

LOS ALAMOS COUNTY BAYO NON-POTABLE BOOSTER STATION REHABILITATION LOS ALAMOS COUNTY, NEW MEXICO

FEBRUARY 2025
construction plans for the

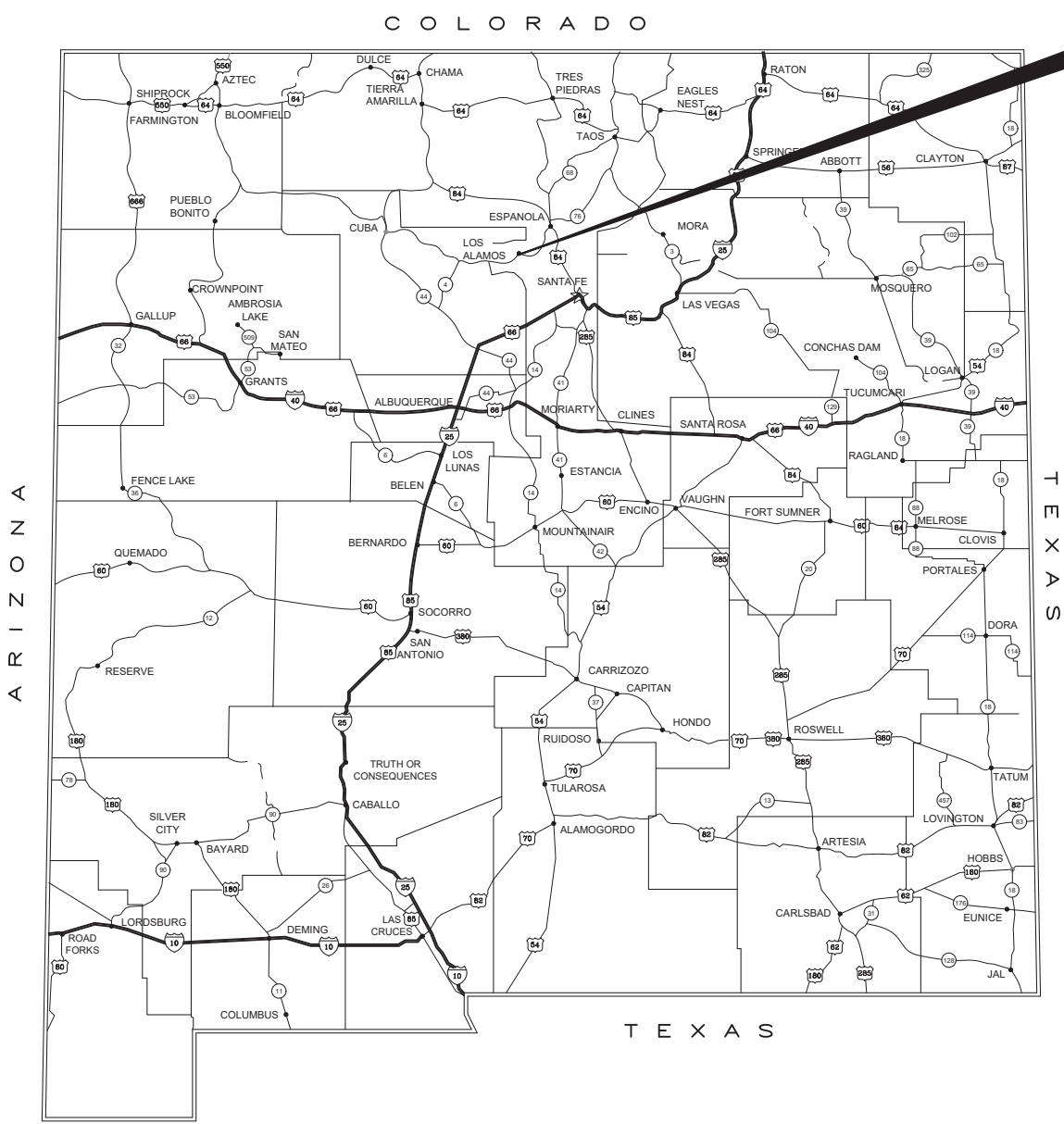
BAYO NON-POTABLE BOOSTER REHABILITATION

Project # IFB25-31

Project Address
INCORPORATED COUNTY OF LOS ALAMOS
DEPARTMENT OF PUBLIC UTILITIES
1000 CENTRAL AVENUE, SUITE 130
LOS ALAMOS, NEW MEXICO 87544



LOCATION OF PROJECT



VICINITY MAP

CERTIFICATION:

I, KENNETH R. MULLER, REGISTERED PROFESSIONAL ENGINEER NO. 12548, HEREBY CERTIFY THAT THE FOLLOWING PLANS AND DESIGNS WERE MADE UNDER MY SUPERVISION AND DIRECTION AND THAT SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



MOLZENCORBIN
ENGINEERS | ARCHITECTS | PLANNERS

2701 Miles Road SE, Albuquerque, New Mexico 87106 505 242 5700 office Molzencorbin.com



Molzen Corbin Project Number: LAC241-11

G-001

Sheet 01 / 32

NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

DESCRIPTION	REV DATE	REV NO	NUMERIC SCALE CONFIRMATION
		△	DRAWINGS ARE DEPICTED AT INTENDED NUMERIC SCALES IF THIS BAR EQUALS ONE INCH

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR THE CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.

