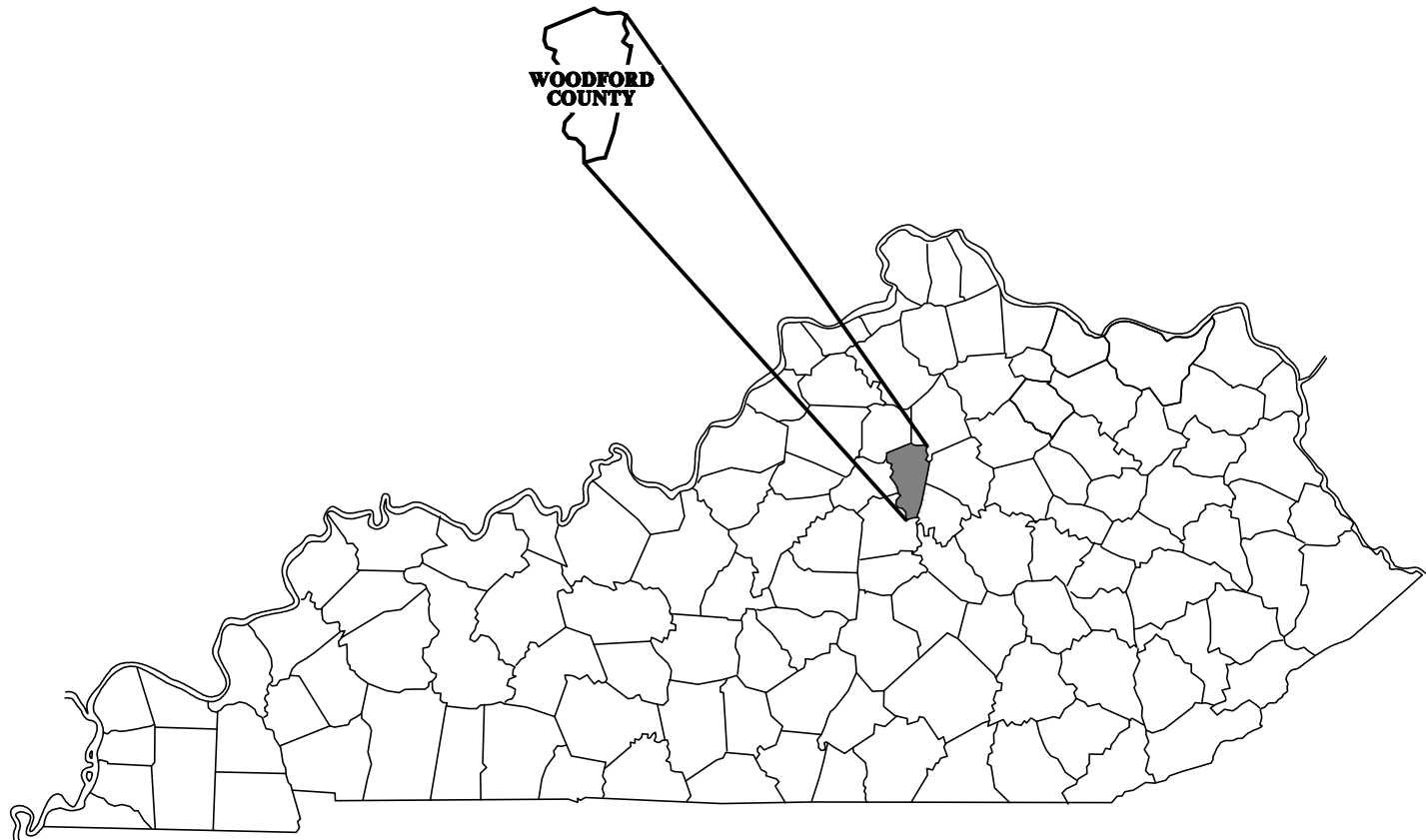


SYSTEM IMPROVEMENTS PROJECT SOUTH WOODFORD WATER DISTRICT WOODFORD COUNTY, KENTUCKY CONTRACT I - KY 33 PUMP STATION REPLACEMENT



NOVEMBER 2023
EDITION : BID
HMB PROJECT No. 4347.01



JEFF D. REYNOLDS, P.E.
KENTUCKY REGISTRATION NO. 20,469

Plans Prepared By:



3 HMB Circle
Frankfort, Kentucky (502)695-9800
Fax (502)695-9810

GENERAL NOTES

UNLESS OTHERWISE NOTED, A SEPARATE BID ITEM HAS NOT BEEN ESTABLISHED FOR FITTINGS. THE FITTINGS INVOLVED, BUT NOT LIMITED TO, TEES, BENDS, PLUGS, REDUCERS, SADDLES, CROSSES, COUPLINGS, ETC. CONTRACTOR SHALL INCLUDE THE COST OF THESE ITEMS IN THE UNIT PRICE FOR THE PIPE.

NO PAY ITEM FOR EXTRA TRENCH DEPTH HAS BEEN SET UP. CONTRACTOR SHALL INCLUDE THE COST OF THE ADDITIONAL DEPTH IN HIS UNIT PRICE WHEN THE WATER PIPE CROSSES UNDER AN EXISTING UTILITY, CULVERT OR DRAINAGE DITCH.

FINAL LOCATION OF SERVICES, GATE VALVES AND OTHER APPURTENANCES ARE TO BE FIELD LOCATED DURING CONSTRUCTION AND APPROVED BY THE ENGINEER.

EXISTING UTILITIES, ESPECIALLY GAS LINES AND OIL LINES, MAY BE CATHODICALLY PROTECTED, THEREFORE, DUCTILE IRON PIPE, FITTINGS GATE VALVES, AND/OR BOXES LAID WITHIN 100' OF THESE LINES WITH CATHODIC PROTECTION SHALL MEET THE REQUIREMENTS OF AWWA C-105, LATEST REVISION. A SEPARATE PAY ITEM HAS NOT BEEN ESTABLISHED. ALL COSTS FOR LABOR AND MATERIALS MUST BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.

ALL DAMAGE TO EXISTING UTILITIES CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION ACTIVITY TO THE AREA WITHIN THE EXISTING EASEMENTS AND CONSTRUCTION LIMITS, UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER.

THE CONTRACTOR WILL BE SOLELY LIABLE FOR ANY WORK HE PERFORMS OUTSIDE OF LEGAL EASEMENTS OR CONSTRUCTION LIMITS.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ASCERTAIN THE LOCATIONS OF ANY AND ALL UTILITIES ENCOUNTERED BY THE FINAL ALIGNMENT OF WATERLINE. THE CONTRACTOR SHALL USE CAUTION WHEN EXCAVATING AND SHALL TAKE THE NECESSARY MEASURES TO PROTECT THE EXISTING UTILITIES TO KEEP THEM IN SERVICE. IF UTILITIES ARE SHOWN, THE INFORMATION IS GENERAL IN NATURE AND NOT TO BE TAKEN AS AS-BUILTS. CONTRACTOR SHALL CONTACT REPRESENTATIVES OF LOCAL UTILITIES A MINIMUM OF 48 HOURS BEFORE COMMENCING WORK ON THE PROJECT.

ALL WATER MAINS SHALL BE PVC CLASS 200 SDR 21 UNLESS OTHERWISE NOTED ON THE PLANS.

AT THE CONTRACTORS OPTION, CLASS 350 DUCTILE IRON PIPE MAY BE SUBSTITUTED FOR ANY PIPE PARTICULARLY SPECIFIED, BUT AT NO ADDITIONAL COST TO THE OWNER.

PROVIDE 42" MINIMUM COVER FOR ALL WATER MAINS PLACED WITHIN UNPAVED COUNTY ROADS OR IN DITCH LINES.

REASONABLE CARE SHALL BE TAKEN BY THE CONTRACTOR DURING CONSTRUCTION TO AVOID DAMAGE TO EXISTING VEGETATION, ORNAMENTAL SHRUBBERY AND TREE BRANCHES SHALL BE TEMPORARILY TIED BACK, WHERE APPROPRIATE, TO MINIMIZE DAMAGE. TREES THAT RECEIVE DAMAGE TO BRANCHES SHALL BE TRIMMED OF THOSE BRANCHES TO IMPROVE THE APPEARANCE OF THE TREE. TREE TRUNKS RECEIVING DAMAGE FROM EQUIPMENT SHALL BE TREATED WITH A TREE DRESSING. PROPERTY OWNERS SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO ANY ALTERATION TO EXISTING TREES AND/OR LANDSCAPING ON THEIR PROPERTY.

THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS PRIOR TO PERFORMING DRIVEWAY CUTS IN ORDER TO PROVIDE PROPERTY OWNER ACCESS TO THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL INSTALL THESE DRIVEWAY CROSSINGS WITH EXPEDIENCE AND SHALL RESTORE THE DRIVEWAY AS SOON AS POSSIBLE.

ALL PAVED AND CONCRETE SURFACES, INCLUDING DRIVEWAYS, CROSSED BY THE PROPOSED WATER MAINS SHALL BE BORED AND JACKED (UNCASED).

ALL TEES AND BENDS SHALL BE THRUST BLOCKED AS DETAILED ON THE THRUST BLOCK DETAIL SHEET. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.

SEPTIC SYSTEMS NOTED WHERE PROPERTY OWNER NOTIFIED US. ALL MAY NOT BE SHOWN. CONTRACTOR TO USE CAUTION IN THESE AREAS. WATER MAIN TO BE ENCASED IN CONCRETE WHEN LAID WITHIN 10' OF DRAIN LINES OR FIELD. SEE DETAIL AND NOTE ON STANDARD DETAIL SHEET.

UNLESS OTHERWISE NOTED, A SEPARATE BID ITEM HAS NOT BEEN ESTABLISHED FOR CONNECTIONS TO EXISTING SYSTEM. CONTRACTOR SHALL INCLUDE COST OF CONNECTIONS TO EXISTING SYSTEM IN THE UNIT PRICE FOR THE PIPE.

THE CONTRACTOR SHALL BE REQUIRED TO CLEAN IMMEDIATELY AFTER INSTALLING WATER LINE WHERE MAIN IS TO BE LAID ON STATE RIGHT-OF-WAY.

GRIP RING RESTRAINTS SHALL BE USED ON ALL M.J. FITTINGS.

