GENERAL NOTES

1. THE ELECTRICAL DRAWINGS, SPECIFICATIONS AND GENERAL NOTES DESCRIBE THE RECOMMENDED SCOPE OF WORK AND THE DOCUMENTS SHALL BE USED FOR THE PURPOSE OF BIDDING, BUILDINGS DEPARTMENT REVIEW, AND TO SECURE THE NECESSARY CONSTRUCTION PERMIT ONLY. CONTRACTOR SHALL PROVIDE CONSTRUCTION DRAWINGS AND OBTAIN WRITTEN APPROVAL OF ALL INSPECTION AUTHORIZED GOVERNMENTAL AGENCIES AND UTILITY COMPANIES PRIOR TO START OF AFFECTED WORK.

2. CONTRACTOR SHALL PROVIDE CONSTRUCTION AND SHOP DRAWINGS BASED ON THESE DRAWINGS, SPECIFICATIONS AND ADDITIONAL DESIGN CRITERIAS FURNISHED BY OWNER AND SUBMIT TO ARCHITECT. CONTRACTOR SUBMIT CONSTRUCTION DRAWINGS TO ALL GOVERNMENTAL AGENCIES AND UTILITY COMPANIES HAVING JURISDICTION INCLUDING POLICE AND FIRE DEPARTMENT FOR THEIR REVIEW AND APPROVAL FOR CONSTRUCTION.

3. CONTRACTOR'S BID SHALL NOT BE LIMITED TO THE WORK SHOWN ON THE PLANS AND SPECIFICA—TIONS. ALL PREMIUM OVERTIME COSTS, UTILITY CHARGES, COST FOR TEMPORARY UTILITY SERVICES, ALTERATION, DEMOLITION AND EXTENSIONWORKS, PLANCHECK/INSPECTION FEES, MISCELLANEOUS CONTINGENCY COSTS, ETC., SHALL BE INCLUDED IN THE BID. (THE CONTINGENCY COST SHALL NOT BE LESS THAN 25% OF OVERALL ELECTRICAL BID. CONTRACTOR SHALL IDENTIFY THE CONTINGENCY AMOUNT IN BID DOCUMENT)

4. ALL EQUIPMENT SHOWN IS NEW, CONTRACTOR FURNISHED AND INSTALLED, UNLESS OTHERWISE NOTED. IF CONTRACTOR PROPOSED TO SUBSTITUTE FOR EQUIPMENT SPECIFIED, HE SHALL SUBMIT HIS REQUEST FOR CONSIDERATION TO THE OWNER AND ENGINEER PRIOR TO THE BID IN WRITING. ALL SUBSTITIONS MUST BE REVIEWED BY THE ENGINEER. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS OWN EXPENSE FOR ANY CHANGE RESULTING FROM HIS PROPOSED SUBSTITIONS WHICH AFFECT OTHER PARTS OF HIS OWN WORK OR SUBSTITUTIONS WHICH AFFECT OTHER PARTS.

6. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF CEILING MOUNTED OUTLETS AND EQUIPMENTS. 5. THE ELECTRICAL DRAWINGS, CONDUIT RUNS, WIRINGS AND ELECTRICAL INFORMATIONS ARE DIA-GRAMMATIC ONLY. DO NOT SCALE THE ELECTRICAL DRAWINGS TO DETERMINE THE LOCATION OF EQUIPMENT OR OUTLETS. ALL LIGHTING FIXTURES,

8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY TYPES OF CEILING SYSTEM AND TO FURNISH APPROVED LIGHTING FIXTURES OF THE TYPE REQUIRED FOR MOUNTING IN RELATED CEILINGS. FIXTURES SHALL BE COMPLETED WITH NECESSARY MOUNTING HARDWARE AND ACCESSORIES. FIXTURES LOCATED IN DAMP OR WET LOCATIONS SHALL BE LABELED FOR USE IN SUCH LOCATIONS. 7. ALL RECEPTACLES AND OUTLETS MOUNTING HEIGHTS AND EXACT LOCATION SHALL BE COOR-DINATED WITH ARCHITECTURAL DRAWINGS ELEVATIONS PRIOR TO ROUGH-IN WORK.

