

# LAKE DON PEDRO COMMUNITY SERVICES DISTRICT

## EXISTING RANCHITO WELL #1 RECONNECTION

Mariposa County, California

| REVISIONS | BY  |
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| 12/18/18  | EAB |
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### SCOPE OF WORK:

1. EXTEND WELL HEAD
2. CONSTRUCT REINFORCED CONCRETE WELL SLAB
3. INSTALL AND CONNECT DISCHARGE PIPING
4. RECONNECT ELECTRICAL AND CONTROL PANEL
5. INSTALL FENCING
6. COMPACT BASE ROCK SURFACING
7. TEST WELL PUMP AND PIPING AS DIRECTED BY THE ENGINEER
8. CONNECT TO SCADA SYSTEM (BY OTHERS) NIC

### LDPDSD WATER SYSTEM GENERAL CONSTRUCTION NOTES

1. ALL MATERIALS & WORK SHALL CONFORM TO THESE APPROVED PROJECT PLANS, LDPDSD STANDARD SPECIFICATIONS AND STANDARD DRAWINGS FOR WATER DISTRIBUTION, LOCAL CITY OR COUNTY JURISDICTIONAL REQUIREMENTS, AND THE CURRENT STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND DETAILS. IN CASE OF CONFLICT, THE ORDER OF PRIORITY SHALL COINCIDE WITH THE ORDER AS LISTED ABOVE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF THE LOCATION AND THE PROTECTION OF ALL EXISTING UTILITIES AND UNDERGROUND STRUCTURES IN THE FIELD. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND FOR GENERAL INFORMATION PURPOSES ONLY.
3. THE CONTRACTOR SHALL NOTIFY ALL UTILITIES A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION NEAR THEIR FACILITIES BY CALLING UNDERGROUND SERVICE ALERT AT 800-642-2444 TOLL FREE.
4. DUST CONTROL AND PROTECTION OF VEGETATION SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED BY THE DISTRICT, CITY, COUNTY, OR ENGINEER.
5. THE CONTRACTOR SHALL REMEDY ANY DEFECTS IN THE WORK AND PAY FOR ANY DAMAGE TO OTHER WORK RESULTING THEREFROM WHICH SHALL APPEAR WITHIN A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.
6. CONTRACTOR SHALL CLEANUP AND RESTORE THE SITE AFTER CONSTRUCTION. CONTRACTOR SHALL LEAVE SITE IN A CONDITION EQUAL TO OR BETTER THAN THAT WHICH WAS ORIGINALLY FOUND.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AS REQUIRED.
8. CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR WORKING CONDITIONS AT THE JOB SITE, INCLUDING SAFETY, PERSONNEL AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO WORK HOURS. ALL WORK DONE AND MATERIALS AND EQUIPMENT TRANSPORTED, HANDLED, STORED, OR INSTALLED SHALL BE DONE IN CONFORMANCE WITH THE APPLICABLE ORDERS, RULES, AND REGULATIONS OF THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY, OSHA, AND WITH ALL OTHER STATE, COUNTY OR GOVERNING OR UTILITY AGENCY REQUIREMENTS.
9. CONTRACTOR SHALL PROVIDE SUBMITTALS ON ALL FURNISHED MATERIALS. NO PORTION OF THE WORK SHALL BE PERFORMED UNTIL THE RESPECTIVE SUBMITTAL HAS BEEN STAMPED "APPROVED" BY THE ENGINEER. ALLOW 10 WORKING DAYS MINIMUM FOR INITIAL REVIEW. BY SUBMITTING, THE CONTRACTOR REPRESENTS THAT THE CONTRACTOR HAS DETERMINED AND VERIFIED MATERIALS, FIELD MEASUREMENTS, AND FIELD CONSTRUCTION CRITERIA RELATED THERETO. SUBMIT THE NUMBER OF COPIES THE CONTRACTOR REQUIRES TO BE RETURNED PLUS THREE. THREE COPIES WILL BE RETAINED BY THE ENGINEER. MARK EACH COPY TO CLEARLY SHOW APPLICABLE CHOICES AND OPTIONS.
10. THE CONTRACTOR SHALL MARK UP ONE SET OF REPRODUCIBLE PRINTS OF THE PLANS TO SHOW THE AS-BUILT CONDITIONS. THIS MARKED SET OF PRINTS SHALL INCLUDE ALL THE INFORMATION SHOWN ON THE CONTRACT SET OF PLANS AND A RECORD OF ALL DEVIATIONS, MODIFICATIONS, OR CHANGES FROM THOSE PLANS, HOWEVER MINOR, WHICH WERE INCORPORATED INTO THE WORK, AND ALL ADDITIONAL WORK NOT PREVIOUSLY SHOWN ON THE PLANS.
11. THE CONTRACTOR WILL CONTACT THE DISTRICT PRIOR TO OPERATING ANY VALVES OR CONTROL EQUIPMENT. THE CONTRACTOR WILL NOTIFY THE DISTRICT PRIOR TO CONNECTING, DISCONNECTING OR MODIFYING ANY DISTRICT FACILITIES. THE DISTRICT WILL COOPERATE WITH THE CONTRACTOR TO THE MAXIMUM EXTENT POSSIBLE WITH THE UNDERSTANDING WATER SERVICE CONTINUITY DURING CONSTRUCTION IS A REQUIREMENT OF THE PROJECT. CONTRACTOR SHALL PROVIDE MINIMUM 48 HOUR ADVANCE NOTIFICATION TO THE DISTRICT BEFORE STARTING ANY PORTION OF THE WORK.

