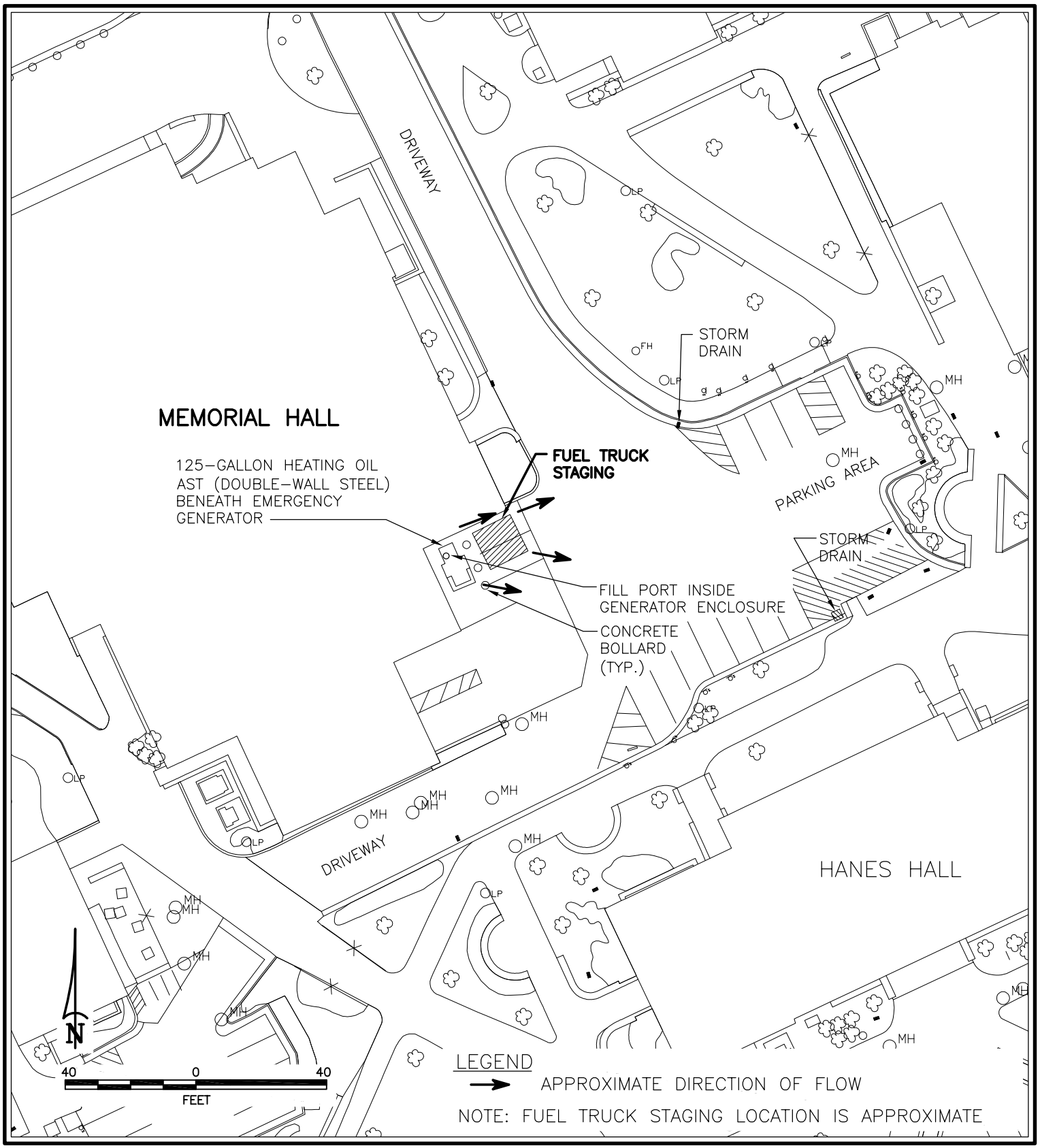
McIVER / KENAN / ALDERMAN RESIDENCE HALLS


STORM DRAIN
McLEAN HALL
DRIVEWAY
STORM DRAIN
DRAINAGE DITCH
TRANSFORMERS
DRIVEWAY
200-GALLON HEATING OIL AST (DOUBLE-WALL STEEL) BENEATH EMERGENCY GENERATOR
FUEL TRUCK STAGING
CONCRETE PAD
FILL PORT INSIDE GENERATOR ENCLOSURE
SIDEWALK
DRIVEWAY
LP
FH
N
40
0
40
FEET
LEGEND
APPROXIMATE DIRECTION OF FLOW
NOTE: FUEL TRUCK STAGING LOCATION IS APPROXIMATE