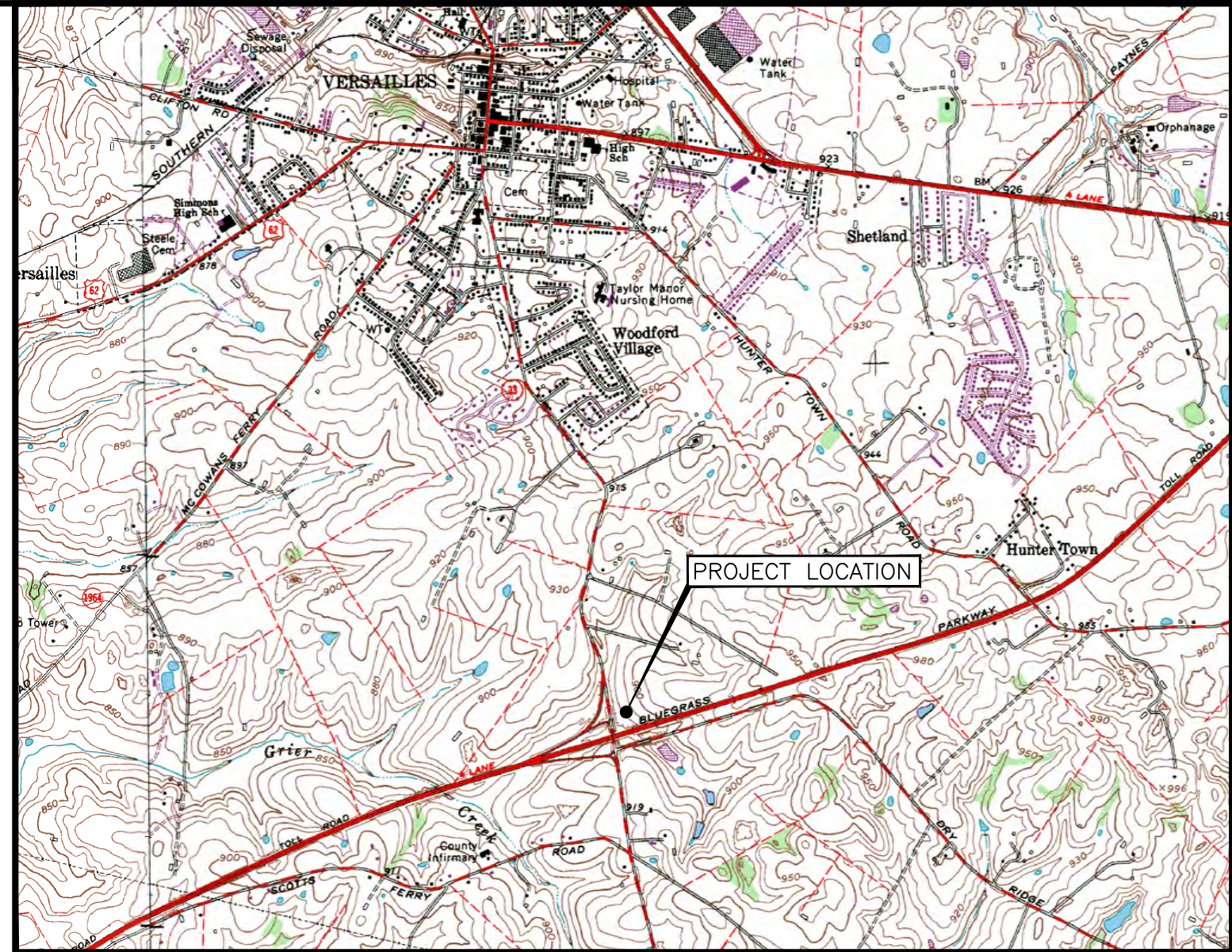
THE FOLLOWING GENERAL NOTES ARE REQUIREMENTS OF THE COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET PERMIT ENGINEERS. THESE NOTES APPLY WHEN LAYING WATER LINE IN STATE RIGHT-OF-WAY:

ALL WATER LINES BEING PLACED ABOVE CROSS DRAINS NEED TO HAVE AT LEAST ONE (1) FOOT OF SOIL MATERIAL AS A CUSHION BETWEEN LINE AND THE CROSS DRAIN CULVERT. SEE UTILITY CROSSING DETAIL.

ALL PROPOSED WATER LINES TO BE PLACED BEHIND ALL PRIVATE AND COMMERCIAL ENTRANCE CULVERTS.

ALL PROPOSED WATER LINES TO BE PLACED AT BACK OF DITCH LINE IN TIGHT AREAS.

BORE PITS AND TRENCHES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER.



TOPOGRAPHIC MAP

LEGEND

PROPOSED WATER LINE	
EXISTING WATER LINE	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	
AUTOMATIC AIR RELEASE VALVE	
FIRE HYDRANT	
PROPERTY LINE	
BLOWOFF ASSEMBLY	
FENCE	

SHEET INDEX

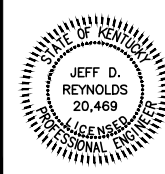
COVER	
GN1	GENERAL NOTES / LEGEND / SHEET INDEX / TOPOGRAPHIC MAP
1	PLAT OF SURVEY
2	PUMP STATION PIPING PLAN
3	BOOSTER PUMP STATION
4	DEMOLITION PLAN
SD1	STANDARD DETAILS
SD2	STANDARD DETAILS
E1	ELECTRICAL SITE PLAN AND DETAILS
E2	BOOSTER PUMP STATION - ELECTRICAL PLAN

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 4347.01 DATE: AUG. 2023		
SCALE: N.T.S.		
DESIGNED BY	JDR	DATE
DRAWN BY	SAB	
CHECKED BY	JDR	
RECORD DWGS.		



3 HMB CIRCLE
FRANKFORT, KENTUCKY
(502) 695-9800
(502) 695-9810 FAX



**SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - PUMP STATION REPLACEMENT**

**GENERAL NOTES / LEGEND /
SHEET INDEX / TOPOGRAPHIC MAP**

SHEET
GN1

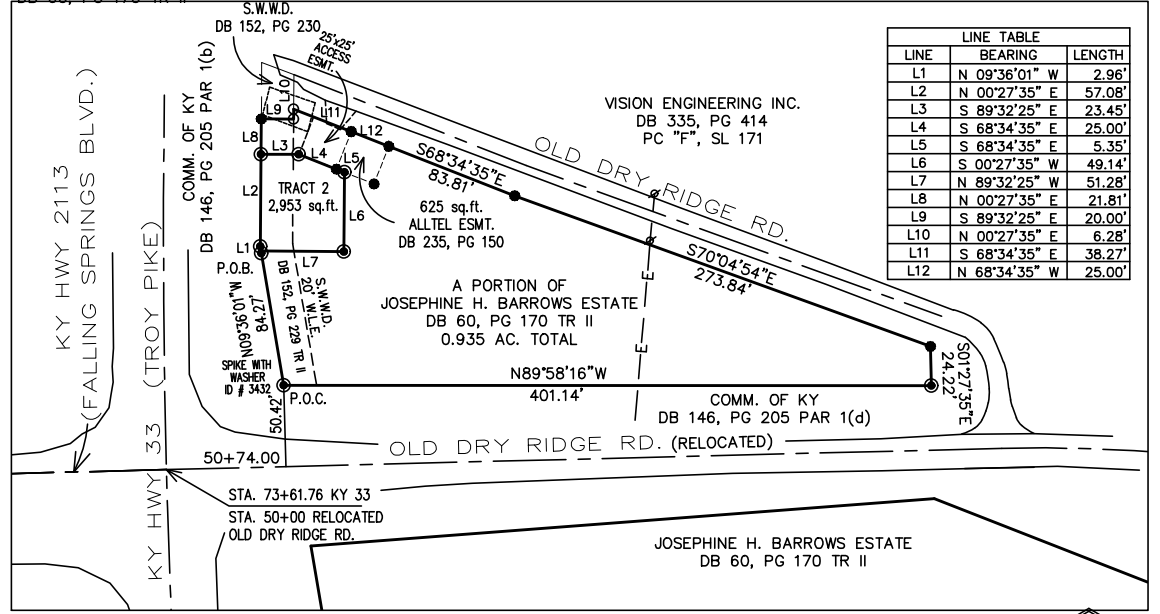
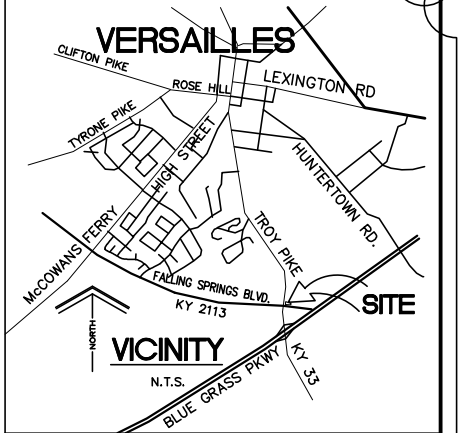
BASIS OF BEARING
 THE BEARING AND COORDINATES SHOWN ARE BASED ON KENTUCKY STATE PLANE GRID NORTH, KENTUCKY STATE PLANE NORTH ZONE, NORTH AMERICA DATUM OF 1983 (NAD 83). PARTICULARLY, THE BEARINGS AND COORDINATES ARE BASED ON A GNSS SURVEY UTILIZING A TRIMBLE R12i AND R8s GNSS RECEIVERS AND THE KYTC VRS SYSTEM.

SURVEYORS CERTIFICATE
 I DO HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON WAS PERFORMED UNDER MY DIRECT SUPERVISION BY THE METHOD OF RANDOM TRAVERSE WITH AN UNADJUSTED FIELD CLOSURE OF 1:91,127 AND HAS NOT BEEN ADJUSTED. THIS IS AN URBAN CLASS SURVEY AND THE BASIS FOR BEARING IS GRID NORTH. STEEL PINS SET ARE 1/2" IN DIAMETER BY 18" LONG WITH ID CAP LS #3432,

DAN PHILLIPS LS # 3432 _____ DATE _____

OWNER
 JOSAPHINE BARROWS ESTATE
 152 STOUT AVE.
 VERSAILLES, KY 40383

SOURCE
 DB 60, PG 170 TR II



LINE	BEARING	LENGTH
L1	N 09°36'01" W	2.96'
L2	N 00°27'35" E	57.08'
L3	S 89°32'25" E	23.45'
L4	S 68°34'35" E	25.00'
L5	S 68°34'35" E	5.35'
L6	S 00°27'35" W	49.14'
L7	N 89°32'25" W	51.28'
L8	N 00°27'35" E	21.81'
L9	S 89°32'25" E	20.00'
L10	N 00°27'35" E	6.28'
L11	S 68°34'35" E	38.27'
L12	N 68°34'35" W	25.00'

NOTES
 1.) THIS SURVEY IS SUBJECT TO ANY RIGHT-OF-WAYS OR EASEMENTS, PUBLIC OR PRIVATE WHETHER OF RECORD OR NOT, AND IS SUBJECT TO LOCAL CITY AND COUNTY ZONING ORDINANCES.
 2.) THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT.
 3.) THIS SURVEYOR IS NOT RESPONSIBLE FOR ANY INACCURATE INDEXING OF RECORDS THAT THE COUNTY CLERK OR THE PROPERTY VALUATION OFFICE MAY HAVE MADE.
 4.) THIS SURVEY COMPLIES WITH 201 KAR 18:150.

PURPOSE
 THE PURPOSE OF THIS PLAT OF SURVEY IS TO CREATE TRACT 2 FOR A SOUTH WOODFORD WATER DISTRICT PUMP STATION.

LEGEND
 ● 1/2" BY 18" STEEL REBAR SET WITH ID CAP # 3432
 ● 3/4" BY 18" STEEL REBAR FOUND WITH ID CAP #1304
 DATE: AUG. 2, 2023
 SCALE: 1"=100'

DPS
DAN PHILLIPS SURVEYING
 1138 BEAR CREEK RD.
 LAWRENCEBURG, KY 40342
 PHONE - 502-859-5534
 dpslandsurveying@gmail.com
 FILE: BARROWS-SWWD.DWG

PLAT OF SURVEY OF A PORTION OF THE JOSEPHINE H. BARROWS ESTATE PROPERTY
 KY 33 (TROY PIKE) and OLD DRY RIDGE ROAD
 VERSAILLES, WOODFORD CO., KY
 SURVEY FOR: SOUTH WOODFORD WATER DISTRICT
 117 CROSSFIELD DR.
 VERSAILLES, KY 40383

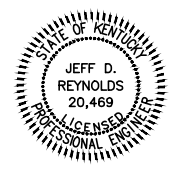
NOTE :
 THE PUMP STATION SITE IS TRACT 2 OF THE PLAT OF SURVEY

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 4347.01	DATE: AUG. 2023
SCALE: N.T.S.	
DESIGNED BY	JDR
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CHECKED BY	JDR
RECORD DWGS.	