ALL IDEAS, DESIGNS, ARRANGEMENTS, AND PLANS INDICATED OR REPRESENTED BY THIS INSTRUMENT ARE OWNED BY AND THE PROPERTY OF MOLZEN-CORBIN & ASSOCIATES, AND WERE CREATED AND DEVELOPED FOR USE ON AND IN CONNECTION WITH THE SPECIFIED PROJECT. THESE IDEAS, DESIGNS, ARRANGEMENTS OR PLANS SHALL NOT BE USED BY ANY PERSON, FIRM, OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF MOLZEN-CORBIN & ASSOCIATES.

THESE DRAWINGS REFLECT INFORMATION ON UTILITIES GATHERED BY SITE INSPECTION, DISCUSSIONS WITH MUNICIPAL OFFICIALS, AND PREVIOUS CONSTRUCTION DOCUMENTS. IT IS POSSIBLE THAT THE EXACT LOCATION OF LINES AND UTILITY CONNECTION POINTS IN THE VICINITY OF REQUIRED WORK MAY BE DIFFERENT FROM THE LOCATION SHOWN ON THESE DRAWINGS. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

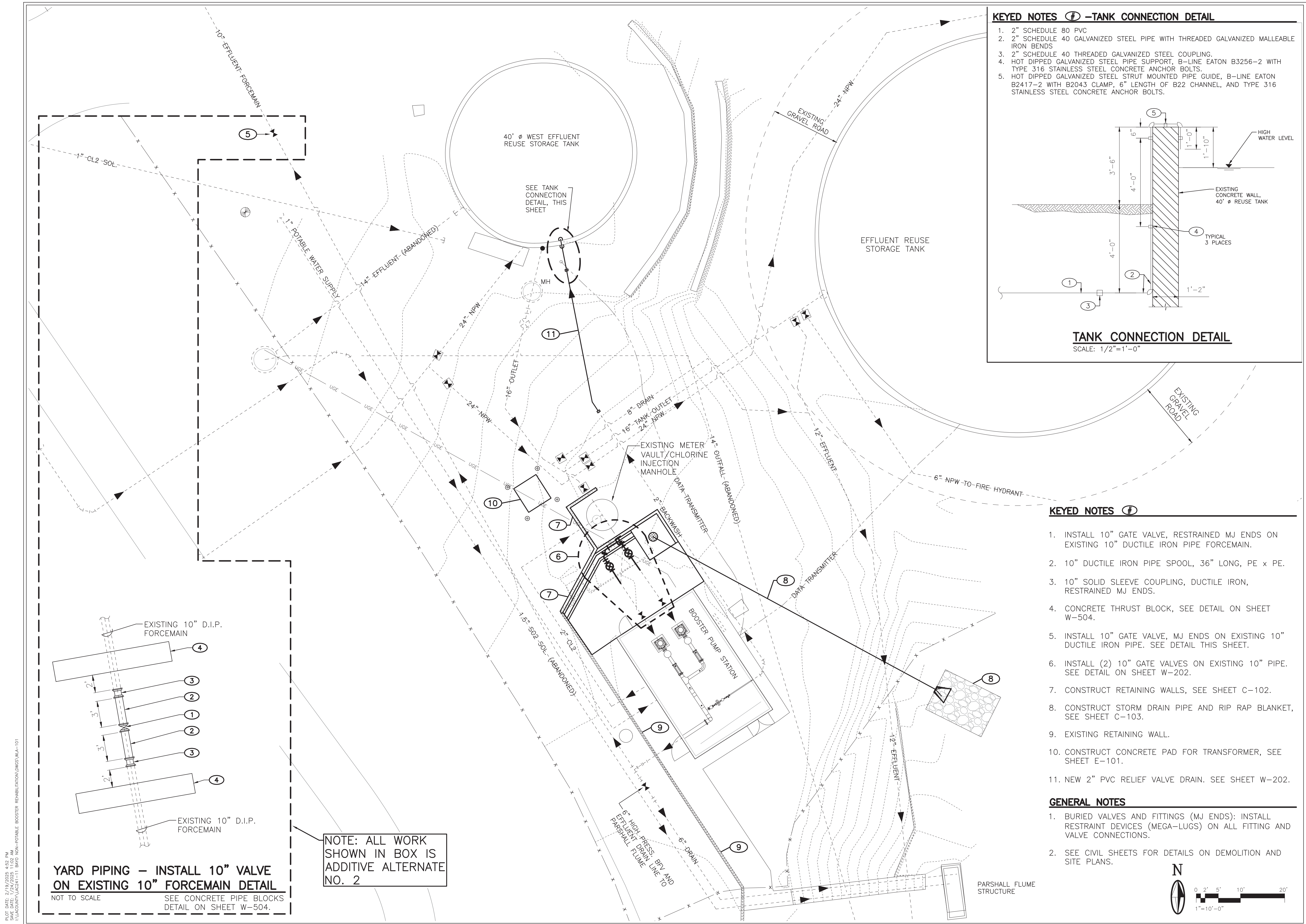


- TELECOMMUNICATIONS
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david.gomez@lacnm.us

