

NOTE: CONSTRUCTION WATER CAN BE OBTAINED FROM THE FIRE HYDRANT LOCATED OUTSIDE THE FRONT ENTRANCE GATE AT NO COST TO THE CONTRACTOR. THE CONTRACTOR SHALL SUPPLY A BACKFLOW PREVENTOR AND VALVE ACCEPTABLE TO THE PVCWD WATER TREATMENT PLANT OPERATOR.

PALO VERDE WATER TREATMENT PLANT

BENCHMARK NO. 1 - CHISELED "X" AT NORTHWEST CORNER OF P.C.C. SLAB. EL. 233.00

ADDRESS: 572 BEN HULSE HWY, PALO VERDE, CA 92266
 APN: 006-120-089

NEW WATER PIPELINE CONNECTION. SEE DETAIL I ON SHEET 5.

NEW WATER WELL SITE NO.2 (NORTH WELL) SEE DETAIL H ON SHEET 5.

ACCESS ROAD FOR WELL SITE. SEE DETAIL E ON SHEET 4

EXISTING NORTH WELL (SITE NO. 2). SEE DEMOLITION PLAN ON SHEET 3.

CONTROL & MONITORING BUILDING. SEE INSTRUMENTATION DETAILS ON SHEET 6.

NOTE: THE LATITUDE AND LONGITUDE COORDINATES BASED UPON THE USGS 7 1/2 MINUTE TOPOGRAPHIC MAP IS ILLUSTRATED AT THE NEW NORTH AND SOUTH WELL SITES ON THIS PLAN SHEET.

EXISTING KEYNOTES

- 1 EXISTING A.C. PAVEMENT TO REMAIN.
- 2 EXISTING P.C.C. SIDEWALK TO REMAIN.
- 3 EXISTING P.C.C. SLAB TO REMAIN.
- 4 EXISTING WATER PIPELINE TO REMAIN.
- 5 EXISTING LIGHT POLE TO REMAIN.
- 6 EXISTING 6" CHAINLINK FENCE WITH 3 STRAND BARBED WIRE TO REMAIN.
- 7 EXISTING NATIVE SURFACE TO REMAIN.
- 8 EXISTING POWER SERVICE TRANSFORMER TO REMAIN.
- 9 EXISTING MCC PANEL TO REMAIN
- 10 EXISTING VEGETATION TO REMAIN
- 11 EXISTING ELECTRICAL PANEL "A" TO REMAIN
- 12 EXISTING MAIN POWER METER TO REMAIN
- 13 EXISTING GENERATOR WITH AWNING TO REMAIN
- 14 EXISTING 12-FOOT WIDE DOUBLE SWING CHAINLINK GATE TO REMAIN.
- 15 EXISTING BOLTED STEEL TANK TO REMAIN.
- 16 EXISTING FIRE HYDRANT TO REMAIN.
- 17 EXISTING FILTER TO REMAIN.
- 18 EXISTING WATER WELL NO. 1 TO REMAIN.
- 19 EXISTING ACCESS ROAD TO REMAIN.

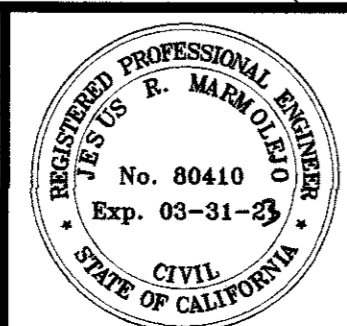
DEMOLITION KEYNOTES

- 1 REMOVE AND DISPOSE OF EXISTING NORTH WELL (SITE NO. 2) PER DEMOLITION PLAN ON SHEET 3.
- 2 REMOVE AND DISPOSE OF THE EXISTING SIDEWALK AND UNDERLYING MATERIAL TO SUBBASE DESIGN GRAD UP TO THE EXISTING WELL SITE NO. 2.
- 3 SAWCUT THE EXISTING P.C.C. SIDEWALK FOR THE FULL DEPTH OF THE P.C.C. SIDEWALK.
- 4 REMOVE AND DISPOSE OF THE EXISTING NATIVE MATERIAL TO SUBBASE DESIGN GRADE.

CONSTRUCTION KEYNOTES

- 1 CONTRACTOR TO INSTALL NEW WELL NO.2 PER TECHNICAL SPECIFICATIONS AND DETAIL H ON SHEET 5.
- 2 PLACE 4-FOOT X 8-FOOT X 3/8-INCH STEEL PLATES OVER THE SIDEWALKS TO PROTECT THE SIDEWALKS FROM DAMAGE DURING THE CONSTRUCTION PERIOD.
- 3 INSTALL CLASS 2 BASE MATERIAL PER DETAIL D ON SHEET 4. COMPACT THE CLASS 2 BASE TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM-1557
- 4 INSTALL NEW 4-INCH DIAMETER AWWA C-900 DR18 PVC RAW WATER SUPPLY PIPELINE PER TRENCH DETAIL I ON SHEET 4.
- 5 INSTALL NEW 4-INCH DIAMETER DUCTILE IRON 45-DEGREE ELBOW WITH RESTRAINED JOINT FITTINGS AND THRUST BLOCK.

LEGEND		
ITEM NO.	DESCRIPTION	SYMBOL
1	EXISTING P.C.C. SIDEWALK AND SLAB	[Pattern]
2	NEW CLASS 2 BASE ROADWAY	[Pattern]
3	CONSTRUCT NATIVE FILLED AREA	[Pattern]
4	EXISTING BUILDINGS AND STRUCTURES	[Pattern]
5	NEW BUILDINGS OR STRUCTURES	[Pattern]
6	EXISTING A.C. PAVEMENT	[Pattern]
7	PLACE 4' X 8' X 3/8" STEEL PLATES OVER SIDEWALK AREAS	[Pattern]

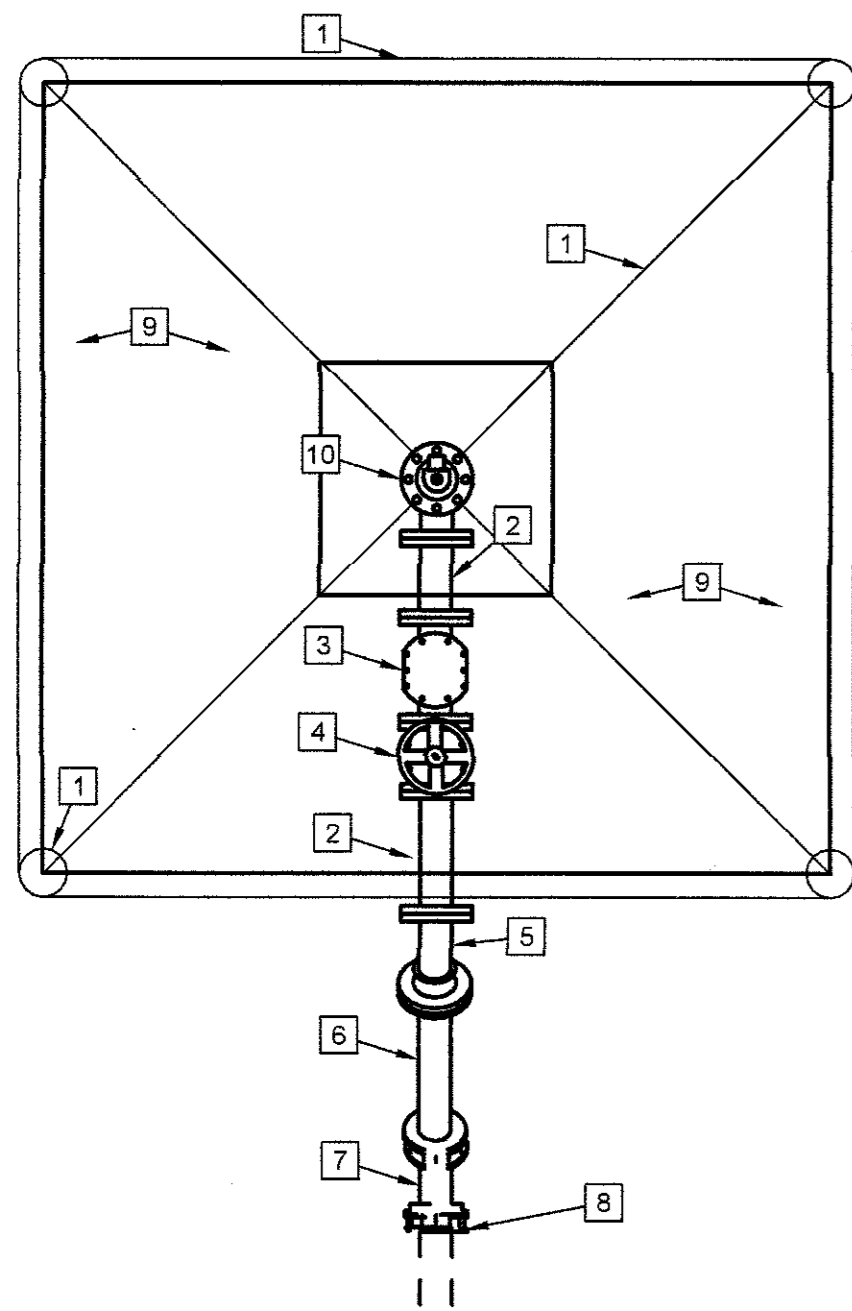


PREPARED UNDER THE DIRECT SUPERVISION OF:
 JESUS R. MARMOLEJO, P.E.
 80410 R.C.E. No.
 08/01/2022 DATE 03/31/23 REG. EXP.

DATE: 08/01/2022
 DRAWN: RSN
 SCALE:
 CHECKED: JRM

PROJECT TITLE:
PALO VERDE COUNTY WATER DISTRICT - WATER WELLS REPLACEMENT PROJECT PHASE II

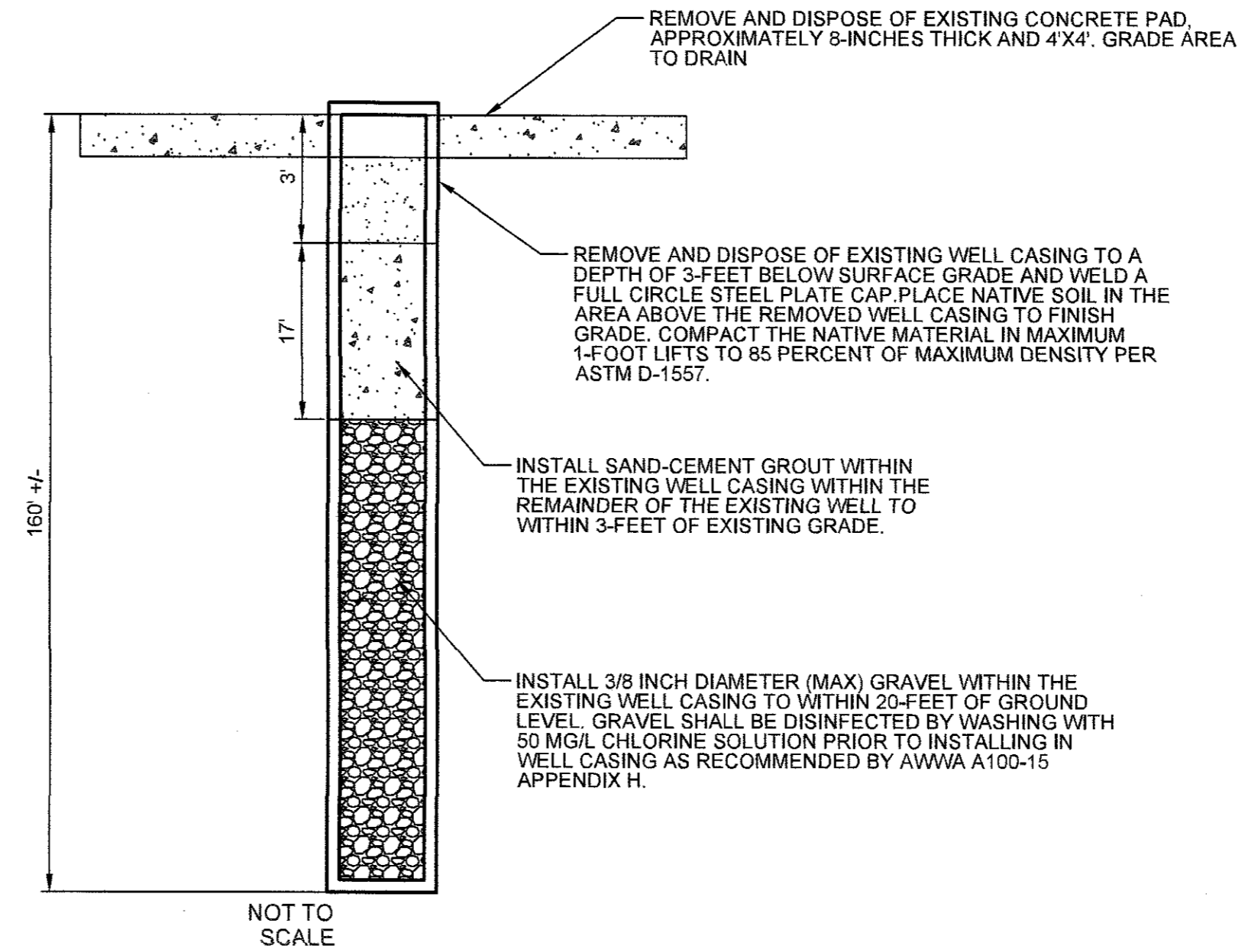
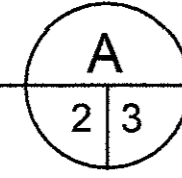
SITE PLAN
 SHEET 2 OF 8
 THG PROJECT NO. 821.028



DEMOLITION KEYNOTES

- 1] REMOVE AND DISPOSE OF EXISTING WOODEN SHADE STRUCTURE.
- 2] REMOVE AND DISPOSE OF EXISTING 8-INCH DUCTILE IRON PIPING.
- 3] REMOVE AND DISPOSE OF EXISTING 8-INCH CHECK VALVE.
- 4] REMOVE AND DISPOSE OF EXISTING 8-INCH GATE VALVE.
- 5] REMOVE AND DISPOSE OF EXISTING 8-INCH ABOVE GROUND 45-DEGREE ELBOW.
- 6] REMOVE AND DISPOSE OF EXISTING 8-INCH UNDERGROUND PIPING.
- 7] REMOVE AND DISPOSE OF EXISTING 8-INCH UNDERGROUND 45-DEGREE ELBOW.
- 8] CONTRACTOR TO ABANDON REMAINING 8-INCH PVC PIPELINE. PLACE CONCRETE CAP ON THE OPEN END FOR A DISTANCE OF 1-FOOT.
- 9] REMOVE AND DISPOSE OF EXISTING P.C.C CONCRETE SLAB.
- 10] REMOVE AND DISPOSE OF EXISTING PUMP AND MOTOR. THE EXISTING PUMP AND MOTOR SHALL REMAIN THE PROPERTY OF PVCWD. CONTRACTOR SHALL PLACE THE EXISTING PUMP AND MOTOR AT A LOCATION WITHIN THE WATER PLANT AREA DESIGNATED BY PVCWD.

