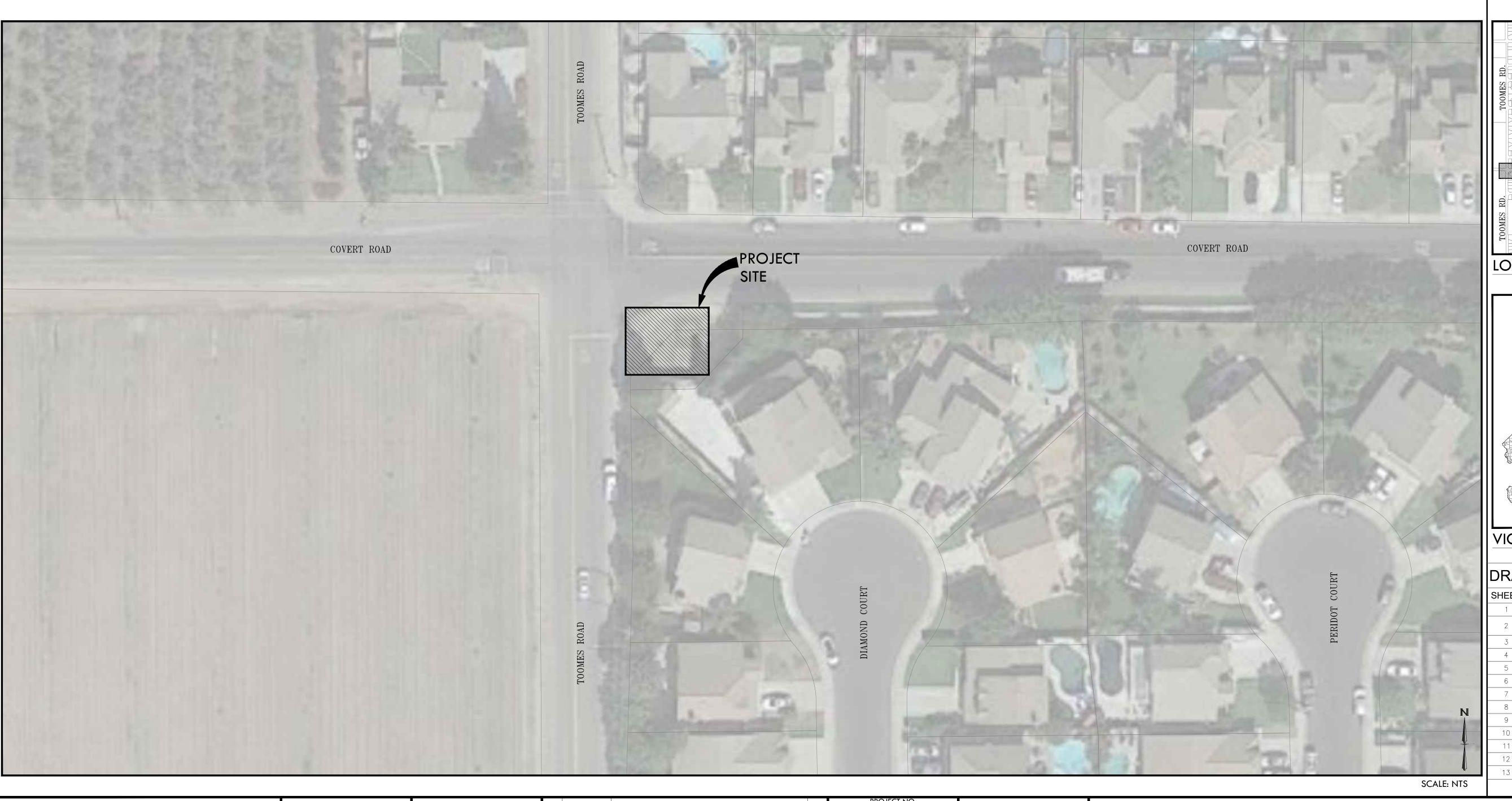
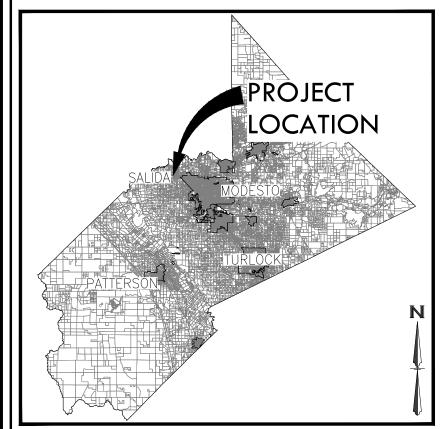
SALIDA SANITARY DISTRICT COVERT LIFT STATION

SALIDA, CALIFORNIA





LOCATION MAP



VICINITY MAP

SCALE: NTS

DRAWING INDEX

SHEET	DWG.	NAME	
1	G.01	COVER SHEET	
2	G.02	GENERAL NOTES, ABBREVIATIONS, LEGEND AND DRAWING INDEX	
3	C.01	DEMOLITION AND SITE PLAN	
4	C.02	PUMP STATION PLAN AND SECTIONS	
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6	C.04	STANDARD DETAILS	
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10	E3	ONE LINE DIAGRAM AND PANEL SCHEDULE	
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	REV	DATE	DESCRIPTION	APP	project no. J21346
١					DESIGNED BY PJS / KCW
					DRAWN BY KCW
/					CHECKED BY AJV
					date JUNE 2023



SALIDA SANITARY DISTRICT COVERT LIFT STATION

COVER SHEET

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING

SHEET NO. 1 OF 13

G.01

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES **ACCORDINGLY**

CONTACTS

ENGINEER:

BLACK WATER CONSULTING ENGINEERS, INC. 602 LYELL DRIVE MODESTO, CA 95350 ENGINEER: AJA VERBURG, P.E. T:209.629.9220

ELECTRICAL ENGINEER: HCS ENGINEERING, INC. 4512 FEATHER RIVER DR #F STOCKTON, CA, 95219 PRINCIPAL ELECTRICAL ENGINEER: RICHARD SMITH, P.E. T:209.478.8270

ISTRICT:

SALIDA SANITARY DISTRICT 6200 PIRRONE ROAD SALIDA, CA, 95368 DISTRICT MANAGER: ANTONIO TOVAR, P.E. T:209.545.4987

GENERAL NOTES

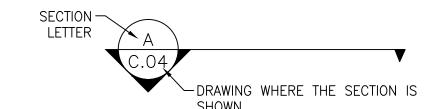
- CONTRACTOR SHALL CONSIDER THE INFORMATION PRESENTED AS "GENERAL NOTES" AS PART OF THE CONSTRUCTION DOCUMENTS.
- PRIOR TO ANY WORK BEING PERFORMED, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES FOR A PRE-CONSTRUCTION CONFERENCE. CONTRACTOR SHALL ALSO NOTIFY THE SALIDA SANITARY DISTRICT AND ENGINEER SEVENTY-TWO (72) HOURS PRIOR TO MEETING DATE.
- ENGINEER OF RECORD MUST APPROVE ANY SUBSTITUTIONS. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN THE DRAWINGS AND OTHER DETAILS; OR EXISTING CONDITIONS NOT SHOWN OR DIFFERENT FROM THOSE SHOWN ON THE DRAWINGS PRIOR TO COMMENCEMENT OF WORK. MATERIALS PROCURED PRIOR TO RESOLUTION OF CONFLICTS SHALL BE AT THE CONTRACTOR'S RISK.
- . ALL WORK IS NEW UNLESS INDICATED AS EXISTING.
- . THE CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCHMARKS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSE FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE. ALL STREET MONUMENTS, LOT CORNERS, BENCHMARKS, AND OTHER PERMANENT PIPE MONUMENTS DISTURBED DURING THE PROCESS OF CONSTRUCTION SHALL BE REPLACED BY A LICENSED CIVIL ENGINEER OR SURVEYOR PRIOR TO ACCEPTANCE OF THE IMPROVEMENTS BY THE STANISLAUS COUNTY.
- . IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PERTINENT SECTIONS OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE SALIDA SANITARY DISTRICT AND/OR THE STATE OF CALIFORNIA, LATEST EDITION, AND ALL OSHA REQUIREMENTS AS THEY APPLY TO THE PROJECT.
- THE DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED PROJECT, AND DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE CONSTRUCTION AND ALL ADJACENT PROPERTIES DURING CONSTRUCTION
- 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; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- . THE CONTRACTOR AGREES TO BE RESPONSIBLE FOR:
- CLEANING THE JOB SITE AT THE END OF EACH PHASE OF
- REMOVING AND DISPOSING OF ALL TRASH, SCRAP AND UNUSED MATERIAL IN A TIMELY MANNER.
- MAINTAINING THE SITE IN A NEAT, SAFE AND ORDERLY MANNER AT ALL TIMES.
- KEEPING MATERIALS, EQUIPMENT AND TRASH OUT OF THE WAY OF OTHER CONTRACTORS SO AS TO NOT DELAY THE
- PROVIDING THEIR OWN SAFETY, TRAFFIC CONTROL PERMITS, RETESTING AND REINSPECTION.

