



## Vicinity Map



### **Public Participation and Hearing Process:**

A copy of the application and all evidence submitted in support of the application is available for inspection, at no cost, at the Land Use Planning Division office Tuesday – Friday 8:00am to 4:00pm, except holidays. A staff report will be available for inspection 7 days prior to the hearing, also at no cost. Copies of all documents may be purchased at the rate of \$0.40/per page. For further information on this case, contact Marisol Cervantes, Staff Planner at 503-988-9452 or [Marisol.Cervantes@multco.us](mailto:Marisol.Cervantes@multco.us).

All interested parties may appear and testify or submit written comment on the proposal at or prior to the hearing. Comments should be directed toward approval criteria applicable to the request. The hearing procedure will follow the Hearing Officer's *Rules of Procedure* and will be explained at the hearing.

The Hearings Officer may announce a decision at the close of the hearing or on a later date, or the hearing may be continued to a time certain. Notice of the decision will be mailed to the applicant, any persons who submitted written comment, requested a decision in writing, or provided oral testimony at the hearing. A decision by the Hearings Officer may be appealed to the Columbia River Gorge Commission by the applicant, the County, or other participants at the hearing.

Failure to raise an issue before the close of the public record in sufficient detail to afford the County and all parties an opportunity to respond may preclude appeal on that issue to the Columbia River Gorge Commission.

## **Applicable Approval Criteria:**

**For this application to be approved, the proposal will need to meet the applicable approval criteria below:**

Multnomah County Code (MCC): General Provisions: MCC 38.0015 Definitions “Parcel,” MCC 38.0045 Conditional Use Application Submittal Requirements

Administration and Procedures: MCC 38.0560 Code Compliance and Applications, MCC 38.0110(B) Tribal Treaty Rights...

Gorge Special – Public Recreation (GS-PR): MCC 38.2860(C), (D) – Dimensional Requirements, MCC 38.2885 – Off Street Parking and Loading

Conditional Use Criteria / NSA Criteria: MCC 38.2830(C)(3) – Conditional Use Utility Facilities for Public Service, MCC 38.4100 – 38.4215 – Parking and Loading, MCC 38.7015 Application for Conditional Use Permit, MCC 38.7040 SMA Scenic Review Criteria, MCC 38.7050 SMA Cultural Resource Criteria, MCC 38.7075 SMA Natural Resources Criteria, MCC 38.7085 SMA Recreation Resource Criteria

Copies of the referenced Multnomah County Code sections are available by contacting our office at (503) 988-3043 or by visiting our website at <https://multco.us/landuse/zoning-codes/> under the link **Chapter 38: Columbia River Gorge National Scenic Area**

Enclosures:  
Site Plan

<b>Notice to Mortgagee, Lien Holder, Vendor, or Seller:</b>
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ORS Chapter 215 requires that if you receive this notice it must be promptly forwarded to the purchaser.
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Appendix A: AMENDED OPRD Rivian Conceptual Design Plans, Drawings, Maps,  
Engineering and Construction Notes. Updated August 2023.



PROJECT INFORMATION	
SITE ADDRESS	ROOSTER ROCK STATE PARK, CORBETT, OR. 97017
COORDINATES	N45.54696, W122.23621
COUNTY	MULTNOMAH
ELEVATION	42'
AHJ CONTACT INFORMATION	TBD
RIVIAN INSTALLATION MANAGER	EMILY BRADY ebrady@rivian.com
PROPERTY OWNER	OREGON PARKS & WILDLIFE
CIVIL ENGINEER OF RECORD	ROBERT JENSEN
ELECTRICAL ENGINEER OF RECORD	SHELTON KEISLING
EOR ADDRESS	7171 W 95TH STREET SUITE 600, OVERLAND PARK KANSAS 66212
EOR CONTACT INFORMATION	913-438-7700
UTILITY NAME	UNITED POWER

PROJECT DESCRIPTION
INSTALLATION OF (4) RIVIAN LEVEL 2 CHARGERS, ALL RELATED ELECTRICAL AND CIVIL ACTIVITIES, AND INSTALLATION OF NECESSARY PARKING SIGNS.

ORDOT SPECIFICATION
THE STANDARD SPECIFICATIONS OF THE STATE OF OREGON, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

APPLICABLE CODES
2018 INTERNATIONAL BUILDING CODE (IBC) 2020 NATIONAL ELECTRICAL CODE (NEC)

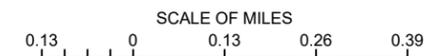


DESIGN LOADING	
LATERAL LOAD DESIGN DATA: WIND DESIGN DATA (ASCE 7-16):	
BASIC WIND SPEED ( $V_{ult}$ )	97 MPH
RISK CATEGORY	II
EXPOSURE CATEGORY	C
SEISMIC DESIGN DATA (ASCE 7-16):	
SEISMIC IMPORTANCE FACTOR (I)	1.0
RISK CATEGORY	II
SITE CLASS (ASSUMED)	D
MAPPED SPECTRAL RESPONSE	
SHORT PERIODS ( $S_s$ )	0.710
1 SEC. PERIODS ( $S_1$ )	0.315
SPECTRAL RESPONSE COEFF.	
SHORT PERIODS ( $S_{ps}$ )	0.583
1 SEC. PERIODS ( $S_{p1}$ )	NULL
SEISMIC DESIGN CATEGORY	NULL

CD90

INDEX	
SHEET	SHEET NAME
C0	COVER SHEET
-	RIVIAN EQUIPMENT SPEC SHEET
C1	CIVIL GENERAL NOTES
C2	SITE PLAN
C3	STALL LAYOUT PLAN
C4	SITE DETAILS
E1	ELECTRICAL GENERAL NOTES
E2	SYSTEM ONE-LINE DIAGRAM & PANEL SCHEDULE
E3	ELECTRICAL & GROUNDING DETAILS

PROJ. NO. OR-2001



SSC, INC.	
ADDRESS 7171 WEST 95TH ST, STE 600 OVERLAND PARK, KS 66212	CLIENT MANAGER: D.C. PELLAND A&E PROJECT MANAGER: A.M. WHYTE LEAD ENGINEER: R.E. JENSEN LEAD ELECTRICAL: S.D. KEISLING
CONTACT: PHONE: (913) 438-7700 FAX: (913) 438-7777	

90% CONSTRUCTION				
Mark	Sheet	REVISION	Date	Initial
		CD90 - ISSUED FOR REVIEW	08.23.23	DWO

TITLE OF DRAWING		
COVER SHEET		
NAME OF PARK		
ROOSTER ROCK STATE PARK		
REGION	COUNTY	STATE
PNWR	MULTNOMAH	OR

DRAWING NO.	
CD90v0	
PKG. NO.	SHEET
1	1
	OF 9



**GOVERNING BUILDING CODE**

REFER TO SHEET C0 FOR APPLICABLE GOVERNING CODES.

**GENERAL CONSTRUCTION NOTES**

- ALL WORK SHALL COMPLY WITH ALL STATE AND LOCAL CODES AND ANY OTHER REGULATING AUTHORITIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK.
- PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FROM RIVIAN OF ANY DISCREPANCIES. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS SHALL BE CORRECTED AT THE SUBCONTRACTORS SOLE EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR ALL JOB SITE SAFETY AS WELL AS MEANS, METHODS, AND SEQUENCES OF CONSTRUCTION TO SAFELY PERFORM THE WORK. ALL TEMPORARY SHORING OR BRACING IS THE RESPONSIBILITY OF THE CONTRACTOR. THE DRAWINGS REFLECT THE FINAL FINISHED CONDITION. IF ANY ERROR OR OMISSION APPEARS IN THESE DRAWINGS, SPECIFICATIONS, OR OTHER DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF SUCH OMISSION OR ERROR BEFORE PROCEEDING WITH WORK.
- SUBCONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO RIVIAN FOR APPROVAL BEFORE MAKING ANY CHANGES. DEVIATION FROM PLANS BEFORE WRITTEN APPROVAL FROM RIVIAN PLACES LIABILITY ON THE SUBCONTRACTOR.
- ALL EQUIPMENT SHALL BE MOUNTED AS SHOWN. WHERE DETAILS ARE NOT PROVIDED, CONTRACTOR SHALL USE BEST CONSTRUCTION PRACTICES.
- ALL SURFACES SHALL BE PATCHED AND PAINTED AROUND NEW DEVICES AND EQUIPMENT TO MATCH EXISTING FINISHES.
- ANY METAL SHAVINGS FROM SITE WORK SHALL BE CLEANED FROM ALL SURFACES WHERE OXIDIZED OR CONDUCTIVE METAL SHAVINGS MAY CAUSE RUST, ELECTRICAL SHORT CIRCUITS, OR OTHER DAMAGE.
- APPROVALS FROM BUILDING INSPECTORS SHALL NOT CONSTITUTE AUTHORITY TO DEVIATE FROM THE DRAWINGS.
- NEW PAVEMENT INSTALLED AS PART OF THIS PROJECT SHALL MATCH EXISTING PAVEMENT SECTION. ASPHALT AND GAB DEPTHS SHALL BE MAINTAINED
- EXISTING CURB, PAVEMENT MARKINGS, AND OTHER EXISTING ENTITIES ARE OBTAINED FROM AERIAL IMAGERY. SURVEY AND/OR FIELD VERIFICATION IS REQUIRED TO OBTAIN TRUE LOCATION AND DIMENSIONS.
- THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, AND SETBACKS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. RIVIAN & GPD GROUP DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINES, EASEMENTS, ROADS, AND SETBACKS IF APPROXIMATE LOCATIONS ARE SHOWN IN PLAN.
- THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AT LEAST ONE WEEK PRIOR TO ORDERING MATERIAL / PROCEEDING WITH CONSTRUCTION.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND FEDERAL, STATE AND LOCAL JURISDICTION CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATION ON THE DRAWINGS.
- PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
- THE GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
- CONSTRUCTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES. DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING RIVIAN.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION, STATE DOT, LOCAL PERMITTING AGENCY, EPA REQUIREMENTS AND SEDIMENT CONTROL.
- INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY AN INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATED BY THE CONTRACTOR.
- PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT, LOCAL PERMITTING AGENCY AND EPA REQUIREMENTS.
- PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
- EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING RIVIAN.
- GRANULAR BACKFILL: SHALL MEET THE FOLLOWING GRADATION PER THE TABLE BELOW:

SIEVE SIZE	TOTAL PERCENT PASSING
1 1/2 INCH (37.5 MM)	100
1 INCH (25.0 MM)	75 TO 100
3/4 INCH (19.00 MM)	80 TO 100
3/8 INCH (9.5 MM)	35 TO 75
NO. 4 (4.75 MM)	30 TO 60
NO. 30 (0.600 MM)	7 TO 30
NO. 200 (0.75 MM)	3 TO 15

- GRANULAR BEDDING AND TRENCH BACKFILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SE OR SW-SM).
- UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTICS SILTS AND CLAYS (LL>45). MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSION, AND DEBRIS AS DETERMINED BY THE CONSTRUCTION MANAGER. TYPICAL THESE WILL BE SOILS CLASSIFIED BY ASTM AS PT, MH, CH, OH, ML, AND OL.
- BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES PER APPLICABLE PLAN PREPARED BY CONTRACTOR. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ALL TIMES.
- PERFORM ALL GRADING TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND SMOOTH, EVEN SURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION. GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.

**GENERAL FOUNDATION NOTES**

- DETERMINATION OF FINAL BEARING ELEVATIONS, TOPSOIL AND EXCAVATION STRIPPING DEPTH, INSPECTION OF ALL SUBSOIL EXPOSED DURING STRIPPING, SITE GRADING, EXCAVATION OPERATIONS, APPROVAL OF FILL MATERIALS, DENSITY TESTING OF FILLS TO ENSURE PLACEMENT PER SPECIFICATION REQUIREMENTS, INSPECTION OF FOUNDATION BEARING SURFACES, AND VERIFICATION OF ALLOWABLE BEARING PRESSURES ARE THE TESTING LABORATORY'S RESPONSIBILITY.
- ALL FOUNDATIONS ARE TO REST ON FIRM UNDISTURBED SOIL OR COMPACTED FILL FREE FROM UNSUITABLE MATERIAL. IF POOR SOIL CONDITIONS ARE ENCOUNTERED AT FOUNDATION DEPTHS SHOWN, NOTIFY OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH CONSTRUCTION.
- CONTRACTOR SHALL COMPACT SUBGRADE. SEE FROST/NO FROST DESIGN NOTES BELOW.
- FOUNDATIONS HAVE BEEN DESIGNED BASED ON AN ASSUMED ALLOWABLE SOIL BEARING CAPACITY OF 1500 PSF.
- NEW FOOTINGS PLACED ADJACENT TO EXISTING FOOTINGS SHALL BEAR AT THE SAME ELEVATION, UNLESS NOTED OTHERWISE.
- STEP FOOTINGS AT A RATIO OF ONE (1) VERTICAL TO TWO (2) HORIZONTAL WITH A MAXIMUM VERTICAL STEP OF 2'-0" UNLESS NOTED OTHERWISE.
- INUNDATION AND LONG TERM EXPOSURE OF BEARING SURFACES, WHICH WILL RESULT IN DETERIORATION OF BEARING FORMATIONS, SHALL BE PREVENTED. FOOTINGS SHALL BE PLACED IMMEDIATELY FOLLOWING FOOTING EXCAVATIONS AND BEARING SURFACE INSPECTION.
- UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
- GROUNDWATER ASSUMED TO BE BELOW EXCAVATION DEPTH. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION ON SITE, CONTRACTOR SHALL PROVIDE FOR ANY SITE DRAINAGE AND DE-WATERING REQUIRED.
- CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING PUBLIC AND PRIVATE UTILITIES PRIOR TO EXCAVATION. IF NECESSARY, UTILITIES SHALL BE RELOCATED PRIOR TO FOUNDATION INSTALLATION.