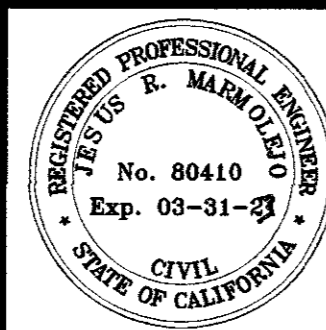
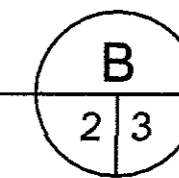
WATER WELL DEMOLITION DETAIL
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WELL DEMOLITION NOTES

1. WELL TO BE DESTROYED BY A C-57 WATER WELL CONTRACTOR/SUBCONTRACTOR.
2. PRELIMINARY WORK. BEFORE THE WELL IS DESTROYED, IT SHALL BE INVESTIGATED TO DETERMINE ITS CONDITION, DETAILS OF CONSTRUCTION, AND WHETHER THERE ARE OBSTRUCTIONS THAT WILL INTERFERE WITH THE PROCESS OF FILLING AND SEALING. THIS WILL INCLUDE THE USE OF DOWNHOLE TELEVISION AND PHOTOGRAPHY FOR VISUAL INSPECTION OF THE WELL.
3. THE WELL SHALL BE CLEANED, AS NEEDED, SO THAT ALL UNDESIRABLE MATERIALS, INCLUDING OBSTRUCTIONS TO FILLING AND SEALING, DEBRIS, OIL FROM OIL-LUBRICATED PUMPS, OR POLLUTANTS AND CONTAMINANTS THAT COULD INTERFERE WITH WELL DESTRUCTION ARE REMOVED FOR DISPOSAL. THE IMPERIAL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH SHALL BE NOTIFIED AS SOON AS POSSIBLE IF POLLUTANTS AND CONTAMINANTS ARE KNOWN OR SUSPECTED TO BE IN A WELL TO BE DESTROYED. WELL DESTRUCTION OPERATIONS MAY THEN PROCEED ONLY AT THE APPROVAL OF THE AGENCY.
4. DURING PERIODS WHEN NO WORK IS DONE OVER THE EXCAVATION, COVER THE EXCAVATION TO ENSURE NO FOREIGN MATERIAL IS INTRODUCED INTO THE WELL.
5. CONTRACTOR SHALL BACKFILL THE EXISTING ABANDONED WATER WELL SHAFT. PRIOR TO BACKFILLING THE WATER WELL SHAFT REMOVE AND DISPOSE OF THE WATER WELL SHADE STRUCTURE. REMOVE AND DISPOSE OF THE P.C.C. SLAB SURROUNDING THE EXISTING WATER WELL.
6. THE CONTRACTOR SHALL PREPARE THE WELL ABANDONMENT COMPLETION REPORT AND FORWARD THE REPORTS TO THE IMPERIAL COUNTY HEALTH DEPARTMENT FOR REVIEW AND APPROVAL.

WATER WELL DEMOLITION DETAIL
NTS



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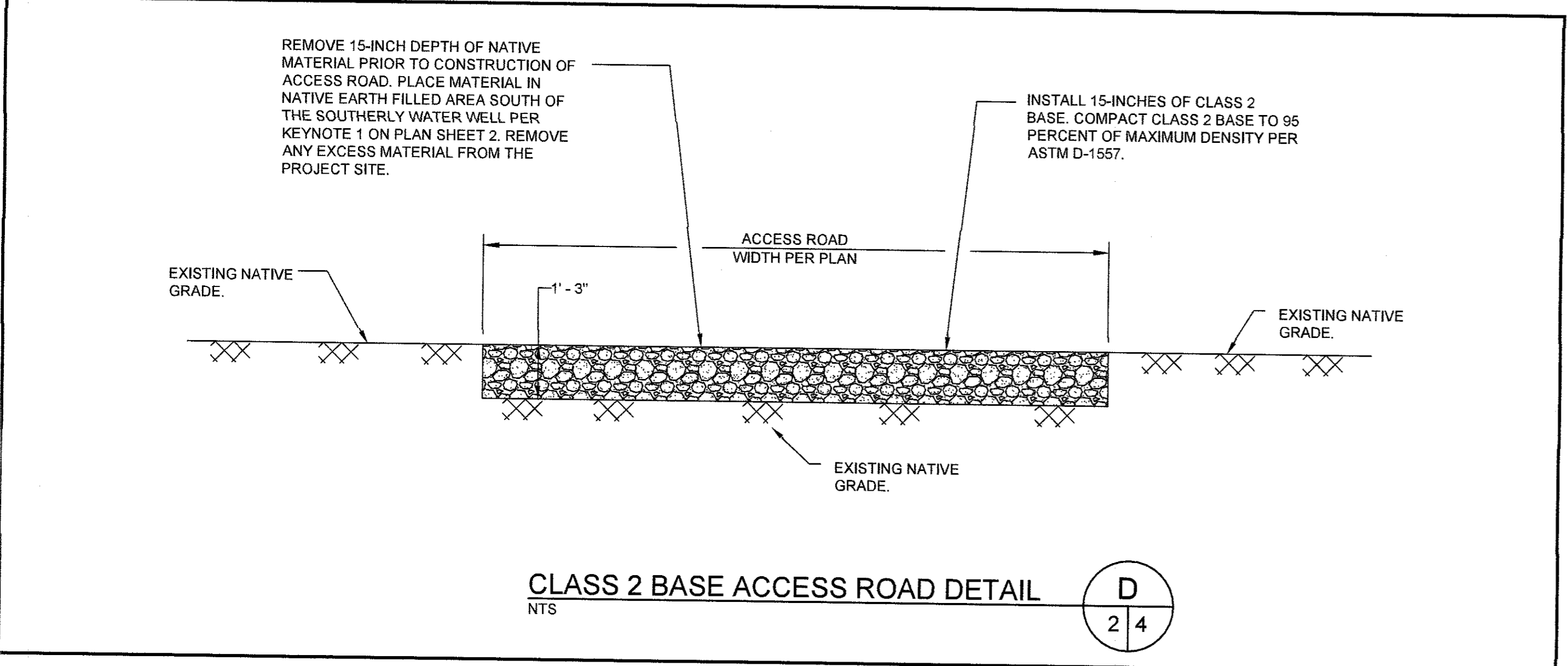
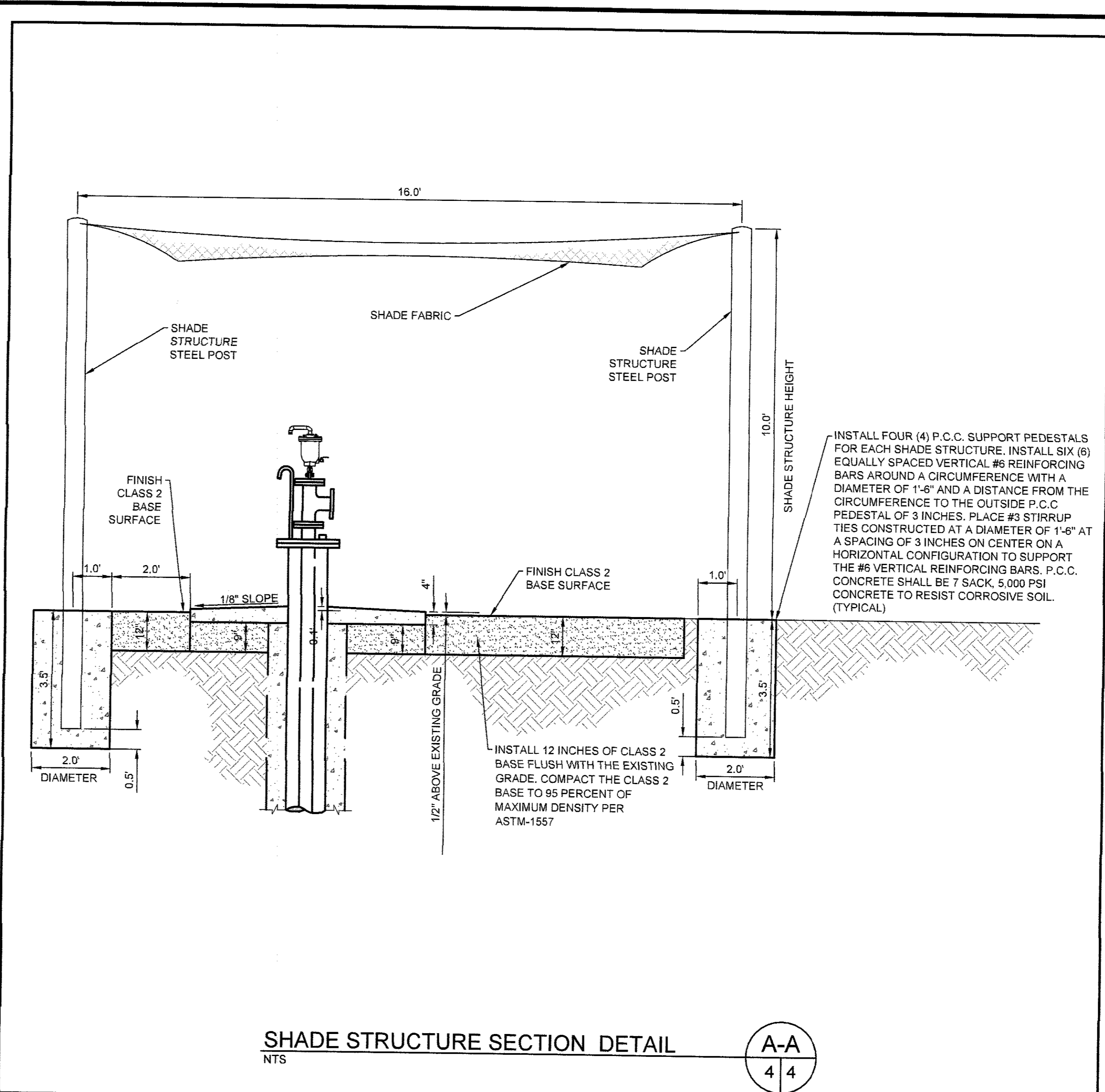
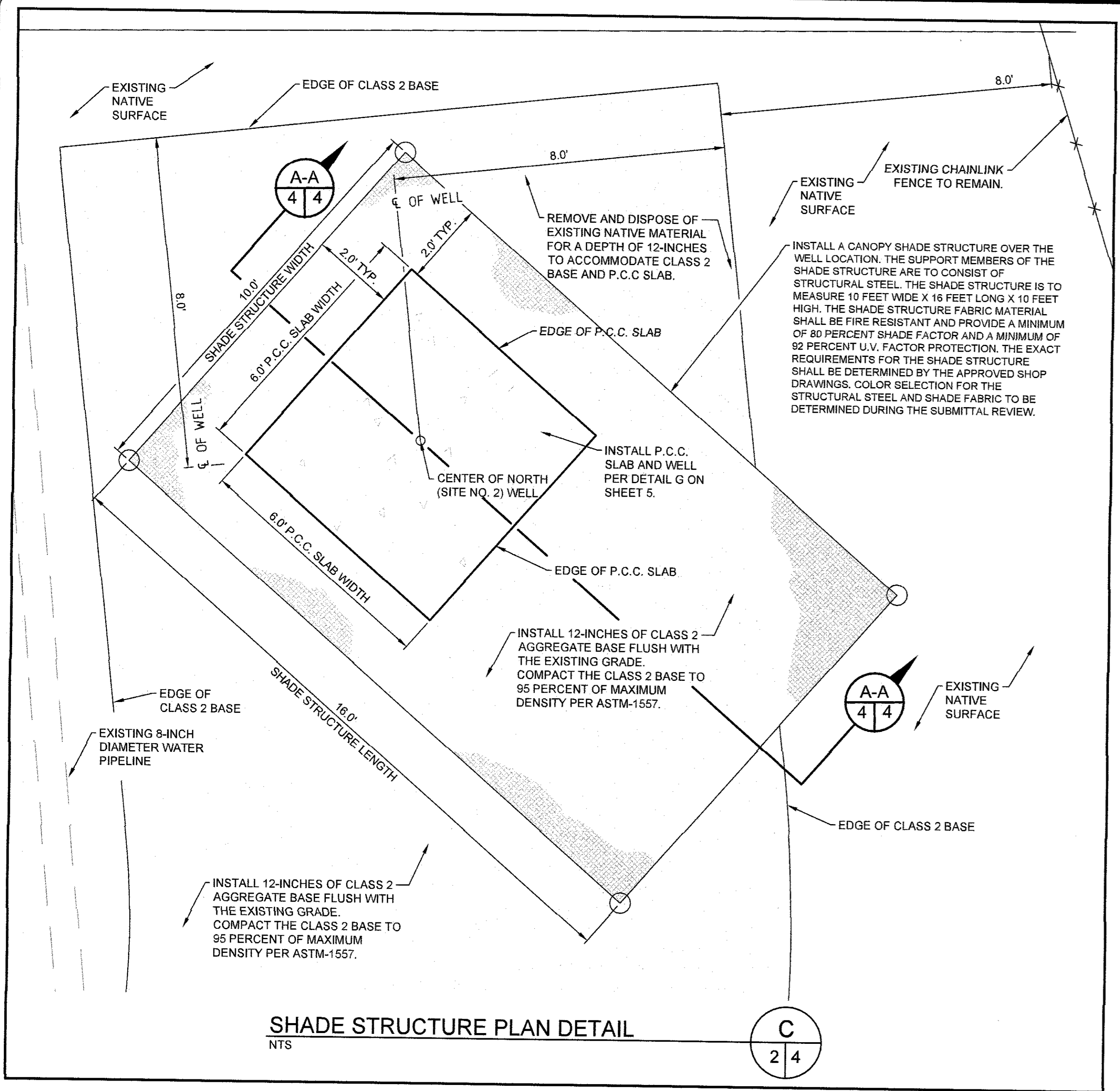
 JESUS R. MARMOLEJO, P.E.
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 Exp. 03-31-23
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DATE: 08/01/2022
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PROJECT TITLE:
**PALO VERDE COUNTY WATER DISTRICT -
 WATER WELLS REPLACEMENT
 PHASE II**