- PROVIDING ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTOR'S USE DURING CONSTRUCTION.
- SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO APPLICABLE RULES AND REGULATIONS.
- FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE ALL LIGHTS. SIGNS BARRICADES, FLAGMEN, OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY IN ACCORDANCE WITH THE CURRENT ISSUE OF "MANUAL OF TRAFFIC CONTROLS, WARNING SIGNS LIGHTS, AND DEVICES FOR USE IN PERFORMANCE OF WORK UPON HIGHWAY" PUBLISHED BY THE STATE OF CALIFORNIA BUSINESS AND TRANSPORTATION AGENCY.
- 10. THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL PIPING AND CONDUITS, STRUCTURES AND OTHER FACILITIES. RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR.
- 11. PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER, ONE SET OF NEATLY MARKED RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. RECORD DRAWINGS SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.
- 12. ALL FERROUS METALS THAT ARE NOT GALVANIZED SHALL BE PREPARED, PRIMED, AND EPOXY COATED. THE PRIMER AND COATING SHALL BE OF THE SAME MANUFACTURER AND APPLIED AS A SYSTEM. THE COATING SYSTEM AND COLOR SHALL BE APPROVED BY THE ENGINEER AND THE OWNER PRIOR TO APPLICATION.
- 13. THE INFORMATION SHOWN ON THE PLANS WITH REGARD TO THE EXISTING UTILITIES AND/OR IMPROVEMENTS WAS DERIVED FROM FIELD INVESTIGATIONS AND/OR RECORD INFORMATION. THE ENGINEER DOES NOT GUARANTEE THESE LOCATIONS TO BE EITHER TRUE OR EXACT. PRIOR TO CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING IMPROVEMENTS AND TO EXPOSE UNDERGROUND UTILITIES RELATED TO THE PROJECT; INCLUDING BUT NOT LIMITED TO SEWER, STORM DRAIN, WATER, IRRIGATION, GAS, ELECTRICAL, ETC. AND SHALL NOTIFY THE ENGINEER AND OWNER IN WRITING FORTY-EIGHT (48) HOURS IN ADVANCE OF EXPOSING THE UTILITIES SO THAT THE EXACT LOCATION AND ELEVATION CAN BE VERIFIED AND DOCUMENTED. IF LOCATION AND/OR ELEVATION DIFFERS FROM THAT SHOWN ON THE DESIGN PLANS, PROVISIONS TO ACCOMMODATE NEW LOCATION/ELEVATION MUST BE MADE PRIOR TO CONSTRUCTION.
- 14. WE CALL YOUR ATTENTION TO TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540 (A) (1) OF THE CONSTRUCTION SAFETY ORDERS ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONS SAFETY AND HEALTH ACT OF 1973 AS AMENDED WHICH STATES: (1) PRIOR TO OPENING AN EXCAVATION EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS; I.E. SEWER WATER, FUEL, ELECTRICAL LINES, ETC., WILL BE ENCOUNTERED AND IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING; AND, WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION.
- 15. THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 5' OR MORE. SAID PROTECTION TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT AND THE STATE REGULATIONS.
- 16. ALL DIMENSIONS SHOWN ON DRAWINGS SHALL BE VERIFIED WITH EXISTING CONDITIONS. DO NOT SCALE DRAWINGS. ENGINEER OF RECORD MUST APPROVE ANY SUBSTITUTIONS. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN THE DRAWINGS AND OTHER DETAILS; OR EXISTING CONDITIONS NOT SHOWN OR DIFFERENT FROM THOSE SHOWN ON THE DRAWINGS PRIOR TO COMMENCEMENT OF WORK. MATERIALS PROCURED PRIOR TO RESOLUTION OF CONFLICTS SHALL BE AT THE CONTRACTOR'S RISK.
- 17. ALL MATERIAL AND WORK SHALL CONFORM TO APPLICABLE DESIGN AND CONSTRUCTION STANDARDS. ALL IMPROVEMENTS ARE SUBJECT TO THE INSPECTION AND APPROVAL OF SALIDA SANITARY DISTRICT AND OTHER AGENCIES INVOLVED WITH THIS PROJECT.
- 18. THE CONTRACTOR SHALL CONTROL DUST AT ALL TIMES. DUST CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND

- SHALL BE IMPLEMENTED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL GUIDELINES (INCLUDING, BUT NOT LIMITED TO THE SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT).
- 19. PIPE FITTINGS, WIRING, AND SUPPORTS SHALL BE PROVIDED TO PRODUCE COMPLETE, OPERABLE SYSTEMS WITH ALL ELEMENTS PROPERLY INTERCONNECTED AS SHOWN TO MEET THE PERFORMANCE INTENT AS INTERPRETED BY THE OWNER. IF A SPECIFIED DIMENSION LOCATION IS NOT SHOWN FOR INTERCONNECTIONS OR SMALLER SYSTEM ELEMENTS, THE CONTRACTOR SHALL SELECT APPROPRIATE LOCATIONS AND SHOW THEM ON THE SHOP DRAWING SUBMITTALS FOR REVIEW.
- 20. EQUIPMENT AND MATERIALS SHALL BE NEW AND WITHOUT IMPERFECTIONS AND SHALL BE CONSTRUCTED IN A NEAT AND WORKMANLIKE MANNER; ALIGNED, LEVELED, CLEANED AND DUSTED FOR SATISFACTORY OPERATION. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARD PRACTICES FOR THIS TYPE OF WORK.
- 21. PRIOR TO REMOVAL OF EXISTING STRUCTURES AND MATERIALS, THE CONTRACTOR SHALL PHOTOGRAPH AND DOCUMENT THE SURROUNDING AREA AND SHALL RESTORE THE AREA TO ITS ORIGINAL STATE OR BETTER.
- 22. FENCES THAT NEED TO BE REMOVED DURING CONSTRUCTION SHALL BE REMOVED TO THE NEAREST POST BEYOND THE AREA OF CONSTRUCTION. CONTRACTOR SHALL MATCH REPLACEMENT FENCE WITH THE EXISTING FENCE.
- 23. CONTRACTOR SHALL CONSTRUCT TEMPORARY FENCING WHERE EXISTING FENCE IS REMOVED TO PREVENT UNWANTED CROSSING OF THE PREVIOUS FENCE LINE. ALL UNSUPERVISED EQUIPMENT OR OPEN TRENCHES SHALL ALSO BE FENCED OFF WITH TEMPORARY FENCING.

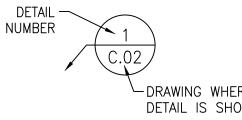
SECTION AND DETAIL NUMBERING SYSTEM

SECTION CUT ON PLAN





DETAIL CALL-OUT





- MORE THAN ONE DRAWING.
- 2. " " IN THE DRAWING AREA INDICATES THAT SECTION OR DETAIL IS SHOWN ON THE SAME DRAWING THAT IT IS CUT FROM OR REFERRED TO.
- "1" IS THE DETAIL NUMBER

AIR CONDITION ADH ADHESIVE ANCH ANCHOR ARV AIR RELEASE VALVE ATS AUTOMATIC TRANSFORMER SWITCH AVE AVENUE BFP BACK FLOW PREVENTER BLDG. BUILDING BUTTERFLY VALVE BOV BLOWOUT VALVE B.O. BOTTOM OF CIP CAST IN PLACE CENTER LINE CLR CLEAR CMP CORRUGATED METAL PIPE CMU CONCRETE MASONRY UNIT CONC OR CC CONCRETE CW COLD WATER DIAMETER DUCTILE IRON DUCTILE IRON PIPE

AGGREGATE BASE

ASPHALT CONCRETE

ABBREVIATIONS

DWG. DRAWING EARTH / EAST EDGE OF CONCRETE EACH FACE ELEV. **ELEVATION** ELBOW EDGE OF PAVEMENT

ELL **ESEW** EMERGENCY SHOWER/EYE WASH EACH WAY **EXISTING** FEDERAL AVIATION ADMINISTRATION

FOUNDATION FINISH FLOOR FINISH GRADE FIRE HYDRAN1 FLOW LINE

GALVANIZED STEEL PIPE GATE VALVE GRATE

HORIZONTAL HOSE BIB HORSE POUNDS HEIGHT HOT WATER INSIDE DIAMETER

INVERT IRRIGATION LINEAL FEET OR LINEAR FEET LEFT MFR **MANUFACTURER** MILLION GALLONS MINIMUM

NORTH / NEW NOT INCLUDED NORMALLY CLOSED NUMBER NOT TO SCALE ON CENTER O.D. OUTSIDE DIAMETER OVERHEAD ELECTRIC P.C. POINT OF CURVATURE PACIFIC GAS AND ELECTRIC PROPERTY LINE POUNDS PER SQUARE INCH

POINT POLY VINYL CHLORIDE RELATIVE COMPACTION

RELATIVE DENSITY ROAD REINFORCED REQ'D REQUIRED RIGHT

RTU REMOTE TERMINAL UNIT SLOPE / SOUTH SCH SCHEDULE

STORM DRAIN

STORM DRAIN AREA DRAIN STORM DRAIN CATCH BASIN STORM DRAIN MANHOLE SHEET **SQUARE**

SANITARY SEWER STAINLESS STEEL STREET STANDARD STEEL **TEMPORARY**

SQ. SS SST ST STD STL TEMP TG TOP OF GRATE THRU THROUGH T.O. TOP OF TYP. **TYPICAL** UON V / VERT VERTICAL VFD

SDCB

SDMH

SHT

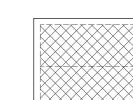
UNLESS OTHERWISE NOTED WATER / WEST WM WATER METER WELDED STEEL PIPE

VARIABLE FREQUENTLY DRIVE

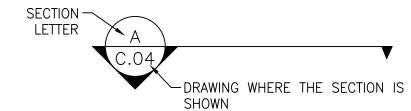
LEGEND **EXISTING PROPOSED** ELB ELECTRICAL BOX N/A STORM DRAIN AREA DRAIN INLET N/A STORM DRAIN CATCH BASIN N/A SANITARY SEWER ______ 8"SS _____ - - - - SS -SANITARY SEWER FORCE MAIN ---- SSFM -———<8"SSFM ├── SANITARY SEWER MANHOLE N/A PLUG VALVE N/A ELECTRICAL CONDUIT _____ EDGE OF PAVEMENT CONCRETE PAVEMENT N/A VALVE BOX

FLOW METER BOX

ALUMINUM ACCESS DOOR

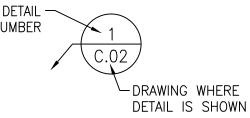


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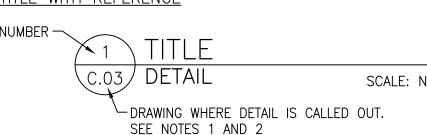


SECTION TITLE WITH REFERENCE





DETAIL TITLE WITH REFERENCE



1. "VAR" IN THE DRAWING DESIGNATION AREA INDICATES DETAIL APPLIES TO

3. WHEN REFERRED TO IN A NOTE: "SEE DET 1/C7.02"

"C6.03" IS THE DRAWING WHERE DETAIL IS SHOWN.

ALIDA SANITAR

SALIDA SANITARY DISTRICT COVERT LIFT STATION

GENERAL NOTES, ABBREVIATIONS, LEGEND AND DRAWING INDEX

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING

SHEET, ADJUST SCALES

2 OF 13 F NOT ONE INCH ON THIS ACCORDINGLY

DRAWING NO.

