OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

FORM 1- NOTICE OF CONSTRUCTION

TO CONSTRUCT - INSTALL - ESTABLISH OR MODIFY AN AIR CONTAMINANT SOURCE

Form 1 Instructions:

1. Please complete all the fields below. **This NOC application is considered incomplete until signed.**
2. If the application contains any confidential business information, please complete a Request of Confidentiality of Records (www.orcaa.org/forms).
3. Duty to Correction Application: An applicant has the duty to supplement or correct an application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit supplementary factors or corrected information.

Business Name: The Evergreen State College	**For ORCAA use only**
Mailing Address: 2700 Evergreen Pkwy NW	File No: 573 County No: 67 Source No: 807 Application No: 24NOC11691
Physical Address of Project or New Source: 2646 Overhulse Rd NW	Date Received: Received NOV 12 2024 ORCAA
Billing Address: 2700 Evergreen Pkwy NW	

Project or Equipment to be installed/established:

CAT generator for emergency power for Fire Suppression Pump, domestic pumps, and parkway lighting.

Anticipated startup date: 11 / 11 / 2024 Is facility currently registered with ORCAA? Yes ☒ No ☐

This project must meet the requirements of the State Environmental Policy Act (SEPA) before ORCAA can issue final approval. Indicate the SEPA compliance option:

- ☐ SEPA was satisfied by _____ (government agency) on ___/___/___ (date) - Include a copy of the SEPA determination
- ☒ SEPA threshold determination by Thurston County (government agency) is pending - Include a copy of the environmental checklist
- ☐ ORCAA is the only government agency requiring a permit - Include ORCAA Environmental Checklist
- ☐ This project is exempt from SEPA per _____ (WAC citation).

Name of Owner of Business: John Carmichael		Agency Use Only
Title: President		
Email: carmichj@evergreen.edu	Phone: 360-867-6100	
Authorized Representative for Application (if different than owner): William Ward		
Title: CAO		
Email: Wardw@evergreen.edu	Phone: 360-867-6115	
I hereby certify that the information contained in this application is, to the best of my knowledge, complete and correct.		
Signature of Owner or Authorized Representative: (sign in Blue Ink)		
	Date: 11/08/2024	
IMPORTANT: Do not send via email or other electronic means. ORCAA must receive Original, hardcopy, signed application and payment prior to processing application.		

Contact Information

Inspection Contact

Name George Phinn Title Facilities Manager

Phone 360-791-0882 Fax N/A

Email George.Phinn@evergreen.edu

Also use this contact for ____Billing ____Emission Inventory ____Complaints ____Permits

Billing Contact

Name Taylor Slaughter Title

Phone 360-971-2646 Fax

Email Taylor.Slaughter@evergreen.edu

Also use this contact for ____Emission Inventory ____Complaints ____Permits

Emission Inventory Contact

Name Taylor Slaughter Title

Phone 360-971-2646 Fax

Email Taylor.Slaughter@evergreen.edu

Also use this contact for ____Complaints ____Permits

Complaint Contact

Name Taylor Slaughter Title EH&S Manager

Phone 360-971-2646 Fax N/A

Email Taylor.Slaughter@evergreen.edu

Also use this contact for ____Permits

Permit Contact

Name Marshall Urist Title Project Manager

Phone 360-507-5092 Fax N/A

Email marshall.urist@evergreen.edu

The **inspection contact** is the on-site person whom is responsible for the everyday operation of the site and is available for inspections.
The **billing contact** is the person to whom all invoices are sent.
The **emission inventory contact** is the person to whom requests for emissions information and material use information are sent.
The **complaint contact** is the person who receives and responds to complaints received on-site and who is contacted regarding complaints ORCAA receives.
The **permit contact** is the person who is responsible for filling out permit applications and receiving approval from ORCAA.

OLYMPIC REGION CLEAN AIR AGENCY (ORCAA)
2940 Limited Lane NW, Olympia, WA 98502
Engineering Division (360) 539-7610
Website: orcaa.org fax (360) 491-6308

Form 18
Internal Combustion Engines

NOC #	Date	File #

Form 18 is to be completed for all internal combustion engines except turbines. (For turbines, submit Form 17). Submit one form for each engine. If this is a new engine or a modification to an existing engine, your application must also include Form 5 and an analysis of toxic air pollutant emissions in accordance with Chapter 173-460 of the Washington Administrative Code. Completion of Form 5 requires determining daily and annual toxic air pollutant emissions based on the maximum potential to emit of the engine. Additional forms and all ORCAA regulations and rules are available on the Agency's web site. Contact ORCAA's Engineering Division at the above telephone number if you need assistance completing this form. Please include the engine manufacturer's equipment specification sheet or brochure if one is available.

1. SUMMARY ☒ New Engine ☐ Engine Modification ☐ New/Additional Fuel ☐ Other:

Company Name The Evergreen State College County No.* _____

Source Description NC Power Systems - CAT Source No.* _____ *(If unknown leave blank)*

Initial Date of Operation 11/11/2024 *(Not required for modification of an existing permitted source).*

Operating Schedule *Typical hrs/day* 1 *Days/week* 1 *Weeks/yr* 52 *Maximum hrs/day* 1

2. ENGINE INFORMATION ☐ *Check here if applying for approval of portable equipment.*
(See ORCAA Regulation 6.1.1 for portable equipment requirements)

Engine Type: *(Check one)* ☑ 4 Stroke ☐ 2 Stroke Compression Ignition (Diesel) or ☐ 4 Stroke ☐ 2 Stroke Spark Ignition