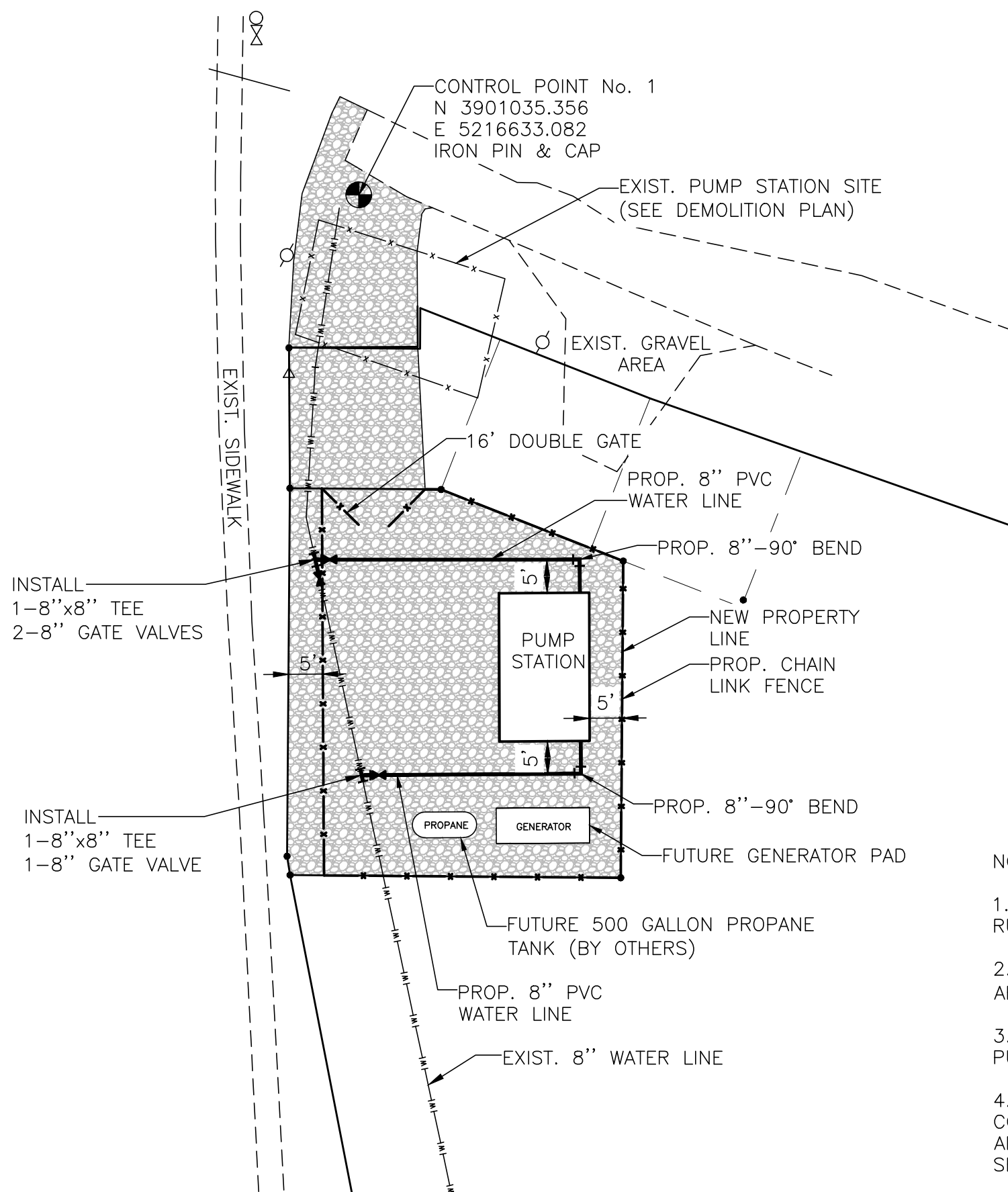
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SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - PUMP STATION REPLACEMENT

PLAT OF SURVEY

SHEET
 1



 PROP. GRAVEL AREA (REFER TO GRAVEL ACCESS ROAD DETAIL)

- NOTES :
1. CONTRACTOR SHALL REGRADE SITE TO ENSURE RUNOFF DRAINS AWAY FROM PUMP STATIONS.
 2. FILTER FABRIC SHALL BE USED IN ALL GRAVELED AREAS. (REFER TO GRAVEL ACCESS ROAD DETAIL).
 3. REFER TO TRACT 2 OF THE PLAT OF SURVEY FOR PUMP STATION SITE BOUNDARIES.
 4. ALL DEBRIS AND BRUSH DISTURBED DURING CONSTRUCTION SHALL BE REMOVED FROM THE SITE. ANY AREA DISTURBED SHALL BE PROPERLY GRADED, SEEDED AND STRAWED.

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 4347.01 DATE: AUG. 2023		
SCALE: 1" = 20'		
DESIGNED BY	NAME	DATE
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RECORD DWGS.		



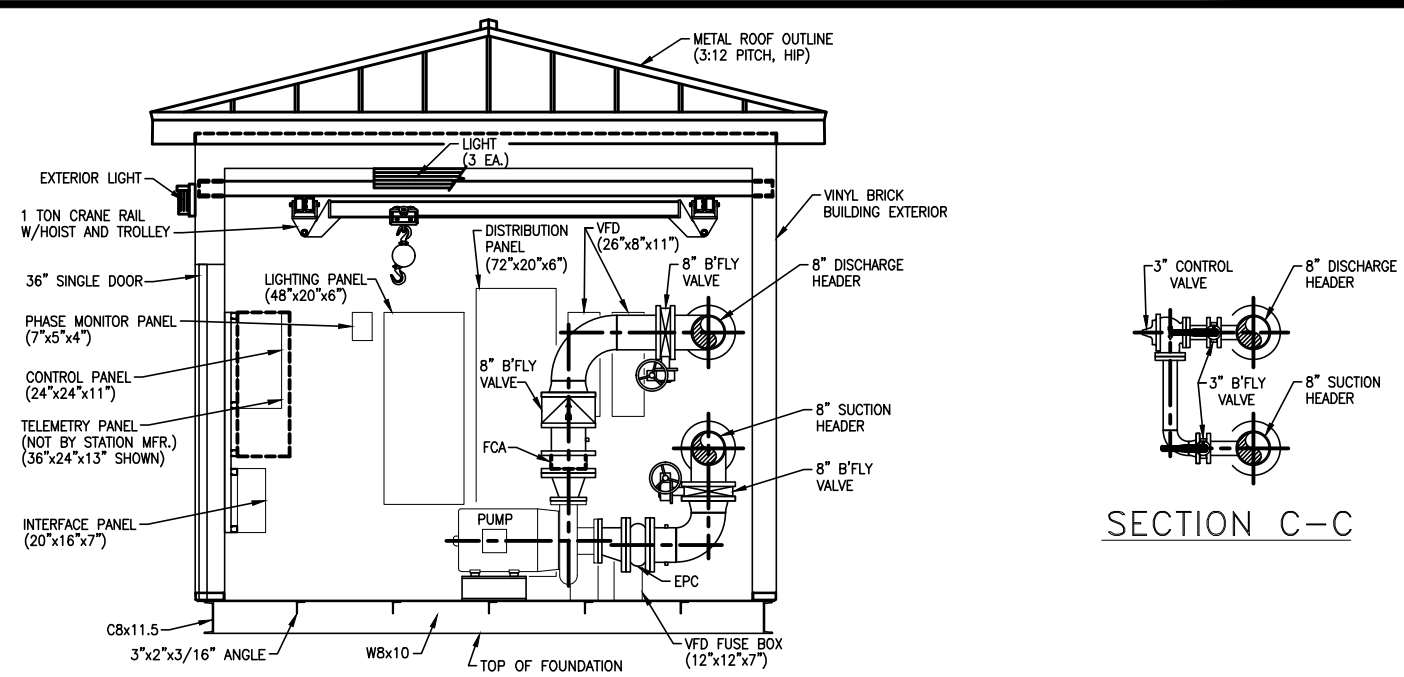
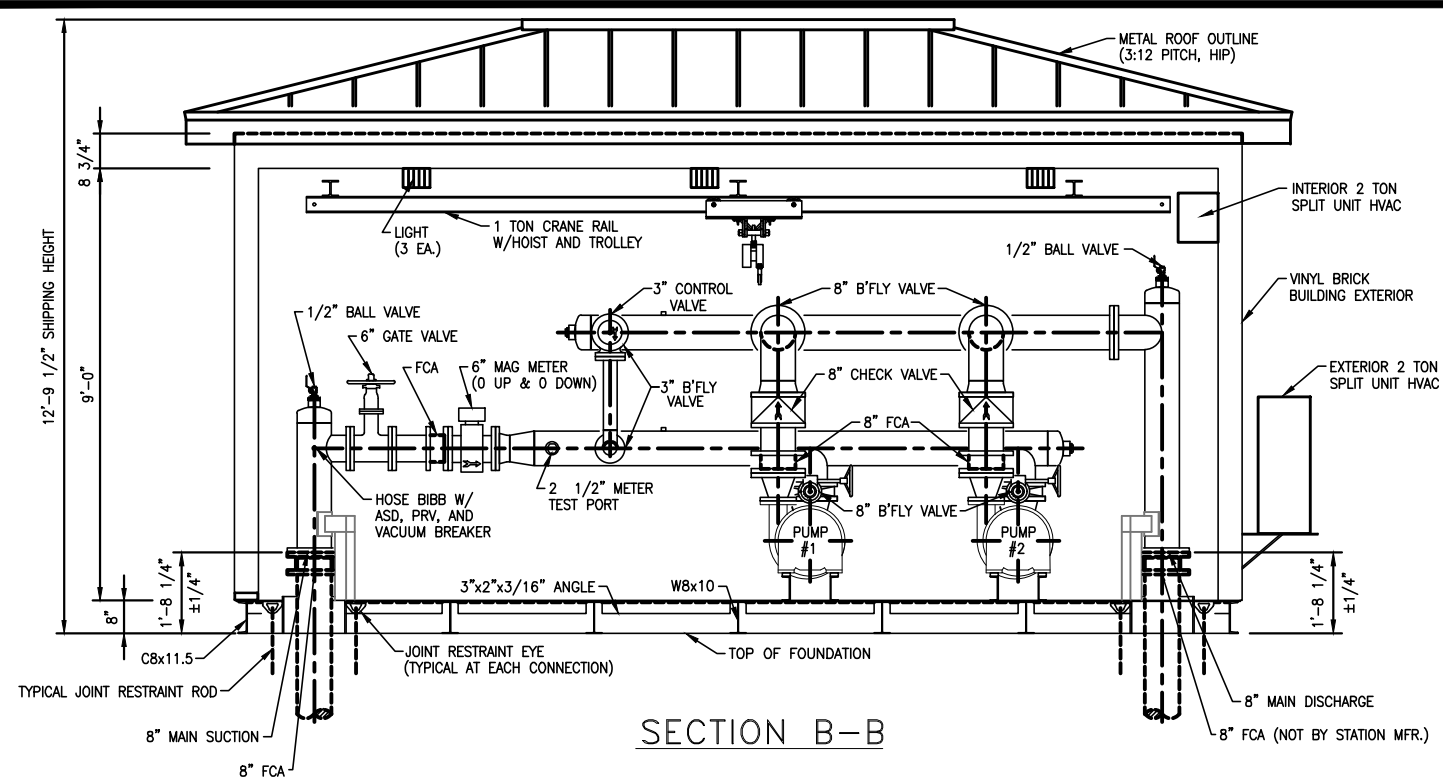
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SOUTH WOODFORD WATER DISTRICT
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CONTRACT I - PUMP STATION REPLACEMENT