STEVEN K. MORROW
NEW MEXICO
13679
REGISTERED PROFESSIONAL ENGINEER
2-19-2025

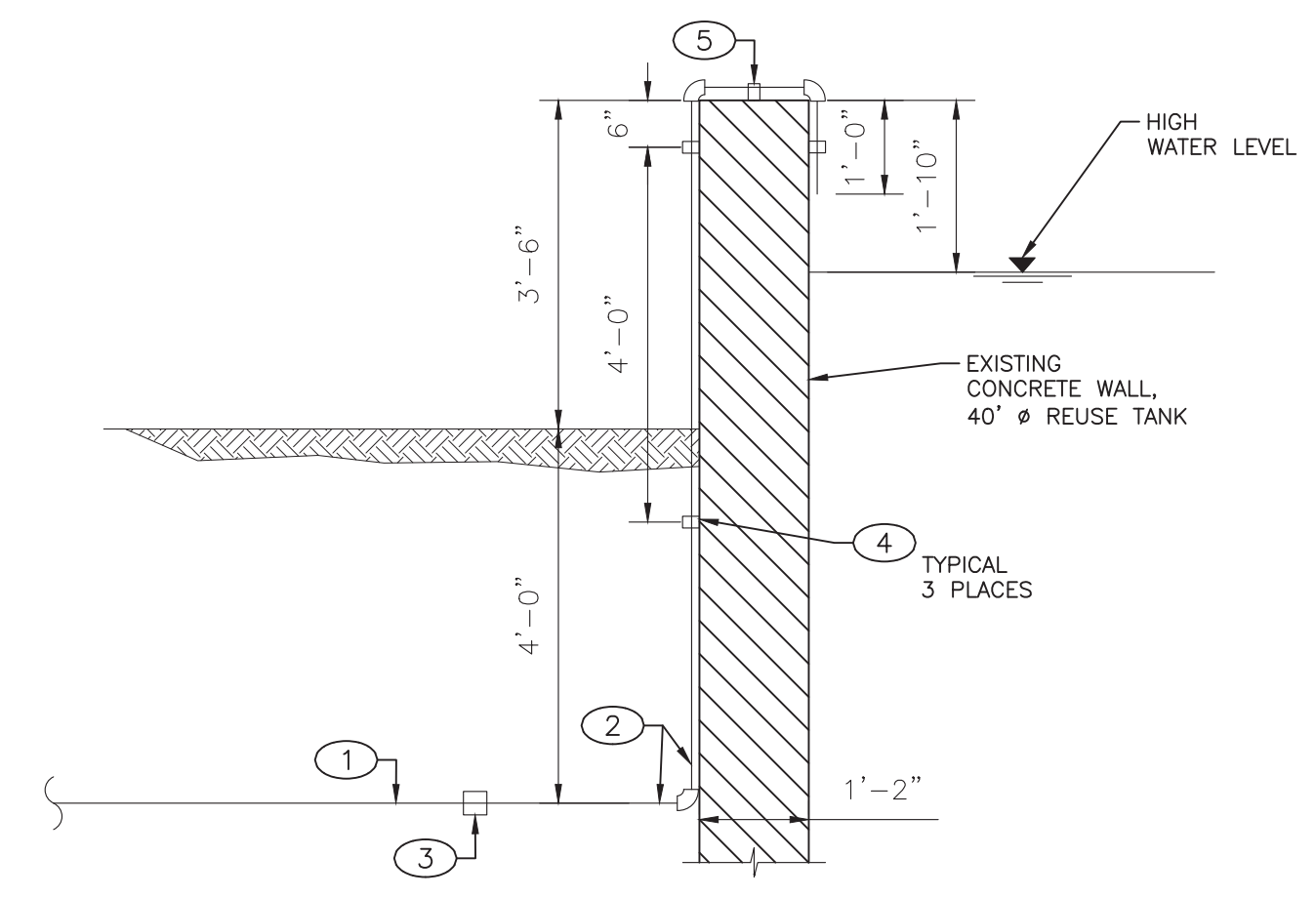
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BAYO NON-POTABLE BOOSTER REHABILITATION
LOS ALAMOS COUNTY
LOS ALAMOS COUNTY, NEW MEXICO



KEYED NOTES **-TANK CONNECTION DETAIL**

- 1. 2" SCHEDULE 80 PVC
- 2. 2" SCHEDULE 40 GALVANIZED STEEL PIPE WITH THREADED GALVANIZED MALLEABLE IRON BENDS
- 3. 2" SCHEDULE 40 THREADED GALVANIZED STEEL COUPLING.
- 4. HOT DIPPED GALVANIZED STEEL PIPE SUPPORT, B-LINE EATON B3256-2 WITH TYPE 316 STAINLESS STEEL CONCRETE ANCHOR BOLTS.
- 5. HOT DIPPED GALVANIZED STEEL STRUT MOUNTED PIPE GUIDE, B-LINE EATON B2417-2 WITH B2043 CLAMP, 6" LENGTH OF B22 CHANNEL, AND TYPE 316 STAINLESS STEEL CONCRETE ANCHOR BOLTS.



