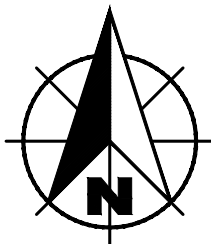
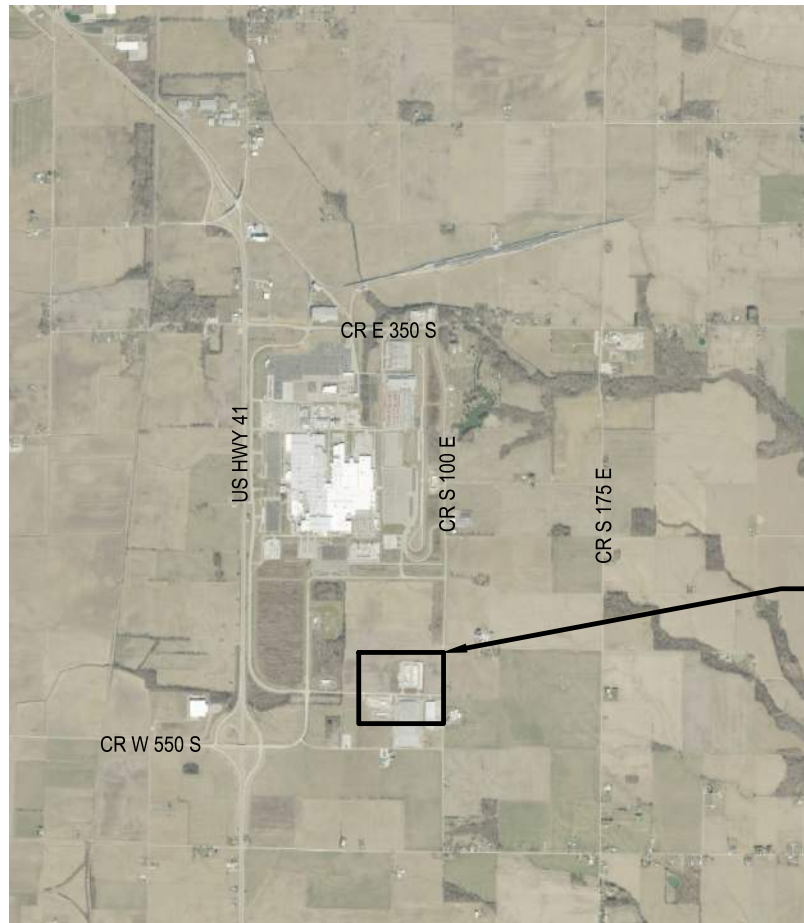


# TMMI EXPANSION WASTEWATER SYSTEM UPGRADES

## PHASE 1 - RYDER LIFT STATION

### FOR THE

# CITY OF PRINCETON, INDIANA

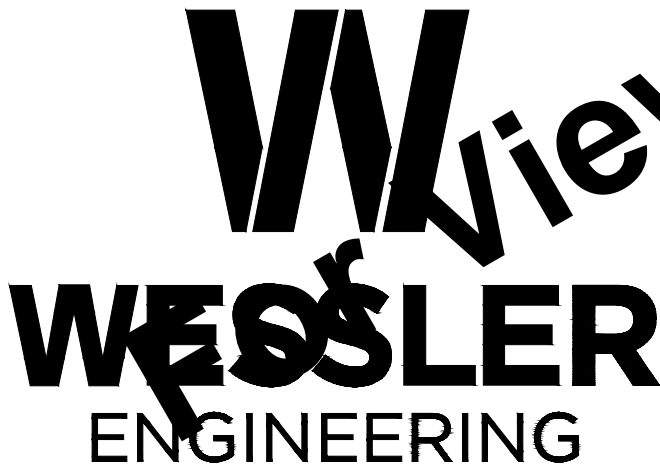


PROJECT LOCATION

PRINCETON, INDIANA  
VICINITY MAP  
SCALE: NONE



STATE LOCATION MAP  
SCALE: NONE



*More than a Project™*  
EVANSVILLE  
5401 Vogel Road, Suite 710  
Evansville, Indiana 47715  
Phone: (812) 475-1690 - Fax: (812) 475-1691  
www.wesslerengineering.com

PROJECT NO. 285424-04-001

DRAWINGS PREPARED FOR:  
CITY OF PRINCETON BOARD OF WORKS

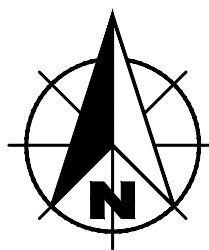
GREG WRIGHT, MAYOR  
SHERI GREENE, MEMBER  
BRUCE MCINTOSH, MEMBER  
DAVE KENNARD, CLERK-TREASURER  
JUSTIN DYEHOUSE, WASTEWATER OPERATOR  
JIM MCDONALD, CITY ATTORNEY

**JANUARY 2026**

	 JOSHUA J. HOOD REGISTERED ENGINEER STATE OF INDIANA NO. 11800823
	 WAYNE C. MOORE REGISTERED ENGINEER STATE OF INDIANA NO. 10707476

Drawing: X:\Princeton\_TMMI\Ph1 Ryder\TSD\WGSheets\285424-GS.dwg | Layout: 1G1 | Plotted: 01/26/26 @ 12:50:13 | LastSavedBy: jasonw





**HORIZONTAL AND VERTICAL  
CONTROL INFORMATION**

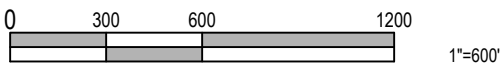
- NOTES:**
1. A FIELD SURVEY WAS PERFORMED IN (FEBRUARY 2025).
  2. COORDINATES (NAD83(2011) / INGCS GIBSON (FTUS) AND ELEVATIONS (NAVD 88) ARE BASED ON NGS BM U331.
  3. UNITS ARE U.S. SURVEY FEET.
  4. CONTROL POINTS WERE SET USING GPS.
  5. A LEVEL LOOP WAS PERFORMED ON THE CONTROL POINTS.

- BENCHMARK DESCRIPTION:**
1. TBM NO. 100 - RAILROAD SPIKE SET IN NORTH SIDE OF POWER POLE #A1021.  
EL. 467.05

CONTROL POINTS				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP 1	164774.08	814095.91	465.34	5/8" REBAR
CP 2	164735.57	814816.42	468.97	5/8" REBAR
CP 3	164727.08	815405.87	471.62	5/8" REBAR
CP 4	164727.84	815962.50	473.52	5/8" REBAR
CP 5	164838.37	816179.99	476.50	5/8" REBAR
CP 6	165376.85	816217.53	480.55	5/8" REBAR
CP 7	165980.21	816204.41	484.70	5/8" REBAR
CP 8	166519.58	816245.25	490.10	5/8" REBAR

DRAWING INDEX	
SHEET NO.	DESCRIPTION
GENERAL	
01	TITLE SHEET
02	LOCATION PLAN AND DRAWING INDEX
03	LEGEND, ABBREVIATIONS, UTILITY CONTACTS AND GENERAL NOTES
NEW LIFT STATION 1 MGD	
04	EXISTING SITE PLAN
05	NEW LIFT STATION NO. 1 - SITE PLAN
06	NEW EMERGENCY BYPASS PLAN
07	NEW LIFT STATION NO. 1 - PLANS, SECTION, AND SCHEDULE
08	NEW LIFT STATION NO. 1 - ELECTRICAL SITE PLAN
DETAILS	
09	EROSION CONTROL DETAILS
10	MISCELLANEOUS SITE DETAILS
ELECTRICAL	
11	ELECTRICAL SYMBOLS AND ABBREVIATIONS
12	ELECTRICAL ONE LINE DIAGRAM AND DETAILS
13	ELECTRICAL DETAILS
PROCESS AND INSTRUMENTATION	
14	PROCESS AND INSTRUMENTATION LEGEND
15	PROCESS AND INSTRUMENTATION DIAGRAM

**LOCATION AND SCOPE OF WORK PLAN**



<div>SCALE VERIFICATION</div> <div>BAR IS ONE INCH LONG ON ORIGINAL DRAWING</div> <div></div>	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS	<div></div> <div></div>	TMMI EXPANSION WASTEWATER SYSTEM UPGRADES PHASE 1 - RYDER LIFT STATION		SHEET NO.	
	CHECKED BY	JJH						CITY OF PRINCETON, INDIANA		02	
	APPROVED BY	JJH						LOCATION PLAN AND DRAWING INDEX		TOTAL SHEETS 15	
	ISSUE DATE										
	JANUARY 2026										
	PROJECT NUMBER										
		285424-04-001									



EXISTING FEATURES LEGEND					
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	BENCH MARK		CISTERN		EASEMENT - CONSTRUCTION/PERMANENT
	TEMPORARY BENCH MARK		ELECTRIC METER		LOT BOUNDARY
	SOIL BORING LOCATION		AIR CONDITIONING UNIT		PROPERTY BOUNDARY
	SECTION CORNER		UTILITY RISER (DEFINED BY UTILITY)		RIGHT-OF-WAY - TEMPORARY/PERMANENT
	DRILL HOLE IN CONCRETE/HARRISON MONUMENT		UTILITY PEDESTAL (DEFINED BY UTILITY)		SECTION BOUNDARY
	CONTROL POINT (SET/FOUND)		UTILITY MARKER (DEFINED BY UTILITY)		WETLANDS
	MAGNETIC NAIL (SET/FOUND)		JOINT POWER/TELEPHONE POLE		CONTOUR - INTERMEDIATE ELEVATION
	BOAT SPIKE (SET/FOUND)		LIGHT POLE		CONTOUR - INDEX ELEVATION
	PK NAIL (SET/FOUND)		LIGHT ON POWER POLE		OVERHEAD ELECTRIC
	RAILROAD SPIKE (SET/FOUND)		LIGHT ON JOINT POLE		OVERHEAD CABLE TV
	R/W MARKER - CONCRETE/GRANITE/STONE		POWER POLE		OVERHEAD TELEPHONE
	IRON PIPE/IRON PIN/REBAR (WITH DIAMETER)		TELEPHONE POLE		UNDERGROUND CABLE TV
	BRASS PLUG		LAMP POST		UNDERGROUND ELECTRIC
	CABLE TV MANHOLE		GUY ANCHOR		UNDERGROUND FIBER OPTIC
	ELECTRIC MANHOLE		GUY POLE OR STUB		GAS MAIN
	GAS MANHOLE		CONTROLLER CABINET		DIGESTER GAS
	OTHER MANHOLE		FLAG POLE		PETROLEUM MAIN
	TELEPHONE MANHOLE		POST		UNDERGROUND TELEPHONE
	TELEPHONE VAULT		GROUND LIGHT		WATER MAIN
	TRAFFIC MANHOLE		MAILBOX		WATER SERVICE
	TRAFFIC HANDHOLE		DOUBLE/MULTIPLE MAILBOX		FORCEMAIN
	WATER MANHOLE		MAST ARM POLE		GRAVITY SEWER PIPE
	AIR RELEASE VALVE		TRAFFIC SIGNAL STRAIN POLE		PLANT CHEMICAL LINE
	SANITARY SEWER MANHOLE		SIGNAL LOOP DETECTOR BOX		PLANT DRAIN LINE
	DRAINAGE/STORM SEWER MANHOLE		SIGNAL LOOP DETECTOR LOOP		TOP OF BANK/TOE OF SLOPE
	SANITARY SEWER CLEANOUT		SIGN - SINGLE POST		CENTERLINE OF DITCH/SWALE/STREAM
	SEPTIC TANK		SIGN - DOUBLE POST		FENCE - FIELD
	VALVE VAULT		SIGN - RAILROAD SIGNAL		FENCE - METAL
	BEEHIVE INLET		SIGN - RAILROAD CROSSING		FENCE - WOOD
	CURB INLET		BUSH		GUARDRAIL
	DROP INLET		STUMP		STREAM
	CATCH BASIN		TREE - CONIFEROUS		TREE/BRUSH LINE
	DOWNSPOUT		TREE - DECIDUOUS		
	GAS METER		ROCK OUTCROP		
	GAS VALVE		SATELLITE		
	GAS SERVICE VALVE		SPRINKLER CONTROL VALVE		
	PETROLEUM VALVE		WATER METER		
	PETROLEUM SHUTOFF VALVE		WATER VALVE		
	GAS STATION MONITORING WELL		WATER SERVICE VALVE		
	GAS STATION FILL CAP		WATER WELL		
	NATURAL GAS WELL/STORAGE WELL		WET WELL		
	SPRINKLER HEAD		FLAMMABLE		
	YARD HYDRANT		PROCESS VALVE		

TABLE OF ABBREVIATIONS			
ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	IPS	IRON PIPE SIZE
ALUM	ALUMINUM	ISPC	INDIANA STATE PLANE COORDINATE
APP	APPARENT	LB	POUND(S)
APPROX	APPROXIMATE(LY)	LF	LINEAR FEET
ASPH	ASPHALT	LN	LANE
ASSOC	ASSOCIATES	LS	LIFT STATION
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	MA EX	MATCH EXISTING
AVE	AVENUE	MJ	MECHANICAL JOINT
AVG	AVERAGE	MATL	MATERIAL
BLDG	BUILDING	MAX	MAXIMUM
BLVD	BOULEVARD	MH	MANHOLE
BM	BENCHMARK	MIN	MINIMUM
CO	CLEANOUT	MISC	MISCELLANEOUS
CI	CAST IRON	MNFR	MANUFACTURER
CL	CENTER LINE	N	NORTHING, NORTH
CMA	COLD MIX ASPHALT	NGS	NATIONAL GEODETIC SURVEY
CMP	CORRUGATED METAL PIPE	NO.	NUMBER
CMU	CONCRETE MASONRY UNIT	OC	ON CENTER
CONC	CONCRETE	OD	OUTSIDE DIAMETER
CONT	CONTINUOUS	PC	POINT OF CURVE (BEGIN CURVE)
CNR	CORNER	POLY	POLYETHYLENE
CP	CONTROL POINT	PI	POINT OF INTERSECTION
CPP	CORRUGATED PLASTIC PIPE	POT	POINT ON TANGENT
CR STN	CRUSHED STONE	PT	POINT OF TANGENT (END OF CURVE)
CYD	CUBIC YARD	PSI	POUNDS PER SQUARE INCH
D	DEPTH	PT	POINT
DI	DUCTILE IRON	PVC	POLYVINYL CHLORIDE
DI MJ	DUCTILE IRON MECHANICAL JOINT	R	RAILROAD
DBL	DOUBLE	ROW	RIGHT-OF-WAY
DIA	DIAMETER	RCP	REINFORCED CONCRETE PIPE
DIP	DUCTILE IRON PIPE	RD	ROAD
DIPS	DUCTILE IRON PIPE SIZE	S	SOUTH
DR	DRIVE	SR	STATE ROUTE
E	EASTING, EAST	SST	STAINLESS STEEL
EF	EACH FACE	SVA	SERVICE VALVE ASSEMBLY
EW	EACH WAY	SB	SOIL BORING
EA	EACH	SCHED	SCHEDULE
EJ	EAST - JUNCTION IRON WORKS	SDR	STANDARD DIMENSION RATIO
EL	ELEVATION	SECT	SECTION
EX	EXISTING	SF	SQUARE FEET
EXP	EXPANSION	SHT	SHEET
FF	FINISH FLOOR ELEVATION	SPECS	SPECIFICATION(S)
FM	FORCE MAIN	SQ	SQUARE
FND	FOUND	SRF	STATE REVOLVING FUND
FT	FEET	ST	STREET
FTG	FOOTING	STA	STATION
GALV	GALVANIZED	SYD	SQUARE YARD
GPS	GLOBAL POSITIONING SYSTEM	TBM	TEMPORARY BENCHMARK
HMA	HOT MIX ASPHALT	TC	TOP OF CASTING
HDPE	HIGH DENSITY POLYETHYLENE	TYP	TYPICAL
HORIZ	HORIZONTAL	UNO	UNLESS NOTED OTHERWISE
ID	INSIDE DIAMETER	USGS	US GEOLOGICAL SURVEY
IE	INVERT ELEVATION	VERT	VERTICAL
INC	INCORPORATED	VLV	VALVE
INDOT	INDIANA DEPARTMENT OF TRANSPORTATION	VV	VALVE VAULT
INSTR	INSTRUMENT	W	WIDTH, WEST
INV	INVERT	WSE	WATER SURFACE ELEVATION
		WW	WET WELL
		YR	YEAR

\*NOTE: THIS TABLE IS A LISTING OF TYPICAL ABBREVIATIONS AND MAY NOT INCLUDE ALL ABBREVIATIONS FOUND WITHIN THIS PLAN SET. IF A QUESTION ARISES ON THE MEANING OF AN ABBREVIATION NOT LISTED IN THIS TABLE, PLEASE CONTACT THE ENGINEER FOR CLARIFICATION.

