

TESLA SUPERCHARGER PASADENA, CA

16 SUPERCHARGERS

APN: 5754018031

TRT: 20978



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

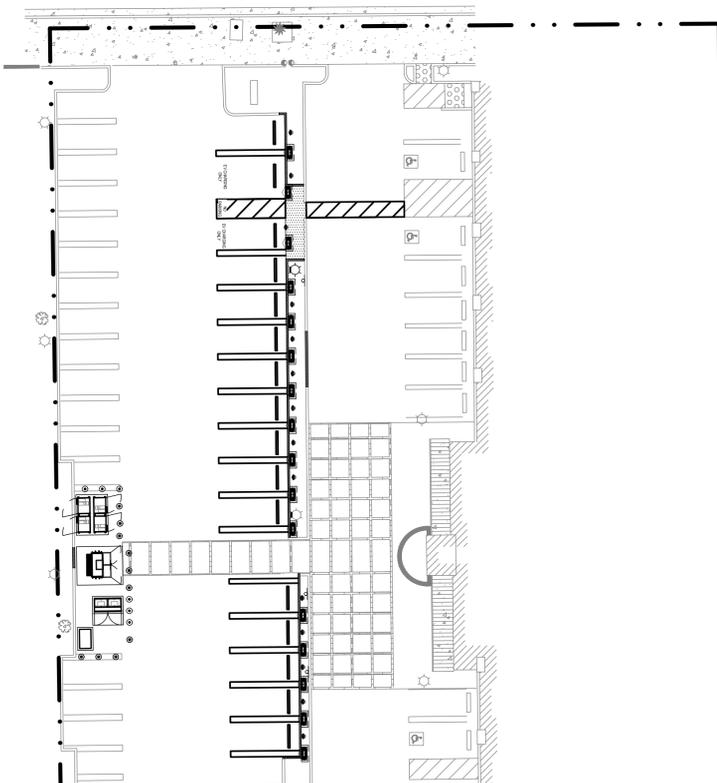
ORIGINAL SIZE 24"X36"
SHEET SIZE ARCH "D"



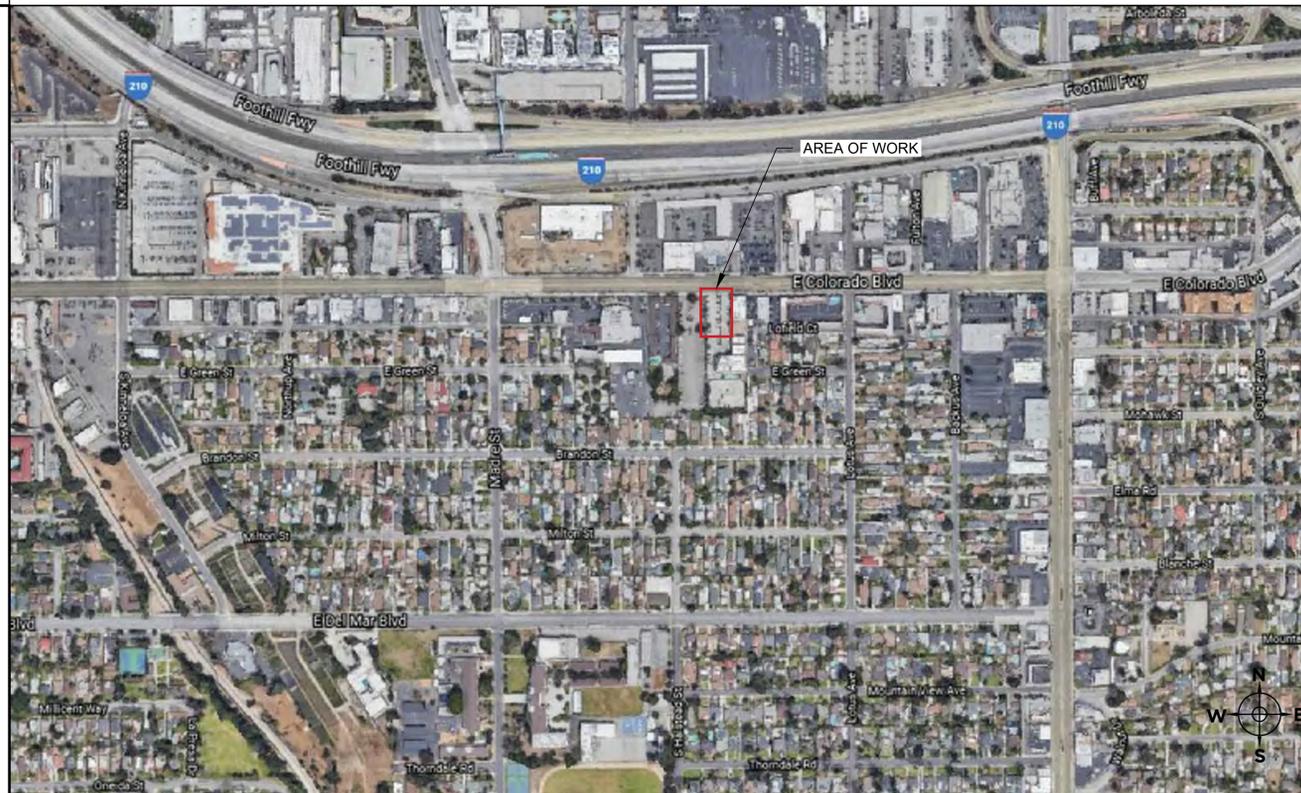
Digitally signed by
Harkamal Singh
Date: 2022.02.04
13:25:42-08'00'

TESLA SUPERCHARGER_PASADENA, CA
 16 SUPERCHARGERS
 TESLA SUPERCHARGER_PASADENA, CA
 3500 E COLORADO BLVD - SUITE EV
 PASADENA, CA, 91107

SITE LAYOUT



AERIAL MAP



ABBREVIATIONS

PROJECT TEAM

DESIGN CRITERIA

PROJECT SCOPE

SYSTEM SUMMARY

SHEET INDEX

AC	ALTERNATING CURRENT	MV	MEDIUM-VOLTAGE
ADA	AMERICANS WITH DISABILITIES ACT	(N)	NEW
ESS	ENERGY STORAGE SYSTEM	NEC	NATIONAL ELECTRIC CODE
BLDG	BUILDING	NIC	NOT IN CONTRACT
CLR	CLEAR	NRTL	NATIONALLY-RECOGNIZED TESTING LABORATORY
CONC	CONCRETE	NTS	NOT TO SCALE
COMM	COMMUNICATION	OC	ON CENTER
DC	DIRECT CURRENT	PCC	POINT OF COMMON COUPLING
DIA	DIAMETER	PL	PROPERTY LINES
DIST	DISTANCE	PLC	POWER LINE COMMUNICATION
EQ	EQUAL	PV	PHOTOVOLTAIC
EGC	EQUIPMENT GROUNDING CONDUCTOR	PP	POWERPACK
(E)	EXISTING	PSU	PRE-ASSEMBLED SUPERCHARGER UNIT
EA	EACH	PVC	POLYVINYL CHLORIDE
EMT	ELECTRICAL METALLIC TUBING	RSD	RAPID SHUTDOWN
EV	ELECTRIC VEHICLE	SCCR	SHORT CIRCUIT CURRENT RATING
GAB	GRADED AGGREGATE BASE	SCH	SCHEDULE
GALV	GALVANIZED	SQ. IN.	SQUARE INCHES
GEC	GROUNDING ELECTRODE CONDUCTOR	SS	STAINLESS STEEL
GND	GROUND	SSD	SEE STRUCTURAL DRAWINGS
HVAC	HEATING, VENTILATION, & AIR CONDITIONING	STC	STANDARD TESTING CONDITIONS
I	CURRENT	TYP	TYPICAL
IMP	CURRENT AT MAX POWER	UON	UNLESS OTHERWISE NOTED
INV	INVERTER	VIF	VERIFY IN FIELD
ISC	SHORT CIRCUIT CURRENT	W	WATT
KVA	KILOVOLT AMPERE		
KW	KILOWATT		
KWH	KILOWATT-HOUR		
LV	LOW-VOLTAGE		
MAX	MAXIMUM		
MIN	MINIMUM		

STRUCTURAL ENGINEER OF RECORD:
YOO JIN KIM
TESLA, INC.
1216 STEALTH STREET,
LIVERMORE, CA 94551
P:(925)292-2724, M:(949)285-6177
YOKIM@TESLA.COM

ELECTRICAL ENGINEER OF RECORD:
HARKAMAL SINGH
TESLA, INC.
3500 DEER CREEK RD.,
PALO ALTO, CA 94304
(659) 250-8180
HARKASINGH@TESLA.COM

PROJECT DESIGNER:
BRIAN ZEIGER
TESLA, INC.
15690 PARKERHOUSE RD. UNIT#4
PARKER, CO 80134
(970) 420-4117
BZEIGER@TESLA.COM

ARCHITECT OF RECORD:
CHRIS MARESCA
TESLA, INC.
2204 ALBATROSS ST.
SAN DIEGO, CA 92101
P:(619) 764-8142
CMARESCA@TESLA.COM

- WIND DESIGN
 - DESIGN WIND SPEED = 110 MPH (ULTIMATE)
 - RISK CATEGORY = II
 - WIND EXPOSURE = C
- SEISMIC DESIGN
 - RISK CATEGORY = II
 - SEISMIC IMPORTANCE FACTOR = 1.0
 - SITE CLASS = D
 - Ss = 2.072 / S1 = 0.749
 - Sds = 1.657 / Sd1 = 0.849
 - SEISMIC DESIGN CATEGORY = D
 - BASIC SEISMIC-FORCE-RESISTING SYSTEM = NON-STRUCTURAL COMPONENT
 - R = 2.5 / a_p = 1.0
- GROUND SNOW LOAD = 0 PSF

INSTALLATION OF SUPERCHARGERS AND ASSOCIATED AC AND DC EQUIPMENT.

INSTALLATION OF CONCRETE EQUIPMENT PADS AND WALKWAYS.

INSTALLATION OF NEW PARKING STRIPING, SIGNAGE AND ADA ACCESS FEATURES.

ASPHALT OVERLAY FOR PROPOSED EV ADA STALLS.

APPLICABLE CODES	
2019 CALIFORNIA BUILDING CODE	
2019 CALIFORNIA ELECTRICAL CODE	
2020 LOS ANGELES COUNTY ELECTRICAL CODE	
2019 CALIFORNIA FIRE CODE	
2019 CALIFORNIA ENERGY CODE	
2017 NATIONAL ELECTRICAL CODE	
REFERENCED DOCUMENTS	
SUPERCHARGER INSTALLATION MANUAL	
SUPERCHARGER POST INSTALLATION MANUAL	
TOPOGRAPHIC SURVEY	
UTILITY DESIGN	

ALL ELECTRICAL WORK SHALL BE DESIGNED PER 2020 LOS ANGELES COUNTY ELECTRICAL CODE, 2019 CALIFORNIA ELECTRICAL CODE, 2017 NATIONAL ELECTRICAL CODE, AND 2019 BUILDING ENERGY EFFICIENCY STANDARDS

SUPERCHARGER SYSTEM SUMMARY	
EQUIPMENT	QTY
V3 SUPERCHARGER CABINETS	4
V3 SUPERCHARGER POSTS	16
UTILITY TRANSFORMER	1
SWITCHBOARD	1
UTILITY PME	1

REVISED EXHIBIT "A"

DEPARTMENT OF REGIONAL PLANNING

APPROVED

This approval is contingent upon the facts submitted and the requirements of

R2013-00382
DRP - REVISED EXHIBIT "A"
RPPL2022000192

and County Zoning Ordinance Title 22 of the Los Angeles County Code in effect at this time. It is applicable only as specifically indicated herein. Such approval shall not be construed to permit the violation of any provision of any county ordinance or state law.

APPROVED ON: 02-08-2022

SHEET #	SHEET TITLE
G-001	COVER PAGE
G-002	NOTES
G-101	DEMO PLAN
E-101	SITE PLAN
E-201	SINGLE LINE DIAGRAM
E-501	ELECTRICAL DETAILS
E-601	CUTSHEETS
A-301	ACCESSIBLE PARKING PLAN
A-501	DETAILS
S-301	ENLARGED SITE PLAN
S-501	STRUCTURAL DETAILS
C-101	GRADING PLAN
STAMPED APPROVED PLAN	
A-1	(E) SITE PLAN
A-2	(E) PARKING STRUCTURE - LOWER LEVEL
A-3	(E) PARKING STRUCTURE - GROUND LEVEL
A-4	(E) PARKING STRUCTURE - UPPER LEVEL

DESIGNER SIGNATURE:
Brian Zeiger

NO.	REVISION	DATE	AHJ COMMENTS
1		1/20/22	

COVER PAGE

G-001

JB-9111919-00

REV: A IFF

GENERAL NOTES

ALL WORK SHALL COMPLY WITH ALL STATE AND LOCAL CODES AND ANY OTHER REGULATING AUTHORITIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK.

PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FROM TESLA OF ANY DISCREPANCIES. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS SHALL BE CORRECTED AT THE SUBCONTRACTORS SOLE EXPENSE.

SUBCONTRACTOR 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 SUBCONTRACTOR.

ALL EQUIPMENT SHALL BE MOUNTED AS SHOWN, WHERE DETAILS ARE NOT PROVIDED, CONTRACTOR SHALL USE STANDARD 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 MY CAUSE RUST, ELECTRICAL SHORT CIRCUITS, OR OTHER DAMAGE.

APPROVALS FROM BUILDING INSPECTORS SHALL NOT CONSTITUTE AUTHORITY TO DEVIATE FROM THE DRAWINGS.

NEW PAVEMENT INSTALLED AS PART OF THIS PROJECT SHALL MATCH EXISTING PAVEMENT SECTION. ASPHALT AND GAB DEPTHS SHALL BE MAINTAINED.

ELECTRICAL NOTES

GENERAL NOTES

- ALL ELECTRICAL WORK SHALL BE DESIGNED PER 2020 LOS ANGELES COUNTY ELECTRICAL CODE, 2019 CALIFORNIA ELECTRICAL CODE, 2017 NATIONAL ELECTRICAL CODE, AND 2019 BUILDING ENERGY EFFICIENCY STANDARDS.
- ALL ELECTRICAL WORK SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE AS AMENDED BY APPLICABLE STATE AND LOCAL CODES
- ALL WIRING SHALL BE MANAGED IN A PROFESSIONAL, WORKMAN-LIKE MANNER AND MUST BE SUPPORTED, SECURED, AND PROTECTED TO PREVENT DAMAGE.
- AC CIRCUIT CONDUCTORS SHALL BE IDENTIFIED BY PHASE AND SYSTEM PER ART 210.5 OR 215.12. UNLESS OTHERWISE REQUIRED BY ART 210.5(1) OR AHJ, COLOR-CODING OF POWER CONDUCTORS SHALL BE AS FOLLOWS:

CONDUCTOR	277/480V	120/208V
PHASE A	BROWN	BLACK
PHASE B	ORANGE	RED
PHASE C	YELLOW	BLUE
NEUTRAL	GRAY	WHITE

- DC CIRCUIT CONDUCTORS SHALL BE IDENTIFIED PER ART 210.5 OR 215.12:
- | CONDUCTOR | STD COLOR | ALT COLOR |
|-----------|-----------|---------------|
| DC+ | RED | RED-STRIPED |
| DC- | BLACK | BLACK-STRIPED |

- TERMINATIONS OF AC, DC, AND COMMUNICATIONS CONDUCTORS SHALL BE PROFESSIONALLY AND LEGIBLY LABELED WITH CIRCUIT SCHEDULE IDENTIFIER, CONDUCTOR SIZE (AS APPLICABLE) AND TERMINATION TORQUE.
- ALL EQUIPMENT SHALL BE LISTED BY A NRTL IN COMPLIANCE WITH ART 110.3. WHERE EXISTING NRTL LISTING CANNOT BE MAINTAINED, ENGINEERING APPROVAL SHALL BE OBTAINED PRIOR TO EQUIPMENT MODIFICATION, AND THE EQUIPMENT SHALL BE RELISTED BY A SUITABLE NRTL.
- UNDERGROUND CONDUCTORS & CABLES TO BE INSTALLED IN CONDUIT UON.
- ALL WIRES SHALL BE PROVIDED WITH STRAIN RELIEF AT ALL ENTRY INTO BOXES AS REQUIRED BY NRTL LISTING.
- REFER TO MANUFACTURER'S CURRENT PLANNING AND INSTALLATION MANUAL FOR TORQUE SPECS FOR ALL BOLTS AND TERMINAL CONNECTIONS.
- ALL CONDUCTOR TERMINATIONS ON BUSSING OR TRANSFORMER SPADES SHALL BE MADE WITH HIGH-PRESS CRIMP LUGS UON.
- ALL TERMINATIONS OF ALUMINUM CONDUCTORS SHALL BE PROPERLY INSTALLED WITH BEST PRACTICES INCLUDING BUT NOT LIMITED TO:
 - USE OF TERMINATION EQUIPMENT RATED FOR ALUMINUM AT THE CONDUCTOR TEMPERATURE, CURRENT, AND VOLTAGE
 - ALLOWANCE FOR MOVEMENT DUE TO THERMAL EXPANSION/CONTRACTION
 - PROPER COATING OF EXPOSED ALUMINUM WITH ANTI-OXIDIZATION COMPOUND
 - USE OF CALIBRATED DEVICES TO TORQUE AND MARK TERMINALS TO REQUIRED SETTINGS
- DUCT SEAL COMPOUND SHALL BE APPLIED WHEREVER CONDUITS TRANSITION INDOOR/OUTDOOR OR UNDERGROUND/ABOVEGROUND. REFER TO EQUIPMENT NOTES FOR ADDITIONAL DUCT SEAL REQUIREMENTS.
- BELL ENDS SHALL BE INSTALLED WHEREVER CONDUIT ENTERS EQUIPMENT FROM UNDERGROUND AND WHEREVER POTENTIAL FOR DAMAGE TO CONDUCTORS IS PRESENT AT ANY POINT. BELL ENDS SHALL NOT PREVENT THE USE OF GROUNDING FITTINGS OR COUPLERS WHEN REQUIRED.
- ALL STUB-UPS WITHIN FLOOR-MOUNTED EQUIPMENT SHALL BE 3-5" ABOVE FINISHED GRADE.
- ALL CONDUITS EXPOSED TO VEHICULAR OR EQUIVALENT PHYSICAL DAMAGE SHALL BE RIGID GALVANIZED STEEL.

