

Spill Prevention Control and Countermeasure Plan

For

Davidson College



Davidson, North Carolina

Prepared for

The Trustees of Davidson College
c/o Davidson College Physical Plant Department

Prepared By

Stewart, Inc.



STEWART

101 N. Tryon St., Suite 1400
Charlotte, North Carolina 28202
T 704.334.7925
F 704.334.7926
C-1051

October 16, 2017
February 2, 2017
July 3, 2017
April 4, 2022

**SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN
CERTIFICATIONS AND APPROVAL**

MANAGEMENT APPROVAL

This spill prevention, control, and countermeasure (SPCC) plan has been carefully thought out, was prepared in accordance with good engineering practices, and has the full approval of Davidson College management at a level with the authority to commit the necessary resources for its implementation.

In accordance with Title 40 of the Code of Federal Regulations Subpart 112.5 (40 CFR 112.5), this SPCC plan will be updated within six (6) months of a change in facility design, construction, operation, or maintenance that materially affects the facility's potential for discharge of oil, as described in 40 CFR 112.1(b). This plan will be implemented as described herein and will be reviewed and evaluated at least every five (5) years to include more effective prevention and control technologies, if available.

Approved by: David Holthouser
Title: Director of Physical Plant

Signature: 

Date: 4.5.22

PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that I have examined the facility, and being familiar with the provisions of 40 CFR 112 and this plan, I attest that this SPCC plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and the requirements of 40 CFR 112; that procedures for required inspections and testing have been established; and that the Plan is adequate for this facility.

Certified by: James R. Baysinger II
North Carolina Professional Engineer
License Number: 34628
Firm: Stewart Engineering, Inc.
C-1051

Signature: James Baysinger

Date: _____

Digitally signed by James Baysinger
DN: E=JBaysinger@stewartinc.com,
CN=James Baysinger, OU=CE,
OU=Design Office, OU=Charlotte,
DC=stewart-eng, DC=local
Location: Charlotte, NC
Reason: I attest to the accuracy and
integrity of this document.
Contact Info:
jbaysinger@stewartinc.com
Date: 2022.04.04 16:38:47-04'00'



(SEAL)

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FACILITY INFORMATION

Name of Facility: Davidson College

Type of Facility: Private Educational Institution

Location: 209 Ridge Road
Town of Davidson
Mecklenburg County
North Carolina

Facility Owner

Name: Trustees of Davidson College
Address: Box 7145
Davidson, North Carolina 28035

Designated Person Responsible for Spill Prevention

Name: David Holthouser, Director of Physical Plant
(Responsible Person)
Phone: 704.894.2220

RECORD OF REVIEWS

A complete review and evaluation of this SPCC Plan must be conducted at least once every five (5) years. The review and evaluation should be documented below by the designated responsible person, and noted as to whether the Plan will be amended. Plan revisions should be documented in the following section.

Review #1

"I have completed a review and evaluation of this SPCC Plan on February 6, 2017 and (will) amend the Plan as a result."

Name: James R. Baysinger, II
Signature: [Handwritten Signature]
Title: Stewart, Inc. Project Manager

Review #2

"I have completed a review and evaluation of this SPCC Plan on _____ and [will/will not] amend the Plan as a result."

Name: _____
Signature: _____
Title: _____

Review #3

"I have completed a review and evaluation of this SPCC Plan on _____ and [will/will not] amend the Plan as a result."

Name: _____
Signature: _____
Title: _____

Review #4

"I have completed a review and evaluation of this SPCC Plan on _____ and [will/will not] amend the Plan as a result."

Name: _____
Signature: _____
Title: _____

RECORD OF REVIEWS

A complete review and evaluation of this SPCC Plan must be conducted at least once every five (5) years. The review and evaluation should be documented below by the designated responsible person, and noted as to whether the Plan will be amended. Plan revisions should be documented in the following section.

Review #1

"I have completed a review and evaluation of this SPCC Plan on July 3, 2017 and (will) amend the Plan as a result."

Name: James R Baysinger II
Signature: [Handwritten Signature]
Title: Stewart Inc. Project Manager

Review #2

"I have completed a review and evaluation of this SPCC Plan on April 4, 2020 and (will) amend the Plan as a result."

Name: James R Baysinger II
Signature: [Handwritten Signature]
Title: Project Manager, Civil Engineering

Digitally signed by James Baysinger
DN: cn=James Baysinger, o=Stewart, ou=Stewart, email=jbaysinger@stewartinc.com
Location: Charlotte, NC
Reason: I agree to the accuracy and integrity of this document
Contact Info: jaysinger@stewartinc.com
Date: 2022.04.04 16:30:02-0400

Review #3

"I have completed a review and evaluation of this SPCC Plan on _____ and [will/will not] amend the Plan as a result."

Name: _____
Signature: _____
Title: _____

Review #4

"I have completed a review and evaluation of this SPCC Plan on _____ and [will/will not] amend the Plan as a result."

Name: _____
Signature: _____
Title: _____

RECORD OF REVISIONS

DATE	DESCRIPTION OF CHANGES	PAGE NUMBER(S)
2/6/2017	Facility oil storage list, emergency contact information, campus map, Davidson College Oil Containing Equipment spreadsheet, facility diagram map.	4, 8, Appendix
7/3/2017	Facility oil storage list, equipment spreadsheet, Davidson College Oil Containing Equipment spreadsheet, facility diagram map.	4, Appendix
4/4/2022	Facility oil storage list, equipment spreadsheet, Davidson College Oil Containing Equipment spreadsheet, facility diagram map, new remediation contractor.	4, Appendix

CONFORMANCE WITH 40 CFR 112

Applicability

According to 40 CFR 112.1(b), the requirements of 40 CFR 112 apply to any facility that 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.