UTILITY CONTACTS

ELECTRIC  
CENTERPOINT ENERGY  
1 N MAIN ST  
EVANSVILLE, IN 47708  
812-491-4288  
ATTN: BARTLEY ARNOLD

- GENERAL NOTES:
- NOTIFY THE ENGINEER IF ANY CONFLICTING INFORMATION BECOMES APPARENT IN THE CONTRACT DOCUMENTS AS SOON AS POSSIBLE AND PRIOR TO THE COMMENCEMENT OF ANY WORK IN THE VICINITY OF OR RELATIVE TO THE APPARENT CONFLICT SO THAT CLARIFICATION MAY OCCUR PRIOR TO CONSTRUCTION.
  - ANY ALTERATIONS TO THESE DRAWINGS NOT AUTHORIZED BY WESSLER ENGINEERING AND NOT IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS AND RECORDS ON FILE AT WESSLER ENGINEERING SHALL RELIEVE WESSLER ENGINEERING OF ANY RESPONSIBILITY FOR THE ACCURACY OF THE DRAWINGS.
  - USE CAUTION DURING THE EXECUTION OF WORK TO PREVENT DAMAGE TO STATE, COUNTY, MUNICIPAL, AND PRIVATE PROPERTY. REPAIR ALL DAMAGES AS A RESULT OF OPERATIONS, INCLUDING DAMAGE TO DRAINAGE STRUCTURES, FIELD TILES, PUBLIC/PRIVATE ROADS, AND LANDSCAPING (INCLUDING FENCING). REPAIR AND REPLACE DAMAGED ITEMS AT NO ADDITIONAL COST TO THE OWNER. PERFORM ALL REPAIR AND REPLACEMENT WORK TO THE SATISFACTION OF THE PERMITTING AGENCY, THE OWNER AND THE ENGINEER.
  - TAKE CARE TO AVOID DAMAGE TO PAVED AREAS WHICH ARE NOT SPECIFICALLY CALLED OUT FOR REPAIR OR REPLACEMENT. REPAIR, OR REPLACE ALL SUCH PAVEMENTS WHICH ARE DAMAGED BY CONSTRUCTION ACTIVITIES AND CONSTRUCTION TRAFFIC AT NO ADDITIONAL COST TO THE OWNER.
  - OBTAIN ALL TEMPORARY EASEMENTS REQUIRED FOR THE CONSTRUCTION OF THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.
  - COMPLY WITH ALL APPLICABLE PERMITS AND REGULATIONS. APPLICABLE PERMITS ISSUED TO THE OWNER WILL BE MADE AVAILABLE TO THE CONTRACTOR. CONTACT ALL APPLICABLE PERMITTING AGENCIES WITHIN THE TIME PERIOD SPECIFIED BY THAT AGENCY PRIOR TO BEGINNING OF CONSTRUCTION.
  - ALL EXISTING AND NEW UTILITY INFORMATION, INCLUDING BUT NOT LIMITED TO LOCATION, SIZE AND INVERT ELEVATION, IS SHOWN BASED UPON AVAILABLE INFORMATION. THE ENGINEER DOES NOT GUARANTEE OR ASSUME SUCH INFORMATION TO BE TRUE, ACCURATE, COMPLETE, OR EVEN APPROXIMATE. CONTACT THE INDIANA UNDERGROUND PLANT PROTECTION SERVICE (UPPS) AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION ACTIVITY TO IDENTIFY NON-MEMBER UTILITIES DIRECTLY.
  - DETERMINE WHICH UTILITIES MAY CONFLICT WITH NEW WORK AND VERIFY THEIR LOCATION, SIZE AND ELEVATION PRIOR TO CONSTRUCTION AND DETERMINE IF THERE ARE ANY DISCREPANCIES OR CONFLICTS. IF ANY DISCREPANCIES OR CONFLICTS ARE DISCOVERED, NOTIFY THE ENGINEER AS SOON AS POSSIBLE.
  - EXISTING UTILITY SERVICE AFFECTING INDIVIDUAL CUSTOMERS MAY NOT BE SHOWN ON THE DRAWINGS. ASSUME THAT UNDERGROUND UTILITY SERVICE LINES FOR ALL UTILITIES EXIST TO EACH PROPERTY ALONG THE ROUTE OF THE PLANNED IMPROVEMENTS.
  - COORDINATE ALL WORK WITH THE RESPECTIVE UTILITIES. SCHEDULE WORK ACCORDINGLY, AND NOTIFY ALL UTILITIES IN ADVANCE OF TWO (2) WEEKS IN ADVANCE OF ANY CONSTRUCTION ACTIVITY.
  - COORDINATE PLANNED UTILITY SERVICE INTERRUPTIONS WITH THE RESPECTIVE UTILITIES AND THE UTILITIES AFFECTED CUSTOMERS. SERVICE INTERRUPTIONS SHOULD NOT LAST MORE THAN FOUR (4) HOURS. GIVE WRITTEN NOTICE TO ALL AFFECTED UTILITY CUSTOMERS AND PROPERTY OWNERS AT LEAST TWENTY-FOUR (24) HOURS BUT NOT MORE THAN SEVENTY-TWO (72) HOURS PRIOR TO ANY PLANNED INTERRUPTION OF UTILITY SERVICE.
  - USE CAUTION DURING THE EXECUTION OF WORK TO PREVENT DAMAGE TO EXISTING UTILITIES. REPAIR OR REPLACE ALL PUBLIC AND PRIVATE FACILITIES DAMAGED AS A RESULT OF CONSTRUCTION OPERATIONS. BRACE AND PROTECT ALL UTILITY POLES AND EXISTING STRUCTURES ADJACENT TO NEW EXCAVATIONS. UTILITY POLE BRACING SHALL BE AS DIRECTED BY THE GOVERNING UTILITY.
  - MAINTAIN EXISTING STORMWATER DRAINAGE FOR THE ENTIRE DURATION OF THE PROJECT.
  - DO NOT DISTURB EXISTING MANHOLES OR INLETS, UNLESS NOTED OTHERWISE.
  - ALL EQUIPMENT, APPURTENANCES AND PIPING REMOVED AS PART OF THE DEMOLITION SHALL FIRST BE OFFERED TO THE OWNER FOR SALVAGE. DELIVER SALVAGED ITEMS SELECTED BY OWNER TO A LOCATION DESIGNATED BY THE OWNER OR ENGINEER. IN THE EVENT THE OWNER DOES NOT ELECT TO KEEP THE REMOVED ITEMS, REMOVE SUCH ITEMS FROM THE SITE AND DISPOSE OF AT A LOCATION APPROVED FOR SUCH DISPOSAL AT THE CONTRACTOR'S EXPENSE.
  - COORDINATE STAGING AREA LOCATIONS WITH THE OWNER.
  - ALL CONSTRUCTION TRAFFIC SHALL USE MAJOR ROADS. NO CONSTRUCTION TRAFFIC SHALL USE LOCAL STREETS FOR INDIRECT ACCESS.
  - TO CONTROL DUST, REMOVE SOIL FROM STREETS USED BY CONSTRUCTION TRAFFIC DAILY, VACUUM AND WATER AS NECESSARY AND/OR AS DIRECTED BY THE OWNER.
  - INSPECT THE SITE PRIOR TO BIDDING TO UNDERSTAND THE EXTENT OF THE DEMOLITION WORK INVOLVED AND ADJUST BID ACCORDINGLY.
  - COMPLETELY REMOVE UNDERGROUND PIPING THAT HAS PREVIOUSLY BEEN OR WILL BE TAKEN OUT OF SERVICE, IN CONFLICT WITH THE NEW WORK. UNLESS OTHERWISE NOTED, ABANDON IN PLACE ALL UNDERGROUND PIPING NOT IN CONFLICT WITH THE NEW WORK. DO NOT LEAVE ABANDONED PIPING LIVE. SEE SPECIFICATION SECTION 02050 FOR DEMOLITION PROCEDURES. SEE SPECIFICATION SECTION 01550 FOR PLANT OPERATIONS DURING CONSTRUCTION FOR COORDINATION OF DEMOLITION WORK AND NEW CONSTRUCTION.
  - ALL EQUIPMENT TO BE REMOVED THAT HAS ELECTRICAL COMPONENTS, CONDUIT AND WIRING, OR SMALL PIPING CONNECTED SHALL HAVE THE ELECTRICAL COMPONENTS AND SMALL PIPING REMOVED BACK TO THE SOURCE.
  - LENGTHS OF SEWERS AS SHOWN ON THE DRAWINGS AND INDICATED AS LINEAR FEET (LF) ARE FROM CENTER TO CENTER OF STRUCTURES.
  - NORTHING AND EASTING INFORMATION IS GIVEN AT CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
  - PLACE NO. 8 CRUSHED AGGREGATE BETWEEN PIPES AT ALL PIPE CROSSINGS TO PREVENT PIPE SETTLEMENT UNLESS SHOWN OTHERWISE.
  - VERIFY EXISTING SEWER INVERTS AND LOCATIONS PRIOR TO CONSTRUCTION AND DETERMINE IF THERE ARE ANY DISCREPANCIES OR CONFLICTS.
  - RESET ALL MAILBOXES AND SIGNS DISTURBED BY CONSTRUCTION ACTIVITIES.
  - IF REQUIRED, PLACE TEMPORARY OVERNIGHT AGGREGATE WEDGES AT DRIVEWAYS TO ALLOW PROPERTY OWNER ACCESS.

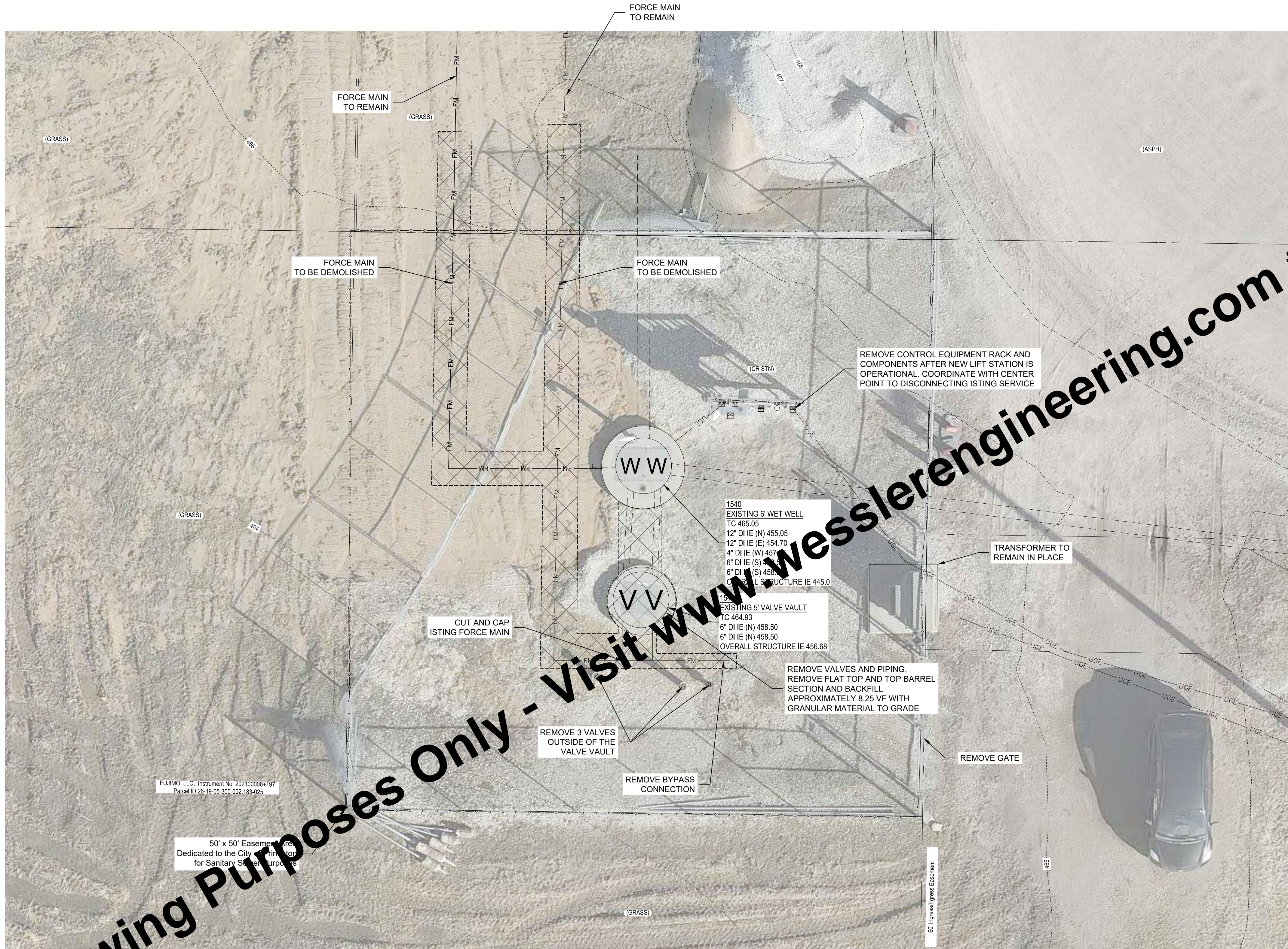
\*NOTE: THIS TABLE IS A LISTING OF TYPICAL ABBREVIATIONS AND MAY NOT INCLUDE ALL EXISTING SYMBOLS FOUND WITHIN THIS PLAN SET. IF A QUESTION ARISES ON THE MEANING OF ANY SYMBOL NOT LISTED IN THIS TABLE, PLEASE CONTACT THE ENGINEER FOR CLARIFICATION. THE SYMBOLS ARE NOT TO SCALE.

<div>SCALE VERIFICATION</div> <div>BAR IS ONE INCH LONG ON ORIGINAL DRAWING</div> <div><div></div></div>	<div>DRAWN BY</div> <div>JRW</div>	<div>NO.</div> <div></div>	<div>DATE</div> <div></div>	<div>INITIALS</div> <div></div>	<div>REVISION DESCRIPTIONS</div> <div></div>	<div><div><div><div>JOSHUA J. HOOD</div><div>REGISTERED</div><div>No.</div><div>11800823</div><div>STATE OF INDIANA</div><div>PROFESSIONAL ENGINEER</div><div>01/26/2026</div></div></div><div><div><div>W</div><div>WESSLER</div><div>ENGINEERING</div><div>More than a Project™</div></div></div></div>	<div>TMMI EXPANSION WASTEWATER SYSTEM UPGRADES PHASE 1 - RYDER LIFT STATION</div>				<div>SHEET NO.</div> <div>03</div>
	<div>CHECKED BY</div> <div>JJH</div>	<div></div> <div></div>	<div></div> <div></div>	<div></div> <div></div>	<div></div> <div></div>						<div>TOTAL SHEETS</div> <div>15</div>
	<div>APPROVED BY</div> <div>JJH</div>	<div></div> <div></div>	<div></div> <div></div>	<div></div> <div></div>	<div></div> <div></div>						
	<div>ISSUE DATE</div> <div></div>	<div></div> <div></div>	<div></div> <div></div>	<div></div> <div></div>	<div></div> <div></div>						
	<div>JANUARY 2026</div> <div></div>	<div></div> <div></div>	<div></div> <div></div>	<div></div> <div></div>	<div></div> <div></div>						
	<div>PROJECT NUMBER</div> <div>285424-04-001</div>	<div></div> <div></div>	<div></div> <div></div>	<div></div> <div></div>	<div></div> <div></div>						
	<div>LEGEND, ABBREVIATIONS, UTILITY CONTACTS AND GENERAL NOTES</div>										

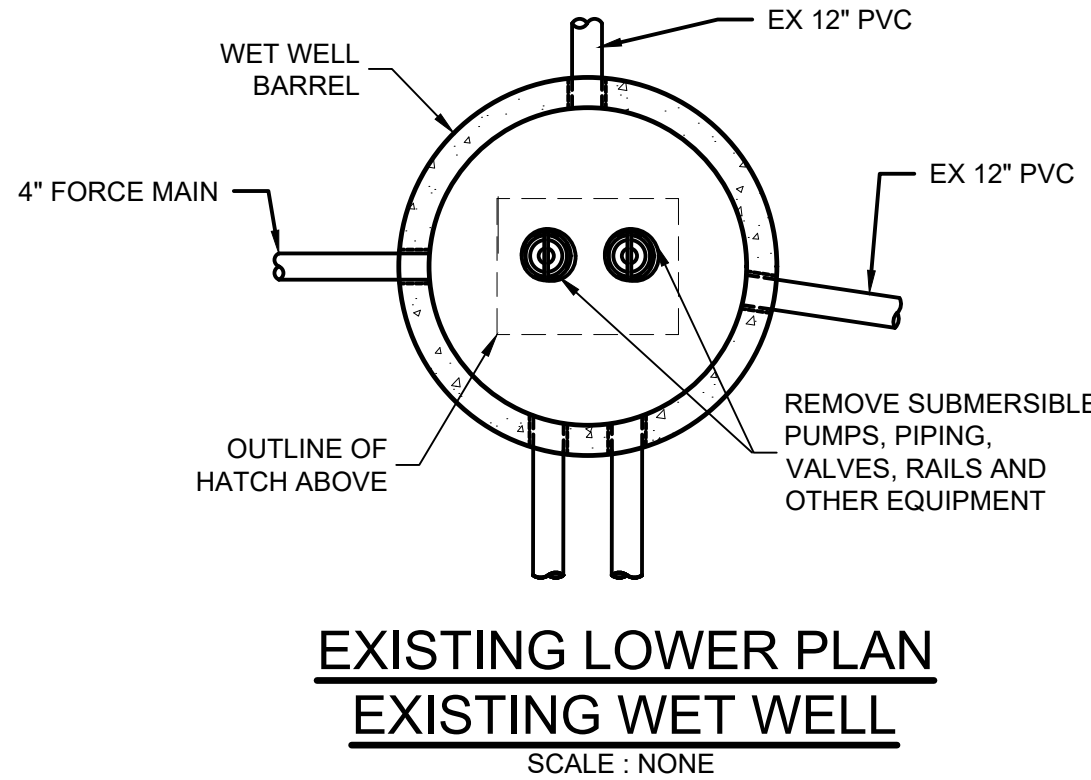
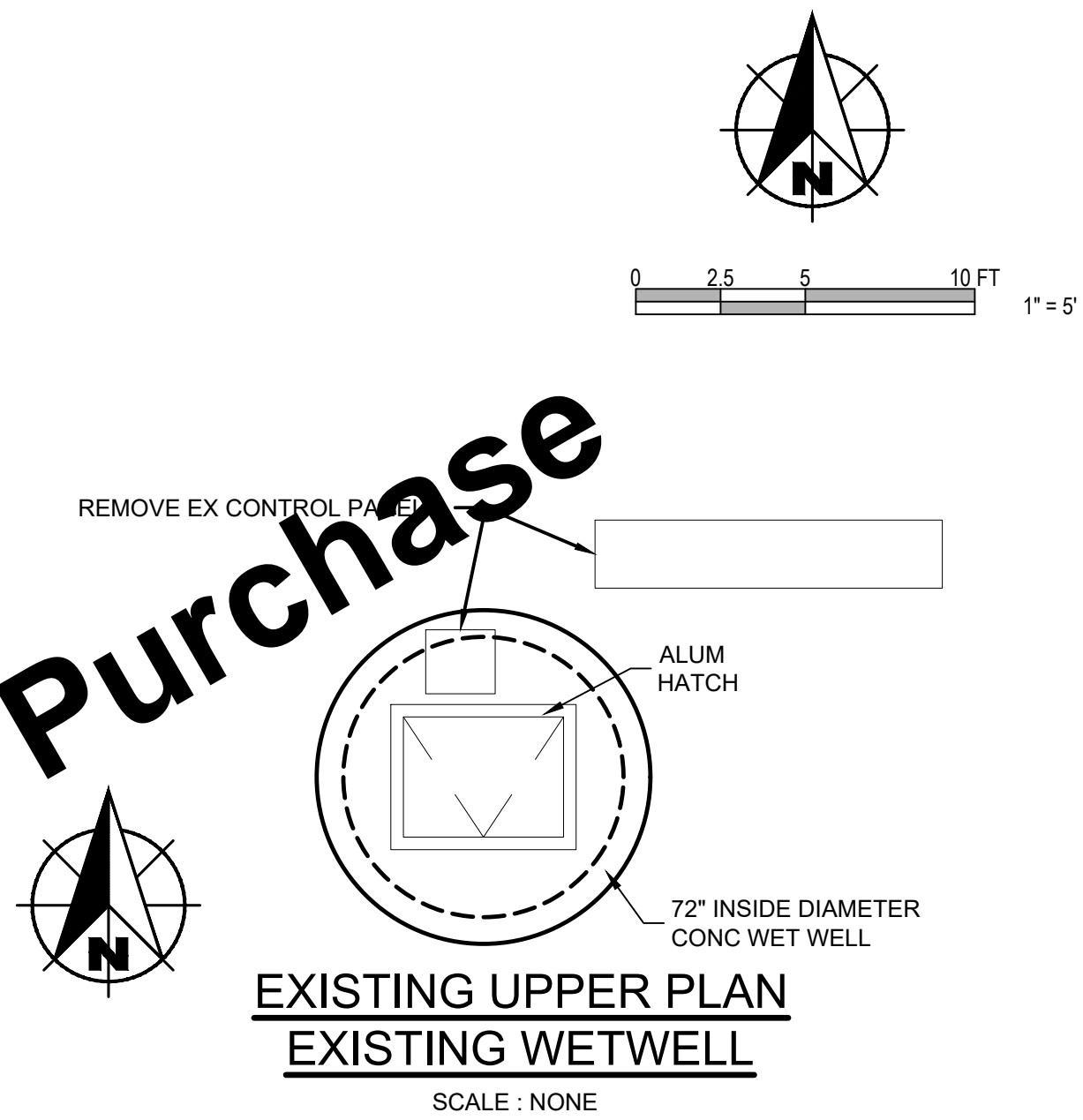