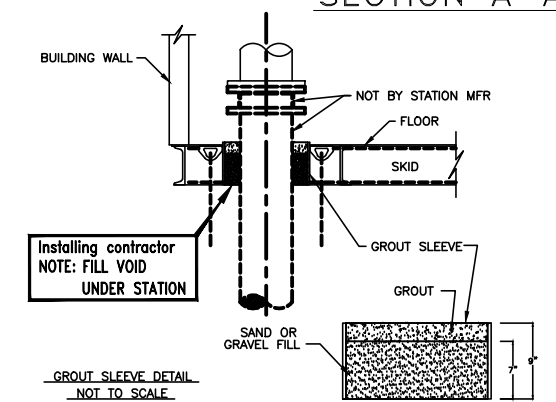
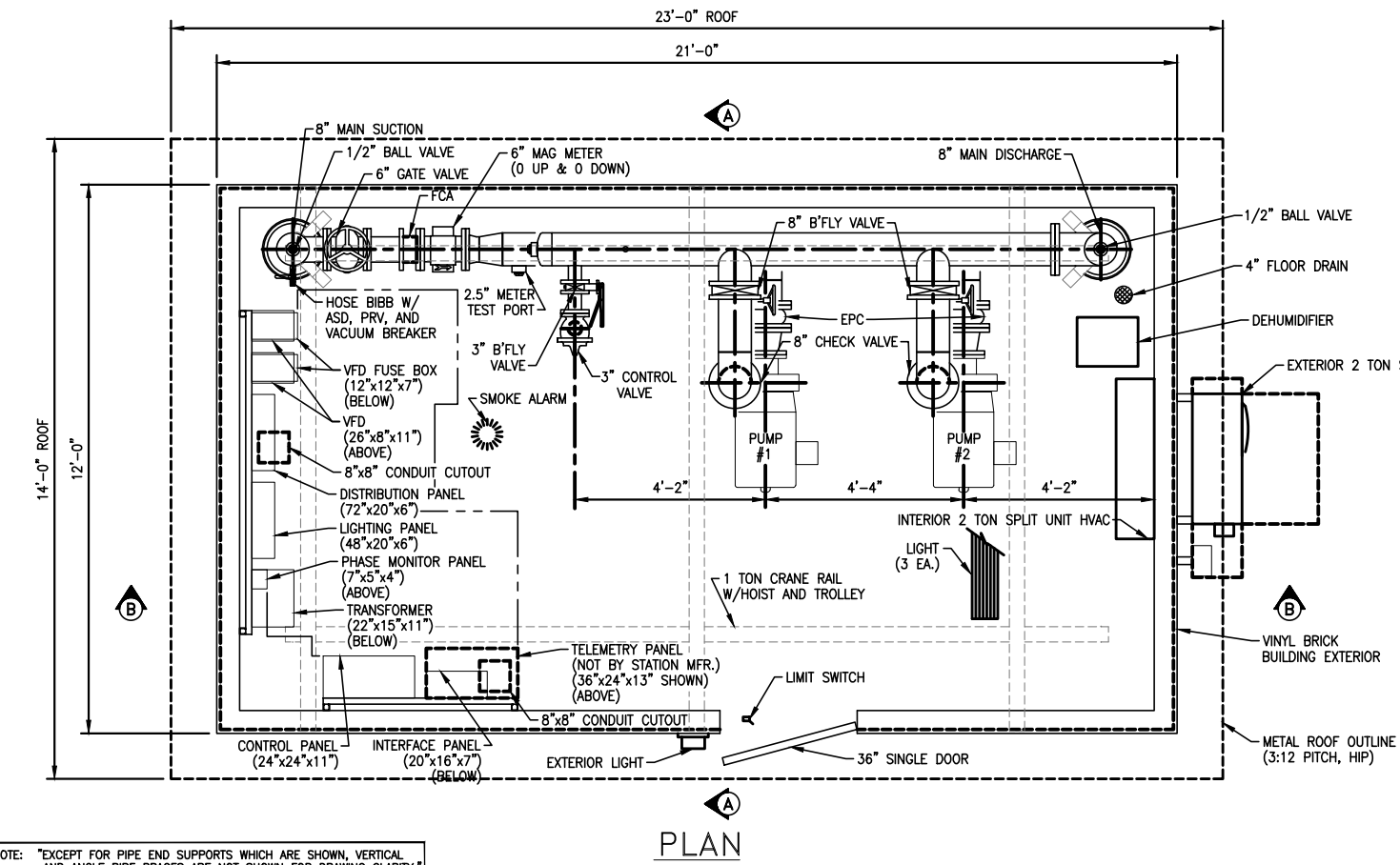
PUMP STATION PIPING PLAN

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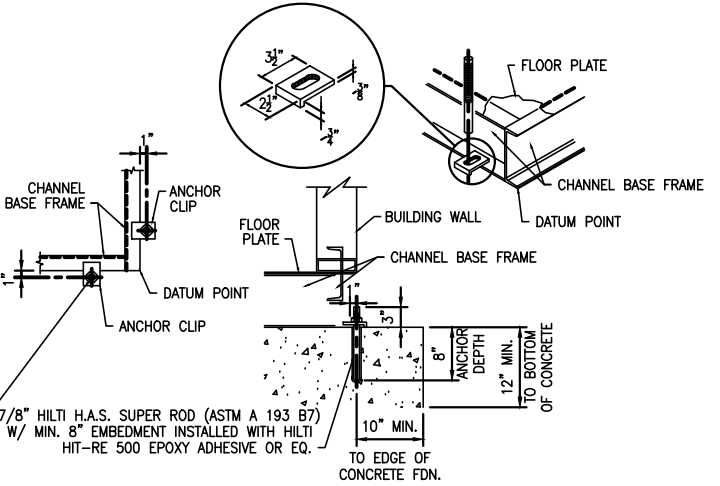


SECTION C-C

NOTE: CONNECTION BETWEEN STATION PIPING AND MAIN PIPING MUST BE RESTRAINED



- NOTES:
1. SHIMS MAY BE REQUIRED AROUND PERIMETER OF BASE FRAME FOR LEVELNESS AND PROPER DOOR ALIGNMENT IN FRAME.
 2. ANCHOR BOLTS SHALL BE PLACED WITHIN 12" OF EACH CORNER WITH THE REMAINING ANCHORS BEING SPACED NO MORE THAN 6" APART ALONG ALL SIDES OF THE BUILDING PERIMETER WITH ANY WALL OF 7 FEET OR LESS HAVING TWO ANCHOR BOLTS, ALL ACCORDING TO IBC 2308.3.1, 2015 ED.
 3. PUMP STATION SHALL BE ANCHORED TO THE FOUNDATION AS RECOMMENDED BY THE MANUFACTURER.
 4. CONNECTION BETWEEN PUMP STATION PIPING AND THE MAIN PIPING SHALL BE RESTRAINED.
 5. SEE DETAIL SHEET FOR FOUNDATION SLAB DETAIL.

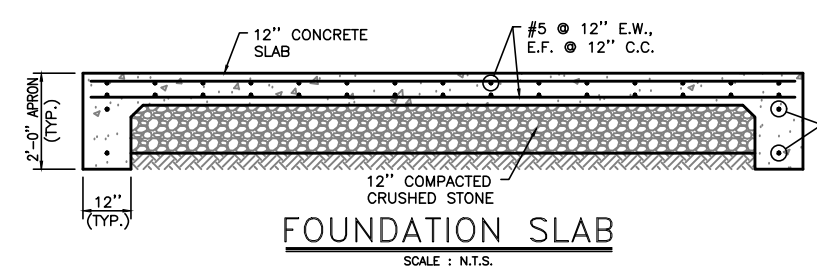


DESIGN CRITERIA

Controls: TELEMETRY (NOT BY STATION MFR.)
Power Service: 480 Volts, 3 Phase, 60 Cycle

PUMP DATA

Type: HORIZ., CLOSE CPLG., END SUCTION
Pump: 1 & 2
Capacity: 725 G.P.M. AT 130 FEET T.D.H.
Size: 4" X 6" X 11.5"
Motor: 40 H.P., 1800 R.P.M.



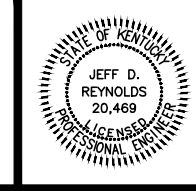
NOTE: *EXCEPT FOR PIPE END SUPPORTS WHICH ARE SHOWN, VERTICAL AND ANGLE PIPE BRACES ARE NOT SHOWN FOR DRAWING CLARITY.*

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 434701	DATE: AUG. 2023
SCALE: 1/4" = 1'-0"	
DESIGNED BY: JDR	NAME: JDR
DRAWN BY: SAB	DATE:
CHECKED BY: JDR	
RECORD DWGS.	

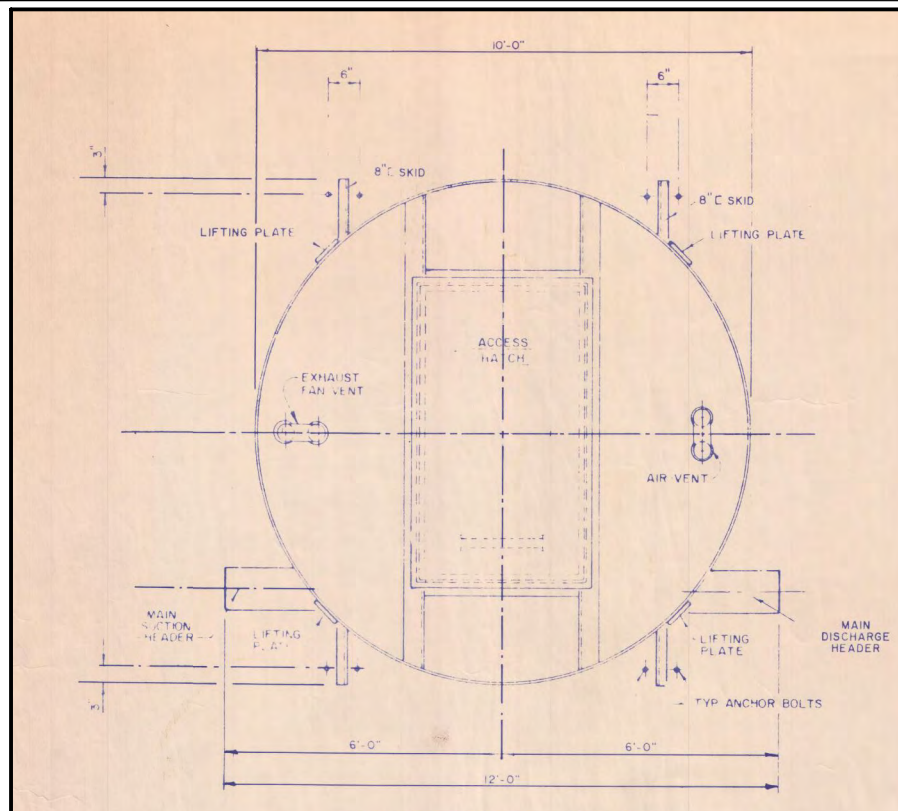


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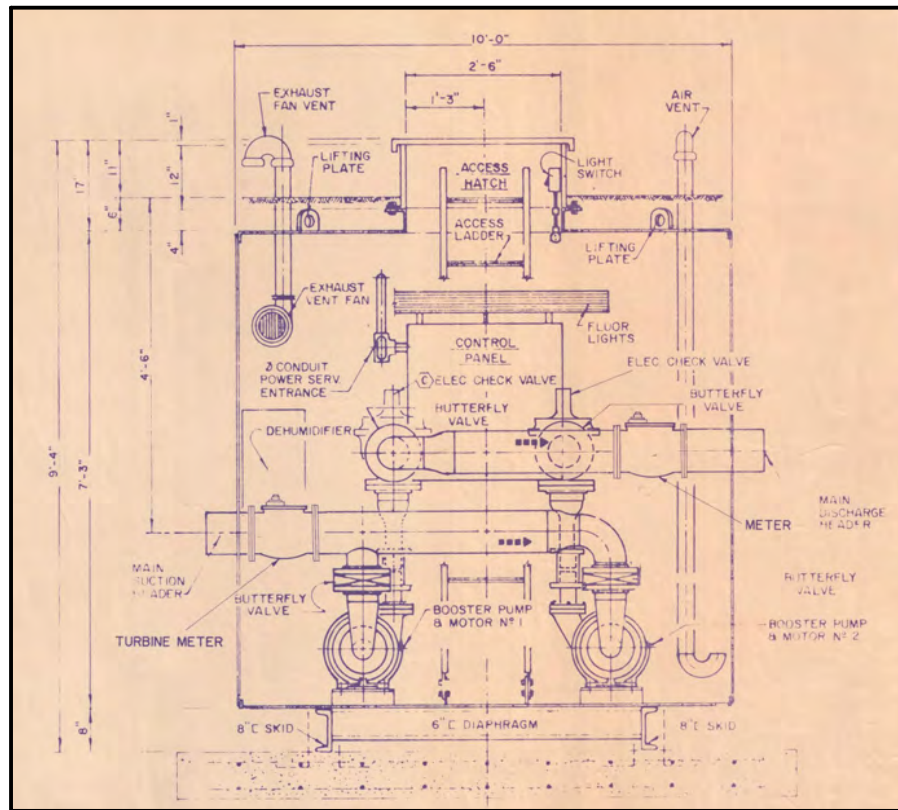
SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - PUMP STATION REPLACEMENT

BOOSTER PUMP STATION



EXTERIOR PLAN

SCALE : N.T.S.