As defined in 40 CFR § 110.3, discharges of oil in quantities that may be harmful to the public health, public welfare, or the environment of the United States include discharges of oil that;

1. Violate applicable water quality standards; or
2. 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.

Based on the location of the facility and the quantity of oil stored at the facility, the requirements of 40 CFR 112 apply to Davidson College.

Preface

According to Title 40, Part 112.1(d)(2) of the Code of Federal Regulations (40 CFR 112), any non-transportation-related on-shore or off-shore facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products is required to prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan, if the total oil storage at the facility is greater than either of the following criteria;

1. 1,320 gallons in aboveground storage (only containers of oil with a capacity of 55 gallons or greater are counted, including equipment containing oil for ancillary purposes such as transformers); or
2. 42,000 gallons in completely buried storage (not including completely buried tanks, as defined in § 112.2, and connected underground piping, underground ancillary equipment, and containment systems that are currently subject to all of the technical requirements of 40 CFR 280 or all of the technical requirements of a State program approved under 40 CFR 281).

Based on the inventory of oil storage tanks on Davidson College campus, the total volume of applicable aboveground storage tanks is over 41,000 gallons. This exceeds the criteria described above; therefore, Davidson College must prepare and implement a SPCC in accordance with 40 CFR 112.

Facility Response Plan

40 CFR 112.20 defines criteria for determining whether a facility poses a threat of substantial harm to the environment, whereby the facility owner would be required to prepare and submit a facility response plan. The Certification of Applicability included in the Appendix certifies that Davidson College does not meet the risk of substantial harm criteria, and therefore does not need to prepare a facility response plan.

Purpose of the SPCC Plan

The purpose of this SPCC Plan is to form a comprehensive spill prevention program that minimizes the potential for discharges. This SPCC Plan is designed to comply with all of the applicable requirements of 40 CFR 112 and to address relevant spill prevention, control, and countermeasures necessary at this facility.

Each section of this SPCC Plan addresses the requirements of 40 CFR 112 referenced in the Table of Contents of this plan.

Maintenance of the SPCC Plan

The SPCC Plan must be amended when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge as described in 40 CFR 112.1(b). Such amendments must be certified by a licensed Professional Engineer.

Examples of changes that may require amendment of the Plan include, but are not limited to:

- Commissioning or decommissioning containers;
- Replacement, reconstruction, or movement of containers;
- Reconstruction, replacement, or installation of piping systems;
- Construction or demolition that might alter secondary containment structures;
- Changes of product or service; or
- Revision of standard operation or maintenance procedures at a facility.

In addition, the Responsible Person must perform a complete review and evaluation of the SPCC Plan at least once every five (5) years. The

Responsible Person must 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 a discharge as described in §112.1(b) from the facility.

The Responsible Person must document the completion of the review and evaluation, and must sign a statement as to whether the SPCC Plan will be amended in the review log at the front to the Plan.

Amendments made must be prepared within six months of a change, or as soon as possible after a review and evaluation, and implemented as soon as possible, but not later than six months following preparation of the amendment.

Availability of the SPCC Plan

A complete copy of the SPCC Plan shall be maintained in the following locations;

- Physical Plant Director's Office
- Davidson College Campus Police Office
- Davidson College Environmental Health and Safety Office

The plan shall be available for review during normal working hours.

FACILITY LAYOUT

Facility Description

Davidson College is an independent liberal arts college located 20 minutes north of Charlotte, North Carolina

Davidson College is located in the Town of Davidson, in north Mecklenburg County, North Carolina. The main campus is approximately 665 acres in size. The Campus Map is included in the Appendix.

FACILITY OIL STORAGE

The facility includes the following oil storage containers;

- Four (4) Aboveground Storage Tanks totaling 22,500 gallons,
- Eleven (11) Generators with diesel fuel storage tanks totaling 4,740 gallons,
- Twenty-one (21) elevators with hydraulic oil storage tanks totaling 2,730 gallons,
- One (1) fire pump with a 275-gallon diesel fuel storage tank,
- One (1) 250-gallon used oil storage tank, and
- Forty-one (41) oil-filled electrical transformers containing more than 55 gallons of oil, totaling 11,353 gallons.

There are no underground storage tanks on the Davidson College campus.

The type of oil in each container and its oil storage capacity is listed in Table 1 – Davidson College Oil Containing Equipment in the Appendix. The location of each of the above containers is shown on the Facility Diagram in the Appendix.

DISCHARGE PREVENTION MEASURES

Discharge prevention measures include procedures for routine handling of oil; loading and unloading, used to minimize the potential for discharge of oil from the facility.

Corrosion Protection

Aboveground transfer piping between each of the two (2) aboveground fuel tanks (Tank 3 and Tank 4) and the fueling station is galvanized steel. Underground piping is glued fiberglass pipe.

Product information and installation details are not available for the transfer piping between the two (2) aboveground fuel tanks (Tank 1 and Tank 2) and the Steam Plant.

Loading Procedures

Davidson College Physical Plant personnel shall oversee vendor delivery of oil to the facility. Davidson College requires that the carrier comply with North Carolina Department of Transportation regulations, and follow the Standard Operating Procedure for unloading. Refer to Attachment A - "Standard Operating Procedure – Tank Truck Unloading" included the Appendix.

Warning signs shall be installed to instruct vendors to:

- notify Physical Plant personnel of the delivery,
- examine valves, hoses, connections, fittings, drains and outlets for leakage prior to unloading or departure, and
- inspect transfer lines to confirm complete disconnection prior to departing.

The two (2) 10,000 gallon tanks (**Tanks 1 and 2**) are equipped with level gauges to prevent overfilling. The gasoline (**Tank 3**) and diesel (**Tank 4**) tanks rely on the auto shut off of the delivery hose to prevent overfilling and utilize a dipstick for level indication.

Pipe Supports

Pipe supports shall be designed to allow expansion and minimize abrasion and corrosion of the pipes.

Pipe Identification

All aboveground piping shall be marked with type of oil and direction of flow. Direction of flow shall include notation of the origin, an arrow indicating direction, and a notation of the destination.

