



ADDENDUM No. 02
DNR-220039
Delaware State Park Wastewater Treatment
March 25, 2024

All Bidders:

1. This Addendum is issued to modify the original Project Manual and Drawings and is hereby made a part of the Contract Documents. This Addendum shall be attached to the Project Manual(s) in your possession and shall become a part of your bid. Bidders shall review changes to all portions of the work, as changes to one portion may affect the work of another portion and include all such related changes. Please notify all subcontractors of this addendum.
2. A Pre-Bid Meeting was held on Thursday, March 21, 2024, on site, at Delaware State Park. A review of the Wastewater Treatment Plant, the area for Pump Station S-3, and the area of the discharge sewer that will bypass the Lagoon, was provided. A copy of the Pre-Bid Agenda, the EDGE requirements, and the attendance sheet is attached.
3. During the Pre-Bid, it was mentioned that the Bid Specs, Section 33 20 21 “Replacement of Submersible Pumps, Remove and Replace Pumps, Stators, and Breakers” states that IEC controls are not acceptable. This was clarified that IEC controls **ARE** acceptable. Revised Section 33 20 21 is updated and attached.
4. The following Bid Specifications were found to have been duplicated within the published Bid Documents. The duplicate pages have been removed from the bid specifications, and are listed below.
 - a. 04 20 00 Unit Masonry
 - b. 06 16 60 Sheathing
 - c. 07 31 13 Asphalt Shingles
 - d. 26 50 10 LED Lighting
5. The following questions have been received to date:

Q: I don't see where addendum 1 makes any reference to deleting section 33 32 16. This section appears to call out for all new equipment for the Marina and Check-in.

A: *This section does not apply and is deleted from the Bid Specifications.*

Q: Plan sheet 3 – Required flows for both Marina and Check-in listed as 65 GPM. I just want to make sure this is correct as those flows are below 2ft/s scouring velocity.

A: *65 GPM is correct. This is based on existing storage volumes of pump stations and flow capacity of new WWTP and it's components.*

Q: Plan sheet C3 lists 208V at the Check-In. My records show this to be 230V. Possibly someone could verify this?

A: *This should read 230V – Revised sheet C23 is attached.*

Q: Plan sheet C08 shows a 4" pump transitioning to 3" discharge pipe. This is unusual and would just like to confirm.

A: *This is correct. 6" piping from Clarifiers to building, with reducer to 4" piping into disk filters piping connection.*

Q: Is 46 07 53 section 2.2.C.2 referencing the influent pump station?

A: *Yes*

Q: I would also like to confirm that the power for the new influent pump station is 230V/1ph. Since there is 3 phase throughout the park so I would be surprised if 3 phase wasn't available at the plant.

A: *3 Phase power is available at the WWTP. Section 46 07 53, Subsection 2.2.C.2, has been revised to reflect 3 Phase, and is attached.*

A signed copy of this Addendum must be included with the bid submission. This Addendum 02 does NOT change the bid date and time. This Addendum 01 does NOT change the estimated construction cost for this project.

The undersigned states that the changes and/or clarifications described in this Addendum have been incorporated in his/her bid submission.

Signature of Person Preparing Bid

Date

Plan sheets and specifications identified above are included as attachments and are therefore a part of this Addendum.

END OF ADDENDUM 02

Pre-Bid Meeting Agenda
Ohio Department of Natural Resources
New Wastewater Treatment Plant
DNR-220039

Facility: Delaware State Park WWTP
Date: March 21, 2024 - 11 a.m.
Meeting Location: 5202 US Route 23 North, Delaware, Ohio 43015

- INTRODUCTION
 - All attendees shall sign the attendance sheet. Please do not leave without doing so.
 - Any questions about the plans and specifications need to be directed to Mark Cameron, Project Manager for Sands Decker.
 - All questions must be in writing and provided no later than noon, March 29th, 2024, in order to provide responses by Addendum.
 - No questions will be answered after that period.
 - Sands Decker Phone Number: 614-459-6992
 - Mark Cameron, P.S.: mcameron@sandsdecker.com
 - Jordan Zickafoose, E.I.: jordanz@sandsdecker.com
 - Jarrod Hart, P.E. : jhart@sandsdecker.com

- PROJECT OVERVIEW - Major Components
 - 25,000 gpd WWTP
 - Influent Manhole for incoming force mains
 - Trash trap
 - Lift station
 - Flow EQ, Aeration, Sludge Holding, and Clarifiers
 - Blowers
 - All piping
 - New filter building
 - Disk filter
 - UV disinfection
 - Flow metering
 - Post-air Pump
 - Casework with counter and sink
 - Post air manhole, post air pump, and diffusers
 - Water service relocation for building
 - Connection to existing discharge piping
 - Includes phased demolition of existing WWTP structures and phasing of incoming flow during construction
 - East plant to be raised for new plant construction
 - West plant and existing blower building to remain in service during construction, then removed once new plant is on line
 - New power supply line to new filter building
 - Grading and aggregate surface around plant
 - 2 site lights, yard hydrant
 - New fence and gates around the site
 - Relocated discharge pipe and outlet to bypass Lagoon
 - 190' of 8" sewer
 - 2 manholes
 - Headwall
 - Rock channel protection