Drawing: X:\Princeton\_IL\285424\Princeton\_TMMI\_Ph1\_Ryder\_LSD\DWG\Sheet\285424-EX-DEMO-S1.dwg | Layout: 04 | Plotted: 01/27/26 @ 08:18:55 | LasSaverBy: jasonw

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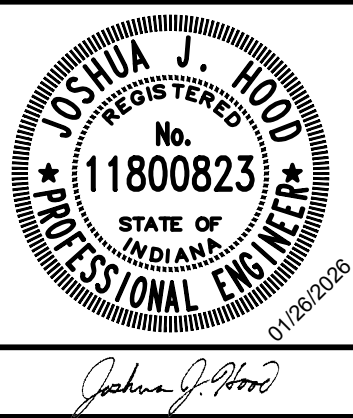


**EXISTING SITE DEMO**  
SCALE: 1" = 5'



LEGEND	
	EXISTING FEATURES TO REMAIN
	EXISTING FEATURES TO BE DEMOLISHED

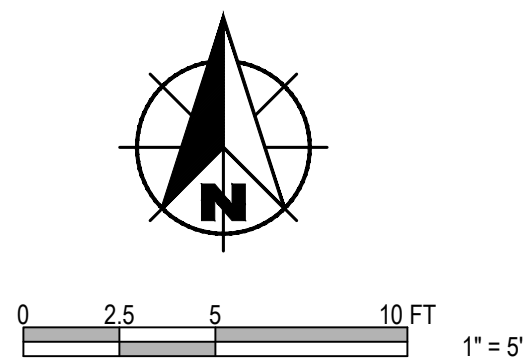
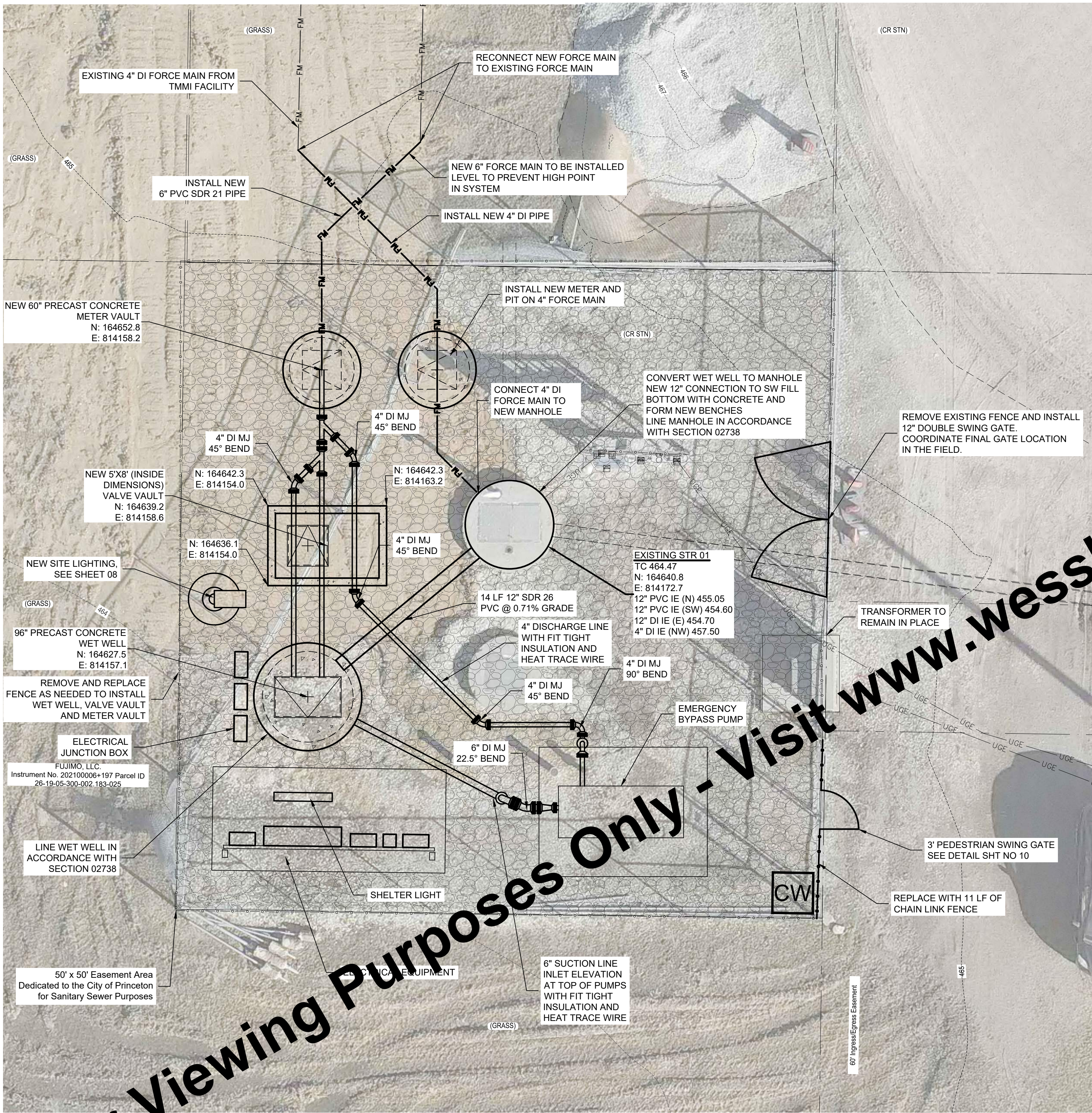
SCALE VERIFICATION  BAR IS ONE INCH LONG ON ORIGINAL DRAWING 	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	JJH				
	APPROVED BY	JJH				
	ISSUE DATE					
	JANUARY 2026					
	PROJECT NUMBER					
	285424-04-001					



TMMI EXPANSION WASTEWATER SYSTEM UPGRADES PHASE 1 - RYDER LIFT STATION	
CITY OF PRINCETON, INDIANA	
EXISTING SITE DEMO	

SHEET NO.	04
TOTAL SHEETS	15





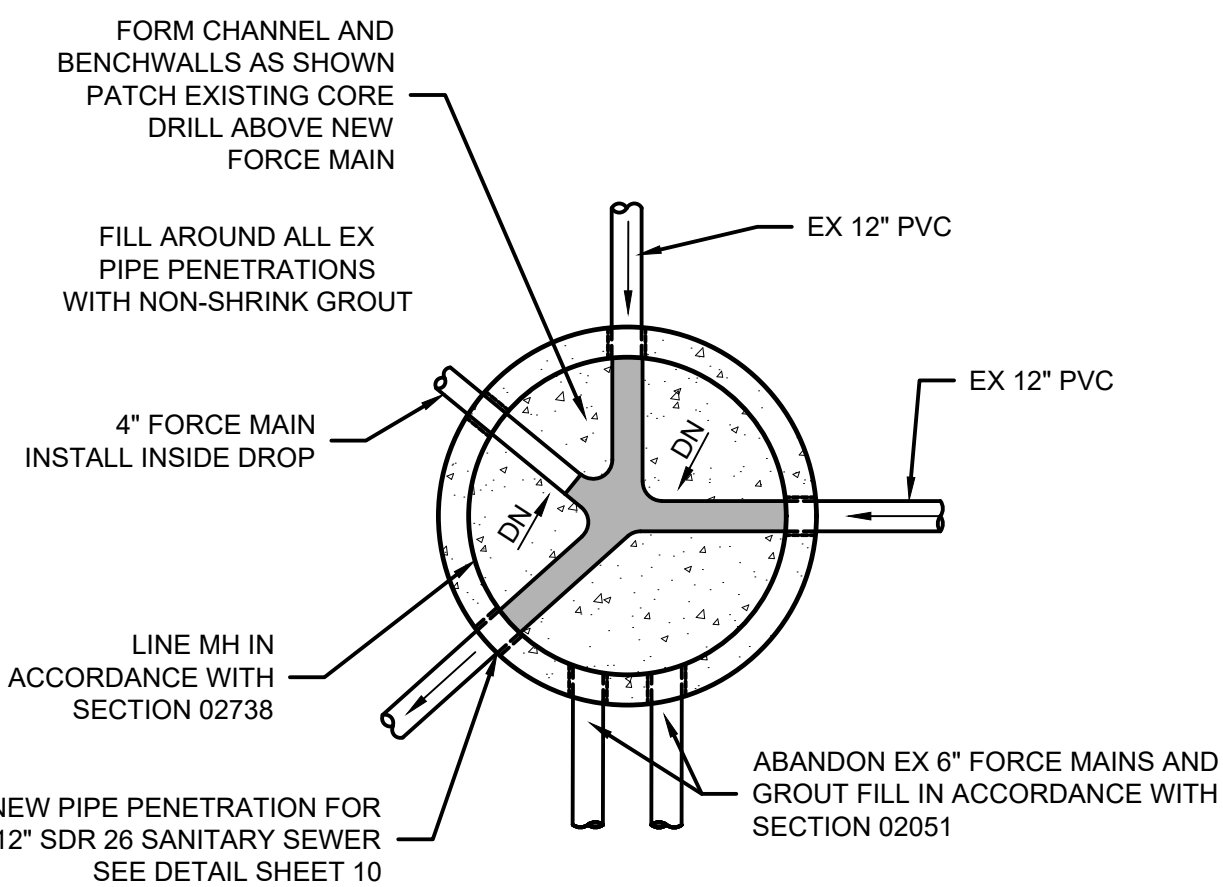
- GENERAL NOTES:**
- INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON PLAN SHEETS AND AS NECESSARY TO PROVIDE ADEQUATE CONTROL FOR THE CONSTRUCTION AREA. SEE SPECIFICATION 02101.
  - CONTRACTOR TO REPAIR AND REINSTATE ANY DAMAGED FIELD TILE WITHIN 24 HOURS OF OCCURRENCE.
  - UTILIZE EXISTING DRIVEWAY AS CONSTRUCTION ENTRANCE FOR THE LIFT STATION.

**LEGEND**

**CW** CONCRETE WASHOUT



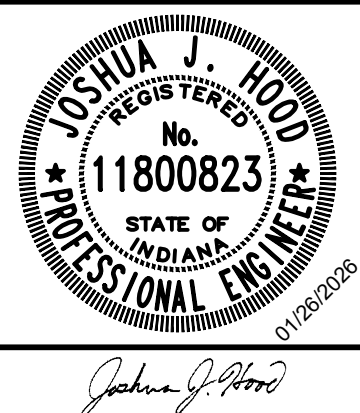
**NEW UPPER PLAN  
EXISTING WET WELL  
CONVERT TO MH**  
SCALE : NONE



**NEW LOWER PLAN  
EXISTING WET WELL  
CONVERT TO MH**  
SCALE : NONE

**NEW LIFT STATION NO. 1 - SITE PLAN**  
SCALE: 1" = 5'

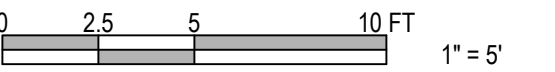
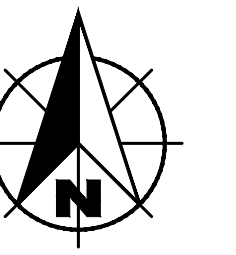
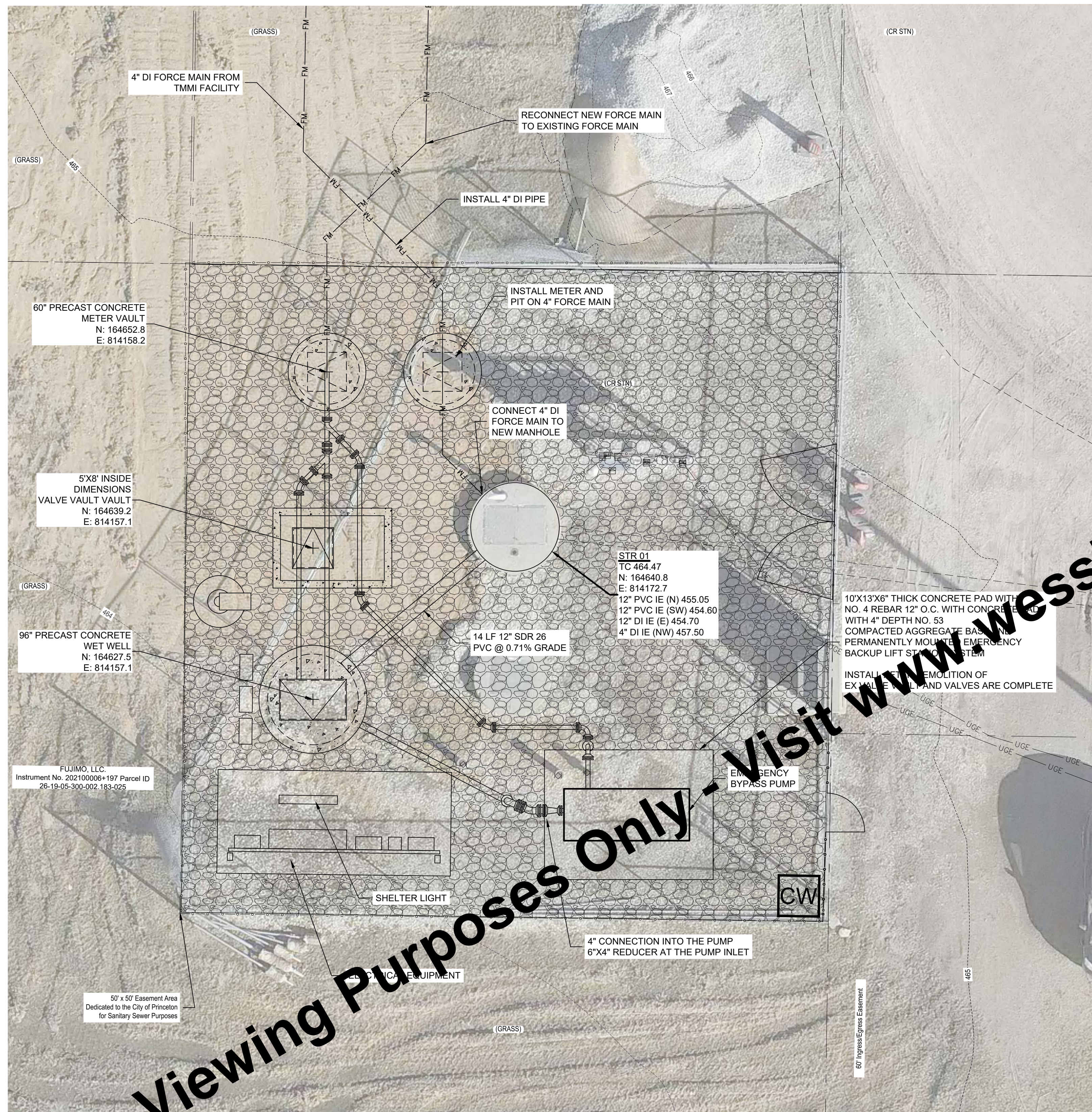
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BAR IS ONE INCH LONG ON ORIGINAL DRAWING 	APPROVED BY	JJH				
	ISSUE DATE	JANUARY 2026				
	PROJECT NUMBER	285424-04-001				



TMMI EXPANSION WASTEWATER SYSTEM UPGRADES PHASE 1 - RYDER LIFT STATION	
CITY OF PRINCETON, INDIANA	
<b>NEW LIFT STATION NO. 1 - SITE PLAN</b>	

SHEET NO.	<b>05</b>
TOTAL SHEETS	<b>15</b>



GENERAL NOTES:

1. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN OR AS DETERMINED NECESSARY BY CONTRACTOR TO PROVIDE ADEQUATE CONTROL FOR THE CONSTRUCTION AREA.
2. CONTRACTOR TO REPAIR AND REINSTATE ANY DAMAGED FIELD TILE WITHIN 24 HOURS OF OCCURRENCE.
3. UTILIZE EXISTING DRIVEWAY AS CONSTRUCTION ENTRANCE FOR THE LIFT STATION.

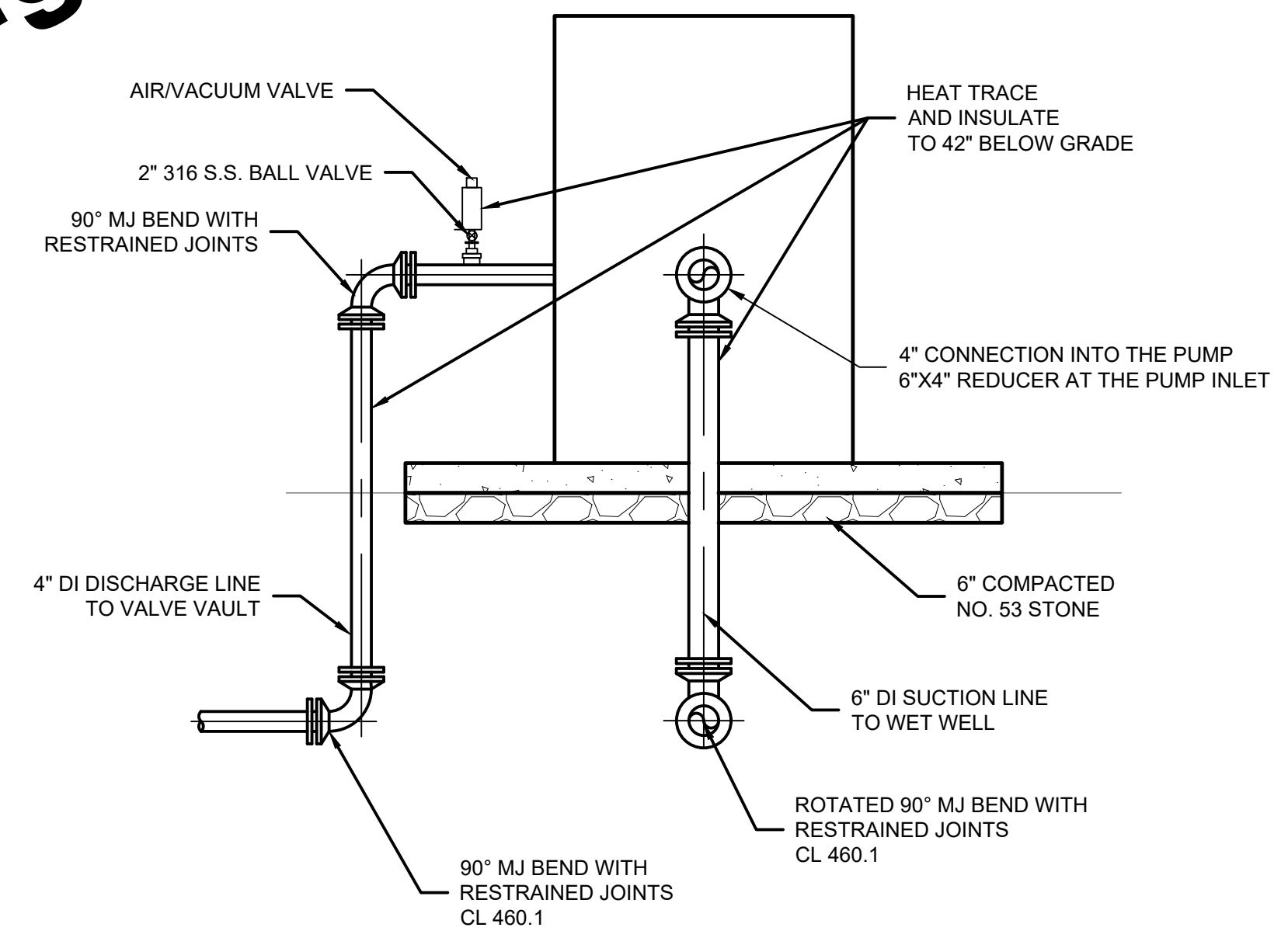
## KEYED NOTES ○

SF SILT FENCE/FILTER SOCK

### LEGEND

**CW** CONCRETE WASHOUT

--- SILT FENCE/FILTER SOCK




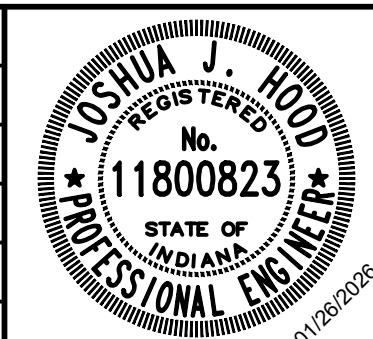
## EMERGENCY BYPASS PUMP CONNECTION

SCALE : NONE

## NEW EMERGENCY BYPASS PLAN

SCALE: 1" = 5'

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<b>TMMI EXPANSION WASTEWATER SYSTEM UPGRADES PHASE 1 - RYDER LIFT STATION</b>	
CITY OF PRINCETON, INDIANA	
<b>NEW EMERGENCY BYPASS PLAN</b>	

SHEET NO.