- GROUND LUGS SHALL BE RATED FOR THEIR ENVIRONMENT AND CONDITION OF USE.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED, LISTED, OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY ACCREDITED BY THE UNITED STATES OCCUPATIONAL SAFETY HEALTH ADMINISTRATION
- THE MAXIMUM COMBINED VOLTAGE DROP ON BOTH INSTALLED FEEDER CONDUCTORS AND BRANCH CIRCUIT CONDUCTORS TO THE FARTHEST CONNECTED LOAD OR OUTLET SHALL NOT EXCEED 5 PERCENT

SUPERCHARGER NOTES

- NEUTRAL MUST BE INCLUDED FOR PROPER OPERATION OF TESLA SUPERCHARGERS.
- ALL CONDUIT FURNISHED AND INSTALLED BY CONTRACTOR. ALL WIRING FURNISHED BY TESLA AND INSTALLED BY CONTRACTOR.
- ALL BUSHINGS AND WIRING INTERNAL OF PROPOSED SERVICE EQUIPMENT PROVIDED BY MANUFACTURER. ANY MODIFICATIONS SHALL REQUIRE ENGINEERING APPROVAL PRIOR TO ANY CHANGES BEING MADE.
- ALL ALUMINUM(AI) CONDUCTORS TO RECEIVE ANTI-OXIDATION COATING DURING INSTALLATION. ALL OTHER CONDUCTORS ARE COPPER UNLESS OTHERWISE NOTED.
- THE FOLLOWING CHARGING CABINETS AND THE CHARGING POSTS USED ON THIS PROJECT COMPLY WITH THE FOLLOWING STANDARDS:
 - IEC 61851-23: 2014 / EN 61851-23: 2014
 - UL 2202: 2009(R2012)
 - CAN CSA C22.2 NO. 107.1-01(R2011)
- THE AFOREMENTIONED STANDARDS IDENTIFY THE REQUIREMENTS MET BY THE EQUIPMENT, INCLUDING BUT NOT LIMITED TO:
 - PROTECTION AGAINST ELECTRIC SHOCK
 - OVERLOAD AND SHORT CIRCUIT PROTECTION
 - FAULT PROTECTION
 - DEGREES OF PROTECTION AGAINST ACCESS TO HAZARDOUS LIVE PARTS
 - THE INTERNAL COMPONENTS OF THE SYSTEM ARE PROPRIETARY. ANY QUESTIONS CONCERNING ACTUAL INTERNAL PROTECTIVE DEVICES MUST BE COORDINATED DIRECTLY WITH TESLA.
- TESLA SUPERCHARGER SIGNAL WIRING RATED 1000V AND USED FOR POWER LIMITED CLASS 1 CIRCUITS SHALL BE PERMITTED TO RUN IN CONDUITS, CABLE TRAYS, WIRE WAYS, OR RACEWAYS ALONG WITH ASSOCIATED DC CONDUCTORS AS ALLOWED PER NEC 725.48(B)(1) AND 620.36.
- SUPERCHARGER CABINET AC CONDUCTORS SIZED UNDER ENGINEERING SUPERVISION USING THERMAL MODELING SOFTWARE. SPECIFICATIONS ABOUT THE TRENCHING REQUIREMENTS ARE SHOWN IN E-501
- FOR DC RUNS IN EXCESS OF 330 FEET, CONTACT TESLA.
- UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC OR UL LISTED HDPE. THE ABOVEGROUND PORTION OF AN UNDERGROUND/ABOVEGROUND TRANSITION SHALL BE SCHEDULE 80 PVC OR UL LISTED HDPE.
- ABOVEGROUND CONDUITS EXPOSED TO VEHICULAR OR EQUIVALENT PHYSICAL DAMAGE SHALL BE RMC. ABOVEGROUND CONDUITS NOT EXPOSED TO VEHICULAR OR EQUIVALENT DAMAGE SHALL BE PERMITTED TO BE EMT.
- IF APPROVED BY TESLA CONSTRUCTION MANAGER, ALTERNATIVE CONDUIT MATERIALS SUCH AS FLEXIBLE OR FIBERGLASS ARE PERMISSIBLE IF INSTALLED PER MANUFACTURER INSTALLATION GUIDELINES AND LOCAL CODES.
- WIRE SPLICES ARE NOT PERMITTED TO EXTEND WIRE RUN LENGTH. CONTRACTOR IS RESPONSIBLE FOR RERUNNING FULL LENGTH OF WIRE IF RUN LENGTH IS MISCALCULATED.
- SPECIAL INSPECTION IS REQUIRED FOR ALL POST-INSTALLED CONCRETE ANCHORS

SCOPE OF WORK

UTILITY	SCE	TESLA	UTILITY
CATEGORY	ITEMS		
PRIMARY	PRIMARY TRENCHING	X	
	INSTALL PRIMARY CONDUIT	X	
	INSTALL PULL ROPE	X	
	INSTALL PRIMARY FEEDERS		X
	PROVIDE PRIMARY FEEDERS		X
PME	PROVIDE ROAD CUTS / ROAD BORES	X	
	PAVEMENT REPLACEMENT	X	
TRANSFORMER	PROVIDE PME		X
	INSTALL PME		X
SWITCHBOARD	INSTALL TRANSFORMER PAD	X	
	PROVIDE TRANSFORMER		X
	INSTALL TRANSFORMER		X
	INSTALL CONNECTIONS - PRIMARY		X
SECONDARY	INSTALL CONNECTIONS - SECD		X
	PROVIDE METER		X
	INSTALL METER		X
	LAND SECONDARY FEEDERS	X	
	SECONDARY TRENCHING	X	
	INSTALL SECONDARY CONDUIT	X	
	INSTALL PULL ROPE	X	
	INSTALL SECONDARY FEEDERS		X
	PROVIDE SECONDARY FEEDERS		X
	PROVIDE ROAD CUTS / ROAD BORES	X	
PAVEMENT REPLACEMENT	X		

SITE LEGEND

- (E) ACCESSIBLE PARKING SPACE
- (E) TREE
- (E) LIGHT POLE
- (E) SIGN
- (E) ELECTRIC MANHOLE
- (E) GAS MANHOLE
- (E) STORM MANHOLE
- (E) SANITARY CLEANOUT
- (E) TELEPHONE MANHOLE
- (E) TELEVISION MANHOLE
- (E) UNKNOWN MANHOLE
- (E) POTABLE WATER MANHOLE
- (E) FIRE HYDRANT
- (E) IRRIGATION CONTROL VALVE
- (E) GUY WIRE - ELECTRIC
- (E) GUY WIRE
- (E) STORM INLET
- (E) WATER VALVE
- (E) FIRE DEPARTMENT CONNECTION
- (E) BOLLARD
- (E) WATER METER
- (E) CONCRETE
- (E) FIBEROPTIC VAULT
- (E) BRICK AREA
- (E) ADA DOMES
- (E) CHAIN LINK FENCE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND STORM DRAIN LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD ELECTRIC LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND SANITARY SEWER LINE

DESIGNER SIGNATURE:

Brian Zing

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

ORIGINAL SIZE 24"x36"
SHEET SIZE ARCH "D"

TESLA SUPERCHARGER_PASADENA, CA
16 SUPERCHARGERS
TESLA SUPERCHARGER_PASADENA, CA
3500 E COLORADO BLVD - SUITE EV
PASADENA, CA, 91107

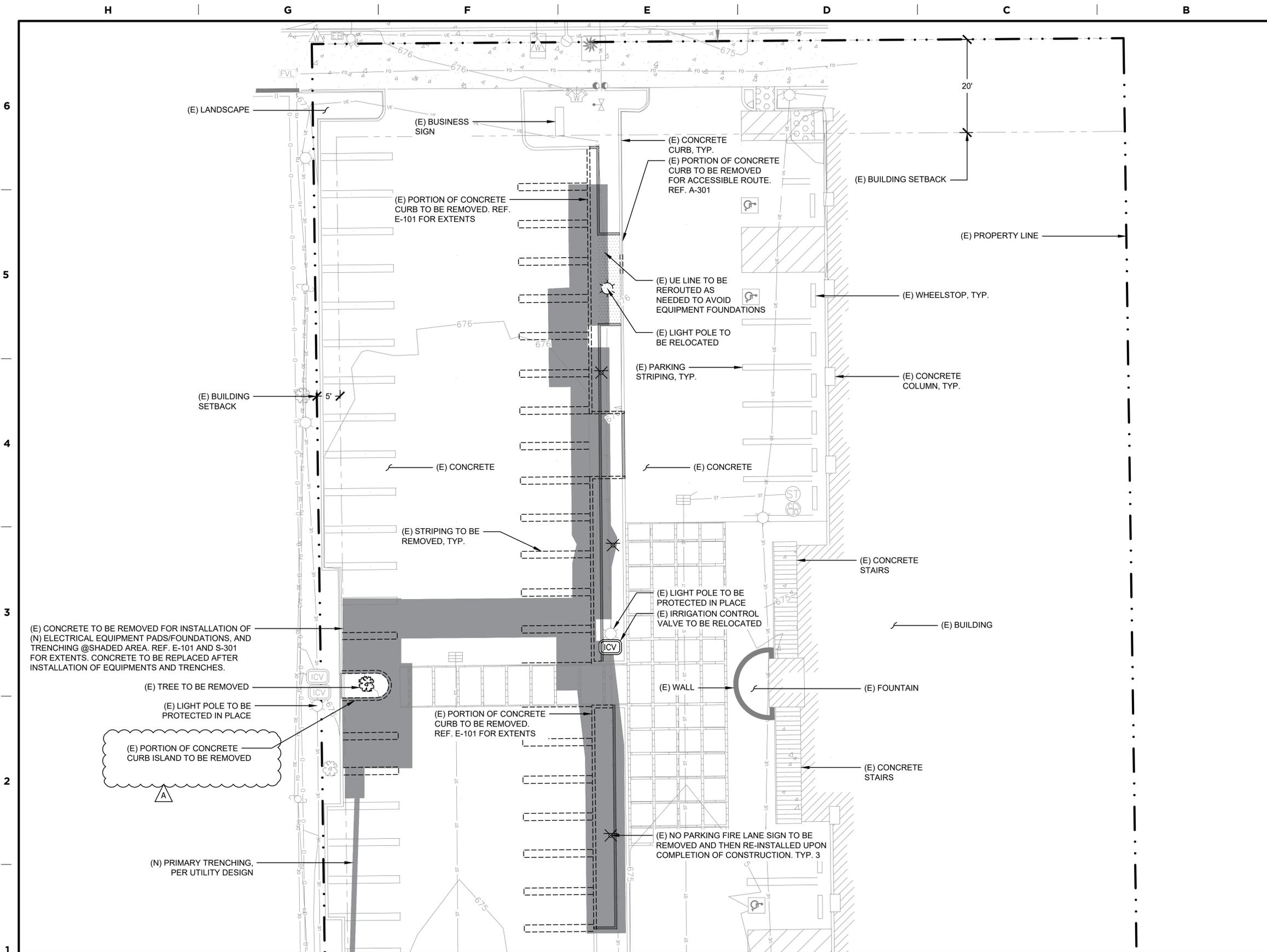
NO.	REVISION	DATE	AHJ COMMENTS
A		1/20/22	

NOTES

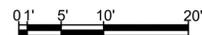
G-002

JB-9111919-00

REV: A | IFF



DEMOLITION PLAN
1" = 10'-0"



NOTES

THE CONTRACTOR SHALL REFER TO THE TRENCHING DETAILS ON THE ELECTRICAL DETAILS SHEET.

THE LIMITS OF ASPHALT REMOVAL ARE SHOWN AS FOR INFORMATION ONLY AND IT SHALL BE UP TO THE CONTRACTOR TO DETERMINE THE EXACT LIMITS.

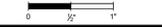
SITE LEGEND

- ANY (E) OBJECT TO BE DEMOLISHED
- ANY (E) ELEMENT TO BE REMOVED
- HARDSCAPED AREA TO BE MODIFIED



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

ORIGINAL SIZE 24"x36"
SHEET SIZE ARCH "D"



TESLA SUPERCHARGER_PASADENA, CA
16 SUPERCHARGERS
TESLA SUPERCHARGER_PASADENA, CA
3500 E COLORADO BLVD - SUITE EV
PASADENA, CA, 91107

NO.	REVISION	DATE	AHJ COMMENTS
A		1/20/22	

DEMO PLAN

G-101

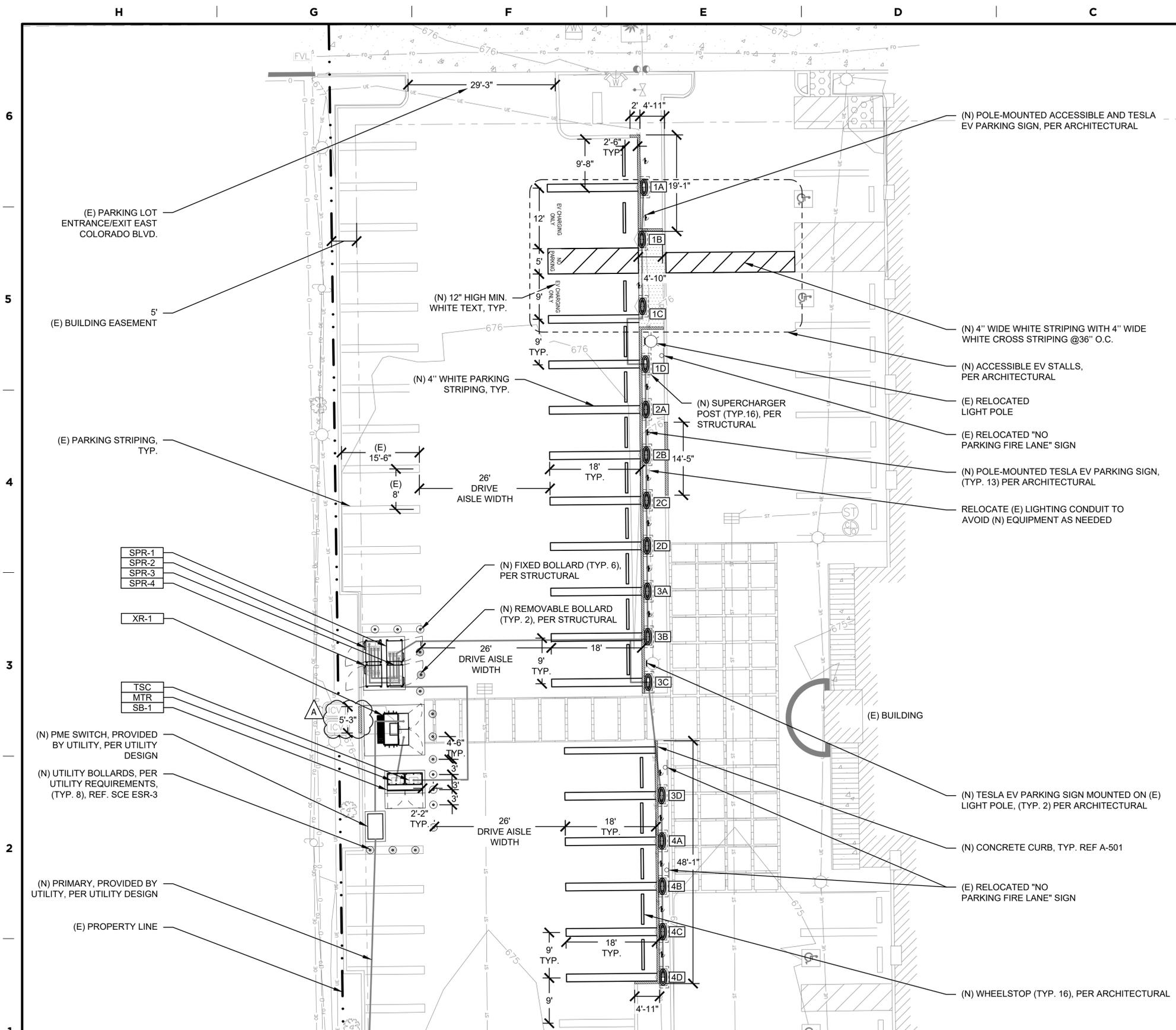
JB-9111919-00

REV: A IFF

DESIGNER SIGNATURE:

Brian Ziegler

PROPRIETARY AND CONFIDENTIAL



CHARGING STALLS SCHEDULE

SUPERCHARGER CABINET	POST TAG	SIGN TYPE
1	1A	DEDICATED
	1B	DEDICATED & ACCESSIBLE
	1C	DEDICATED
	1D	DEDICATED
2	2A	DEDICATED
	2B	DEDICATED
	2C	DEDICATED
	2D	DEDICATED
3	3A	DEDICATED
	3B	DEDICATED
	3C	DEDICATED
	3D	DEDICATED
4	4A	DEDICATED
	4B	DEDICATED
	4C	DEDICATED
	4D	DEDICATED

- ### SITE LEGEND
- (N) CONDUIT ROUTE, SHOWN FOR DIAGRAMMATIC PURPOSES ONLY.
 - (N) REMOVABLE BOLLARD
 - (N) FIXED BOLLARD
 - (N) UTILITY BOLLARD
 - (N) CONCRETE CURB
 - (N) FULL DEPTH CONCRETE
 - (N) POLE-MOUNTED LIGHT FIXTURE
 - (N) SIGN

PARKING STALL SCHEDULE

EXISTING STANDARD STALLS UTILIZED AS A RESULT OF THIS PROJECT	25
PROPOSED TESLA STALLS	16
PROPOSED STANDARD STALLS	0
AB1100 EV VAN CREDIT	1
NET STALL COUNT	-8

PARKING SUMMARY AMENDMENT TO CUP201300023

TOTAL PARKING SPACES REQUIRED (PER CUP201300023): 203
 TOTAL PARKING SPACES PROVIDED (PER CUP201300023): 230
 DIFFERENCE (PER CUP201300023): +27

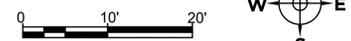
NET STALL LOSS FROM TESLA STATION: -8
 AMENDED TOTAL PARKING SPACES PROVIDED: 222
 TOTAL PARKING SPACES REQUIRED (PER CUP201300023): 203
 DIFFERENCE: +19

REFERENCE ATTACHED APPROVED PARKING PLAN

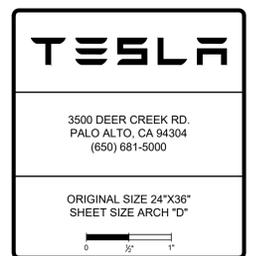
- ### PARKING SIGNS, REF A/A-501
- DEDICATED
 - ACCESSIBLE
- ### MINIMUM SERVICE CLEARANCES
- FRONT CHARGE POST: 5"
 - SUPERCHARGER CABINET: 1'-6"
 - SWITCHBOARD: 5"
 - TRANSFORMER: 4"
 - PME SWITCH: FROM PAD EDGE 8' ON DOOR SIDES AND 3' ON NON-DOOR SIDES (VERIFY WITH UTILITY REQUIREMENTS)

DESIGNER SIGNATURE: *Brian Zing*

ELECTRICAL SITE PLAN
1" = 10'-0"



- ### EQUIPMENT TAGS
- XR-# TRANSFORMER (PROVIDED BY UTILITY PER UTILITY DESIGN)
 - SB-# SWITCHBOARD
 - SPR-# SUPERCHARGER CABINET
 - TSC TESLA SITE CONTROLLER
 - LGT-# LIGHT
 - #X SUPERCHARGER POST



TESLA SUPERCHARGER_PASADENA, CA
 16 SUPERCHARGERS
 TESLA SUPERCHARGER_PASADENA, CA
 3500 E COLORADO BLVD - SUITE EV
 PASADENA, CA, 91107

NO.	REVISION	DATE	AHJ COMMENTS
A		1/20/22	

SITE PLAN
 E-101
 JB-9111919-00
 REV: A IFF

LOAD SCHEDULE

SWITCHBOARD "SB-1" LOAD SCHEDULE										
CKT NO	TRIP AMPS	DESCRIPTION	VOLT-AMPS			VOLT-AMPS			TRIP AMPS	CKT NO
			A	B	C	A	B	C		
1	600	SUPERCHARGER #1	129,000	-	-	129,000	-	-	600	2
3	"	"	-	129,000	-	-	129,000	-	"	4
5	"	"	-	-	129,000	-	-	"	"	6
7	600	SUPERCHARGER #3	129,000	-	-	129,000	-	-	600	8
9	"	"	-	129,000	-	-	-	"	"	10
11	"	"	-	-	129,000	-	-	"	"	12
13						50	-	-	15	14
15						-	50	-	"	16
17						-	-	-	"	18
TOTALS			PHASE	A	B	C				
			APPARENT POWER	516 kVA	516 kVA	516 kVA				
			CURRENT	1,862 A	1,862 A	1,862 A				

(E) 625.15 MARKINGS: THE EQUIPMENT SHALL COMPLY WITH 625.15(A) THROUGH (C).

(A) GENERAL. ALL EQUIPMENT SHALL BE MARKED BY THE MANUFACTURER AS FOLLOWS: FOR USE WITH ELECTRIC VEHICLES

(B) VENTILATION NOT REQUIRED. WHERE MARKING IS REQUIRED BY 625.52(A), THE EQUIPMENT SHALL BE CLEARLY MARKED BY THE MANUFACTURER AS FOLLOWS: VENTILATION NOT REQUIRED THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE AFTER INSTALLATION.

(C) VENTILATION REQUIRED. WHERE MARKING IS REQUIRED BY 625.52(B), THE EQUIPMENT SHALL BE CLEARLY MARKED BY THE MANUFACTURER: VENTILATION REQUIRED. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE AFTER INSTALLATION.

SYSTEM PLACARDS

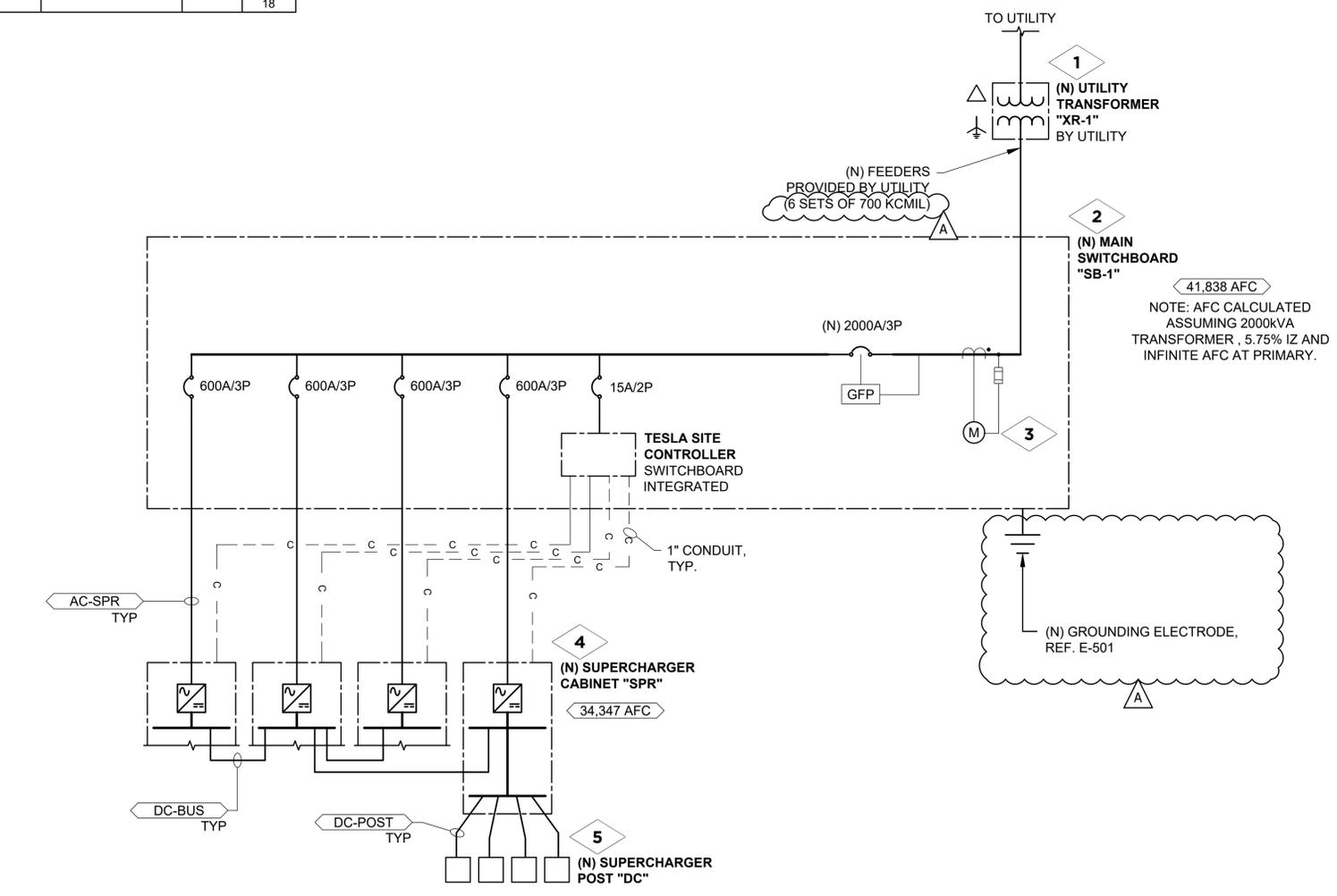
TESLA SUPERCHARGER
 3500 E COLORADO BLVD - SUITE EV
 SERVICE SIZE:
 2000A, 480/277V, 3PH, 4W
 1-877-798-3752

ATTACH ON FRONT OF SWITCHBOARD

TESLA EV SYSTEM DISCONNECT

ATTACH ON SWITCHBOARD MAIN DISCONNECT

PLACARD NOTES:
 PLACARDS TO BE MADE OF RED PHENOLIC PLASTIC W/ 1" WHITE LETTERING. ATTACH PLACARDS WITH RIVETS OR SELF TAPPING SCREWS
 ADDITIONAL PLACARDS REQUIRED FOR ARC FLASH LABELS



AC CIRCUIT SCHEDULE

CIRCUIT #	CONDUCTOR METAL UON	# OF CONDUITS	# PHASE CONDUCTORS PER CONDUIT	PHASE CONDUCTOR SIZE	NEUTRAL CONDUCTOR SIZE	EGC	GEC SIZE (CU)	MAX CIRCUIT LENGTH	WIRE TYPE	CONDUIT TYPES	MIN CONDUIT SIZE (IN)
AC-SPR	AL	2	3	500 KCMIL	500 KCMIL	AWG 2/0	-	600'-0"	XHHW-2	PVC, RMC, EMT, HDPE	4

DC CIRCUIT SCHEDULE

CIRCUIT #	CONDUCTOR METAL UON	# OF CONDUITS	# PHASE CONDUCTORS PER CONDUIT	PHASE CONDUCTOR SIZE	EGC	SIGNAL WIRE	DC MID	MAX CIRCUIT LENGTH	WIRE TYPE	CONDUIT TYPES	MIN CONDUIT SIZE (IN)
DC-POST	AL	1	4	350 KCMIL	AWG 2/0	TESLA PROVIDED	-	330'	XHHW-2 (1000V)	PVC, RMC, EMT, HDPE	4
DC-BUS	AL	2	2	600 KCMIL	AWG 1/0 (CU)	-	AWG 3/0	900'	XHHW-2 (1000V)	PVC, RMC, EMT, HDPE	3

EQUIPMENT NOTES

- (N) UTILITY TRANSFORMER "XR-1"
 • SIZE & PRIMARY VOLTAGE PER UTILITY
 • SECONDARY 480Y/277V
- (N) MAIN SWITCHBOARD "SB-1"
 • 480/277 VAC, 2000A
 • 2000A MAIN BREAKER, 100%-RATED, LSI&G AND ERMS
 • 65 KAIC RATED, NEMA 3R
- (N) UTILITY METER
 • METER # TBD
- (N) SUPERCHARGER CABINET "SPR"
 • (4) SUPERCHARGER CABINETS
 • 480VAC, 3PH, 4W
 • 465A MAX AC INPUT
 • DC OUTPUT TO 4 CHARGE POSTS MAX EACH SUPERCHARGER CABINET
 • 85 kA SCCR
- (N) SUPERCHARGER POST "DC"
 • 250KW
 • (16) SUPERCHARGER POSTS
 • 180VDC - 500 VDC

LEGEND

- BUSSING
- CONDUCTORS
- SHIELDED CAT6 CABLE
- CIRCUIT BREAKER
- SWITCH
- FUSE
- CURRENT TRANSFORMER
- POWER TRANSFORMER
- DELTA TRANSFORMER WINDING
- WYE TRANSFORMER WINDING
- GROUNDING WYE TRANSFORMER WINDING
- EQPT. ENCLOSURES
- METER
- AC-DC OR DC-AC CONVERTER

DESIGNER SIGNATURE:

Brian Ziegler



TESLA SUPERCHARGER_PASADENA, CA
 16 SUPERCHARGERS
 TESLA SUPERCHARGER_PASADENA, CA
 3500 E COLORADO BLVD - SUITE EV
 PASADENA, CA, 91107

NO.	REVISION	DATE	AHJ COMMENTS
1	A	1/20/22	

SINGLE LINE DIAGRAM

E-201

JB-9111919-00

REV: A IFF

BREAKER SETTINGS

MAIN SWITCHBOARD SB-1, MCB 2000A ZPOWER			
DESIGNATION	FRAME AMPS	PHASE	GROUND
		AIC kA	65
FRAME	MFR	CUTLER-HAMMER	CUTLER-HAMMER
	TYPE MODEL	SBN-620	SBN-620
TRIP UNIT	SENSOR AMPS	2,000	2,000
	PLUG AMPS	2,000	2,000
	DESCRIPTION	LSI, 2000AF, 200-2000AF	GF, 800-6000AF
TRIP UNIT SETTINGS (2000A TRIP)	TYPE/MODEL	MAGNUM SB, DT 520	MAGNUM SB, DT 520
	LONG DELAY PICKUP (I_L)	1 (2000A)	
	LONG DELAY TIME (t_L)	15s	
	SHORT DELAY PICKUP (I_{SD})	2 (4000A)	
	SHORT DELAY TIME (t_{SD})	0.1s	
	INSTANTANEOUS PICKUP (I_I)	4 (8000A)	
GROUND FAULT PICKUP (I_G)			0.6 (1200A)
GROUND FAULT DELAY TIME (t_G)			0.5s

SUPERCHARGER CABINET BREAKERS
PD-3 THERMAL-MAG TRIP UNIT (600A TRIP)
INSTANTANEOUS (I_I): 5 (3000A)

TRENCHING NOTES

- THE TRENCH DESIGNS ARE THE RESULT OF A THERMAL ANALYSIS OF THE CONDUCTORS UNDER LOAD. FOR PROPER PROTECTION THEY MUST BE FOLLOWED.
- APPROVED BACKFILL IS REQUIRED TO MEET THE DESIGNED RHO VALUES. USE THE SPECIFIED BACKFILL LISTED BELOW OR TEST NATIVE SOIL CONDITIONS TO CONFIRM MAX DEFINED RHO VALUES.
- RHO 60 BACKFILL** - HIGH STRENGTH FLUIDIZED THERMAL (SLURRY) BACKFILL WITH MIN 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI MUST BE USED TO ACHIEVE MAX RHO 60.
- RHO 90 BACKFILL** - LOW STRENGTH FLUIDIZED THERMAL (SLURRY) BACKFILL WITH MIN 28 DAY COMPRESSIVE STRENGTH OF 150 PSI MUST BE USED TO ACHIEVE MAX RHO 90
- FOR TRENCHES WITH MIXED CIRCUIT TYPES, APPLY THE CONDUIT SPACING FOR THE CIRCUIT TYPE WITH THE LARGER SPACING REQUIREMENT
- CONDUIT TO BE INSTALLED TO A MAX COVER OF 24". COVER MAY BE REDUCED PER THE NEC TABLE 300.5.
- CONDUIT ARE PERMITTED TO HAVE GREATER THAN 24" COVER FOR SHORT DISTANCES WHERE REQUIRED TO CROSS UNDER (E) UTILITY LINES, TO ALLOW FOR NEC REQUIRED MIN RADIUS FOR CONDUIT TURN-UPS INTO PAD-MOUNTED EQUIPMENT, TO AVOID (E) OBSTRUCTIONS, ETC.