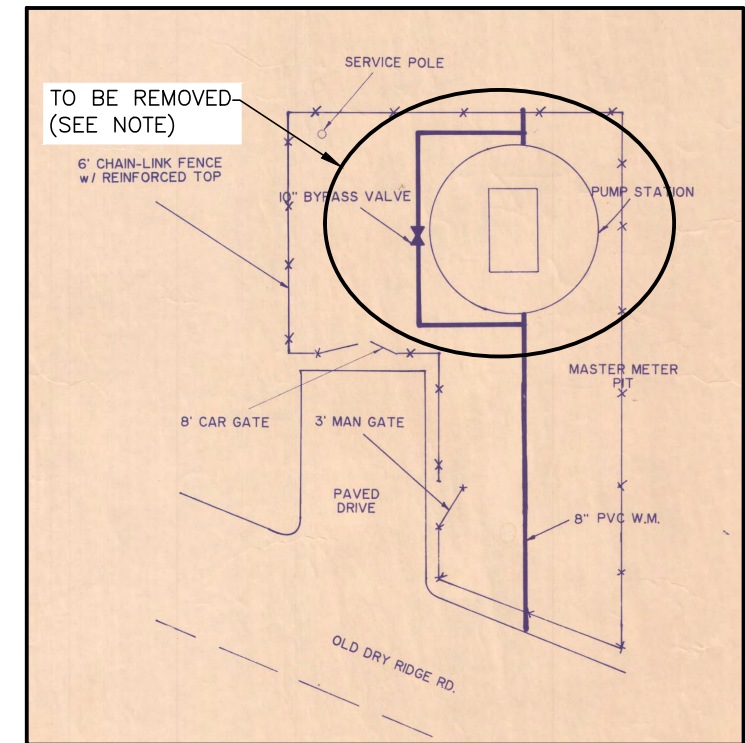


ELEVATION

SCALE : N.T.S.

DEMOLITION PLAN NOTES :

1. THE EXIST. PUMP STATION SHALL REMAIN IN SERVICE AND FULLY OPERATIONAL UNTIL THE NEW PUMP STATION IS FULLY OPERATIONAL FOR A MINIMUM OF 30 DAYS TO INSURE THERE ARE NO ISSUES.
2. DEMO OF THE PUMP STATION SHALL BE CLOSELY COORDINATED WITH SOUTH WOODFORD WATER DISTRICT. THE WATER LINE SHALL NOT BE OUT OF SERVICE FOR MORE THAN 8 HOURS DURING THE DEMOLITION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTING ALL ELECTRICAL SERVICE TO THE PUMP STATION.
4. ALL UNNECESSARY POWER POLES AND LIGHT POLES SHALL BE PROPERLY DISCONNECTED AND REMOVED.
5. THE PUMP STATION, ALL PIPING AND FENCING SHALL BE COMPLETELY REMOVED AND PROPERLY DISPOSED OF.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY DISPOSING OF ALL MATERIALS NOT WANTED BY SOUTH WOODFORD WATER DISTRICT.
7. THE PUMP STATION SHALL BE COMPLETELY REMOVED DOWN TO THE CONCRETE SLAB. THE EXCAVATED SITE SHALL BE BACKFILLED AND COMPACTED WITH SELECT BACKFILL. ALL DISTURBED AREAS SHALL BE PROPERLY GRADED, SEEDED AND STRAWED.
8. ONCE THE EXIST. PUMP STATION IS COMPLETELY OUT OF SERVICE, THE OWNER SHALL BE GIVEN THE OPPORTUNITY TO REMOVE AND KEEP ANY EQUIPMENT FROM THE PUMP STATION.



EXIST. KY 33 PUMP STATION

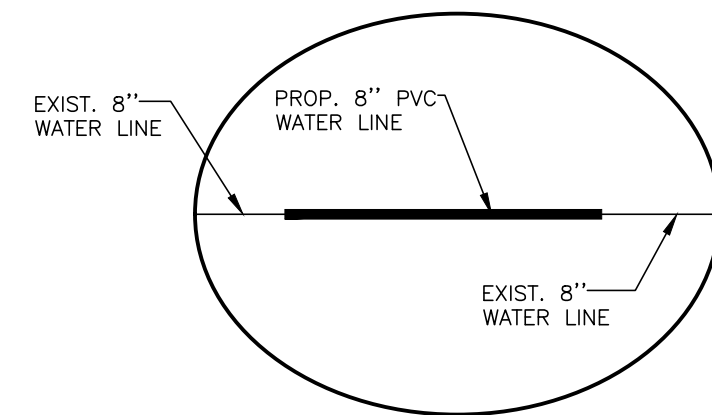
SCALE : N.T.S.

NOTE :
PUMP STATION AND PIPING SHALL BE REMOVED AND REPLACED WITH 8" PVC WATER LINE. SEE PROPOSED PIPING DETAIL BELOW.



EXIST. KY 33 PUMP STATION

SCALE : N.T.S.



PROPOSED PIPING DETAIL

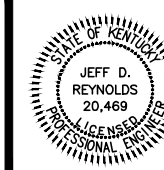
SCALE : N.T.S.

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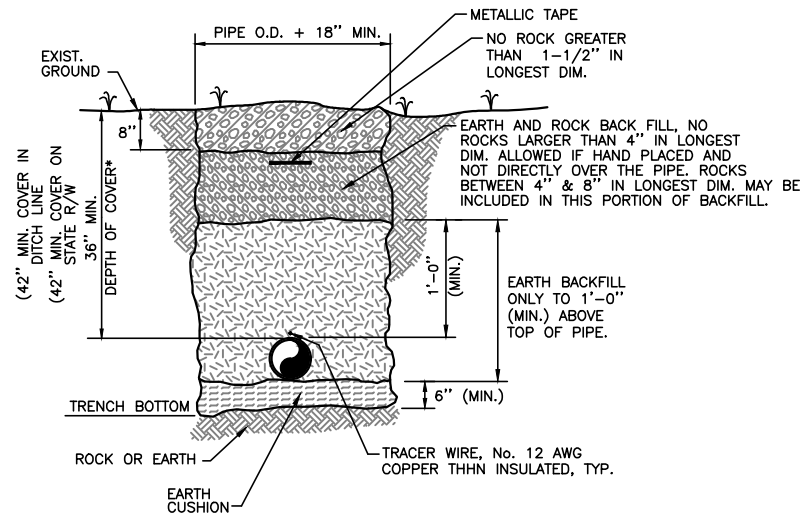
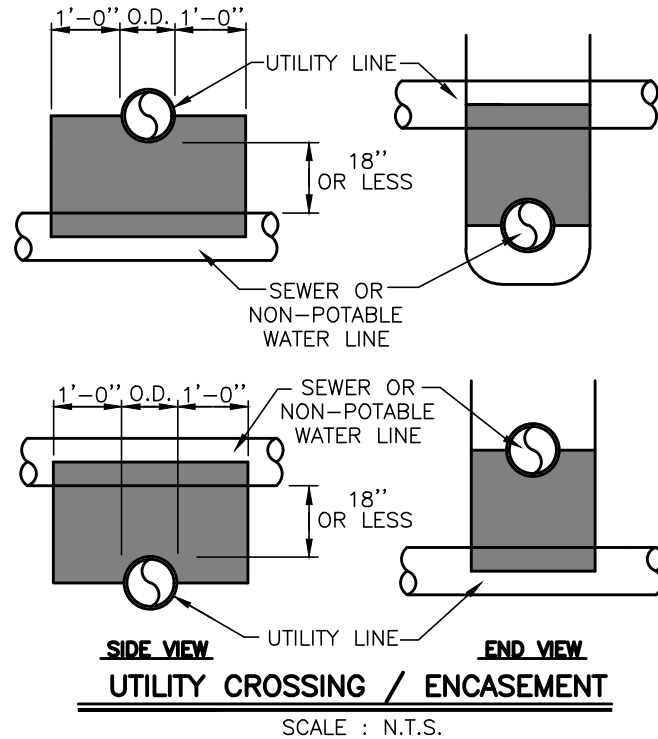


**SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - KY 33 PUMP STATION REPLACEMENT**

DEMOLITION PLAN

NOTES :

1. CONCRETE ENCASEMENT SHALL BE USED WHEN CLEARANCE BETWEEN SEWER OR NON-POTABLE WATER LINE AND UTILITY LINE IS 18" OR LESS.
2. WHEN ENCOUNTERING UTILITY LINE WITH SEPARATION LESS THAN 18" VERTICAL OR 10'-0" HORIZONTAL, CONCRETE ENCASEMENT SHALL BE USED. FULL SECTION OF PIPE SHALL BE CENTERED ABOVE OR BELOW UTILITY LINE TO ACHIEVE MAXIMUM JOINT DISPLACEMENT.
3. CONCRETE ENCASEMENT IS NOT A SEPARATE PAY ITEM.

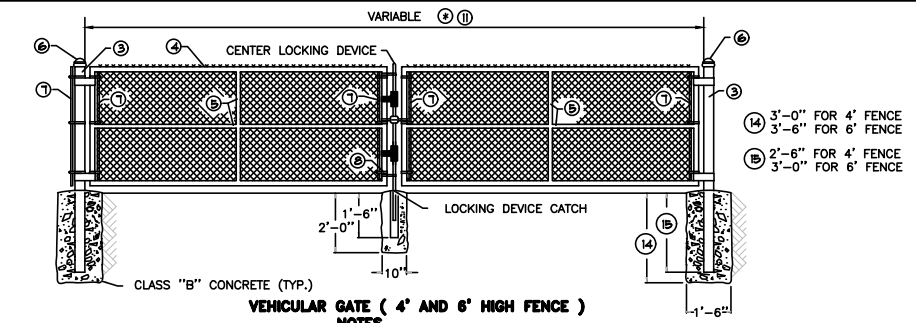


BEDDING/BACKFILL

SCALE : N.T.S.

NOTES :

1. TRACER WIRE SHALL BE SPLICED WITH GEL FILLED WIRE CONNECTORS.
2. ALL WATER MAINS AND SERVICE LINES SHALL BE INSTALLED WITH WATER LINE IDENTIFICATION TAPE AND TRACER WIRE.
3. TRACER WIRE SHALL BE TERMINATED AT EACH APPURTENANCE TO ALLOW FOR CONNECTION.
4. CONTRACTOR SHALL VERIFY CONTINUITY OF TRACER WIRE.



VEHICULAR GATE (4' AND 6' HIGH FENCE)

- NOTES
- ALL POST SHALL BE SET IN CONCRETE TO THE DIMENSIONS AS INDICATED ON THIS DRAWING. VEHICULAR AND PEDESTRIAN GATES SHALL HAVE HEAVY PRESSED STEEL CORNERS SECURELY RIVETED OR SHALL BE MACHINE NOTCHED, AND ELECTRICALLY WELDED SO AS TO BE RIGID AND WATER TIGHT, AND EQUIPPED WITH PADLOCKING DEVICE AND GROUND STOP.
- ALL WELDED JOINTS SHALL BE CLEANED AND PAINTED WITH TWO (2) COATS OF ALUMINUM PAINT.
- 4' HIGH GATES SHALL HAVE 4' FABRIC HEIGHT. 6' HIGH GATES SHALL HAVE 6' FABRIC HEIGHT.
- 12' HIGH GATES SHALL HAVE 7' FABRIC HEIGHT. 9' HIGH GATES SHALL HAVE 8' FABRIC HEIGHT.
- 10' HIGH GATES SHALL HAVE 9' FABRIC HEIGHT. 11' HIGH GATES SHALL HAVE 10' FABRIC HEIGHT.
- 12' HIGH GATES SHALL HAVE 11' FABRIC HEIGHT.
- BARBED WIRE IS REQUIRED ON 8' TO 12' HIGH GATES. SEE DETAIL "A" AND "B" FOR INSTALLATION.

NPS = NOMINAL PIPE SIZE - ASTM F1083 AND ASTM F1043 (HEAVY INDUSTRIAL FENCE) SHALL GOVERN.

ALL FENCE FITTINGS SHALL COMPLY WITH ASTM F 626.

6' TO 13' WIDTH FOR SINGLE GATE OR 12' TO 26' WIDTH FOR DOUBLE GATE.

4' TO 6' WIDTH.