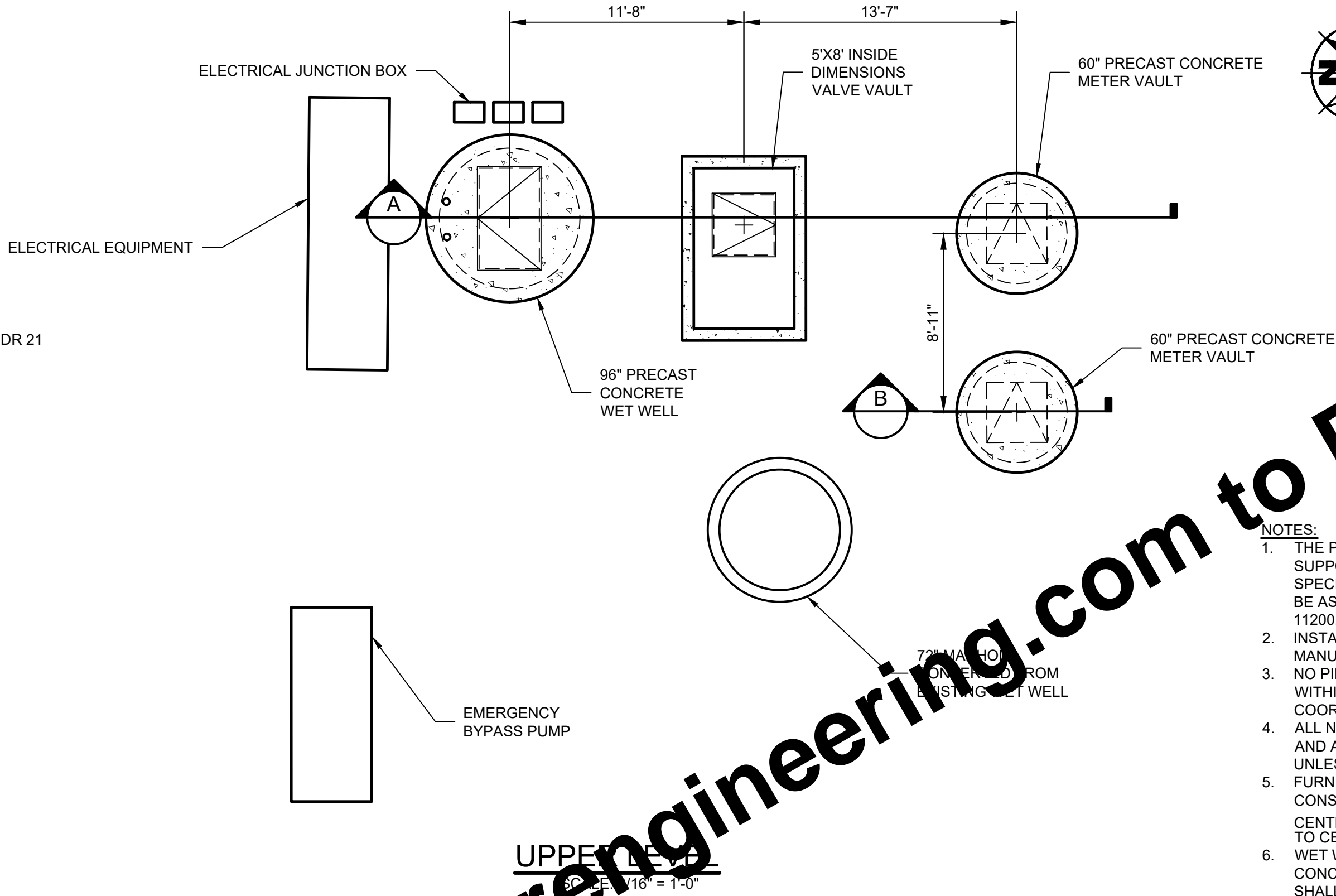
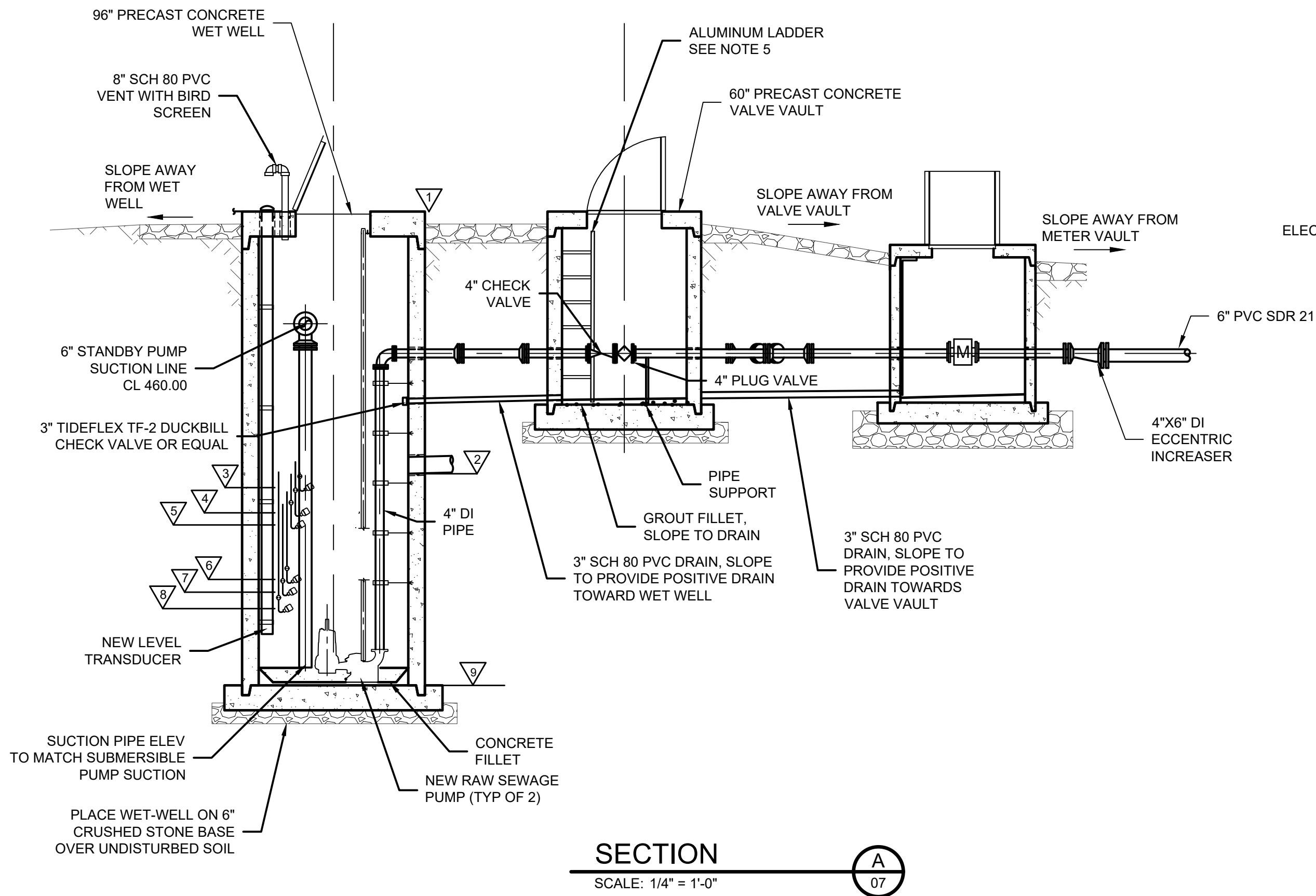
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TOTAL SHEETS

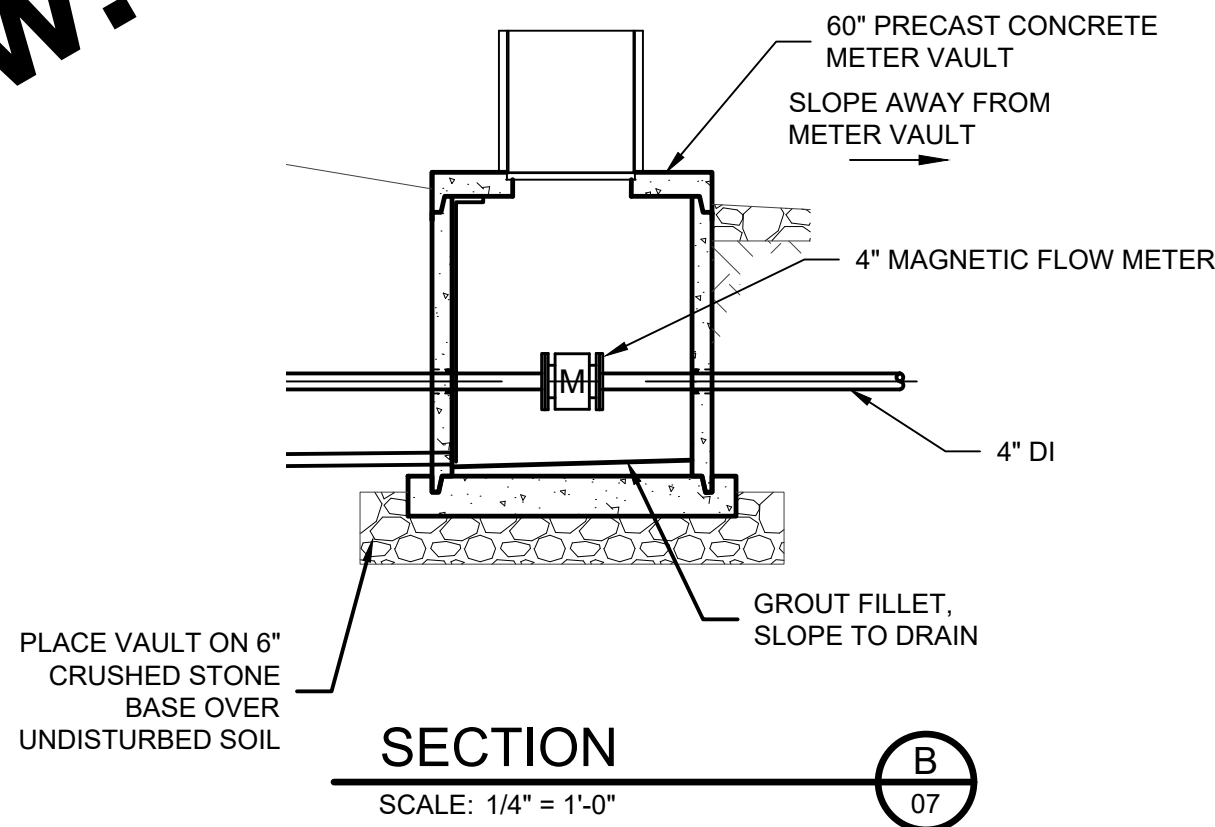
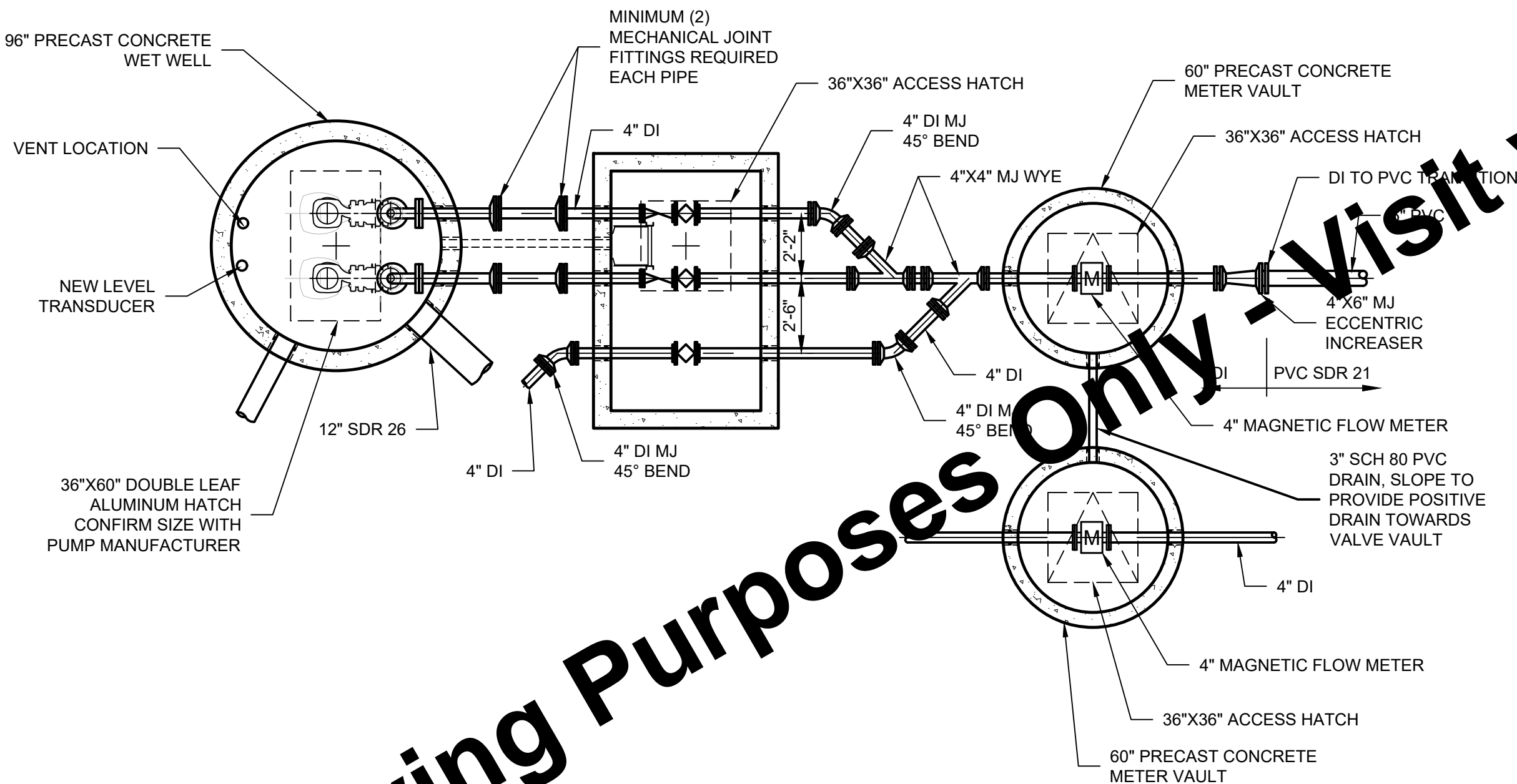
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- NOTES:
1. THE PUMP EQUIPMENT FOR THE WET WELL, INCLUDING PUMPS, GUIDE RAILS, AND SUPPORT BRACKETS, SHALL BE FURNISHED BY THE SAME MANUFACTURER. SEE SPECIFICATION SECTION 11200. PUMP CONTROLS AND CONTROL PANELS SHALL BE AS DESCRIBED IN THE ELECTRICAL DRAWINGS AND SPECIFICATION SECTION 11200.
  2. INSTALL CONCRETE FILLET INTO THE BOTTOM OF THE WET WELL PER PUMP MANUFACTURER'S RECOMMENDATIONS.
  3. NO PIPE PENETRATIONS WITHIN WET WELL OR VALVE VAULT SHALL BE ALLOWED WITHIN 12" OF ANY BARREL SECTION JOINT. BARREL SECTION HEIGHTS SHALL BE COORDINATED ACCORDINGLY.
  4. ALL NUTS, BOLTS AND HARDWARE IN ALL LOCATIONS, AND BRACKETS, SUPPORTS AND ALL OTHER APPURTENANCES IN WET WELL SHALL BE 316 STAINLESS STEEL UNLESS SPECIFICATION INDICATES OTHERWISE OR AS DIRECTED BY ENGINEER. FURNISH AND INSTALL AN ALUMINUM ACCESS LADDER IN THE VALVE VAULT. CONSTRUCTION SHALL BE ALL WELDED. RAILS SHALL BE C3x0.258, SPACED AT 14" CENTER TO CENTER. RUNGS SHALL BE 1 1/2" DIA., RIBBED, SPACED AT 12" CENTER TO CENTER. NOT MOUNTED TO WALL.
  5. WET WELL AND VALVE VAULT TOP SLABS SHALL BE PRECAST REINFORCED CONCRETE, BY SAME MANUFACTURER AS BARREL SECTIONS. ACCESS HATCHES SHALL BE INCLUDED IN CASTING OF TOP SLABS. VERIFY EXACT LOCATION OF WET WELL HATCH WITH PUMP MANUFACTURER.
  6. ALL RIGID PIPE CONNECTIONS THROUGH THE WET WELL AND VALVE VAULT WALLS SHALL BE THROUGH CORE DRILLED OR FACTORY FORMED PENETRATIONS. INSTALL WITH MECHANICAL WALL SEAL, LINK SEAL OR EQUAL SIZE OF WALL PENETRATIONS SHALL BE AS RECOMMENDED BY THE MECHANICAL SEAL MANUFACTURER FOR THE SIZE AND MATERIAL OF PIPE TO BE INSTALLED. FILL VOIDS BETWEEN MECHANICAL SEAL AND OUTER SURFACES OF THE STRUCTURE WITH NON SHRINK GROUT. THE PVC VALVE VAULT DRAIN SHALL BE INSTALLED BY THE SAME MANNER. ALL FLEXIBLE PIPE PENETRATIONS (SEWER) MAY BE INSTALLED BY THE SAME MANNER.