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Ohio Department of Natural Resources
New Wastewater Treatment Plant
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- Seeding of all disturbed areas
- There are 3 Alternates with this bid package:
 - Alternate 1 is generator package
 - 80KW Propane Generator
 - Generator Pad
 - Automatic Transfer Switch
 - All electrical feed lines
 - Service pipe from propane tank location to generator
 - 4 bollards at tank location
 - NOTE: Tank to be provided by ODNR Propane Provider
 - Alternate 2 is Pump Station Removal package
 - Remove Pump Station S-3, valve vault, and all electrical components
 - Re-pipe Campground 6" forcemain to S-3 6" discharge forcemain
 - New 6" forcemain from S-3 location to WWTP – directional drill
 - Connect forcemain from Marina to new 6" forcemain
 - Replace 2 pumps, starters and breakers, for pump station at Campground Check-in and pump station at Marina
 - Pump and forcemain Testing
 - Alternate 3 is placement of asphalt for drive and parking at filter building area
- DELIVERY METHOD
 - General Contracting
- NOTICE TO BIDDERS
 - Electronic Bid Submittal: Due by April 8, 2024 @ 2:00 p.m.
 - Opening: All bids will then be electronically opened.
 - Bid Tabulations: Will be posted no later than 5:00 p.m. on the opening day.
 - Plans and Specifications are available for download from State's electronic bidding service at <https://bidexpress.com> at no charge
 - Estimated Costs:
 - WWTP Base Bid: \$1,900,000.00
 - Alternate 1: \$108,465.00
 - Alternate 2: \$158,550.00
 - Alternate 3: \$8,720.00
- SUBMITTING A BID
 - The Contractor is responsible for delivering the bid by the time specified in Bid Express, <https://bidexpress.com> on the electronic Bid Form in Bid Express.
 - Note: The Bidder will need to allow several days to receive electronic signature from Bid Express if they have not used Bid Express prior.
- BID SCHEDULE
 - Review that bid and bid schedule is on-line and to be submitted on-line.
 - Addenda - Each Bidder shall bear the responsibility to satisfy himself/herself that the bid is responsive to all Addenda issued. The contractor shall acknowledge any addendum in the

Pre-Bid Meeting Agenda
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appropriate location on the Bid. Failure to receive or acknowledge any Addenda shall not release the Bidder from all obligations contained in such Addenda.

- The contractor shall not modify anything on the bid schedule as this may be cause for rejection of bid.

- **BIDDING / CONSTRUCTION SCHEDULE**

The following is a general outline of the project schedule anticipated for this project. The dates should serve as a general guide but are subject to change.

 - Bidding Period: March 2, 2024 to April 8, 2024
 - Pre-Bid Meeting: March 21, 2024 – 11:00 a.m. to Noon, at the Delaware State Park WWTP
 - Attendance is not required to submit bid
 - Contract completion period: 365 Consecutive Calendar Days from Notice to Proceed
 - Controlling Board – Anticipated 60 days
 - Anticipated Notice to Proceed – June 10, 2024

- **BIDDING AND CONTRACTING REQUIREMENTS**
 - Instructions to Bidders - Refer to Bid Documents
 - Questions regarding bidding and contracting requirements should be directed to OFCC Project Coordinator, Kimberly Jacobs, at 614-995-7522 or kimberly.jacobs@ofcc.ohio.gov.
 - This ARPA Funded, bidder shall have an active and full SAM.gov registration.
 - Bid award threshold is 10% above estimate.
 - Requests for Interpretation (RFI's) must be submitted by March 29, 2024.
 - All questions asked during the meeting are to be submitted formally in a RFI to ensure inclusion in future Addenda.
 - Substitutions - All bids will be evaluated based on the standard referenced in the documents. Substitution Requests must be submitted 10 days before bid opening
 - Refer to General Conditions and Instructions to Bidders for substitution request requirements. Proposed substitutions must include side-by-side comparison with specs of basis of design to be considered by A/E
 - If the A/E approves the Proposed Substitution, the A/E shall issue an Addendum.
 - Bid Package Checklist - The following items are the minimum that are to be included in the proposal package.
 - i. Form of Bid
 - ii. Bid Security Form (Bid Bond or Cashier's Check) – Original to OFCC within three days of bid
 - iii. Cert. of Compliance showing Surety is licensed to do business in Ohio
 - iv. Power of Attorney for Surety Form uploaded
 - v. Proposed EDGE Certified Business/ EDGE Program Commitment - 3 days after request by AE or OFCC
 - vi. Bidder Qualifications - 3 days after request by AE or OFCC
 - vii. Entire original hardcopy bid package to be submitted to Kimberly Jacobs, OFCC, within 3 days after bid opening. Refer to bid documents for OFCC address.
 - This project is subject to the State of Ohio's Encouraging Diversity, Growth, and Equity (EDGE) Business Development Program.

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- You will be required to submit with your Bid and Bidder's Qualifications form, information about the certified EDGE Business Enterprise(s) that are participating in with the Bidder for this project.
 - EDGE Participation Goal for this project is 5.0% minimum.
 - If bidder does not commit to the published EDGE goal the Bidder will need to seek a waiver and demonstrate that good faith efforts were exhausted to reach that goal. A waiver is extremely difficult to obtain. It is best to select Option A on Bid Express to meet or exceed the goal.
 - Refer to EDGE handout. More information on EDGE, contact David Moore OFCC EDGE Manager, State of Ohio EDGE Certification Office at david.moore@ofcc.ohio.gov or phone at 614-715-7866, or the offices at <https://das.ohio.gov/eod> or phone at 614-466-8380.
- WAGES AND HOURS
 - This is a state of Ohio Prevailing Wage Project and any questions should be directed to OFCC Project Coordinator, Kimberly Jacobs, at 614-995-7522 or kimberly.jacobs@ofcc.ohio.gov
 - STATE OF OHIO WAGE RATES: The Wage Rates shall not be less than those as determined by the Ohio Department of Labor. Said Wage Rates are included in the bid specifications and shall be used by the Bidder in completing his/her proposal.
- SCOPE OF WORK
 - Contract Documents
 - Discuss the items of work in detail and review plans and specifications as necessary.
 - Existing plant and blower building is being demolished
 - New 25,000 GPD WWTP and Filter Building is the primary project
 - Power supply to be relocated from blower building to new filter building
 - Demo work and new construction in phases
 - Temporary piping relocations at head of plant during construction
 - Must keep WWTP operational during entire construction period
 - Project includes relocating the WWTP outfall prior to where it enters the lagoon, which include a couple manholes and about 200' of sewer, headwall, and rock channel protection
 - 3 Alternates
 - #1 – 80KW Generator, Pad, ATS, feed lines, and propane supply lines between tank and generator
 - #2 – Removal of Pump Station S-3, including valve vault and all electrical, reconnection of forcemains at this location, 1,200' of 6" directional drilled forcemain, and replacement of 2 pumps, breakers and starters at two existing pump stations.
 - #3 – Asphalt paving at the Filter building parking area and front access area.
 - All work to be coordinated with the Wastewater Operator and Park Manager
 - Plant must remain in operational compliance at all times
 - Work within the park area must be kept safe at all times.
 - Clean-up of roadways is of particular importance, no mud.
 - Testing is to be performed by the contractor and witnessed by A/E Staff
 - Start up of all WWTP equipment must be scheduled in advance