G.02

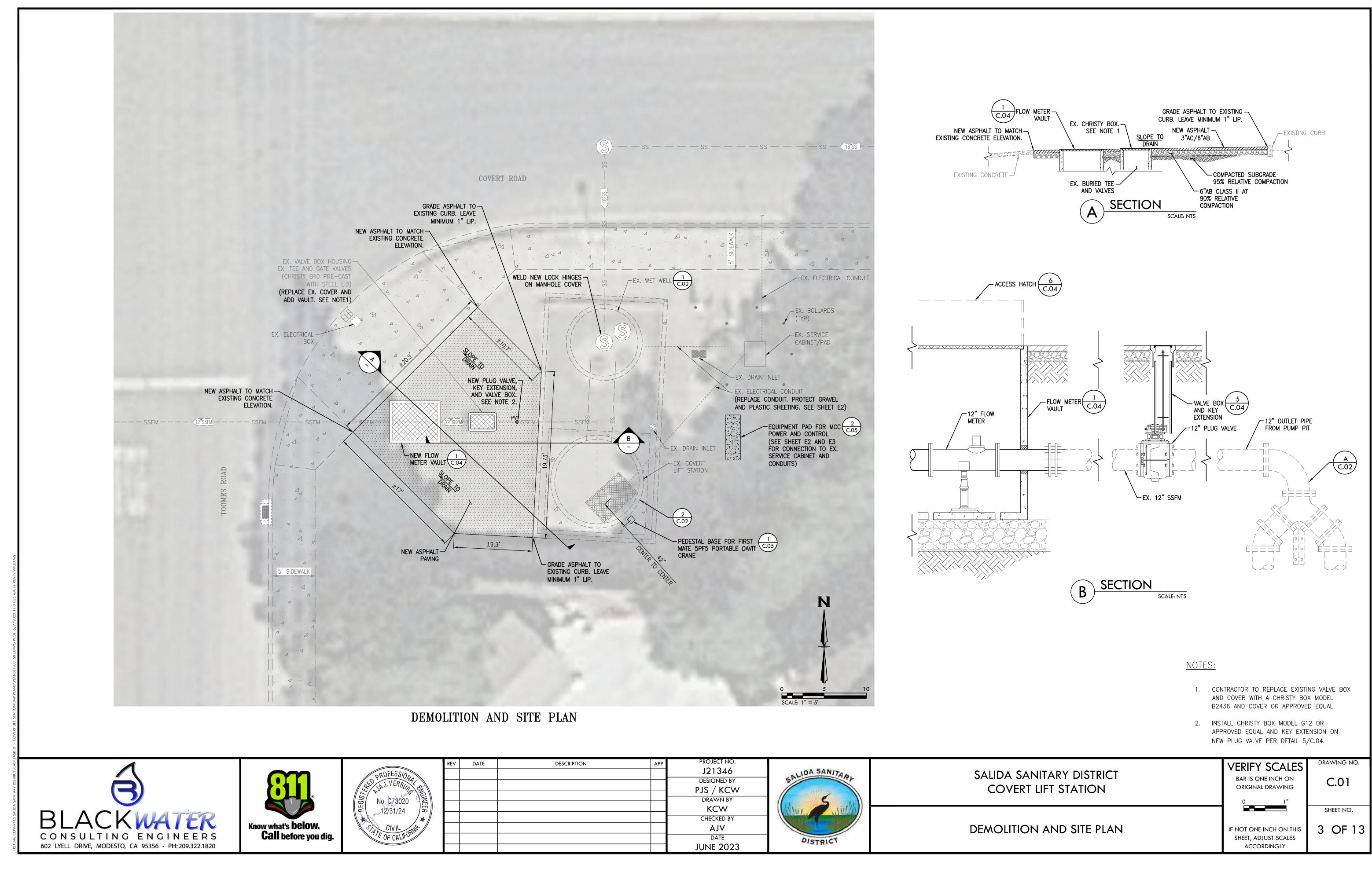
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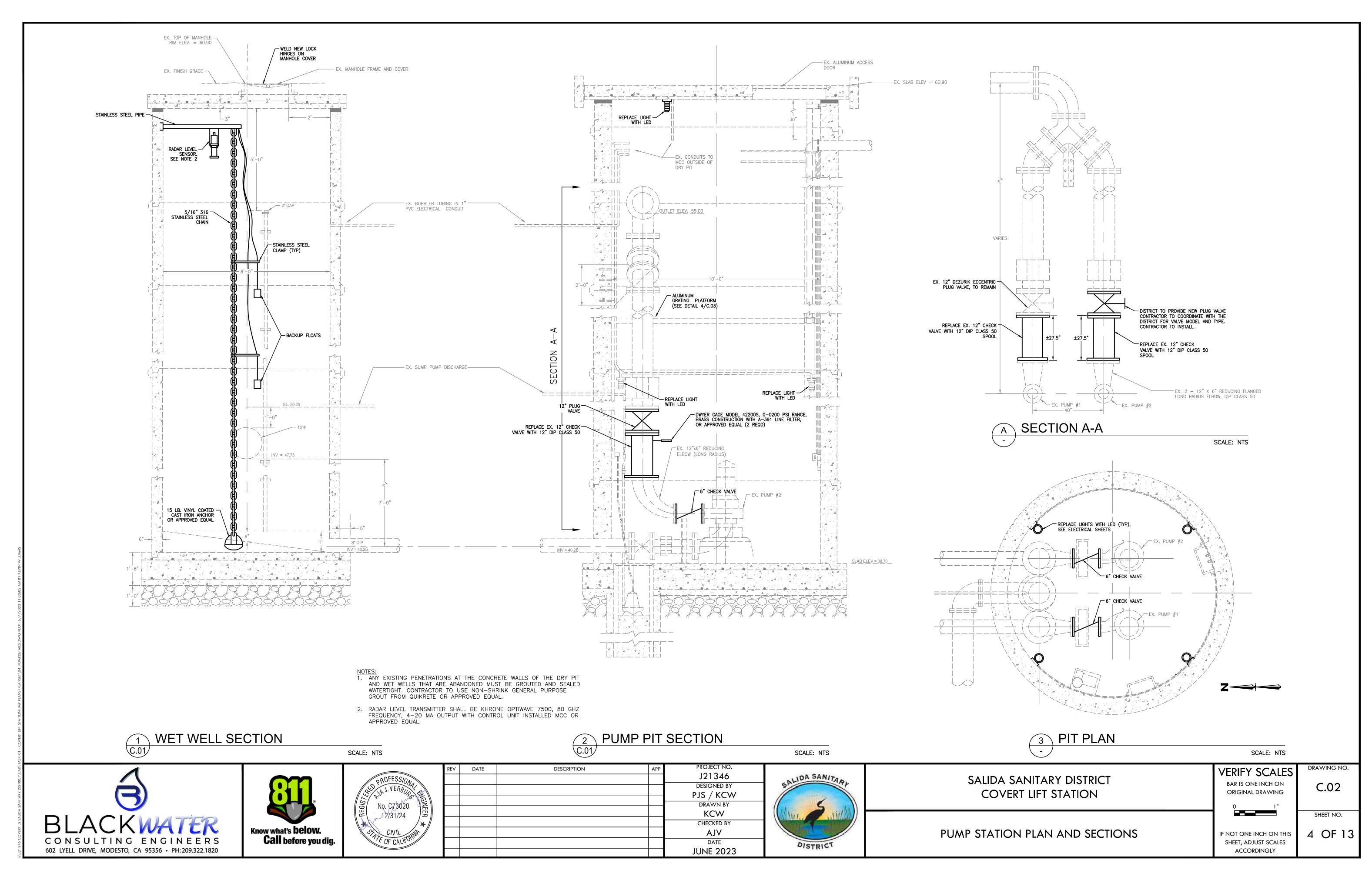
CONSULTING ENGINEERS 602 LYELL DRIVE, MODESTO, CA 95356 • PH: 209.322.1820