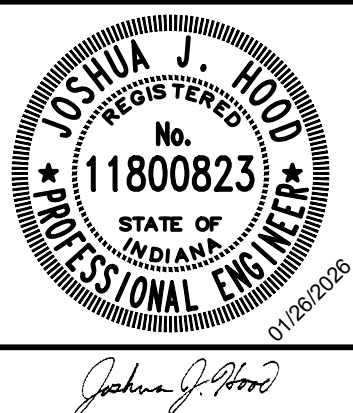
LIFT STATION SCHEDULE				
MARK	DESCRIPTION	ELEV. (FT)	DESCRIPTION	
1	TOP ELEVATION	464.5	F.M. SIZE AND LENGTH	6" - 13,270 LF
2	LOWEST PIPE INV ELEV	454.5	STATIC LIFT	37 FT
3	HIGH LEVEL ALARM	453.5	HEADLOSS (C=120)	67.3 FT
4	DIESEL PUMP ON FLOAT	452.5	EST. TDH	104.3 FT
5	LEAD PUMP ON FLOAT	452	GPM	210
6	PUMP OFF FLOAT	450	MOTOR H.P.	15
7	DIESEL PUMP OFF FLOAT	449.5	MOTOR RPM	3530
8	LOW LEVEL ALARM FLOAT	448.5		
9	WET WELL BOTTOM ELEVATION	445.5		
	FORCE MAIN HIGH POINT	487	PHASE/VOLT	3P/480V

PLAN VIEW A  
SCALE: 1/4" = 1'-0"

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

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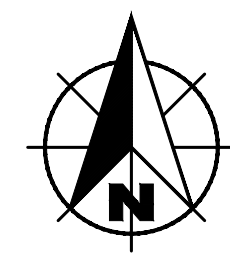
PLAN VIEW B  
SCALE: 1/4" = 1'-0"

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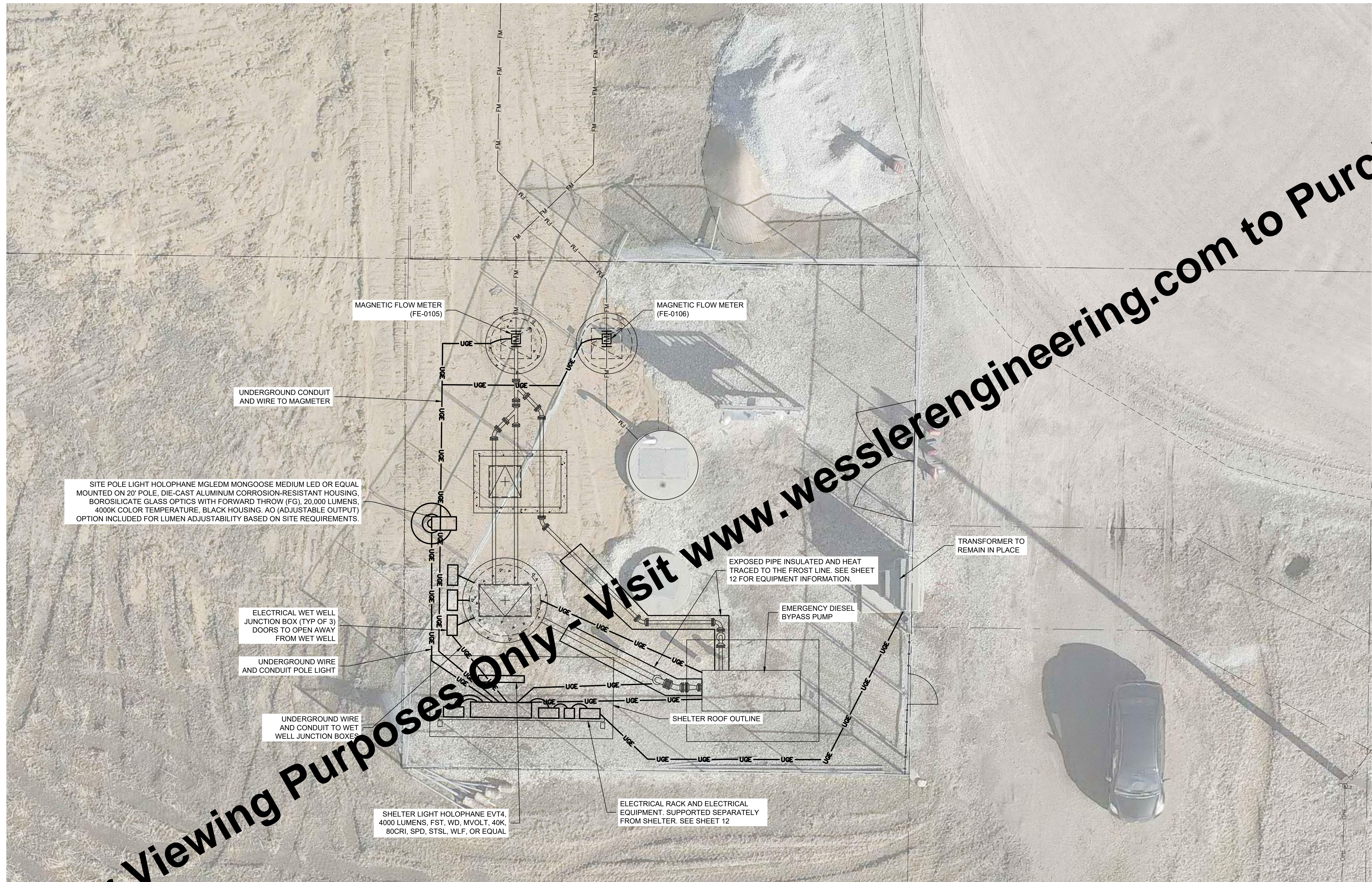
MMI EXPANSION WASTEWATER SYSTEM UPGRADES PHASE 1 - RYDER LIFT STATION	
CITY OF PRINCETON, INDIANA	
NEW LIFT STATION NO. 1 - PLANS, SECTION, AND SCHEDULE	

SHEET NO.	
07	
TOTAL SHEETS	
15	






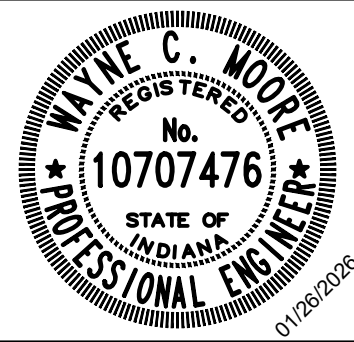
0 2.5 5 10 FT  
1" = 5'



NEW LIFT STATION NO. 1 - ELECTRICAL SITE PLAN

SCALE: 1" = 5'

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	APPROVED BY	WCM				
	ISSUE DATE					
	JANUARY 2026					
	PROJECT NUMBER					
	285424-04-001					



TMMI EXPANSION WASTEWATER SYSTEM UPGRADES PHASE 1 - RYDER LIFT STATION	
CITY OF PRINCETON, INDIANA	
NEW LIFT STATION NO. 1 - ELECTRICAL SITE PLAN	

SHEET NO.

08

TOTAL SHEETS

15

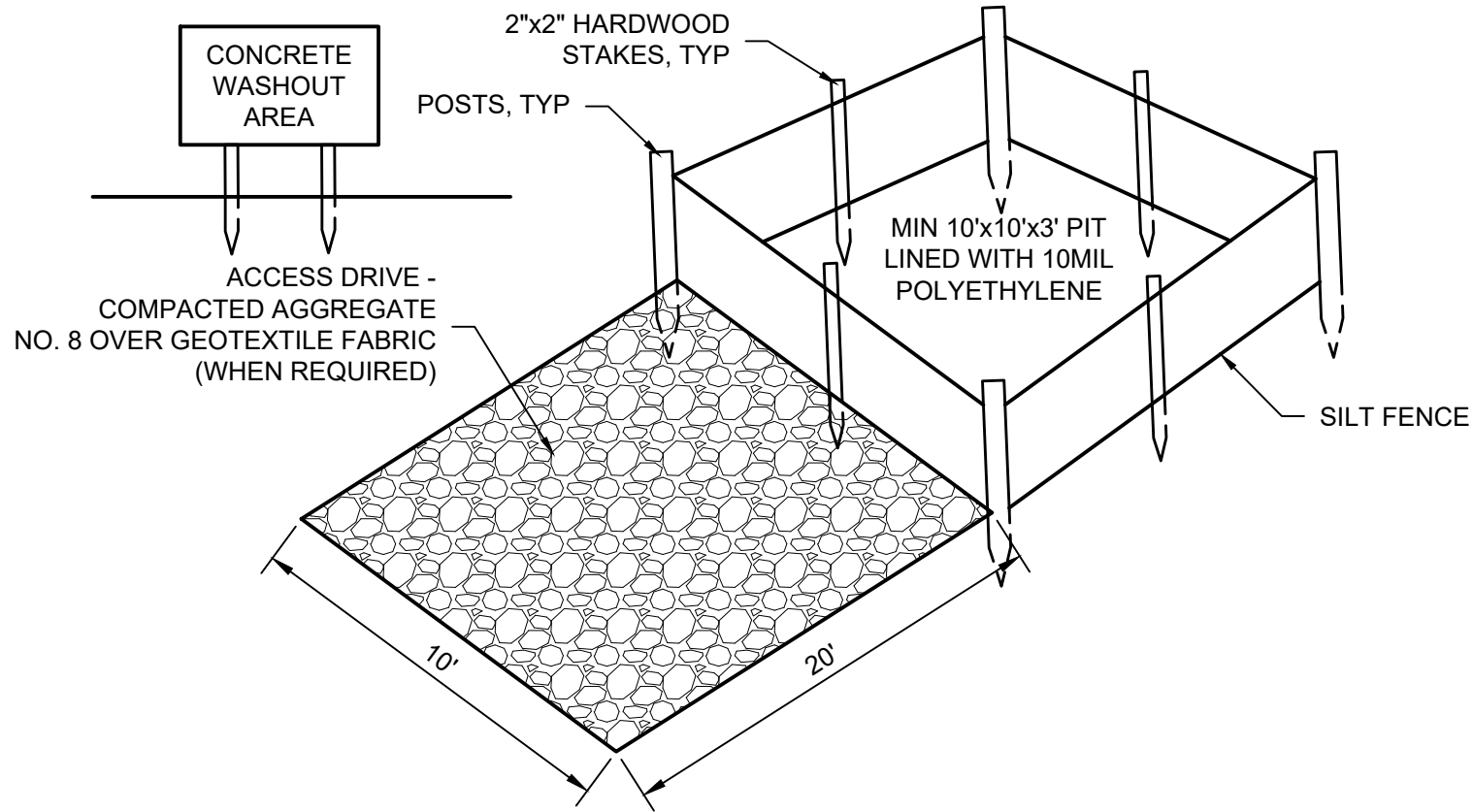


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EROSION CONTROL SCHEDULE	
CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
PRECONSTRUCTION ACTIVITIES: POST THE FOLLOWING INFORMATION NEAR THE MAIN ENTRANCE OF THE PROJECT SITE OR AT A PUBLICLY ACCESSIBLE LOCATION: NOTICE OF INTENT (NOI) DOCUMENT, COPY OF THE PUBLIC NOTICE, NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT NUMBER, NAME, ADDRESS, AND PHONE NUMBER OF THE LOCAL CONTACT PERSON, AND LOCATION OF A COPY OF THE CONSTRUCTION DRAWINGS AND STORMWATER POLLUTION PREVENTION PLAN (SWP3).  MAINTAIN DOCUMENTATION ON-SITE PER SPECIFICATION 02101 FOR THE PROJECT MANAGEMENT LOG. THE SWPPP SHOULD BE ONSITE AND SELF-MONITORING INSPECTION REPORTS MUST BE AVAILABLE WITHIN 48 HOURS OF REQUEST. INFORM OR TRAIN PERSONNEL ASSOCIATED WITH THE PROJECT OF THE TERMS AND CONDITIONS OF THE CSGP AND THE SWPPP REQUIREMENTS.	AUTHORIZATION UNDER THE CSGP IS EFFECTIVE 48-HOURS AFTER SUBMITTAL OF THE NOTICE OF INTENT TO IDEM AND LOCAL AUTHORITY BY THE OWNER.
REVIEW THE EROSION CONTROL SCHEDULE ON THE DRAWINGS AND REVISE AS NEEDED TO PHASE CONSTRUCTION ACTIVITIES TO MINIMIZE THE FOOTPRINT OF DISTURBED UNSTABLE AREAS. SUBMIT A REVISED EROSION CONTROL SCHEDULE AS NEEDED FOR TEMPORARY AND PERMANENT EROSION CONTROL WORK AS APPLICABLE.	COMPLETE BEFORE CONSTRUCTION BEGINS.
CONSTRUCTION ACCESS - ENTRANCE TO SITE, CONSTRUCTION ROUTES, AREAS DESIGNATED FOR EQUIPMENT PARKING OR MATERIAL STAGING AND WASTE HANDLING.	THIS IS THE FIRST LAND-DISTURBING ACTIVITY. AS SOON AS CONSTRUCTION BEGINS, STABILIZE ANY BARE AREAS WITH AGGREGATE AND TEMPORARY VEGETATION.
SEDIMENT TRAPS AND BARRIERS - BASIN TRAPS, SILT FENCE AND PERIMETER PROTECTION.	AFTER CONSTRUCTION IS ACCESSED, BASINS SHALL BE INSTALLED, WITH THE ADDITION OF MORE TRAPS AND BARRIERS AS NEEDED DURING GRADING. SET UP PROTECTION FOR NATURAL FEATURES, TREES AND BUFFERS.
RUNOFF CONTROL - DIVERSIONS, PERIMETER PROTECTION, CHECK DAMS, OUTLET PROTECTION.	RUNOFF CONTROL PRACTICES SHALL BE INSTALLED AFTER THE INSTALLATION OF SEDIMENT TRAPS AND BEFORE LAND GRADING. ADDITIONAL RUNOFF CONTROL MEASURES MAY BE INSTALLED DURING GRADING.
RUNOFF CONVEYANCE SYSTEM - STABILIZE STREAM BANKS, STORM DRAINS, CHANNELS, INLET AND OUTLET PROTECTION, SLOPE DRAINS.	AS NECESSARY, STABILIZE STREAM BANKS AND SIDE SLOPES OF RUNOFF SYSTEMS AS SOON AS POSSIBLE. USE EROSION CONTROL BLANKETS OR SLOPE DRAINS TO PREVENT EROSION. INSTALL INLET PROTECTION TO PREVENT SEDIMENTS FROM ENTERING STORM DRAINAGE SYSTEMS. PROTECT STORM OUTLETS TO PREVENT EROSION.
LAND CLEARING AND GRADING - SITE PREPARATION (CUTTING, FILLING, AND GRADING, SEDIMENT TRAPS, BARRIERS, DIVERSIONS, DRAINS, SURFACE ROUGHENING).	IMPLEMENT CLEARING AND GRADING AFTER INSTALLATION OF SEDIMENT TRAPS AND RUNOFF CONTROL MEASURES, AND INSTALL ADDITIONAL CONTROL MEASURES AS GRADING CONTINUES. CLEAR BORROW AND DISPOSAL AREAS AS NEEDED.
SURFACE STABILIZATION - TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIPRAP, EROSION CONTROL BLANKET.	APPLY TEMPORARY OR PERMANENT STABILIZING MEASURES IMMEDIATELY TO ANY DISTURBED AREAS WHERE WORK HAS BEEN EITHER COMPLETED OR DELAYED.
CONSTRUCTION - STRUCTURES, UTILITIES, PAVING, CONCRETE WASHOUT, AND CONSTRUCTION ENTRANCES.	DURING CONSTRUCTION, INSTALL ANY EROSION AND SEDIMENTATION CONTROL MEASURES THAT ARE NEEDED.
LANDSCAPING AND FINAL STABILIZATION - TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING, RIPRAP.	THIS IS THE LAST CONSTRUCTION PHASE. STABILIZE ALL DISTURBED AREAS, INCLUDING BORROW AND SPOIL AREAS, AND REMOVE ALL TEMPORARY CONTROL MEASURES. FINAL STABILIZATION IS WHEN A UNIFORM DENSITY OF 70% VEGETATION COVER IS MET. PROVIDE NOTIFICATION TO THE OWNER WHEN THE ENTIRE SITE HAS BEEN STABILIZED AND ALL CONSTRUCTION MATERIALS, WASTES, AND EQUIPMENT HAVE BEEN REMOVED.

EROSION CONTROL SCHEDULE

SCALE: NONE



NOTES:

1. INSTALL SILT FENCE TO FILTER RUNOFF THAT FLOWS INTO THE WASHOUT AREA.
2. THE POLYETHYLENE LINER SHALL BE A MINIMUM OF 10 MIL AND FREE OF TEARS, HOLES, AND OTHER DEFECTS. THE POLYETHYLENE LINING SHALL BE OF ADEQUATE SIZE TO EXTEND OVER THE CONTAINMENT AREA.
3. POSTS FOR SILT FENCES SHALL BE EITHER 4" DIAMETER WOOD OR 1.33 LBS PER LINEAR FOOT STEEL WITH A MINIMUM LENGTH OF 5'. STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE TO THEM. POSTS SHALL BE USED TO SECURE THE POLYETHYLENE LINING AND SHALL SUPPORT THE SILT FENCE.
4. STAKES FOR SILT FENCES SHALL BE 2"x2" WOOD (PREFERRED) OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3'.
5. BACKFILL THE SILT FENCE TRENCH AND COMPACT THE SOIL OVER THE FILTER FABRIC.
6. LOCATE WASHOUTS AT LEAST 50' FROM ANY CREEKS, WETLANDS, DITCHES, KARST FEATURES OR STORM DRAIN/CONVEYANCES.