Pipe Protection

All aboveground piping shall be protected from damage by bollards, guardrails, warning signs, raised curbs, horizontal clearance, or other appropriate measure.

Aboveground piping and tanks at the Steam Plant (Tank 1 and Tank 2) are protected by walls and guardrails.

The fueling station is protected by a raised concrete curb and bollards.

Aboveground piping and Tanks 3 and 4 are protected by vertical clearance from vehicular access.

Pipe Terminals

If a pipeline is taken out of service, the pipe shall be capped with a blank flange or otherwise sealed to prevent discharge.

Tank Identification

All tanks shall be labeled to show the type of oil each contains.

DISCHARGE AND DRAINAGE CONTROLS

Discharge and drainage controls include procedures and measures; such as secondary containment around containers, structures, and equipment for the control of discharges.

Tank 1 and **Tank 2** are double-walled tanks with primary containment alarms located within walled containment area. The containment area has sufficient capacity; approximately 12,000 gallons, to contain the entire volume of one of the tanks, should it fail, plus 10% additional volume for precipitation. The containment area has a floor drain with a valve that is in the closed position.

Tank 3, the aboveground 2000-gallon gasoline tank is a closed-top diked tank.

Tank 4, the aboveground 500-gallon diesel fuel tank is a banded tent tank Underwriters Laboratory (UL) #761560 with secondary containment.

Tank **Misc 1**, the 275-gallon fuel tank for the fire pump in the VAC building is located within a curbed secondary containment area inside the building. The containment area has sufficient capacity to contain the entire volume of the tank, should it fail. This is an indoor tank that is not exposed to precipitation.

Tank **Gen 8**, the fuel tank for the generator in the Physical Plant Generator Building is located in a walled secondary containment area within the building. This is an indoor tank that is not exposed to precipitation.

Most of the other generators on campus include either double-walled or closed-top diked fuel tanks with leak detection.

The following two (2) generators do not have fuel tanks with secondary containment. These fuel tanks must be inspected monthly for leaks;

- **Gen 2** - Semi-portable tank-in-trailer at Chambers, and
- **Gen 4** - Portable Generator at the Steam Plant.

Secondary containment must be provided for tank Misc 2, the 250-gallon used oil storage tank. This tank will be mounted on a secondary containment skip.

COUNTERMEASURES

Countermeasures include procedures and measures used to discover, respond to, and clean up discharges.

Davidson College shall implement an inspection program as described below. In addition, Davidson College shall provide spill kits at appropriate locations around campus to facilitate swift response and cleanup of discharges.

A spill kit shall be located at the fueling stations, and near all oil storage tanks.

Contents of Spill Kits shall include, but not be limited to, the following, as appropriate;

- Instructions
- Absorbent pads
- Sorbent socks
- Eye protection
- Nitrile gloves
- Disposal Bags

In addition, storm drain covers shall be provided in sufficient quantity and size to protect storm drain inlets near the following locations;

- 500-gallon aboveground diesel tank,
- 2000-gallon aboveground gasoline tank, and
- both 10,000-gallon fuel oil tanks.

DISPOSAL

Material recovered from discharges contained by Physical Plant personnel shall be disposed of at a landfill licensed to accept oil-spill-cleanup material.

Accumulated precipitation in the secondary containment area for **Tank 1** and **Tank 2** shall be examined for visible oil sheen. If oil sheen is observed, then the oil must be removed using absorbent material and properly disposed of.

If the discharge required the use of a contractor, then the contractor shall make arrangements for the proper disposal of recovered material.

DISCHARGE RESPONSE CONTACT LIST

In the event of a discharge the Responsible Person shall be notified immediately.

EMERGENCY CONTACT INFORMATION	
Responsible Person	704.400.0141
Environmental Health & Safety	704.894.2929 / 704.437.8635
Physical Plant Work Order Desk	704.894.2595 (24 hour)
Davidson College Public Safety Office	704.894.2178
	704.609.0344 (Duty Phone)
National Response Center (NRC)	800.424.8802 (within 2 hours of oil entering surface water)
NCDENR – Mooresville	704.663.1699
EPA Region IV	404.562.8752

DISCHARGE REPORTING

The following information must be provided when reporting a discharge;

- Address of the facility: **209 Ridge Road, Davidson, North Carolina**
- Phone number: **704.894.2595**
- Date and time of the discharge,
- Type of oil discharged,
- Estimates of the total quantity discharged,
- The source of the discharge,
- A description of all affected media,
- The cause of the discharge,
- Any damages or injuries caused by the discharge,
- Actions being used to stop, remove, and mitigate the effects of the discharge,
- Whether an evacuation may be needed, and
- The names of individuals and/or organizations who have also been contacted.

DISCHARGE RESPONSE PROCEDURE

General Procedure

In the event of a discharge, follow this general procedure.

- Do not take any action that would risk personal safety,
- Identify the source of the discharge,
- Take action to stop the discharge; turn off pumps, shut valves, etc.,
- Evaluate fire hazard and notify the Fire Department, if necessary,
- Deploy countermeasures,
- Gather reporting information and commence reporting procedure,
- Clean up discharge, and
- Properly dispose of waste material.

For specific discharge types use the following procedures, as appropriate.

Tank Overfill During Delivery

Oil deliveries shall be monitored by the vendor/carrier and by Davidson College Physical Plant personnel to limit the potential for overfills. If oil delivery equipment fails or an overfill occurs for some other reason, the vendor/carrier will immediately take steps to stop the oil delivery process. The carrier and Davidson College Physical Plant personnel shall deploy oil containment barriers and absorbent material to stop the spread of the spill. Once the spill has been contained, the released oil shall be collected and properly disposed of.

Tank Failure

If a tank failure results in a minor spill, then use absorbent materials to contain and clean up the spill. Inspect the tank, piping, and equipment to identify the origin of the discharge. Immediately take the failing tank, pipe, and/or equipment out of service until the problem is corrected. Physical Plant personnel will coordinate necessary repairs.