TANK CONNECTION DETAIL

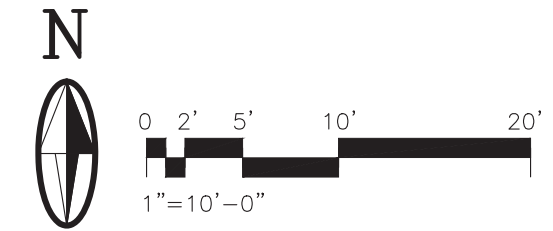
SCALE: 1/2"=1'-0"

KEYED NOTES

- 1. INSTALL 10" GATE VALVE, RESTRAINED MJ ENDS ON EXISTING 10" DUCTILE IRON PIPE FORCEMAIN.
- 2. 10" DUCTILE IRON PIPE SPOOL, 36" LONG, PE x PE.
- 3. 10" SOLID SLEEVE COUPLING, DUCTILE IRON, RESTRAINED MJ ENDS.
- 4. CONCRETE THRUST BLOCK, SEE DETAIL ON SHEET W-504.
- 5. INSTALL 10" GATE VALVE, MJ ENDS ON EXISTING 10" DUCTILE IRON PIPE. SEE DETAIL THIS SHEET.
- 6. INSTALL (2) 10" GATE VALVES ON EXISTING 10" PIPE. SEE DETAIL ON SHEET W-202.
- 7. CONSTRUCT RETAINING WALLS, SEE SHEET C-102.
- 8. CONSTRUCT STORM DRAIN PIPE AND RIP RAP BLANKET, SEE SHEET C-103.
- 9. EXISTING RETAINING WALL.
- 10. CONSTRUCT CONCRETE PAD FOR TRANSFORMER, SEE SHEET E-101.
- 11. NEW 2" PVC RELIEF VALVE DRAIN. SEE SHEET W-202.

GENERAL NOTES

- 1. BURIED VALVES AND FITTINGS (MJ ENDS): INSTALL RESTRAINT DEVICES (MEGA-LUGS) ON ALL FITTING AND VALVE CONNECTIONS.
- 2. SEE CIVIL SHEETS FOR DETAILS ON DEMOLITION AND SITE PLANS.



MOLZENCORBIN

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505 242 0673 fax
MolzenCorbin.com

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OF AN UNDISPUTED REQUEST FOR PAYMENT

NUMERIC SCALE CONFIRMATION
DRAWINGS ARE DEPICTED AT INTENDED
NUMERIC SCALES
IF THIS BAR EQUALS ONE INCH



REV NO	REV DATE	DESCRIPTION

PROJECT NUMBER:	LAC241-11
DESIGNED BY:	ACC
DRAWN BY:	DJ
CHECKED BY:	KM
PRIME DESIGN PROFESSIONAL:	KEN MILLER
PROJECT DATE:	FEBRUARY 2025

