

TOWN OF LEAVENWORTH CRAWFORD COUNTY, INDIANA

LIFT STATION #2 IMPROVEMENTS PROJECT

JANUARY 2025

TOWN OF LEAVENWORTH COUNCIL

JAMES ULAND _____ PRESIDENT

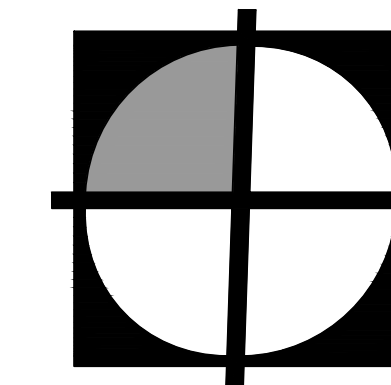
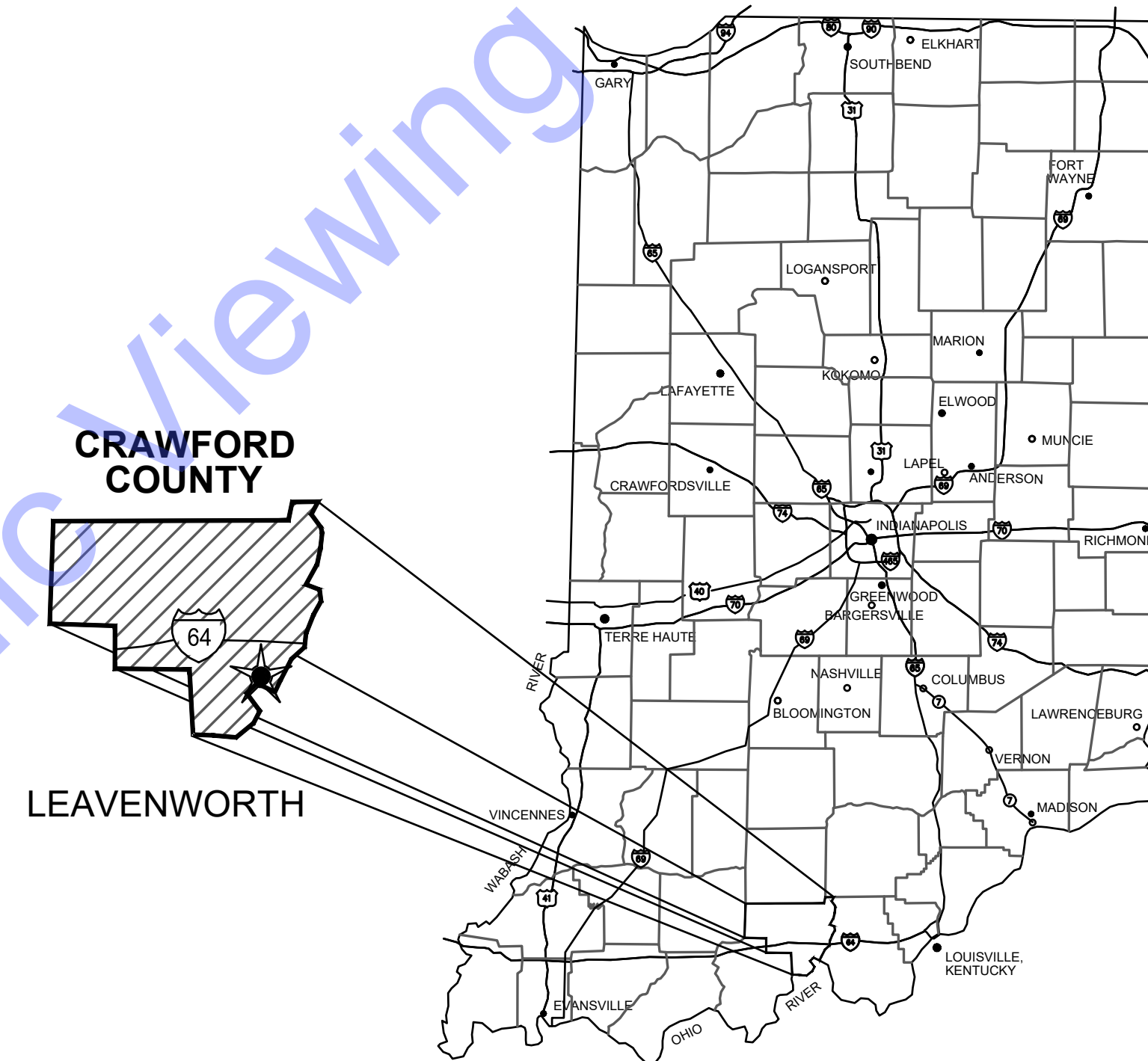
DARRYL DAILY _____ MEMBER

DARLENE VASSER _____ MEMBER

SAMANTHA LAHUE _____ CLERK-TREASURER

HEATHER PETERS _____ ATTORNEY

JEFF LAHUE _____ UTILITY SUPERINTENDENT



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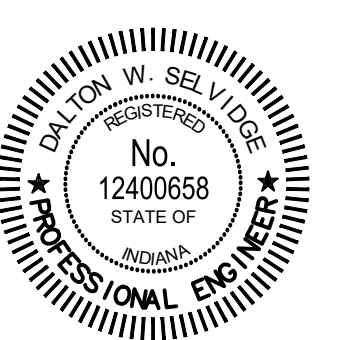
QA/QC BY : RUDOLPH J. NOTICH, P.E.

01/20/2025
DATE :

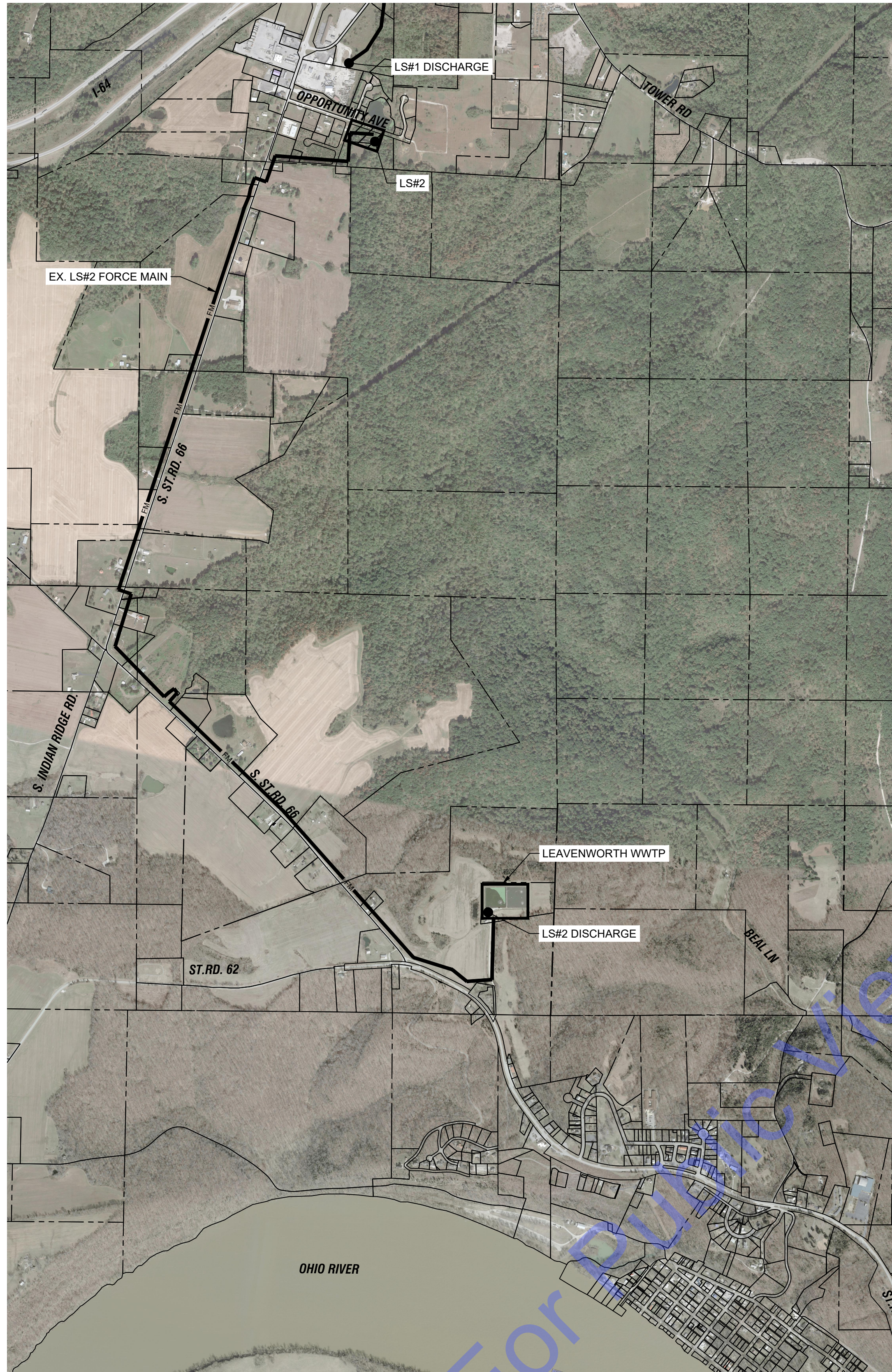
CERTIFIED BY :

Dalton W Selvidge
DALTON SELVIDGE
INDIANA P.E. No. 12400658

01/20/2025
DATE :



CONTRACT NO. : S24103



PROJECT LOCATION & LS#2 DISCHARGE LOCATION MAP

SCALE: 1"=1000'-0"
 0 1000' 2000'

UTILITY CONTACT INFORMATION	
ELECTRIC DUKE ENERGY DON MCDUFFY 812-596-1972 BRITTANY THOMAS 812-596-1972	WATER CRAWFORD COUNTY WATER CO., INC. CARROL RIDDLE 812-365-9528
GAS INDIANA NATURAL GAS CORPORATION PHIL ROSS 812-723-2151	SEWER TOWN OF LEAVENWORTH JEFF LAHUE 812-972-3261
FIBER MAINSTREAM FIBER NETWORKS LLC KREIG WALLEN 812-870-8195	

SITE ADDRESSES	
LS #2 OPPORTUNITY AVE LEAVENWORTH, IN 47137	LS #2 DISCHARGE SR 62 LEAVENWORTH, IN 47137

GENERAL NOTES:

- THE PROJECT CONSISTS OF REHABILITATION OF LIFT STATION #2; INCLUDING BUT NOT LIMITED TO NEW PUMP, 6" DISCHARGE PIPING, RAILS, AND FLOATS; THE REMOVAL AND REPLACEMENT OF SELECT WET WELL COMPONENTS; ELECTRICAL COORDINATION; NEW CONTROLS AND DRIVE AS SHOWN.
- ONLY VISIBLE ABOVE GROUND UTILITY INFRASTRUCTURE OR ACTUAL FIELD MARKINGS DESIGNATING EXISTENCE OF A BURIED UTILITY OR UTILITY PROVIDING AS-BUILT/BEST AVAILABLE MAPPING ARE INCLUDED ON THE PLANS, WITHIN THE SPECIFIC PROJECT LIMITS. BURIED UTILITIES WERE LOCATED AT THE SITE THROUGH INDIANA 811 LOCATING SERVICE (1-800-382-5549). LOCATION OF SUCH UTILITIES, SHOWN WITHIN THESE PLANS, ARE SUBJECT TO THE ACCURACY STANDARDS AS ESTABLISHED BY INDIANA CODE 8-1-26. NO ATTEMPT HAS BEEN MADE AS PART OF THE SURVEY TO OBTAIN OR SHOW DATA CONCERNING SIZE, DEPTH, CONDITION OR CAPACITY OF SAID BURIED UTILITIES, UNLESS SPECIFICALLY NOTED OR SHOWN ON THE PLANS. THE ENGINEER, OWNER OR ASSOCIATED CONSULTANTS/PERSONNEL DO NOT CERTIFY AS TO THE ACCURACY OR COMPLETENESS OF THE BURIED UTILITIES SHOWN HERE-IN.
- ALL EXISTING AND NEW UTILITY INFORMATION, INCLUDING SIZES, LOCATIONS, AND/OR ELEVATIONS, AS SHOWN ON THE DRAWINGS ARE BASED ON AVAILABLE INFORMATION. THE ENGINEER DOES NOT GUARANTEE THE INFORMATION TO BE TRUE, ACCURATE, OR ALL INCLUSIVE. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING COMPLETE OR EXACT. THE CONTRACTOR IS RESPONSIBLE FOR THE ACCURATE LOCATION OF ALL UTILITIES AND HAZARDS WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION TO REQUEST FIELD LOCATION OF UTILITIES.
- OTHER BURIED UTILITIES MAY BE IN PROJECT AREA, MARK ALL UTILITIES BEFORE CONSTRUCTION. PRIOR TO ANY EXCAVATION TAKING PLACE ON SITE, CONTACT INDIANA UNDERGROUND 811 AND THE APPROPRIATE UTILITY COMPANY FOR LOCATION OF ALL LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL RESIDENTS OF INTERRUPTION TO THEIR UTILITIES THAT WILL BE CAUSED OR IS CAUSED BY THE CONSTRUCTION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL REPORT, IN WRITING TO THE ENGINEER, ANY CHANGE IN SITE CONDITIONS THAT MAY POTENTIALLY AFFECT THE SEWER FACILITIES INSTALLATION.
- AS SPECIFIED IN THE WORKMANSHIP AND MATERIALS SECTION 2, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO: EXISTING UNDERGROUND TELEPHONE, FIBER OPTIC CABLES, STORM SEWERS AND STRUCTURES, CABLE TV, ELECTRICAL, WATER FACILITIES AND STRUCTURES, GAS AND SANITARY SEWERS AND STRUCTURES. IN SOME INSTANCES CONTRACTOR MAY BE REQUIRED TO RUN NEW SEWER FACILITIES PARALLEL AND UNDERNEATH BURIED CABLES, ELECTRICAL FACILITIES AND FIBER OPTICS, AS WELL AS ABOVE GROUND ELECTRICAL BOXES AND CABLE PEDESTALS. CONTRACTOR SHALL NOTIFY UTILITY OWNER(S) TO VERIFY TECHNIQUES ACCEPTABLE TO TEMPORARILY SHORE/BRACE OR TEMPORARILY OR PERMANENTLY RELOCATE THESE FACILITIES TO ACCOMMODATE THE WATER FACILITY INSTALLATION. CONTRACTOR SHALL CONTACT RESPECTIVE UTILITY TO TEMPORARILY HOLD OR SHORE EXISTING UTILITY POLES (AND GUY ANCHORS) THAT COULD POTENTIALLY BE AFFECTED BY OPEN CUT EXCAVATIONS.
- PORTIONS OF THE EXISTING FEATURES SHOWN WERE DRAWN USING 2016 DIGITAL ORTHO-PHOTOGRAPHY DATA.
- INFORMATION ON THESE DRAWINGS IS INTENDED ONLY FOR THE IDENTIFIED PROJECT SHOWN ON THIS PLAN SET.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL REQUIREMENTS OF GOVERNMENT AGENCIES AND PERMITS.
- THE CONTRACTOR SHALL CONTACT THE TOWN OF LEAVENWORTH OR THEIR DULY ASSIGNED REPRESENTATIVES (2) DAYS BEFORE CONSTRUCTION IS STARTED. THE CONTRACTOR SHALL REPORT, TO THE RESPECTIVE UTILITY, ANY BREAKS, LEAKS, DENTS, OR ANY DAMAGE TO THEIR FACILITIES. THE CONTRACTOR SHALL GIVE DAILY NOTICE, TO THE OWNER OR DULY ASSIGNED REPRESENTATIVE, WHEN WORK IS NOT BEING PERFORMED AT THE SITE.
- EROSION CONTROL SILT FENCES OR INLET PROTECTION DEVICES SHALL BE PLACED BELOW ALL AREAS DISTURBED DURING CONSTRUCTION AND THAT DRAINS TO WATERWAYS, PRIOR TO COMMENCING WITH WORK ACTIVITIES.
- THE CONTRACTOR SHALL ERECT AND MAINTAIN ALL NECESSARY BARRICADES, DETOUR SIGNS, WARNING SIGNALS AND LIGHTS BY NIGHT (IN CONFORMANCE WITH THE INDIANA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES - LATEST EDITION) REQUIRED TO DIRECT TRAFFIC SAFELY OVER OR AROUND THE PLACE WHERE SUCH WORK IS BEING DONE, SO LONG AS THE WORK IN ANY WAY INTERFERES WITH TRAFFIC.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND/OR ORDERING MATERIAL AND REPORT ANY DISCREPANCIES TO THE ENGINEER IN WRITING.

