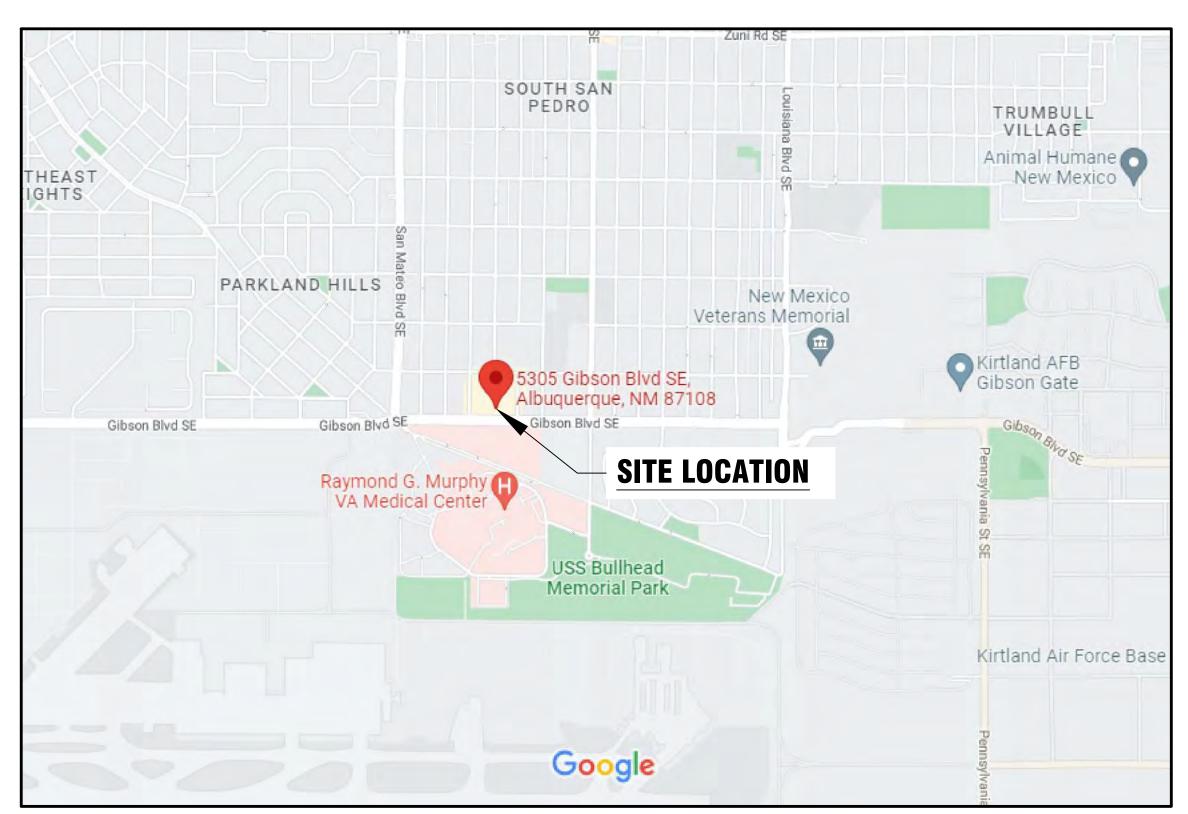
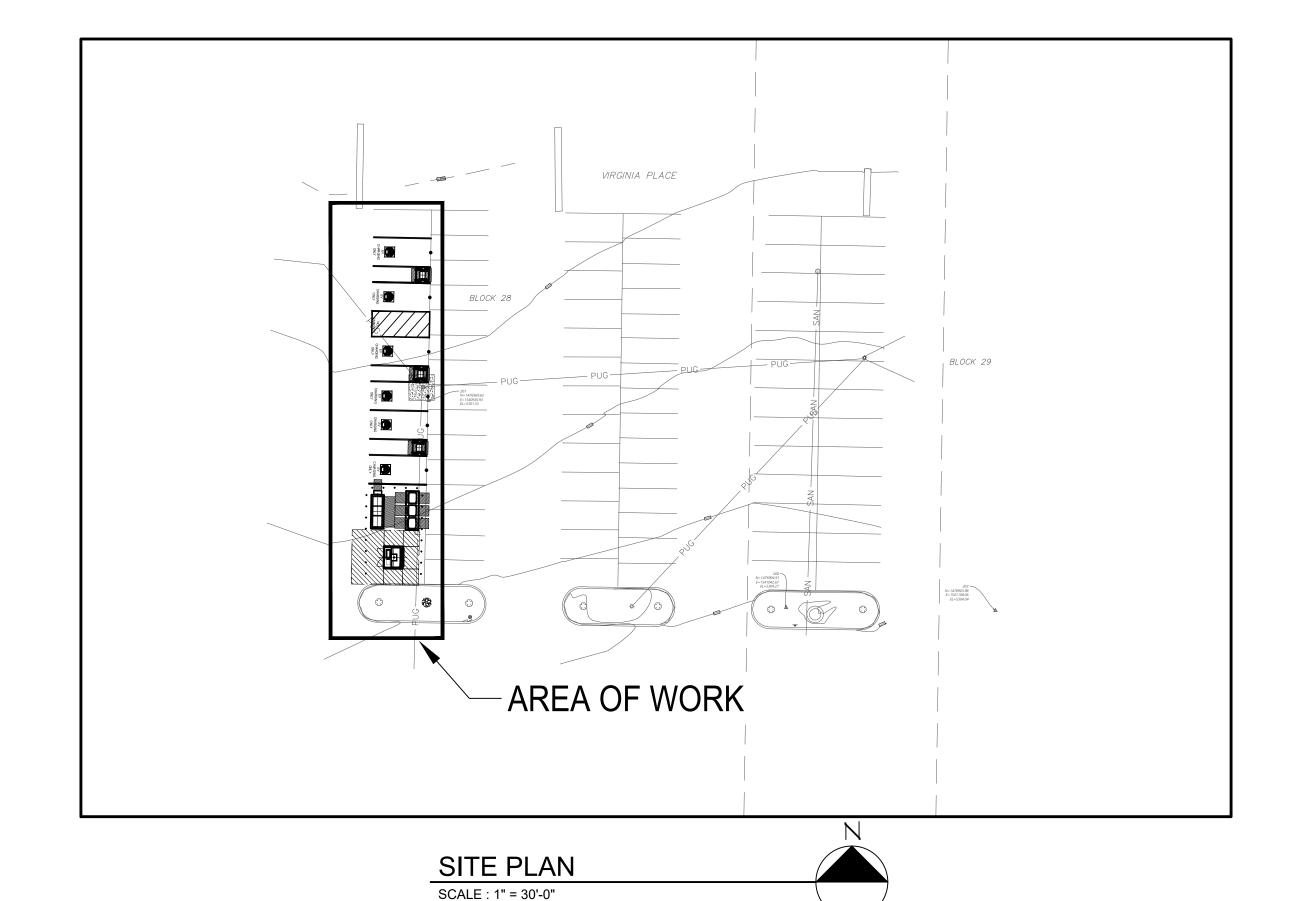
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# SIESTA HILLS 5305 S. GIBSON BOULEVARD - EV ALBUQUERQUE, NM 87108







CS-1	COVER SHEET
G-000	EXISTING SITE PLAN
G-001	OVERLAY SITE PLAN
G-100.0	PROPOSED SITE PLAN
G-101.0	GENERAL ARRANGEMENT
G-103.0	EQUIPMENT DETAILS
G-104.0	PARKING STALL DETAILS
E-1.0	ELECTRICAL NOTES SYMBOLS AND ABBREVIATIONS
E-2.0	ONE-LINE DIAGRAM
E-3.0	ELECTRICAL SITE PLAN
E-6.0	WARNING SIGNS
E-7.0	ELECTRICAL DETAILS
E-8.0	GROUNDING DETAILS
E-8.1	TRENCH DETAILS

EQUIPMENT SPECIFICATIONS

STRUCTURAL DETAILS
STRUCTURAL DETAILS

**BLYMYER DRAWING LIST** 

SHEET NUMBER SHEET TITLE

# SCOPE OF WORK

- INSTALL (3) DELTA 350KW HP CHARGER AND CABINET
- INSTALL ÈVGO PROVIDED SIGNAGE
   INSTALL ÉVGO PROVIDED SIGNAGE
- INSTALL (1) UTILITY TRANSFORMER (AS REQUIRED BY UTILITY)
   INSTALL SWITCHGEAR ASSEMBLY AND ALL UNDERGROUND CONDUIT AND
- PERFORM ALL CIVIL WORK REQUIRED FOR CHARGER INSTALLATION AND
- ASSOCIATED ACCESSIBILITY PROVISIONS

  RESTRIPE PARKING STALLS

# **ENGINEERS OF RECORD**

BENJAMIN LIU — BLYMYER ENGINEERS — NM LICENSE NO. 23164 STANISLAV GORBIS — BLYMYER ENGINEERS — NM LICENSE NO. 24999

# **KEY PROJECT CONTACT INFORMATION**

PROJECT MANAGERS:

EVGO - MANDEEP GURAGAIN - (408) 666-8573 BLYMYER ENGINEERS - STAS GORBIS - (510) 521-3773

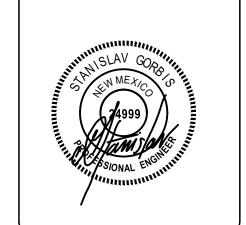
# **APPLICABLE CODES**

2015 NMRC NEW MEXICO RESIDENTIAL CODE
2015 NMBC NEW MEXICO BUILDING CODE
2015 NMFC NEW MEXICO FIRE CODE
2015 NMMC NEW MECIXO MECHANICAL CODE
2015 NMPC NEW MEXICO PLUMBING CODE
2017 NMEC NEW MEXICO ELECTRICAL CODE

IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL







ESTA HILLS SON BOULEVARD - EV ERQUE, NM 87108

DATE INIT.

10/17/22

01/13/23

01/13/23

5305 S GIBSON BC
ALBUQUERQU

 NO.
 REVISION
 DATE
 INIT.

 0
 ISSUE FOR PERMIT
 10/17/22
 10/13/23

 1
 CITY COMMENTS
 01/13/23
 10/13/23

ORIGINAL SIZE 24"X36" SHEET SIZE ARCH "D"

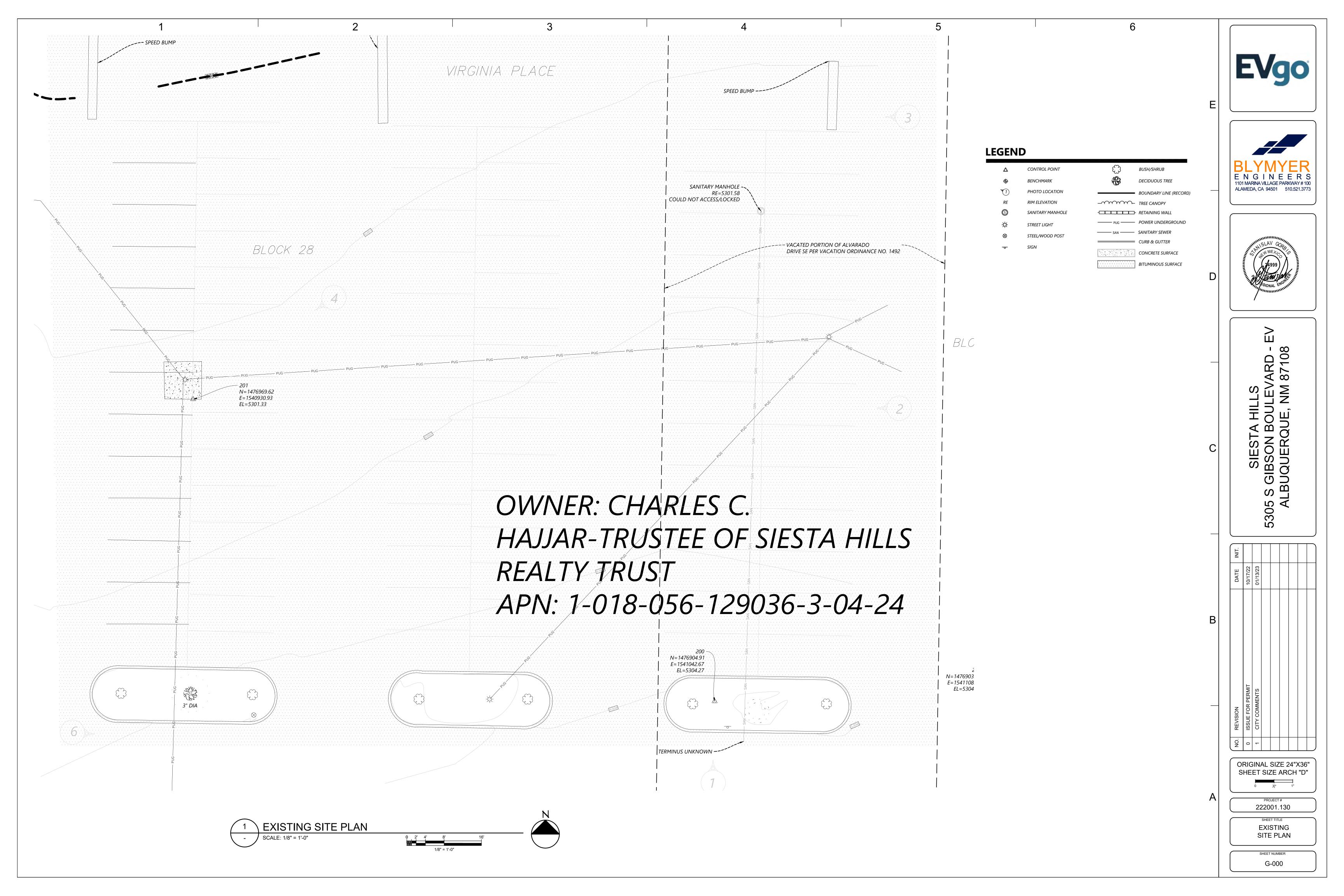
PROJECT # 222001.130

SHEET TITLE

COVER SHEET

SHEET NUMBER

CS-1

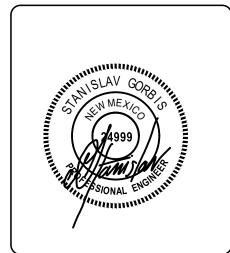


PARKING ANALYSIS

TOTAL BUILDING AREA (S.F.) 97,895 TOTAL NUMBER OF REQUIRED PARKING SPACES (ONE SPACE PER 200 SQUARE FEET FOR THE FIRST 15,000 SQUARE FEET OF NET LEASABLE AREA; THEN, 382 ONE SPACE PER 250 SQUARE FEET FOR THE NEXT 45,000 SQUARE FEET OF NET LEASABLE AREA; THEN, ONE SPACE PER 300 SQUARE FEET FOR THE NET LEASABLE AREA THAT EXCEEDS 60,000 SQUARE FEET) TOTAL NUMBER OF PROPOSED 435 STANDARD PARKING SPACES TOTAL NUMBER OF REQUIRED BICYCLE PARKING SPACES (ONE BICYCLE SPACE PER EACH 20 PARKING SPACES REQUIRED FOR AUTOMOBILES AND LIGHT TRUCKS)