Engine Manufacturer Caterpillar Model C15 GCABR Model Year 2023

EPA/CARB Engine Family Name PCPXL15.2NZS Engine Serial No. RK500465

Engine Displacement 15.2L *(cu in)* Maximum rated output *(bhp)* 762 Typical load as % of bhp rating 500

Is this an emergency/standby engine? ☑ Yes ☐ No

(Complete and check all that apply)

Certification: ☑ EPA Certified ☐ CARB Certified _____

☐ None *(If None is checked, please indicate below the items applicable to this engine.)*

☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged ☐ Inter-cooled ☐ After-cooled

☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn

Primary Use: ☑ Electrical generation ☐ Cogeneration ☐ Pump driver ☐ Fire pump driver

☐ Compressor driver ☐ Tub grinder driver ☐ Other: _____

3. CONTROL DEVICE INFORMATION *Complete this section only if the engine exhausts to an add-on control device.*
☐ *Check here if the engine has more than one add-on control device and repeat this section for each. Include manufacturer's technical specification sheet or brochure for each control device.*

Control device number # _____ *(If unknown leave blank)* ☐ New ☐ Existing

Device type: ☐ Diesel catalyzed particulate filter ☐ Oxidation catalyst ☐ Selective catalytic reduction (SCR)

☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other: _____

Make, Model, and Rated Capacity _____

Control device control efficiencies at typical operation *(Use the basis codes listed below. If unknown leave blank)*

Control Efficiency/Emission Factor Basis Codes: *(Submit supporting documentation if available)*

(1) Source testing or other measurement by plant
(2) Source testing or measurement by ORCAA
(3) Specification from vendor
(4) Material balance by plant using knowledge of process
(5) Material balance by ORCAA
(6) EPA Document AP-42 Emission Factors
(7) Taken from literature other than AP-42
(8) Guess
(9) EPA/CARB Certification

Pollutant Name	Wt % Reduction	Basis Code
Particulates		
Organics		
Nitrogen Oxides		
Sulfur Dioxide		
Carbon Monoxide		
Others – ☐ Check here and attach a separate list of pollutants. Include the basis code and the control efficiency.		

Continued on reverse side

OLYMPIC REGION CLEAN AIR AGENCY

Form 18 (continued)
Internal Combustion Engines

4. EMISSION POINT/STACK INFORMATION ☐ *Check here if the engine has more than one stack or has a continuous pollutant emission monitor and repeat this section for each.*

Emission point number # _____ *(If unknown leave blank)* ☐ New ☐ Existing

Stack outlet height from ground level *(ft)* _____

Diameter of stack outlet *(inches)* _____ or Outlet cross-section area *(square inches)* _____

Direction of outlet *(check one)* ☐ Horizontal ☐ Vertical End of outlet *(check one)* ☐ Open/hinged flap ☐ Rain cap

Exhaust rate at typical operation *(acfm)* _____ Exhaust temperature at typical operation *(°F)* _____

5. AIR TOXIC ASSESSMENT INFORMATION.

Distance from engine to the property line of the nearest residence *(ft)* 650 ft or *(check if)* ☐ Greater than one mile

Distance from engine to the property line of the nearest school[1] *(ft)* 5,653 ft or *(check if)* ☒ Greater than 1000 ft

Describe the nearest non-residential, non-school site *(check one)* ☐ Industrial ☐ Commercial ☐ Hospital ☐ Day care center ☒ Other Church

Distance from engine to the property line of the nearest non-residential, non- school site*(ft)* 3,350 ft or ☐ Greater than one mile

1. *K-12 and more than twelve children only.*

6. FUEL DATA *Complete the table below for each fuel burned. If you are using a fuel other than those listed in the fuel table, attach a* ***fuel analysis*** *indicating the higher heating value, sulfur content, and nitrogen content. Please clearly indicate the measurement unit that corresponds to the information you are submitting.* ☐ *Check here if you are using more than two fuels, and attach a copy of this page listing the additional fuels.*

Primary Fuel		Secondary Fuel	
Fuel[1]	Diesel	Fuel[1]	
Name	Belly Tank	Name	
Maximum Fuel Use Rate[2]	10.9 gal/hr *gal/hr or SCF/hr*	Maximum Fuel Use Rate[2]	*gal/hr or SCF/hr*
Annual Fuel Usage[3]	520gal/yr *gal/yr or therm/yr or SCF/yr*	Annual Fuel Usage[3]	*gal/yr or therm/yr or SCF/yr*
Typical Heat Content[4]	*BTU/gal or BTU/SCF*	Typical Heat Content[4]	*BTU/gal or BTU/SCF*
Sulfur Content[4]	15 ppmv ✓ *wt% liquids or ppmv gases*	Sulfur Content[4]	*wt% liquids or ppmv gases*

Emission Factors *(Optional)*

Pollutant Name	Emission Factor	Units[5]	Basis Code[6]	Control Factor (√)[7]
Particulates				☐
Organics				☐
Nitrogen Oxides				☐
Carbon Monoxide				☐
Others – ☐ Check here and attach a separate list under each fuel used.				

Emission Factors *(Optional)*

Pollutant Name	Emission Factor	Units[5]	Basis Code[6]	Control Factor (√)[7]
Particulates				☐
Organics				☐
Nitrogen Oxides				☐
Carbon Monoxide				☐
Others – ☐ Check here and attach a separate list under each fuel used.				