DRAWING SET INDEX		
SHEET No.	DRAWING No.	TITLE
GENERAL		
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CIVIL		
5	D1	LIFT STATION No. 2 DEMOLITION & IMPROVEMENT DETAILS
6	LS2	LIFT STATION No. 2 SITE DEMOLITION & IMPROVEMENTS PLAN & DETAILS
ELECTRICAL		
7	E0-0	ELECTRICAL LEGENDS AND SCHEDULES
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10	E3-0	ELECTRICAL DETAILS

- WHERE SEWER FACILITIES ARE SHOWN IN STREET, ROAD AND/OR ALLEY RIGHTS-OF-WAY OR DEDICATED EASEMENTS, CONSTRUCTION SHALL BE LIMITED TO SAID RIGHTS-OF-WAY UNLESS SHOWN OTHERWISE.
- DURING EXCAVATION OPERATIONS, SEGREGATE OUT ALL TOPSOIL AND STOCKPILE FOR SUBSEQUENT USE IN AREAS TO BE SEEDED OR SODDED. EXTRA CARE SHALL BE TAKEN TO AVOID MIXING STOCKPILED MATERIAL WITH OBJECTIONABLE MATERIAL.
- CONTRACTOR SHALL MAINTAIN 18" MINIMUM VERTICAL SEPARATION AND 10' MINIMUM HORIZONTAL SEPARATION BETWEEN EXISTING WATER MAIN AND NEW SANITARY SEWER. WHEN CROSSING VERTICALLY, SEWER SHALL BE LOCATED BELOW WATER MAIN AND SEWER SHALL HAVE PIPE JOINTS LOCATED AS FAR AS POSSIBLE FROM THE WATER MAIN (ONE FULL SEWER PIPE LENGTH CENTERED AT WATER MAIN).
- WHEN CROSSING UNDER OR WORKING NEAR OVERHEAD POWERLINES, CONTRACTOR SHALL MAINTAIN PROPER O.S.H.A. CLEARANCE REQUIREMENTS.
- ALL PIPE INSTALLED WITHIN TRAFFIC INFLUENCES AS INDICATED ON THE PLANS, OR WITHIN 5' OF A ROAD OR DRIVE BY THE OPEN TRENCH METHOD SHALL BE BACKFILLED WITH FULL DEPTH GRANULAR BACKFILL. BACKFILL REQUIREMENTS FOR OPEN CUTS OF ROADWAYS, WHETHER IMPROVED OR UNIMPROVED, SHALL BE IN STRICT ACCORDANCE WITH THE DRAWINGS AND STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL TAKE ALL RESPONSIBILITY FOR ANY INJURY OR DAMAGE RESULTING TO PERSONS OR PROPERTY BECAUSE OF SUCH WORK.
- NO VISIBLE, ABOVE GROUND EVIDENCE OF CEMETERIES WERE OBSERVED AT THE SUBJECT PROPERTY, BUT THIS DOES NOT PRECLUDE THEIR EXISTENCE. IF ANY ITEMS OF ARCHAEOLOGICAL SIGNIFICANCE ARE ENCOUNTERED DURING CONSTRUCTION, THE ENGINEER ALONG WITH THE PROPER AUTHORITIES SHALL BE CONTACTED IMMEDIATELY.
- ALL PROPERTY AND RIGHT-OF-WAY LINES INFORMATION SHOWN IN DRAWING SET ARE APPARENT AND SHALL NOT BE DEEMED EXACT LOCATIONS, UNLESS OTHERWISE NOTED. INFORMATION WAS OBTAINED VIA FIELD SURVEY.
- EXISTING UTILITY INFORMATION SHOWN IN DRAWING SET, MEETS "ASCE 36-02" QUALITY LEVEL "B", UNLESS OTHERWISE NOTED.

UTILITY COORDINATION AND PROJECT DIRECTION OF EXISTING SUBSURFACE UTILITY DATA:
UTILITY QUALITY LEVEL DESCRIPTIONS:
UTILITY QUALITY LEVEL A - PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATIONS OF PREVIOUSLY EXPOSED AND SURVEYED UTILITIES) AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT. ACCURACY OF LOCATION MATCHES PROJECT SURVEY TOLERANCE.
UTILITY QUALITY LEVEL B - INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION SUBSURFACE UTILITIES. THE RELIABILITY OF THIS INFORMATION IS SURVEYED TO PROJECT CONTROL AND SUBJECT TO ACCURACY LEVELS OF THE GEOPHYSICAL TOLERANCE DEFINED BY THE PROJECT.
UTILITY QUALITY LEVEL C - INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE GROUND UTILITY FEATURES AND CORRELATING QUALITY LEVEL "D" INFORMATION.
UTILITY QUALITY LEVEL D - INFORMATION DERIVED FROM EXISTING RECORDS OR VERBAL RECOLLECTIONS.

SPECIAL NOTE:
 THE DETAIL SPECIFICATIONS SHALL BE THE PRIMARY TECHNICAL SPECIFICATION REQUIREMENT FOR ALL WORK UNDER THIS CONTRACT. WHERE TECHNICAL SPECIFICATIONS OR MANUALS ARE IN CONFLICT, THE FOLLOWING ORDER, THE FIRST ENUMERATED, SHALL GOVERN OVER ANY OTHER COMPONENT OR PART WHICH FOLLOWS IT NUMERICALLY:

- DETAILED SPECIFICATIONS
- PLANS
- WORKMANSHIP AND MATERIALS

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 A member of resources to make a common goal.

CREWSON POINT
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 420 N. W. 25th St.
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ELANSVILLE
 420 N. W. 25th St.
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Professional Engineer
 No. 12400658
 STATE OF INDIANA

Signature: Dalton W. Gudgeon
 Date: 01/20/2025

**TOWN OF LEAVENWORTH
 CRAWFORD COUNTY, INDIANA**

**LEAVENWORTH LS#2
 IMPROVEMENTS PROJECT**

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No.	Submittal/Revision	By	Date

Designed By: DWS	Drawn By: DMJ	Checked By: RJN
Issue Date: 01/20/2025	Project No: S24103	Scale: AS SHOWN

**DRAWING SET INDEX,
 PROJECT LOCATION
 MAP & GENERAL NOTES**

Drawing No:
G2

Sheet: 2 OF 10

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 User: Dalton W. Gudgeon
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 Plotter: HP DesignJet T1100e
 Plot Style: HP-DesignJet-1100e.ctb

GENERAL ABBREVIATIONS

A	AIR	G	GAS	SAN	SANITARY
AB	ANCHOR BOLT	GALV	GALVANIZED	SAS	SANITARY SEWER
AFF	ABOVE FINISH FLOOR	GEN	GENERAL	SCH	SCHEDULE
ALT	ALTERNATE	GRD	GROUND OR GRADE	SECT	SECTION
ALUM	ALUMINUM			SF	SQUARE FEET
@	AT	HB	HOSE BIBB	SHT	SHEET
APP.	APPARENT	HORIZ	HORIZONTAL	SL	SAMPLE LINE
ATT	AERATION TANK TRANSFER	HP	HORSEPOWER	SOS	STORM SEWER
AUTO	AUTOMATIC	HW	HOT WATER	SP	STOP PLATE
AVG	AVERAGE			SQ	SQUARE
		ID	INSIDE DIAMETER	STD	STANDARD
B	BAFFLE	IJ	ISOLATION JOINT	S STL, SS	STAINLESS STEEL
BLDG	BUILDING	INV	INVERT	STL	STEEL
BM	BENCH MARK	IP	IRON PIN	SUP	SUPERNATANT
BOT	BOTTOM			SY	SQUARE YARD
BRG	BEARING	LAV	LAVATORY		
		LB	POUND	TOS	TOP OF SLAB
CFM	CUBIC FEET PER MINUTE	LL	LIVE LOAD	TOW	TOP OF WALL
CL	CENTERLINE	LLV	LONG LEG VERTICAL	TW	TERTIARY WATER
CO	CLEAN OUT	LTG	LIGHTING	TYP	TYPICAL
COL/C	COLUMN				
CONC	CONCRETE	MAX	MAXIMUM	V	VACUUM OR VALVE
CONC	CONCRETE	MCC	MOTOR CONTROL CENTER	VAR	VARIES
COP	COPPER	MGD	MILLION GALLONS PER DAY	VERT	VERTICAL
CJ	CONSTRUCTION JOINT	MH	MANHOLE		
CP	CONTROL POINT	MIN	MINIMUM, MINUTE	W	WEIR
CW	COLD WATER	MJ	MECHANICAL JOINT	W/	WITH
CY	CUBIC YARD			W/O	WITHOUT
		NC	NORMALLY CLOSED	WAS	WASTE ACTIVATED SLUDGE
D	DRAIN	NG	NATURAL GAS	WC	WATER CLOSET
DEC	DECANT	NIC	NOT IN CONTRACT	WH	WATER HEATER
DIA	DIAMETER	NO	NORMALLY OPEN	WL	WATER LINE
DIM	DIMENSION	NO.	NUMBER	WWF	WELDED WIRE FABRIC
DI	DUCTILE IRON PIPE	NPW	NON-POTABLE WATER	YH	YARD HYDRANT
DL	DEAD LOAD				
DSPT	DOWN SPOUT	OC	ON CENTER		
DWG	DRAWING	OD	OUTSIDE DIAMETER		
		OPG	OPENING		
E	ELECTRICAL CONDUIT	OPP	OPPOSITE		
EA	EACH				
EF	EACH FACE				
EFFL	EFFLUENT	PB	PULL BOX		
EL	ELEVATION	PE	POLYETHYLENE EXP. JT. MATERIAL		
EW	EACH WAY	P/L	PROPERTY LINE		
EX	EXISTING	POJ	PUSH ON JOINT		
EXF	EXHAUST FAN	PSF	POUNDS PER SQUARE FOOT		
EXP JT	EXPANSION JOINT	PSI	POUNDS PER SQUARE INCH		
		PVC	POLYVINYL CHLORIDE		
F	FILTER	PW	POTABLE WATER		
FCAR	FLANGED COUPLING ADAPTER, RESTRAINED	R	RECIRCULATION		
FD	FLOOR DRAIN	RAD	RADIUS		
FDN	FOUNDATION	RAS	RETURN ACTIVATED SLUDGE		
FFE	FINISHED FLOOR ELEVATION	RCP	REINFORCED CONCRETE PIPE		
FH	FIRE HYDRANT	RD	ROOF DRAIN		
FLD	FILTRATE DRAIN	REINF	REINFORCING		
FLG	FLANGE	REQ'D	REQUIRED		
FL	FLUSHING LINE	R/W (ROW)	RIGHT-OF-WAY		
FLR	FLOOR				
FM	FORCE MAIN				
FRP	FIBER REINFORCED PLASTIC				
FT	FEET OR FOOT				
FTG	FOOTING				
FW	FINISHED WATER				

GENERAL SCHEMATIC LEGEND

	QUICK DISCONNECT		BOOSTER PUMP
	FLANGED SPOOL SECTION		AIR RELIEF VALVE
	PRESSURE REDUCER VALVE		FLOW METER
	FLANGED COUPLING ADAPTER		GATE VALVE
	BALL CHECK VALVE		FLOW CONTROL VALVE
	MOTOR ACTUATOR		VALVE
	FLEXIBLE CONNECTION		ECCENTRIC PLUG VALVE
	FLANGE FILLER & S.S. MESH SCREEN		CHECK VALVE
	90° V-NOTCH WEIR		INCREASER / REDUCER
	MAGNETIC FLOW METER		BUTTERFLY VALVE
	ULTRASONIC SENSOR		PIPE THROUGH FLOOR / WALL
	SUBMERSIBLE PUMP		BALL VALVE
	NEW PIPING AND EQUIPMENT		BLIND FLANGE OR PLUG
	EXISTING PIPING AND EQUIPMENT		HOSE BIBB
	FUTURE PIPING AND EQUIPMENT		STOP PLATE
			WEIR

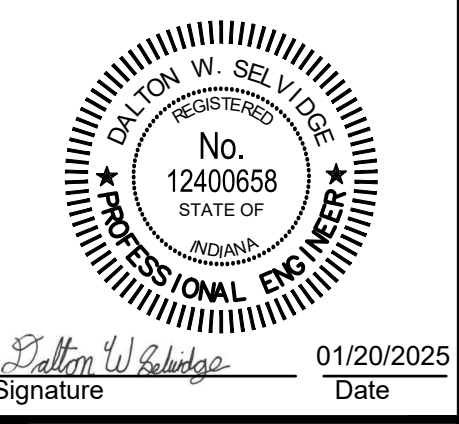
HATCHING SYMBOLS

	-CMU WALL (PLAN VIEW)
	-GRANULAR BACKFILL (PROFILE VIEW)
	-DEMOLITION (CONTRACTOR SHALL REFER TO DETAILED SPECIFICATIONS)
	-GROUT
	-CONCRETE
	-STEEL
	-COMPACTED GRANULAR BACKFILL OR COMPACTED FOUNDATION
	-ABANDONED IN PLACE

DRAWING SET LEGEND

	EXISTING OVERHEAD TELEPHONE LINE		AC UNIT
	EXISTING GAS LINE AND VALVE		BOLLARD
	EXISTING WATER LINE AND VALVE		BOULDER / LARGE ROCK
	EXISTING FIBER OPTIC LINE		CENTER LINE MONUMENT
	EXISTING OVERHEAD ELECTRIC LINE		CONTROL POINT / BENCH MARK
	EXISTING BURIED ELECTRIC		DRILL HOLE
	EXISTING NON-POTABLE WATER LINE		MAIL BOX
	EXISTING POTABLE WATER LINE		FLAG POLE
	EXISTING BURIED TELEPHONE LINE		POST
	EXISTING FENCE		STUMP
	APPARENT RIGHT-OF-WAY		BUSH / HEDGE
	APPARENT PROPERTY LINE		DECIDUOUS TREE
	EDGE OF ROAD		CONIFEROUS TREE
	EDGE OF ROAD WITH CURB		SIGN
	EXISTING MAJOR CONTOUR LINE		UTILITY LOCATE FLAG
	EXISTING MINOR CONTOUR LINE		GAS LINE MARKER
	NEW SANITARY SEWER GRAVITY LINE		GAS VALVE
	NEW SANITARY SEWER FORCE MAIN		GAS METER
	PROPOSED MAJOR CONTOUR LINE		GUY POLE
	PROPOSED MINOR CONTOUR LINE		POWER POLE
			LIGHT POLE
			GUY WIRE
			ELECTRIC METER
			ELECTRIC PANEL
			ELECTRIC TRANSFORMER
			HAND HOLE BOX
			FIBER OPTIC MARKER
			TEL/V PEDESTAL
			TELEPHONE MANHOLE
			TELEPHONE LINE MARKER
			TRAFFIC MANHOLE
			WATER LINE MARKER
			WATER METER
			VALVE
			IRRIGATION CONTROL VALVE
			FIRE HYDRANT
			FLUSH HYDRANT
			YARD HYDRANT
			WALL SPIGOT
			EXISTING PIPE PLUG
			STORM CATCH BASIN (SQUARE)
			STORM CATCH BASIN (ROUND)
			STORM CURB INLET
			STORM MANHOLE
			SANITARY MANHOLE
			SANITARY VALVE
			CLEANOUT
			VENT
			NEW PLUG
			NEW CUT AND CAP

DISCLAIMER NOTE:
THIS DRAWING REFLECTS TYPICAL INFORMATION,
SOME MAY NOT BE APPLICABLE TO THIS PROJECT.