TESLA

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

ORIGINAL SIZE 24"x36"
SHEET SIZE ARCH "D"

PROFESSIONAL ENGINEER
MARKAMAL SWOOP
E 23271
ELECTRICAL
STATE OF CALIFORNIA

TESLA SUPERCHARGER_PASADENA, CA
16 SUPERCHARGERS
TESLA SUPERCHARGER_PASADENA, CA
3500 E COLORADO BLVD - SUITE EV
PASADENA, CA, 91107

6

5

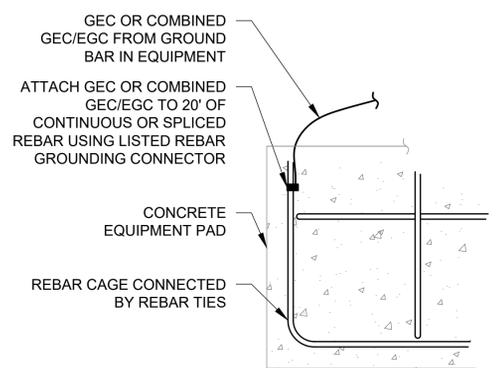
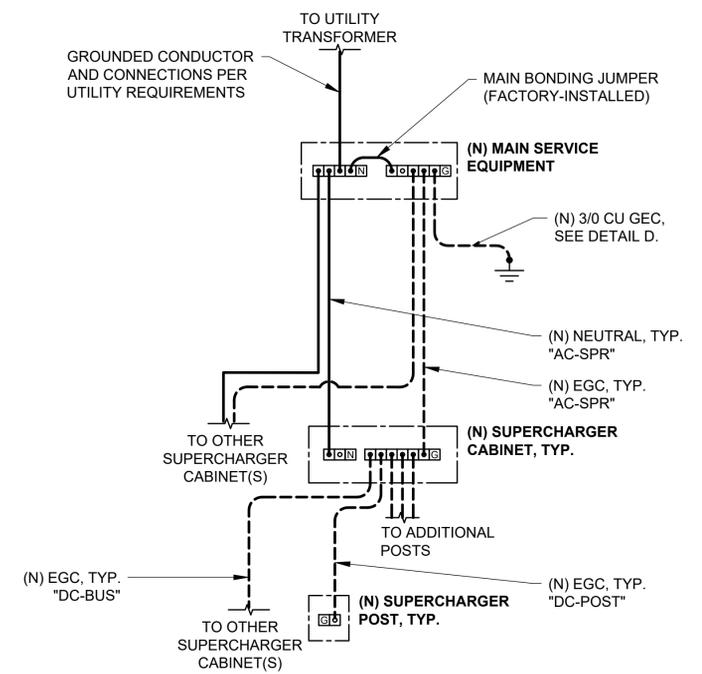
DESIGNER SIGNATURE:
Brian Ziegler

NOTES

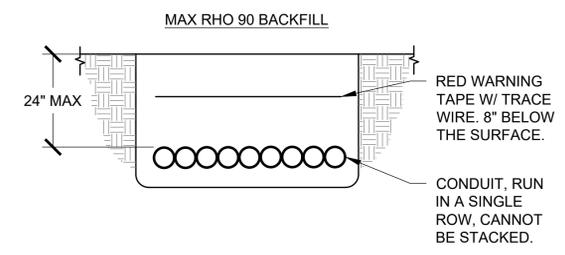
- REFER TO ONE-LINE DIAGRAM FOR SPECIFIC CIRCUIT IDENTIFIERS BETWEEN EQUIPMENT.
- REFER TO AC & DC CIRCUIT SCHEDULES FOR NEUTRAL/GROUND SIZING PER CIRCUIT.

LEGEND

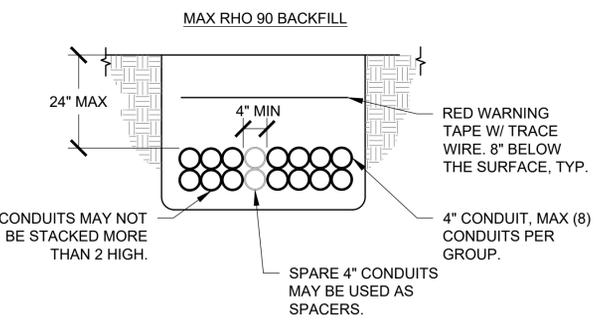
- ☐ NEUTRAL BUSBAR
- ☐ GROUND BUSBAR
- ☐ PRIMARY OR SECONDARY COMMON TERMINAL, AS APPLICABLE
- ☐ TERMINAL ON NEUTRAL OR GROUND BUSBAR
- IRREVERSIBLE SPLICE OR CRIMP PER NEC 250.64(C)
- ⚡ NEC 250.52(A)-COMPLIANT GROUNDING ELECTRODE



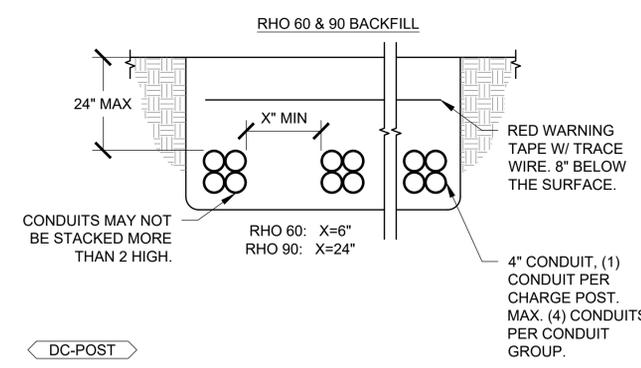
D CONCRETE-ENCASED ELECTRODE
E211-100 REBAR UPPER GROUNDING DETAIL RA NTS



X "DC-BUS" CIRCUITS TRENCH - MAX RHO 90
E211-103 TRENCH - PAVEMENT TRAFFIC DETAIL RA NTS



X "AC-SPR" CIRCUIT TRENCH - MAX RHO 90
E211-104 DC TRENCH - PAVEMENT TRAFFIC DETAIL RA NTS



X "DC-POST" CIRCUIT TRENCH - RHO 60 & 90
E211-105 DC TRENCH - PAVEMENT TRAFFIC DETAIL RA NTS

2

1

E GROUNDING DIAGRAM
E231-100 GROUNDING DIAGRAM NOTES RA

NO.	REVISION	DATE	AHJ COMMENTS
A		1/20/22	

ELECTRICAL DETAILS

E-501

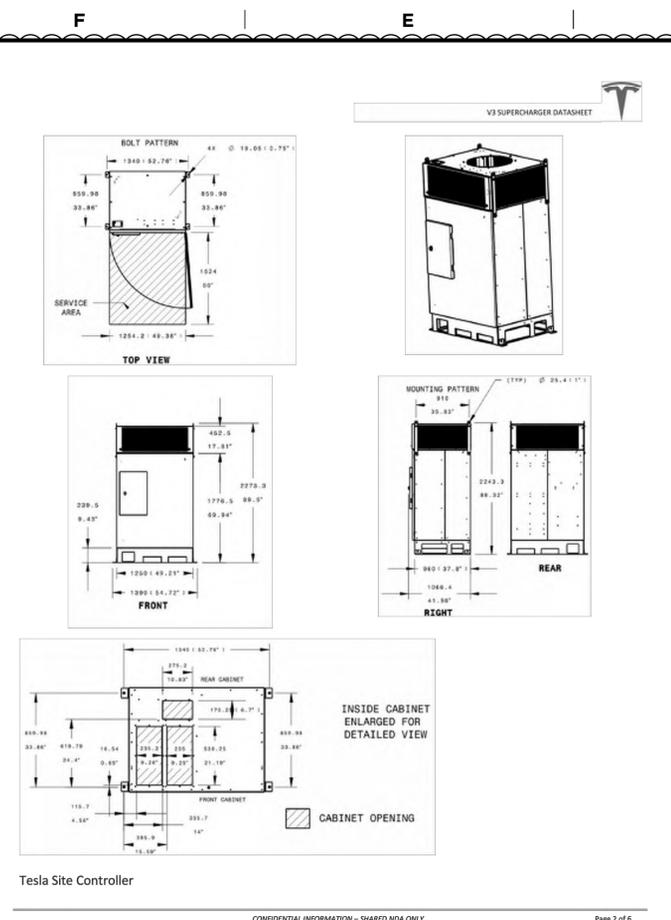
JB-9111919-00

REV: A IFF

V3 SUPERCHARGER DATASHEET

V3 Supercharger Cabinet		Input (V _{AC})	480	440	415	400	380
AC INPUT (ELECTRICAL)	Peak AC Input Power	Power (kW)	387	354	334	322	306
	AC Input Voltage	380 V _{AC} - 480 V _{AC} (-5%, +10%), 4-wire 3AC+N					
	AC Input current	465 A _{AC} Max.					
	Frequency	50 Hz / 60 Hz					
AC INPUT (MECHANICAL)	Power Factor	> 0.99					
	Current THD	< 3%					
	Voltage THD	< 2%					
	Conductor Sizes	L1, L2, L3, N: 150 - 400 mm ² , 250 MCM - 750 MCM					
SHARED DC BUS (ELECTRICAL)	Conductor Material Type	PE: 10 - 70 mm ² , #8 AWG - 2/0					
	Mfr. Termination Temp Rating	90° C					
	DC Bus Voltage Range	880 - 1000 V _{DC}					
	Conductor Sizes	V ₊ , V ₋ (2x/pole): 150 - 300 mm ² , 250 MCM - 600 MCM Mid: 16 - 350 mm ² , 6 AWG - 250 MCM					
SHARED DC BUS (MECHANICAL)	Conductor Material Type	PE: 10 - 70 mm ² , #8 AWG - 2/0					
	Mfr. Termination Temp Rating	90° C					
	DC Post (ELECTRICAL)	Max. Rated Post Power	250 kW				
	DC Post (MECHANICAL)	Post Rated Voltage Range	0-500 V _{DC}				
SYSTEM	Efficiency	96%					
	AC Input side: Class 1	DC Output side: Isolated DC Output					
	Over Voltage/Current/Temperature, Surge Protection, Isolation Monitoring	External Electronic Trip Circuit Breaker					
	Short Circuit Protection	85 kA RMS symmetrical					
ENVIRONMENTAL	Operating Temperature	-30°C to 50°C, -22°F to 122°F					
	Ingress Protection	IP46 (Cabinet), IP2X (Cooling)					
STANDARDS	UL 2202, CSA C22.2#107.1, FCC, ICES-003-B, IEC 61851-1, EN 61000-6-2 EN 55011, GB/T 18487.1, GB/T 27930, NB/T 33008.1, NB/T 33001						
	LAYOUT	Max. Distance to Charge Post	100 m, 340 ft.				
WEIGHT	Supercharger Cabinet Weight	4 Post Cabinet: 1110 kg (2448 lbs)					
	3 Post Cabinet: 1059kg (2331 lbs)						
DIMENSIONS	Depth, Width, Height	1000, 1250, 2200 mm; 39.37, 49.21, 86.58 in.					
	MOUNTING	Per-anchor min. Shear Strength	4 kN				
	Per-anchor min. Tension Strength	11 kN					

CONFIDENTIAL INFORMATION - SHARED NDA ONLY



V3 SUPERCHARGER DATASHEET

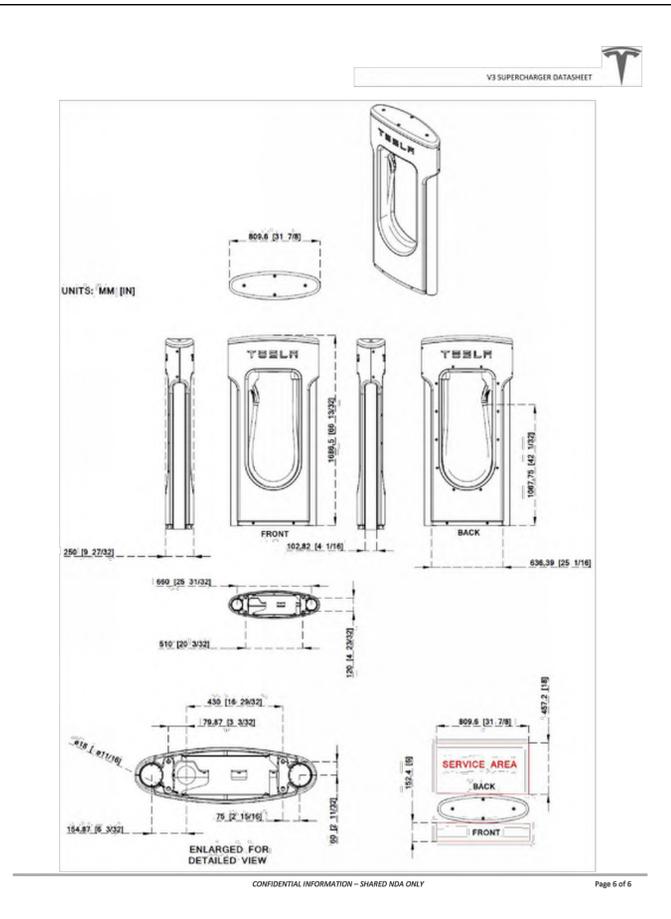
ELECTRICAL	Input Voltage	120, 240, 277, or 480 VAC
	Input Power	100 W Max.
	Frequency	50 Hz / 60 Hz
	Overvoltage Protection	Category III
ENVIRONMENTAL	Operating Temperature	-30°C to 50°C, -22°F to 122°F
	Ingress Protection	IP67, NEMA 4
COMMUNICATION	Relative Humidity	100% condensing, wet location rated
	Protocols	Modbus TCP, DNP3, Rest API
STANDARD	Backhaul	Ethernet, 4G LTE
	Standards	UL 61010-1, CSA-22.2, IEC-61010-1
MECHANICAL	Dimensions	L: 255 mm (10 in)
		W: 530 mm (20.9 in)
		H: 730 mm (28.7 in)
Weight	21.4 kg (47.2 lbs)	

CONFIDENTIAL INFORMATION - SHARED NDA ONLY

V3 SUPERCHARGER DATASHEET

V3 Supercharger Charge Post		Max. Rated Post Power	250 kW
POST INPUT/OUTPUT (ELECTRICAL)	Post Rated Voltage Range	0 - 500 V _{DC}	
	Post Rated Current @T _a =35° C	Tesla Handle: 350 A _{AC} , CCS2 & GB Handle: 450 A _{AC}	
	Power Conductors	V ₊ , V ₋ (2x/pole): 350 MCM or 185 mm ² AL (certified equipment wiring)	
	PE Conductor	PE: 25 - 50 mm ² , 3 AWG - 2/0	
DC INPUT (MECHANICAL)	Conductor Material Type	V ₊ , V ₋ : Al, Cu PE: Al, Cu	
	Conductor Voltage Rating	1000 V	
	Mfr. Termination Temp Rating	90° C	
	PROTECTION	Over Current/Temperature, Uneven Current Split	
ENVIRONMENTAL	Operating Temperature	-40°C to 50°C, -40°F to 122°F	
	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 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.	
	Depth, Width, Height	250, 810, 1687 mm; 9.84, 31.79, 66.83 in.	
DIMENSIONS	Per-anchor min. Shear Strength	1 kN	
	Per-anchor min. Tension Strength	11 kN	

