

TESLA

DESIGN LOADING

115 MPH

89 MPH

0.4420

0.1340

0.4262

0.2023

20"

1.0

LATERAL LOAD DESIGN DATA:

WIND DESIGN DATA (ASCE 7-10):

BASIC WIND SPEED (Vult):

BASIC WIND SPEED (Vasd)

IMPORTANCE FACTOR

EXPOSURE CATEGORY

SITE CLASS (ASSUMED)

RISK CATEGORY

FROST DEPTH:

SEISMIC DESIGN DATA (ASCE 7-10):

MAPPED SPECTRAL RESPONSE

SPECTRAL RESPONSE COEFF.

SEISMIC DESIGN CATEGORY

SHORT PERIODS (Ss)

SHORT PERIODS (S_{DS})

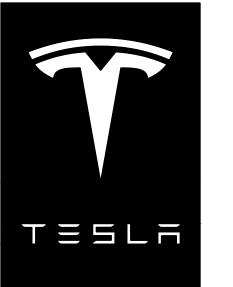
1 SEC. PERIODS (S_{D1})

1 SEC. PERIODS (S₁)

1.0 SEISMIC IMPORTANCE FACTOR (I)

SUPERCHARGING STATION

5151 JOUNRAL CENTER BLVD NE (TESLA STATION) ALBUQUERQUE, NM 87109 TRT18975





3500 DEER CREEK RD PALO ALTO, CA 94304 (650) 681-5000

Professional Corporation

SITE LAYOUT PROPERTY LINE AND RIGHT-OF-WAY BOUNDARIES ARE SHOWN FOR

CIVIL

GN-1

C-1

C-2

C-3

C-4

C-5

ELECTRICAL

EN-1

E-2

E-3

REFERENCED DOCUMENTS

UTILITY DESIGN DOCUMENTS

SUPERCHARGER INSTALLATION MANUAL

ELECTRICAL EQUIPMENT CUTSHEETS

SUPERCHARGER POST INSTALLATION MANUAL

AERIAL MAP

Africa Const	1	The same	
	REV.	REV. DATE	DESCRIPTI
	∢	09.01.22	ISSUED FOR SITE SKETC
	В	09.22.22	ISSUED FOR 90% REVIEV
	ပ	10.06.22	SIGNED AND SEALED
	_	12.02.22	REVISED PER AHJ COMM
	2	01.09.22	REVISED PER UTILITY CO

5

DRAWING INDEX

SHEET TITL

SHEET TITLE

TITLE SHEET & PROJECT DATA

ELECTRICAL GENERAL NOTES

ELECTRICAL EQUIPMENT PLAN

GENERAL NOTES

DEMOLITION PLAN

SITE PLAN

CIVIL DETAILS

CIVIL DETAILS

GRADING PLAN

ONE-LINE DIAGRAM

TESLA DATASHEET

ELECTRICAL DETAILS

TOPOGRAPHIC SURVEY

ISSUED FOR:		
PERMIT		XXX
BID		XXX
CONSTRUCTION		XXX
RECORD		XXX
INSTALL MANAGER	DESIC	SNER

SORENSEN	KDV
BETH SORENSEN	RDV
INSTALL MANAGER	DESIGNER

2022141.67

SITE INFORMATION

ADDRESS: 5151 JOUNRAL CENTER BLVD NE (TESLA STATION) ALBUQUERQUE, NM 87109

CONTACT: DANIELLE MONTOYA (480) 337-6589 DMONTOYA@BURNSMCD.COM

PROPERTY OWNER: TITAN JOURNAL CENTER HOTEL LLC CONTACT: MATT LAMMERS (505) 515-2901

EQUIPMENT SUPPLIER: TESLA, INC. 3500 DEER CREEK ROAD PALO ALTO, CA 94304 (650) 681-5000

<u>LATITUDE (NAVD88)</u> N 35°10'18.6"

35.171828°

LONGITUDE (NAVD88) W 106°35'11.7" -106.586589°

PERMITTING JURISDICTION: CITY OF ALBUQUERQUE CONTACT: RICK DE RYES (505) 924-3860

COUNTY: BERNALILLO

New Mexico One Call, Inc.

2015 INTERNATIONAL BUILDING CODE

2017 NEW MEXICO ELECTRIC CODE W/ AMENDMENTS

811 or 800-321-2537

GPD GROUP PROFESSIONAL CORPORATION CONTACTS:

ZACHERY SHEETS, PE - OH# 77870 (330) 572-2148 ZSHEETS@GPDGROUP.COM

PROJECT COORDINATOR: BRIAN GUTHRIDGE (330) 572-2249

BGUTHRIDGE@GPDGROUP.COM **PERMIT COORDINATOR:**

SARAH HONEYCUTT (330) 572-3508 GPDCHARGEPERMITS@GPDGROUP.COM

UTILITY COORDINATOR RICH VINEYARD (216) 413-5953

RVINEYARD@GPDGROUP.COM

FLOOD HAZARD AREA NOTE

THE SITE IS LOCATED IN FLOOD ZONE "X" (AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER FLOOD INSURANCE MAP NUMBER 35001C0137H, EFFECTIVE DATE - 08/16/2012.

PROJECT DESCRIPTION

APPLICABLE CODES

ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

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

- INSTALL (2) V3 SUPERCHARGER CABINETS
- INSTALL (8) TESLA SUPERCHARGER POSTS INSTALL (1) UTILITY TRANSFORMER WITH INTEGRATED CT CABINET
- INSTALL (1) UTILITY METER
- INSTALL (2) 600A SERVICE ENTRANCE DISCONNECT ENCLOSURES

BEFORE SCALING & PLAN REPRODUCTION WARNING

CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND FIELD CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY TESLA IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

- 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 TESLA OF ANY DISCREPANCIES. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS SHALL BE CORRECTED AT THE CONTRACTORS SOLE EXPENSE.
- CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO TESLA FOR APPROVAL BEFORE MAKING ANY CHANGES. DEVIATION FROM PLANS BEFORE WRITTEN APPROVAL FROM TESLA PLACES LIABILITY ON THE CONTRACTOR.
- 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 29. FROM THE DRAWINGS.
- NEW PAVEMENT INSTALLED AS PART OF THIS PROJECT SHALL MATCH EXISTING PAVEMENT 30. SECTION. EXISTING PAVEMENT DEPTHS SHALL BE MAINTAINED.
- THE TOPOGRAPHIC SURVEY BY CLARK LAND SURVEYING, INC, DATED 06/18/2022 SHALL BE CONSIDERED PART OF THESE PLANS. THE G.C. IS RESPONSIBLE FOR LOCATING EXISTING CONDITION IMPROVEMENTS PER THESE PLANS.
- THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THE PLAN ARE BASED ON FIELD SURVEYS. DUE TO THE LIMITATIONS IN TECHNOLOGY AND GROUND CONDITIONS, NOT ALL UNDERGROUND UTILITIES ARE ABLE TO BE LOCATED. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION.
- 11. ALL PROPERTY LINES, RIGHT OF WAYS, CENTERLINES, DIMENSIONS, GRADES, AND UTILITY LOCATIONS SHOWN ON THESE PLANS WERE BASED ON A TOPOGRAPHIC SURVEY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- 12. THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK. ANY DISCREPANCIES SHALL BE 1 BROUGHT TO THE ATTENTION OF TESLA PRIOR TO THE COMMENCEMENT OF WORK.
- 13. 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.
- 14. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, 2 EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 15. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH 2 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 4 SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM TESLA 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 5 MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND APPROVED BY TESLA PRIOR TO PROCEEDING WITH WORK.
- 16. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE
- 17. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY TESLA PRIOR TO PROCEEDING.
- 18. THE GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES 8. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE WITH OTHER DISCIPLINES.
- 19. CONSTRUCTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT 9 EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE.
- 20. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, 10. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING PUBLIC AND PRIVATE UTILITIES PRIOR LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- 21. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONCRETE CONSTRUCTION. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER

UTILITIES SHALL BE PROTECTED AT ALL TIMES.

- 22. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY TESLA OF ANY 2 DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- 23. FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY AN INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATED BY THE CONTRACTOR.

- 25. PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION ACTIVITIES, 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 ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE
- 27. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING FROM TESLA.
- 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 (SW 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.
- 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 ORGANIC MATTER. 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 THIS
- FOUNDATIONS HAVE BEEN DESIGNED BASED ON AN ASSUMED ALLOWABLE SOIL BEARING 2. CAPACITY OF 1500 PSF UNLESS NOTED OTHERWISE.
- 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.
- APPROVAL OF THE ENGINEER OF RECORD.
- ENCOUNTERED DURING EXCAVATION ON SITE, CONTRACTOR SHALL PROVIDE FOR ANY SITE DRAINAGE AND DE-WATERING REQUIRED.
- TO EXCAVATION. IF NECESSARY, UTILITIES SHALL BE RELOCATED PRIOR TO FOUNDATION INSTALLATION.

- ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 301-10, "STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE" AND ACI 302, 305 AND 306 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 UNLESS NOTED OTHERWISE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS AS FOLLOWS: ALL CONCRETE - 4500 PSI. 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.
- SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE 9. PROVIDE CORNER BARS AT ALL LOCATIONS WHERE REINFORCEMENT CHANGES DIRECTION.
 - 10. PROVIDE STRAIGHT AND DIAGONAL BARS AT EDGES OF ALL OPENINGS.
 - 11. REINFORCING EMBEDMENT AND LAP SPLICES (INCHES) FOR 4500 PSI CONCRETE

		O1	HEK	10	Ρ"
	BAR SIZE	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 MOF	RE THAN 12" O	F CONCRETE BELOV	V BAR

12. NON-SHRINK GROUT SHALL MEET A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 6000 PSI.

CHARGING CABINET PRE-FABRICATED ASSEMBLY FOUNDATION & ALL CHARGING POST FOUNDATIONS -FROST DESIGN NOTES (BOTTOM OF FOUNDATION ABOVE FROST LEVEL):

- 1. 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 T-1 FOR LOCAL FROST DEPTH.
- 3. GEOTEXTILE (FILTER FABRIC) SHOULD BE PLACED BETWEEN THE GRANULAR BACKFILL AND COHESIVE SOILS TO PRECLUDE THE INFILTRATION OF FINES, SPEC AS FOLLOWS:

SEPARATION GEOTEXTILE: WOVEN GEOTEXTILE FABRIC, MANUFACTURED FOR SEPARATION APPLICATIONS, MADE FROM POLYOLEFINS OR POLYESTERS; WITH ELONGATION LESS THAN 50 PERCENT; COMPLYING WITH AASHTO M 288 AND THE FOLLOWING, MEASURED PER TEST METHODS REFERENCED:

SURVIVABILITY: CLASS 2; AASHTO M 288. GRAB TENSILE STRENGTH: 247 LBF (1100 N); ASTM D 4632. SEWN SEAM STRENGTH: 222 LBF (990 N); ASTM D 4632. TEAR STRENGTH: 90 LBF (400 N); ASTM D 4533. PUNCTURE STRENGTH: 90 LBF (400 N); ASTM D 4833. APPARENT OPENING SIZE: NO. 60 (0.250-MM) SIEVE, MAXIMUM; ASTM D 4751.

UV STABILITY: 50 PERCENT AFTER 500 HOURS' EXPOSURE; ASTM D 4355.

CHARGING CABINET PRE-FABRICATED ASSEMBLY FOUNDATION & ALL CHARGING POST FOUNDATIONS - NO FROST DESIGN NOTES (BOTTOM OF FOUNDATION BELOW FROST LEVEL)

PERMITTIVITY: 0.02 PER SECOND, MINIMUM; ASTM D 4491

- 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.

STRUCTURAL STEEL

MATERIAL PROPERTIES:

ASTM A36 UNO ASTM A53, TYPE E OR S, GRADE B (Fy = 35 KSI) ASTM A1085 GRADE A (Fy = 50 KSI)

- DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE 2010 AISC (360-10) SPECIFICATIONS.
- ALL WELDING SHALL BE DONE USING E-70XX ELECTRODES IN ACCORDANCE WITH AWS D1.1
- GROUNDWATER ASSUMED TO BE BELOW EXCAVATION DEPTH. IF GROUNDWATER IS 3. FIELD VERIFY ALL CONDITIONS AT AND CONNECTIONS TO THE EXISTING CONSTRUCTION BEFORE FABRICATION.
 - 4. ALL EXPOSED STRUCTURAL STEEL, ANCHOR RODS AND BOLTS SHALL BE HOT DIP GALVANIZED PER ASTM A123.
 - UNLESS NOTED OTHERWISE ON THE DRAWING, ALL ANCHOR RODS SHALL CONFORM TO ASTM F1554 Gr 55 WITH HEAVY HEXAGONAL NUT.
 - 6. SUBMIT FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS MATERIAL DESIGNATIONS, AND TOP STEEL ELEVATIONS FOR APPROVAL. THE SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL CONFORMANCE TO THE CONTRACT DRAWINGS. SUCH APPROVAL SHALL NOT RELIEVE THE FABRICATOR/CONTRACTOR OF THE RESPONSIBILITY FOR EITHER THE ACCURACY OF THE DETAILED DIMENSIONS IN THE SHOP AND ERECTION DRAWINGS OR THE GENERAL FIT-UP OF PARTS THAT ARE TO BE ASSEMBLED IN THE FIELD.

TRAFFIC CONTROL NOTES

- 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.
- 2. 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

1. TESLA 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

PAVEMENT MARKING NOTES

- 1. 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:
- 3. 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.
- 4. PROVIDE A NON-SLIP AGGREGATE ADDITIVE TO MARKING PAINT USED AT ADA ACCESS RAMPS
- 5. 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.

EXISTING SLAB REINFORCEMENT INVESTIGATION/X-RAY

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

LANDSCAPE NOTES

- 1. ALL DISTURBED AND PROPOSED LANDSCAPE PLANTING BED AREAS SHALL BE MULCHED WITH 3" GRAVEL MULCH TO MATCH EXISTING CONDITIONS IN SIZE AND COLOR.
- 2. PLANT GUARANTEE: 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 TESLA FOR APPROVAL. UPON APPROVAL OF SHOP DRAWINGS, THE UPDATED IRRIGATION SYSTEM SHALL BE APPROVED BY OWNER FOR FINAL ACCEPTANCE.

EXISTING LEGEND

 \bigcirc

g pmp

mb

CATCH BASIN

CURB INLET

STORM MANHOLE

SANITARY VALVE

SEPTIC TANK

FIRE HYDRANT

WATER METER

WATER VALVE

SPRINKLER HEAD

WATER MANHOLE

GAS VALVE

GAS METER

GAS MANHOLE

GAS SERVICE METER

TELEPHONE PEDESTAL

TELEPHONE MANHOLE

CABLE TV PEDESTAL

LUMINESCENT SIGN

BOLLARD

CLEANOUT

YARD LIGHT

FLAG POLE

GAS PUMP

MAIL BOX

SIGN

SANITARY MANHOLE

UNKNOWN MANHOLE

— P ∕L — APPARENT PROPERTY LINE

— R /W — APPARENT RIGHT OF WAY

— C/L — APPARENT CENTERLINE

— WM —

— GAS —

— SAN —

— L/P —

WATER MAIN

WATER LINE

SANITARY LINE

OVERHEAD ELECTRIC

LIGHT POLE CONDUIT

EXISTING BUILDING

POWER/TELEPHONE POLE

LIGHT/TELEPHONE POLE

TELEPHONE POLE

POWER/LIGHT POLE

UNKNOWN POLE

ELECTRIC METER

TRANSFORMER

ELECTRIC MANHOLE

ELECTRIC PULLBOX

POWER/LIGHT/TELE POLE

LIGHT POLE

POWER POLE

— IR — IRRIGATION LINE

— ST — STORM LINE

— E — ELECTRIC MAIN

— UE — ELECTRIC LINE

GAS LINE

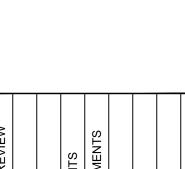




330.572.2100 Fax 330.572.2101



PALO ALTO, CA 94304



	REV.	REV. DATE	DESCRIPTION
	Α	09.01.22	ISSUED FOR SITE SKETCH REVIE
	В	09.22.22	ISSUED FOR 90% REVIEW
	С	10.06.22	SIGNED AND SEALED
	-	12.02.22	REVISED PER AHJ COMMENTS
	2	01.09.22	REVISED PER UTILITY COMMENT
ı			

l∪ııı₫ JOUNRAL BLVD NE SLA SUPERCH

2

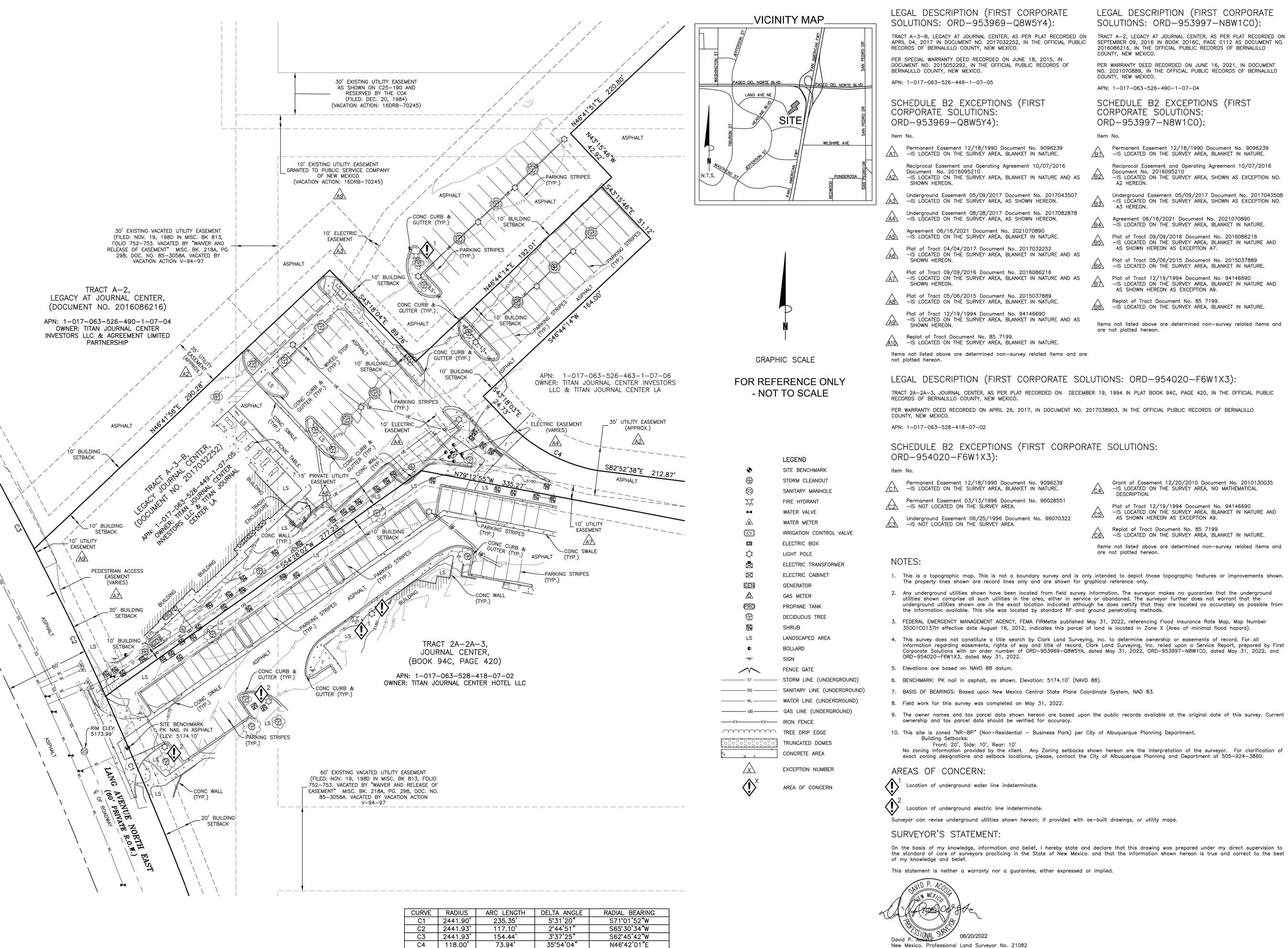
5

ISSUED FOR: **PERMIT** XXX XXX CONSTRUCTION XXX XXX RECORD INSTALL MANAGER DESIGNER

2022141.67

SORENSEN

RDV



LEGAL DESCRIPTION (FIRST CORPORATE SOLUTIONS: ORD-953997-N8W1C0):

2016086216, IN THE OFFICIAL PUBLIC RECORDS OF BERNALILLO

PER WARRANTY DEED RECORDED ON JUNE 16, 2021, IN DOCUMENT NO. 2021070889, IN THE OFFICIAL PUBLIC RECORDS OF BERNALILLO

SCHEDULE B2 EXCEPTIONS (FIRST CORPORATE SOLUTIONS:

Permanent Easement 12/18/1990 Document No. 9096239 -IS LOCATED ON THE SÚRVÉY AREA, BLANKET IN NATURE.

Reciprocal Easement and Operating Agreement 10/07/2016 Document No. 2016095210 -IS LOCATED ON THE SURVEY AREA, SHOWN AS EXCEPTION NO.

Underground Easement 05/09/2017 Document No. 2017043508 -IS LOCATED ON THE SURVEY AREA, SHOWN AS EXCEPTION NO.

greement 06/16/2021 Document No. 2021070890 -IS LOCATED ON THE SURVEY AREA, BLANKET IN NATURE.

Plat of Tract 09/09/2016 Document No. 2016086216 -IS LOCATED ON THE SURVEY AREA, BLANKET IN NATURE AND AS SHOWN HEREON AS EXCEPTION A7.

Plat of Tract 05/06/2015 Document No. 2015037889 -IS LOCATED ON THE SURVEY AREA, BLANKET IN NATURE.

Plat of Tract 12/19/1994 Document No. 94146690 -IS LOCATED ON THE SURVEY AREA, BLANKET IN NATURE AND AS SHOWN HEREON AS EXCEPTION A9.

Replat of Tract Document No. 85 7199. -IS LOCATED ON THE SURVEY AREA, BLANKET IN NATURE.

Items not listed above are determined non-survey related items and

LEGAL DESCRIPTION (FIRST CORPORATE SOLUTIONS: ORD-954020-F6W1X3):

PER WARRANTY DEED RECORDED ON APRIL 26, 2017, IN DOCUMENT NO. 2017038903, IN THE OFFICIAL PUBLIC RECORDS OF BERNALILLO

Plat of Tract 12/19/1994 Document No. 94146690

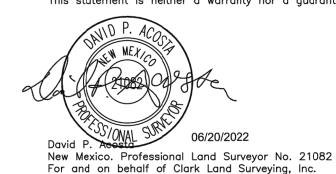
-IS LOCATED ON THE SURVEY AREA, BLANKET IN NATURE AND AS SHOWN HEREON AS EXCEPTION A9.

-IS LOCATED ON THE SURVEY AREA, BLANKET IN NATURE. Items not listed above are determined non—survey related items and

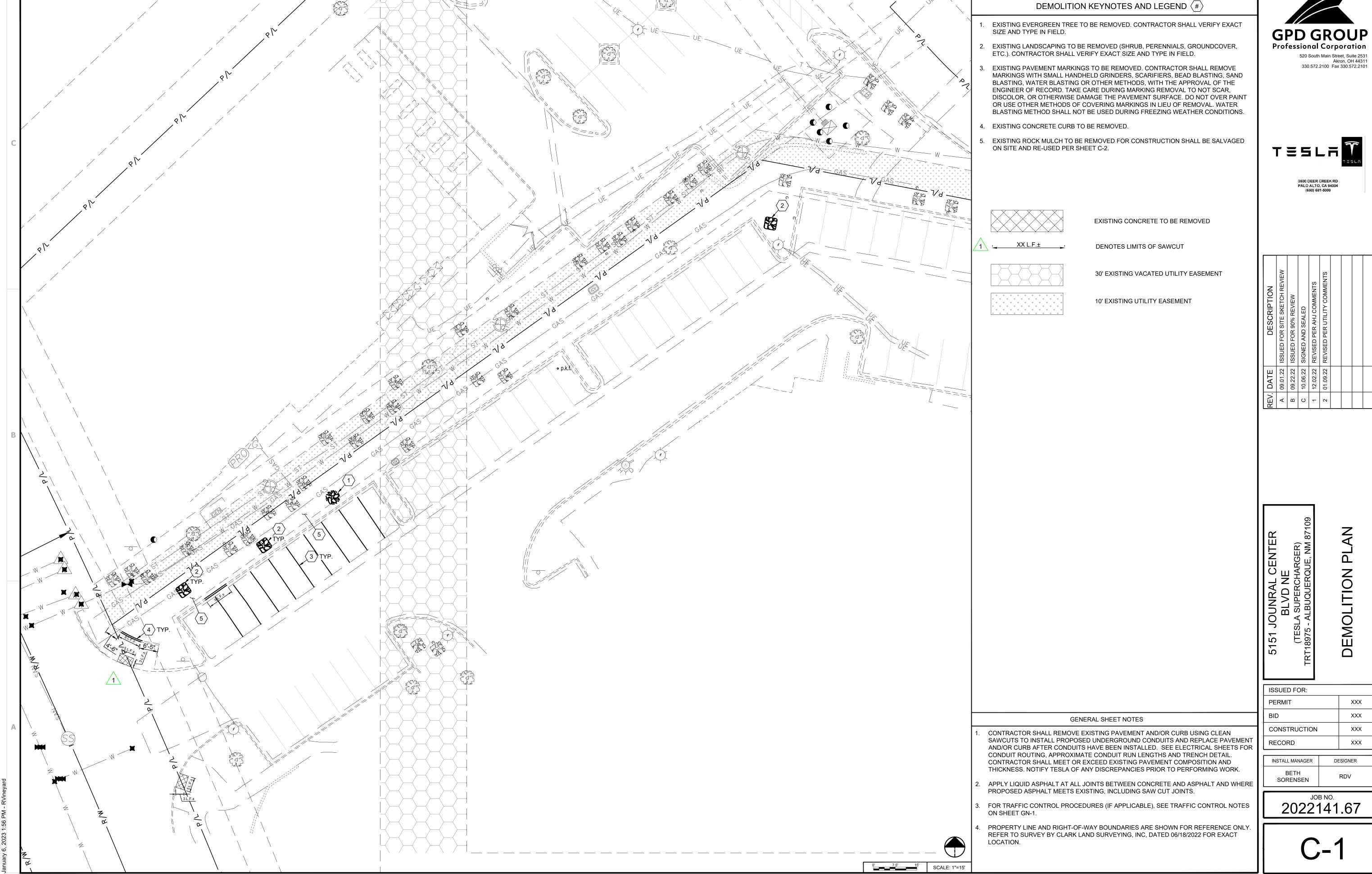
- 1. This is a topographic map. This is not a boundary survey and is only intended to depict those topographic features or improvements shown.
- 2. Any underground utilities shown have been located from field survey information. The surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from
- 35001C0137H effective date August 16, 2012, indicates this parcel of land is located in Zone X (Area of minimal flood hazard).
- 4. This survey does not constitute a title search by Clark Land Surveying, Inc. to determine ownership or easements of record. For all information regarding easements, rights of way and title of record, Clark Land Surveying, Inc. relied upon a Service Report, prepared by First Corporate Solutions with an order number of ORD-953969-Q8W5YA, dated May 31, 2022, ORD-953997-N8W1CO, dated May 31, 2022, and
- 9. The owner names and tax parcel data shown hereon are based upon the public records available at the original date of this survey. Current
- 10. This site is zoned "NR-BP" (Non-Residential Business Park) per City of Albuquerque Planning Department.

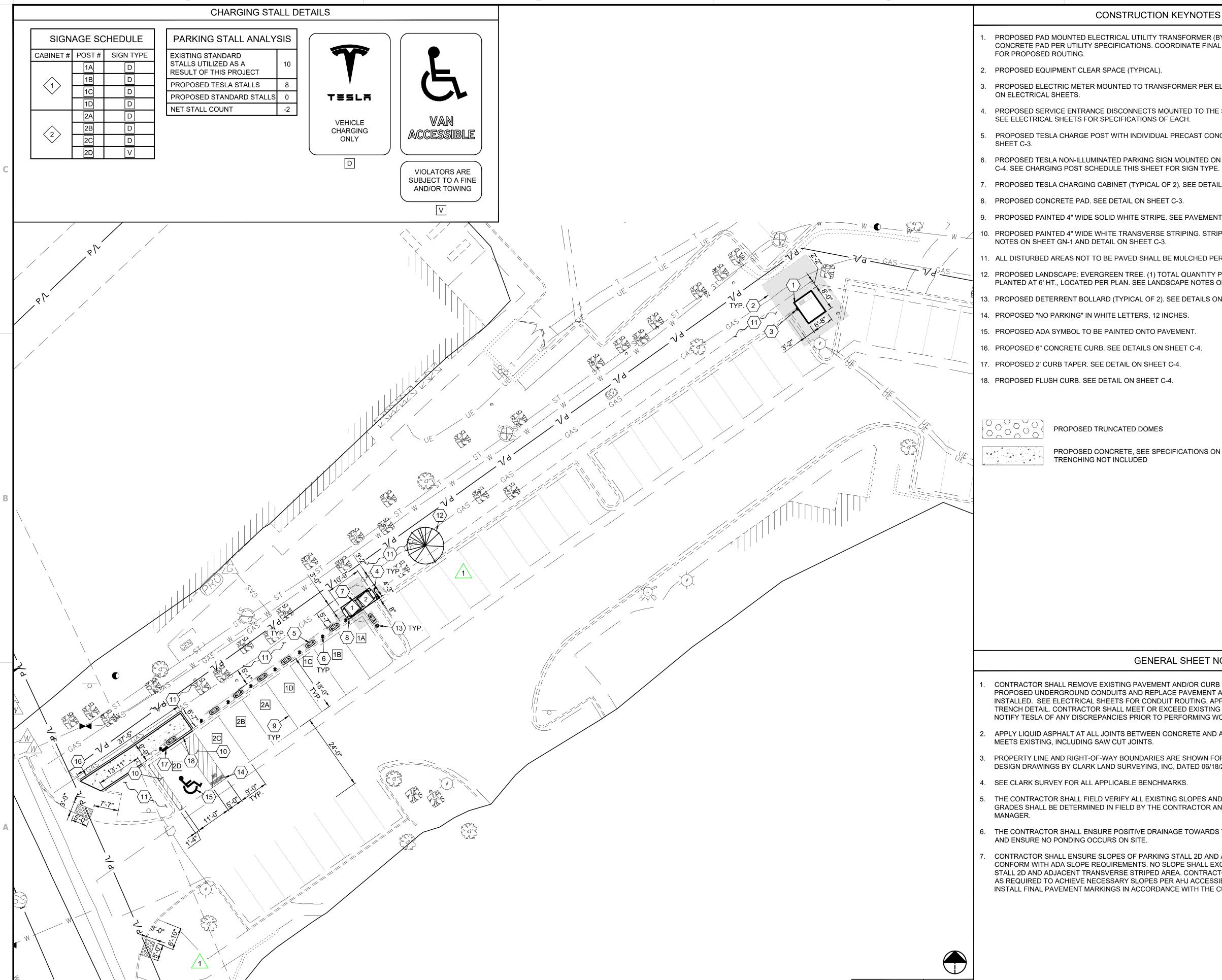
No zoning information provided by the client. Any Zoning setbacks shown hereon are the interpretation of the surveyor. For clarification of exact zoning designations and setback locations, please, contact the City of Albuquerque Planning and Department at 505-924-3860.

On the basis of my knowledge, information and belief, I hereby state and declare that this drawing was prepared under my direct supervision to the standard of care of surveyors practicing in the State of New Mexico. and that the information shown hereon is true and correct to the best



SITE NAM Albuquerque, Lang Ave I INTERSECTIC CENTER BLY F NEW MEXIC





CONSTRUCTION KEYNOTES AND LEGEND $\langle \# angle$

- PROPOSED PAD MOUNTED ELECTRICAL UTILITY TRANSFORMER (BY UTILITY). CONTRACTOR SHALL PROVIDE CONCRETE PAD PER UTILITY SPECIFICATIONS. COORDINATE FINAL LOCATION WITH UTILITY. SEE ELECTRICAL PLANS FOR PROPOSED ROUTING.
- 2. PROPOSED EQUIPMENT CLEAR SPACE (TYPICAL).
- PROPOSED ELECTRIC METER MOUNTED TO TRANSFORMER PER ELECTRIC COMPANY SPECIFICATIONS AND DETAILS ON ELECTRICAL SHEETS.
- PROPOSED SERVICE ENTRANCE DISCONNECTS MOUNTED TO THE SIDE OF EACH CHARGING CABINET (TOTAL OF 2). SEE ELECTRICAL SHEETS FOR SPECIFICATIONS OF EACH.
- PROPOSED TESLA CHARGE POST WITH INDIVIDUAL PRECAST CONCRETE FOUNDATION (TYPICAL OF 8). SEE DETAILS ON
- PROPOSED TESLA NON-ILLUMINATED PARKING SIGN MOUNTED ON BOLLARD (TYPICAL OF 8). SEE DETAILS ON SHEET
- 7. PROPOSED TESLA CHARGING CABINET (TYPICAL OF 2). SEE DETAILS ON SHEETS C-3.
- 8. PROPOSED CONCRETE PAD. SEE DETAIL ON SHEET C-3.
- 9. PROPOSED PAINTED 4" WIDE SOLID WHITE STRIPE. SEE PAVEMENT MARKING NOTES ON SHEET GN-1.
- 10. PROPOSED PAINTED 4" WIDE WHITE TRANSVERSE STRIPING. STRIPING SHALL BE 3'-0" O.C. SEE PAVEMENT MARKING NOTES ON SHEET GN-1 AND DETAIL ON SHEET C-3.
- 11. ALL DISTURBED AREAS NOT TO BE PAVED SHALL BE MULCHED PER LANDSCAPE NOTES ON SHEET GN-1.
- PROPOSED LANDSCAPE: EVERGREEN TREE. (1) TOTAL QUANTITY PINUS CEMBROIDES, MEXICAN PINYON. TO BE PLANTED AT 6' HT., LOCATED PER PLAN. SEE LANDSCAPE NOTES ON SHEET GN-2 AND PLANTING DETAIL ON SHEET C-3.
- 13. PROPOSED DETERRENT BOLLARD (TYPICAL OF 2). SEE DETAILS ON SHEET C-3.
- 14. PROPOSED "NO PARKING" IN WHITE LETTERS, 12 INCHES.
- 15. PROPOSED ADA SYMBOL TO BE PAINTED ONTO PAVEMENT.
- 16. PROPOSED 6" CONCRETE CURB. SEE DETAILS ON SHEET C-4.
- 17. PROPOSED 2' CURB TAPER. SEE DETAIL ON SHEET C-4.
- 18. PROPOSED FLUSH CURB. SEE DETAIL ON SHEET C-4.

PROPOSED TRUNCATED DOMES

PROPOSED CONCRETE, SEE SPECIFICATIONS ON SHEET GN-1 TRENCHING NOT INCLUDED

GENERAL SHEET NOTES

- CONTRACTOR SHALL REMOVE EXISTING PAVEMENT AND/OR CURB USING CLEAN SAWCUTS TO INSTALL PROPOSED UNDERGROUND CONDUITS AND REPLACE PAVEMENT AND/OR CURB AFTER CONDUITS HAVE BEEN INSTALLED. SEE ELECTRICAL SHEETS FOR CONDUIT ROUTING, APPROXIMATE CONDUIT RUN LENGTHS AND TRENCH DETAIL. CONTRACTOR SHALL MEET OR EXCEED EXISTING PAVEMENT COMPOSITION AND THICKNESS. NOTIFY TESLA OF ANY DISCREPANCIES PRIOR TO PERFORMING WORK.
- APPLY LIQUID ASPHALT AT ALL JOINTS BETWEEN CONCRETE AND ASPHALT AND WHERE PROPOSED ASPHALT MEETS EXISTING, INCLUDING SAW CUT JOINTS.
- PROPERTY LINE AND RIGHT-OF-WAY BOUNDARIES ARE SHOWN FOR REFERENCE ONLY. REFER TO SURVEY OR DESIGN DRAWINGS BY CLARK LAND SURVEYING, INC, DATED 06/18/2022 FOR EXACT LOCATION.
- 4. SEE CLARK SURVEY FOR ALL APPLICABLE BENCHMARKS.

0' 7.5' 15' SCALE: 1"=15'

- 5. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SLOPES AND GRADES PRIOR TO CONSTRUCTION. FINAL GRADES SHALL BE DETERMINED IN FIELD BY THE CONTRACTOR AND APPROVED BY THE CONSTRUCTION
- THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE TOWARDS THE NEAREST EXISTING DRAINAGE STRUCTURE AND ENSURE NO PONDING OCCURS ON SITE.
- CONTRACTOR SHALL ENSURE SLOPES OF PARKING STALL 2D AND ADJACENT TRANSVERSE STRIPED AREA CONFORM WITH ADA SLOPE REQUIREMENTS. NO SLOPE SHALL EXCEED 2% IN ANY DIRECTION WITHIN PARKING STALL 2D AND ADJACENT TRANSVERSE STRIPED AREA. CONTRACTOR SHALL REMOVE AND RE-GRADE PAVEMENT AS REQUIRED TO ACHIEVE NECESSARY SLOPES PER AHJ ACCESSIBILITY REGULATIONS. CONTRACTOR SHALL INSTALL FINAL PAVEMENT MARKINGS IN ACCORDANCE WITH THE CURRENT AHJ'S REGULATIONS.





3500 DEER CREEK RD PALO ALTO, CA 94304

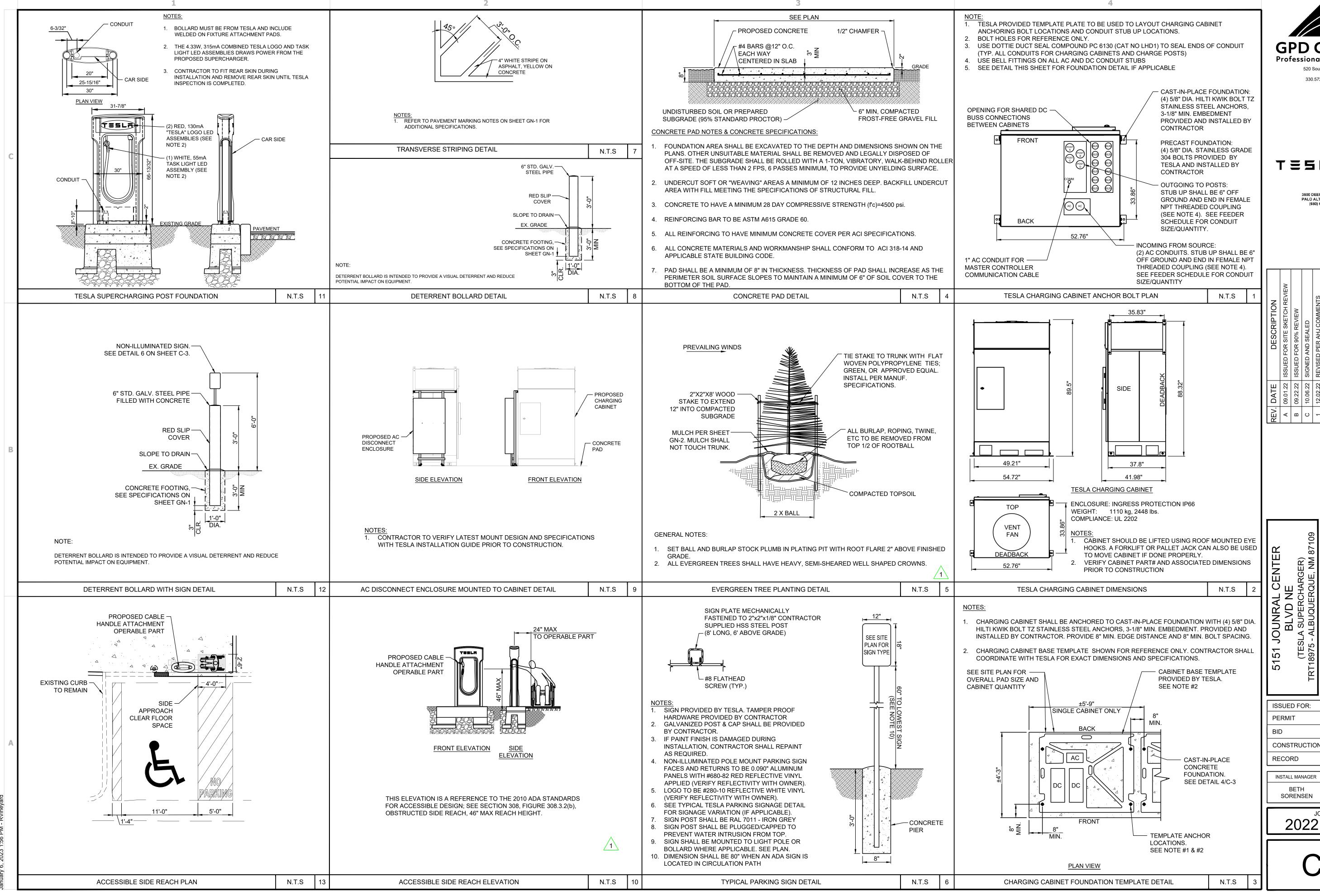
DESCRIPTION	ISSUED FOR SITE SKETCH REVIEW	09.22.22 ISSUED FOR 90% REVIEW	SIGNED AND SEALED	12.02.22 REVISED PER AHJ COMMENTS	REVISED PER UTILITY COMMENTS			
DATE	09.01.22	09.22.22	10.06.22	12.02.22	01.09.22			

5151

ISSUED FOR: PERMIT XXX CONSTRUCTION XXX RECORD XXX

INSTALL MANAGER DESIGNER SORENSEN

2022141.67



Professional Corporation 520 South Main Street, Suite 2531

330.572.2100 Fax 330.572.2101

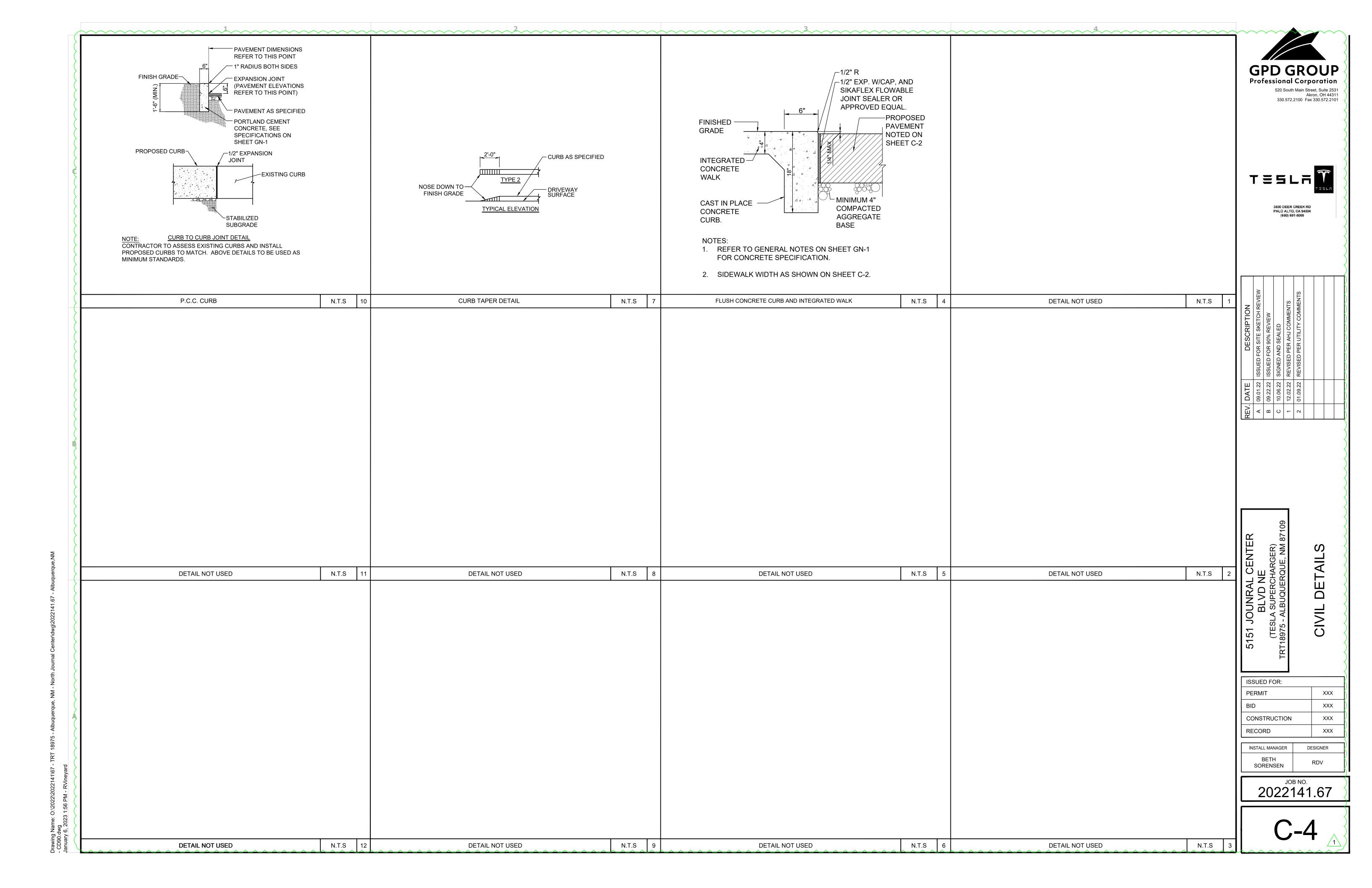
3500 DEER CREEK RD PALO ALTO, CA 94304

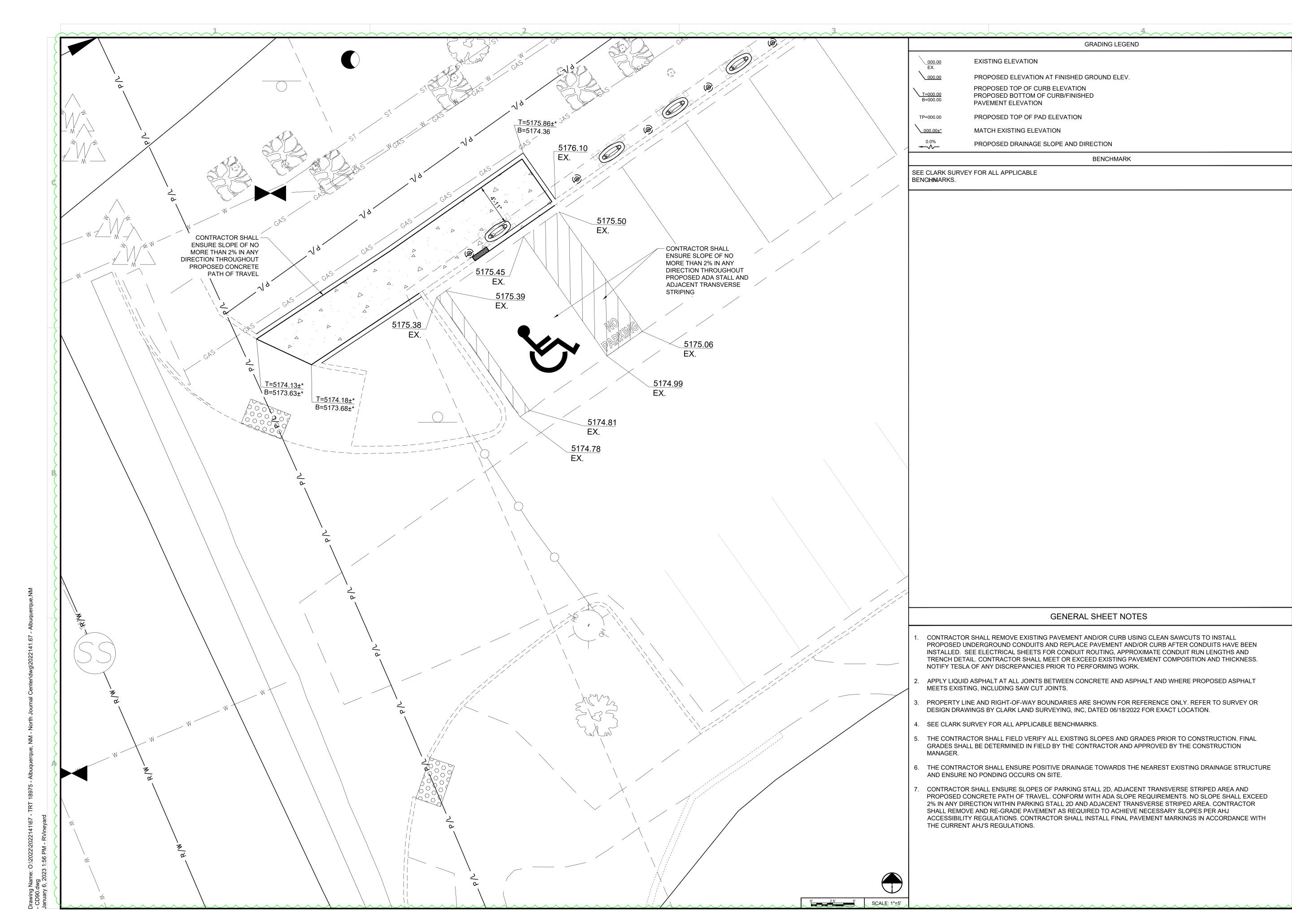
ISSUED FOR: XXX CONSTRUCTION XXX XXX RECORD

DESIGNER

SORENSEN

2022141.67





GPD GROUP

GPD GROUP
Professional Corporation

520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2101

TESLA

3500 DEER CREEK RD PALO ALTO, CA 94304 (650) 681-5000

ISSUED FOR SITE SKETCH REVIEW
ISSUED FOR 90% REVIEW
SIGNED AND SEALED
REVISED PER AHJ COMMENTS
REVISED PER UTILITY COMMENTS

REV. DATE

A 09.01.22 ISSU

B 09.22.22 ISSU

C 10.06.22 SIGN

1 12.02.22 REV

2 01.09.22 REV

5151 JOUNRAL CENTER
BLVD NE
(TESLA SUPERCHARGER)
(T18975 - ALBUQUERQUE, NM 87109

SSUED FOR:	
PERMIT	XXX
BID	xxx
CONSTRUCTION	xxx
RECORD	XXX

GRADING

INSTALL MANAGER DESIGNER

BETH SORENSEN RDV

2022141.67

C-5

- IMPORTANT NOTE: "CONTRACTOR" REFERENCED IN THESE SPECIFICATIONS SHALL INDICATE WORK BY ELECTRICAL CONTRACTOR OR ANY OF HIS SUBCONTRACTORS UNLESS NOTED
- 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
- 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.
- 10. 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.
- 11. 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.
- 12. 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

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 LATEST 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
- F. 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 1. 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 1. 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 1. 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 2. CONTRACTOR SHALL PROVIDE AN ARC-FLASH STUDY AND LABEL ALL EQUIPMENT AS 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 10. 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
- 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
- 10. ALL BOLTS SHALL BE STAINLESS STEEL.
- 11. 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.

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 7 CAPACITIES SHALL BE REVIEWED BY ENGINEER.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED, LISTED, OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY ACCREDITED BY THE UNITED STATES OCCUPATIONAL SAFETY HEALTH ADMINISTRATION.

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 3. 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.
- 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.
- GROUND-FAULT PROTECTION OF EQUIPMENT SHALL BE PROVIDED FOR SERVICE DISCONNECTS RATED 1000A OR MORE. THE GROUND-FAULT PROTECTION SYSTEM SHALL BE PERFORMANCE TESTED WHEN FIRST INSTALLED ON SITE. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH INSTRUCTIONS THAT SHALL BE PROVIDED WITH THE EQUIPMENT. A WRITTEN RECORD OF THIS TEST SHALL BE MADE AND SHALL BE AVAILABLE TO THE AUTHORITY HAVING JURISDICTION.
- ALL HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE. INSTALL BLACK HEAT-SHRINKING TUBE, ON ALL GROUND TERMINATIONS. THE INTENT IS TO WEATHERPROOF THE COMPRESSION CONNECTION.
- ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).
- 11. ALL GROUNDING HARDWARE SUPPLIED AND INSTALLED BY CONTRACTOR.

ELECTRICAL IDENTIFICATION

- PROVIDE NAMEPLATES FOR ALL MAJOR ELECTRICAL EQUIPMENT AND ON EQUIPMENT AS DIRECTED BY OWNER.
- 2. 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.
- 2. 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.
- CABLES MC CABLE IS 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.

ALUMINUM CONDUCTOR REQUIREMENTS

- ALUMINUM CONDUCTOR GRADE SHALL BE MINIMUM AA-8000 OR THE NEWEST ALUMINUM CONDUCTOR SPECIFICATION BEING USED BY THE INDUSTRY.
- THE CONTRACTOR SHALL ABIDE BY ALL ARTICLES RELATED TO ALUMINUM CONDUCTORS IN THE LATEST ISSUE OF THE NEC.
 - ALUMINUM CONDUCTORS SHALL ONLY BE TERMINATED USING ALUMINUM RATED CONNECTIONS. CONTRACTOR SHALL VERIFY TERMINATIONS ON EACH DEVICE OR
- ALL ALUMINUM (AI) CONDUCTORS TO RECEIVE ANTI-OXIDATIVE COATING DURING INSTALLATION. ALL OTHER CONDUCTORS ARE COPPER UNLESS NOTED OTHERWISE.

EQUIPMENT BEFORE START OF WORK FOR RATED ALUMINUM CONNECTORS.

- THE CONTRACTOR SHALL ABIDE BY ALL ALUMINUM WIRING INSTALLATION STANDARDS AS REQUIRED BY THE NEIS (NATIONAL ELECTRICAL INSTALLATION STANDARDS) PUBLISHED BY THE NECA (NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION). THE CONTRACTOR SHALL ABIDE BY ALL STANDARDS IN THE NECA / AA - 2006, WHICH DEFINES MINIMUM STANDARDS OF QUALITY AND WORKMANSHIP. A SUMMARY OF SOME OF THE REQUIREMENTS FOLLOW:
- TERMINATE WITH COMPRESSION CONNECTORS, NO RING CUTS OF THE INSULATION, CRIMP ONLY WITH A CRIMP TOOL AND THE CORRECT DIE AS REQUIRED BY THE MANUFACTURER. ALL CONDUCTORS TO RECEIVE ANTI-OXIDATIVE COATING DURING INSTALLATION.
- TERMINATING WITH A SET SCREW CONNECTOR, THE SCREW SHALL BE TIGHTENED USING ONLY A TORQUE WRENCH.
- NECA / AA RECOMMENDS BELLVILLE WASHERS WHEN CONNECTING ALUMINUM CONDUCTORS TO COPPER BUS BARS. ABIDE BY ALL NECA / AA RECOMMENDATIONS.
- DO NOT USE PIN CONNECTORS (WIRE ADAPTERS) UNLESS ABSOLUTELY NECESSARY. USE ALL / ANY OTHER OPTIONS, AND IF REQUIRED, PROVE TO ENGINEER BEFORE INSTALLING. IF USED, FOLLOW U.L. GUIDE FOR WIRE CONNECTORS (ZMOW), AND PROVIDE THE SPECIAL TOOLS REQUIRED BY THE MANUFACTURER. DIE-LESS CRIMPERS WILL NOT BE ACCEPTED.

RACEWAY AND BOXES

- RACEWAYS: UNLESS NOTED OTHERWISE, ALL EXPOSED CONDUIT SHALL BE R.G.S. AND COVERED 6" BELOW FINISHED GRADE TO BE PVC, HDPE, OR LFNC. SEE NOTES A & B BELOW. 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.
- OUTDOOR:
- ABOVE GRADE: R.G.S.
- BELOW GRADE: SCH 40 PVC, SCH 40 HDPE, OR NON-METALLIC FLEXIBLE CONDUIT LISTED FOR DIRECT BURIAL. ALL UNDERGROUND CONDUIT SHALL BE 90°C WET RATED AND INSTALLED 24" MIN. BELOW GRADE. VERIFY APPROVED USE OF HDPE WITH AHJ PRIOR TO ROUGH-IN AND INSTALL PER NEC & MFR RECOMMENDATIONS. PARKING GARAGES:
- RGS: 8'-0" OR LESS ABOVE GRADE OR PARKING GARAGE FLOOR LEVEL
- EMT: 8'-0" MINIMUM ABOVE PARKING GARAGE FLOOR LEVEL AND WHERE NOT SUBJECT TO DAMAGE. CONTRACTOR SHALL VERIFY WITH ELECTRICAL INSPECTOR IF EMT IS APPROVED AT THIS PROJECT PRIOR TO ROUGH-IN.
- 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
- 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 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.

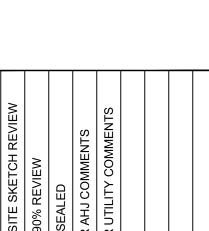


Akron, OH 44311

330.572.2100 Fax 330.572.2101



PALO ALTO, CA 94304



8 | 8 | 8 | 8 | 8 **D** | 8 | 9 | 5 | 5 | 5

ISSUED FOR: **PERMIT** XXX CONSTRUCTION XXX XXX RECORD

2

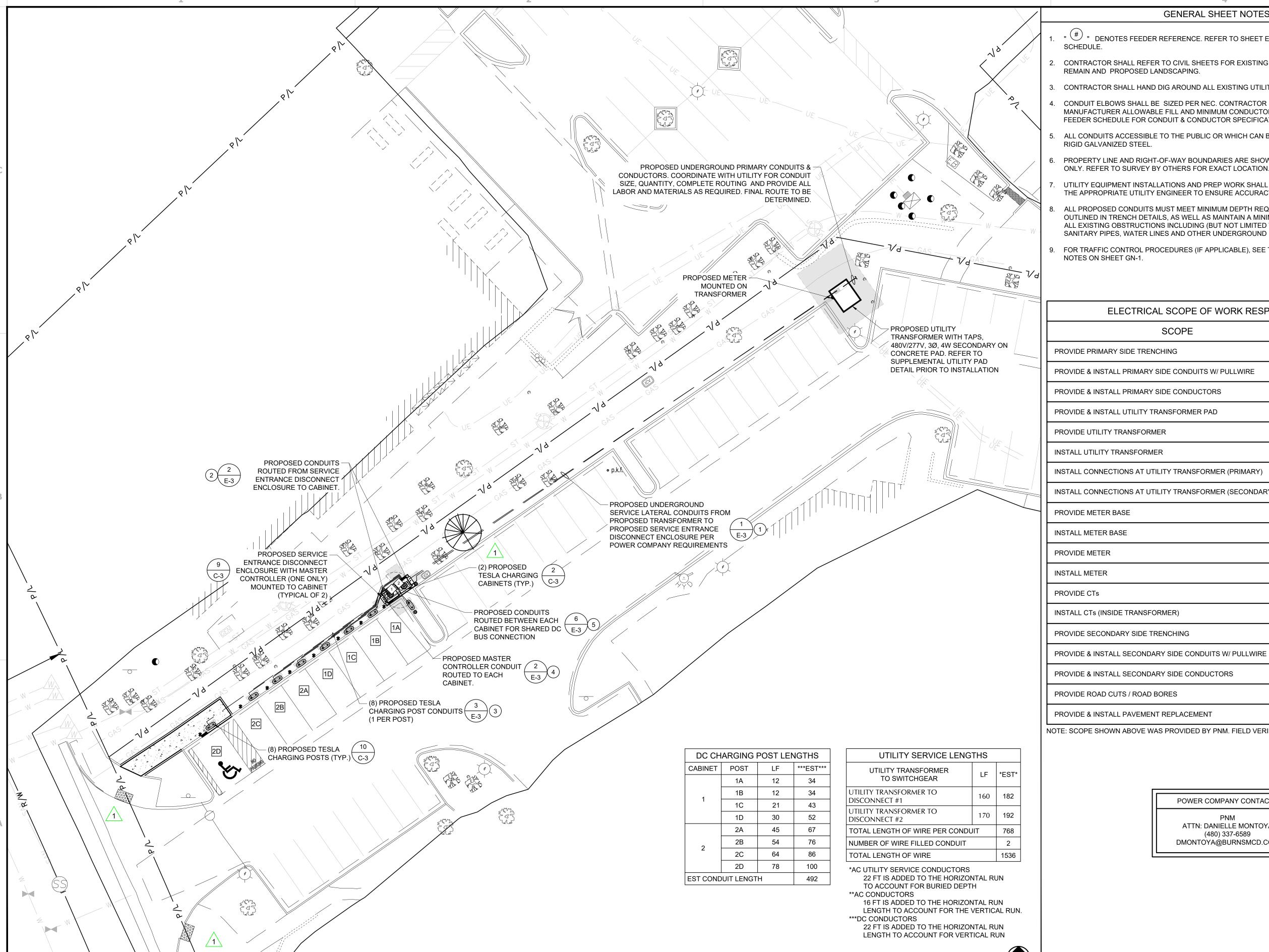
5

2022141.67

DESIGNER

INSTALL MANAGER

SORENSEN



GENERAL SHEET NOTES

- " # DENOTES FEEDER REFERENCE. REFER TO SHEET E-2 FOR FEEDER/CIRCUIT SCHEDULE.
- 2. CONTRACTOR SHALL REFER TO CIVIL SHEETS FOR EXISTING LANDSCAPING TO REMAIN AND PROPOSED LANDSCAPING.
- 3. CONTRACTOR SHALL HAND DIG AROUND ALL EXISTING UTILITIES.
- 4. CONDUIT ELBOWS SHALL BE SIZED PER NEC. CONTRACTOR SHALL VERIFY MANUFACTURER ALLOWABLE FILL AND MINIMUM CONDUCTOR BENDING RADIUS. SEE FEEDER SCHEDULE FOR CONDUIT & CONDUCTOR SPECIFICATIONS.
- ALL CONDUITS ACCESSIBLE TO THE PUBLIC OR WHICH CAN BE DAMAGED SHALL BE RIGID GALVANIZED STEEL.
- 6. PROPERTY LINE AND RIGHT-OF-WAY BOUNDARIES ARE SHOWN FOR REFERENCE ONLY. REFER TO SURVEY BY OTHERS FOR EXACT LOCATION.
- 7. UTILITY EQUIPMENT INSTALLATIONS AND PREP WORK SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY ENGINEER TO ENSURE ACCURACY OF INSTALLATION.
- ALL PROPOSED CONDUITS MUST MEET MINIMUM DEPTH REQUIREMENTS AS OUTLINED IN TRENCH DETAILS, AS WELL AS MAINTAIN A MINIMUM OF 18" CLEAR OF ALL EXISTING OBSTRUCTIONS INCLUDING (BUT NOT LIMITED TO) STORM PIPES, SANITARY PIPES, WATER LINES AND OTHER UNDERGROUND UTILITIES.
- 9. FOR TRAFFIC CONTROL PROCEDURES (IF APPLICABLE), SEE TRAFFIC CONTROL NOTES ON SHEET GN-1.





00 DEER CREEK RD	
ALO ALTO, CA 94304	
(650) 681-5000	

ELECTRICAL SCOPE OF WORK RESPONS	IBILITIES			ΜΞ				<u>S</u>		
SCOPE	BY UTILITY	BY CONTRACTOR	NO	H REVIEW	>		ENTS	COMMENTS		
MARY SIDE TRENCHING		x	RIPTI	SKETC	REVIEV	ED.	COMMENTS			
STALL PRIMARY SIDE CONDUITS W/ PULLWIRE		Х	DESCRIPTION	FOR SITE SKETCH	FOR 90% REVIEW	SEAI	PER AHJ	PER UTILITY		
STALL PRIMARY SIDE CONDUCTORS	X					ED AND	_			
STALL UTILITY TRANSFORMER PAD		X		ISSUED	ISSUED	SIGNED	REVISED	REVISED		
LITY TRANSFORMER	Х		DATE	09.01.22	09.22.22	10.06.22	2.02.22	01.09.22		
ITY TRANSFORMER	X		REV.	0	B 0	C 1	1 1	2 0		_
NECTIONS AT UTILITY TRANSFORMER (PRIMARY)	X	2								_
NECTIONS AT UTILITY TRANSFORMER (SECONDARY)		X								
TER BASE	X									
ER BASE		Х								

NOTE: SCOPE SHOWN ABOVE WAS PROVIDED BY PNM. FIELD VERIFY PRIOR TO CONSTRUCTION.

POWER COMPANY CONTACTS ATTN: DANIELLE MONTOYA (480) 337-6589 DMONTOYA@BURNSMCD.COM

FULL SIZE

0' 7.5' 15'

SCALE: 1"=15'

5151 JOUNRAL CE BLVD NE (TESLA SUPERCHARC TRT18975 - ALBUQUERQUE	EQUIPMENT F
ISSUED FOR:	
PERMIT	xxx
BID	XXX
CONSTRUCTION	XXX
RECORD	xxx

 \triangleleft

INSTALL MANAGER	DESIGNER
BETH SORENSEN	RDV

2022141.67

(STAR CONNECTION) TYPICAL OF 1

*OCPD FOR CHARGING CABINETS IS CALCULATED AS FOLLOWS: 465A AC INPUT TO CABINET x 1.25 = 581.25A ==> 600A REQUIRED

BREAKER SETTINGS								
BREAKER USE	BREAKER SIZE	LONG TIME PICKUP	LONG TIME DELAY	SHORT TIME PICKUP	SHORT TIME DELAY	INST	GND FAULT PICKUP	GND FAULT DELAY
MCB EATON PD3	600A	Х	Х	Х	Х	5	Х	Х
MCB EATON LGH	600A	Х	Х	Х	X	5	X	Х
MCB SQUARE D LJ	600A	600A	0.5	Х	Х	5	Х	Х
MCB SQUARE D LI	600A	Х	Х	Х	Х	LO	X	Х
MCB ABB T5	600A	MAX (600A)	Х	Х	Х	MIN (3000A)	Х	Х

	TE	ESLA V3 CH	ARGING CAB	INET & POST I	ELECTRICAL S	PECS	
CHARGE POST MODEL	AC INPUT VOLTAGE TO CABINET	kVA INPUT TO CABINET	AC INPUT CURRENT TO CABINET	DC OUTPUT VOLTAGE TO CHARGE POST	DC OUTPUT CURRENT TO CHARGE POST	DC SHARED BUS CURRENT	SHORT CIRCUIT CURRENT RATING
V3	380V-480V	387kVA	465A	0V - 500V	350A	640A	85 KAIC

- INTEGRAL DISCONNECT FOR EACH CHARGING POST FOR SERVICING OF EQUIPMENT (TYPICAL EACH CABINET)

VEHICLE CHARGING POST (TOTAL OF 8) TYPICAL OF 4 POSTS PER CABINET

NOTE: CONTRACTOR SHALL VERIFY BREAKER MAKE/MODEL AND SET PER THE ABOVE TABLE. NOTIFY TESLA IMMEDIATELY OF ANY DISCREPANCIES.

	FEEDER/CIRCUIT SCHEDULE					
NO	CONFIGURATION					
1	(2) SETS - EACH IN 4" CONDUIT (3) 500 MCM AI (1) 500 MCM AI NEUT VERIFY W/ UTILITY BEFORE CONSTRUCTION.					
2	(2) SETS - EACH IN 4" CONDUIT (3) 500 MCM AI (1) 500 MCM AI NEUT (1) #1 AWG Cu GND OR #2/0 AWG AI GND					
3	(1) SET - EACH IN 4" CONDUIT (4) 350 MCM AI (TWO +, TWO -) (1) #1 AWG Cu GND OR #2/0 AWG AI GND (1) 1000V, CLASS 1, COMM CABLE					
4	OUTDOOR RATED/SHIELDED CAT5e OR CAT6 COMMUNICATION CABLE IN 1" CONDUIT.					
5	(2) SETS - EACH IN 3" CONDUIT. (2) 600 MCM AI (ONE +, ONE -) (1) #3/0 AWG AI DC MID (1) #1/0 AWG Cu GND (1) #3/0 AWG AI DC MID DISC. 36" LONG IN EA. CABINET, NOT ROUTED IN					

- 1. ALL AC CONDUCTORS SHALL BE XHHW-2, 600V RATED, U.N.O. 2. ALL DC CONDUCTORS SHALL BE XHHW-2, 1000V RATED, U.N.O.
- 3. FOR APPROVED COPPER/ALUMINUM EQUIPMENT GROUNDING CONDUCTOR EQUIVALENTS, SEE TABLE BELOW. ALL ALUMINUM EQUIPMENT GROUND CONDUCTORS SHALL BE TERMINATED IN OUTDOOR ENCLOSURES LISTED AND IDENTIFIED FOR THE ENVIRONMENT PER NEC 2020, ARTICLE 250.64(A)(2).
- 4. SEE "RACEWAY AND BOXES" NOTES ON SHEET EN-1 FOR CONDUIT USE TYPES FOR ABOVE AND BELOW GRADE APPLICATIONS.

FEEDER/CIRCUIT SCHEDULE				
NO	CONFIGURATION			
1	(2) SETS - EACH IN 4" CONDUIT (3) 500 MCM AI (1) 500 MCM AI NEUT VERIFY W/ UTILITY BEFORE CONSTRUCTION.			
2	(2) SETS - EACH IN 4" CONDUIT (3) 500 MCM AI (1) 500 MCM AI NEUT (1) #1 AWG Cu GND OR #2/0 AWG AI GND			
3	(1) SET - EACH IN 4" CONDUIT (4) 350 MCM AI (TWO +, TWO -) (1) #1 AWG Cu GND OR #2/0 AWG AI GND (1) 1000V, CLASS 1, COMM CABLE			
4	OUTDOOR RATED/SHIELDED CAT5e OR CAT6 COMMUNICATION CABLE IN 1" CONDUIT.			
5	(2) SETS - EACH IN 3" CONDUIT. (2) 600 MCM AI (ONE +, ONE -) (1) #3/0 AWG AI DC MID (1) #1/0 AWG Cu GND (1) #3/0 AWG AI DC MID DISC. 36" LONG IN EA. CABINET, NOT ROUTED IN CONDUIT			

DAT 09.01. 09.22. 10.06. 12.02. 01.09.

Professional Corporation

3500 DEER CREEK RD PALO ALTO, CA 94304

520 South Main Street, Suite 2531 Akron, OH 44311 330.572.2100 Fax 330.572.2101

CONDUCTOR SIZE AMPERE RATING OR SETTING OF COPPER ALUMINUM OCPD IN CIRCUIT AHEAD OF SIZE SIZE **EQUIPMENT** 15 12 12 20 12

MINIMUM EQUIPMENT GROUNDING

60	10	8
100	8	6
200	6	4
300	4	2
400	3	1
500	2	1/0
600	1	2/0
800	1/0	3/0
1000	2/0	4/0
1200	3/0	250
1600	4/0	350
2000	250	400
2500	350	600
3000	400	600
4000	500	750

GENERAL SHEET NOTES

- NEUTRAL MUST BE INCLUDED FOR PROPER OPERATION OF TESLA SUPERCHARGERS.
- PROPOSED UTILITY CTs SHALL BE LOCATED IN UTILITY APPROVED CT COMPARTMENTS MOUNTED IN TRANSFORMER. PROPOSED METER SHALL BE MOUNTED ON TRANSFORMER.
- 3. ALL CONDUIT FURNISHED AND INSTALLED BY CONTRACTOR.
- 4. ALL WIRING FURNISHED BY TESLA AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. SEE SHEET E-1 FOR UTILITY/CONTRACTOR SCOPE OF WORK.
- 5. THE TESLA PROVIDED CHARGING CABINETS AND THE CHARGING POSTS USED ON THIS PROJECT COMPLY WITH THE FOLLOWING STANDARDS:
- TUV CERTIFIED TO UL 2202
- 6. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED, LISTED, OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY ACCREDITED BY THE UNITED STATES OCCUPATIONAL SAFETY HEALTH ADMINISTRATION.
- REFER TO THIS SHEET FOR FAULT CURRENT CALCULATIONS. CONTRACTOR SHALL MARK ON ALL EQUIPMENT AS REQUIRED PER N.E.C.
- 8. REFER TO SHEET E-3 FOR ARC FLASH LABEL DETAILS. CONTRACTOR SHALL LABEL ALL EQUIPMENT AS REQUIRED PER N.E.C.

ISSUED FOR:	
PERMIT	xxx
BID	xxx
CONSTRUCTION	xxx
RECORD	XXX
INSTALL MANAGER	l DESIGNER

51

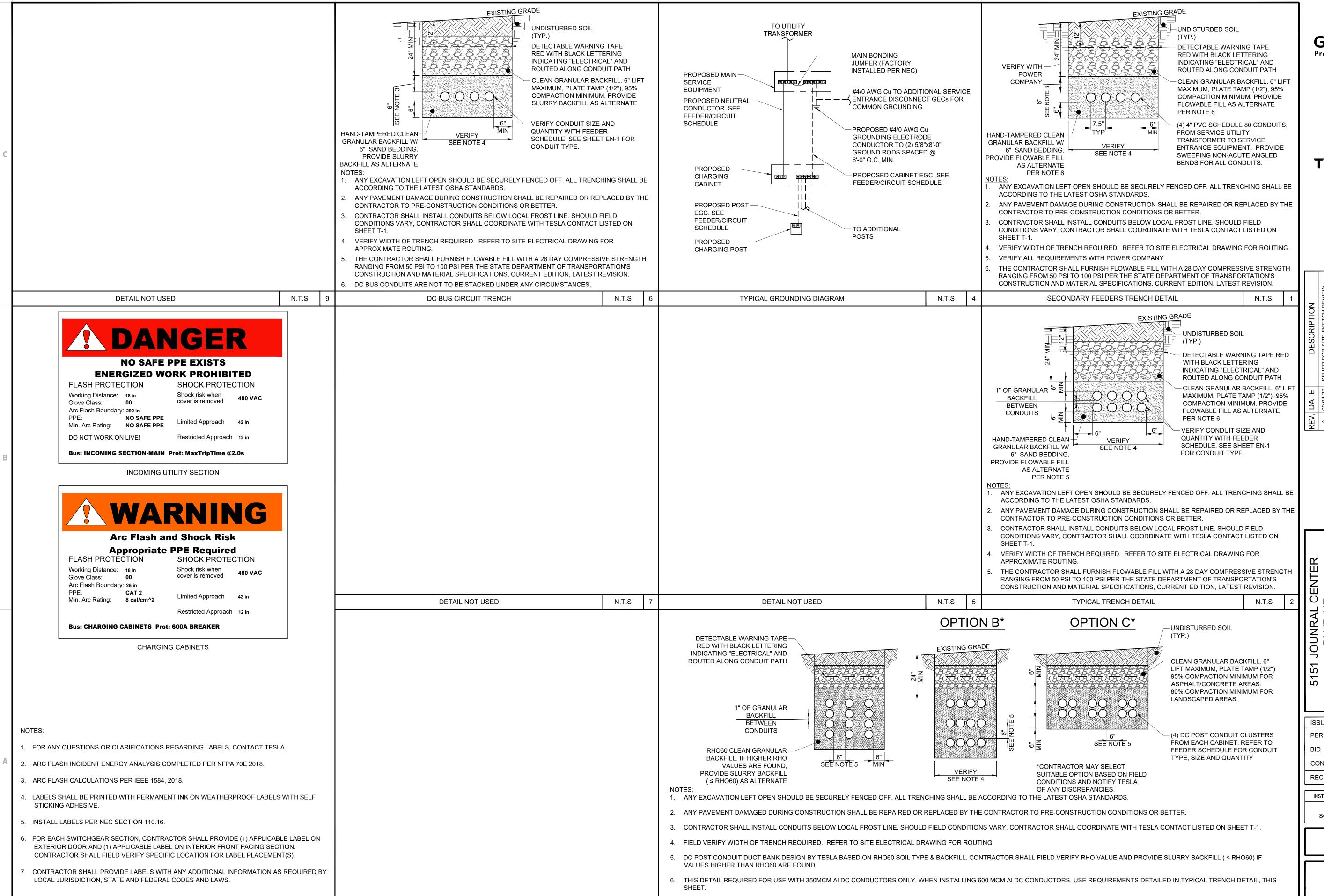
51

DIAG

2022141.67

SORENSEN

RDV



N.T.S

DC POST CONDUIT TRENCH DETAIL

ARC FLASH LABELS

N.T.S 10

DETAIL NOT USED

GPD GROUP
Professional Corporation
520 South Main Street, Suite 2531

Akron, OH 44311

330.572.2100 Fax 330.572.2101

T = 5 | = **T**

3500 DEER CREEK RD PALO ALTO, CA 94304

EV. DATE

DESCRIPTION

A 09.01.22 ISSUED FOR SITE SKETCH REVIEW

B 09.22.22 ISSUED FOR 90% REVIEW

C 10.06.22 SIGNED AND SEALED

1 12.02.22 REVISED PER AHJ COMMENTS

2 01.09.22 REVISED PER UTILITY COMMENTS

ELVD NE
TESLA SUPERCHARGER)
375 - ALBUQUERQUE, NM 87
ELECTRICAL
DETAILS

ISSUED FOR:

PERMIT XXX

BID XXX

CONSTRUCTION XXX

RECORD XXX

INSTALL MANAGER DESIGNER

BETH RDV

SORENSEN

2022141.67

N.T.S

Ξ-3



V3 SUPERCHARGER DATASHEET

V3 Supercharger Cabinet

		Input (V)	480	440	415	400	380		
	Peak AC Input Power	Input (V _{AC}) Power (kVA)	387	354	334	322	306		
		380 V _{AC} – 480 V _{AC} (-5%, +10%), 4-wire 3AC+N							
A.C. INIDI IT	AC Input Voltage	465 A _{AC} Max.							
AC INPUT	AC Input current								
(Electrical)	Frequency	50 Hz / 60 Hz							
	Power Factor	≥ 0.99							
	Current THD	< 3%							
	Voltage THD	< 2%	2 2 5 0 8 4	CNA 7F	0.04604				
A C INIDIT	Conductor Sizes	L1, L2, L3, N: 150 – 400 n		CIVI — 75	O IVICIVI				
AC INPUT	Conductor Material Torre	PE: 10 – 70 mm², #8 AW0							
(Mechanical)	Conductor Material Type		PE: Cu			i			
	Mfr. Termination Temp Rating	90° C	400	440	145	400	200		
	M D : 1000	Input (VAC)	480	440	415	400	380		
SHARED DC BUS	Max Rated DC Bus Power	Power (kW)	575	575	575	575	575		
(ELECTRICAL)	Max Rated DC Bus Current	Current (A _{DC)} 640 640 640 640							
	DC Bus Voltage Range	880 - 1000 V _{DC}				·			
		V+, V- (2x/pole): 150 – 30		*	- 600 MC	CM			
all de de la lace	Conductor Sizes	Mid: 16 – 150 mm ² , 6 AV	*	CM					
SHARED DC BUS		PE: 10 – 70 mm², #8 AW				·			
(MECHNICAL)	Conductor Material Type	, , , ,	PE: Cu						
	Conductor Voltage Rating	1000 V							
	Mfr. Termination Temp Rating	90° C				ı			
	Max. Rated Post Power	250 kW							
	Post Rated Voltage Range	0-500 V _{DC}							
DC POST (ELETRICAL)	Post Rated Current @T _a =35° C	Tesla Handle: 350 A _{DC} , CO	CS2 & GB Ha	andle: 45	O A _{DC}				
	Number of Charge Posts	1 - 4							
	Max Voltage Drop	10 V _{DC}							
	V+, V- (2x/pole): 350 MCM or 185 mm ² AL (certified equipment								
	Conductor Size	wiring)							
DC POST (MECHANICAL)		PE: 10 – 70 mm², #8 AW							
,	Conductor Material Type	V+,V-: Al, Cu PE: Cı	ı						
	Conductor Voltage Rating								
	Mfr. Termination Temp Rating 90°C								
SYSTEM	Efficiency	96%					-		
	AC Input side: Class 1	DC Output side: Isolated							
PROTECTION		t/Temperature, Surge Protection, Isolation Monitoring							
3.375.3.353.0.33	Short-Circuit Protection	External Electronic Trip Circuit Breaker							
	Short Circuit Current Rating	85 kA RMS symmetrical							
Administration of the second	Operating Temperature	-30°C to 50°C, -22°F to 122°F							
ENVIRONMENTAL	Ingress Protection	IP66 (Cabinet), IP2X (Coo							
	Ventilation Requirements								
NOISE	Typical noise at 1m	35 dB(A)							
STANDARDS	UL 2202, CSA C22.2#107.1, FCC, ICES-003	3-B, IEC 61851-1, EN 61000 NB/T 33008.1, NB/T 3300)11, GB/	Г 18487.	1, GB/T 2	27930,		
LAYOUT	Max. Distance to Charge Post	100 m, 340 ft.	ı						
WEIGHT	Supercharger Cabinet Weight	4 Post Cabinet: 1110 kg (3 Post Cabinet: 1039kg (2		,			,		
DIMENSIONS	Depth, Width, Height		00, 1250, 2200 mm; 39 _{12/32} , 49 _{7/8} , 86 _{20/32} in.						
	Per-anchor min. Shear Strength								
MOUNTING	Per-anchor min. Tension Strength	11 kN							
		<u> </u>							

V3 Supercharger Charge Post

POST INPUT/OUPUT	Max. Rated Post Power	250 kW	
(ELECTRICAL)	Post Rated Voltage Range	0 - 500 V _{DC}	
(ELECTRICAL)	Post Rated Current @Ta=35° C	Tesla Handle: 350 A _{DC} , CCS2 & GB Handle: 450 A _{DC}	
	Power Conductors	V+, V- (2x/pole): 350 MCM or 185 mm ² AL (certified equipment wiring)	
DC INPUT	PE Conductor	PE: 25 – 50 mm ² , 3 AWG – 2/0	
(MECHANICAL)	Conductor Material Type	V+, V- : Al, Cu PE: Al, Cu	
(IVILCHANICAL)	Conductor Voltage Rating	1000 V	
	Mfr. Termination Temp Rating	90° C	
PROTECTION	Over Cur	rent/Temperature, Uneven Current Split	
ENVIRONMENTAL	Operating Temperature	-40°C to 50°C, -40°F to 122°F	
ENVINOINIVIENTAL	Ingress Protection	IP44	
STANDARDS	UL 2202, CSA 22.2#107.1-16, FCC, ICES-003, EN 61000-6-2, EN 61000-6-4, IEC 61851-1, IEC 61851-23, GB/T		
STANDANDS	18487.1, GB/T 27930, GB/T 20234.1, GB/T 20234.3, GB/T 34658		
LAYOUT	Max. Distance to Cabinet	100 m, 340 ft.	
WEIGHT	Charge Post Weight	64 kg, 140 lbs.	
DIMENSIONS	Depth, Width, Height	250, 810, 1687 mm; 9 _{27/32} , 31 _{7/8} , 66 _{13/32} in.	
MOUNTING	Per-anchor min. Shear Strength	1 kN	
MOUNTING	Per-anchor min. Tension Strength	11 kN	



3500 DEER CREEK RD PALO ALTO, CA 94304 (650) 681-5000

REV.	REV. DATE	DESCRIPTION
Α	09.01.22	09.01.22 SSUED FOR SITE SKETCH REVIEW
В	09.22.22	ISSUED FOR 90% REVIEW
С	10.06.22	10.06.22 SIGNED AND SEALED
1	12.02.22	REVISED PER AHJ COMMENTS
2	01.09.22	REVISED PER UTILITY COMMENTS

FOR REFERENCE ONLY

5151 JOUNRAL CENTER
BLVD NE
(TESLA SUPERCHARGER)
RT18975 - ALBUQUERQUE, NM 87109

ISSUED FOR:	
PERMIT	xxx
BID	xxx
CONSTRUCTION	xxx
RECORD	xxx
	•

INSTALL MANAGER DESIGNER

BETH
SORENSEN RDV

ов NO. 2022141.67

CONFIDENTIAL INFORMATION – SHARED NDA ONLY

CONFIDENTIAL INFORMATION – SHARED NDA ONLY

Page 5 of 6

Drawing Name. Otkozzkozz 14 1007 - 1 RT 10973 - Albuquerque, Inivi - Inorma Cemendwgkzozz 14 1.0 - CD90.dwg January 6, 2023 1:57 PM - RVineyard