**TOWN OF LEAVENWORTH
CRAWFORD COUNTY, INDIANA**

**LEAVENWORTH LS#2
IMPROVEMENTS PROJECT**

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No.	Submittal / Revision	By	Date

Designed By: DWS
Drawn By: DMJ
Checked By: RJN

Issue Date: 01/20/2025
Project No: S24103
Scale: AS SHOWN

ABBREVIATIONS AND SYMBOLS

Drawing No: **G3**
Sheet: 3 OF 10



SHEET NOTES:

1. SURVEY AND FIELD WORK COMPLETED BY HENNESSY SURVEYING, INC. 128 N WEST ST, PRINCETON, IN 47670. PHONE: (812) 635-9002
2. CONTRACTOR SHALL VERIFY CONTROL POINT ELEVATIONS AGAINST A BENCHMARK (TBM) PRIOR TO USE IN THE EVENT THE CONTROL POINT HAS BEEN DISTURBED SUBSEQUENT TO THE SITE SURVEY BEING COMPLETED.
3. THIS DRAWING IS NOT INTENDED TO BE REPRESENTED AS A RETRACEMENT OR ORIGINAL BOUNDARY SURVEY, A ROUTE SURVEY, OR A SURVEYOR LOCATION REPORT.

SURVEY CONTROL PLAN

SCALE: 1"=30'-0"
 0 30' 60'

CONTROL POINTS				
IDENTIFIER	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP #03	5/8" REBAR WITH CAP	1089037.39	129360.58	690.74
CP #04	5/8" REBAR WITH CAP	1088969.40	129493.84	700.59

Project coordinates are based on the following:
HORIZONTAL-US State plane coordinates: NAD83 (North American Datum) Indiana West Zone (1302)
VERTICAL- USGS 1988 NAVD (North American Vertical Datum)-per GPS observations (Not verified by physical location of published USGS monuments)



Signature: *Dalton W. Sledge* Date: 01/20/2025

**TOWN OF LEAVENWORTH
 CRAWFORD COUNTY, INDIANA**

**LEAVENWORTH LS#2
 IMPROVEMENTS PROJECT**

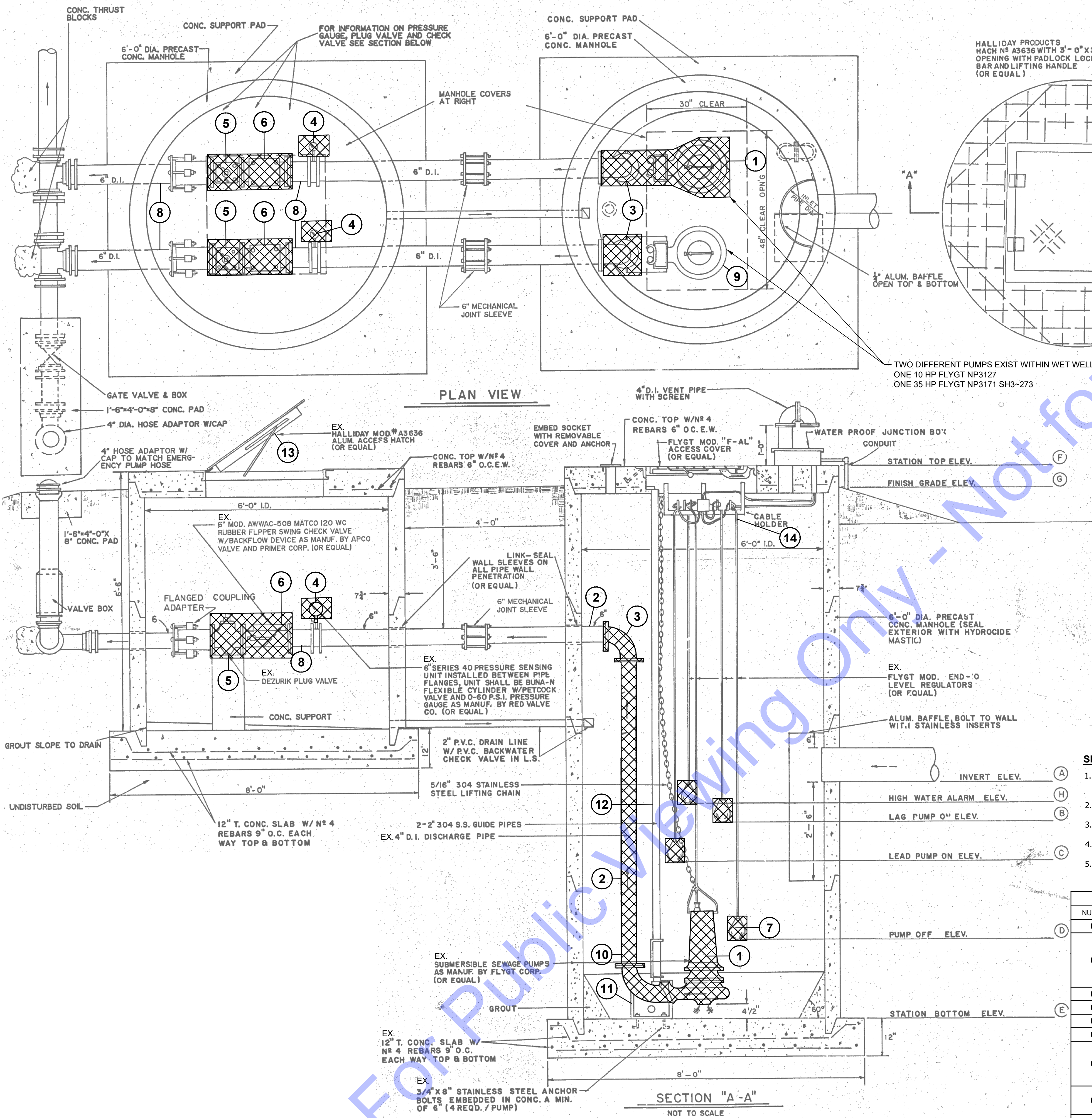
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No.	Submital / Revision	By	Date

Designed By: DWS Drawn By: DMJ Checked By: RJN
 Issue Date: 01/20/2025 Project No: S24103 Scale: AS SHOWN

**EXISTING DISCHARGE
 MANHOLE MAP AND
 SURVEY CONTROL
 PLAN**



SCHEDULE OF ORIGINAL LIFT STATION		
ITEM	SYMBOL	LS. #2
SEWER INLET INV.	A	8" PVC (W) @ 681.49'
ELEV. LAG PUMP ON	B	680.70'
ELEV. LEAD PUMP ON	C	679.70'
ELEV. PUMP OFF	D	677.20'
STA. BOTTOM ELEV.	E	675.54'
TOP ELEV.	F	689.44'
ELEV. FIN. GRADE	G	EXISTING
HIGH WATER ALARM	H	381.20'
IMPELLER SIZE		195 mm
G.P.M.		286
T.D.H.		195'
R.P.M.		3520
STATIC		60'

SCHEDULE OF ORIGINAL LIFT STATION - ELECTRICAL		
ITEM	SYMBOL	LS. #2
PUMP H.P.		35 HP
VOLTAGE		480V
PHASE		3-PHASE

- SHEET NOTES:**
- WITHIN INTERIOR OF LIFT STATION; ITEMS DEEMED NON-SALVAGEABLE BY OWNER SHALL BE REMOVED. CONTRACTOR TO COORDINATE WITH TOWN OF LEAVENWORTH OPERATOR JEFF LAHUE TO IDENTIFY SPECIFIC EQUIPMENT TO BE SALVAGED PRIOR TO BEGINNING DEMOLITION.
 - CONTRACTOR SHALL PUMP OUT AND CLEAN TANK PRIOR TO REMOVAL OR RETIREMENT PER APPLICABLE FEDERAL, STATE AND LOCAL CODES.
 - WITHIN INTERIOR OF VALVE VAULT; ITEMS NON-SALVAGEABLE DESIGNATED BY OWNER SHALL BE REMOVED. REMOVAL ITEMS INCLUDE ALL PIPING AND VALVES.
 - CONTRACTOR SHALL REPLACE EXIST. 4" FORCE MAIN WITH NEW 6" DUCTILE IRON DISCHARGE PIPING TO THE 90 DEGREE FLANGE AS SHOWN.
 - EXISTING LIFT STATION DRAWING, DETAILS, AND INFORMATION FROM THE 1998 RECORD DRAWINGS OF THE I-64 INDUSTRIAL PARK PROJECT BY MIDWESTERN ENGINEERS, INC.

LIFT STATION #2 DEMOLITION AND IMPROVEMENT SCHEDULE			
NUMBER	ITEM	ACTION	IMPROVEMENT NOTES
1	EX. FLYGT NP3127 10 HP Pump	REMOVE/REPLACE	PUMP TO BE UPGRADED WITH FLYGT NP 3171 35HP PUMP
2	DISCHARGE PIPING WITH WALL MOUNTED SUPPORT BRACKETS	REMOVE/REPLACE	REPLACE WITH 6" DUCTILE IRON PIPE. CONTRACTOR SHALL INSTALL MISCELLANEOUS FITTINGS OR MAKE ANY ADJUSTMENTS NECESSARY TO ACCOMMODATE NEW DISCHARGE PIPING FROM NEW OR MODIFIED PUMPS TO EXISTING DISCHARGE PIPING CONNECTION. DUCTILE IRON PIPE SHALL BE COATED PER WM25.1. PER SUBMERGED USE. EXPOSED EX. PIPING TO REMAIN SHALL BE PREPPED AND HAVE FIELD COAT APPLIED. INSTALL STAINLESS STEEL WALL SUPPORT BRACKETS WITH STAINLESS STEEL MOUNTING HARDWARE EVERY 6' MIN. OR MIN. OF THREE (3).
3	90 DEGREE BEND	REMOVE/REPLACE	REPLACE WITH 6" X 6" DI
4	PRESSURE GAUGE	REMOVE/REPLACE	REPLACE PER SPECIFICATIONS
5	PLUG VALVE	REMOVE/REPLACE	REPLACE PER SPECIFICATIONS
6	CHECK VALVE	REMOVE/REPLACE	REPLACE PER SPECIFICATIONS
7	FLOATS	REMOVE/REPLACE	UPGRADE WITH CONTROLS PER ELECTRICAL & CONTROLS PLANS & SPECIFICATIONS. INSTALL NEW RADAR SENSOR AND EMERGENCY BACKUP FLOAT. REPLACE PIPING OR FITTINGS AS REQUIRED TO INSTALL NEW VALVING. NEW PIPING SHALL BE DUCTILE IRON COATED PER SUBMERGED USE PER WM25.1. EXPOSED EX. PIPING TO REMAIN, SHALL BE PREPPED AND HAVE FIELD COAT APPLIED.
8	VALVE VAULT PIPING	REPLACE AS REQUIRED	REPLACE PIPING OR FITTINGS AS REQUIRED TO INSTALL NEW VALVING. NEW PIPING SHALL BE DUCTILE IRON COATED PER SUBMERGED USE PER WM25.1. EXPOSED EX. PIPING TO REMAIN, SHALL BE PREPPED AND HAVE FIELD COAT APPLIED.
9	EX. FLYGT NP3171 SH3-273 35 HP PUMP	REWIRE PUMP	REWIRE PUMP FOR USE WITH 480V 3-PHASE
10	INCREASER TO DISCHARGE PIPING	INSTALL	INSTALL NEW 4" TO 6" INCREASER (FROM PUMP TO DISCHARGE PIPING)
11	BASE ELBOW AND ANCHOR BOLTS	REMOVE/REPLACE	REPLACE PER PUMP MANUFACTURER
12	RAILS	REMOVE/REPLACE	REPLACE PER PUMP MANUFACTURER
13	HATCH	NO ACTION	KEEP EXISTING
14	SAFETY HOOKS AND CABLE HOLDER	REMOVE/REPLACE	UPGRADE WITH CONTROLS PER ELECTRICAL & CONTROLS PLANS & SPECIFICATIONS.

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A member of resources to make a common goal.