### RAW WATER PIPE INSTALLATION AND TESTING

1. ALL PIPING SHALL BE INSTALLED AND JOINED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. ALL TEES, ELBOWS AND DEAD ENDS SHALL BE BLOCKED WITH CONCRETE AGAINST UNDISTURBED SOIL PER THE STANDARD THRUST BLOCK DETAILS. GATE VALVES, REDUCERS, VERTICAL BENDS AND SPECIAL FITTINGS SHALL BE BLOCKED AS SHOWN ON THESE PLANS.
3. PRESSURE AND LEAKAGE TESTS SHALL BE PERFORMED ON ALL PIPING. PRESSURE AND LEAKAGE TESTING FOR THIS PROJECT WILL BE VISUAL. ALL UNDERGROUND JOINTS AND FITTINGS SHALL BE LEFT EXPOSED UNTIL THE WORK HAS PASSED TESTING. PRESSURE AND LEAKAGE TESTING SHALL BE OBSERVED BY THE DISTRICT. CONTRACTOR SHALL PROVIDE MINIMUM TWO WORKING DAYS ADVANCE NOTICE. CONCRETE THRUST BLOCKS SHALL CURE FOR 7 DAYS BEFORE PRESSURIZATION.
4. FLUSHING OF THE MAINS AND LATERALS SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER OR DISTRICT.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT A WATER PIPING SYSTEM CAPABLE OF PASSING PRESSURE, LEAKAGE AND DISINFECTION TESTS. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO PREVENT THE CONSUMPTION OF WATER FOR ANY AND ALL USES FROM UNSTERILE PIPING EITHER BY THEIR WORKMEN, SUB-CONTRACTORS, OR OTHER PERSON.
6. THE END OF THE WATER MAIN SHALL BE PLUGGED NIGHTLY WITH A WATER TIGHT PLUG. GROUND WATER SHALL NOT BE ALLOWED TO ENTER THE PIPE AT ANY TIME.
7. ALL PIPELINE MATERIALS SHALL BE FREE OF FOREIGN MATERIAL WHEN INSTALLED AND SHALL REMAIN CLEAN DURING INSTALLATION. ALL FOREIGN MATERIAL SHALL BE REMOVED OR SWABBED FROM THE INTERIOR OF THE PIPE AS NECESSARY.
8. ALL FITTINGS SHALL BE MECHANICAL JOINT DUCTILE IRON CASTINGS CONFORMING TO THE APPLICABLE REQUIREMENTS OF AWWA STANDARD C153 FOR THREE HUNDRED FIFTY (350) PSI WORKING PRESSURE, UNLESS OTHERWISE SHOWN ON THESE PLANS. MANUFACTURER'S CERTIFICATES SHOWING CONFORMANCE WITH THESE SPECIFICATIONS SHALL BE DELIVERED TO THE ENGINEER WITH EACH SHIPMENT OF MATERIALS DELIVERED TO THE JOB SITE.
9. BURIED PIPE SHALL HAVE A MINIMUM 4" SAND BEDDING, AND 6" MIN. SAND COVER, UNLESS OTHERWISE INDICATED ON THESE PLANS.
10. DISINFECTION IS NOT REQUIRED ON RAW WATER PIPING.