9. ALL RECESSED LIGHTING FIXTURES, PANELBOARDS, SWITCHES, ETC., MOUNTED IN FIRE RATED STRUCTURES SHALL BE ENCLOSED WITH AN APPROVED ENCLOSURE CARRYING THE SAME FIRE RATING AS THE STRUCTURE.

11. ALL WIRING AND ELECTRICAL EQUIPMENT INSTALLED FOR MECHANICAL AND PLUMBING EQUIPMENT SHALL BE IN ACCORDANCE WITH DIVISION 15 AND ASSOCIATED DRAWINGS. CONTRACTOR OBTAIN THE REQUIRED MECHANICAL AND PLUMBING DRAWINGS AND PROVIDE ALL EQUIPMENTS, RACEWAYS, WIRINGS, ETC., AS INDICATED THEREON AS PROVIDED UNDER THE ELECTRICAL WORK. 10. PORTIONS OF THE CEILING SYSTEMS MAY BE INACCESSIBLE. THEREFORE, THE CONTRACTOR SHALL STRATEGICALLY LOCATE ACCESS BOXES, ETC., WHICH SHALL BE READILY ACCESSIBLE. ALL LIGHTING FIXTURE WIRING, BALLASTS, J—BOXES, ETC. SHALL BE ACCESSIBLE FROM FIXTURE OPENING.

12. ALL FINAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTOR UNLESS OTHERWISE NOTED. VERIFY ELECTRICAL CHARACTERISTICS AND U.L. LISTING PRIOR TO CONNECTION. 14. ELECTRICAL OUTLETS ON OPPOSITE SIDES OF FIRE RATED WALLS AND PARTITIONS MUST BE SEPARATED BY DISTANCE OF 24 IN. HORIZONTALLY, IN ACCORDANCE WITH I.B.C. SEC. 711.3.2. OPENINGS IN FIRE RATED WALLS GREATER THAN 16 SQ. IN. MUST BE FIRE STOPPED. 13. THE CONTRACTOR SHALL VERIFY THE LOAD INPUT VOLTAGE OF ALL EQUIPMENT PRIOR TO INSTALLATION. ACCEPTING ANY EQUIPMENT RESULT IN LOAD INCREASE SHALL BE THE RESPONSIBILITY OF CONTRACTOR.

15. PROVIDE AN ADDITIONAL JUNCTION BOX (SIZE AS REQUIRED) WHERE THE NUMBER OF CONDUCTORS EXCEEDS THE MAXIMUM ALLOWED FOR A GIVEN JUNCTION POINT OR OUTLET.

16. CONDUCTORS SHALL BE COPPER THHN/THWN 600 VOLT INSULATION UNLESS OTHERWISE NOTED. USE PROPER TEMPERATURE RATING OF CONDUCTORS BASED ON THE AMBIENT AIR TEMPERATURE WHERE CONDUCTORS ARE BEING USED. HIGHER AMPACITY CONDUCTOR AND LARGER RACEWAY SHALL BE PROVIDED TO OFFSET THE AMPACITY CORRECTION FACTORS AS INDICATED IN NEC TABLE 310 AND ELSEWHERE IN CODE. 18. DO ALL DRILLING, CUTTING, CHANNELING AS REQUIRE TO ELECTRICAL WORK AND INDICATED OR HEREIN SPECIFIED. ALL HOLES, CURBS, ETC., IN FLOORS, CEILINGS AND WALLS SHALL BE PATCHED, UNLESS INDICATED OTHERWISE. PAINT ALL EXPOSED ELECTRICAL RACEWAYS, CABINETS, ENCLOSURES AND FITTING TO MATCH IN COLOR ADJACENT SURFACES IN FINISHED AREAS. 17. ALL FLUORESCENT BALLASTS AND LAMPS SHALL BE CALIFORNIA ENERGY COMMISSION(CEC) CERTIFIED ENERGY SAVING TYPE.

19. SEAL ALL PENETRATIONS THROUGH FIRE RATED WALLS, CEILINGS, FLOORS, ETC., TO MAINTAIN THE FIRE RATING. FURNISH AND INSTALL FIRE RATED ENCLOSURE FOR ALL EQUIPMENTS PENETRATING INTO FIRE RATED ENVELOPS, SPACES ETC.