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DATE: 01/20/2025
SIGNATURE: *Dallen W. Gubge*
PROFESSIONAL ENGINEER
No. 12400658
STATE OF INDIANA

**TOWN OF LEAVENWORTH
CRAWFORD COUNTY, INDIANA**

**LEAVENWORTH LS#2
IMPROVEMENTS PROJECT**

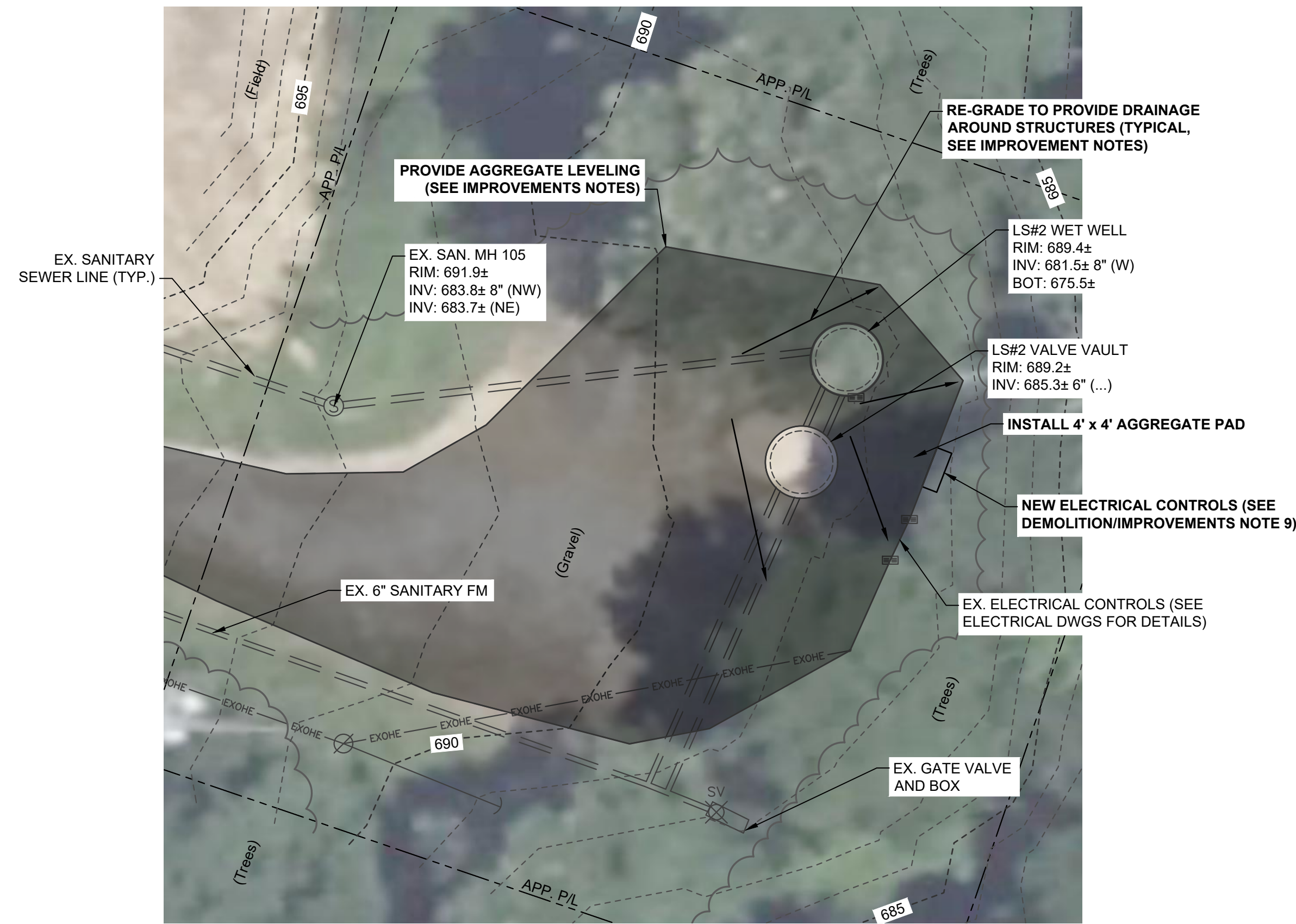
DESIGNED BY: DWS
DRAWN BY: DMJ
CHECKED BY: RJN

ISSUE DATE: 01/20/2025
PROJECT NO: S24103
SCALE: AS SHOWN

**LIFT STATION NO. 2
DEMOLITION &
IMPROVEMENT DETAILS**

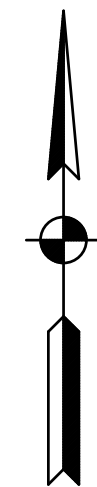
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D1

Sheet: 5 OF 10



**LIFT STATION #2
SITE DEMOLITION AND IMPROVEMENTS PLAN**

SCALE: 1"=10'-0"
0 10' 20'



LIFT STATION #2 EXTERNAL VIEW (LOOKING EAST)

PHOTO

NOT TO SCALE



LIFT STATION #2 WET WELL INTERIOR VIEW

PHOTO

NOT TO SCALE



LIFT STATION #2 CONTROL PANEL (LOOKING EAST)

PHOTO

NOT TO SCALE



LIFT STATION #2 VALVE VAULT INTERIOR VIEW

PHOTO

NOT TO SCALE



**LIFT STATION #2
SITE DEMOLITION AND IMPROVEMENTS PLAN**

SCALE: 1"=40'-0"
0 40' 80'

DEMOLITION NOTES:

- CONTRACTOR SHALL COORDINATE WITH OWNER LIFT STATION MANAGER TO IDENTIFY SPECIFIC EQUIPMENT TO BE SALVAGED PRIOR TO BEGINNING DEMOLITION.
- ALL OWNER SALVAGED MATERIALS SHALL BE DELIVERED TO THE WWTP.
- CONTRACTOR SHALL PROPERLY DISPOSE OF ALL NON-SALVAGED MATERIALS.
- CONTRACTOR SHALL DEMO EXISTING PUMP CONTROL PANEL AND APPURTENANCES, INCLUDING BUT NOT LIMITED TO: PANEL, PEDESTAL, DISCONNECT & MANUAL TRANSFER SWITCHES, JUNCTION BOX, ALARM, CONDUITS & WIRING. REFER TO SHEET 5 FOR SPECIFIC LIFT STATION ITEMS AND DETAILS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND COST ASSOCIATED WITH UTILITY DISCONNECTION. CONTRACTOR SHALL CONTACT DUKE ENERGY, AT 812-596-1972. DUKE WILL CUT POWER AND REMOVE METER. CONTRACTOR SHALL REMOVE ALL OTHER ELECTRIC COMPONENTS, INCLUDING BUT NOT LIMITED TO: SERVICE, WIRING & CONDUITS.
- CONTRACTORS SHALL SALVAGE EXISTING TELEMETRY AND CONTROL PANEL. CONDITION OF TELEMETRY SHALL BE DOCUMENTED IN PRESENCE OF TOWN PERSONNEL BEFORE REINSTALLATION OF NEW CONTROL PANEL.
- CONTRACTOR TO REMOVE OR TRIM EXISTING TREES AS NEEDED FOR CONSTRUCTION. COORDINATE TREE REMOVAL AND DISPOSAL WITH OWNER.

IMPROVEMENTS NOTES:

- CONTRACTOR SHALL PROVIDE DRAINAGE AROUND THE EXISTING VALVE VAULT AND WET WELL. SLOPE EX. GRADE AWAY FROM THE STRUCTURES AND PROVIDE TWO INCH EXPOSURE TO ELIMINATE WATER FROM ENTERING THE HATCHES. BUILD A FLAT, AGGREGATE PAD - MIN. 4' x4', IN FRONT OF CONTROL PANEL. PAD ELEVATION TO MATCH EX. WET WELL ELEVATION. PROVIDE ADEQUATE DRAINAGE FROM THE PAD AND CONTROL PANEL.
- CONTRACTOR TO PROVIDE AGGREGATE OVERLAY AND FILL IN LOW LYING AREAS IN DRIVEWAY TO THE LIFT STATION, REFER TO SHADED AREA ON SITE PLAN. ON ENTRANCE DRIVEWAY, CONTRACTOR TO PROVIDE A MINIMUM OF TWO WATER BARS TO SHED WATER OFF DRIVEWAY. ADDITIONAL AGGREGATE OVERLAY TO BE INSTALLED AT LIFT STATION SITE.
- AGGREGATE TO BE INDOT COMPACTED AGGREGATE BASE No. 53. AGGREGATE AND AMOUNTS TO BE INSTALLED AS AUTHORIZED BY OWNER AND ENGINEER.

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(502) 334-5544

Professional Engineer
No. 12400658
STATE OF INDIANA
Dalton W. Gubge
Signature
01/20/2025
Date

TOWN OF LEAVENWORTH
CRAWFORD COUNTY, INDIANA
LEAVENWORTH LS#2
IMPROVEMENTS PROJECT

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No.	Submittal / Revision	By	Date

Designed By: DWS	Drawn By: DMJ	Checked By: RJR
Issue Date: 01/20/2025	Project No: S24103	Scale: AS SHOWN

LIFT STATION NO. 2
SITE DEMOLITION &
IMPROVEMENTS PLAN
& DETAILS

Drawing No:
LS2
Sheet: 6 OF 10

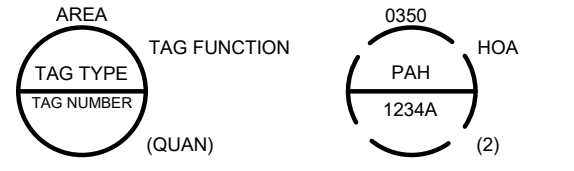
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PROCESS AND INSTRUMENTATION DIAGRAM LEGEND

TAG FUNCTION ABBREVIATIONS

Table listing tag function abbreviations such as ALT (ALTERNATE), CM (COMPUTER-MANUAL), DO (DISSOLVED OXYGEN), F (FAIL), F(X) (CHARACTERIZED), etc.

INSTRUMENT TAG IDENTIFICATION



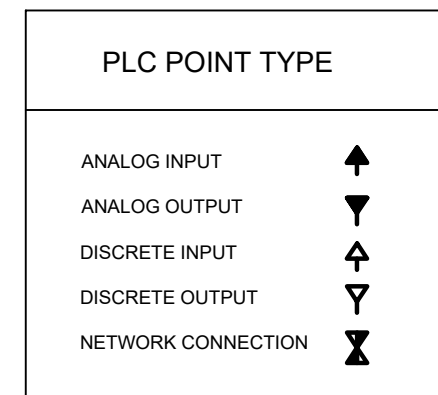
COMPONENT DESIGNATOR

Table defining component designator codes: AREA (0350), TAG TYPE (P), TAG NUMBER (12), and HOA (2).

TAG FUNCTION HOA: TAG FUNCTION ABBREVIATION, SEE LISTING AT RIGHT

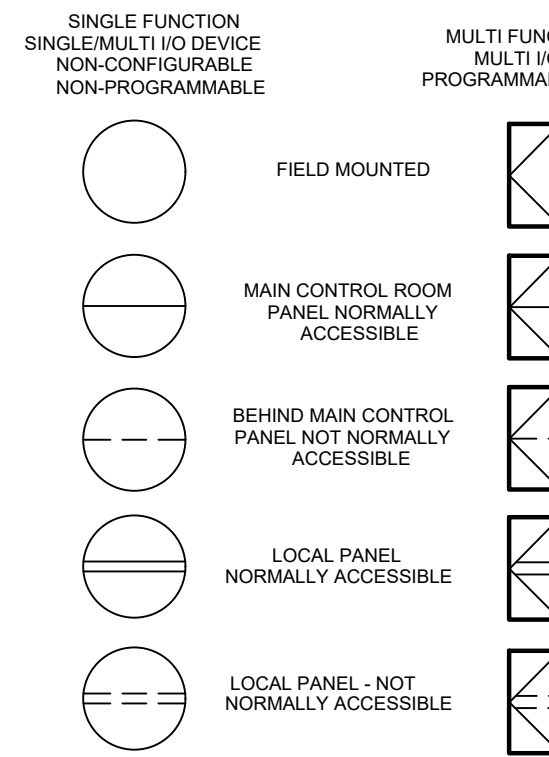
(QUANTITY) (2): TOTAL NUMBER OF DEVICES WHERE MORE THAN ONE DEVICE IS REQUIRED...

PLC POINT TYPE

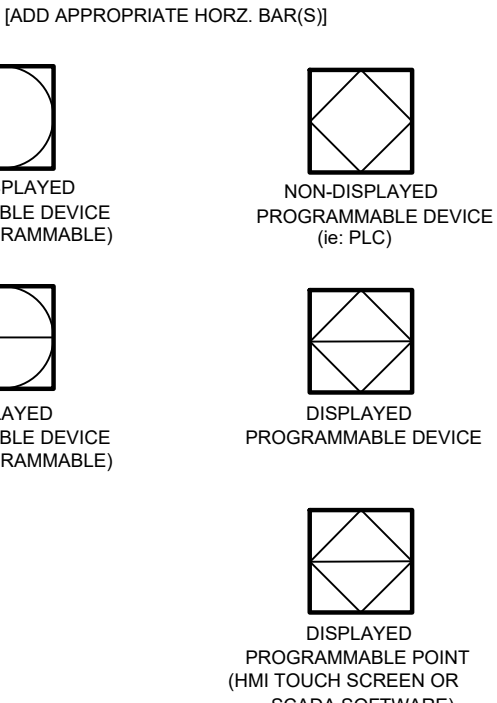


TAG SYMBOLS

HORIZONTAL BAR SYMBOLS FOR PHYSICAL MOUNTING OF DEVICE



CONTROL AND I/O DEVICES DISPLAY



INSTRUMENT SOCIETY OF AMERICA TABLE

Table with columns for Letter, First Letter(s), Process or Initiating Variable, Modifier, Readout or Passive Function, Output Function, and Successing Letter(s).

(*) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL

SPECIAL CASES: ETM - ELAPSED TIME METER, JBX - JUNCTION BOX, NDX - INDEX #, etc.

ELECTRICAL GENERAL NOTES

(GENERAL NOTES APPLICABLE TO ALL ELECTRICAL SHEETS)

- 1. CONTRACTOR SHALL EXAMINE NOT ONLY PLANS AND SPECIFICATIONS FOR ELECTRICAL AND INSTRUMENTATION... 2. THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO INCLUDE EVERY DETAIL... 3. WHEN SUBSTITUTING OTHER EQUIPMENT, MATERIALS, AND PRODUCTS... 4. REVIEW THE CONTRACT DOCUMENTS OF OTHER DIVISIONS... 5. UPON COMPLETION OF THE WORK REQUIRED UNDER THIS CONTRACT... 6. ALL MOUNTING HEIGHTS INDICATED ON DRAWINGS ARE TO CENTERLINE, UON.

LEGEND

Table mapping symbols to descriptions and mounting heights (MTG HGT AFF TO CL, UON). Includes symbols for lighting fixtures, switches, receptacles, and various electrical components.

PUMP AND METER LEGEND

Table mapping symbols to descriptions for pumps and meters, including magnetic flow meter, sonic flow meter, centrifugal pump, etc.

LEGEND

Table mapping abbreviations to descriptions and meanings. Includes terms like ABV (ABOVE), AFF (ABOVE FINISHED FLOOR), AGLC (ABOVE FINISHED CEILING), etc.

ABBREVIATIONS

Table mapping symbols to descriptions and meanings for various electrical symbols like raceway, receptacle, and breaker.

ABBREVIATIONS

Table mapping abbreviations to meanings for terms like GFI (GROUND FAULT INTERRUPTER), WP (WEATHER PROOF), etc.

MOTOR CONTROLLER LEGEND

Table mapping symbols to descriptions for motor controller components like soft starter, variable frequency drive, etc.

LIGHTING LEGEND

Table mapping symbols to descriptions for lighting fixtures with standard ballast and emergency ballast.

COMMONWEALTH ENGINEERS, INC. logo and contact information for various office locations.

Professional Engineer seal for Lee Church, No. 11300603, State of Indiana.