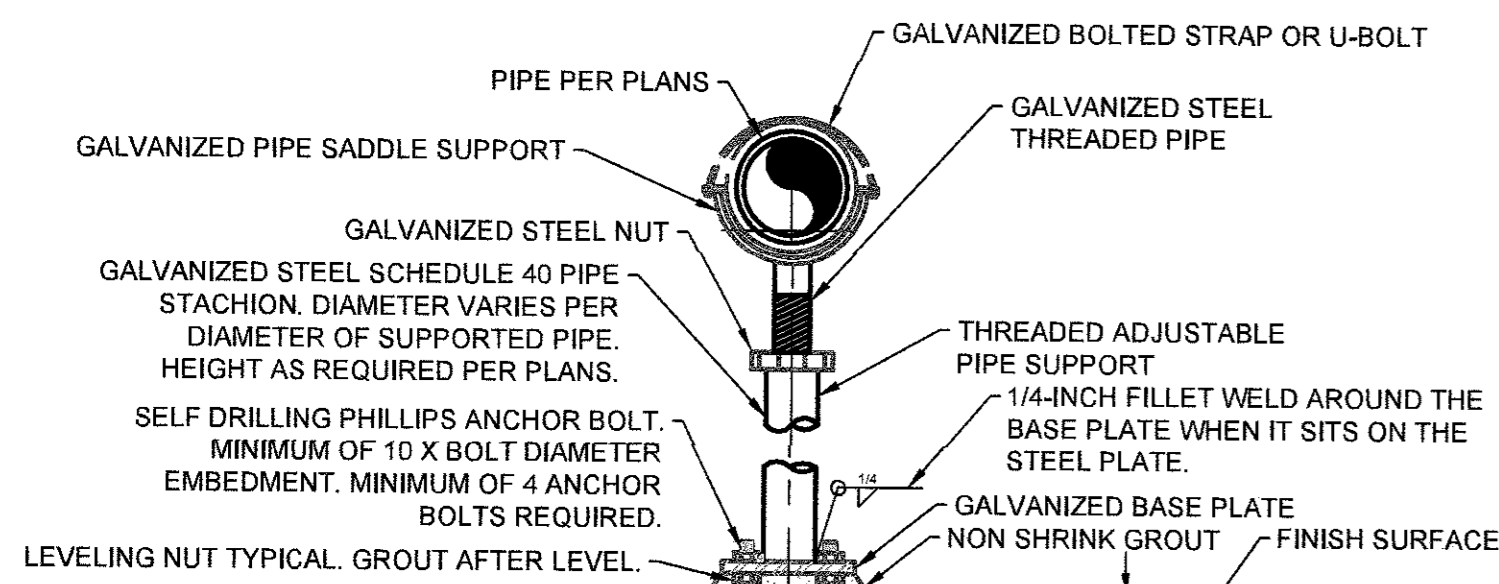
DEMOLITION PLAN
 SHEET 3 OF 8
 THG PROJECT NO. 821.028

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SHADE STRUCTURE REQUIREMENTS		SHADE STRUCTURE REQUIREMENTS (CONTINUED)	
GENERAL NOTES			
DESIGN LOADS			
BUILDING CODE	CBC 2018 (BASED ON IBC 2015)	9. ALL HIGH STRENGTH BOLTS SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION.	
LIVE LOADS	5 PSF	10. ALL STAINLESS STEEL BOLTS / STUDS SHALL COMPLY WITH ASTM F-593, ALLOY GROUP 1 OR 2. ALL NUTS SHALL COMPLY WITH ASTM F-594 ALLOY GROUP 1 OR 2.	
SNOW LOAD	5 PSF	11. ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE SHOP COAT (2.5 TO 3.5 MILS THICK MIN). THIS COAT IS A WEATHER RESISTANT POWDER COATING BASED ON POLYESTER TGIC (MANUFACTURED BY SHERWIN WILLIAMS OR TIGER DRYLAC), TO ACHIEVE OPTIMUM ADHESION, IT IS RECOMMENDED THAT THE PROPER TREATMENT AND DRYING TAKE PLACE BEFORE COATING. POLYESTER POWDER (TGIC). SPECIFICATIONS SHALL BE AS FOLLOWS:	
WIND LOADS	115 MPH	- PENCIL HARDNESS (ASTM D-3363)	
3 - Sec. Gust, RISK CATEGORY II & XPOSURE C		- HUMIDITY (ASTM D-2247)	
		- SOLVENT RESISTANCE (PCI METHOD) - 50 DBL RUBS SL. SOFTNESS	
STRUCTURAL STEEL			
FABRIC SPECIFICATION			
1. ALL STRUCTURAL SHAPES SHALL BE COLD FORMED HSS ASTM A500 GRADE C, UNLESS OTHERWISE NOTED, TYPICAL MECHANICAL PROPERTIES FOR HSS PRODUCTS:			
SQUARE AND RECTANGULAR		50,000 PSI YIELD / 62,000 PSI TENSILE	
ROUND PIPE		46,000 PSI YIELD / 62,000 PSI TENSILE	
2. ALL GALVANIZED STEEL TUBE PRODUCTS ARE MANUFACTURED PER ASTM A500, TYPICAL MECHANICAL PROPERTIES ACHIEVED FOR GALVANIZED TUBE PRODUCTS:			
ROUND TUBE		45,000 PSI YIELD / 48,000 PSI TENSILE	
3. ALL PLATES SHALL COMPLY WITH ASTM A572 GRADE 50.			
4. ALL STEEL TUBING SHALL BE TRIPLE COATED FOR RUST PROTECTION USING THE IN-LINE ELECTROPLATING COAT PROCESS. TUBING SHALL BE INTERNALLY COATED WITH ZINC AND ORGANIC COATINGS TO PREVENT CORROSION AS MANUFACTURED BY ALLIED TUBE & CONDUIT.			
5. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS.			
6. ALL SHOP WELDS SHALL BE EXECUTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY (AWS) D 1.1 SPECIFICATIONS. ALL WELDS SHALL BE CONTINUOUS WHERE LENGTH IS NOT GIVEN, UNLESS OTHERWISE SHOWN OR NOTED ON DRAWINGS. ALL WELDS SHALL DEVELOP THE FULL STRENGTH OF THE WEAKER MEMBER. ALL WELDS SHALL BE MADE USING E70XX .045 WIRE.			
7. SHOP CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE. FIELD CONNECTIONS SHALL BE AS INDICATED ON THE DRAWINGS (IF REQUIRED). ALL FILLET WELDS SHALL BE A MINIMUM OF 3/16" UNLESS OTHERWISE NOTED. FIELD WELDS SHALL NOT BE ALLOWED.			
8. ALL HIGH STRENGTH BOLTS SHALL COMPLY WITH ASTM A325 TYPE 1 OR A490 TYPE 1. ALL NUTS SHALL COMPLY WITH ASTM A563D, AND WASHERS SHALL COMPLY WITH ASTM F436.			
12. FABRIC SHALL BE A HIGH DENSITY POLYETHYLENE WITH ULTRA VIOLET ADDITIVES, WITH MONOFILAMENT AND TAPE CONSTRUCTION GIVING A STABLE MATERIAL AND RACHEL KNITTED TO ENSURE MATERIAL WILL NOT UNRAVEL IF CUT.			
2. FABRIC SPECIFICATION			
- TEAR STRENGTH		SOLID COLORS WARP 220-4622 LB WEFT 452-9707 LB	STRIPED COLORS WARP 182-9836 LB WEFT 401-2413 LB
- BURST STRENGTH		37,7098 PSIA	33,0686 PSIA
- FADING		MINIMUM FADING AFTER 5 YEARS	
- LIFE EXPECTANCY		A MINIMUM OF 8 YEARS CONTINUOUS EXPOSURE TO THE SUN	
3. FIRE TEST ON FABRIC. NFPA 701 TEST 2 AND ASTM E 84			
4. THREAD -PTFE (TEFLON) USED MEET THE FOLLOWING SPECIFICATIONS: HIGH STRENGTH, LOW SHRINKAGE, WIDE TEMPERATURE RANGE, FLEX & ABRASION RESISTANT AND U RADIATION IMMUNITY. LOCKSTITCH - 1200 DENIER. CHAINSTITCH THREAD - 2400 DENIER.			
AIRCRAFT CABLE			
1. WIRE ROPE CABLE SHALL BE 7 x 19 STRAND CORE GALVANIZED WIRE ROPE WITH A BREAKING STRENGTH VALUE OF 7,000 LBS (1/4" DIAMETER).			
2. CABLES SHALL BE FED THROUGH THE FABRIC SLEEVES AROUND THE PERIMETER OF THE CANOPY AND TENSIONED UNTIL THE FABRIC PANELS (DESIGNED PURPOSELY UNDERSIZED) REACH A TAUNT APPEARANCE. ANY LONG TERM CABLE SAG SHALL BE MINIMIZED DURING THE MAINTENANCE RETIGHTENING VISITS AS REQUIRED.			

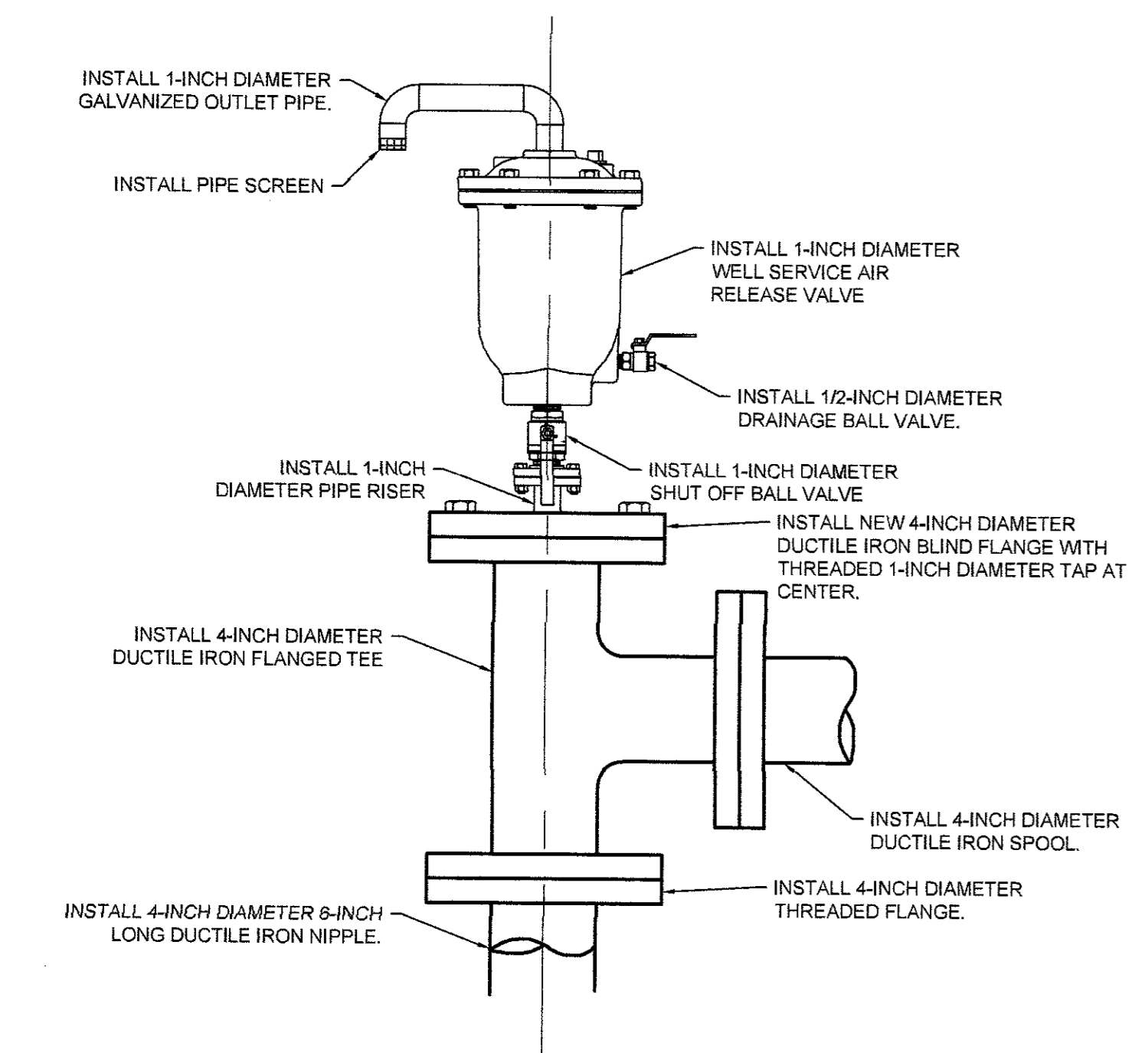
	PREPARED UNDER THE DIRECT SUPERVISION OF:	DATE	PROJECT TITLE	SHADE STRUCTURE DETAILS
	JESUS R. MARMOLEJO, P.E.	08/01/2022	PALO VERDE COUNTY WATER DISTRICT - WATER WELLS REPLACEMENT PROJECT PHASE II	
	80410 R.C.E. No.	RSN		
	08/01/2022 DATE	CHECKED	JRM	
	03/31/23 REG. EXP.			SHEET 4 OF 8
			THG PROJECT NO. 821.028	