THE CONTRACT UNIT PRICE FOR CHAIN LINK GATES SHALL BE:

10 FEET WIDE SINGLE VEHICULAR CHAIN LINK GATE 13 HIGH.

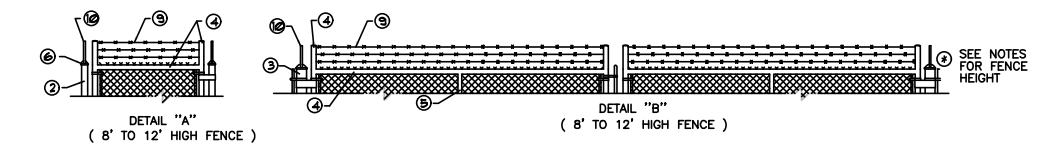
16 FEET WIDE DOUBLE VEHICULAR CHAIN LINK GATE 13 8' HIGH.

10 FEET WIDE PEDESTRIAN CHAIN LINK GATE 13 HIGH.

AS SHOWN ON PLANS.

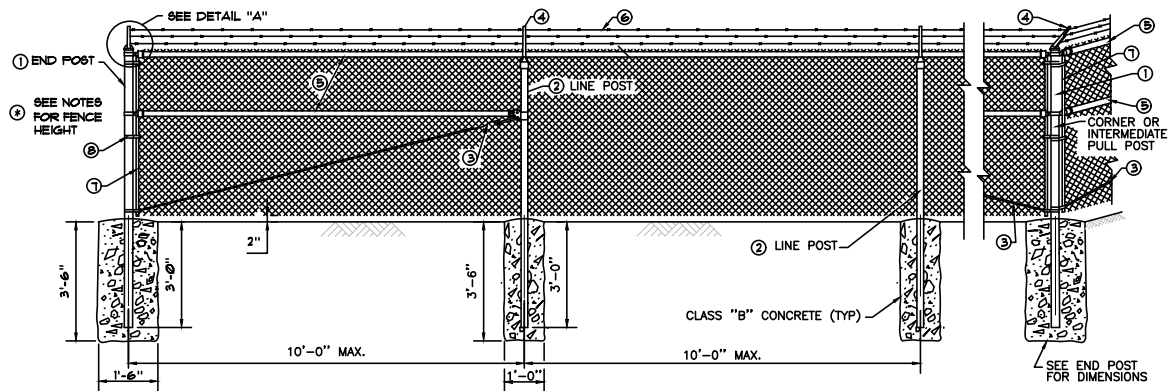
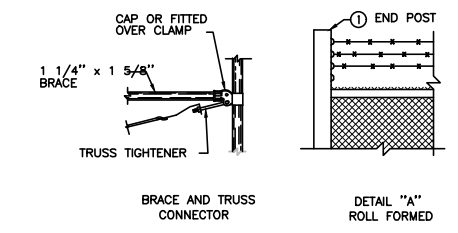
LEGEND / (ALTERNATES)

TUBULAR	ROLL FORMED
1 END POST 2 1/2 " NPS	3 1/2 " X 3 1/2 " "
2 END POST 2 1/2 " NPS	3 1/2 " X 3 1/2 " "
3 GATE POST 3 1/2 " NPS	NO ALTERNATE
4 GATE FRAME 1 1/2 " NPS	NO ALTERNATE
5 1 1/4 " NPS	NO ALTERNATE
6 APPROVED CAPS	NOT REQUIRED
7 FLAT TENSION BAR	NOT REQUIRED
8 BRACE BAND AND TENSION BAND	NOT REQUIRED
9 BARBED WIRE	BARBED WIRE
10 BARBED WIRE ARMS	BARBED WIRE ARMS



LEGEND / (ALTERNATES)

TUBULAR	ROLL FORMED
1 3" NPS END POST	3 1/2 " X 3 1/2 " END POST
2 2 1/2" NPS LINE POST	2 1/4 " H-COL. LINE POST
3 3/8 " DIA. TRUSS ROD AND TIGHTNER	3/8 " DIA. TRUSS ROD AND TIGHTNER
4 BARBED WIRE ARMS	BARBED WIRE ARMS
5 1 1/4 " NPS TOP RAIL & BRACE	1 1/4" X 1 5/8" TOP RAIL & BRACE
6 BARBED WIRE	BARBED WIRE
7 FLAT TENSION BAR	NOT REQUIRED
8 BRACE BAND AND TENSION BAND	NOT REQUIRED



CONSTRUCTION REQUIREMENT:

ALL POSTS SHALL BE SET IN CONCRETE TO THE DIMENSIONS SHOWN ON THIS DRAWING.

A. 1 1/4 " NPS OR A 1 1/4 " X 1 5/8 " ROLL FORMED SECTION, BOTTOM RAIL SHALL BE REQUIRED AROUND ALL UTILITY INSTALLATIONS AND AT OTHER LOCATIONS DESIGNATED BY THE ENGINEER.

MATERIALS:

8' HIGH FENCE SHALL HAVE 7' FABRIC HEIGHT. 9' HIGH FENCE SHALL HAVE 8' FABRIC HEIGHT. 10' HIGH FENCE SHALL HAVE 9' FABRIC HEIGHT. 11' HIGH FENCE SHALL HAVE 10' FABRIC HEIGHT. 12' HIGH FENCE SHALL HAVE 11' FABRIC HEIGHT.

ALL FENCE FITTINGS SHALL COMPLY WITH ASTM F 626.

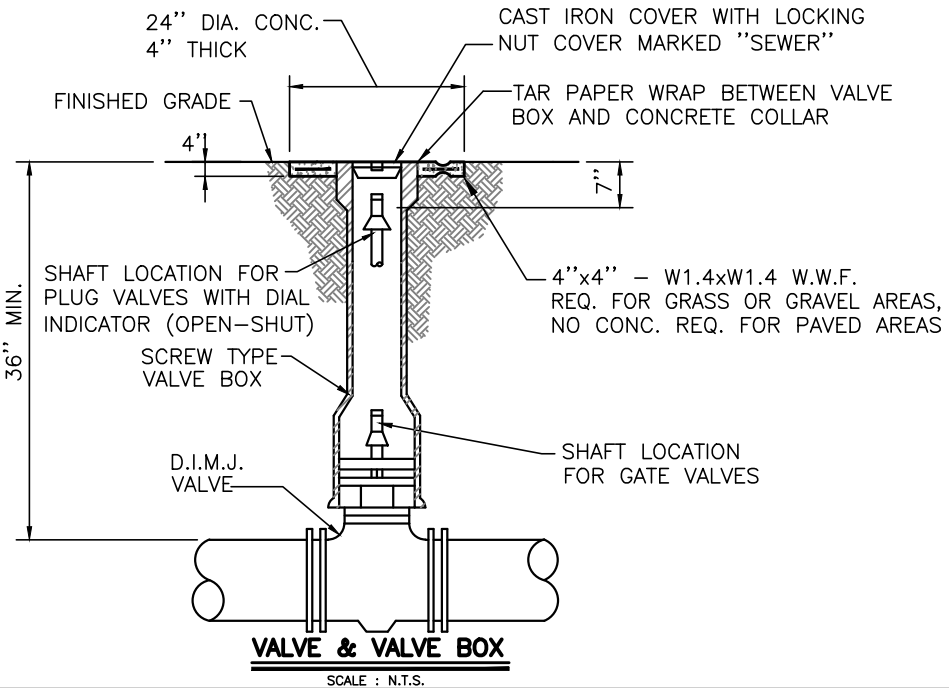
POST CAPS AND SOCKET TYPE BRACE END CONNECTION SHALL BE GALVANIZED PRESSED STEEL, CAST IRON OR OTHER TYPE AS APPROVED BY THE ENGINEER. THEY SHALL BE DESIGNED IN A MANNER TO EXCLUDE MOISTURE FROM INSIDE THE POSTS AND RAILS.

NPS = NOMINAL PIPE SIZE - ASTM F1083 AND F1043 (HEAVY INDUSTRIAL FENCE) SHALL GOVERN.

FENCE SLATS SHALL BE INSTALLED ON FENCE FOR PUMP STATION #1 AND PUMP STATION #3. FENCE SLATS SHALL BE 3000 SERIES AS MANUFACTURED BY FENCE SCREEN OR APPROVED EQUAL. COLOR SHALL BE CHOSEN BY THE OWNER.

DETAIL - CHAIN LINK FENCE

SCALE : N.T.S.



PROJECT: 434101 DATE: MAR 2023
SCALE: AS NOTED

DESIGNED BY	NAME	DATE
JDR	JDR	
SAB	SAB	
JDR	JDR	

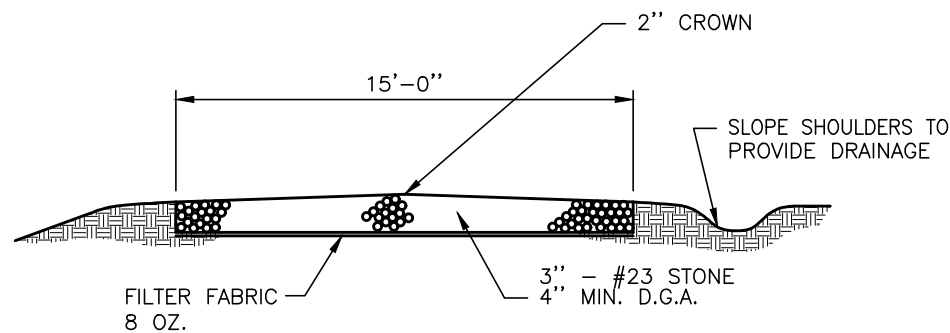
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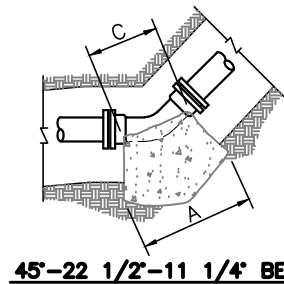
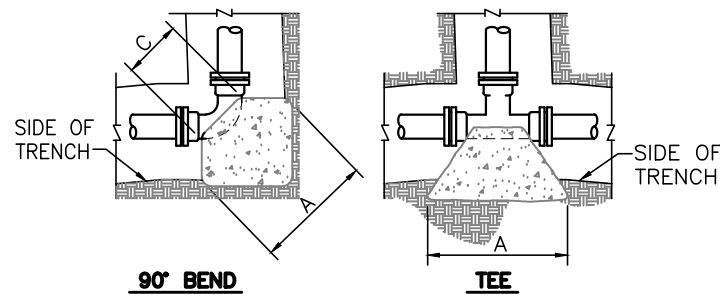
SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - KY 33 PUMP STATION REPLACEMENT

STANDARD DETAILS

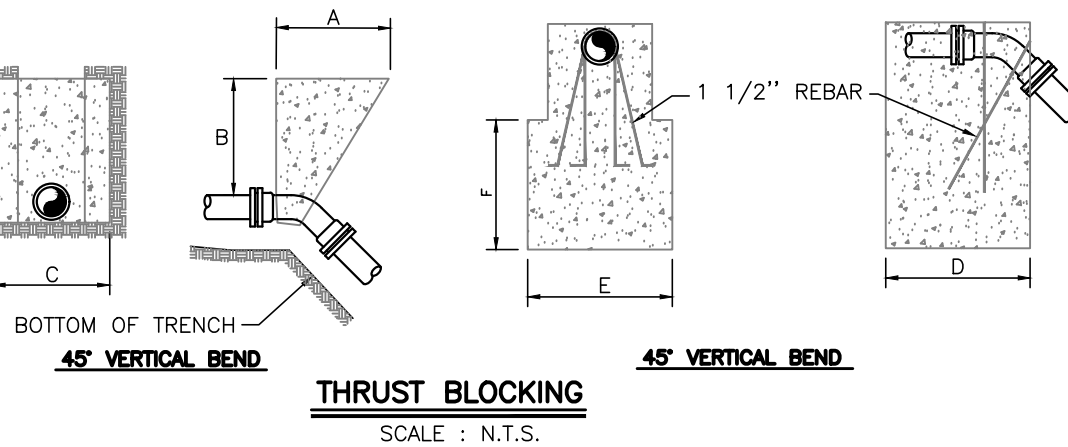
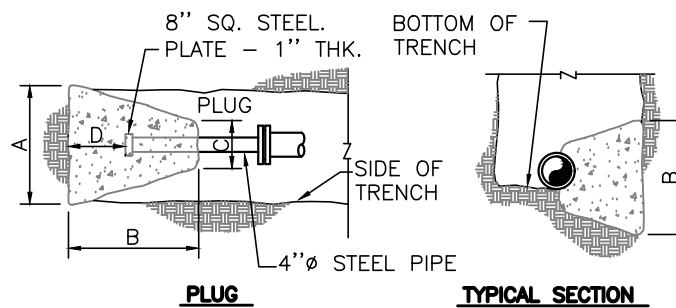
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GRAVEL ACCESS ROAD DETAIL
SCALE : N.T.S.