11. THE CONTRACTOR SHALL VERIFY LOCATIONS OF SEWERS, LEACH FIELDS, CESSPOOLS, SEPTIC TANKS, SEWAGE PITS, AND OTHER SANITARY HAZARDS PRIOR TO INSTALLING PIPE. WATER PIPE SHALL BE INSTALLED A MINIMUM OF 10-FOOT HORIZONTALLY AND 1-FOOT VERTICALLY ABOVE PARALLEL SEWER LINES. WATER PIPE SHALL BE INSTALLED NO LESS THAN 4-FOOT HORIZONTALLY AND 1-FOOT VERTICALLY ABOVE STORM DRAINAGE PIPES. IF WATER PIPE MUST CROSS SANITARY OR STORM SEWER PIPES, IT MUST CROSS AT NO LESS THAN A 45 DEGREE ANGLE, BE A MINIMUM OF 1-FOOT ABOVE, AND HAVE NO JOINTS OR FITTINGS WITHIN 8 HORIZONTAL FEET OF THE SEWER PIPE. WATER PIPE SHALL BE INSTALLED A MINIMUM OF 25-FEET FROM LEACH FIELDS, SEPTIC TANKS, SEWAGE PITS, OR CESSPOOLS UNLESS OTHERWISE SHOWN ON THESE PLANS.
12. ALL FLANGED, WELDED, GROOVED, AND SCREWED PIPING SHALL BE STEEL. ALL STEEL PIPE 6-INCHES IN DIAMETER OR LESS SHALL BE SCHEDULE 40. STEEL PIPE 8-INCHES IN DIAMETER SHALL BE SCHEDULE 30. STEEL PIPING LESS THAN 4-INCHES IN DIAMETER SHALL BE GALVANIZED. STEEL PIPING GREATER THAN 3-INCHES IN DIAMETER SHALL BE FLUIDIZED BED FUSION BONDED POTABLE WATER SERVICE EPOXY W/ASTM F477. MAXIMUM LENGTH OF EACH SECTION OF PIPE BETWEEN ELASTOMERIC RINGS SHALL BE TWENTY (20) FEET. MANUFACTURER'S CERTIFICATES SHOWING CONFORMANCE WITH THESE SPECIFICATIONS SHALL BE DELIVERED TO THE ENGINEER WITH EACH SHIPMENT OF MATERIALS DELIVERED TO THE JOB SITE.
13. POLYVINYL CHLORIDE (PVC) PRESSURE PIPE SHALL BE VIRGIN PVC ASTM D 1784, CELL CLASS 12454B. ALL PVC PIPE SHALL CONFORM TO THE REQUIREMENTS OF AWWA STANDARD C900 CLASS 150 WITH ELASTOMERIC SEALS ASTM F477. MAXIMUM LENGTH OF EACH SECTION OF PIPE BETWEEN ELASTOMERIC RINGS SHALL BE TWENTY (20) FEET. MANUFACTURER'S CERTIFICATES SHOWING CONFORMANCE WITH THESE SPECIFICATIONS SHALL BE DELIVERED TO THE ENGINEER WITH EACH SHIPMENT OF MATERIALS DELIVERED TO THE JOB SITE.
14. DUCTILE IRON (DI) PIPE SHALL BE PRESSURE CLASS 200, WITH CEMENT MORTAR LINING INTERIOR, COAL TAR COATED EXTERIOR, RUBBER GASKET JOINTS AND SHALL BE RESTRAINED AS SHOWN ON THE PLANS. DI PIPE SHALL CONFORM TO THE FOLLOWING AWWA STANDARDS: C104, C110, C111, C150, AND C151.