**LI CHARGING STATION FOUNDATIONS - FROST DESIGN NOTES (BOTTOM OF FOUNDATION ABOVE FROST LEVEL):**

- CONCRETE FOUNDATIONS SHOULD BEAR DIRECTLY ON A PROPERLY COMPACTED FREE-DRAINING GRANULAR FILL CONSISTING OF NO. 57 STONE OR AN APPROVED EQUIVALENT.
- GRANULAR FILL SHOULD EXTEND VERTICALLY TO THE MINIMUM RECOMMENDED REGIONAL FROST DEPTH AND Laterally 2/3D FROM THE FOUNDATION PERIMETER (EXCLUDING SIDE OF PERIMETER ADJACENT TO CURB). GRANULAR FILL SHOULD BE PLACED IN 8 INCH LOOSE LIFTS AND COMPACTED WITH A VIBRATORY COMPACTOR. THE COMPACTION EQUIPMENT SHOULD BE OPERATED OVER THE FULL WIDTH OF THE FOUNDATION UNDERCUT AREA UNTIL VISIBLE DEFORMATION OF THE BACKFILL CEASES. SEE SHEET C0 FOR LOCAL FROST DEPTH.
- GEOTEXTILE (FILTER FABRIC) SHOULD BE PLACED BETWEEN THE GRANULAR BACKFILL AND COHESIVE SOILS TO PRECLUDE THE INFILTRATION OF FINES.

**LI CHARGING STATION FOUNDATIONS - NO FROST DESIGN NOTES (BOTTOM OF FOUNDATION BELOW FROST LEVEL)**

- CONCRETE FOUNDATIONS SHOULD BE SUPPORTED ON A 6 INCH COMPACTED LAYER OF APPROVED FREE-DRAINING GRANULAR MATERIAL.
- APPROVED MATERIAL SHOULD BE COMPACTED OVER THE FULL WIDTH OF THE INFILL AREA UNTIL VISIBLE DEFORMATION OF THE BACKFILL CEASES.

**CONCRETE**

- ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 301-10, "STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE" AND ACI 302, 305 AND 308 UNLESS NOTED OTHERWISE.
  - ALL DETAILING, FABRICATION AND PLACING OF CONCRETE SHALL CONFORM TO ACI 318-14, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND THE LATEST ACI "MANUAL OF STANDARD PRACTICE FOR DETAIL REINFORCED CONCRETE STRUCTURES" UNLESS NOTED OTHERWISE.
  - SAFETY AND PERFORMANCE OF THE STRUCTURE ARE THE RESPONSIBILITY OF THE CONTRACTOR INSOFAR AS THEY ARE AFFECTED BY THE LOCATION AND DETAILS OF CONSTRUCTION JOINTS. SHOP DRAWINGS OF THE PROPOSED CONSTRUCTION JOINT LOCATIONS AND DETAILS ARE TO BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.
  - MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS OR VOIDS.
  - ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS AS FOLLOWS: ALL CONCRETE - 2500 PSI FOR PEDESTAL FOUNDATION AND 3000 PSI FOR ANY LOCATIONS WITH VEHICULAR TRAFFIC. ALL CONCRETE EXPOSED TO WEATHER SHALL CONTAIN 6% (± 1%) AIR ENTRAINMENT.
  - REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
  - WELDED WIRE FABRIC REINFORCING SHALL CONFORM TO ASTM A1064 AND BE FURNISHED IN FLAT SHEETS AND INSTALLED ON CHAIRS OR PRECAST CONCRETE BLOCKS.
  - NO TACK WELDING OF REINFORCING IN THE FIELD IS PERMITTED.
  - PROVIDE CORNER BARS AT ALL LOCATIONS WHERE REINFORCEMENT CHANGES DIRECTION.
  - PROVIDE STRAIGHT AND DIAGONAL BARS AT EDGES OF ALL OPENINGS.
  - REINFORCING EMBEDMENT AND LAP SPLICES (INCHES) FOR 2500 PSI CONCRETE.
- | BAR SIZE | OTHER     |        | TOP*      |        |
|----------|-----------|--------|-----------|--------|
|          | ANCHORAGE | SPLICE | ANCHORAGE | SPLICE |
| # 3      | 15        | 19     | 19        | 24     |
| # 4      | 19        | 25     | 25        | 33     |
| # 5      | 24        | 31     | 31        | 41     |
| # 6      | 29        | 37     | 37        | 49     |
- \* HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE BELOW BAR
- NON-SHRINK GROUT SHALL MEET A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 6000 PSI.

- CONTRACTOR SHALL COORDINATE WITH LOCAL INSPECTOR FOR INSPECTION PRIOR TO POURING OF ALL CONCRETE. ALL REQUIRED REBAR SHALL BE SUPPORTED AND SECURED IN PLACE PRIOR TO THE INSPECTION. "MUCKING IN" OF REBAR IS NOT PERMITTED. (ACI 318 SECTION 7.5.1)

**WHEN ALLOWED OR SPECIFIED, FIBER REINFORCED CONCRETE SHALL MEET THE FOLLOWING SPECIFICATION (ALL MAY NOT APPLY)**

STRENGTH	3000 PSI CNS-F*
MINIMUM CEMENT FACTOR	800#
MAXIMUM W/C	0.42
ENTRAINED AIR	6.5% AVG.
SLUMP	4" MAX. UNLESS HRWR OR MID RANGE WR; THEN 6" - 8"
WATER REDUCER	NORMAL TYPE A
RETARDER	NORMAL TYPE D AS NEEDED (REQUIRED IF CONCRETE TEMPERATURE EXCEEDS 85° F)
CONCRETE TEMPERATURE	50° - 90° F
ACCELERATOR	NON-CHLORIDE TYPE ONLY THE USE OF CALCIUM CHLORIDE IS PROHIBITED.
FIBER	1.5" @ 1.5 LBS. PER CUBIC YARD (AS FIBERMESH 300 OR EQUIVALENT)

\*CNS: DESIGNATES A CONCRETE MIX DESIGN WITH 2 GALLON PER CUBIC YARD OF CALCIUM NITRITE CORROSION-INHIBITOR AT 7.5% SILICA FUME.

\*F: DESIGNATES A CONCRETE MIX DESIGN WITH 1.5 LBS. FIBRILLATED MONOFILAMENT FIBER 1.5 INCHES IN LENGTH REINFORCEMENT PER CUBIC YARD OF CONCRETE

**LANDSCAPE/IRRIGATION NOTES: (ALL MAY NOT APPLY)**

- ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED OR MULCHED SHALL BE GRADED TO MATCH EXISTING CONDITIONS.
- SOD SHALL BE SELECTED PER ZONE AND MATCHED TO EXISTING SITE. SOD SHALL BE A FIRST GRADE CERTIFIED BLEND CONTAINING NO MORE THAN 30 PERCENT OF OTHER GRASSES AND CLOVERS, AND FREE FROM ALL NOXIOUS WEEDS.  
  
ZONES 3, 4 & 5: APPROVED BLUE GRASS BLEND  
ZONE 6: APPROVED FESCUE BLEND  
ZONES 7 & 8: APPROVED BERMUDA BLEND  
ZONES 9 & 10: APPROVED ST AUGUSTINE FLORATAM BLEND
- ALL DISTURBED AND PROPOSED LANDSCAPE AREAS SHALL RECEIVE X" OF XX MULCH TO MATCH EXISTING CONDITIONS.
- PLANT GUARANTEE (IF APPLICABLE): CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF PROJECT ACCEPTANCE BY THE OWNER.
- IRRIGATION RELOCATION: CONTRACTOR FIELD VERIFY IF EXISTING IRRIGATION IS PRESENT, DETERMINE POINT OF CONNECTION, SYSTEM PRESSURE, FIXTURE TYPES, AND POTENTIAL FOR EXPANSION. IF FOUND THAT THE EXISTING IRRIGATION SYSTEM IS CAPABLE OF EXPANSION AND REUSE THEN IT SHALL BE MODIFIED TO PROVIDE 100% COVERAGE OF THE LANDSCAPE AREA. IF THE EXISTING IRRIGATION SYSTEM IS NOT CAPABLE OF EXPANSION, CONTRACTOR TO INSTALL A NEW CONTROLLER, BOOSTER PUMP, AND OTHER APPARATUSES NEEDED FOR A COMPLETE IRRIGATION SYSTEM. IRRIGATED AREAS SHALL BE IRRIGATED BY DRIP IRRIGATION OR SIMILAR FIXTURES BY THE SAME SUPPLIER. CONTRACTOR SHALL ENSURE BUILDING WALLS AND WINDOWS WILL NOT BE DAMAGED OR STAINED BY IMPROPER IRRIGATION INSTALLATION OR POOR SELECTION OF FIXTURES. SYSTEM SHALL INCLUDE ALL SPRINKLER FIXTURES, DRIP TUBING, PIPING, VALVES, WIRING AND CONTROLS TO PROVIDE A COMPLETE FUNCTIONAL SYSTEM THAT SHALL COMPLY WITH CITY CODE. PRIOR TO UPDATING THE IRRIGATION SYSTEM, A CERTIFIED IRRIGATION DESIGNER SHALL PROVIDE SHOP DRAWINGS TO ENGINEER FOR APPROVAL. UPON APPROVAL OF SHOP DRAWINGS, THE UPDATED IRRIGATION SYSTEM SHALL BE APPROVED BY OWNER FOR FINAL ACCEPTANCE.

**PAVEMENT MARKING NOTES: (ALL MAY NOT APPLY)**

- ALL PAVEMENT MARKINGS TO BE WHITE PAVEMENT PAINT, UNLESS STATED OTHERWISE. ALL PAVEMENT MARKINGS WITHIN ADA AREAS SHALL BE PAINTED BLUE EXCEPT FOR COLORS DEFINED ON THE ADA PAVEMENT SYMBOL.
- MARKING (STRIPING) PAINT FOR PARKING SPACES, TRAFFIC ARROWS, ADA PARKING AND SYMBOLS, ETC., PER LOCAL REQUIREMENTS AND AS FOLLOWS:
- PAVEMENT MARKINGS PAINT SHALL BE WATER BASE FAST DRYING 100% ACRYLIC TYPE: WATER BASE TO MEET FEDERAL SPECIFICATION TTP-01952B. FOR COLD WEATHER APPLICATION PAINT PRODUCT SHALL BE IN ACCORDANCE WITH ASTM-D2369, D1394, D3723, D1475, D562 AND D711.
- PROVIDE A NON-SLIP AGGREGATE ADDITIVE TO MARKING PAINT USED AT ADA ACCESS RAMPS.
- APPLY 2 COATS WITHIN THE SAME DAY, UTILIZING STRAIGHT EDGES, YELLOW ON CONCRETE/WHITE ON ASPHALT EXCEPT WHEN MATCHING ADJACENT OR EXISTING COLOR WHEN THE PAVING IS AN EXPANSION OR SEGMENT OF A LARGER LOT.

**TRAFFIC CONTROL NOTES: (ALL MAY NOT APPLY)**

- DURING THE CONSTRUCTION PERIOD; SIDEWALKS, SHOULDERS, TRAVEL LANE(S), OR STREETS MAY HAVE TO BE TEMPORARILY CLOSED OR RESTRICTED FOR THE UNLOADING / LOADING OF EQUIPMENT OR AS A RESULT OF CONSTRUCTION ACTIVITIES THEMSELVES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DIRECTLY WITH THE LOCAL GOVERNING AUTHORITIES ON ANY SUCH CLOSURES AND MUST OBTAIN WRITTEN PERMISSION FROM THE APPROPRIATE AUTHORITIES PRIOR TO IMPLEMENTING SUCH CLOSURES OR RESTRICTIONS. ANY CLOSURE OR RESTRICTION MUST COMPLY WITH THE STATE MANUAL OF UNIFORM CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS (LATEST EDITION AND REVISION), AND WITH ANY AND ALL ADDITIONAL APPLICABLE CITY, VILLAGE, OR COUNTY REQUIREMENTS. THE CONTRACTOR SHALL PREPARE AND SUBMIT A FORMAL TRAFFIC CONTROL / MOT PLAN TO THE LOCAL GOVERNING AUTHORITIES IF REQUESTED. ALL REQUIRED CONSTRUCTION TRAFFIC MAINTENANCE DEVICES SHALL BE PROVIDED, ERECTED AND MAINTAINED, AND ULTIMATELY REMOVED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ALL ABUTTING PROPERTIES AND INTERSECTING STREET AT ALL TIMES DURING THE CONSTRUCTION OF THE IMPROVEMENTS ANTICIPATED. DRIVEWAYS MUST BE MAINTAINED AND ALL TRENCHES SHALL BE BACKFILLED AT THE END OF EACH WORK DAY. PER THE STATE MUTCD AND OTHER APPLICABLE APPROPRIATE GOVERNING REQUIREMENTS, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, SATISFACTORY BARRIERS, CONES, SIGNAGE, BARRELS, MESSAGE BOARDS, LIGHTING, FLAGMEN, LAW ENFORCEMENT OFFICERS, ETC. TO AVOID DAMAGE AND / OR INJURY TO VEHICLES AND PERSONS TRAVERSING THE CONSTRUCTION AREA.

**SPECIAL INSPECTIONS**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND OVERSEEING OF ALL SPECIAL INSPECTIONS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. SPECIAL INSPECTIONS MUST BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL.

**EXISTING SLAB REINFORCEMENT INVESTIGATION/X-RAY**

- CONTRACTOR SHALL VERIFY POST TENSIONING AND REINFORCEMENT LOCATION IN EXISTING CONCRETE SLAB PRIOR TO DRILLING.