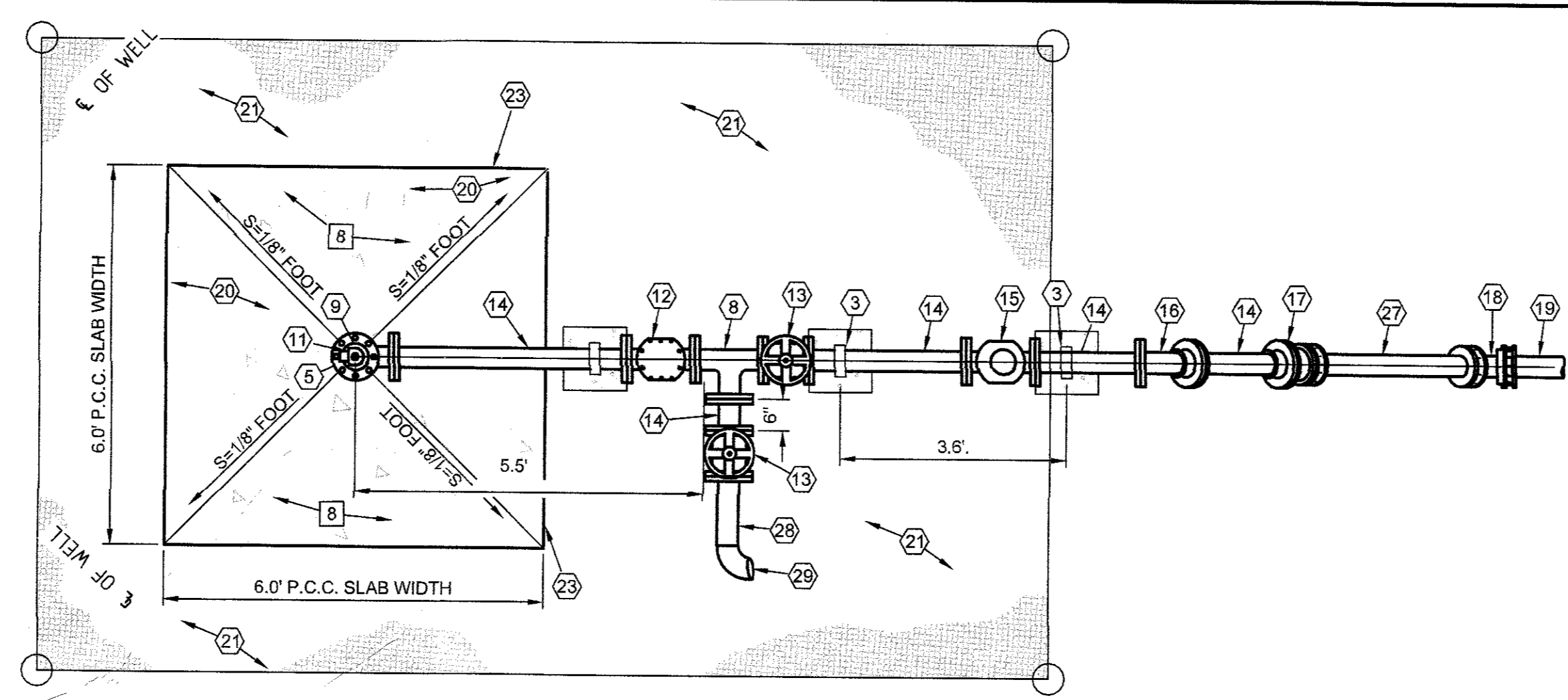
INSTALL 5000 P.S.I. P.C.C. CONCRETE PIPE SUPPORT FOOTING.

INSTALL MINIMUM 8 INCHES OF CLASS 2 BASE MATERIAL BENEATH P.C.C. SLAB. COMPACT CLASS 2 BASE MATERIAL TO 90 PERCENT OF MAXIMUM DENSITY PER ASTM D-1557. A COMPACTION TEST SHALL NOT BE REQUIRED.

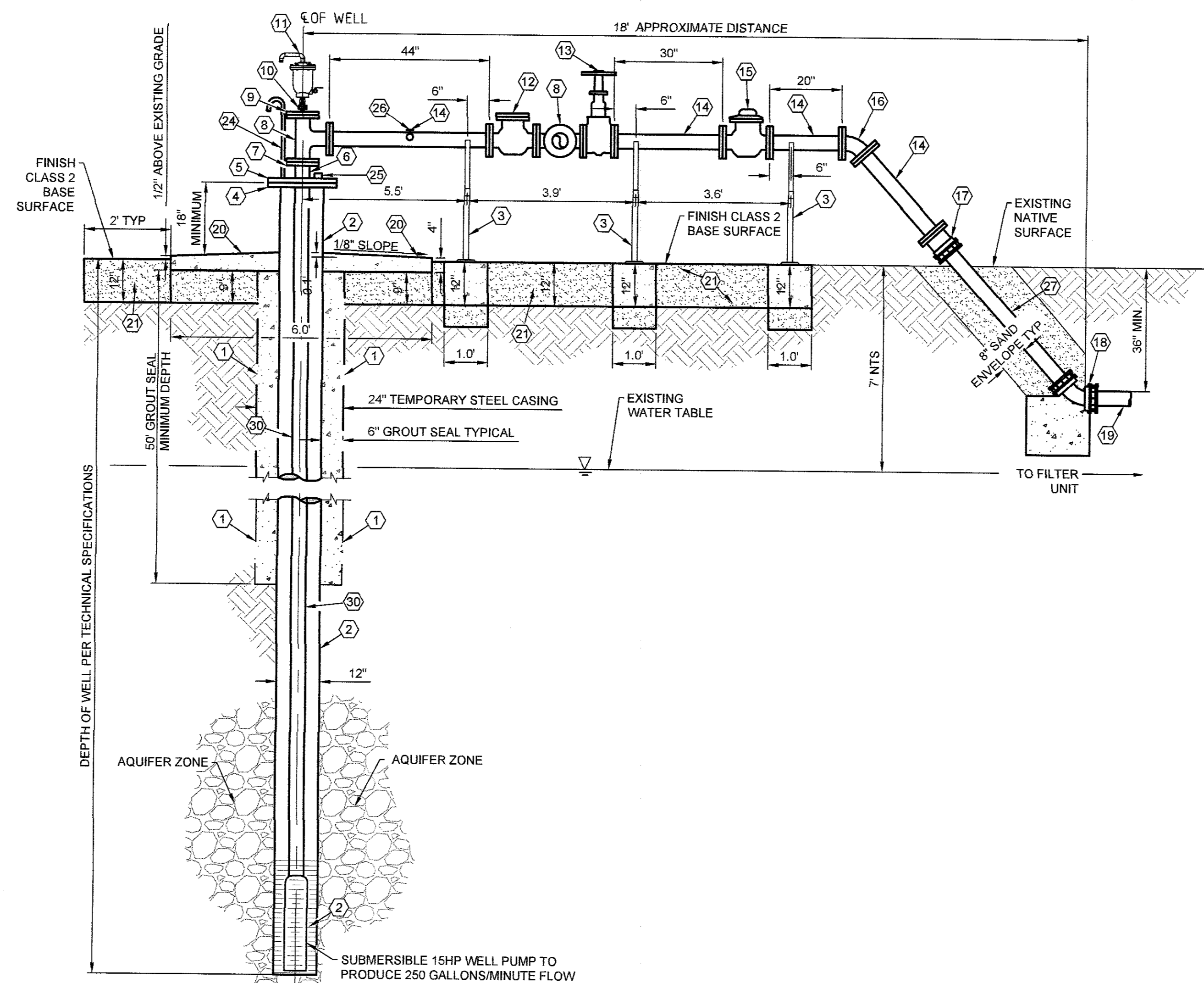
TYPICAL PIPE SUPPORT DETAIL E
NTS
5 5



WELL SERVICE AIR RELEASE VALVE DETAIL F
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5 5



WATER WELL PLAN VIEW G

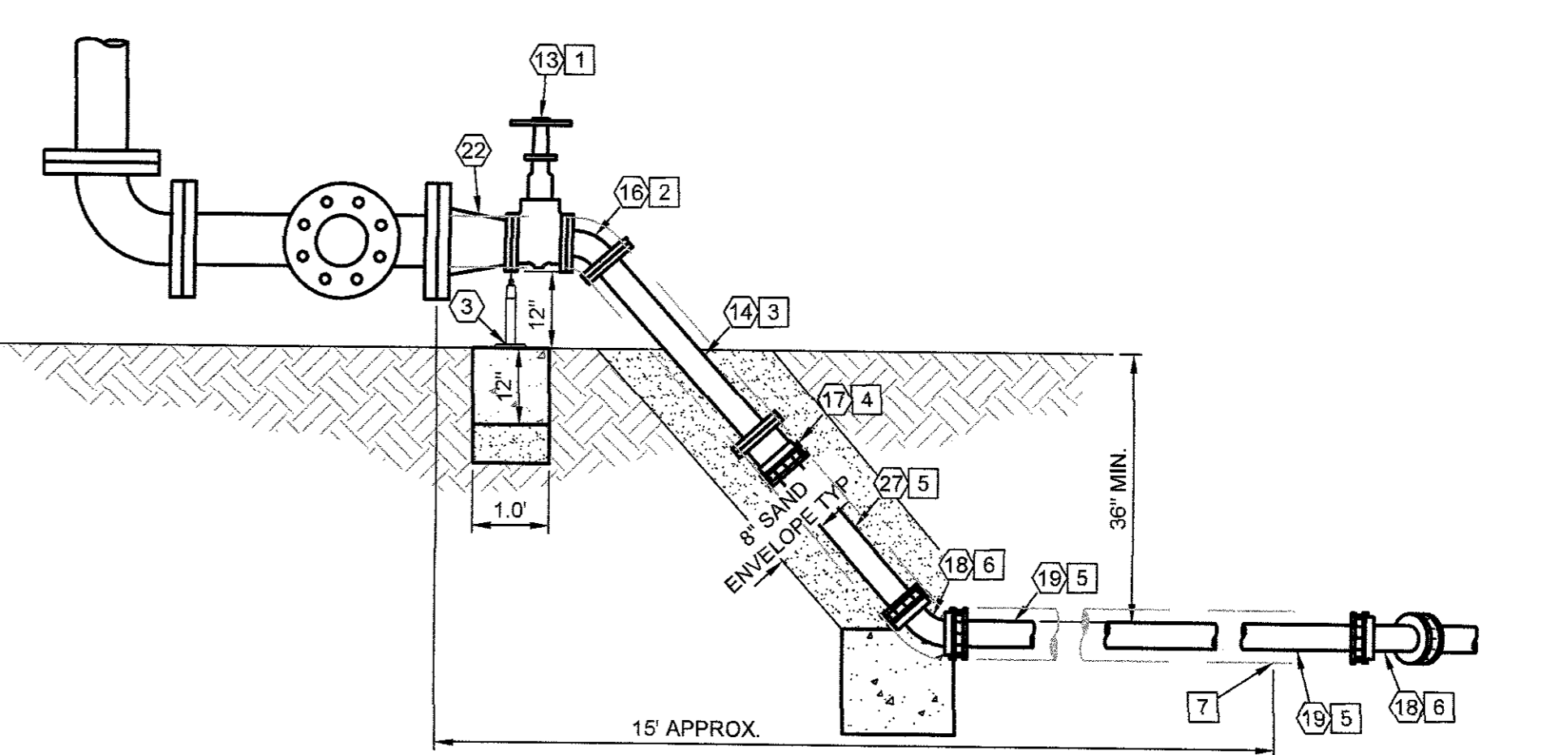
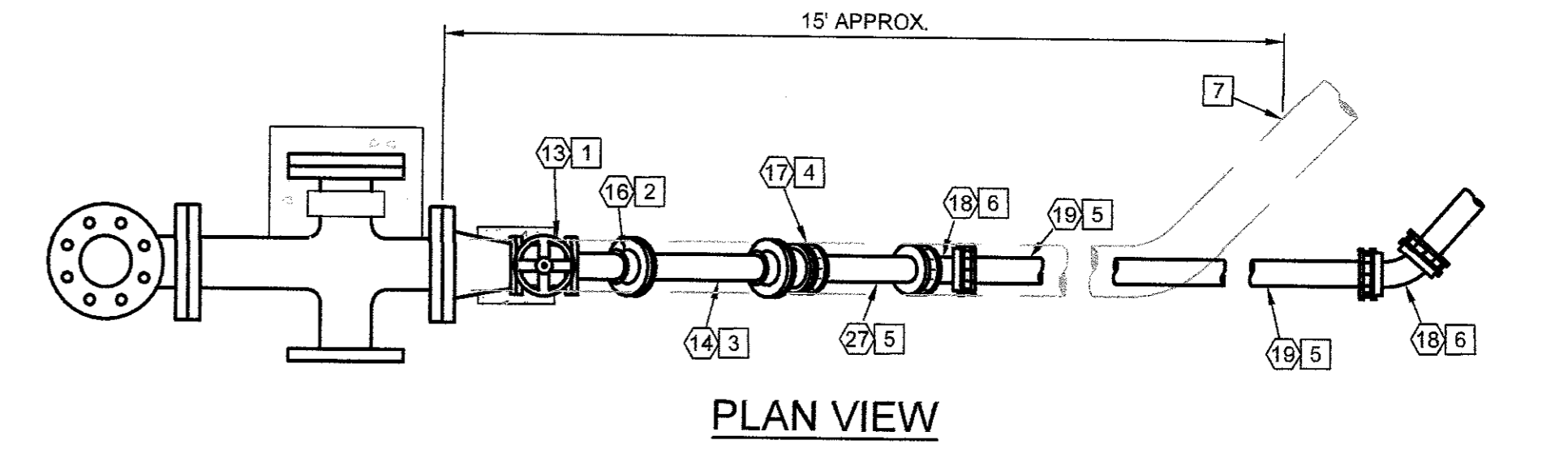