Signature and Date: 1/03/2025

TOWN OF LEAVENWORTH CRAWFORD COUNTY, INDIANA LEAVENWORTH LS#2 IMPROVEMENTS PROJECT

Indiana 811 logo and contact information for utility locating services.

Table with columns for No., Date, and Revision for document tracking.

Designed By: SD, Drawn By: SD, Checked By: TLC, Issue Date: January 2025, Project No: S24103, Scale: AS SHOWN

ELECTRICAL LEGENDS AND SCHEDULES

Drawing No: E0-0, Sheet: 7 OF 10

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**LIFT STATION #2
 SITE PLAN**
 SCALE: 1"=10'-0"
 0 10' 20'

INDICATES PHOTO NUMBER AND DIRECTION OF PHOTO (PHOTOS TAKEN BY COMMONWEALTH ENGINEERS, INC.)

ELECTRICAL DEMOLITION NOTES:

- CONTRACTOR SHALL TAKE INTO CONSIDERATION EXISTING BURIED EQUIPMENT WHEN PLANNING THE INSTALLATION OF THE NEW EQUIPMENT OUTLINED IN THIS PROJECT. CONTRACTOR SHALL VISIT THE SITE TO BECOME ACQUAINTED WITH ALL THE PROJECT CONDITIONS INCLUDING THE EXISTING CONDITIONS. EXECUTION OF THE CONTRACT IS EVIDENCE THAT THE CONTRACTOR HAS EXAMINED ALL DRAWINGS AND SPECIFICATIONS AND THAT ALL CONDITIONS OF INSTALLING THE WORK IN THIS SECTION ARE VERIFIED. CLAIMS FOR LABOR, MATERIAL, OR TIME EXTENSIONS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD EXAMINATIONS BEEN MADE, WILL NOT BE RECOGNIZED.
- ITEMS TO BE DEMOLISHED, REMOVED, AND LAWFULLY DISPOSED OF COMPLETE TO ACCOMMODATE IMPROVEMENTS (THIS IS NOT INTENDED TO BE ALL INCLUSIVE, MERELY A REFERENCE). CONTRACTOR SHALL PERFORM ANY AND ALL DEMOLITION, REMOVAL, AND DISPOSAL ACTIVITIES AS REQUIRED FOR COMPLETE AND OPERATIONAL FACILITIES/INSTALLATIONS. REQUIRED DEMOLITION FOR SMALL DIAMETER PIPING, CONDUIT, ETC. NOT SHOWN ON THIS SHEET FOR CLARITY.
- DEMO ALL EXISTING ASSOCIATED ELECTRICAL AND CONTROLS. REMOVE ALL ELECTRICAL AND CONTROL WIRING BACK TO ITS SOURCE AND FURNISH TO OWNER FOR SALVAGE. REMOVE CONDUIT TO 12" BELOW GRADE AND CAP.
- OWNER SHALL HAVE FIRST RIGHT OF REFUSAL FOR ALL DEMOLISHED EQUIPMENT BEFORE CONTRACTOR DISPOSES OF EQUIPMENT. AT CONTRACTORS DISCRETION DURING CUT OVER, COORDINATE WITH UTILITY OR USE EMERGENCY GENERATOR TO MAINTAIN OPERATION OF LIFT STATION. CONTRACTOR RESPONSIBLE FOR ALL COSTS.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL LABOR AND MATERIAL REQUIRED FOR NEW ELECTRICAL SERVICE TO THE LIFT STATION NOT PROVIDED BY THE UTILITY, INCLUDING BUT NOT LIMITED TO CONDUIT, WIRE AND CONCRETE PAD FOR TRANSFORMER IF PAD MOUNT TRANSFORMER IS REQUIRED.

ELECTRICAL INSTALLATION NOTES:

- THE PUMP STATION WET WELL IS CLASSIFIED AS CLASS 1, DIVISION 1, GROUP D AREA PER NFPA 820. THE AREA WHICH EXTENDS TO 18" ABOVE THE PUMP STATION TOP OF SLAB AND EXTENDS 3' BEYOND ALL SIDES OF THE HATCH IS A CLASS 1, DIVISION 2 HAZARDOUS LOCATION. ANY EQUIPMENT LOCATED WITHIN THE CLASSIFIED AREA SHALL BE UL LISTED FOR THAT AREA. ALL WIRING METHODS SHALL CONFORM TO THE REQUIREMENTS OF NEC ARTICLE 500, 501 AND 502.
- THE PUMP STATION VALVE VAULT IS CLASSIFIED AS CLASS 1, DIVISION 2, GROUP C AND D AREAS PER NFPA 820. ANY EQUIPMENT LOCATED WITHIN THE CLASSIFIED AREA SHALL BE UL LISTED FOR THAT AREA. ALL WIRING METHODS SHALL CONFORM TO THE REQUIREMENTS OF NEC ARTICLE 500, 501 AND 502.



PHOTO #1



PHOTO #2



PHOTO #3



PHOTO #4



PHOTO #5

COORDINATE WITH UTILITY TO REMOVE EXISTING 240V 3-PHASE OVERHEAD SERVICE AND REPLACE WITH NEW 480V 3-PHASE UNDERGROUND SERVICE

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REGISTERED PROFESSIONAL ENGINEER
 No. 11300603
 STATE OF INDIANA
 Signature: [Signature]
 Date: 1/03/2025

TOWN OF LEAVENWORTH
 CRAWFORD COUNTY, INDIANA
 LEAVENWORTH LS#2
 IMPROVEMENTS PROJECT

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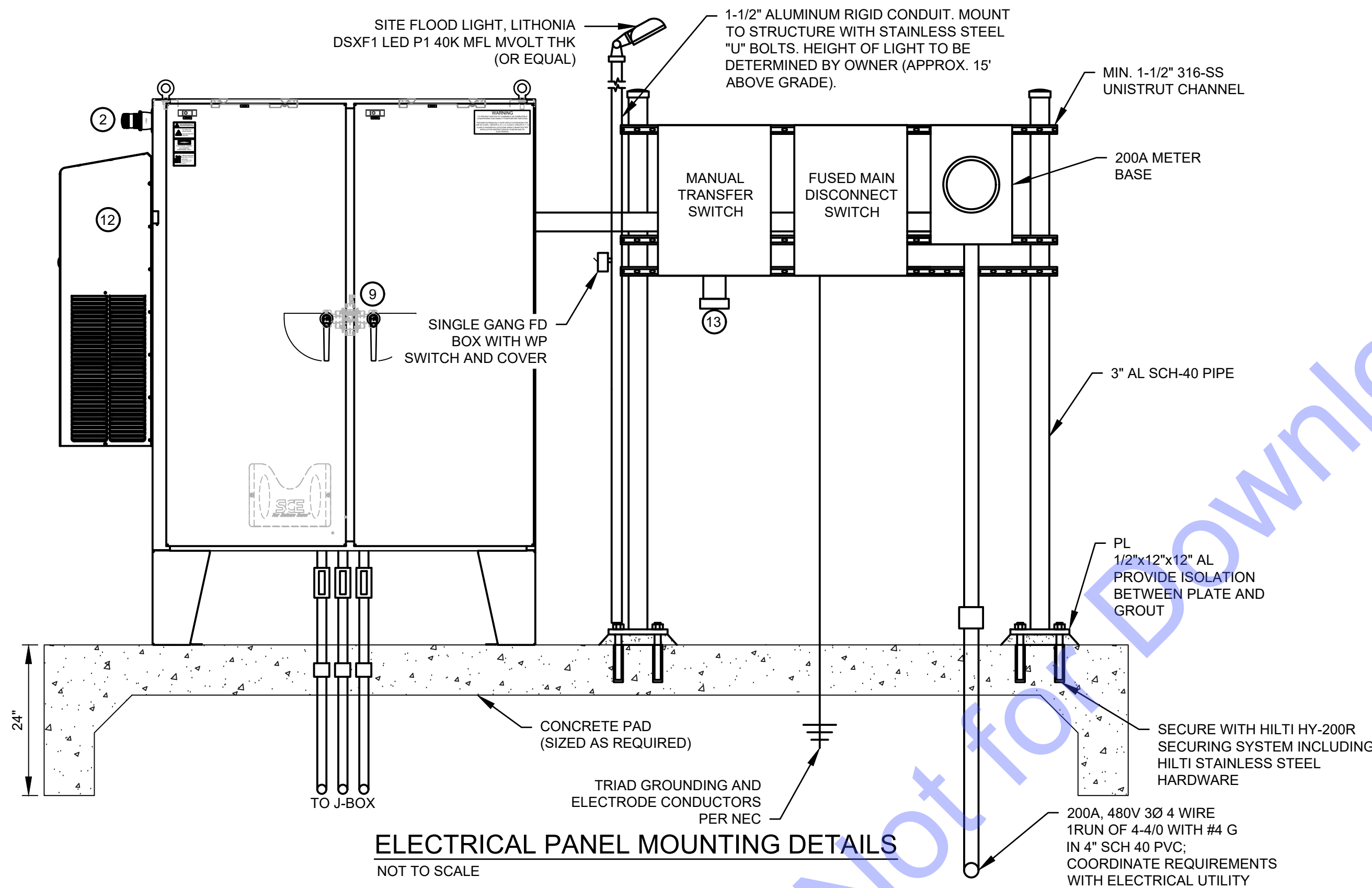
No.	Submittal/Revision	By	Date

Designed By: SD	Drawn By: SD	Checked By: TLC
Issue Date: January 2025	Project No: S24103	Scale: AS SHOWN

LIFT STATION NO. 2
 ELECTRICAL SITE PLAN

NEMA 4X CONTROL PANEL DEVICE LEGEND

ITEM#	DESCRIPTION
1	PILOT DEVICES (TYPICAL FOR EACH PUMP): VFD RUNNING LIGHT, OVERLOAD LIGHT, SEAL FAIL LIGHT, HIGH MOTOR TEMP LIGHT, VFD FAULT LIGHT, VFD FAULT RESET PUSHBUTTON, HOA SWITCH, AND ELAPSED TIME METER. PILOT DEVICES TO BE MOUNTED ON PANEL DEAD FRONT.
2	NEMA 4 ALARM LIGHT WITH INTEGRAL BUZZER AND ALARM ACKNOWLEDGE PUSHBUTTON LOCATED ON SIDE OF PANEL.
3	ALTERNATING RELAYS AND CONTROL RELAYS AS REQUIRED.
4	VFD, SIZED AS REQUIRED FOR THE LOAD.
5	ALLEN BRADLEY COMPACTLOGIX PLC WITH EXPANSION I/O.
6	ISOLATION CIRCUIT BREAKERS WITH LOCKOUT/TAGOUT CAPABILITY. BREAKER ACCESSIBLE THROUGH DEAD FRONT.
7	MISCELLANEOUS COMPONENTS INCLUDING BUT NOT LIMITED TO PILOT RELAYS, TERMINAL BLOCKS, CIRCUIT BREAKERS, CONTROL TRANSFORMER, POWER SUPPLIES, ETHERNET SWITCH, ETC. TO PROVIDE FOR A COMPLETE AND FUNCTIONING CONTROL PANEL.
8	HEATER WITH INTEGRAL THERMOSTAT.
9	3 POINT LATCHING SYSTEM ON ON PANEL DOOR (CLAMPS NOT ACCEPTABLE).
10	ALLEN BRADLEY PANELVIEW PLUS 7" TOUCHSCREEN.
11	ELAPSED TIME METERS.
12	NEMA 4X A/C UNIT SIZED AS REQUIRED. PROVIDE HEAT LOAD CALCULATIONS WITH SUBMITTAL.
13	EMERGENCY RECEPTACLE WITH ANGLE ADAPTER.
14	OMNISITE CRYSTAL BALL RTU.

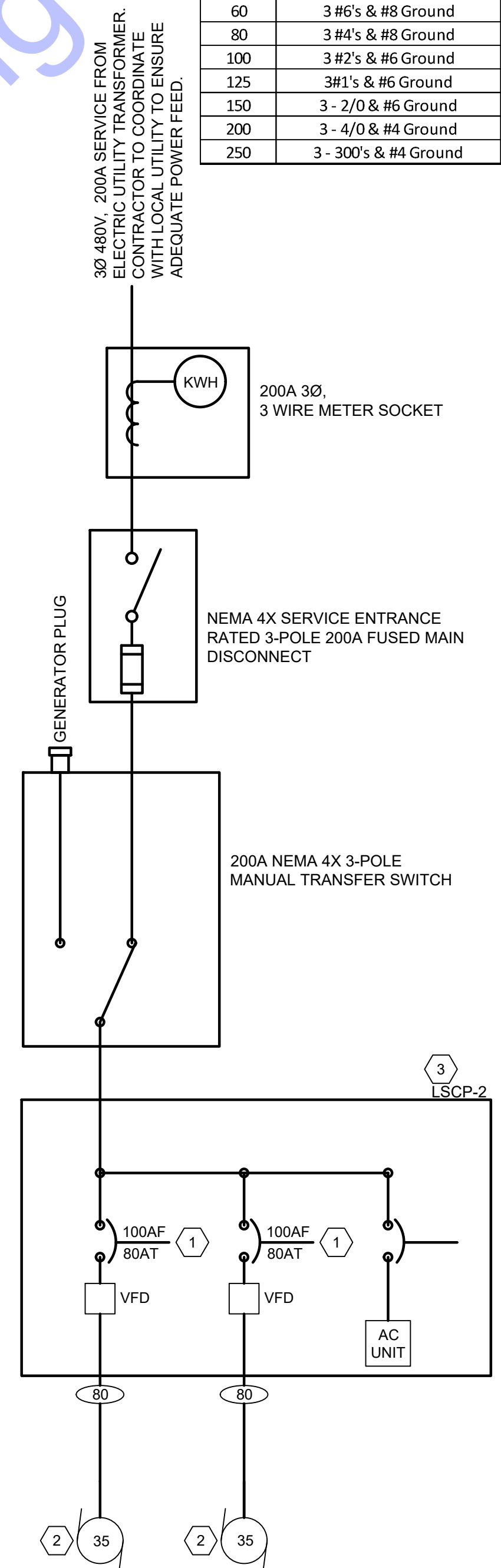


NOTES:

1. SIZE NEMA 4X CONTROL PANEL AS REQUIRED.
2. CONTROL PANEL SHALL BE CONSTRUCTED TO UL STANDARDS IN A UL PANEL SHOP. CONTROL PANEL SHALL BE UL LISTED.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE ELECTRIC UTILITY TO PROVIDE NEW SERVICE FEED TO THE LIFT STATION. PROVIDE CONDUIT, WIRE, METER BASE, ETC. TO PROVIDE POWER COMPLETE TO THE LIFT STATION.
4. CONTRACTOR TO PROVIDE METER BASE PER ELECTRIC UTILITY METER BASE REQUIREMENTS.
5. ALL COSTS ASSOCIATED WITH PROVIDING NEW SERVICE FEED TO THE LIFT STATION SHALL BE INCLUDED IN THE CONTRACTOR'S BID PRICE.
6. PILOT DEVICES, ELAPSED TIME METERS, AND TOUCH SCREEN SHALL BE MOUNTED ON THE PANEL DEAD FRONT.
7. PROVIDE RADAR LEVEL SENSOR WITH FLOATS AS BACKUP.
8. FLOATS TO BE HARDWIRED TO START VFD'S INDEPENDENT OF PLC TO ALLOW LIFT STATION OPERATION IN CASE OF PLC FAILURE.