**POST-INSTALL ANCHORS:**

- POST INSTALLED ANCHORS SHALL BE INSTALLED AND USED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTION AND EVALUATION REPORTS.  
CONCRETE EXPANSIONS ANCHORS:  
- HILTI KWIK BOLT T22 (ICC ESR-4266)  
- OR APPROVED EQUAL  
CONCRETE ADHESIVE ANCHORS:  
- HILTI HIT-HY 200 ADHESIVE ANCHORS (ICC ESR-3963)  
- SIMPSON STRONG-TIE SET-XP ADHESIVE ANCHORS (ICC ESR-2508)  
- OR APPROVED EQUAL
- ALL ANCHORS USED IN EXTERIOR LOCATIONS SHALL BE STAINLESS STEEL UNLESS NOTED OTHERWISE.

SSC, INC.			DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
STATE OF <u>COLORADO</u>			DWO	<b>C1</b>	<b>CIVIL GENERAL NOTES</b>	<b>CD90 v0</b>
STATE CERTIFICATE OF AUTHORIZATION # 20041302439			CADD			
ENGINEER:	PE#:	DISCIPLINE:	DWO			
KMV KEVIN M. VANMAELE REJ ROBERT E. JENSEN	53946 54720	CIVIL CIVIL	TECH. REVIEW: RES			
SDK SHELTON D. KEISLING TMS TERRANCE M. SUPER	49643 36490	ELECTRICAL ELECTRICAL	E E	DATE: 08.23.23	ROOSTER ROCK STATE PARK	PKG. NO. 0 OF 9

FEEDER REFERENCE	
#	DENOTES FEEDER REFERENCE. REFER TO SHEET E2 FOR FEEDER/CIRCUIT SCHEDULE.

PARKING STALL SCHEDULE	
EXISTING STANDARD STALLS UTILIZED AS A RESULT OF THIS PROJECT	4

BLOCKS	
■	DISPENSER
•	PARKING SIGN
•	BOLLARD
—	WHEELSTOP
⎓	PANELBOARD
□	PULLBOX

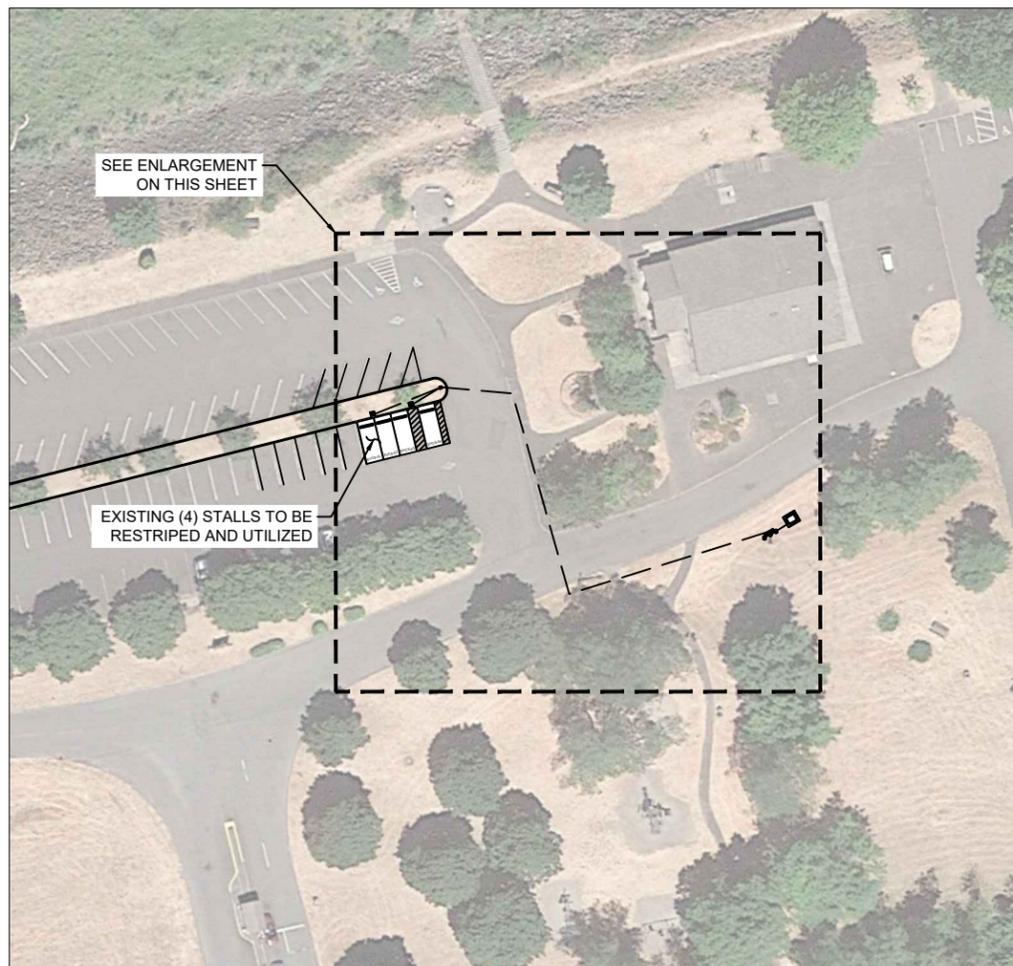
EVCS SCHEDULE					
EVCS #	EVCS STALL TYPE	CHARGING LEVEL	STATUS	DISPENSER	CONDUIT LENGTH(±)
01	STANDARD	LEVEL 2	PROPOSED	DUAL	35'
02	STANDARD	LEVEL 2	PROPOSED		
03	STANDARD	LEVEL 2	PROPOSED		
04	ADA VAN	LEVEL 2	PROPOSED	DUAL	15'

CONSTRUCTION KEYNOTES #

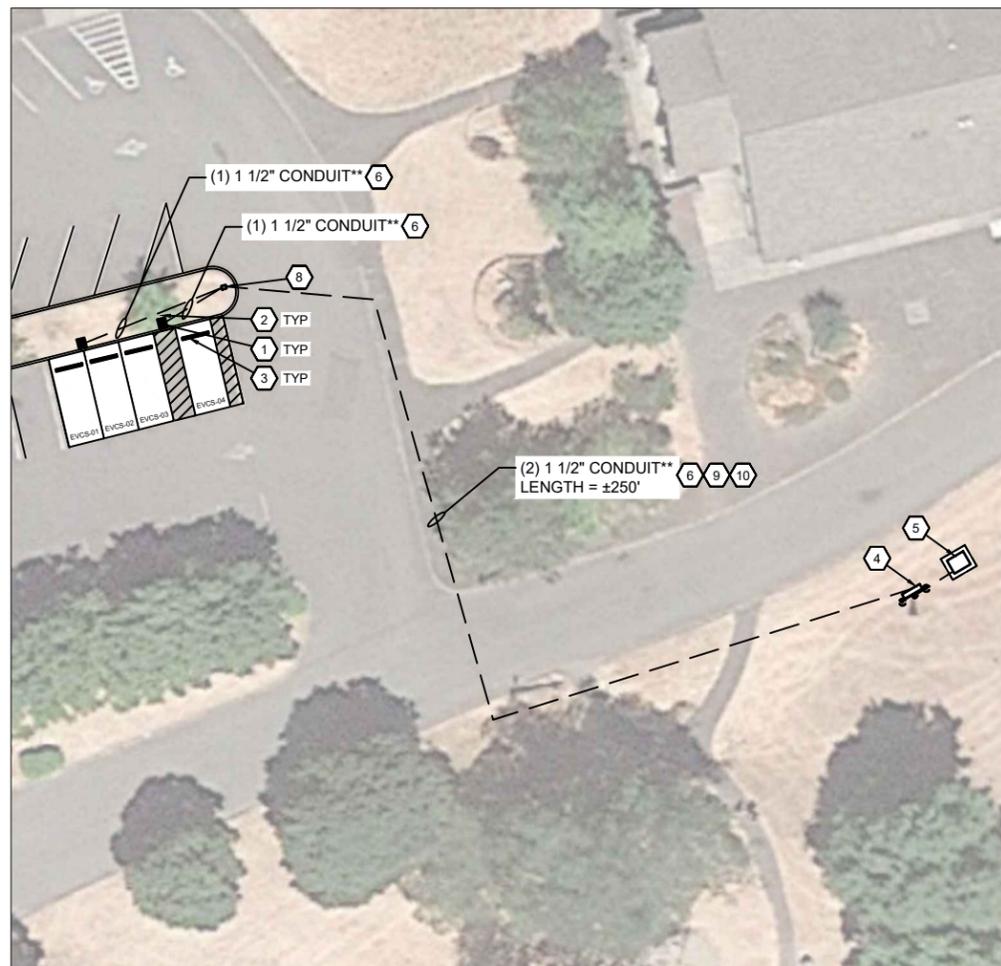
- 1 PROPOSED RIVIAN LEVEL 2 DUAL DISPENSER WITH INDIVIDUAL CAST IN PLACE CONCRETE FOUNDATION. SEE DETAILS ON SHEET C4.
  - 2 PROPOSED SIGN POST. (TYP OF 2) (SEE DETAILS ON SHEET C4)
  - 3 PROPOSED WHEELSTOP. (TYP OF 4) (SEE DETAIL ON SHEET C4)
  - 4 EXISTING 200A METER PEDESTAL TO BE REMOVED & REPLACED WITH AN H-FRAME MOUNTED 200A PANELBOARD WITH METER SOCKET.
  - 5 EXISTING TRANSFORMER.
  - 6 PROPOSED CONDUIT(S) TO BE DIRECTIONALLY BORED. SEE DETAILS ON SHEET E3.
  - 7 ALL DISTURBED AREAS SHALL BE SODDED/MULCHED UNLESS OTHERWISE NOTED. SEE LANDSCAPE/IRRIGATION NOTES ON SHEET C1.
  - 8 PROPOSED HANDHOLE.
  - 9 EXISTING LANDSCAPE TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
  - 10 CONTRACTOR SHALL TAKE EXTRA CARE TO PRESERVE THE EXISTING CONDITION / SIDEWALK / TREES / PLANTS. MAINTAIN DISTURBANCE TO THE MINIMUM AND RESTORE WHEN WORK IS COMPLETE.
- \*\* CONTRACTOR SHALL COORDINATE CONDUIT ROUTING WITH PROPERTY OWNER AND INSTALL THE FOLLOWING CONDUIT TYPE WHERE APPLICABLE (UNLESS OTHERWISE NOTED):
- PVC SCH 40 BELOW GRADE. PVC SCH 80 BELOW DRIVES AND PARKING LOTS.
  - RGS 8'-0" OR LESS ABOVE GRADE.
  - RGS TO BE USED IN PARKING GARAGES.
  - EMT 8'-0" MINIMUM ABOVE GRADE AND WHERE NOT SUBJECT TO DAMAGE. CONTRACTOR SHALL VERIFY WITH ELECTRICAL INSPECTOR IF EMT IS APPROVED AT THIS PROJECT PRIOR TO ROUGH-IN.

GENERAL SHEET NOTES

1. CONTRACTOR SHALL REMOVE EXISTING PAVEMENT AND/OR CURB AS NECESSARY USING CLEAN SAWCUTS TO INSTALL PROPOSED UNDERGROUND CONDUITS AND REPLACE PAVEMENT AND/OR CURB AFTER CONDUITS HAVE BEEN INSTALLED. CONTRACTOR SHALL MEET OR EXCEED EXISTING PAVEMENT SPECIFICATIONS. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PERFORMING WORK.
2. APPLY LIQUID ASPHALT AT ALL JOINTS BETWEEN CONCRETE AND ASPHALT AND WHERE PROPOSED ASPHALT MEETS EXISTING, INCLUDING SAW CUT JOINTS.
3. CONTRACTOR RESPONSIBILITIES INCLUDES CHARGING STATION PAD, TRENCHING, CONDUIT INSTALLATION, AND WIRING.
4. CONTRACTOR SHALL RETURN SIDEWALKS, LANDSCAPING, PLANTERS, IRRIGATION SYSTEMS, AND ANY OTHER FACILITIES DISTURBED BY THE WORK TO THE SAME OR BETTER CONDITION THAN EXISTED PRIOR TO THE COMMENCEMENT OF THE WORK.
5. EXACT PLACEMENT AND ORIENTATION OF THE RIVIAN CHARGING STATIONS MAY VARY. VERIFY WITH RIVIAN PM PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL CONTACT UTILITY LOCATION SERVICES PRIOR TO THE START OF CONSTRUCTION. EXTREME CAUTION SHOULD BE USED WHEN EXCAVATING OR ROUTING CONDUIT AROUND OR NEAR UTILITIES.
7. CONTRACTOR TO PAINT PROPOSED EV PARKING SPACES PER JURISDICTIONAL REQUIREMENTS.
8. EXISTING CURB, PAVEMENT MARKINGS, AND OTHER EXISTING ENTITIES ARE OBTAINED FROM AERIAL IMAGERY. SURVEY AND/OR FIELD VERIFICATION IS REQUIRED TO OBTAIN TRUE LOCATION AND DIMENSIONS.
9. THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, AND SETBACKS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. RIVIAN & GPD GROUP DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINES, EASEMENTS, ROADS, AND SETBACKS IF APPROXIMATE LOCATIONS ARE SHOWN IN PLAN.
10. CONTRACTOR SHALL HAND DIG AROUND ALL EXISTING UTILITIES.
11. CONDUIT ELBOWS SHALL BE SIZED PER NEC. CONTRACTOR SHALL VERIFY MANUFACTURER ALLOWABLE FILL. SEE FEEDER SCHEDULE FOR CONDUCTOR SPECIFICATIONS.
12. ALL CONDUITS ACCESSIBLE TO THE PUBLIC OR WHICH CAN BE DAMAGED SHALL BE RIGID GALVANIZED STEEL.
13. CONTRACTOR SHALL PROVIDE WATER TIGHT & FIRE TIGHT FITTINGS IN ALL PENETRATIONS.
14. CONTRACTOR SHALL COORDINATE ANY/ALL BUILDING OUTAGES WITH BUILDING OWNER.
15. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY ONLY. CONDUIT PLACEMENT TO BE VERIFIED BY CONTRACTOR BASED ON EXISTING SITE CONDITIONS AND PHYSICAL MEASUREMENTS.
16. ALL UNDERGROUND CONDUITS ROUTED TO PROPOSED EQUIPMENT SHALL BE ROUTED UP THROUGH CONCRETE SLAB.
17. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER PRIOR TO PERFORMING WORK IF TREE LANDSCAPE DISTURBANCE IS UNAVOIDABLE.



