



To: All Plan Holders of Record

From: Verdantas LLC
For the Owner

Re: *Addendum No. 2*
Lakeshore East Equalization Basin Phase 2
City of Willoughby

Date: October 28, 2025

This Addendum forms a part of the contract documents and modifies the original bidding documents dated October 2025 and all previous addenda, if any. Acknowledge receipt of this addendum in the space provided in the bid forms. Failure to do so may subject the bidder to disqualification.

BID DOCUMENTS

1. Contractor shall install radar level sensors within a 7-inch access cover. Access covers shall be cast iron, 3-inches in height, set in the concrete top of the wet well. Access cover shall be a Sioux Chief Series 850. The tank manufacturer shall provide an access cover for the radar sensor on the top of the dome. The cover shall have vandal-resistant cover screws.

Access covers shall be located over non-turbulent areas in each structure.

The radar sensor shall be provided on a stainless steel bracket, attached to the concrete within the access hatch. Phase 1 contractor shall install access cover in the Regulator Structure. Phase 2 Contractor shall provide stainless steel bracket, radar sensor, and perform installation.

2. All electrical components open to the public; electric actuators, disconnects, junction boxes, etc, shall be pad lockable and vandal resistant.

PLANS

1. **Replace** plan Sheet 46 with the attached Revised Sheet 46.
2. **Replace** plan Sheet 47 with the attached Revised Sheet 47.

QUESTIONS AND ANSWERS

Q1. Sheet 4, Lake County Department of Utilities General Water Notes Bench Marks No. 22 (bottom of the sheet) indicates “The contractor/developer shall submit a three year maintenance bond to the commissioners by developer in the amount of the ten percent of the final construction costs as certified by the developer’s engineer, for public extension projects.” Is this project a “public extension project”? Does this note apply?

A1. This note does not apply to this project and can be disregarded as it pertains to public work water main projects.

Q2. Addendum No. 1 removed requirements for coating concrete. I'm assuming the piping still needs painted, please confirm.

A2. Concrete shall be coated as required in Addendum 01. Piping shall be provided with coating as required in Specification 099635 – Chemical – Resistant Coatings. Valves, pumps, and other equipment shall be coated as required in Specification 099635 – Chemical – Resistant Coatings.

Q3. The precast building suppliers do not provide a foundation design. Who is responsible for designing the foundation?

A3. If the precast building supplier does not perform foundation design, it is acceptable for the contractor to procure a structural engineer to design the building foundation.

Q4. Did any other Valve manufacturers for Checks and Plugs get listed?

A4. Refer to Specification 400562 – Plug Valves and 400565.23 Swing Check Valves for approved manufacturers on valves.

Q5. Can you advise if there is an Aluminum Hatch Spec? Can you confirm loading requirements?

A5. Refer to notes on structural Sheets 26 and 27. In addition, refer to detail on Sheet 38.

Q6. Section 5.1 of the geotechnical report recommends a gross allowable bearing capacity of 2,750 psf for the structure foundation design, with 0.5-inches of total settlement and the base slab bearing at approximately elevation 597-592. As the tank finish floor elevation is now elevation 594, beneath the perimeter trough the bearing elevation will be approximately 589 (3-feet below assumed). After further analysis and clarification to the interior liquid weight provided in Addendum No. 1, the contact pressure below the trough will be roughly 3,200 psf. Please confirm a gross allowable bearing pressure can be achieved to facilitate this contact pressure and confirm what the anticipated design settlements (total/differential) will be with this increased contact pressure. If changes in base preparation are needed from what is provided, to attain the higher gross allowable soil bearing pressure, please provide this information.

A6. Upon further review, a gross allowable bearing capacity of 3,200 psf can be achieved. The settlement would remain unchanged. However, preparation maybe required to provide a workable/stable platform due to anticipated high water elevations within the excavation.

Q7. Please confirm all piping from the tank, connecting to yard piping, should have flexible coupling designed for the tolerable total settlements of the tank.

A7. Refer to Section 5.6 of the Geotechnical Report for underground utilities. Backfill shall be placed in 8-inch maximum lifts and compacted to 100 percent of the maximum dry density as

Addendum No. 2

Date: October 28, 2025

Page 3

determined by ASTM D698 (Standard Proctor). As noted in Addendum 01, approved excavated material can be used for backfill or as required by the tank manufacturer.

Q8. Please provide additional information on cost of permits.