1. *Fuel Table:* Diesel, Natural Gas, Bio Diesel B100, Landfill Gas, Bio Diesel B20 Blend, Digester Gas, Gasoline, Liquid Petroleum Gas (LPG)
2. *Maximum fuel use rate units: gallon/hr for liquid fuels and SCF/hr for gaseous fuels. (SCF =Standard Cubic Foot)*
3. *The annual fuel usage is the actual or projected engine fuel consumption over a rolling 12-month time period. Annual usage units: gallons for liquid fuel, therms for natural gas, and SCF for other gaseous fuels. (therm = 100,000 BTUs, BTU =British Thermal Unit)*
4. *If you are using diesel, natural gas, or gasoline, you may skip this entry. Heat content units: BTU/gallon for liquid fuels, BTU/SCF for gaseous fuels. Sulfur content* units: weight % for liquid fuels, ppmv for gaseous fuels. (ppmv = parts per million by volume)
5. *Emission factors may be reported as gram/brakehp-hr, or as lb per gallon, or as lb per therm, or as lb per SCF.*
6. *See the Control Efficiency/Emission Factor Basis Code table under Section 3 on page 1 of this form.*
7. *Place a check in this column if the emission factor applies to emissions after an add-on control device.*

7. CERTIFICATION I hereby certify that all information contained herein is true and correct. *(Please sign and date this form)*

Name of person certifying (print)	Title of person certifying	Signature of person certifying	Date
Marshall Urist	Project Manager		11/8/24

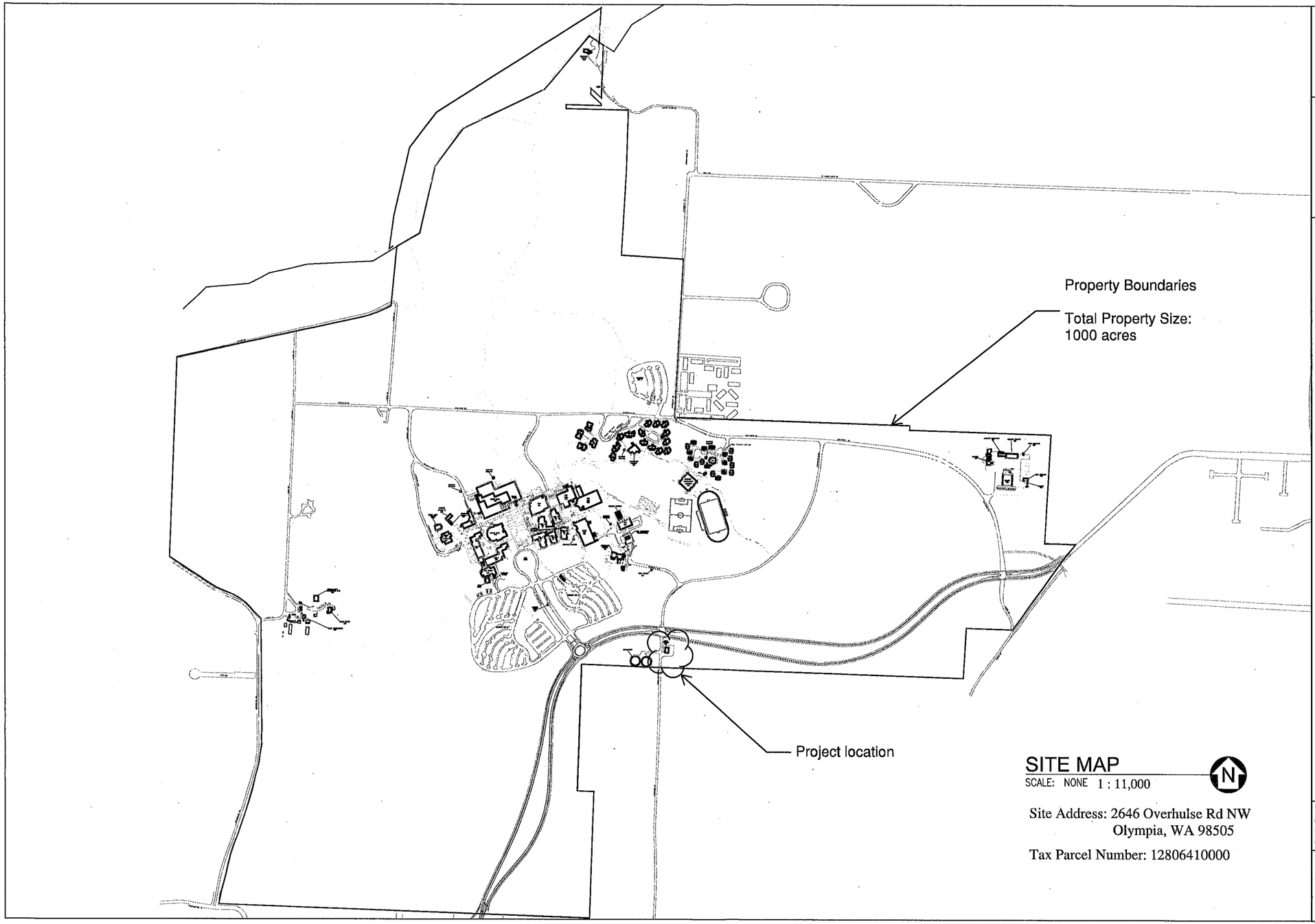
Phone Number: Email:

Project Description:

Pump House Renovation: The intent of the project is to increase life safety by addressing aging equipment and controls. The project scope includes replacement of one diesel and one electrical fire pump, a new 500KVA generator, new VFD on two domestic pumps and installation of one new domestic pump.

The Diesel Fire pump that is being replaced caught fire last winter (January 2023). It was also discovered that the existing generator is undersized to run the existing electrical fire pump. The Olympia campus is without redundancy should a fire and power outage occur.

TESC is requesting expedited review for approval to construct the generator at our pump station.