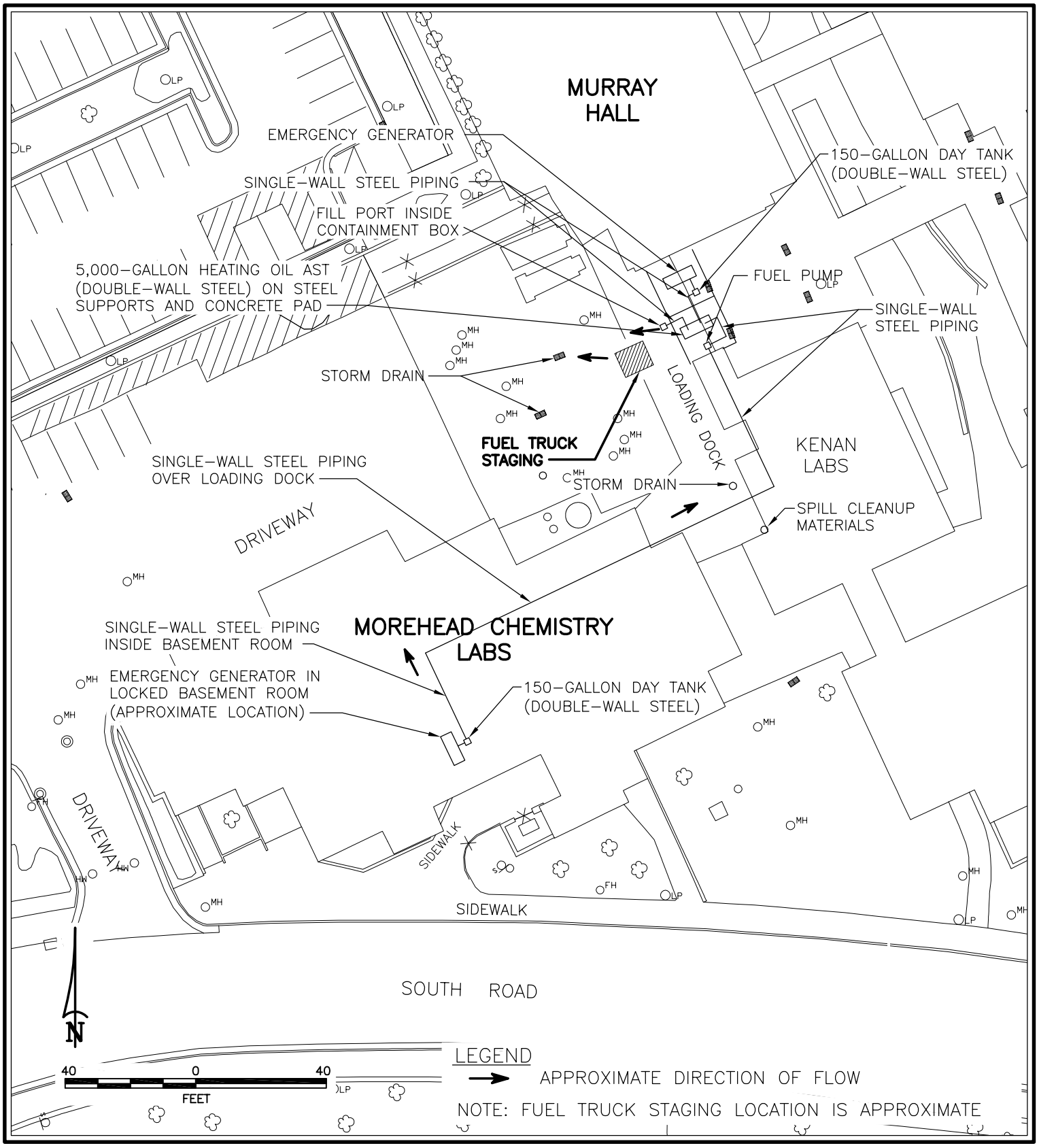
McLEAN HALL



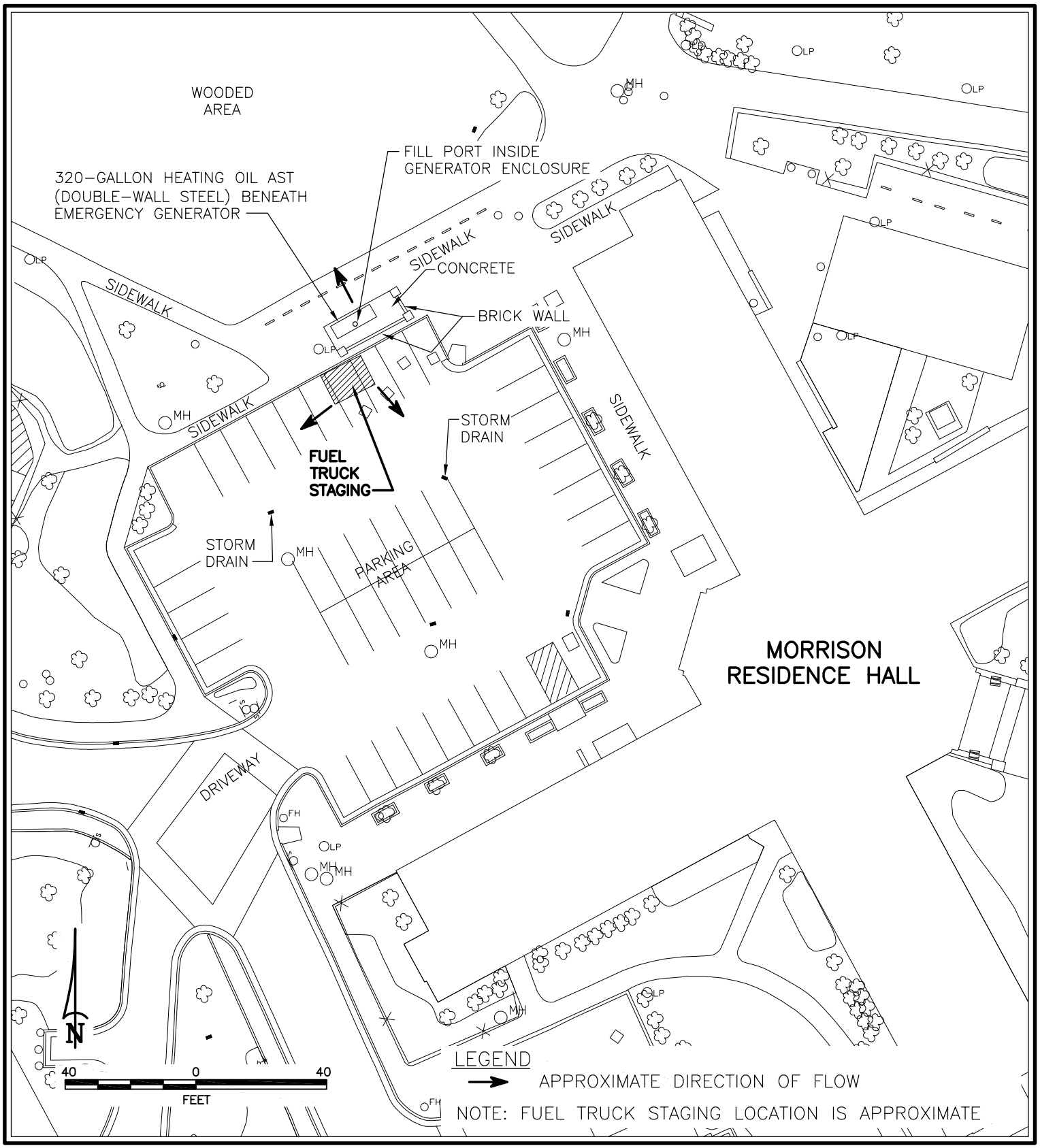
MEDICAL B BUILDING



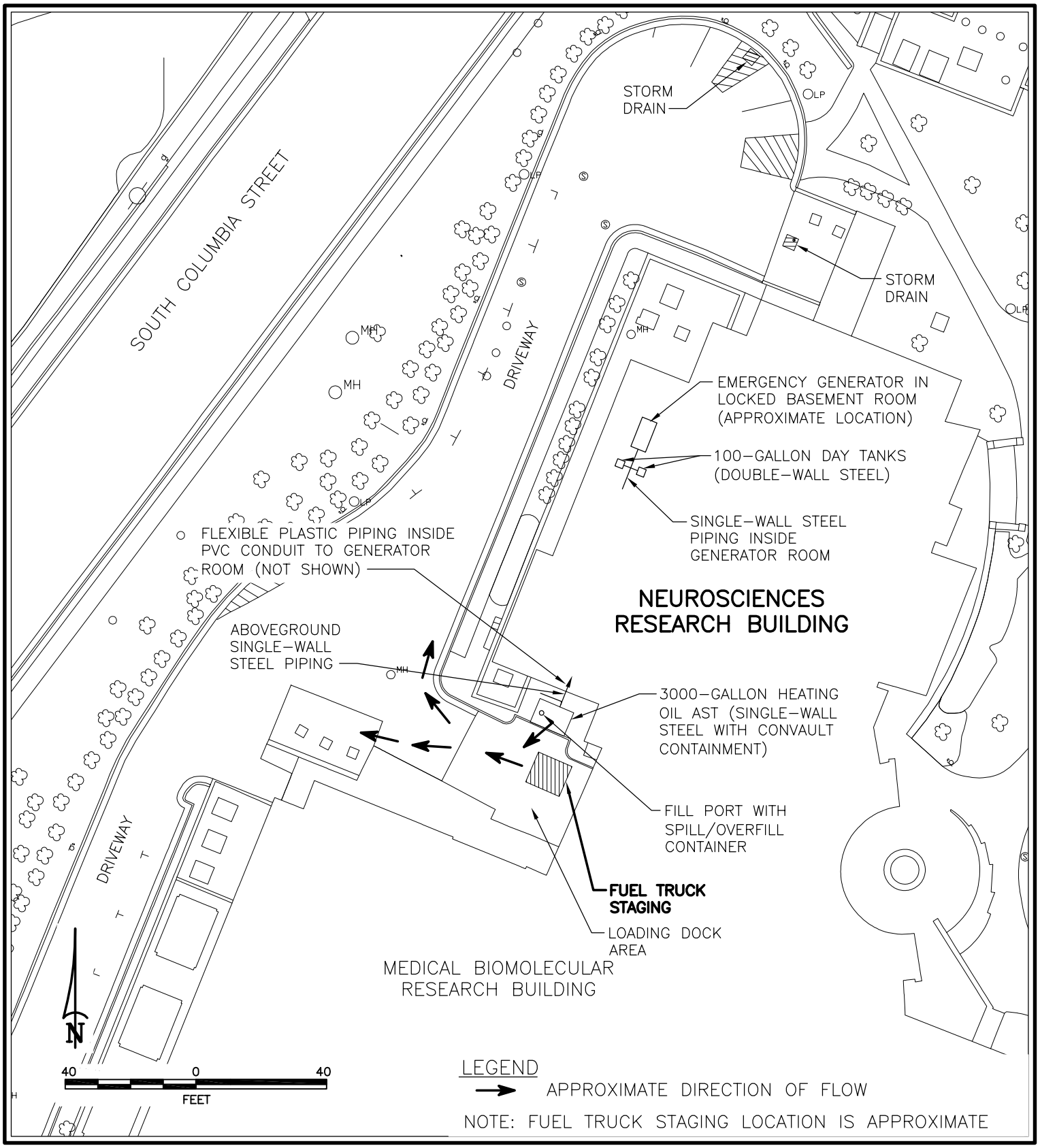
MEMORIAL HALL



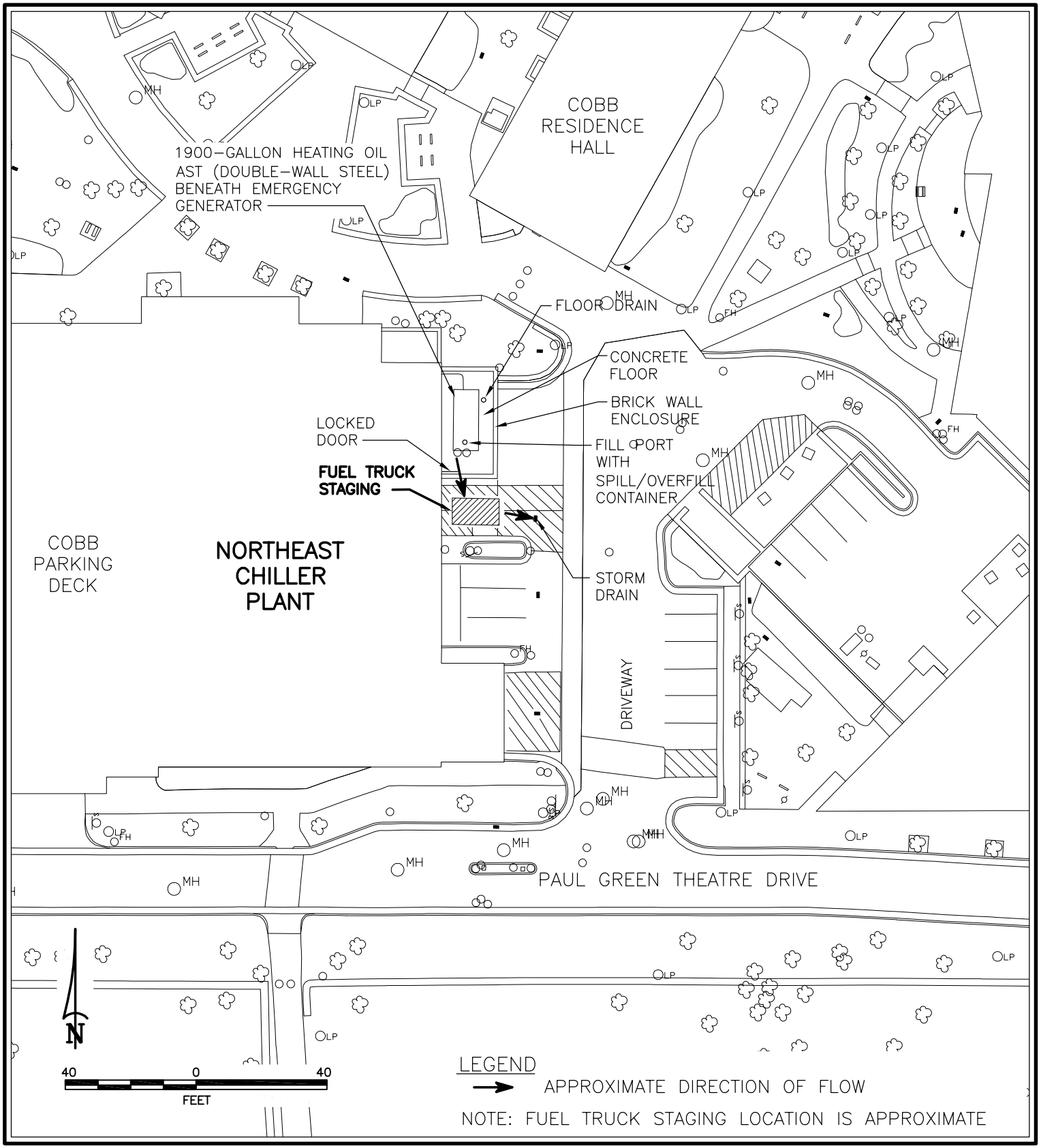
MOREHEAD CHEMISTRY LABS / MURRAY HALL



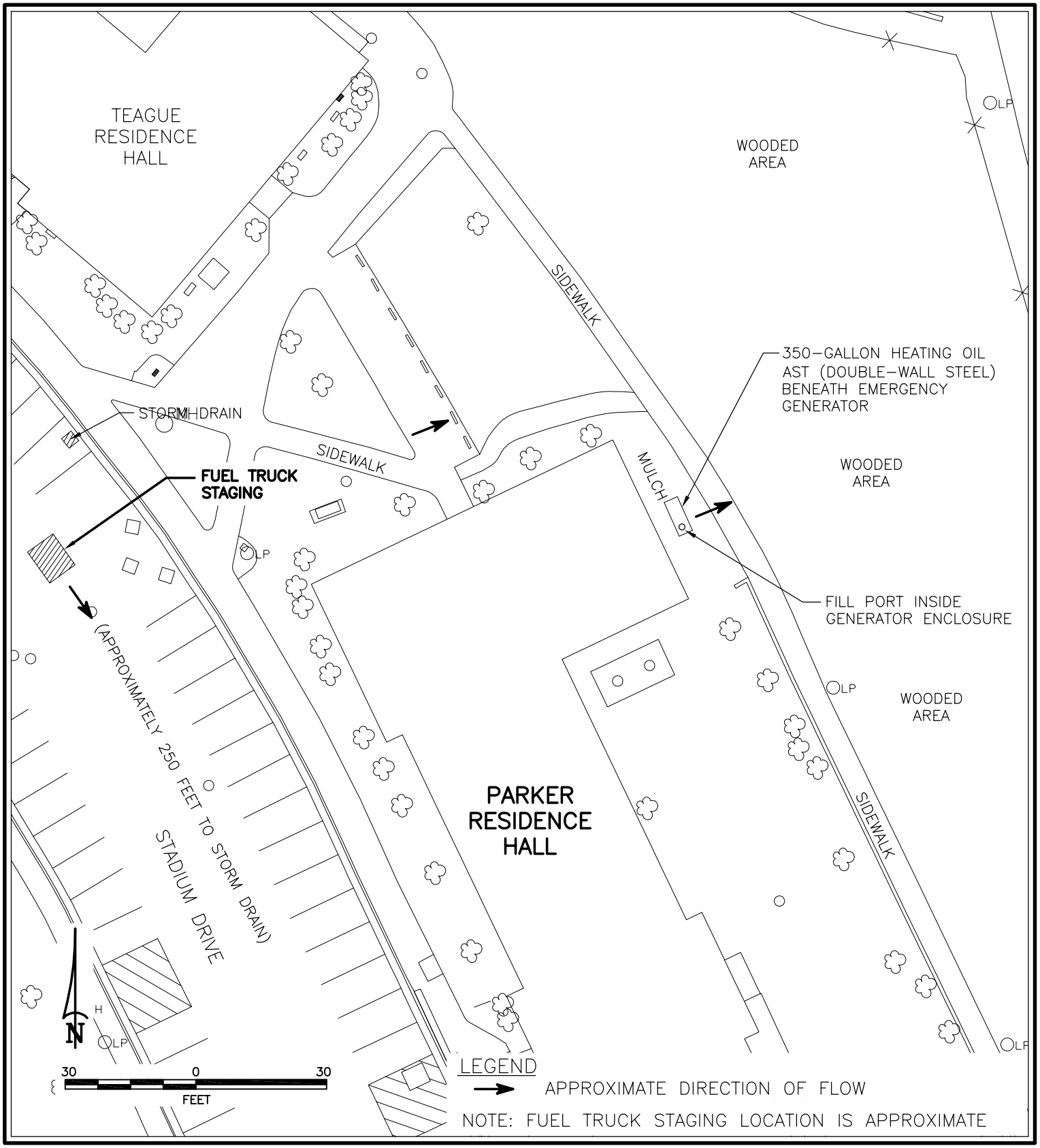
MORRISON RESIDENCE HALL