Equipment Failure

If it appears that an oil-filled transformer or hydraulic elevator reservoir is leaking, immediately deploy containment measures to control the released oil. Then collect and properly dispose of waste material. Physical Plant personnel shall coordinate service for the faulty equipment.

Environmental Response/Remediation Contractor

If necessary, Physical Plant Personnel will contact the Emergency Response Contractor designated below to prevent discharge from reaching navigable waters and/or provide environmental remediation.

Hepaco
2711 Burch Drive, Charlotte, NC 28269

Telephone Number: (704) 598-9787
24 Hour Emergency Response Number: (800) 888-7689
Facsimile Number: (704) 598-7823

DISCHARGE DIRECTION, RATE, AND QUANTITY

Drainage Direction

Davidson College lies within the Yadkin District of the Pee Dee River Basin and is outside of any floodplains. Davidson College facilities are outside of any wetlands, surface waters, or other environmentally sensitive areas.

Upland-draws, tributaries to the Rocky River, are located along the east side of the main campus. These tributaries converge and flow in southeasterly direction to another confluence point on the south side of Grey Road. The majority of the main campus, approximately 640 acres flows to this point.

The remainder of the campus, approximately 25 acres, located near the intersection of Main Street and Concord Road, flows into the municipal storm sewer system within the public rights-of-way of these roads.

The Campus Watershed Map (MAP 1) is included in the Appendix.

Discharge Rate

The rate of discharge will depend on the type of failure; varying from slow leaks to catastrophic tank rupture.

Discharge Quantity

The largest tank that is not protected by secondary containment is **XFMR 29**, a pad mounted electrical transformer, located at the Chiller Plant. Rupture of the transformer's oil containment would result in a release of approximately 704 gallons of mineral oil.

There are two (2) diesel tanks that are not protected by secondary containment. The larger of the two is **Gen 2**, a 250-gallon semi-portable tank-in-trailer.

Of the tanks that are double-walled, diked, or otherwise provide secondary containment integral with the tank, the largest is **Tank 3**, the 2000-gallon gasoline tank. If a leak occurs, the gasoline would discharge to a storm water catch basin that flows to a wet detention pond that outfalls to an intermittent stream. The orifice in the outlet structure in the pond could be closed to prevent release of the gasoline to the intermittent stream.

The two (2) separate double-walled 10,000-gallon fuel oil tanks; **Tank 1** and **Tank 2**, are located within a two-foot high masonry wall enclosure. Discharge from one of these tanks would occur if a tank ruptures, and the storm drain valve is opened. In this unlikely event, this would be the largest possible single discharge from the facility.

CONTAINMENT STRUCTURES AND EQUIPMENT

The following containment measures are in use at the facility;

- Dikes, berms, curbs, and retaining walls with sufficient imperviousness;
- Culverts and other drainage systems;
- Weirs, booms, and other barriers;
- Detention ponds; and
- Sorbent materials.

CONTINGENCY CONTAINMENT PLAN

With the exception of Qualified Oil-filled Operational Equipment, the following oil storage containers are not protected by secondary containment;

- **Gen 2** - Semi-portable tank-in-trailer at Chambers, and
- **Gen 4** - Portable Generator at the Steam Plant.

Both of these containers are portable generator fuel tanks.

Due to the low probability of tank failure resulting in increased risk to public safety or property damage, all of the reporting and response procedures described in this SPCC plan shall apply to these containers with the following additional requirement;

- These diesel fuel storage tanks shall be inspected monthly for visible leaks.

INSPECTIONS, TESTS, AND RECORDS

Physical Plant personnel shall be trained to identify problems or potential problems with aboveground storage tanks, pipe works, oil-containing equipment, and oil-filled electrical transformers.

Inspections shall be scheduled and recorded using an electronic Work Management System. Preventative Maintenance (PM) Work Orders shall be issued and assigned using the system. The Inspection Forms found in the Appendix shall be used to record inspections.

Monthly

All oil-storage containers, aboveground piping, and equipment shall be inspected by trained Physical Plant personnel monthly. The inspection shall include an evaluation of the following;

- Containment Areas,
- Piping,
- Joints,
- Valves,
- Catch pans,
- Pipe supports, and
- Valve locks.

Inspect all containment areas for vegetation and/or debris accumulation. No vegetation shall be allowed to grow or debris to accumulate in containment areas.

Each inspection report shall include the date of inspection and the inspector's signature. An electronic copy of the inspection report shall be recorded in the inspection record file of the Work Management System; which shall be maintained by the Responsible Person for a minimum of three (3) years.

Every Five (5) Years

The SPCC Plan shall be reviewed every five (5) years. The review of the SPCC Plan shall include an evaluation of the following;

- Underground pipe installations,
- Pipe terminal connections,
- Aboveground pipe installations,
- Tank truck unloading procedures.

Every Ten (10) Years

Aboveground storage tanks shall be inspected by a certified tank inspector. A copy of the inspection report and a record of any corrective action shall be kept in the record file for the life of the tank.

Buried piping and valves shall be tested at least once every 10 years for line tightness. Line tightness tests shall be performed in accordance with pipe manufacturer recommendations. If a pipe fails a line tightness test, then the failed line shall be taken out of service until the problem is resolved. Copies of test results shall be kept in the inspection record file for a minimum of three (3) years.

TRAINING

Davidson College Environmental Health and Safety is responsible for ensuring that personnel who are responsible for the implementation of the SPCC Plan are familiar with the plan and have spill prevention training which includes discharge reporting procedures, and the use of discharge containment measures (spill kits).

Refresher training shall be conducted annually and whenever the SPCC has been updated

Attendance records for training sessions shall be maintained in the record file for a minimum of three (3) years.