SITE MAP
SCALE: NONE 1 : 11,000

Site Address: 2646 Overhulse Rd NW
Olympia, WA 98505

Tax Parcel Number: 12806410000

evergreen

MAIN PROPERTY MAP

THE EVERGREEN STATE COLLEGE
2700 EVERGREEN PARKWAY NW OLYMPIA, WASHINGTON 98505

SCALE	1:11,000
PROJ. NO.	F##-###
DATE	12/7/2023
DRAWN BY	A.L.S
SHEET NO / TITLE:	X#.## PLAN VIEW

PHASE 1 - THE EVERGREEN STATE COLLEGE - CAMPUS CONTROLS UPGRADE #F24-300

PROJECT TEAM

OWNER — THE EVERGREEN STATE COLLEGE
ATTN: WILLIAM WARD
2700 EVERGREEN PARKWAY NW
OLYMPIA, WA 98505
WARDW@EVERGREEN.EDU
TEL. 360.867.6115

MECH/PLUMBING/ELEC ENGINEER — FSI ENGINEERS
ATTN: OLA JARVGREN
1001 ALASKAN WAY, SUITE 200
SEATTLE, WASHINGTON 98101
OLAJ@FSI-ENGINEERS.COM
TEL. 206.622.3321
FAX. 206.622.5804

PROJECT SCOPE

- HAZMAT REMEDIATION
- REMOVE AND REPLACE EXISTING DIESEL FIRE PUMP
- REMOVE AND REPLACE EXISTING ELECTRIC FIRE PUMP
- REMOVE AND REPLACE EXISTING DOMESTIC WATER PUMP
- INSTALLATION OF OWNER PROVIDED DOMESTIC WATER PUMP VFD
- MODIFICATION OF EXISTING FUEL PIPING AND DIESEL EXHAUST PIPING
- REMOVE EXISTING MOTOR CONTROL CENTER (MCC) AND REPLACE WITH SWITCHBOARD
- REMOVE AND REPLACE EXISTING CONTROLS WITH PLC CONTROLLER
- REMOVE EXISTING GENERATOR AND INSTALL OWNER PROVIDED OUTDOOR GENERATOR
- INSTALL MTS/ATS AND NEW ELECTRICAL SERVICES
- EXTEND EXISTING RESERVOIR CONTROLS TO NEW PLC CONTROLLER FROM VAULT OUTSIDE PUMPHOUSE
- HARDWIRE STATUS AND CONTROL FROM PLC CONTROLLER TO SCADA (EXISTING DDC)

CODE INFORMATION

1. BUILDING ADDRESS	2648 OVERHULSE ROAD NW OLYMPIA, WA 98502
2. JURISDICTION	THURSTON COUNTY, WASHINGTON
3. CODES	NATIONAL ELECTRIC CODE 2021 INTERNATIONAL BUILDING CODE, WA AMEND. 2021 INTERNATIONAL MECHANICAL CODE, WA AMEND. 2021 WASHINGTON STATE ENERGY CODE 2021 INTERNATIONAL FIRE CODE, WA AMEND. 2021 INTERNATIONAL FUEL GAS CODE, WA AMEND. NFPA 70-2020 NFPA 20 NIST SP 80-82R2/SP 500-82R3
4. ZONE	R1-5 (NON-CONFORMING, NON-RESIDENTIAL USE) ADMINISTRATIVE USE PERMIT #2010100114 (APPROVED)
5. PARCEL NUMBER	12806410000
6. CONSTRUCTION TYPE	N/A
7. SCOPE OF WORK	SEE PROJECT SCOPE.
8. AREA OF WORK	THE EVERGREEN STATE COLLEGE - PUMPHOUSE
9. ASSOCIATED PERMITS	N/A

DRAWING INDEX

G0.00	COVER SHEET
G0.01	GENERAL LEGEND, ENLARGED PLAN AND PROJECT PHASING
HM1.00	HAZMAT GENERAL NOTES
HM1.01	HAZMAT REMEDIATION PLAN
M0.00	MECHANICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES
M01.01	PUMPHOUSE MECHANICAL PLAN - DEMO
M1.01	PUMPHOUSE MECHANICAL PLAN
M4.01	MECHANICAL SECTIONS
M5.01	MECHANICAL DETAILS
M6.01	MECHANICAL SCHEDULES
E0.00	ELECTRICAL LEGEND AND SYMBOLS
E0.01	ELECTRICAL LEGEND, ABBREVIATIONS, AND GENERAL NOTES
E0.10	ELECTRICAL ONE-LINE DIAGRAMS
E01.00	PUMP HOUSE ELECTRICAL PLAN - DEMO
E1.01	PUMP HOUSE ELECTRICAL PLAN
E1.03	PUMP STATION ADD ALTERNATIVE COMMUNICATIONS
E4.01	ELECTRICAL ELEVATIONS
E4.02	ELECTRICAL ELEVATIONS
E5.01	GENERAL 4 WIRE DIAGRAM
E6.01	LOAD SCHEDULES
E6.02	CONDUIT & CABLE SCHEDULE