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- SAFETY
 - Contractor shall design and implement its own safety program.
 - Contractor shall designate a safety program officer for the project

- PERMITS & SUBMITTALS
 - Review permits and responsibility.
 - Ohio EPA PTI and Plan approval has been obtained
 - USARCE ARPA Permits and Real Estate Approval obtained
 - Building Permit has been obtained
 - Shop Drawings are required to be submitted for all equipment, supplies, as well as pre-constructed items, such as trusses, disk filter, UV, etc.

- PROJECT RESTRICTIONS/SITE USAGE (Refer to General Conditions)
 - Area will be identified for Construction Trailer for Onsite Progress Meetings
 - Can the maintenance building be used for this?
 - Coordinate any planned interruption to service with Owner/Engineer – IN ADVANCE
 - Contractor shall prepare and submit a Site Utilization Plan for approval
 - Job Storage
 - Staging/Laydown Areas
 - Parking
 - Work Hours – TBD
 - Protection of Existing Utilities
 - Noise pollution
 - Dust & Fume Control
 - Demolition Waste
 - Work in the winter, cannot impede snow plowing their area
 - Site does have flood possibility
 - Need to be cognizant of the park, there are hunting zones
 - Need to maintain the integrity of the park during construction as we will have multiple projects going on.

- COMMON BIDDER PITFALLS (that will delay contracting process or possibly cause rejection)
 - Not submitting original bond within 3 days of bid date.
 - EDGE Option A, B or C is not selected on the EDGE Commitment page in the Bid Form.
 - Bidder fails to enter a \$ amount, “no change”, or \$0 for All Alternates in the Bid Form
 - Company name on Bid Form or Bond does not match the S.O.S. Business Filings.
 - Expired Certificates (EEO, Workers Comp., Drug Free)
 - Bidder is not responsive to the time sensitive nature of the Bidder’s Qualifications Request or Notice of Intent to Award submittal requirements.

- SITE TOUR
 - We will tour the site and point out the location of major components.

- Required Documents to be submitted. Please refer to the compliance checklist:
 - Bond – Original must be submitted to OFCC within three days of bid.
 - Items needed to issue the NOIA:
 - W-9

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- Bidder Qualifications
- Certificate of Compliance issued by the Ohio Department of Insurance – Needed within 10 days of the NOIA
- Workers Compensation Certificate
- EEO certificate
- Drug Free Safety Workplace certificate
- Liability Insurance Certificate & Policy
- Builder’s Risk Certificate & Policy
- Certificate of Good Standing (if required)
- Power of Attorney (if required)
- Contractor License (if required)
- Financial Statement (if required)

- SITE TOUR
 - Bidders are welcome to walk the site and areas of work in advance of submitting bids
 - WWTP
 - Discharge piping to bypass Lagoon
 - Pump Station S-3
 - Check-in Pump Station
 - Marina Pump

- REMINDER>>>>
 - RFI’s / Questions...must be submitted in writing no later than March 29th.



DNR-230039

**Delaware State Park New Wastewater Treatment Plant
5202 US Route 23 North
Delaware, Delaware County OH 43015**

Encouraging Diversity Growth and Equity (EDGE) Requirements

- This Project is subject to the State of Ohio’s Encouraging Diversity, Growth and Equity (“EDGE”) Business Development Program which was established under the Ohio Revised Code 123.152 (9/26/2003). The program is a requirement for companies choosing to bid and work on state funded projects.
- The EDGE participation goal for the Deer Creek Wastewater Treatment Plant project is 5%.
- Meeting the goal is a requirement unless a company demonstrates good faith efforts were made to utilize an EDGE vendor and were unable to do so. **Bidders selecting Option B on the EDGE Program Commitment to Participate section of the bid form**, if committing to less than the goal and are selected must submit a request for waiver on company letterhead, provide a detailed **Demonstration of Good Faith** form (F110-13v0912) and go through the waiver process before being awarded a contract.
- **Bids are to be submitted via Bid Express Internet Bidding on Monday, April 8th, 2024, before 2:00 P.M. local time!**
- If awarded a contract, confirm the EDGE contractor(s) is certified when the **Intent to Contract Form #00-45-39** (2016-March) is signed. You may request subcontractor’s certification letter to verify certification timeline which is a 2-year period. **Also, provide a detailed list of materials, supplies, labor, and cost for EDGE services.**
 - **Materials/Supplies - Mark Material Supplier Box & enter Type, Quantity, & Cost of Materials**
 - **Trade Subcontractor - Mark Subcontractor Box & enter Trade Services & Labor Cost**
 - **Trade Subcontractor and Material Supplier - Mark Both Boxes & enter Trade Services/Labor Cost & Materials/Cost**
- **Construction Specification Institute Codes (CSI)** – Confirm EDGE contractor is providing services for which they are certified. <https://development.force.com/ODSA/s/mbddcertsearch> (EDGE Certified Company search site)
- **Ohio Administrative Code 123: 2-14-06 Commercially Useful Function - (A)** A contractor awarded a contract pursuant to chapters 123., 125. and 153. of the Revised Code may count towards its EDGE goal only those expenditures to EDGE certified business that perform a commercially useful function.