**EVgo** 





/ARD -87108 SIESTA HILLS 5305 S GIBSON BOULEVA ALBUQUERQUE, NM 8

ORIGINAL SIZE 24"X36" SHEET SIZE ARCH "D"

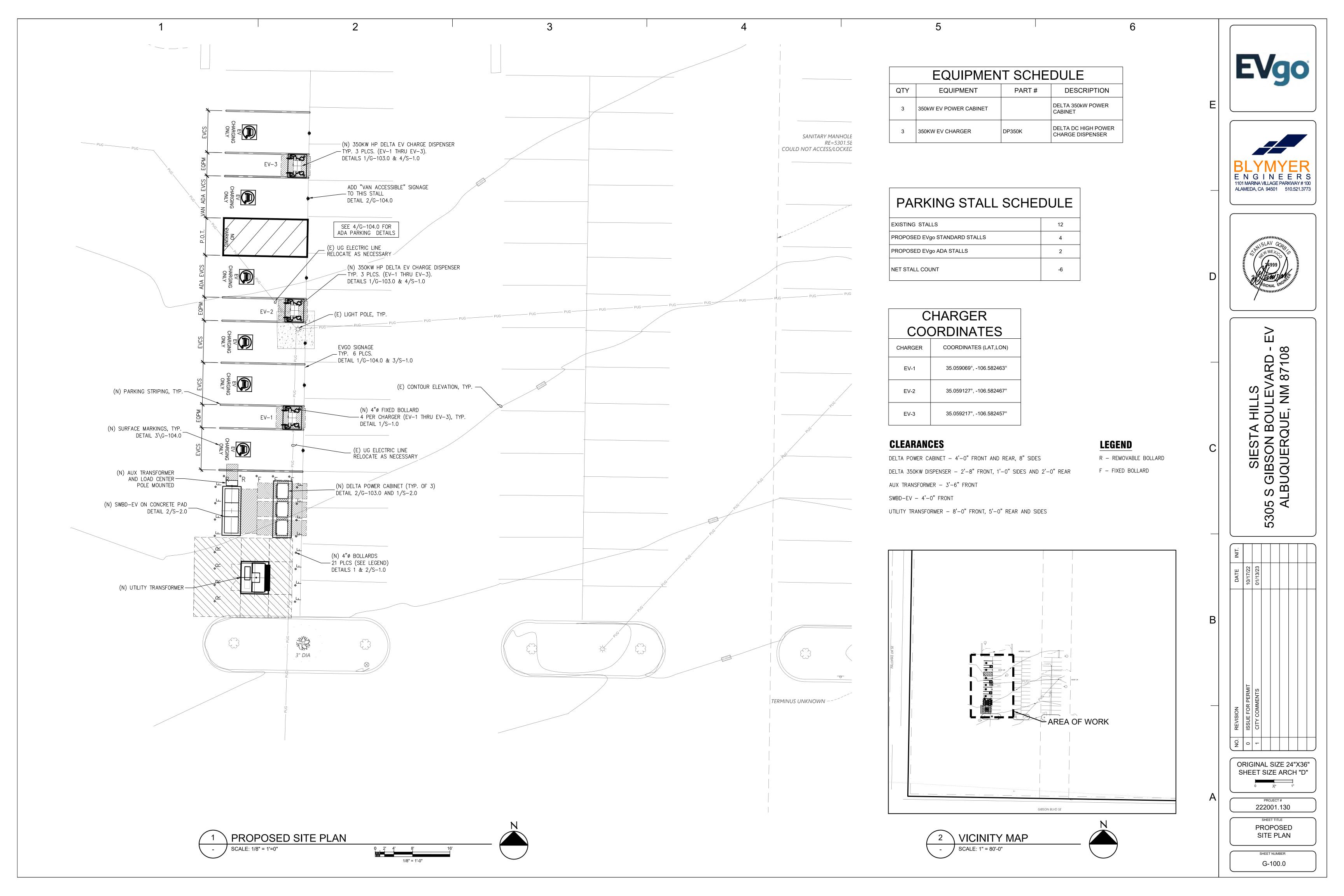
222001.130

**OVERLAY SITE** 

G-001

OVERLAY SITE PLAN SCALE: 1" = 30'-0"

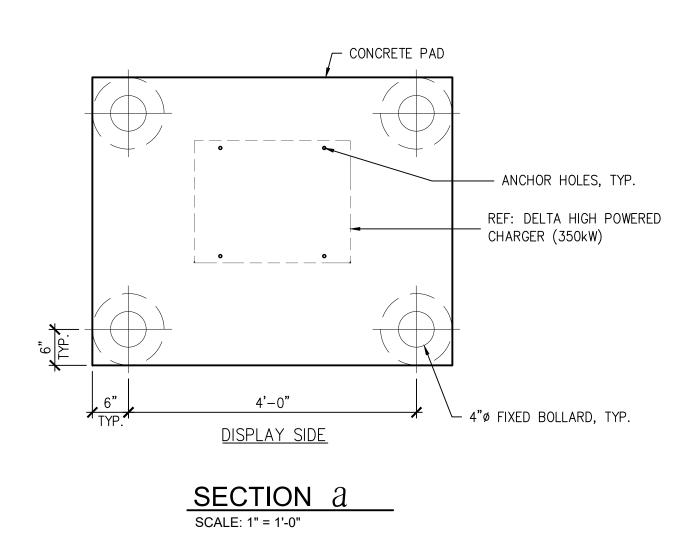






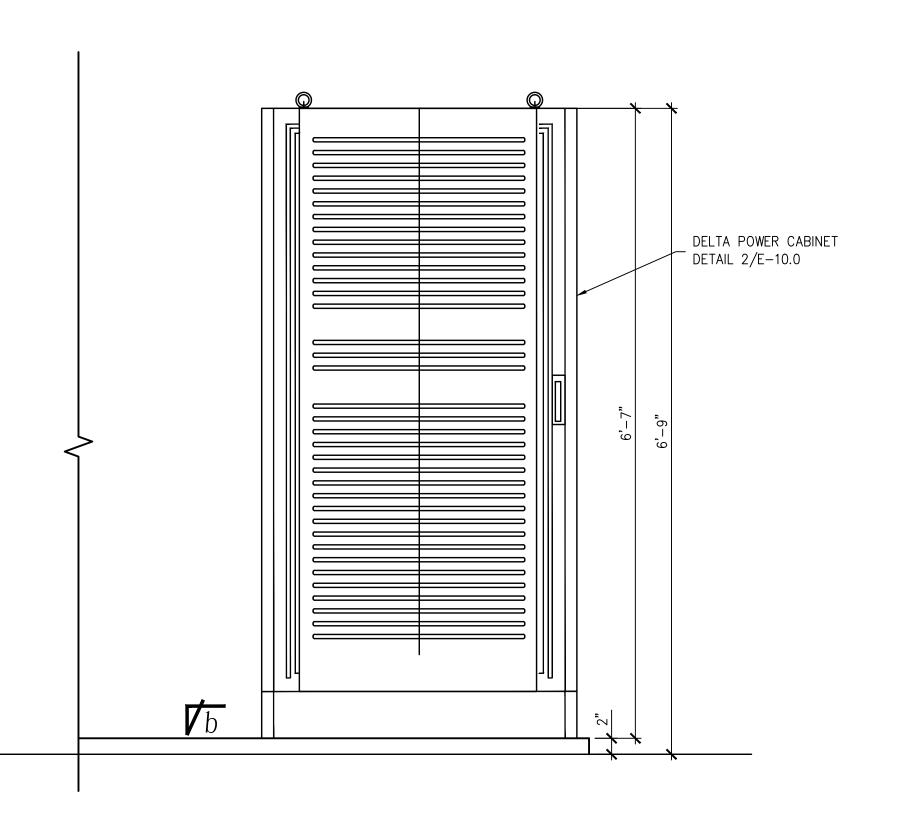
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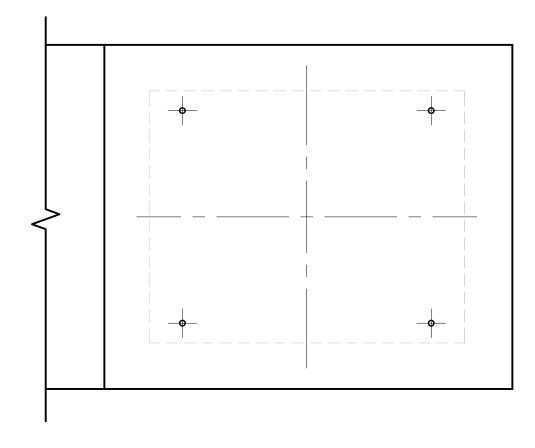
# NOTE:

 REFER TO FINAL MANUFACTURER INSTALLATION INSTRUCTIONS BEFORE CONSTRUCTING. DIMENSIONS GIVEN FOR REFERENCE ONLY, TYP.



2 DELTA POWER CABINET DETAIL

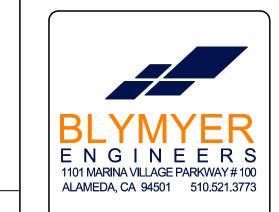
G-100 SCALE: 1" = 1'0"

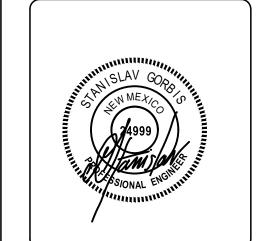


SECTION b

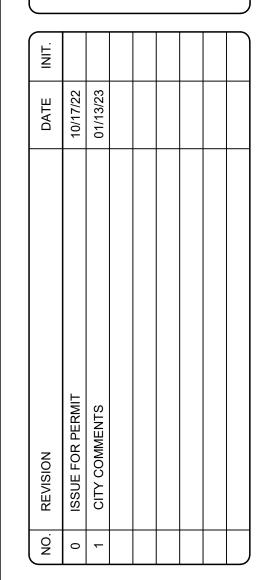
SCALE: 1" = 1'-0"







SIESTA HILLS 5305 S GIBSON BOULEVARD -ALBUQUERQUE, NM 87108



ORIGINAL SIZE 24"X36"
SHEET SIZE ARCH "D"

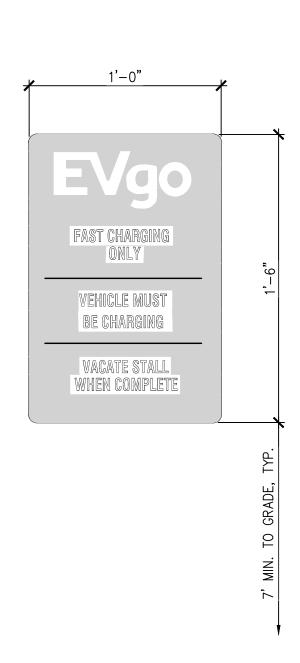
222001.130

SHEET TITLE

EQUIPMENT

DETAILS

G-103.0



STANDARD STALL SIGNAGE DETAIL

G-100.0 SCALE: 2" = 1'-0"

1'-0" RESERVED **PARKING** VIOLATORS ARE SUBJECT TO A FINE AND/OR TOWING VAN ACCESSIBLE ADA ISA VAN SIGN ACCESSIBLE SIGNAGE DETAIL

G-100.0 SCALE: 2" = 1'-0"

EVGO & ISA SIGNAGE PER ANSI 502.7

PROPOSED PARKING LINE TO BE PAINTED WHITE

2% MAX SLOPE

IN ANY DIRECTION

VEHICLE SPACE SIZE

PER ANSI 502.2

96" MIN.

1. PROPOSED ADA STALLS AND WALKWAY SHALL BE MAX

3. LOWER SIDE OF MARKING SHALL BE ALIGNED WITH THE

ACCESS AISLE PER ANSI 503.3

2% MAX SLOPE

IN ANY DIRECTION

VEHICLE SPACE SIZE

PER ANSI 502.2

96" MIN.

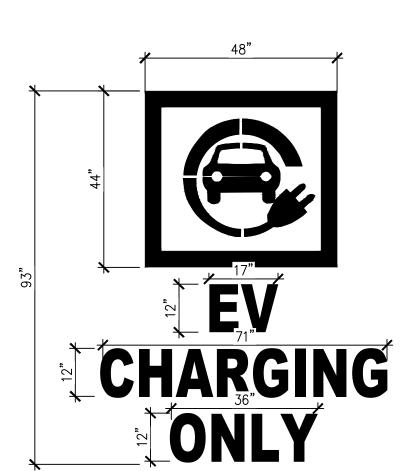
2% SLOPE IN ALL DIRECTIONS.