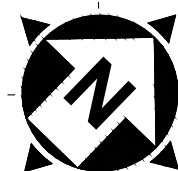
A8. City of Eastlake will require a permit, but will waive the fees for such. All contractors will be required to register with the City of Eastlake. Any permits for Lake County Stormwater / Soil and Water for SWP3 Inspections would still apply.

RS/TM:mep

Enclosure

H:\2023\230264\SPEC - Phase II\Addenda\Addendum 02\Addendum 02.Doc

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



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

NOT TO SCALE

NOT TO SCALE

CODED NOTES:

1. SLIDE GATE ACTUATOR, 480V, 3 ϕ , 60 Hz, 3/4 HP. SEE FEEDER "F-8" FOR POWER & CONTROL CONDUIT & CONDUCTORS.
2. SLIDE GATE ACTUATOR DISCONNECT SWITCH, 480V, 30A, 3-P W/GND, NEMA 4X. INSTALL PER DETAILS THIS SHEET.
3. VEGAPULS C 21 RADAR LEVEL TRANSMITTERS "LT-100" & "LT-200", 4-20 mA LOOP POWERED, ORDER WITH MANUFACTURER'S CABLE LONG ENOUGH TO INSTALL 5' MIN. SERVICE LOOP FIXED TO SS CABLE RACK ANCHORED TO TOP OF RESPECTIVE WELL AND EXTEND TO RESPECTIVE JUNCTION BOX / ENCLOSURE.
4. SLIDE GATE LESG-1 ACTUATOR DISCONNECT SWITCH "DS-100", 480V, 30A, 3-P W/GND, NEMA 4X. INSTALL PER DETAILS THIS SHEET. TERMINATE CABLE FOR LEVEL TRANSMITTER "LT-100" INSIDE VIA NEMA 4X CABLE GLAND.
5. FUTURE PLUG VALVE ACTUATOR CONDUIT, EXTEND VERTICAL RUN TO 6" ABOVE TOC, CAP & LEAVE IN PLACE.
6. SANITARY WET WELL SUBMERSIBLE PUMP, 480V, 3 ϕ , 60 Hz, 15 HP. SEE FEEDER "F-5A" FOR CONDUIT & CONDUCTORS.
7. INSTALL SS CABLE RACK AT TOP OF WET WELL. SECURE 5' SERVICE LOOP OF MFR'S PUMP CABLE BEFORE ROUTING THROUGH CONDUIT TO PUMPS JUNCTION BOX JB-201.
8. WET WELL PUMPS JUNCTION BOX "JB-201", 10" x 8" x 4"D NEMA 4X, INSTALL PER "SECTION A" DETAILS ON THIS SHEET.
9. SUBMERSIBLE PUMP DISCONNECT SWITCHES "DS-201" & "DS-202", 480V, 30A, 3-P W/GND, NEMA 4X. INSTALL PER "SECTION A" DETAILS THIS SHEET.
10. WET WELL FLOATING LEVEL SWITCHES "LS-201, -202, -203, -204", INSTALL AT ELEVATIONS PER PROCESS SHEETS. SECURE 5' SERVICE LOOP OF MFR'S CABLE TO SS CABLE RACK AT TOP OF WELL BEFORE ROUTING TO WET WELL JUNCTION BOX JB-200. USE SS EXPLOSION-PROOF CABLE GLANDS TO ROUTE CABLES THROUGH GRATING BEFORE TERMINATING IN JB-200.
11. WET WELL JUNCTION BOX "JB-200", NEMA 4X. INSTALL OUTSIDE OF CLASSIFIED AREA PER DETAILS THIS PAGE, ADJUST CONDUITS AND SUPPORTS AS NEEDED TO ACCOMMODATE THE LEVEL TRANSMITTER, "LT-200", AND ORIENT FRONT OF BOX TO SOUTHWEST. SECURE MFR'S LEVEL SWITCH AND TRANSMITTER CABLE VIA NEMA 4X CABLE GLANDS. ADJUST DUCT BANKS & CONDUIT RISERS AS NEEDED TO SEPARATE AC AND DC SIGNAL WIRING.
12. WET WELL / VALVE VAULT PULL BOX "PB-200", QUAZITE 17" x 30" x 24", TYPE PG OR APPROVED EQUAL. INSTALL PER HANDHOLE DETAILS ON SHEET #48, E-07.