CONFIDENTIAL INFORMATION - SHARED NDA ONLY



TESLA

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

ORIGINAL SIZE 24"x36"
SHEET SIZE ARCH "D"

PROFESSIONAL ENGINEER
MARKAMAL SINGH
E 23271
Workam
ELECTRICAL
STATE OF CALIFORNIA

TESLA SUPERCHARGER_PASADENA, CA
 16 SUPERCHARGERS
 TESLA SUPERCHARGER_PASADENA, CA
 3500 E COLORADO BLVD - SUITE EV
 PASADENA, CA, 91107

NO.	REVISION	DATE	AHJ COMMENTS
A		1/20/22	

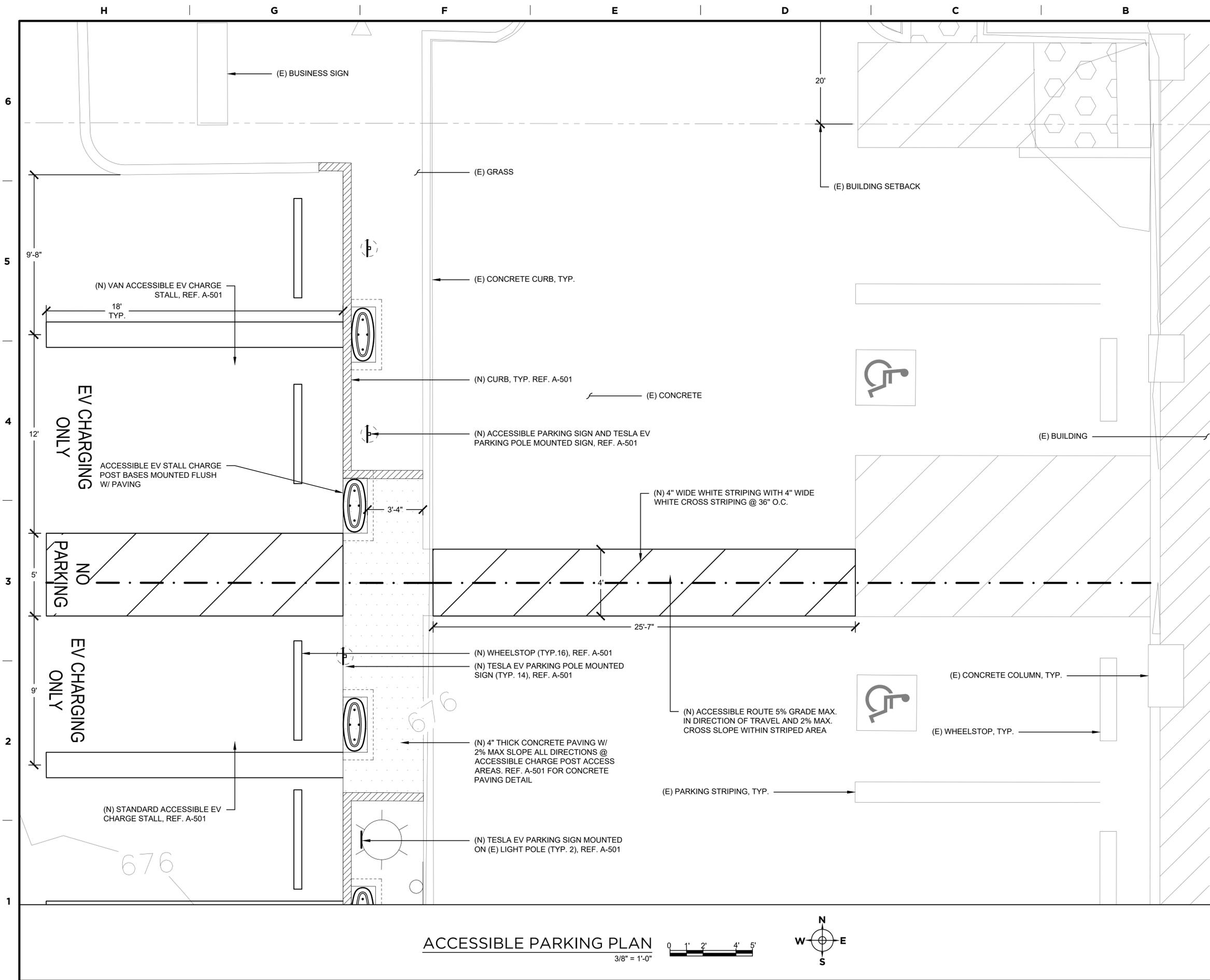
CUTSHEETS

E-601

JB-9111919-00

REV: A IFF

DESIGNER SIGNATURE:
Brian Ziegler



SITE LEGEND

- (N) SUPERCHARGER POST
- (N) SIGN
- (N) CONCRETE CURB
- (N) FULL DEPTH CONCRETE

EV CHARGE STALL SCHEDULE

EV CHARGE STALLS PROPOSED			
ADA EV STALL TYPE	CAR	VAN	AMBULATORY
STALLS REQUIRED	1	1	0
STALLS PROPOSED	1	1	0

BASED ON CBC TABLE 11B-228.3.2.1

NOTES

CODE COMPLIANCE:
ALL WORK SHALL BE INSTALLED IN COMPLIANCE WITH CALIFORNIA BUILDING CODE. APPLICABLE CODE ARE AS STATED.

ACCESSIBLE STALLS

- STANDARD: 11B-812.6.2
- VAN: 11B-812.6.1
- AMBULATORY: 11B-812.6.3

ACCESS AISLE: 11B-812.7
ACCESSIBLE ROUTE: 11B-812.5
ISA SIGNAGE: 11B-812.8
ADA SURFACE MARKINGS: 11B-812.9

ACCESSIBLE PARKING PLAN
3/8" = 1'-0"



DESIGNER SIGNATURE:
Brian Ziegler

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

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

TESLA SUPERCHARGER_PASADENA, CA
16 SUPERCHARGERS
TESLA SUPERCHARGER_PASADENA, CA
3500 E COLORADO BLVD - SUITE EV
PASADENA, CA, 91107

NO.	REVISION	DATE	AHJ COMMENTS
A		1/20/22	

ACCESSIBLE PARKING PLAN

A-301

JB-9111919-00

REV: A IFF

6

5

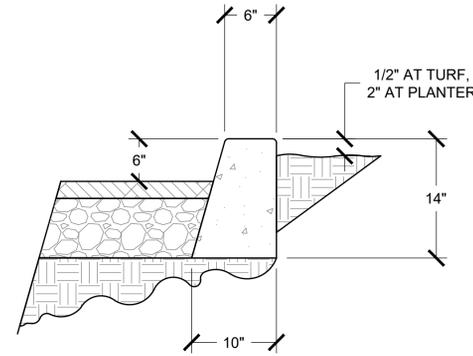
4

3

2

1

STEEL TROWEL FINISH CONC. CURB W/ 1/2" ROUNDED EDGES
(PROVIDE EXPANSION JOINT AT 45'-0" O.C. MAX. - TOOLED JOINTS AT 15'-0" O.C. MAX.)

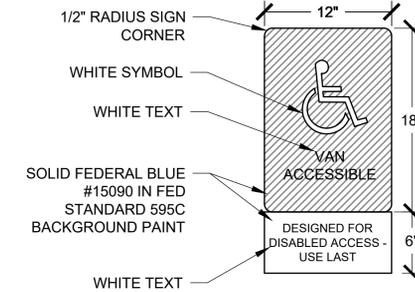


E CONCRETE CURB
AS01.110 CONCRETE CURB DETAIL.RB

NTS

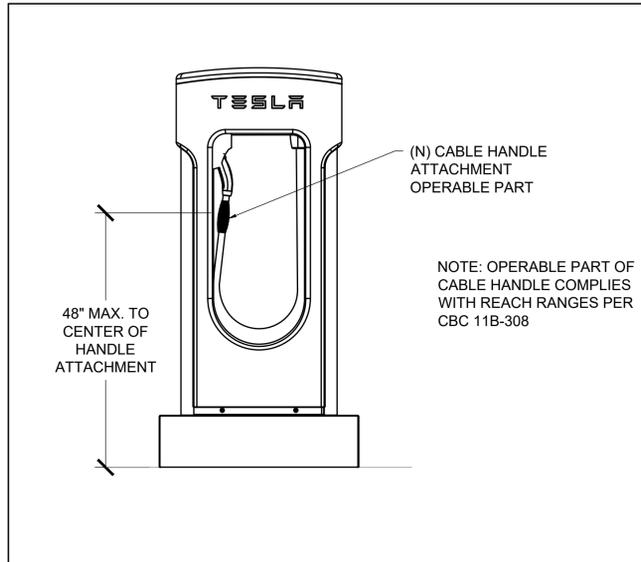
MOUNTING OPTIONS:
1. SIGN CAN BE INSTALLED ON WALL USING ANCHOR SYSTEM MATCHING WALL TYPE.
2. SIGN CAN BE POLE MOUNTED PER SPECIFICATIONS IN POLE MOUNTED SIGN DETAILS.

SIGN MATERIAL: ALUMINUM



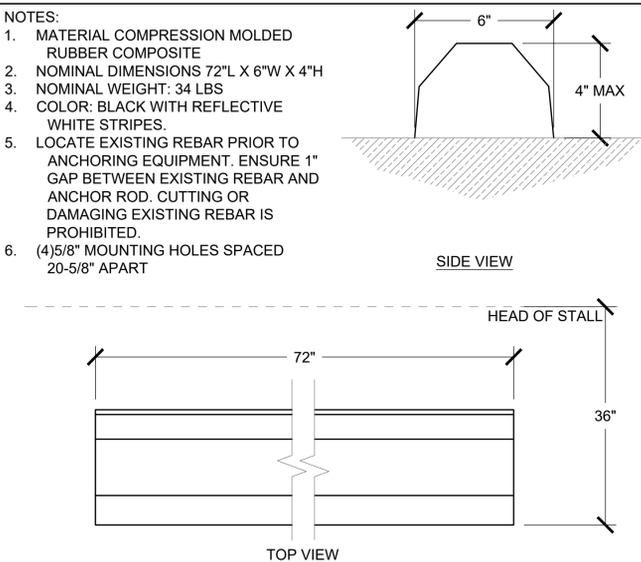
B TESLA EV STALL PARKING SIGN - VAN ACCESSIBLE
AS01.119 TESLA EV STALL PARKING SIGN - VAN ACCESSIBLE.RB

NTS



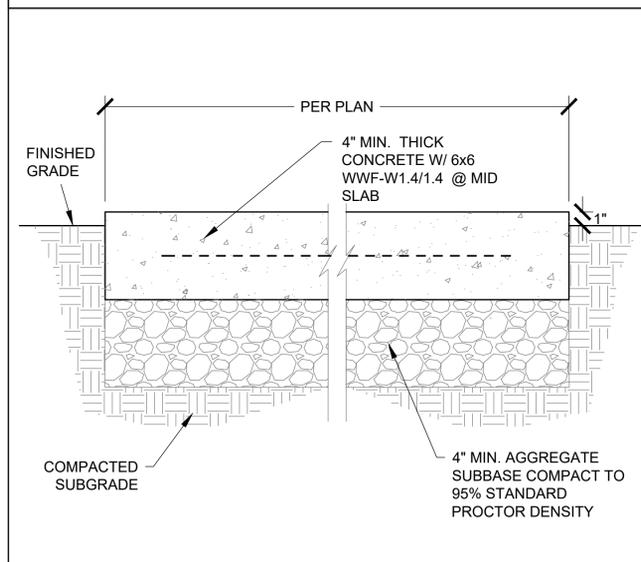
G CABLE HANDLE ACCESSIBILITY ATTACHMENT DETAIL
AS01.112 MOLDED RUBBER COMPOSITE WHEEL STOP.RB

NTS



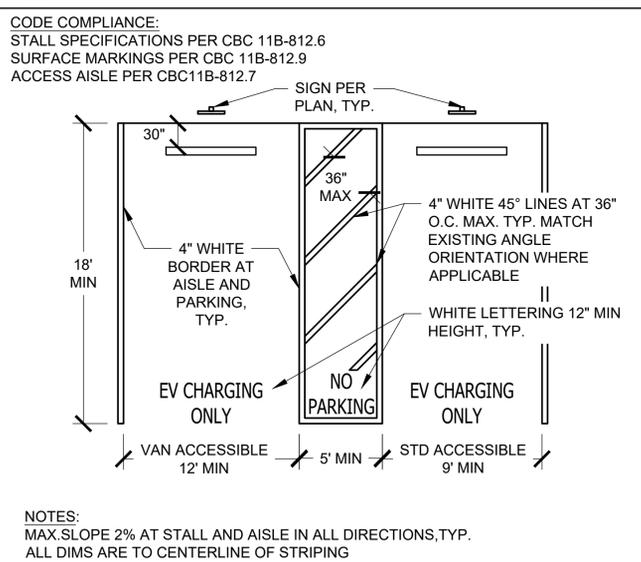
D MOLDED RUBBER COMPOSITE WHEEL STOP
AS01.112 MOLDED RUBBER COMPOSITE WHEEL STOP.RB

NTS



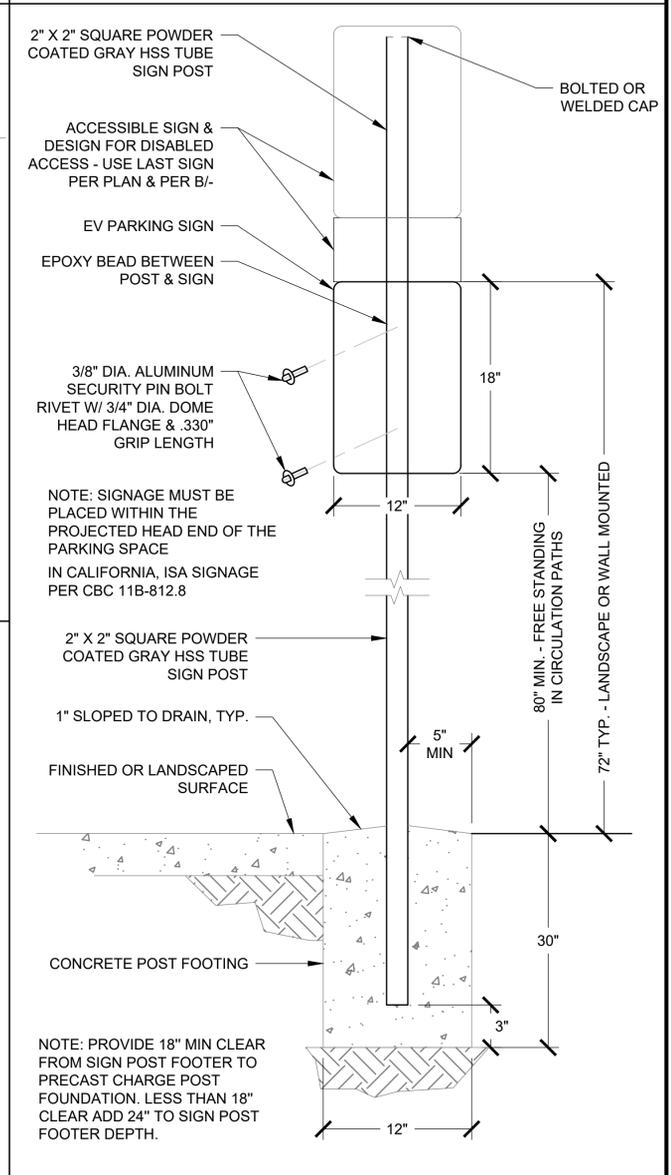
F WALKWAY PAVEMENT DETAIL
AS01.120 WALKWAY PAVEMENT DETAIL.RB

NTS



C EV CHARGE ACCESSIBLE STALLS - VAN & STANDARD
AS01.114 EV CHARGE ACCESSIBLE STALLS - VAN & STANDARD.RB

NTS



A POLE MOUNTED EV SIGN
AS01.117 POLE MOUNTED ACCESSIBLE EV SIGN DETAIL.RB

NTS

DESIGNER SIGNATURE:
Brian Ziegler

TESLA

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

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

LICENSED ARCHITECT
CHRISTOPHER T. MAREK
C-32449
REN. 05/31/23
STATE OF CALIFORNIA

TESLA SUPERCHARGER_PASADENA, CA
16 SUPERCHARGERS
TESLA SUPERCHARGER_PASADENA, CA
3500 E COLORADO BLVD - SUITE EV
PASADENA, CA, 91107

NO.	REVISION	DATE	AHJ COMMENTS
A		1/20/22	

DETAILS

A-501

JB-9111919-00

REV: A | IFF

H G

6

5

DESIGNER SIGNATURE:

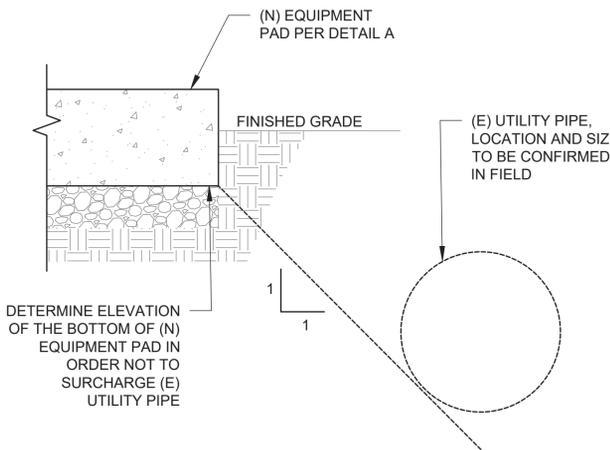


4

3

H PIPE UTILITIES ADJACENT TO EQUIPMENT PAD

NTS



DETERMINE ELEVATION OF THE BOTTOM OF (N) EQUIPMENT PAD IN ORDER NOT TO SURCHARGE (E) UTILITY PIPE

2

1

G LIGHT POLE FOUNDATION WITH BOLLARD

NTS

F SWITCHBOARD

NTS

SWITCHBOARD CABINET DESIGN TO BE VERIFIED AGAINST VENDOR DRAWINGS

1500 LBS MAX PER CABINET SECTION, TYP.

(N) ANCHOR LOCATION, TYP. ONLY THE CORNER ANCHORS OF EACH SECTION ARE REQUIRED, (4) ANCHORS PER SECTION, TYP.