Load Wiring Schedule

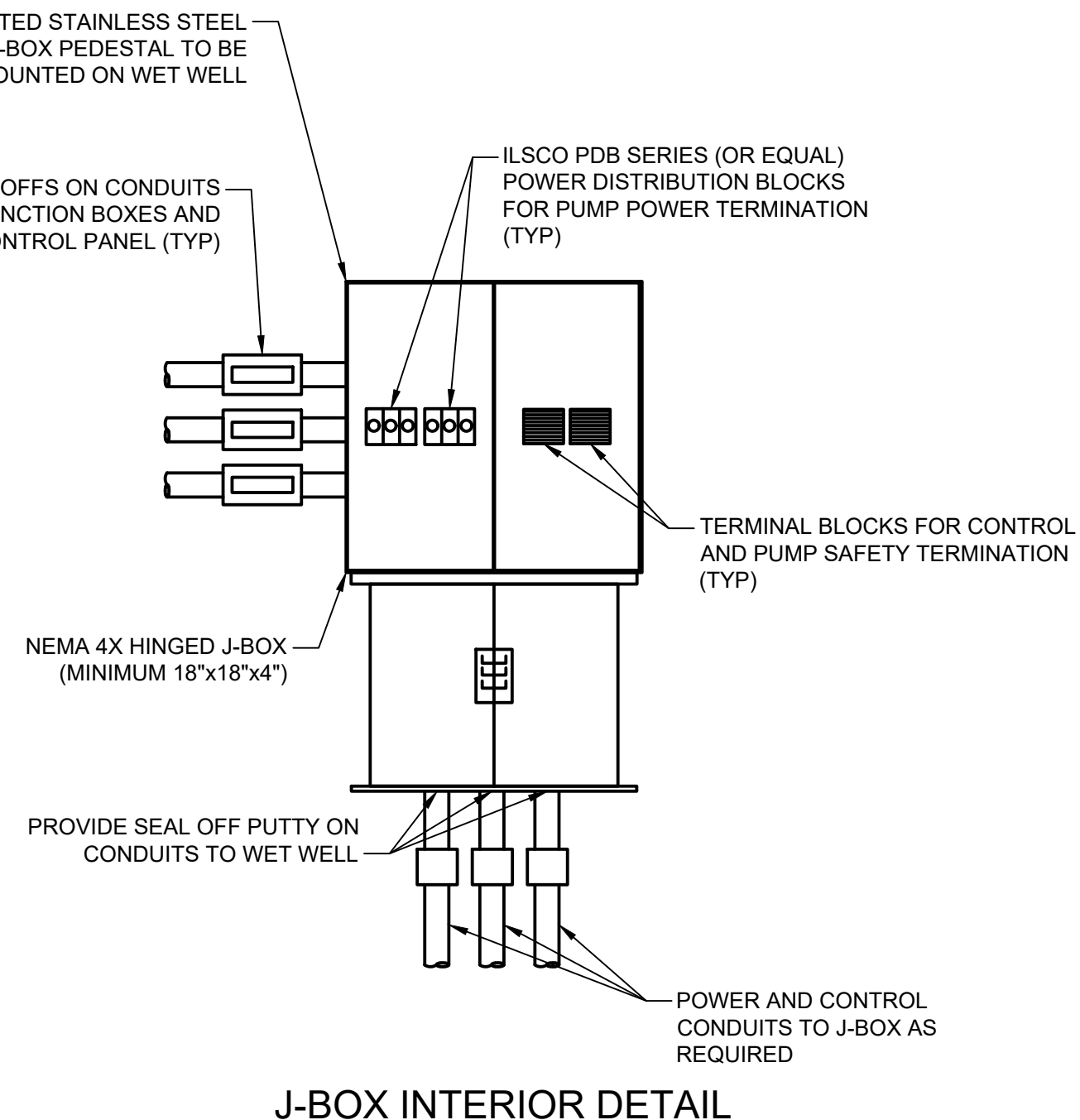
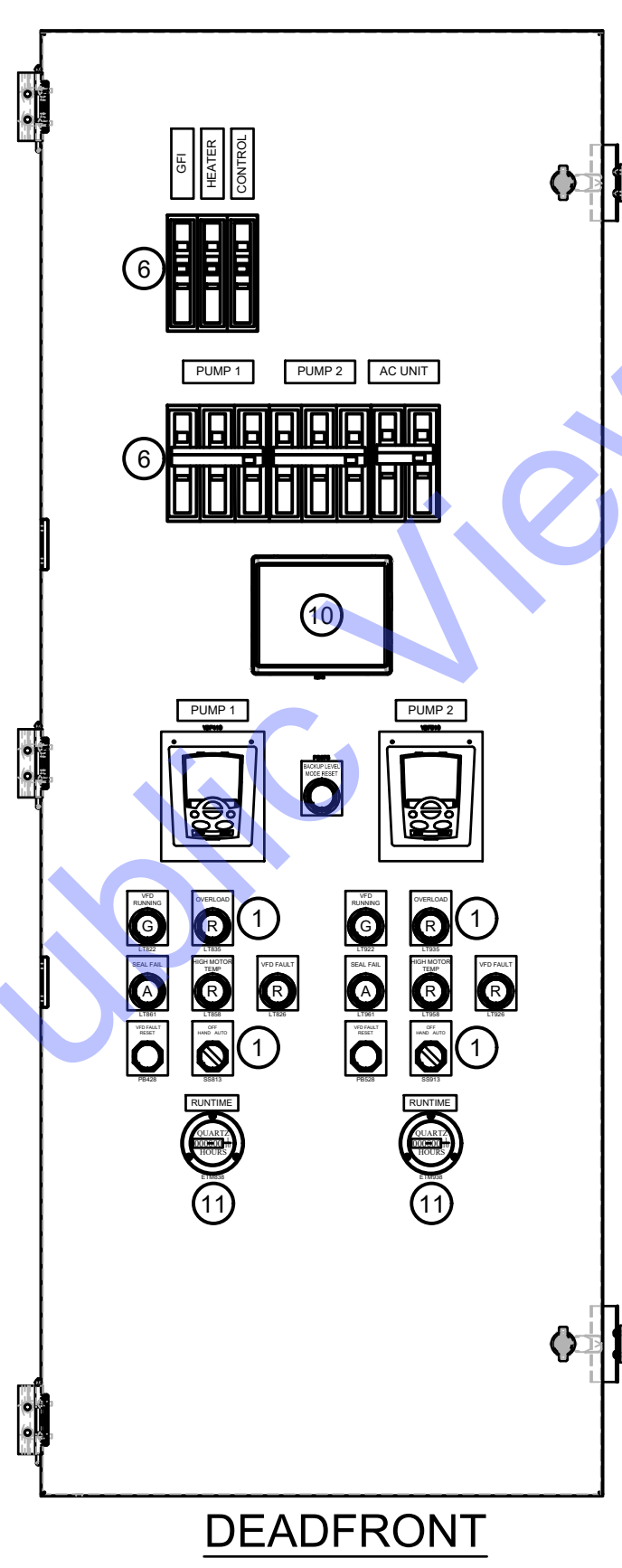
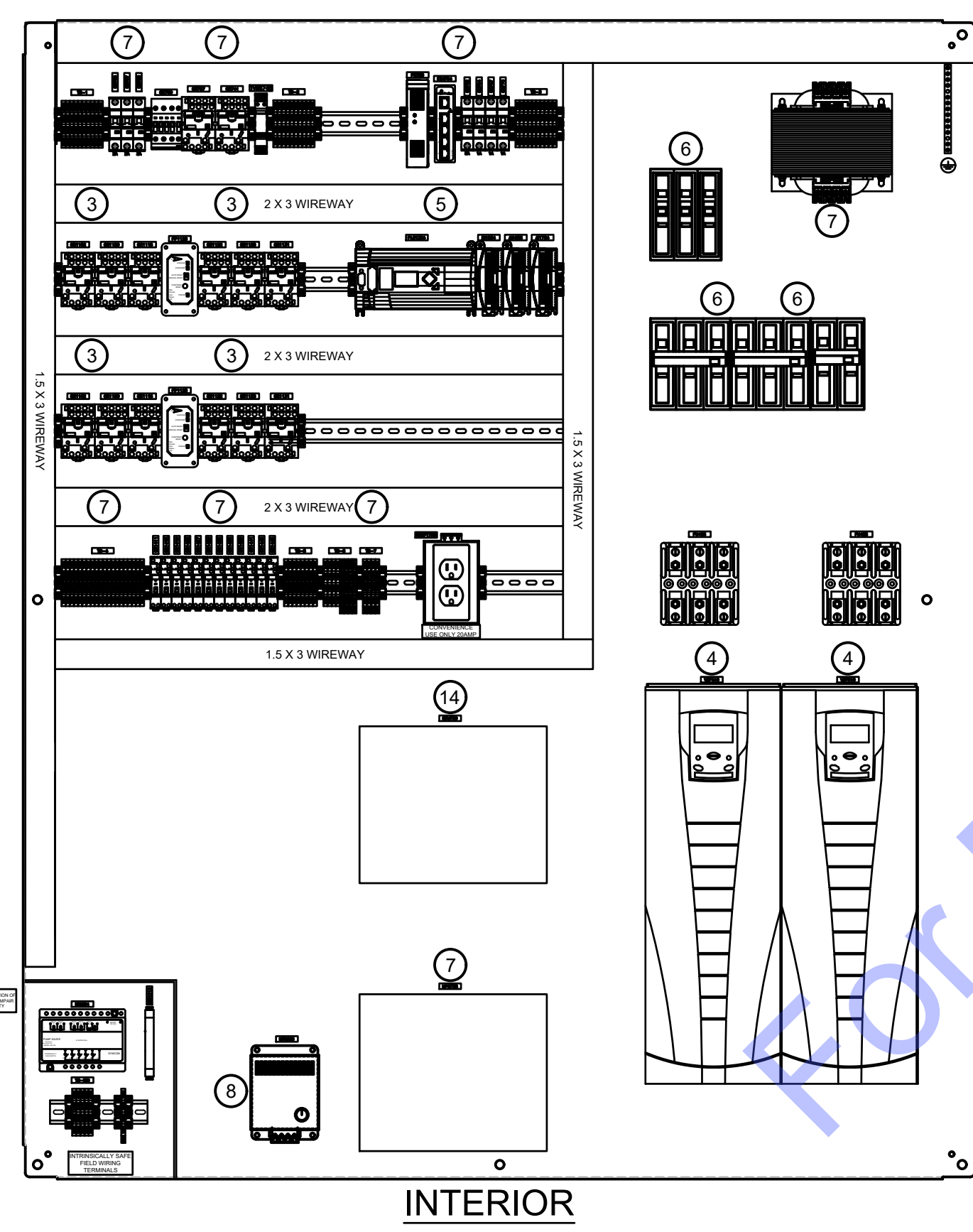
Type #	Copper Wire Quantity and Wire Size	Conduit
20	3 #12's & #12 Ground	3/4"
30	3 #10's & #10 Ground	3/4"
50	3 #8's & #10 Ground	3/4"
60	3 #6's & #8 Ground	3/4"
80	3 #4's & #8 Ground	1"
100	3 #2's & #6 Ground	1.5"
125	3 #1's & #6 Ground	1.5"
150	3 - 2/0 & #6 Ground	2"
200	3 - 4/0 & #4 Ground	2.5"
250	3 - 300's & #4 Ground	3"



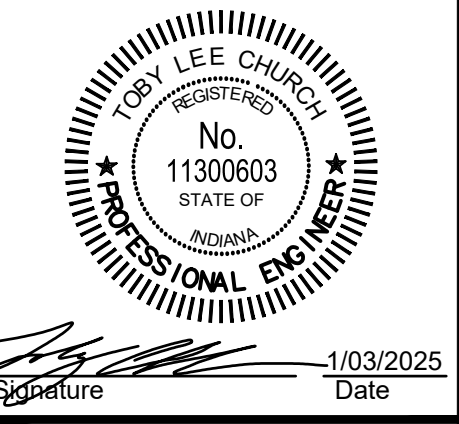
ONE LINE DIAGRAM
SCALE: NTS

PLAN NOTES:

1. COORDINATE WITH THE CONTRACTOR AND EQUIPMENT SUPPLIERS WHEN SELECTING THE CIRCUIT BREAKER SIZES TO ENSURE NEW CIRCUIT BREAKERS ARE PROPERLY SIZED.
2. WIRE PUMP SAFETIES AND LEVEL CONTROLS AS REQUIRED. COORDINATE WITH CONTRACTOR DURING BIDDING AND CONSTRUCTION. INTEGRATE PUMP SAFETY RELAYS INTO CONTROL PANEL AS REQUIRED BY PUMP MANUFACTURER.
3. LSCP-2 TO PROVIDE 120 VAC CIRCUIT FOR SITE LIGHTING. CONTRACTOR SHALL COORDINATE WITH GENERATOR AND CONTROL PANEL MANUFACTURER DURING BIDDING AND CONSTRUCTION TO PROVIDE ALL ACCESSORY POWER REQUIREMENTS REQUIRED FOR LIFT STATION OPERATION.