WATER WELL SECTION VIEW H

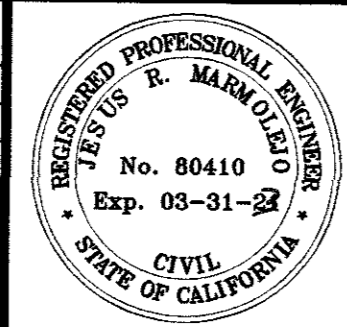
NEW WATER WELL NO. 2 - BLOWUP DETAIL G
2 5

- DEMOLITION KEYNOTES**
- 1 REMOVE AND DISPOSE OF 8-INCH DUCTILE IRON BUTTERFLY VALVE.
 - 2 REMOVE AND DISPOSE OF 8-INCH DUCTILE IRON 45-DEGREE ELBOW.
 - 3 REMOVE AND DISPOSE OF 8-INCH DUCTILE IRON DUCTILE IRON SPOOL.
 - 4 REMOVE AND DISPOSE OF 8-INCH DUCTILE IRON FLANGED COUPLING ADAPTER WITH RESTRAINED JOINT FITTING.
 - 5 REMOVE AND DISPOSE OF 8-INCH PVC RAW WATER SUPPLY PIPELINE.
 - 6 REMOVE AND DISPOSE OF 8-INCH DUCTILE IRON 45-DEGREE ELBOW WITH RESTRAINED JOINT FITTING.
 - 7 CONTRACTOR TO ABANDON REMAINING 8-INCH PVC PIPELINE. PLACE CONCRETE CAP ON THE OPEN END FOR A DISTANCE OF 1-FOOT.
 - 8 REMOVE AND DISPOSE OF EXISTING NATIVE MATERIAL FOR A DEPTH OF 12-INCHES TO ACCOMMODATE CLASS 2 BASE AND P.C.C. SLAB.

- CONSTRUCTION KEYNOTES**
- 1 INSTALL TEMPORARY 24-INCH STEEL SURFACE CASING. INSTALL GROUT IN THE ANNULAR AREA BETWEEN TEMPORARY SURFACE CASING AND 12-INCH DIAMETER WELL CASING FOR A MINIMUM DEPTH OF 50 FEET.
 - 2 INSTALL NEW 12-INCH WATER WELL CASING. 4-INCH WELL CASING DROP PIPELINE, PUMP AND APPURTENANCES PER WATER WELL INSTALLATION TECHNICAL SPECIFICATIONS.
 - 3 INSTALL NEW SADDLE PIPE SUPPORT PER DETAIL E ON SHEET 5.
 - 4 CONTRACTOR TO WELD A DUCTILE IRON FLANGE TO THE NEW WATER WELL CASING PIPE.
 - 5 INSTALL NEW 12-INCH DIAMETER DUCTILE IRON BLIND FLANGE WITH THREADED 4-INCH DIAMETER TAP AT CENTER.
 - 6 INSTALL NEW 4-INCH DIAMETER, 6-INCH LONG THREADED DUCTILE IRON NIPPLE.
 - 7 INSTALL NEW 4-INCH DIAMETER DUCTILE IRON THREADED FLANGE.
 - 8 INSTALL NEW 4-INCH DIAMETER DUCTILE IRON FL X FL TEE PER ANSI/AWWA C110/A21.10-12.
 - 9 INSTALL NEW 4-INCH DIAMETER DUCTILE IRON BLIND FLANGE WITH THREADED 1-INCH DIAMETER TAP AT CENTER.
 - 10 INSTALL NEW 1-INCH DIAMETER 6-INCH LONG THREADED GALVANIZED STEEL PIPE.
 - 11 INSTALL NEW 1-INCH DIAMETER AIR VACUUM RELIEF VALVE, SHUT OFF BALL VALVE, DRAINAGE BALL VALVE AND OUTLET PIPELINE PER DETAIL F ON SHEET 5.
 - 12 INSTALL NEW 4-INCH DIAMETER FL X FL SILENT CHECK VALVE.
 - 13 INSTALL NEW 4-INCH DIAMETER FL X FL RESILIENT WEDGE GATE VALVE WITH HAND WHEEL OPERATOR.
 - 14 INSTALL NEW 4-INCH DIAMETER DUCTILE IRON FL X FL SPOOL.
 - 15 INSTALL NEW 4-INCH DIAMETER FL X FL MAGNETIC FLOW METER, MAGNETIC FLOW METER TO BE PROVIDED WITH A SHADE COVER.
 - 16 INSTALL NEW 4-INCH DIAMETER FL X FL DUCTILE IRON 45-DEGREE ELBOW.
 - 17 INSTALL NEW 4-INCH DIAMETER FLANGED COUPLING ADAPTER WITH RESTRAINED JOINT FITTING.
 - 18 INSTALL NEW 4-INCH DIAMETER MJ X MJ DUCTILE IRON 45-DEGREE ELBOW WITH RESTRAINED JOINT FITTINGS AND P.C.C. THRUST BLOCK.
 - 19 INSTALL NEW 4-INCH DIAMETER AWWA C-900 DR18 PVC RAW WATER SUPPLY PIPELINE PER TRENCH DETAIL 1 ON SHEET 6.
 - 20 INSTALL 4-INCH THICK SLOPED 5,000 PSI CONCRETE SLAB OVER 3 INCHES OF CLASS 2 BASE MATERIAL. COMPACT THE CLASS 2 BASE TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM-1557. INSTALL CLASS 2 BASE AS ILLUSTRATED ON THE PLANS.
 - 21 INSTALL 12 INCHES OF CLASS 2 BASE FLUSH WITH THE EXISTING GRADE. COMPACT THE CLASS 2 BASE TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM-1557.
 - 22 INSTALL NEW 8-INCH X 4-INCH DIAMETER FLANGED DUCTILE IRON REDUCER.
 - 23 EDGE OF P.C.C. SLAB TO BE CONSTRUCTED AT A CONSTANT ELEVATION.
 - 24 INSTALL 5/8 INCH VENTILATION GOOSENECK GALVANIZED PIPELINE WITH SCREEN.
 - 25 INSTALL 1-1/2 INCH THREADED GALVANIZED STEEL PLUG.
 - 26 PLACE 5/8 THREADED OPENING IN 4 INCH DUCTILE IRON PIPE SPOOL. INSTALL 5/8 INCH BRASS WATER FAUCET FOR WATER SAMPLING.
 - 27 INSTALL NEW 4-INCH DIAMETER AWWA C-900 DR18 PVC RAW WATER SUPPLY PIPELINE. BACKFILL PIPE SEGMENT IN A 8-INCH SAND ENVELOPE.
 - 28 INSTALL A 4-INCH DIAMETER FLANGED BY THREADED END, 1'-6" LONG DUCTILE IRON PIPELINE.
 - 29 INSTALL A THREADED 45 DEGREE 4-INCH DIAMETER ELBOW. THE CONTRACTOR SHALL SUPPLY TEMPORARY PIPING EXTENDING TO THE BACKWASH BASINS DURING THE TESTING OF THE WELLS.
 - 30 INSTALL 4-INCH DIAMETER ASTM D1784, NSF APPROVED SCHEDULE 80 PVC THREADED WELL CASING DROP PIPE.



WATER PIPELINE CONNECTION DETAIL H
2 5



PREPARED UNDER THE DIRECT SUPERVISION OF:

JESUS R. MARMOLEJO, P.E. 80410 R.C.E. No.

08/01/2022 DATE 03/31/23 REG. EXP.

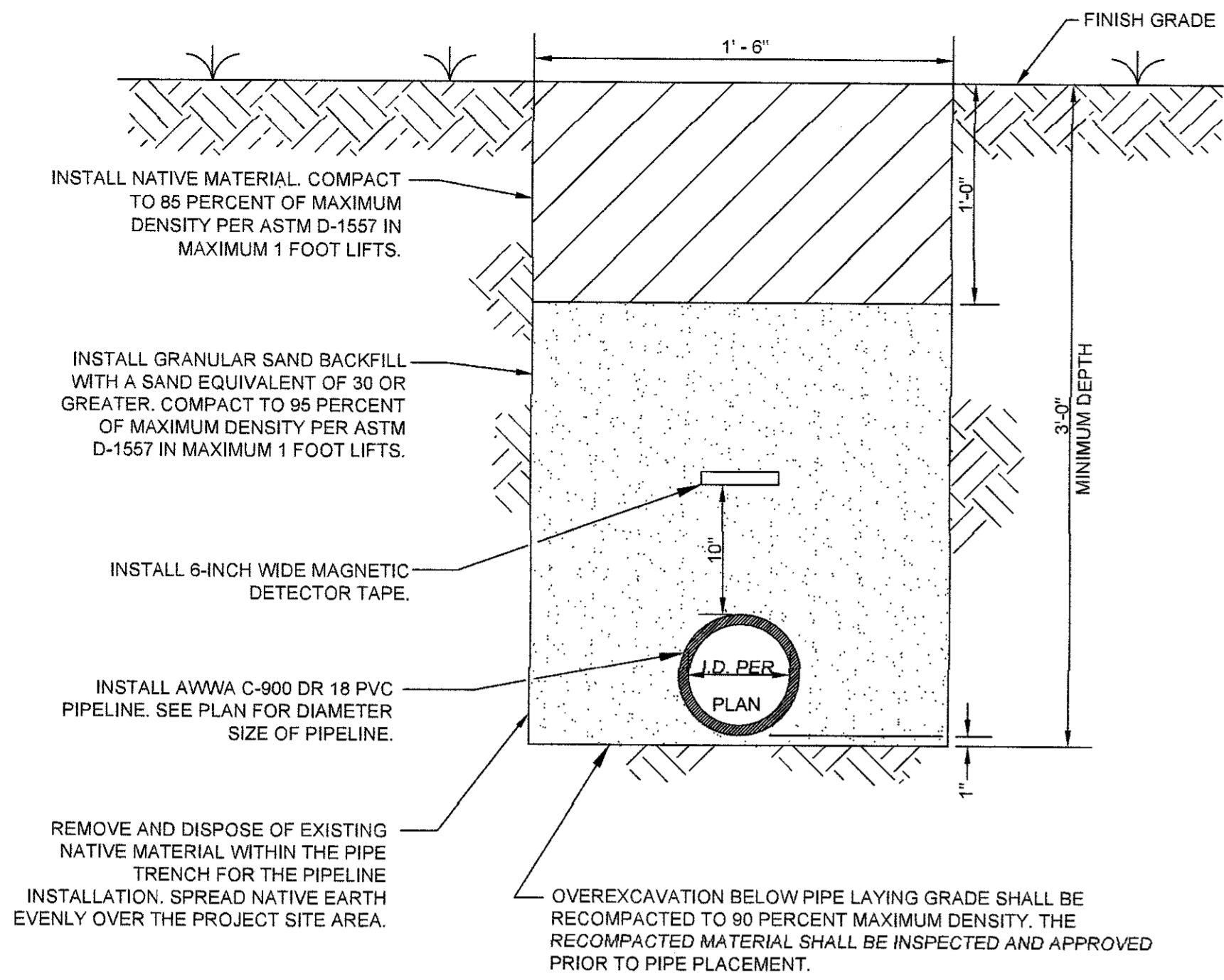
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PROJECT TITLE
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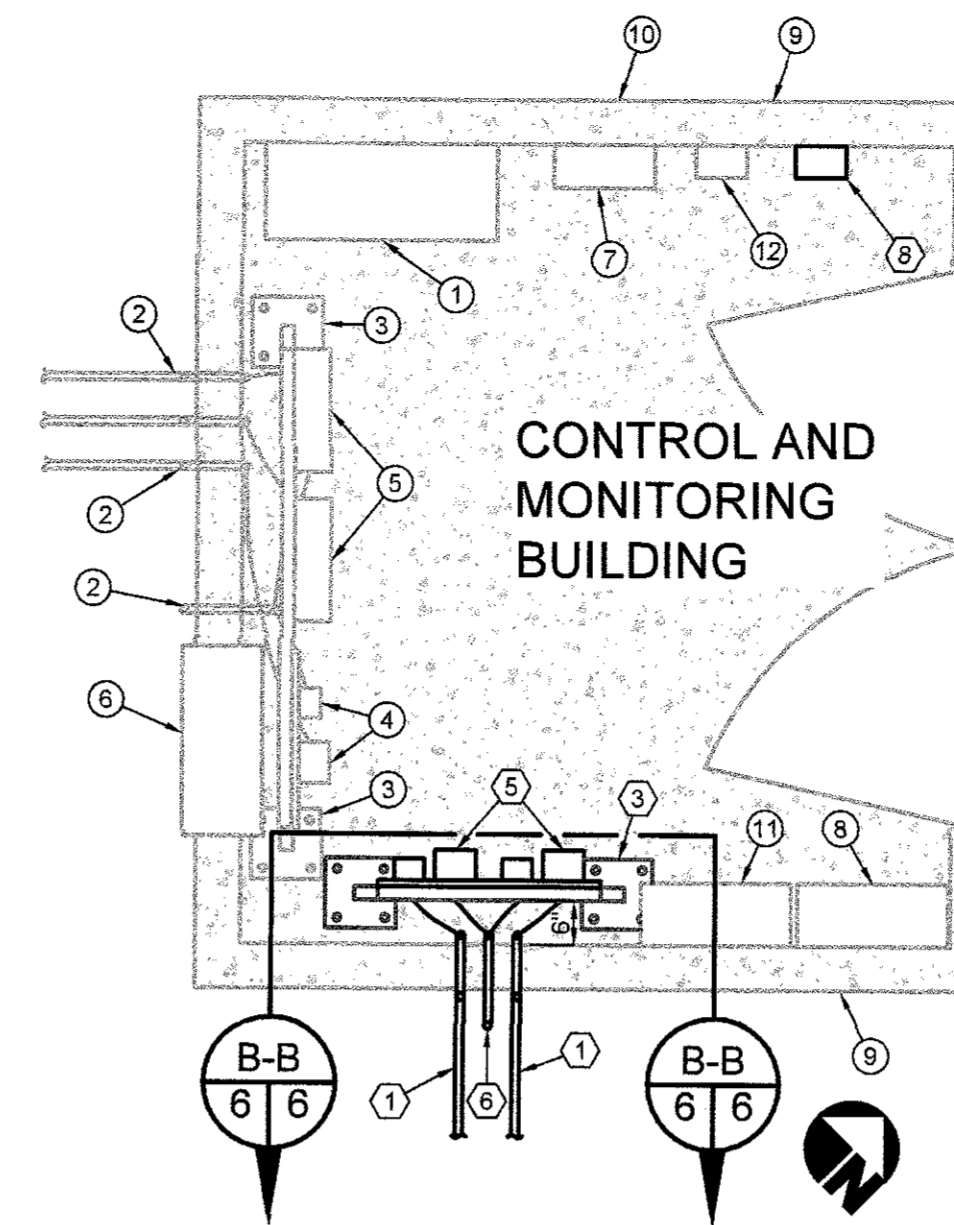
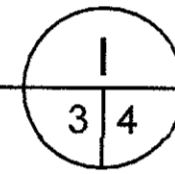
WATER WELL SECTIONS AND BLOW UP DETAILS