1 SITE PLAN  
NO SCALE



2 ENLARGED SITE PLAN  
NO SCALE



SSC, INC.		DESIGNED:	DWO
STATE OF COLORADO		CADD	DWO
STATE CERTIFICATE OF AUTHORIZATION # 20041302439		TECH. REVIEW:	RES
ENGINEER:	PE#:	DISCIPLINE:	
KMV KEVIN M. VANMAELE 53946		CIVIL	C
REJ ROBERT E. JENSEN 54720		CIVIL	C
SDK SHELTON D. KEISLING 49643		ELECTRICAL	E
TMS TERRANCE M. SUPER 36490		ELECTRICAL	E
DATE:		08.23.23	

SUB SHEET NO.	C2
TITLE OF SHEET	
SITE PLAN	
ROOSTER ROCK STATE PARK	

DRAWING NO.		CD90 v0
PKG. NO.	0	SHEET
	4	OF 9

LEGEND	
	DISPENSER
	PARKING SIGN
	WHEELSTOP

NOTES:  
 1. EXACT CHARGER PLACEMENT AND STRIPING TO BE CONFIRMED BY PROPERTY OWNER PRIOR TO INSTALL.  
 2. FOR SPECIFIC PEDESTAL DIMENSIONS, REFER TO SHEET C4.

ACCESSIBILITY KEYNOTES #	
1	VAN ACCESSIBLE STALL.
2	ACCESS AISLE.
3	STANDARD STALL.
4	SURFACE MARKING TO READ "EV CHARGING ONLY".
5	ACCESSIBLE IDENTIFICATION SIGN(S).

- ACCESSIBILITY GENERAL NOTES
- ALL WORK SHALL COMPLY WITH THE 2019 CBC 11B: ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS, COMMERCIAL BUILDINGS, AND PUBLIC HOUSING.
  - OPERABLE PARTS: THE CHARGE POST HANDLE IS A MAXIMUM OF 48" FROM THE GROUND.
  - ACCESS AISLE CROSS SLOPE & RUNNING SLOPE SHALL NOT EXCEED 1:48.
  - ACCESSIBLE ROUTE RUNNING SLOPE SHALL NOT EXCEED 1:20.
  - ACCESSIBLE ROUTE CROSS SLOPE SHALL NOT EXCEED 1:48.
  - ADA PAVEMENT MARKING COLOR SHALL CONFORM WITH NATIONAL ADA STANDARDS.
  - ACCESSIBLE EV CHARGERS ARE COMPLIANT WITH NATIONAL CLEAR FLOOR AND HEIGHT DIMENSIONS.
  - EVCS VEHICLE SPACES SHALL PROVIDE SURFACE MARKING STATING "EV CHARGING ONLY" IN LETTERS A MINIMUM OF 12 INCHES (305 MM) IN HEIGHT AND LOCATED SO THAT THE CENTERLINE OF THE TEXT SHALL BE A MAXIMUM OF 6 INCHES FROM THE CENTERLINE OF THE VEHICULAR SPACE.
  - PAVEMENT MARKING COLORS SHALL TO MATCH EXISTING SITE CONDITIONS, UNLESS NOTED OTHERWISE ON THE SITE PLAN.
  - THERE ARE NO OTHER EV DEVICES ASSOCIATED WITH THE SITE.
  - EV CHARGERS SHALL BE ADJACENT TO, AND WITHIN THE PROJECTED WIDTH OF, THE VEHICLE SPACE BEING SERVED.
  - OPERABLE PARTS SHALL BE OPERABLE WITH A ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS (22.2 N) MAXIMUM.
- EXCEPTION: GAS PUMP NOZZLES AND ELECTRIC VEHICLE CONNECTORS SHALL NOT BE REQUIRED TO PROVIDE OPERABLE PARTS THAT HAVE AN ACTIVATING FORCE OF 5 POUNDS (22.2 N) MAX.

ELECTRIC VEHICLE CHARGING STATIONS FOR PUBLIC USE AND COMMON USE			
TOTAL NUMBER OF EVCS AT A FACILITY	MINIMUM NUMBER (BY TYPE) OF EVCS REQUIRED TO COMPLY WITH STANDARDS		
	VAN ACCESSIBLE	STANDARD ACCESSIBLE	AMBULATORY
1 TO 4	1	0	0
5 TO 25	1	1	0
26 TO 50	1	1	1
51 TO 75	1	2	2
76 TO 100	1	3	3
101 AND OVER	1, PLUS 1 FOR EACH 300, OR FRACTION THEREOF, OVER 100	3, PLUS 1 FOR EACH 60, OR FRACTION THEREOF, OVER 100	3, PLUS 1 FOR EACH 50, OR FRACTION THEREOF, OVER 100

NOTES:  
 WHERE AN EV CHARGER CAN SIMULTANEOUSLY CHARGE MORE THAN ONE VEHICLE, THE NUMBER OF EVCS PROVIDED SHALL BE CONSIDERED EQUIVALENT TO THE NUMBER OF ELECTRIC VEHICLES THAT CAN BE SIMULTANEOUSLY CHARGED.

SIGN REQUIREMENTS

**IDENTIFICATION SIGNS.** EVCS IDENTIFICATION SIGNS SHALL BE PROVIDED.

**FOUR OR FEWER.** WHERE FOUR OR FEWER TOTAL EVCS ARE PROVIDED, IDENTIFICATION WITH AN INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) SHALL NOT BE REQUIRED.

**FIVE TO TWENTY-FIVE.** WHERE FIVE TO TWENTY-FIVE TOTAL EVCS ARE PROVIDED, ONE VAN ACCESSIBLE EVCS SHALL BE IDENTIFIED BY AN ISA. THE REQUIRED STANDARD ACCESSIBLE EVCS SHALL NOT BE REQUIRED TO BE IDENTIFIED WITH AN ISA.

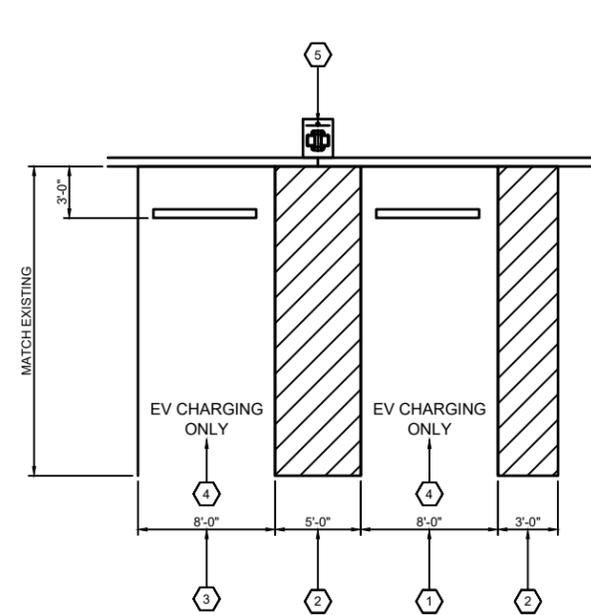
**TWENTY-SIX OR MORE.** WHERE TWENTY-SIX OR MORE TOTAL EVCS ARE PROVIDED, ALL REQUIRED VAN ACCESSIBLE AND ALL REQUIRED STANDARD ACCESSIBLE EVCS SHALL BE IDENTIFIED BY AN ISA.

**AMBULATORY.** AMBULATORY EVCS SHALL NOT BE REQUIRED TO BE IDENTIFIED BY AN ISA.

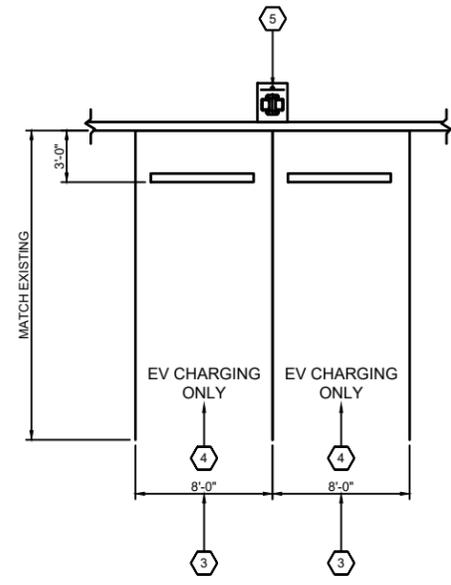
**DRIVE-UP.** DRIVE-UP EVCS SHALL NOT BE REQUIRED TO BE IDENTIFIED BY AN ISA.

**FINISH AND SIZE.** IDENTIFICATION SIGNS SHALL BE REFLECTORIZED WITH A MINIMUM AREA OF 70 SQUARE INCHES (45,161 MM<sup>2</sup>).

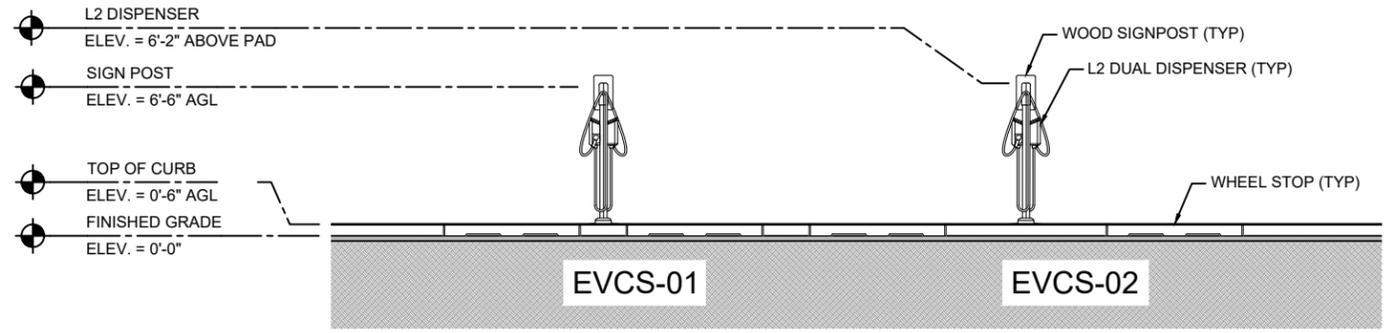
**LOCATION.** REQUIRED IDENTIFICATION SIGNS SHALL BE VISIBLE FROM THE EVCS IT SERVES. SIGNS SHALL BE PERMANENTLY POSTED EITHER IMMEDIATELY ADJACENT TO THE VEHICLE SPACE OR WITHIN THE PROJECTED VEHICLE SPACE WIDTH AT THE HEAD END OF THE VEHICLE SPACE. SIGNS IDENTIFYING VAN ACCESSIBLE VEHICLE SPACES SHALL CONTAIN THE DESIGNATION "VAN ACCESSIBLE." SIGNS SHALL BE 60 INCHES (1525 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN. SIGNS LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL BE 80 INCHES (2032 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN. SIGNS MAY ALSO BE PERMANENTLY POSTED ON A WALL AT THE INTERIOR END OF THE VEHICLE SPACE.