20. EMERGENCY LIGHTING SHALL BE PROVIDED PER U.B.C. AND SHALL BE DESIGN TO PROVIDE MINIMUM REQUIRE FOOTCANDLES AND LUMENS. PROVIDE ADDITIONAL EMERGENCY ILLUMINATION AS REQUIRED BY INSPECTION AUTHORITIES HAVING JURISDICTIONS. ACTING NOTES FOR

21. ALL ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE IN ANY DIRECTION USING THE FOLLOWING CRITERIA. [NON HEALTH CARE FACILITY INCLUDE OSHPD HEALTH CARE FACILITY]

FIXED EQUIPMENT ON GRADE FIXED EQUIPMENT ON STRUCTURE SO% OF OPERATING WEIGHT EMERGENCY POWER AND COMMUNICATION EQUIPMENT ON GRADE 50% OF OPERATING WEIGHT EMERGENCY POWER AND COMMUNICATION ON STRUCTURE 75% OF OPERATING WEIGHT FLEXIBLE MOUNTED EQUIPMENT USE 2 X THE ABOVE VALUES. SIMULTANEOUS VERTICAL FORCE - USE 1/3 X HORIZONTAL FORCE.

CONDUIT, BUSDUCT, CABLE TRAY, WIREWAYS, ETC., SHALL BE BRACED IN ACCORDANCE WITH "GUILDELINE", PUBLISHED BY SMACNA AND PPIC.

22. BRANCH CONTROL CIRCUITING AND WIRE COUNT MAY NOT BE INDICATED ON THESE PLANS. CONTRACTOR IS RESPONSIBLE TO COMPLETE THE BRANCH CIRCUIT WIRING IN ACCORDANCE WITH PLAN NOTES AND AS PERMITTED BY AUTHORITY. CONTRACTOR SHALL SUBMIT AS—BUILT DRAWINGS AS A PART OF RECORD DRAWING SUBMITTAL TO ARCHITECT AND AUTHORITY HAVING JURISDICTION (AHJ).

23. ALL EXISTING UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS AND THOSE SHOWN ON THES DRAWINGS ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE. SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK ON THE UTILITIES OR STRUCTURE. THESE

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24. COORDINATE ALL PHASES OF CONSTRUCTION AND OBTAIN APPROVAL OF WORK SCHEDULE, SHUTDOWN, CUTOVER, OVERTIME WORK, ETC. WITH BUILDING ENGINEER OR OWNER. PROVIDE ALL TEMPORARY SERVICE, STANDBY GENERATOR, 24 HOURS FIRE WATCH, ETC. AS REQUIRED TO MAINTAIN UNINTERRUPTED FACILITY OPERATION DURING CONSTRUCTION WORK.

25. THE CONTRACTOR AGREE THAT, IN ACCORANCE WITH GENERALLY CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT AT ALL TIME. CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.

27. ELECTRICAL EQUIPMENT SHALL BE LISTED BY A CITY OF LOS ANGELES RECOGNIZED ELECTRICAL LABORATORY OR APPROVED BY THE DEPARTMENT. 26. ELECTRICAL INSTALLATION SHALL COMPLY WITH NATIONAL ELECTRICAL CODE (20011 NEC) ADAPTED BY THE JURISDICTION AND ANY LOCAL SUPPLEMENT.

28. NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT PER NEC 110.26

29. THE LIGHTING CONTROL DEVICES AND EQUIPMENT SHALL BE CERTIFIED BY THE CALIFORNIA ENERGY COMMISSION.

30. PER NEC 210.12, ALL BRANCH CRICUITS THAT SUPPLY 125—VOLT, SINGLE—PHASE, 15— AND 20—AMPERE OUTLETS INSTALLED IN DWELLING UNIT BEDROOMS SHALL BE PROTECTED BY AN ARC—FAULT CIRCUIT INTERRUPTER LISTED TO PROVIDE PROTECTION OF THE ENTIRE BRANCH CIRCUIT IN DWELLING UNIT BEDROOMS.

SYMBOLS AND NOTES

- $\otimes \bullet \boxed{}$ EMERGENCY LIGHT WITH 90 MINUTE BATTERY PACK
 SHADED OUTLET INDICATE FIXTURE WITH 90 MINUTE BATTERY PACK
 SELF CONTAINED EXIT SIGN WITH 90 MINUTES BATTERY BACKUP, PROVIDE
 LOW LEVEL EXIT SIGN AS REQUIRED BY FIRE DEPARTMENT OR U.B.C.