GENERAL NOTES:

1. ELECTRICAL UTILITY OF RECORD IS THE ILLUMINATING COMPANY, A FIRSTENERGY COMPANY. ALL SERVICE EQUIPMENT AND INSTALLATION MEANS & METHODS TO MEET THEIR REQUIREMENTS.
2. PROPOSED UNDERGROUND SERVICE DUCT BANKS TO UTILIZE 36" SWEEPS, MINIMUM; ALL OTHERS TO UTILIZE 24" SWEEPS, MINIMUM.
3. ALL UNDERGROUND CONDUIT TO BE SCH-40 PVC, 1-1/4" MINIMUM. ALL EXPOSED CONDUIT TO BE SS OR FLEXIBLE NON-METALLIC. WHEREVER CONDUIT TRANSITIONS TO ABOVE GRADE, UTILIZE A SS 90° SWEEP.
4. ALL DUCT BANKS SHOWN ARE DIAGRAMMATIC AND SHOULD NOT BE USED SOLELY FOR INSTALLATION. SEE DETAIL DRAWINGS FOR FULL ACCOUNTING OF DUCT BANK CONDUIT & CONDUCTORS.
5. COORDINATE CONDUIT PENETRATIONS INTO CONTROL BUILDING WITH PROCESS AND MECHANICAL CONTRACTORS TO AVOID INTERFERENCES WITH UNDERGROUND PIPING, ESPECIALLY BETWEEN BUILDING AND EQ TANK.
6. ALL OUTDOOR DISCONNECT SWITCHES TO BE NON-FUSED, 480V, 30A, 3-P W/ GND, NEMA 4X 316 SS ENCLOSURE WITH LOCKABLE EXTERNAL OPERATOR, UON. SQUARE D CAT# VHU361SSGL OR APPROVED EQUAL
7. HAZARDOUS AREA CLASSIFICATIONS:
 - 7.1. REGULATOR STRUCTURE
 - 7.1.1. INTERIOR: CLASS I, DIVISION 1
 - 7.1.2. VENT, WITHIN 3' RADIUS OF OPENING: CLASS I, DIVISION 1
 - 7.1.3. VENT, 2' RADIUS EXTENSION: CLASS I, DIVISION 2
 - 7.1.4. HATCH, WITHIN 3' OF EDGE TO HEIGHT OF 18": CLASS I, DIVISION 2
 - 7.2. WET WELL
 - 7.2.1. INTERIOR: CLASS I, DIVISION 1
 - 7.2.2. VENT, WITHIN 3' RADIUS OF OPENING: CLASS I, DIVISION 1
 - 7.2.3. VENT, 2' RADIUS EXTENSION: CLASS I, DIVISION 2
 - 7.2.4. HATCH, WITHIN 3' OF EDGE TO HEIGHT OF 18": CLASS I, DIVISION 2
 - 7.3. VALVE VAULT
 - 7.3.1. INTERIOR: CLASS I, DIVISION 2
- 7.4. TANK
 - 7.4.1. INTERIOR: CLASS I, DIVISION 1
 - 7.4.2. VENT, WITHIN 3' RADIUS OF OPENING: CLASS I, DIVISION 1
 - 7.4.3. VENT, 2' RADIUS EXTENSION: CLASS I, DIVISION 2
 - 7.4.4. HATCH, WITHIN 3' OF EDGE TO HEIGHT OF 18": CLASS I, DIVISION 2