7'-7\"/>

E FIXED BOLLARD DETAIL

NTS

NOTES

1. 4\"/>

B V3 SUPERCHARGER CABINET FRONT

3/4\"/>

CONTRACTOR TO OBTAIN CONDUIT WINDOW TEMPLATE PRIOR TO COMMENCING CONSTRUCTION AND UTILIZE TEMPLATE WHEN LAYING OUT CABINETS

CONDUIT SEALING PLATES (REF. INSTALLATION MANUAL)

AC CONDUIT (SWITCHBOARD TO CABINET)

ETHERNET CONDUIT (CABINET TO TESLA SITE CONTROLLER)

DC POST CONDUIT (CABINET TO POST)

HVDC BUS CONDUIT (CABINET TO CABINET)

D REMOVABLE BOLLARD DETAIL

NTS

(N) STEEL CAP

(N) REMOVABLE BOLLARD, 4\"/>

AIR HOLE FOR SUCTION RELIEF

(N) STEEL PIPE SLEEVE, 5\"/>

SLOPE TOP OF FOOTING (WHERE NOT SURROUNDED BY CONCRETE SLAB)

SLEEVE (BASE) 3\"/>

NOTE: LUBRICATE IN-GROUND PORTION OF THE PIPE TO PREVENT ADHESION TO THE SLEEVE

FREE DRAINING CRUSHED ROCK FILL (MIN. 4-1/2\"/>

NOTES

1. 4\"/>

C TESLA SUPERCHARGER POST DETAIL

1/2\"/>

PRECAST FOOTING REINFORCED WITH STRUCTURAL FIBER

VOLUME: 0.31 CU YDS

WEIGHT: 1,242 LBS

54\"/>

SEE CUTSHEETS FOR ADDITIONAL INFORMATION

(4) 5/8\"/>

TESLA SUPERCHARGER HANDLE

TESLA SUPERCHARGER POST

(4) 5/8\"/>

GRADE (IN DIRT AREA OR ADA AREA)

GRADE (IN ASPHALT AREA)

PRECAST RECTANGULAR FOOTING

6\"/>

CONCRETE DESIGN

1. THIS DESIGN IS APPLICABLE TO CONDITIONS WHERE THE SNOW LOAD IS LESS THAN 30PSF.
2. CONCRETE STRENGTH - PROVIDE CONCRETE WITH THE FOLLOWING STRENGTHS AT THE LOCATIONS NOTED. MIX DESIGN, SLUMP, AIR ENTRAINMENT, AGGREGATE SIZE, ETC. SHALL BE IN CONFORMANCE WITH THE ACI CODE, LATEST EDITION. LOCATION: ANY

STRENGTH AT 28 DAYS: 2500 PSI

- A. ALL CONCRETE AGGREGATE IS HARD ROCK UON
- B. DESIGN MIX SHALL CONTAIN 5-1/2 SACKS OF CEMENT, MIN.
- C. TYPE I/II CEMENT TO MEET ASTM C150.
- D. MAX AGGREGATE SIZE SHALL BE 3/4\"/>

2. REINFORCING STEEL - ASTM A615 WITH THE FOLLOWING STRENGTHS:

SIZE	STRENGTH:
#4 AND SMALLER	GRADE 60 (fy = 60000 PSI)
#5 AND LARGER	GRADE 60 (fy = 60000 PSI)

3. FABRICATE AND PLACE REINFORCEMENT IN ACCORDANCE WITH ACI PUBLICATION SP-66, ACI DETAILING MANUAL - LATEST EDITION.
4. PLACE CONCRETE IN COMPLIANCE WITH ACI 304. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED.
5. CONCRETE COVER FOR REINFORCEMENT FOR NON-PRESTRESSED, CAST IN PLACE CONCRETE SHALL BE AS FOLLOWS:

CONDITION	COVER
CAST AGAINST EARTH	3"
EXPOSED TO WEATHER	
#5 AND SMALLER	1-1/2"
#6 AND LARGER	2"
SLAB-ON-GRADE	2"

6. EMBEDS - ALL ITEMS TO BE CAST INTO CONCRETE SUCH AS REINFORCING DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC., SHALL BE SECURELY AND ACCURATELY POSITIONED INTO THE FORMS PRIOR TO PLACING THE CONCRETE.
7. MAX. CONTINUOUS SLAB LENGTH SHOULD NOT EXCEED 50 FT W/O EXPANSION JOINT

A EQUIPMENT PAD & ANCHOR SECTION

NTS

NOTE: MAX. CONTINUOUS SLAB LENGTH SHOULD NOT EXCEED 50 FT W/O EXPANSION JOINT

1/2\"/>

8\"/>

IN ORDER TO MAINTAIN POSITIVE DRAINAGE, THE SLAB SHALL SLOPE 0.5% TOWARDS THE DOWNHILL DIRECTION

3\"/>

6\"/>

12\"/>

10\"/>

6\"/>

#5 REBAR CONTINUOUS

10\"/>

6\"/>

TESLA

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

ORIGINAL SIZE 24\"/>


REGISTERED PROFESSIONAL ENGINEER

YOO JIN KIM

STRUCTURAL

STATE OF CALIFORNIA

Digitally signed by Yoo Jin Kim Date: 2022.02.03 12:17:12 -08'00'

TESLA SUPERCHARGER_PASADENA, CA
16 SUPERCHARGERS

TESLA SUPERCHARGER_PASADENA, CA
3500 E COLORADO BLVD - SUITE EV
PASADENA, CA, 91107

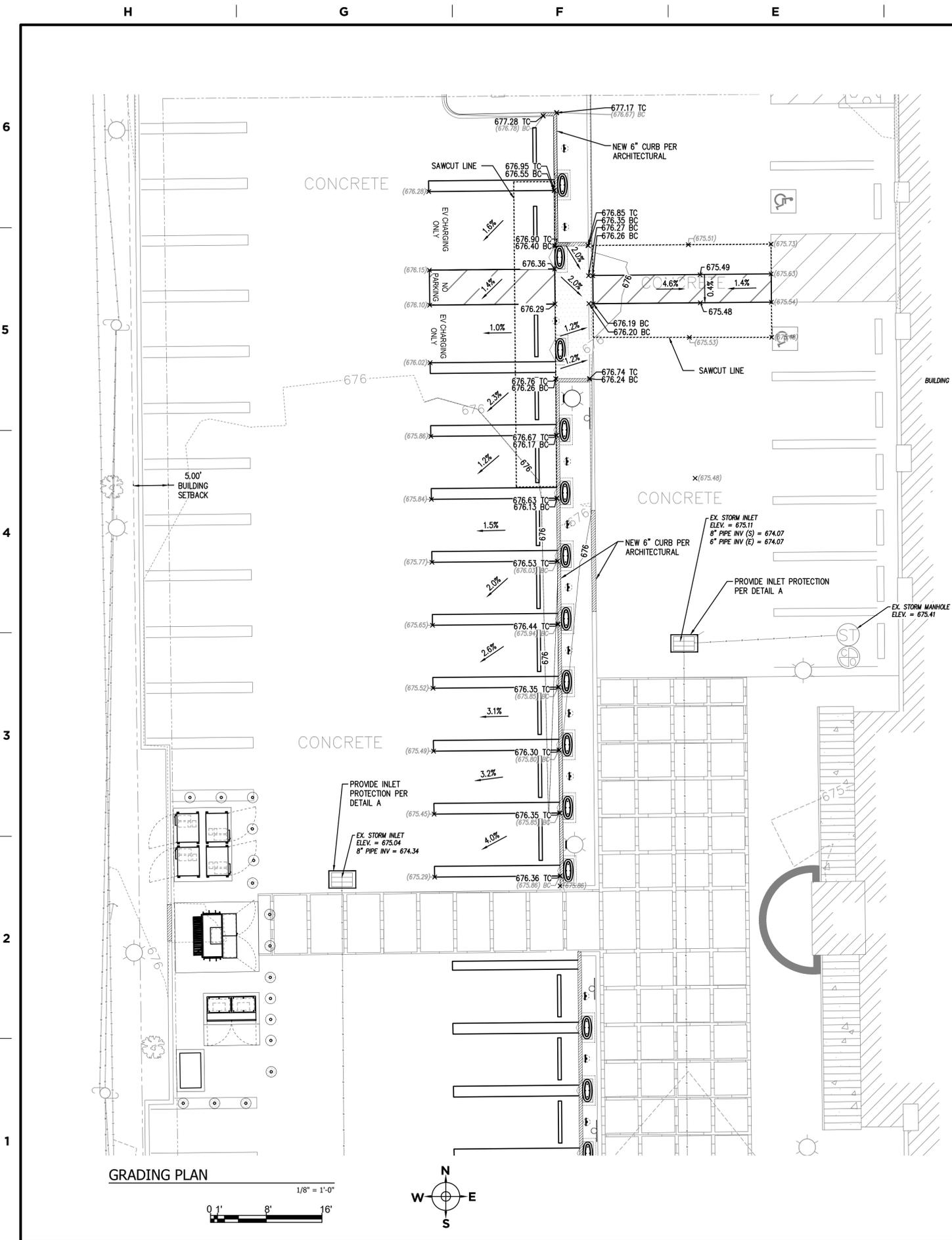
NO.	REVISION	DATE	AHJ COMMENTS
1	A	1/20/22	

STRUCTURAL DETAILS

S-501

JB-9111919-00

REV: A IFF

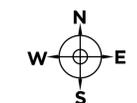
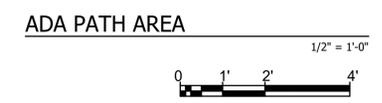
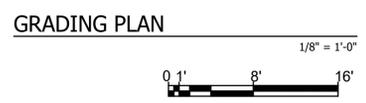
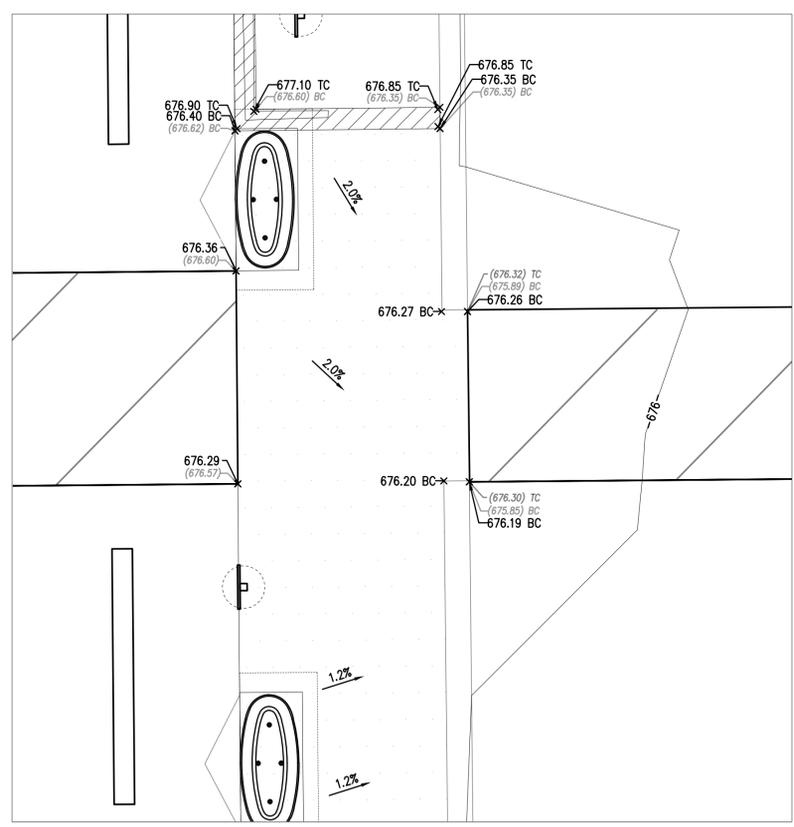
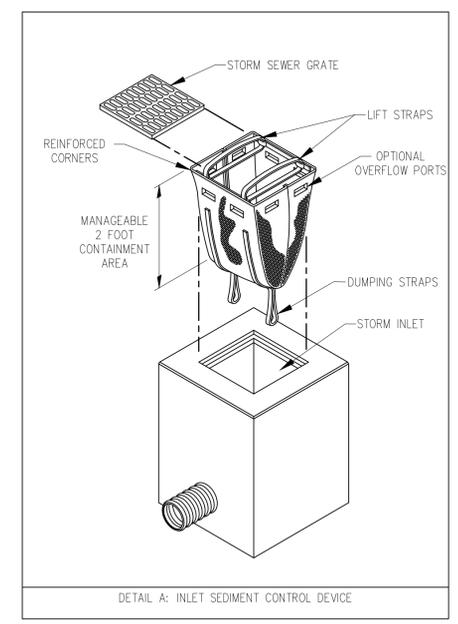


LEGEND

EXISTING	TEXT STYLE	PROPOSED
85	CONTOUR MAJOR	60
84	CONTOUR MINOR	
	PROPERTY LINE	
	FENCELINE	
	TREELINE	
	EDGE OF WATER	
	ROADWAY HATCH	
	UNDERGROUND WATERLINE	
	ELECTRICAL CONDUIT	
	ELECTRICAL EQUIPMENT	
	LIMIT OF DISTURBANCE	L.O.D.
	18" SILT FENCE	SF
	COMPOST FILTER SOCK	
	SAWCUT LINE	

DEFINITION

AC	ACRE
BC	BOTTOM OF CURB
BW	BOTTOM OF WALL
CF	CUBIC FEET
CO	CLEAN OUT
CY	CUBIC YARD
ELEV	ELEVATION
EX	EXISTING
ES	EROSION AND SEDIMENT CONTROL
FNE	FIELD NETWORK ENCLOSURE
INV	INVERT
KV	KILOVOLT
LF	LINEAR FOOT
LP	LIGHT POLE
MAX	MAXIMUM
MIN	MINIMUM
O.C.	ON CENTER
R/W	RIGHT OF WAY
TC	TOP OF CURB
TS	TOP OF SLAB
TW	TOP OF WALL
TYP	TYPICAL
(E)	EAST
(S)	SOUTH



DESIGNER SIGNATURE:
Brian Zeigler

TESLA

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

ORIGINAL SIZE 24"x36"
 SHEET SIZE ARCH "D"

REGISTERED ARCHITECT
 BRUCE ZEIGLER
 C-32449
 REN. 05/31/23
 State of California
 Date: 02/03/22

TESLA SUPERCHARGER_PASADENA, CA
 16 SUPERCHARGERS
 TESLA SUPERCHARGER_PASADENA, CA
 3500 E COLORADO BLVD - SUITE EV
 PASADENA, CA, 91107