WASHOUT PROCEDURES:

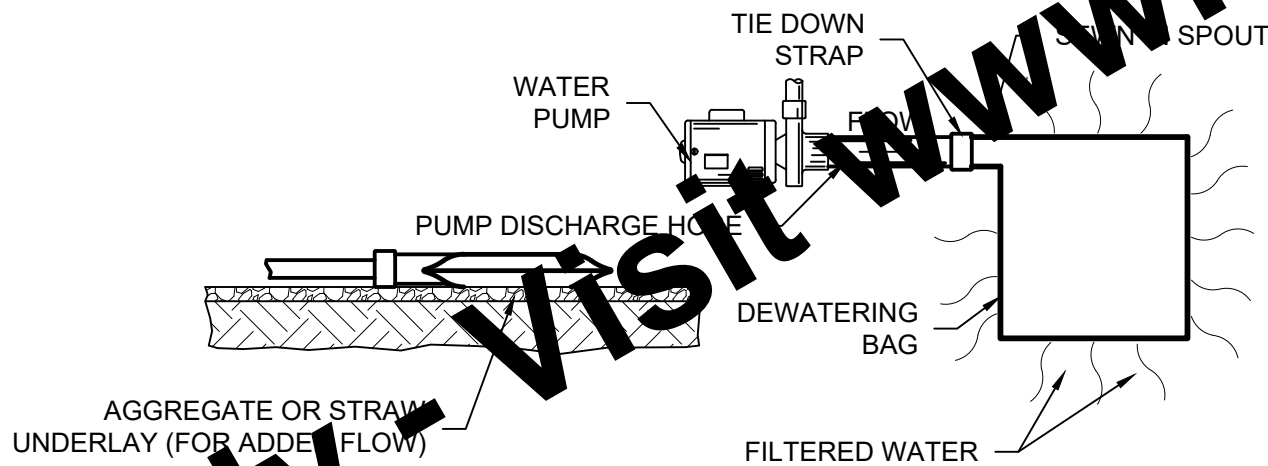
1. DO NOT LEAVE EXCESS MUD IN THE CHUTES OR HOPPER AFTER POURING CONCRETE. MAKE EVERY EFFORT TO EMPTY THE CHUTE AND HOPPER AT THE POUR. THE LESS MATERIAL LEFT IN THE CHUTES AND HOPPER, THE QUICKER AND EASIER THE CLEANOUT. SMALL AMOUNTS OF EXCESS CONCRETE (NOT WASHOUT WATER) MAY BE DISPOSED OF IN AREAS THAT WILL NOT FLOW TO AN AREA THAT IS TO BE PROTECTED.
2. SCRAPE AS MUCH MATERIAL FROM THE CHUTES AS POSSIBLE BEFORE WASHING THEM. USE NON-WATER CLEANING METHODS TO MINIMIZE THE CHANCE FOR WASTE TO FLOW OFF SITE.
3. STOP WASHING OUT IN AN AREA IF YOU OBSERVE WATER RUNNING OFF THE DESIGNATED AREA OR IF THE WATER IS NOT BEING CONTAINED WITHIN THE WASHOUT AREA.
4. DO NOT BACK FLUSH EQUIPMENT AT THE PROJECT SITE.
5. DO NOT USE ADDITIVES WITH WASH WATER.
6. DO NOT WASH OUT OR DRAIN WASTE WATERS TO STORM DRAINS, WETLANDS, STREAMS, RIVERS, CREEKS, DITCHES OR STREETS.

MAINTENANCE:

1. INSPECT SILT FENCE BARRIERS AND POLYETHYLENE LINER IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. INSPECT ACCESS DRIVE PERIODICALLY AND REPLACE DISPLACED AGGREGATE.
3. ADDITIONAL REQUIREMENTS PROVIDED IN SPECIFICATIONS.

CONCRETE WASHOUT

SCALE: NONE



SIDE VIEW

PLAN

MECHANICAL PROPERTIES	TEST METHOD	UNITS	INDUSTRY STANDARD
GRAB TENSILE STRENGTH	ASTM D4632	kN (LB)	0.9 (205) X 0.9 (205)
GRAB TENSILE ELONGATION	ASTM D4632	%	50 X 50
PUNCTURE STRENGTH	ASTM D4833	kN (LB)	0.58 (130)
MULLEN BURST STRENGTH	ASTM D3786	kPa (PSI)	2618 (380)
TRAPEZOID TEAR STRENGTH	ASTM D4533	kN (LB)	0.36 (80) X 0.36 (80)
UV RESISTANCE	ASTM D4355	%	70
APPARENT OPENING SIZE	ASTM D4751	Mm (US STD SIEVE)	0.180 (80)
FLOW RATE	ASTM D4491	1/MIN/M² (GAL/MIN/FT²)	3866 (95)
PERMITTIVITY	ASTM D4491	S⁻¹	1.2

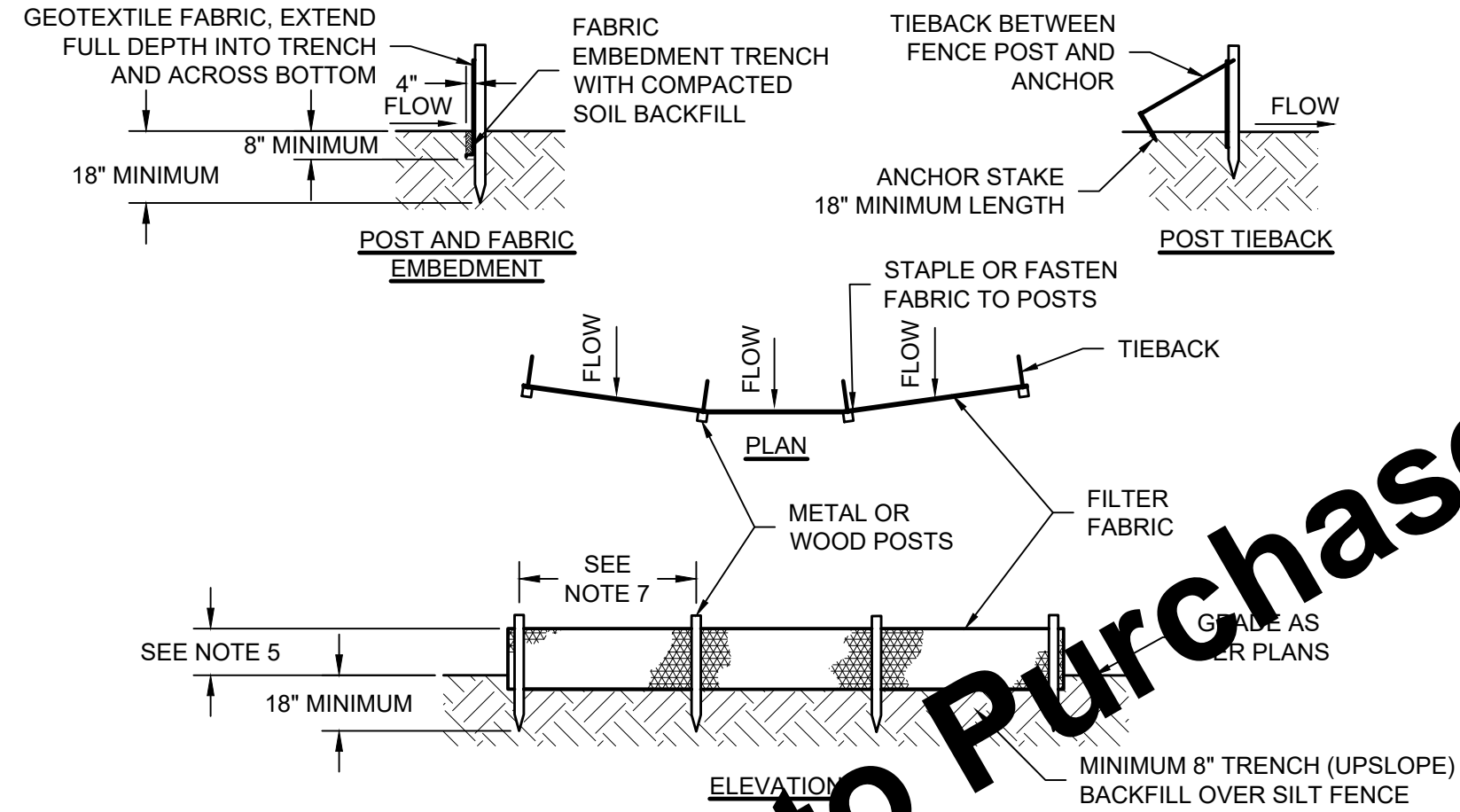
MAINTENANCE:

1. DURING THE ACTIVE DEWATERING PROCESS, INSPECTION OF THE PUMPING BAG SHOULD BE REVIEWED FREQUENTLY. SPECIAL ATTENTION SHOULD BE PAID TO THE BUFFER AREA FOR ANY SIGN OF EROSION AND CONCENTRATION OF FLOW. OBSERVE WHERE POSSIBLE THE VISUAL QUALITY OF THE EFFLUENT AND DETERMINE IF ADDITIONAL TREATMENT CAN BE PROVIDED.
2. DISPOSE OF ACCUMULATED SEDIMENT REMOVED DURING PUMPING OPERATIONS IN CONFORMANCE WITH THE SPECIFICATIONS.
3. REPLACE THE BAG OR DISPOSE OF SILT WHEN HALF FULL OF SEDIMENT OR WHEN SEDIMENT HAS REDUCED THE FLOW RATE TO AN IMPRACTICAL RATE.

SOURCE:  
KRISTAR  
DANDY DEWATERING BAG  
SEDCATCH

PUMPING BAG

SCALE: NONE



NOTES:

1. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF WOVEN OR NON-WOVEN GEOTEXTILE FABRIC AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING REQUIREMENTS:
  - a. TEXTILE STRENGTH AT 20% (MAXIMUM) ELONGATION, PER ASTM D4632.
  - b. WOVEN EXTRA STRENGTH - 50 LB/LINEAR INCH (MINIMUM) OR WOVEN EXTRA STRENGTH - 70 LB/INCH (MINIMUM).
  - c. WOVEN STANDARD STRENGTH - 30 LB/LINEAR INCH (MINIMUM) OR NON-WOVEN STANDARD STRENGTH - 50 LB/INCH (MINIMUM).
  - d. APPARENT OPENING SIZE (AOS) (U.S. SIEVE) - NO. 30 PARTICLE SIZE OF 0.6 mm (MAXIMUM), ASTM D4751.
  - e. PERMITTIVITY - 0.05 S⁻¹ (MAXIMUM), ASTM D4491.
2. POSTS FOR SILT FENCES SHALL BE EITHER 4" SQUARE WOOD OR EQUIVALENT METAL POSTS WITH A MINIMUM LENGTH OF 5'. METAL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE TO THEM.
3. ANCHOR STAKES FOR SILT FENCES SHALL BE 2" WOOD (PREFERRED) OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 18".
4. WIRE FENCE REINFORCEMENT FOR SILT FENCES USING STANDARD STRENGTH FILTER CLOTH SHALL BE A MINIMUM OF 14 GAUGE, AND SHALL HAVE A MAXIMUM MESH SPACING OF 6".
5. THE HEIGHT OF THE BARRIER SHALL BE A MINIMUM OF 18" AND A MAXIMUM OF 30".
6. THE FABRIC SHALL BE UNFOLDED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER FABRIC SHALL BE SEWN TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6" OVERLAP, AND SECURELY SEALED.
7. POSTS SHALL BE SPACED A MAXIMUM OF 6' APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 18"). WHEN STANDARD STRENGTH FABRIC IS USED, THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 8'.
8. THE SPACING OF TIEBACKS SHALL EQUAL THE SPACING OF THE POSTS. ADDITIONAL POST DEPTH OR TIEBACKS MAY BE REQUIRED IN UNSTABLE SOILS.
9. THE FABRIC SHALL BE EXCAVATED APPROXIMATELY 4" WIDE AND A MINIMUM OF 8" DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
10. WHEN STANDARD STRENGTH FILTER FABRIC IS USED WITH A WIRE MESH SUPPORT FENCE IT SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2" AND SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE.
11. THE STANDARD STRENGTH FILTER FABRIC, WITHOUT A WIRE MESH SUPPORT FENCE, SHALL BE STAPLED OR WIRED TO THE FENCE, AND A MINIMUM 8" OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE. DO NOT STAPLE FILTER FABRIC TO EXISTING TREES.
12. WHEN EXTRA STRENGTH FILTER FABRIC OR BURLAP AND POST SPACING IS LESS THAN THE MAXIMUM SPECIFIED SPACING OF 6', THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED.
13. BACKFILL THE TRENCH AND COMPACT THE SOIL OVER THE FILTER FABRIC.
14. REMOVE SILT FENCES WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
15. SILT FENCE SHALL NOT BE USED AS A DIVERSION AND SHALL NOT BE INSTALLED ACROSS A STREAM, CHANNEL, DITCH, SWALE, ETC.

MAINTENANCE:

1. INSPECT AFTER EACH RAINFALL AND DAILY DURING PROLONGED RAINFALL. INSPECT AT LEAST ONCE EVERY 7 CALENDAR DAYS.
2. REPLACE OR REPAIR FABRIC IMMEDIATELY IF IT DECOMPOSES OR IS INEFFECTIVE.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY HALF THE HEIGHT OF THE BARRIER.
4. SPREAD ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED AND DRESS TO CONFORM WITH THE FINISHED GRADING.

SILT FENCE

SCALE: NONE

SEASONAL SOIL PROTECTION CHART

STABILIZATION PRACTICE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDING												
DORMANT SEEDING												
TEMPORARY SEEDING												
SODDING												
MULCHING												

- A. = KENTUCKY BLUEGRASS 140 LB/ACRE; OR 170 LB/ACRE TALL FESCUE PLUS 30 LB/ACRE BLUEGRASS; OR APPROVED EQUAL GRASS SEED MIXTURE
- B. = KENTUCKY BLUEGRASS 210 LB/ACRE; OR 90 LB/ACRE PERENNIAL RYEGRASS PLUS 135 LB/ACRE BLUEGRASS OR 250 LB/ACRE TALL FESCUE (TURF TYP) PLUS 45 LB/ACRE BLUEGRASS; OR APPROVED EQUAL GRASS SEED MIXTURE
- C. = SPRING OATS 100 LB/ACRE (1" PLANTING DEPTH)
- D. = WHEAT OR RYE 150 LB/ACRE (1" - 1.5" PLANTING DEPTH)
- E. = ANNUAL RYEGRASS 40 LB/ACRE (1/4" PLANTING DEPTH)
- F. = SOD
- G. = ANCHORED STRAW/HAY (2 TONS/ACRE) OR WOOD FIBER/CELLULOSE (1 TON/ACRE) IS REQUIRED WITH PERMANENT SEEDING AND TEMPORARY SEEDING. ALSO REQUIRED WITH DORMANT SEEDING UNLESS SOIL IS IN FREEZE/THAW CYCLE.

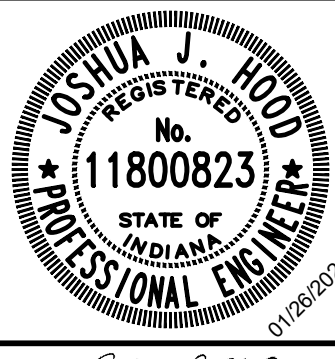
NOTES:

1. IRRIGATION NEEDED DURING MAY THROUGH SEPTEMBER.
2. IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.
3. ANCHORED MULCH IS REQUIRED FOR PERMANENT, DORMANT AND TEMPORARY SEEDING.
4. OPTIMUM SEEDING DATES PROVIDED. DATES MAY BE EXTENDED OR SHORTENED BASED ON PROJECT LOCATION.
5. SEED MIXTURES PROVIDED FOR LAWNS AND HIGH MAINTENANCE AREAS.
6. IF CONSTRUCTION ACTIVITIES ARE LOCATED WITHIN A FLOODWAY, SEE MIXTURES CONSISTING OF TALL FESCUE SHALL NOT BE UTILIZED.

MAINTENANCE:

1. INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY 7 CALENDAR DAYS.
2. CHECK FOR EROSION AND MOVEMENT OF MULCH AND REPAIR IMMEDIATELY.
3. MONITOR FOR EROSION DAMAGE AND ADEQUATE COVER (70% DENSITY).
4. RESEED OR APPLY MULCH WHERE NECESSARY.
5. SELECT SOIL AMENDMENT MATERIALS AND RATES AS DETERMINED BY SOIL TESTS AND SITE CONDITIONS.

TMMI EXPANSION WASTEWATER SYSTEM UPGRADES PHASE 1 - RYDER LIFT STATION		SHEET NO.
CITY OF PRINCETON, INDIANA		09
EROSION CONTROL DETAILS		TOTAL SHEETS 15





The diagram illustrates the construction of a barrel vault excavation. Key components and dimensions include:

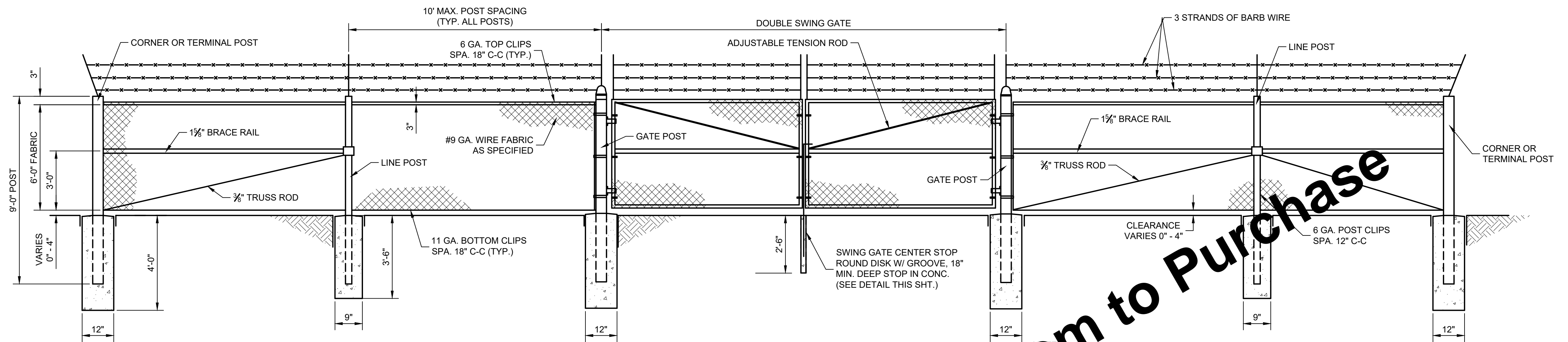
- SURFACE RESTORATION**: Indicated by a dashed line at the top of the excavation.
- EX GRADE**: The ground level surface.
- MINIMUM WIDTH =  $OD + 24"$** : The required width of the excavation at the top.
- INITIAL AND FINAL BACKFILL CLASS I**: The material used for the initial and final backfill.
- HAUNCHING CLASS I MATERIAL**: The material used for the haunching area.
- HAUNCHING AREA**: The area of the excavation where the haunching material is applied.
- UNDISTURBED EARTH**: The original ground level.
- OD**: The outside diameter of the barrel.
- 1/2 OD**: The depth of the excavation from the surface restoration to the top of the barrel.
- 1/6 OD**: The depth of the excavation from the top of the barrel to the bottom of the haunching area.
- 4" MINIMUM BELOW THE BARREL, BELL HOLE EXCAVATED (SEE TABLE ABOVE)**: The depth of the excavation below the barrel.
- BEDDING AND 1/6 HAUNCHING AREA CLASS I MATERIAL**: The material used for the bedding and the bottom of the haunching area.