(C)(1) **The workers on the EDGE contract are regular employees of the contracted EDGE business.**

(C)(4) **The equipment used by the EDGE business is owned or controlled by the EDGE business. The EDGE business owns or rents or leases from a traditional rental or leasing source pursuant to a written rental or lease agreement.**

(C)(5) **The EDGE contractor business has the responsibility, with respect to execution of the work of the contract, for actively managing, performing, and supervising the work involved.**

(C)(A-F) **The EDGE supply business has the responsibility, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering, payment, and where applicable, installation.**

Important Reminders

- **Drug Free Safety Program** - Confirm all contractors, subcontractors and lower-tier subcontractors are compliant with the BWC Drug Free Safety Program or an approved comparable program per General Contract Conditions Article 1.6 Drug Free Safety Program. Failure to confirm compliance shall result in contractor, subcontractor, or the lower-tier subcontractor being found in breach of the contract and that breach shall be used in the responsibility analysis of that contractor, subcontractor or lower-tier subcontractor who was not enrolled in a program for future contracts with the State for 5 years after the date of the breach.
- **Certificate of Compliance** - Any person or company desiring to participate as the Lead Contractor on a state-assisted construction contract shall make an application for a Certificate of Compliance with Federal and State affirmative action programs. Application shall be made with the Ohio Department of Administrative Services: www.das.ohio.gov/eod
- **Replacement of EDGE Subcontractors** – Once the project is in progress, any changes from one EDGE sub to another must be pre-approved in writing by OFCC, per General Contract Conditions: Replacement of Subs.

David Moore - OFCC EDGE Program Manager – 614-715-7866

david.moore@ofcc.ohio.gov

Document 00 45 39 - EDGE Affidavit
State of Ohio Standard Requirements for Public Facility Construction

EDGE PARTICIPATION

Certified Statement of Intent to Contract and Perform

Bidder or Proposer: Submit one fully completed form for each EDGE-certified Business

Project: _____

Project Name: _____

A. Bidder or Proposer's Company Name: _____

Mark all that apply:

Multi-Prime Contract General Contract CM at Risk Contract Design-Build Contract

B. EDGE-certified Business information (for contract at ANY tier)

Mark all that apply:

Subcontractor Material Supplier Professional Services Goods & Services

EDGE Business Name: _____

EDGE Business Address: _____

EDGE Certification Number: _____ E-mail: _____

Contact Person: _____ Phone: _____

Insert detailed description of materials, labor, services, supplies, etc. (may use industry codes – continue on separate page):

C. Certification of Intent

By signing below, the Bidder or Proposer certifies that it intends to contract with the EDGE-certified Business for the portion of the contract described above related to its Contract for this Project and for the estimated cost shown below. By signing below, the EDGE-certified Business certifies that it intends to contract with the Bidder or Proposer and intends to provide the portion of the contract described above related to the Contract for this Project for the estimated cost of:

_____ and _____ /100 dollars (\$ _____).

In the event the named Bidder or Proposer is NOT awarded a Contract, this Statement shall be null and void.

EDGE-certified Business

Bidder or Proposer

Authorized Signature

Authorized Signature

Name and Title

Name and Title

Date Signed

Date Signed

END OF DOCUMENT

DNR-220039, ODNR, Delaware State Park Wastewater Treatment Plant
Pre-Bid Meeting

March 21, 2024, 11:00 AM

Attendance List

Name (please print)	Affiliation	Telephone	Email
1. <u>Mark Cameron</u>	<u>Sands Decker</u>	<u>614-459-6992</u>	<u>mcameron@sandsdecker.com</u>
2. <u>Jordan Zickafoose</u>	<u>Sands Decker</u>	<u>614-459-6992</u>	<u>jordanz@sandsdecker.com</u>
3. <u>Math Spisak</u>	<u>OFCC</u>	<u>614-949-4419</u>	<u>Matthew.Spisak@OFCC.ohio.gov</u>
4. <u>Eleanor Kern</u>	<u>T+M / DNR</u>	<u>937-830-5899</u>	<u>eleanor.kern@dnr.ohio.gov</u>
5. <u>Chris Gibson</u>	<u>ODNR</u>	<u>740-272-1154</u>	<u>christopher.gibson@dnr.ohio.gov</u>
6. <u>Beckie Messiman</u>	<u>ODNR</u>	<u>440-514-7901</u>	<u>beckie.messiman@dnr.ohio.gov</u>
7. <u>Doug Schwach</u>	<u>R.G. Zachrich</u>	<u>419-782-7846</u>	<u>doug@zachrichconstruction.com</u>
8. <u>Milte Ferrank</u>	<u>Tec inc.</u>	<u>440-388-4333</u>	<u>mferrank@tecincny.com</u>
9. <u>David Moore</u>	<u>OFCC</u>	<u>614-715-7866</u>	<u>David.Moore@OFCC.ohio.gov</u>
10. <u>Kim Jacobs</u>	<u>DFCC</u>	<u>614-809-1877</u>	<u>Kimberly.Jacobs@dfcc.ohio.gov</u>
11. <u>Brandon Lantz</u>	<u>Pump Systems LLC</u>	<u>330-607-0847</u>	<u>blantz@pumpsystemsllc.com</u>

DNR-220039, ODNR, Delaware State Park Wastewater Treatment Plant
Pre-Bid Meeting

March 21, 2024, 11:00 AM

Attendance List

	Name (please print)	Affiliation	Telephone	Email
12.	Shawn Hodge	ODNR	614-572-9542	Shawn.Hodge@dnr.chicgo.jp
13.	William M Hodge	ODNR	614 306 4555	william.hodge@dnr.ohio.gov
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				

DELAWARE STATE PARK WASTEWATER TREATMENT SYSTEM IMPROVEMENTS
DNR-220039
Delaware County

- b. Provide circuit breaker for step-down transformer.
- c. Furnish circuit breakers with minimum interrupting rating of 25,000 Amperes (AIC).
- d. Provide phase band and voltage monitoring.