1 ADA STALL LAYOUT  
NO SCALE

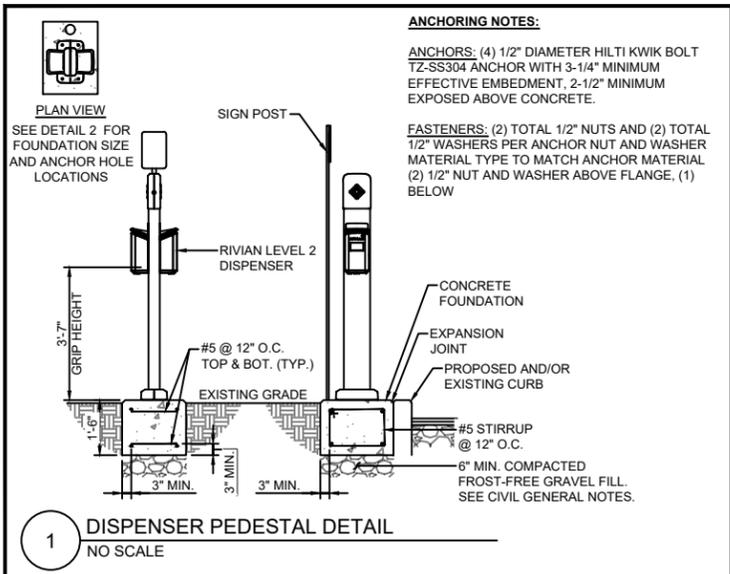


2 STALL LAYOUT  
NO SCALE

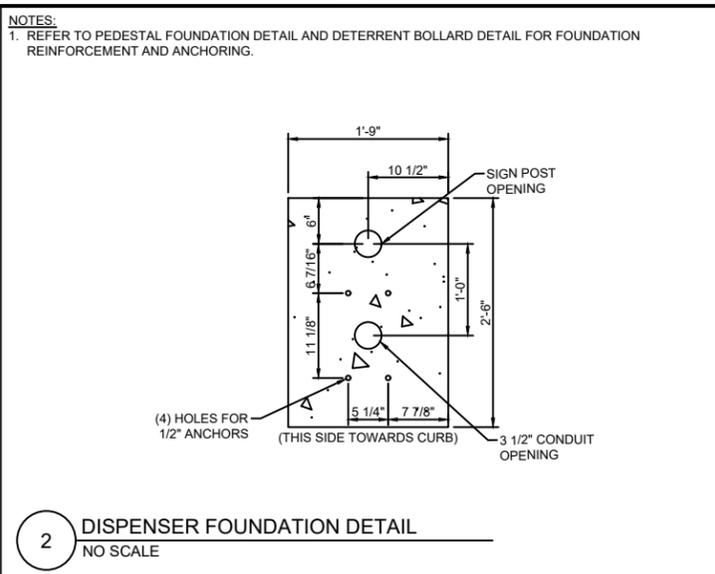


3 STALL ELEVATION  
NO SCALE

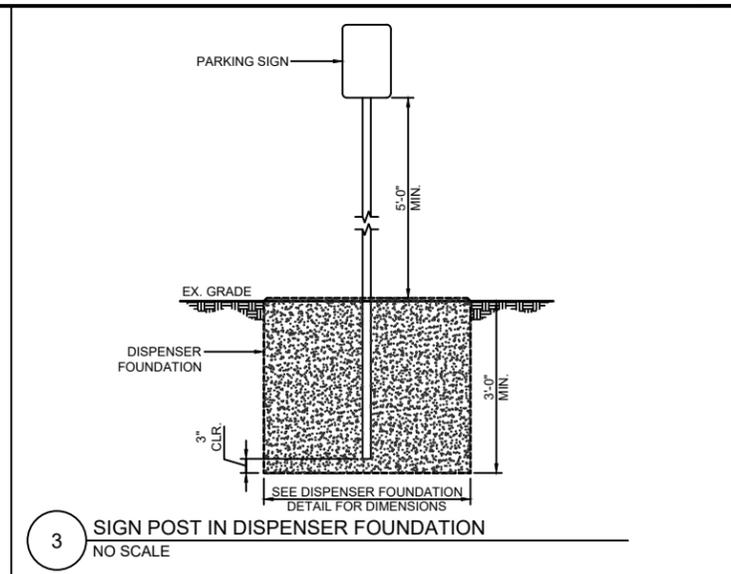
SSC, INC.		DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
STATE OF COLORADO		DWO	C3	STALL LAYOUT PLAN	CD90 v0
STATE CERTIFICATE OF AUTHORIZATION # 20041302439		CADD			
ENGINEER:	PE#:	DISCIPLINE:	DWO		PKG. NO.
KMV KEVIN M. VANMAELE 53946		CIVIL	TECH. REVIEW:		0
REJ ROBERT E. JENSEN 54720		CIVIL	RES		5
SDK SHELTON D. KEISLING 49643		ELECTRICAL	DATE:		OF
TMS TERRANCE M. SUPER 36490		ELECTRICAL	08.23.23		9



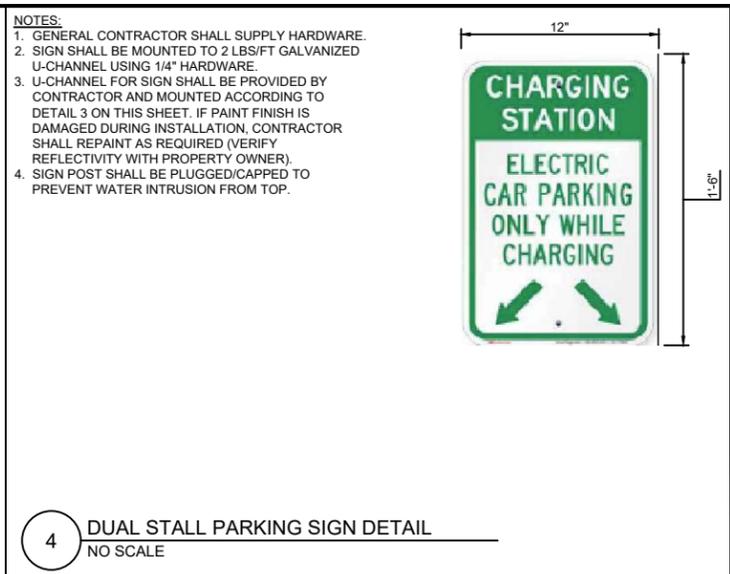
**1 DISPENSER PEDESTAL DETAIL**  
NO SCALE



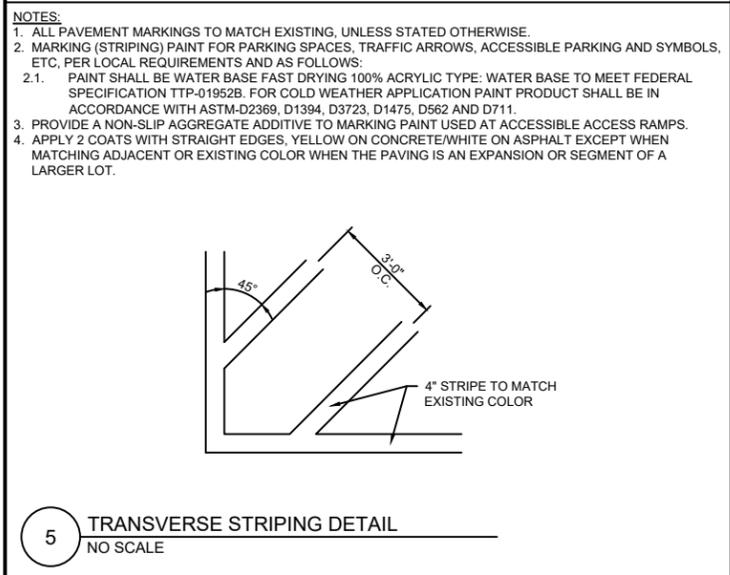
**2 DISPENSER FOUNDATION DETAIL**  
NO SCALE



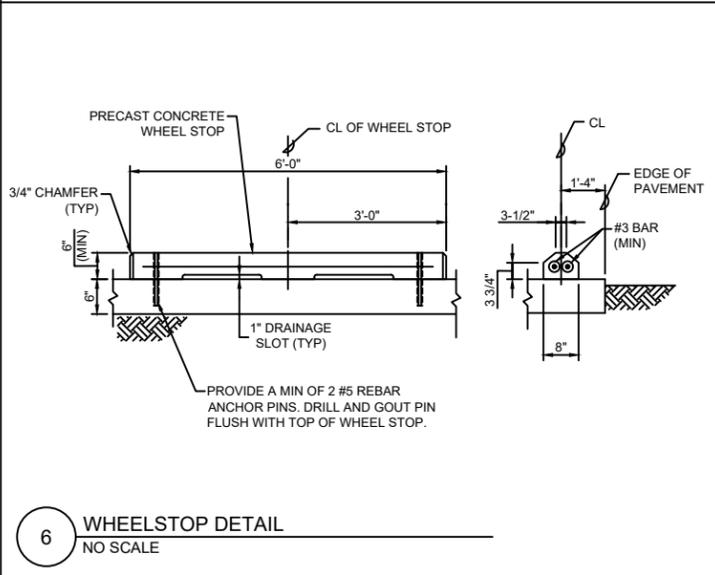
**3 SIGN POST IN DISPENSER FOUNDATION**  
NO SCALE



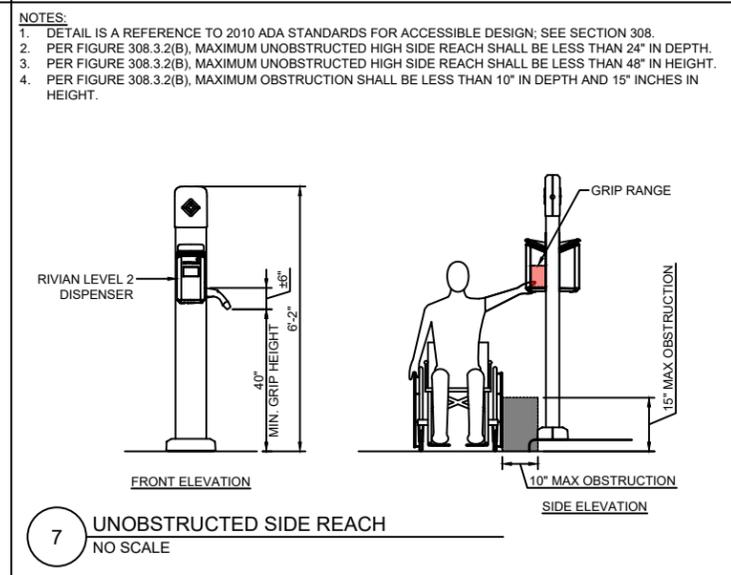
**4 DUAL STALL PARKING SIGN DETAIL**  
NO SCALE



**5 TRANSVERSE STRIPING DETAIL**  
NO SCALE



**6 WHEELSTOP DETAIL**  
NO SCALE



**7 UNOBSTRUCTED SIDE REACH**  
NO SCALE

SSC, INC. STATE OF COLORADO STATE CERTIFICATE OF AUTHORIZATION # 20041302439 ENGINEER: PE#: DISCIPLINE: KMV KEVIN M. VANMAELE 53946 CIVIL C REJ ROBERT E. JENSEN 54720 CIVIL C SDK SHELTON D. KEISLING 49643 ELECTRICAL E TMS TERRANCE M. SUPER 36490 ELECTRICAL E		DESIGNED: DWO CADD DWO TECH. REVIEW: RES DATE: 08.23.23	SUB SHEET NO. <b>C4</b>	TITLE OF SHEET <b>SITE DETAILS</b> ROOSTER ROCK STATE PARK	DRAWING NO. <b>CD90 v0</b> PKG. NO. 0 SHEET 6 OF 9
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**GENERAL ELECTRICAL SPECIFICATIONS**

- THE FOLLOWING ARE ABBREVIATED SPECIFICATIONS. ALL ITEMS NECESSARY FOR A COMPLETE AND OPERABLE JOB (TO THE SATISFACTION OF OWNER) WHETHER SHOWN OR IMPLIED SHALL BE HELD AS THE RESPONSIBILITY OF THE CONTRACTOR
- IMPORTANT NOTE:** "CONTRACTOR" REFERENCED IN THESE SPECIFICATIONS SHALL INDICATE WORK BY ELECTRICAL CONTRACTOR OR ANY OF HIS SUBCONTRACTORS UNLESS NOTED OTHERWISE.
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT ONLY. COORDINATE INSTALLATION WITH OTHER TRADES TO VERIFY THE ACTUAL SPACE CONDITIONS THAT ARE TO BE MAINTAINED. NO ADDITIONAL PAYMENT WILL BE APPROVED FOR FAILURE TO COMPLY.
- ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
- CONTRACTOR SHALL NOT SCALE ELECTRICAL DRAWINGS. REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT AND CONFIRM WITH CONSTRUCTION MANAGER ANY SIZES AND LOCATIONS WHEN NEEDED.
- CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE ALL ITEMS DEFINED IN THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: THE CONTRACT, SPECIFICATIONS, AND CONSTRUCTION DRAWINGS. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO INSTALL ALL ELECTRICAL EQUIPMENT, CONDUIT, WIRING ETC. AS SHOWN OR IMPLIED ON THE DRAWINGS AND TO PROVIDE A COMPLETE OPERATIVE SYSTEM TO THE SATISFACTION OF OWNER.
- CONTRACTOR SHALL PROVIDE ON-SITE SUPERVISION AT ALL TIMES WHILE THE WORK IS BEING PERFORMED AND SHALL DIRECT ALL WORK, USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- INSTALLATION OF ALL ELECTRICAL EQUIPMENT, DEVICES, CONDUITS, ETC. MUST BE COORDINATED WITH ALL OTHER TRADES. COORDINATE SHUTDOWN TIMES AND WORKING HOURS WITH BUILDING OWNER, INCLUDING OFF HOURS, WEEKEND, AND HOLIDAY WORK AS REQUIRED.
- ANY DISCREPANCIES FOUND WITHIN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE OWNER IN WRITING PRIOR TO THE AWARD OF THE CONTRACT AND AN ADDENDUM WILL BE ISSUED TO COVER SAME.
- GUARANTEE - CONTRACTOR SHALL FURNISH OWNER WITH A WRITTEN GUARANTEE TO PROMPTLY REMEDY ALL DEFECTS OF WORK OR MATERIALS WITHOUT CHARGE FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE AND INSPECTION.
- MATERIALS - ALL MATERIALS AND EQUIPMENT SHALL BE NEW, IN ORIGINAL CONTAINERS/WRAPPINGS, SHALL BE SPECIFICATION GRADE, AND LABELED OR LISTED BY U.L. OR AN ACCREDITED TESTING ORGANIZATION AS REQUIRED BY LOCAL INSPECTORS.
- CONTRACTOR SHALL PROVIDE ADEQUATE AND REQUIRED LIABILITY INSURANCE FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF WORK
- ALL EQUIPMENT SHALL BE DESIGNED TO OPERATE ON VOLTAGE AND PHASE SPECIFIED. CONTRACTOR FURNISHING EQUIPMENT OTHER THAN INDICATED SHALL BE RESPONSIBLE FOR ANY CHANGES IN CONDUCTORS, RACEWAYS, SWITCHES, MAIN FEEDERS AND APPURTENANCES AND PAY ALL ASSOCIATED COSTS. REQUIREMENTS FOR ANY INCREASE IN CAPACITIES SHALL BE REVIEWED BY ENGINEER.
- CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY/ALL REQUIREMENTS SUCH AS THE: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, SIZE OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC. ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO BEGINNING ANY WORK.