END OF THE PARKING SPACE.

2. REFER TO G-100 FOR PROPOSED SITE PLAN.

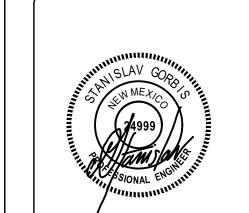
SIGN NOTES:

- 1. STALL SIGNAGE SHALL BE REFLECTORIZED WITH A MINIMUM AREA OF 70 SQ. INCHES.
- 2. SIGN SHALL BE VISIBLE FROM THE EVCS IT SERVES.
- 3. SIGN SHALL BE PERMANENTLY POSTED EITHER IMMEDIATELY ADJACENT OR WITH IN THE PROJECTED VEHICLE SPACE.
- 4. SIGN SHALL BE LOCATED AT THE HEAD OF THE VEHICLE SPACE.
- 5. SIGN SHALL BE 7 FEET MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN.
- 6. SIGNS LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL BE 80 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN.
- 7. SIGN MAY ALSO BE PERMANENTLY POSTED ON A WALL AT THE INTERIOR END OF THE VEHICLE SPACE.
- 8. EVgo SHALL SUPPLY THE VEHICLE STALL SIGNAGE.



# STALL MARKING NOTES:

- 1. USE ON ALL STANDARD AND VAN ACCESSIBLE STALLS WHERE APPLICABLE.
- 2. EVCS VEHICLE SPACES SHALL PROVIDE SURFACE MARKING STATION "EV CHARGING ONLY" IN LETTER 12" HIGH MINIMUM. THE CENTERLINE OF THE TEXT SHALL BE A MAXIMUM OF 6 INCHES FROM THE CENTER LINE OF THE VEHICLE SPACE AND ITS LOWER CORNER AT, OR LOWER SIDE ALIGNED WITH, THE END OF THE PARKING SPACE LENGTH.
- 3. PROVIDE 4½" SPACING BETWEEN STENCILS
- 4. FONT SHALL BE STANDARD GOTHIC
- 5. COLOR: WHITE ON EXISTING SURFACE (NO FILL INSIDE STENCIL)



ALAMEDA, CA 94501 510.521.3773

/ARD -87108

SIESTA HILLS GIBSON BOULE BUQUERQUE, NI

5305 Al

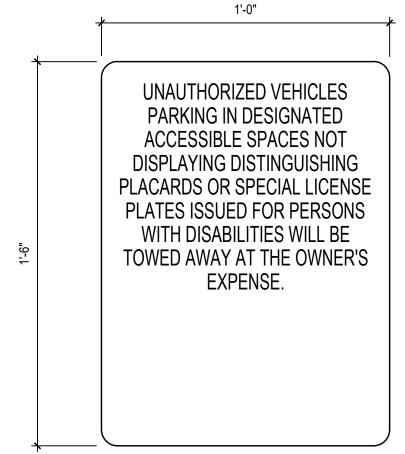
ORIGINAL SIZE 24"X36" SHEET SIZE ARCH "D"

PROJECT# 222001.130

SHEET TITLE PARKING STALL DETAILS

G-104.0

STANDARD STALL MARKINGS G-100.0 SCALE: 1/2" = 1'-0"



<u>LETTERING PER 66-7-352.4C NMSA 1978</u>

GENERAL TOWING SIGN DETAIL



PARKING

96" MIN.

G-100 SCALE: 2" = 1'-0"

- OF JOB SITE, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY AND FOR ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS. THE ENGINEERS JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTORS SAFETY MEASURES.
- 2. THE CONTRACTOR SHALL MAKE AN EXAMINATION OF THE SITE AND COMPARE THE SITE WITH THE DRAWINGS AND SPECIFICATIONS AND SATISFY HIMSELF AS TO CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. THE CONTRACTOR SHALL ASCERTAIN AND CHECK THE LOCATIONS OF ANY EXISTING STRUCTURES OR EQUIPMENT WHICH MAY AFFECT WORK THAT HAS TO BE PERFORMED. NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE IN CONTRACTOR'S BEHALF FOR ANY EXPENSE TO WHICH THE CONTRACTOR MAY BE PUT DUE TO FAILURE OR NEGLECT BY CONTRACTOR TO MAKE SUCH EXAMINATION.
- 3. ALL WORK SHALL BE COORDINATED WITH THE OWNER TO MAINTAIN CONTINUITY OF SERVICE AND MAXIMUM UTILIZATION OF THE OWNERS FACILITY.
- 4. ELECTRICAL WORK SHALL CONFORM TO THE 2017 NEC AND CURRENT ISSUES OF ALL NFPA, IBC, IFC, ANSI, OSHA, ASTM, NEMA, AND OTHER NATIONALLY PUBLISHED CODES OR STANDARDS SHALL APPLY TO THIS WORK UNLESS LOCAL JURISDICTION SUPERSEDES. THE MOST STRINGENT CODES SHALL APPLY.
- 5. NOTHING IN THE DRAWINGS OR SPECIFICATIONS IS INTENDED TO ALLOW A VIOLATION OF ELECTRICAL WORKING SPACE AROUND ELECTRICAL EQUIPMENT REQUIREMENT. ANY DEVIATION FROM THIS REQUIREMENT SHALL BE APPROVED IN WRITING, BY THE ENGINEER. THE CONTRACTOR SHALL RELOCATE ANY EQUIPMENT IN VIOLATION OF THE ELECTRICAL CODE AT HIS OWN COST.
- . PROVIDE PHENOLIC NAMEPLATE WITH WHITE LETTERING ON BLACK BACKGROUND FOR EACH ELECTRICAL EQUIPMENT. PROVIDE PERMANENT MEANS OF ATTACHMENT THAT WILL NOT VIOLATE NEMA RATING OR EQUIPMENT WARRANTY.
- 7. REFER TO THE DRAWINGS FOR LOCATIONS AND SPACE REQUIREMENTS OF ELECTRICAL EQUIPMENT. COORDINATE THE INSTALLATION OF ELECTRICAL EQUIPMENT WITH OTHER TRADES.
- 8. POWER FEEDERS ARE SHOWN ON ELECTRICAL PLAN. REFER TO THE SINGLE LINE DIAGRAM FOR FEEDER INFORMATION.
- 9. CONTRACTOR SHALL SECURE AND PAY FOR ELECTRICAL TRADE SPECIFIC CONSTRUCTION PERMITS. LICENSES, GOVERNMENTAL AND INSPECTION FEES NECESSARY FOR THE EXECUTION OF THE WORK, UNLESS OTHERWISE DIRECTED.
- 10. ELECTRICAL CONTRACTOR SHALL PROVIDE COMPLETE ELECTRICAL INSTALLATION IN ACCORDANCE WITH ESTABLISHED TECHNIQUES AND ACCEPTED PRACTICES AND ALL LOCAL, STATE, AND NATIONAL CODES HAVING JURISDICTION.
- 11. ELECTRICAL REQUIREMENTS SUCH AS CONDUIT ROUTING AND LOCATIONS OF ELECTRICAL DEVICES (RECEPTACLES, SWITCHES, FLOOR OUTLETS, CONDUIT STUBS, ETC.) SHOWN ON THESE PLANS ARE DIAGRAMMATIC AND SUBJECT TO VERIFICATION BY ELECTRICAL CONTRACTOR FOR THE INTERFACING OF THE ELECTRICAL WORK WITH THE INSTALLATION. CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO CLEAR THE OTHER FACILITIES EXCEPT AS SHOWN DIMENSIONED ON THE ARCHITECTURAL DRAWINGS OR AS APPROVED BY THE ARCHITECT.
- 12. ELECTRICAL EQUIPMENT SHOWN OR SPECIFIED FOR THIS PROJECT HAS BEEN GENERALLY SFI FCTFD BASED ON DIMENSIONS TO FIT THE SPACE. THE CONTRACTOR SHALL VERIFY EQUIPMENT DIMENSIONS AND/OR ANY INTERFERENCES PRIOR TO ORDERING THE CONTRACTOR OR OWNER PROVIDED EQUIPMENT.
- 13. MANUFACTURER'S RECOMMENDATIONS FOR CONDUCTOR SIZING, CIRCUIT BREAKER OR FUSE RATING OF ELECTRICALLY OPERATED EQUIPMENT MAY DIFFER FROM THOSE INDICATED ON DRAWINGS. CONTRACTOR SHALL CONFIRM RATINGS PRIOR TO ORDERING CONTRACTOR OR OWNER PROVIDED
- 14. CONTRACTOR SHALL REVIEW THE MECHANICAL AND PLUMBING DRAWINGS IF APPLY. AND CONNECT ELECTRICALLY OPERATED EQUIPMENT UNLESS OTHERWISE NOTED. COORDINATE THE LOCATION AND ELECTRICAL CONNECTION REQUIREMENTS PRIOR TO ORDERING OF CONTRACTOR OR OWNER PROVIDED ELECTRICAL AND MECHANICAL EQUIPMENT.
- 15. CONTRACTOR SHALL REVIEW THE SECTIONS OF EACH DIVISION OF THE SPECIFICATION (WHERE APPROPRIATE) AND PROVIDE CONNECTIONS TO ELECTRICALLY OPERATED EQUIPMENT AS MAY BE
- 16. ALL CONDUIT ONLY (CO) NOTED SHALL HAVE PULL ROPES OR WIRES INSTALLED, TENSILE

STRENGTH MINIMUM OF 200 FT/LBS.

- 17. CONTRACTOR SHALL PROVIDE PULL BOX(S) AS REQUIRED TO COMPLY WITH NEC 352.26 & NEC
- 18. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITER'S LABORATORIES OR OTHER APPROVED NRTL, AND SHALL BEAR THEIR LABEL. ALL CONTROL PANELS SHALL BE SO LISTED AS AN ASSEMBLY.
- 19. ELECTRICAL EQUIPMENT AND FEEDERS SHALL BE SUPPORTED AND/OR ANCHORED IN ACCORDANCE WITH IBC SEISMIC REQUIREMENTS. DO NOT SUPPORT CONDUITS FROM MECHANICAL DUCTS. PLUMBING, PIPING, OR EQUIPMENT OF ANY KIND.
- 20. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, FEES AND EQUIPMENT SPECIFIED. INDICATED OR IMPLIED IN THESE DOCUMENTS TO ACCOMPLISH THE CONSTRUCTION IN A PROFESSIONAL, WORKMANLIKE MANNER. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION TASKS INDICATED AND LOCAL CODES AND/OR ORDINANCES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR AND/OR OWNER FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK AT ISSUE.
- 21. THE CONTRACTOR SHALL CONSULT THE MECHANICAL, STRUCTURAL, AND OTHER DRAWINGS AND DOCUMENTATION RELATED TO THE PROJECT FOR ADDITIONAL WORK TO BE PROVIDED.

- 22. THE OWNER RETAINS FIRST SALVAGE RIGHTS TO ALL EXISTING EQUIPMENT REMOVED UNDER THIS CONTRACT. THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE OWNER FOR DISPOSITION OF THE EXISTING EQUIPMENT TO BE REMOVED.
- 23. ANY WORK INSTALLED INCORRECTLY, OR BEFORE APPROVAL HAS BEEN OFFICIALLY GRANTED FOR THOSE ITEMS AT ISSUE, SHALL BE CORRECTED BY THE ELECTRICAL CONTRACTOR AT NO CHARGE TO OWNER/ARCHITECT/CLIENT.
- 24. ALL MATERIALS AND EQUIPMENT FURNISHED BY THE CONTRACTOR SHALL BE NEW AND COMPLETELY SERVICEABLE UNLESS OTHERWISE SPECIFIED.
- 25. CONTRACTOR SHALL COORDINATE ROUGH-IN AND FINAL CONNECTION REQUIREMENTS WITH THE OWNER, EQUIPMENT SUPPLIERS, GENERAL CONTRACTOR AND OTHER BUILDING TRADES BEFORE PROCEEDING WITH ANY FURTHER RELATED WORK. INSTALLATIONS SHALL BE IN FULL ACCORDANCE WITH EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND REQUIRED CODES. CONFLICTS AND INTERFERENCES SHALL BE RESOLVED IMMEDIATELY, BEFORE ANY INSTALLATION BEGINS.
- 26. FINAL ACCEPTANCE OF WORK IN PLACE SHALL BE SUBJECT TO APPROVAL BY OWNER'S REPRESENTATIVE AND ARCHITECT/ENGINEER. INSTALLATION APPROVAL SHALL BE BASED ON APPROVED SUBMITTALS, SHOP DRAWINGS AND LOCAL INSPECTION.
- 27. CONTRACTOR SHALL SUBMIT "FOR RECORD" MARKUP DRAWINGS WITHIN TWO (2) WEEKS AFTER DATE OF NOTIFICATION OF FINAL APPROVAL OF WORK-IN-PLACE. CONTRACTOR'S FINAL INVOICE WILL NOT BE PAID WITHOUT COMPLETE DOCUMENTATION.
- 28. CONTRACTOR SHALL WARRANT ALL WORKS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE OF WORK-IN-PLACE, CONTRACTOR SHALL REPAIR OR REPLACE ANY DEFECTIVE WORK INCLUDING MATERIALS AND EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER WITHIN WARRANTY PERIOD.
- 29. THE CONTRACTOR SHALL PROVIDE ALL FUSES AND OVERLOAD HEATER ELEMENTS REQUIRED FOR THIS CONTRACT INSTALLATION INCLUDING ANY FUSES BLOWN DURING INITIAL TESTING.
- 30. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO ALL WALLS, FLOORS AND PAVING. IF DAMAGE OCCURS DURING CONSTRUCTION, ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OWNER TO PATCH, PAINT AND REPAIR TO MATCH EXISTING CONDITIONS.
- 31. CONDUIT AND WIRE SCHEDULE FOR NEW EQUIPMENT ARE GENERALLY INDICATIVE. CONTRACTOR SHALL REFER TO MANUFACTURER AND SUPPLIER OF EQUIPMENT FOR DETAILED WIRING DIAGRAM AND VERIFY THE EXACT ROUTING AND CONDUCTOR SIZE.
- 32. THE CONTRACTOR SHALL REFER TO MANUFACTURER AND SUPPLIER OF ELECTRICAL CONTROL EQUIPMENT FOR EXACT WIRING INTERCONNECTION.
- 33. ALL CONDUCTORS SHALL BE ALUMINUM OR COPPER STRANDED, AND HAVE INSULATION TEMPERATURE RATING 90°C, UNLESS OTHERWISE NOTED.
- 34. IDENTIFICATION OF GROUNDED CONDUCTORS SHALL BE IN ACCORDANCE WITH NEC 200.6. IDENTIFICATION OF EQUIPMENT GROUNDING CONDUCTORS SHALL BE IN ACCORDANCE WITH NEC 250.19. IDENTIFICATION OF UNGROUNDED CONDUCTORS IS REQUIRED FOR MULTIWIRE CIRCUITS AND SHALL BE AS FOLLOWS:

SYSTEM	480Y/277V	208Y/120V	120/240V 1-PHASE
PHASE A	BROWN	BLACK	BLACK (LINE 1)
PHASE B	ORANGE	RED	RED (LINE 2)
PHASE C	YELLOW	BLUE	, ,

35. USE WIRE IDENTIFICATION COLOR CODE PER SPECIFICATIONS BELOW.

INTRINSICALLY SAFE CIRCUITS EQUIPMENT GROUNDING CONDUCTOR

36. MEDIUM VOLTAGE CABLE MARKINGS SHALL UTILIZE COLORED CONDUCTOR TAPE FOR ALL PHASES: FOLLOW THE EXISTING COLOR SCHEME IF ONE EXISTS, OTHERWISE PROVIDE YELLOW COLORED, SELF-ADHESIVE VINYL TAPE NOT LESS THAN 3 MILS THICK BY 1 INCH WIDE. 1 STRIPE FOR THE A PHASE CONDUCTOR, 2 STRIPES FOR THE B PHASE CONDUCTOR, 3 STRIPES FOR THE C PHASE CONDUCTOR. TAPE SHALL BE LOCATED AT ALL TERMINATIONS, SPLICES AND PULL BOXES.

CONTROL CIRCUITS SUPPLIED FROM EXTERNAL POWER SOURCE, INTERLOCKS

- 37. THE ELECTRICAL DESIGN AND EQUIPMENT RATINGS ARE BASED ON ELECTRICAL SYSTEM STUDIES
- WHICH MAY INCLUDE: A. LOAD FLOW
- B. SHORT CIRCUIT C. ARC FLASH
- D. RELAY COORDINATION
- E. GROUNDING
- F. CABLE SIZING
- 39. OUTDOOR SITE LIGHTING SHALL COMPLY WITH DARK SKY GUIDELINES.

TEST RESULTS SHALL BE MADE AVAILABLE TO THE ENGINEER OF RECORD OR BUILDING OFFICIAL UPON REQUEST.

- . GROUND-FAULT PROTECTION EQUIPMENT 1.1. VERIFY PICKUP AND TIME DELAY SETTINGS ARE IN ACCORDANCE WITH SETTINGS PROVIDED BY THE ENGINEER OR EQUIPMENT MANUFACTURER.
- 2. ELECTRICAL TESTS SWITCHBOARDS, PANELBOARDS, MOTOR CONTROL CENTERS AND OTHER EQUIPMENT RATED 1000 AMPERES OR MORE, OR OVER 1000 VOLTS. 2.1. RELAY PICKUP CURRENT BY CURRENT INJECTION AT THE SENSOR AND OPERATION OF THE
- CIRCUIT INTERRUPTING DEVICE TEST RELAY TIMING.
- TEST PRIMARY CONTROL VOLTAGE AT NOT MORE THAN 57 PERCENT OF ITS RATED VOLTGROUNDED CONDUCTOR INSULATION RESISTANCE

VERIFICATION OF CONTINUITY OF EQUIPMENT GROUNDING SYSTEM.

- INSULATION RESISTANCE TEST ON EACH BUS AND PROTECTIVE DEVICE, PHASE-TO-PHASE AND PHASE-TO-GROUND.
- 2.6. DIELECTRIC VOLTAGE-WITHSTAND TEST ON EACH BUS AND PROTECTIVE DEVICE, PHASE-TO-PHASE AND PHASE-TO-GROUND.
- CONTROL POWER TRANSFORMER, CONTROL POWER CIRCUITS AND POTENTIAL CIRCUITS.
- 2.8. CONTROL AND PROTECTIVE DEVICES FOR PROPER OPERATION.
- FLECTRICAL TESTS ON TRANSFORMERS RATED 100 KVA OR MORE SINGLE PHASE AND 300 KVA OR MORE THREE PHASE
- 3.1. INSULATION RESISTANCE TEST ON EACH WINDING. TEST WINDING-TO-WINDING AND WINDINGS-TO-GROUND.
- TURNS-RATIO TEST FOR EACH WINDING AT ALL TAP SETTINGS. 3.3. CONTROL POWER TRANSFORMER, CONTROL POWER CIRCUITS AND POTENTIAL CIRCUITS.
- 3.4. CONTROL AND PROTECTIVE DEVICES FOR PROPER OPERATION.
- 4. CONDUCTORS THAT SUPPLY EQUIPMENT RATED AT 1000 AMPERES OR MORE. OR OVER 1000 VOLTS 4.1. INSULATION RESISTANCE TEST ON EACH CONDUCTOR, PHASE-TO-PHASE AND PHASE-TO-GROUND.
- 4.2. DC HIGH-POTENTIAL TEST ON EACH CONDUCTOR, PHASE-TO-PHASE AND PHASE-TO-GROUND.
- 5. ELECTRICAL TESTS ON EMERGENCY AND STANDBY POWER SYSTEMS: SWITCHBOARDS, PANELBOARDS DISTRIBUTION BOARDS. TRANSFER EQUIPMENT, POWER SOURCE, CONDUCTORS, FIRE PUMPS, EXHAUST AND VENTILATION FANS.
- CONTROL AND PROTECTIVE DEVICES FOR PROPER OPERATION. PHASE ROTATION TEST
- INSULATION RESISTANCE TEST ON FEEDER CONDUCTORS AND EQUIPMENT, PHASE-TO-PHASE AND PHASE-TO-GROUND AUTOMATIC LOAD TRANSFER TEST. TEST NORMAL AND EMERGENCY POWER, OR NORMAL AND
- STANDBY POWER, OR BOTH. SIMULATE LOSS OF EMERGENCY AND NORMAL POWER OR STANDBY AND POWER, OR BOTH. SIMULATE ALL FORMS OF SINGLE PHASE CONDITIONS.
- 5.5. CONDUCT OPERATIONAL TEST ON SYSTEM UNDER LOAD CONDITIONS.

- 2. ALL ELECTRICAL TERMINATIONS SHALL BE TORQUED TO MANUFACTURERS' SPECIFICATIONS. WHERE THEY ARE NOT SPECIFIED, REFER TO UL STANDARDS 486A AND 486B. FINAL TORQUE TEST DOCUMENTATION SHALL BE PROVIDED TO OWNER OR HIS REPRESENTATIVE, WITH ONE OR THE OTHER IN WITNESS AT RANDOM TIMES.
- 3. LINE AND LOAD CONDUCTORS SHALL BE BRACED AND SUPPORTED (LASHED, HELD FIRMLY IN PLACE) IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND NECA/IBEW APPROVED INSTALLATION PRACTICES.

# **EQUIPMENT SPECIFICATIONS**

APPROVED BY THE ENGINEER OF RECORD PRIOR TO INSTALLATION:

THE FOLLOWING EQUIPMENT SPECIFICATION AND SUBMITTALS SHALL BE PROVIDED TO AND

- ELECTRICAL EQUIPMENT INCLUDING: SWITCHGEAR, PANELBOARDS, MOTOR CONTROL
- CENTERS, AND SAFETY SWITCHES.
- CONDUCTORS AND CABLES INCLUDING: MEDIUM VOLTAGE CABLES, LOW VOLTAGE CABLES, PV DC WIRING, AND CONTROL CABLES
- PROTECTIVE DEVICES INCLUDING: CIRCUIT BREAKERS, FUSES, RELAYS, AND
- PROTECTION SETTINGS.
- ELECTRIC VEHICLE CHARGING STATIONS LIGHTING (IF APPLICABLE)

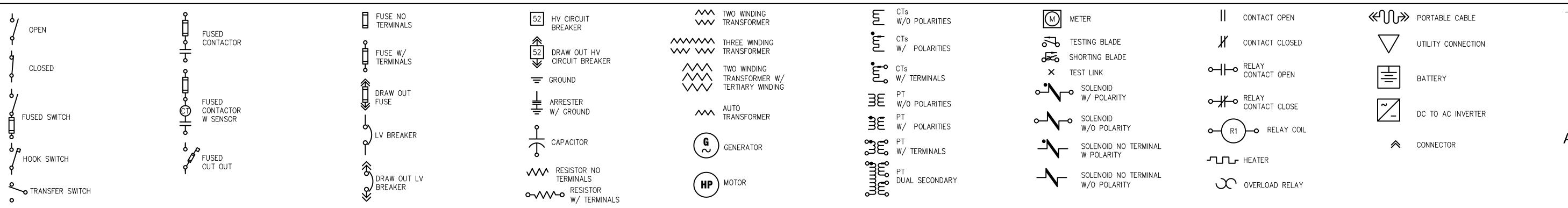
# MOUNTING HEIGHTS

MOUNTING HEIGHTS SHALL BE TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED. RECEPTACLES **VOLUME CONTROLS** RECEPTACLE WIREWAYS 43" THERMOSTATS SWITCHES 48" TELE/COMMUNICATION OUTLET MOTOR STARTERS, TO TOP 72" PANELBOARDS, TO TOP DISCONNECTS, TO TOP CABINETS, TO TOP JUNCTION BOXES FIRE ALARM PULL STATIONS

# **ABBREVIATIONS**

A, AMPS	AMPERES	(F)	FUTURE	NO	NORMALLY OPEN	WT	WATERTIGHT	
Α̈́B	ANCHOR BOLT	ĞÉC	GROUNDING ELECTRODE CONDUCTOR GND	NRTL	NATIONAL RECOGNIZED TESTING	XFMR	TRANSFORMER	
A/C	AIR CONDITIONER		GROUND		LABORATORY	XLPE	CROSS-LINKED POLYETHYLENE	
AC	ALTERNATING CURRENT	GALV	GALVANIZED	NTS	NOT TO SCALE	XP	EXPLOSION PROOF	
AF	AMPERE FRAME	GRS	GALVANIZED RIGID STEEL	OFCI	OWNER FURNISHED			
AFF	ABOVE FINISHED FLOOR	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	0. 0.	CONTRACTOR INSTALLED			
AFG	ABOVE FINISHED GRADE	HH	HANDHOLE	ОН	OVERHEAD			
AIC	AMPERE INTERRUPTING CURRENT	HOA	HAND-OFF-AUTO	PH, Ø	PHASE			
AL	ALUMINUM	HP	HORSEPOWER	PB	PUSHBUTTON			C
AS	AMPERE SWITCH	HV	HIGH VOLTAGE	PDU	POWER DISTRIBUTION UNIT			O
AT	AMPERES TRIP	HVAC	HEATING, VENTILATION, AIR CONDITIONING	PNL	PANEL			
ATS	AUTOMATIC TRANSFER SWITCH	HZ	HERTZ					
AWG	AMERICAN WIRE GAUGE	IMC	INTERMEDIATE METAL CONDUIT	POCC	POINT OF COMMON CONNECTION			
BC	BARE COPPER	ISC	INTERRUPTING SHORT CIRCUIT	PV	PHOTOVOLTAIC			
BLDG	BUILDING	IG	ISOLATED GROUND	PVC	POLYVINYL CHLORIDE			
BMS	BUILDING MANAGEMENT SYSTEM	INST	INSTANTANEOUS	(R)	EXISTING TO BE REMOVED			
C	CONDUIT	JB	JUNCTION BOX	(RE)	NEW LOCATION OF RELOCATED DEVICE			
CB	CIRCUIT BREAKER	KAIC	KILO AMPERES INTERRUPTION CAPACITY	(RL)	EXISTING TO BE RELOCATED			
CC	CENTER TO CENTER	KCMIL	KILO CIRCULAR MILS	SCA	SHORT CIRCUIT AVAILABLE			
	2 COMBINED CHARGING SYSTEM TYPE 1/2	KV	KILOVOLTS	SEC	SECONDARY			
•	•	KVA	KILOVOLT-AMPERES KW KILO WATTS	SPECS	SPECIFICATIONS			
CHAdeMO	CHArge de MOve (EV CHARGING STANDARD)	KWH	KILO WATT-HOURS	STD	STANDARD			
CKT	CIRCUIT	LCP	LIGHTING CONTROL PANEL					
<u>ا</u>	CENTER LINE	LTG	LIGHTING	STP	SHIELDED TWISTED PAIR			
CLG	CEILING	MAX	MAXIMUM	SWBD	SWITCHBOARD			
CLR	CLEAR	MCC	MOTOR CONTROL CENTER	SYM	SYMMETRICAL			
CO	CONDUIT ONLY WITH PULL ROPE	MCB	MAIN CIRCUIT BREAKER	TBD	TO BE DETERMINED			
CONC	CONCRETE	MCP	MOTOR CIRCUIT PROTECTOR	TD	TIME DELAY			
CU	COPPER	MFR	MANUFACTURER	TEL	TELEPHONE			
DB	DIRECT BURIAL			TVSS	TRANSIENT VOLTAGE			
DC	DIRECT CURRENT	MH	MANHOLE		SURGE SUPPRESSION			
DIA	DIAMETER	MIN	MINIMUM	TYP	TYPICAL			
DN	DOWN DIGTDIPLITION DANIEL	MISC	MISCELLANEOUS	UG	UNDERGROUND			
DP	DISTRIBUTION PANEL	MLO	MAIN LUGS ONLY	UL	UNDERWRITERS LABORATORIES			
DWG	DRAWING	MTD	MOUNTED	UON	UNLESS OTHERWISE NOTED			
EM	EMERGENCY	MSB	MAIN SWITCHBOARD	UPB	UNDERGROUND PULLBOX			
EGC	EQUIPMENT GROUNDING CONDUCTOR	MSG	MAIN SWITCHGEAR	UTP	UNSHIELDED TWISTED PAIR			
EMT	ELECTRICAL METALLIC TUBING	MV	MEDIUM VOLTAGE	V	VOLTS			В
EPO	EMERGENCY POWER OFF	MVA	MEGA VOLT AMPERES	VA	VOLT-AMPERES			D
EQ	EQUAL	(N)	NEW	VA VFD	VARIABLE FREQUENCY DRIVE			
EQUIP	EQUIPMENT	N	NEUTRAL					
EV	ELECTRIC VEHICLE	NC	NORMALLY CLOSED	VFI	VACUUM FUSED INTERRUPTER			
(E)	EXISTING	NEC	NATIONAL ELECTRICAL CODE	VP 	VAPORPROOF			
FA	FIRE ALARM	NIC	NOT IN CONTRACT	W	WATTS, WIRE			
FACP	FIRE ALARM CONTROL PANEL		NIGHT LIGHT	WH	WATER HEATER			
FLA	FULL LOAD AMPERES	NL	NIGHT LIGHT	WP	WEATHERPROOF			