4. Provide full-voltage, non-reversing, NEMA-rated starter for each pump. (IEC-rated starters are acceptable.) Size starters and thermal overloads according to motor nameplate data.

B. Acceptable Manufacturers:

- 1. Motor starters and control components: Allen Bradley.
- 2. Circuit breakers and motor circuit protectors: Square D.

PART 3 - EXECUTION

3.1 INSPECTION

Inspect all pumps, motors, and appurtenances prior to installation in the work. Promptly remove damaged or unsuitable products from the job site. Replace damaged or unsuitable products with new, undamaged and suitable products.

3.2 INSTALLATION

- A. Install the submersible pumps in accordance with the drawings and manufacturer's written instructions.
- B. The discharge elbow of each pump shall be securely anchored to the wet well base and properly aligned with the guide system and upper guide bracket.
- C. All electrical work shall be done by a qualified electrician and shall conform to the National Electric Code.

3.3 TESTING

- A. Pump Testing: Each pump shall be fully tested in accordance with manufacturer's written instructions. Certified copies of the test results shall be furnished with each pumping unit. Record the test voltage and amperage measurements.

3.4 WARRANTY

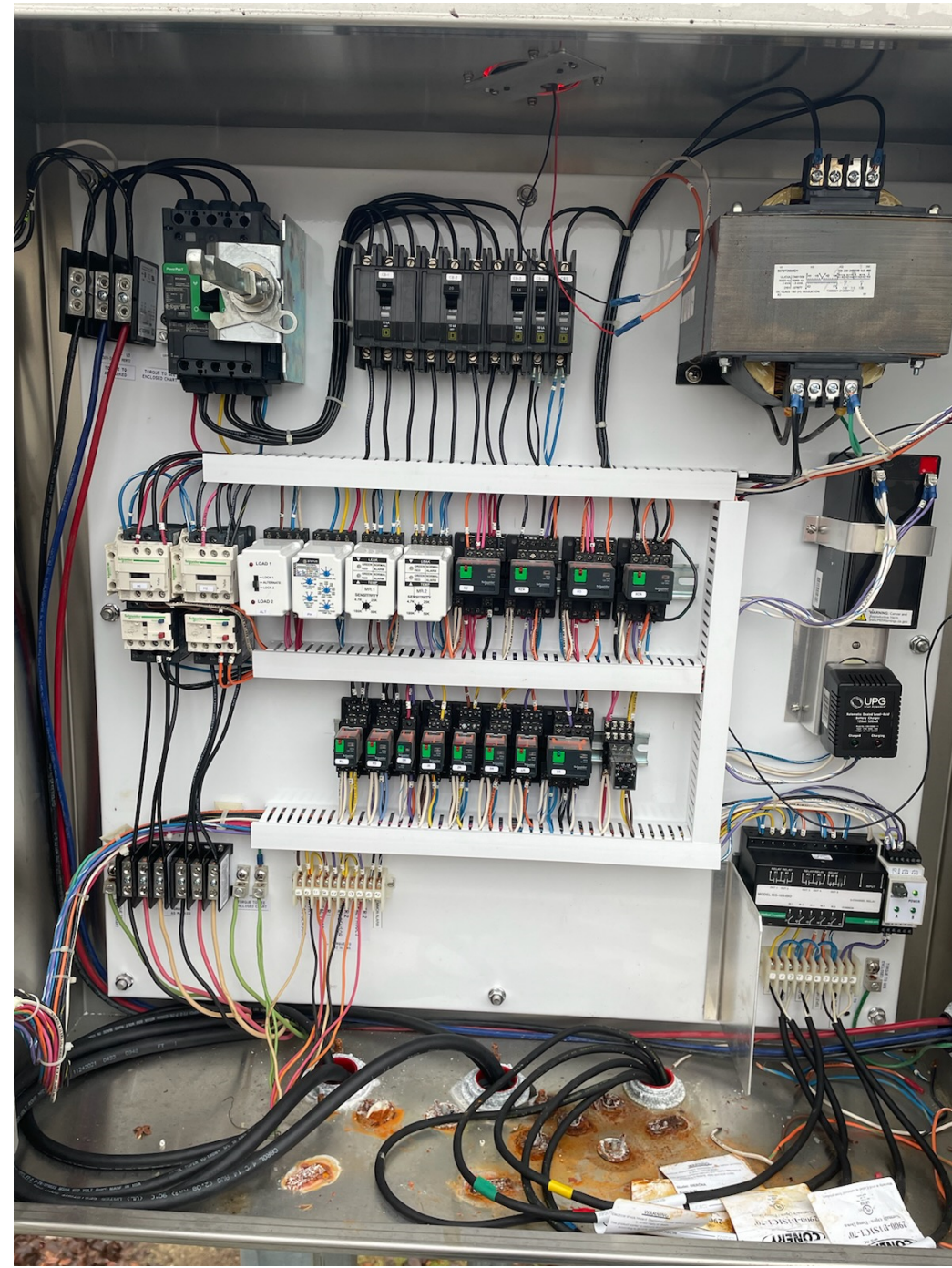
- A. The pump manufacturer shall warrant the pumps being supplied to the Owner against defects in workmanship and materials for a period of five years under normal use, operation, and service. In addition, the manufacturer shall replace certain parts which shall become defective through normal use and wear or a progressive schedule of cost for a period of five years; parts included are the mechanical seal, impeller, pump housing, wear ring, and ball bearings. The warranty shall be in published form and apply to all units. The warranty shall not start until the equipment has been placed in operation for beneficial use as determined by the Owner.