**LICENSES, CERTIFICATIONS OF INSPECTION**

- CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ALL GOVERNING AGENCIES THAT REQUIRE SITE INSPECTION OF THE WORK AND/OR SIMPLY NOTIFICATION. THE CONTRACTOR SHALL OBTAIN AND PAY FOR PERMITS, LICENSES AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK.
- CONTRACTOR AND ALL OF HIS SUBCONTRACTORS THAT PERFORM ANY WORK ON THIS PROJECT SHALL BE CURRENTLY LICENSED BY ALL AGENCIES WHICH GOVERN OVER THE LAND(S) ON WHICH CONSTRUCTION IS TO TAKE PLACE. CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS AS REQUIRED. ALL COSTS SHALL BE BORNE BY CONTRACTOR.
- THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS INCIDENTAL TO WORK UNDER THIS CONTRACT. WHEN THE WORK IS COMPLETED, THE REQUIRED CERTIFICATES OF APPROVAL SHALL BE FURNISHED TO THE BUILDING OWNER. CONTRACTOR MUST BE LICENSED IN THE STATE, COUNTY AND CITY OF THE PROJECT SITE.

**CODES AND ORDINANCES**

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH STATED EDITION OF NEC AND ALL APPLICABLE CODES AND ORDINANCES, INCLUDING SUCH AS PERTAIN TO THE SAFETY AND HEALTH RELATIONS. CODES AND ORDINANCES SHALL TAKE PRECEDENCE OVER THE DRAWINGS AND SPECIFICATIONS ONLY IN CASE OF CONFLICT AND SHALL INCLUDE BUT NOT BE LIMITED TO:
  - UL - UNDERWRITERS LABORATORIES
  - NEC - NATIONAL ELECTRICAL CODE
  - NEMA - NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
  - OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT
  - SBC - STANDARD BUILDING CODE
  - NFPA - NATIONAL FIRE CODES

**POST CONSTRUCTION AND PROJECT CLOSEOUT DOCUMENTATION**

- AS-BUILT REQUIREMENTS:** DO NOT USE RECORD DOCUMENTS FOR CONSTRUCTION PURPOSES. TO PROTECT RECORD DOCUMENTS FROM DETERIORATION AND LOSS, STORE IN A SECURE, FIRE-RESISTANT LOCATION. PROVIDE ACCESS TO RECORD DOCUMENTS FOR THE OWNER'S REFERENCE DURING NORMAL WORKING HOURS. MAINTAIN A CLEAN, UNDAMAGED SET OF BLUE OR BLACK LINE PRINTS OF CONTRACT DRAWINGS AND SHOP DRAWINGS. MARK THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN. MARK DRAWINGS THAT ARE MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE CONTRACT DRAWINGS. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE. MARK RECORD SETS WITH RED ERASABLE PENCIL. USE OTHER COLORS TO DISTINGUISH BETWEEN VARIATIONS IN SEPARATE CATEGORIES OF THE WORK. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER BUT WAS NOT SHOWN ON THE CONTRACT DRAWINGS, DETAILS OR SHOP DRAWINGS. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE. NOTE RELATED RECORD DRAWING INFORMATION AND PRODUCT DATA. UPON COMPLETION OF THE WORK, SUBMIT ONE (1) COMPLETE SET OF RECORD DOCUMENTS TO THE CONSTRUCTION MANAGER FOR THE OWNER'S RECORDS. CONTRACTOR SHALL SUBMIT AS-BUILT SET OF PLANS TO THE ENGINEER WITHIN 7 DAYS OF COMPLETION OF CONSTRUCTION.

**EXISTING CONDITIONS AND DEMOLITION**

- ALL ELECTRICAL DEMOLITION WORK, INCLUDING MATERIAL REMOVAL FROM THE SITE, SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. BEFORE PROCEEDING WITH THE DEMOLITION WORK, THE CONTRACTOR SHALL OBTAIN FROM THE BUILDING OWNER A LIST OF ANY REMOVED ITEMS TO BE SALVAGED. ALL OTHER REMOVED MATERIALS AND EQUIPMENT SHALL BE PROPERLY DISCARDED OFF THE PREMISES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PROPERTY RESULTING FROM THE CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE AT THE COMPLETION OF WORK.
- EXISTING UTILITIES AND CONDITIONS ARE SHOWN FROM FIELD DATA AND EXISTING DOCUMENTS AND ARE NOT NECESSARILY COMPLETE OR ACCURATE. ALL FIELD CONDITIONS SHALL BE VERIFIED BY CONTRACTOR BEFORE START OF CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE, EXPOSE, AND DETERMINE IF CONFLICTS EXIST WITH THE PROPOSED IMPROVEMENTS. CONTRACTOR SHALL NOTIFY THE OWNER IN ORDER TO RESOLVE ANY CONFLICTS. EXISTING ELECTRICAL CONDUIT, WIRING, ETC. DAMAGED DURING RENOVATION SHALL BE REPLACED IN LIKE KIND AND CHARACTER, AND AT THE EXISTING UTILITY LINES, DRAIN OR FIELD TILE DAMAGED SHALL BE REPAIRED OR REPLACED, AS NEEDED, IN LIKE KIND AND CHARACTER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING CONDUITS, CONTROL WIRING, ETC., WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.
- THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONFLICTS OR DISCREPANCIES IN THE CONTRACT DOCUMENTS OR FIELD CONDITIONS PRIOR TO EXECUTING THE WORK IN QUESTION. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF DETAILS ARE CONSIDERED UNSOUND, UNSAFE, NOT WATERPROOF, OR NOT WITHIN CUSTOMARY TRADE PRACTICE. IF WORK IS PERFORMED, IT WILL BE ASSUMED THAT THERE IS NO OBJECTION TO THE DETAIL. DETAILS ARE INTENDED TO SHOW THE END RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS, AND SHALL BE INCLUDED AS PART OF THE WORK.
- SITE VISIT - CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING HIS WORK. NO EXTRAS WILL BE PERMITTED FOR LACK OF KNOWLEDGE OF EXISTING CONDITIONS. QUANTITIES OF MATERIALS SHALL BE PER CONTRACTOR'S MEASUREMENTS.

**BASIC ELECTRICAL MATERIALS AND METHODS**

- WHERE STRUCTURAL OPENINGS ARE NOT AVAILABLE, THE CONTRACTOR SHALL CORE DRILL OR CUT CHASES IN WALLS AND FLOORS AS REQUIRED. ALL NEW OPENINGS SHALL BE COORDINATED WITH THE ENGINEER. ALL PENETRATIONS OF THE BUILDING WALLS, CEILING AND FLOORS, THE CONTRACTOR SHALL SEAL WITH QUALITY CAULK, FIRE RATED AND WATERTIGHT, SUBMITTED FOR APPROVAL BY THE OWNER.
- TRASH REMOVAL: CONTRACTOR SHALL REMOVE ALL TRASH CREATED BY HIMSELF OR HIS SUBCONTRACTORS DUE TO DEMOLITION OR CONSTRUCTION. THE CONTRACTOR SHALL ALSO REMOVE TRASH CREATED BY OTHER SUBCONTRACTORS INCLUDING CABLE REELS, CARDBOARD BOXES AND PACKING. PROMPTLY CLEAN-UP ALL SOILING, DEBRIS AND OTHER UNSIGHTLY OR HAZARDOUS CONDITIONS, CAUSED BY WORK OR DELIVERIES UNDER THIS CONTRACT, FROM THE BUILDING GROUNDS, ENTRIES, CORRIDORS, STAIRWAYS, ELEVATORS OR OTHER PUBLIC AREAS. ALL SHALL BE REMOVED FROM THE SITE IN A TIMELY FASHION TO A LEGAL DISPOSAL FACILITY.
- SIGNAGE: CONTRACTOR SHALL MAINTAIN SECURITY AROUND PERIMETER OF CONSTRUCTION SITE DURING ALL HOURS BY INSTALLING A TEMPORARY RIBBON FOR INTERIOR WORK TO IDENTIFY CONSTRUCTION AREAS AS REQUIRED. SIGNAGE SHALL BE POSTED WITH NOTIFICATIONS OF "NO TRESPASSING" AND "CONSTRUCTION AREA".
- CHECK ACCURACY OF ALL DIMENSIONS IN THE FIELD. UNLESS SPECIFICALLY NOTED, DO NOT FABRICATE ANY MATERIALS OFF SITE, NOR DO ANY CONSTRUCTION UNTIL THE ACCURACY OF DRAWING DIMENSIONS HAVE BEEN VERIFIED AGAINST ACTUAL FIELD DIMENSIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CUTTING, SUBSEQUENT PATCHING, AND REQUIRED FLASHING FOR ALL ITEMS NECESSARY FOR ELECTRICAL PART OF THE CONTRACT. PATCH, PAINT, AND REPAIR ANY AREA DAMAGED TO THE SATISFACTION OF THE BUILDING OWNER.
- THE EXACT LOCATIONS OF ALL ELECTRICAL DEVICES, EQUIPMENT AND CONDUIT, AS SHOWN ON THE DRAWING, IS APPROXIMATE. WHEN NOT SHOWN IN DETAIL, THE EXACT LOCATION OR ROUTING SHALL BE DETERMINED BY THE CONTRACTOR, SUBJECT TO THE APPROVAL OF OWNER.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR OTHER SUPPORT FOR THE MOUNTING AND SUPPORT OF ALL ITEMS REQUIRING THE SAME AS REQUIRED BY N.E.C.
- TRENCHING AND BACK FILL: CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND/OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION.
- WHEN DIRECTIONAL BORING IS REQUIRED, CONTRACTOR SHALL INSTALL A LOOSE TONING WIRE WITHIN INSTALLED CONDUIT TO ALLOW FOR IDENTIFICATION OF UNDERGROUND CONDUITS.
- ALL BOLTS SHALL BE STAINLESS STEEL.
- FOR UNDERGROUND RACEWAYS, PROVIDE ADDITIONAL SLACK IN CONDUCTORS AND CONDUIT EXPANSION JOINTS IN ORDER TO ALLOW FOR EARTH MOVEMENT FROM SETTLEMENT, FROST, ETC. IN ORDER TO PREVENT DAMAGE TO THE CONDUCTORS OR TO THE EQUIPMENT CONNECTED TO THE RACEWAYS PER THE NEC.

- CORE DRILLED HOLES SHALL BE 1" LARGER THAN THE DIAMETER OF THE CONDUIT BEING INSTALLED AND SHALL BE SPACED 6" APART MINIMUM. EDGE TO EDGE. CONTRACTOR SHALL VERIFY REINFORCEMENT LOCATION IN EXISTING CONCRETE PRIOR TO DRILLING AND MAINTAIN 6" CLEARANCE FROM EDGE OF HOLE TO EXISTING REINFORCEMENT. PROVIDE WATER & FIRE SEALANT AFTER CONDUITS HAVE BEEN INSTALLED. INFORM ENGINEER IMMEDIATELY OF ANY INTERFERENCES OR CABLES FOUND THAT WOULD PREVENT CONDUITS FROM BEING LAID OUT AS SPECIFIED.

**ELECTRICAL EQUIPMENT**

- ALL EQUIPMENT SHALL BE DESIGNED TO OPERATE ON VOLTAGE AND PHASE SPECIFIED. CONTRACTOR FURNISHING EQUIPMENT OTHER THAN INDICATED SHALL BE RESPONSIBLE FOR ANY CHANGES IN CONDUCTORS, RACEWAYS, SWITCHES, MAIN FEEDERS, AND APPURTENANCES AND PAY ALL ASSOCIATED COSTS. REQUIREMENTS FOR ANY INCREASE IN CAPACITIES SHALL BE REVIEWED BY ENGINEER.

**FIRESTOPPING AND SEALING ELECTRICAL PENETRATIONS**

- CONTRACTOR SHALL FURNISH AND INSTALL FIRESTOPPING FOR SEALING AROUND ELECTRICAL PENETRATIONS THROUGH FIRE OR SMOKE BARRIERS, AND FLOORS.
- PROVIDE SHOP DRAWINGS OF EACH CONDITION REQUIRING PENETRATION SEALS AND THE PROPOSED UL SYSTEMS MATERIALS, ANCHORAGE, METHODS OF INSTALLATION, AND ACTUAL ADJACENT CONSTRUCTION. SUBMITTAL PACKAGE SHALL ALSO INCLUDE A COPY OF THE UL ILLUSTRATION OF EACH PROPOSED SYSTEM INDICATING MANUFACTURER APPROVED MODIFICATIONS (IF APPLICABLE) AND THE MANUFACTURER'S SPECIFICATIONS, RECOMMENDATIONS, INSTALLATION INSTRUCTIONS, AND MAINTENANCE INSTRUCTIONS.
- FIRESTOPPING MATERIALS SHALL BE INTUMESCENT SAFETY BARRIERS DESIGNED TO BLOCK THE SPREAD OF FIRE AND SMOKE THROUGH PENETRATIONS CREATED BY ELECTRICAL INSTALLATIONS IN FIRE RATED WALLS AND FLOORS. MATERIALS SHALL BE FLAME, TOXIC FUME, AND WATER RESISTANT AND SHALL HAVE A MINIMUM 3 HOUR FIRE RATING. FIRE RATING SHALL BE DEFINED BY TESTS CONDUCTED BY ASTM, UL OR OTHER TESTING AND INSPECTION AGENCIES ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
- PROVIDE MATERIALS BY THE FOLLOWING MANUFACTURERS TO SUIT THE APPLICATION: SPECIFIED TECHNOLOGIES, INC (STI), SOMERVILLE, NJ; TREMCO, INC., BEACHWOOD, OH; OR 3M INC., MINNEAPOLIS, MN

**FAULT CURRENT, COORDINATION STUDY, AND ARC FLASH**

- CONTRACTOR SHALL CONDUCT A FAULT CURRENT CALCULATION ON ALL EQUIPMENT AND MARK AS REQUIRED PER THE N.E.C.
- CONTRACTOR SHALL PROVIDE AN ARC-FLASH STUDY AND LABEL ALL EQUIPMENT AS REQUIRED PER THE N.E.C.

**GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS**

- ALL RACEWAYS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE N.E.C. AND ANY LOCAL CODES.
- ALL CONDUITS SHALL CONTAIN A CODE SIZE GROUNDING CONDUCTOR.
- EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED WITH GREEN-COLORED INSULATION.
- GROUNDING ELECTRODE CONDUCTORS SHALL BE STRANDED CABLE.
- MATERIALS AND CONNECTION COMPONENTS FOR GROUNDING AND BONDING SHALL BE MANUFACTURED BY ERICO, THOMAS & BETTS, OR BURNDY.

**ELECTRICAL IDENTIFICATION**

- PROVIDE NAMEPLATES FOR ALL MAJOR ELECTRICAL EQUIPMENT AND ON EQUIPMENT AS DIRECTED BY OWNER.
- PROVIDE ALL FEEDERS AND BRANCH CIRCUIT WIRING WITH COLOR CODED VINYL TAPE WRAPPED A MINIMUM OF 1.5 TIMES AROUND CIRCUMFERENCE OF JACKET/SHIELDING TO DESIGNATE PHASE.
- COLOR CODING OF CONDUCTORS SHALL BE PER NEC REQUIREMENTS.
- CONTRACTOR SHALL PLACE TWO LENGTHS OF WARNING TAPE AT A DEPTH OF 12" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL SERVICE CONDUITS. CAUTIONS TAPE TO READ "CAUTION BURIED ELECTRIC"

**CONDUCTORS AND CABLES**

- WIRING - ALL CONDUCTORS SHALL BE EQUAL TO OR BETTER THAN MINIMUM #12 AWG FOR POWER, #14 AWG FOR CONTROL WITH 98% CONDUCTIVITY STRANDED COPPER, 600V, COLOR CODED, UNLESS NOTED ALUMINUM (AL). REFER TO "ALUMINUM CONDUCTOR REQUIREMENTS" THIS SHEET. PROVIDE 75°C RATED CONDUCTORS FOR AMPACITIES ABOVE 100A AND 60°C RATED CONDUCTORS FOR AMPACITIES OF 100 AMPS OR LESS. PROVIDE SOLID OR STRANDED FOR #10 AWG AND SMALLER, STRANDED FOR #8 AWG AND LARGER. UNLESS NOTED OTHERWISE ON DRAWINGS.
- WIRE SIZE OF BRANCH CIRCUITS SHALL BE ADJUSTED TO COMPENSATE FOR VOLTAGE DROP BASED UPON ACTUAL CONDUIT ROUTING. CONTRACTOR SHALL MAINTAIN VOLTAGE DROP AS RECOMMENDED BY N.E.C. (NOT TO EXCEED 3%).
- PROVIDE A SEPARATE NEUTRAL FOR EACH BRANCH CIRCUIT, FEEDER, ETC. NEUTRALS ARE NOT PERMITTED TO BE SHARED.
- CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.
- ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NO-OXIDE A" BY DEARBORNE CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED - NO SUBSTITUTIONS.
- CABLE - MC CABLE NOT PERMITTED.
- PROVIDE WIRE AND CABLE MANUFACTURED BY ONE OF THE FOLLOWING: AMERICAN INSULATED WIRE CORPORATION; NEXANS; CERROWIRE; SOUTHWIRE; OR ENCORE WIRE.
- PROVIDE CONNECTORS MANUFACTURED BY ONE OF THE FOLLOWING: AMP INCORPORATED; GENERAL SIGNAL, O-Z/GEDNEY UNIT; SQUARE D COMPANY, ANDERSON; ILSCO; OR BURNDY.

**RACEWAY AND BOXES**

- RACEWAYS: UNLESS NOTED OTHERWISE, ALL EXPOSED CONDUIT SHALL BE R.G.S., SCHEDULE 80 AND COVERED 6" BELOW FINISHED GRADE TO BE PVC, SCHEDULE 40. PROVIDE WEATHERPROOF FLEX CONNECTIONS WHERE REQUIRED. CONTRACTOR SHALL PROVIDE JUNCTION AND/OR PULL BOXES WHERE SHOWN ON THE DRAWINGS, OR AS REQUIRED, WHETHER SHOWN ON THE DRAWINGS OR NOT, AND SIZED PER N.E.C. PROVIDE NON-METALLIC ENCLOSURE WITH OPEN BOTTOM AND GASKETED COVER MANUFACTURED BY QUAZITE OR EQUIVALENT WITH DRIVE-OVER COVER ABLE TO WITHSTAND OCCASIONAL NON-DELIBERATE LIGHT VEHICULAR TRAFFIC. LABEL COVER TO SUIT INSTALLATION (I.E. "POWER" "COMMUNICATIONS", "LIGHTING", ETC.) AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
  - ABOVE GRADE / PARKING GARAGES: R.G.S.
  - BELOW GRADE: SCHEDULE 40 PVC. SCHEDULE 80 PVC BELOW DRIVES AND PARKING LOTS.
- ALL WIRING SHALL BE INSTALLED IN CONDUIT. ALL CONDUIT SHALL BE A MINIMUM OF 3/4".
- CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LBS TEST POLYETHYLENE CORD. CONTRACTOR SHALL PROVIDE MANUFACTURED LONG RADIUS BENDS FOR ALL CONDUITS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH "BRITE ZINC" OR "GOLD GALV".
- OUTLET BOXES SHALL BE CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
- PROVIDE METAL CONDUIT AND TUBING MANUFACTURED BY ONE OF THE FOLLOWING: ALFLEX CORPORATION; ANAMET INCORPORATED, ANACONDA METAL HOSE; ANIXTER BROTHERS INCORPORATED; CAROL CABLE COMPANY INCORPORATED; ELECTRI-FLEX COMPANY; GRINNELL COMPANY, ALLIED TUBE AND CONDUIT DIVISION; MONOGRAM COMPANY, AFC; REPUBLIC CONDUIT; OR WHEATLAND TUBE COMPANY.
- PROVIDE NONMETALLIC CONDUIT AND TUBING MANUFACTURED BY ONE OF THE FOLLOWING: ANAMET INCORPORATED, ANACONDA METAL HOSE; CANTEX INDUSTRIES, HARSCO CORPORATION; CONDUX INTERNATIONAL, ELECTRICAL PRODUCTS; HUBBELL INCORPORATED, RACO, INCORPORATED; THOMAS & BETTS CORPORATION, CARLON ELECTRICAL PRODUCTS; OR O-Z/GEDNEY, UNIT OF GENERAL SIGNAL.
- PROVIDE CONDUIT BODIES AND FITTINGS MANUFACTURED BY ONE OF THE FOLLOWING: CROUSE-HINDS, DIVISION OF COOPER INDUSTRIES; EMERSON ELECTRIC COMPANY, APPLETON ELECTRIC COMPANY; HUBBELL INCORPORATED, KILLARK ELECTRIC MANUFACTURING COMPANY; THOMAS & BETTS CORPORATION, CARLON ELECTRICAL PRODUCTS; OR O-Z/GEDNEY, UNIT OF GENERAL SIGNAL.
- PROVIDE METAL WIREWAYS MANUFACTURED BY ONE OF THE FOLLOWING: HOFFMAN ENGINEERING COMPANY; KEYSTONE/REES, INCORPORATED, OR SQUARE D COMPANY.
- PROVIDE BOXES, ENCLOSURES, AND CABINETS MANUFACTURED BY ONE OF THE FOLLOWING: CROUSE-HINDS, DIVISION OF COOPER INDUSTRIES; HOFFMAN ENGINEERING COMPANY, FEDERAL-HOFFMAN INCORPORATED; HUBBELL INCORPORATED, RACO INCORPORATED; THOMAS & BETTS, CARLON ELECTRICAL PRODUCTS; O-Z/GEDNEY, UNIT OF GENERAL SIGNAL; ROBROY INDUSTRIES INCORPORATED, ELECTRICAL DIVISION; OR SCOTT FETZER COMPANY, ADALET-PLM.

**SAFETY SWITCHES**

- ALL DISCONNECT SWITCHES SHALL BE HEAVY-DUTY CONSTRUCTION WITH LOCKABLE HANDLES SIZED AS NOTED ON THE DRAWINGS AND/OR RISER DIAGRAM. PROVIDE NEMA ENCLOSURE AS REQUIRED BY EXPOSURE TYPE. ALL FUSIBLE SWITCHES SHALL BE PROVIDED WITH DUAL ELEMENT FUSES SIZED PER THE EQUIPMENT MANUFACTURER'S RECOMMENDATION.

**FUSES**

- FUSES SHALL BE DUAL ELEMENT, TIME DELAY CURRENT LIMITING. CONTRACTOR SHALL COORDINATE FUSE SIZES WITH EQUIPMENT MANUFACTURER'S REQUIREMENTS AND PER THE N.E.C.
- PROVIDE FUSES MANUFACTURED FROM ONE OF THE FOLLOWING: COOPER BUSSMAN, INCORPORATED; EAGLE ELECTRIC MANUFACTURING COMPANY INCORPORATED, COOPER INDUSTRIES INCORPORATED; FERRAZ SHAWMUT INCORPORATED.

SSC, INC.			DESIGNED:	SUB SHEET NO.		TITLE OF SHEET		DRAWING NO.	
STATE OF <u>COLORADO</u>			DWO	<b>E1</b>		<b>ELECTRICAL GENERAL NOTES</b>		CD90 v0	
STATE CERTIFICATE OF AUTHORIZATION # 20041302439			CADD					PKG. NO.	SHEET
ENGINEER:	PE#:	DISCIPLINE:	DWO						
KMV KEVIN M. VANMAELE	53946	CIVIL	TECH. REVIEW:	DATE:	OF				
REJ ROBERT E. JENSEN	54720	CIVIL	RES			9			
SDK SHELTON D. KEISLING	49643	ELECTRICAL							
TMS TERRANCE M. SUPER	36490	ELECTRICAL							
			08.23.23			ROOSTER ROCK STATE PARK			

GENERAL SHEET NOTES

- ALL CONDUIT & WIRING SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE.
- ALL CONDUITS ACCESSIBLE TO THE GENERAL PUBLIC OR WHICH CONDUITS CAN BE DAMAGED SHALL BE RIGID GALVANIZED STEEL.
- CONTRACTOR SHALL FIELD VERIFY EXACT PLACEMENT OF PROPOSED EQUIPMENT AND MAINTAIN REQUIRED CLEARANCES PER NEC.
- LEVEL 2 CHARGERS CAN OPERATE ON 240V OR 208V SINGLE PHASE.
- LEVEL 2 CHARGERS USED ON THIS PROJECT COMPLY WITH THE FOLLOWING STANDARDS:
  - UL AND cUL LISTED TO UL2594, UL2231, UL1998

FEEDER/CIRCUIT SCHEDULE

NO	FROM	TO	NOMINAL VOLTAGE (V <sub>AC</sub> - PHASE)	NOMINAL CURRENT (AMPS)	OCPD (AMPS)	CONDUCTOR SPECIFICATION (THWN-2, 90°C, CU) SEE PLAN FOR CONDUIT SIZE
1A	EXISTING 50KVA TRANSFORMER	PROPOSED METER SOCKET	120/240V - 1ϕ	SEE PANEL SCHEDULE	N/A	EXISTING
1B	PROPOSED METER SOCKET	PROPOSED PANELBOARD "EV-1"	120/240V - 1ϕ	SEE PANEL SCHEDULE	N/A	(3) #3/0 AWG CU
2	PROPOSED PANELBOARD "MP-1"	PROPOSED RIVIAN LEVEL 2 CHARGER	240V - 1ϕ	32	40	(4) #6 AWG CU (1) #10 AWG CU GND

CONDUCTOR SIZING CHART

(2) STATIONS MAX IN A SINGLE CONDUIT

<180'	180'-210'	210'-260'	260'-340'	340'-430'	430'-540'	540'-645'	645'-840'	840'-1040'
(2) #6 AWG Cu (1) #10 AWG Cu GND	(2) #4 AWG Cu (1) #10 AWG Cu GND	(2) #3 AWG Cu (1) #8 AWG Cu GND	(2) #2 AWG Cu (1) #8 AWG Cu GND	(2) #1 AWG Cu (1) #6 AWG Cu GND	(2) #1/0 AWG Cu (1) #4 AWG Cu GND	(2) #2/0 AWG Cu (1) #4 AWG Cu GND	(2) #3/0 AWG Cu (1) #4 AWG Cu GND	(2) #4/0 AWG Cu (1) #2 AWG Cu GND

CONDUCTOR SIZING CHART GENERAL NOTES

- CONDUCTORS FOR UP TO (2) STATIONS CAN BE IN THE SAME CONDUIT. SEE PLAN FOR CONDUIT SIZE.
- ALL SPECIFIED CONDUCTOR SIZES ACCOUNT FOR VOLTAGE DROP AND HAVE BEEN DERATED FOR (4) CURRENT CARRYING CONDUCTORS IN A SINGLE CONDUIT.
- CONTRACTOR SHALL INSTALL THE FOLLOWING WHERE APPLICABLE (UNLESS OTHERWISE NOTED):
  - PVC SCH 40 BELOW GRADE. PVC SCH 80 BELOW DRIVES AND PARKING LOTS.
  - RGS 8'-0" OR LESS ABOVE GRADE AND IN PARKING GARAGES
  - EMT 8'-0" MINIMUM ABOVE GRADE AND WHERE NOT SUBJECT TO DAMAGE. CONTRACTOR SHALL VERIFY WITH ELECTRICAL INSPECTOR IF EMT IS APPROVED AT THIS PROJECT PRIOR TO ROUGH-IN.