verdantas

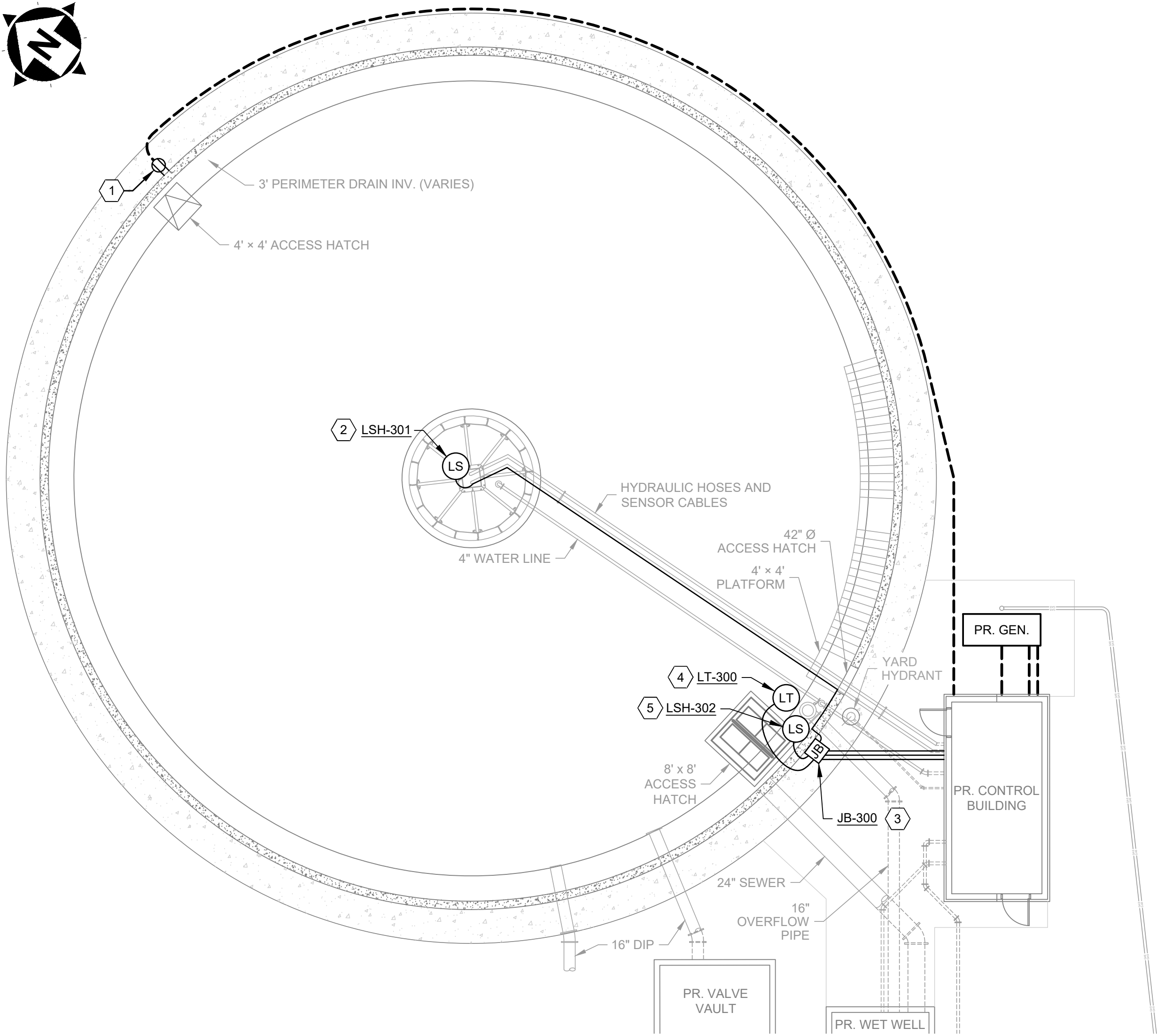
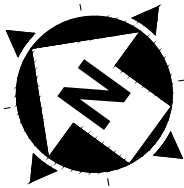
8150 STERLING COURT
MENTOR, OHIO 44060
(440) 951-9000

ISSUED FOR:	BID	NO	REVISION	DATE
ISSUE DATE:	10/28/2025	01	ADDENDUM NO. 02	10/28/25
SCALE:	AS NOTED			
DESIGNED BY:	JPB			
DRAWN BY:	JPB			
CHECKED BY:	GTZ			

**CITY OF WILLOUGHBY
LAKESHORE EAST EQ BASIN
PHASE II**

ELECTRICAL - E SERIES

PROJECT NO.	
230264	
DISCIPLINE	
ELECTRICAL	
SHEET NAME	
E-05	
SHEET	OF
46	48



EQ BASIN TANK LIGHTING & INSTRUMENTATION PLAN

SCALE: 3/32" = 1'-0"

GENERAL NOTES:

- ELECTRICAL UTILITY OF RECORD IS THE ILLUMINATING COMPANY, A FIRSTENERGY COMPANY. ALL SERVICE EQUIPMENT AND INSTALLATION MEANS & METHODS TO MEET THEIR REQUIREMENTS.
- PROPOSED UNDERGROUND SERVICE DUCT BANKS TO UTILIZE 36" SWEEPS, MINIMUM; ALL OTHERS TO UTILIZE 24" SWEEPS, MINIMUM.
- ALL UNDERGROUND CONDUIT TO BE SCH-40 PVC, 1-1/4" MINIMUM. ALL EXPOSED CONDUIT TO BE SS OR FLEXIBLE NON-METALLIC. WHEREVER CONDUIT TRANSITIONS TO ABOVE GRADE, UTILIZE A SS 90° SWEEP AND EXPANDERS/REDUCERS TO MATCH THE SIZE LISTED IN THE FEEDER SCHEDULE.
- ALL DUCT BANKS SHOWN ARE DIAGRAMMATIC AND SHOULD NOT BE USED SOLELY FOR INSTALLATION. SEE DETAIL DRAWINGS FOR FULL ACCOUNTING OF DUCT BANK CONDUIT & CONDUCTORS.
- COORDINATE CONDUIT PENETRATIONS INTO CONTROL BUILDING WITH PROCESS AND MECHANICAL CONTRACTORS TO AVOID INTERFERENCES WITH UNDERGROUND PIPING, ESPECIALLY BETWEEN BUILDING AND EQ TANK.
- HAZARDOUS AREA CLASSIFICATIONS:
 - TANK
 - INTERIOR: CLASS I, DIVISION 1
 - VENT, WITHIN 3' RADIUS OF OPENING: CLASS I, DIVISION 1
 - VENT, 2' RADIUS EXTENSION: CLASS I, DIVISION 2
 - HATCH, WITHIN 3' OF EDGE TO HEIGHT OF 18": CLASS I, DIVISION 2
 - VALVE VAULT
 - INTERIOR: CLASS I, DIVISION 2

CODED NOTES:

- EQ BASIN CONVENIENCE RECEPTACLE, GFCI, INSTALL CONDUIT AND SUPPORTS PER DETAILS THIS SHEET TO MAINTAIN 6" CLEARANCE FROM BOTTOM OF RECEPTACLE TO FINISHED GRADE. INSTALL IN NEMA 4X GANG BOX WITH WEATHERPROOF IN-USE COVER. MAINTAIN 3' CLEARANCE FROM HATCH EDGES TO AVOID HAZARDOUS AREA.
- EQ TANK FLUSHING RESERVOIR HIGH WATER LEVEL SWITCH "LSH-301", SUPPLIED BY VENDOR AND INSTALLED CONTRACTOR PER VENDOR'S REQUIREMENTS. RUN MFR'S CABLE THROUGH SS 3/4" CONDUIT WITH EXPLOSION-PROOF SEAL TO JUNCTION BOX MOUNTED ON EXTERIOR TANK WALL.
- EQ TANK RESERVOIR LEVEL SENSOR JUNCTION BOX "JB-300", NEMA 4X, MOUNT AT A HEIGHT TO FACILITATE ROUTING CONDUIT OVERHEAD TO CONTROL BUILDING. MAINTAIN 3' CLEARANCE FROM HATCH EDGES TO AVOID HAZARDOUS AREA
- RADAR LEVEL SENSOR "LT-300", VEGA MODEL# VEGAPULS C 21, 4-20 mA LOOP POWERED, INSTALL IN A WAY TO AVOID ANY PROCESS PIPING OR OTHER OBSTRUCTIONS BETWEEN SENSOR FACE AND BOTTOM OF TANK. ORDER WITH MANUFACTURER'S CABLE LONG ENOUGH TO REACH JB -300. USE SS EXPLOSION-PROOF CONDUIT BODIES & SEALS TO ROUTE CABLE THROUGH TANK WALL BEFORE TERMINATING IN JUNCTION BOX WITH NEMA 4X CABLE GLAND.
- EQ TANK HIGH WATER OVERFLOW LEVEL SWITCH "LSH-302". SEE PROCESS SERIES FOR DETAILS AND INSTALLATION ELEVATION. ROUTE CABLE THROUGH CONCRETE TANK WALL TO JB-300 VIA 3/4"C WITH EXPLOSION-PROOF CONDUIT BODIES/SEAL.



verdantas

8150 STERLING COURT
MENTOR, OHIO 44060
(440) 851-9000

ISSUED FOR:	BID	NO	REVISION	DATE
10/28/2025	01	ADDENDUM NO. 02	10/28/25	
SCALE:	AS NOTED			
DESIGNED BY:	JPB			
DRAWN BY:	JPB			
CHECKED BY:	GTZ			

CITY OF WILLOUGHBY	WILLOUGHBY, OHIO
LAKESHORE EAST EQ BASIN	
LAKE COUNTY	
PHASE II	
ELECTRICAL - E SERIES	
EQ TANK ELECTRICAL PLANS & DETAILS	

PROJECT NO.	
230264	
DISCIPLINE	
ELECTRICAL	
SHEET NAME	
E-06	
SHEET	OF
47	48