WATER SYSTEM IMPROVEMENTS PROJECT

WESTERN MASON WATER DISTRICT 2573 MARY INGLES HIGHWAY

DOVER, KY 41034

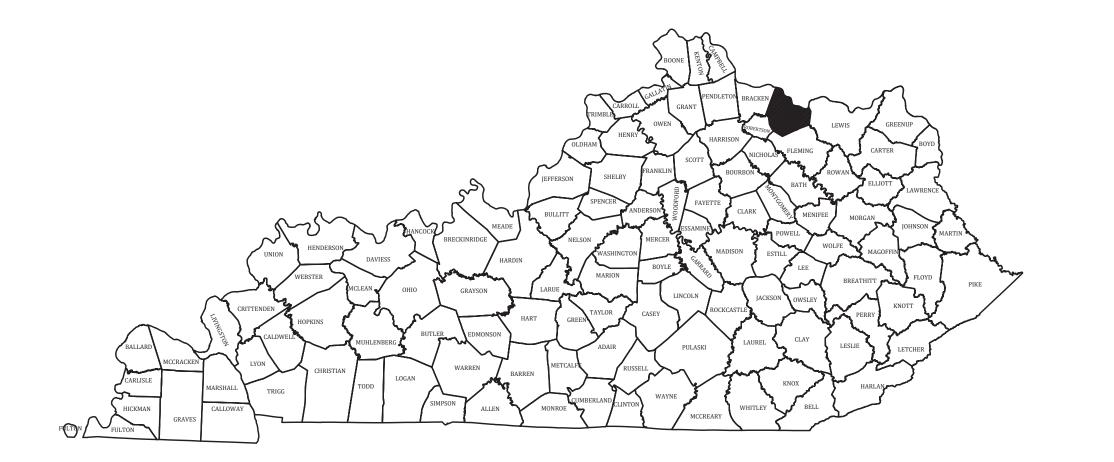
BOARD MEMBERS

Larry Redden, Chairman
Pam Carpenter, Secretary
Jerry Fields, Treasurer
David French, Manager
Chris Scott, Field Supervisor

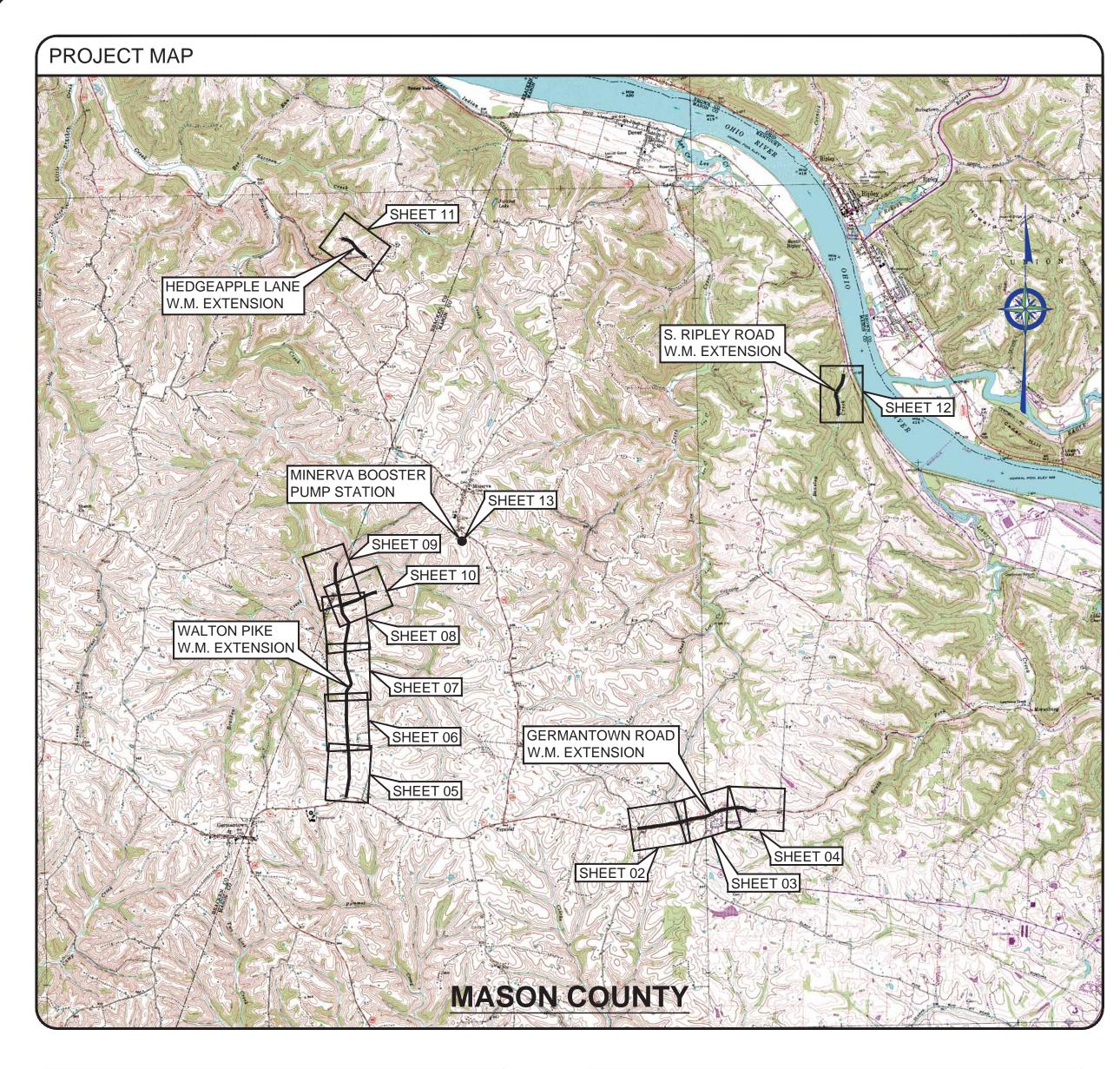
MARCH 2024

PREPARED BY:









EXISTING UTILITIES



IN ACCORDANCE WITH KENTUCKY STATE LAW, ANY ACTIVITY THAT RESULTS IN MOVEMENT, PLACEMENT, BORING, PROBING OR DIGGING IN OR ON THE GROUND SHALL CONTACT THE ONE CALL CENTER FOR UNDERGROUND UTILITY LOCATIONS.

WESTERN MASON SEWER DISTRICT

TELEPHONE & CABLE WESTERN MASON WATER DISTRICT WINDSTREAM 1(800)-347-1991

DAVID FRENCH, MANAGER LIMESTONE CABLEVISION (606) 882-3141 OFFICE (606)564-9220

COLUMBIA GAS

KENTUCKY UTILITIES

(800) 432-9345 **ELECTRIC**

PO BOX 49

DOVER, KY 41034

(800)981-0600 FLEMING MASON ENERGY CO-OP (800)-464-3144

DRAWING INDEX

LEGEND

SHT. NO.	DESCRIPTION:
	COVER
01	PROJECT MAP, EXISTING UTILITIES, LEGEND and DRAWING INDEX
02	GERMANTOWN ROAD STA. 10+00 TO STA. 35+00
03	GERMANTOWN ROAD STA. 35+00 TO STA. 63+00
04	GERMANTOWN ROAD STA. 63+00 TO STA. 76+46
05	WALTON PIKE STA. 10+00 TO STA. 37+00
06	WALTON PIKE STA. 37+00 TO STA. 65+00
07	WALTON PIKE STA. 65+00 TO STA. 93+00
08	WALTON PIKE STA. 93+00 TO STA. 121+00
09	WALTON PIKE STA. 121+00 TO STA. 150+35
10	CARPENTER LANE STA. 10+00 TO STA. 29+48
11	HEDGEAPPLE LANE STA. 10+00 TO STA. 27+75
12	S. RIPLEY RD. STA. 10+00 TO STA. 33+59
13	MINERVA BOOSTER PUMP STATION - SITE
14	MINERVA BOOSTER PUMP STATION - PLAN
15	MINERVA BOOSTER PUMP STATION - SECTIONS
16	MINERVA BOOSTER PUMP STATION - DETAILS
17	STANDARD DETAILS - PIPE LINES
18	STANDARD DETAILS - PIPE LINES
19	STANDARD DETAILS - WATER LINES
E-01	ELECTRICAL DETAILS

	NEW WATER MAIN	Î	NEW FLUSHING HYDRANT
—— WAT———	EXISTING WATER MAIN EXISTING SANITARY SEWER		EX. FLUSHING HYDRANT
——— G ————	EXISTING GAS MAIN EXISTING FORCE MAIN	W.M.	EXISTING WATER METER
	NEW STEEL CASING EXISTING CULVERT		NEW GATE VALVE & BOX
			FX GATE VALVE & BOX

EXISTING MANHOLE

GENERAL NOTES

- CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND THE ENGINEER TWO WORKING DAYS (MINIMUM) BEFORE BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH CITY, COUNTY AND STATE REQUIREMENTS.
- THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION PLANS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION.
- 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 LINES WITH CATHODIC PROTECTION SHALL BE WRAPPED IN POLYETHYLENE ENCASEMENT. MATERIALS AND INSTALLATION SHALL MEET THE REQUIREMENTS OF AWWA'S LATEST REVISION.
- ALL CONSTRUCTION AND INSTALLATION OF MATERIALS BEING USED SHALL BE IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. SUBSTITUTIONS AND DEVIATION SHALL BE PERMITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN ISSUED BY THE ENGINEER.
- SHOP DRAWINGS OF ALL MATERIALS BEING USED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- EXISTING UTILITIES HAVE BEEN SHOWN IN THEIR APPROXIMATE LOCATION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH A REPRESENTATIVE WHEN WORKING NEAR EXISTING UTILITIES.
- THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND OTHER IMPROVEMENTS SHOWN ON THESE PLANS AND ALL OTHER UTILITIES AND OTHER IMPROVEMENTS NOT SHOWN. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR REPAIRS OF UTILITIES AND OTHER IMPROVEMENTS DAMAGED DURING CONSTRUCTION.
- UNLESS OTHERWISE NOTED, A SEPARATE BID ITEM HAS NOT BEEN ESTABLISHED FOR FITTINGS. THE FITTINGS INCLUDED BUT NOT LIMITED TO ARE: TEES, BENDS, PLUGS, REDUCERS, CROSSES, COUPLINGS, ETC. CONTRACTORS SHALL INCLUDE THE COST OF THESE ITEMS IN THE BID PRICE FOR THE PIPE.
- $oldsymbol{\circ}$ CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY REMOVAL/RELOCATION OF TRAILERS, BUILDINGS, FENCES, TREES, SHRUBS, ETC. AND REPLACEMENT OF SAID ITEMS AFTER CONSTRUCTION
- CONTRACTOR IS TO COORDINATE WITH THE PROPERTY OWNERS AS TO WHETHER OR NOT TEMPORARY FENCING IS REQUIRED AND CONSTRUCT IF NECESSARY.
- ALL PIPING SHALL HAVE 36" MINIMUM COVER.
- WHERE UNSTABLE MATERIAL IS ENCOUNTERED OR WHERE THE DEPTH OF EXCAVATION IN EARTH EXCEEDS FIVE (5) FEET, THE SIDES OF THE TRENCH OR EXCAVATION SHALL BE SUPPORTED BY SUBSTANTIAL SHEETING, BRACING, SHORING OR THE TRENCH SIDES SLOPED. SLOPING THE SIDES OF THE DITCH WILL NOT NOT BE PERMITTED IN STREETS, ROADS, NARROW RIGHTS-OF-WAY OR OTHER CONSTRICTED AREAS UNLESS OTHER WISE SPECIFIED. THE STANDARDS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT AND THE KENTUCKY LABOR CABINET SHALL BE FOLLOWED.
- ALL EXCAVATION IS UNCLASSIFIED. COMPENSATION FOR ALL EXCAVATION SHALL BE INCLUDED IN LUMP SUM BID.
- REGRADE OF SITE SHALL BE SUCH THAT DRAINAGE IS AWAY FROM ALL STRUCTURES.
- BACKFILL AROUND ALL STRUCTURES SHALL BE SUFFICIENTLY COMPACTED TO PRECLUDE SETTLEMENT AND PONDING OF WATER AROUND STRUCTURES AND GRADED TO DIVERT RUNOFF AWAY FROM THE STRUCTURES.
- DIMENSIONS, DETAILS AND REINFORCEMENT MAY VARY WITH MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL OBTAIN AND MAINTAIN ON SITE, APPROVED SHOP DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
- ALL VALVES & HYDRANTS SHALL BE LOCATED AT THE BACKSIDE OF THE DITCHLINE.
- FINAL LOCATION OF SERVICES, VALVES, & HYDRANT ORIENTATION ARE TO BE FIELD LOCATED DURING CONSTRUCTION & APPROVED BY THE ENGINEER.
- AT THE CONTRACTORS OPTION, CLASS 350 DUCTILE IRON PIPE MAY BE SUSTITUTED FOR ANY PIPE PARTICULARLY SPECIFIED, BUT AT NO ADDITIONAL COST TO THE OWNER.
- NO PAY ITEM FOR EXTRA TRENCH DEPTH HAS BEEN SET UP. CONTRACTOR SHALL INCLUDE THE COST OF THE ADDITIONAL DEPTH IN HIS BID PRICE.
- ROCK SOUNDINGS WERE NOT PERFORMED BY THE ENGINEER, THE CONTRACTOR SHALL TAKE APPROPRIATE ACTION TO DETERMINE SUBSURFACE CONDITIONS.
- CONTRACTOR TO DIG/EXPOSE EXISTING WATER MAIN FAR ENOUGH AHEAD OF NEW WATER MAIN CONSTRUCTION TO AVOID DAMAGE TO EXISTING WATER MAIN AND/OR INTERRUPTION OF EXISTING
- ALL NEW SERVICE LINE FROM THE NEW MAIN TO THE SETTERS SHALL BE 3/4" PE CTS TUBING UNLESS SHOWN DIFFERENTLY ON THE PLANS
- THE MAXIMUM ALLOWABLE LENGTH OF SERVICE LINE FROM THE WATER MAIN TO THE CUSTOMER'S METER SERVICE SHALL BE AS FOLLOWS:

SERVICE LINE DIAMETER	MAXIMUM LENGTH
3/4 INCH	125 FEET
1 INCH	150 FEET
1-1/2 INCH	200 FEET
0.181011	050 555

- 250 FEET • CONNECTIONS TO EXISTING DISTRIBUTION SYSTEM SHALL BE MADE AS FOLLOWS:
 - A. CONNECT TO EXISTING (SIZE) W.M. (WET TAP) CONTRACTOR SHALL PROVIDE, FURNISH AND INSTALL ALL FITTINGS, VALVES AND APPURTENANCES TO CONNECT THE PROPOSED WATER MAIN TO THE EXISTING WATER MAIN UNDER PRESSURE.
 - B. CONNECT TO EXISTING (SIZE) W.M. CONTRACTOR SHALL PROVIDE, FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES TO CONNECT THE PROPOSED WATER MAIN TO THE EXISTING WATER MAIN. VALVES ARE A SEPARATE PAY ITEM.
- NO BLASTING WILL BE PERMITTED ON THIS PROJECT
- GRIP RINGS SHALL BE INSTALLED ON ALL FITTINGS
- ALL PVC CASING SHALL BE MINIMUM OF 4" LARGER THAN CARRIER PIPE
- ALL EXISTING METERS SHALL BE RECONNECTED TO NEW WATER MAINS W/NEW 3/4" PE SERVICE LINE, SETTERS, BOX, AND LID

GENERAL NOTES

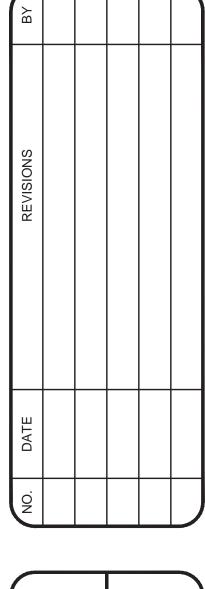
- NEW LINE AND EXISTING LINES MUST REMAIN IN SERVICE UNTIL ALL METERS ASSEMBLED HAVE BEEN REPLACED AND RECONNECTED TO THE NEW LINE
- NO METERS CAN BE RECONNECTED TO THE NEW WATER MAIN UNTIL TESTING, STERILIZATION AND SAMPLING HAS BEEN SUCCESSFULLY COMPLETED
- COPIES OF ALL BAC-T RESULTS MUST BE PROVIDED TO THE ENGINEER PRIOR TO RECONNECTS OF ANY
- A NO. 12 AWG INSULATED COPPER LOCATOR WIRE SHALL BE PLACED IN THE TRENCH SIX INCHES ABOVE ALL PLASTIC LINES. THE INSULATION SHALL BE BLUE FOR WATER. THE WIRE SHALL BE LOOPED INTO ALL VALVE BOXES W/ ENOUGH SLACK TO ALLOW ACCESS TO THE LOOPS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PLUMBING PERMITS NECESSARY TO RELOCATE OR RECONNECT ANY CUSTOMERS METER SERVICE OR SERVICE LINE. THE CONTRACTOR SHALL OBTAIN ALL PERMITS, PAY ALL FEES AND EMPLOY THE NECESSARY LICENSED PLUMBER.

FINAL CLEANUP AND RESTORATION

UNLESS SPECIFICALLY APPROVED BY THE OWNER AND ENGINEER, CLEANUP OF DISTURBED AREAS SHALL BE KEPT CURRENT WITH CONSTRUCTION AND RESTORATION EFFORTS BY THE CONTRACTOR INITIATED NO LONGER THAN SEVEN (7) DAYS AFTER THE TRENCH EXCAVATION WORK HAS STARTED. ALL EXCAVATED MATERIAL NOT REQUIRED FOR BACKFILLING OF THE TRENCH AND ANY LARGE ROCKS, STONES OR DEBRIS SHALL BE REMOVED FROM THE SITE, AND SHALL NOT BE A BURDEN TO THE PROPERTY OWNER(S) AND/OR ADJACENT PROPERTIES. THE CONTRACTOR MAY WINDROW OR TRACK-IN THE EXCAVATED MATERIAL OVER THE TRENCH PRIOR TO FINAL CLEANUP TO ALLOW FOR AND TO ASSIST IN THE INITIAL SETTLEMENT OF THE TRENCH. ALL DISTURBED AREAS MUST BE SEEDED AT LEAST WITH A TEMPORARY SEED MIX IF FOR SOME REASON THE AREA CANNOT BE PERMANENTLY SEEDED WITHIN TWO (2) WEEKS.

CONSTRUCTION IN KTC RIGHT-OF-WAY

- ALL EFFECTED KYTC DITCHLINES SHALL REMAIN FREE OF EXCESS SILT OR EROSION AND CONSTRUCTED TO THE NORMAL TYPICAL SECTION OF THE ROADWAY WITH A MINIMUM DEPTH OF 18 INCHES FROM THE SHOULDER BREAK POINT.
- ALL NECESSARY STEPS SHALL BE TAKEN TO PREVENT EROSION OR SILTATION OF THE PUBLIC RIGHT-OF-WAY, ADJOINING PROPERTY AND WATERWAYS.
- ALL VALVES TO BE FLUSH W/ EXISTING GRADE.
- ALL WATER LINE LOCATED WITHIN STATE HIGHWAY R.O.W. SHALL BE CONSTRUCTED OUT AND AROUND THE END OF ALL EXISTING CULVERTS AND HEADWALLS.
- UNDERGROUND UTILITIES INSTALLED INSIDE STATE RIGHT-OF-WAY SHALL BE LOCATED WITHIN 3-5 FEET FROM THE EDGE OF THE RIGHT-OF-WAY UNLESS OTHERWISE SHOWN ON THE PLANS.
- UNDERGROUND UTILITIES SHOWN MORE THAN 5 FEET FROM THE EDGE OF THE RIGHT-OF-WAY SHALL BE INSTALLED WITH A MINIMUM DEPTH OF COVER OF 42 INCHES WITH PRIOR APPROVAL ON A CASE BY CASE BASIS.
- UNDERGROUND UTILITIES CROSSING ANY ENTRANCE OR CROSSROAD PAVED WITH CONCRETE OR ASPHALT SURFACE INSIDE STATE RIGHT-OF-WAY SHALL BE INSTALLED BY BORING UNLESS WRITTEN PERMISSION TO OPEN CUT IS OBTAINED FROM THE PROPERTY OWNER AND APPROVED BY THE KYTC DISTRICT PERMITS ENGINEER.
- UNDERGROUND UTILITIES SHALL NOT BE INSTALLED IN EMBANKMENT FILLS OR BETWEEN EDGE OF PAVEMENT AND DITCHLINE UNLESS SPECIFICALLY NOTED ON PERMITTED PLANS.
- FIRE HYDRANTS OR UTILITY SERVICE BOXES SHALL BE LOCATED WITHIN 2 FEET FROM THE EDGE OF RIGHT-OF-WAY LINE, OR OFF RIGHT-OF-WAY.

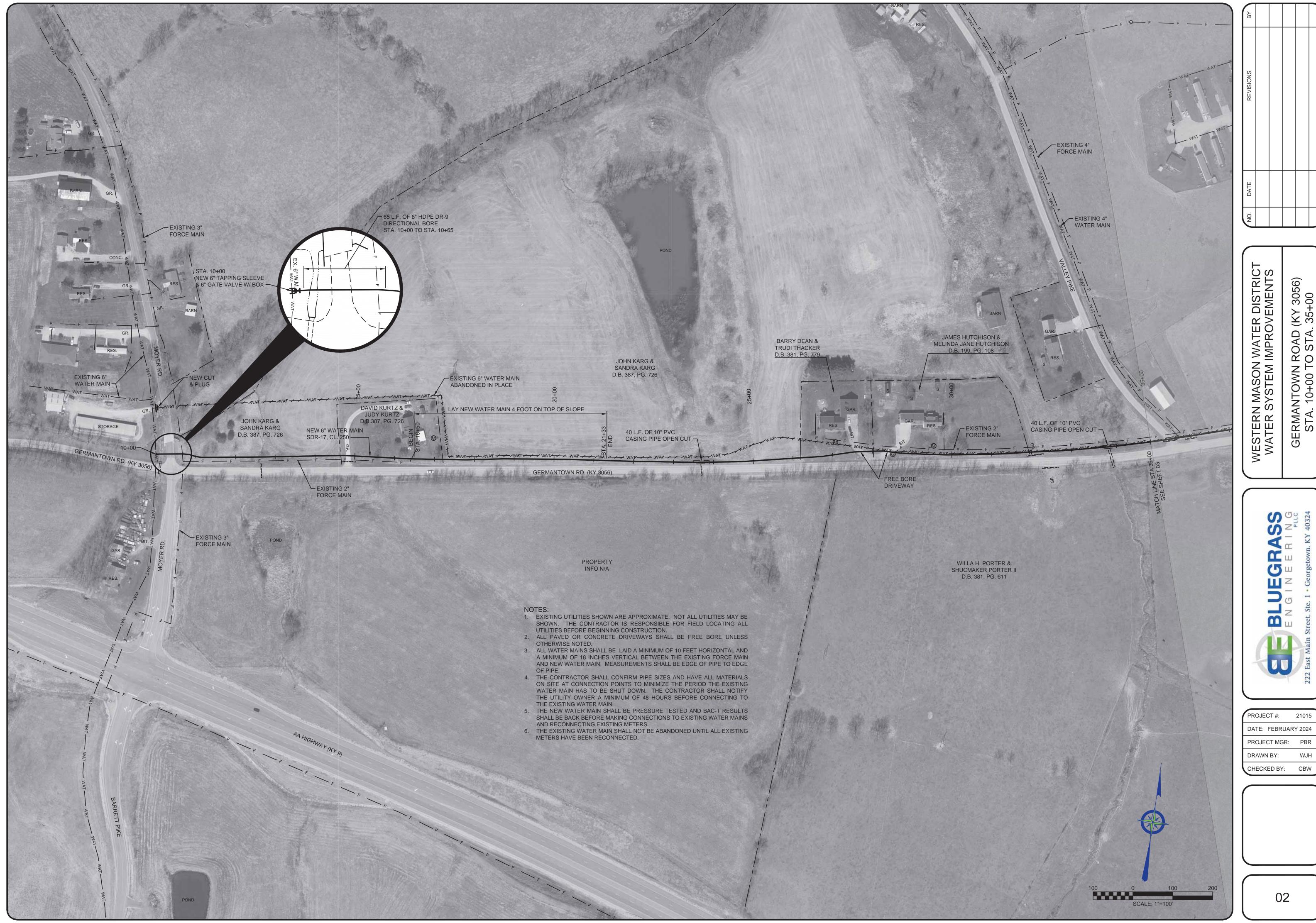


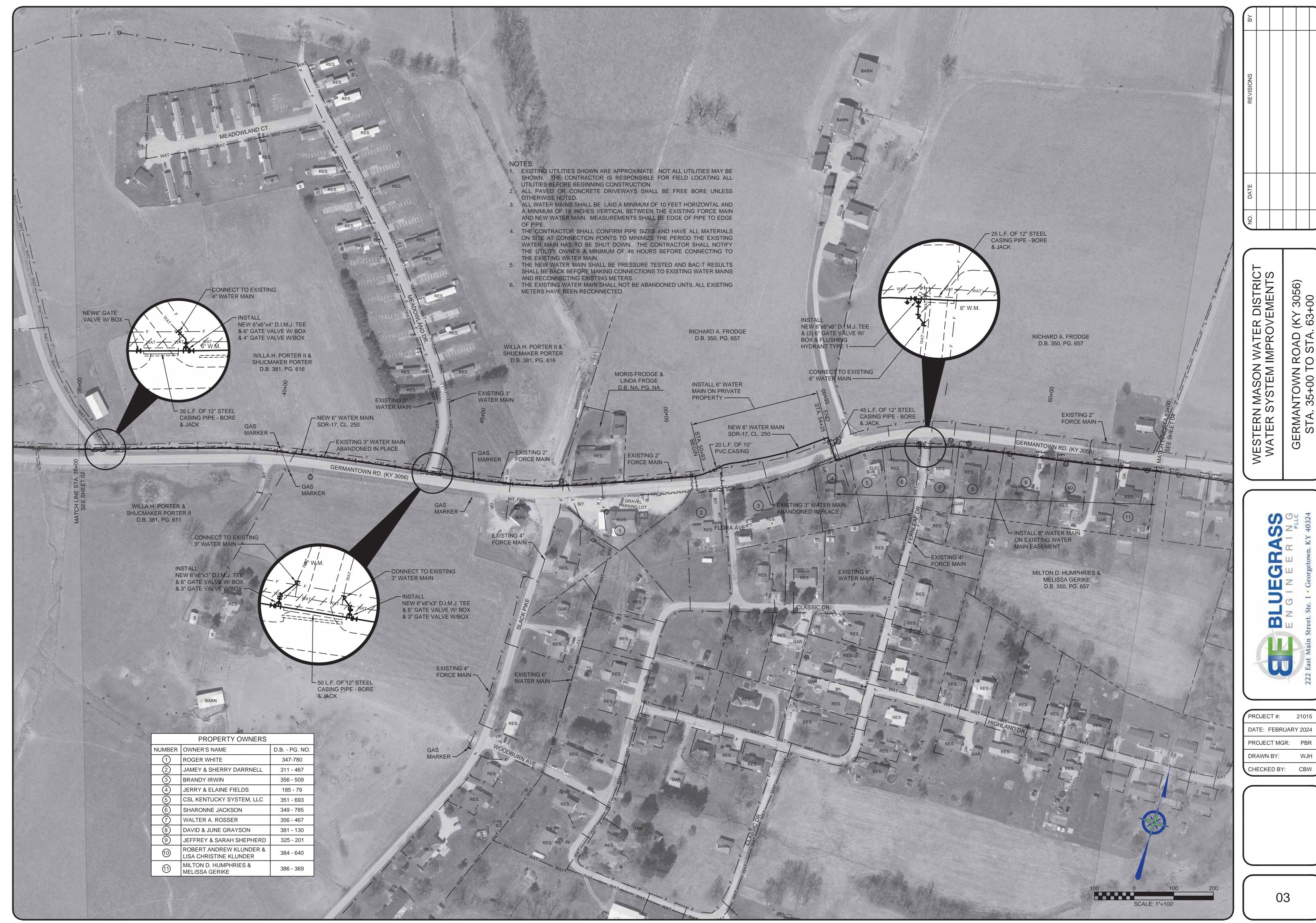
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PROJECT #: DATE: FEBRUARY 2024 PROJECT MGR: PBR DRAWN BY: CHECKED BY: CBW

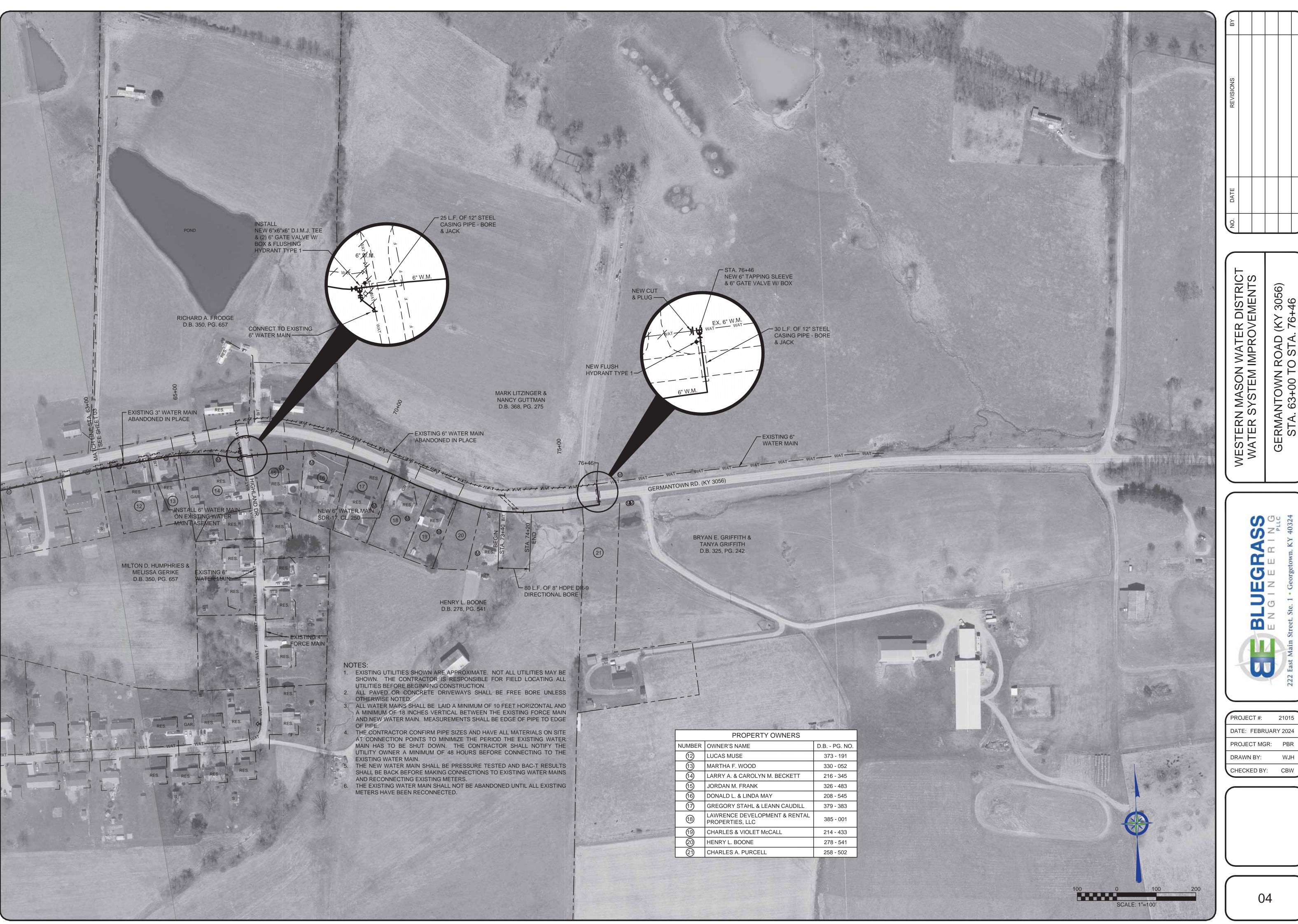






M O

STA. 35+C







WESTERN MASON WATER DISTRICT WATER SYSTEM IMPROVEMENTS

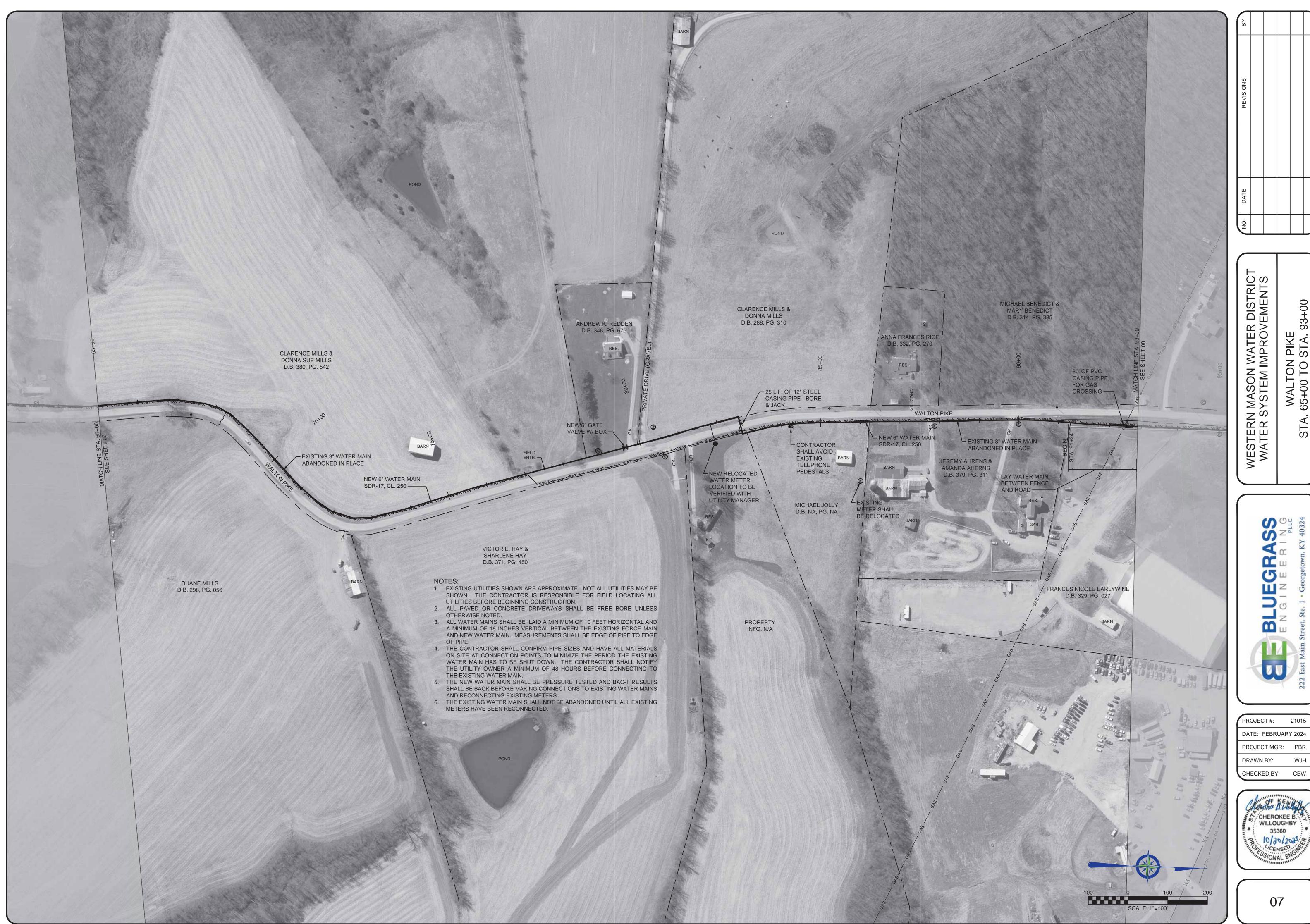
PROJECT #: 21015

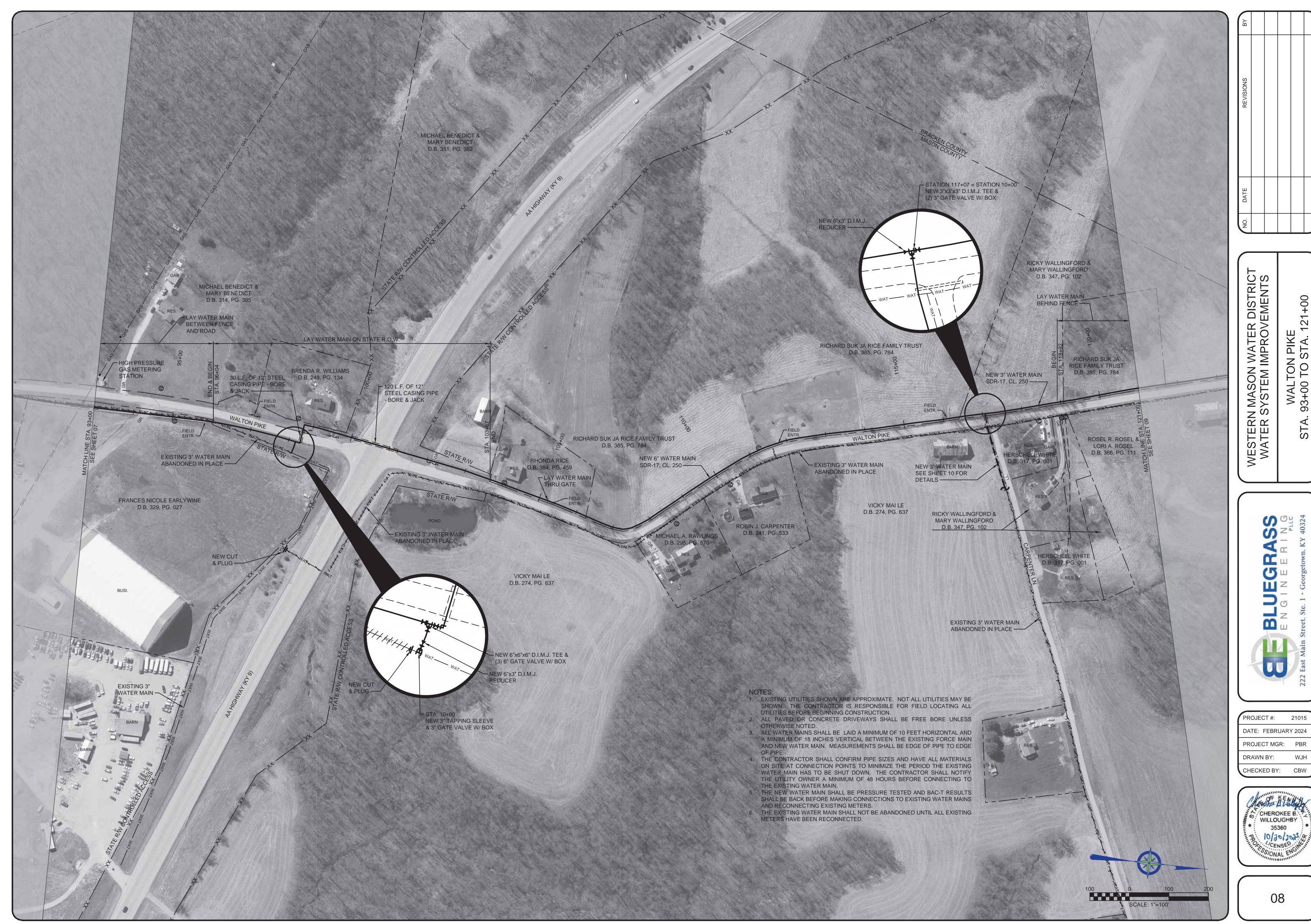
DATE: FEBRUARY 2024

PROJECT MGR: PBR

CHECKED BY: CBW

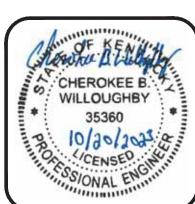
DRAWN BY:







PROJECT #: 21015 DATE: FEBRUARY 2024 PROJECT MGR: PBR DRAWN BY:



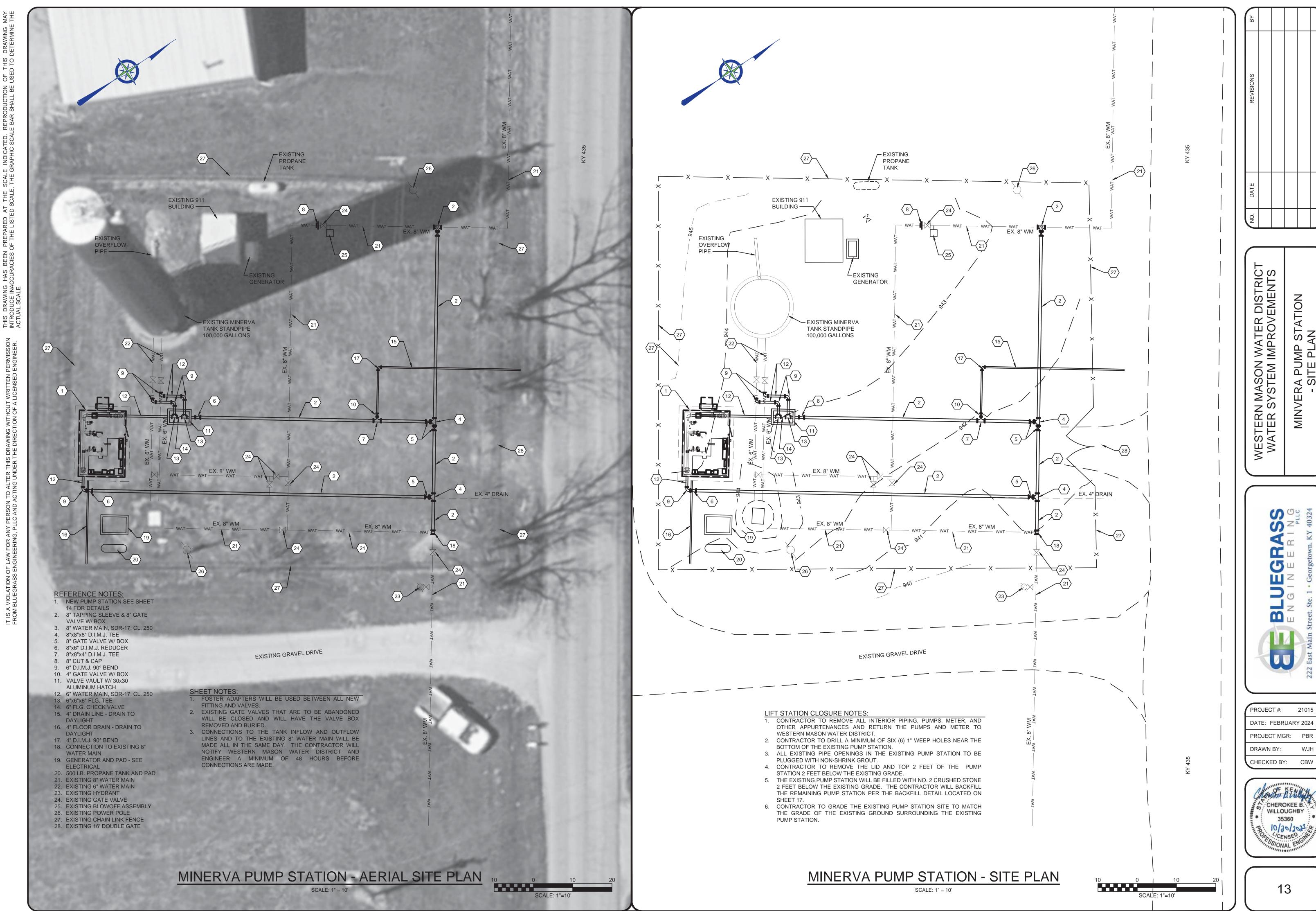


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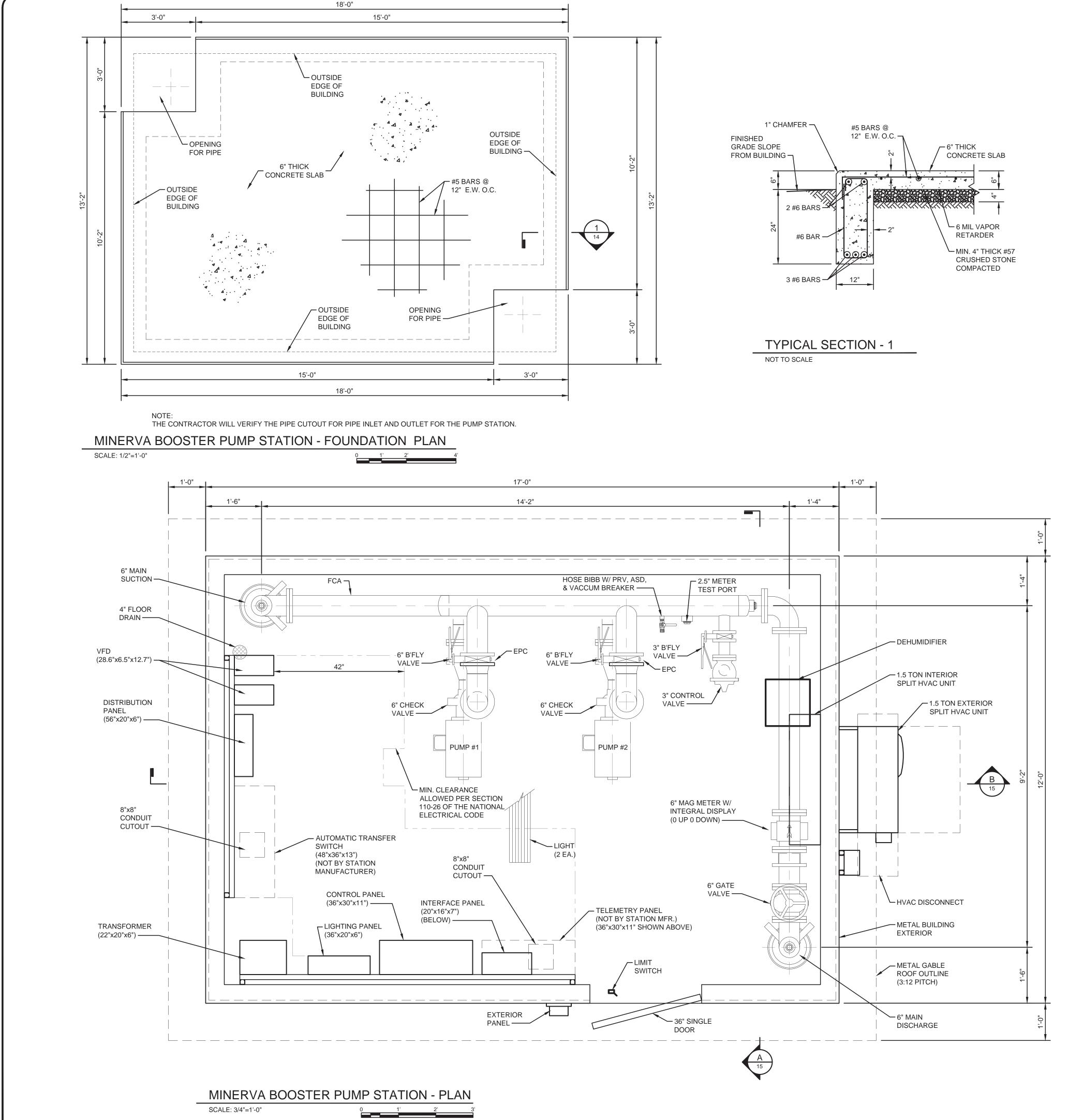
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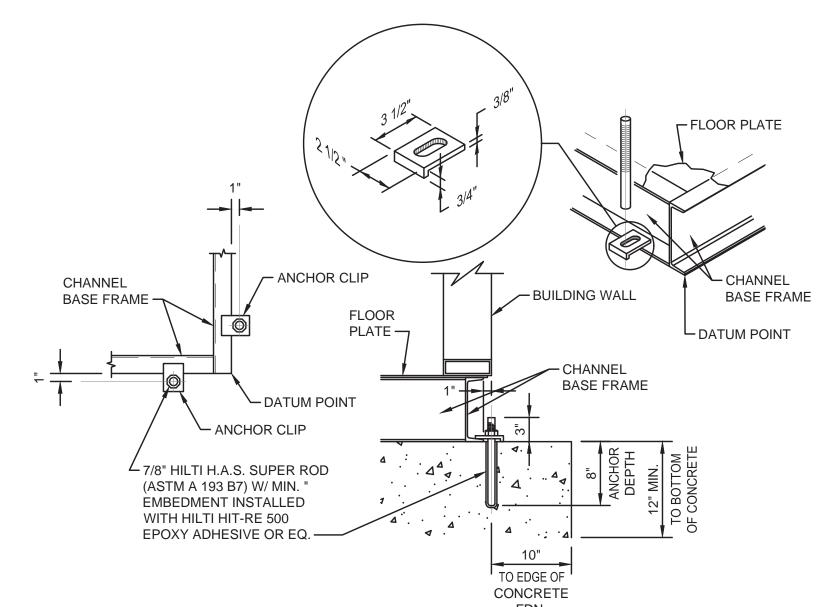
S. 1



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MINVERA PUMP ST - SITE PLAN





BASE FRAME ANCHOR DETAIL CHANNEL FRAMING MEMBERS

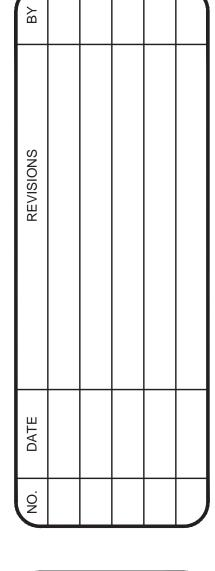
NOT TO SCALE

NOTE

- 1. ANCHOR CLIPS FURNISHED BY E.F.I.
- ANCHOR BOLTS AND NUTS BY INSTALLER.
- 3. FINAL FOUNDATION AND ANCHOR BOLT DESIGN AND DIMENSIONS AS DIRECTED BY ENGINEER (MINIMUMS ARE SHOWN).
- SHIMS MAY BE REQUIRED AROUND PERIMETER OF BASE FRAME FOR
- LEVELNESS AND PROPER DOOR ALIGNMENT IN FRAME.
 5. QUANTITY OF ANCHOR BOLTS SPECIFIED BY ENGINEER.
- 6. 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.

NOTES

- 1. ALL GASKETS SHALL BE THE FULL FACE FLANGE -TYTE® OR RIGHT FLANGE-TYTE® GASKETS WITH THE THREE (3) BULB TYPE RINGS AS MANUFACTURED BY UNITED STATES PIPE AND FOUNDRY COMPANY, LLC ON ALL DUCTILE IRON FLANGED JOINT. THESE GASKETS ARE DESIGNED SPECIFICALLY FOR THE UNIQUE SURFACE OF DUCTILE IRON FLANGES AND FLAT RUBBER GASKETS OR GASKETS WITH A SINGLE RIBBED SIDE ARE NOTE CONSIDERED EQUAL IN PERFORMANCE AND WILL NOT BE ALLOWED.
- 2. PUMP STATION BUILDING SHALL BE METAL.
- 3. SUCTION DIFFUSERS SHALL BE INSTALLED IN 90° FITTINGS ON SUCTION SIDE OF
- 4. DIMENSIONS DO NOT INCLUDE ALLOWANCE FOR FULL FACE GASKETS BETWEEN
- 5. CONTRACTOR TO VERIFY LOCATION AND FINAL SIZE OF ELECTRICAL CONDUITS W/ SUB-CONTRACTOR PRIOR TO CONSTRUCTION
- CONCRETE THRUST BLOCKING AND PIPE STANDS NOT SHOWN FOR CLARITY. CONCRETE THRUST BLOCKING/SUPPORTS SHALL BE PROVIDED AT ALL TEES AND BENDS IN STATION.
- 7. CONCRETE THRUST BLOCKING SHALL BE ANCHORED TO FLOOR SLAB USING REINFORCING BARS AND EPOXY DOWELS PER SPECIFICATIONS.
- 8. PIE STANDS SHALL BE PROVIDED AT LOCATIONS REQUIRED TO PROPERLY SUPPORT THE PIPING AND FITTINGS.
- 9. ALL PIPING AND FITTINGS ON THE DISCHARGE SIDE OF THE PUMP SHALL HAVE CLASS #125 FLANGES. ALL PIPING AND FITTINGS ON THE SUCTION SIDE OF THE PUMPS SHALL HAVE CLASS #125 FLANGES.



WESTERN MASON WATER DISTRICT WATER SYSTEM IMPROVEMENTS



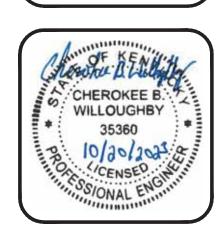
PROJECT #: 21015

DATE: FEBRUARY 2024

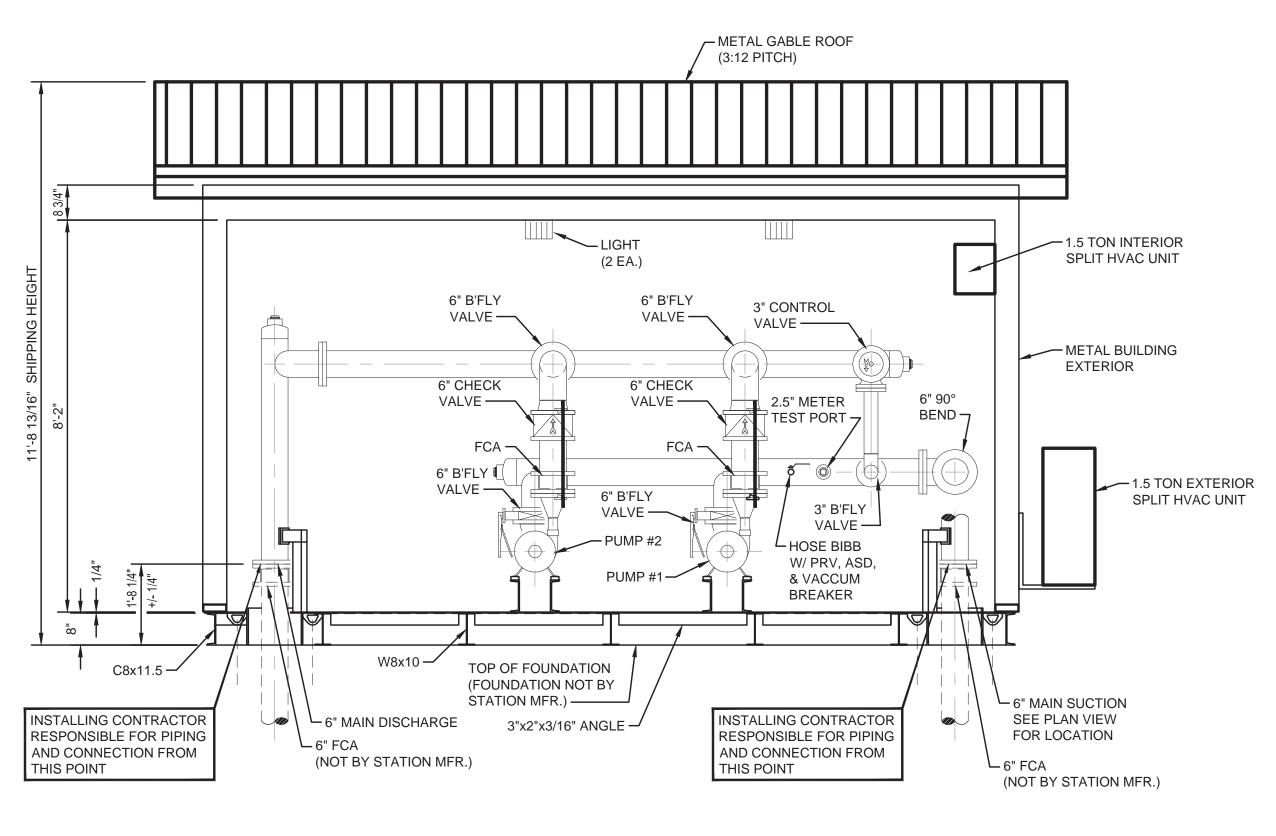
PROJECT MGR: PBR

DRAWN BY: WJH

CHECKED BY: CBW



14



DESIGN CRITERIA

CONTROLS <u>TELEMETRY (NOT BY STATION MFR.)</u> POWER SERVICE: 480 VOLTS, 3 PHASE, 60 CYCLE

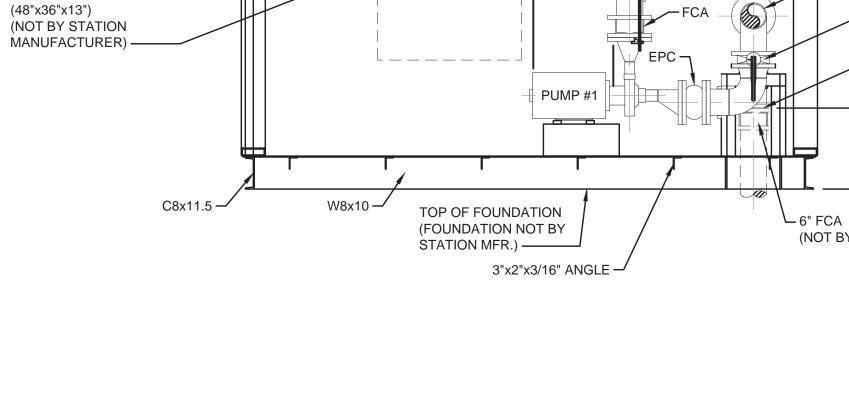
PUMP DATA

TYPE: HORIZ., CLOSE CPLG., END SUCTION

1 & 2
CAPACITY: 250 G.P.M. AT 150 FEET T.D.H.

SIZE: 2" x 2-1/2" X 7"

MOTOR: 15 H.P., 3600 R.P.M.



DISTRIBUTION PANEL

(56"x20"x6") ——

(2 EA.)

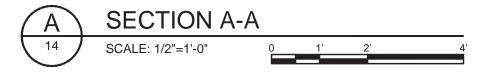
EXTERIOR

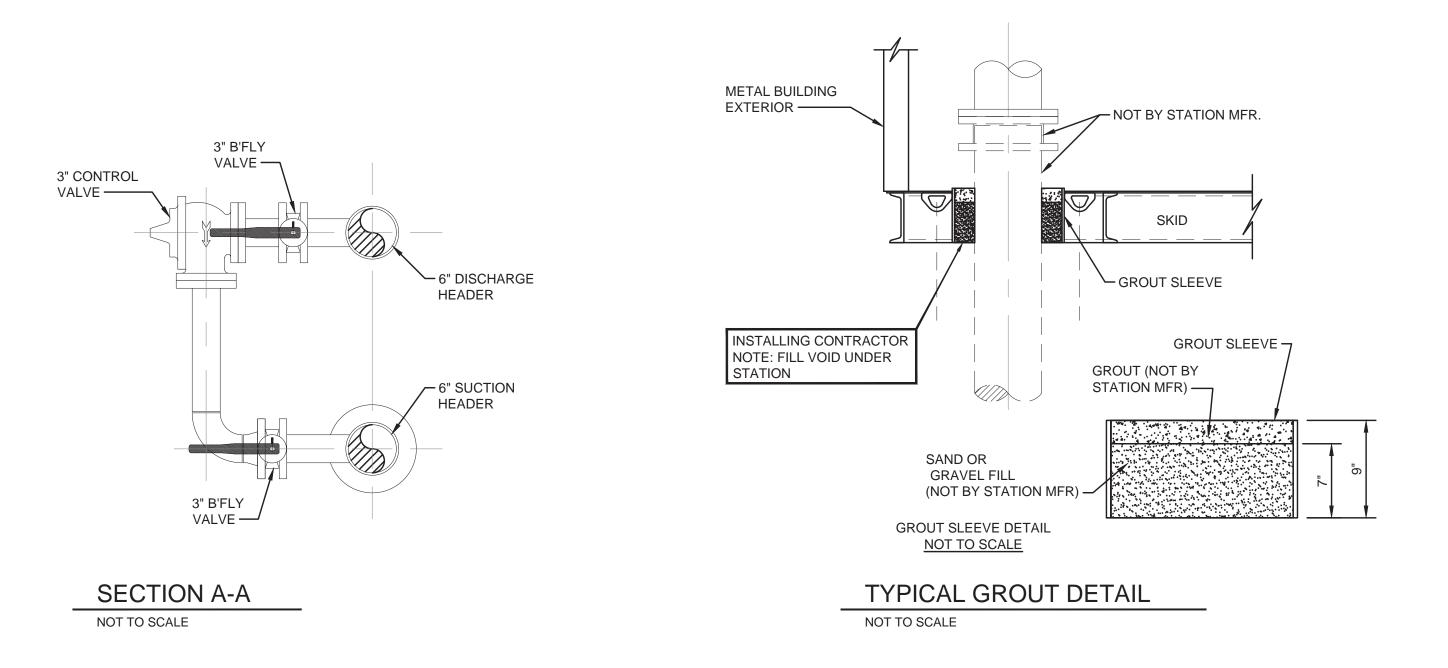
36" SINGLE DOOR ——

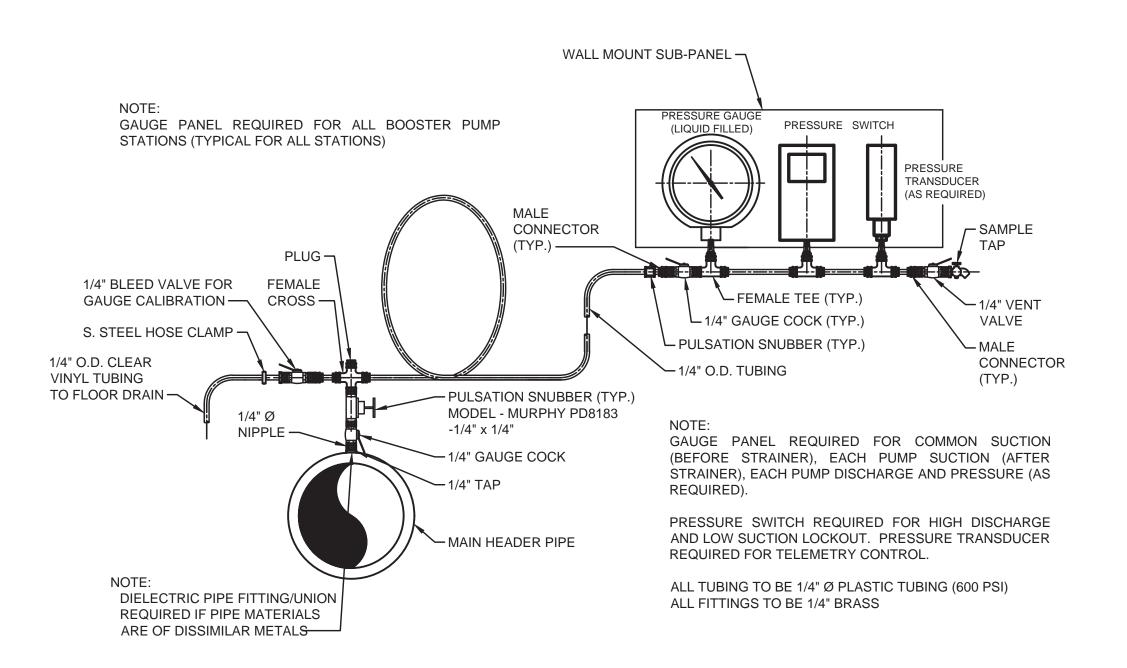
AUTOMATIC TRANSFER

SWITCH

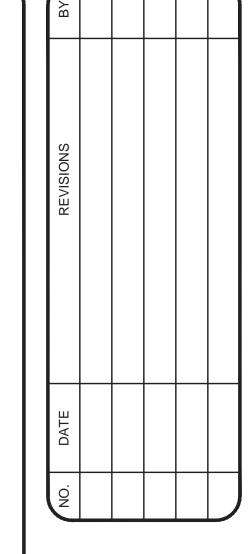
PANEL ——







SUCTION/DISCHARGE GAUGE PANEL NOT TO SCALE



WESTERN MASON WATER DISTRICT WATER SYSTEM IMPROVEMENTS

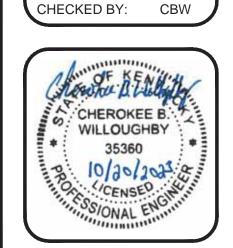
BLUEGRASS
E N G I N E E R I N G
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PLLC
MAT

PROJECT #: 21015

DATE: FEBRUARY 2024

PROJECT MGR: PBR

DRAWN BY: WJH



15

METAL GABLE ROOF (3:12 PITCH)

(28.6"x6.5"x12.7")

__6" B'FLY

VALVE

METAL BUILDING

EXTERIOR

← 6" SUCTION

HEADER

(NOT BY STATION MFR.)

3. CARRIER PIPES SHALL BE RESTRAINED JOINT (GRIP

CASING - DETAIL

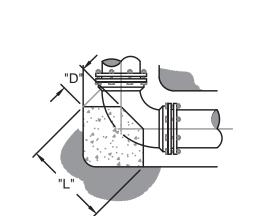
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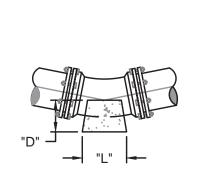
GASKETS, MECHANICAL, YELLOWMITE PIPE, ETC.)

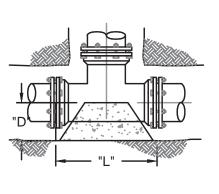
DETAIL - END SEAL

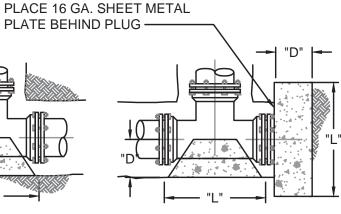
CROSS SECTION

SOIL TYPE - SAND & GRAVEL THRUST BLOCK SCHEDULE BEARING STRENGTH = 3000 PSF 11 1/4°BEND 22 1/2° BEND 90° BEND 45° BEND TEE & DEAD ENDS YDS OF CONCRETE D W L BEARING YDS OF CONCRETE D W L SIZE 3.750 1.000 .06 | 18 | .500 .02 12 6 2.250 .13 7.000 12.250 2.000 20.000 4.000 30.000 2.78 7.500 39.000 | 4.33 | 36 | 78 | 72 | 20.000 | 2.22 36 | 60 | 48 | 10.500 | 1.17 | 36 | 42 | 36 | 6.000 .56 30 36 | 24 | 27.500 | 3.06 | 36 | 66 | 60 3.56 49.000 7.500









 ALL CONCRETE SHALL BE A MIN. OF 3,500 PSI • SEE PLAN SHEETS FOR SIZE, MATERIAL & LOCATION OF PIPE. • SIDES OF ALL TRENCHES TO BE UNDISTURBED SOIL. SEE THIS SHEET FOR BACK FILL DETAILS. • DEPTH "D: MAY NOT BE SMALLER THAN SPECIFIED. • PIERS SHALL BE PLACED AGAINST UNDISTURBED SOIL. PLACE CONCRETE ANCHORS 25' C/C.

> M.J. FITTING(S) SHALL BE WRAPPED IN PLASTIC WRAP GRIP RINGS SHALL BE USED ON ALL FITTINGS

90° & 45° BENDS

 $\frac{1}{4}$ " x 3" S.S. STAP DRILLED

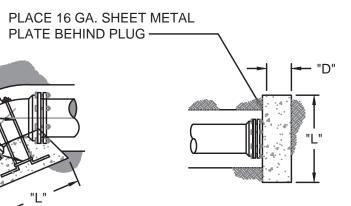
VERTICAL BENDS

3" Ø S.S. ANCHOR BOLTS W. NUTS

TO ACCOMMODATE

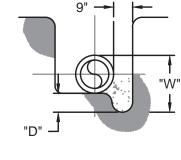
ANCHOR BOLTS

22.5° & 11.25° BENDS



END OF MAIN

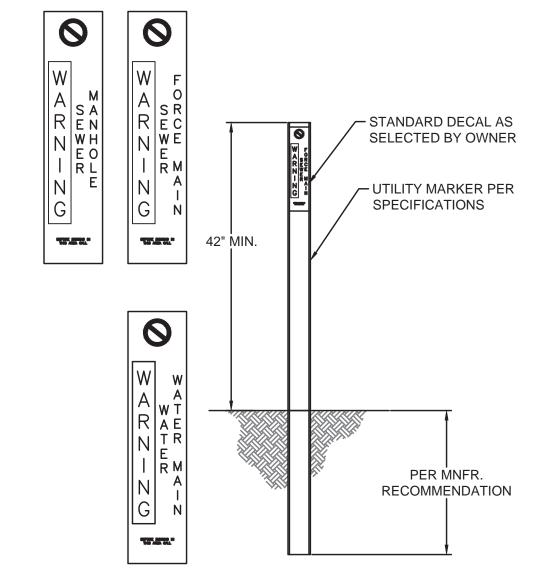
TEES



TYP. SECTION

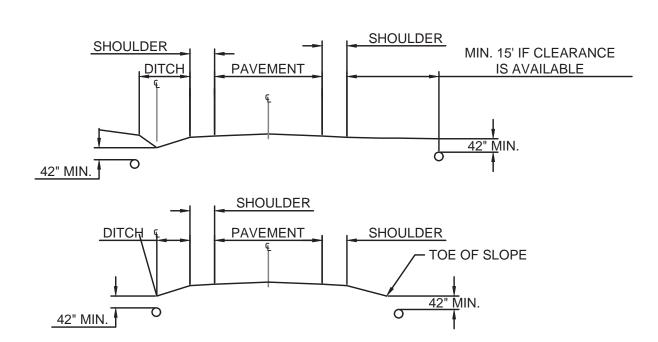
CONCRETE THRUST BLOCK - DETAIL

NOT TO SCALE



NOT TO SCALE

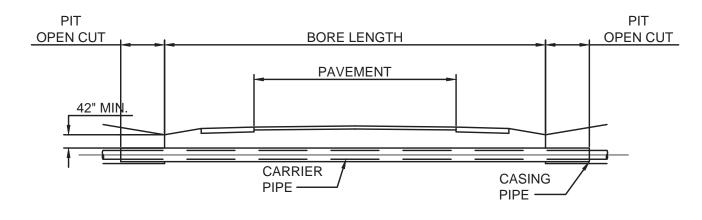
UTILITY MARKER - DETAIL



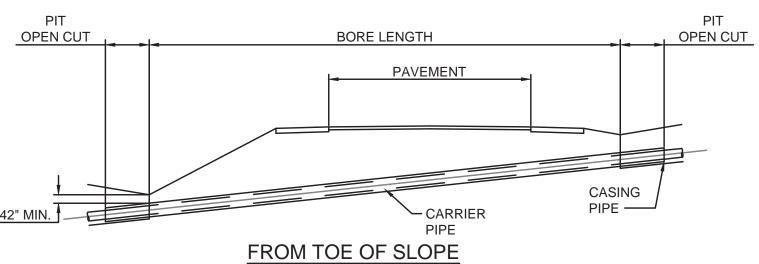
UTILITY PIPELINE WITHIN KTC ROW - DETAIL NOT TO SCALE

NOTE:

- 1. ALL JOINTS OF STEEL CASING SHALL BE SOLIDLY WELDED. END OF CASING SHALL BE SEALED AFTER LINE HAS BEEN INSTALLED AND TESTED.
- 2. MINIMUM DEPTHS MAY INCREASE IN AREAS WHICH REQUIRE MINIMUM SEPARATION WITH OTHER FACILITIES.
- 3. OPEN TRENCH NO CLOSER THAN THE DITCHLINE OR TOE OF FILL FROM THE EGDE OF THE PAVEMENT OR AS DIRECTED BY THE SPECIFICATIONS.
- 4. HIGHWAY CROSSINGS SHALL UTILIZE STEEL CASING PIPE. STEEL CASING PIPES WALL THICKNESS & DIAMETER PER SPECIFICATIONS. ALL BORED AND JACKED ENCASEMENT PIPE SHALL BE INSTALLED IN BORE HOLES NO LARGER THEN THE OUTSIDE DIA-METER OF THE ENCASEMENT PIPE.
- 5. SEE CASING SPACER DETAIL FOR PLACEMENT OF SPACER.



OFFSET FROM EDGE OF PAVEMENT



KTC CROSSING - DETAIL

NOT TO SCALE

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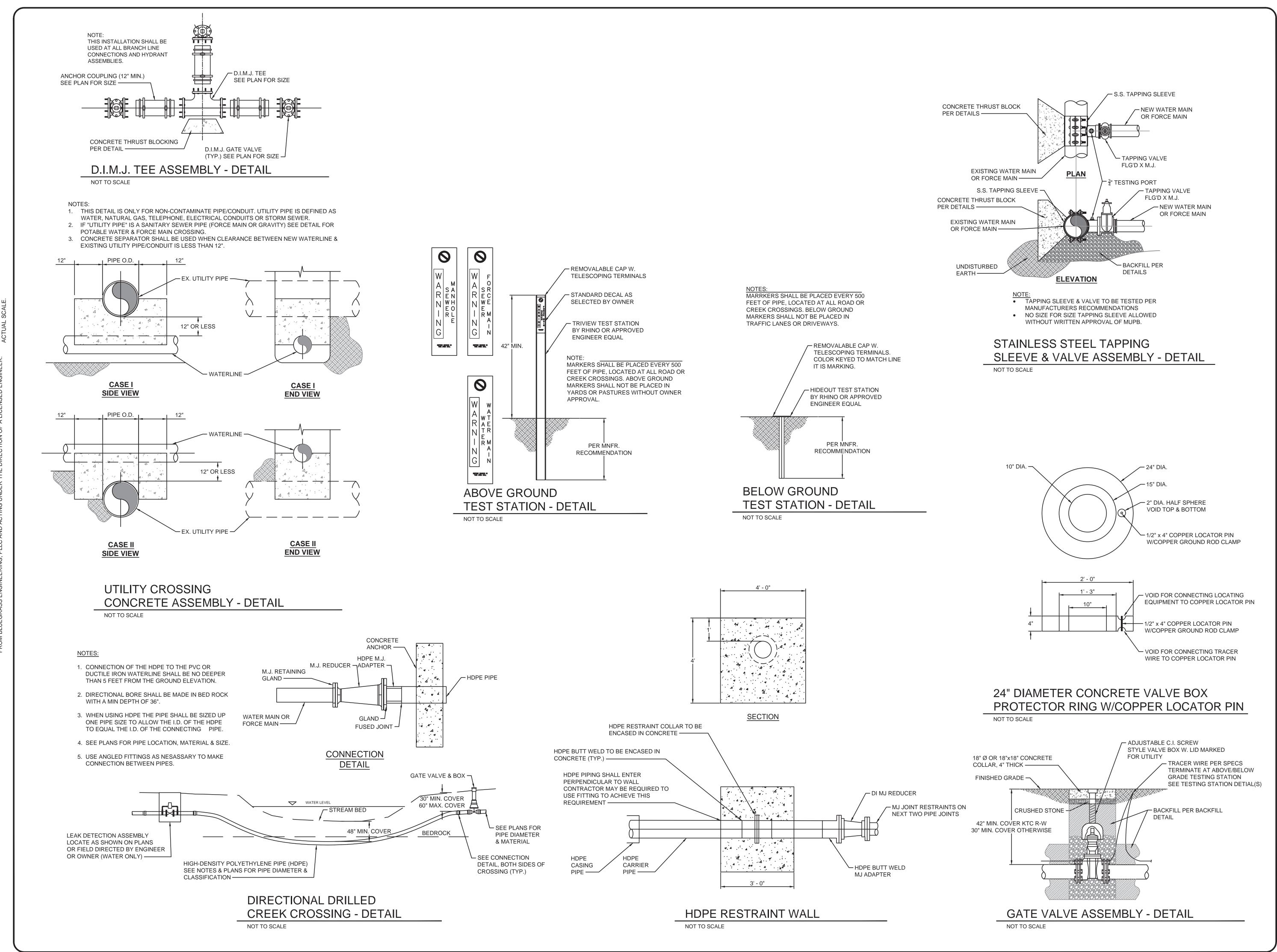
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PROJECT #: DATE: FEBRUARY 2024 PROJECT MGR: PBR DRAWN BY: CHECKED BY: CBW





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PROJECT #: 21015

DATE: FEBRUARY 2024

PROJECT MGR: PBR

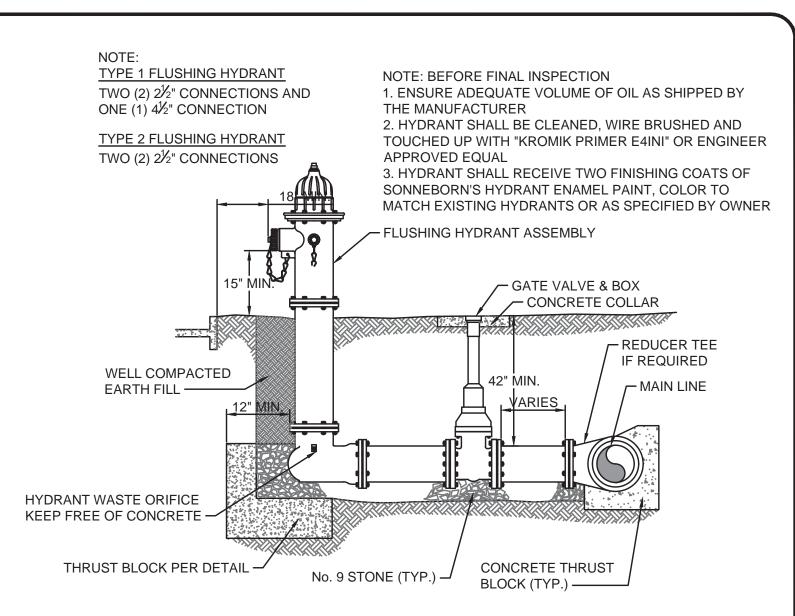
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CHEROKEE B. WILLOUGHBY

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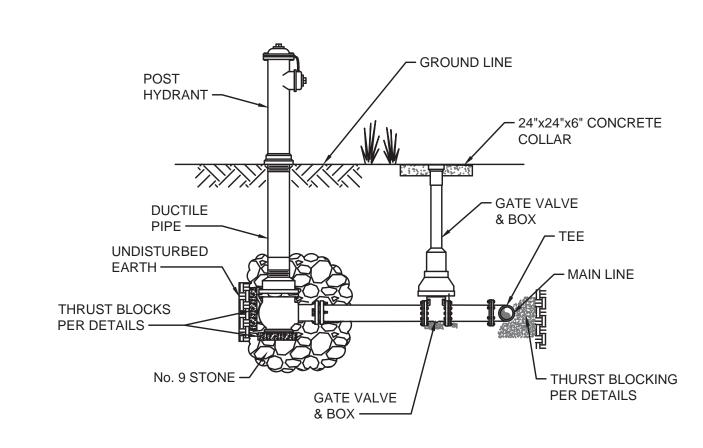
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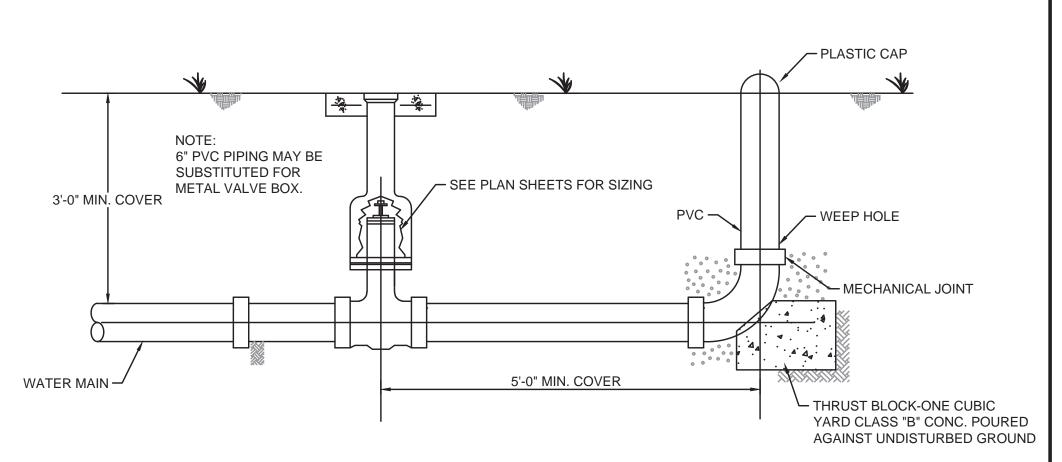
FLUSHING HYDRANT ASSEMBLY TYPE 1 & 2 - DETAIL

NOT TO SCALE



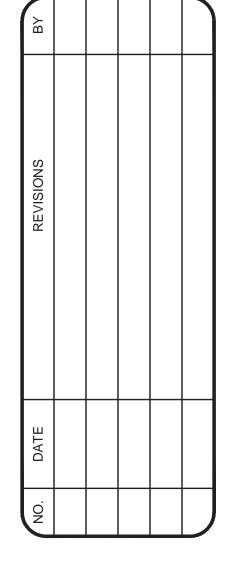
FLUSHING HYDRANT ASSEMBLY, TYPE 3 - DETAIL

NOT TO SCALE



E.O.L. 2", 3", OR 4" UNDERGROUND BLOWOFF ASSEMBLY

NOT TO SCALE



WESTERN MASON WATER DISTRICT
WATER SYSTEM IMPROVEMENTS
STANDARD DETAILS - WATER LINES



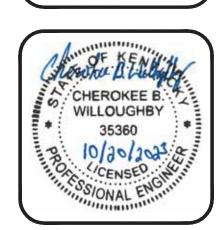
PROJECT #: 21015

DATE: FEBRUARY 2024

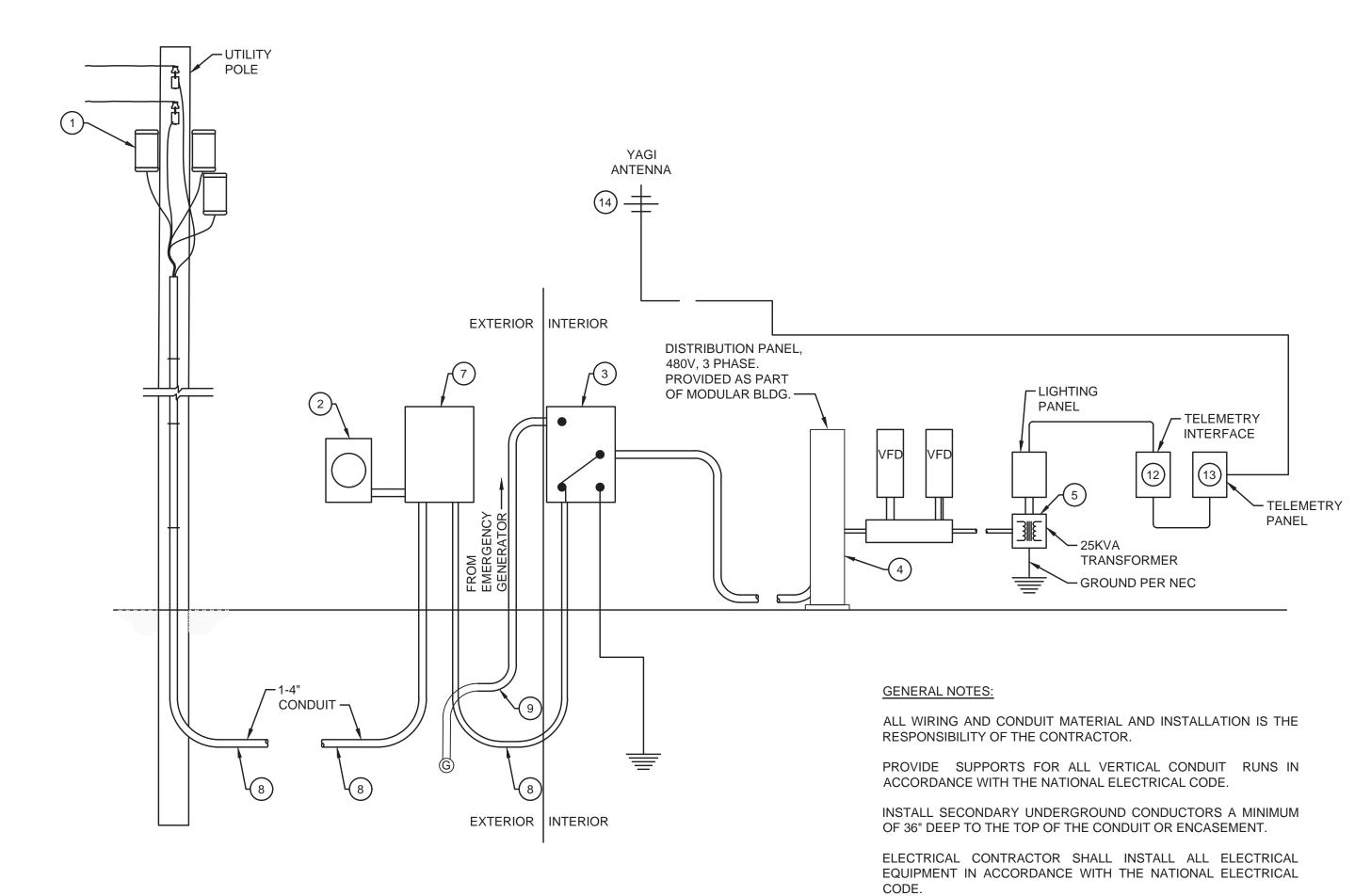
PROJECT MGR: PBR

DRAWN BY: WJH

CHECKED BY: CBW



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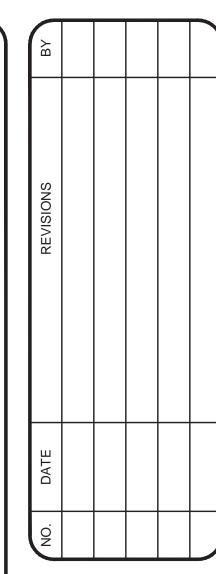
SECONDARY CONDUIT DUCT BANK INSTALLATION DETAIL

NOT TO SCALE

	ELECTRICAL REQUIREMENTS								
LOCATION	PUMPS	MAIN SERVICE	TRANSFER SWITCH	PRIMARY FEED	TRANSFORMER	DISCONNECT	TELEMETRY		
MINERVA	15 HP	200 AMP 480V 3 PHASE 4 - WIRE	ATS - 200 AMP / 480V 3 PHASE 3 POLE	4" CONDUIT QUAD PLEX #250 MCM WIRE	DRY 25KVA - 200 AMP SINGLE PHASE	3-FUSED DISCONNECT 2-100 AMP PER DRIVE 1-60 TRANSFORMER	NONE		

CODED NOTES:

- 1. UTILITY TRANSFORMERS. PROVIDED AND INSTALLED BY UTILITY COMPANY AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE UTILITY COMPANY FOR CONNECTION CONSTRUCTION REQUIREMENTS.
- UTILITY METER. COORDINATE WITH THE UTILITY COMPANY FOR METERING REQUIREMENTS.
- 3. TRANSFER SWITCH. SERVICE ENTRANCE RATED. AUTOMATIC. PROVIDED AS PART OF THE BUILDING.
- 4. MAIN DISTRIBUTION TRAY. PROVIDED AS PART OF THE BUILDING. PANEL WILL INCLUDE BREAKERS AND SURGE PROTECTION.
- 5. STEP-DOWN TRANSFORMER.
- 6. LIGHTING PANEL. 120/240V SINGLE PHASE, PROVIDED AS PART OF THE BUILDING. PANEL WILL INCLUDE BREAKERS
- 7. CT CABINET, COORDINATE WITH UTILITY COMPANY.
- 8. 4 #250 MCM, 1/0 IN 4" CONDUIT.
- 9. 4 #250 MCM, 1/0 IN 4" CONDUIT.
- 10. NOT USED
- 11. NOT USED
- 12. TELEMETRY INTERFACE PANEL.
- 13. TELEMETRY PANEL 36"Hx36"Wx12"D
- 14. YAGI ANTENNA PLACED PER MANUFACTURERS RECOMMENDATION.



WESTERN MASON WATER DISTRIC WATER SYSTEM IMPROVEMENTS



PROJECT #: 21015

DATE: FEBRUARY 2024

PROJECT MGR: PBR

DRAWN BY: WJH

CHECKED BY: CBW



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