PANELBOARD NOTES:

- CIRCUITS SHALL BE REARRANGED AS REQUIRED TO MAINTAIN THE MOST BALANCED LOADS ON EACH PHASE WITHIN EACH PANELBOARD. PROVIDE TYPED PANELBOARD DIRECTORY MOUNTED PER MANUFACTURERS RECOMMENDATIONS WITH SERVICE EQUIPMENT.
- CONTRACTOR IS RESPONSIBLE FOR LOADING ON ALL PANELBOARDS AND FEEDERS PER THE N.E.C. CONTRACTOR SHALL KEEP CIRCUIT CONTINUITY TO DEVICES TO REMAIN. E.C. SHALL VERIFY THAT ALL LOADS PLACED ON EXISTING PANELBOARDS AND FEEDERS DO NOT EXCEED THE MAXIMUM LOADING REQUIREMENT PER THE LATEST EDITION OF THE NEC. NOTIFY A/E IF OVERLOAD IS POSSIBLE.
- CONTRACTOR SHALL REMOVE EXISTING SPARE BREAKERS AS REQUIRED TO INSTALL PROPOSED BREAKERS.
- PROVIDE EQUIPMENT WITH SUFFICIENT INTERRUPTING CAPACITY (AIC) REQUIRED FOR A SAFE INSTALLATION. AIC RATING NOTED ON EACH PANELBOARD SCHEDULE IS MINIMUM RATING ACCEPTED WITHOUT ADDITIONAL DOCUMENTATION THAT INDICATES DIFFERENTLY.

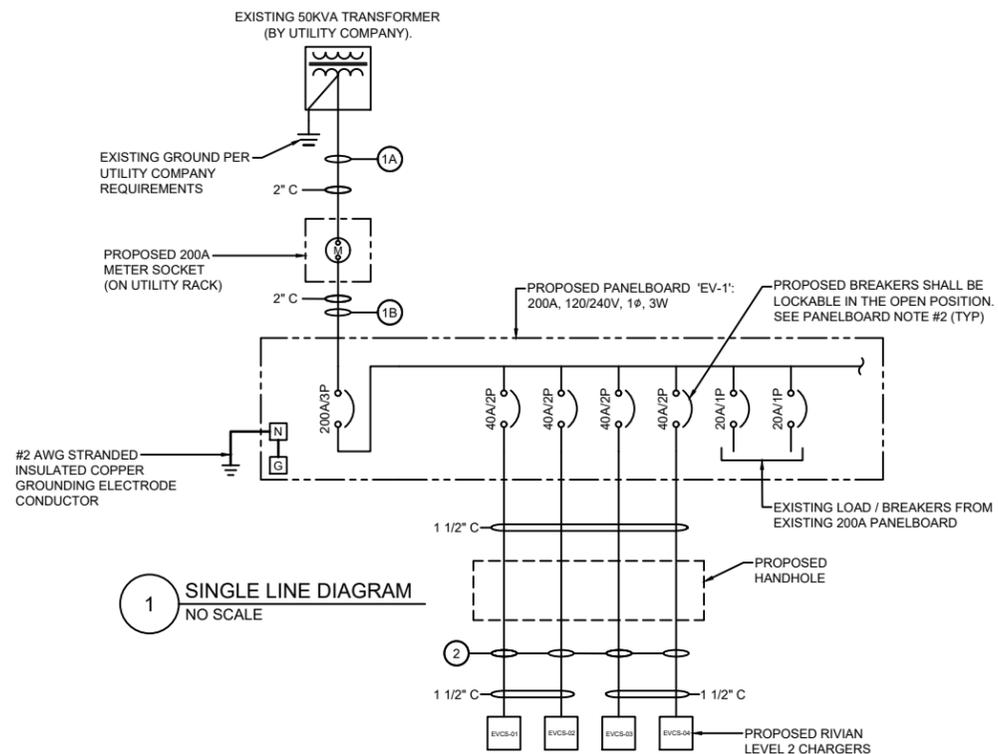
PANEL NAME:		PANELBOARD "EV"		MAINS TYPE:		MCB		DISTRIBUTION TYPE:		120/240V, 1-PH, 3-WIRE	
STATUS:		EXISTING		MAINS RATING (A):		200		RATED FAULT CURRENT:		22 KAC (VERIFY W/ UTILITY PRIOR TO ORDERING)	
LOCATION:		OUTSIDE		BUS RATING (A):		200		RATING TYPE:		FULLY RATED	
SUPPLY FROM:		TRANSFORMER		ENCLOSURE:		NEMA 3R		SERVICE ENTRANCE RATED:		YES	
				MOUNTING:		H-FRAME		ISOLATED GND BAR:		NO	

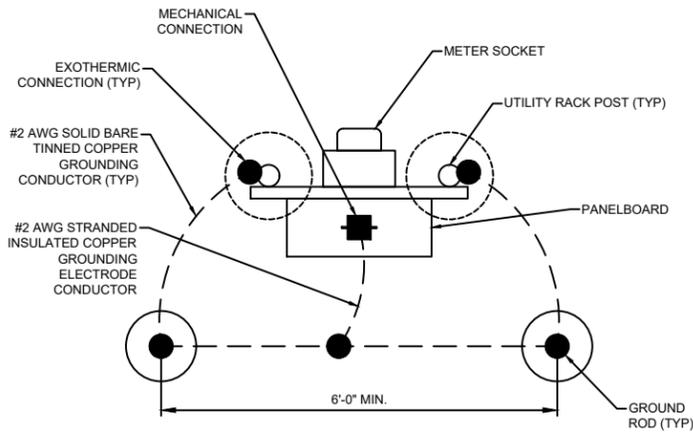
CKT #	LOAD					DESCRIPTION	NOTE	AMP	POLE	TOTAL PER PHASE IN KVA	A	B	AMP	POLE	NOTE	DESCRIPTION	L	R	HV	M	C	CKT #	
	L	R	HV	M	C																		
1					3.84	PROPOSED RIVIAN LEVEL 2 CHARGER EVCS-01		40	2	7.68		7.68	40	2		PROPOSED RIVIAN LEVEL 2 CHARGER EVCS-02						3.84	4
3					3.84	PROPOSED RIVIAN LEVEL 2 CHARGER EVCS-03		40	2	7.68		7.68	40	2		PROPOSED RIVIAN LEVEL 2 CHARGER EVCS-04						3.84	6
5					3.84	EXISTING		20	1	4.80			30	1		EXISTING						2.88	10
TOTAL KVA=										20.16	15.36	35.52 TOTAL CONN KVA											
TOTAL AMPS=										168.0	128.0	148.00 TOTAL CONN AMPS											

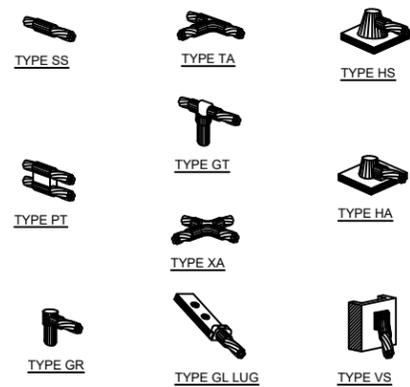
DEMAND FACTOR	A	B	TOTAL	NOTES
LIGHTING	1.25	0.00	0.00	0.00
FIRST 10KVARECEPTACLES (3.33 KVAPER PHASE)	1.00	0.00	0.00	0.00
REMAINING RECEPTACLES	0.50	0.00	0.00	0.00
HVAC EQUIP	1.00	0.00	0.00	0.00
25% OF LARGEST MOTOR	0.25	0.00	0.00	0.00
MISCELLANEOUS	1.00	0.00	0.00	0.00
CONTINUOUS	1.25	19.20	19.20	38.40
TOTALS (KVA)	19.20	19.20	38.40	
TOTALS (A)	160.00	160.00	160.00	



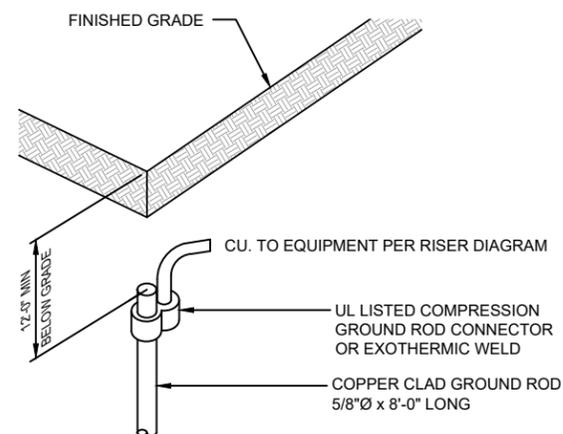
SSC, INC.		DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
STATE OF COLORADO		DWO	E2	SYSTEM ONE-LINE DIAGRAM & PANEL SCHEDULE	CD90 v0
STATE CERTIFICATE OF AUTHORIZATION # 20041302439		CADD			
ENGINEER:	PE#:	DISCIPLINE:			PKG. NO.
KMV KEVIN M. VANMAELE 53946		CIVIL			8
REJ ROBERT E. JENSEN 54720		CIVIL			OF 9
SDK SHELTON D. KEISLING 49643		ELECTRICAL			
TMS TERRANCE M. SUPER 36490		ELECTRICAL			
		RES			
		DATE:			
		08.23.23			
				ROOSTER ROCK STATE PARK	



1 PANELBOARD GROUNDING PLAN  
NO SCALE

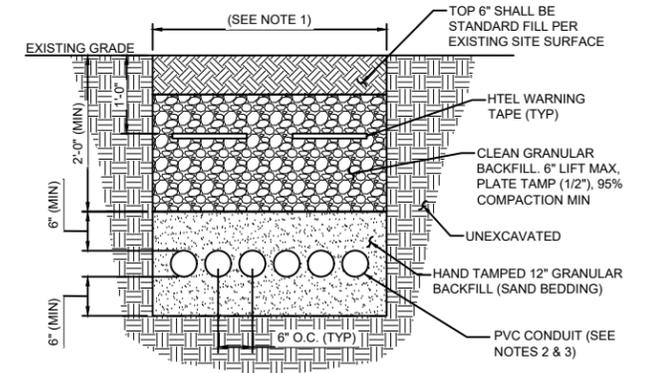


2 EXOTHERMIC CONNECTION DETAILS  
NO SCALE



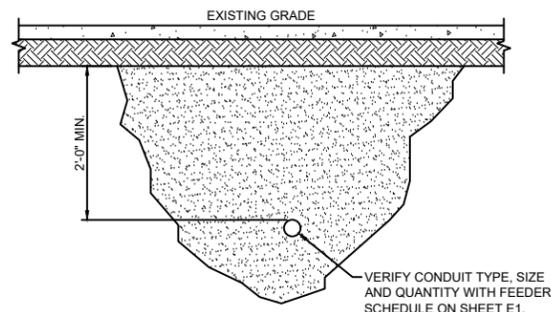
3 GROUND ROD DETAIL  
NO SCALE

NOTES:  
1. WIDTH OF TRENCH AS REQUIRED BY UTILITY COMPANY OR PER QUANTITY OF CONDUITS AND LOCAL CODE REQUIREMENTS.  
2. VERIFY DISTANCE PER LOCAL CODE, UTILITY COMPANY, AND CLIENT REQUIREMENTS.  
3. VERIFY NUMBER, SIZE, AND QUANTITY OF CONDUITS.



4 CONDUIT TRENCH DETAIL  
NO SCALE

NOTES:  
1. CONTRACTOR SHALL INSTALL CONDUITS BELOW LOCAL FROST LINE. SHOULD FIELD CONDITIONS VARY, CONTRACTOR SHALL COORDINATE WITH CONTACT ENGINEER LISTED ON SHEET C0.  
2. CONDUITS UNDER DRIVES AND PARKING LOTS SHALL BE PVC SCHEDULE 80.  
3. CONTRACTOR IS RESPONSIBLE TO CALL AN UNDERGROUND LOCATING COMPANY TO MARK ALL EXISTING UNDERGROUND UTILITIES.  
4. CONTRACTOR SHALL COORDINATE WITH ALL EXISTING UTILITIES AND VERIFY AND KEEP REQUIRED DISTANCES FROM EXISTING UTILITIES.  
5. CONTRACTOR IS RESPONSIBLE FOR ANY/ALL DAMAGES TO EXISTING UTILITIES AND MAKE ALL REPAIRS IF REQUIRED AND PAY ALL DAMAGE FEES.



5 DIRECTIONAL BORE SECTION DETAIL  
NO SCALE

CURRENT	CIRCUIT BREAKER SPECIFICATION	TYPICAL WIRE SPECIFICATION*	DIP SWITCH			FIGURE
			SWITCH 1	SWITCH 2	SWITCH 3	
6A	7.5A	14-12 AWG Cu	OFF	OFF	OFF	
12A	15A	14-12 AWG Cu	OFF	OFF	ON	
16A	20A	12-10 AWG Cu	OFF	ON	OFF	
20A	25A	10 AWG Cu	OFF	ON	ON	
24A	30A	10 AWG Cu	ON	OFF	OFF	
32A	40A	8 AWG Cu	ON	OFF	ON	
40A	50A	8 AWG Cu	ON	ON	OFF	
48A (DEFAULT)	60A	6 AWG Cu	ON	ON	ON	

\* THESE TYPICAL WIRE SIZES ARE BASED ON THE 90°C COLUMN IN THE NATIONAL ELECTRICAL CODE.

6 OPERATING CURRENT - DIP SWITCH SETTINGS DETAIL  
NO SCALE

STATE OF COLORADO STATE CERTIFICATE OF AUTHORIZATION # 20041302439 ENGINEER: KMV KEVIN M. VANMAELE PE# 53946 DISCIPLINE: CIVIL REJ ROBERT E. JENSEN 54720 DISCIPLINE: CIVIL SDK SHELTON D. KEISLING 49643 DISCIPLINE: ELECTRICAL TMS TERRANCE M. SUPER 36490 DISCIPLINE: ELECTRICAL		DESIGNED: DWO CADD: DWO TECH. REVIEW: RES DATE: 08.23.23	SUB SHEET NO. <b>E3</b>	TITLE OF SHEET <b>ELECTRICAL &amp; GROUNDING DETAILS</b> ROOSTER ROCK STATE PARK	DRAWING NO. <b>CD90 v0</b> PKG. NO. 0 SHEET 9 OF 9
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