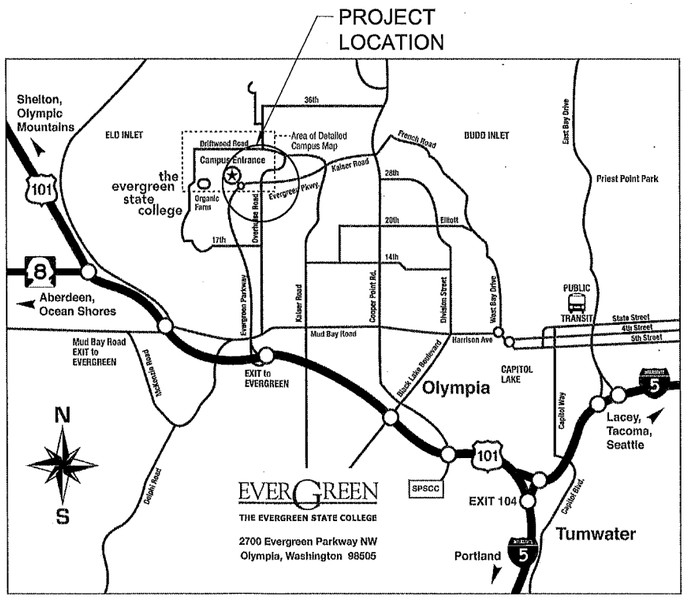
DRAWING INDEX CONT.

I0.00	LEGEND SHEET
I1.01	SCADA DIAGRAM
I2.00	PLC CABINET LAYOUT
I2.01	PLC BILL OF MATERIAL
I2.02	PLC POWER LADDER DIAGRAM
I2.03	PLC POWER SCHEMATIC 1
I2.04	PLC POWER SCHEMATIC 2
I2.05A	PLC DISCRETE INPUT CARD 01
I2.05B	PLC DISCRETE INPUT CARD 02
I2.05C	PLC DISCRETE INPUT CARD 03
I2.05D	PLC DISCRETE INPUT CARD 04
I2.06A	PLC DISCRETE OUTPUT CARD 01
I2.06B	PLC DISCRETE OUTPUT CARD 02
I2.06C	PLC DISCRETE OUTPUT CARD 03
I2.07A	PLC ANALOG INPUT CARD 01
I2.07B	PLC ANALOG INPUT CARD 02
I2.08A	PLC ANALOG OUTPUT CARD 01
I2.08B	PLC ANALOG OUTPUT CARD 02

GENERAL PROJECT NOTES:

1. (E) INDICATES EXISTING CONDITION, DIMENSION OR DATUM. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, DATUMS AND LEVELS ON PROJECT PRIOR TO COMMENCEMENT OF WORK.
2. CONTRACTOR SHALL USE DIMENSIONS SHOWN ON DRAWINGS AND ACTUAL FIELD MEASUREMENTS. CONTRACTOR SHALL NOT SCALE DRAWINGS. NOTIFY ENGINEER IF ANY DISCREPANCIES ARE FOUND.
3. DO NOT SIGNIFICANTLY VARY OR MODIFY THE WORK SHOWN EXCEPT UPON WRITTEN INSTRUCTION FROM THE ENGINEER.
4. THROUGHOUT THE DRAWINGS ARE ABBREVIATIONS THAT ARE IN COMMON USE. THE LIST OF ABBREVIATIONS PROVIDED IS NOT INTENDED TO BE COMPLETE OR REPRESENTATIVE OF CONDITIONS OR MATERIALS ACTUALLY USED ON THIS PROJECT.
5. CONSTRUCTION DRAWINGS ARE BASED ON RECORD DRAWINGS AND MAY BE INCLUDED FOR REFERENCE AS TO THE SCOPE OF WORK ONLY. IT IS RECOMMENDED THAT THE CONTRACTOR VISIT PRIOR TO BID, EXAMINE EXISTING CONDITIONS AND INCLUDE ALL DEMOLITION REQUIREMENTS FOR THE SCOPE OF THE PROJECT IN THE CONTRACT SUM. NO ADDITIONAL PAYMENTS WILL BE MADE FOR FAILURE TO OBTAIN ALL REQUIRED INFORMATION AND MAKE KNOWN ANY INACCURACIES BEFORE BID.
6. CONTRACTOR IS REQUIRED TO OBTAIN AUTHORIZED ACCESS DURING CONSTRUCTION AND START-UP.
7. CONTRACTOR WILL BE RESPONSIBLE FOR RECEIVING ALL EQUIPMENT INCLUDING THE HOISTING AND TRANSPORTATION OF EQUIPMENT.

SITE MAP
SCALE: NONE



VICINITY MAP
SCALE: NONE

BUILDING ABBREVIATIONS

BUILDING NAME	BUILDING ABBREVIATION
ARTS ANNEX	ANNEX
CARVING STUDIO 2	CARVING
CHILDCARE CENTER	CC
COLLEGE ACTIVITIES BUILDING	CAB
COLLEGE RECREATION CENTER	CRC
COMMUNICATIONS BUILDING	COMM
CENTRAL UTILITY PLANT	CUP
LAB I	LAB1
LAB II	LAB2
LECTURE HALLS	LEC
DANIEL J. EVANS LIBRARY	LIB
LONGHOUSE	LONG
ORGANIC FARM	
WATER PUMP STATION	PUMP
SEMINAR II E PUBLIC SERVICE CENTER	PSC
SEMINAR II B PART TIME STUDIES	PTS
SEMINAR I	
SEMINAR II A	SEM A
SEMINAR II B	SEM B
SEMINAR II C	SEM C
SEMINAR II D	SEM D
SEMINAR II E	SEM E
STUDENT RESIDENCES (DORM)	
STUDENT RESIDENCES (MODS)	
STUDENT RESIDENCES (SOUP)	
SUSTAINABLE AGRICULTURE LAB	

fsi ENGINEERS
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THE EVERGREEN STATE COLLEGE
2648 Overhulse Road NW, Olympia WA 98502
FIRE & DOMESTIC WATER PUMP RENOVATION
PHASE 1