SECURITY

Because Davidson College is a college, access to the campus is unrestricted. However, Davidson College Campus Police patrol the campus 24 hours each day, every day of the week, year-round. In addition, Davidson College provides lighting on campus for safety purposes; which also facilitates spill detection and discourages vandalism. Due to the size of the campus and the dispersed nature of oil storage on campus, it is not feasible to provide fencing for security. However, the security measures described herein provide the necessary environmental protection.

- The pumps for the diesel and gasoline aboveground storage tanks are located in a fenced and gated compound.
- Generator tank fill ports are located in lockable generator cases and are capped when not being filled.
- Electrical transformer cases are locked.
- Hydraulic elevator reservoirs are located in locked rooms.

TANK TRUCK LOADING/UNLOADING

Tank truck unloading occurs at two (2) locations on campus; the Physical Plant Shop fueling station and the Steam Plant. Tank truck loading areas are undiked. At both the fueling station and the Steam Plant there is a reasonable potential for a discharge to reach a storm water catch basin.

Therefore, all nearby storm water catch basins shall be protected with covers or absorbent booms during tank filling operations.

The fuel supplier shall notify Physical Plant personnel upon arriving on campus. Discharge countermeasures shall be deployed prior to commencing the transfer of oil from the tank truck to the aboveground storage tanks.

FIELD-CONSTRUCTED ABOVEGROUND TANKS

There are no field-constructed aboveground storage tanks at Davidson College.

OTHER APPLICABLE REGULATIONS

This facility is also subject to the North Carolina Department of Environment and Natural Resources (NCDENR) spill reporting requirements described in this section.

QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT

Davidson College is not able to provide secondary containment for the equipment described in this section. This equipment complies with the definition of "qualified oil-filled operational equipment" given in 40 CFR 112.7(k)(1). Therefore, Davidson College must comply with the "Alternate Requirements to General Secondary Containment" described in 40 CFR 112.7(k)(2), as follows;

Oil Spill Contingency Plan (40 CFR 109)

The purpose of the Oil Spill Contingency Plan is to ensure timely, efficient, coordinated, and effective action to minimize damage resulting from oil discharges.

Commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

In the event of a loss of dielectric oil from a transformer, the transformer would overheat and cease to function. Physical Plant personnel would immediately be aware of the failure of the transformer and would respond.

All of the reporting and response procedures described in this SPCC plan shall apply to pad-mounted transformers with the following additional requirement;

- Physical Plant personnel shall inspect pad mounted transformers monthly for leaks.

Appendix

- **Certification of Applicability**
- **Campus Map**
- **Table 1 – Davidson College Oil Containing Equipment**
- **Facility Diagram**
- **Attachment A - “Standard Operating Procedure – Tank Truck Unloading”**
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Davidson College Spill Prevention Control and Countermeasure Plan

Davidson College Spill Prevention Control and Countermeasure Plan

Certification of the Applicability of the Substantial Harm Criteria (40 CFR 112.20)

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 such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

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 such that a discharge from the facility would shut down a public 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 spill 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.