NO.	REVISION	DATE	COMMENTS
A	AHJ COMMENTS	1/20/22	

GRADING PLAN

C-101

JB-9111919-00

REV: A IFP

PARKING SUMMARY

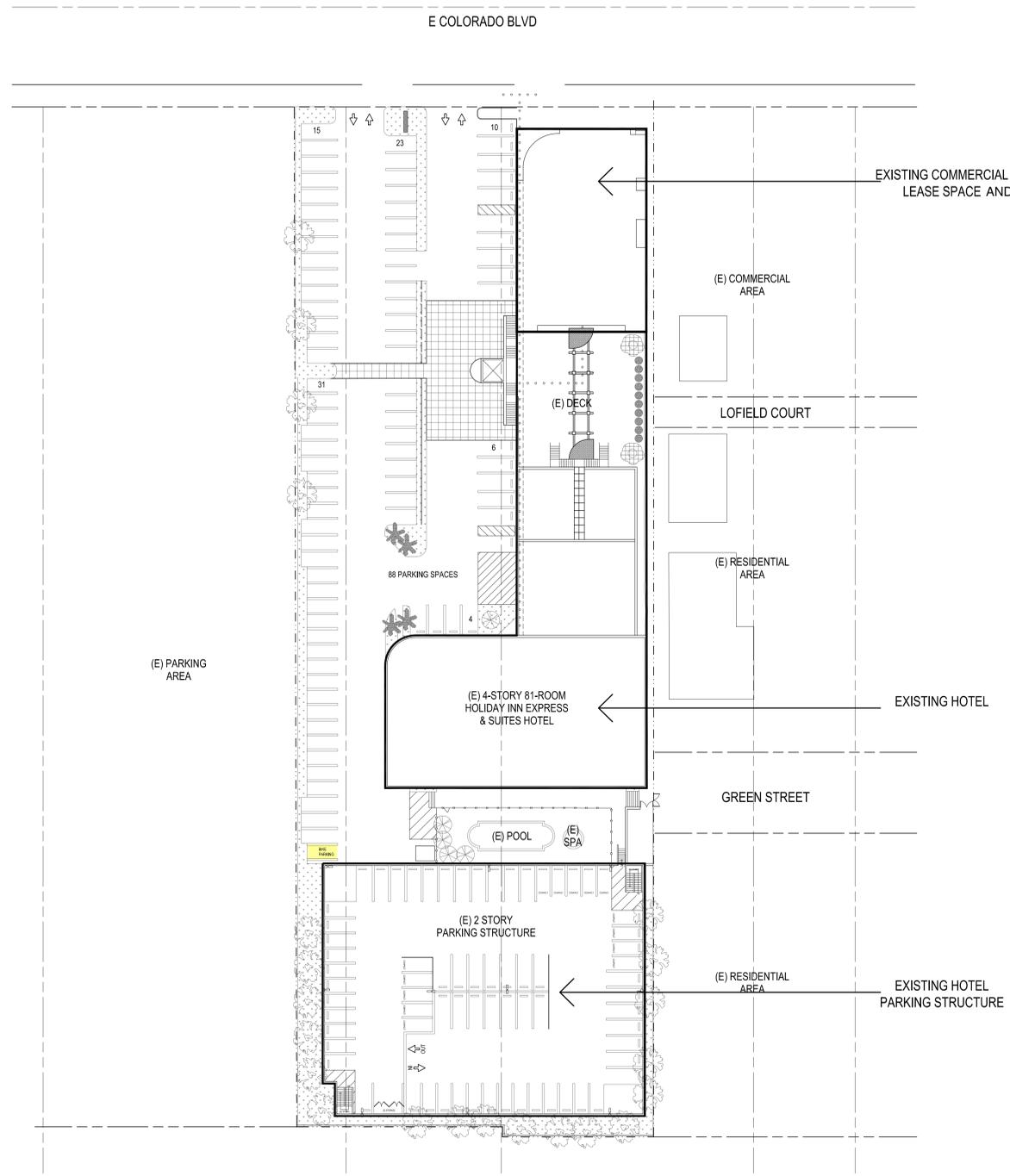
UNIT	TENANT	AREA	OCCUPANCY	PARKING RATIO	SPACES PROVIDED	SPACES PROVIDED
100	(E) YES SUSHI	2,905 SF	RESTAURANT	(131) 1/3 PERSONS	43.5	44
101	(E) VACANT	1,106 SF	RETAIL	1/250 SF	4.4	4
102	(E) AROMA HEALTH	1,106 SF	RETAIL	1/250 SF	4.4	4
103-105	(E) VACANT	3,000 SF	OFFICE	1/400 SF	7.5	8
106-107	(E) POTTS & ASSOC	2,114 SF	OFFICE	1/400 SF	5.3	5
108	(E) BELTON HEARING	1,078 SF	MED OFFICE	1/250 SF	4.3	4
109	(E) WATERS TAX	1,022 SF	OFFICE	1/400 SF	2.6	3
110	(E) THRIFTY RENTAL	994 SF	RETAIL	1/250 SF	4	4 + 2 DISPLAY + 15 RENTAL CARS
111	(E) SINGER LAW OFFICE	1,161 SF	OFFICE	1/400 SF	2.9	3
112	(E) VACANT	3,996 SF	OFFICE	1/400 SF	10	10
200	PROPOSED 12-ROOM EXPANSION	6,014 SF	HOTEL	(12) 1:2 GUESTROOMS	6	6
-	(E) 4-STORY 81-ROOM HOLIDAY INN EXPRESS	-	HOTEL	(81) 1:2 GUESTROOMS	40.5	41
-	(E) THORSON MOTOR	-	-	-	50	50
TOTAL REQUIRED PARKING SPACES					203	138 + 15 + 50
TOTAL PARKING SPACES REQUIRED					138 + 15 + 50 = 203 SPACES	230 SPACES
TOTAL SPACES PROVIDED					230 SPACES	+27 SPACES
DIFFERENCE						

ARCHITECTS
MOSHER
DREW
DESIGN + PLANNING

1775 HANCOCK STREET SUITE 150
 SAN DIEGO, CALIFORNIA 92110
 TELEPHONE (619) 223-2400
 FAX NO. (619) 223-3077

All ideas, designs, and arrangements indicated on these drawings are intended to be used in connection with this specific project only and shall not otherwise be used for any purpose whatsoever without the written consent of Architects Mosher Drew. There shall be no changes or deviations from these drawings or the accompanying specifications without the written consent of Architects Mosher Drew.

EXISTING CONDITIONS NOT FOR CONSTRUCTION



***for CUP201300023**

HOLIDAY INN EXPRESS & SUITES
PARKING PLAN UPDATE
PASADENA
 3500 E COLORADO BLVD
 PASADENA, CA 91765

Project Number	:	
Date	:	
Drawn By	:	
Checked By	:	
Revisions	:	



(E) SITE PLAN

A-1

SHEET OF **REGIONAL PLANNING APPROVED**

(E) SITE PLAN
 A1.0 1" = 30'-0"

TOTAL EXISTING PARKING SPACES		
LOCATION	PARKING SPACE TYPE	(E) SPACES PROVIDED
(E) SITE PARKING	STANDARD	31 SPACES
	COMPACT	24 SPACES
	HANDICAP	3 SPACES
	SUBTOTAL	89 SPACES
(E) PARKING STRUCTURE	STANDARD	101 SPACES
	COMPACT	39 SPACES
	HANDICAP	2 SPACES
	SUB-TOTAL	142 SPACES
TOTAL EXISTING PARKING SPACES		230 SPACES



1775 HANCOCK STREET SUITE 150
 SAN DIEGO, CALIFORNIA 92110
 TELEPHONE (619) 223-3400
 FAX NO. (619) 223-3017

All ideas, designs, and arrangements indicated on these drawings are intended to be used in connection with this specific project only and shall not otherwise be used for any purpose whatsoever without the written consent of Architects Mosher Drew. There shall be no changes or deviations from these drawings or the accompanying specifications without the written consent of Architects Mosher Drew.

EXISTING CONDITIONS NOT FOR CONSTRUCTION

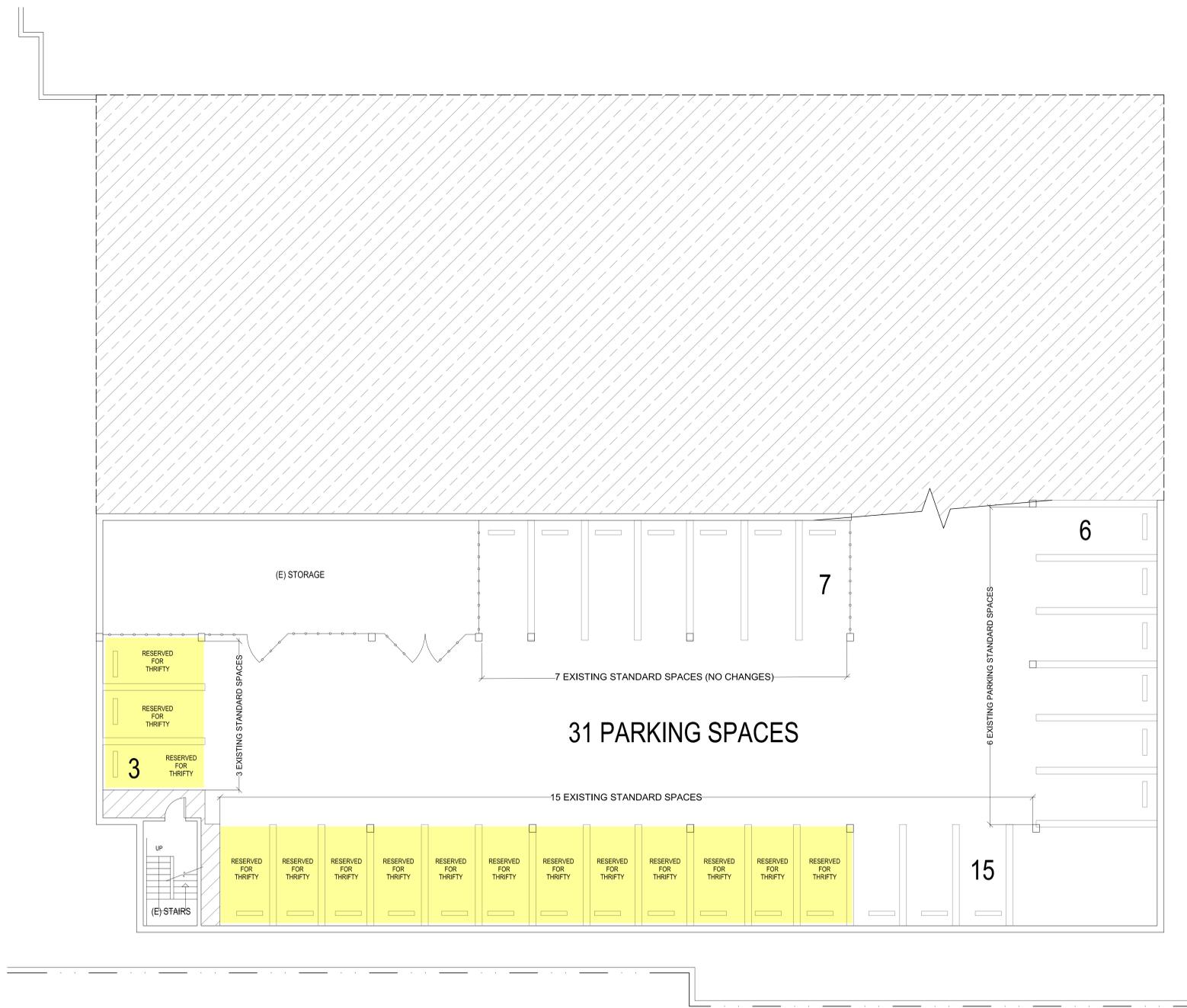
HOLIDAY INN EXPRESS & SUITES
 PARKING PLAN UPDATE
 PASADENA
 3500 E COLORADO BLVD
 PASADENA, CA 91765

Project Number	:	
Date	:	
Drawn By	:	
Checked By	:	
Revisions	:	

(E) PARKING STRUCTURE - LOWER LEVEL

A-2

DEPARTMENT OF REGIONAL PLANNING APPROVED



E1 PARKING STRUCTURE FLOOR PLAN - LOWER LEVEL
 1/8" = 1'-0"



A
B
C
D
E

1 2 3 4 5 6

1 2 3 4 5 6

TOTAL EXISTING PARKING SPACES		
LOCATION	PARKING SPACE TYPE	(E) SPACES PROVIDED
(E) SITE PARKING	STANDARD	61 SPACES
	COMPACT	24 SPACES
	HANDICAP	3 SPACES
	SUB-TOTAL	89 SPACES
(E) PARKING STRUCTURE	STANDARD	101 SPACES
	COMPACT	39 SPACES
	HANDICAP	2 SPACES
	SUBTOTAL	142 SPACES
TOTAL EXISTING PARKING SPACES		230 SPACES



1775 HANCOCK STREET SUITE 150
 SAN DIEGO, CALIFORNIA 92110
 TELEPHONE (619) 223-3400
 FAX NO. (619) 223-3017

All ideas, designs, and arrangements indicated on these drawings are intended to be used in connection with this specific project only and shall not otherwise be used for any purpose whatsoever without the written consent of Architects Mosher Drew. There shall be no changes or deviations from these drawings or the accompanying specifications without the written consent of Architects Mosher Drew.

EXISTING CONDITIONS NO FOR CONSTRUCTION

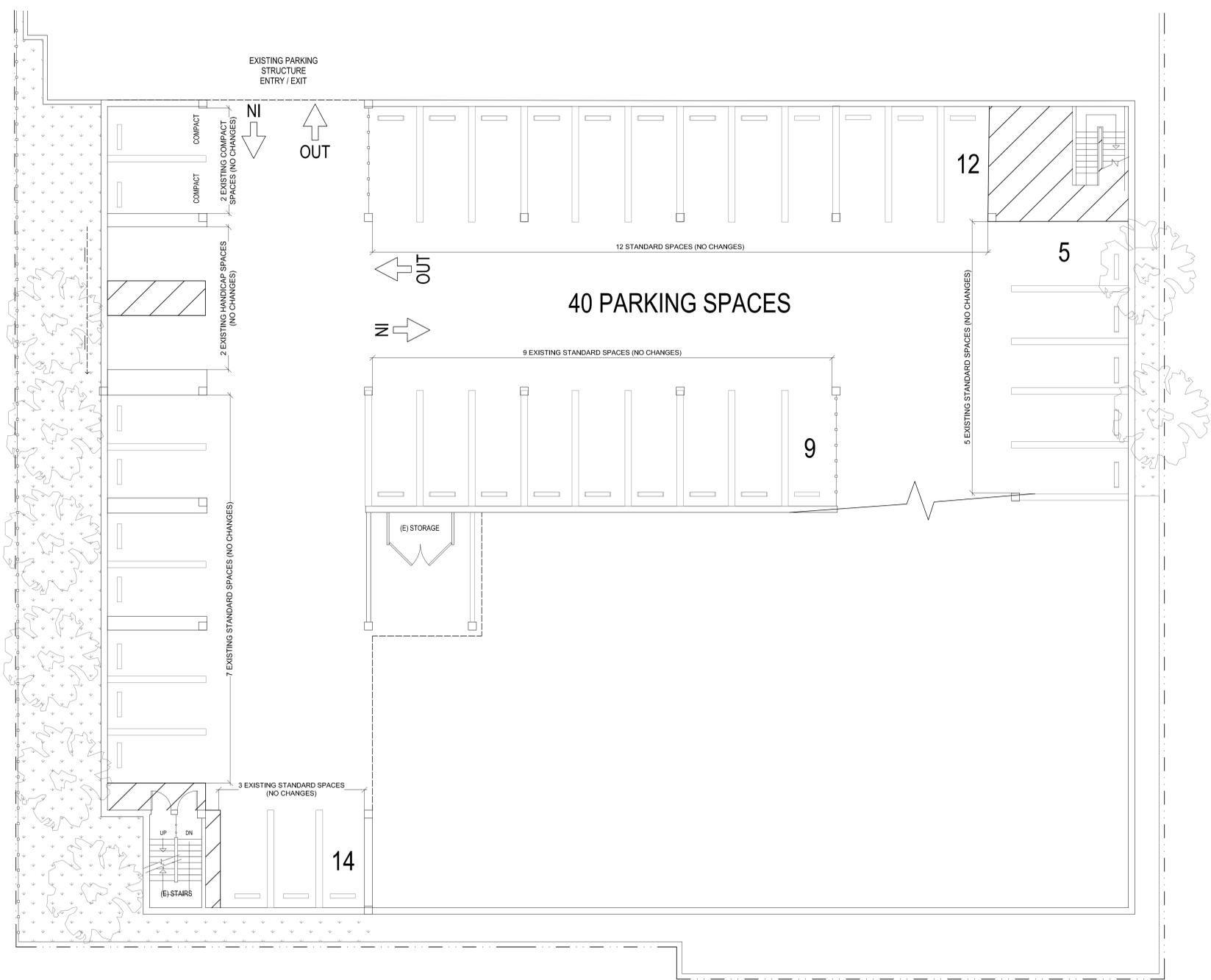
HOLIDAY INN EXPRESS & SUITES
 PARKING PLAN UPDATE
 PASADENA
 3500 E COLORADO BLVD
 PASADENA CA 91765

Project Number :
 Date :
 Drawn By :
 Checked By :
 Revisions :

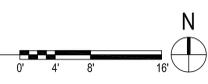
(E) PARKING STRUCTURE - GROUND LEVEL

A-3

SHEET DEPARTMENT OF REGIONAL PLANNING APPROVED



E1 EXISTING PARKING STRUCTURE FLOOR PLAN - GROUND LEVEL
 1/8" = 1'-0"



TOTAL EXISTING PARKING SPACES		
LOCATION	PARKING SPACE TYPE	(E) SPACES PROVIDED
(E) SITE PARKING	STANDARD	61 SPACES
	COMPACT	24 SPACES
	HANDICAP	3 SPACES
	SUB-TOTAL	88 SPACES
(E) PARKING STRUCTURE	STANDARD	99 SPACES
	COMPACT	39 SPACES
	HANDICAP	2 SPACES
	SUB-TOTAL	142 SPACES
TOTAL EXISTING SPACES		230 SPACES



1775 HANCOCK STREET SUITE 150
 SAN DIEGO, CALIFORNIA 92110
 TELEPHONE (619) 223-3400
 FAX NO. (619) 223-3017

All ideas, designs, and arrangements indicated on these drawings are intended to be used in connection with this specific project only and shall not otherwise be used for any purpose whatsoever without the written consent of Architects Mosher Drew. There shall be no changes or deviations from these drawings or the accompanying specifications without the written consent of Architects Mosher Drew.