# SYMBOLS

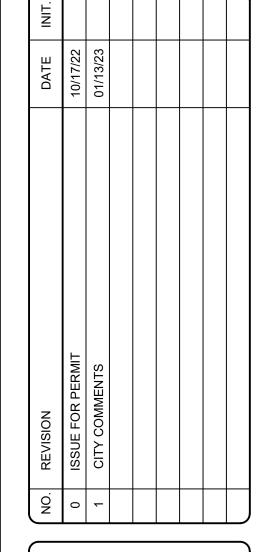








ARD 8710 SI GIBS S 05 A 3



ORIGINAL SIZE 24"X36" SHEET SIZE ARCH "D"

222001.130

**ELECTRICAL NOTES** SYMBOLS AND

**ABBREVIATIONS** 

E-1.0

MATERIAL

Cu

Cu

Cu

Cu

% VOLTAGE

DROP

0.06%

0.06%

0.06%

0.06%

0.98%

DISTANCE (FT)

18

16

16

12

75

\* CONDUITS ARE MINIMUM REQUIRED SIZES; INSTALLED SIZES MAY BE LARGER, IF USED

\*MIN PVC PER

SET (IN)

EGC PER SET

#1 AWG (Cu)

#1 AWG (Cu)

#1 AWG (Cu)

#8 AWG (Cu)

#6 AWG (Cu)

CONDUCTOR

PER SET

N/A

#8 AWG

#6 AWG

3. ALL EQUIPMENT WIRING AND GROUNDING METHODS SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDED PRACTICES AND INSTALLATION

AND 250.136(A).

6. COORDINATE DATE, TIME, AND LENGTH OF ANY REQUIRED FACILITY SHUTDOWNS WITH OWNER PRIOR TO CONSTRUCTION.

8. CONDUITS UNDERGROUND SHALL BE PVC, CONDUITS ABOVE GROUND SHALL BE EMT, AND CONDUITS SUBJECT TO DAMAGE SHALL BE RGS.

9. ALL EQUIPMENT SHALL BE FURNISHED WITH TERMINALS RATED FOR 75°C OR GREATER, LUGS SHALL BE DUAL-RATED FOR COPPER/ALUMINUM CONDUCTORS. ALL ALUMINUM CONDUCTOR TERMINATIONS MUST BE COATED WITH ANTI-OXIDATION COMPOUND IMMEDIATELY AFTER STRIPPING

10. CONDUIT ROUTING AND EQUIPMENT LOCATIONS ARE DIAGRAMMATIC ONLY, AND SHALL BE COORDINATED TO AVOID INTERFERENCES WITH OTHER UTILITIES/UNDERGROUND INSTALLATIONS. CONTRACTOR IS RESPONSIBLE FOR FIELD CHECKING AND MAKING ALL NECESSARY OFFSETS AS REQUIRED.

PROPOSED LANDSCAPING.

OTHERWISE NOTED.

# **KEYED NOTES**

UTILITY COMPLIANT METERING COMPARTMENT, METER AND CTs BY UTILITY.

LONG, SHORT, INSTANTANEOUS, GROUND FAULT EQUIPPED BREAKER PER NEC

ALL OVERCURRENT PROTECTION DEVICES WILL HAVE THE SAME FAULT CURRENT

DELTA 350KW POWER CABINET 369 KVA INPUT: 443A 480VAC, 3P/3W OUTPUT: 150-950VDC, 540A MAX NEMA 3R

DELTA 350KW DISPENSER 1000VDC MAX

UTILITY DESIGN TO SUPERSEDE WIRE AND CONDUIT REQUIREMENT IF DIFFERENT.

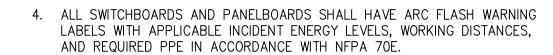
# **EQUIPMENT PROCUREMENT**

DELTA POWER CABINETS DELTA DISPENSERS SWITCHBOARD

CABLE TERMINATIONS CONDUITS AND FITTINGS UTILITY UNDERGROUND STRUCTURES AND PADS

# **GENERAL NOTES**

- NOTED. ALL MATERIAL SHALL BE IN NEW CONDITION AND APPROVED BY
- 2. ALL EQUIPMENT SHALL BE NRTL LISTED.
- INSTRUCTIONS.



- 5. EXPOSED NON-CURRENT CARRYING METAL PARTS OF EQUIPMENT AND ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC 250.134
- 7. ALL CONDUCTORS SHALL BE COPPER, UNLESS OTHERWISE NOTED.

- 11. NO PART OF THIS DRAWING OR SPECIFICATIONS IS INTENDED TO ALLOW A VIOLATION OF PHYSICAL WORKING SPACE REQUIREMENTS AROUND ELECTRICAL EQUIPMENT AS REQUIRED PER NEC 110.26.
- 12. INSTALL PULL-BOXES AS REQUIRED PER NEC 314.28. ALL BOXES SHALL BE TRAFFIC RATED WHERE SUBJECT TO VEHICULAR TRAFFIC. MIN ONE (1) FEET OF CONCRETE IS REQUIRED AROUND ALL BOXES. PROVIDE ADDITIONAL PULLBOXES AS REQUIRED TO COMPLY WITH NEC 352.26 & 356.26
- 13. CONTRACTOR SHALL REFER TO G-SERIES SHEETS FOR EXISTING AND
- 14. CONTRACTOR SHALL HAND DIG AROUND ALL EXISTING UTILITIES UNLESS

 $\left\langle 2\right\rangle$  AFC (AVAILABLE FAULT CURRENT) IS PENDING FROM UTILITY.

REFER TO COORDINATION STUDY FOR OCPD TRIP SETTINGS.

MAIN BREAKER IS REQUIRED TO INCLUDE MAINTENANCE MODE FOR ARC ENERGY REDUCTION IN ACCORDANCE WITH NEC 240.87

6 RATING AS THE RATING OF PANEL, DISCONNECT OR SWITCHGEAR LOCATED

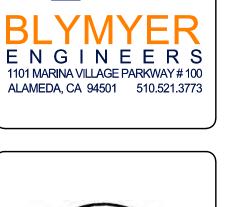
540A MAX CCS1, 200A MAX CHAdeMO NEMA 3R

EQUIPMENT PROVIDED BY EVGO:

EQUIPMENT PROVIDED BY CONTRACTOR:

ADDITIONAL EQUIPMENT AS SPECIFIED ON THESE PLANS

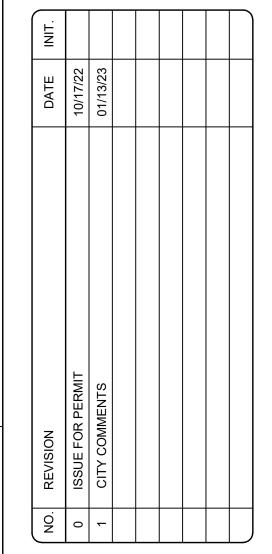






SIES GIBSON

305 A



ORIGINAL SIZE 24"X36" SHEET SIZE ARCH "D"

PROJECT# 222001.130

ONE-LINE DIAGRAM

E-2.0

**ONE-LINE DIAGRAM** SCALE: NTS

**EV CHARGING STATION** INTERCONNECTION

ELECTRIC VEHICLE SERVICE DESIGN LOAD: 1122 KVA AT POI (3ø)

UTILITY SERVICE

3 DELTA 350KW POWER CABINET (369 KVA EACH) DISPENSER AUX LOADS (15 KVA)

DC WIRE AND CONDUIT SCHEDULE

AC WIRE AND CONDUIT SCHEDULE

FROM

SWBD-EV

SWBD-EV

SWBD-EV

SWBD-EV

SWBD-EV

CIRCUIT ID

PC-1

PC-2

PC-3

AUX-1

AUX-D

VOLTAGE

480

480

480

480

120

CURRENT

443

443

18

16

OCP

600

600

600

30

20

TO

PC-1

PC-2

PC-3

AUX-1

EV-1, EV-2, EV-3

										* CONDUITS A	ARE MINIMUM REQUIF	RED SIZES; INSTAL	LED SIZES MAY BE LA	RGER, IF USED
то	FROM	CIRCUIT ID	VOLTAGE	CURRENT	OCP	WIRE MATERIAL	WIRE INSULATION	PARALLEL SETS OF WIRES	PHASE CONDUCTORS PER SET	ADDITIONAL CONDUCTOR PER SET	EGC PER SET	*MIN PVC PER SET (IN)	DISTANCE (FT)	% VOLTAGE DROP
EV-1	PC-1	EV-1	1000	540	By MFR	Cu	XHHW-2	4	(2) 350 kcmil	N/A	#1 AWG (Cu)	3	25	0.03%
EV-2	PC-2	EV-2	1000	540	By MFR	Cu	XHHW-2	4	(2) 350 kcmil	N/A	#1 AWG (Cu)	3	45	0.05%
EV-3	PC-3	EV-3	1000	540	By MFR	Cu	XHHW-2	4	(2) 350 kcmil	N/A	#1 AWG (Cu)	3	80	0.08%

SETS OF

WIRES

INSULATION

THWN-2

THWN-2

THWN-2

THWN-2

PHASE CONDUCTORS

PER SET

(3) 300 kcmil

(3) 300 kcmil

(3) 300 kcmil

(3) #8 AWG

(1) #6 AWG

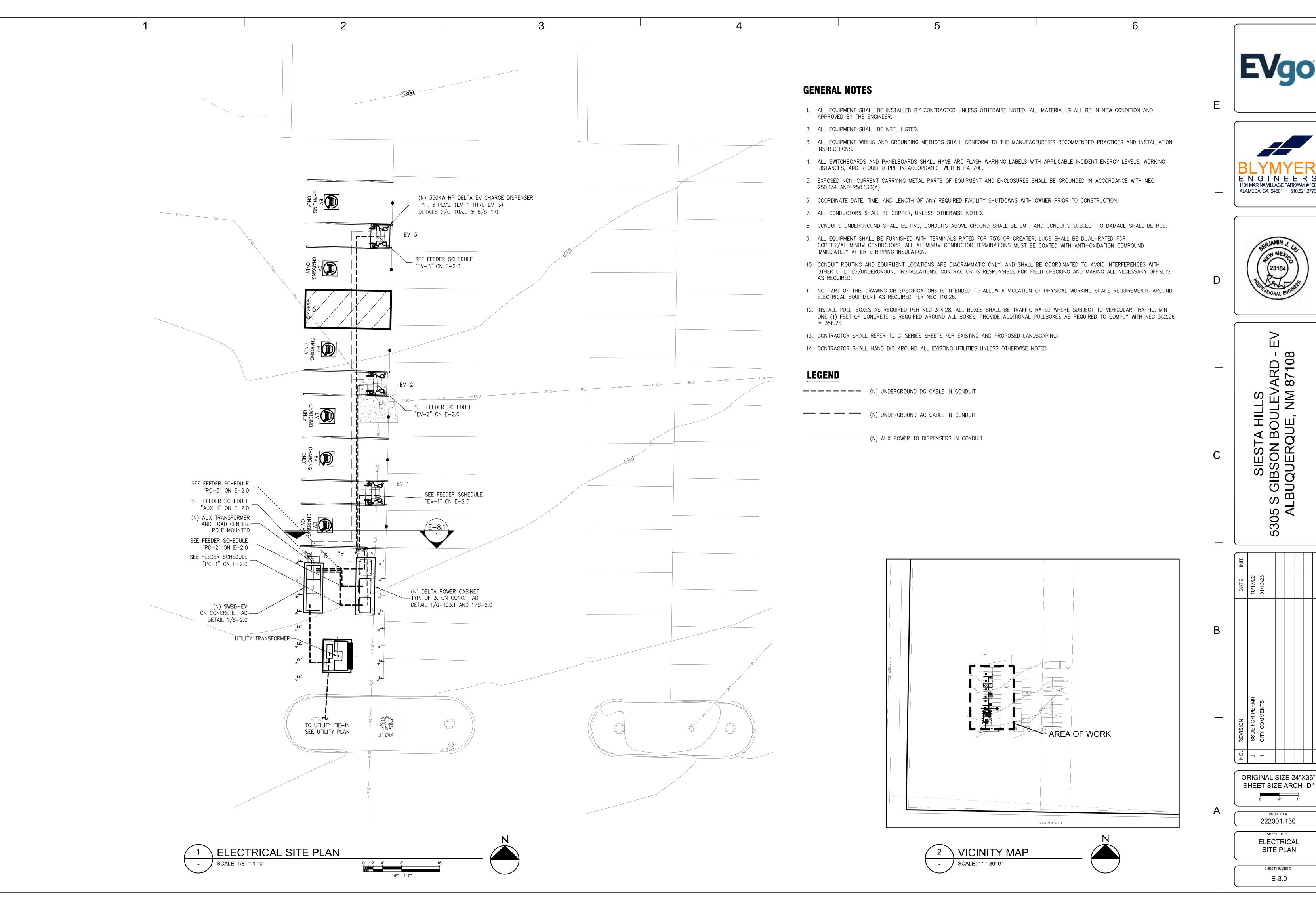
# **COMMUNICATIONS CABLE AND CONDUIT SCHEDULE**

_				
	CIRCUIT ID	CABLE	MIN PVC (IN)	DISTANCE (FT)
	COM	(1) FIBER OPTIC CABLE PER DELTA SPECIFICATIONS	1	80

1. ALL DC CONDUCTORS SHALL BE COPPER WITH 1000V XHHW-2 INSULATION, UNLESS OTHERWISE NOTED.

2. CONDUIT SIZES SHOWN ARE MINIMUM REQUIRED, INSTALLED SIZES MAY BE LARGER.

(N) SWBD-EV UTILITY METERING MAIN DISC. DISTRIBUTION 1600A BUS, 480Y/277V,3ø,4W+GND, 65KAIC, NEMA 3R & PULL SECTION SECTION SECTION EUSERC APPROVED MUTILITY METER  $\langle 3 \rangle$  $\langle 4 \rangle \delta_{\Lambda}$ 100% RATED TYP.  $\langle 2 \rangle$ XXkAPC-1 (PC-3)-(PC-2)-(2) CU. CLAD GND ROD, 5/8"x8' (1) #3/0x20' CONCRETE ENCASED ELECTRODE (4) SETS AUX-1 èо́о мсм —— 5" PVC (9) (EV-1)(EV-3)(EV-2)AUX POWER XFMR & LOAD CENTER COM MINI POWER ZONE OR 15 KVA 3P/4W, 115 C RISE ( com ) ( com )-APPROVED EQUAL 480D: 208Y/120V, NEMA 3R NEMA 3R PANEL AUX-1 100A, 208Y/120V,3ø,4W+GND, 18KAIC, NEMA 3R (N) UTILITY TRANSFORMER <u>EV-1</u> <u>EV-3</u> <u>EV-2</u> \_\_\_\_\_ —(AUX-D)







1. PLACE LABEL IN A VISIBLE LOCATION: SWITCHGEAR (METER COMPARTMENT)

**EVGO** 5305 S. GIBSON BOULEVARD ALBUQUERQUE, NM 87108 480Y/277 1600 AMP (877) 494-3833

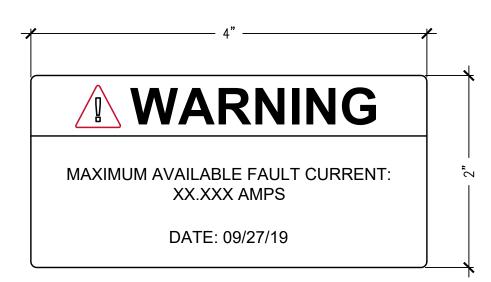
**METER LABEL-1** 

LASER ENGRAVED PLAQUE

WHITE LETTERING ON RED BACKGROUND

## NOTES:

- 1. PLACE LABEL IN A VISIBLE LOCATION: SWITCHGEAR. 2. RED BACKGROUND, WHITE LETTERING
- 3. TEXT: MIN. 3/8"AND 1/8" HEIGHT, ALL CAPITAL LETTERS ARIAL OR SIMILAR FONT,
- 4. MATERIAL NOTE: ENGRAVED ON OUTDOOR-RATED PLASTIC
- LAMINATE WITH ADHESIVE BACKING SUITABLE FOR THE ENVIRONMENT.
- 5. APPLICABLE NEC SECTIONS: NEC 110.9



MAXIMUM FAULT CURRENT LABEL SCALE: NTS

- 1. PLACE LABEL IN A VISIBLE LOCATION: SWITCHGEAR RED BACKGROUND, WHITE LETTERING
- 3. TEXT: MIN. 3/8"AND 1/8" HEIGHT, ALL CAPITAL LETTERS ARIAL OR SIMILAR FONT,
- 4. MATERIAL NOTE: ENGRAVED ON OUTDOOR-RATED PLASTIC
- LAMINATE WITH ADHESIVE BACKING SUITABLE FOR THE ENVIRONMENT.

  5. APPLICABLE NEC SECTIONS: NEC 110.22

AS REQUIRED

EV SYSTEM SERVICE DISCONNECT

MAIN CIRCUIT BREAKER LABEL

# ARC FLASH AND SHOCK HAZARD PRESENT APPROPRIATE PPE REQUIRED

MIN. PPE REQUIREMENTS ARC FLASH BOUNDARY INCIDENT ENERGY DESCRIPTION [x.xx] cal/cm<sup>2</sup> WORKING DISTANCE DESCRIPTION [xx] in **DESCRIPTION** SHOCK HAZARD EXPOSURE **DESCRIPTION** [xxx] VAC INSULATING GLOVE CLASS DESCRIPTION SHOCK HAZARD WHEN COVERS REMOVED

LIMITED APPROACH BOUNDARY RESTRICTED APPROACH BOUNDARY [xx] ft EQUIPMENT: [EQUIPMENT ID] CHANGES IN EQUIPMENT SETTINGS OR SYSTEM CONFIGURATION WILL INVALIDATE THE CALCULATED VALUES AND PPE REQUIREMENTS WHICH MAY RESULT IN A HAZARDOUS CONDITION.

DATE: [mm-dd-yyyy]

- 1. "TYPICAL LABEL SHOWN, ARC FLASH LABELS TO BE PROVIDED FOR ALL ELECTRICAL EQUIPMENT INCLUDING, SWITCHGEAR, PANELBOARDS, AND CHARGING CABINETS.
- 4"x4" LABEL MAY BE USED AS AN ALTERNATE "WARNING" HEADING FOR INCIDENT ENERGY < 40 CAL/CM<sup>2</sup>
- "DANGER" HEADING FOR INCIDENT ENERGY > 40 CAL/CM<sup>2</sup>
- VALUES IN BRACKETS WILL BE UPDATED ACCORDING TOT HE RESULTS OF THE ARC FLASH HAZARD ANALYSIS.
- PLACE LABEL ON EQUIPMENT DESIGNATED IN THE ARC FLASH HAZARD ANALYSIS.
- LABELS SHALL BE PROVIDED IN PDF FORMAT TO CONTRACTOR
- MATERIAL: WEATHER AND UV RESISTANT VINYL WITH DURABLE ADHESIVE SUITABLE FOR THE ENVIRONMENT.
- 8. APPLICABLE NEC SECTIONS: NEC 110.16

SCALE: NTS

ARC FLASH HAZARD LABEL

- 1. PLACE LABEL ON FRONT OF EQUIPMENT IN VISIBLE LOCATION: EV CHARGER CABINETS, SWITCHBOARDS, PANELS, AND METERING ENCLOSURES.
- 2. BLACK BACKGROUND, WHITE LETTERING

5. APPLICABLE NEC SECTIONS: NEC 408.4(B)

TEXT: MIN. 1/2" HEIGHT, ALL CAPITAL LETTERS ARIAL OR SIMILAR FONT, NON-BOLD

AS REQUIRED

MATERIAL NOTE: ENGRAVED ON OUTDOOR-RATED PLASTIC LAMINATE WITH ADHESIVE BACKING SUITABLE FOR THE ENVIRONMENT.

# **EQUIPMENT ID**

POWER SUPPLIED FROM: SOURCE OF POWER

L ALL SWITCHBOARDS AND PANELBOARDS SUPPLIED BY A FEEDER SHALL BE MARKED TO INDICATE THE NAME OF THE EQUIPMENT AND SOURCE OF SUPPLY.

REFER TO SINGLE LINE DIAGRAM FOR IDENTIFICATION OF ALL EQUIPMENT AND ASSOCIATED SOURCE OF SUPPLY.

**EQUIPMENT IDENTIFICATION LABEL** 







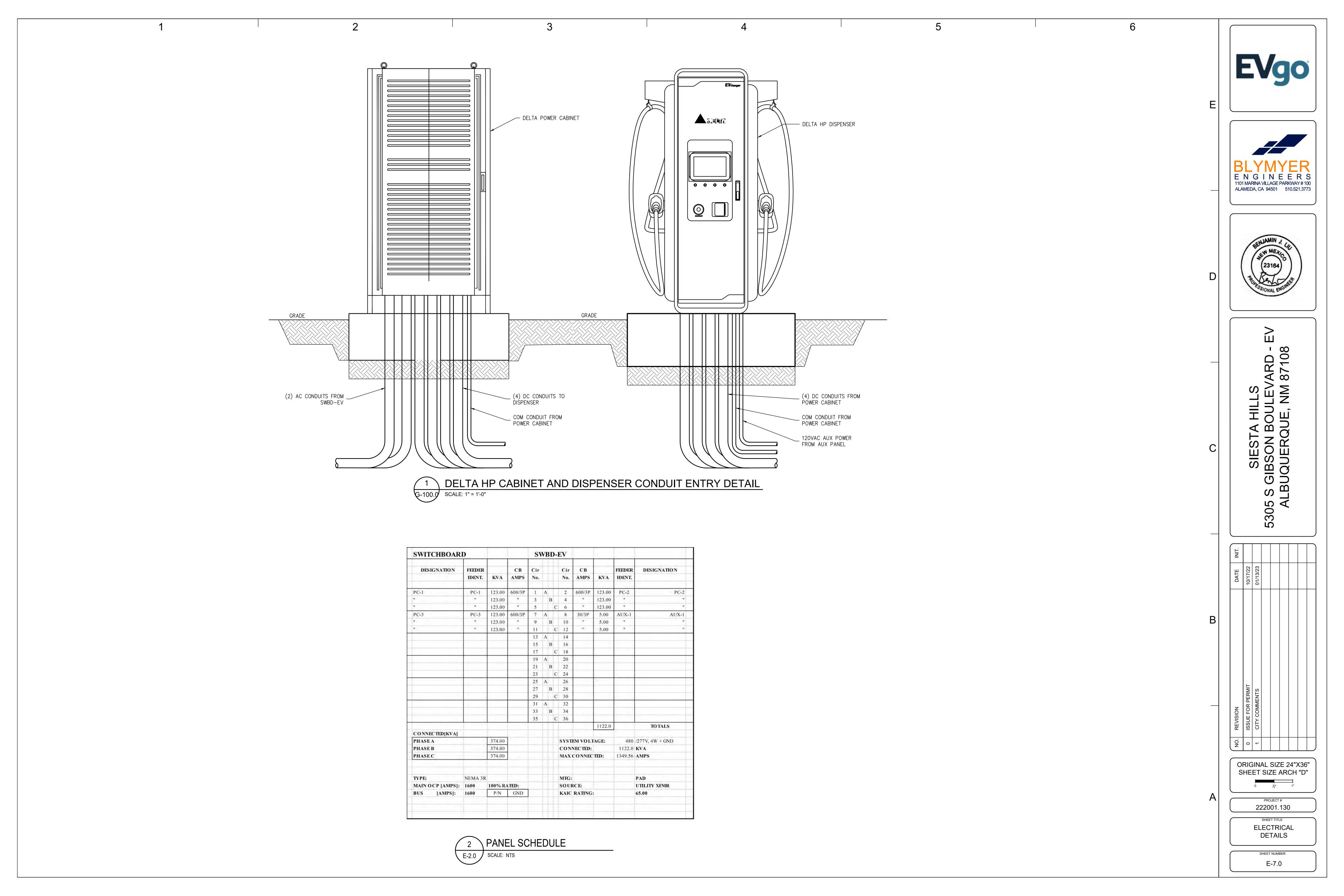
SIESTA HILLS GIBSON BOULE 3UQUEPON 17 305 A

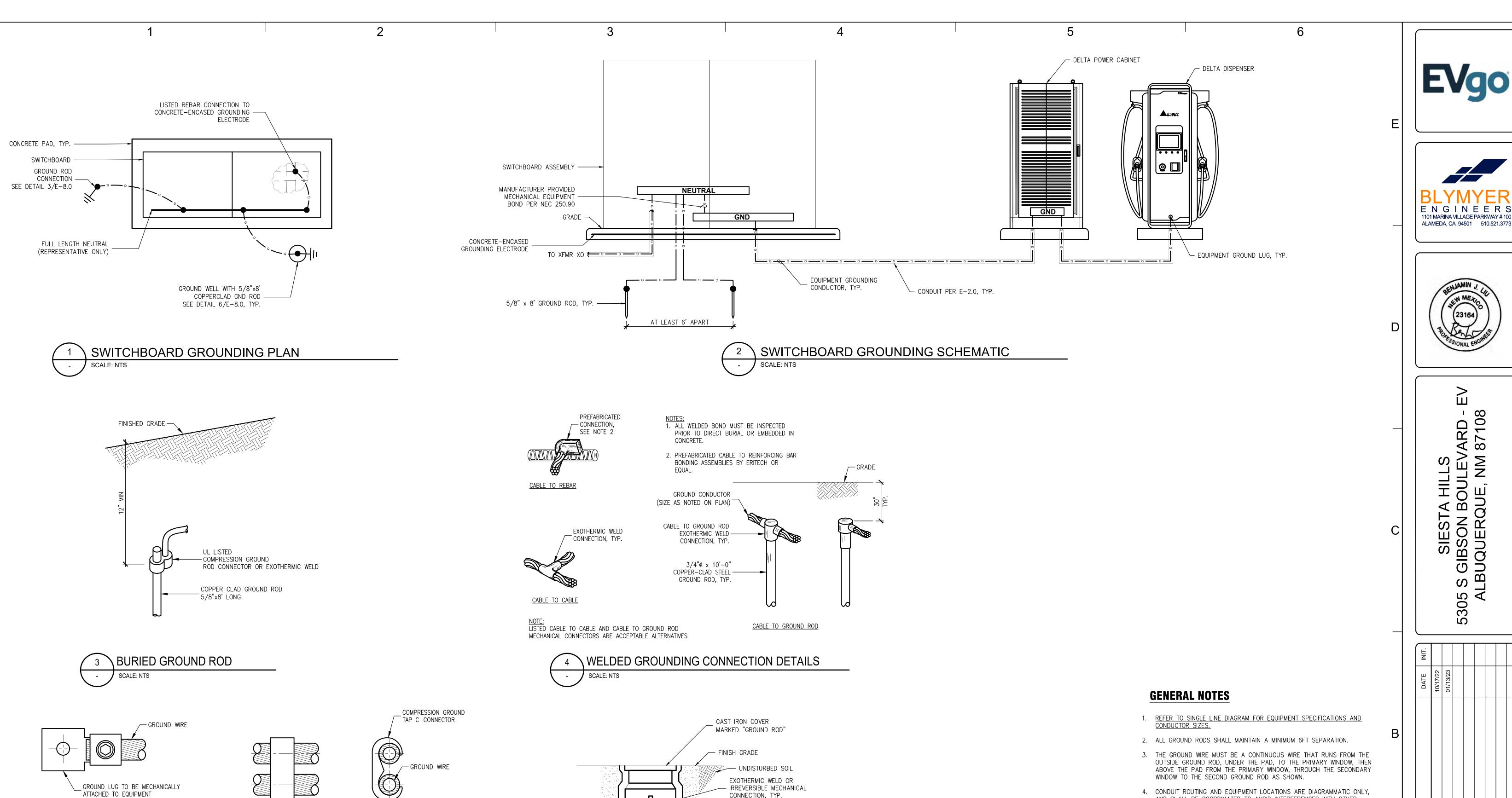
ORIGINAL SIZE 24"X36" SHEET SIZE ARCH "D"

222001.130

WARNING SIGNS

E-6.0





- AND SHALL BE COORDINATED TO AVOID INTERFERENCES WITH OTHER UTILITIES/UNDERGROUND INSTALLATIONS. CONTRACTOR IS RESPONSIBLE FOR FIELD CHECKING AND MAKING ALL NECESSARY OFFSETS AS REQUIRED.
- 5. INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED NEC AND NESC CODES AND STANDARDS AND SHALL CONFORM WITH INDUSTRY BEST PRACTICES AND IEEE RECOMMENDATIONS. THE AHJ HAS FINAL JURISDICTIONAL AUTHORITY ON CODE APPLICATION AND COMPLIANCE.
- 6. ALL WIRING AND GROUNDING METHODS SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDED PRACTICES.
- 7. EXPOSED NON-CURRENT CARRYING METAL PARTS OF ALL EQUIPMENT AND ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC 250.134 AND 250.136(A). GROUND IN ACCORDANCE WITH LISTING.
- 8. ALL GROUNDING ELECTRODE CONNECTIONS SHALL BE MADE USING EXOTHERMIC WELD PROCESS, OR UL LISTED IRREVERSIBLE MECHANICAL CONNECTORS, SUITABLE FOR ITS USE.
- 9. EQUIPMENT SIZES SHOWN ARE TYPICAL REFER TO SUBMITTAL DRAWINGS FOR ACTUAL SIZES.
- 10. ALL GND CONNECTIONS SHALL BE MADE USING UL LISTED IRREVERSIBLE COMPRESSION CONNECTOR OR EXOTHERMIC WELD PROCESS AS APPLICABLE; MECHANICAL GND CONNECTORS CAN BE APPROVED FOR AN ABOVEGROUND CONNECTIONS. CONTRACTOR TO VERIFY ELECTRODE RESISTANCE TO THE GROUND BY 3-POINT TESTING METHOD. THIS RESISTANCE SHALL NOT EXCEED  $5\Omega$ .

/ARD -87108

SIESTA HI GIBSON BOU 3UQUERQUE,

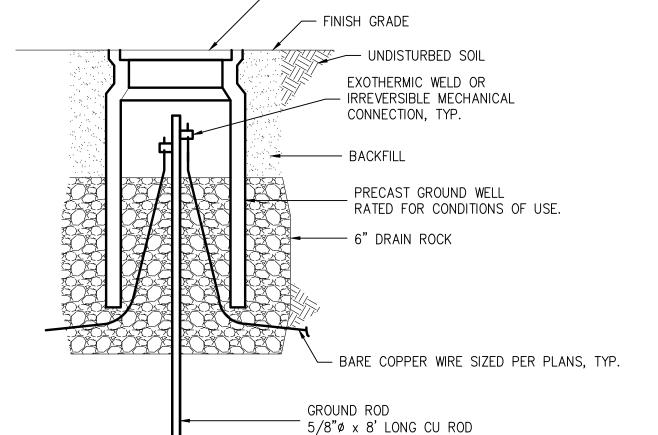
3

ORIGINAL SIZE 24"X36" SHEET SIZE ARCH "D"

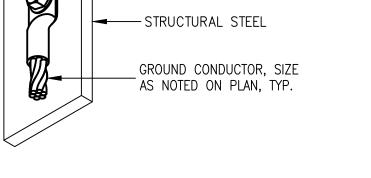
222001.130

**GROUNDING DETAILS** 

E-8.0



**GROUND ROD WELL** 

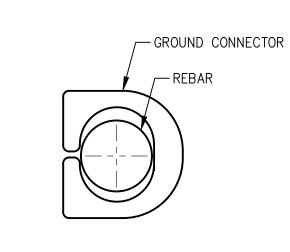


CABLE TO VERTICAL STEEL

TYP., SEE NOTE 2

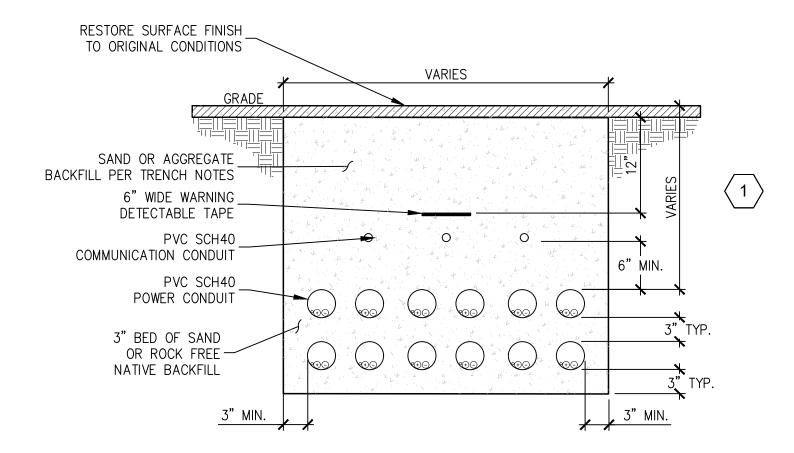
COMPRESSION LUG WITH BOLTED

- CONNECTION TO VERTICAL SURFACE,

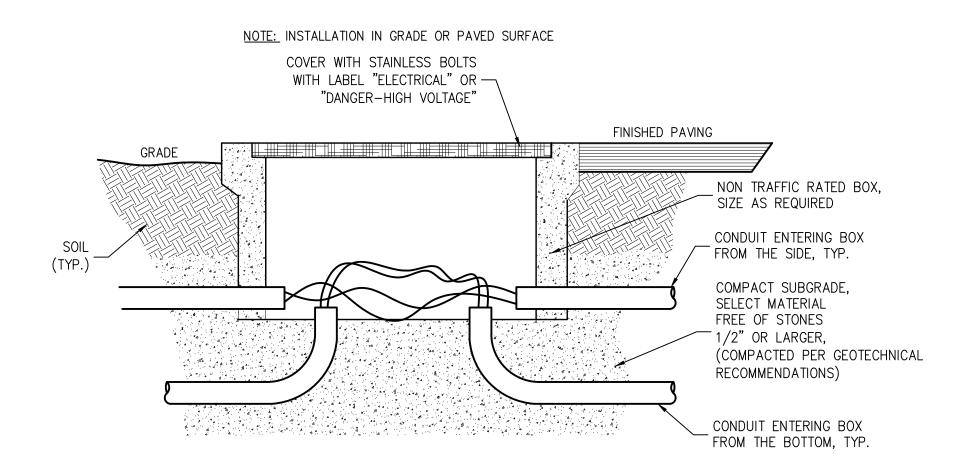


NOTE: BURNDY HYGROUND FITTING OR SIMILAR

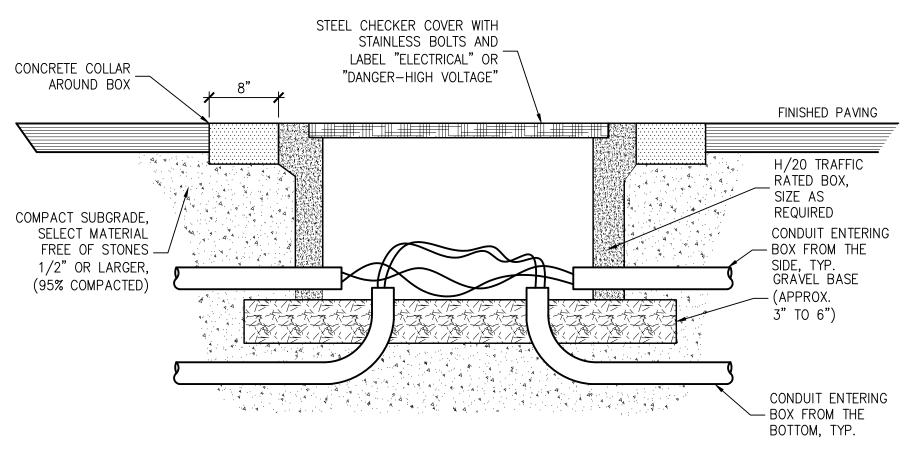




# 1 ELECTRICAL TRENCH SCALE: 1" = 1'-0"











# TRENCH NOTES

- 1. TRENCH BACKFILL SHOULD BE PLACED IN HORIZONTAL LIFTS AND COMPACTED TO 85% RELATIVE COMPACTION, AS EVALUATED BY ASTM D698.
- COMPACTION MEANS AND METHODS SHALL BE DETERMINED BY TRENCHING CONTRACTOR.
- TRENCH CONSTRUCTION SHALL COMPLY WITH OSHA REQUIREMENTS.
   AGGREGATE BASE AND THE UPPER 12" OF SUBGRADE BENEATH PAVEMENT AREAS SHOULD BE COMPACTED TO 95% RELATIVE COMPACTION, AS EVALUATED BY ASTM D698.
- PROVIDE MIN 12" SEPARATION FROM ANY EXISTING UTILITIES, IF APPLICABLE.
   SOILS CONSISTING OF ROCKS NO LONGER THAN 0.5" IN DIAMETER SHALL BE CONSIDERED ROCK FREE.
- 7. CONTRACTOR SHALL HAND DIG AROUND ALL UTILITIES.

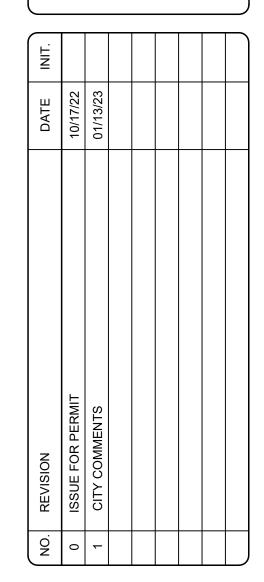
# **KEYED NOTES**

MINIMUM BURIAL DEPTH IS 24" UNDER STREETS, DRIVEWAYS AND PARKING LOTS AND 18" MINIMUM DEPTH UNDER LANDSCAPING AREA PER NEC TABLE 300.5.





SIESTA HILLS 5305 S GIBSON BOULEVARD -ALBUQUERQUE, NM 87108



ORIGINAL SIZE 24"X36" SHEET SIZE ARCH "D"

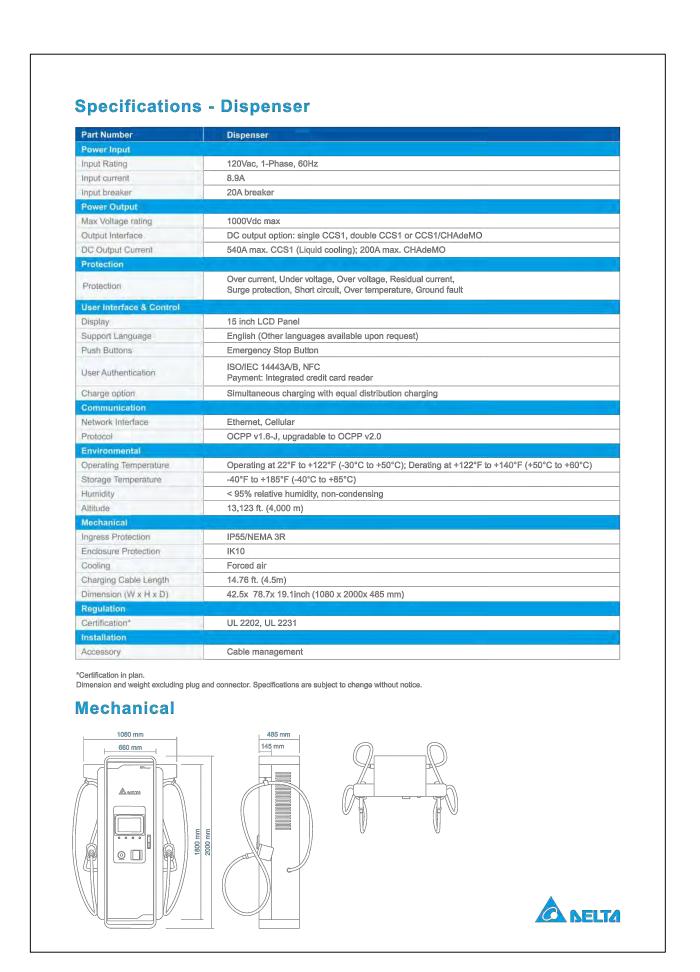
PROJECT # 222001.130

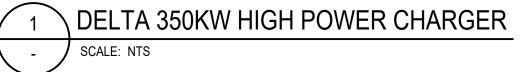
SHEET TITLE
TRENCH DETAILS

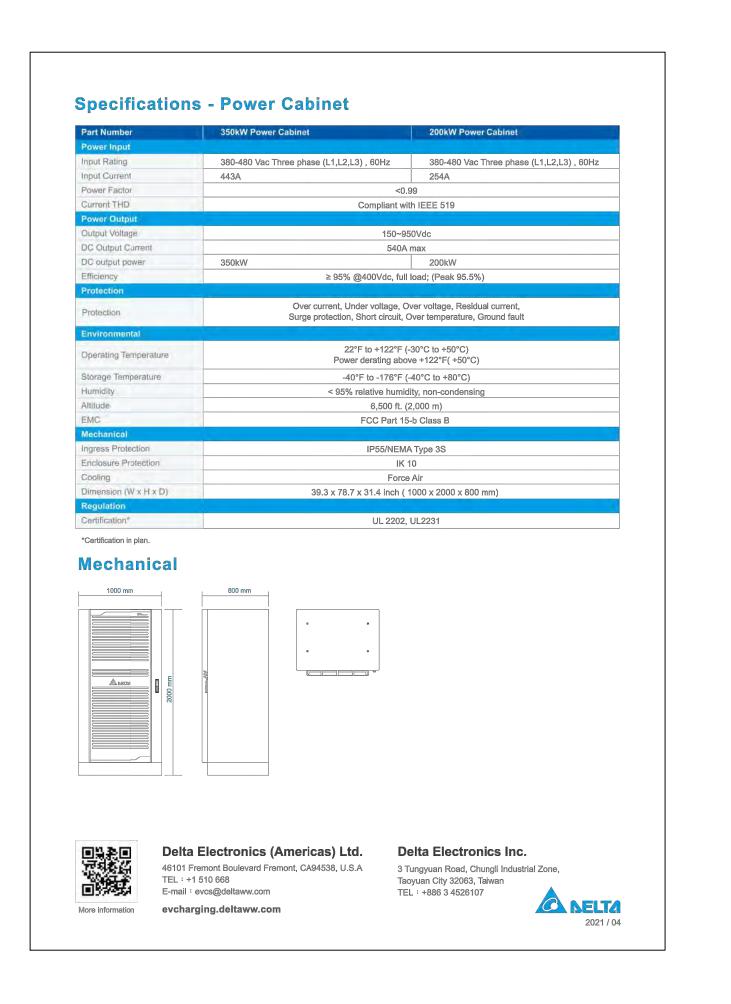
SHEET NUMBER
E-8.1

1 3 6











E





D

VARD - EV 1 87108

C

SIESTA HILLS
5305 S GIBSON BOULEVA
ALBUQUERQUE, NM 8

 NO.
 REVISION
 DATE
 INIT.

 0
 ISSUE FOR PERMIT
 10/17/22
 10/17/22

 1
 CITY COMMENTS
 01/13/23
 10/1/3/23

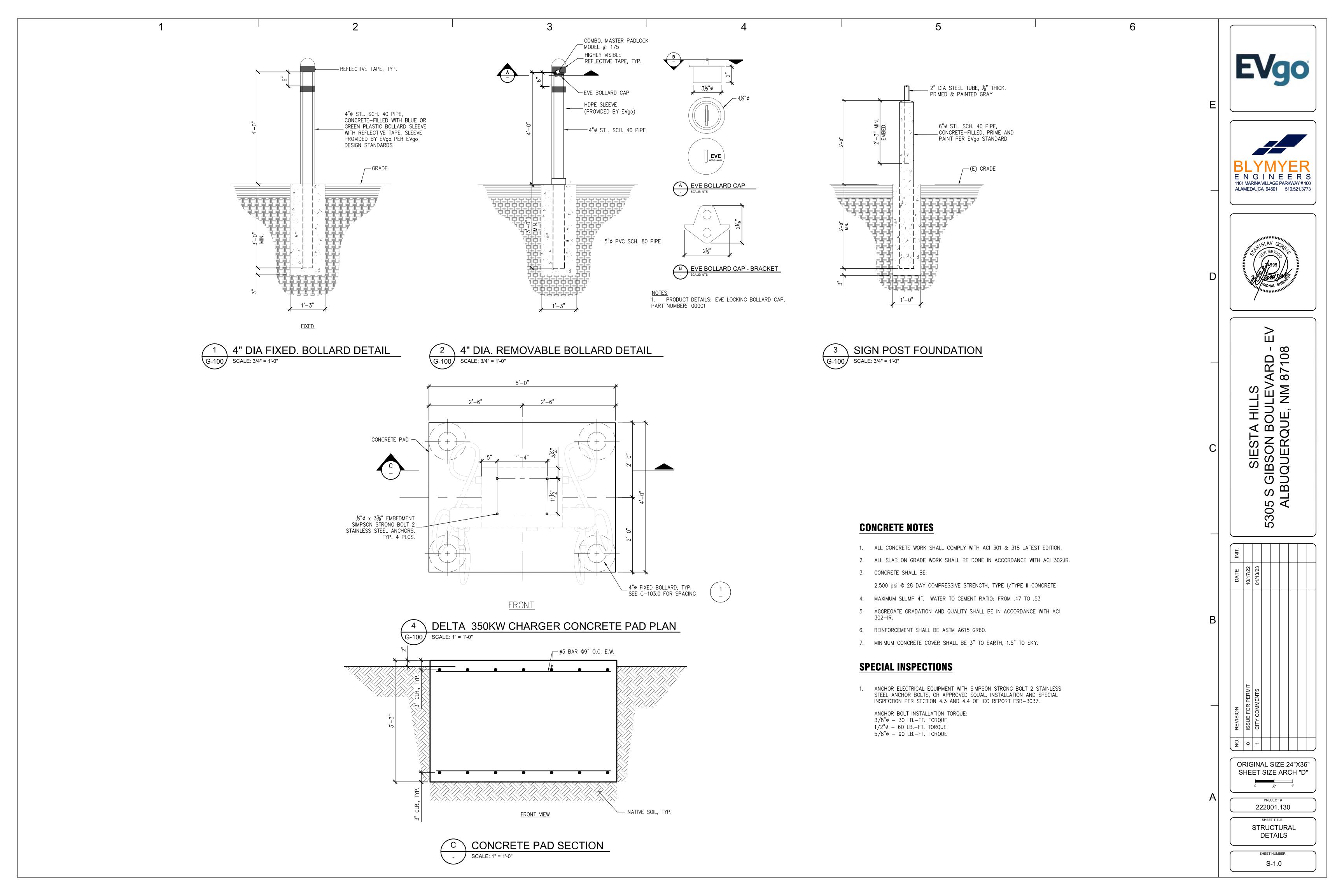
ORIGINAL SIZE 24"X36" SHEET SIZE ARCH "D"

PROJECT #
222001.130

SHEET TITLE

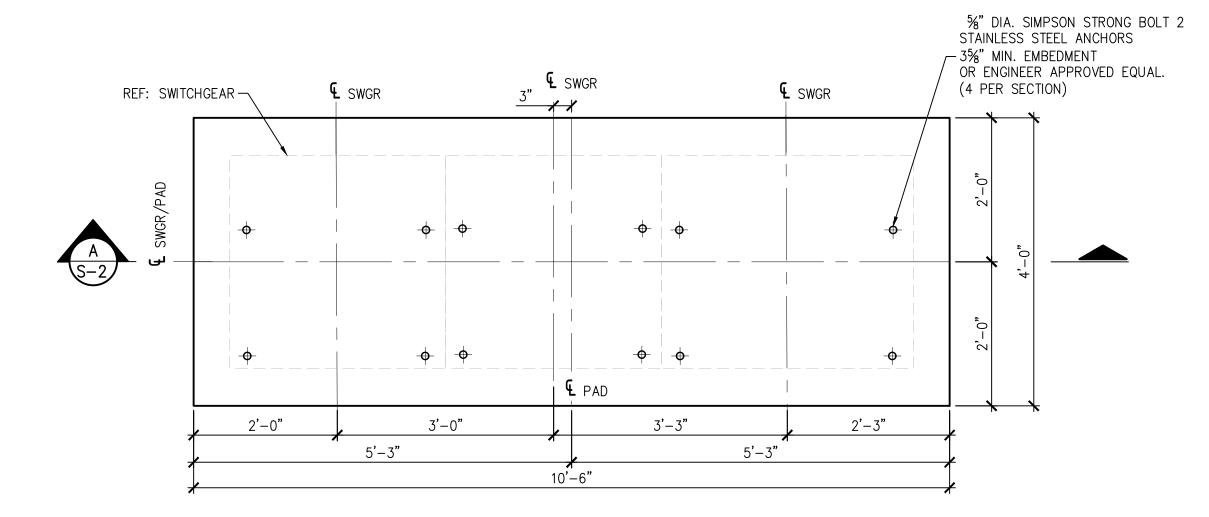
SHEET NUMBER
E-10.0

EQUIPMENT SPECIFICATIONS

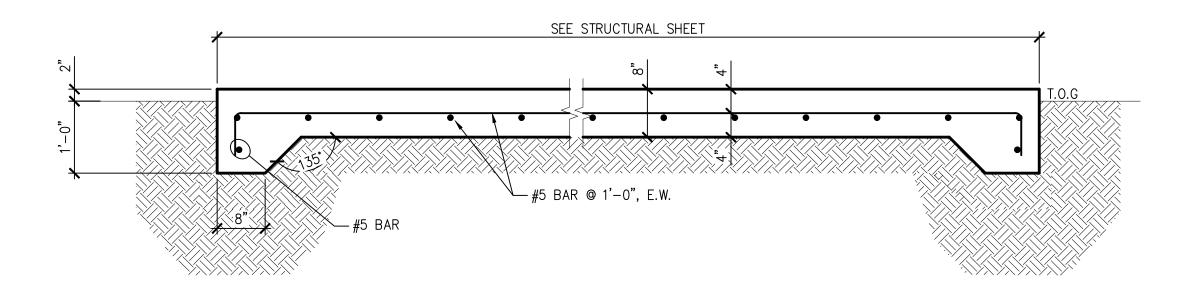


1 DELTA CABINET CONCRETE PAD PLAN

G-100 SCALE: 3/4" = 1'-0"



2 SWBD-EV CONCRETE PAD PLAN
G-100 SCALE: 3/4" = 1'-0"





# **CONCRETE NOTES**

- 1. ALL CONCRETE WORK SHALL COMPLY WITH ACI 301 & 318 LATEST EDITION.
- 2. ALL SLAB ON GRADE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 302.IR.
- 3. CONCRETE SHALL BE:

2,500 psi @ 28 DAY COMPRESSIVE STRENGTH, TYPE I/TYPE II CONCRETE

- 4. MAXIMUM SLUMP 4". WATER TO CEMENT RATIO: FROM .47 TO .53
- 5. AGGREGATE GRADATION AND QUALITY SHALL BE IN ACCORDANCE WITH ACI 302-IR.
- 6. REINFORCEMENT SHALL BE ASTM A615 GR60.
- 7. MINIMUM CONCRETE COVER SHALL BE 3" TO EARTH, 1.5" TO SKY.

# **SPECIAL INSPECTIONS**

1. ANCHOR ELECTRICAL EQUIPMENT WITH SIMPSON STRONG BOLT 2 STAINLESS STEEL ANCHOR BOLTS, OR APPROVED EQUAL. INSTALLATION AND SPECIAL INSPECTION PER SECTION 4.3 AND 4.4 OF ICC REPORT ESR-3037.

ANCHOR BOLT INSTALLATION TORQUE: 3/8"ø – 30 LB.-FT. TORQUE 1/2"ø – 60 LB.-FT. TORQUE 5/8"ø – 90 LB.-FT. TORQUE







SIESTA HILLS 5305 S GIBSON BOULEVARD -ALBUQUERQUE, NM 87108

O	REVISION	DATE	INI T
0	ISSUE FOR PERMIT	10/17/22	
_	CITY COMMENTS	01/13/23	

ORIGINAL SIZE 24"X36" SHEET SIZE ARCH "D"

PROJECT#
222001.130

SHEET TITLE
STRUCTURAL
DETAILS

S-2.0