DELAWARE STATE PARK WASTEWATER TREATMENT PLANT IMPROVEMENTS
DNR-220039
DELAWARE COUNTY, OH

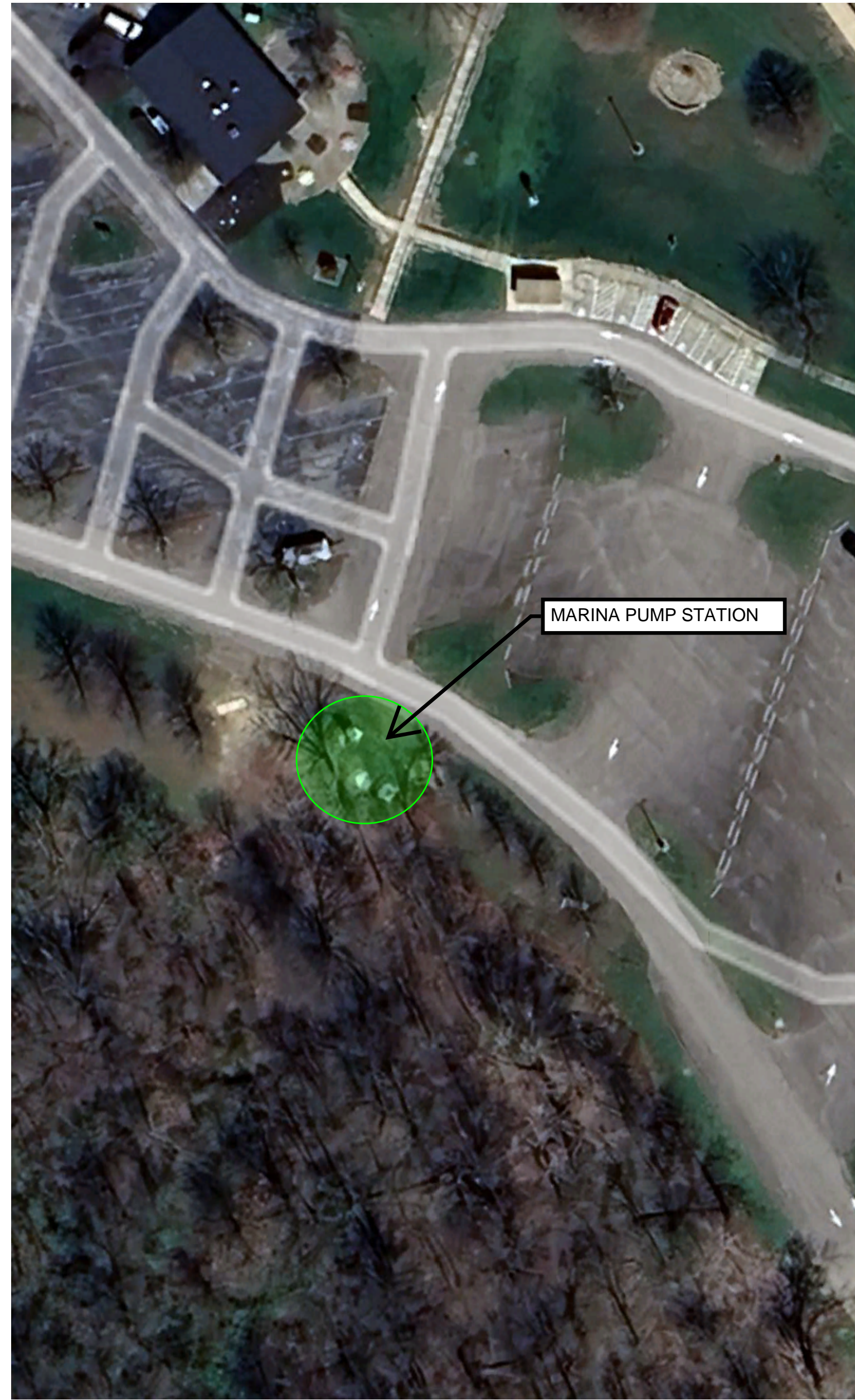
3. 24-inch diameter manhole riser with frame and watertight cover, located above inlet pipe and outlet tee.