### UNAUTHORIZED CHANGES AND USES:

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS, ALL CHANGES TO THESE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

**Binkley Associates**  
CONSULTING ENGINEERS

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SITE PLAN  
AND DETAILS

LAKE DON PEDRO  
COMMUNITY SERVICES DISTRICT  
MARIPOSA COUNTY, CALIFORNIA

DATE: 12/18/18

SCALE: AS SHOWN

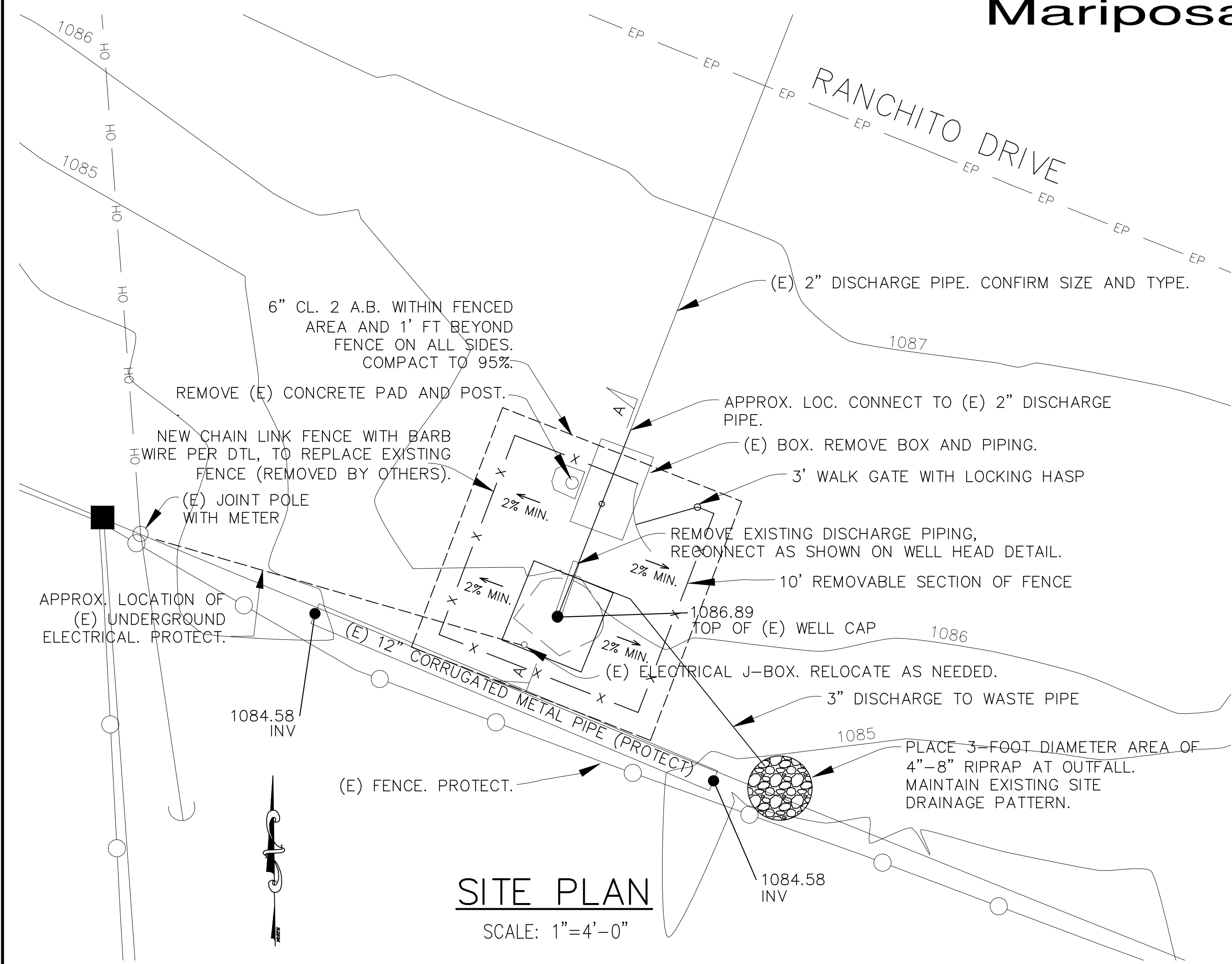
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