ANDREW W. LANGDON — STATE OF WASHINGTON — 24778 — REGISTERED PROFESSIONAL ENGINEER — 04.19.2024

Project No.
TESC #F24-300
FSI #22075

Date
04.19.2024

Date Revision

Sheet Title
COVER SHEET

Sheet
G0.00

PROJECT PHASING

SUGGESTED CONSTRUCTION SEQUENCE:

NOTE TO CONTRACTOR: KEEPING THE PUMP STATION OPERATION IS CRITICAL TO THE FUNCTION OF THE EVERGREEN STATE COLLEGE (TESC). FIRE WATCH WILL BE REQUIRED IF THE PUMPING SYSTEM IS UNAVAILABLE AT ANY TIME. ANY UNAVAILABILITY OF THE PUMP STATION SHALL BE PLANNED TWO WEEKS IN ADVANCE AND COORDINATED WITH TESC PERSONNEL. THE FOLLOWING SEQUENCE IS PROVIDED AS A BASIS TO KEEP THE PUMP STATION OPERATIONAL DURING DEMOLITION AND CONSTRUCTION. A TEMPORARY GENERATOR WILL BE REQUIRED AND PROVIDED BY THE CONTRACTOR UNTIL ALL EQUIPMENT TESTING AND TRANSFER TO UTILITY POWER HAS BEEN COMPLETED. AT THAT TIME, THE PORTABLE GENERATOR MAY BE REPLACED WITH A LOWER CAPACITY UNIT FOR DOMESTIC PUMP OPERATION ONLY. THE PORTABLE GENERATOR SHALL BE PROVIDED UNTIL THE PERMANENT GENERATOR HAS BEEN INSTALLED AND COMMISSIONED.

1. DEMO THE NON-OPERATIONAL DIESEL FIRE PUMP AND INSTALL THE NEW DIESEL REPLACEMENT FIRE PUMP AND PERFORM ASSOCIATED SUPPLEMENTAL HARDWARE REPLACEMENT(S). OPERATIONALLY TEST THE NEW DIESEL FIRE PUMP. THIS PUMP WILL BE THE PRIMARY FIRE PUMP DURING THE REMAINING DEMO AND CONSTRUCTION PROCESS. A FIRE WATCH MAY BE REQUIRED DURING THE HARDWARE REPLACEMENT IF ISOLATION CANNOT BE PERFORMED WITHOUT SYSTEM SHUTDOWN. COORDINATE WITH TESC PRIOR TO ANY ASSOCIATED SHUTDOWN.

2. INSTALL THE DISCONNECTS, ATS, MTS W/PORTABLE GENERATOR PLUG, PLC BASED CONTROL PANEL, MAIN SWITCHBOARD, FIRE PUMP 2 (ELECTRIC), DOMESTIC PUMP VFD PANELS, AND ALL ELECTRICAL CONDUIT AND WIRE THE WIRE CONNECTION/TERMINATION TO THE EXISTING TRANSFORMER.

3. INCORPORATE THE DISTRIBUTION SYSTEM PRESSURE TRANSMITTER SIGNAL TO THE NEW CONTROL PANEL WITH THE EXISTING SYSTEM STILL IN OPERATION. THIS SHALL BE COORDINATED WITH THE OWNER AND CONTRACTOR SHALL PROVIDE A PERSON DESIGNATED TO MANUALLY OPERATE THE FIRE PUMP SHOULD A FIRE OCCUR.

4. INSTALL THE NEW 40HP DOMESTIC WATER CIRCULATION PUMP DP-2 AND ASSOCIATED VFD PANELS AND HARDWARE AND CONNECT TO THE NEW MAIN SWITCHBOARD. ALL ASSOCIATED EQUIPMENT SHALL BE DEBUGGED, TESTED AND VERIFIED FULLY OPERATIONAL ON GENERATOR POWER.

5. AT THIS POINT IN TIME, ALL EXISTING PUMPS SHALL BE OPERATIONAL FROM HOUSE POWER AND ALL NEW PUMPS SHALL BE OPERATIONAL VIA A GENERATOR.

6. CONDUCT A THREE-DAY TEST OF THE NEW PUMPING SYSTEMS ON THE TEMPORARY GENERATOR TO IDENTIFY ANY TRANSITIONAL ISSUES BETWEEN DOMESTIC PUMP OPERATION AND DIESEL/ELECTRIC FIRE PUMP OPERATION. THIS PHASE OF TESTING SHALL BE CONSIDERED COMPLETE WHEN THE PUMP SYSTEM AND FUNCTIONS HAVE BEEN SHOWN AS OPERATIONAL TO THE SATISFACTION OF THE TESC REPRESENTATIVE.

7. DE-ENERGIZE THE EXISTING UTILITY TRANSFORMER. DISCONNECT THE 480V SECONDARY SIDE OF THE UTILITY TRANSFORMER FROM THE EXISTING MCC. CONNECT THE 480V SECONDARY SIDE OF THE EXISTING UTILITY TRANSFORMER WITH NEW POWER WIRING TO THE ATS. DURING THIS PERIOD, THE NEW PUMPS SHALL BE OPERATIONAL VIA THE PORTABLE GENERATOR.

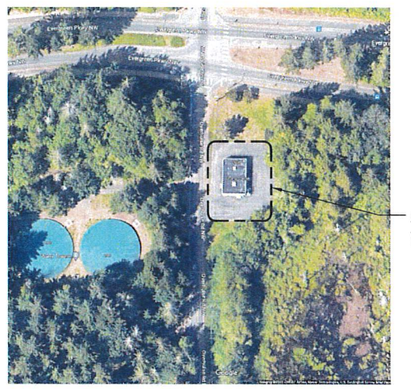
8. RE-ENERGIZE THE EXISTING UTILITY TRANSFORMER AND RE-TEST THE FUNCTIONS OF THE DOMESTIC AND FIRE PUMP OPERATIONS. WHEN TESC IS SATISFIED WITH THE OPERATION ON UTILITY POWER, CONTINUE TRANSITIONING THE DOMESTIC PUMPS TO THE NEW MAIN SWITCHBOARD.