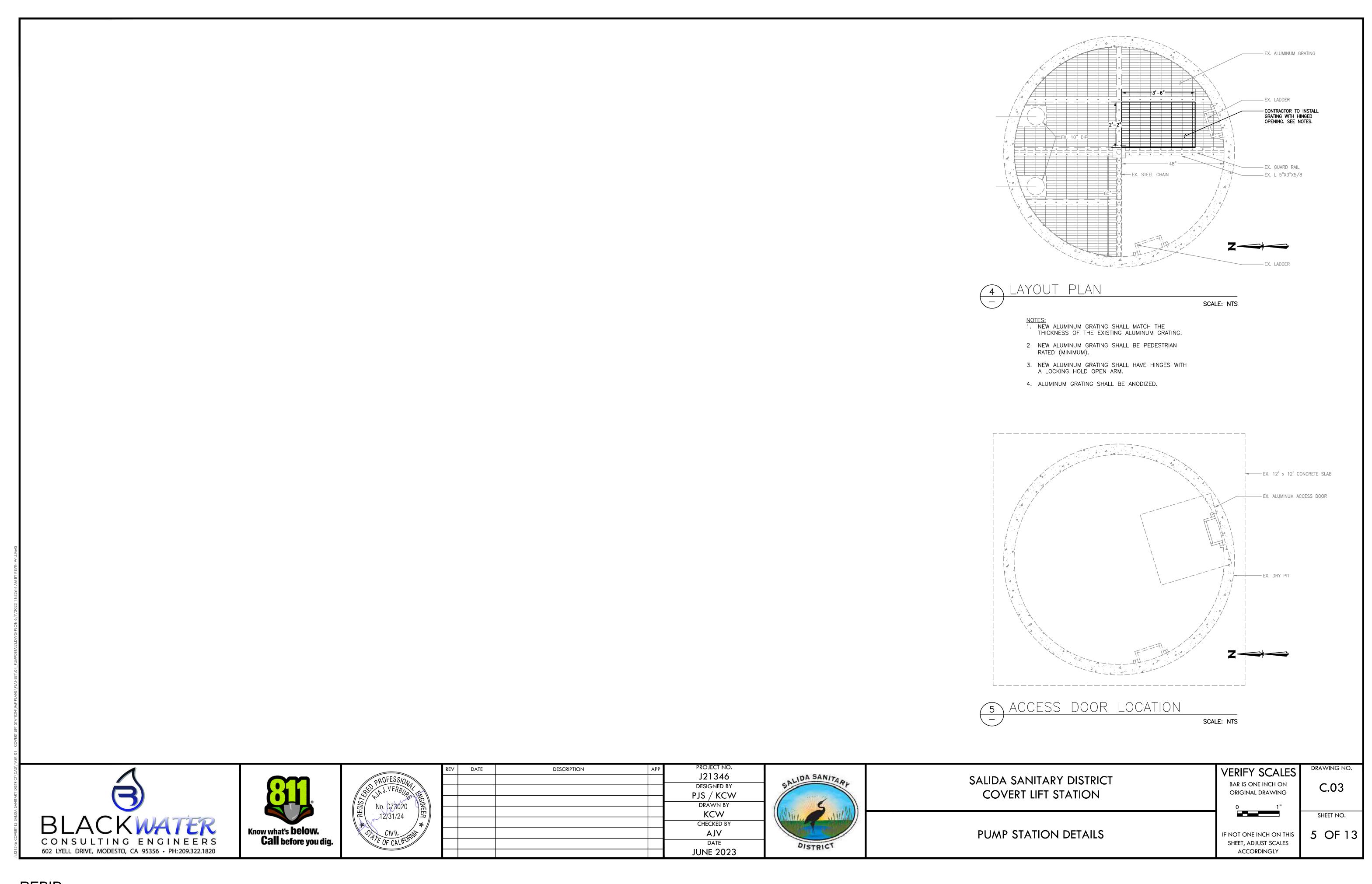


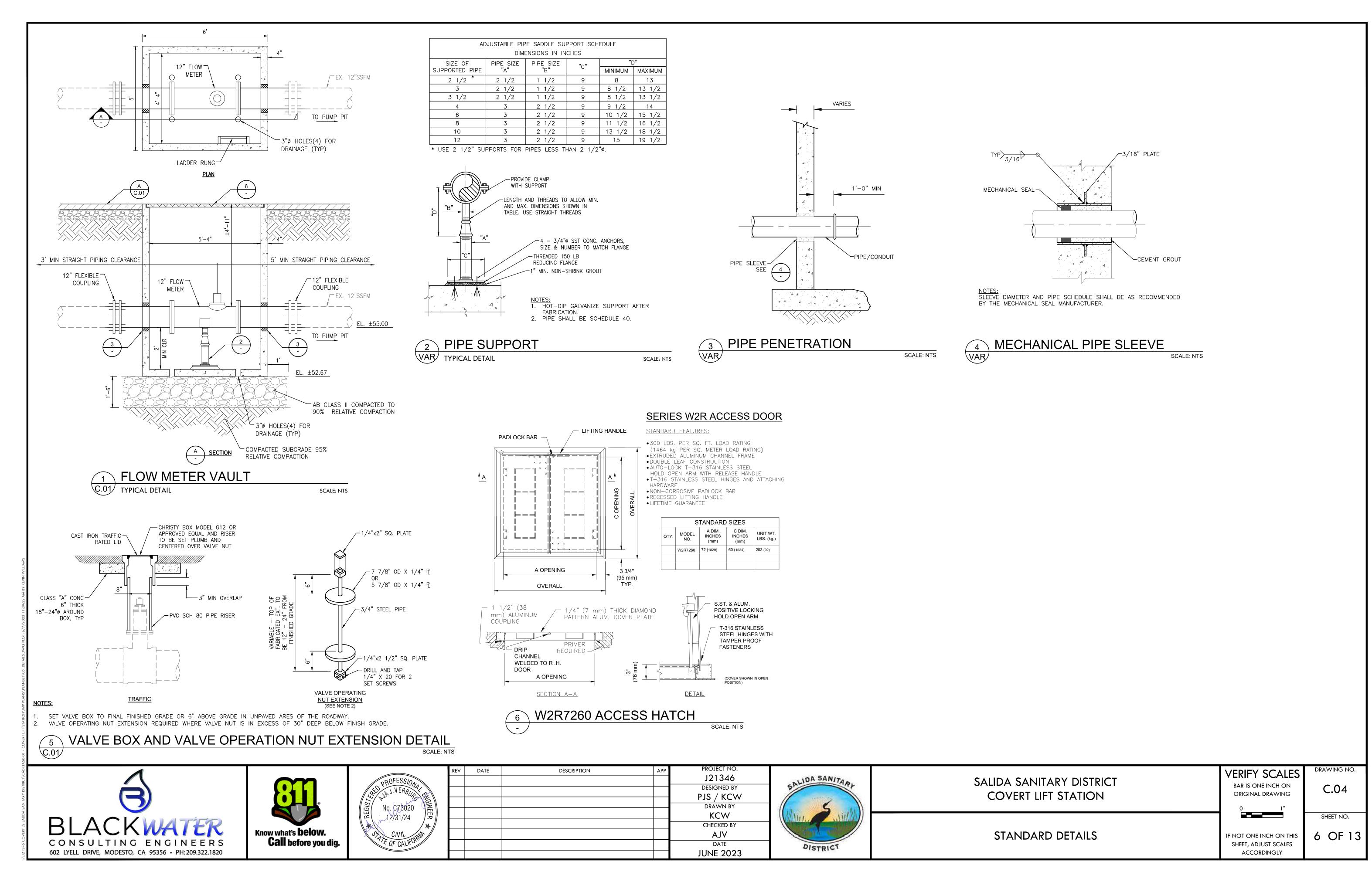
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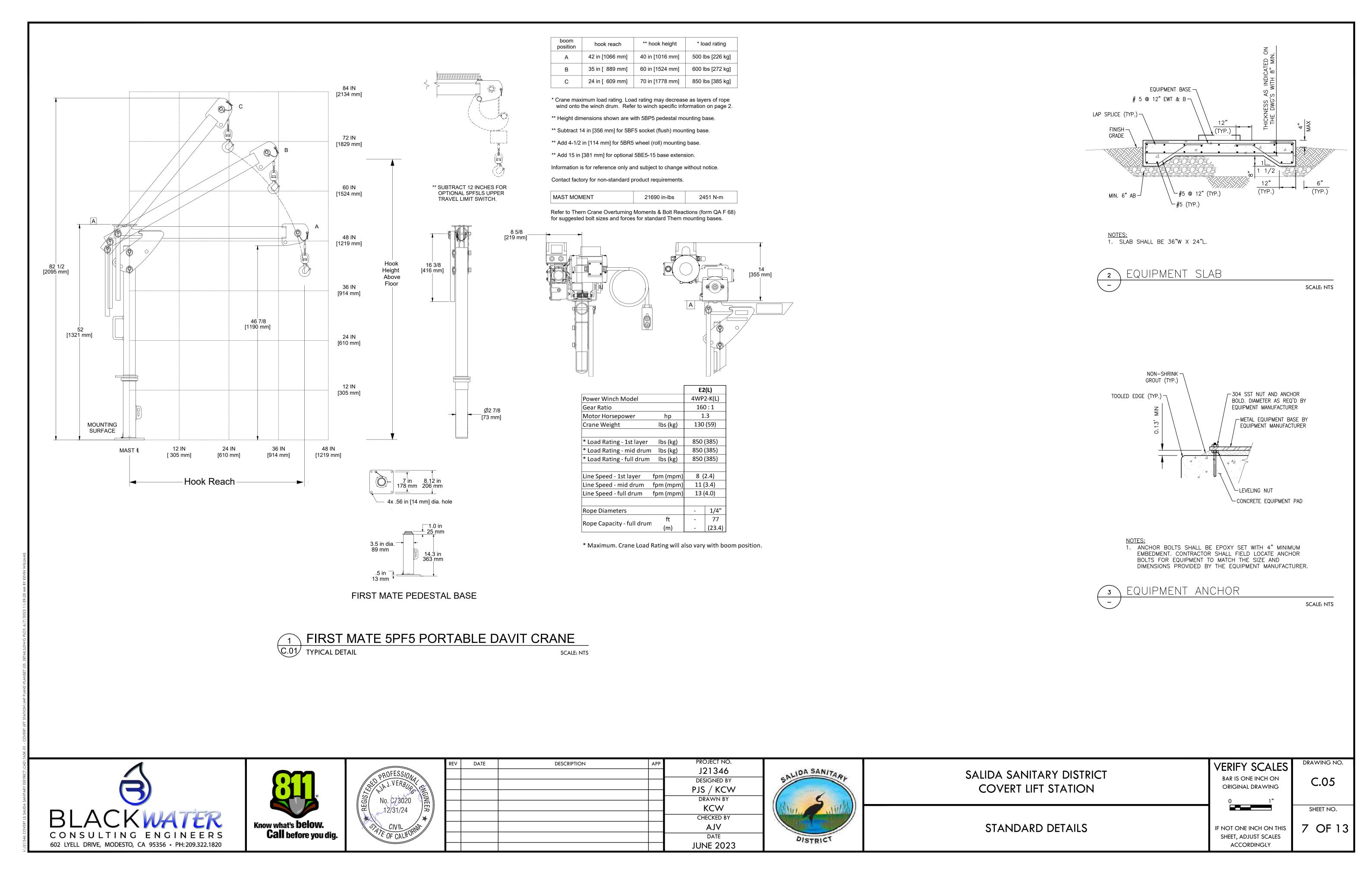
REV	DATE	DESCRIPTION	APP	PROJECT NO.
				J21346
				DESIGNED BY
				PJS / KCW
				DRAWN BY
				KCW
				CHECKED BY
				AJV
				DATE
				JUNE 2023











260500 ELECTRICAL WORK FOR COMMON RESULTS:

- 1. ELECTRICAL INSTALLATION SHALL COMPLY WITH TITLE 24, CALIFORNIA
- CODE OF REGULATIONS, INCLUDING THE FOLLOWING: TITLE 24, CCR, PART 2, 2019 CBC
- TITLE 24, CCR, PART 3, 2019 CEC
- TITLE 24, CCR, PART 4, 2019 CMC
- TITLE 24, CCR, PART 9, 2019 CFC TITLE 24, CCR, PART 6, 2019 CALIFORNIA ENERGY CODE
- TITLE 24, CCR, PART 11, 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE ALL APPLICABLE LOCAL CODES
- 2. ELECTRICAL CONTRACTOR SHALL VERIFY POWER, TELEPHONE AND CABLE TV SERVICES AT SITE PRIOR TO BIDDING. SERVICES TO CONFORM TO UTILITY COMPANY REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL ARRANGE FOR SERVICE INSTALLATIONS PER UTILITY COMPANY REQUIREMENTS AND PAY ALL CUSTOMER CHARGED SERVICE COSTS. COORDINATE WITH OWNER AND UTILITY COMPANY FOR SERVICE
- 3. CONTRACTOR SHALL PROCURE AND PAY FOR ALL PERMITS, LICENSES, ETC. REQUIRED TO CARRY ON AND COMPLETE THE WORK.
- 4. PROVIDE ALL LABOR, MATERIALS, TOOLS, PLANT EQUIPMENT, TRANSPORTATION AND PERFORM AL OPERATIONS NECESSARY FOR ANY REASONABLE INCIDENTAL TO PROPER EXECUTION AND COMPLETION OF ALL "ELECTRICAL WORK" WHETHER SPECIFICALLY MENTIONED OR NOT; ALL AS INDICATED, SPECIFIED HEREIN, AND/OR IMPLIED THEREBY TO CARRY OUT THE APPARENT INTENT THEREOF.
- 5. ALL MATERIALS SHALL BE NEW AND LISTED WITH THE UNDERWRITERS' LABORATORIES, INC., SHALL MEET THEIR REQUIREMENTS AND SHALL BEAR THEIR LABEL WHEREVER STANDARDS HAVE BEEN ESTABLISHED AND LABEL SERVICE IS REGULARLY FURNISHED BY THAT AGENCY.
- 6. ELECTRICAL DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ALTHOUGH THE SIZE AND LOCATIONS OF EQUIPMENT ARE SHOWN TO SCALE WHEREVER POSSIBLE, CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL CONTRACT DOCUMENTS AND VERIFY THIS INFORMATION AT THE SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT AND INSTALLING HIS WORK TO AVOID INTERFERENCE WITH OTHER TRADES
- 7. WORK SHOWN ON THE DRAWINGS TO BE INSTALLED UNDERGROUND SHALL BE INSTALLED AT LEAST 24" BELOW GRADE UNLESS OTHERWISE NOTED. BACKFILL IN 6" THICK, PROPERLY MOISTENED LAYERS, SOLIDLY PACKED AND IRON TAMPED TO A DENSITY NOT LESS THAN THAT OF ADJACENT, UNDISTURBED EARTH. RESTORE SURFACES, ROADWAYS, WALKS, CURBS, WALLS AND EXISTING UNDERGROUND INSTALLATIONS TO ORIGINAL CONDITION IN AN ACCEPTABLE MANNER.
- 8. ALL ELECTRICAL EQUIPMENT EXPOSED TO THE WEATHER SHALL BE LISTED FOR EXTERIOR USE.
- 9. ALL U.L. LISTED EQUIPMENT SHALL BE INSTALLED AS PER THEIR LISTING OR LABELING. 10. IN LOCATIONS WHERE ELECTRICAL EQUIPMENT WOULD BE EXPOSED TO PHYSICAL DAMAGE, ENCLOSURES OR GUARDS SHALL BE SO ARRANGED AND OF SUCH STRENGTH AS TO PREVENT SUCH
- 11. CONFLICTS BETWEEN SPECIFICATIONS AND PLANS:
- a. ANY CONFLICT BETWEEN ELECTRICAL SPECIFICATIONS AND ELECTRICAL PLANS; OR BETWEEN ELECTRICAL PLANS AND PLANS OF ANOTHER DISCIPLINE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND A RESOLUTION RECEIVED PRIOR TO PROCUREMENT OR INSTALLATION OF THE ITEM IN
- b. IF THE CONTRACTOR PROCEEDS WITH THE WORK WITHOUT RECEIVING ANY RESOLUTION TO THE CONFLICT HE/SHE DOES SO AT HIS/HER OWN RISK AND SHALL RECTIFY THE WORK TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER OR ENGINEER.