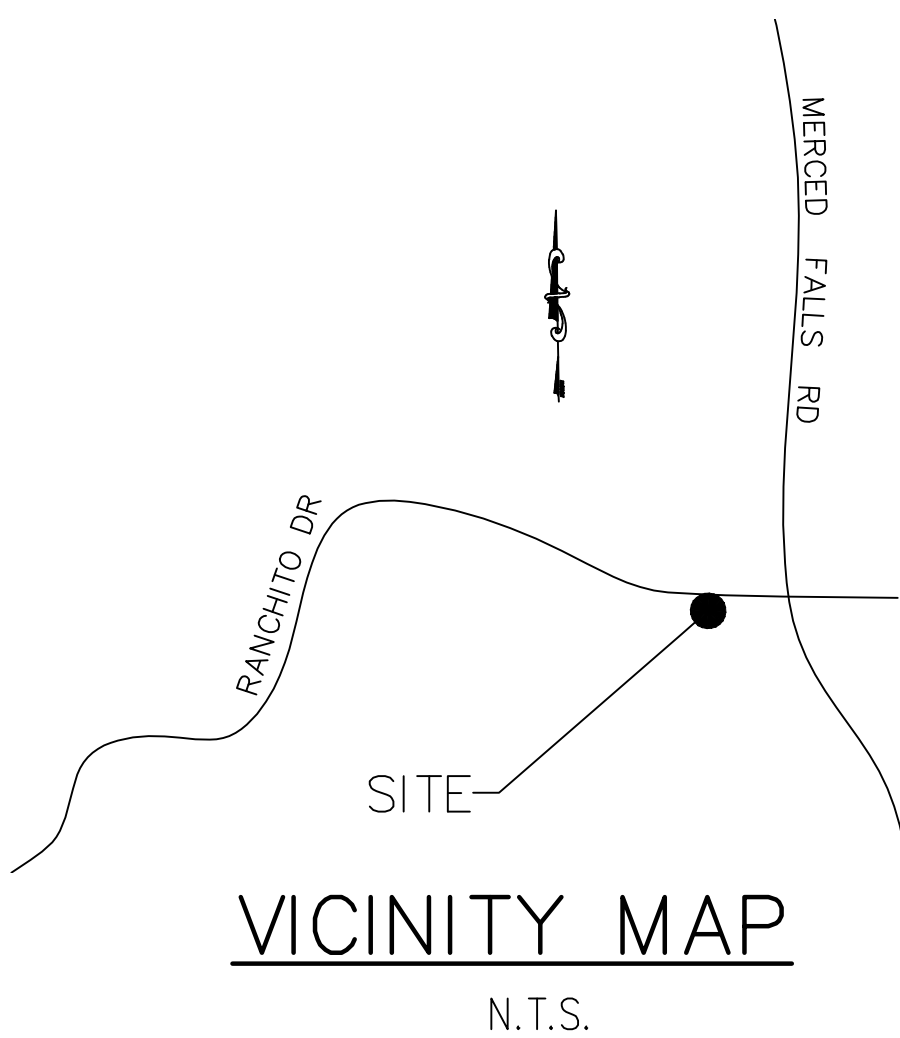
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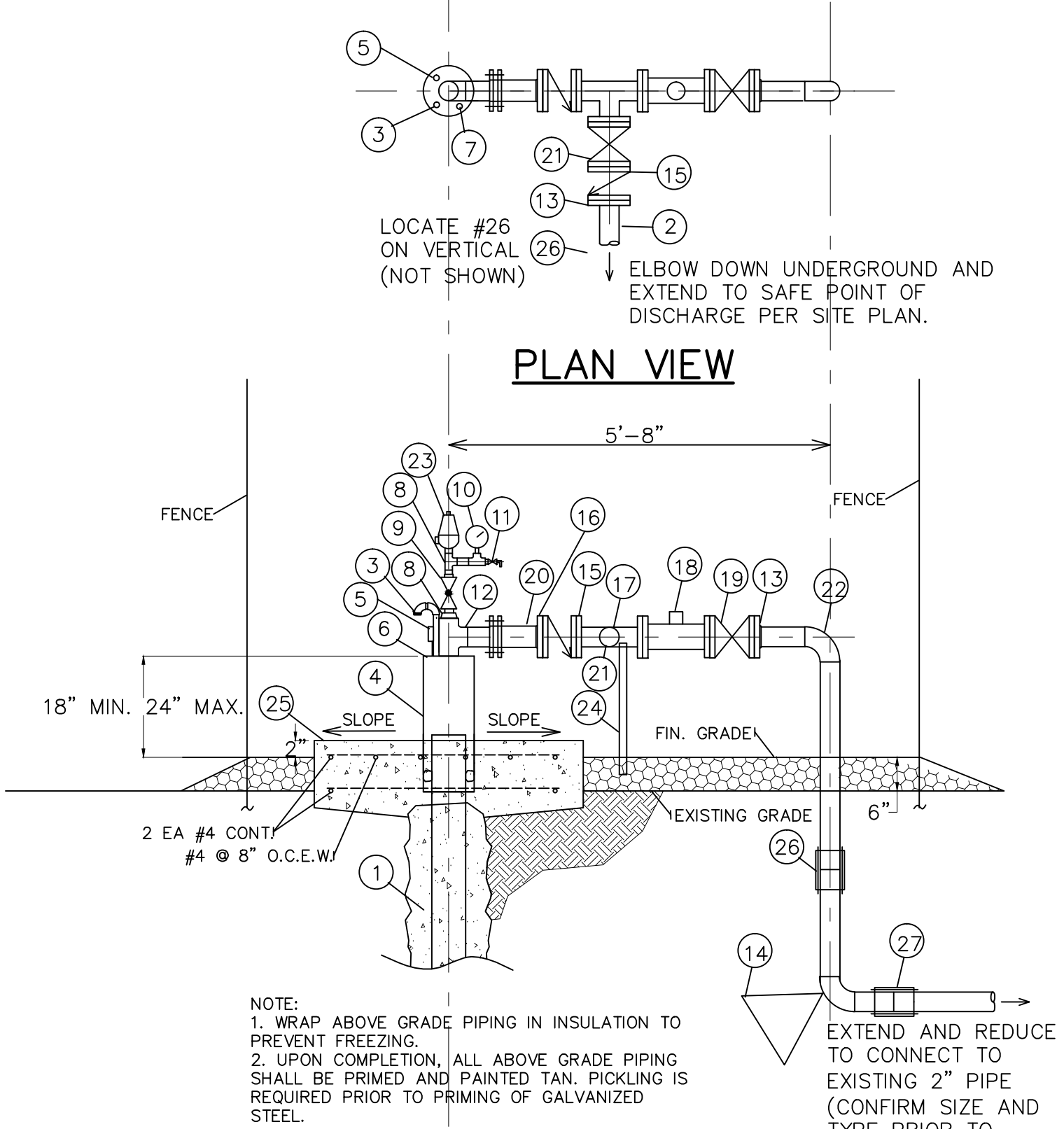
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**SITE PLAN**  
SCALE: 1"=4'-0"