EXISTING CONDITIONS NO FOR CONSTRUCTION

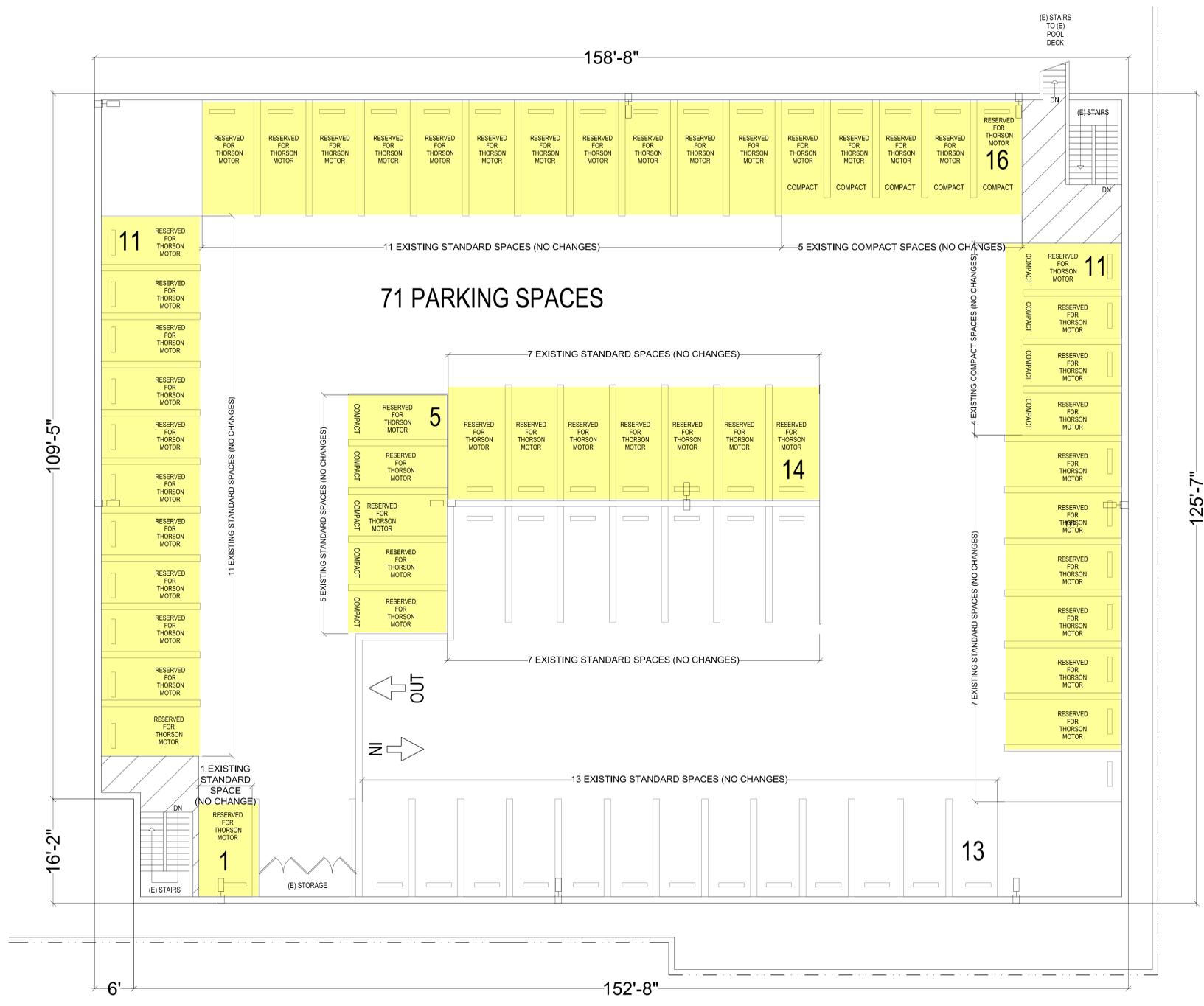
HOLIDAY INN EXPRESS & SUITES
 PARKING PLAN UPDATE
 PASADENA
 3500 E COLORADO BLVD
 PASADENA, CA 91765

Project Number :
 Date :
 Drawn By :
 Checked By :
 Revisions :

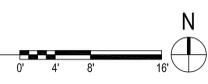
(E) PARKING STRUCTURE - UPPER LEVEL

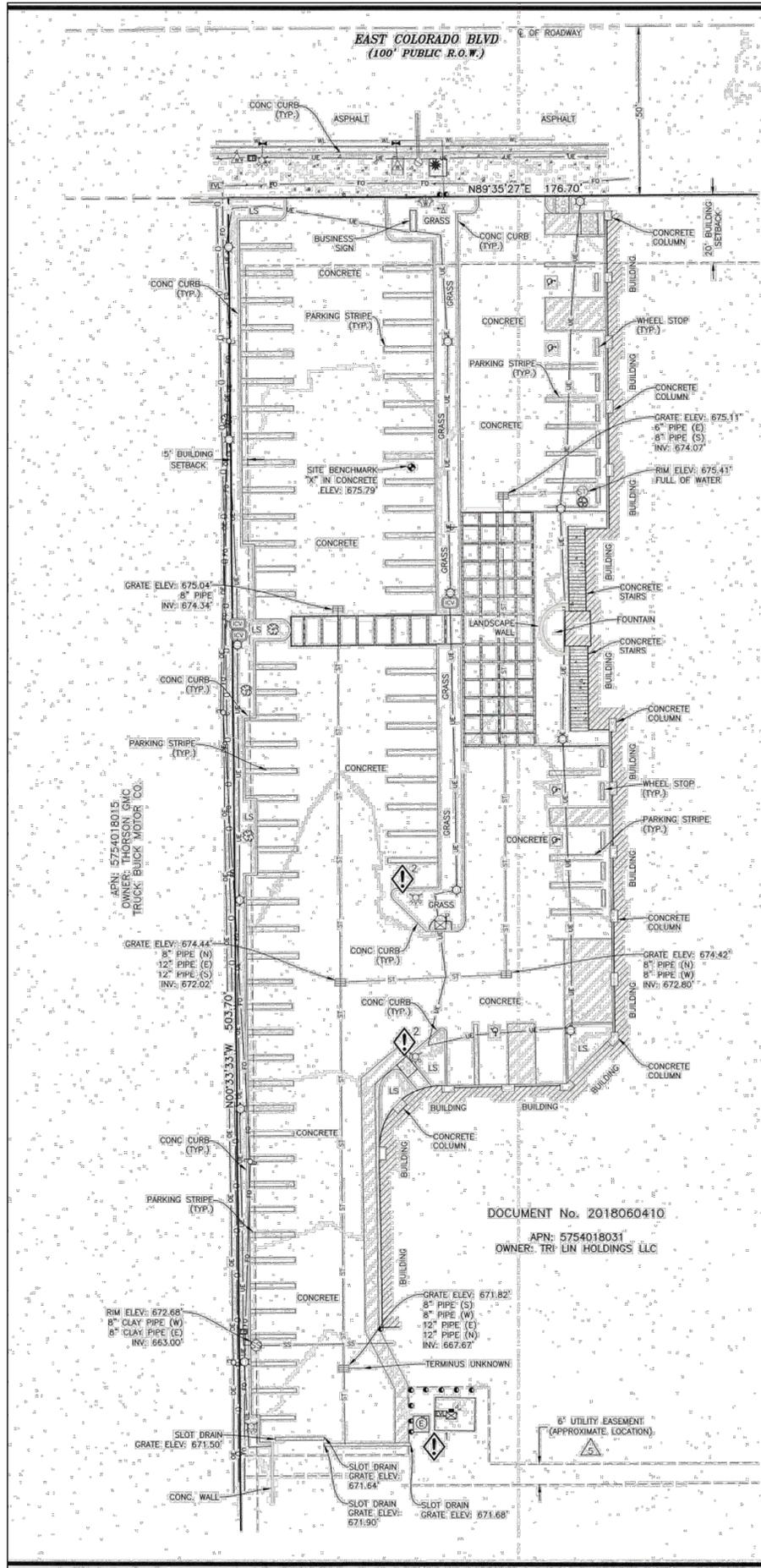
A-4

DEPARTMENT OF REGIONAL PLANNING APPROVED

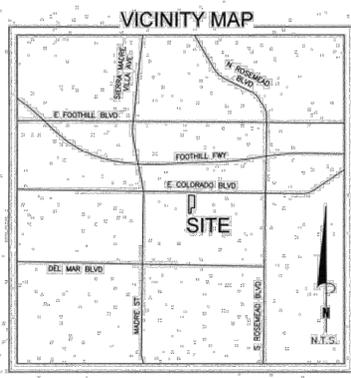


E1 EXISTING PARKING STRUCTURE FLOOR PLAN
 1/8" = 1'-0"





FOR REFERENCE ONLY
NOT TO SCALE



- LEGEND**
- ⊙ SITE BENCHMARK
 - ⊙ SANITARY MANHOLE
 - ⊙ SANITARY CLEANOUT
 - ⊙ STORM MANHOLE
 - ⊙ STORM INLET (ROUND)
 - ⊙ STORM INLET (RECTANGLE)
 - ⊙ FIRE HYDRANT
 - ⊙ WATER VALVE
 - ⊙ IRRIGATION CONTROL VALVE
 - ⊙ WATER METER
 - ⊙ WATER PRESSURE REGULATOR
 - ⊙ FIRE DEPARTMENT CONNECTION
 - ⊙ LIGHT POLE
 - ⊙ ELECTRIC MANHOLE
 - ⊙ ELECTRIC TRANSFORMER
 - ⊙ ELECTRIC BOX
 - ⊙ GUYWIRE
 - ⊙ UTILITY POLE
 - ⊙ ELECTRIC VAULT
 - ⊙ FIBEROPTIC VAULT
 - ⊙ HANDICAP PARKING
 - ⊙ TRAFFIC SIGNAL MAST
 - ⊙ MAILBOX
 - ⊙ DECIDUOUS TREE
 - ⊙ PALM TREE
 - ⊙ LANDSCAPED AREA
 - ⊙ BOLLARD
 - ⊙ SIGN
 - ST — STORM LINE (UNDERGROUND)
 - SS — SANITARY LINE (UNDERGROUND)
 - W — WATER LINE (UNDERGROUND)
 - E — ELECTRIC LINE (UNDERGROUND)
 - OE — ELECTRIC LINE (OVERHEAD)
 - FO — FIBEROPTIC LINE (UNDERGROUND)
 - CL — CHAIN LINK FENCE
 - ⊡ ADA DOMES
 - ⊡ CONCRETE AREA
 - ⊡ BRICK AREA
 - ⊡ EXCEPTION NUMBER
 - ⊡ AREA OF CONCERN

DOCUMENT No. 2018060410
APN: 5754018031
OWNER: TRI LIN HOLDINGS LLC

LEGAL DESCRIPTION:

A land described in Grant Deed recorded on October 18, 2018 as Document No. 2018060410 in the Official Public Records of Los Angeles County, California.

SCHEDULE B2 EXCEPTIONS:

- Item No.
- ⊡ Grant of Easement 03/22/1963 Document No. 1963-5422. —IS NOT LOCATED ON THE SURVEY AREA.
 - ⊡ Grant of Easement 03/22/1963 Document No. 1963-5421. —IS NOT LOCATED ON THE SURVEY AREA.
 - ⊡ Quitclaim of Easement 02/21/1963 Document No. 1963-5459. —QUITCLAIM OF EASEMENTS RECORDED IN BOOK 29867, PAGE 52 AND BOOK D906, PAGE 65.
 - ⊡ Relinquishment of Highway Right of Way 11/05/1976 Document No. 1976-3373. —IS NOT LOCATED ON THE SURVEY AREA.
 - ⊡ Grant of Easement 01/26/1990 Document No. 90 145612. —IS LOCATED ON THE SURVEY AREA, AS SHOWN HEREON.
 - ⊡ Covenant and Agreement to Hold Property 07/29/2013 Document No. 20131106709. —IS LOCATED ON THE SURVEY AREA, BLANKET IN NATURE.
 - ⊡ Tract No. 803 Book: 16 Page: 174. —IS LOCATED ON THE SURVEY AREA, BLANKET IN NATURE.
- Items not listed above are determined non-survey related items and are not plotted hereon.

NOTES:

1. This is a topographic map. This is not a boundary survey and is only intended to depict those topographic features or improvements shown. The property lines shown are record lines only and are shown for graphical reference only.
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 the information available. This site was located by standard RF methods.
3. FEDERAL EMERGENCY MANAGEMENT AGENCY, FEMA FIRMitte published August 16, 2021, referencing Flood Insurance Rate Map, Map Number 06037C1400F effective date September 26, 2008, 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 Search Report, prepared by First Corporate Solutions with an order number of ORD-428765-C5X013, dated August 12, 2021.
5. Elevations are based on NAVD 88 datum.
6. BENCHMARK "X" in concrete, as shown. Elevation: 675.79' (NAVD 88).
7. BASIS OF BEARINGS: Grid North based upon California State Plane Coordinate System, Zone V, NAD 83, EPOCH 2020.750.
8. Field work for this survey was completed on August 6, 2021.
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 ownership and tax parcel data should be verified for accuracy.
10. This site is zoned "MXD" (Mixed Use Development) per Los Angeles County Planning Department. Building Setbacks: Front 20', Side 15', Rear 5'. 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 Los Angeles County Planning and Zoning Department at (213)-974-6411.

AREAS OF CONCERN:

- ⊡ 1. Underground electrical line could not be determined in this area. Line was not located. Outside of survey area.
- ⊡ 2. Underground waterline could not be determined in this area. Lines were not traceable.

SURVEYOR'S STATEMENT:

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 California and that the information shown hereon is true and correct to the best of my knowledge and belief.
This statement is neither a warranty nor a guarantee, either expressed or implied.

Trent J. Keenan
California Professional Land Surveyor No. PLS 8396
For and on behalf of Clark Land Surveying, Inc.



Clark Land Surveying, Inc.
Land Surveying, Inc.
177 S. Tiffany Dr., Unit 1 • Pueblo West, CO 81007 • 719.862.1270
www.clarkland.com

No.	Revisions	Description	By	Date

SITE NAME:
Holiday Inn Express

ENGINEERING DESIGN SURVEY
A PORTION OF
DOCUMENT No. 2018060410
CITY OF PASADENA, LOS ANGELES COUNTY, CALIFORNIA.
Project: 211288
Drawn By: JVP
Checked By: TJK
Date: 08/17/2021
Sheet: 1 of 1