260500.02. SUBMITTALS:

- 1. PROVIDE THE FOLLOWING SUBMITTALS FOR REVIEW AND APPROVAL. EACH SHALL BE SUBMITTED SEPARATELY TO AVOID DELAYS IN THE REVIEW OF ONE SUBMITTAL IN HOLDING UP REVIEW OF THE REMAINDER.
- a. SERVICE SWITCHBOARD
- b. PANEL BOARDS c. BASIC ELECTRICAL MATERIALS
- 260500.03. WORKING CLEARANCES FOR ELECTRICAL SWITCHGEAR:
- 1. PROVIDE WORKING SPACES FOR ELECTRICAL PANELS AND SWITCHGEAR TO COMPLY WITH CEC
- 110.26.
- 2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES INVOLVED TO ENSURE THE CLEARANCES REQUIRED BY ITEM 1 ABOVE ARE PROVIDED.

260526. GROUNDING:

- 1. GROUND AND BOND ALL EQUIPMENT AS REQUIRED BY GOVERNING CODES AND SPECIFICALLY INCLUDING SWITCHBOARD, PANELBOARDS, MOTOR CASES, METAL PIPING SYSTEMS, STRUCTURAL STEEL
- 2. PROVIDE GROUND WIRES IN ALL FEEDERS AND BRANCH CIRCUITS, SIZE PER CEC TABLE 250.122
- 3. ALL GROUND WIRES SHALL BE INSULATED GROUND WIRES.

260529. INSTALLATION OF SUPPORT SYSTEMS

- 1. RACEWAYS, CABLE ASSEMBLIES, BOXES, CABINETS, AND FITTINGS SHALL BE SECURELY FASTENED IN PLACE PER CEC ARTICLE 300.11. SUPPORT WIRES THAT DO NOT PROVIDE SECURE SUPPORT SHALL NOT BE PERMITTED AS THE SOLE SUPPORT. SUPPORT WIRES AND ASSOCIATED FITTINGS THAT PROVIDE SECURE SUPPORT AND THAT ARE INSTALLED IN ADDITION TO THE CEILING GRID SUPPORT WIRES SHALL BE PERMITTED AS THE SOLE SUPPORT. WHERE INDEPENDENT SUPPORT WIRE ARE USED, THEY SHALL BE SECURED AT BOTH ENDS. CABLES AND RACEWAYS SHALL NOT BE SUPPORTED BY CEILING GRIDS.
- 2. FURNISH ALL NECESSARY FOUNDATIONS, SUPPORTS, BACKING, ETC., FOR ALL ELECTRICAL ENCLOSURES, CONDUITS AND EQUIPMENT.
- 3. ATTACH ALL BOXES, CABINETS, ETC. TO WOOD WITH WOOD OR LAG SCREWS, TO METAL WITH MACHINE SCREWS OR BOLTS AND TO CONCRETE WITH EXPANSION ANCHORS AND MACHINE SCREWS OR
- 2. RIGID STEEL CONDUIT SHALL BE SUPPORTED AT INTERVALS NOT GREATER THAN 10 FT, ELECTRICAL METALLIC TUBING AT INTERVALS NOT GREATER THAN 5 FT.
- 3. A SUPPORT SHALL BE PROVIDED NOT MORE THAN 3 FT. FROM ANY CHANGE IN DIRECTION. ADDITIONAL SUPPORTS TO THOSE SPECIFIED ABOVE SHALL BE INSTALLED WHERE REQUIRED TO SUIT JOB CONDITIONS AND TO PROVIDE A SECURE INSTALLATION. ALL HANGERS AND SUPPORTS SHALL BE THE

Know what's **below**.

Call before you dig.

PRODUCTS OF ONE MANUFACTURER

260533. PULL OR JUNCTION BOXES:

- 1. INSTALL WHERE INDICATED, OR AS REQUIRED BY CODE, PULL BOXES AND JUNCTION BOXES OF SUFFICIENT SIZE AND CAPACITY TO FACILITATE ALL WIRING. BOXES SHALL BE SIZED TO PROPERLY ACCOMMODATE ALL CONDUCTORS ENTERING SAME.
- 2. BOXES SHALL BE OF THE SHAPE AND SIZE BEST SUITED FOR THE PARTICULAR APPLICATION AND SHALL BE SUPPORTED DIRECTLY TO STRUCTURAL MEMBERS, FRAMING OR BLOCKING BY MEANS OF SCREWS, ANCHORS, BOLTS OR EMBEDDED IN MASONRY.
- A. SWITCH AND RECEPTACLE BOX SHALL BE ONE PIECE DRAWN OR STAMPED STEEL BOXES MINIMUM SIZE SHALL BE FOUR INCHES (4") SQUARE. BOXES SHALL BE FITTED WITH FLUSH DEVICE COVERS, PLASTER RINGS, OR TILE SWITCH RINGS IN MASONRY IN AREA WHERE EXPOSED WIRING IS PERMISSIBLE, BOXES SHALL BEFITTED WITH SURFACE TYPE COVERS.
- B. LIGHTING OUTLETS SHALL BE FOUR INCHES (4")OCTAGON, MINIMUM.
- C WEATHERPROOF BOXES SHALL BE APPLETON FD SERIES AND FITTED WITH GASKETED CAST
- D. BOXES FOR SPECIAL EQUIPMENT SHALL BE SUITABLE FOR THE PARTICULAR EQUIPMENT.

260550. WIRING METHODS: LINE VOLTAGE SYSTEMS (120V AND ABOVE):

- 1. ALL WIRING SHALL BE INSTALLED IN CONDUITS. CONDUITS SHALL BE RUN CONCEALED IN WALLS AND CEILINGS WHERE FEASIBLE. ALL CONDUITS INSTALLED SURFACE ON WALL SHALL BE PAINTED TO MATCH WALL FINISH, MOUNT EXTERIOR CONDUITS ON WALL ON GALVANIZED UNISTRUTS, ALL SURFACE CONDUIT INSTALLATION/ RUNS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.
- 2. ALL CONDUITS RUN WITHIN INTERIOR FINISHED SPACES SUCH AS OFFICES, BREAKROOM, RESTROOM ETC. SHALL BE RUN CONCEALED.
- 3. ALL CONDUITS RUN IN DEDICATED ELECTRICAL AND MECHANICAL ROOMS SHALL BE RUN EXPOSED.
- 4. MINIMUM CONDUIT SIZE SHALL BE 1/2" ABOVE GRADE AND 3/4" UNDERGROUND.
- 5. MINIMUM ACCEPTABLE CONDUITS ARE:
- A. GALVANIZED RIGID STEEL FOR USE ON:
- (1) EXTERIOR WALL SURFACES.
- B. GALVANIZED STEEL EMT FOR USE:
- (1) CONCEALED IN INDOOR FINISHED SPACES.
- (2) EXPOSED INSIDE ELECTRICAL & MECHANICAL ROOMS.

C. LIQUID TIGHT STEEL FLEX:

(1) FOR FINAL CONNECTION TO OUTDOOR EQUIPMENT. LENGTH SHALL NOT EXCEED 36".

D. FLEXIBLE STEEL CONDUIT:

(1) FOR INDOOR FINAL CONNECTION TO RECESSED LIGHT FIXTURES. LENGTH SHALL NOT EXCEED 72". (2) FOR INDOOR FINAL CONNECTION TO HVAC EQUIPMENT. LENGTH SHALL NOT EXCEED 36".

- (1) FOR CONDUITS RUN UNDERGROUND AND FOR UNDER BUILDING SLAB. (2) CONDUIT STUBUPS THROUGH THE FLOOR OR GRADE SHALL BE IN PVC WRAPPED RIGID STEEL CONDUIT. PVC WRAPPING SHALL EXTEND 6" ABOVE FINISHED FLOOR OR GRADE.
- F. ALUMINUM CONDUITS OR ALUMINUM FITTINGS ARE NOT APPROVED FOR USE ON THIS PROJECT.

(3) NOT PERMITTED FOR WIRING ABOVE FINISHED FLOOR INSIDE BUILDINGS

- G. ALL CONDUIT FITTINGS SHALL BE MALLEABLE IRON/STEEL.
- (1) EMT COUPLING APPLETON TWC-CS SERIES
- (2) EMT CONNECTOR APPLETON TW-CSI SERIES
- (3) FLEX CONDUIT CONNECTOR T&B "TITE BITE", INSULATED
- (4) LIQUID TIGHT FLEX CONDUIT CONNECTOR APPLETON "STB" SERIES UP TO 2", "ST" SERIES OVER 2".
- RIGID STEEL CONDUIT CONNECTED TO BOXES AND CABINETS SHALL BE FITTED WITH TWO LOCKNUTS AND INSULATING BUSHING, OA "A" SERIES. PROVIDE GROUNDING BUSHING OZ "BL" SERIES WHERE LOCKNUTS AND BUSHING IS NOT USED. CONDUITS CONNECTED TO BOXES EXPOSED TO WEATHER/MOISTURE SHALL BE FITTED WITH WATERTIGHT SEALING HUBS OF STEEL OR MALLEABLE IRON WITH SEALING RING AND INSULATED THREAT, T & B 370 SERIES.
- J. TYPE NM AND NMC CABLES SHALL NOT BE USED ON THIS PROJECT.
- 6. CONDUCTORS SHALL BE COPPER CONDUCTORS TYPE THHN/THWN UNLESS OTHERWISE NOTED OR REQUIRED BY CODE.
- 7. ALL DEVICES, CONDUITS, RACEWAYS AND CABLES SHOWN ARE NEW TO BE PROVIDED UNLESS OTHERWISE NOTED.

260551. INSTALLATION OF RACEWAYS AND FITTINGS

- 1. CONCEAL RACEWAYS WITHIN CEILINGS, WALLS, AND FLOORS EXCEPT WHERE EXPOSED RACEWAYS ARE SPECIFICALLY PERMITTED.
- 2. WHERE CONDUIT IS ALLOWED TO BE EXPOSED. INSTALL THE CONDUIT PARALLEL WITH OR AT RIGHT ANGLES TO STRUCTURAL MEMBERS, WALLS, AND LINES OF THE BUILDING.
- 3. INSTALL WHERE INDICATED, OR AS REQUIRED BY CODE, PULLBOXES AND JUNCTION BOXES OF SUFFICIENT SIZE TO FACILITATE WIRING. BOXES SHALL BE SIZED TO PROPERLY ACCOMMODATE ALL CONDUCTORS ENTERING SAME
- 4. DO NOT INSTALL CONDUIT OR TUBING WHICH HAS BEEN CRUSHED OR DEFORMED.