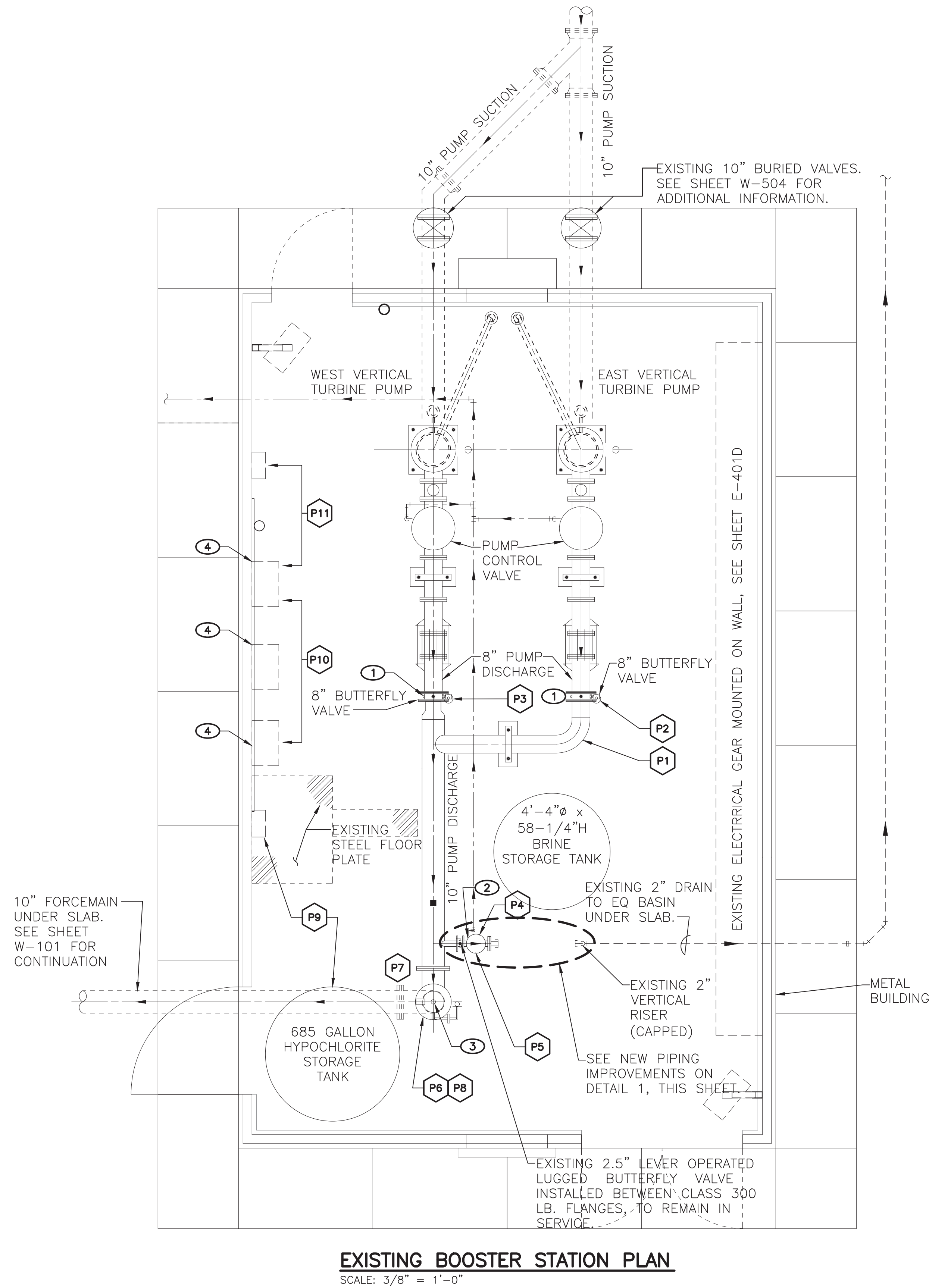
**YARD PIPING MODIFICATIONS PLAN
TO EXISTING FACILITIES**

BAYO NON-POTABLE BOOSTER REHABILITATION
LOS ALAMOS COUNTY
LOS ALAMOS COUNTY, NEW MEXICO

W-101

SHEET 13 / 32

DATE: 7/17/2025 4:52 PM
SAVE DATE: 7/17/2025 11:21 AM
I:\ALAMOUNTY\LAC241-11 BAYO NON-POTABLE BOOSTER REHABILITATION\DWGS\W-102