Signature: David M. Houlthouser

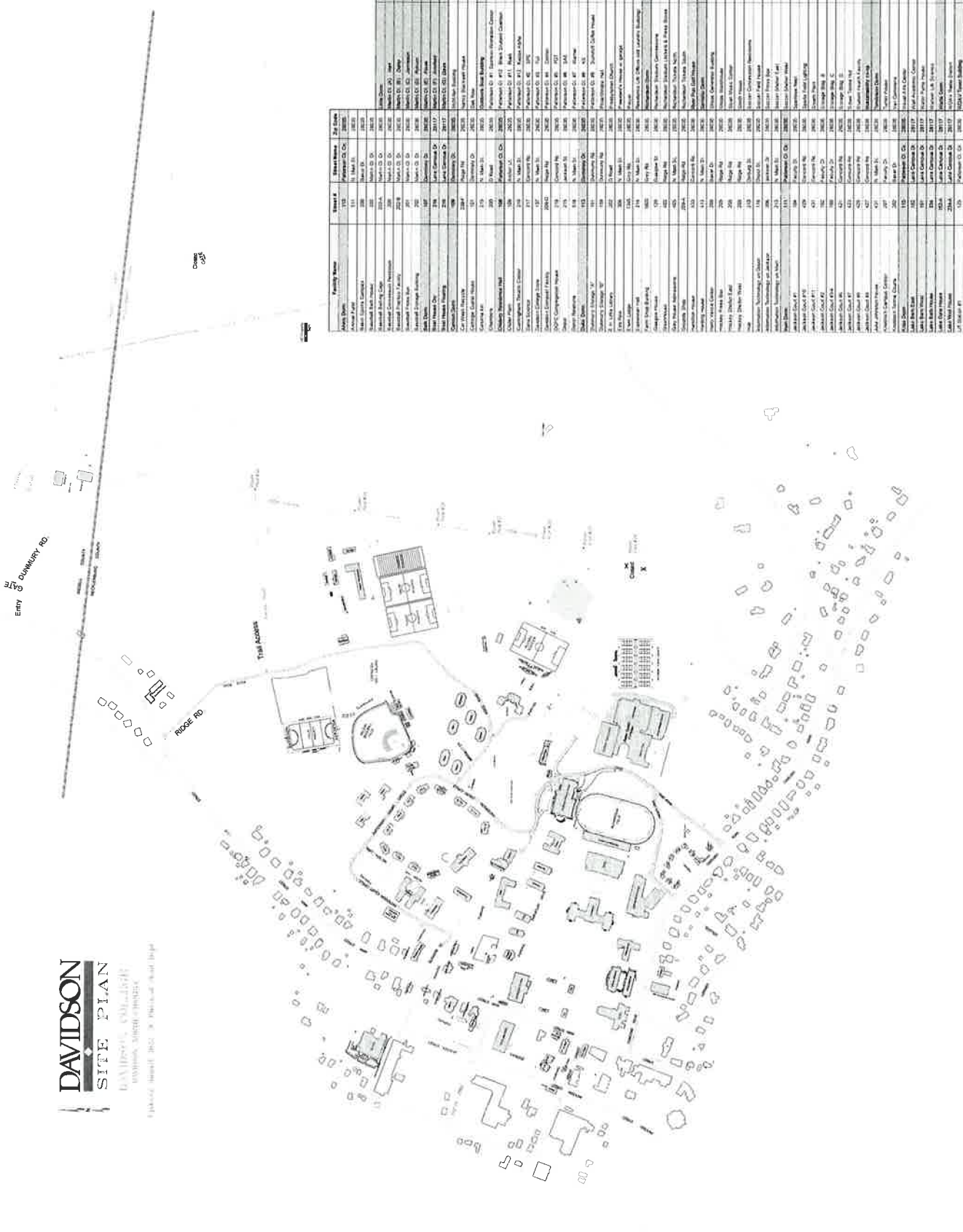
Name: DAVID M HOULTHOUSER

Title: DIRECTOR OF FACILITIES

Date: 4.5.22

DAVIDSON
SITE PLAN
 DAVIDSON COLLEGE
 1000 COLLEGE AVENUE
 DAVIDSON, NORTH CAROLINA

Project Name: 1000 COLLEGE AVENUE



Priority	Priority Name	Area #	Area Name	3rd Date
101	Admission Center	101	Admission Center	10/17
102	Admission Center	102	Admission Center	10/17
103	Admission Center	103	Admission Center	10/17
104	Admission Center	104	Admission Center	10/17
105	Admission Center	105	Admission Center	10/17
106	Admission Center	106	Admission Center	10/17
107	Admission Center	107	Admission Center	10/17
108	Admission Center	108	Admission Center	10/17
109	Admission Center	109	Admission Center	10/17
110	Admission Center	110	Admission Center	10/17
111	Admission Center	111	Admission Center	10/17
112	Admission Center	112	Admission Center	10/17
113	Admission Center	113	Admission Center	10/17
114	Admission Center	114	Admission Center	10/17
115	Admission Center	115	Admission Center	10/17
116	Admission Center	116	Admission Center	10/17
117	Admission Center	117	Admission Center	10/17
118	Admission Center	118	Admission Center	10/17
119	Admission Center	119	Admission Center	10/17
120	Admission Center	120	Admission Center	10/17
121	Admission Center	121	Admission Center	10/17
122	Admission Center	122	Admission Center	10/17
123	Admission Center	123	Admission Center	10/17
124	Admission Center	124	Admission Center	10/17
125	Admission Center	125	Admission Center	10/17

Table 1 - Davidson College Oil Containing Equipment

#	Location	Contents	Capacity (gallons)	Secondary Containment
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Aboveground Storage Tanks (AST)

Tank 1	Steam Plant	Fuel Oil	10,000	Double walled tank, in concrete walled structure
Tank 2	Steam Plant	Fuel Oil	10,000	Double walled tank, in concrete walled structure
Tank 3	Physical Plant Shops	Gasoline	2,000	Double walled; pad mount
Tank 4	Physical Plant Shops	Diesel	500	Double walled; pad mount

Total Above ground Storage Tanks (AST) 22,500

Generators

Gen 1	Baker Sports Complex	Diesel	370	
Gen 2	Chambers Building	Diesel	250	
Gen 3	Dana Science Building	Diesel	425	
Gen 4	Steam Plant (portable)	Diesel	200	
Gen 5	Pump Station	Diesel	336	
Gen 6	Tomlinson Dorm	Diesel	360	
Gen 7	Campus Center	Diesel	300	
Gen 8	Physical Plant Shop	Diesel	300	
Gen 9	WDAV	Diesel	200	
Gen 10	Wall Academic Center	Diesel	1,791	
Gen 11	Lift Station	Diesel	208	

Total Generator Diesel Storage 4,740

Table 1 - Davidson College Oil Containing Equipment

#	Location	Contents	Capacity (gallons)	Secondary Containment
Elevator Tanks				
Elev 1	Ryburn Dorm	Hydraulic Oil	65	Inside Locked Room. Concrete floor
Elev 2	Davis Dorm West	Hydraulic Oil	100	Inside Locked Room. Concrete floor
Elev 3	Davis Dorm East	Hydraulic Oil	100	Inside Locked Room. Concrete floor
Elev 4	Armfield Dorm	Hydraulic Oil	65	Inside Locked Room. Concrete floor
Elev 5	Tomlinson Dorm	Hydraulic Oil	175	Inside Locked Room. Concrete floor
Elev 6	Belk Dorm	Hydraulic Oil	130	Inside Locked Room. Concrete floor
Elev 7	Duke Dorm	Hydraulic Oil	80	Inside Locked Room. Concrete floor
Elev 8	Vail Commons	Hydraulic Oil	80	Inside Locked Room. Concrete floor
Elev 9	Chambers Building North	Hydraulic Oil	180	Inside Locked Room. Concrete floor
Elev 10	Chambers Building East	Hydraulic Oil	180	Inside Locked Room. Concrete floor
Elev 11	Chambers Building South	Hydraulic Oil	65	Inside Locked Room. Concrete floor
Elev 12	Chambers Building Center	Hydraulic Oil	230	Inside Locked Room. Concrete floor
Elev 13	Watson Life Science	Hydraulic Oil	120	Inside Locked Room. Concrete floor
Elev 14	Dana Building	Hydraulic Oil	140	Inside Locked Room. Concrete floor
Elev 15	Martin Science	Hydraulic Oil	100	Inside Locked Room. Concrete floor
Elev 16	Sloan Music West	Hydraulic Oil	200	Inside Locked Room. Concrete floor
Elev 17	Sloan Music East	Hydraulic Oil	140	Inside Locked Room. Concrete floor
Elev 18	Visual Arts Center	Hydraulic Oil	100	Inside Locked Room. Concrete floor