DATE

- 5. RUN CONDUCTORS OF SAME CIRCUIT IN SAME CONDUIT. RUN CONDUCTORS OF DIFFERENT VOLTAGE SYSTEMS IN SEPARATE CONDUITS.
- 6. INSTALL NO CONDUCTORS UNTIL WORK WHICH MIGHT CAUSE DAMAGE TO SUCH CONDUCTORS OR THE CONDUIT HAS BEEN COMPLETED.
- 7. KEEP ALL CONDUITS AT LEAST SIX INCHES AWAY FROM THE COVERING ON HOT WATER OR

DESCRIPTION

STEAM PIPES.

- 8. CAP RACEWAY ENDS DURING CONSTRUCTION. CLEAN OR REPLACE CONDUITS IN WHICH WATER OR FOREIGN MATTER HAVE ACCUMULATED, TO THE SATISFACTION OF THE ARCHITECT.
- 9. CONDUITS SHALL BE SUPPORTED WITH STRAPS, WITH GALVANIZED MALLEABLE SPLIT RING AND ROD FOR INDIVIDUAL RUNS OR WITH KINDORF OR UNISTRUT CHANNEL SUPPORTS FOR MULTIPLE RUNS. DISTANCE BETWEEN SUPPORTS SHALL NOT EXCEED 10 FEET. CONDUITS SHALL BE SUPPORTED INDEPENDENTLY OF ONE ANOTHER.
- 10. CONDUITS CONNECTED TO BOXES AND CABINETS SHALL BE FITTED WITH TWO LOCKNUTS AND INSULATED BUSHING, OA "A" SERIES.
- 11. CONDUITS NOT CONNECTED WITH LOCKNUTS AND BUSHINGS SHALL BE FITTED WITH GROUNDING BUSHING, OZ "BL" SERIES, U. L. APPROVED AND BONDED.
- 12. CONDUIT STRAPS FOR INDIVIDUAL RUNS SHALL BE SECURED BY TOGGLE BOLTS ON HOLLOW MASONRY, EXPANSION ANCHORS ON SOLID CONCRETE OR MASONRY, MACHINE SCREWS OR BOLTS ON METAL SURFACES AND WOOD SCREWS ON WOOD CONSTRUCTION. THE USE OF NAILS TO ANCHOR STRAPS ON WOOD CONSTRUCTION IS PROHIBITED. STRAPS SHALL BE TWO HOLE MALLEABLE IRON OR SNAP-TYPE STEEL WITH RIBBED BACK, GALVANIZED OR CADMIUM PLATED.
- 13. PLACEMENT OF ALL BOXES SHALL BE GOVERNED BY APPLICABLE ARCHITECTURAL AND STRUCTURAL REQUIREMENTS.
- 14. CONDUIT FITTINGS: EXCEPT WHERE OTHERWISE NOTED, CONDUIT FITTINGS SHALL BE APPLETON OR APPROVED EQUAL. UNILETS SHALL BE MALLEABLE IRON AND FITTED WITH COVERS AND
- 15. TELEPHONE AND SIGNAL CONDUIT BENDS WHERE REQUIRED SHALL HAVE A RADIUS OF TEN TIMES THE CONDUIT TRADE SIZE.
- 16. PROVIDE PULL TAPE IN ALL EMPTY CONDUITS.

260553. NAMEPLATES & IDENTIFICATION:

- 1. INSTALL ENGRAVED NAMEPLATES FOR EACH PANELBOARD, CABINET, DISCONNECT, ETC. NAMEPLATES SHALL BE SECURELY FASTENED TO THE EQUIPMENT WITH #4 PHILLIPS ROUND HEAD CADMIUM PLATED SELF-TAPPING SCREWS, BRASS BOLT.
- 2. PROVIDE CIRCUIT LABEL INDICATING PANEL AND CIRCUIT NUMBER ON EACH COVERPLATE FOR EACH RECEPTACLE AND LIGHT SWITCH, MOTION SENSOR SWITCH. SUCH LABEL SHALL BE SELF ADHESIVE WHITE TAPE WITH BLACK LETTERS MADE ON A LABEL MAKER.
- 3. ALL CONTROLLED RECEPTACLES SHALL BE PERMANENTLY MARKED TO DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLES PER CALIFORNIA ENERGY CODE SECTION 130.5(d)(3).

260573. ARC FLASH HAZARDS:

1. PROVIDE WARNING LABEL ON ELECTRICAL EQUIPMENT OF POSSIBLE ARC FLASH HAZARDS PER C.E.C. 110.16.

260800. TESTING:

J21346

DESIGNED BY

RCS DRAWN BY GT

CHECKED BY

RCS

DATE

JUNE 2023

- 1. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE FREE FROM SHORT CIRCUITS AND IMPROPER GROUNDS. TEST ALL WIRING AND CONNECTIONS FOR CONTINUITY AND GROUNDS BEFORE ANY FIXTURES OR EQUIPMENT ARE CONNECTED AND WHERE SUCH TESTS INDICATE FAULTY INSULATION OR OTHER DEFECTS, THEY SHALL BE LOCATED, REPAIRED AND RETESTED AT THE CONTRACTOR'S EXPENSE. PROVIDE ALL INSTRUMENTS TO MAKE SUCH TESTS.
- 2. DEMONSTRATE TO THE OWNER AND THE ENGINEER, THAT THE ENTIRE INSTALLATION IS COMPLETE, IN PROPER OPERATING CONDITION AND THAT THE CONTRACT HAS BEEN PROPERLY AND FULLY EXECUTED.

<u> 262200. TRANSFORMERS:</u>

- TRANSFORMERS SHALL BE DRY TYPE LOW LOSS TRANSFORMERS TYPE AS MANUFACTURED BY SQUARE D OR APPROVED EQUAL THE SAME MANUFACTURER AS THE MAIN SERVICE SWITCHBOARD.
- 2. TRANSFORMERS SHALL BE THREE PHASE, FOUR WIRE OR SINGLE PHASE, THREE WIRE, WITH KVA RATING AND VOLTAGES AS INDICATED ON THE PLANS. PROVIDE FULL CAPACITY, OFF LOAD PRIMARY TAPS.
- 3. TRANSFORMERS SHALL BE 150 DEGREES C TEMPERATURE RISE ABOVE 40 DEGREE C AMBIENT. INSULATION SHALL BE IN ACCORDANCE WITH THE LATEST NEMA STANDARDS FOR A 220 DEGREE C UL COMPONENT RECOGNIZED INSULATION SYSTEM.
- 4. TRANSFORMER COILS SHALL BE COPPER OR ALUMINUM AND OF THE CONTINUOUS WIRE WOUND CONSTRUCTION AND SHALL BE IMPREGNATED WITH NON-HYGROSCOPIC THERMO SETTING VARNISH. TRANSFORMER CORES SHALL BE CONSTRUCTED FROM HIGH GRADE, NON-AGING SILICON STEEL WITH MAGNETIC PERMEABILITY AND LOW LOSSES.THE COMPLETE CORE AND COIL ASSEMBLY SHALL BE SUITABLY CLAMPED AND BRACED MECHANICALLY. ADDITIONALLY, PROVIDE AN ELECTROSTATIC SHIELD ENVELOPING THE FULL HEIGHT OF THE WINDING IN CASE OF SHIELDED TRANSFORMERS.
- 5. TRANSFORMERS SHALL BE IN HEAVY GAUGE, SHEET STEEL, VENTILATED ENCLOSURE PER UL, NEMA AND CEC STANDARDS EXCEPT ONES CALLED OUT ON THE PLANS TO HAVE NON-VENTILATED ENCLOSURES.
- 6. TRANSFORMER SOUND LEVELS SHALL NOT EXCEED 45dB FOR UNITS UP TO 50KVA AND 50dB FOR UNITS 51 TO 150KVA.
- 7. TRANSFORMERS SHALL BE SUITABLE FOR FLOOR OR WALL MOUNTING AS INDICATED ON THE

8. TRANSFORMERS FOR OUTDOORS INSTALLATION SHALL BE WEATHERPROOF. PROVIDE WEATHER

- SHIELDS WHERE SO REQUIRED. 9. FASTEN TRANSFORMERS TO BUILDING STRUCTURE (WALL OR FLOOR AS CASE MAY BE) USING EXPANSION ANCHORS. PROVIDE BRACKETS AND ALL MOUNTING HARDWARE AS NEEDED.
- 10. PROVIDE MINIMUM CLEARANCE FROM WALLS AT THE BACK FOR VENTILATION AIR. SUCH CLEARANCES SHALL BE AS REQUIRED BY THE MANUFACTURER.
- 11. PROVIDE CONCRETE PAD (FOR GRADE MOUNTING) OR PLATFORM (FOR ROOF AND ATTIC SPACE MOUNTING). ROOF PLATFORM DESIGN SHALL BE COMPATIBLE ROOF SYSTEM.
- 12. FOR ROOF MOUNTING, SEAL ALL ANCHOR BOLTS WITH SILICON SEALER.

LIDA SANITAD

DISTRICT

- 13. CONDUITS FOR TRANSFORMER CONNECTIONS SHALL BE LOCATED WITHIN THE FOOTPRINT OF THE UNITS AS FAR AS PRACTICAL.
- 14. CLEAN ALL DEBRIS FROM WITHIN THE TRANSFORMER.

262417. PANELBOARDS:

1. UNITS SHALL BE FLUSH OR SURFACE MOUNTED AS INDICATED ON THE PANEL SCHEDULE, WITH THE NUMBER AND SIZE OF BREAKERS AS INDICATED ON THE PANEL SCHEDULE. SINGLE POLE, TWO POLE, AND THREE POLE BREAKERS SHALL BE BOLT-ON TYPE. MULTIPLE POLE BREAKERS SHALL HAVE COMMON INTERNAL TRIP CONNECTION. SINGLE POLE BREAKERS SHALL NOT BE TIED AT HANDLES TO FORM MULTIPLE POLE BREAKERS. THE PANEL DOORS SHALL BE DOOR-IN-DOOR CONSTRUCTION AND SHALL HAVE FLUSH TYPE LOCKS, ALL LOCKS SHALL BE KEYED ALIKE AND HAVE TYPEWRITTEN DIRECTORIES INDICATING FIXTURES, EQUIPMENT, OR OUTLETS SERVICE BY EACH BREAKER. PANELS SHALL HAVE COPPER BUSSING.