C. Flow Equalization

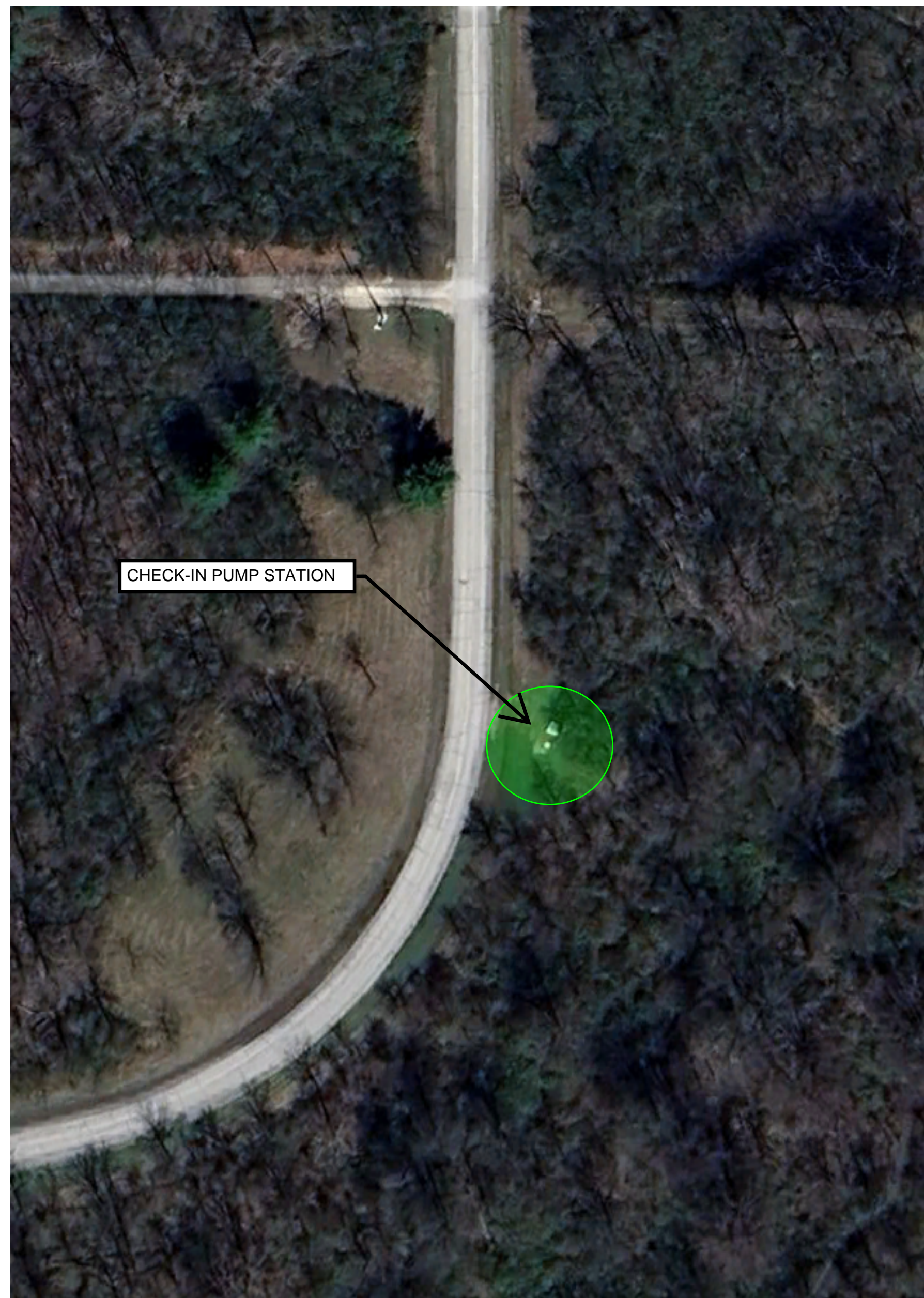
1. Rectangular tanks – precast concrete
2. Pumps
 - a. Duplex Hydromatic, Flygt, or Barnes, explosion proof type or approved equal
 - b. Vortex impeller
 - c. 1150 rpm
 - d. 2 HP, 3 phase, 230 volts
 - e. 3 inch schedule 80 PVC discharge piping
 - e. 3 inch spherical solids handling capability
 - f. Stainless steel lifting cable for each pump
 - g. Stainless steel portable hoist for pump installation and removal
 - h. Pump support brackets shall be stainless steel
3. Control Panel
 - a. NEMA 4X stainless steel enclosure
 - b. Automatic alternation of lead pump for subsequent pump cycles
 - c. Circuit Breakers
 - d. Contactors
 - e. Hand/Off/Auto Switches
 - f. Run Lights
 - g. Red high water alarm to indicate high water conditions
 - h. Intrinsically safe mercury level float for pump control and alarm activation
 - i. Elapsed run time meter for each pump NEMA 4X mounted in the control panel door
 - j. 1 set of normally open unpowered contacts for remote alarm (seal failure, temperature, overload and high water level)
 - k. Intrinsically safe relays
4. Flow Control Box
 - a. Stainless steel construction
 - b. Adjustable rectangular weir to control flow rate into the aeration tank
 - c. Adjustable rectangular weir for excess pumped flow back into the flow equalization tank
5. Blower and Motor
 - a. See section G.1 for details; Air provided by flow EQ tank blowers
6. Air Diffusers
 - a. Air diffusers – Model 375, Snap-cap Plus 5, Evoqua, Pentair or approved equal.
 - b. 6-inch center to center spacing
 - c. Diffuser base construction – molded Celon plastic with 3/8 inch NPT thread connection.
 - d. Diffuser diaphragm construction – injection molded thermoplastic rubber compounded of polypropylene plastic and EDM rubber.
 - e. Design flow rate – 5 scfm.
 - f. Maximum allowable flow rate – 10 scfm.
7. Diffuser Drops