 2. FIXTURE TYPE TO BE SELECTED BY ARCHITECT
 2. FIXTURE SHALL HAVE MINIMUM 25 LUMENS/WATT EFFICIENCY REQUIRED
 BY CALIFORNIA ENERGY COMMISSION (C.E.C.)
 3. BALLAST AND LAMP SHALL BE ENERGY SAVING TYPE CERTIFIED BY
 CALIFORNIA ENERGY COMMISSION (C.E.C.)

 SINGLE POLE TOGGLE SWITCH 20 AMP, 120 V

 THREE WAY SWITCH 20 AMP, 120 V

 MOTOR RATED SWITCH 1800 WATTS, 15 AMP MINIMUM, 120 V

 MOTOR RATED SWITCH H.P. RATED

 SINGLE RECEPTACLE, NEMA RATING AS NOTED

 DUPLEX RECEPTACLE 20 AMP, 120 V GROUNDING TYPE.

 DOUBLE DUPLEX RECEPTACLE 20 AMP GROUNDING TYPE.

 DOUBLE DUPLEX RECEPTACLE 20 AMP GROUNDING TYPE.
- NOTES: WATT EFFICIENCY REQUIRED

TOTAL LOADS FOR 16656 SQFT

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- HEIGHT AS REQUIRED FOR ADA BETWEEN 36"-48"AFF
- $\oplus \Phi \Phi \times \otimes_{3} S_{3} S_{3}$
- DUPLEX RECEPTACLE 20 AMP, 220 V GROUNDING TYPE
- CEILING MOUNED DUPLEX RECEPTACLE, SAME AS ABOVE

WATTS

- CEILING MOUNTED DEVICES F REFER TO ARCHITECTURAL F P.O.S. DATA OUTLET TO DA TELEPHONE OUTLET WITH 3/4" CONDUIT TO TEL BACKBOARD S FOR CASH PODS AND PRODUCT ISLAND. L FOR EXACT LOCATION DATA TERMINAL AND
- TELEPHONE OUTLET WITH 3 P.O.S. DATA OUTLET WITH '4" CONDUIT TO TELEPHONE BACKBOARD CONDUIT TO DATA TERMINAL
- CLOSED CIRCUIT TELEVISION FLOOR TYPE DUPLEX RECEPTACLE 20A GROUNDING ANTENNA OUTLET
- EXHAUST AIR REGISTER
 OCCUPANCY SENSOR
 CARBON MONOXIDE DETEC
 - MOTOR OR CEILING EXHAUST FAN
 JUNCTION BOX TO SUIT THE FIELD CONDITIONS
- NOTES: SMOKE DETECTOR SUBSCRIPT LETTER NEXT TO THE ABOVE SYMBOLS INDICATES DEVICE CONTROLLED

 DEVICES AND COVER PLATE COLOR AS SELECTED BY ARCHITECT, SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF OUTLET, UNLESS NOTED.

 RECEPTACLES IN BATHROOM, LAUNDRY ROOM, AND KITCHEN SINK AND EXTERIOR LOCATIONS SHALL BE GROUND FAULT TYPE (GFI)
- Ð EMERGENCY CIRCUIT. LOCK DEVICE FOR BREAKER SERV BREAKER \blacksquare 8 TRANSFORMER WATT/HOUR METER SOCKET

3 2 2 5 5 5

COMBINATION MAGNETIC STARTI & FUSED DISCONNECT PUSHBUTTON OPERATOR FOR ELECTRIC DOOR SWITCH AND FUSES
DISCONNECT SWITCH STARTER # PANELBOARD **SWITCHBOARD** CURRENT TRANSFORMER

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0-2 HR. MANUAL BY-PASS TIMER FOR LTG., ZONE CONTROL. PROVIDE AS REQUIRED BY C.E.C. FOR ELECTRIC METERED SPACE OF GREATER THAN 5000 S.F. TELEPHONE CABINET WITH BACK BOARD