SHEET 5 OF 8

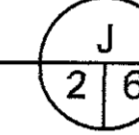
THG PROJECT NO. 821.028



WATER PIPELINE TRENCH IN NATIVE AREAS DETAIL

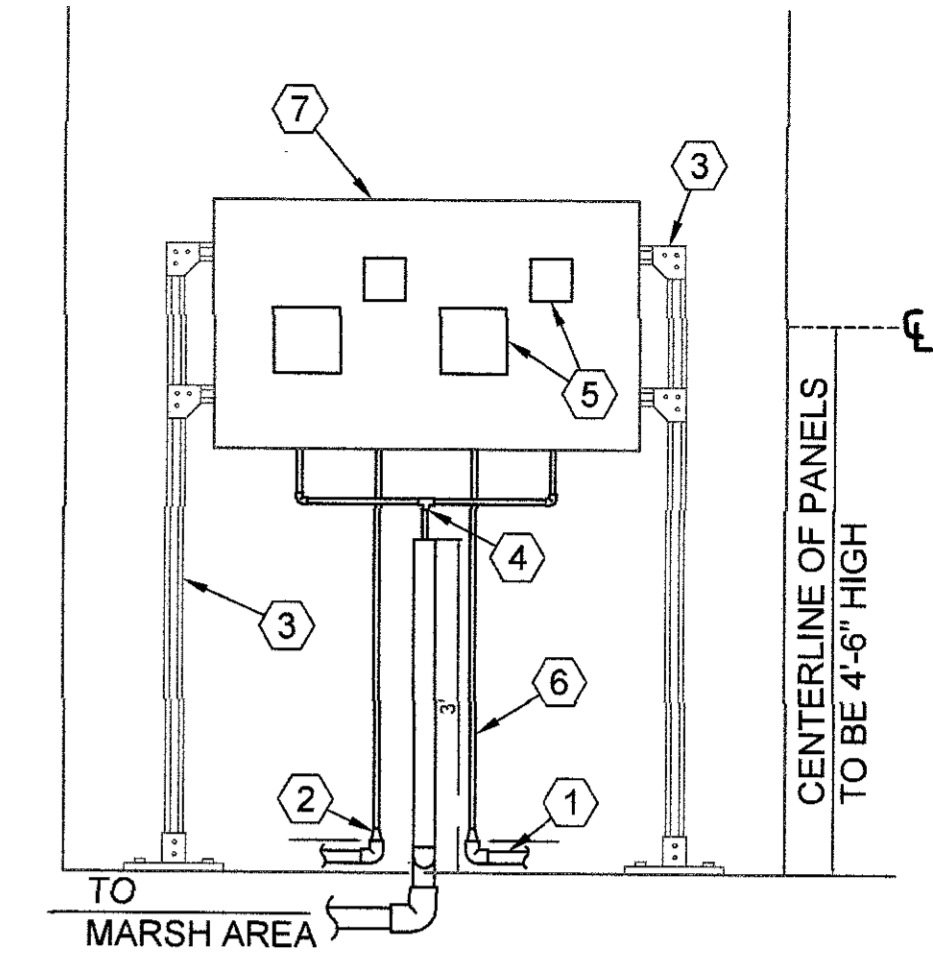


CONTROL & MONITORING BUILDING BLOW-UP DETAIL

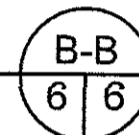


EXISTING KEYNOTES

- 1 EXISTING FILTER CONTROL PANEL B.
- 2 EXISTING PVC SAMPLING PIPELINE OR PVC DRAINAGE PIPELINE.
- 3 EXISTING PANEL SUPPORT.
- 4 EXISTING TURBIDIMETER WITH CONTROLLER.
- 5 EXISTING FREE CHLORINE RESIDUAL ANALYZER.
- 6 EXISTING AIR CONDITIONER (AC) UNIT.
- 7 EXISTING AIR INJECTION PANEL.
- 8 EXISTING ELECTRICAL CONTROL PANEL "B" TO REMAIN.
- 9 EXISTING CONTROL & MONITORING BUILDING TO REMAIN.
- 10 EXISTING MASONRY WALLS.
- 11 EXISTING REMOTE TERMINAL UNIT FOR ONLINE CELLULAR DATA BASED MONITORING (SCADA) SYSTEM.
- 12 EXISTING FLOW METER DISPLAY.



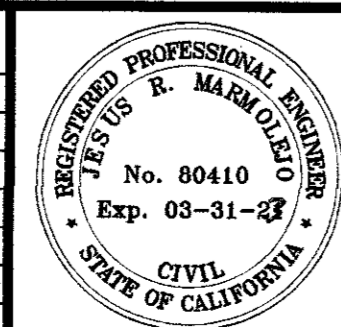
PANEL SUPPORT FOR TURBIDIMETERS SECTION



CONSTRUCTION KEYNOTES

- 1 INSTALL 1" DIA. SCHEDULE 80 PVC PIPE AND FITTINGS.
- 2 INSTALL 1" DIA. X 3/4" DIA. SCHEDULE 80 PVC REDUCER.
- 3 INSTALL PANEL SUPPORT FOR TURBIDIMETERS PER DETAIL.
- 4 SECURE AND DIRECT INSTRUMENT TUBING TO THE 2-INCH DIA. SCHEDULE 40 PVC DRAIN PIPELINE.
- 5 INSTALL MTOL+ TURBIDIMETER WITH JUNCTION BOX. THE TURBIDIMETER SHALL BE PROVIDED PER TECHNICAL SPECIFICATIONS. INSTALL TURBIDITY METER ASSEMBLY ON PANEL SUPPORT BACKING PER DETAIL.
- 6 INSTALL 2-INCH DIA. SCH 40 PVC DRAIN PIPELINE. INSTALL 3" DIA. X 2" DIA. SCHEDULE 40 PVC REDUCER TO CONNECT TO 3-INCH DIA. SCHEDULE 40 PVC DRAIN PIPELINE OUTSIDE OF THE CONTROL AND MONITORING BUILDING.
- 7 INSTALL GALVANIZED RIGID STEEL BOARD PANEL.
- 8 INSTALL FLOWMETER DISPLAY.

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PREPARED UNDER THE DIRECT SUPERVISION OF:

JESUS R. MARMOLEJO, P.E. 80410 R.C.E. No.

08/01/2022 DATE 03/31/23 REG. EXP.

DATE 08/01/2022

DRAWN RSN

SCALE 1:5

CHECKED JRM

PROJECT TITLE

PALO VERDE COUNTY WATER DISTRICT - WATER WELLS REPLACEMENT PROJECT PHASE II

CONTROL & MONITORING BLOW UP PLANS AND DETAILS

THG PROJECT NO. 821.028

SHEET 6 OF 8

NOTES:

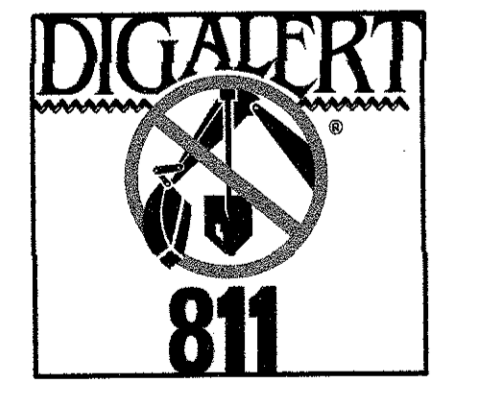
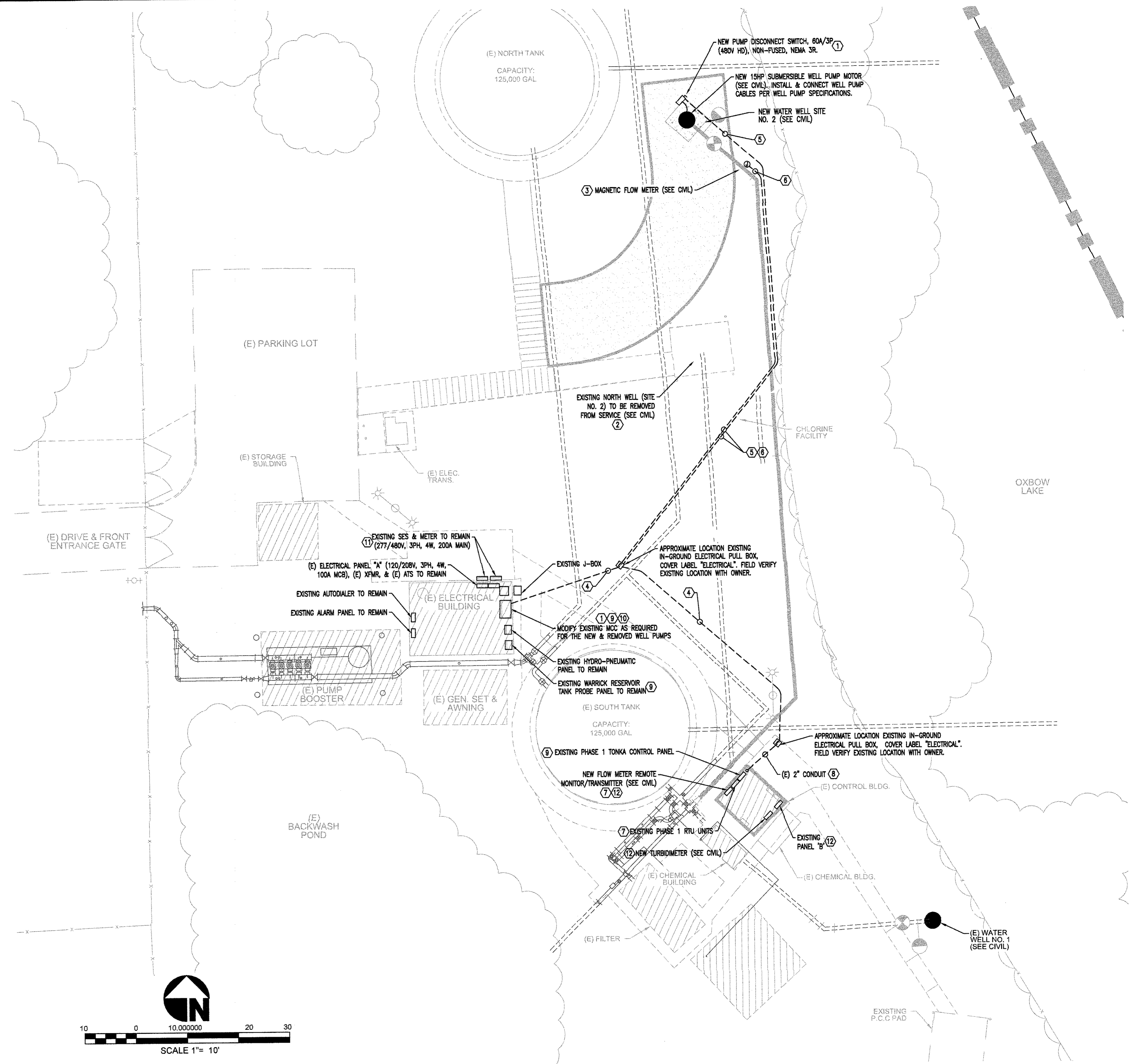
1. ALL ELECTRICAL WORK SHOWN IS NEW UNLESS OTHERWISE NOTED.
2. EXISTING ELECTRICAL NOT INDICATED TO BE REMOVED OR REPLACED SHALL BE PROTECTED DURING CONSTRUCTION & LEFT IN PLACE. CLEAN/REPAIR/RESTORE THIS EXISTING ELECTRICAL TO SERVICEABLE CONDITION PRIOR TO COMPLETION OF WORK.
3. INSPECT, CLEAN, & REPAIR ALL EQUIPMENT TO BE REUSED.
4. THE ELECTRICAL CONTRACTOR SHALL COORDINATE, BID, AND PROVIDE ALL INCIDENTAL ELECTRICAL DEMOLITION WORK, TEMPORARY ELECTRICAL REMOVAL & REINSTALLATION WORK, & RESTORATION OF EXISTING ELECTRICAL WORK TO EXISTING CONDITION OR BETTER AT ANY CIVIL OR MECHANICAL DEMOLITION OR RENOVATIONS IDENTIFIED ON THE CIVIL OR MECHANICAL PLANS. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE CIVIL & MECHANICAL PLANS & COORDINATING WORK RESPONSIBILITY WITH THE GENERAL CONTRACTOR & INCLUDING ALL SUCH WORK IN THE CONTRACT BID.