262726. WIRING DEVICES:

DUPLEX CONV. GFI OUTLET, 15A 6599

DUPLEX CONV. GFI OUTLET, 20A 6899

- 1. UNITS SHALL BE EQUAL TO THE DEVICES SET FORTH HEREIN, IN STANDARD COLORS (BROWN, WHITE, GREY, BEIGE OR IVORY) AS SELECTED BY THE ARCHITECT: A. WIRING DEVICES LEVITON # HUBBELL # P&S# SINGLE POLE SWITCH, 15A 1201-2 HBL1201 PS15AC1 DOUBLE POLE SWITCH, 15A 1202-2 HBL1202 PS15AC2 THREE WAY SWITCH, 15A 1203-2 HBL1203 PS15AC3 DUPLEX CONV. OUTLET, 15A 5262 HBL5262 5262 DUPLEX CONV. OUTLET, 20A 5362 HBL5362 5362
- 2. THE CONTROLLED OUTLET SHALL HAVE PERMANENT UNIQUE MARKING PROVIDED BY THE MANUFACTURER OF THE RECEPTACLE.
- 3. THE MOUNTING HEIGHTS OF LIGHT SWITCHES, RECEPTACLES AND CONTROLS SHALL BE MAXIMUM 48" MEASURED TO THE TOP OF BOXES OR MINIMUM 16" TO THE BOTTOM OF BOXES. SEE "LEGEND" FOR ACTUAL MOUNTING HEIGHTS OF DEVICES. VERIFY HEIGHT WITH ENGINEER WHERE AN ACTUAL MOUNTING HEIGHT IS NOT CALLED OUT ON PLANS.

GF15 2095L

GF15 1595L

- 4. SINGLE RECEPTACLE SERVED BY INDIVIDUAL 20A BRANCH CIRCUIT DEDICATED TO THE OUTLET SHALL BE 20A RATED PER CEC 210.21(B)(1). ALL OTHERS SHALL BE 15A RATED.
- 5. ALL 15A AND 20A, 120V OUTLETS IN KITCHEN SHALL BE GFCI PER CEC 210.8(B)(2). LOCATE SUCH OUTLETS SO THAT THEY ARE ACCESSIBLE AFTER APPLIANCES THAT ARE PLUGGED INTO THE OUTLETS
- 6. ALL RECEPTACLES INSTALLED OUTDOORS SHALL BE WEATHERPROOF AND HAVE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION.

262726.02. DEVICE PLATES:

- 1. ALL DEVICE PLATES FOR INDOOR USE SHALL BE NYLON.
- 2. ALL DEVICE BOXES WHICH ARE INSTALLED IN FIRE RATED WALL ASSEMBLY AND IS PROVIDED WITH A FIRE-STOPPING PUTTY PAD SHALL HAVE A BRUSHED STAINLESS STEEL COVERPLATE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUTTY PAD.
- 3. DEVICE COVERS FOR SURFACE MOUNTED BOXES SHALL BE 1/2" RAISED STEEL PLATES.
- 4. DEVICE COVERS FOR DEVICES LOCATED IN DAMP LOCATIONS SHALL COMPLY WITH CEC 406.9(A).
- 5. DEVICE COVERS FOR DEVICES LOCATED IN WET LOCATIONS SHALL COMPLY WITH CEC 406.9(B).

262729. DISCONNECT SWITCHES:

- 1. UNITS SHALL BE HEAVY DUTY FUSED DISCONNECT SWITCHES, TWO OR THREE POLE TYPE, WHERE INDICATED ON THE DRAWINGS, OR AS REQUIRED BY CODE. SWITCHES AND FUSES SHALL BE AS REQUIRED BY THE LOADS SERVING.
- 2. DISCONNECTS FOR FRACTIONAL HORSE POWER MOTORS SHALL BE MOTOR-RATED TOGGLE TYPE DISCONNECTS.
- 3. DISCONNECTS FOR SINGLE PHASE MOTORS SHALL BE SINGLE PHASE AND NOT THREE PHASE.
- 4. LOCATE DISCONNECTS IN ACCORDANCE WITH CEC 430.102. ENSURE ALL CODE-REQUIRED CLEARANCES.

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PROJECT # 2021.280

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS

SHEET, ADJUST SCALES **ACCORDINGLY**

GENERAL NOTES

SALIDA SANITARY DISTRICT

COVERT LIFT STATION

8 OF 13

DRAWING NO.

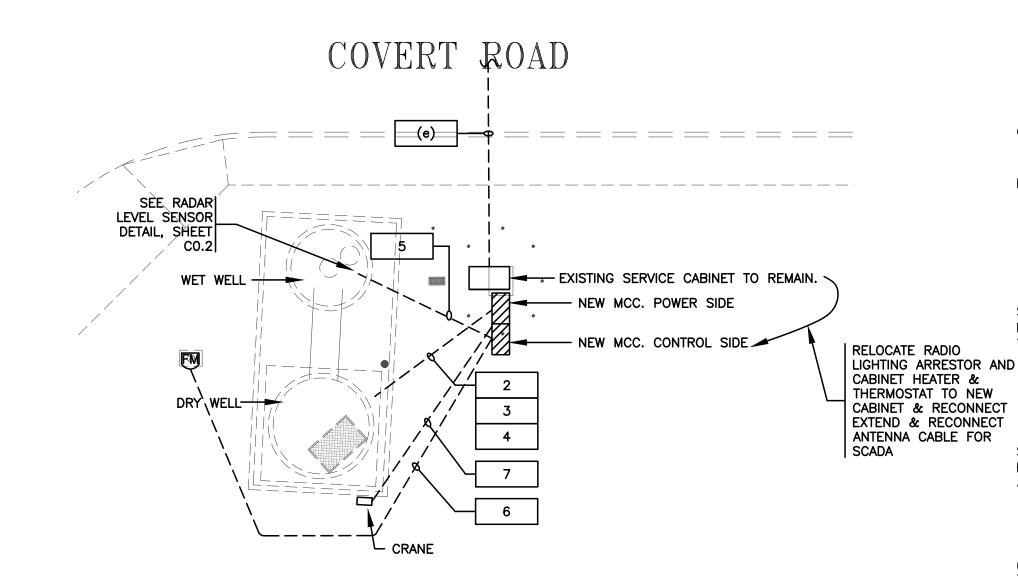
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CONSULTING ENGINEERS



CONDUITS PER SITE PLAN REPLACE HPS LIGHTS WITH NEW LED LIGHTS AZZ #SAFJ 06 L2 LPC W1 TYPICAL FOR ALL. REPLACE EXISTING JUNCTION BOX-RECONNECT SUMP PUMP (CORD CONNECTED) WITH INTEGRAL FLOAT SWITCH 1/2 HP, 115V, 1 PH., TO BE RECONNECTED & JOG CONTROL STATION FOR EACH PUMP. SEALTITE FLEX TO PUMP TERMINAL | REPLACE BATTERY POWERED EMERGENCY LIGHT NEMA 4X UNIT BOX (TYP. OF 2), REPLACE FLEX AND WIRE AND RECONNECT AZZ #XPEL-U-2-OW REPLACE FLOODED STATION
ALARM SWITCH SEALED WITH
NEW NON-MERCURY FLOAT. (e)BLOWER EXHAUST FAN TO BE RECONNECTED -3/4"C-2#10+1#10 GND - RECONNECT 120V CRANE POWER AT GRADE NOTE: ANY EXISTING PENETRATIONS AT THE CONCRETE WALLS OF THE DRY AND WET WELLS THAT ARE ABANDONED MUST BE

GROUTED AND SEALED WATERTIGHT.

DIIMD STATION FIECTDICAL

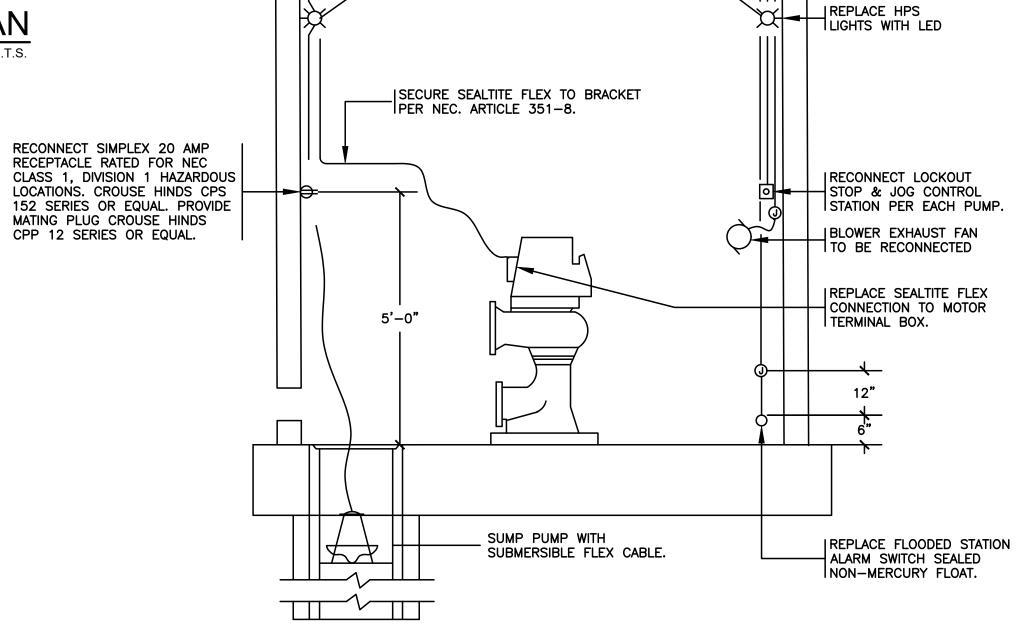
ELECTRICAL SITE PLAN

SCALE: 1"=10'-0"

	CONDUIT & WIRE ROUTING SCHEDULE					
ID	CON NO.	DUIT SIZE	CABLE NO. SIZE	FROM	то	REMARKS
2	1	1-1/2"	3 #4 CU POWER 6 #12 CU CONTROL 1 #8 CU CONTROL	SEWAGE PUMP SERVICE PEDESTAL	PUMP #1	REPLACE CONDUIT & WIRE
3	1	1-1/2"	3 #4 CU POWER 6 #12 CU CONTROL 1 #8 CU CONTROL	SEWAGE PUMP SERVICE PEDESTAL	PUMP #2	REPLACE CONDUIT & WIRE
4	1	1"	10 #12 CU	SEWAGE PUMP SERVICE PEDESTAL	DRY WELL	REPLACE CONDUIT & WIRE
5	2	1"	RADAR & FLOAT CABLES	SEWAGE PUMP SERVICE PEDESTAL	WET WELL	REPLACE TUBE & FITTING
6	1	3/4"	1#TSP#6	FLOW METER	CONTROLS	NEW TUBE WITH MAGMETER TRANSMITTER CABLE
7	1	3/4"	2#10+1#10 GND	CRANE	PANEL "A"	RECONNECT CRANE

ALL CONDUITS AND CABLES ARE TO BE REPLACED (OR NEW) WITH THOSE SHOWN.