KEYED NOTES

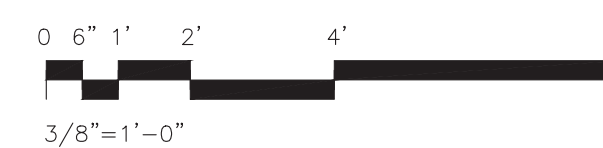
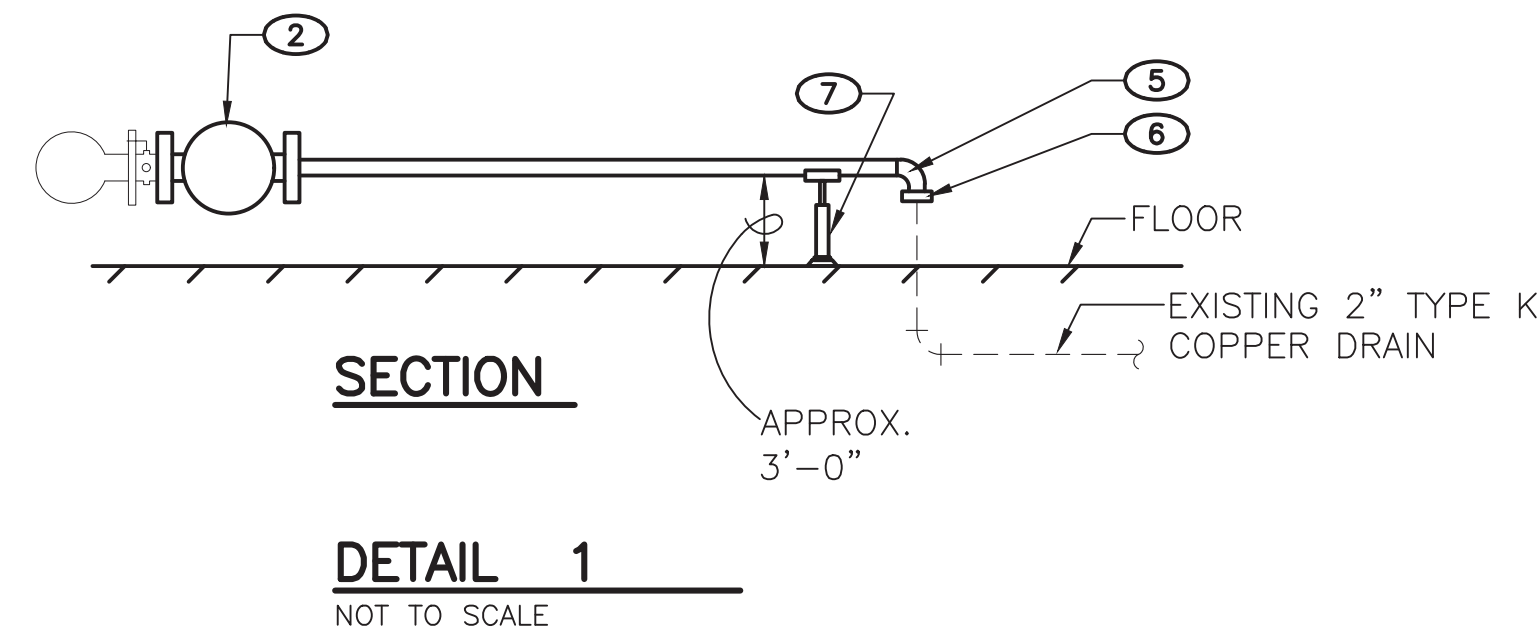
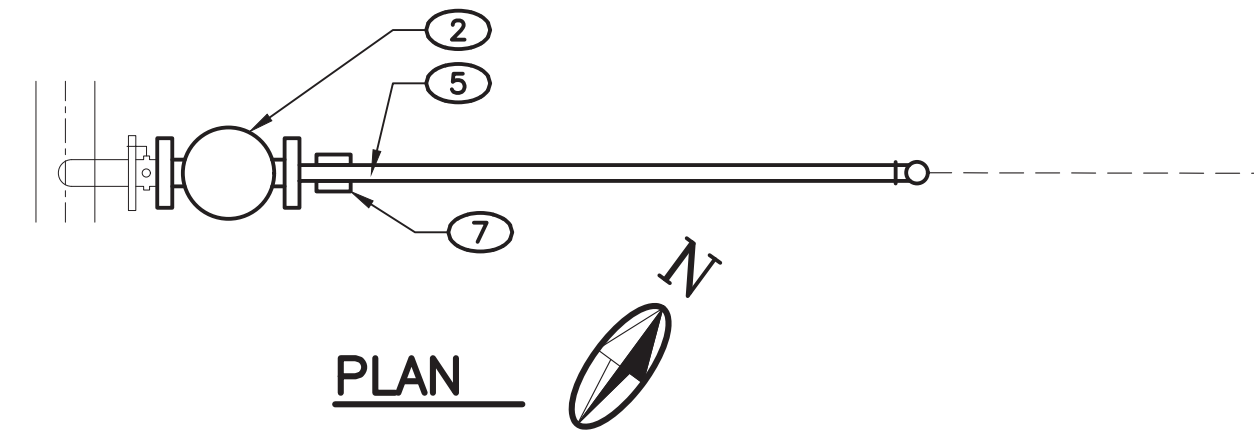
1. REMOVE EXISTING 8" BUTTERFLY VALVE AND HANDWHEEL OPERATOR. REPLACE VALVE AND OPERATOR WITH 8" LUGGED TYPE BODY BUTTERFLY VALVE AND MANUAL HANDWHEEL OPERATOR. INSTALL NEW VALVE BETWEEN EXISTING FLANGES. EXISTING PUMP DISCHARGE PIPING LAYOUT AND VALVES ARE SHOWN ON SHEET W-501: PICTURES P1, P2, AND P3.
2. REMOVE AND SALVAGE EXISTING 2.5" PRESSURE REDUCING VALVE HAVING CLASS 300 LBS. FLANGES AND BLIND FLANGE WITH 2" CAPPED THREADED TAP. REPLACE WITH 2.5" SURGE ANTICIPATOR/PRESSURE RELIEF VALVE FOR SURGE PROTECTION. SEE SPECIFICATION 40 27 02.13. EXISTING PRESSURE REDUCING VALVE IS SHOWN ON SHEET W-501: PICTURES P4 AND P5.
3. REMOVE EXISTING 2" AIR RELIEF VALVE MOUNTED ON 10" FLANGE TEE. DISCONNECT AT 2" THREADED PIPE AND TEE; INSTALL NEW 2" ISOLATION BALL VALVE BETWEEN 10" TEE AND NEW 2" AIR RELIEF VALVE FOR SEWAGE SERVICE. EXISTING AIR RELIEF VALVE IS SHOWN ON SHEET W-502: PICTURES P6, P7, AND P8.