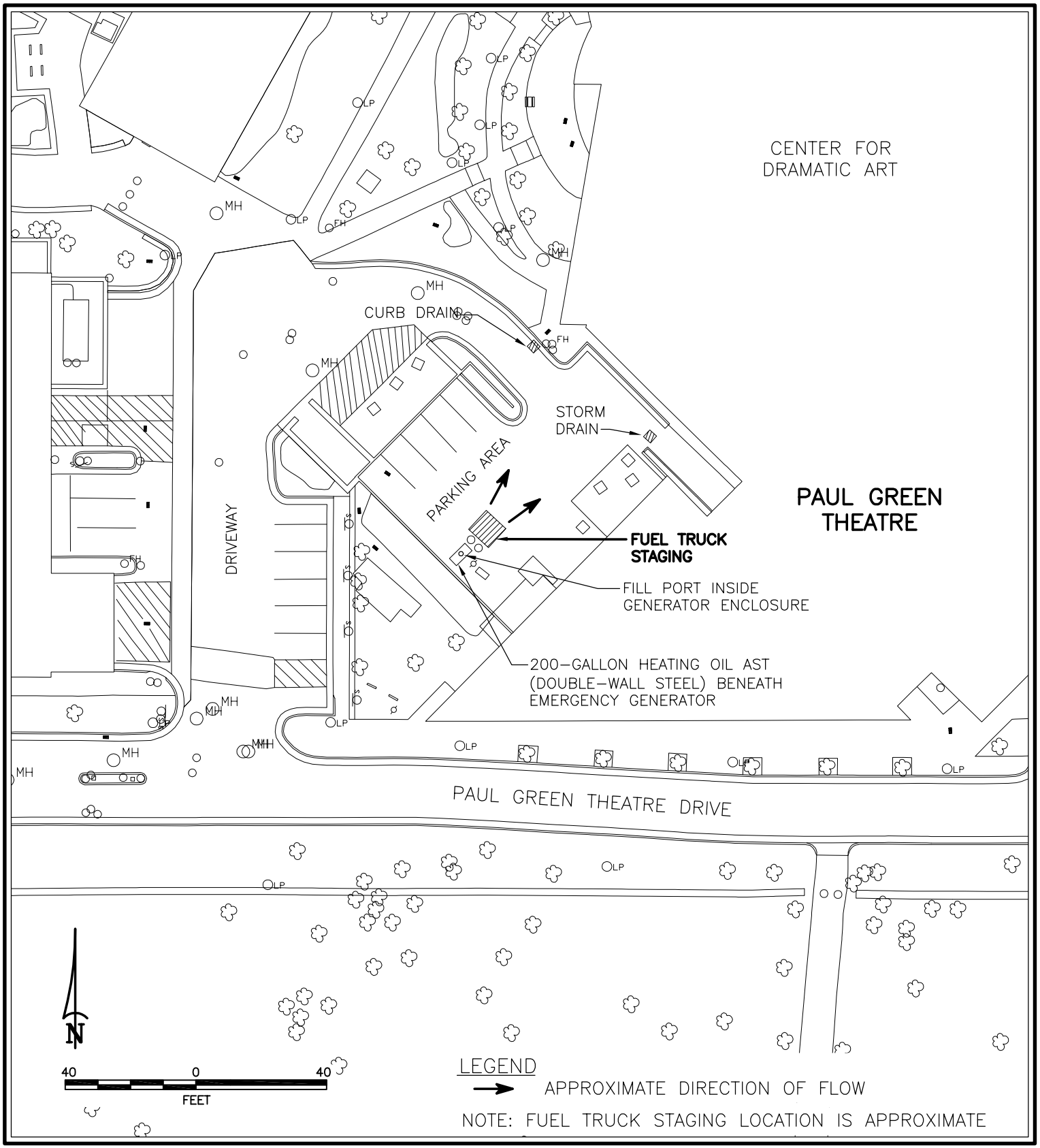
NEUROSCIENCES RESEARCH BUILDING



NORTHEAST CHILLER PLANT



PARKER RESIDENCE HALL



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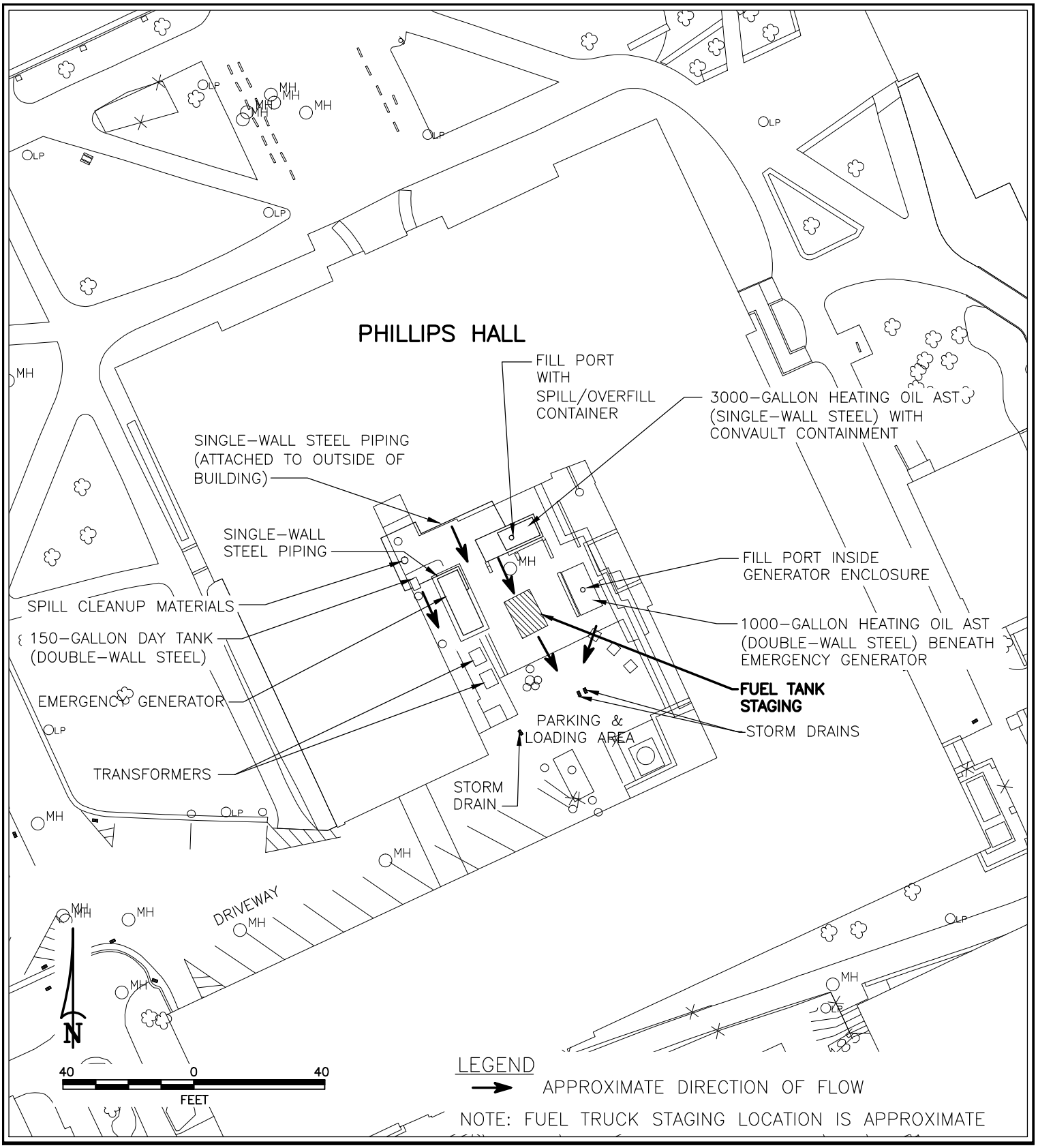
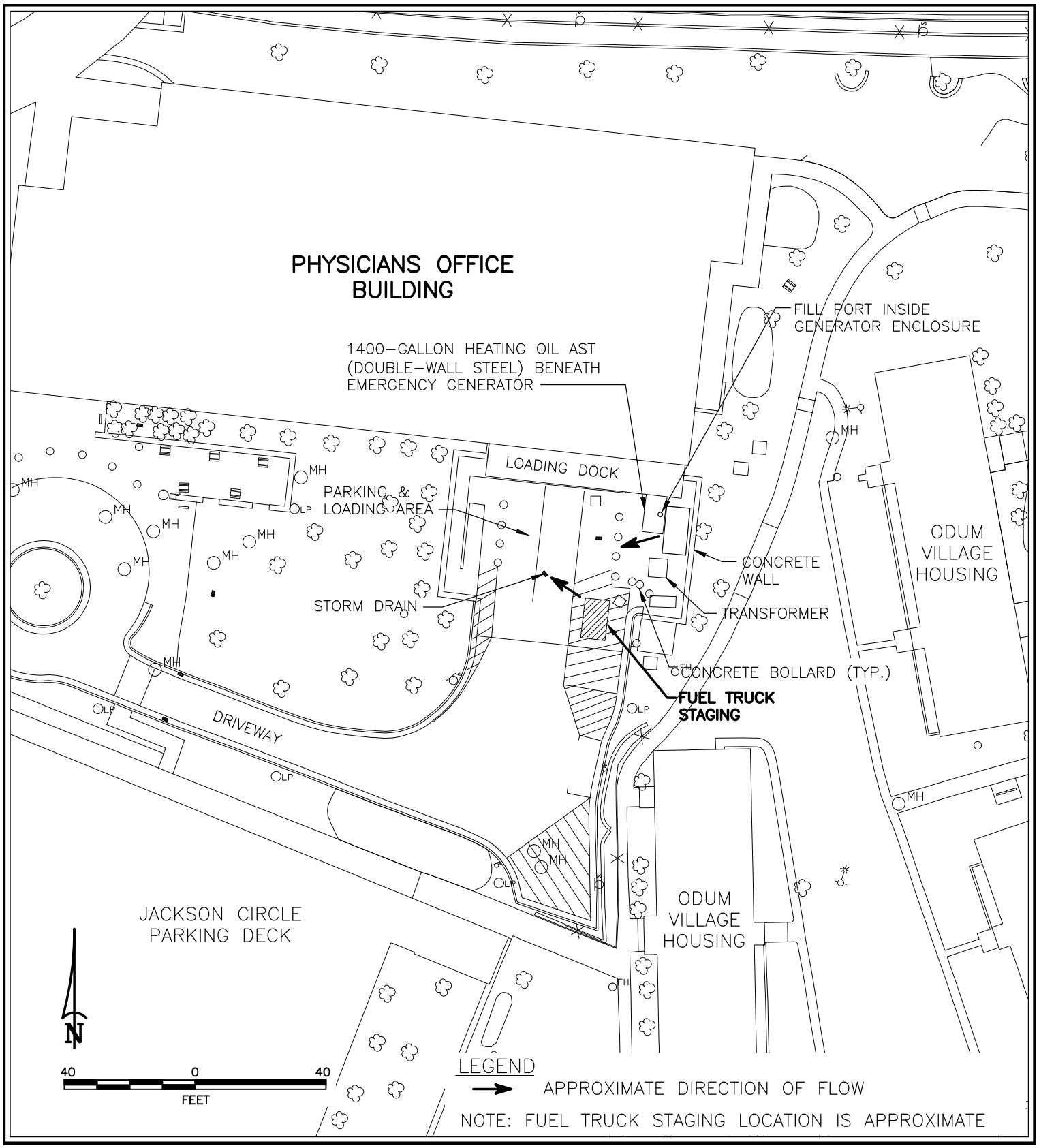
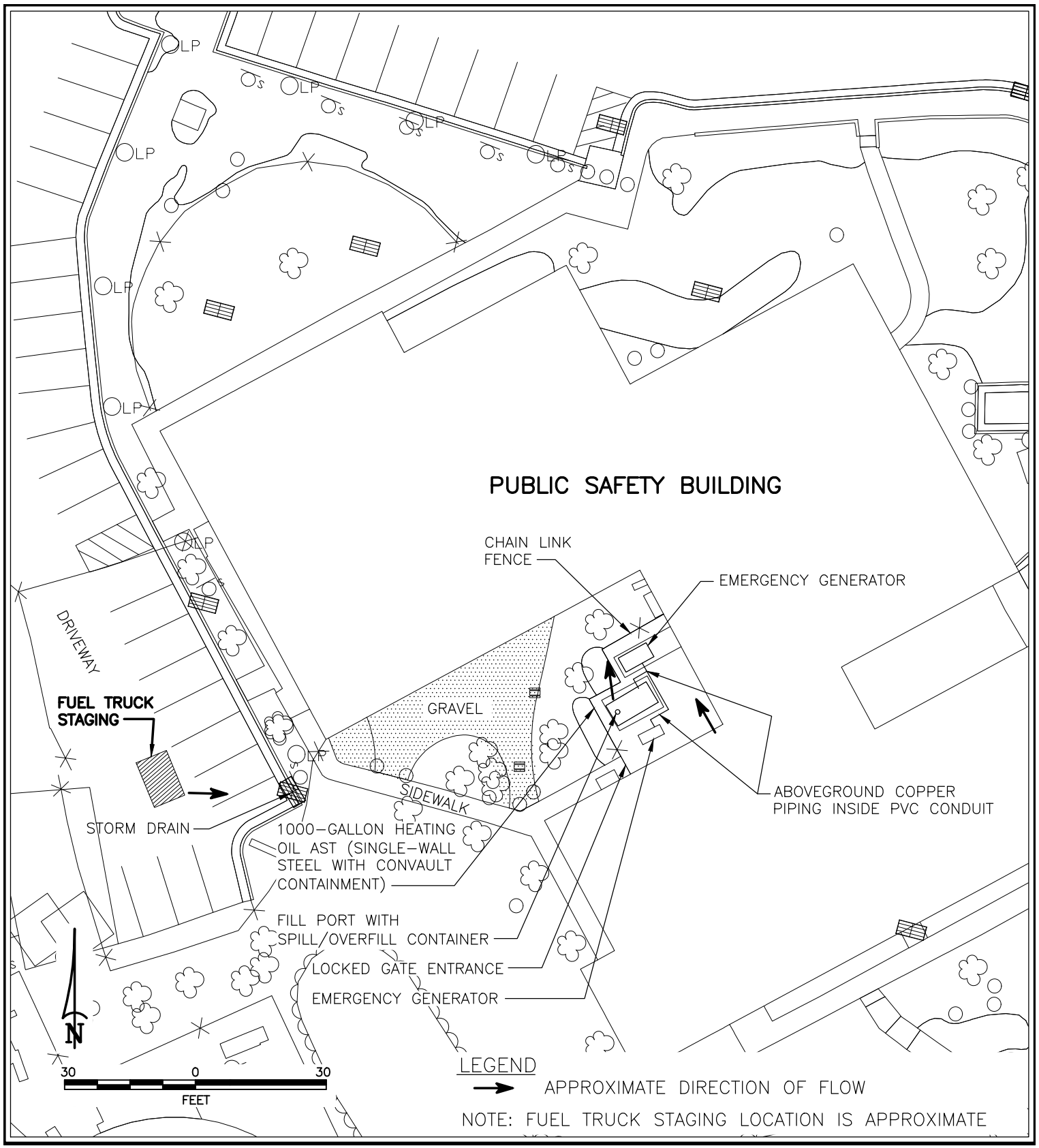