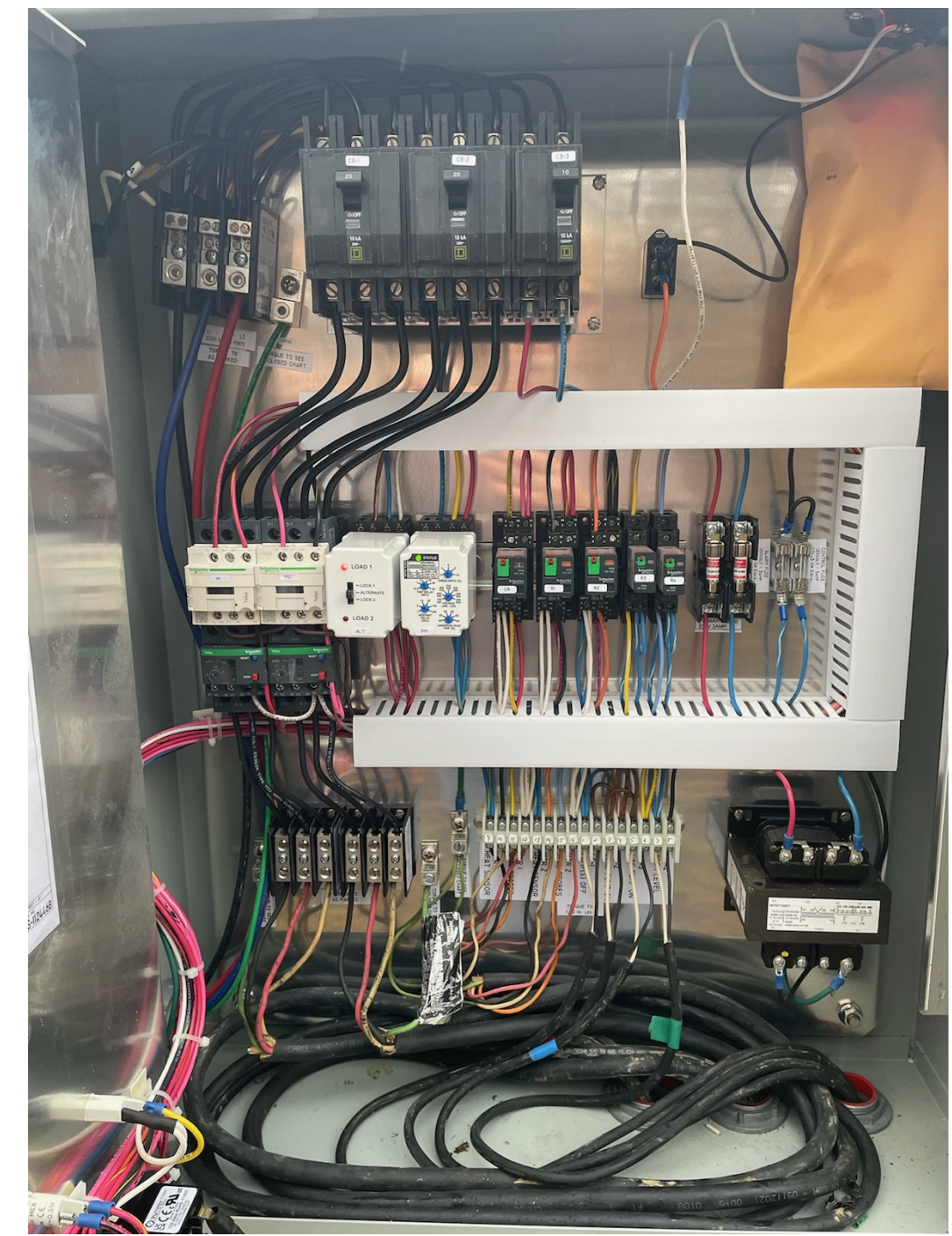
EXISTING CONTROL PANEL AND BREAKERS



MARINA PUMP STATION



CHECK-IN PUMP STATION



EXISTING CONTROL PANEL AND BREAKERS

OPERATION DATA
 TYPE: SUBMERSIBLE GRINDER SEWAGE PUMP
 MANUFACTURER: BARNES, HYDROMATIC, FLYGHT, EQUIV.
 MOTOR: 5.0 HP., 230 VOLTS, 3 PH.
 DUTY: 65 GPM AT 49 FT. TDH

PUMPS ARE TO BE REPLACED FOR THE CHECK-IN PUMP STATION AND THE MARINA PUMP STATION. 2 PUMPS PER EACH LOCATION. PUMP DATA IS SHOWN FOR EACH LOCATION. CONTRACTOR SHALL INCLUDE BREAKER AND STARTER REPLACEMENTS FOR THE CONTROL PANELS, BASED ON ELECTRIC REQUIREMENTS OF THE PUMPS SELECTED FOR EACH LOCATION.

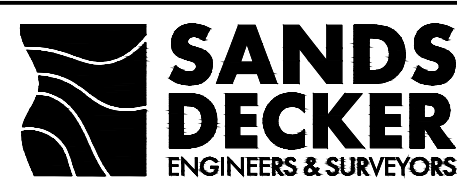
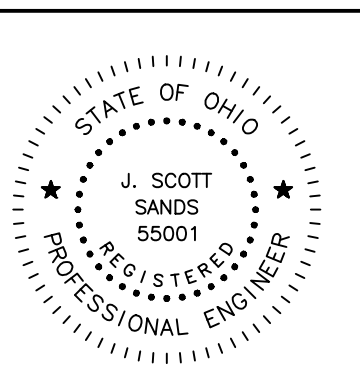
OPERATION DATA
 TYPE: SUBMERSIBLE GRINDER SEWAGE PUMP
 MANUFACTURER: BARNES, HYDROMATIC, FLYGHT, EQUIV.
 MOTOR: 5.0 HP., 230 VOLTS, 3 PH.
 DUTY: 65 GPM AT 33 FT. TDH



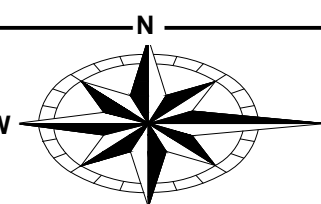
Know what's below.
 Call before you dig.

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ISSUED FOR CONSTRUCTION



MAIN OFFICE
 1495 Old Henderson Road
 Columbus, Ohio 43220
 614-459-6992



ENGINEERING
 Ohio Department of Natural Resources

DESIGNED BY:	...		
DRAWN BY:	...		
CHECKED BY:	...		
APPROVED BY:	...	NO. DATE	SUBJECT
		REVISION OR ISSUE	

AS NOTED
 SCALE
 MM/DD/YY
 03/01/2024

DELAWARE STATE PARK
 NEW WASTEWATER TREATMENT FACILITY
 DNR-220039

PUMP STATION REPLACEMENT DATA