KEY NOTES:

1. SEE ELECTRICAL ONE-LINE DIAGRAM.
2. AFTER WELL DEACTIVATION & REMOVAL FROM SERVICE PER CIVIL PLANS, REMOVE & DISPOSE EXISTING WELL PUMP ELECTRICAL INCLUDING DISCONNECT SWITCH, 120V SERVICE RECEPTACLE, WIRING, CONDUIT, & ALL ASSOCIATED ACCESSORIES. REMOVE WIRING COMPLETELY BACK TO THE MCC. CAP & ABANDON UNDERGROUND CONDUIT IN PLACE.
3. WP J-BOX & CONNECTION FOR MAG METER. INSTALL PER MANUFACTURER & SUPPLIER REQUIREMENTS.
4. EXISTING CONDUITS:
(1) 2" CONDUIT (NEW & EXISTING WELL PUMP CIRCUITS).
(1) 2" CONDUIT (NEW & EXISTING CONTROL/SIGNAL).
(1) 2" CONDUIT (SPARE W/PULLSTRING).
SEE ELECTRICAL ONE-LINE DIAGRAM.
5. (1) 1" CONDUIT (WELL PUMP MOTOR CIRCUIT). SEE ELECTRICAL ONE-LINE DIAGRAM.
6. (1) 1" CONDUIT (CONTROL/SIGNAL CONDUCTORS). CABLING SHALL BE PROVIDED BY THE MANUFACTURER & SUPPLIER. INSTALL CABLING AS REQUIRED BY SUPPLIER.
7. NEW WELL FLOW METER MONITOR/TRANSMITTER WITH TOTALIZER INDICATOR FOR NEW WELL. COORDINATE INSTALLATION WITH OWNER & CIVIL ENGINEER TO FIT IN THE AVAILABLE SPACE. CONNECT MAG FLOW METER OUTPUT SIGNAL TO THE FLOW METER REMOTE MONITOR/TRANSMITTER. CONNECT MONITOR/TRANSMITTER OUTPUT SIGNAL TO THE EXISTING RTU UNIT. AN ANALOG OUTPUT SHALL BE PROVIDED FOR THE FLOW INDICATOR. A PULSE OUTPUT SHALL BE PROVIDED FOR THE FLOW TOTALIZER. DESIGN, LAYOUT, WIRING, CONNECTIONS, RTU INTERFACE, & PROGRAMMING TO BE PROVIDED BY THE CONTRACTOR'S FLOW METER SUPPLIER. FLOW METER SUPPLIER SHALL COORDINATE WITH MANUFACTURER/SUPPLIER OF RTU UNIT.
8. (1) 2" CONDUIT (CONTROL/SIGNAL CONDUCTORS). CABLING SHALL BE PROVIDED BY THE MANUFACTURER & SUPPLIER. INSTALL CABLING AS REQUIRED BY SUPPLIER.
9. VERIFY, INSPECT, CLEAN, REPAIR, & RECONNECT EXISTING WELL PUMP CONTROLS. REFURBISH OR REPLACE ANY DAMAGED OR INOPERATIVE FLOAT SWITCHES, SELECTOR SWITCHES, RELAYS, TIMERS, WIRING, OR COMPONENTS AS REQUIRED. TANK SELECTION BETWEEN "OFF" AND THE NORTH & SOUTH TANKS AND WELL PUMP START/STOP INITIATED BY THE TANK LEVEL CONTROLS IS ACCOMPLISHED AT THE EXISTING WARRICK RESERVOIR PANEL AT THE ELECTRICAL BUILDING. THE TONKA FILTER CONTROL PANEL AT THE CONTROL BUILDING USES INPUTS FROM THE TANK FLOATS AND PUMP START CIRCUIT AT THE WARRICK RESERVOIR PANEL TO INITIATE THE FILTER CYCLE. THE TONKA FILTER CONTROL PANEL ALSO OUTPUTS 2 WELL PUMP INTERRUPT CIRCUITS BACK TO THE WARRICK RESERVOIR PANEL WHEN BACKWASH IS INITIATED.
10. CONNECT NEW WELL PUMP MOTOR CIRCUITS. LABEL PER NEC & SPECIFICATIONS.
11. EXISTING SES, ATS, GENERATOR, & ELECTRICAL DISTRIBUTION TO REMAIN. THE NEW WELL PUMPS & ASSOCIATED WORK WILL BE REPLACING EXISTING WELL PUMPS & ASSOCIATED WORK AND WILL NOT CHANGE THE EXISTING ELECTRICAL DEMAND AT THE SES. AT START OF CONSTRUCTION, COORDINATE WITH OWNER AND SOUTHERN CALIFORNIA EDISON TO OBTAIN PEAK KW DEMAND FOR THE PREVIOUS 12 MONTHS. SUBMIT PEAK KW DEMAND DATA TO THE ENGINEER FOR FINAL ANALYSIS OF THE EXISTING ELECTRICAL DEMAND.
12. COORDINATE WITH FLOW METER MONITOR/TRANSMITTER SUPPLIER & TURBIDIMETER SUPPLIER. INSTALL 120V POWER SUPPLIES AS NEEDED. INSTALL NEW 15A CIRCUIT BREAKERS AT PANEL & INSTALL NEW BRANCH CIRCUITS IN CONDUIT FROM PANEL TO EQUIPMENT. LABEL AT PANEL PER NEC. (AS AN OPTIONAL ALTERNATIVE, CONTRACTOR & SUPPLIER MAY CONNECT TO AN EXISTING CONTROL/MONITOR EQUIPMENT BRANCH CIRCUIT IF DETERMINED TO BE SUITABLE & ACCEPTABLE FOR ALL NEW & EXISTING CONNECTED EQUIPMENT.) SEE PHASE 1 CHLORINATION SYSTEM AND CONTROL REPLACEMENT PROJECT FOR EXISTING PANEL "B" INFORMATION & LOADS. NEW FLOW METER EQUIPMENT WILL ADD 52VA (0.43A @ 120V) TO THE EXISTING PANEL. NEW TURBIDIMETER EQUIPMENT WILL ADD 80VA (0.67A @ 120V) TO THE EXISTING PANEL.

ELECTRICAL SYMBOLS & ABBREVIATIONS:

- ⊕ DUPLEX RECEPTACLE, 120V/20A, MOUNT 15" A.F.F. UNLESS NOTED OTHERWISE.
- ⊙ JUNCTION BOX, MOUNT AS SHOWN.
- NUMBER OF WIRES IN CONDUIT, LONG SLASH DENOTES GROUND WIRE, SHORT SLASH DENOTES NUMBER OF CURRENT CARRYING CONDUCTORS & NEUTRALS, HALF SLASH DENOTES SWITCHED LEG.
- ⚡ LIGHT CIRCUIT SWITCH, 120V/20A, MOUNT 46" A.F.F. UNLESS NOTED OTHERWISE.
- ⊞ FUSED OR NONFUSED DISCONNECT SAFETY SWITCH, SIZE & TYPE AS SHOWN.
- ⊞ NEMA MOTOR STARTER, SIZE AS SHOWN.
- UNDERGROUND CONDUIT.
- ABOVE GROUND CONCEALED CONDUIT.
- ATS AUTOMATIC TRANSFER SWITCH.
- CWP COLD WATER PIPE.
- (E) EXISTING EQUIPMENT.
- FVNR FULL VOLTAGE, NON-REVERSING.
- GFI GROUND FAULT CIRCUIT INTERRUPTER.
- HD HEAVY DUTY.
- MCC MOTOR CONTROL CENTER.
- SES SERVICE ENTRANCE SECTION, SIZED AS SHOWN.
- XFMR TRANSFORMER.
- WP OUTDOOR WEATHERPROOF ENCLOSURE.
- WP-U OUTDOOR WEATHERPROOF "IN-USE" ENCLOSURE.



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DATE	08/01/2022
DRAWN	STAFF
SCALE	AS SHOWN
CHECKED	J.R.A.



PREPARED UNDER THE DIRECT SUPERVISION OF:

JAMES R ADLER	E 16119 R.E. No.
11-23-2022	12/31/23
DATE	REG. EXP.

PROJECT TITLE	
PALO VERDE COUNTY WATER DISTRICT - WATER WELLS REPLACEMENT PROJECT PHASE II	
THG PROJECT NO. 821.028	

ELECTRICAL SITE PLAN	
SHEET 7 OF 8	

ELECTRICAL GENERAL NOTES:

- ALL MATERIALS AND WORKMANSHIP TO BE NEW AND OF FIRST RATE QUALITY. MATERIALS TO BE UL LISTED AND APPROVED. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, CALIFORNIA ELECTRICAL CODE, AND ANY OTHER STATE AND LOCAL APPLICABLE CODES.
- ALL CEILING, FLOOR, AND WALL PENETRATIONS AND BOXES SHALL BE CAULKED/SEALED TO PRESERVE FIRE RATINGS AND WATER PROOF INTEGRITY. FIRESTOPPING OF PENETRATIONS IN AND THROUGH FIRE RATED FLOORS, CEILINGS & WALLS SHALL BE IN ACCORDANCE WITH IBC & UL AND AS REQUIRED BY THE FIRESTOPPING MANUFACTURER FOR THE CONSTRUCTION TYPE & FIRE RATING SPECIFIED (SEE ARCHITECTURAL DRAWINGS). THE FIRESTOPPING SYSTEM SHALL BE LISTED AND TESTED TO UL-1479 & ASTM E-814. INSTALL IN STRICT COMPLIANCE WITH THE MANUFACTURER INSTRUCTIONS.
- ALL ELECTRICAL CONDUCTORS SHALL BE COPPER, 90 DEGREE C TEMPERATURE RATING, MINIMUM SIZE IS NO. 12 AWG. ALL WIRING SHALL BE IN CONDUIT UNLESS OTHERWISE NOTED ON THE DRAWINGS. UNDERGROUND CONDUCTORS MUST BE RATED FOR 90 DEGREE C AS DEFINED FOR "WET LOCATION" BY THE NEC UNLESS NOTED OTHERWISE.
- A. ALL CONDUIT SHALL BE METALLIC ELECTRICAL CONDUIT UNLESS NOTED OTHERWISE ON THE DRAWINGS. MINIMUM SIZE CONDUIT IS 1/2". ALL CONDUITS AND BOXES SHALL BE CONCEALED ABOVE CEILINGS, IN WALLS OR UNDER FLOORS AS REQUIRED OR AS NOTED OTHERWISE ON THE DRAWINGS.
 - UNDERGROUND CONDUIT SHALL BE MINIMUM OF SCHEDULE 40 PVC OR MEDIUM WALL (MW) FIBERGLASS RT/RG, 90 DEGREE C, RATED WITH MINIMUM OF TRENCH COVER PER NEC TABLE 300-5. ALL UNDERGROUND JUNCTION/PULL BOXES SHALL BE RATED THE SAME AS THE ASSOCIATED CONDUIT, MINIMUM SIZE UNDERGROUND CONDUIT IS 3/4".
 - THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF CONDUIT, WIRING, ELECTRICAL EQUIPMENT AND ASSOCIATED HARDWARE WITH THE INSTALLATION OF THE MECHANICAL EQUIPMENT AND OTHER TRADES. SEE THE CIVIL PLANS FOR EXACT LOCATIONS.
 - THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND INSTALLATION OF SERVING ELECTRICAL TELEPHONE/TV COMPANY CONDUIT SYSTEMS AND SERVICE EQUIPMENT. UNDERGROUND TRENCH LOCATIONS SHOWN ARE APPROXIMATE AND MUST BE VERIFIED BY THE SERVING UTILITY. CONTACT WITH THE SERVING UTILITIES IS REQUIRED PRIOR TO INSTALLATION. THE CONTRACTOR IS RESPONSIBLE FOR EXISTING FIELD CONDITIONS AND PROVIDING A FULL FUNCTIONING ELECTRICAL SYSTEM.
 - ALL LIGHT FIXTURES, RECEPTACLE AND JUNCTION BOXES, PANEL BOARDS AND ALL OTHER METALLIC ELECTRICAL APPLIANCES AND DEVICES MUST BE GROUNDED AS REQUIRED BY SECTION 250 OF THE NATIONAL ELECTRICAL CODE.
 - ASBESTOS CONTAINING MATERIALS MAY BE PRESENT IN THE EXISTING STRUCTURES ON THIS PROJECT. THE CONTRACTOR SHALL TAKE APPROPRIATE SAFETY PRECAUTIONS IN ACCORDANCE WITH OSHA AND EPA REGULATIONS DURING INSTALLATION OF ELECTRICAL EQUIPMENT AND, OR REMOVAL OF EXISTING BUILDING MATERIALS WHICH MAY CONTAIN ASBESTOS. CONTRACTOR SHALL IMMEDIATELY CEASE WORK AND NOTIFY THE OWNER OF ANY MATERIALS BELIEVED TO CONTAIN ASBESTOS. WORK SHALL PROCEED ONLY UPON DIRECTION FROM THE OWNER.