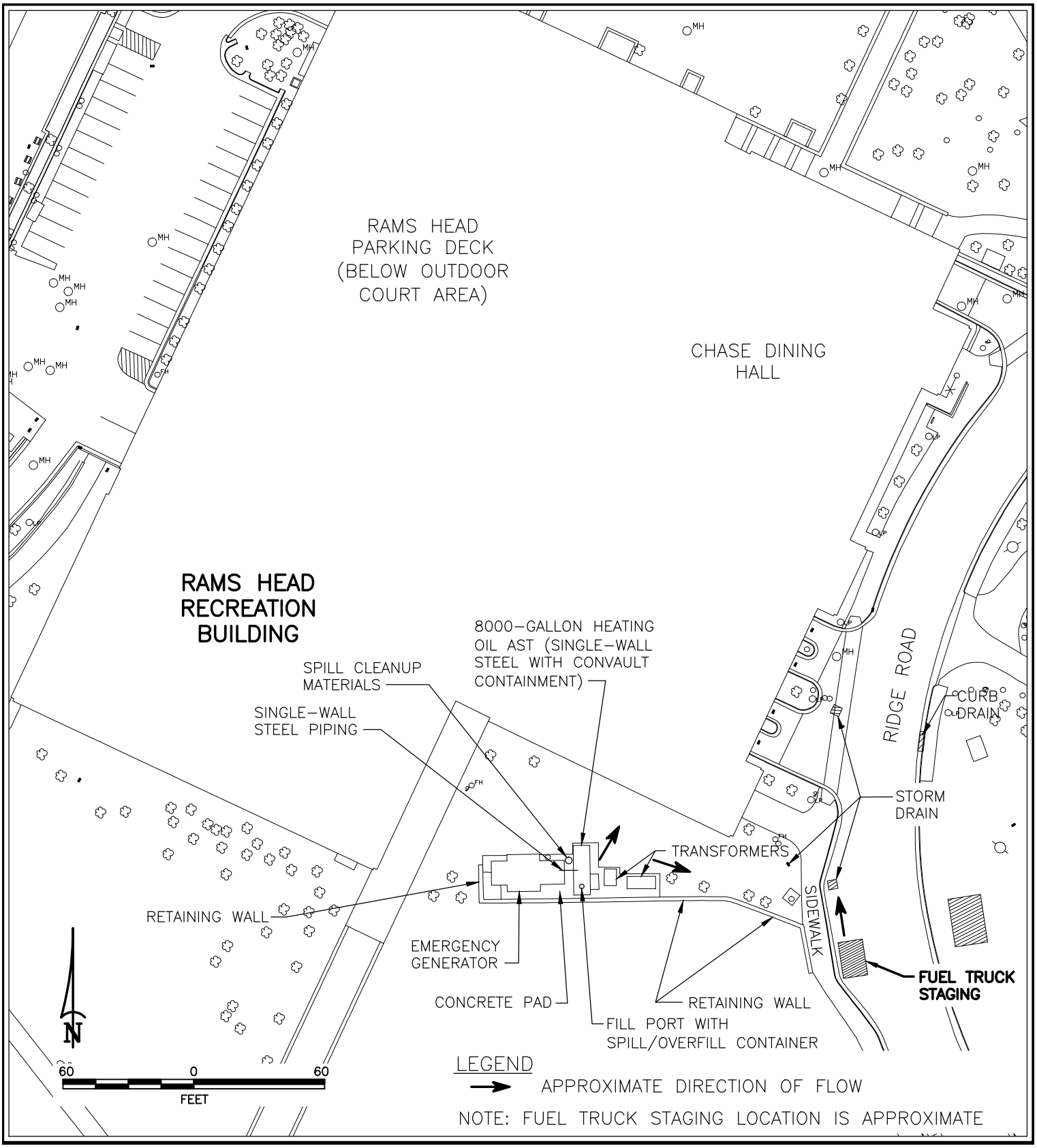
PHILLIPS HALL



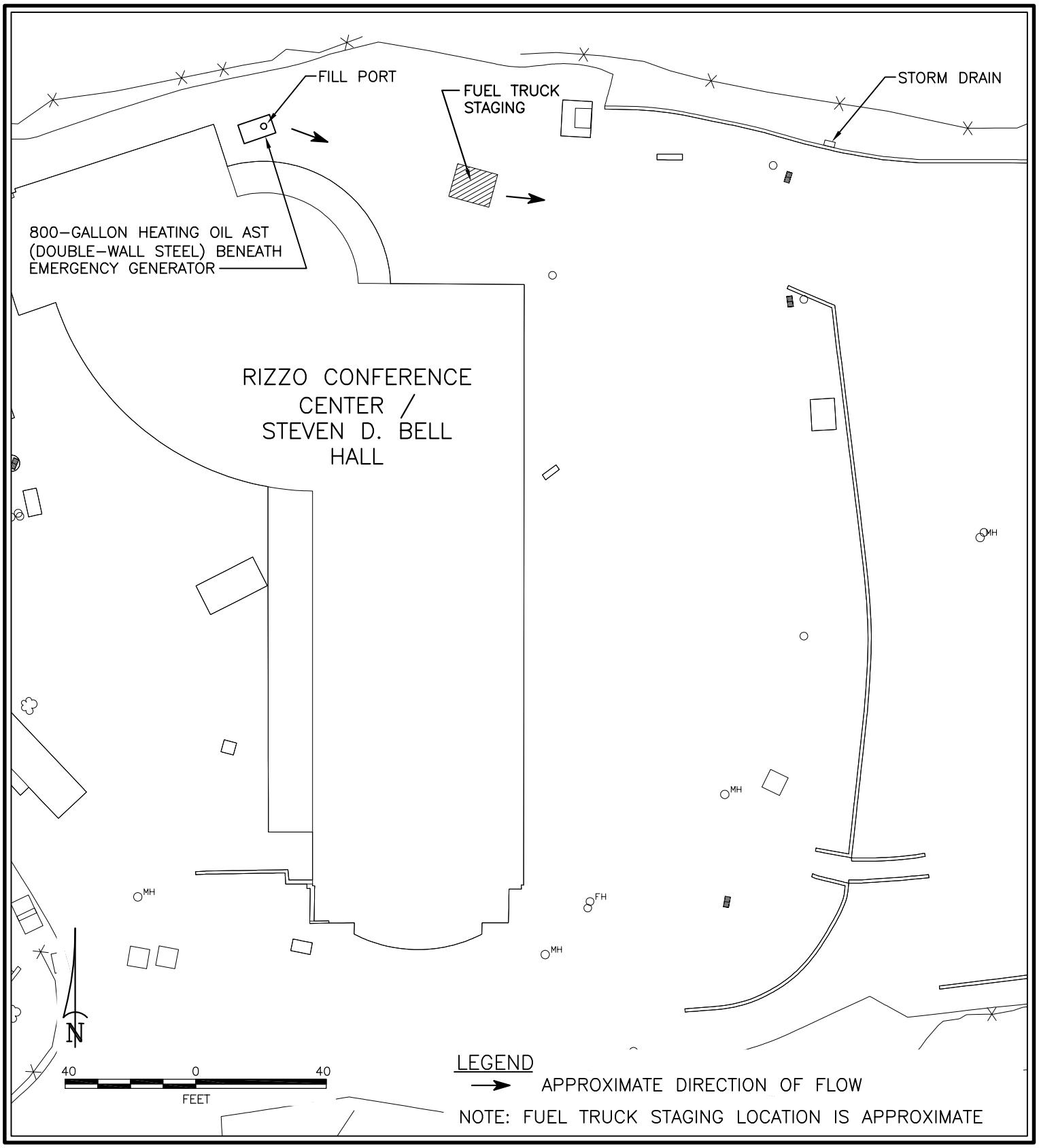
PHYSICIANS OFFICE BUILDING



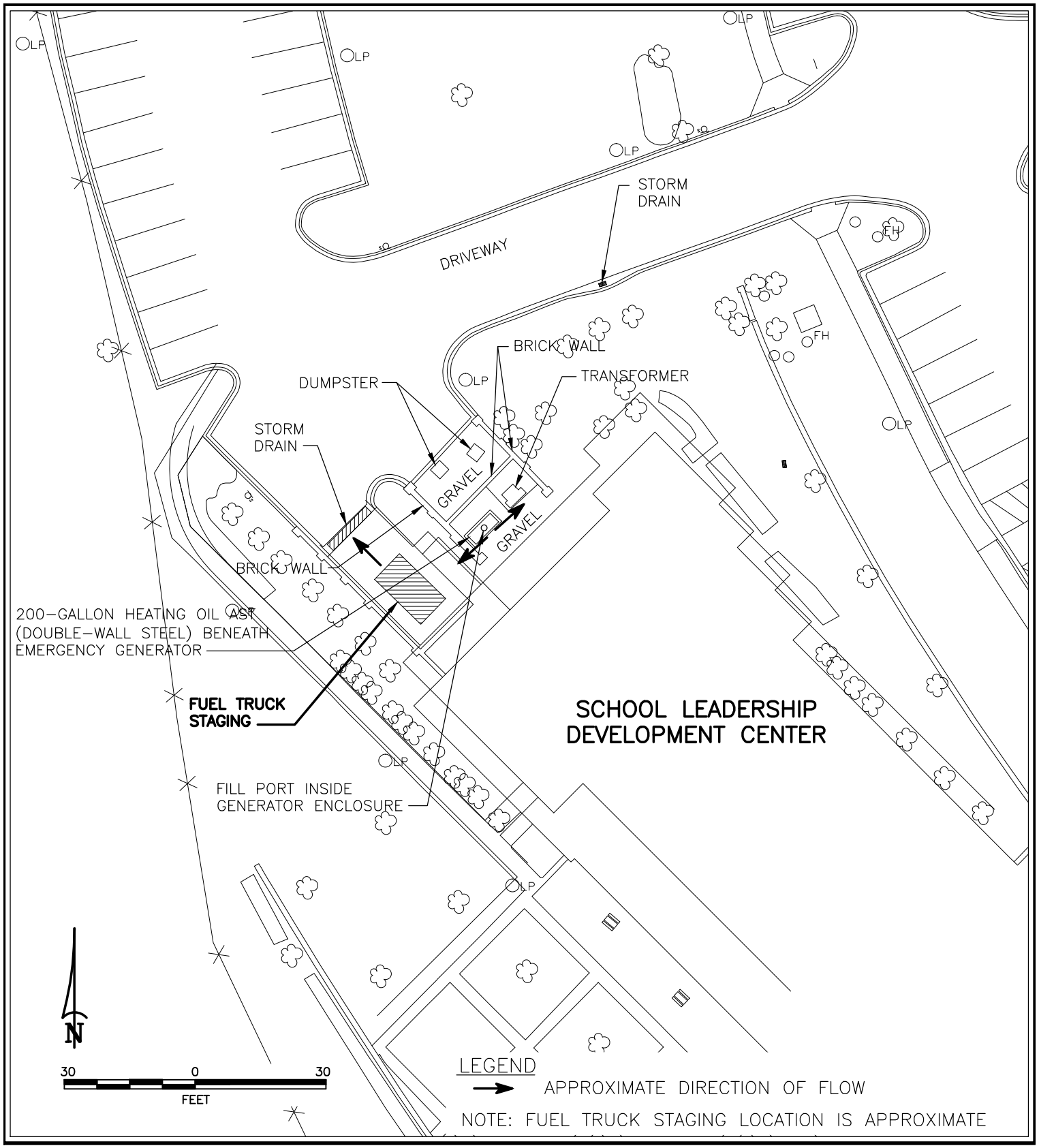
PUBLIC SAFETY BUILDING



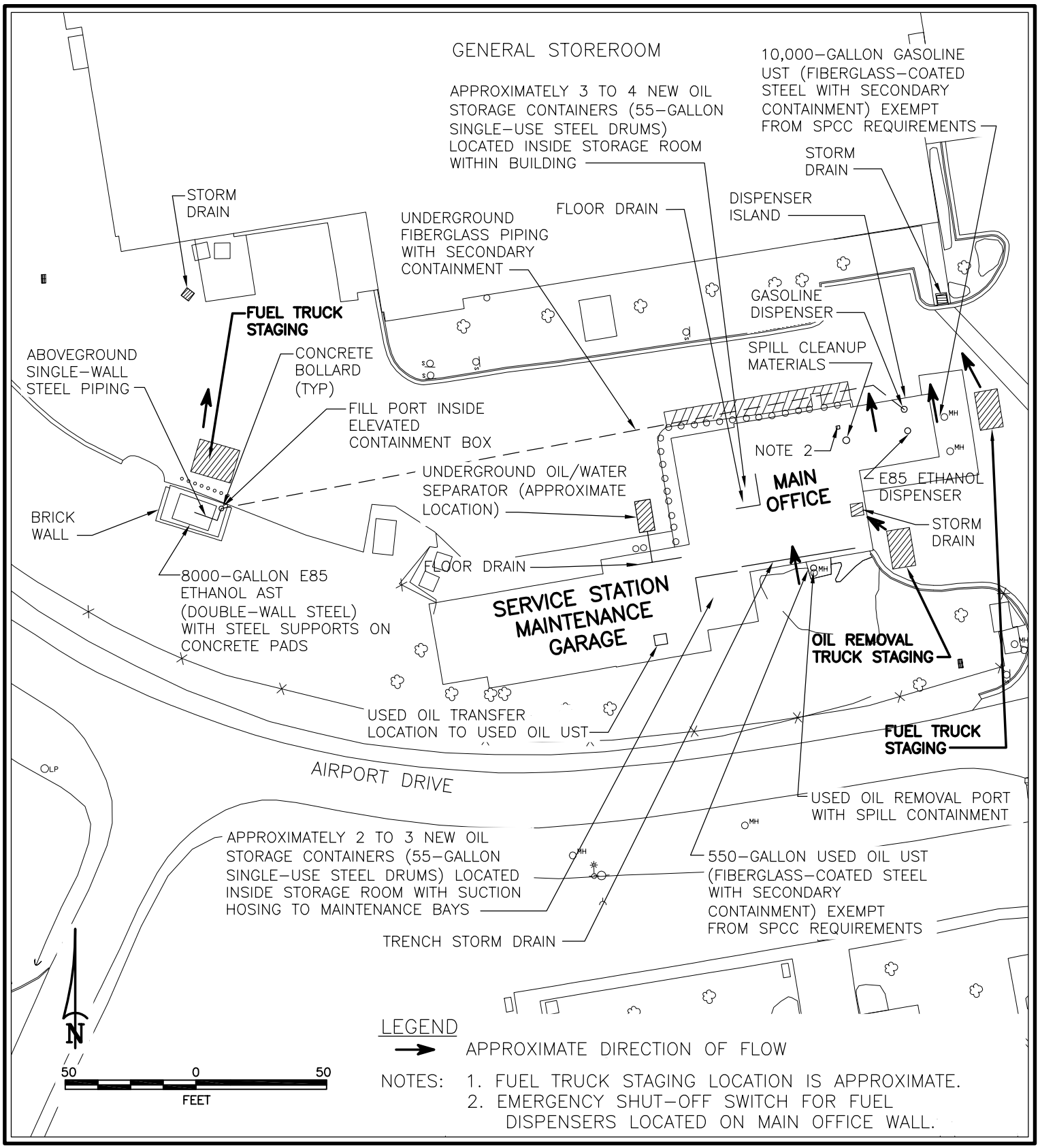
RAMS HEAD CENTER



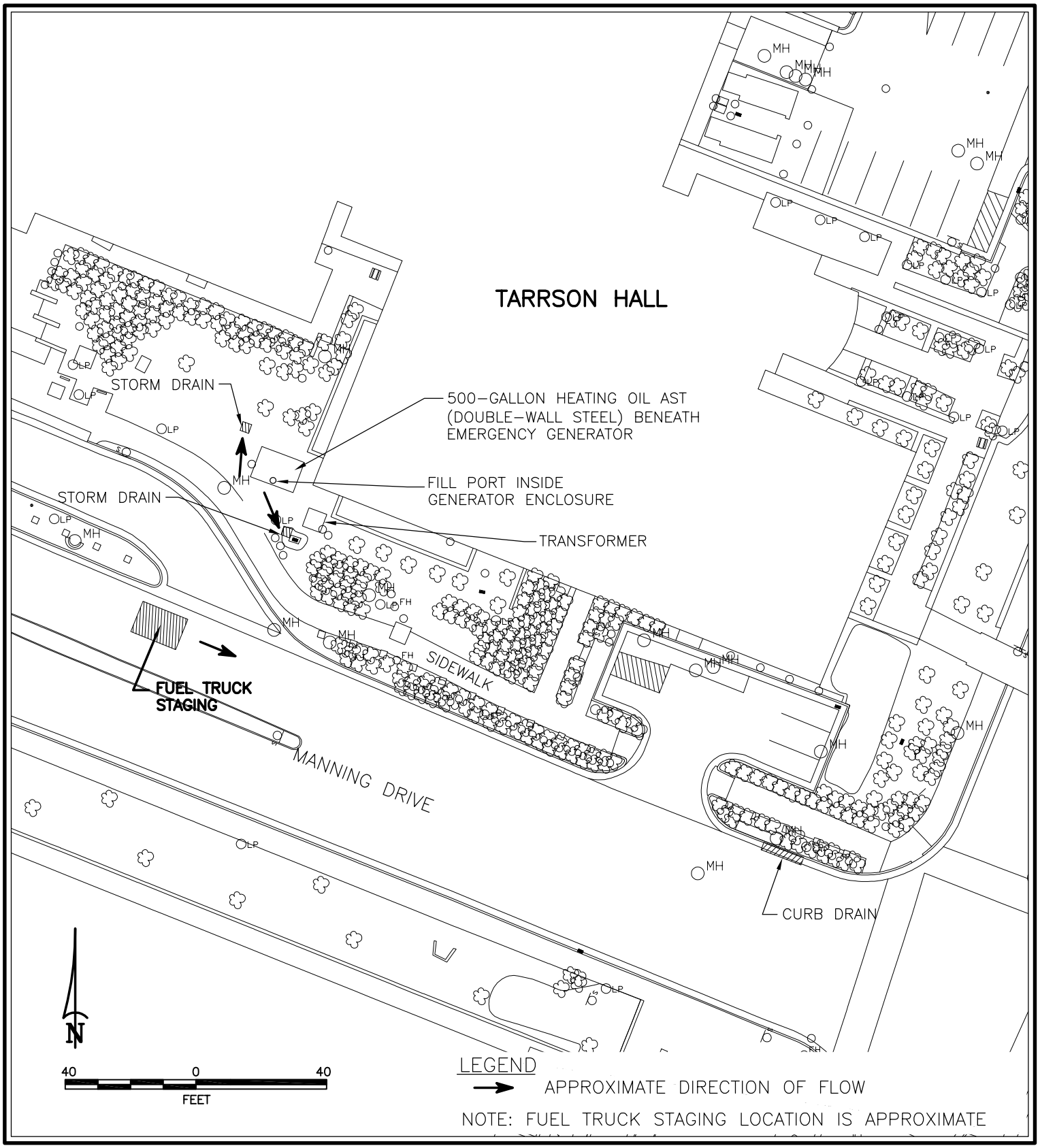
RIZZO CONFERENCE CENTER / STEVEN D. BELL HALL



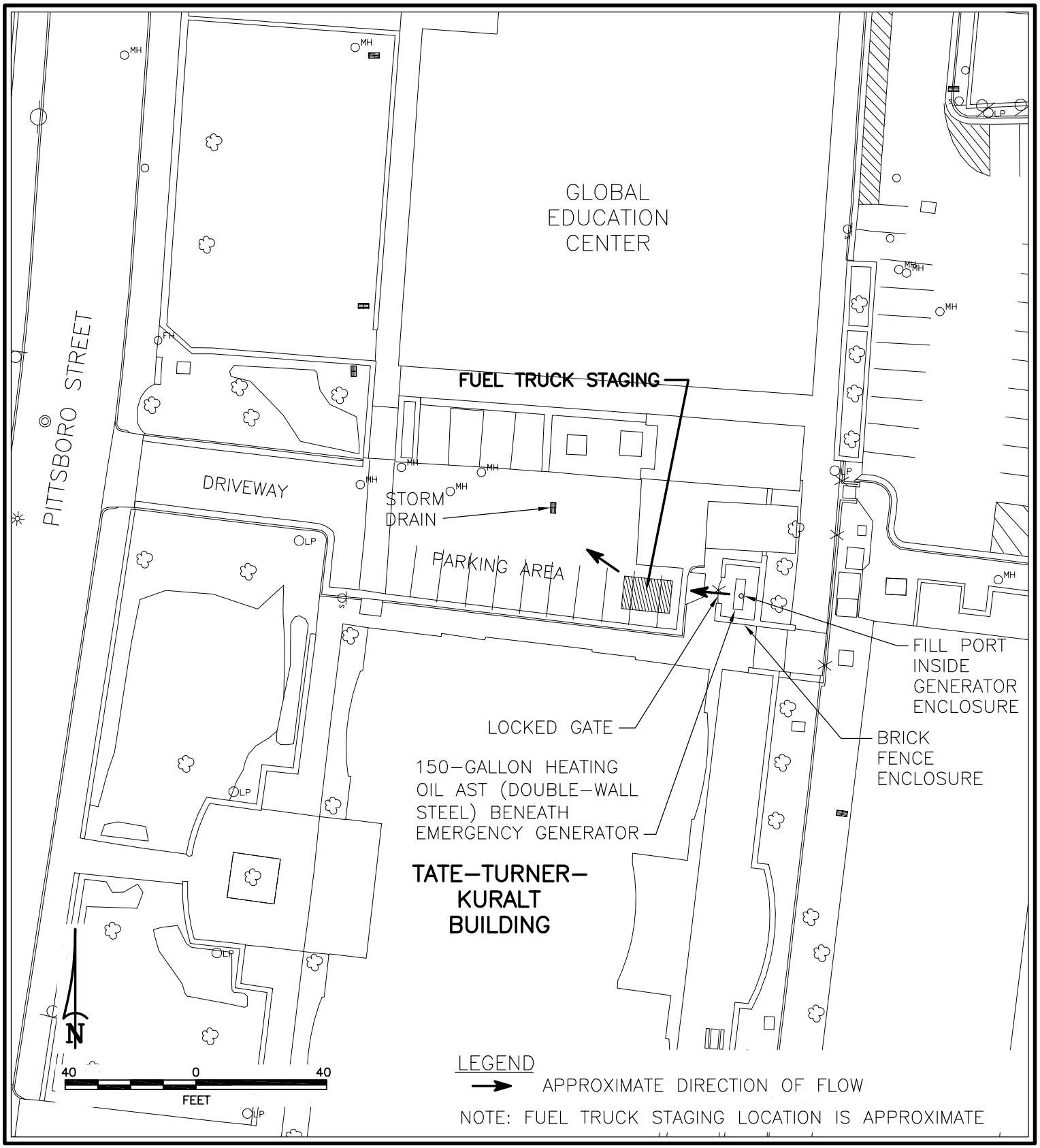
SCHOOL LEADERSHIP DEVELOPMENT CENTER



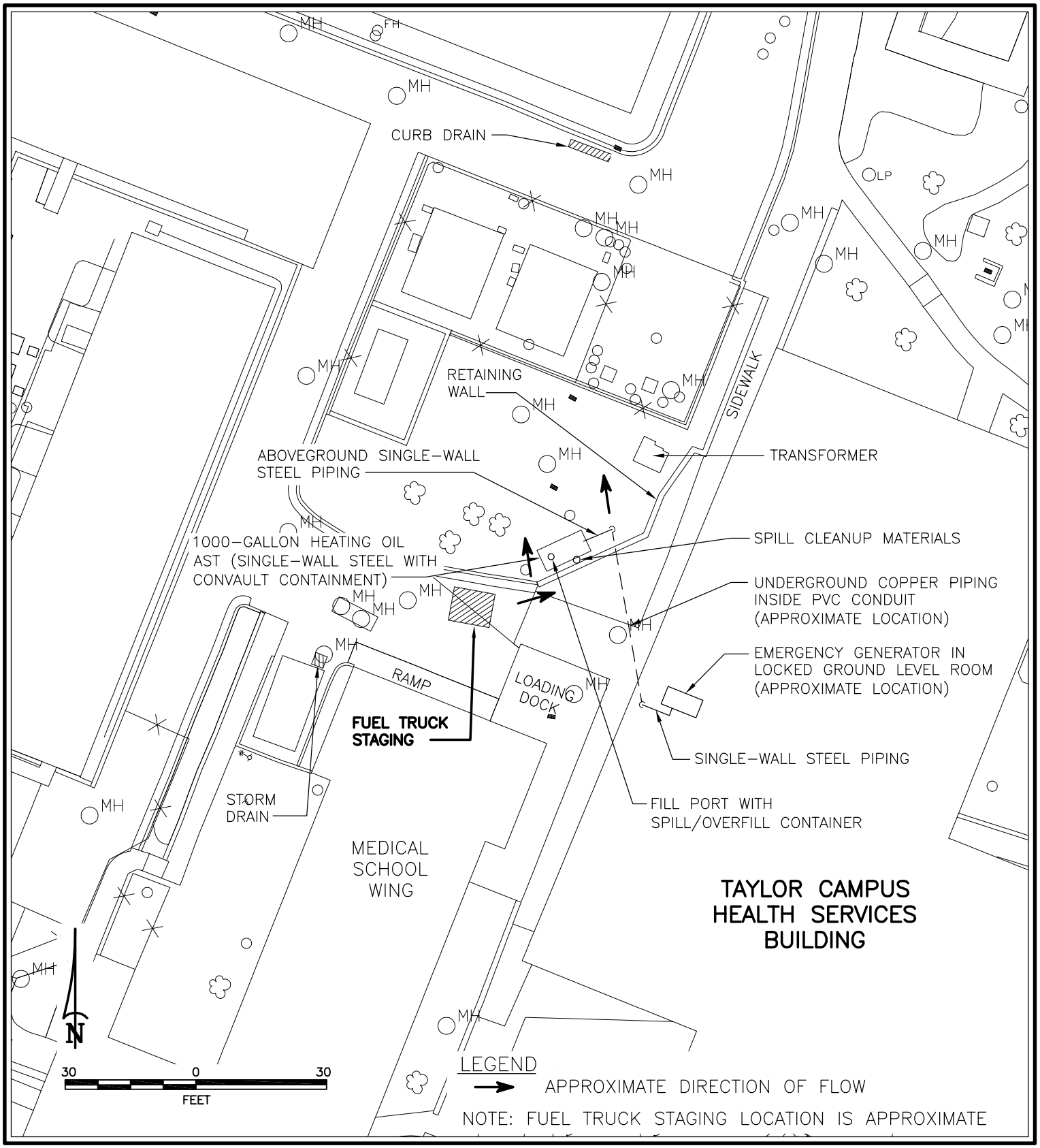
SERVICE STATION



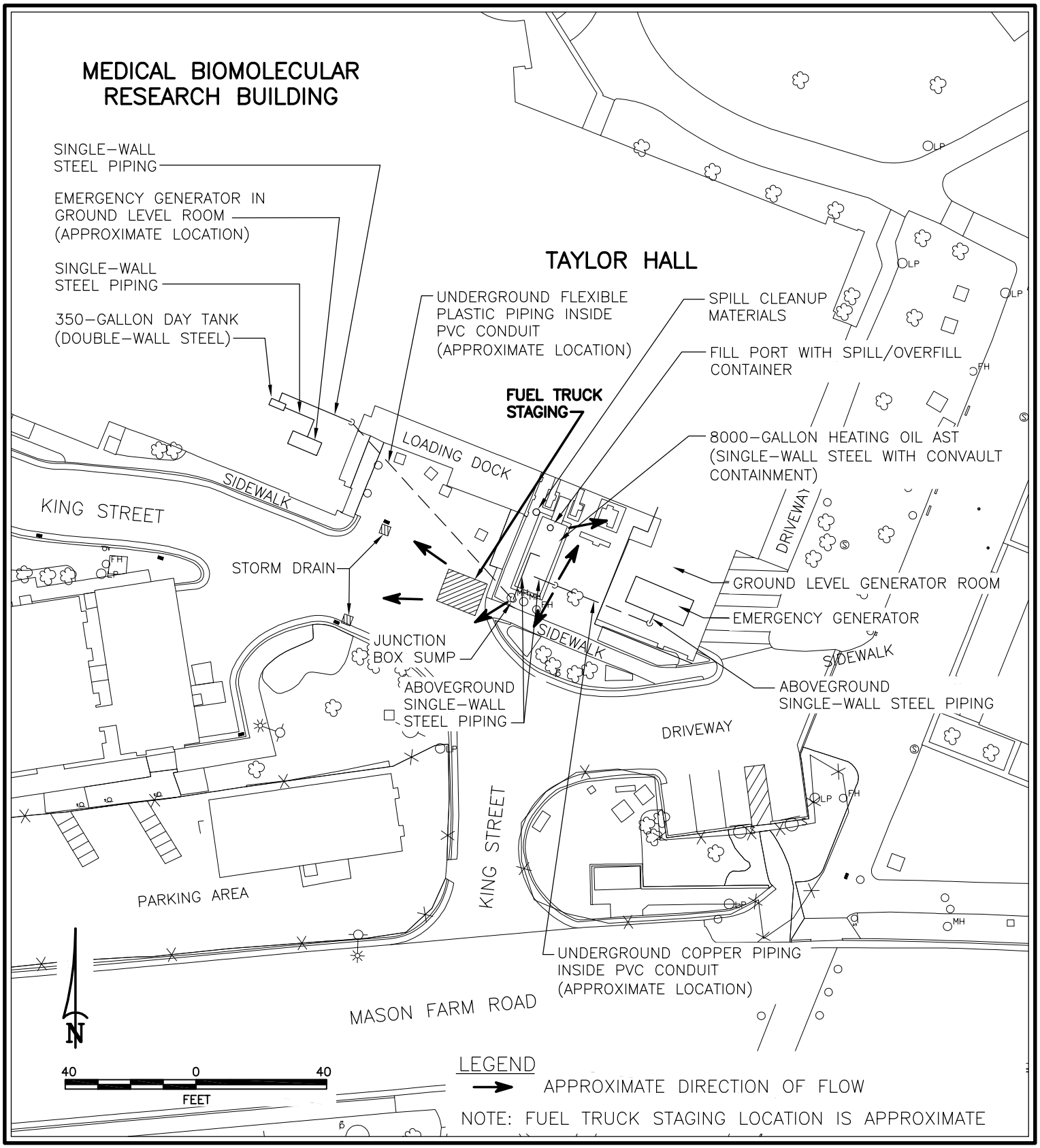
TARRSON HALL



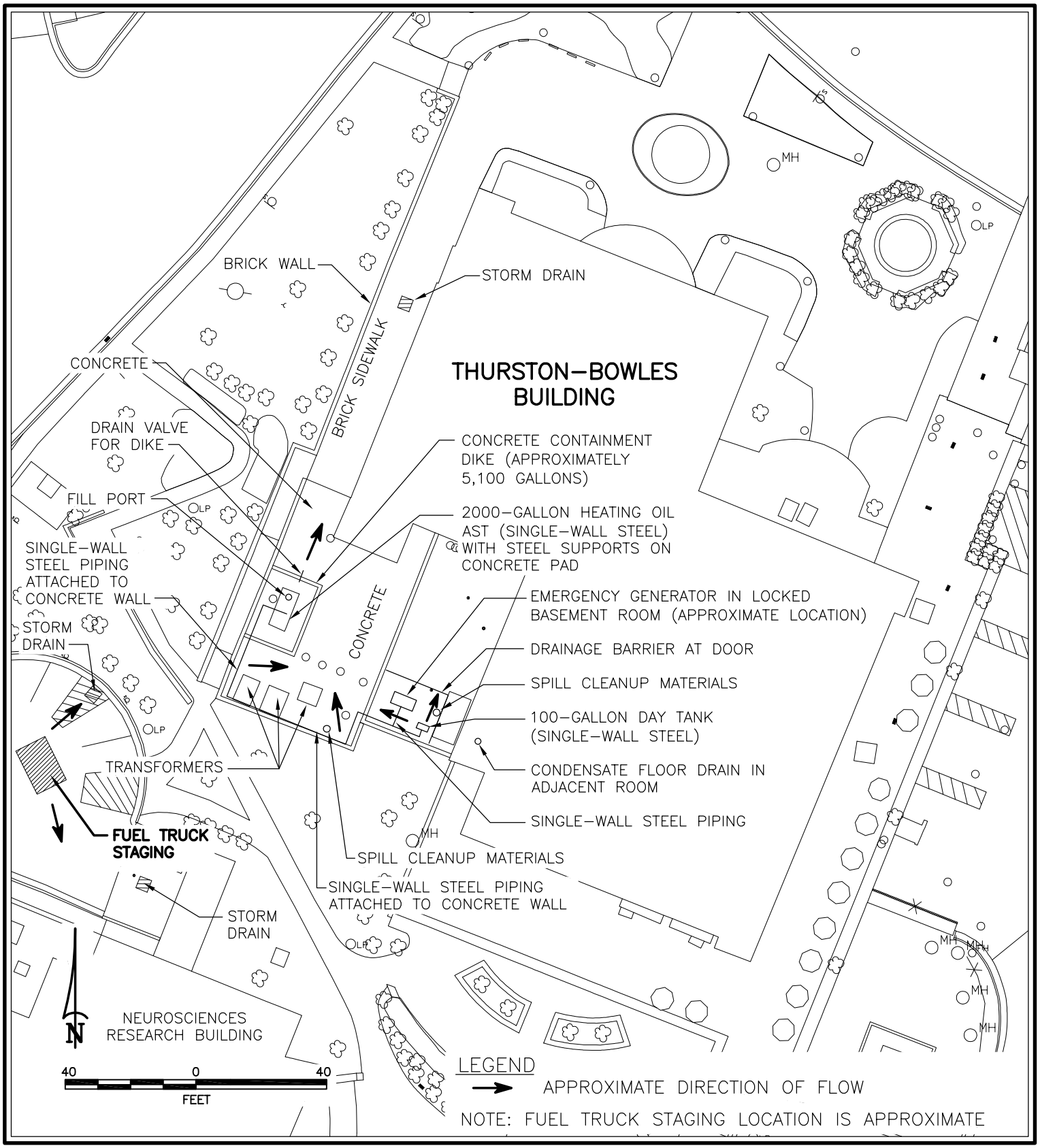
TATE-TURNER-KURALT BUILDING



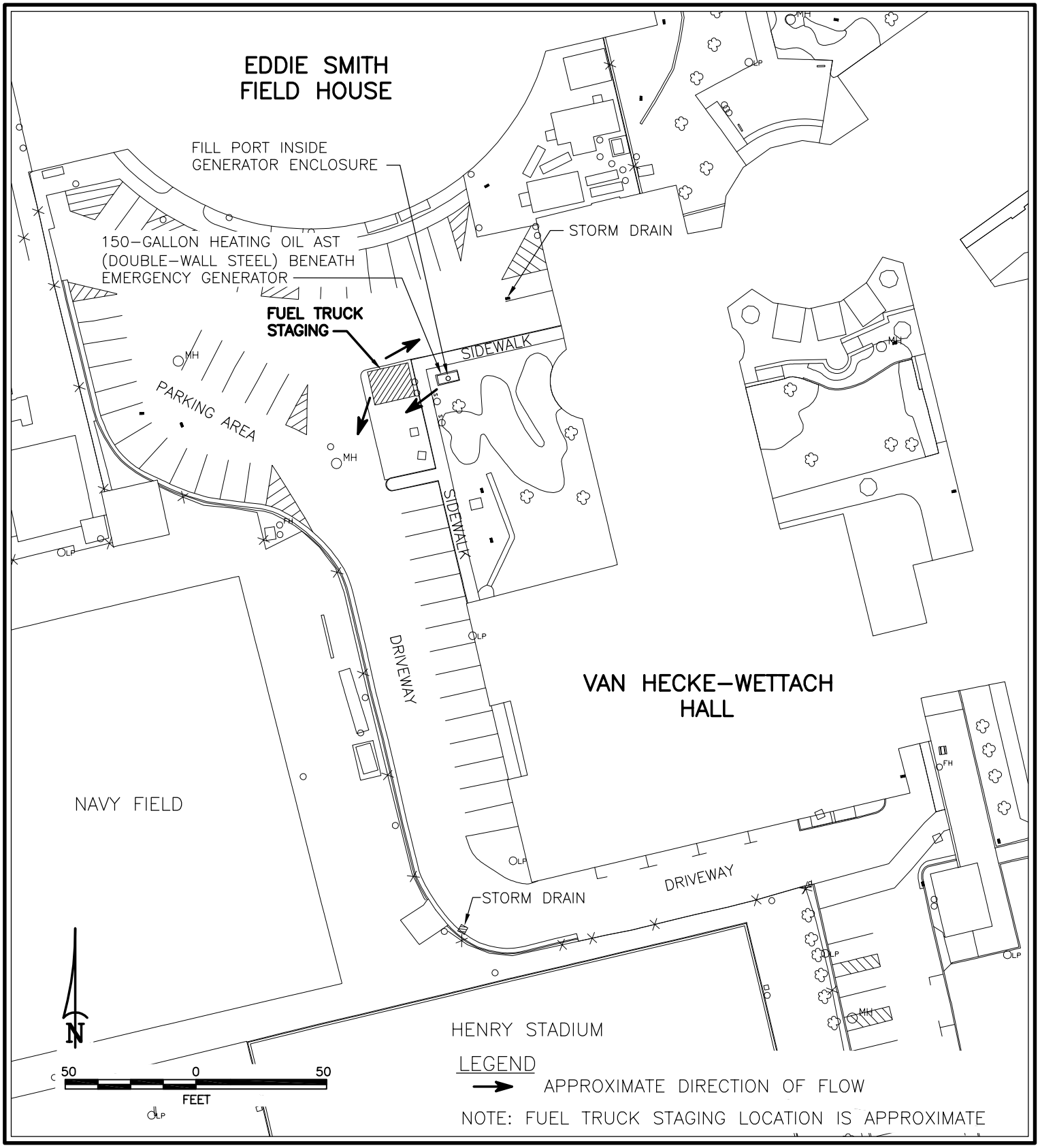
TAYLOR CAMPUS HEALTH SERVICES BUILDING



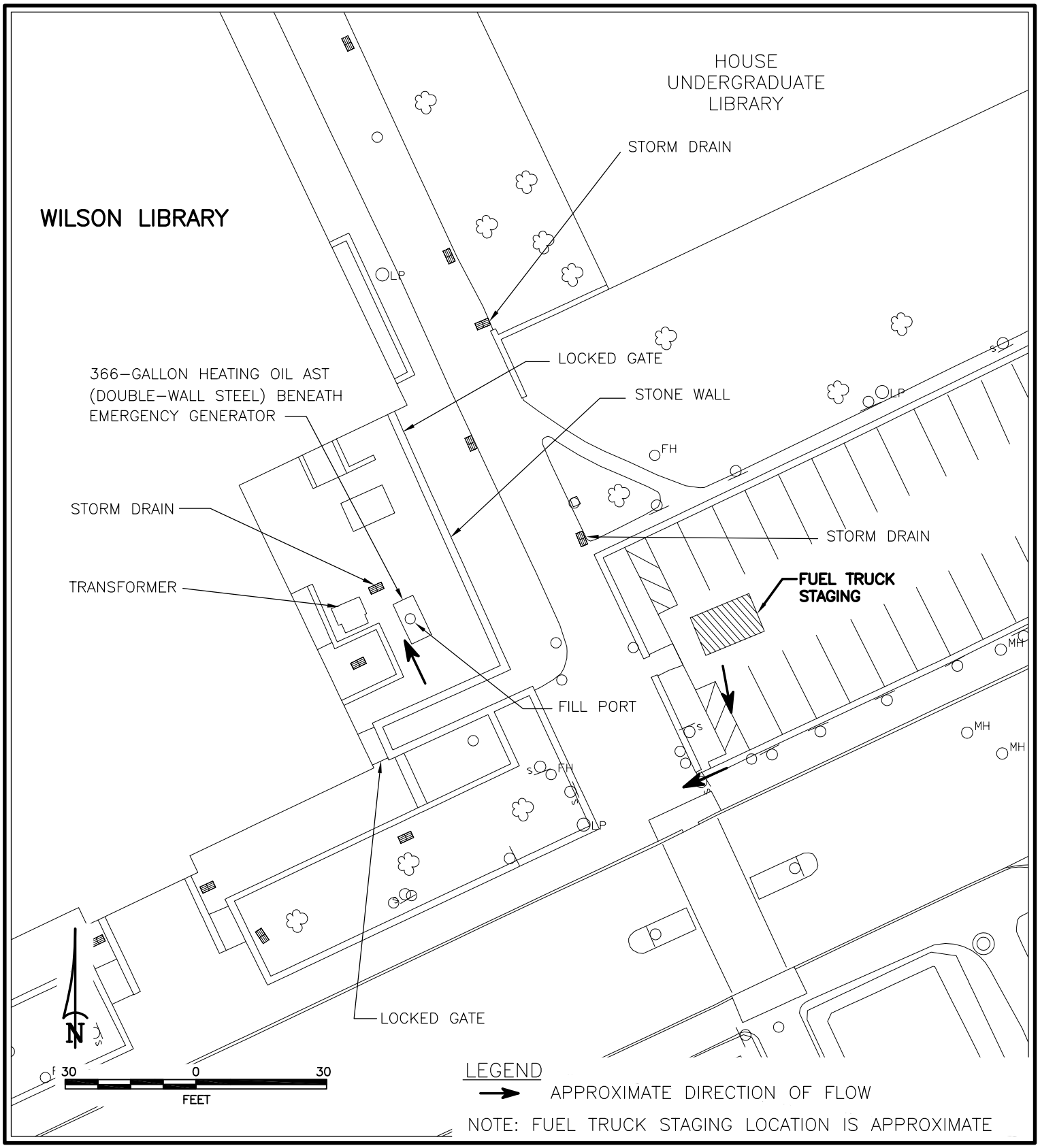
TAYLOR HALL / MBRB



THURSTON-BOWLES BUILDING



VAN HECKE-WETTACH HALL



WILSON LIBRARY

APPENDIX E

BMPs AND DOT REQUIREMENTS FOR OIL LOADING/UNLOADING OPERATIONS

BMPs AND DOT REQUIREMENTS FOR OIL LOADING/UNLOADING OPERATIONS

Transfer of oil products to or from a container presents the highest level of interaction between the oil storage containers and facility or oil transport contractor personnel. Since there is a higher probability for oil discharges to occur during oil transfer operations, the following oil transfer procedures are recommended for applicable oil storage containers to prevent discharges. The oil transfer procedures include recommended Best Management Practices (BMPs) and applicable references to the U.S. Department of Transportation (DOT) loading and unloading requirements for flammable and combustible liquids as referenced in 49 CFR § 177.834 and 49 CFR § 177.837.

Prior to Oil Transfer Operations:

- Facility personnel shall apprise the oil transport contractor of the contractor's responsibility for oil discharge prevention and response. [BMP]

- Facility personnel and the oil transport contractor shall check for adequate supply of their respective spill cleanup materials to contain and clean up the most likely discharges during oil transfer operations. [BMP]

- Facility personnel and the oil transport contractor shall verify that drainage valves for receiving containers and containment dikes are in the closed position (where applicable). [BMP]

- The following facility locations were observed to have floor drains or storm drains within approximately 10 feet of the oil storage containers:

    - Bondurant Hall
    - Brinkhous-Bullitt
    - Craige Parking Deck
    - General Storeroom
    - Health Sciences Library
    - Kenan Center
    - Kenan Stadium Fire Pump
    - Kerr Hall
    - McColl Building Fire Pump

    Based on the close proximity of the oil storage containers to the drains, spill cleanup materials shall be staged adjacent to each storage container prior to initiating oil transfer to ensure that active containment will prevent the most likely discharges from entering the drains.

- Facility personnel and the oil transport contractor shall verify that liquid level gauges and/or high level alarms for receiving containers are working properly (where applicable). [BMP]

- The oil transport contractor shall verify that the available volume of the receiving container is greater than the amount of oil that shall be transferred to the receiving container. [BMP]

- The oil transport contractor shall verify that the receiving container is adequately vented to accommodate displaced vapors from the container and any vapors blown from the oil transport truck when the oil transfer is complete. [BMP]

- The oil transport contractor shall securely set the hand brake and take all other reasonable precautions (such as wheel chocks and vehicle brake interlock systems) to prevent motion of the oil transport truck during oil transfer operations. [49 CFR § 177.834(e)]

- The oil transport contractor shall inspect the oil transport truck and transfer hose for leaks or other conditions that may contribute to an oil discharge. Leaks or other conditions that may contribute to an oil discharge shall be corrected before proceeding with the oil transfer operations. [BMP]

- The oil transport contractor shall follow the applicable bonding and grounding requirements [49 CFR § 177.837(b) and 49 CFR § 177.837(c)].

- The oil transport contractor shall verify that the transfer hose is securely connected to the designated fill port on the receiving container. [BMP]

- The oil transport contractor shall check hose connections for tightness and the proper alignment of valves to ensure that the oil to be loaded or unloaded will be transferred into the receiving container. [BMP]

- Unless the engine of the oil transport truck must be used for the operation of a pump, the oil transport contractor shall not transfer oil between the truck and a container while the engine of the truck is running. [49 CFR § 177.837(a)]

<u>During Oil Transfer Operations:</u>

- The oil transport contractor shall attend the oil transport truck at all times during oil transfer operations. The contractor must remain within 25 feet of the truck and have an unobstructed view of the truck and transfer hose to the maximum extent practicable during oil transfer operations. [49 CFR § 177.834(i)]

- Facility personnel and the oil transport contractor shall ensure that other vehicles do not endanger oil transfer operations. [BMP]

- At least two personnel shall be present to constantly monitor all oil transfer operations. [BMP]

- No smoking is allowed on or about any oil transport truck during oil transfer operations. [49 CFR § 177.834(c)]

- The oil transport contractor shall take extreme care to keep fire away and to prevent persons in the vicinity of the oil transfer area from smoking, lighting matches, or carrying any flame or lighted cigar, pipe, or cigarette. [49 CFR § 177.834(d)]

- The oil transport contractor shall ensure that no tools are used which are likely to damage the effectiveness of the closure of the receiving container or likely to adversely affect the container. [49 CFR § 177.834(f)]

- The oil transport contractor or facility personnel shall monitor the liquid level gauges for applicable containers (where applicable). [BMP]

- The oil transport contractor shall periodically inspect the transfer hose and connections. [BMP]

Following Oil Transfer Operations:

- The oil transport contractor shall drain the transfer hose of any remaining oil and close all applicable valves before disconnecting the hose from the receiving container. [BMP]

- The oil transport contractor shall disconnect and remove any bonding and grounding wiring (where applicable). [BMP]

- Facility personnel and the oil transport contractor shall remove drain covers and/or other drainage barrier equipment from storm drains and floor drains (where applicable). [BMP]

- The oil transport contractor shall not drive the oil transport truck until all manhole closures, valves, drains, and other outlets are securely closed and free of leaks. [49 CFR § 177.834(j)]

- The oil transport contractor shall remove wheel chocks and disengage interlock systems before releasing the hand brake and driving the oil transport truck. [BMP]

APPENDIX F

OIL DISCHARGE RESPONSE AND NOTIFICATION PROCEDURES

UNC-CHAPEL HILL SPCC PLAN

OIL DISCHARGE RESPONSE PROCEDURE

1. If there is a fire or other emergency, dial 911 or (919) 962-6565.

2. If safely possible, shut off any ignition sources in the vicinity of the oil discharge (e.g., motors, electrical circuits, open flames, etc.) that could result in a fire.

3. If safely possible, stop additional oil that is discharging from the container, piping, hose, or other source (act quickly to secure pumps, close valves, etc.).

4. Secure containment of the oil discharge and prevent the discharge from entering floor drains, storm drains, or surface water bodies. Immediate containment actions may require any of the following measures:

   a. Dike the perimeter of the oil discharge using absorbent pads, booms, or other barriers.
   b. Solidify the oil discharge using granular sorbent material.
   c. Block drains or other drainage outlets with mats, absorbent booms, or other barriers.

5. As soon as possible, dial 911 or (919) 962-6565 to contact UNC-Chapel Hill Public Safety if an oil discharge meets any of the following criteria:

   - 25 gallons or greater; **or**
   - Any volume that enters a storm drain, sanitary sewer, or nearby surface water body; **or**
   - Any volume that is located 100 feet or less from a surface water body.

   Appropriate personnel at the UNC-Chapel Hill Department of Environment, Health & Safety (EHS) shall contact the National Response Center (NRC) and/or the North Carolina Department of Environmental Quality (NCDEQ) if an oil discharge meets any of the criteria for notifying the NRC and/or NCDEQ. The criteria and reporting information are listed on **Pages 3** and **4** of these procedures.

   If an oil discharge does not meet any of the above criteria, contact the Department of EHS and the Facility Tank Manager as soon as possible and clean up the discharge within 24 hours of the incident. If the oil discharge cannot be cleaned up within 24 hours of the incident or causes a sheen on nearby surface water, the Department of EHS must immediately notify the NCDEQ.

6. If necessary, the Department of EHS shall follow the procedures outlined in the Department of EHS Emergency Response Manual, which describes the coordination between UNC-Chapel Hill and community response teams in the event of an emergency.

7. If necessary, the Department of EHS shall contact one of the designated emergency response contractors listed on **Page 2** of these procedures to provide assistance with containment and cleanup of an oil discharge.

8. Non-hazardous oil and oil-absorbed materials recovered by facility personnel and/or the emergency response contractor shall be containerized in impervious bags, drums (with secured lids), buckets (with secured lids), or other compatible waste containers. In accordance with 40 CFR § 262.11, EHS personnel shall characterize the waste and label all waste containers for proper disposal by a licensed waste disposal contractor.

UNC-CHAPEL HILL SPCC PLAN

EMERGENCY CONTACT LIST FOR OIL DISCHARGES

CONTACT	ADDRESS	PHONE NUMBER
UNC-Chapel Hill Public Safety Telecommunications Center	285 Manning Drive Chapel Hill, NC 27599-1610	911 (on campus) or (919) 962-6565
UNC-Chapel Hill Department of Environment, Health & Safety	1120 Estes Drive Extension Chapel Hill, NC 27599-1650	(919) 962-5507
Larry Daw, L.G. Environmental Compliance Officer Department of Environment, Health & Safety	1120 Estes Drive Extension Chapel Hill, NC 27599-1650	(919) 962-6666 Office (919) 883-7019 Mobile (919) 542-6812 Home
Wes Brown Emergency Generators, General Storeroom, and Generator Shop	103 Airport Drive Chapel Hill, NC 27599-1800	(919) 883-7182 Mobile
Jamie Hoggard Landfill Gas Generator	501 West Cameron Avenue Chapel Hill, NC 27599-1855	(919) 843-4402 Office (919) 428-1585 Mobile
Casey Carrick Athletics Outdoor Facility Operations	220 Finley Golf Course Road Chapel Hill, NC 27517	(336) 250-1300 Mobile
Sean Cooper Electric Distribution Operations Center and Transformers	112 Airport Drive, Chapel Hill, NC 27599-1856	(919) 962-8394 Main (984) 234-2934 Mobile
Alice Moore Grounds Services and Service Station	109 Airport Drive Chapel Hill, NC 27599-1805	(919) 883-9224 Mobile
Carl Oliveira Finley Golf Course Facility	500 Finley Golf Course Road Chapel Hill, NC 27514	(919) 962-0586 Office (919) 619-2478 Mobile
Kaitlin Hartman EPA Building	104 Mason Farm Road Chapel Hill, NC 27599	(919) 541-3310 Office (919) 541-5783 (24-Hour)
Verizon Wireless EHS Verizon Generator at Goodmon Building	Verizon Wireless EHS	(800) 566-9347
U.S. Coast Guard National Response Center	National Response Center for Oil Discharges	(800) 424-8802
North Carolina Department of Environmental Quality Oil Discharge Notification	NCDEQ Division of Waste Management, UST Section Raleigh Regional Office 1628 Mail Service Center Raleigh, NC 27699-1628 3800 Barrett Drive, Raleigh, NC 27609	(800) 858-0368 (24-Hour) (919) 571-4700 Office
Orange County Water and Sewer Authority Treatment Plant Office	400 Jones Ferry Road Carrboro, NC 27510	(919) 968-4421
Shamrock Environmental Corporation Emergency Response Contractor	3500 Lake Herman Drive, Browns Summit, NC 27214	(800) 881-1098 Emergency (336) 375-1989 Office
A&D Environmental Services, Inc. Emergency Response Contractor	P.O. Box 484, High Point, NC 27261 2718 Uwharrie Road, Archdale, NC 27263	(800) 434-7750 Emergency (336) 434-7752 Office
Hepaco Inc. Emergency Response Contractor	301 Travis Park Drive Cary, NC 27511	(800) 888-7689 Emergency (919) 596-5424 Office

NOTIFICATION AND REPORTING REQUIREMENTS FOR OIL DISCHARGES

Requirement to Notify the NRC and NCDEQ of an Oil Discharge

- **National Response Center:**
  As discussed in 40 CFR § 110.6, if an oil spill results in a discharge to navigable waters that may be harmful, the Department of EHS shall immediately notify the National Response Center (NRC) upon knowledge of the discharge:

  - NRC: (800) 424-8802

  As defined in 40 CFR § 110.3, discharges of oil into or upon navigable waters that may be considered harmful include discharges that:

  - Violate applicable water quality standards; or
  - Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

  The required reporting information when notifying the NRC is included on the example report form in **Appendix G**.

- **North Carolina Department of Environmental Quality:**
  In accordance with the North Carolina Oil Pollution and Hazardous Substances Control Act (§ 143-215.85(b)), if an oil discharge meets any of the following criteria:

  - 25 gallons or greater; **or**
  - Any volume that causes a sheen on nearby surface water; **or**
  - Any volume that is located 100 feet or less from a surface water body.

  Immediately take measures to collect and remove the oil discharge. Notify the NCDEQ within 24 hours of the discharge incident and begin to restore the area affected by the discharge in accordance with NCDEQ requirements.

  NCDEQ Phone Numbers for Oil Discharge Notification:
  - NCDEQ 24-Hour Oil Discharge Emergency Response Number: (800) 858-0368
  - NCDEQ Raleigh Regional Office Main Number: (919) 571-4700
    (Monday–Friday, 8:00am–5:00pm)

  As part of the 24-hour reporting requirements, complete and submit the NCDEQ ***UST Form 62 (24-Hour Notification of Discharge Form)*** to the NCDEQ Raleigh Regional Office. The UST Form 62 is included in **Appendix G** of the SPCC Plan.

  If an oil discharge does not meet any of the above criteria, notification to the NCDEQ is not required; however, facility personnel shall immediately take measures to collect and remove the discharge. If an oil discharge of less than 25 gallons cannot be cleaned up within 24 hours of the discharge incident or causes a sheen on nearby surface water, immediately notify the NCDEQ Division of Waste Management UST Section Raleigh Regional Office.

EPA Reporting Requirements for Specific Oil Discharge Volumes

In accordance with 40 CFR § 112.4(a), if UNC-Chapel Hill discharges more than 1,000 U.S. gallons of oil in a single discharge that may be harmful, or discharges more than 42 U.S. gallons of oil in each of two discharges within any 12-month period that may be harmful, UNC-Chapel Hill shall submit the reporting information listed in **Section 5.0** of the SPCC Plan to the EPA Region 4 Administrator within 60 days of the discharge incident. In accordance with 40 CFR § 112.4(c), UNC-Chapel Hill shall also provide a complete copy of the discharge reporting information to the NCDEQ Division of Waste Management UST Section Raleigh Regional Office within 60 days of the discharge incident (or sooner if required by the NCDEQ). The mailing addresses for the EPA Region 4 Administrator and the NCDEQ are listed in **Section 5.0** of the SPCC Plan. A complete copy of the reporting information shall be maintained with the SPCC Plan.

As defined in 40 CFR § 110.3, discharges of oil into or upon navigable waters that may be considered harmful include discharges that:

- Violate applicable water quality standards; or

- Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

Note: The oil discharge volume criterion referenced in 40 CFR § 112.4(a) refers to the volume of oil that actually discharges into or upon navigable waters, not the total volume of oil that is spilled. Oil discharges as a result of natural disasters, acts of war, or terrorism are not applicable.

Discharge Prevention Briefings following Discharge Incidents

In accordance with 40 CFR § 112.7(f)(3), UNC-Chapel Hill, through the Department of EHS, shall conduct discharge prevention briefings with applicable UNC-Chapel Hill, EPA, and Verizon Wireless personnel at least once per year to assure adequate understanding of the SPCC Plan. The discharge prevention briefings shall be conducted as part of the annual SPCC training. The briefings shall highlight and describe known oil discharges that have required notification of the NRC and/or state and local agencies. The briefings shall also highlight and describe failures, malfunctioning components, and any recently developed precautionary measures to prevent discharge incidents.

If necessary, amendments to the SPCC Plan shall be implemented in accordance with the requirements of 40 CFR § 112.5 to improve preventive measures and response to potential oil discharge incidents. The requirements for SPCC Plan amendments are described in **Section 6.0** of the SPCC Plan.

APPENDIX G

OIL DISCHARGE REPORTING INFORMATION FOR NRC AND STATE/LOCAL AGENCIES

OIL DISCHARGE REPORTING INFORMATION
FOR NATIONAL RESPONSE CENTER (NRC) AND STATE/LOCAL AGENCIES

1. Name, location, organization, and telephone number of person reporting discharge:
2. Name and address of the party responsible for the discharge:
3. Date and time of the discharge:
4. Location of the discharge:
5. Source and cause of the discharge:
6. Types of material(s) discharged:
7. Quantity of materials discharged into navigable waters that may be harmful as defined in 40 CFR § 110.3 (see **Appendix F, Page 3** of the SPCC Plan for the definition of discharges that may be harmful):
8. Medium (e.g., land, water) affected by the discharge:
9. Danger or threat posed by the discharge:
10. Number and types of injuries or fatalities (if any):
11. Weather conditions at the discharge location:
12. Whether an evacuation has occurred:
13. Other agencies notified or about to be notified:
14. Any other information that may help emergency personnel respond to the incident:

Name	Title
Signature	Date and Time

UST-62 — 24-Hour Notification of Discharge Form

For Non-UST Releases of Petroleum in NC

This form should be completed and submitted to the UST Section's regional office following a known or suspected release of petroleum from a source other than an underground storage tank. This form is required to be submitted within 24 hours of discovery of a known or suspected petroleum release

(DWM USE ONLY)
Incident # _____ Priority Rank (H,I,L,U) _____
Received (time/date) _____
Received by _____ Region _____
Reported by (*circle one*): Phone, Fax or Report

Suspected Contamination? (Y/N) ___
Confirmed GW Contamination? (Y/N) ___
Confirmed Soil Contamination ?(Y/N) ___
Samples taken?(Y/N) ___ Free product? (Y/N) ___
If Yes(free product), state greatest thickness: _____feet

Release discovered (time/date):_____
_____

INCIDENT DESCRIPTION

Incident Name:

Address (street number/name): | County:

City/Town: | Zip Code: | Regional Office *(circle one)*: Asheville, Mooresville, Fayetteville, Raleigh, Washington, Wilmington, Winston-Salem

Latitude (decimal degrees): Longitude (decimal degrees) :

Obtained by:
- ❑ GPS
- ❑ Electronic topographic map
- ❑ GIS Address matching
- ❑ Other
- ❑ Unknown

Describe suspected or confirmed release *(nature of release, time/date of release, quantity of release, amount of free product):*

Describe initial response/abatement *(time/date release stopped, cleanup begun/completed, quantity of product soil removed, confirmation sampling):*

Describe impacted receptors:

Describe location:

HOW RELEASE WAS DISCOVERED (Release Code)

(Check one)

- ❑ Observation of Release at Occurrence
- ❑ Visual or Olfactory Evidence
- ❑ Soil Contamination
- ❑ Groundwater Contamination
- ❑ Water Supply Well Contamination
- ❑ Surface Water Contamination
- ❑ Other (specify) _____

SOURCE OF CONTAMINATION

Source of Release *(Check one to indicate primary source)*

- ❑ AST (tank)
- ❑ AST Piping/ Dispenser
- ❑ AST Delivery Problem
- ❑ OTR Vehicle Tank
- ❑ OTR Bulk Transport Tank
- ❑ RR Bulk Transport Tank
- ❑ Transformer
- ❑ Unknown
- ❑ Other _____

Definitions presented on reverse

Cause of Release *(Check one to indicate primary cause)*

- ❑ Spill (Accidental)
- ❑ Spill (Intentional)
- ❑ Corrosion
- ❑ Physical or Mechanical Damage
- ❑ Equipment Failure
- ❑ AST Overfill
- ❑ AST Installation Problem
- ❑ Unknown
- ❑ Other _____

Definitions presented on reverse

Type of Release *(Check one)*

- ❑ Petroleum
- ❑ Both Petroleum & Non-Petroleum

Location *(Check one)*

- ❑ Facility
- ❑ Residence
- ❑ Highway/Road
- ❑ Railway
- ❑ Other

Product Type Released *(Check one to indicate primary petroleum product type released)*

- ❑ Gasoline/ Diesel/ Kerosene
- ❑ E11 – E20
- ❑ E21 – E84
- ❑ E85 – E99
- ❑ Ethanol 100%
- ❑ Diesel/Veg. Oil Blend
- ❑ Vegetable Oil 100%
- ❑ Heating Oil
- ❑ Waste Oil
- ❑ Mineral Oil-*no PCBs*
- ❑ Mineral Oil-*PCBs*
- ❑ Other Petroleum Products _____

Ownership
1. Municipal 2. Military 3. Unknown 4. Private 5. Federal 6. County 7. State

Operation Type
1. Public Service 2. Agricultural 3. Residential 4. Education/Relig. 5. Industrial 6. Commercial 7. Mining
Guidance presented on reverse

IMPACT ON DRINKING WATER SUPPLIES

Water Supply Wells Affected? 1. Yes 2. No 3. Unknown Number of Water Supply Wells Affected _____

List of Water Supply Wells Contaminated: (*Include Users Names, Addresses and Phone Numbers. Attach additional sheet if necessary*)
1.
2.
3.

PARTY RESPONSIBLE FOR RELEASE

(if the source of the release is not an AST system or if it is an AST system and there is a responsible party other than the AST system owner/ operator)

Name of Person/Company		Address	
City	State	Zip Code	Telephone Number

AST SYSTEM OWNER *(if the source of the release is an AST system)*

AST Owner/Company		Address	
City	State	Zip Code	Telephone Number

AST SYSTEM OPERATOR *(if the source of the release is an AST system)*

UST Operator/Company		Address	
City	State	Zip Code	Telephone Number

LANDOWNER AT LOCATION OF INCIDENT

Landowner		Address	
City	State	Zip Code	Telephone Number

Draw Sketch of Area or Provide Map ***(showing incident site, location of release, two major road intersections, potential receptors)***

Attach sketch or map to form.