Table 1 - Davidson College Oil Containing Equipment

#	Location	Contents	Capacity (gallons)	Secondary Containment
Elev 19	Campus Center west	Hydraulic Oil	170	Inside Locked Room. Concrete floor
Elev 20	Campus Center east	Hydraulic Oil	230	Inside Locked Room. Concrete floor
Elev 21	Grey House	Hydraulic Oil	80	Inside Locked Room. Concrete floor

Total Elevator Hydraulic Oil Storage 2,730

Miscellaneous Tanks

Misc 1	Visual Arts Center (fire pump room)	Diesel	275	
Misc 2	Used Oil Storage Tank	Used Oil	250	

Total Miscellaneous Storage 525

Transformers

XFMR 1	Carpentry Shop	Mineral Oil	285 pad
XFMR 2	Field Hockey Field	Mineral Oil	399 pad
XFMR 3	Greenhouse (E)	Mineral Oil	156 pad
XFMR 4	Greenhouse (W)	Mineral Oil	104 pad
XFMR 5	Armfield east corner	Mineral Oil	226 pad
XFMR 6	Ryburn (S)	Vegetable Oil - Envirotemp FR3	218 pad
XFMR 7	@ Ryburn (N)	Mineral Oil	180 pad
XFMR 8	Wilson Field	Mineral Oil	226 pad
XFMR 9	Knox Dorm NW corner	Mineral Oil	175 pad

Table 1 - Davidson College Oil Containing Equipment

#	Location	Contents	Capacity (gallons)	Secondary Containment
XFMR 10	Patterson Ct. #6	Mineral Oil	104	pad
XFMR 11	PC #11	Mineral Oil	104	pad
XFMR 12	PC #2 (ΣΦΕ) NE corner	Mineral Oil	104	pad
XFMR 13	Tomlinson Dorm	Mineral Oil	285	pad
XFMR 14	Smith House, rear (E)	Mineral Oil	194	pad
XFMR 15	Richardson Dorm, east	Mineral Oil	190	pad
XFMR 16	Belk Dorm, North	Mineral Oil	205	pad
XFMR 17	Between Vail & PC #12	Mineral Oil	282	pad
XFMR 18	Laundry, NE corner	Mineral Oil	191	pad
XFMR 19	Laundry, NE corner	Mineral Oil	190	pad
XFMR 20	Cunningham, east side	Mineral Oil	341	pad
XFMR 21	Little Dorm, west side	Mineral Oil	190	pad
XFMR 22	Watts Dorm, east side	Mineral Oil	190	pad
XFMR 23	Cannon Dorm	Mineral Oil	190	pad
XFMR 24	Sentelle Dorm, east	Mineral Oil	190	pad
XFMR 25	Duke Dorm, west side	Mineral Oil	285	pad
XFMR 26	Campus Cnt, NE r	Mineral Oil	430	pad
XFMR 27	Stowe Tennis Hut, east	Mineral Oil	190	pad
XFMR 28	Chiller Plant, (W)	Mineral Oil	677	pad

Table 1 - Davidson College Oil Containing Equipment

#	Location	Contents	Capacity (gallons)	Secondary Containment
XFMR 29	Chiller Plant, (E)	Mineral Oil	704	pad
XFMR 30	Knobloch Tennis, west	Mineral Oil	225	Pad w/ 3 walls
XFMR 31	Baker Sports, NE corner	Mineral Oil	666	pad
XFMR 32	Baker Dr. Pump House	Mineral Oil	227	pad
XFMR 33	Richardson Stad.	Mineral Oil	314	pad
XFMR 34	Little Library	Mineral Oil	532	pad
XFMR 35	Chambers	Mineral Oil	423	pad
XFMR 36	Martin Science	Mineral Oil	268	pad
XFMR 37	Sloan Music, north end	Mineral Oil	285	pad
XFMR 38	Dana Science (E)	Mineral Oil	414	pad
XFMR 39	Dana Science	Mineral Oil	224	pad
XFMR 40	Chidsey Hall	Vegetable Oil - Envirotemp FR3	213	pad
XFMR 41	Wall Academic Center	Mineral Oil	357	pad

Total Oil Stored in Transformers 11,353

ASTs	22,500
Generators	4740
Elevators	2,730
Misc	525
Transformers	11353
	<u>41,848</u>

ATTACHMENT A

STANDARD OPERATING PROCEDURE – TANK TRUCK UNLOADING

This standard operating procedure (SOP) is for the unloading of petroleum products only at Davidson College. The SOP is intended to be used for unloading from tanker trucks into above ground storage tanks and emergency generators on campus.

PRIOR TO UNLOADING

1. Ensure that tanker truck is positioned in approved location for unloading.
2. Make sure that parking brakes on tanker trucks are engaged. Secure the loading/unloading vehicle prior to transfer operations with physical barriers such as wheel chocks and interlocks, to safeguard against accidental movement and rupture of transfer lines.
3. If applicable to the storage location, verify that containment structures are intact and spill control equipment is readily available.
4. Inspect condition of all storage tank flanges, joints, connections, and outlets. Tighten, adjust, or replace as necessary prior to unloading.
5. Properly lock in the closed position all drainage valves in the secondary containment structure.
6. Closely examine the lowermost drain and all outlets of the tanker truck for leakage or defects. If necessary, properly tighten, adjust, or replace to prevent liquid leakage while in transit.
7. Establish adequate bonding/grounding of the tanker truck and receiving container before connecting to the fuel transfer point.
8. Keep hose ends tightly capped while moving hoses into position.
9. Position transfer hoses inside containment structures.
10. Check the pumping circuit and verify the proper alignment of valves.
11. Gauge storage tank to determine volume required.
12. The transfer of Class 3 (flammable liquids) materials, shut off motors of the tank truck when making and breaking hose connections. If unloading is done without requiring the use of the motor of the tank truck to operate pumps, keep the motor shut off throughout unloading.