KEYED NOTES

4. COUNTY WILL REMOVE EXISTING MIOX DISINFECTION SYSTEM EQUIPMENT. CONTRACTOR SHALL REPLACE WITH NEW MIXED OXIDANT DISINFECTION SYSTEM INCLUDING PIPING AND APPURTENANCES FOR A COMPLETE AND OPERABLE SYSTEM.. EXISTING MIOX DISINFECTION EQUIPMENT AND PIPING ARE SHOWN ON SHEET W-503: PICTURES: P9, P10, AND P11.
5. INSTALL 2.5" PAINTED STEEL PIPE, SCHEDULE 40, WITH CLASS 300 LB FLANGE ON STRAIGHT END AND WELDED 90° BEND WITH CLASS 150 LB. FLANGE ON VERTICAL BRANCH.
6. INSTALL 2.5" FLANGED STEEL X 2.0" COPPER DIELECTRIC UNION WITH BUSHING. CONNECT TO EXISTING 2.0" COPPER RISER.
7. GALVANIZED STEEL ADJUSTABLE PIPE SUPPORT ON 1/2" GROUT PAD.

LEGEND

- ① KEYED NOTES
P2 PICTURE NUMBER



MOLZENCORBIN

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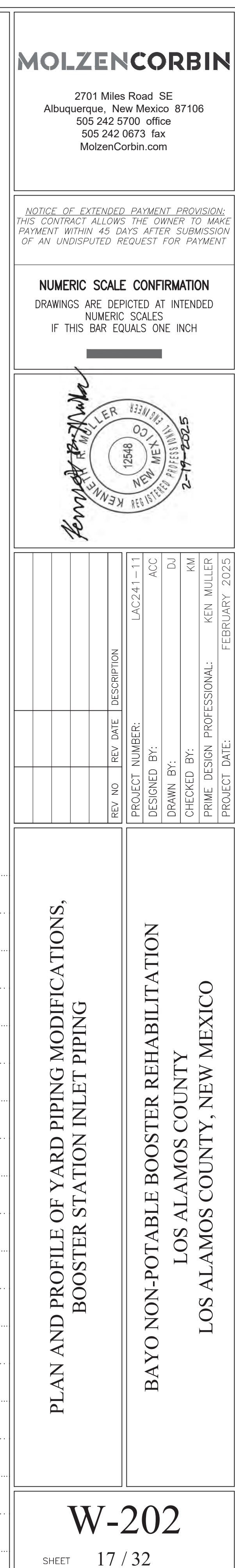
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DRAWINGS ARE DEPICTED AT INTENDED
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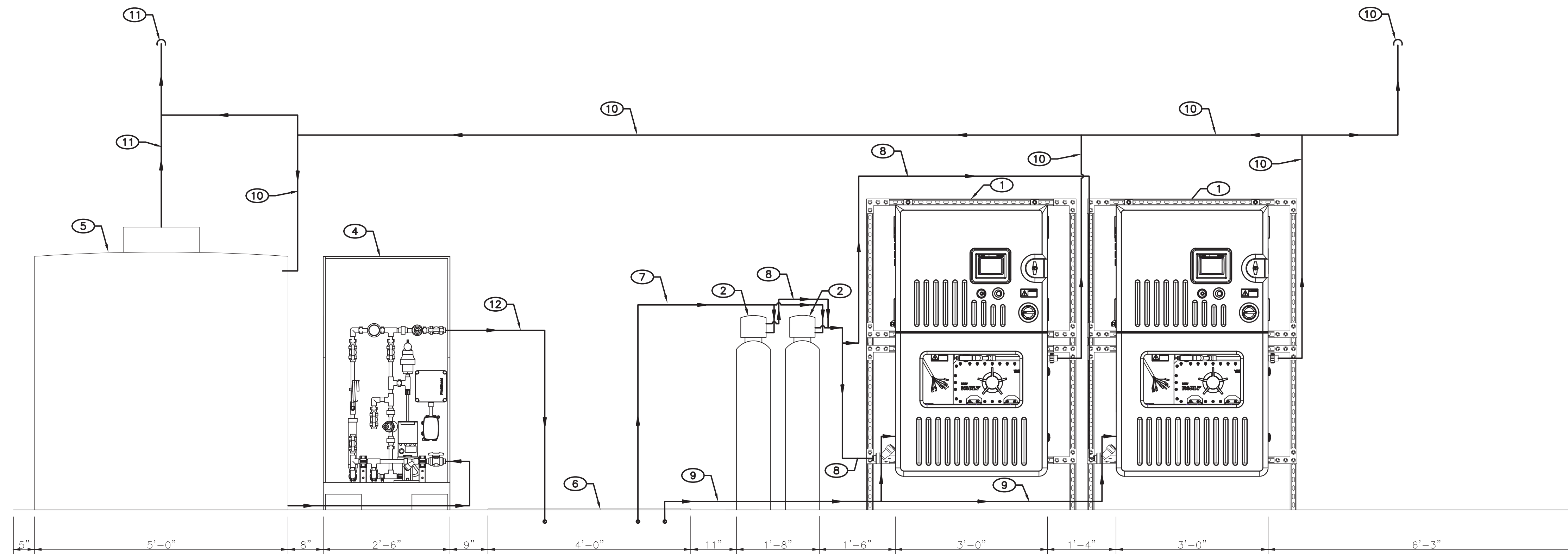