Give Directions to Incident Site *Attach directions to form if necessary.*

Person Reporting Incident	Company	Telephone Number
Title	Address	Date

Definitions of Sources

AST (Tank): means the tank is used to store product
AST Piping: means the piping and connectors running from the tank to the dispenser or other end-use equipment
AST Dispenser: includes the dispenser and the equipment used to connect the dispenser to the piping
AST Delivery Problem: identifies releases that occurred during product delivery to the tank.
OTR Vehicle Tank: means the tank is used to store product to fuel an over the road vehicle
OTR Bulk Transport Tank: means a tank that is used to transport product in bulk over the road (by truck)
RR :bulk Transport Tank: means a tank that is used to transport product in bulk by train
Transformer: means electrical transformer
Other: serves as the option to use when the release source is known but does not fit into one of the preceding categories
Unknown: identifies releases for which the source has not been determined

Definitions of Causes

Spill (Accidental): use this cause when a spill occurs accidentally(e.g., when the delivery hose is disconnected from a fill pipe)
Spill (Intentional): use this cause when a spill occurs intentionally (e.g., intentional dumping or breakage)
Corrosion: use when a metal tank, piping, or other component has a release due to corrosion
Physical or Mechanical Damage: use for all types of physical or mechanical damage, except corrosion
Equipment failure: use when a release occurs due to equipment failure other than corrosion or physical or mechanical damage
AST Overfill: use when an overfill occurs (e.g., overfills may occur from the fill pipe at the tank or when the nozzle fails to shut off at the dispenser)
AST Installation Problem: use when the problem is determined to have occurred specifically because the AST system was not installed properly
Other: use this option when the cause is known but does not fit into one of the preceding categories
Unknown: use when the cause has not been determined

Guidance: Ownership and Operator Type

Ownership select the category which describes owner of the AST system, bulk transport tank, or other release source
Operator Type select the category which describes the operation in which owner uses the AST system, bulk transport tank, or other release source

APPENDIX H

OIL SPILL CONTINGENCY PLAN FOR OIL-FILLED OPERATIONAL EQUIPMENT

OIL SPILL CONTINGENCY PLAN FOR OIL-FILLED OPERATIONAL EQUIPMENT

The University of North Carolina at Chapel Hill
Chapel Hill, North Carolina

Introduction

In accordance with 40 CFR § 112.7(k), the Oil Spill Contingency Plan (OSCP) for applicable oil-filled operational equipment included in the UNC-Chapel Hill SPCC Plan has been prepared to include the criteria listed in 40 CFR § 109.5 for controlling, containing, and recovering an oil discharge. As required under 40 CFR § 112.7(k)(2)(ii)(B), UNC-Chapel Hill is committed to providing the manpower, equipment, and materials required to expeditiously control and remove any quantity of oil that discharges from applicable oil-filled operational equipment to navigable waters in quantities that may be harmful. As defined in 40 CFR § 110.3, discharges of oil into or upon navigable waters that may be considered harmful include discharges that:

- Violate applicable water quality standards; or
- Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

UNC-Chapel Hill maintains approximately 333 active electric transformers, 141 inactive transformers, and 168 hydraulic elevators that are classified as oil-filled operational equipment and are subject to the requirements of 40 CFR § 112. The EPA maintains two hydraulic elevators on the UNC-Chapel Hill campus that are subject to the requirements of 40 CFR § 112. The transformers contain mineral oil used as insulating fluid. The elevators are equipped with reservoir tanks that contain hydraulic oil. The oil storage capacity for each applicable transformer ranges from approximately 55 gallons to 760 gallons depending on the size of the transformer. The oil storage capacity for each applicable elevator reservoir tank ranges from approximately 55 gallons to 250 gallons depending on the size of the elevator and the number of stories in the respective building. The applicable active transformers and hydraulic elevators are listed in **Tables 3** and **4**, respectively. A facility diagram that shows the approximate locations of active transformers is included as **Figure 8**. The approximate locations of inactive transformers are shown on the facility diagram for the Electric Distribution Operations Center in **Appendix D**. A facility diagram that shows the approximate locations of hydraulic elevators is included as **Figure 9**. Inspections of the transformers and hydraulic elevators are described in **Section 7.21** of the SPCC Plan.

UNC-Chapel Hill also maintains a Landfill Gas Generator, which is equipped with a reservoir tank that is subject to the requirements of 40 CFR § 112. The reservoir tank contains oil that is used for lubrication of the generator. Fuel used to operate the generator consists of landfill gas only. The approximate location of the oil reservoir tank is shown on the facility diagram for the Landfill Gas Generator in **Appendix D**.

Authorities, Responsibilities, and Duties for Oil Removal Operations [40 CFR § 109.5(a)]

Discharge response and notification procedures for oil discharges are included in **Appendix F** of the SPCC Plan. UNC-Chapel Hill, through the Department of Environment, Health & Safety (EHS), has the primary responsibility of providing the initial response to oil discharges from oil-filled operational

equipment. The EHS Environmental Compliance Officer shall serve as the discharge response coordinator responsible for directing and coordinating response operations on behalf of UNC-Chapel Hill. The oil discharge response operating team in the field consists of approximately 30 UNC-Chapel Hill employees who are trained to respond to an oil discharge. For oil discharges that exceed the response capability of UNC-Chapel Hill, the Department of EHS shall contact an emergency response contractor identified in **Appendix F** of the SPCC Plan to provide discharge response assistance. If necessary, the Department of EHS shall follow the procedures outlined in the Department of EHS Emergency Response Manual, which describes the coordination between UNC-Chapel Hill and community response teams in the event of an emergency.

Notification Procedures for Detection and Notification of an Oil Discharge [40 CFR § 109.5(b)]

Discharge response and notification procedures for oil discharges are included in **Appendix F** of the SPCC Plan. In accordance with 40 CFR § 109.5(b), a current list of names, telephone numbers, and addresses of the responsible persons and alternates on call to receive notification of an oil discharge, as well as the agencies to be notified when an oil discharge is discovered, is included in **Appendix F** of the SPCC Plan.

Stormwater runoff from the Main Campus, Mason Farm Area, Rizzo Center Meadowmont, and Carolina North generally discharges into the Little Creek and Lower Morgan Creek watersheds, which are located within the Cape Fear 6 watershed. The Cape Fear 6 watershed discharges into Jordan Lake. The locations of the campus tracts within the Cape Fear 6 watershed are shown in **Figure 6**. The locations of the campus tracts in relation to the smaller watersheds within the Cape Fear 6 watershed are shown in **Figure 7**. Stormwater runoff at the Bingham Facility generally discharges into an unnamed creek located approximately 400 feet east of the facility (within the Cape Fear 4 watershed shown in **Figure 6**). The unnamed creek discharges into Collins Creek at a location approximately 1,600 feet southeast of the facility. Collins Creek discharges into the Haw River at a location approximately four miles south of the facility.

The approximate direction of flow for potential oil discharges from applicable active transformers is represented by the campus drainage descriptions included in this section and the predicted drainage outfall locations shown in **Figure 8** and listed in **Table 3**. The approximate direction of flow for potential oil discharges from applicable inactive transformers is shown on the facility diagram for the Electric Distribution Operations Center in **Appendix D**. The predicted drainage outfall location for the Electric Distribution Operations Center is the Kudzu Canyon outfall listed in **Table 3**. The approximate direction of flow for potential oil discharges from applicable hydraulic elevators is represented by the campus drainage descriptions included in this section and the predicted drainage outfall locations shown in **Figure 9** and listed in **Table 4**. The approximate direction of flow for potential oil discharges from the Landfill Gas Generator is shown on the respective facility diagram in **Appendix D**.

If an oil discharge is detected from oil-filled operational equipment, the equipment location and the estimated surface water body that receives drainage from the equipment can be identified using **Figure 8** or **Figure 9**. The identification of the equipment and the receiving surface water body shall assist UNC-Chapel Hill personnel in the facilitation of reporting and response to oil discharges.

Resource Capability for Oil Discharges [40 CFR § 109.5(c)]

The equipment and supplies for containing and recovering a potential oil discharge from oil-filled operational equipment are located at the Department of EHS. The equipment and supplies normally

consist of the following items in sufficient quantities to contain and remove the maximum oil discharge to be anticipated from oil-filled operational equipment in a single discharge event:

- Oil absorbent pads, socks, and booms; granular absorbent; drain blockers; shovels; and waste disposal containers.

The inventory of equipment and supplies shall be verified on a monthly basis by EHS personnel. If an oil discharge cannot be contained and recovered by EHS personnel, the Department of EHS shall contact a designated emergency response contractor identified in **Appendix F** of the SPCC Plan to provide assistance and additional spill cleanup equipment, materials, and supplies.

Oil Discharge Discovery and Notification Actions [40 CFR § 109.5(d)]

Actions to be taken after discovery and notification of an oil discharge are described in the Oil Discharge Response and Notification Procedures in **Appendix F** of the SPCC Plan. In the event of an oil discharge form oil-filled operational equipment, the EHS Environmental Compliance Officer shall serve as the discharge response coordinator responsible for directing and coordinating response operations on behalf of UNC-Chapel Hill. The Facilities Tank Manager involved in the discharge response effort may also serve as the discharge response coordinator as determined by the response decision process. The Department of EHS shall serve as the oil discharge response operations center. The oil discharge response operating team in the field consists of approximately 30 UNC-Chapel Hill employees who are trained to respond to an oil discharge. For oil discharges that exceed the capability of the response effort, the Department of EHS shall contact an emergency response contractor identified in **Appendix F** of the SPCC Plan to provide discharge response assistance. If necessary, the Department of EHS shall follow the procedures outlined in the Department of EHS Emergency Response Manual, which describes the coordination between UNC-Chapel Hill and community response teams in the event of an emergency.

If an oil discharge reaches navigable waters, the highest priority of the response action is to prevent the discharge from reaching the nearest critical water use area. The nearest critical water use areas that receive drainage from the facilities included in this SPCC Plan are University Lake, Jordan Lake, and the Haw River. The nearest surface water supply sources for drinking water are located at University Lake and Jordan Lake, which are shown on the watershed map in **Figure 6** of the SPCC Plan. Contact information for the Orange County Water and Sewer Authority is included in the Oil Discharge Response and Notification Procedures in **Appendix F** of the SPCC Plan.

State and Local Enforcement Measures [40 CFR § 109.5(e)]

As discussed in 40 CFR § 109.5(e), if an oil discharge reaches navigable waters, the appropriate State and local agencies shall be contacted (as necessary) to confirm the recovery of damages and enforcement measures as provided by State and local statutes and ordinances. Contact information for appropriate State and local agencies is included in **Appendix F** of the SPCC Plan.

APPENDIX I

STEEL TANK INSTITUTE SP001 STANDARD
RECOMMENDED INSPECTION AND TESTING SCHEDULES

STEEL TANK INSTITUTE SP001 STANDARD
INSPECTION OF ABOVEGROUND STORAGE TANKS, 6TH EDITION

RECOMMENDED INSPECTION AND TESTING SCHEDULES

The Steel Tank Institute (STI) SP001 Standard recommends an inspection and testing schedule for aboveground storage tanks (ASTs) based on the category and volume of the AST. The AST categories are defined as follows:

Category 1 ASTs
According to the STI SP001 Standard, ASTs that are classified under Category 1 include ASTs with spill control (such as a dike/berms, double-wall containment, or other suitable secondary containment system) and with Continuous Release Detection Method (CRDM). CRDM is a means of detecting a release of liquid through inherent design. CRDM is passive because it does not require sensors or power for operation, and liquid releases can be visually detected by facility operators. Examples of acceptable and commonly used CRDM systems are defined as follows:

- Release prevention barrier (RPB), which is a liquid containment barrier that is installed beneath the AST. The RPB purpose is to divert leaks toward the perimeter of the AST where the leaks can be easily detected, as well as to prevent liquid from contaminating the environment. RPBs are composed of materials compatible with the liquid stored in the AST and meet appropriate engineering standards. Examples of RPBs include steel (as in steel double-bottom tanks), concrete, elastomeric liners, or other suitable materials, provided the above criteria are met.

- Secondary containment AST, including double-wall AST or double-bottom AST.

- Elevated AST, with or without RPB.

Category 2 ASTs
ASTs that are classified under Category 2 include ASTs with spill control and without CRDM. Examples of Category 2 ASTs include the following:

- Double-wall steel tank (spill control) in contact with the underlying soil (no CRDM); and

- Single-wall steel tank in contact with the underlying soil (no CRDM) and surrounded by a containment dike (spill control).

Category 3 ASTs
ASTs that are classified under Category 3 include ASTs without spill control and without CRDM. Examples of Category 3 ASTs include the following:

- Single-wall steel tank in contact with the underlying soil and no containment dike; and

- Single-wall steel tank in contact with the underlying soil and surrounded by a containment dike with noticeable cracks.

The SP001 Standard recommends an inspection and testing schedule based on the risk category and volume of each AST. The inspection and testing schedule for the AST categories is presented in Table 5.5 and Table B2.1 within the SP001 Standard and is summarized on the following page.

STI SP001 Standard
Table of Inspection Schedules

AST Type and Size (U.S. Gallons)		Category 1	Category 2	Category 3
Shop-Fabricated AST	0 - 1,100	P	P	P, E&L(10)
	1,101 - 5,000	P	P, E&L(10)	[P, E&L(5), I(10)] or [P, L(2), E(5)]
	5,001 - 30,000	P, E(20)	[P, E(10), I(20)] or [P, E(5), L(10)]	[P, E& L(5), I(10)] or [P, L(1), E(5)]
	30,001 - 75,000	P, E(20)	P, E&L(5), I(15)	P, E&L(5), I(10)
Field-Erected AST*		P, E(5), I(10)	P, E&L(5), I(10)	P, E&L(5), I(10)
Portable Container		P	P	P °

Notes:
P = Periodic AST inspection.
E = Formal external inspection by certified inspector.
I = Formal internal inspection by certified inspector.
L = Leak test by owner or owner's designee.
( ) = Maximum inspection interval in years. Example: E(5) indicates formal external inspection every 5 years.

* See Appendix B in the SP001 Standard for applicable field-erected ASTs.
Internal inspection intervals are guiding values when corrosion rates are not determined, in accordance with recognized and accepted industry principles and practice. When corrosion rates are established, the corrosion rates may govern the internal inspection interval, which may be shorter or longer than the values shown.
- For Category 1 Field-Erected ASTs, the maximum internal re-inspection interval is 30 years.
- For Category 2 Field-Erected ASTs, the maximum internal re-inspection interval is 20 years.
- For Category 3 Field-Erected ASTs, the maximum internal re-inspection interval may not be longer than shown.

° Owner shall either discontinue use of portable container for storage or have the portable container Department of Transportation (DOT) tested and recertified per the following schedule:
- Plastic portable container (every 7 years).
- Steel portable container (every 12 years).
- Stainless steel portable container (every 17 years).

APPENDIX J

SPCC REFERENCES

SPCC REFERENCES

Code of Federal Regulations. (2022). *Title 40, Part 110 – Discharge of Oil*.

Code of Federal Regulations. (2022). *Title 40, Part 112 – Oil Pollution Prevention*.

Environmental Protection Agency Office of Emergency Management. (2013). *SPCC Guidance for Regional Inspectors* (EPA 550-B-13-002).

Environmental Protection Agency Office of Emergency Management. (2006). *SPCC Rule Amendment Fact Sheet: Streamlined Requirements for Mobile Refuelers* (EPA-550-F-06-007).

Environmental Protection Agency Office of Solid Waste and Emergency Response. (2002). *Use of Alternative Secondary Containment Measures at Facilities Regulated under the Oil Pollution Prevention Regulation – 40 CFR Part 112* (Memorandum No. 9360.8-38).

Steel Tank Institute. (2018). *SP001 Standard for the Inspection of Aboveground Storage Tanks* (6th Edition).