- NOTES:
1. THRUST BLOCKS DESIGNED FOR 100 PSI PRESSURE AND 1000 PSF SOIL BEARING. FOR GREATER PRESSURE OR LESS SOIL BEARING, QUANTITIES WILL HAVE TO BE RECALCULATED.
 2. THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
 3. IF EXACT SIZE PIPE BLOCKING IS NOT SHOWN, USE NEXT LARGER SIZE.
 4. THRUST BLOCKING TO BE POURED IN PLACE CLASS B CONC.



90° BEND

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	88	80	72	64	50	40	33	26	16	16
B	88	80	72	64	50	40	33	24	16	16
C	45	38	32	30	16	15	12	12	9	9
D	48	40	36	32	25	20	16	12	8	9

45° BEND

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	72	60	54	48	37	31	24	18	12	12
B	72	60	54	48	37	31	24	18	12	12
C	22	20	16	18	16	14	12	12	8	8
D	32	28	25	22	18	15	12	9	6	6

45° VERTICAL BEND

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	72	60	60	45	36	36	36	36	24	24
B	60	48	48	45	36	36	36	36	24	24
C	96	84	84	72	60	60	60	60	48	48
D	84	72	72	60	48	48	48	48	36	36
E	84	72	72	60	48	48	48	48	36	36
F	84	72	72	60	48	48	48	48	36	36

22 1/2° BEND

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	50	42	38	34	26	23	18	13	9	9
B	50	42	38	34	26	23	18	13	9	9
C	22	20	16	18	16	14	12	10	8	8
D	26	22	18	16	13	11	9	6	4	4

11 1/4° BEND

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	36	30	27	24	18	16	13	11	9	9
B	36	30	27	24	18	16	13	11	9	9
C	22	20	16	18	16	14	12	10	8	8
D	22	18	14	12	9	8	6	5	4	4

PLUG

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	80	66	60	54	52	43	34	26	26	26
B	80	66	60	54	52	43	34	26	26	26
C	12	12	12	12	12	12	12	12	12	12
D	72	60	54	44	32	22	15	11	11	11

TEE

SIZE	MAIN BRANCH	24"	20"	18"	16"	12"	12"	12"	8"-10"	8"-10"	8"-10"	2"-8"	2"-8"	2"-8"
A		80	66	60	54	52	42	26	43	26	26	26	26	26
B		80	66	60	54	52	43	26	43	26	26	26	26	26
C		45	36	32	30	12	12	12	12	12	12	12	12	12
D		48	40	36	30	26	21	13	21	13	13	13	13	13

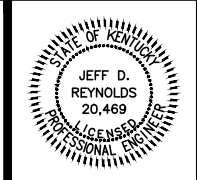
DIMENSIONS ARE IN INCHES

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 434101	DATE: MAR 2023
SCALE: AS NOTED	
DESIGNED BY: JDR	NAME: JDR
DRAWN BY: SAB	DATE:
CHECKED BY: JDR	
RECORD DUGS:	



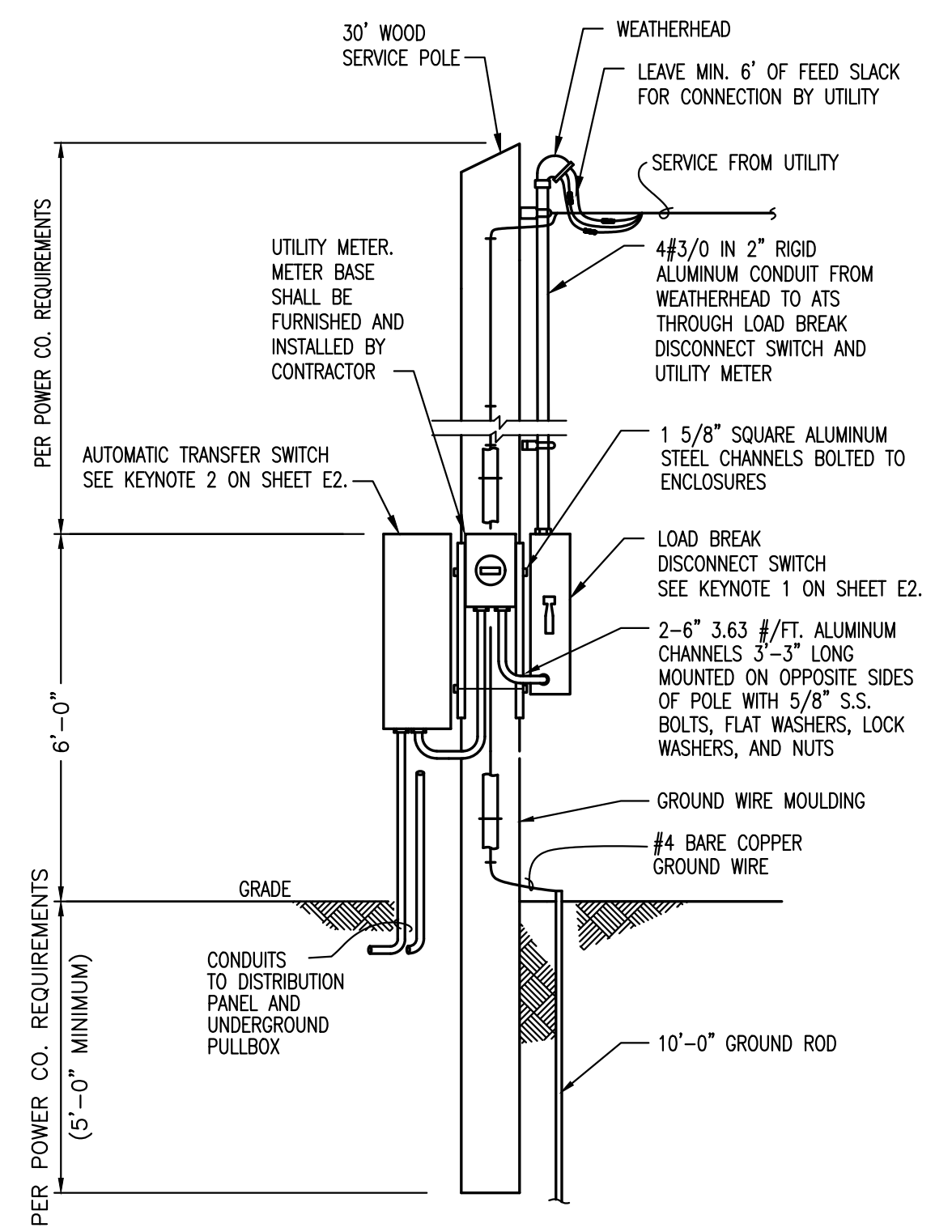
3 HMB CIRCLE
FRANKFORT, KENTUCKY
(502) 695-9800
(502) 695-9810 FAX



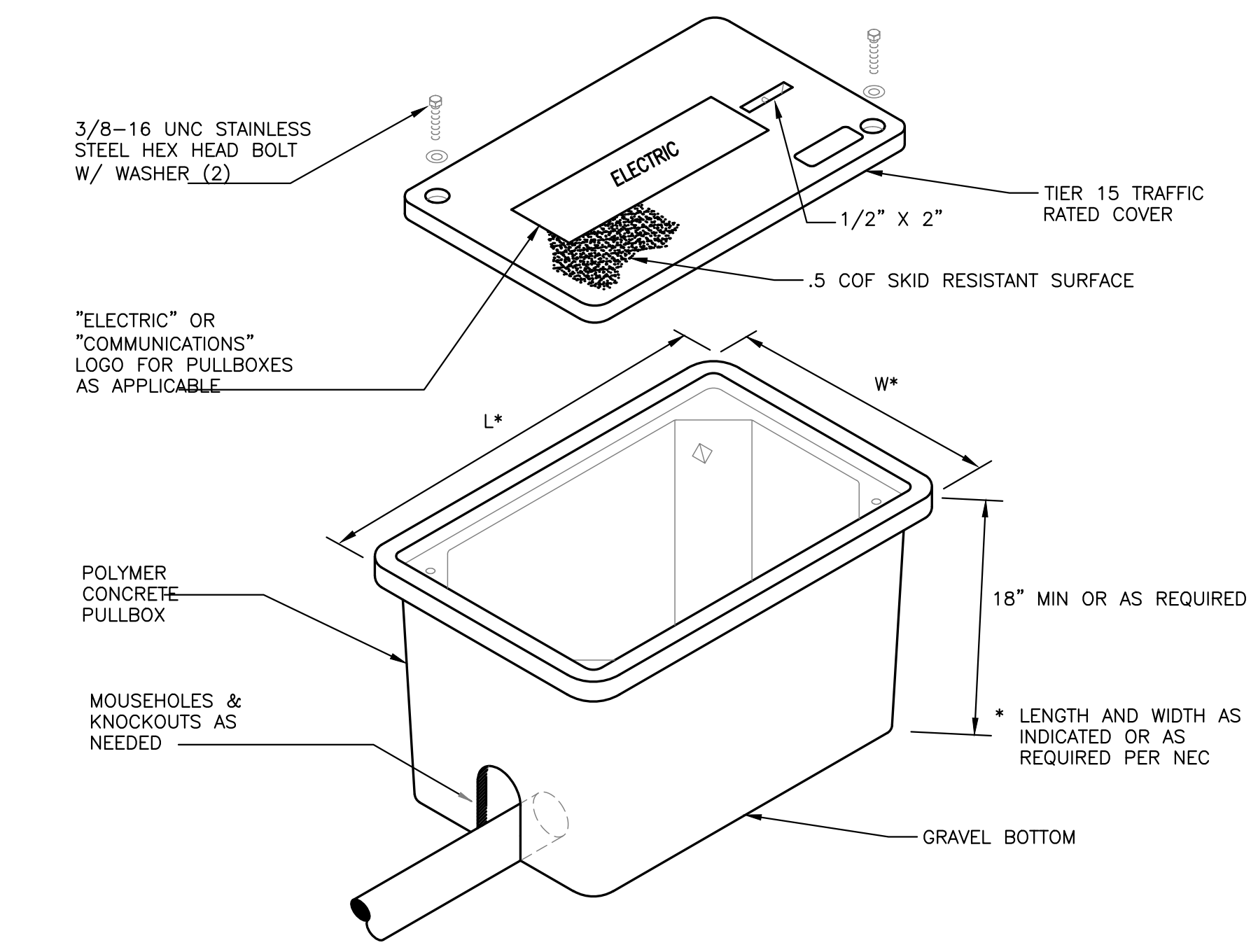
SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - KY 33 PUMP STATION REPLACEMENT