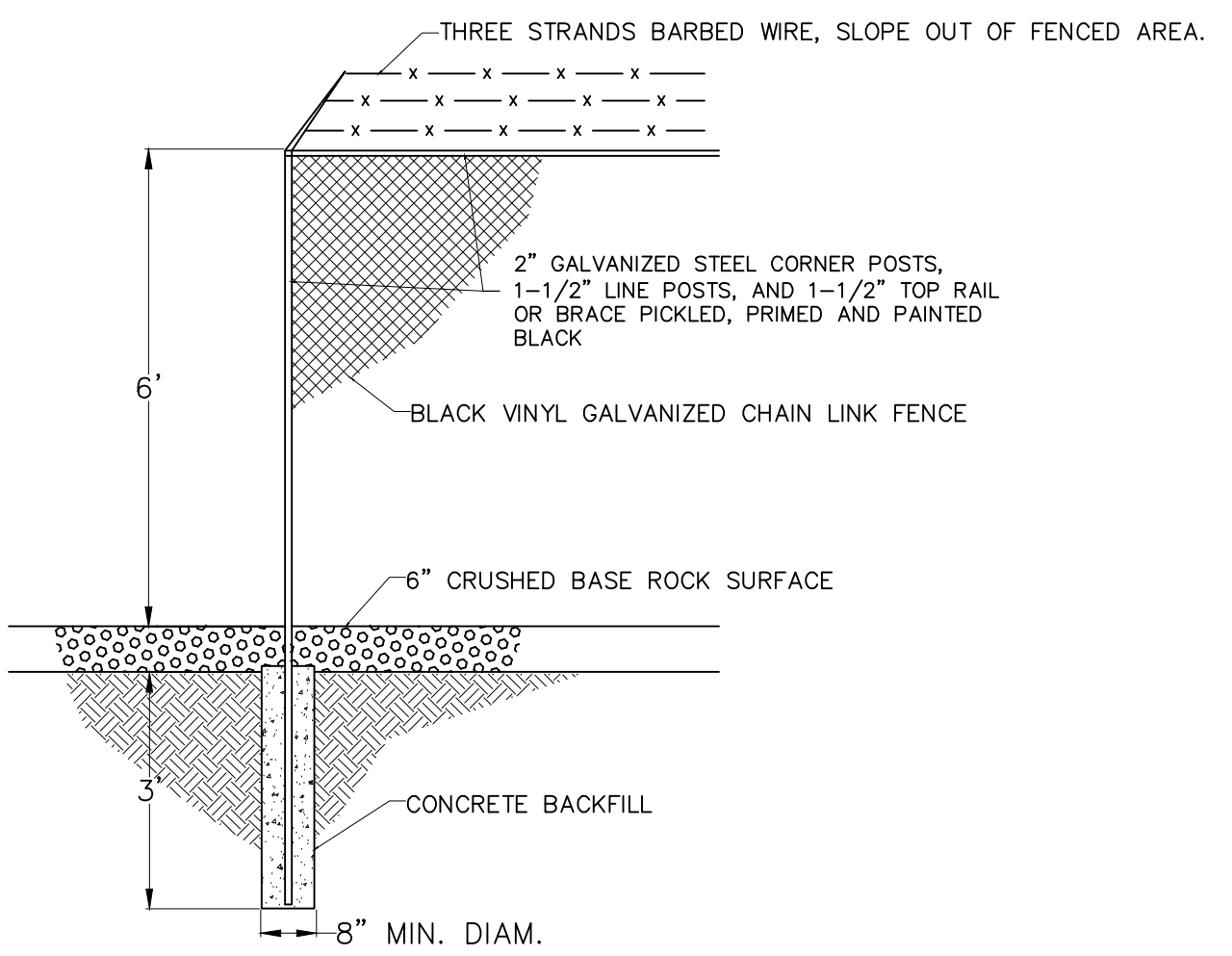
**VICINITY MAP**  
N.T.S.