9. INSTALL THE SECOND NEW DIESEL FIRE PUMP AND ASSOCIATED HARDWARE. OPERATIONALLY TEST THE NEW DIESEL FIRE PUMP. A FIRE WATCH MAY BE REQUIRED DURING HARDWARE REPLACEMENT IF ISOLATION CANNOT BE PERFORMED WITHOUT SYSTEM SHUTDOWN. COORDINATE FIRE WATCH WITH TESC AND LOCAL POLICE AND FIRE EMERGENCY SERVICES. CONTRACTOR SHALL PROVIDE PERSONNEL FOR FIRE WATCH.

10. INTEGRATE THE SUPERVISORY "REMOTE" CONTROL WITH THE NEW CONTROL PANEL AND TEST ALL FUNCTIONS. THIS SHALL BE COMPLETED BY HOLIDAY-PARKS. CONTACT BRIAN RHODES FOR MORE INFORMATION: 360-789-7736.

11. DEMO THE REMAINING ELECTRICAL EQUIPMENT AS INDICATED ON THE DRAWINGS.

12. INSTALL THE STATIONARY GENERATOR AND FULLY TEST THE GENERATOR AND PUMPS UNDER ALL CONDITIONS. THIS PHASE OF TESTING SHALL BE CONSIDERED COMPLETE WHEN THE PUMP SYSTEM AND FUNCTIONS HAVE BEEN SHOWN AS OPERATIONAL TO THE SATISFACTION OF THE TESC REPRESENTATIVE.



VICINITY MAP

GENERAL LEGEND

NORTH ARROW

DETAIL/DRAWING REFERENCE

SECTION REFERENCE

CONSTRUCTION NOTE

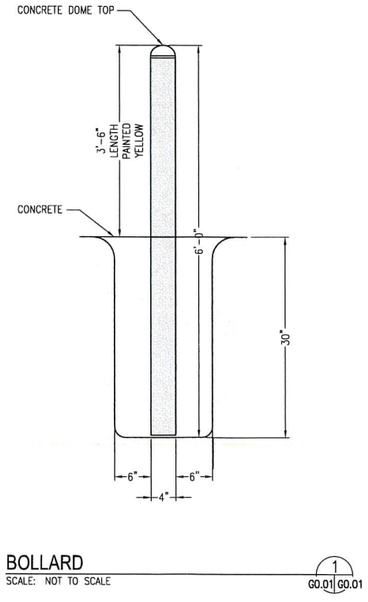
REVISION SYMBOL

POINT OF CONNECTION

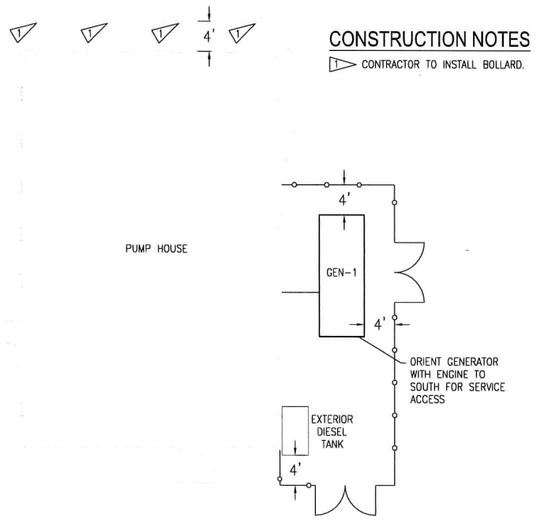
BOLD LINE WEIGHT INDICATES NEW WORK

LIGHT LINE WEIGHT INDICATES EXISTING WORK

SLASHED LINE INDICATES EXISTING WORK TO BE DEMOLISHED



BOLLARD
SCALE: NOT TO SCALE
1 G0.01 G0.01



CONSTRUCTION NOTES

1. CONTRACTOR TO INSTALL BOLLARD.

ENLARGED PLAN - GENERATOR SECURITY FENCING

NOTE: CONTRACTOR TO PROVIDE PERMANENT CHAIN LINK SECURITY FENCE AS SHOWN. FENCING TO BE A MINIMUM OF 8' IN HEIGHT WITH THREE TIER BARB WIRE ALONG TOP OF FENCE. GATES TO PROVIDE A MINIMUM OF 8' UNOBSTRUCTED ACCESS AT EACH ENTRY POINT. MINIMUM FENCE CLEARANCE TO GENERATOR AND EXTERIOR DIESEL TANK OF 4'. MINIMUM 5' CLEARANCE FROM GENERATOR TO STRUCTURE.

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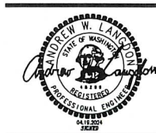
FIRE & DOMESTIC WATER PUMP RENOVATION
PHASE 1

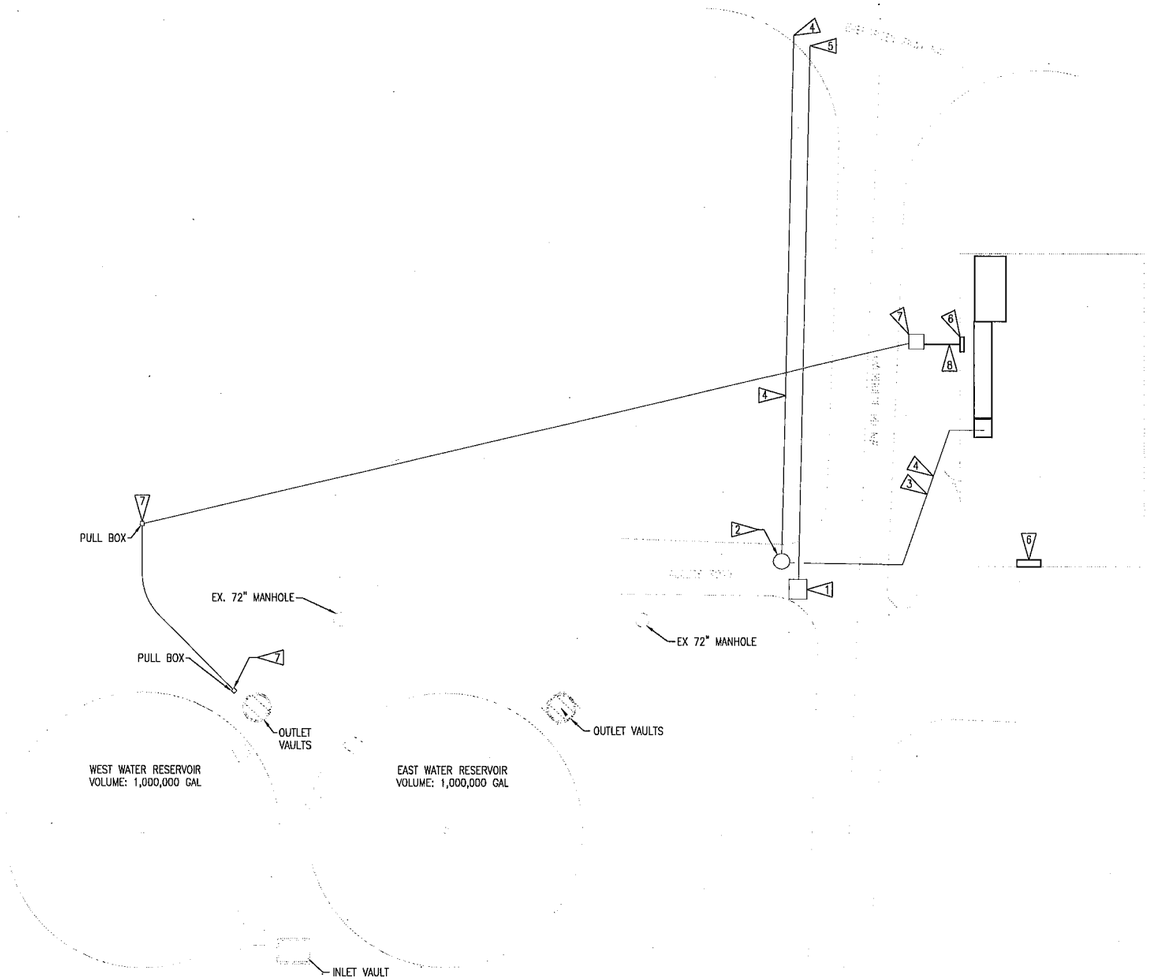


Project No.
TESC #F24-300
FSi #22075
Date
04.19.2024

Date	Revision

Sheet Title
GENERAL LEGEND
ENLARGED PLAN
AND PROJECT PHASING

Sheet
G0.01



N 1 PUMP STATION COMMUNICATIONS
SCALE: 1"=20'-0"

CONSTRUCTION NOTES

1. 12.47KV ELECTRICAL VAULT – MANHOLE MHE6.
2. COMMUNICATIONS VAULT.
3. VERIFY PATH AND INTEGRITY OF COMMUNICATIONS CABLE FROM PUMP STATION TO THE CUP. THE COMM CABLE GOES THROUGH A JUNCTION BOX LABELED "J-J" IN THE UNDERGROUND TUNNEL NEAR THE CUP. ALL CABLE AND INTERNAL MULTICONDUCTOR WIRES ARE TO BE VERIFIED AND TESTED FOR VIABLE USE.
4. TO CUP BUILDING FOR COMMUNICATION CABLE.
5. TO MANHOLE MH 6D FROM 12.47KV UNDERGROUND CABLE.
6. LOCATION OF NEW PUMP STATION 120/208V DISTRIBUTION PANEL.
7. RESERVOIR SIGNAL AND POWER MANHOLES AND VAULTS INSTALLED UNDER CONCURRENT PROJECT. CONTROL WIRES WILL BE LOCATED AT PUMPHOUSE BUILDING IN 16"X16"X16" VAULT. CONTRACTOR TO PROVIDE CONNECT FROM VAULT TO PUMPHOUSE.
8. INSTALL CONDUIT FROM MANHOLE TO RESERVOIR INTERFACE JUNCTION BOX. PULL EXISTING CABLES COILED IN THE MANHOLES RESERVOIR INTERFACE JUNCTION BOX. CONTINUE SIGNALS THROUGH NEW CONDUIT TO THE PLC CONTROL PANEL. REFER TO SHEET E1.01.

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2648 Overhulse Road NW, Olympia WA 98502
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PHASE 1

ARTHUR G. STORM
STATE OF WASHINGTON
24735
REGISTERED
PROFESSIONAL ENGINEER
04.19.2024
SIGNED

Project No.
TESC #F24-300
FSI #22075
Date
04.19.2024

Date Revision

Sheet Title
PUMP STATION COMMUNICATIONS

Sheet
E1.03