STANDARD DETAILS

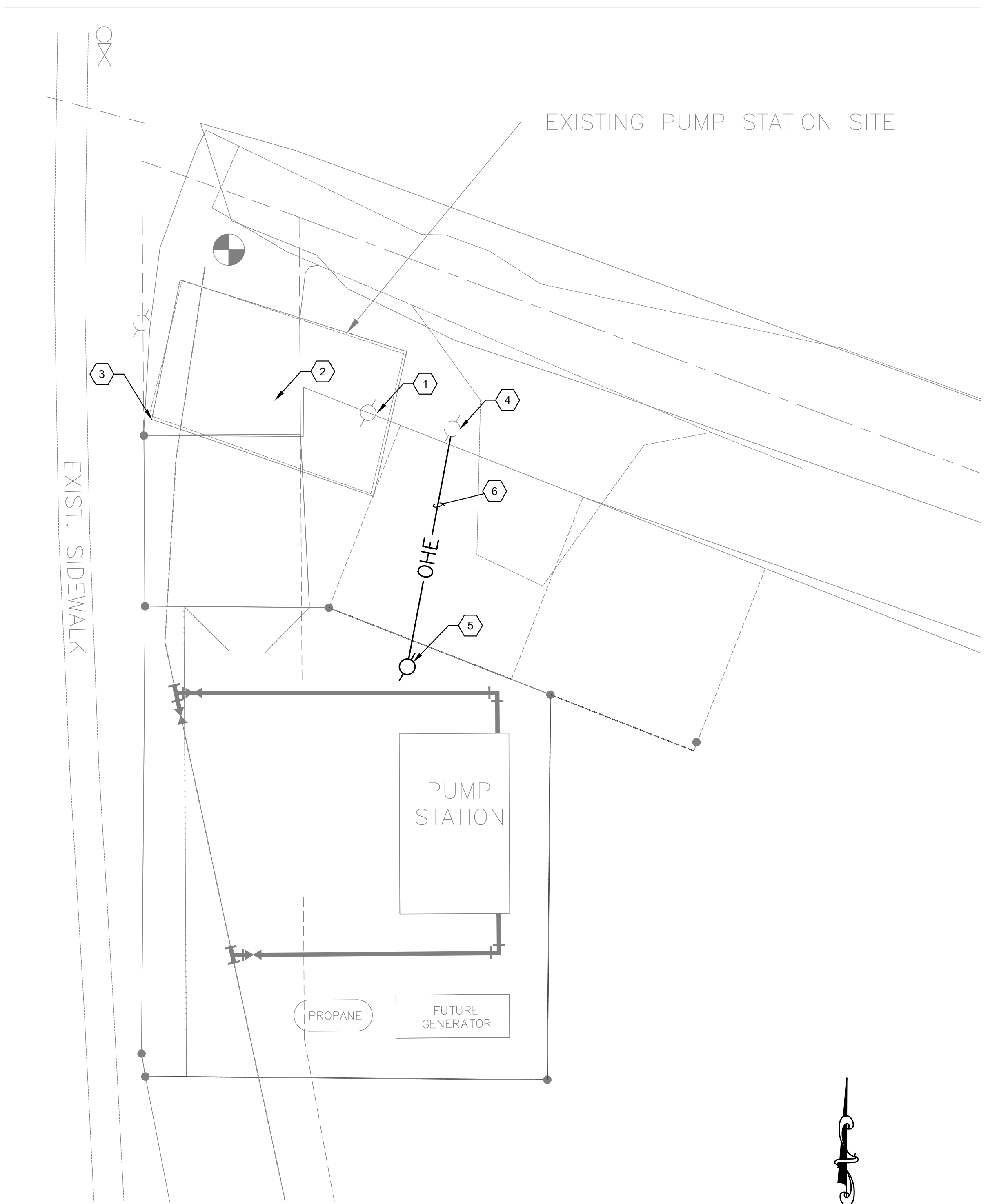
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1 ELECTRIC SERVICE POLE DETAIL
SCALE: NOT TO SCALE



2 TYPICAL UNDERGROUND PULLBOX DETAIL
SCALE: NOT TO SCALE



3 ELECTRICAL SITE PLAN

GENERAL NOTES:

- A. COORDINATE WITH KENTUCKY UTILITIES TO DISCONNECT AND REMOVE EXISTING ELECTRICAL SERVICE TO EXISTING PUMP STATION UPON INSTALLATION OF NEW SERVICE.
- B. REFER TO SHEET E2 FOR ADDITIONAL CONDUITS NOT SHOWN ON SITE PLAN.

KEYNOTES:

- 1. DISCONNECT AND REMOVE EXISTING SERVICE POLE WITH POLE-MOUNTED 200A MAIN DISCONNECT SWITCH, UTILITY METER, CTS, ANTENNA, POLE HARDWARE, ALONG WITH OVERHEAD DROP CONDUCTORS/CONDUITS, DOWNSTREAM CONDUCTORS/CONDUITS TO EXISTING PUMP STATION.
- 2. DISCONNECT AND REMOVE EXISTING ELECTRICAL ITEMS INSIDE EXISTING UNDERGROUND PUMP STATION, INCLUDING TWO PUMP MOTORS, PUMP CONTROL PANEL, LIGHTING FIXTURES, SWITCHES, JUNCTION BOXES, DEHUMIDIFIER, ALL CONDUITS/CONDUCTORS.
- 3. DISCONNECT AND REMOVE EXISTING ANTENNA WITH CABLE/CONDUIT AND CONDUIT SUPPORTS (NOT SHOWN).
- 4. EXISTING UTILITY SERVICE POLE WITH EXISTING 3-PHASE TRANSFORMER BANK TO REMAIN. KENTUCKY UTILITIES SHALL PROVIDE 480/277V SECONDARY OVERHEAD SERVICE TO NEW PUMP STATION.
- 5. NEW RISER POLE. SEE DETAIL. FINAL LOCATION SHALL BE FIELD COORDINATED INSIDE PUMP STATION FENCE.
- 6. OVERHEAD SECONDARY CONDUCTORS FURNISHED AND INSTALLED BY KENTUCKY UTILITIES. CONTRACTOR SHALL COORDINATE INSTALLATION.

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 4317.00	DATE: NOV. 2023
SCALE: AS SHOWN	
DESIGNED BY	NAME DATE
DRAWN BY	DNR 11/2023
CHECKED BY	YNR 11/2023
RECORD DWGS.	TMH 11/2023

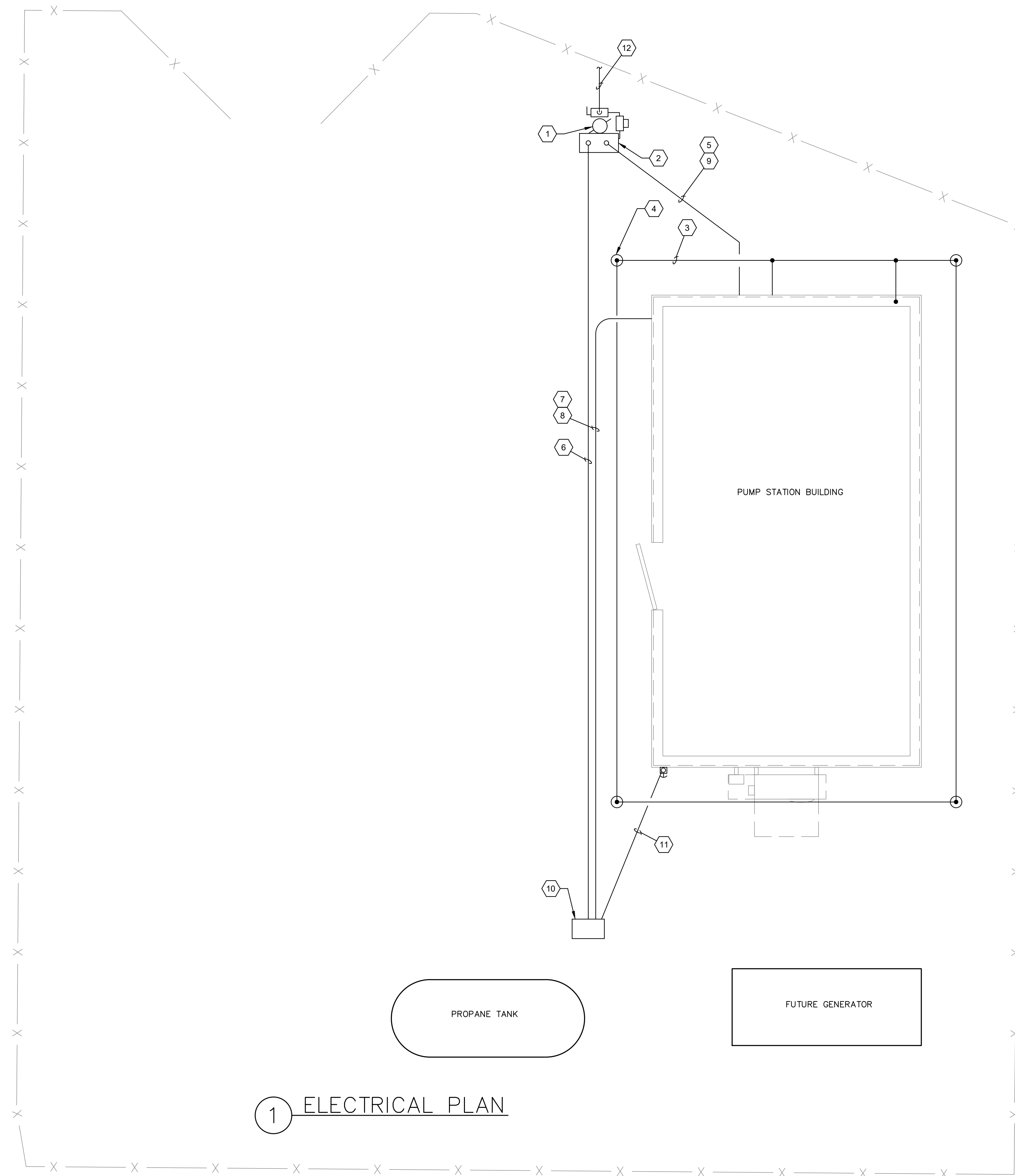


3 HMB CIRCLE
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(502) 695-9810 FAX

SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - PUMP STATION REPLACEMENT

ELECTRICAL SITE PLAN AND DETAILS

SHEET
E1



KEYNOTES:

1. FURNISH AND INSTALL 30' WOOD RISER POLE, 600V 200A/3P, N/F, NEMA 4X STAINLESS STEEL LOAD BREAK DISCONNECT SWITCH, UTILITY METER BASE PER KENTUCKY UTILITIES REQUIREMENTS, ALONG WITH HARDWARE/SUPPORTS, CONDUITS/CONDUCTORS AND WEATHERHEAD. LOAD BREAK DISCONNECT SWITCH SHALL BE INSTALLED AHEAD OF UTILITY METER PER KENTUCKY UTILITIES REQUIREMENTS. SEE DETAIL ON SHEET E1.
2. S.E.R. 200A, 480/277V, 3-PHASE, 4 POLE AUTOMATIC TRANSFER SWITCH (ATS) WITH 200A/3P MAIN BREAKER IN NEMA 4 STAINLESS STEEL ENCLOSURE MOUNTED ON RISER POLE.
3. #2 BARE COPPER GROUNDING ELECTRODE. BOND TO BUILDING STRUCTURAL STEEL, METAL PIPING, PANELBOARDS (NOT ALL SHOWN ON PLAN).
4. GROUND DRIVEN ROD 3/4" X 10' (TYPICAL).
5. 4#3/0, 1#6 GND IN 2" UNDERGROUND FROM ATS TO ELECTRICAL DISTRIBUTION PANEL (INSIDE BUILDING).
6. 1-2" C AND 1-3/4" C WITH PULLWIRE UNDERGROUND FROM ATS TO UNDERGROUND PULLBOX FOR FUTURE CONNECTION TO GENERATOR.
7. 1" C WITH PULLWIRE UNDERGROUND FROM 120/240V LIGHTING PANEL TO UNDERGROUND PULLBOX FOR GENERATOR BATTERY CHARGER.
8. 3/4" C WITH PULLWIRE UNDERGROUND FROM TELEMETRY PANEL TO UNDERGROUND PULLBOX.
9. 3/4" C WITH PULLWIRE UNDERGROUND FROM ATS TO TELEMETRY PANEL.
10. STUB UP AND CAP ALL CONDUITS ASSOCIATED WITH FUTURE GENERATOR INSIDE UNDERGROUND PULLBOX. SEE DETAIL ON SHEET E1.
11. STUB UP AND CAP 3/4" C AT BUILDING FOR FUTURE CONNECTION TO GENERATOR E-STOP.
12. 480/277V OVERHEAD SECONDARY SERVICE. CONDUCTORS SHALL BE FURNISHED AND INSTALLED BY KENTUCKY UTILITIES. CONTRACTOR SHALL COORDINATE INSTALLATION.

1 ELECTRICAL PLAN

PROJECT: 4317.00 DATE: NOV. 2023
SCALE: NTS

DESIGNED BY	NAME	DATE
DNR	DNR	11/2023
YNR	YNR	11/2023
TMH	TMH	11/2023



SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - PUMP STATION REPLACEMENT

BOOSTER PUMP STATION - ELECTRICAL PLAN

SHEET
E2

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE