

GILLETTE MADISON PIPELINE PROJECT CITY OF GILLETTE, WY PINE RIDGE POTABLE WATERLINE

8"/12" TREATED WATER PIPELINE

PROJECT LOCATION

CITY PROJECT NO. 07EN58 - CONTRACT #4B

EXHIBIT A CONSTRUCTION DRAWINGS 24 TOTAL SHEETS

OWNER/DEVELOPER:

CITY OF GILLETTE MIKE COLE, PE 611 N. EXCHANGE AVE. GILLETTE, WY 82716 307-686-5262 (PHONE) 307-686-6564 (FAX)

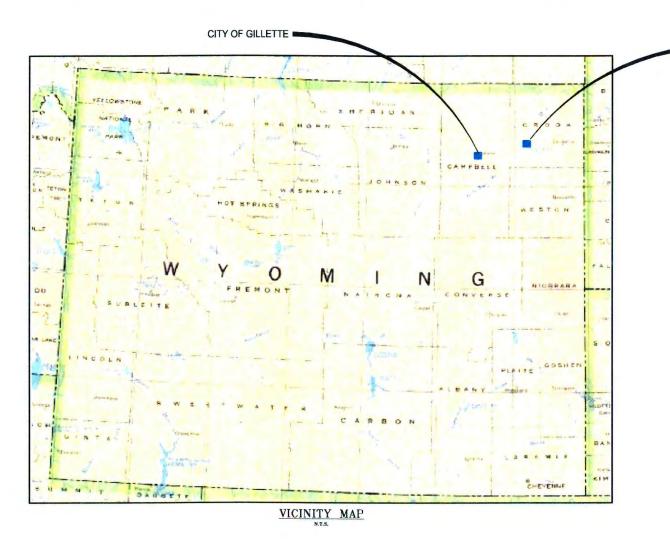
ENGINEER:

BURNS & MCDONNELL ENGINEERING DAN KORINEK, PE 9785 MAROON CIRCLE SUITE 400 CENTENNIAL, CO 80112 303-721-9292 (PHONE) 303-721-0563 (FAX)

MORRISON MAIERLE INC. CASEY HANSON, PE 315 N. 25TH ST. SUITE 102 BILLINGS, MT 59101 406-656-6000 (PHONE) 406-237-1201 (FAX)

GENERAL CONTRACTOR:

S.J. LOUIS CONSTRUCTION, INC. A 1351 BROADWAY STREET P.O. BOX 459 ROCKVILLE, MN 56369-0459 320-253-9291 (PHONE) 320-253-3533 (FAX)

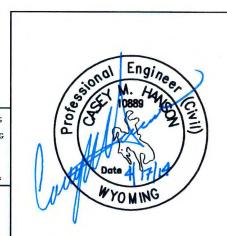


ISSUED FOR CONSTRUCTION

MORRISON MAIERLE, INC. QUALITY ASSURANCE 4/17/2014 Q.A.Approval Date 00211.13-12 Q.A.Project No.

CALL BEFORE YOU DIG ONE-CALL OF WYOMING 1-800-849-2476

NORTHING: 1432666.53 EASTING: 737555.6 ELEVATION: 4472.98



CS-1

PROJECT

PIPELINE

MADISON

GILLETTE

SHEET

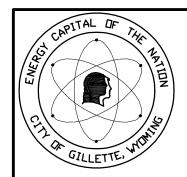
COVER

AUTHORIZED BY:

STEVEN L. PETERSON, P.E.

DATE

4/18/14



GILLETTE MADISON PIPELINE PROJECT CITY OF GILLETTE, WY

CONTRACT DRAWINGS

EXHIBIT A 8"/12" TREATED WATER PIPELINE CONSTRUCTION DRAWINGS 24 TOTAL SHEETS



PIPELINE PROJECT

INDEX SHEET

MADISON

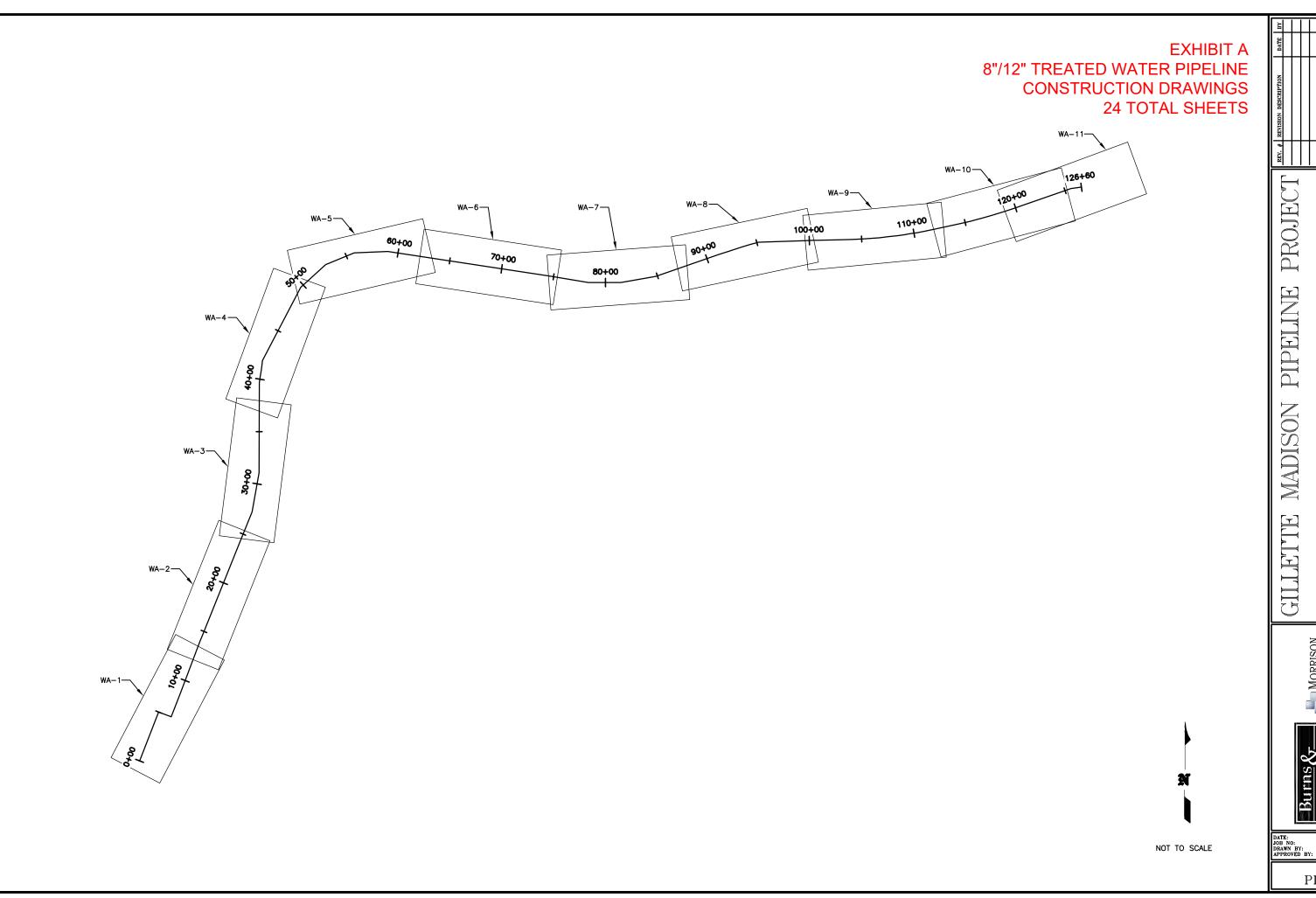
MORRISON MAIERLE, INC.

 $\frac{\mathrm{Burns}}{\mathrm{McDonnell}}$

IS-1

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WATERLINE | SHEET POTABLE V PINE RIDGE PROJECT

MORRISON MAIERLE, INC.

PL-1

EXISTING LINETYPES, SYMBOLS, AND HATCH PATTERNS HIGHWAY R-O-W MONUMENT STORM SEWER MANHOLE ---T/E---T/E---TEMPORARY EASEMENT ----P/E----P/E--- PERMANENT EASEMENT FOUND BRASS CAP GRATED STORM INLET \boxtimes TYPE "B" INLET FOUND REBAR FOUND REBAR WITH CAP SANITARY SEWER MANHOLE **©** — w—— w—— WATER LINE FOUND IRON PIPE CLEAN OUT WATER SERVICE SET REBAR WITH CAP GAS VALVE GAS METER SWALE/FLOWLINE FOUND SECTION CORNER STREET LIGHT FOUND 1/4 CORNER :---- CULVERT GUY WIRE ANCHOR FOUND 1/16 CORNER POWER POLE - OP - OVERHEAD POWER (1ø) BENCHMARK POWER POLE W/LIGHT REFERENCE MONUMENT POWER POLE W/GUY CA CABLE TV RISER POWER POLE W/TRANSFORMER TELEPHONE RISER — UP — UP — UNDERGROUND POWER (10) CAPACITOR BANK $\langle \mathbb{W} \rangle$ GAS LINE WATER METER PIT GANG SWITCH --- T---- T--- PHONE LINE FIRE HYDRANT COMMON SWITCH — FO — FO — FIBER OPTIC GATE VALVE FUSED SWITCH TRANSFORMER SINGLE PHASE CABLE TV CURB STOP — CA —— CA — HEDGE/TREE LINE $\wedge \wedge$ TRANSFORMER 3 PHASE PROPERTY/R-O-W LINE SUBDIVISION BOUNDARY VARIABLE FREQUENCY INTERUPT — — — — BUILDING SETBACK LINE ELECTRICAL VAULT M ---- FASEMENT LINE ELECTRICAL METER CABINET GUARDRAIL ELECTRICAL METER CHAINLINK FENCE LINE OCB OVERCURRENT BAY BARBED WIRE FENCE LINE SWITCH CABINET Ε PRIVACY FENCE STREET LIGHT PEDISTAL METAL FENCE LINE SECONDARY PEDISTAL MAJOR (10') CONTOUR LINE JUNCTION BOX SINGLE PHASE - - CONTOUR-TEXT- - -MINOR (2') CONTOUR LINE JUNCTION BOX THREE PHASE E TOWNSHIP LINE FIBER OPTIC PEDISTAL QUARTER SECTION LINE FIBER OPTIC VAULT SIXTEENTH SECTION LINE SPRINKLER HEAD STRUCTURE 9 IRRIGATION CONTROL CONIFEROUS TREE DECIDUOUS TREE **BUSH** 1 POLE SIGN BOREHOLE **DIMENSIONS** MONITORING WELL MATCH LINE STA 129+50 TRAFFIC SIGNAL ** Color-based Style table: COG 11x17.ctb ** ** Named Style table: COG 11x17.stb **

PROPOSED LINETYPES, SYMBOLS, AND HATCH PATTERNS

—т/E—т/E—	TEMPORARY EASEMENT
—Р/Е——Р/Е—	PERMANENT EASEMENT
——— SA ———	SANITARY SEWER
SS	SANITARY SEWER SERVICE
w	WATER LINE
——ws——ws——	WATER SERVICE
sw	STORM SEWER
	SWALE/FLOWLINE
	CULVERT
—— ОР——	OVERHEAD POWER (3ø)
OP	OVERHEAD POWER (10)
UP	UNDERGROUND POWER (3ø)
UP	UNDERGROUND POWER (1ø)
——— EC ———	ELECTRICAL CONDUIT
——— GAS ———	GAS LINE
— т — т —	PHONE LINE
— F0 — F0 —	FIBER OPTIC
—— CA ——— CA ——	CABLE TV
	PROPERTY/R-O-W LINE
<u> </u>	SUBDIVISION BOUNDARY
	BUILDING SETBACK LINE
	EASEMENT LINE
	GUARDRAIL
	CHAINLINK FENCE LINE
xx	BARBED WIRE FENCE LINE
	PRIVACY FENCE
	METAL FENCE LINE
	MAJOR (10') CONTOUR LINE
	MINOR (2') CONTOUR LINE
	LIMITS OF CONSTRUCTION

CA	CABLE TV RISER			
Т	TELEPHONE RISER			
₩	WATER METER PIT			
Ф	FIRE HYDRANT			
	GATE VALVE			
_	BUTTERFLY VALVE			
	CURB STOP			
	CAP (END OF LINE PLUG)			
	REDUCER			
_				
(SW)	STORM SEWER MANHOLE			

	(SW)	STORM SEWER MANHOLE
		GRATED STORM INLET
	\boxtimes	TYPE "B" INLET
	(SA)	SANITARY SEWER MANHOLE
	©	CLEAN OUT
	(G)	GAS VALVE
	G	GAS METER
PLUG)	\Rightarrow	STREET LIGHT
	\circ	GUY WIRE ANCHOR
IHOLE	Ø	POWER POLE
	ϕ Ø	POWER POLE W/LIGHT
	© Ø	POWER POLE W/GUY
		POWER POLE W/TRANSFORMER
	CAP	CAPACITOR BANK
	7	GANG SWITCH
	*	COMMON SWITCH
	\$ *	FUSED SWITCH
		TRANSFORMER SINGLE PHASE
	/ \/\	TRANSFORMER 3 PHASE
	VFI	VARIABLE FREQUENCY INTERUP
		ELECTRICAL VAULT
	\bigcirc	ELECTRICAL METER CABINET
	(E)	ELECTRICAL METER
	OCB	OVERCURRENT BAY
	7.	SWITCH CABINET
	E	STREET LIGHT PEDISTAL
	Ε	SECONDARY PEDISTAL
	212	JUNCTION BOX SINGLE PHASE
		JUNCTION BOX THREE PHASE
	E	FIBER OPTIC PEDISTAL
	F	FIBER OPTIC VAULT
	\$	SPRINKLER HEAD
	\$	IRRIGATION CONTROL
	*	CONIFEROUS TREE
		DECIDUOUS TREE
	\circ	BUSH
	0	1 POLE SIGN
	→ BH	BOREHOLE



PROJECT

SHEE

LEGEND

PIPE

MONITORING WELL

TRAFFIC SIGNAL



NL-1

PROPOSED CONTOUR TEXT = MAJOR (10') INTERVAL EXISTING CONTOUR TEXT = MAJOR (

(TEXT WITDTH CAN VARY FROM 0.75 TO 1.0)

DETAIL VIEW, DIST./BRG. TEXT

PROPOSED STREET NAME TEXT

PROPOSED LABEL TEXT & DIMENSION TEXT EXISTING LABEL TEXT & ALIGNMENT STATION LABEL

- SF - SF - SILT FENCE

DETAIL, LEGEND & TABLES TEXT

FXISTING CONTOUR TEXT = MINOR (2') INTERVAL

PROPOSED CONTOUR TEXT = MINOR (2') INTERVAL

MINIMUM TEXT SIZE = SPOT ELEVATION LABELS

GENERAL NOTES-CONSTRUCTION:

- ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP, SHALL CONFORM TO THE LATEST "STANDARD CONSTRUCTION SPECIFICATIONS" CITY OF GILLETTE, WYOMING UNLESS SUPERSEDED BY THESE DRAWINGS AND SPECIFICATIONS. COPIES OF THE CITY OF GILLETTE'S STANDARDS AND SPECIFICATIONS MAY BE OBTAINED FROM THE CITY'S WEB SITE AT HTTP://WWW.CI.GILLETTE.WY.US.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE CITY OF GILLETTE OR THEIR REPRESENTATIVES. THE CITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO CITY STANDARDS AND
- 3. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF THE IMPROVEMENTS FOR A MINIMUM OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION/CONSTRUCTION ACCEPTANCE OF THE IMPROVEMENTS BY THE CITY OF GILLETTE. ANY FAILURE DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF GILLETTE AT NO EXPENSE TO THE CITY.
- CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES AT LEAST ONE (1) SIGNED AND
- STAMPED BY THE DESIGN ENGINEER, COPY OF PLANS ACCEPTED BY THE CITY OF GILLETTE.

 5. DURING THE COURSE OF CONSTRUCTION OF THE PROJECT THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGGERS, OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS. THE CITY AND THE ENGINEER EXERCISE NO CONTROLS OVER THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENTS, SCAFFOLDING, FORMS, OR OTHER WORK AIDS USED IN OR ABOUT THE PROJECT, OR IN THE SUPERINTENDING OF THE SAME. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN ENGINEER, OR THE CITY. THE CITY OF GILLETTE ENGINEERING STAFF, OR ANY CONTRACTED ENGINEER, ARE NOT RESPONSIBLE FOR SAFETY IN, ON OR ABOUT THE PROJECT SITE, NOR FOR COMPLIANCE BY THE APPROPRIATE PARTY OF ANY REGULATIONS RELATING THERETO.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE CITY OF GILLETTE AT LEAST TWO (2) FULL WORKING DAYS IN ADVANCE FOR OBSERVATIONS OF WORK IN PROGRESS. OBSERVATIONS AND ON-SITE VISITS ARE NOT TO BE CONSTRUED AS A GUARANTEE BY THE CITY OF THE CONTRACTORS CONTRACTUAL COMMITMENT. IF WORK IS SUSPENDED FOR ANY PERIOD OF TIME AFTER INITIAL START-UP, THE CONTRACTOR SHALL NOTIFY THE CITY OF GILLETTE TWO (2) FULL WORKING DAYS PRIOR TO RESTART.
- ALL KNOWN SEWERS, WATER MAINS, GAS MAINS, TELEPHONE CONDUITS, ELECTRIC CABLES, AND OTHER UNDERGROUND STRUCTURES ARE SHOWN ON THE DRAWINGS ONLY TO THE EXTENT SUCH INFORMATION HAS BEEN MADE AVAILABLE TO OR DISCOVERED BY THE ENGINEER. IT IS EXPECTED THAT THERE MAY BE DISCREPANCIES AND OMISSIONS IN THE LOCATION AND QUANTITIES OF UTILITIES AND STRUCTURES SHOWN. THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, BUT IS NOT GUARANTEED TO BE EITHER CORRECT OR COMPLETE, AND ALL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS THEREOF EXPRESSLY DISCLAIMED. THE CONTRACTOR SHALL MAKE SUCH INVESTIGATION AS NECESSARY TO VERIFY ITS CORRECTNESS AND COMPLETENESS.
- 8. THE CONTRACTOR SHALL, AHEAD OF EXCAVATION, LOCATE ALL UNDERGROUND UTILITIES AND STRUCTURES SO THAT THEY WILL NOT BE DAMAGED BY CONSTRUCTION OPERATION CONTRACTOR SHALL CONTACT THE ONE CALL OF WYOMING AT 811 (1-800-849-2476) AT LEAST 48 HOURS BEFORE CONSTRUCTION INCLUDING ANY DIGGING, GRADING, OR EXCAVATING TO HAVE THE UNDERGROUND UTILITIES LOCATED AND MARKED. ANY CONFLICTS SHALL BE BROUGHT TO THE OWNER'S ATTENTION PRIOR TO BEGINNING ANY CONSTRUCTION.
- WHEN IT IS NECESSARY TO TEMPORARILY DENY ACCESS BY OWNERS OR TENANTS TO THEIR PROPERTY, OR WHEN ANY UTILITY SERVICE MUST BE INTERRUPTED, CONTRACTOR SHALL WRITE AND DELIVER NOTICES TO EACH OF THE AFFECTED CUSTOMERS. ONE WEEK PRIOR TO INTERRUPTION, TO ENABLE THE AFFECTED PERSONS TO PROVIDE FOR THEIR NEEDS. WILL CONFORM TO APPLICABLE LOCAL ORDINANCE AND, WHETHER DELIVERED ORALLY OR IN WRITING, SHALL INCLUDE APPROPRIATE INFORMATION CONCERNING THE INTERRUPTION AND INSTRUCTIONS ON HOW TO LIMIT THEIR INCONVENIENCE. NOTICES ARE INTENDED TO KEEP HOMEOWNERS AND BUSINESSES INFORMED OF CONSTRUCTION ACTIVITIES, SCHEDULING, AND INCONVENIENCES THAT MAY OCCUR. A RECORD OF WHEN SUCH NOTICES ARE GIVEN SHALL BE KEPT BY THE CONTRACTOR.
- 10. CONTRACTOR TO REQUEST ELECTRONIC COPY OF TEMPORARY AND PERMANENT EASEMENTS FROM ENGINEER. SEE RECORDED EASEMENTS FOR FURTHER PROPERTY AND EASEMENT
- 11. SEE SPECIAL PROVISIONS FOR ELECTRICAL CONDUIT SPECIFICATIONS.

GENERAL NOTES-WATER:

- 1. DISTANCES FOR WATER LINES ARE THE HORIZONTAL DISTANCE BETWEEN THE CENTERS OF THE FITTINGS. THEREFORE, DISTANCES SHOWN ON THE PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND FITTING DIMENSIONS.
- 2. NO WORK SHALL BE BACKFILLED (INCLUDING BEDDING MATERIAL OF THE PIPE) UNTIL THE CONSTRUCTION HAS BEEN OBSERVED BY THE CITY OF GILLETTE ENGINEERING STAFF OR REPRESENTATIVE.
- 3. COMPLETE BACKFILL OPERATIONS AT THE END OF CONSTRUCTION DAILY, UNLESS OTHERWISE APPROVED BY AGENCY WHO HAS JURISDICTION IN THE AREA. TRENCHES MAY BE TEMPORARILY COVERED WITH STREET PLATES OR OTHER SUITABLE PROTECTION ONLY UPON APPROVAL OF THE AGENCY WHO HAS JURISDICTION IN THE AREA.
- 4. ALL BACKFILL SHALL CONFORM TO THE TRENCH DETAIL LOCATED IN THE DRAWINGS AND AS
- 5. CONNECTIONS TO EXISTING WATER LINES SHALL BE THOROUGHLY PLANNED IN ADVANCE, AND ALL REQUIRED EQUIPMENT, MATERIALS AND LABOR SHALL BE ON HAND AT THE TIME OF UNDERTAKING THE CONNECTION. OPERATION OF VALVES OR OTHER APPURTENANCES ON EXISTING UTILITIES, WHEN REQUIRED, SHALL BE BY THE OWNING UTILITY.

 6. AT ALL POINTS OF CONNECTION OF THE NEW WATER LINE TO EXISTING STRUCTURES OR
- INFRASTRUCTURE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATING AND VERIFYING LOCATION AND ELEVATION OF THE POINT OF CONNECTION PRIOR TO ANY CONSTRUCTION.
- THE CONTRACTOR SHALL FURNISH AT NO EXTRA COST ANY BENDS, SPECIALS, COUPLINGS, CONNECTING PIECES, OR FITTINGS NECESSARY TO MAKE PROPER HORIZONTAL AND VERTICAL ADJUSTMENTS FOR CONNECTIONS TO EXISTING MAINS AND ADJUSTMENTS TO CLEAR EXISTING
- UTILITIES WHETHER MARKED OR UNMARKED.

 8. CONTRACTOR SHALL RELOCATE EXISTING WATER AND SANITARY SEWER SERVICE LINES AS NECESSARY FOR THE PROPER INSTALLATION OF THE PIPELINES. CONTRACTOR SHALL USE NEW PIPE, COUPLINGS, AND OTHER APPURTENANCES REQUIRED TO MAKE SUCH RELOCATIONS. RELOCATIONS SHALL MEET ALL CITY OF GILLETTE'S STANDARD REQUIREMENTS FOR SERVICE LINE RELOCATIONS.
- 9. THERE SHALL BE AN 18-INCH MINIMUM CLEARANCE BETWEEN PROPOSED PIPELINES AND OTHER UTILITY LINES, WHENEVER POSSIBLE. IF THERE IS LESS THAN 18-INCHES OF CLEARANCE FROM EXISTING WATERLINES THEN THE CEMENT TREATED FILL PIPE SADDLE DETAIL ON DWG DT-1 SHALL BE INCORPORATED.
- 10. THERE SHALL BE A 6 FEET MINIMUM VERTICAL CLEARANCE BETWEEN PROPOSED PIPELINES AND
- 10. IHERE SHALL BE A 6 FEEL MINIMUM VERTICAL CLEARANCE BELIEVED PROPUSED PIPELINES AND CULVERTS FOR FROST PROTECTION, UNLESS OTHERWISE INDICATED ON DRAWINGS.

 11. WHERE EXCAVATION IS REQUIRED WITHIN PAVED AREAS, THE PAVEMENT SHALL BE CUT IN SUCH A MANNER AS TO PRODUCE A SMOOTH, STRAIGHT CUT EDGE AND, AS A VERTICAL FACE ONE FOOT MINIMUM BEYOND THE TRENCH WALL. STREET CUT PERMITS WILL BE REQUIRED FROM THE JURISDICTIONAL AGENCIES HAVING AUTHORITY IN THE AREA OF WORK
- MINIMUM COVER OVER NEW WATERLINE, WATER SERVICES, AND CASING SHALL BE 6.0 FEET UNLESS OTHERWISE INDICATED ON DRAWINGS.
- 13. CONTRACTOR SHALL MAINTAIN 2 FOOT MINIMUM CLEARANCE BETWEEN NEW WATER SERVICES AND NEW WATERLINE AND THE EXISTING 2 MADISON WATERLINES. CONTRACTOR SHALL ALSO MAINTAIN A 6 FOOT BURY DEPTH.
- 14. ANY DEFLECTION REQUIRED UNDER (VERTICALLY) OR AROUND (HORIZONTALLY) EXISTING UTILITIES SHALL BE MADE USING BENDS UNLESS IT IS WITHIN THE MANUFACTURES JOINT DEFLECTION ALLOWANCE. HORIZONTAL AND VERTICAL BENDS SHALL REQUIRE PIPING TO BE RESTRAINED AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS REGARDING RESTRAINT TYPE
- 15. WHEN IT IS NECESSARY TO DEPRESS WATER LINES AT STORM DRAINS AND OTHER UTILITY CROSSINGS, A MINIMUM CLEARANCE OF 18 INCHES SHALL BE MAINTAINED BETWEEN THE
- 16. VALVES SHALL BE LOCATED SO THAT SURFACE DRAINAGE DOES NOT INFILTRATE THE VAULT. VAULT ACCESS COVERS AND VALVE BOXES SHALL BE SET AT AN ELEVATION IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNING AGENCY.
- 17. RESTRAINED JOINTS SHALL BE REQUIRED WHERE INDICATED ON THE DRAWINGS AND AS
- 18. POLYETHYLENE ENCASEMENT SHALL BE INSTALLED AROUND ALL CURB STOP BOXES. THE POLYETHYLENE WRAP SHALL HAVE A MINIMUM THICKNESS OF EIGHT (8) MILS. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-105.
- 19. MARKING TAPE SHALL BE FURNISHED FOR THE INSTALLED WATERLINE AND INSTALLED 24-INCHES ABOVE THE TOP OF PIPE IDENTIFYING THE HORIZONTAL ALIGNMENT OF THE PROPOSED PIPELINE.
- 20. ALL VENT PIPES SHALL BE FIELD LOCATED AND SHOULD BE PLACED AS FAR AWAY FROM THE
- PAVED SURFACE AS POSSIBLE WHILE STILL WITHIN THE RIGHT-OF-WAY OR EASEMENT.
 21. CONTRACTOR TO COORDINATE WITH UTILITY OWNER WHEN APPROACHING ALL FIBER, GAS, AND PETROLEUM LINES, OR ANY OTHER QUESTIONABLE UTILITY. WATER SERVICES IN CONFLICT WITH PIPE SHALL BE LOWERED INCIDENTAL TO THE WATER MAIN BID ITEMS. ANY OTHER UTILITY CONFLICTS RESOLVABLE BY COORDINATION BETWEEN CONTRACTOR AND UTILITY OWNER ARE CONTRACTORS RESPONSIBILITY AND INCIDENTAL TO THE WATER MAIN BID ITEMS. ANY OTHER UTILITY CONFLICTS NOT RESOLVABLE BY CONTRACTOR COORDINATION SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

SURVEY CONTROL DATA:

DATUM HORIZONTAL DATUM: NAD83(2007) HORIZONTAL SYSTEM: WYOMING COORDINATE SYSTEM, NAD 83, EAST ZONE VERTICAL DATUM: NAVD88 (GEOID 03) UNITS: U.S. FEET MONUMENT DESCRIPTION

MMI CONTROL POINTS: 5/8" X 24" REBAR WITH 2" ALUMINUM CAP STAMPED MORRISON MAIERLE

MMI PHOTO CONTROL POINTS: 5/8" X 24" REBAR WITH RED PLASTIC CAP STAMPED MMI PHOTO

HIGHWAY 14:

- 8, N 1418181.49, E 729808.70, ELEV 4197.17, MMI CONTROL PNT
- 611,N 1432666.53, E 737555.67, ELEV 4472.98, MMI CONTROL PNT
- 612,N 1433448.60, E 742899.42, ELEV 4237.88, MMI PHOTO CNTRL PNT

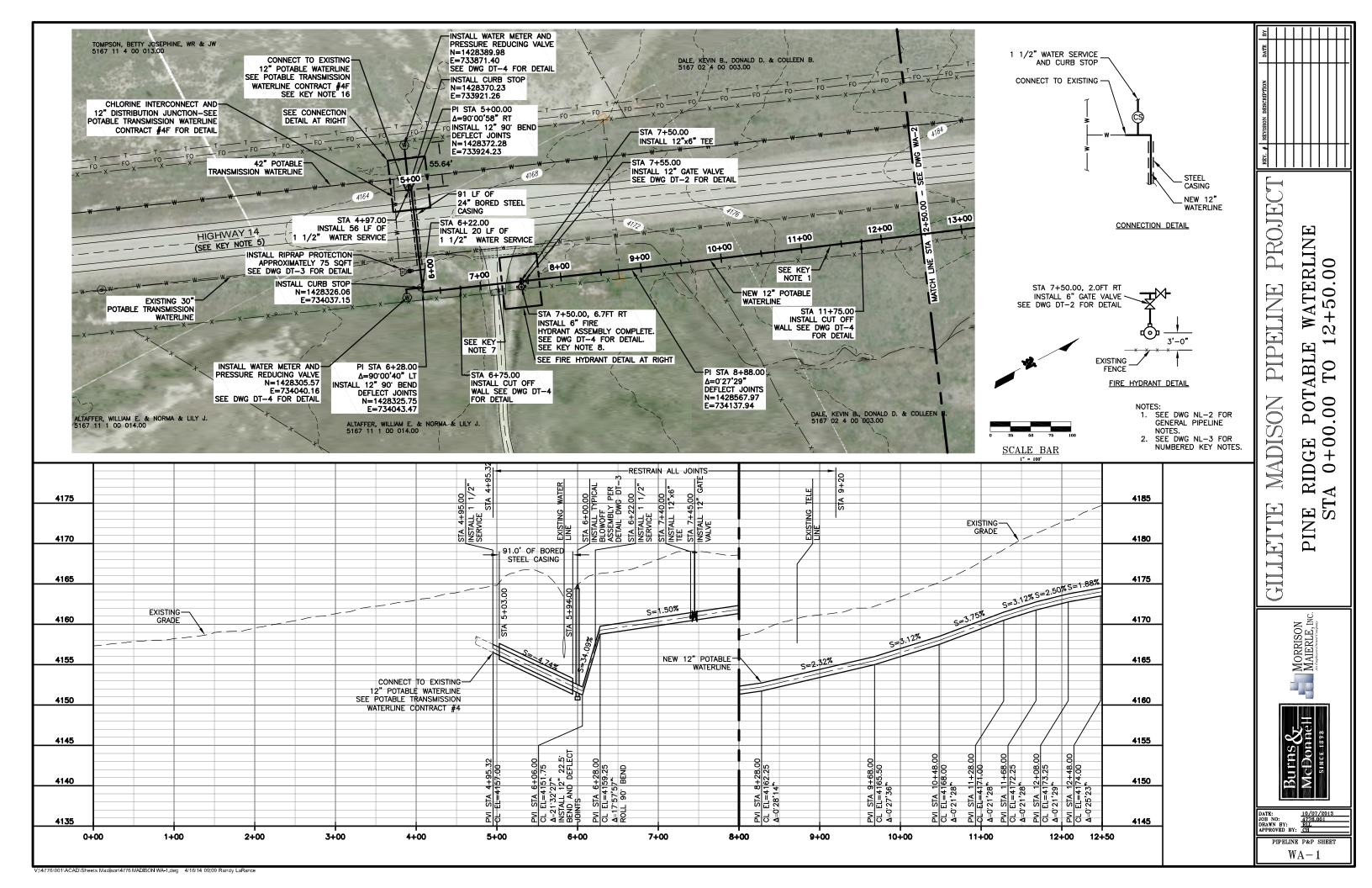
PROJEC Ξ 0TZ 田 ELI MADISON ENERAL

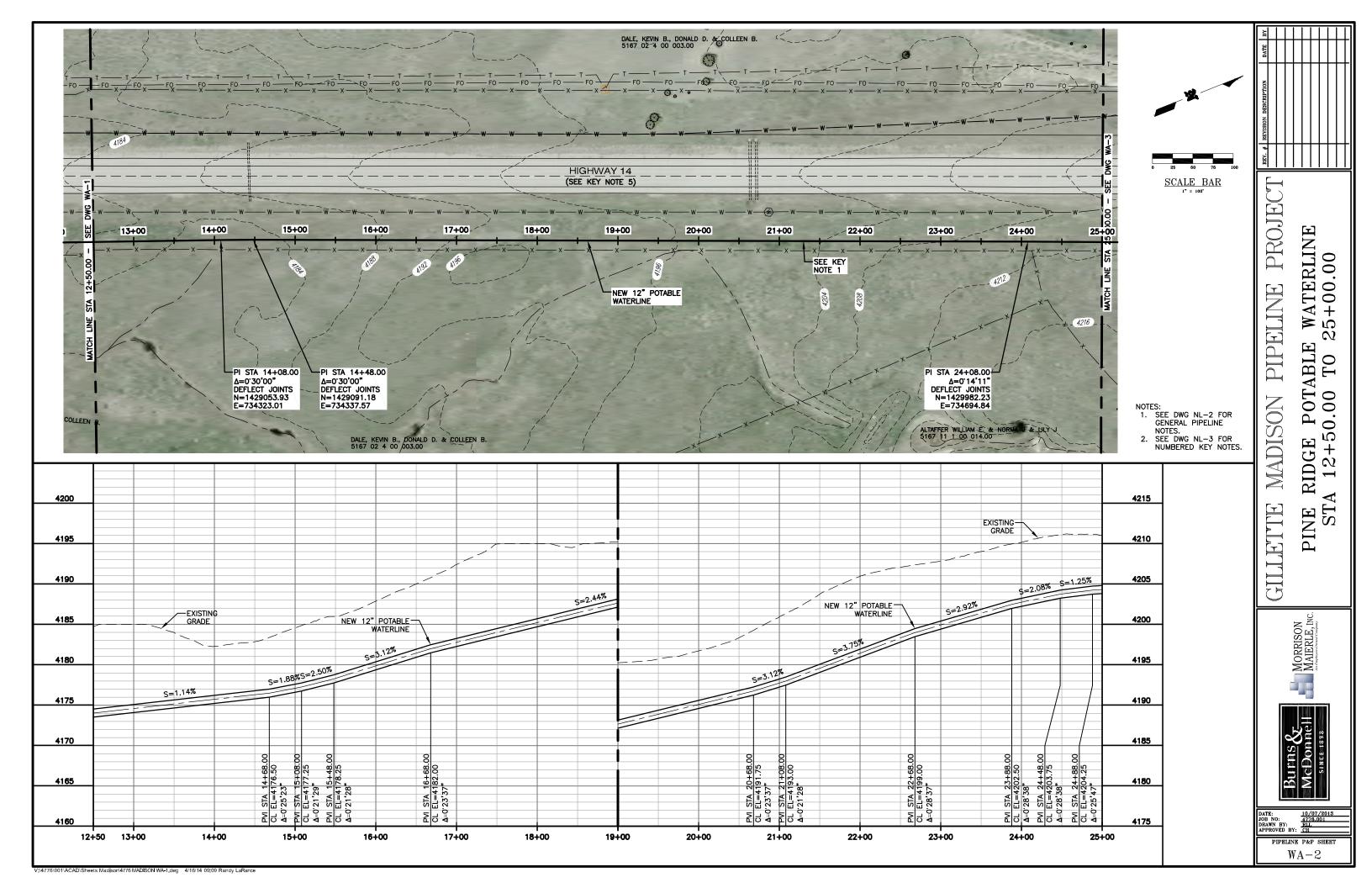
MORRISON MAIERLE, IN

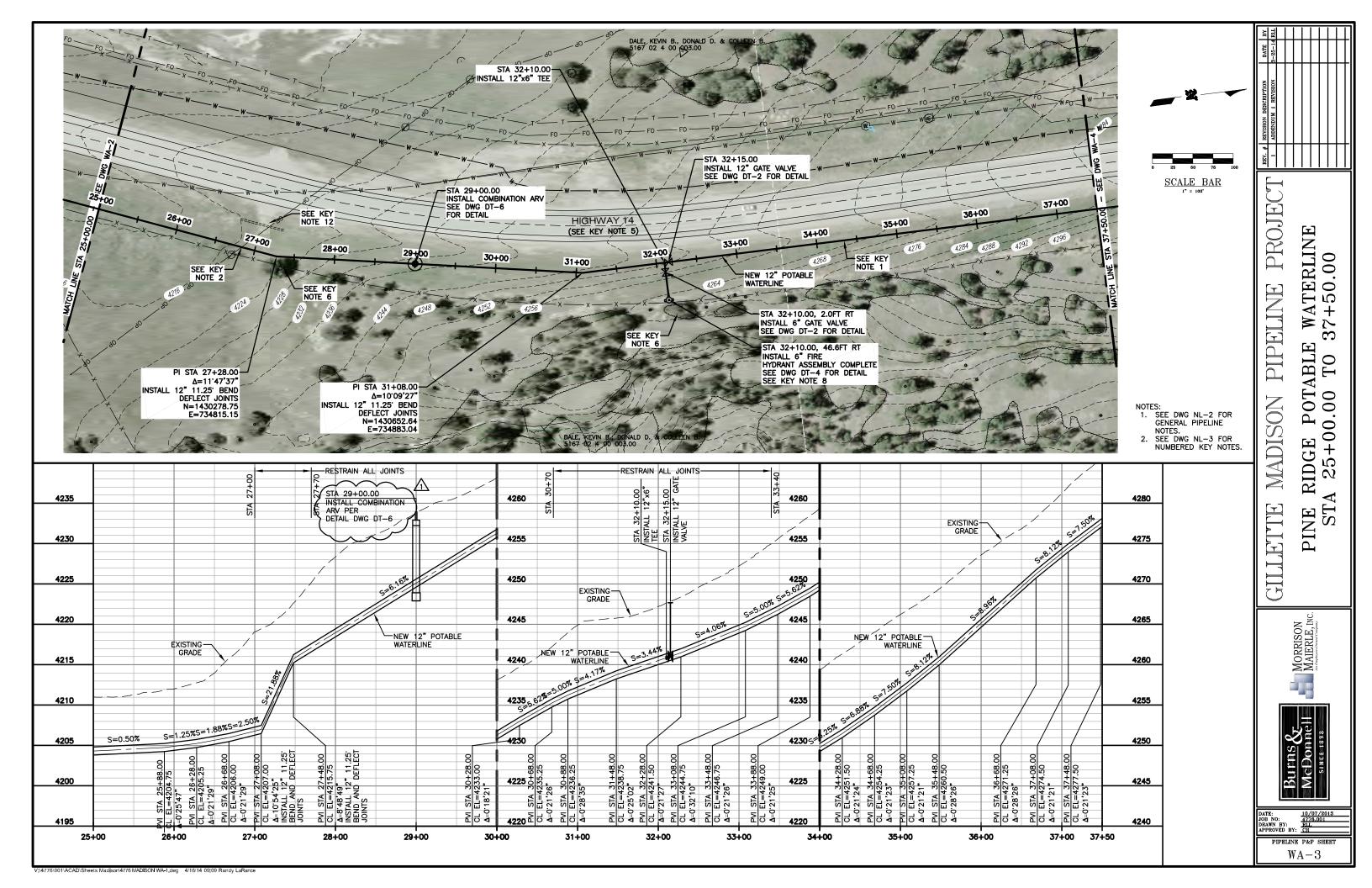


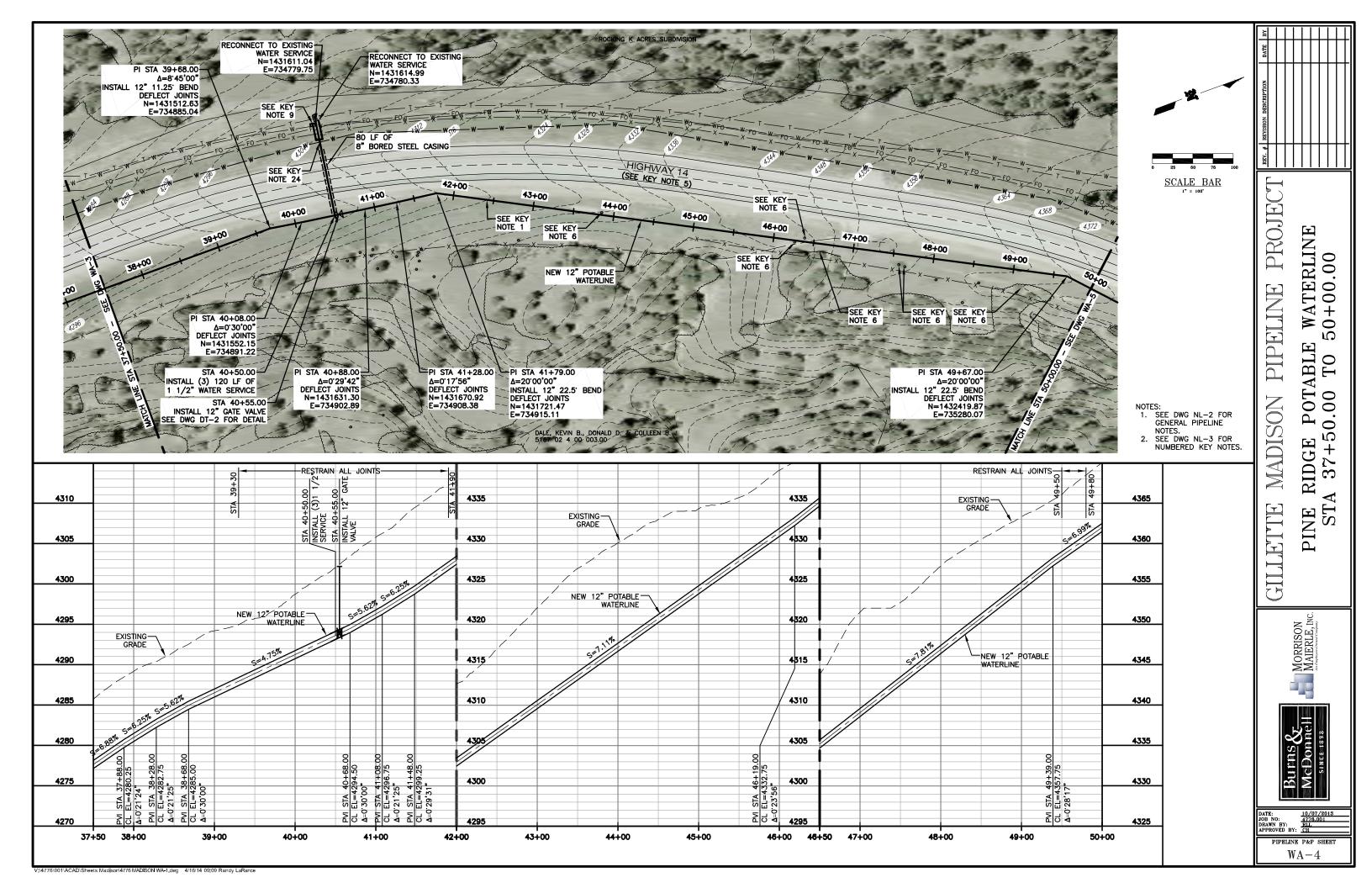
NOTES & LEGENE NL-2

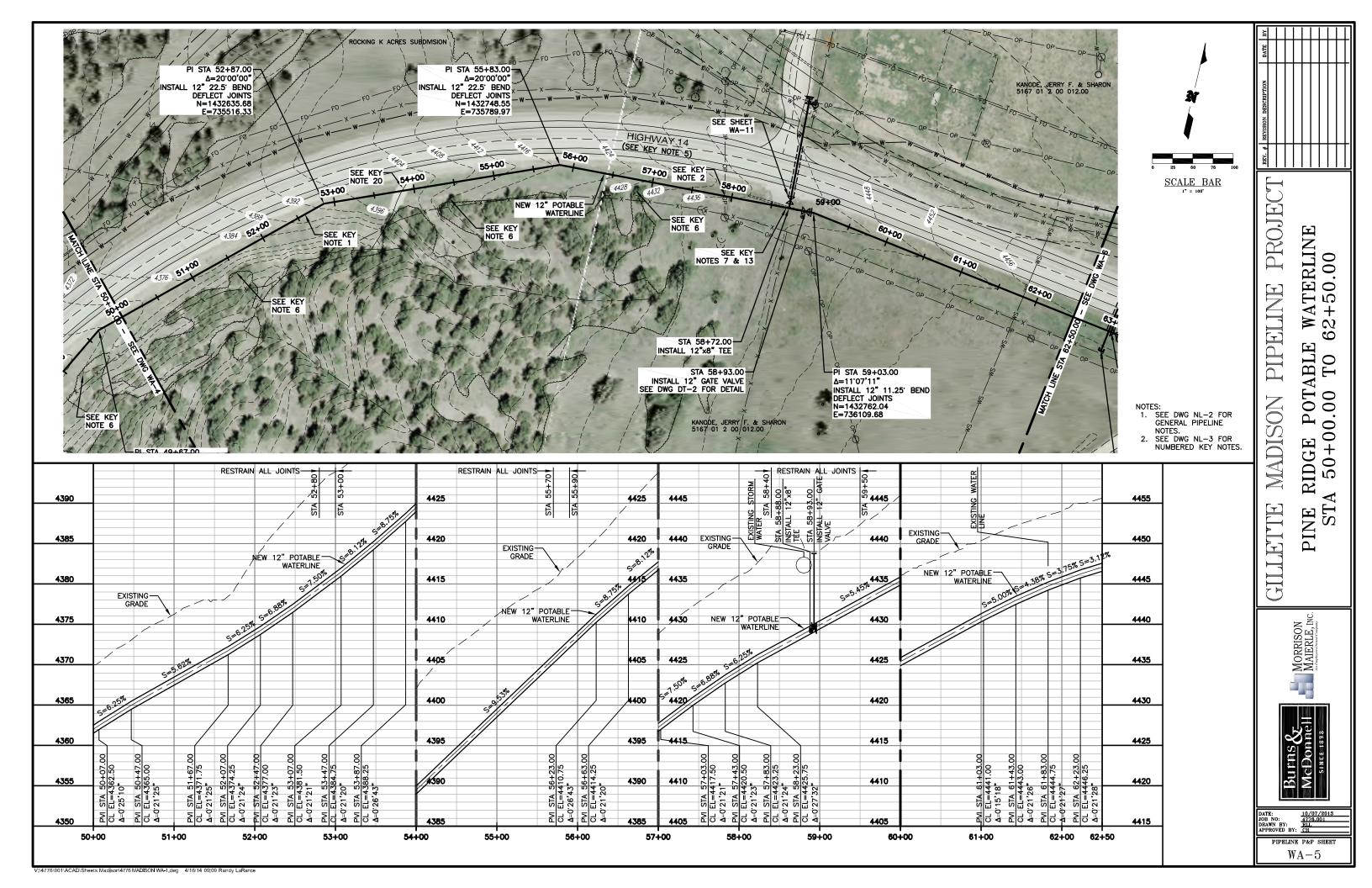
SHEET KEYED NOTES: 1 ALL DISTURBED VEGETATED AREAS ARE REQUIRED TO BE RESEEDED (SEED MIX PER THE SPECIFICATIONS) AND RESTORED TO ORIGINAL CONDITIONS. 2 CONTRACTOR SHALL CONTACT THE POWER COMPANY PRIOR TO WORKING IN THE AREA OF THE HIGH VOLTAGE POWER LINES. REMOVE AND REPLACE FENCE AS REQUIRED TO FACILITATE CONSTRUCTION. REMOVE AND REPLACE CULVERT, FLARED END SECTION, AND/OR END PROTECTION (RIP-RAP, BOULDERS, ETC) AS REQUIRED TO FACILITATE CONSTRUCTION. CONTRACTOR TO DOCUMENT EXISTING INVERTS, LINES, AND GRADES AND MATCH EXISTING WILL ALL REPLACEMENTS. HIGHWAY 14 TO REMAIN OPEN TO TRAFFIC AT ALL TIMES. TRIM OR REMOVE TREE AS REQUIRED TO FACILITATE CONSTRUCTION. REMOVE AND REPLACE ASPHALT DRIVEWAY AND/OR APPROACH TO ORIGINAL CONDITIONS. RESTRAIN ALL JOINTS FROM TEE TO HYDRANT. PROVIDE PLUG FOR WATER SERVICE. PROVIDE PLUG AFTER VALVE AND RESTRAIN ALL JOINTS FROM PLUG BACK TO MAIN. PROVIDE PLUG FOR BOTH ENDS OF DRY LINE WATER SERVICE 12 REMOVE AND REPLACE GRAVEL DRIVEWAY AND/OR APPROACH TO ORIGINAL CONDITIONS. 13 REMOVE AND REPLACE CULVERT, FLARED END SECTION, AND/OR END PROTECTION (RIP-RAP, BOULDERS, ETC) AS REQUIRED TO FACILITATE CONSTRUCTION. POUR FLOW FILL FROM SIX INCHES BELOW CULVERT INVERT UP TO THE SPRINGLINE OF THE NEW WATER PIPE. PAYMENT OF FLOW FILL WILL BE UNDER "BID ITEM 02530.14 INSTALL CULVERT FLOW FILL SADDLE". CONTRACTOR TO DOCUMENT EXISTING INVERTS, LINES, AND GRADES AND MATCH EXISTING WILL ALL REPLACEMENTS. 0 14 MINIMUM VERTICAL CLEARANCE OF 2' BETWEEN WATER SERVICE AND EXISTING MADISON WATERLINE. 15 CONTRACTOR TO FIELD VERIFY LOCATION OF WATER SERVICE. CONNECT TO EXISTING WATER SERVICE AND ABANDON EXISTING SERVICE RUNNING INTO PUMP STATION. COORDINATE WITH CITY OF GILLETTE FOR ABANDONING WATER SERVICE IN PUMP STATION. 国 COORDINATE CONNECTION WITH CONTRACT #4F. [17] CONTRACTOR TO FIELD VERIFY SIZE. IT IS APPROXIMATELY AN 80" CMP CULVERT WITH FLARED \Box END SECTION. THE CULVERT HAS A CONCRETE BOTTOM FOR CATTLE TO PASS. CONTRACTOR TO REPLACE WITH NEW, IF DISTURBED AND UNSUCCESSFULLY SALVAGED. [18] REMOVE SIGN AND POST, SALVAGE, AND REINSTALL PER WYDOT STANDARDS AS APPLICABLE. \Box PROVIDE TEMPORARY SIGNING UNTIL PERMANENT REPLACEMENT IS COMPLETE. IF PERMANENT SIGN IS DAMAGED DURING SALVAGE, REPLACE WITH NEW. [19] PAYMENT FOR "INSTALL END OF LINE LARGE WATER METER VAULT AND APPURTENANCES" SCHEDULE 1 BID ITEM BEGINS AT THE EDGE OF THE VAULT (APPROXIMATE STA 126+35) AND Ξ INCLUDES EVERYTHING FROM THAT POINT ON INCLUDING THE VAULT. VALVES, REDUCERS, FITTINGS, HYDRANTS, SADDLES, AND RESTORATION. SCHEDULE 2 BID ITEM BEGINS AT THE 8" MAIN AND INCLUDES THE THREE SERVICE LINES, ISOLATION VALVES, CURB STOPS, METER INSTALLATION, AND THE ENTIRE 1 1/2" WATER SERVICE UP TO AND INCLUDING CONNECTING TO EXISTING, SEE SPECIAL PROVISIONS FOR MEASUREMENT, AND PAYMENT. 20 REMOVE AND REPLACE CONCRETE DRAINAGE APRON TO MATCH EXISTING GRADES. PAYMENT OF THIS ITEM IS UNDER "02530.16 CONCRETE DRAINAGE APRON". REPLACEMENT SHALL BE WITH 4-INCH THICK CONCRETE MEETING WITH CITY OF GILLETTE STANDARD CONSTRUCTION SPECIFICATIONS AND 6-INCH BY 6-INCH WELDED WIRE FABRIC FOR REINFORCEMENT. CAP AND MARK END OF 6" PVC ELECTRICAL CONDUIT. 22 TERMINATE 6" PVC ELECTRICAL CONDUIT INSIDE EDGE OF VAULT WALL. REMOVE EXISTING HYDRANT, VALVE, AND VALVE BOX. INSTALL RESTRAINED 6" END OF LINE PLUG AFTER VALVE REMOVAL. SALVAGE TO CITY OF GILLETTE WAREHOUSE ON BURMA. INSTALL WATER SERVICE BETWEEN CENTERLINE ELEVATION 4291.00' AND 4290.50' AT MORRISON MAIERLE, IN HYDRANT SHALL NOT CONTAIN A WEEP HOLE DUE TO GROUNDWATER. CONTRACTOR SHALL CLOSE 6" GATE VALVE AT STA 126+54.00 AND PUMP HYDRANT DRY FOR NORMAL OPERATIONS AFTER HYDROSTATIC TESTING AND DISINFECTION HAS BEEN APPROVED 26 CRANSTON IVAN EARL-PARCEL ID 5166 05 2 00 011.0 THE FOLLOWING EASEMENT REQUIREMENTS APPLY: A. ALL ROCKS (1-INCH AND LARGER) ON THE PROPERTY WHICH COULD IMPEDE OR INTERFERE WITH GRANTOR'S FARMING OR RANCHING OPERATIONS SHALL BE REMOVED FROM THE SITE. REMOVE EXISTING RIGHT OF WAY FENCE AND REPLACE WITH A NEW WOVEN WIRE SHEEP TIGHT FENCE IN CONFORMITY WITH WYDOT STANDARDS. THE REMOVED RIGHT OF WAY FENCE POSTS AND WIRE SHALL BE SAVED AND SPOOLED. THE MATERIAL SHALL BE PILED ON THE PROPERTY AS A LOCATION CHOSEN BY THE OWNER BUT WITHIN A REASONABLE DISTANCE OF THE WORK. TEMPORARY FENCE ALONG THE TEMPORARY EASEMENTS SHALL BE ERECTED TO PROTECT LIVESTOCK AND PREVENT CONSTRUCTION FROM EXTENDING OUTSIDE THE LIMITS OF THE EASEMENTS. TEMPORARY FENCE MATERIAL SHALL BE SAVED, SPOOLED AND PILED ON THE PROPERTY AT A LOCATION CHOSEN BY THE OWNER BUT WITHIN A REASONABLE DISTANCE OF THE WORK THE EASEMENT AREA SHALL BE APPROPRIATELY RECLAIMED AFTER CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, REGARDING, PRESERVATION OF TOPSOIL, EROSION NL-3CONTROL AND RESEEDING WITH ALFALFA. _____

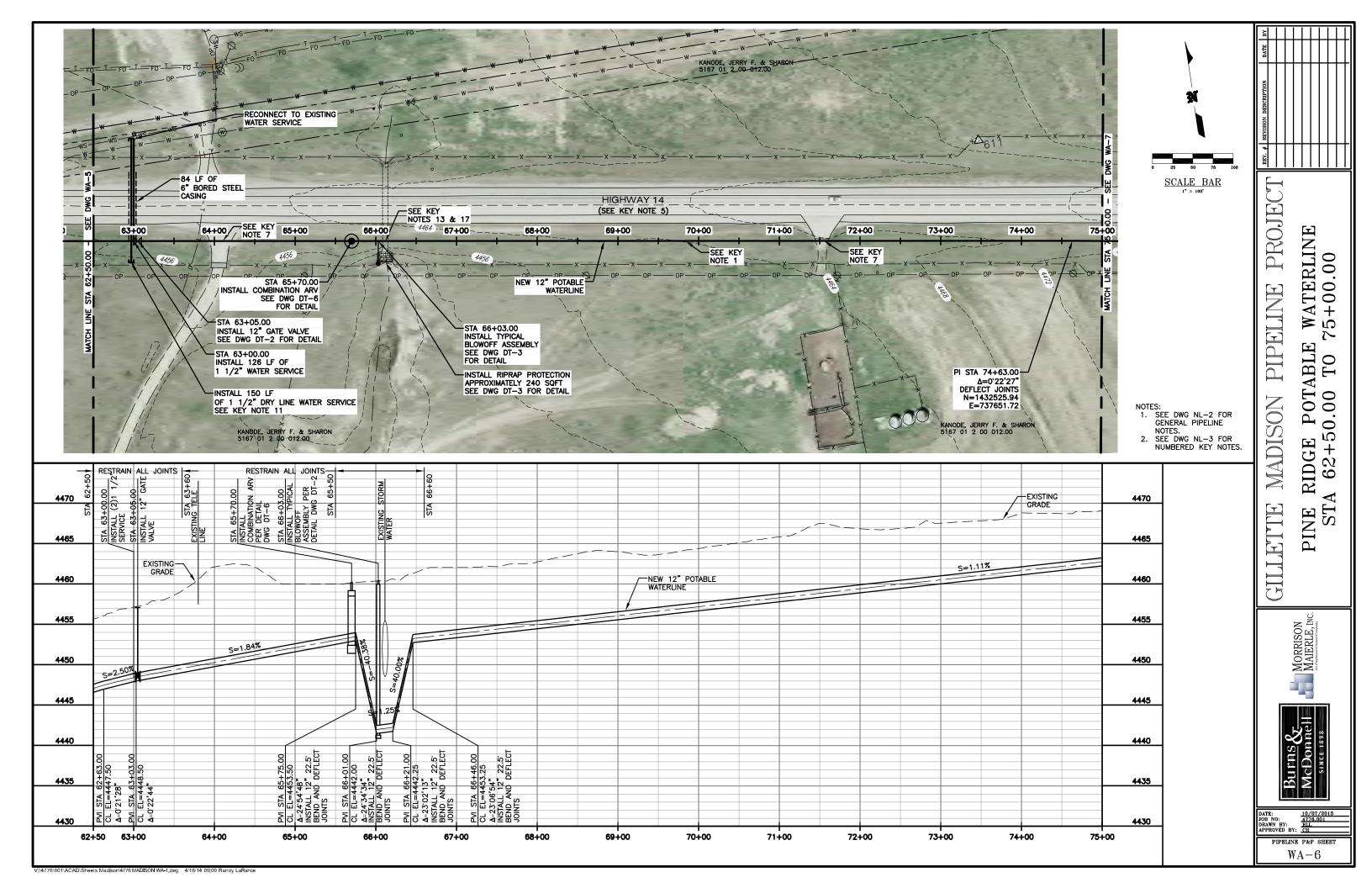


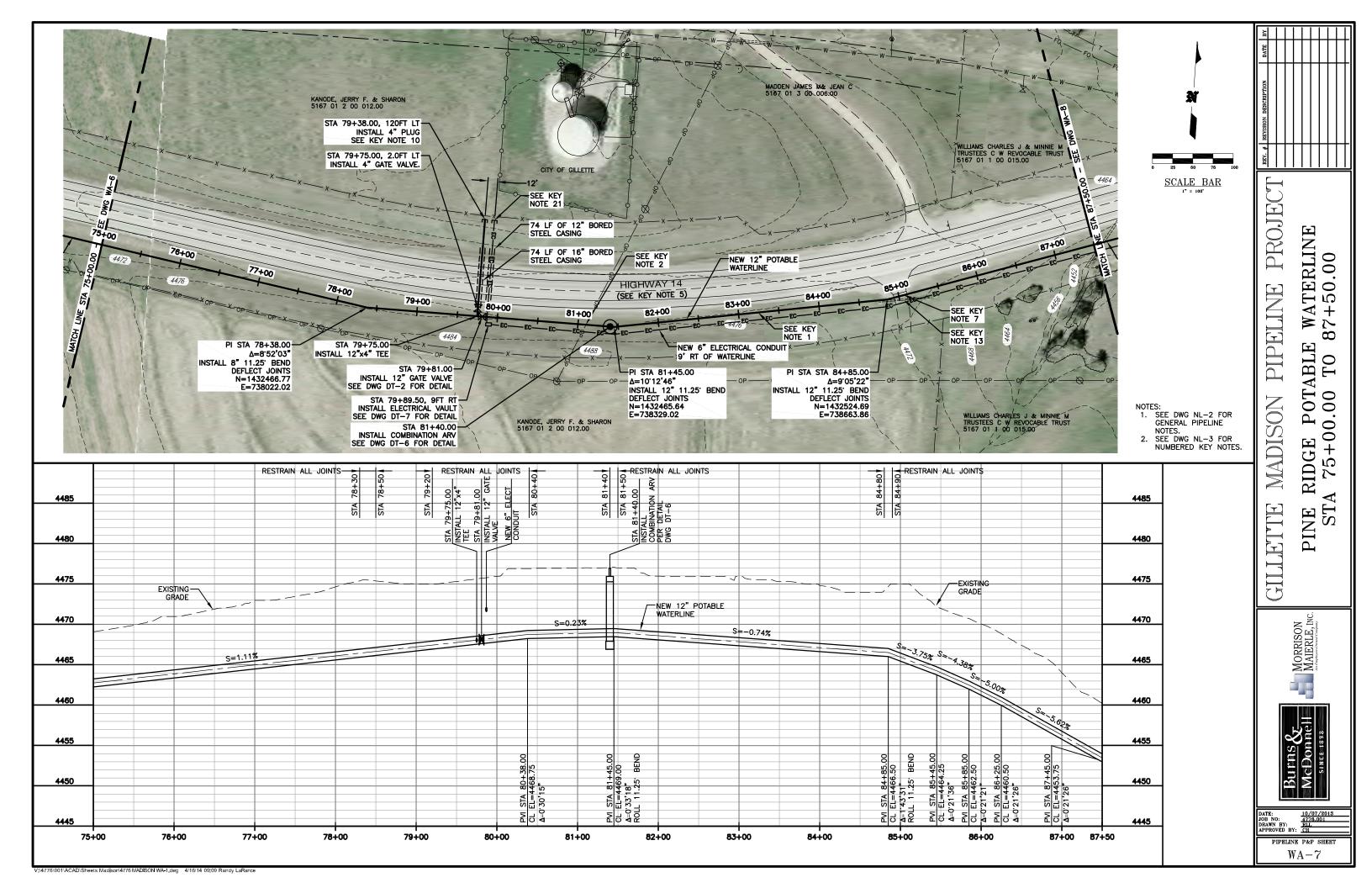


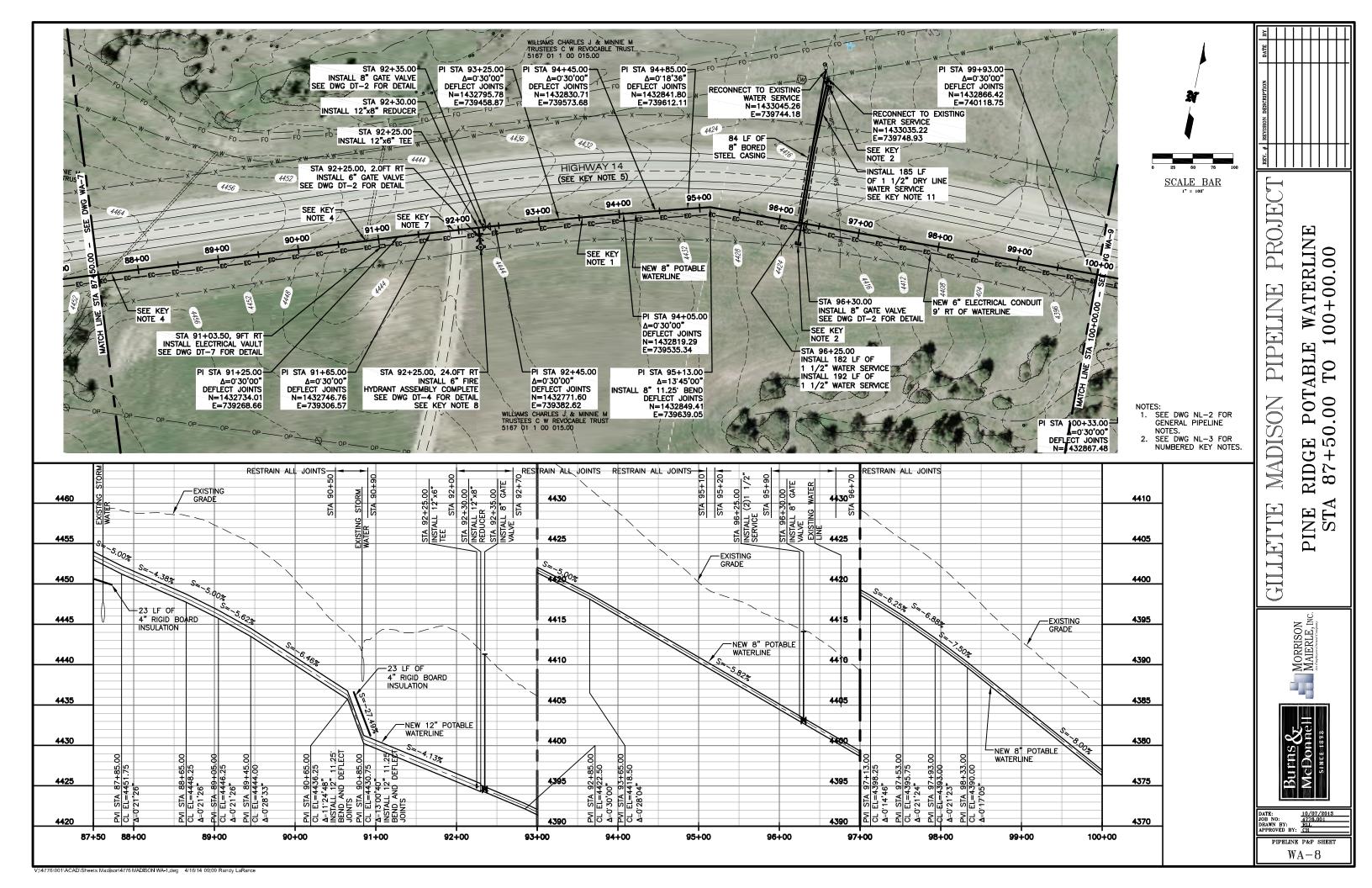


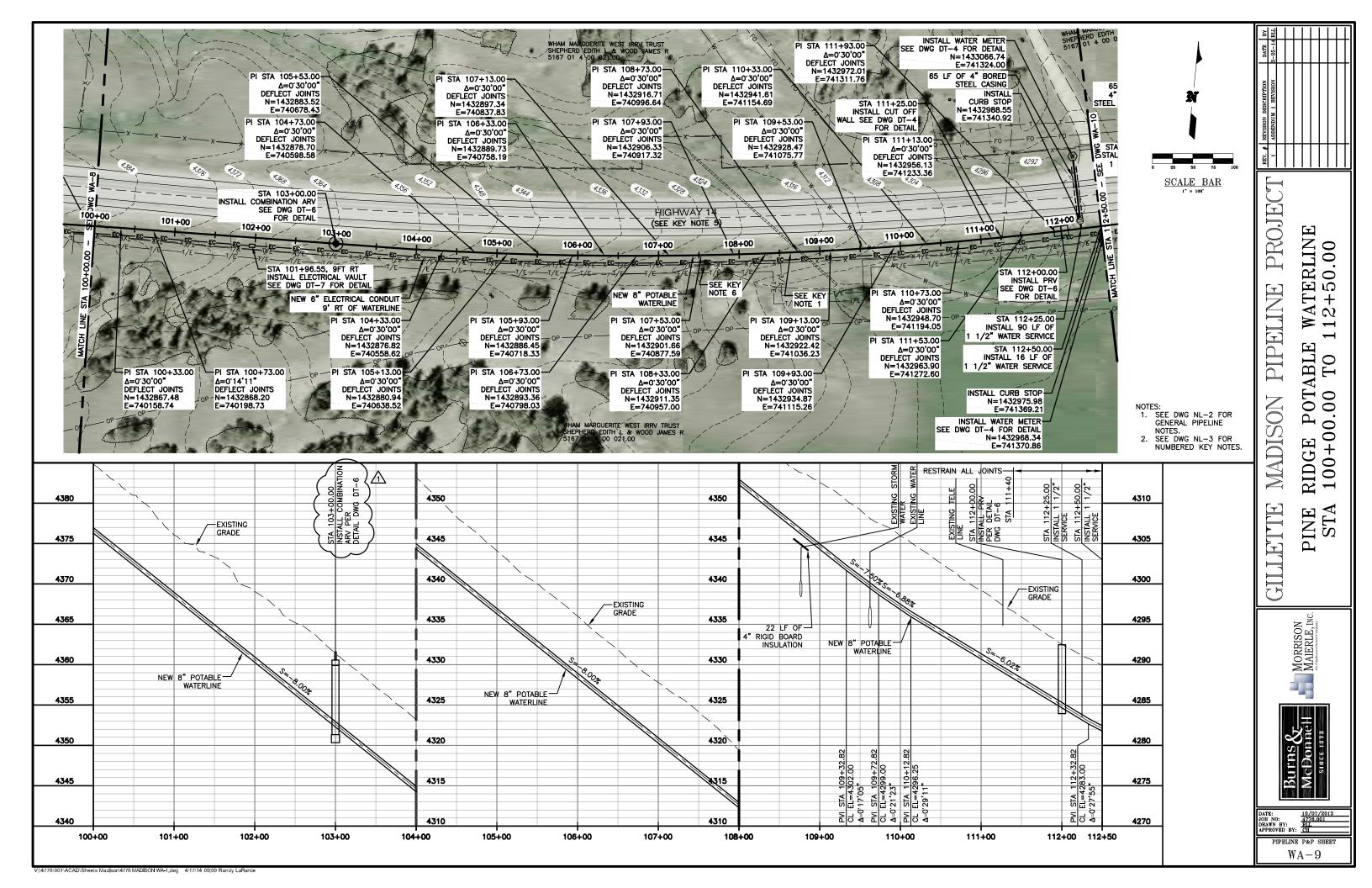


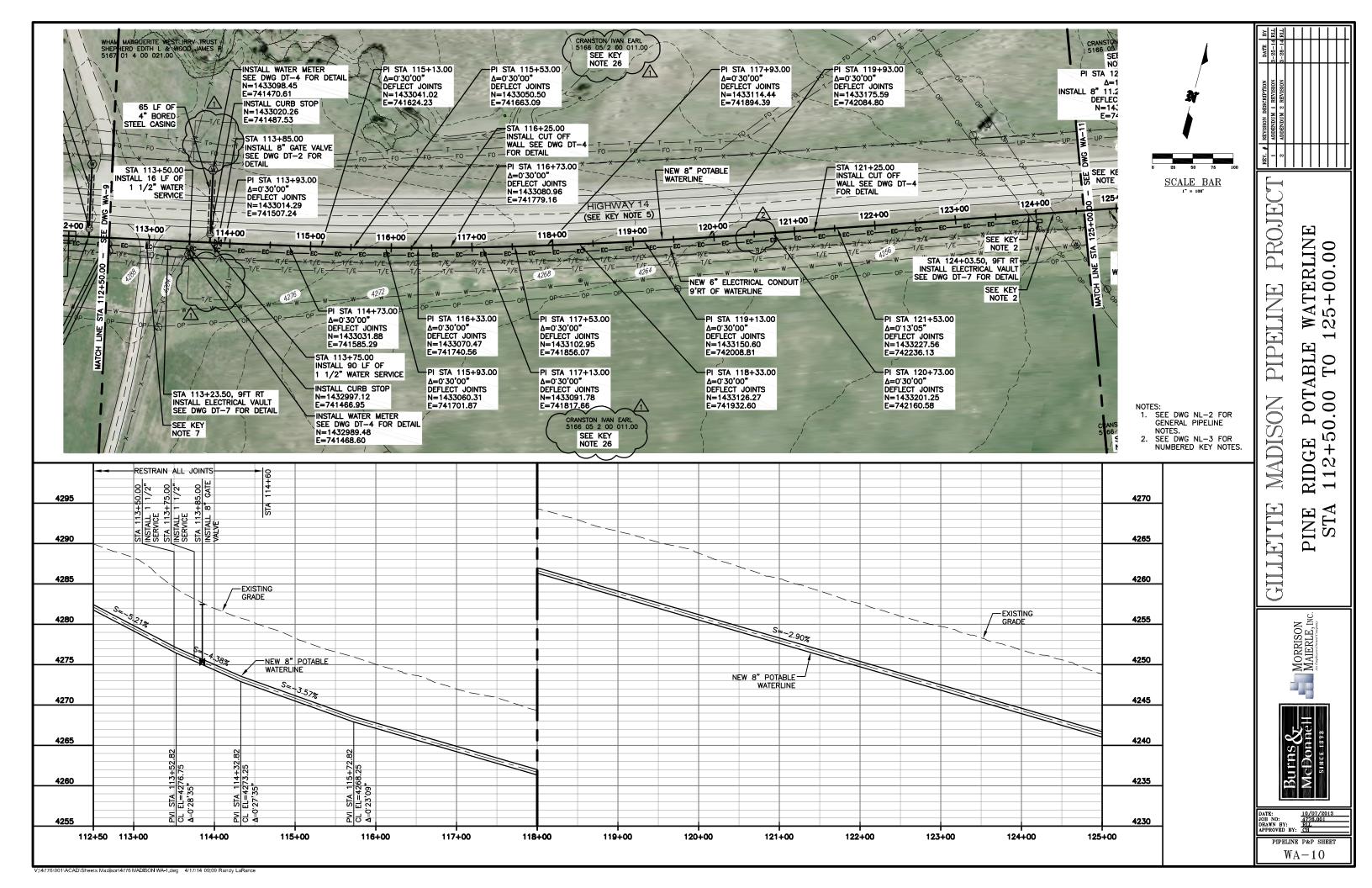


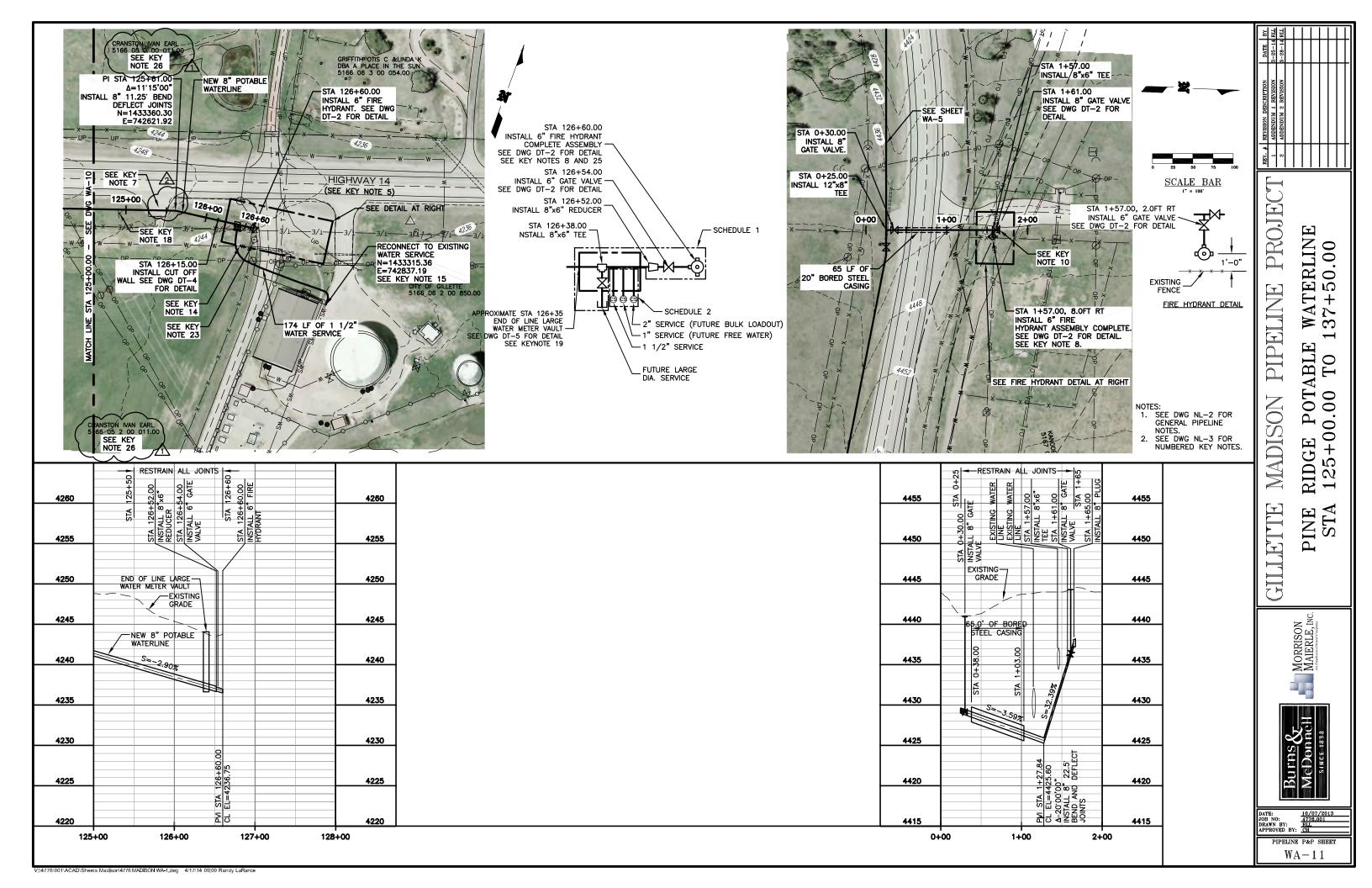


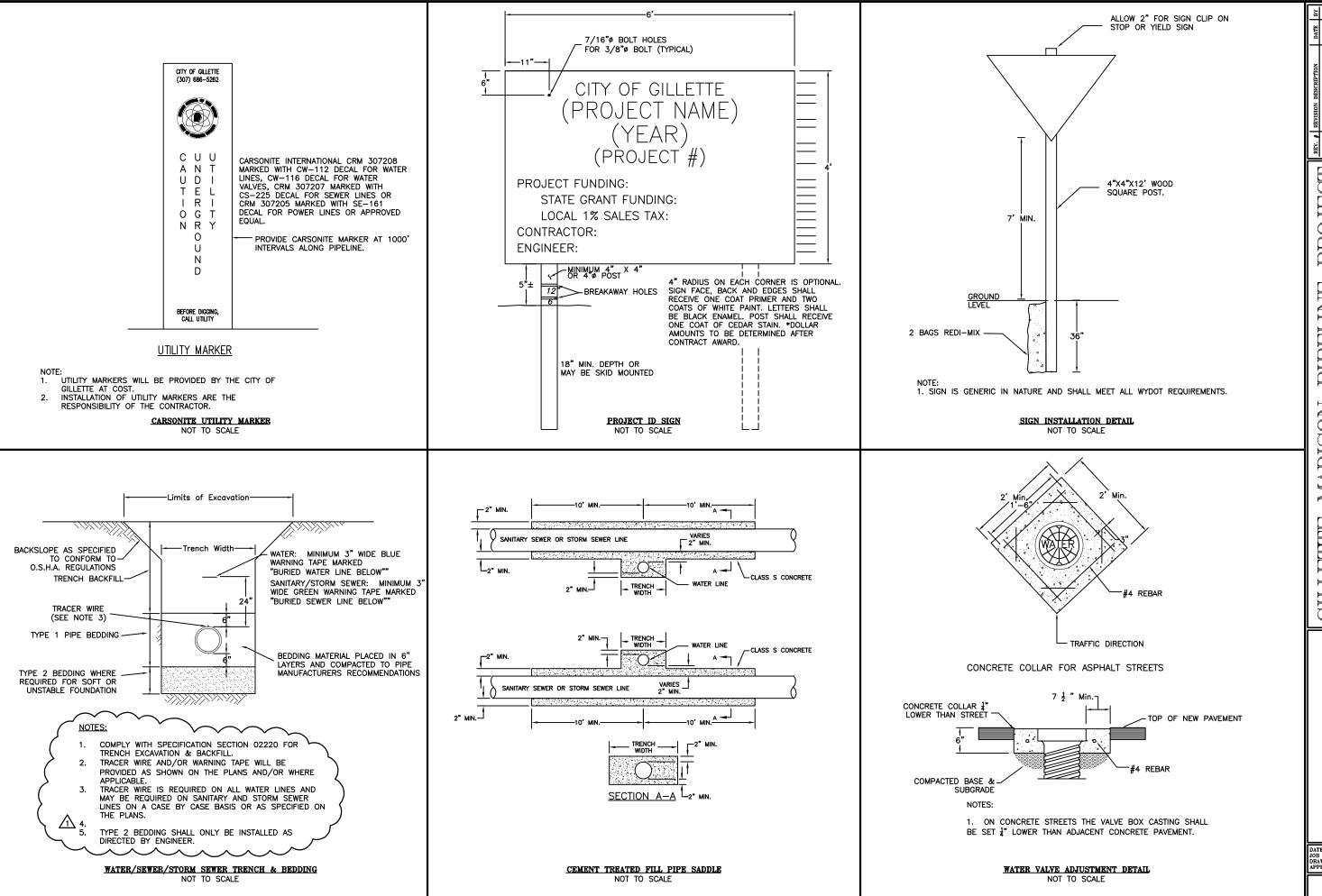












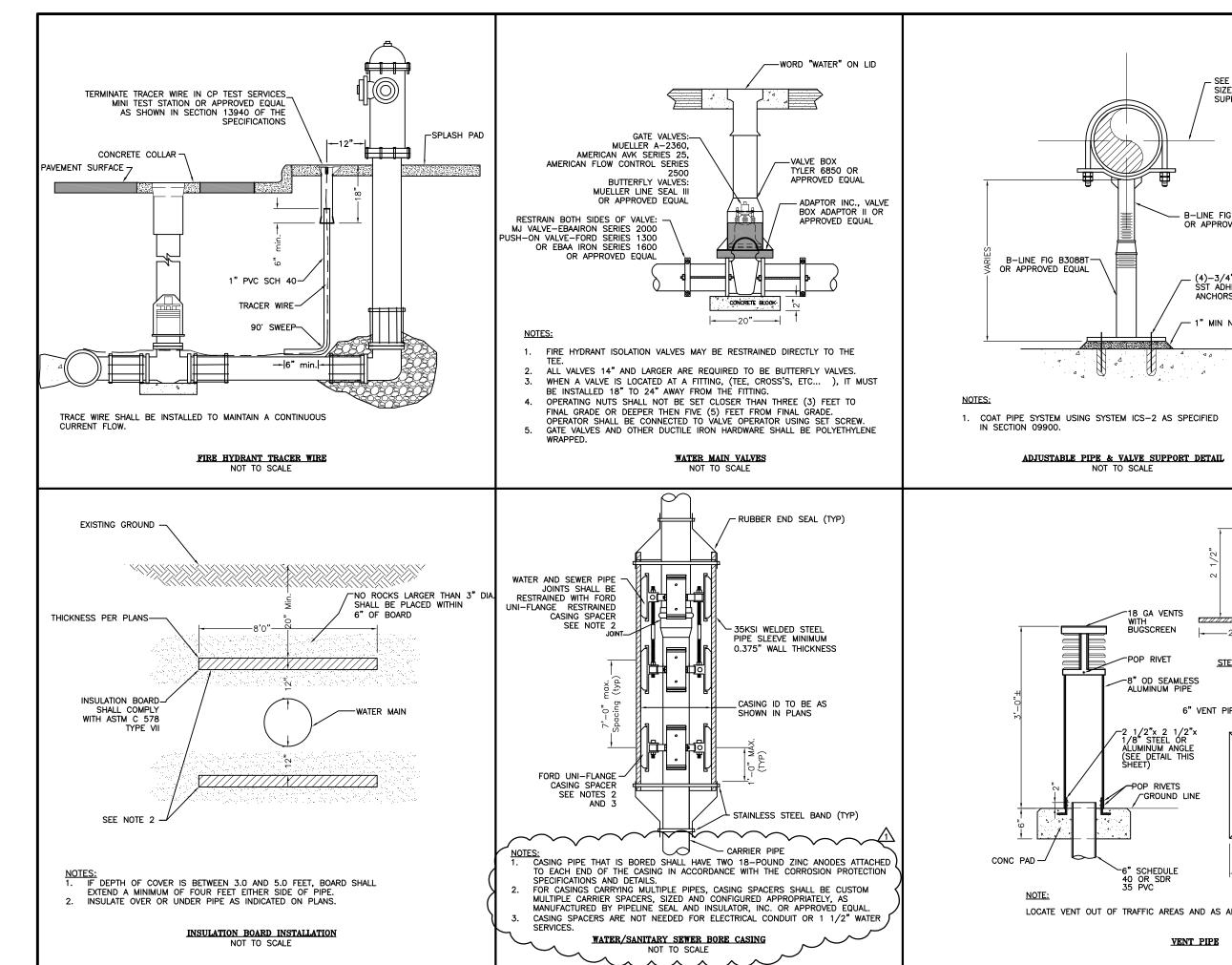
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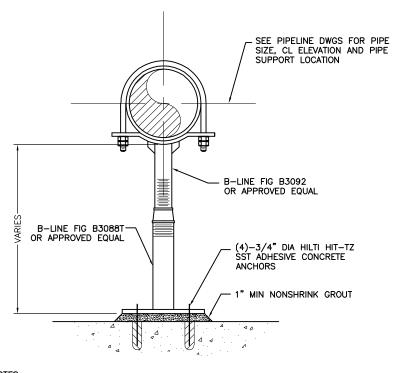
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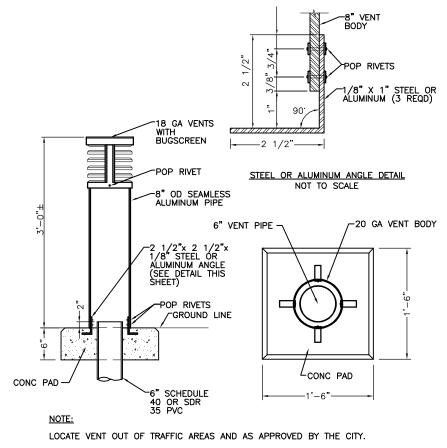