J-BOX INTERIOR DETAIL



**TOWN OF LEAVENWORTH
CRAWFORD COUNTY, INDIANA
LEAVENWORTH LS#2
IMPROVEMENTS PROJECT**



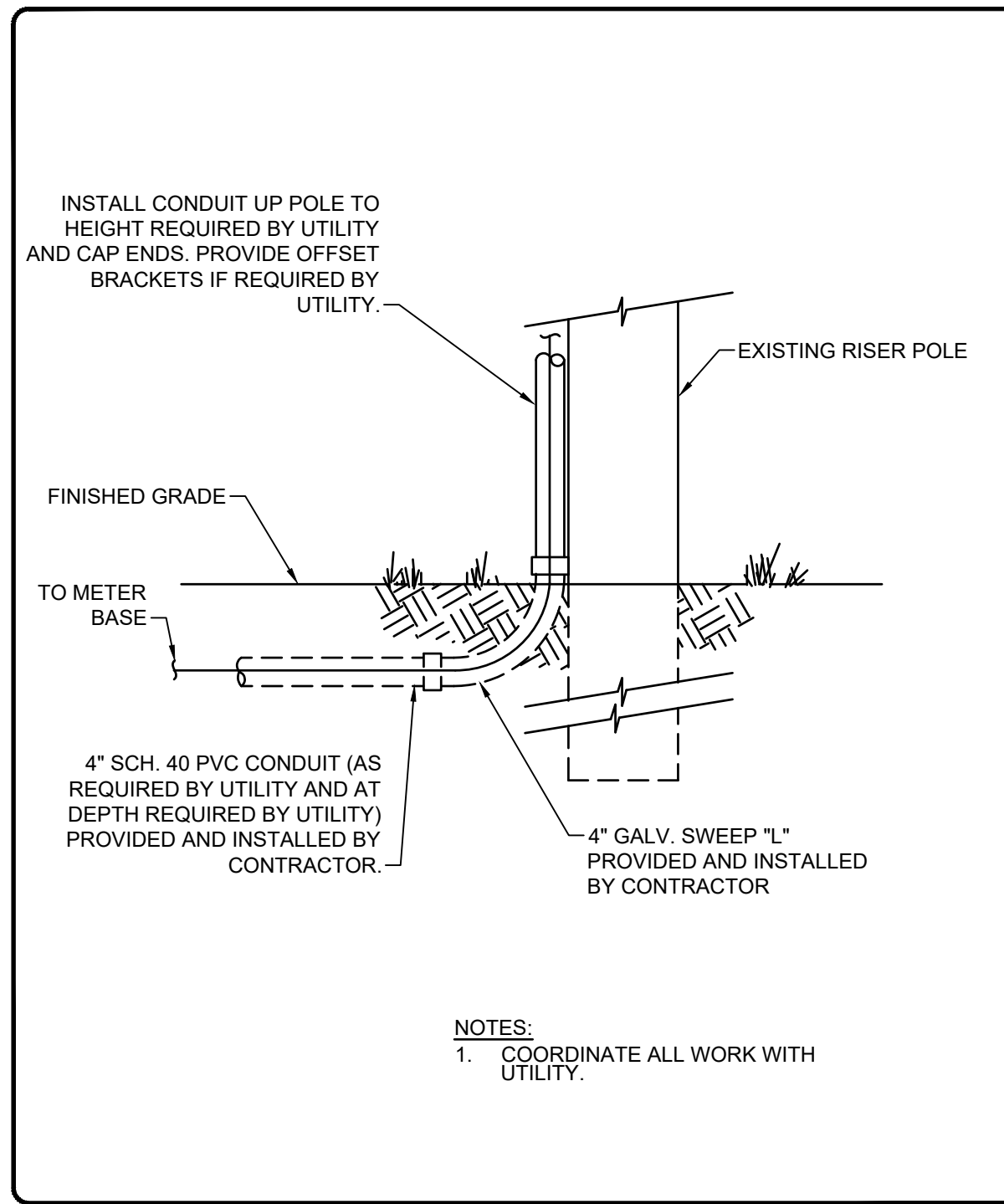
No.	Submittal / Revision	By	Date

Designed By: SD	Drawn By: SD	Checked By: TLC
Issue Date: January 2025	Project No: S24103	Scale: AS SHOWN

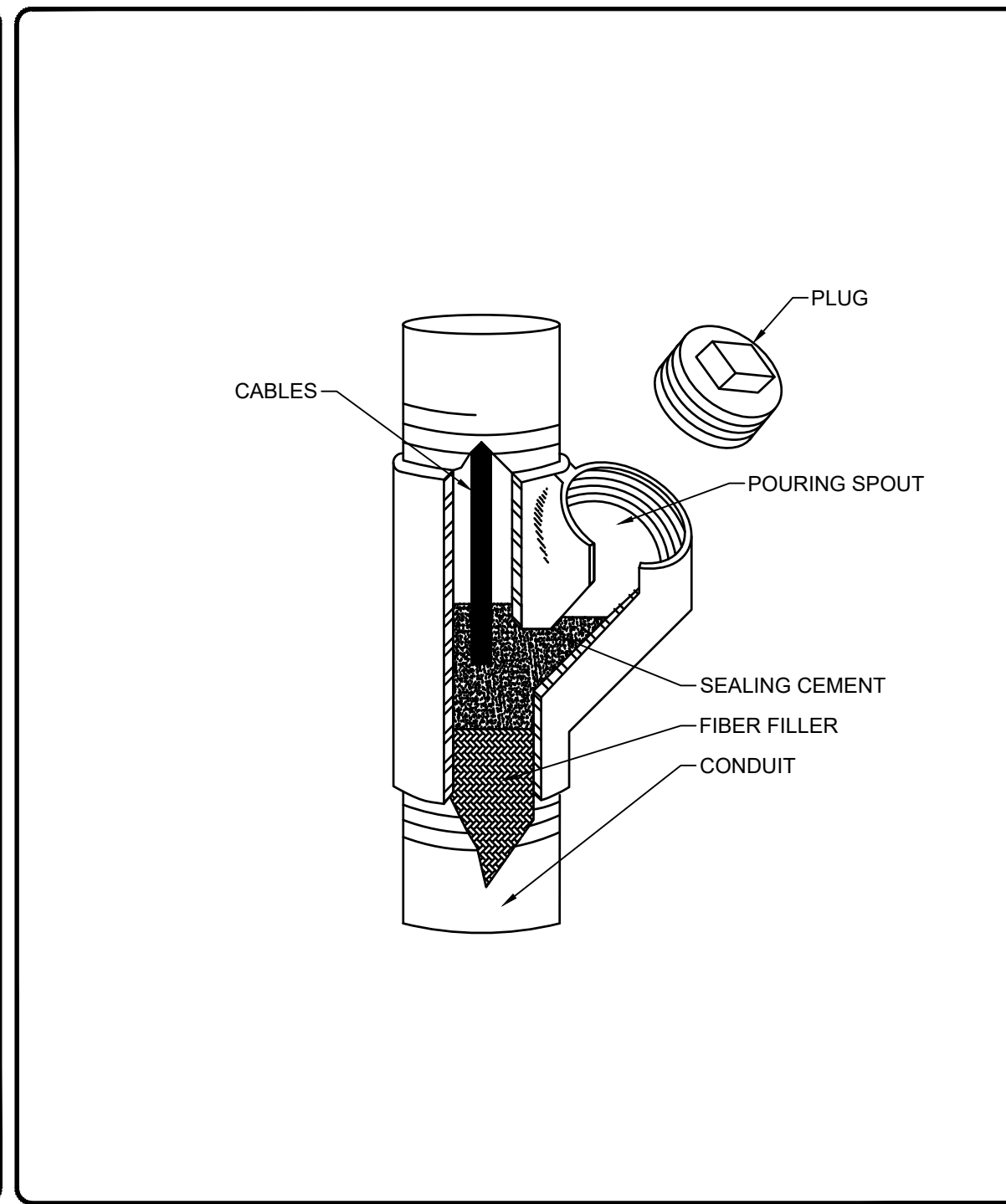
**LIFT STATION NO. 2
ONE LINE DIAGRAM**

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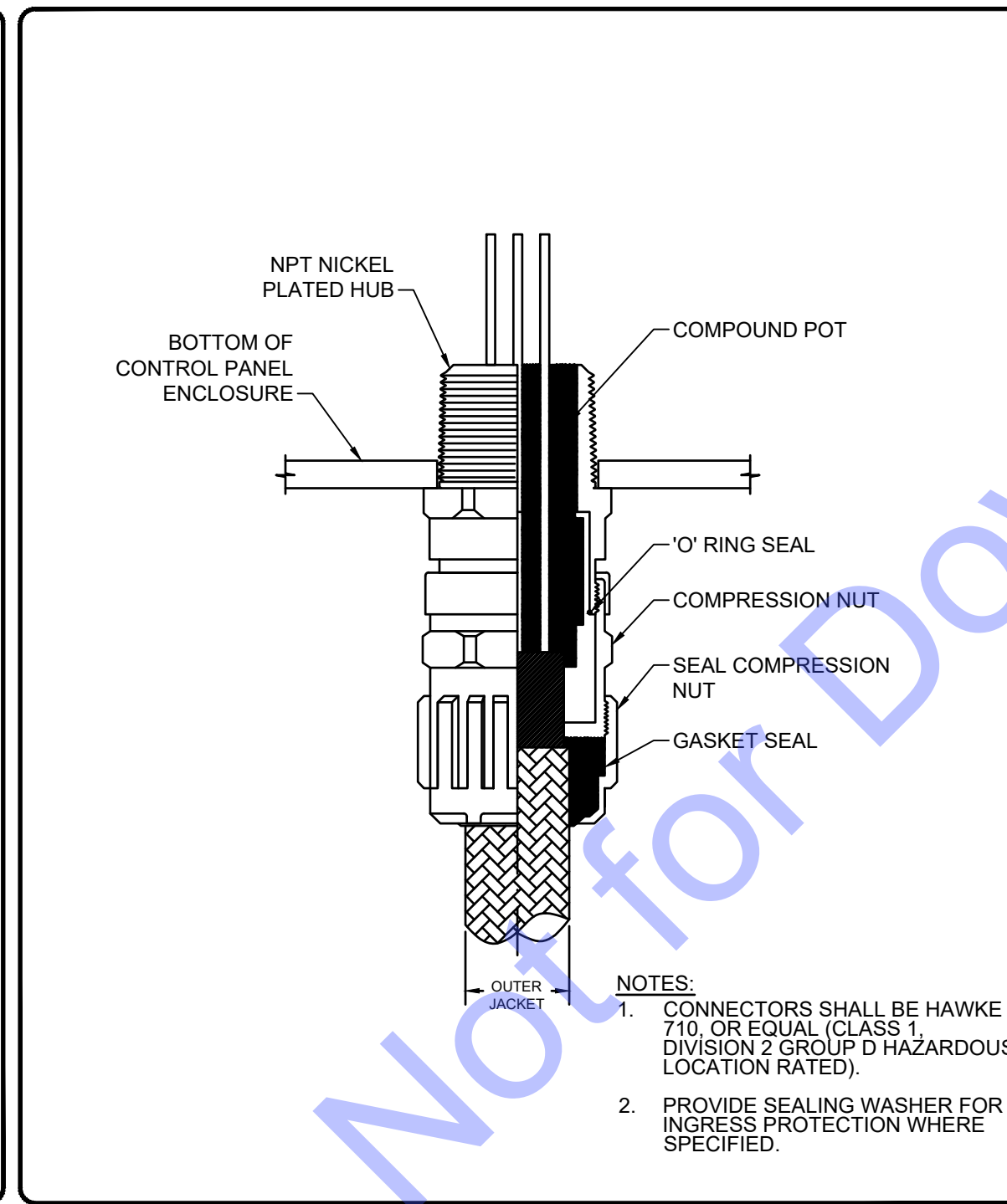
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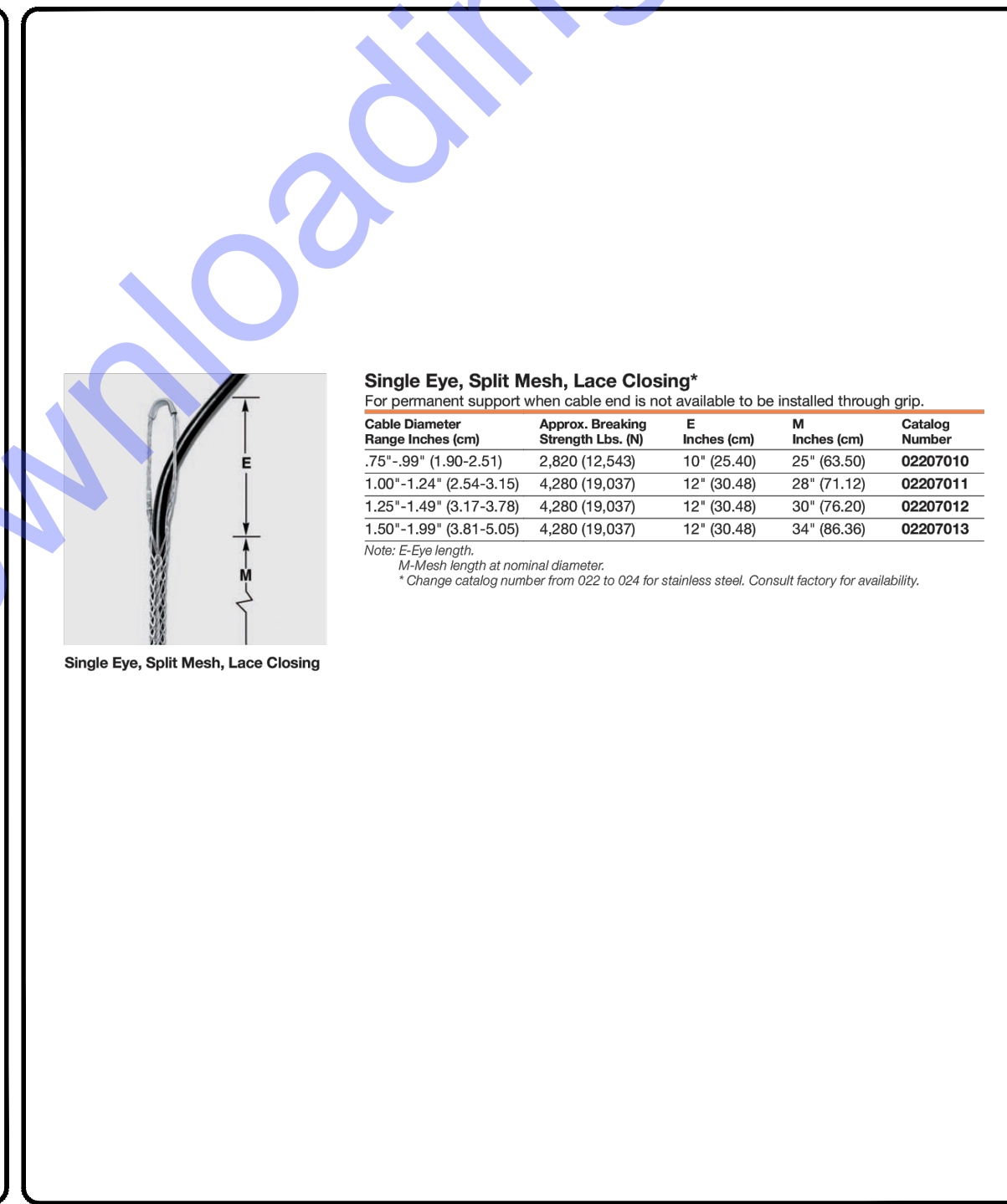
POLE RISER TERMINATION