DURING UNLOADING

1. The driver, operator and/or attendant of a tanker truck should remain in the immediate area but outside the vehicle during unloading.
2. When unloading, keep the internal and external valves on the receiving tank open.
3. Make sure that communication is maintained between the pumping and receiving operators at all times.
4. Periodically inspect the condition of the alligator clips, especially the joint between the bonding wire and the clip, to ensure effective bonding circuits.
5. Monitor all hose couplings during unloading.
6. Monitor the liquid level in the receiving tank during unloading to prevent overflow.
7. Monitor flow meters to determine rate of flow during unloading>
8. Reduce flow rate while topping off the tank to provide sufficient reaction time for pump shutdown without overflow of the receiving tank.
9. Never completely fill the receiving tank; provide a minimum of 1 percent ullage to prevent leakage due to thermal expansion.

FOLLOWING UNLOADING

1. Make sure all material has been transferred to tank prior to disconnecting any transfer hoses.
2. Close all tank valves and tanker truck internal, external, and dome-cover valves before disconnecting.
3. Secure all hatches.
4. Disconnect grounding/bonding wires.
5. Prior to vehicle departure, make sure that all connections, fill lines, and grounding/bonding wires are disconnected.
6. Use a drip pan when breaking a connection.
7. Make sure that the hoses are drained, vented, or blown down, to remove the remaining oil before moving them away from their connections.
8. Cap the end of the hose or other connecting devices before moving them, to prevent uncontrolled oil leakage.
9. Disconnect, drain, and support out-of-service or standby hoses, to avoid crushing or excessive strain.
10. Cap associated hose risers.
11. Close all hose riser valves not in use.
12. Remove wheel chocks.

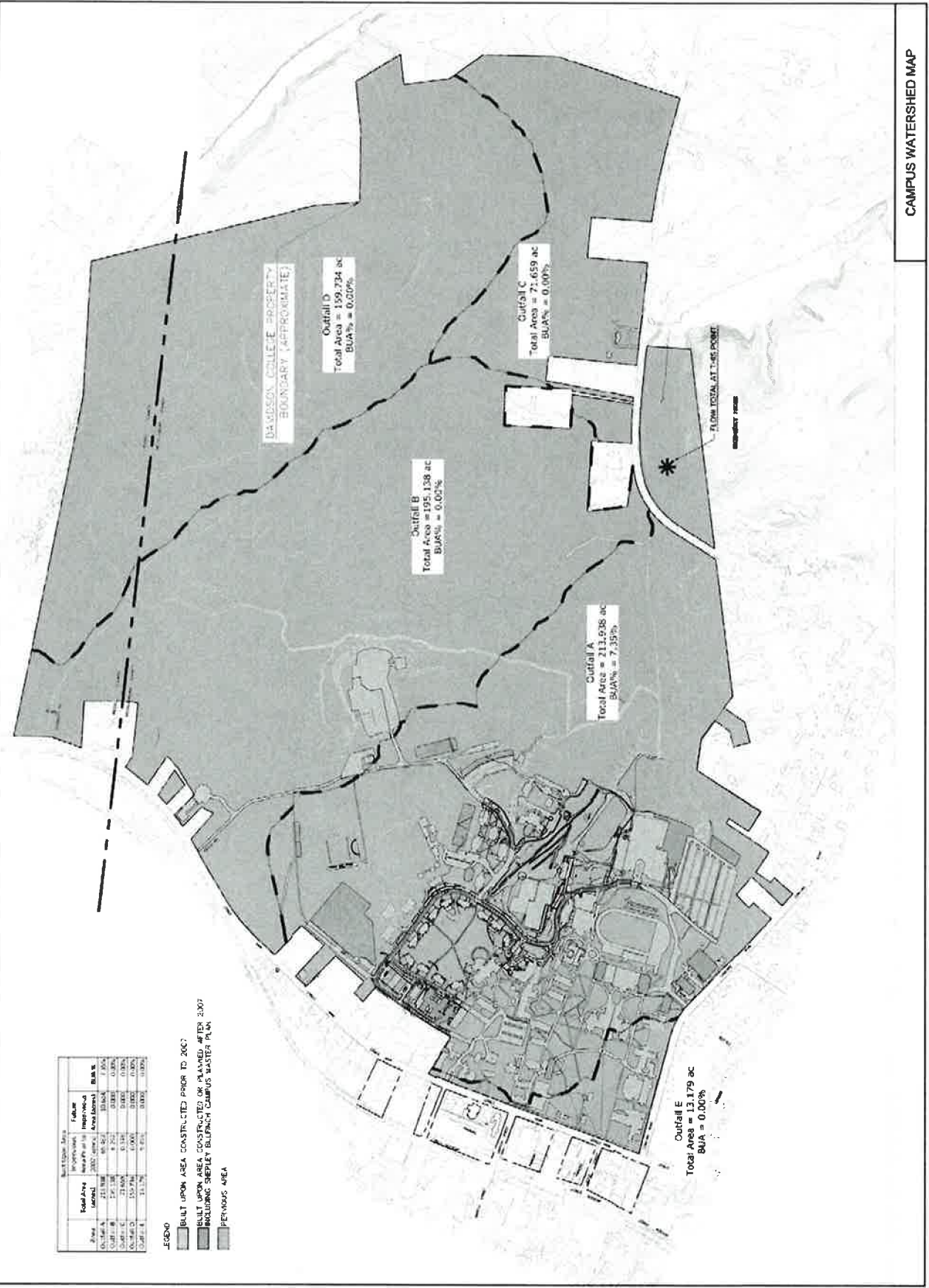
DATE	DESCRIPTION

Owner:
The Trustees of Davidson College

DAVIDSON COLLEGE
STORM WATER BMPs
AT FACILITIES AREAS 3A AND 3B
TOWN OF DAVENPORT, WISCONSIN COUNTY, WI



MAP I



CAMPUS WATERSHED MAP