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MORRISON MAIERLE, IN

NOTES & LEGENE DT-1









DT-2

PROJECT

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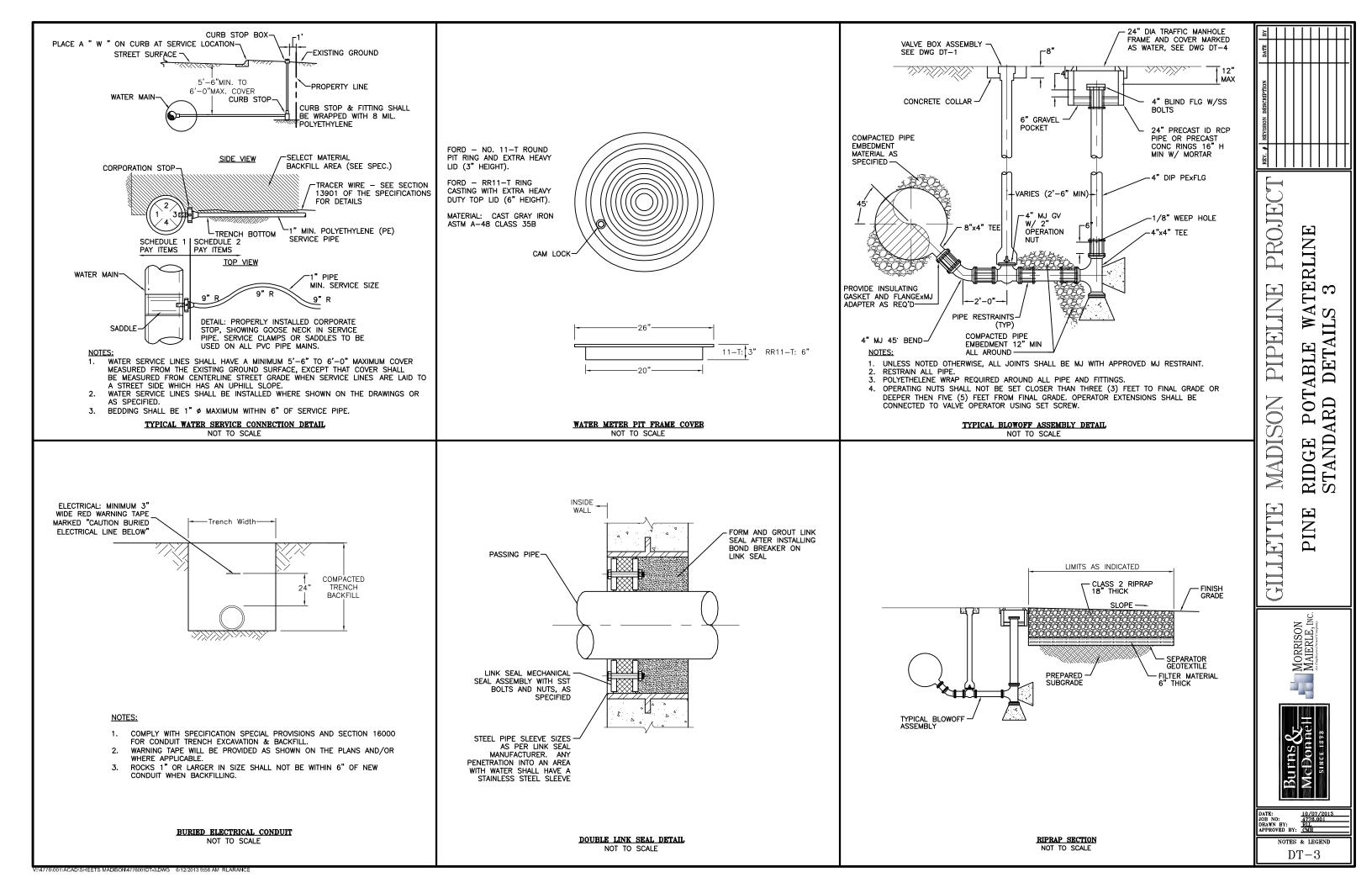
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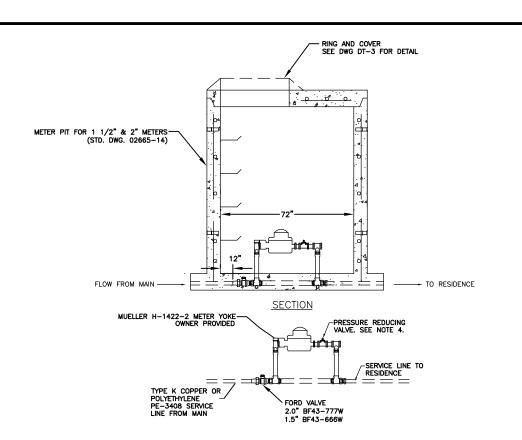
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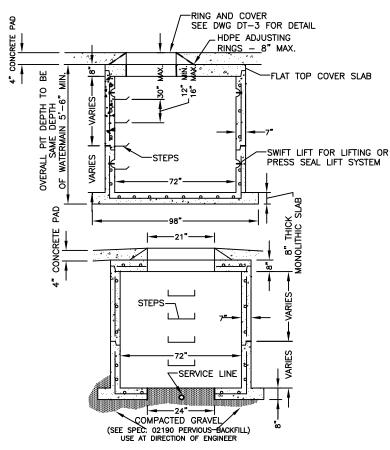
DETAILS

ARD

STAND RIDG]







- NOTES:

 1. OPENING IN LID TO BE ABOVE STEPS AND VALVE.

 1. OPENING IN LID TO BE ABOVE STEPS AND VALVE.

 1. REQUIRED WHEN N
- 48"X4" CONCRETE PAD IS REQUIRED WHEN NOT LOCATED WITHIN A PAVED AREA. METER PIT INSTALLATION TO BE LOCATED OUTSIDE OF SIDEWALK PERIMETER.
- PRESSURE REDUCING VALVE TO BE INSTALLED AS CALLED OUT ON PLANS. PAYMENT FOR PRESSURE REDUCING VALVE SHALL BE BY PAY ITEM 02665.20. CONCRETE - 4000 PSI 28 DAY STRENGTH.
- REINFORCEMENT ASTM A-615 GRADE 60 AND A-185 WWF. CEMENT TYPE V.

- ASTM C-478 GOVERNS.
- STEPS SHALL BE NON CORROSIVE RUBBER COATED ALUMINUM OR NYLON. STEPS TO BE SUPPLIED WITH PIT AND MUST BE ON THE INCOMING SIDE OF
- 10. OPENING IN LID IS TO BE ABOVE STEPS AND VALVE.