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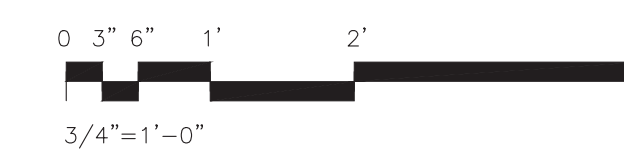


1. SEE SHEET W-102 FOR REMOVAL AND MODIFICATION PLAN.
2. SEE SHEET W-103 FOR MIX PLAN LAYOUT.
3. SEE ELECTRICAL SHEETS FOR ELECTRICAL REMOVAL AND MODIFICATIONS PLANS.
4. SEE ARCHITECTURE SHEETS FOR ARCHITECTURAL REMOVAL AND MODIFICATIONS PLANS.

1. NEW SODIUM HYDROCHLORITE ON-SITE GENERATOR MOUNTED ON EXISTING WALL. SEE SECTION 46 33 13 FOR DETAILS.
2. NEW WATER SOFTENER. SEE SECTION 46 33 13 FOR DETAILS.
3. NEW HYDROGEN GAS SENSOR TO BE MOUNTED TO OVERHEAD CEILING BEAM, TO BE PROVIDED BY ON-SITE GENERATOR MANUFACTURER. SEE SECTION 46 33 13 FOR DETAILS.
4. MIXED OXIDANT DOSING SKID, TO BE PROVIDED BY ON-SITE GENERATOR MANUFACTURER. SEE SECTION 46 33 13 FOR DETAILS.
5. EXISTING SODIUM HYDROCHLORITE STORAGE TANK TO REMAIN IN PLACE. INSTALL LEVEL SENSOR ON TANK PER ELECTRICAL DRAWINGS AND SECTION 46 33 13 FOR DETAILS.
6. EXISTING METAL FLOOR PLATE TO REMAIN IN PLACE.
7. NEW POTABLE WATER INLET LINE.
8. NEW 1/2" SOFTENED WATER OUTLET LINE TO MIXED OXIDANT UNITS.
9. NEW BRINE INLET LINE TO MIXED OXIDANT UNITS.
10. NEW 3/4" PVC MIXED OXIDANT OUTLET LINE TO EXISTING TANK.
11. NEW 3/4" PVC HYDROGEN VENT PIPING. EXISTING WALL PENETRATIONS TO BE REUSED FOR PIPING TO EXTERIOR.
12. NEW 3/4" PVC DOSING SKID DISCHARGE PIPING TO INJECTION POINT IN YARD PIPING.



SCALE: $3/4"=1'-0"$



W-301

SHEET 18 / 32

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[illegible]

DISINFECTION SYSTEM ELEVATION PLAN

BAYO NON-POTABLE BOOSTER REHABILITATION
LOS ALAMOS COUNTY
LOS ALAMOS COUNTY, NEW MEXICO



P4 PICTURE LOCATION



7. 10" PUMP DISCHARGE

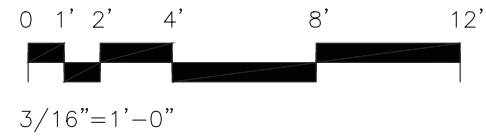
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PICTURE NUMBER	KEYED NOTES
P9	1. HYPOCHLORITE SOLUTION TANK
P9	2. WATER SOFTENER
P9	3. HACH HARDNESS MONITOR
P9	*4. WATER DISINFECTION UNIT NO. 3 – CONTROL PANEL
P9	*5. ELECTROLYSIS CELL
P9	*6. BRINE FILTER
P10	*7. WATER DISINFECTION UNIT NO.3 – CONTROL PANEL
P10 P11	*8. WATER DISINFECTION UNIT NO.2 – CONTROL PANEL
P10 P11	*9. WATER DISINFECTION UNIT NO.1 – CONTROL PANEL
P10	*10. HYPOCHLORITE SUPPLY TO HYPOCHLORITE SOLUTION TANK
P10 P11	*11. ELECTROLYSIS CELL
P10 P11	*12. BRINE FILTER
P11	13. POWER SUPPLY PANEL

✱A. EXISTING EQUIPMENT TO BE REMOVED BY OWNER'S WATER PRODUCTION GROUP.

✱B. POWER DISCONNECT WILL BE DONE BY OWNER'S ELECTRICAL GROUP. CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE.



SEE REFERED NOTE #26: USE LEFT 3/4" CONDUIT TUB FOR CONNECTION TO CONTROL PANEL FOR 24VDC POWER AND TO TRANSMIT THE ALARM SIGNALS.

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