## SCALE: NONE

Diagram illustrating the cross-section of a Class I barrel excavation. The diagram shows the excavation profile, the final backfill material, the tracer wire, the bedding, haunching, and initial backfill material, and the undisturbed earth. Key dimensions and labels include:

- SURFACE RESTORATION**: Indicated by a dashed line at the top of the excavation.
- EX GRADE**: Indicated by a solid line at the top of the excavation.
- FINAL BACKFILL CLASS I MATERIAL**: The material filling the excavation above the bedding.
- MINIMUM WIDTH =  $1.5(OD) + 12"$** : The width of the excavation at the top of the bedding.
- 6" MINIMUM**: The thickness of the bedding layer.
- TRACER WIRE**: A wire embedded in the bedding layer.
- OD**: Outside Diameter of the barrel.
- BEDDING, HAUNCHING, AND INITIAL BACKFILL CLASS I MATERIAL**: The material directly surrounding the barrel.
- UNDISTURBED EARTH**: The material below the excavation.
- 1/2 OD**: The depth of the excavation below the bedding.
- MINIMUM BELOW THE BARREL, BELL HOLE EXCAVATED (SEE TABLE ABOVE)**: The minimum depth of the excavation below the barrel.

## SCALE: NONE

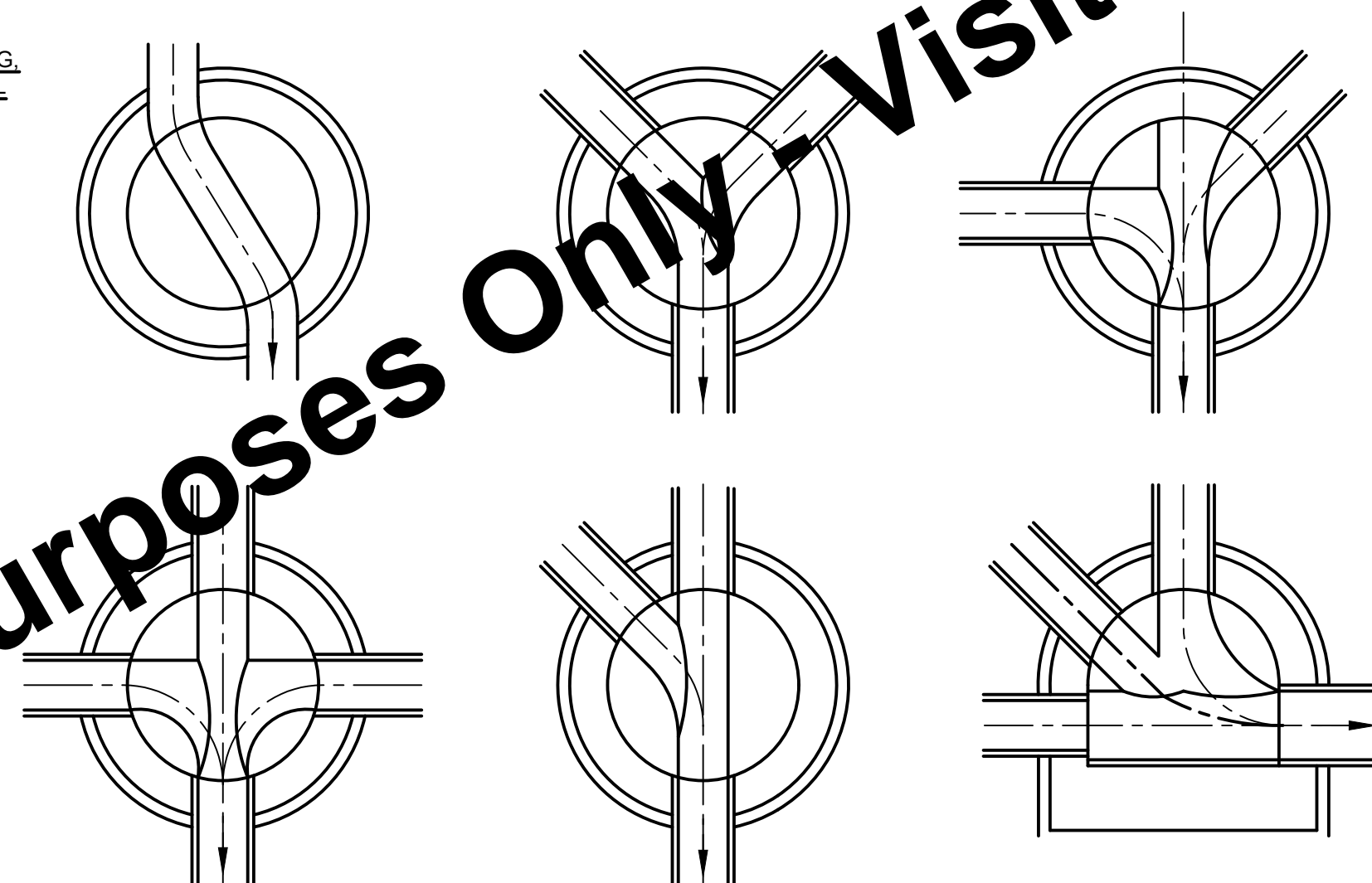


## CHAIN LINK FENCE INSTALLATION DATA

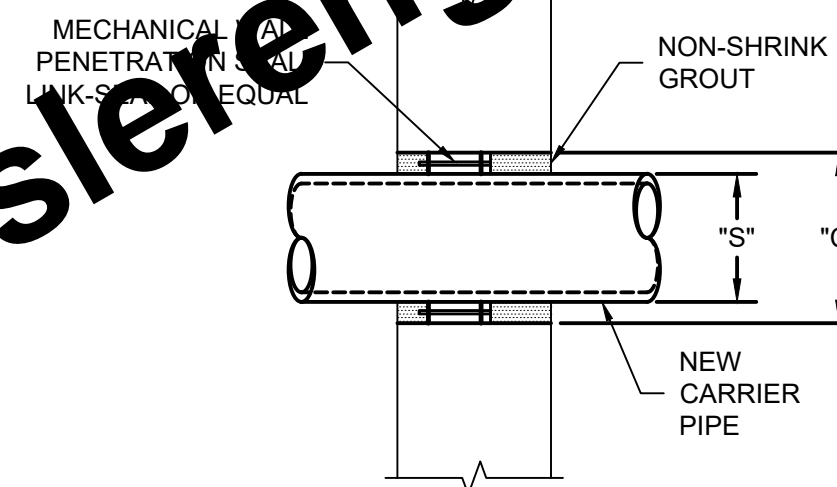
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## SCALE: NONE



## STANDARD MANHOLE BENCHES



## SCALE: NONE

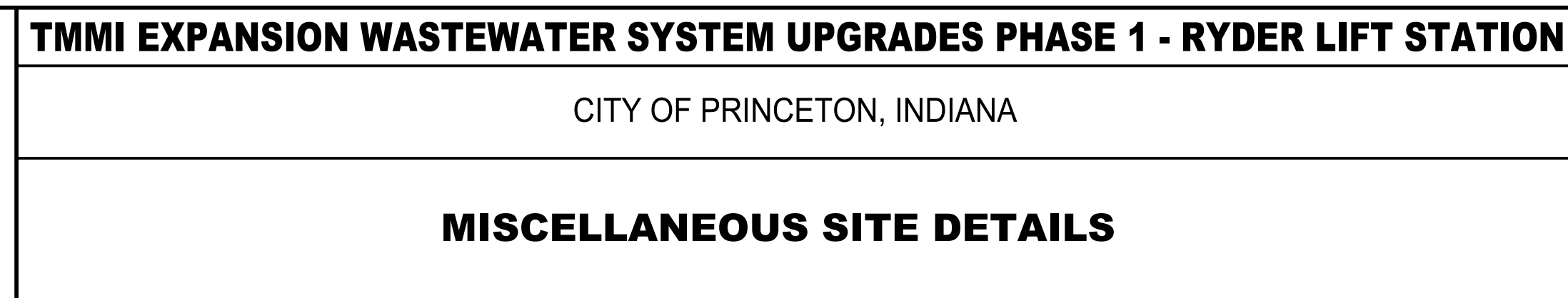
- 
- The image contains three separate line drawings of pipe fittings. The top left drawing is a 90-degree elbow fitting, showing a pipe that turns at a right angle. The top right drawing is a T-junction fitting, showing a pipe that branches into two perpendicular pipes. The bottom drawing is a 45-degree elbow fitting, showing a pipe that turns at a 45-degree angle. Each fitting is shown with multiple segments and flanges to illustrate its construction.

## RESTRAINED PIPING



01/26/2026

*Joshua J. Hood*

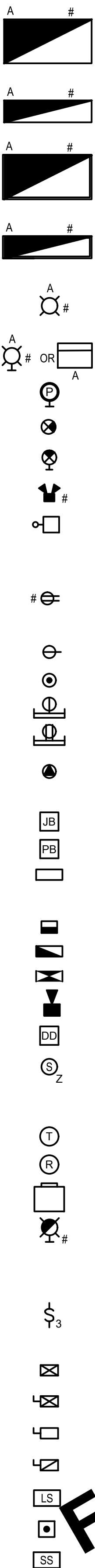


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**LIGHTING**

SURFACE/PENDANT MOUNTED LIGHT  
FIXTURE LETTER DENOTES TYPE, # DENOTES  
CIRCUIT, SHADING DENOTES EMERGENCY  
AND/OR NIGHT LIGHT

SURFACE/PENDANT MOUNTED LIGHT  
FIXTURE LETTER DENOTES TYPE, # DENOTES  
CIRCUIT, SHADING DENOTES EMERGENCY  
AND/OR NIGHT LIGHT

RECESS MOUNTED LIGHT FIXTURE LETTER  
DENOTES TYPE, # DENOTES CIRCUIT,  
SHADING DENOTES EMERGENCY AND/OR  
NIGHT LIGHT

RECESS MOUNTED LIGHT FIXTURE LETTER  
DENOTES TYPE, # DENOTES CIRCUIT,  
SHADING DENOTES EMERGENCY AND/OR  
NIGHT LIGHT

H.I.D. OR INCANDESCENT FIXTURE CEILING  
MOUNTED LETTER DENOTES TYPE, #  
DENOTES CIRCUIT

WALL MOUNTED FIXTURE LETTER  
DENOTES TYPE, # DENOTES CIRCUIT

WALL MOUNTED PHOTOCELL

CEILING MOUNTED EXIT SIGN

WALL MOUNTED EXIT SIGN

EMERGENCY LIGHT FIXTURE #  
DENOTES CIRCUIT

POLE MOUNTED FIXTURE

**RECEPTACLE**

DUPLEX RECEPTACLE  
SUBSCRIPT DENOTES TYPE: UPS  
DENOTES UNINTERRUPTIBLE POWER SUPPLY  
# DENOTES CIRCUIT

SINGLE OUTLET RECEPTACLE

SPECIAL PURPOSE OUTLET

MULTI-OUTLET RECEPTACLE SINGLE

MULTI-OUTLET RECEPTACLE DUPLEX

**240 VOLT RECEPTACLE**

**PANELS AND BOXES**

JUNCTION BOX

PULL BOX

PANEL

**HVAC AND FIRE ALARM**

FIRE ALARM PULL STATION

FIRE ALARM CONTROL PANEL

ANNUNCIATOR

HORN/LIGHT DEVICE

DUCT DETECTOR

SMOKE DETECTOR SUBSCRIPT  
DENOTES TYPE:  
Z DENOTES IONIZATION  
P DENOTES PHOTOELECTRIC  
T DENOTES THERMAL

THERMOSTAT

AMBIENT TEMPERATURE TRANSMITTER

UNIT HEATER

WALL MOUNTED GAS DETECTION FIXTURE

**SWITCHES**

WALL SWITCH  
SUBSCRIPT DENOTES TYPE:  
NO SUBSCRIPT DENOTES SINGLE POLE  
3 DENOTES 3 WAY M DENOTES MANUAL  
4 DENOTES 4 WAY MOTOR STARTER

MOTOR STARTER

COMBINATION MOTOR STARTER

DISCONNECT SWITCH

FUSED DISCONNECT SWITCH

DISCONNECT SWITCH

LOCAL CONTROL STATION

SPEED SWITCH

**WIRING**

CONDUIT HOME RUN

CONDUIT EXPOSED

CONDUIT CONCEALED

FLEXIBLE CONDUIT

**SCHEMATICS**

3-POSITION SELECTOR SWITCH  
HAND - OFF - AUTO

PUSHBUTTON SWITCH N.O.  
TEXT DENOTES LEGEND PLATE

PUSHBUTTON SWITCH N.C. TEXT  
DENOTES LEGEND PLATE

MUSHROOM HEAD EMERGENCY  
STOP PUSHBUTTON SWITCH N.C.  
MAINTAINED TEXT DENOTES  
LEGEND PLATE

PUSHBUTTON SWITCH N.C. WITH  
LOCK-OUT TEXT DENOTES  
LEGEND PLATE

DISCONNECT SWITCH N.O.

DISCONNECT SWITCH N.C.

TEMPERATURE SWITCH OR  
THERMOSTAT N.O. TEXT DENOTES  
TAG NUMBER

TEMPERATURE SWITCH OR  
THERMOSTAT N.C. TEXT DENOTES  
TAG NUMBER

PRESSURE SWITCH N.O. TEXT  
DENOTES TAG NUMBER

PRESSURE SWITCH N.C. TEXT  
DENOTES TAG NUMBER

LEVEL SWITCH N.O.  
TEXT DENOTES TAG NUMBER

LEVEL SWITCH N.C. TEXT  
DENOTES TAG NUMBER

ON DELAY TIMED SWITCH N.O.T.C. TEXT  
DENOTES TAG NUMBER

ON DELAY TIMED SWITCH N.C.T.O. TEXT  
DENOTES TAG NUMBER

OFF DELAY TIMED SWITCH N.O.T.O. TEXT  
DENOTES TAG NUMBER

OFF DELAY TIMED SWITCH N.C.T.C. TEXT  
DENOTES TAG NUMBER

TORQUE SWITCH  
TEXT DENOTES TAG NUMBER

LIMIT SWITCH  
TEXT DENOTES TAG NUMBER

CONTACT (NORMALLY OPEN) #  
DENOTES COIL NUMBER

CONTACT (NORMALLY CLOSED) #  
DENOTES COIL NUMBER

INDICATOR LIGHT - LETTER  
DENOTES COLOR

PUSH-TO-TEST INDICATOR LIGHT  
LETTER DENOTES COLOR

ELAPSED TIME METER

SOLENOID VALVE

MECHANICAL INTERLOCK CONNECTION

COIL  
M DENOTES MOTOR STARTER  
CR DENOTES CONTROL RELAY  
TR DENOTES TIME DELAY RELAY  
LC DENOTES LIGHTING CONTACTOR  
PR DENOTES INTERPOSING PILOT RELAY  
XXX DENOTES REFERENCE LINE NUMBER

**SINGLE LINE**

EXISTING TO REMAIN

EXISTING TO BE DEMOLISHED

NEW

FUTURE

TX-STRUCTURE DESIGNATION  
XXX KVA  
480-120/208V

TRANSFORMER

3P/4W  
TYPE OF TRANSFORMER

PROTECTIVE RELAY, NUMBER  
DENOTES IEEE DEVICE FUNCTION

MEDIUM VOLTAGE DRAWOUT  
CIRCUIT BREAKER

FUSE

DRAWOUT POWER CIRCUIT BREAKER

MOLDED CASE CIRCUIT BREAKER

THERMAL OVERLOAD RELAY

GROUND

CURRENT TRANSFORMER NUMBER  
DENOTES QUANTITY

POTENTIAL TRANSFORMER  
NUMBER DENOTES QUANT

DRAW-OUT ELEMENT

AUTOMATIC OR MANUAL  
THRU PANEL DISCONNECT

MOTOR NUMBER DENOTES  
HORSEPOWER

GENERATOR XX NUMBER DENOTES  
REQUIRED KW RATING AND  
VOLTAGE

**EQUIPMENT/DEVICE LOCATION SYMBOLS**

LOCATED AT MCC, COMBINATION  
STARTER, OR BYPASS STARTER

LOCATED IN FIELD

LOCATED AT DCU 1A REMOTE  
I/O RACK

LOCATED AT VFD

LOCATED AT MCC, COMBINATION  
STARTER, OR BYPASS STARTER

LOCATED IN FIELD

LOCATED AT DCU 1A REMOTE  
I/O RACK

LOCATED AT VFD

EQUIPMENT CONNECTION

GROUND ROD

INSTRUMENT TRANSMITTER

TELEPHONE OR NETWORK DROP

ETHERNET JACK

**MISC PLAN VIEW SYMBOLS**

**COMMUNICATIONS**

**SINGLE LINE, CONT'D.**

LINE REACTOR  
X% NUMBER DENOTES  
PERCENT IMPEDANCE

CAPACITOR

VOLTMETER AND SWITCH

SHUNT TRIP

SURGE PROTECTION DEVICE

LIGHTNING ARRESTOR

KIRK-KEY INTERLOCK

MINI POWER UNIT

VARIABLE FREQUENCY DRIVE

**SITE DUCTBANKS**

UNDERGROUND CONTROL

UNDERGROUND ELECTRICAL

UNDERGROUND FIBER

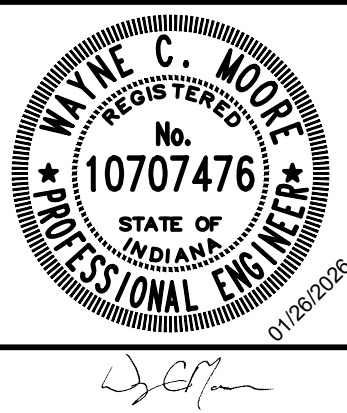
**GENERAL NOTES:**

- PROVIDE SPARES AND SPARE EQUIPMENT AS OUTLINED IN SPECIFICATIONS.
- CONDUIT AND WIRE BETWEEN DEVICES (SUCH AS VERTICAL TURBINE PUMP MOTOR THERMOSTATS OR DISCONNECT AUX. CONTACTS) AND POWER EQUIPMENT (SUCH AS VFDS AND MOTOR STARTERS) WHERE NOT EXPLICITLY SHOWN SHALL BE #14, CONDUIT SIZE TO FOLLOW THE REQUIREMENTS SET FORTH IN THE NEC, 3/4" MINIMUM EXPOSED, 1" MINIMUM BURIED.
- CONTRACTOR RESPONSIBLE FOR INFORMING THE ENGINEER DURING CONSTRUCTION OF ANY CONDITIONS ON SITE WHICH MAY PREVENT ANY ASPECT OF THE INSTALLATION FROM MEETING THE REQUIREMENTS SET FORTH IN THE NEC. SPECIAL CARE SHALL BE TAKEN WITH REGARDS TO CONDUIT FILL, CLEARANCE, JUNCTION/PULL BOX, AND CIRCUIT DISCONNECTING MEANS REQUIREMENTS.
- CONTRACTOR RESPONSIBLE FOR WIRING SUCH THAT THE FUNCTIONALITY SHOWN IN THE PROJECTS DOCUMENTS IS INTEGRATED AS WELL AS ANY ADDITIONAL CONDUIT, WIRE, EQUIPMENT AND SUPPORTING EQUIPMENT NECESSARY TO MAKE THE DEVICE OPERATE AS DEPICTED AND IN ACCORDANCE WITH THE NEC.
- ALL CONTROL PANELS AND LOCAL STATIONS NOT EXPLICITLY INDICATED TO HAVE A DISCONNECT SWITCH MOUNTED ADJACENT TO THE PANEL SHALL HAVE A MAIN CIRCUIT BREAKER WITH THRU PANEL OPERATOR WHICH SHALL BE LOCKABLE AND INTERLOCKED WITH THE PANEL DOOR AS NEEDED TO MEET THE REQUIREMENTS OF THE NEC.
- CONTRACTOR RESPONSIBLE FOR ALL CONDUIT AND WIRE BETWEEN MECHANICAL EQUIPMENT (INCLUDING BUT NOT LIMITED TO UNIT HEATERS, EXHAUST FANS AND AIR CONDITIONING UNITS) AND CONTROLLERS (INCLUDING BUT NOT LIMITED TO MOTOR STARTERS, THERMOSTATS AND MOTOR OPERATED LOUVERS). FOR BID PURPOSES THIS IS TO BE 1", 4#14, #14G BETWEEN EACH PIECE OF EQUIPMENT AND CONTROLLER.
- MANUFACTURER EQUIPMENT SHOWN FOR BIDDING PURPOSES ONLY. FINAL WIRING LIST TO BE PROVIDED BY EQUIPMENT SUPPLIER IN SHOP DRAWING SUBMITTAL. CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL WIRING AND CONDUIT BETWEEN THE MANUFACTURER'S CONTROL PANELS AND THE EQUIPMENT PROVIDED BY THE MANUFACTURER.