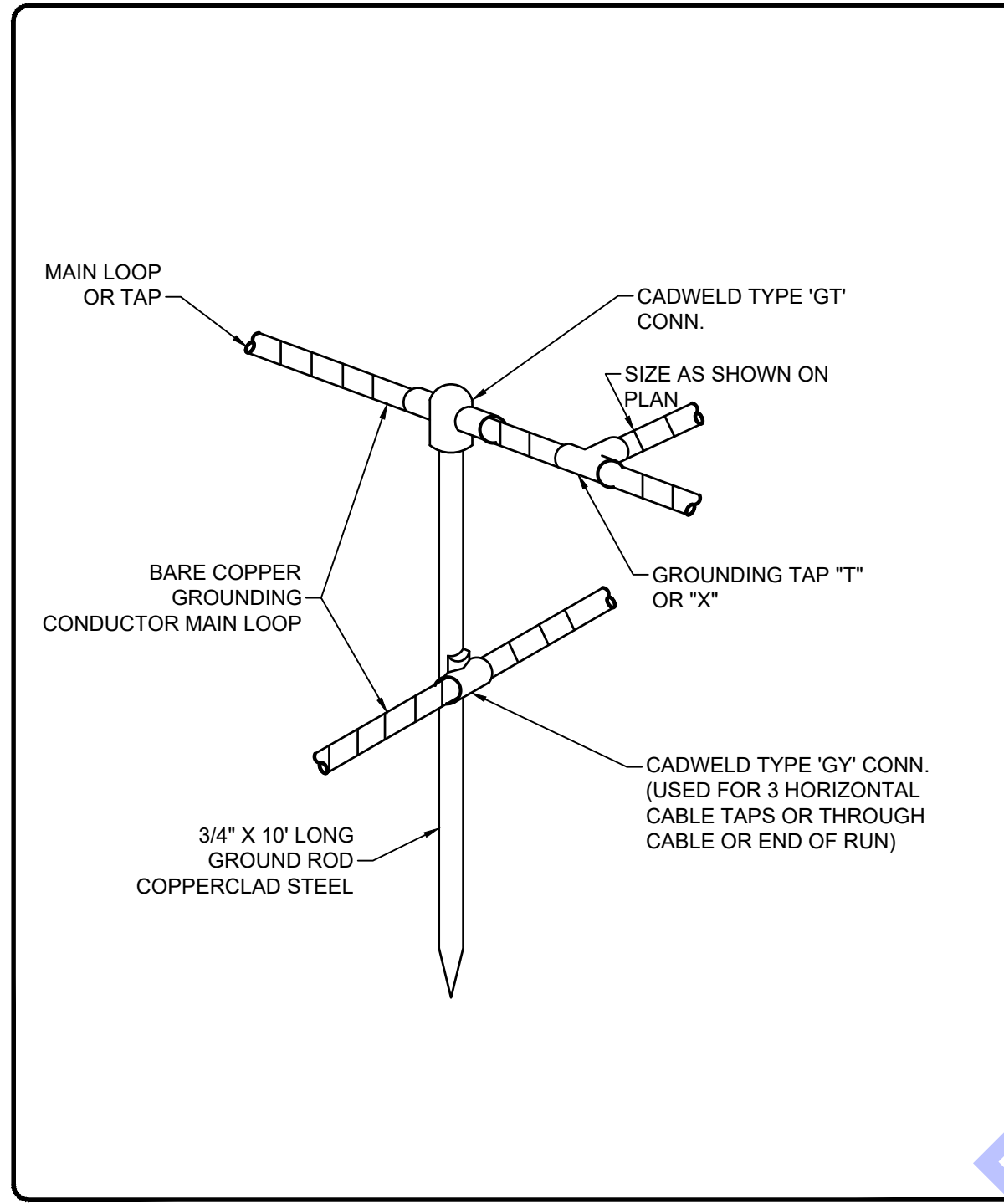
CONDUIT SEAL FITTING



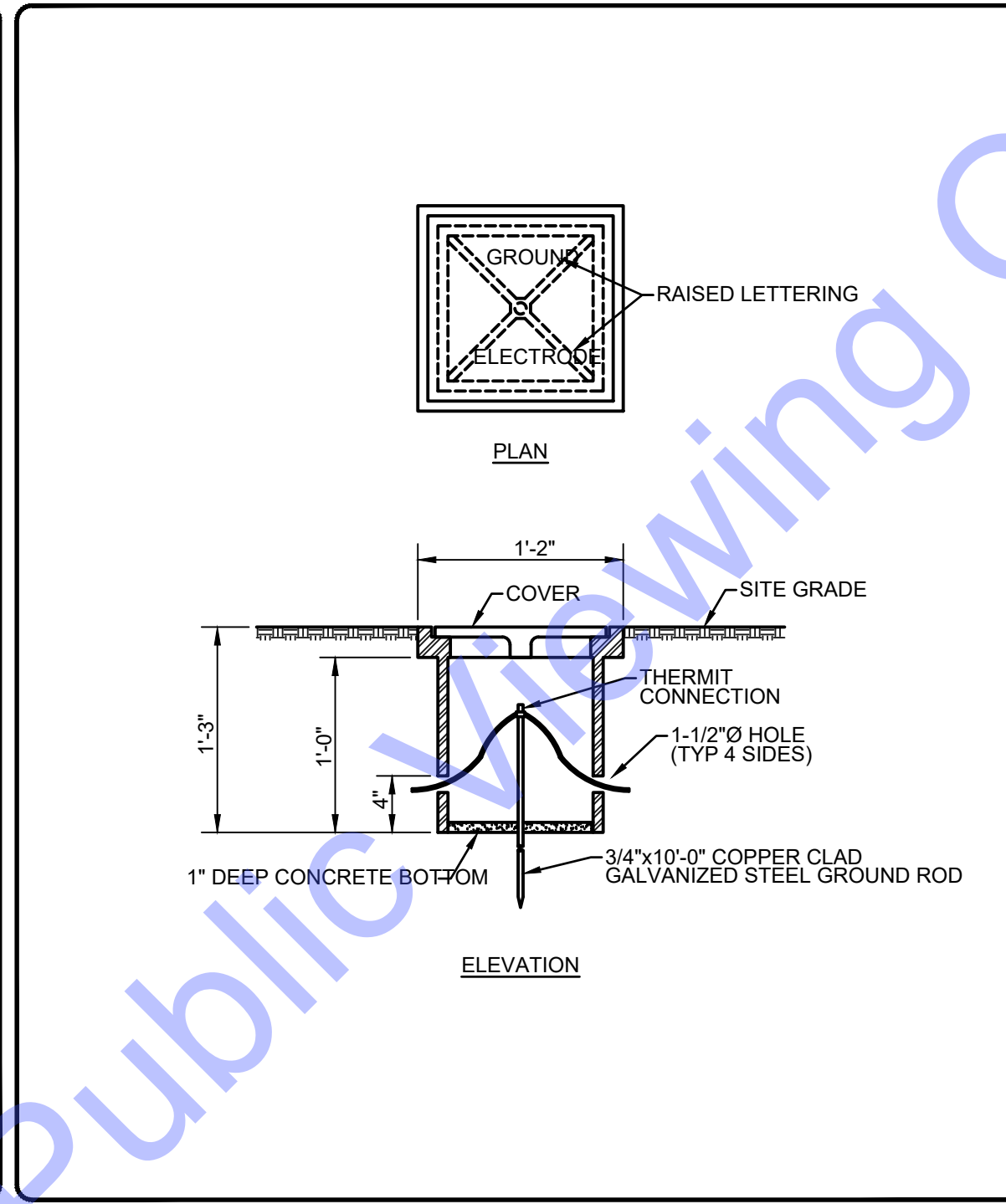
PUMP POWER AND CONTROL CABLE GLAND CONNECTION



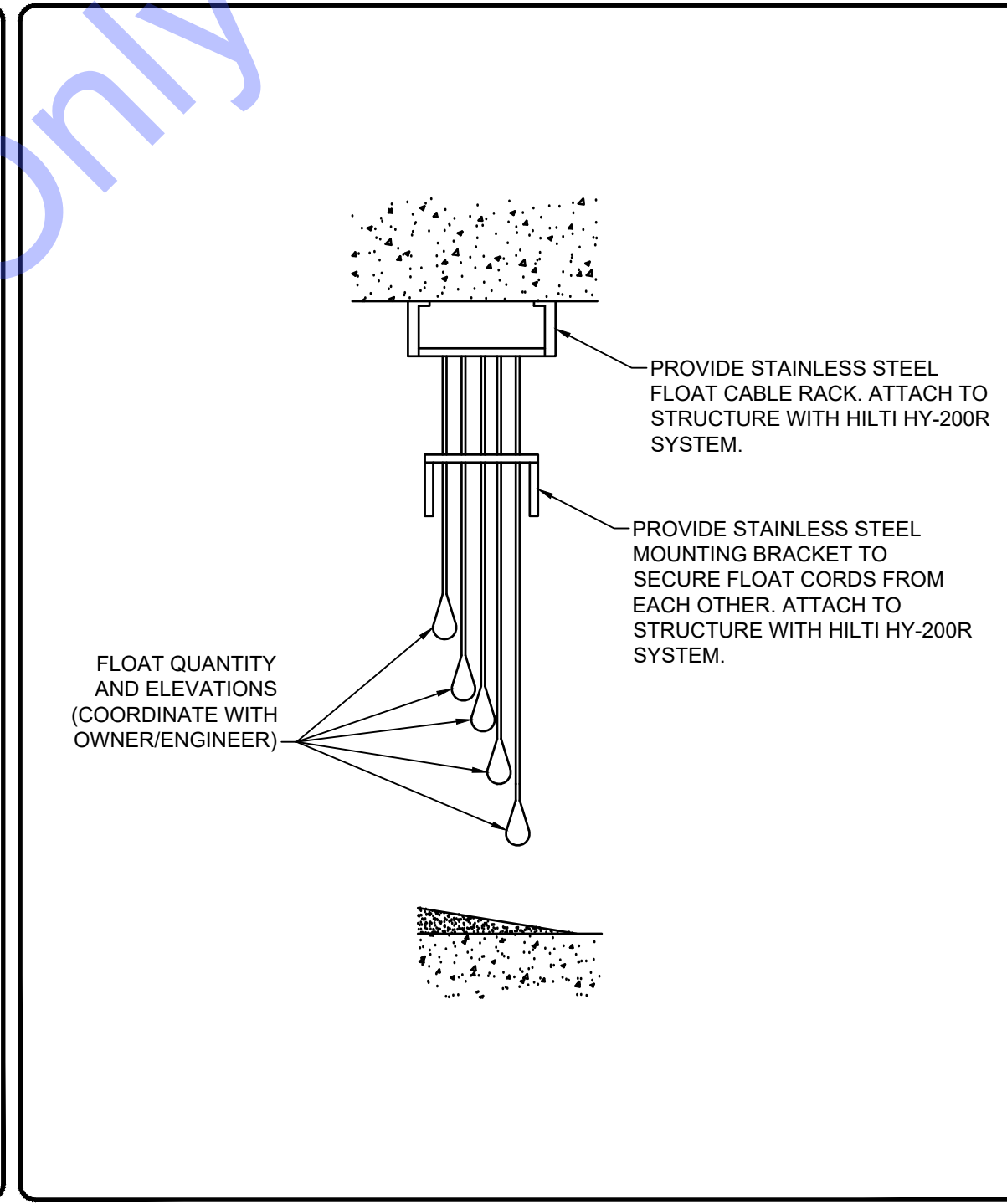
CABLE SUPPORT DETAIL



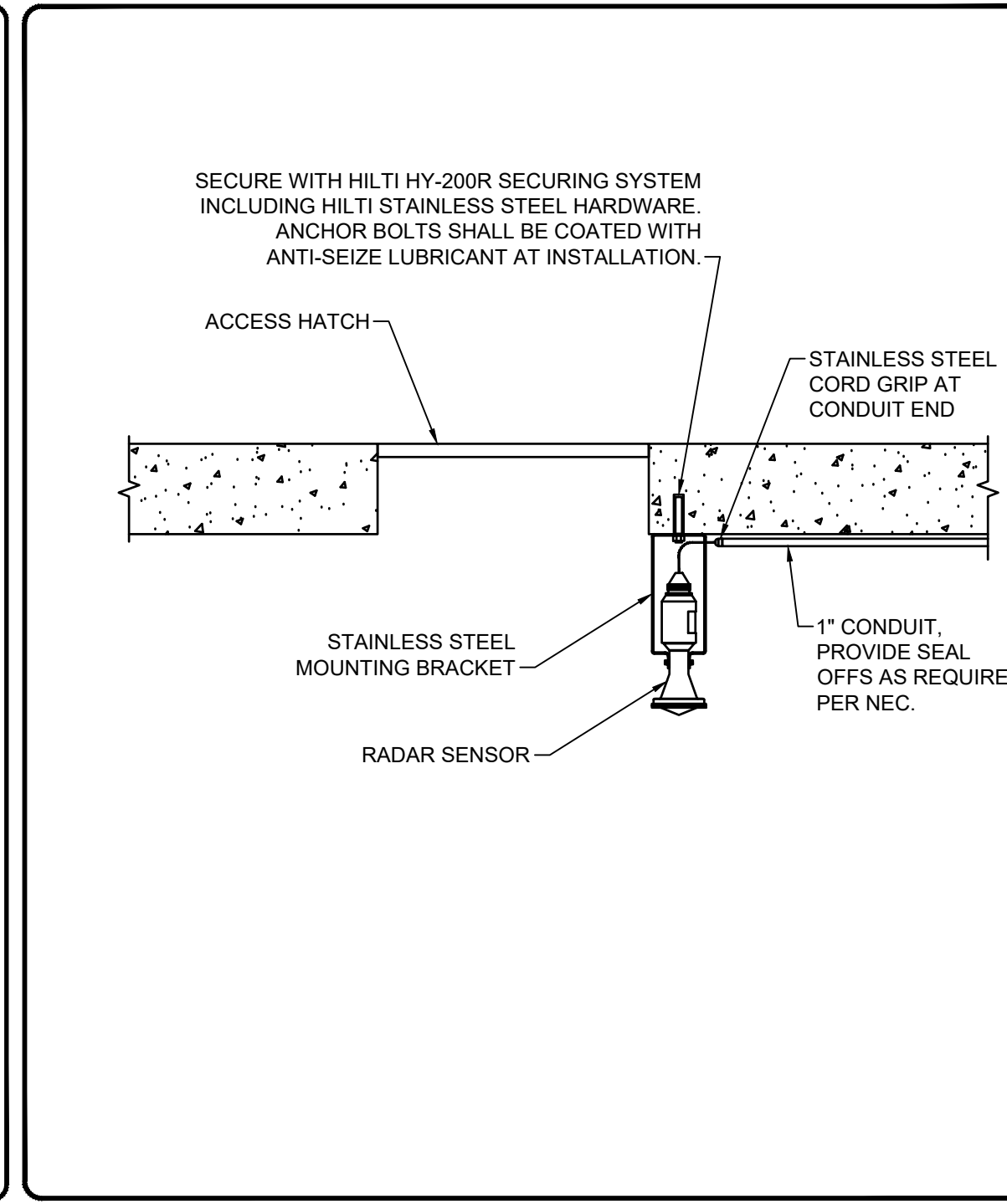
CONDUCTOR TO GROUND ROD CONNECTION DETAIL



TYPICAL GROUND ROD AND ACCESS BOX DETAIL



FLOAT MOUNTING DETAIL



WET WELL RADAR MOUNTING DETAIL

COMMONWEALTH ENGINEERS, INC.
 A member of resources to make a common goal.

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Professional Engineer Seal for Lee Church, State of Indiana, No. 11300603, dated 1/03/2025.

TOWN OF LEAVENWORTH
 CRAWFORD COUNTY, INDIANA

LEAVENWORTH LS#2
 IMPROVEMENTS PROJECT

Indiana 811 logo with text: Know what's below. 811 before you dig. 1-800-382-5544 (ITS THE LAW)

No.	Submittal/Revision	By	Date

Designed By: SD	Drawn By: SD	Checked By: TLC
Issue Date: January 2025	Project No: S24103	Scale: AS SHOWN

ELECTRICAL DETAILS