**SECTION A-A VIEW**

- MATERIALS LEGEND:**
1. EXISTING WELL, PUMP, AND COLUMN PIPE TO REMAIN.
  2. 3" GALV STEEL DISCHARGE TO WASTE. UNDERGROUND PORTION WILL REQUIRE SHALLOW BURIAL TO DISCHARGE AT SURFACE. ENSURE 4' MIN SAND BEDDING AND 6" MIN SAND INITIAL BACKFILL REQUIREMENTS ARE MET.
  3. WELL CASING VENT WITH 180 DEGREE BEND AND #16 MESH STAINLESS STEEL SCREEN AND CLAMP.
  4. WELL CASING EXTENSION: 8" SCH. 30 STEEL PIPE. OVERLAP (E) CASING BY 6" MIN. AND 3" MIN INTO CONCRETE SLAB. FIELD CUT TO ACHIEVE REQUIRED HEIGHT. GROUT SEAL BETWEEN (E) 6" PVC WELL HEAD AND EXTENSION.
  5. ELECTRICAL JUNCTION BOX.
  6. WELL SEAL FOR STEEL WELL EXTENSION WITH 3" DISCHARGE PIPE. CASING VENT, SOUNDING PORT, AND ELECTRICAL PORT SHALL BE SIZED TO MATCH EXISTING.
  7. SOUNDING OR TRANSDUCER PORT, SIZE TO MATCH EXISTING.
  8. BRASS BUSHINGS AND NIPPLES AS REQUIRED FOR ARV AND PRESSURE GAGE ASSY.
  9. 1" BRASS HEAVY DUTY BALL VALVE.
  10. FLUID FILLED PRESSURE GAGE, 0-200 PSI
  11. DOWNTURNED SAMPLE TAP
  12. 3" GALV. STEEL THREADED TEE
  13. 3" THREADED FLANGE
  14. CONCRETE THRUST BLOCK.
  15. 3" APCO MODEL 600 FLANGED SILENT CHECK VALVE, 150# (2 REQ'D)
  16. 3" Ø FLANGE BY THREAD SPOOL, 6" MIN LENGTH, 12" MAX.
  17. 3" DI FLANGED TEE
  18. 3" FLANGED SEAMETRICS MAGNETIC METER MODEL WMX104-168 TO MATCH OTHER LDPDSD WELL EQUIPMENT. ANY PROPOSED SUBSTITUTION MUST BE APPROVED BY LDPDSD.
  19. 3" Fx F GLOBE VALVE FOR THROTTLING OR SHUTOFF.
  20. 3" SMITH BLAIR 911 FLANGE-LOCK FCA FOR STEEL PIPE.
  21. 3" FLANGED GATE VALVE. HANDWHEEL OPERATOR.
  22. 3" GALVANIZED STEEL PIPE AND 90° ELL, T&C, SCH. 40. (LENGTH AS REQUIRED FOR TIE-IN TO EXISTING PIPING)
  23. 1" COMBINATION AIR RELEASE AND AIR/VACCUUM VALVE, APCO 140C OR APPROVED EQUAL.
  24. PIPE SUPPORT STAND. INSTALL UNDER TEE.
  25. 4'x4'x8" MIN THICK REINFORCED CONCRETE WELL SLAB. STEEL BARS SHALL BE GRADE 40, AND CONCRETE SHALL CONTAIN 675 LBS OF CEMENT PER CUBIC YARD. ENSURE CONTINUOUS CIRCUMFERENTIAL BOND WITH WELL GROUTING.
  26. 3" SMITH-BLAIR PIPE-LOCK 471 RESTRAINED COUPLING FOR STEEL PIPE.
  27. 3" SMITH-BLAIR PIPE-LOCK 473 RESTRAINED TRANSITION COUPLING: STEEL TO PVC (CONFIRM PRIOR TO CONSTRUCTION THAT EXISTING PIPING IS PVC).

**WELL HEAD DETAILS**  
SCALE: 1/2"=1'-0"



**FENCE DETAIL**  
N.T.S.