ELECTRICAL SPECIFICATIONS:

FURNISH AND INSTALL, INCLUDING LABOR, SUPERVISION, MATERIALS, TOOLS, SERVICES, TRANSPORTATION, OVERHEAD COSTS, FEES, PLAN CHECK FEES, INSPECTION CHARGES, ROYALTIES, PROFITS, ETC., A COMPLETE ELECTRICAL INSTALLATION AS SPECIFIED HEREIN AND INDICATED ON THE ELECTRICAL DRAWINGS. PERFORM WORK IN AN APPROVED, NEAT, FIRST CLASS, SAFE, WORKMANSHIP LIKE MANNER THAT COMPLIES WITH ALL APPLICABLE LOCAL, STATE, FEDERAL, AND SERVING ELECTRICAL AND TELEPHONE UTILITIES, ETC., CODES, ORDINANCES, RULES, REGULATIONS, STANDARDS, ETC. THE ENTIRE ELECTRICAL INSTALLATION SHALL COMPLY WITH OR SURPASS THE MOST RECENT EDITION OF THE NATIONAL ELECTRICAL CODE AND OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).

ALL MATERIALS AND EQUIPMENT FURNISHED BY THE ELECTRICAL CONTRACTOR SHALL BE NEW OF FIRST-CLASS QUALITY UNLESS NOTED OTHERWISE, FREE FROM DEFECTS, AND CONFORM WITH UNDERWRITER LABORATORIES INC. STANDARDS AND BE SO LABELED. MATERIALS, EQUIPMENT ETC. NOT INDICATED ON DRAWINGS OR SPECIFIED HEREIN BUT REQUIRED FOR A SUCCESSFUL AND EFFICIENT COMPLETION OF THE ELECTRICAL INSTALLATION SHALL BE HELD TO BE IMPLIED AND SHALL BE FURNISHED AND INSTALLED AT NO ADDITIONAL COST. ENCLOSURES FOR ALL EQUIPMENT SHALL BE SUITABLE FOR USE INTENDED e.g., WEATHER-PROOF FOR EXTERIOR AND WET LOCATIONS. ALL EQUIPMENT SHALL BE RATED FOR USE INTENDED, e.g., VOLTAGE, HORSE POWER, RATING OF DISCONNECT SWITCHES, ETC.

MATERIALS, EQUIPMENT, ETC., INCLUDING THOSE FURNISHED BY OTHERS, THAT ARE TO BE INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE RECEIVED AND PROPERLY PROTECTED BY THE CONTRACTOR UNTIL ENTIRE INSTALLATION IS COMPLETE.

MAKE NO INSTALLATION OF WORK WHICH WOULD LEAVE INADEQUATE OPERATION OR SERVICING SPACE FOR ANY ITEM FOR THE ENTIRE PROJECT. DRAWINGS ARE NOT INTENDED TO SHOW IN DETAIL ALL FEATURES OF WORK. CHECK LOCATION AT ELECTRICAL WORK TO DETERMINE IN ADVANCE THAT IT CLEARS ALL OPENINGS, STRUCTURAL MEMBERS, ETC. THE CONTRACTOR SHALL INSTALL ALL THE MINIMUM CODE REQUIRED MATERIALS AND EQUIPMENT AT NO ADDITIONAL COST.

ALL SWITCHES AND RECEPTACLES FOR THIS PROJECT SHALL BE COMMERCIAL GRADE 20 AMP. ALL DEVICE PLATES SHALL BE SMOOTH PLASTIC; IVORY COLORED ON LIGHT WALLS AND BROWN COLORED ON DARK WALLS. (I.N.O.) PROVIDE WEATHER-PROOF DIE CAST ALUMINUM BOXES & COVERS AT OUTDOOR LOCATIONS. INSTALL "IN-US" TYPE WP COVERS AT RECEPTACLES AT OUTDOOR WET LOCATIONS. PROVIDE ALUMINUM OR SST DEVICE PLATES AT INDOOR SHOP AREAS.

ALL WIRING SHALL BE INSTALLED IN APPROVED RACEWAYS IF REQUIRED BY CODES. RACEWAYS SHALL BE APPROVED FOR USE INTENDED. ALL ELECTRICAL CONDUCTORS SHOWN ARE 600V COPPER, MINIMUM SIZE CONDUCTOR IS NO. 12 AWG, AND AS RECOMMENDED BY SUPPLIER OF EQUIPMENT AS APPLICABLE.

ALL CONDUIT SHALL BE INSTALLED CONCEALED UNLESS NOTED OTHERWISE. ALL CEILING, FLOOR, AND WALL PENETRATIONS & BOXES SHALL BE CAULKED/SEALED TO PRESERVE FIRE RATINGS AND WATER PROOF INTEGRITY. FIRESTOPPING OF PENETRATIONS IN & THROUGH FIRE RATED FLOORS, CEILINGS & WALLS SHALL BE IN ACCORDANCE WITH IBC & UL AND AS REQUIRED BY THE FIRESTOPPING MANUFACTURER FOR THE CONSTRUCTION TYPE & FIRE RATING SPECIFIED (SEE ARCHITECTURAL DRAWINGS). THE FIRESTOPPING SYSTEM SHALL BE LISTED AND TESTED TO UL-1479 & ASTM E-814. INSTALL IN STRICT COMPLIANCE WITH THE MANUFACTURER INSTRUCTIONS.

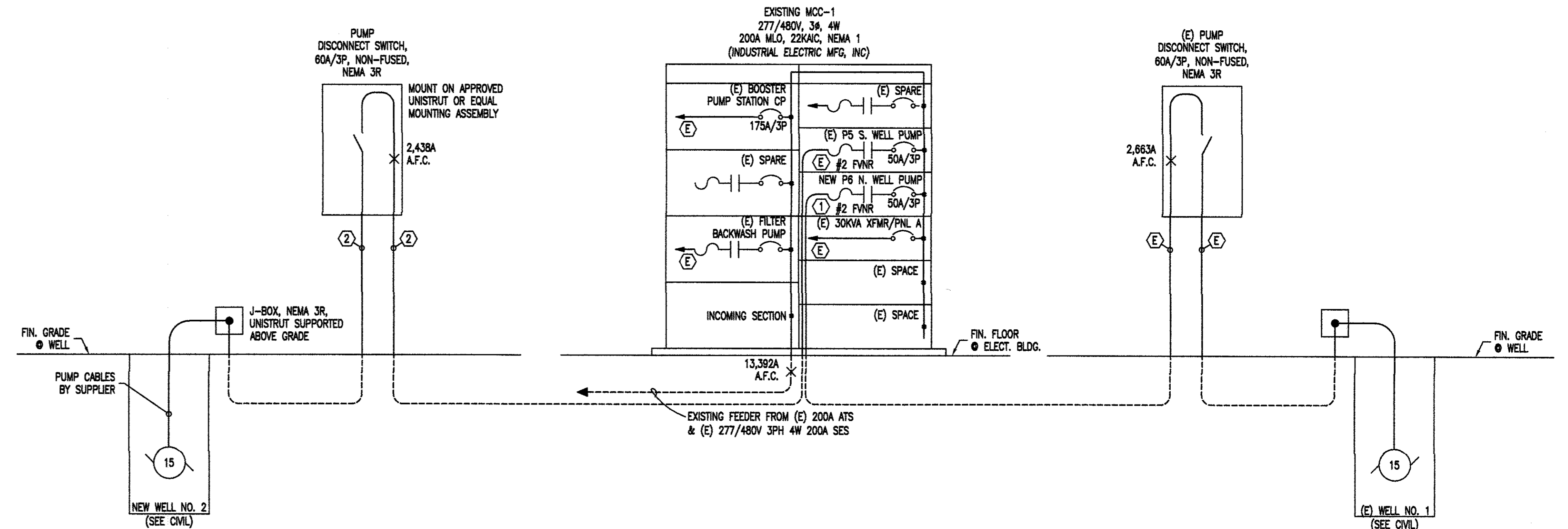
PROVIDE SWITCHBOARDS, SERVICE EQUIPMENT, & PANELBOARDS WITH FULL SIZED BREAKERS AND COPPER BUSSING. LABEL EQUIPMENT AND WIRING PER NEC. PROVIDE TYPED PANEL DIRECTORIES AND IDENTIFY ALL CIRCUITS AND SPACES.

LABEL EQUIPMENT WITH MYCARTA TAGS, 1/4" ENGRAVED LETTERS. PROVIDE WIRE COLOR CODING PER NEC AND ACCEPTED STANDARDS (MATCH EXISTING). PROVIDE UNDERGROUND WARNING TAPE AT ALL UNDERGROUND CONDUIT SYSTEMS.

THIS CONTRACT IS TO INCLUDE ALL CONTINGENCIES WHICH MAY ARISE AND WHICH MAY BE REQUIRED TO MAKE A COMPLETE ELECTRICAL SYSTEM.

THE ELECTRICAL CONTRACTOR SHALL VISIT SITE AND DETERMINE EXTENT OF THE WORK. AT COMPLETION OF ELECTRICAL INSTALLATION, PROVIDE OWNER WITH ACCURATE AS-BUILT DRAWINGS INDICATING ALL VARIATIONS FROM CONTRACT DRAWINGS, AND A LETTER TO THE OWNER'S REPRESENTATIVE STATING PROJECT FULLY COMPLIES WITH ALL CONTRACT DOCUMENTS AND IF NOT, HOW INSTALLATION WAS ACCOMPLISHED. ALL CHANGES SHALL BE SUBJECT TO OWNER'S REPRESENTATIVE'S APPROVAL.

PROVIDE NECESSARY LABOR, TOOLS, EQUIPMENT, e.g., VOLTMETER, AMMETER, MEGGER, ETC., AND CHECK ENTIRE ELECTRICAL SYSTEM IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. ALL TESTING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION OF EQUIPMENT, MATERIALS, ETC., BEING TESTED.



LOAD SUMMARY (EXISTING SES)		AMPS @ 480V/3PH			
EQUIPMENT	HP	QTY	LOAD	TOTAL LOAD	TOTAL AMPS
EXISTING LOAD:					
EXISTING LOAD*	-	-	61,765 VA		
TOTAL EXISTING LOAD*				61,765 VA	
REMOVED LOAD:					
ACTIVE WELL PUMP	5	1	-6,319 VA		
TOTAL REMOVED LOAD				-6,319 VA	
NEW LOAD:					
WELL PUMP (PHASE 1)	15	1	17,459 VA		
WELL PUMP (PHASE 2)	15	1	17,459 VA		
OTHER LOAD	-	-	52 VA		
TOTAL NEW LOAD				34,970 VA	
TOTAL:				90,416 VA	108.8 AMPS

NOTE:
* EXISTING DEMAND LOAD PER SCE RECORDED METER DATA & PER NEC ARTICLE 220-35 (ASSUMED BALANCED LOADS @ 85% PF, 125% DEMAND).

NOTES (ONE-LINE DIAGRAM):

- PROVIDE RATED EQUIPMENT & DEVICES BY MANUFACTURER CAPABLE OF SAFELY INTERRUPTING THE AVAILABLE FAULT CURRENT.
- PROVIDE WARNING LABELS & MARKING BY MANUFACTURER AT ALL SWITCHBOARDS, PANELBOARDS, & INDUSTRIAL CONTROL PANELS/MCC'S LIKELY TO CREATE ARC FLASH CONDITIONS AS REQUIRED BY NEC ART. 110.16.
- LABEL & MARK MAIN SERVICE DISCONNECT(S) PER NEC.
- WHERE CONDUIT IS INDICATED AS OVERHEAD METAL CONDUIT, UNDERGROUND/UNDERSLAB PVC CONDUIT IS AN APPROVED ALTERNATE.
- PHASE NEW ELECTRICAL WORK TO COORDINATE WITH OWNER REQUIREMENTS & REQUIREMENTS INDICATED ON THE CIVIL DRAWINGS. MAINTAIN CONTINUOUS POWER TO ALL OPERATIONAL WATER TREATMENT PLANT EQUIPMENT DURING THE CONSTRUCTION. COORDINATE SCHEDULE OF WORK & ALL POWER OUTAGES WITH OWNER. OUTAGES SHALL BE LIMITED TO 30 MINUTE DURATION. ALL OUTAGES SHALL BE SCHEDULED MINIMUM 7 DAYS IN ADVANCE AND APPROVED BY THE OWNER PRIOR TO WORK.
- ALL WORK SHOWN IS NEW UNLESS NOTED OTHERWISE.

KEY NOTES:

- COORDINATE WITH MANUFACTURER AS REQUIRED TO REMOVE & REPLACE THE EXISTING STARTER BUCKET WITH A NEW OR MANUFACTURER REBUILT STARTER BUCKET AS REQUIRED FOR THE NEW PUMP. AS AN OPTIONAL ALTERNATIVE TO REFURBISHING THE ORIGINAL IEM EQUIPMENT, THE CONTRACTOR MAY VERIFY & REPLACE THE COMPLETE MCC WITH A NEW MCC INCLUDING ALL STARTERS, FEEDER BREAKERS, ACCESSORIES, & COMPONENTS TO MATCH EXISTING (SIEMENS, GE, AB, SQUARE-D, OR EQUAL). MATCH EXISTING EQUIPMENT (ELAPSED TIME METERS, H-O-A SWITCHES, RUN PILOT LIGHTS, ETC.). ORDER STARTERS, CIRCUIT BREAKERS, & OVERLOAD DEVICES TO COORDINATE WITH THE NEW PUMPS. ALL NEW EQUIPMENT SHALL BE COMPATIBLE TO EXISTING EQUIPMENT & EQUIPMENT RATINGS. CONNECT NEW WELL PUMP BRANCH CIRCUITS. LABEL EQUIPMENT WITH ENGRAVED NAMEPLATES PER NEC & SPECIFICATIONS.
- (3) #8 CU THWN-2, (1) #10 CU GRD, 1" CONDUIT.
- EXISTING FEEDER OR BRANCH CIRCUIT.

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	PREPARED UNDER THE DIRECT SUPERVISION OF: JAMES R. ADLER E 16119 R.E. No.	DATE: 08/01/2022 DRAWN: STAFF SCALE: NONE CHECKED: J.R.A.	PROJECT TITLE: PALO VERDE COUNTY WATER DISTRICT - WATER WELLS REPLACEMENT PROJECT PHASE II	ELECTRICAL DETAILS
	11-23-2022 DATE	12/31/23 REG. EXP.	SHEET 8 OF 8 THG PROJECT NO. 821.028	