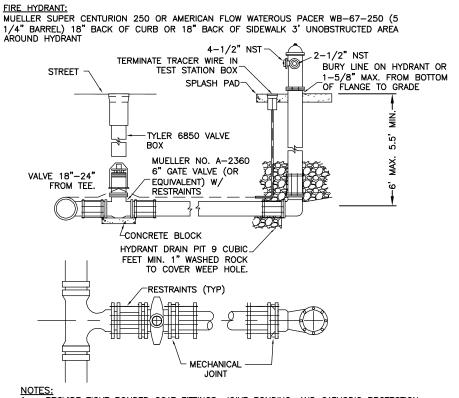
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ARD STAND



NOTES & LEGENE DT-4

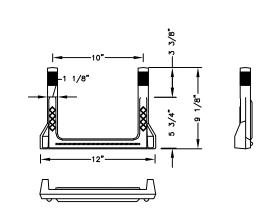
TYPICAL METER AND METER PIT INSTALLATION FOR 1 1/2" METERS NOT TO SCALE



- NOTES:

 1. PROVIDE TIGHT BONDED COAT FITTINGS, JOINT BONDING, AND CATHODIC PROTECTION IN ACCORDANCE WITH SECTION 13901 AND SERIES 13940 DETAILS OF THE SPECIFICATIONS.
- THE 6" PIPE CONNECTION FROM THE WATER MAIN TO THE HYDRANT WILL BE DIRECT. VERTICAL OR HORIZONTAL OFFSET USING ELLS SHALL NOT BE ALLOWED. TRACER WIRE SHALL BE INSTALLED PER STANDARD DETAIL 02645-06.
- RESTRAIN ALL JOINTS.
 SEE DWG DT-2 FOR TRACER WIRE DETAIL.

FIRE HYDRANT INSTALLATION NOT TO SCALE

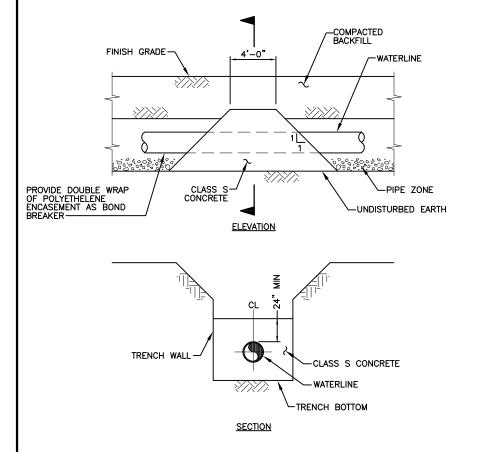


NOTES:

- MANHOLE STEP PSI-PF, AS MANUFACTURED BY M.A. INDUSTRIES, INC. PEACHTREE CITY GEORGIA, 404-487-7761.
- 2. COPOLYMER POLYPROPYLENE COATING MEETS ASTM D-4101-LATEST REVISION.

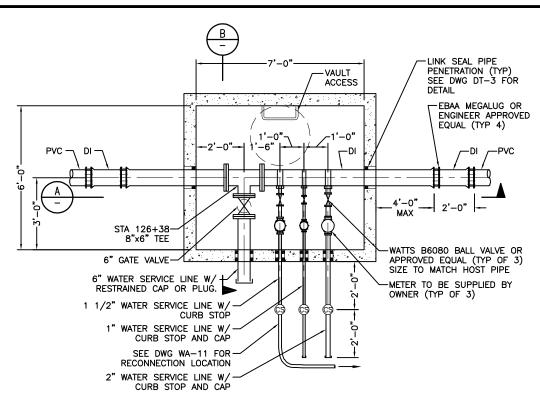
 3. STEPS MEET ASTM C478 REQUIREMENTS AND ARE ON A 12" MIN./16" MAX. VERTICAL
- STEP LEGS ARE DRIVEN INTO 1" DIAMETER HOLES IN THE MANHOLE WALL. STEPS ARE NONSPARKING, NONCONDUCTING AND NONABRASIVE.

STANDARD STEPS FOR MANHOLES NOT TO SCALE



CUT-OFF WALLS

NOT TO SCALE

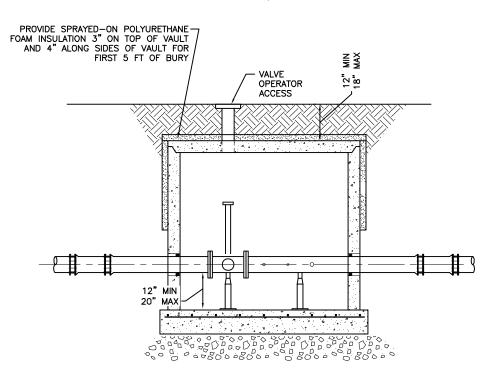


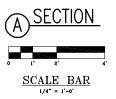
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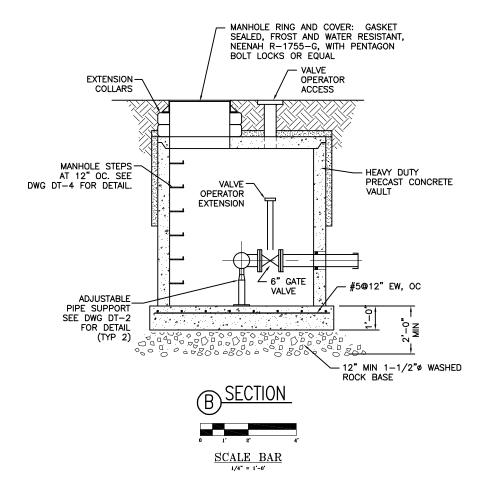
- STRUCTURE SHALL BE RATED FOR H20 LOADING. PRECAST VAULT STRUCTURAL CALCULATIONS TO BE PROVIDED BY SUPPLIER AND SHALL BE DESIGNED AND STAMPED BY A WYOMING PE.
- 2. MANHOLE COVER TO BE STAMPED "WATER".
- 3. PROVIDE 4" POLYURETHANE CLOSED CELL FOAM, CUT TO FIT BETWEEN MANHOLE LIDS. PROVIDE PULL HANDLE ATTACHMENTS TO FOAM FOR EASY PEMOVAL
- 4. RESTRAIN ALL JOINTS.
- 5. FOR PVC TO VAULT CONNECTIONS, USE FLANGED DI IN VAULT AND MJ DI OUTSIDE OF VAULT. RESTRAIN PVC TO MJ DI WITH PVC MEGALUG.

END OF LINE LARGE WATER METER VAULT AND APPURTENANCES











GILLETTE MADISON PIPELINE PROJECT PINE RIDGE POTABLE WATERLINE STANDARD DETAILS 5

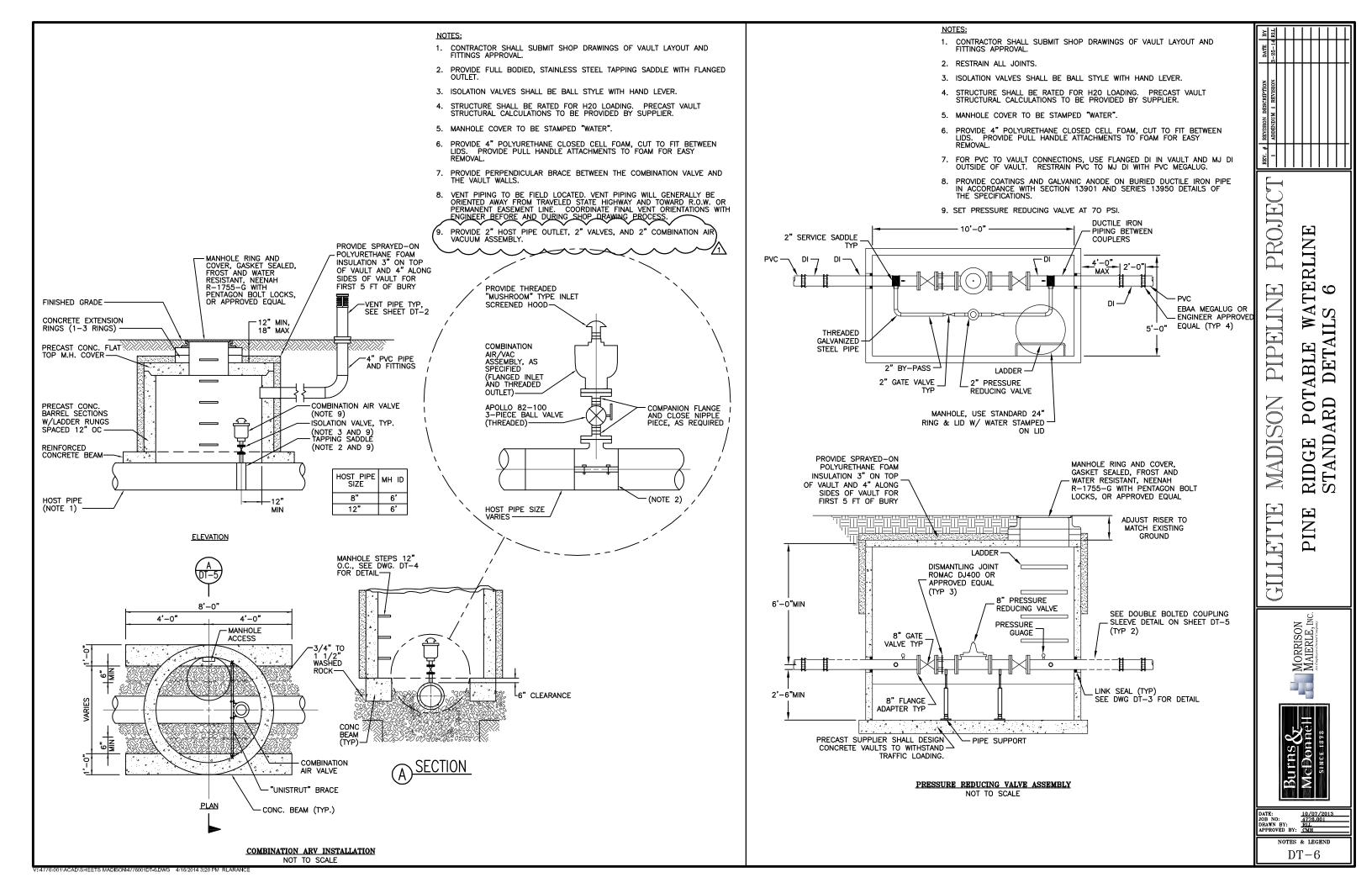
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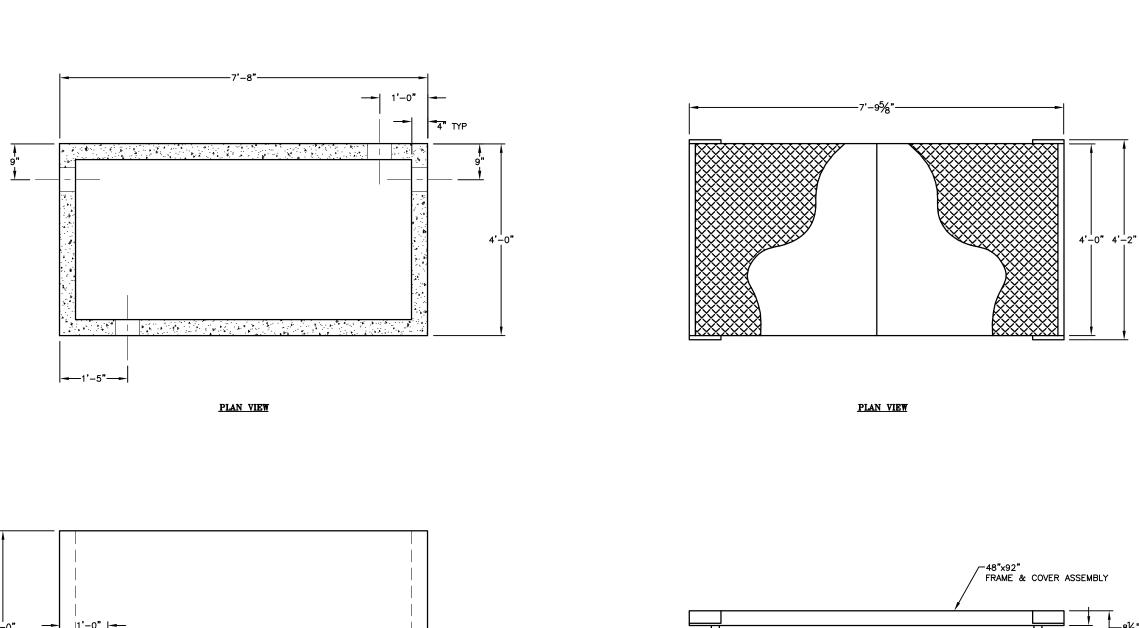
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APPROVED BY: CMH

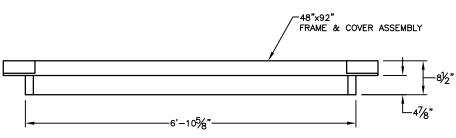
NOTES & LEGEND

DT-5

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ELEVATION VIEW

ELECTRICAL VAULT COVER
SCALE: 1/2"=1'-0"

1. OWNER WILL PURCHASE ELECTRICAL VAULT AND VAULT COVER.



PROJECT

PIPELINE

MADISON

3'-25%"

END VIEW

ABLE WATERLINE DETAILS 7

ABLE

RIDGE POT STANDARD

10"

6" KNOCKOUT

ELEVATION VIEW

ELECTRICAL VAULT
SCALE: 1/2"=1'-0"