**ABBREVIATIONS**

A	AMPERE(S)	MAN	MANUFACTURER SUPPLIED (EX. MAN-CP)
ACU	AIR CONDITIONING UNIT	MAU	MAKEUP AIR UNIT
AE	ANALYTICAL SENSOR	MCC	MOTOR CONTROL CENTER
AF	AMP FRAME	MH	MANHOLE
AFF	ABOVE FINISHED FLOOR	MOL	MOTOR OPERATED LOUVER
AHU	AIR HANDLING UNIT	MPU	MINI POWER UNIT
AIT	ANALYTICAL INDICATOR TRANSMITTER	MV	MEDIUM VOLTAGE
AM	AMMETER	N	NEUTRAL
AMP	AMPERE(S)	N/A	NOT APPLICABLE
AT	AMP TRIP	NCS	NORMALLY CLOSED
ATL	ACROSS THE LINE (STARTER)	NEC	NATIONAL ELECTRICAL CODE
ATS	AUTOMATIC TRANSFER SWITCH	NET	NETWORK (PANEL)
AUX	AUXILIARY	NF	NON-FUSED
AWG	AMERICAN WIRE GAGE	NFSS	NON-FUSED SAFETY SWITCH
BKR	BREAKER	N.O.	NORMALLY OPEN
BLDG	BUILDING	NTS	NOT TO SCALE
C	CONDUIT	OL	OVERLOAD
CB	CIRCUIT BREAKER	PB	PUSHBUTTON
CKT	CIRCUIT	PLC	PROGRAMMABLE LOGIC CONTROLLER
CMS	COMBINATION MOTOR STARTER	PM	POWER METER/MONITOR
CP	CONTROL PANEL	PNL	PANEL
CR	CORROSION RESISTANT	PP	POWER PANEL
CU	COPPER	RCPT	RECEPTACLE
DF	DUCT FAN	RGS	RIGID GALVANIZED STEEL
DH	DUCT HEATER	RIO	REMOTE INPUT/OUTPUT
DISC	DISCONNECT	R/S	RING SWITCH
EF	EXHAUST FAN	RVSS	REDUCED VOLTAGE SOFT STARTER
ELEV	ELEVATION	RVAT	REDUCED VOLTAGE AUTOTRANSFORMER
EMH	ELECTRICAL MANHOLE	SF	SUPPLY FAN
EMT	ELECTRICAL METALLIC TUBING	SHLD	SHIELDED
EQUIP	EQUIPMENT	SOL	SOLENOID
EXP	EXPLOSION PROOF	SP	SINGLE POLE
F	FUSED OR FUSE	SPD	SURGE PROTECTIVE DEVICE
FE	FLOW SENSOR	SST	STAINLESS STEEL
FIT	FLOW INDICATING TRANSMITTER	STR	STARTER
FLA	FULL LOAD AMPS	SW	SWITCH
FOPP	FIBER OPTIC PATCH PANEL	SWBD	SWITCHBOARD
FV(N)R	FULL VOLTAGE (NON) REVERSING	SWGR	SWITCHGEAR
G	GROUND	TB	TERMINAL BOX
GEN	GENERATOR	TPS	TWISTED PAIR SHIELDED
GF	GROUND FAULT	TYP	TYPICAL
GF(C)I	GROUND FAULT (CIRCUIT) INTERRUPTER	UGE	UNDERGROUND ELECTRICAL
HH-(P/C)	HANDHOLE (POWER/CONTROLS)	UGT	UNDERGROUND TELEPHONE
HOA	HAND-OFF-AUTOMATIC	UGCC	UNDERGROUND CONTROLS CABLE
HOR	HAND-OFF-REMOTE	UGF	UNDERGROUND FIBER
HP	HORSEPOWER	UH	UNIT HEATER
JB	JUNCTION BOX	UL	UNDERWRITERS LABORATORIES
KV	KILOVOLTS	UNO	UNLESS NOTED OTHERWISE
KVA	KILOVOLTS AMPS	V	VOLTS
KVAR	KILOVAR	VFD	VARIABLE FREQUENCY DRIVE
KW	KILOWATTS	VM	VOLTMETER
LCP	LOCAL CONTROL PANEL	VS	VOLTMETER SWITCH
LCS	LOCAL CONTROL STATION	W	WIRE/WATT
LE	LEVEL SENSOR	WH	WATER HEATER
LIT	LEVEL INDICATING TRANSMITTER	WP	WEATHERPROOF
LOR	LOCAL-OFF-REMOTE	XFMR	TRANSFORMER
LP	LIGHTING PANEL		
LTG	LIGHTING		
LV	LOW VOLTAGE		

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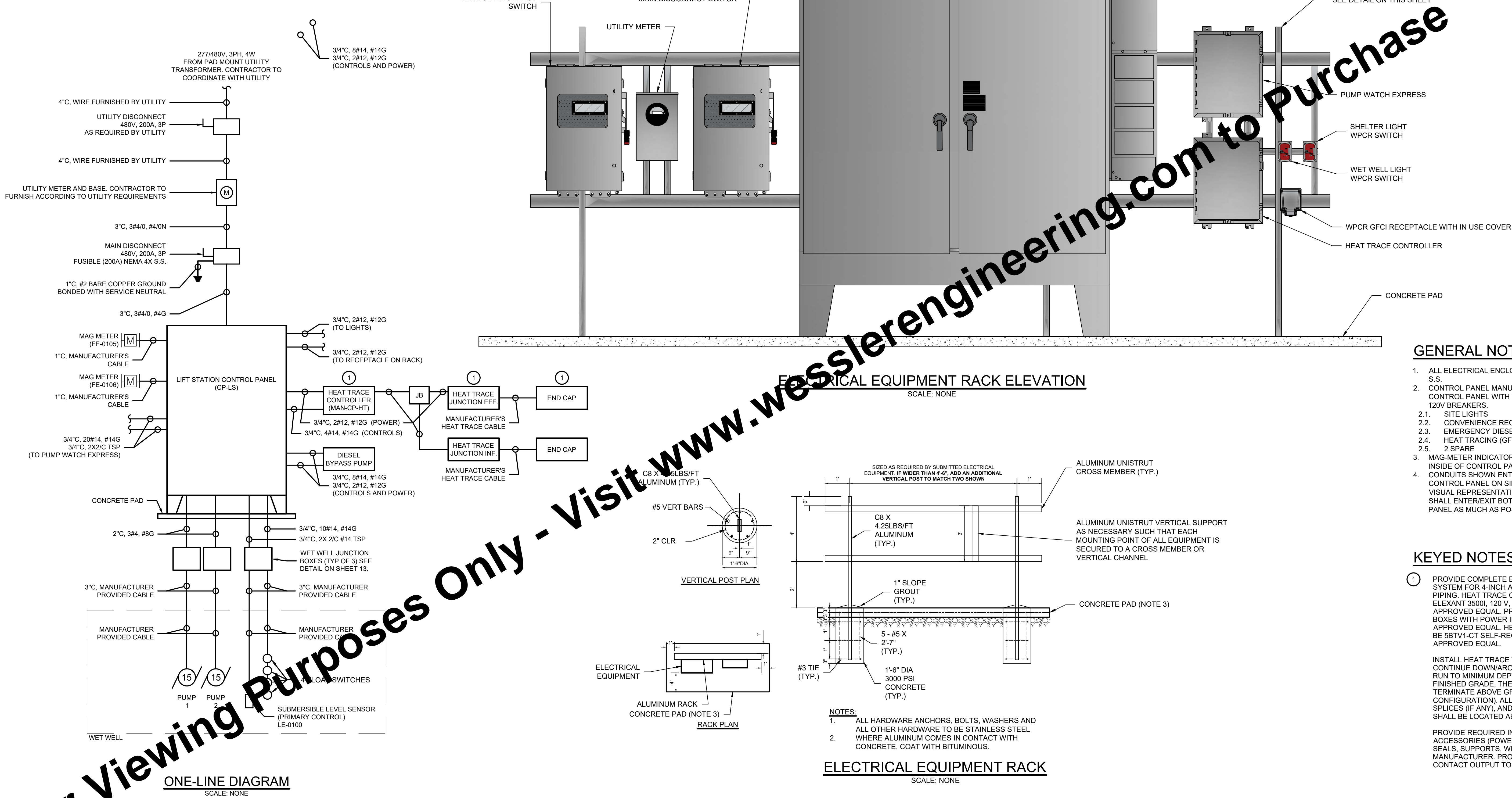


TMMI EXPANSION WASTEWATER SYSTEM UPGRADES PHASE 1 - RYDER LIFT STATION	
CITY OF PRINCETON, INDIANA	
ELECTRICAL SYMBOLS AND ABBREVIATIONS	

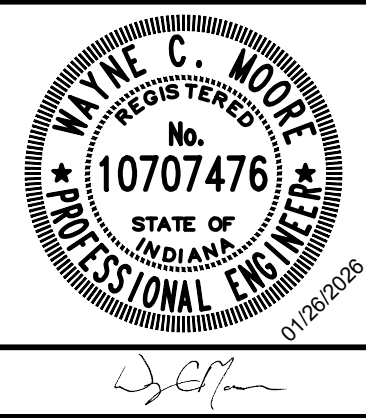
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TOTAL SHEETS
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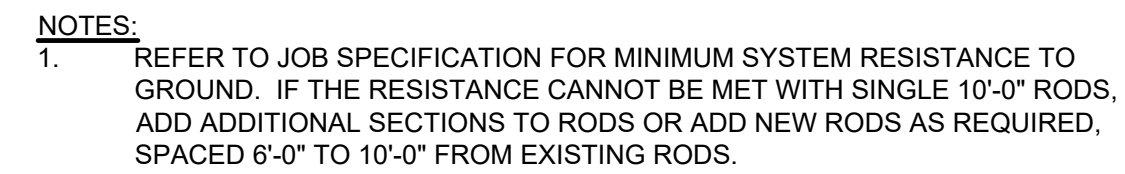
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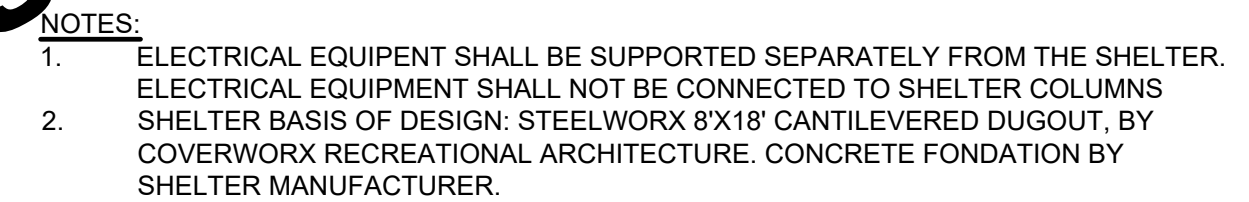
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CITY OF PRINCETON, INDIANA	
ELECTRICAL ONE LINE DIAGRAM AND DETAILS	

SHEET NO.	12
TOTAL SHEETS	15

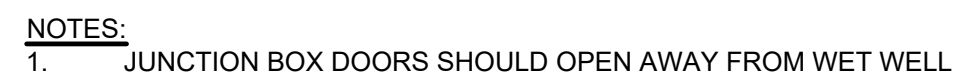




## ELECTRICAL INSTALLATION AND GROUND ROD ASSEMBLY



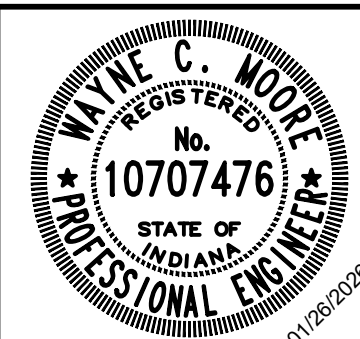
# ELECTRICAL EQUIPMENT SHELTER



## MOTOR AND SENSOR JUNCTION BOXES FOR WET WELLS AND CLASSIFIED AREAS



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	JANUARY 2026					
	PROJECT NUMBER					
	285424-04-001					



**W**  
**WESSLER**  
ENGINEERING  
*More than a Project™*

<b>TMMI EXPANSION WASTEWATER SYSTEM UPGRADES PHASE 1 - RYDER LIFT STATION</b>	
CITY OF PRINCETON, INDIANA	
<b>ELECTRICAL DETAILS</b>	

SHEET NO.

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**15**



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VALVE SYMBOLS

	ECCENTRIC PLUG		MUD
	THREE - WAY		BALL CHECK
	BUTTERFLY		SWING CHECK
	BALL		SPLIT DISC CHECK
	GLOBE		REGULATED SIDE PRESSURE CONTROL
	PRESSURE RELIEF		PINCH
	AIR RELEASE AND VACUUM RELIEF		DIAPHRAGM
	GATE		NEEDLE
	KNIFE GATE		CALIBRATED BALANCE
	CONSTANT VOLUME FLOW REGULATOR		SOLENOID

GATE SYMBOLS

	SLUICE GATE		SLIDE GATE		FLAP GATE
	WEIR GATE		STOP GATE		WEIR AND STOP GATE

VALVE AND GATE POWER ACTUATOR SYMBOLS

	ELECTRIC MOTOR		HYDRAULIC WITH SOLENOID
	ELECTRIC MOTOR WITH POSITIONER		PNEUMATIC WITH POSITIONER
	HYDRAULIC WITH POSITIONER		PNEUMATIC WITH SOLENOID

XX: FC = FAIL CLOSED  
FIP = FAIL INTERMEDIATE POSITION  
FIF = FAIL TO LAST POSITION  
FO = FAIL OPEN

NOTE: XX = FAIL POSITION ON LOSS OF PRIMARY POWER (PNEUMATIC OR ELECTRICAL)

FLOW ELEMENTS SYMBOLS

	WEIR PLATE		CLAMP ON ULTRASONIC FLOWMETER
	PARSHALL FLUME		MAGNETIC FLOWMETER
	ROTAMETER		VENTURI OR FLOW TUBE
	PROPELLER OR TURBINE METER		AREA VELOCITY FLOWMETER
	ORIFICE METER		

MISCELLANEOUS SYMBOLS

	ORTHO PHOSPHATE ELEMENT		SUBMERSIBLE MIXER
	PROBE		AIR COMPRESSOR
	ELECTRIC MOTOR		FLOATING MIXER
	MANUAL SAMPLE PORT		FLAME TRAP AND THERMAL SHUTOFF ASSEMBLY
	AUTOMATIC DRAIN		FLOATING DECANTER
	BLIND FLANGE OR CLEAN OUT		TEMPERATURE GAUGE
	AIR GAP		PRESSURE GAUGE
	STRAINER		PRESSURE TRANSMITTER
	FLUSHING WATER CONNECTION		LEVEL SWITCH
	SEAL WATER CONNECTION		
	ANNULAR SEAL		
	FLOW STRAIGHTENING VANE		
	CALIBRATION CHAMBER		
	DENSITY METER X: N - NUCLEAR O - OPTICAL U - ULTRASONIC		
	SELF CONTAINED AIR SUPPLY		
	PURGE SET X: W = WATER A = AIR		

LEVEL ELEMENTS SYMBOLS

	SUBMERSIBLE PRESSURE		NON-CONTACT RADAR
	ULTRASONIC		CAPACITANCE FLOAT STICK
	FLOAT		

PUMP AND COMPRESSOR SYMBOLS

	SUBMERSIBLE PUMP		COMPRESSOR (PISTON)
	CENTRIFUGAL BLOWER		CHEMICAL FEED PUMP
	CENTRIFUGAL PUMP (DRY ROT)		PLUNGER PUMP
	VERTICAL TURBINE PUMP		DIAPHRAGM PUMP
	PROGRESSING CAVITY PUMP		PERISTALTIC PUMP
	LOBE PUMP, BLOWER OR COMPRESSOR (POSITIVE DISPLACEMENT)		

FLOW STREAM IDENTIFIERS

SEE PROCESS - MECHANICAL LEGEND

INPUTS AND OUTPUTS TO PLC OR DISTRIBUTED CONTROL

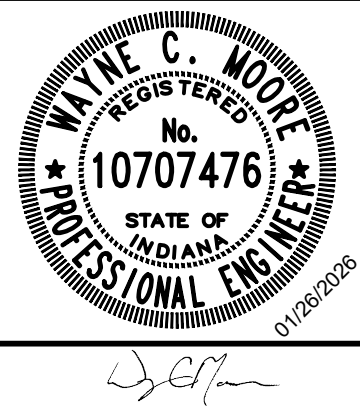
	ANALOG INPUT		ANALOG OUTPUT
	PULSE INPUT		PULSE OUTPUT
	DIGITAL INPUT		DIGITAL OUTPUT

NOTE:  
X = TOTAL NUMBER OF SIGNALS WHERE MORE THAN ONE SIGNAL IS REQUIRED. IF QUANTITY IS NOT SHOWN THEN ONE SIGNAL IS REQUIRED.

GENERAL NOTE:

1. THIS IS A STANDARD LEGEND. NOT ALL THE INFORMATION SHOWN ON THIS LEGEND IS USED IN THESE CONTRACT DRAWINGS.

SCALE VERIFICATION	DRAWN BY	BNH	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
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	JANUARY 2026					
	PROJECT NUMBER					
		285424-04-001				



TMMI EXPANSION WASTEWATER SYSTEM UPGRADES PHASE 1 - RYDER LIFT STATION
CITY OF PRINCETON, INDIANA
PROCESS AND INSTRUMENTATION LEGEND

SHEET NO.
14
TOTAL SHEETS
15