PUMP STATION - ELECTRICAL PLAN



JUNCTION BOX TO BE REPLACED

PUMP STATION - SECTION

HCS. Engineering

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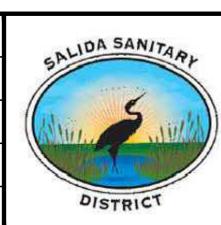
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REV	DATE	DESCRIPTION	APP	PROJECT NO.
				J21346
				DESIGNED BY
				RCS
-				DRAWN BY
				GT
				CHECKED BY
				RCS
				DATE
				JUNE 2023
<u> </u>				



SALIDA SANITARY DISTRICT COVERT LIFT STATION

ELECTRICAL SITE PLAN AN FEEDER SCHEDULE

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

1"

SHEET NO.

1F NOT ONE INCH ON THIS

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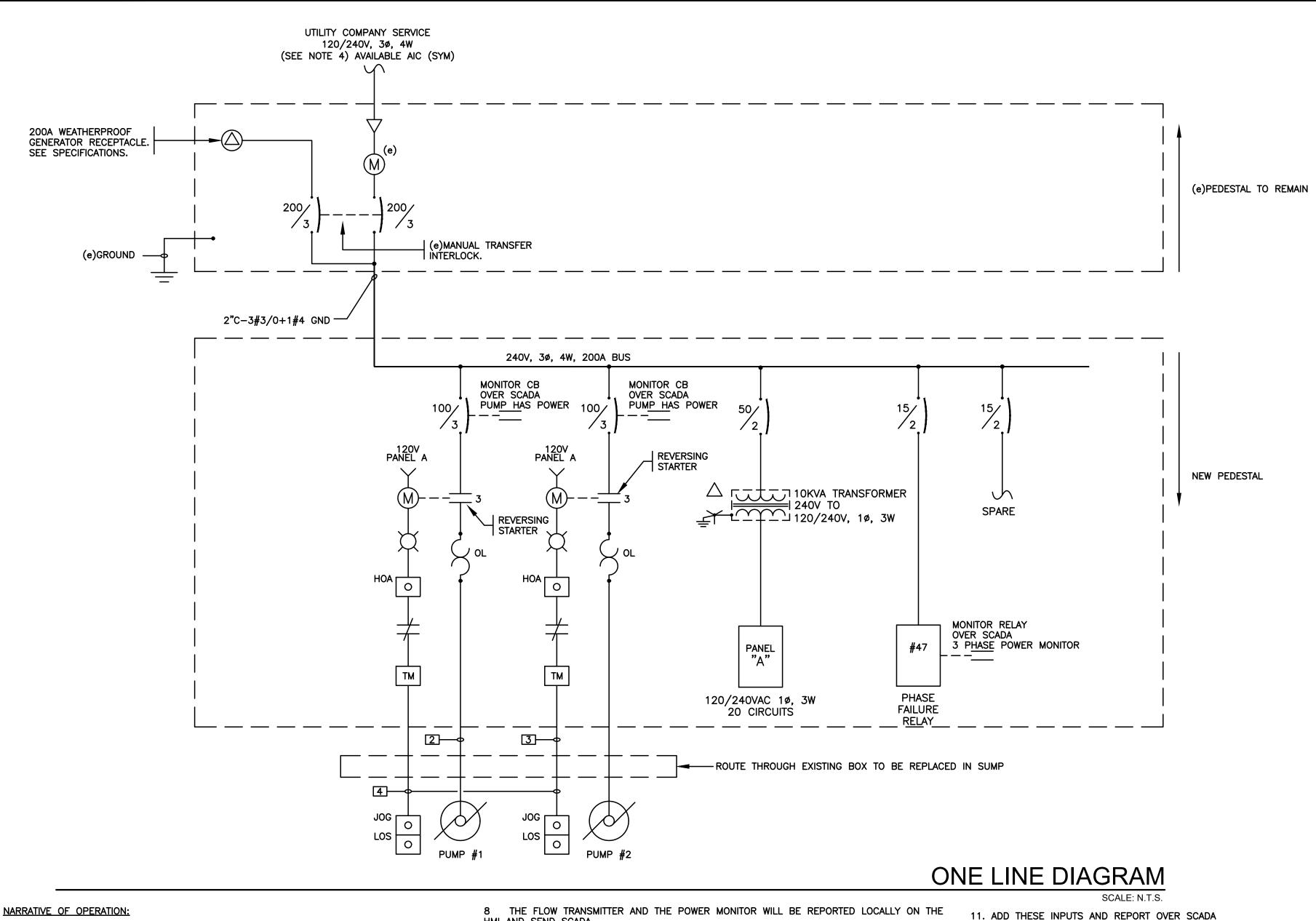
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9 OF 13

SHEET, ADJUST SCALES
ACCORDINGLY

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1. DURING NORMAL OPERATION, THE SUMP LEVEL IS MONITORED BY THE RADAR LEVEL SENSOR. WHEN THE LEVEL EXCEEDS LEAD START PUMP LEVEL, THE FIRST PUMP WILL COME ON. WHEN THE LEVEL EXCEEDS LAG START PUMP LEVEL, THE SECOND PUMP WILL COME ON. CALLED PUMPS WILL CONTINUE TO PUMP UNTIL THE STOP LEVEL IS

2. IF THE RADAR SENSOR FAILS, AND THE HIGH LEVEL FLOAT COMES ON WITHOUT THE LEVEL SENSOR CALLING FOR THE PUMPS TO START, BOTH PUMPS WILL START AND RUN UNTIL THE LOW LEVEL FLOAT TRIGGERS SHUTTING OFF THE PUMP. IF THIS OCCURS, ADD AN ALERT TO THE SYSTEM THAT THERE WAS AN LEVEL TRANSDUCER FAILURE. (LOCALLY AND OVER SCADA).

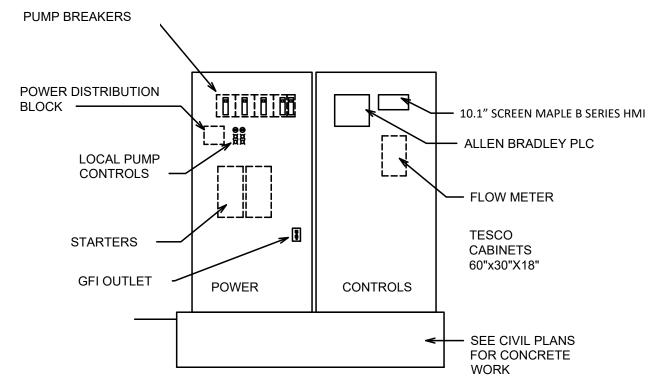
- 3. PUMPS WILL ALTERNATE ON CALLS.
- 4. DURING HAND OPERATION, PUMP WILL PUMP DOWN TO THE FLOAT STOP LEVEL. THE INTEGRATOR WILL PROVIDE A LOW LEVEL BYPASS SWITCH. WHEN THIS IS CLOSED, THE PUMPS WILL CONTINUE TO PUMP UNTIL MANUALLY TURNED OFF.
- 5. THE INTEGRATOR WILL PROVIDE A FORWARD AND REVERSE JOG SWITCH TO CLEAR THE PUMPS IF CLOGGED.
- 6. THE INTEGRATOR WILL PROVIDE A LOW LEVEL BYPASS SWITCH FOR HAND OPERATION MODE. (THIS WILL ALLOW THE WATER LEVEL TO FALL BELOW THE LOW LEVEL.
- 7. ALL PUMP OPERATIONS WILL BE REPORTED LOCALLY ON THE HMI AND TRANSMITTED TO THE DISTRICT'S SCADA SYSTEM. THE CONTRACTOR WILL PROGRAM THE EXISTING SCADA SYSTEM WITH THE NEW PLC SYSTEM REGISTERS TO DISPLAY INFORMATION. THE LOCAL HMI AND THE SCADA SCREENS WILL ALLOW THE OPERATORS TO MONITOR PUMP OPERATIONS, TIMES AND VIEW OR CHANGE SET POINT LEVELS.

- HMI AND SEND SCADA
- 9 THE PLC, RADIO, LEVEL TRANSDUCER LEVEL READOUT GAUGE, AND HMI WILL HAVE BATTERY BACKUP UPS TO MAINTAIN OPERATION EVEN DURING POWER FAILURE FOR 3 HOURS.
- 10 THE FOLLOWING ARE THE EXISTING SIGNALS SENT TO SCADA
- OWS:CVT_COMM_FAIL Communications failure at Covert Liftstation, which is actually a <u>power</u>
- <u>failure</u>
 OWS:CVT_FLOOD Dry pit flooded
- OWS:CVT_LAH Wet Well High Level • OWS:CVT_LAL - Wet Well Low level
- OWS:CVT_P1_FAIL Pump #1 was called to run, but didn't • OWS:CVT_P1_RUN - Pump #1 is running
- OWS:CVT_P2_FAIL Pump #2 was called to run, but didn't
- OWS:CVT_P2_RUN Pump #2 is running OWS:CVT_LEVEL — Wet Well Level Reading

- SUMP LEVELRADAR LEVEL TRANSDUCER FAILURE
- HIGH FLOAT SWITCH ACTIVE LOW FLOAT SWITCH ACTIVE
- FLOW METER PUMP 1 IN HAND
- PUMP 1 IN AUTOMATIC
- PUMP 1 HAS POWER PUMP 2 IN HAND
- PUMP 2 IN AUTOMATIC PUMP 2 HAS POWER.
- 3 PHASE POWER MONITOR
- PUMP 1 BYPASS OFF (WHILE IN AUTO) PUMP 2 BYPASS OFF (WHILE IN AUTO)

11. ADD THESE REMOTE CONTROLS

LOCATION : IN PEDESTAL TITLE 24 CATEGORY: OUTLETS CONNECT AMPS: 23.3A TOTAL KVA: 5.6 MOUNTING : IN PEDESTAL VOLTAGE: 120/240V, 1ø, 3W ☐ MCB ☑ MLO FEEDER : ☑ SEE ONE LINE DIAGRAM BUSSING : 100A □ EXISTING : 18,000 DESCRIPTION LOAD DESCRIPTION LOAD 500 PUMP CONTROLS 20/1 | 1 | 2 | 20/1 | 200 | PEDESTAL LIGHTING SPACE HEATERS - PEDESTAL 1000 200 GFI RECEPTACLE - PEDESTAL 300 DRY WELL LIGHTING SUMP PUMP 1000 EXHAUST FAN 1000 200 DRY WELL RECEPTACLES SPARE SP 14 20/1 1196 | CRANE 3500 2096 VA TOTAL



ELEVATIONS SHOWN WITH DOORS REMOVED

NEW PANEL & CONTROL CABINET ELEVATIONS

SCALE: N.T.S.

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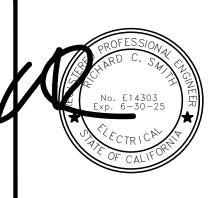
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				JOINE 2023



SALIDA SANITARY DISTRICT **COVERT LIFT STATION**

ONE LINE DIAGRAM AND PANEL SCHEDULE

DRAWING NO. **VERIFY SCALES** BAR IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES **ACCORDINGLY**

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