 \square

- NOTES: BREAKERS, SWITCHES, FUSES, METER SOCKETS, AND CURRENT CARRYING DEVICES SHALL BE DESIGNED TO WITHSTAND MAXIMUM AVAILABLE FAULT CURRENT (AFC) ESTABLISHED BY SERVING UTILITY SWITCHBOARDS AND PANELBOARDS BUSSING SHALL BE BRACED TO WITH-STAND MAXIMUM AVAILABLE FAULT
- .5 CONDUIT HOME RUN TO SOURCE INDICATING PANEL "A" CIRCUITS #1, 3 & 5
- CONDUIT RUN BELOW FLOORS OR IN GRADE CONDUIT RUN CONCEALED IN CEILING SPACE OR IN WALL
- #10 HASH MARKS INDICATE QUANTITY OF CONDUCTORS. NO HASH MARK INDICATES 2 #12 AWG. U.O.N. (#10 INDICATES #10 AWG. CONDUCTORS) SIZE OF CONDUIT SHALL BE BASED ON TABLE 1, CHAPTER 9 OF N.E.C. AMD TABLE 3A AND 3B SHALL DETERMINE THE CONDUIT SIZES. MINIMUM CONDUIT SIZE SHALL BE 3/4".

FOR

- TELEPHONE CABLES IN CONDUIT
 TELEVISION ANTENNA CABLES IN CONDUIT
 DATA/COMMUNICATION CABLES IN CONDUIT
- NOTES:
- ALL CONDUIT SHALL BE RIGID STEEL OR EMT. FLEXIBLE CONDUIT SHALL BE LIMITED TO 72" FOR FINAL CONNECTION TO LIGHTING FIXTURES OR MOTORS, INCLUDING GROUNDING CONDUCTOR. P.V.C. CONDUIT MAY BE USED ONLY FOR UNDERGROUND, RE—SIZE CONDUIT AS REQUIRED TO INCLUDE GROUNDING CONDUCTOR.

 CONTRACTOR MAY USE NON METALLIC—SHEATHED CABLES WIRING METHO (NM) AND (NMC) FOR WIRING WITHIN THE RESIDENTIAL DWELLING UNIT IF PERMITTED BY AN INSPECTION AUTHORITY HAVING JURISDICTION.
- 5 TELEPHONE AND TELE T.V SE NON METALLIC-SHEATHED CABLES WIRING METHOD WIRING WITHIN THE RESIDENTIAL DWELLING UNIT INSPECTION AUTHORITY HAVING JURISDICTION. VISION CABLES MAY BE PREWIRED BY LOCAL
- $\frac{\perp}{\uparrow}$ 20 AMP MECHANICALLY HELD (TWO WIRES CONTROL) RELAY CONTROLLING CKT. INDICATED WITH PROGRAMMABLE TIME SWITCH CONTROLLING COIL. ASSIGN CONTROL CHANNEL AND DURATION.
- Z NIGHT LIGHT CONTROLLED BY TIME SWITCH DUSK TO DAWN EXTERIOR SECURITY LIGHTING CIRCUIT
- EVENING LIGHT CONTROLLED BY TIME SWITCH DUSK TO BUSINESS CLOSING TIME EXTENSIC INTERIOR EMERGENCY OR 24/7 LIGHTING ON CONSTANT CIRCUIT, OR DEDICATED CIRCUIT.

BY TIME SWITCH DUSK TO BUSINESS CLOSING TIME EXTENSION LIGHTING CIRCUIT

- EMERGENCY LIGHT, WITH 90MINS BATTERY BACK UP

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- GROUND FAULT INTERRUP UPTER
- ARC FAULT CIRCUIT INTERRI
- EM E UON GFI AFCI DC OF DEVICE

PANEL LOAD TOTAL SCOPE AREA = WA D SUMMARY WAREHOUSE AREA (10050) SQFT

NEC LOAD DEMAND \mathfrak{S} REMARK THE PURPOSE OF THIS SUBMITTAL IS TO ADD TWO EV CHARGER AT THE EXISTING PARKING LOT THE SPEC OF EV CHARGER IS LISTED ON SHEET E2, A LICENSE C10 CONTRACTOR TO INSTALL THE SPECIFIED EV CHARGER

PLANNING ARCHITECTURE & ENGINEERING

3354 E. COLORADO BOULEVARD PASADENA, CA 91107 (626)440-1688

WORK

SCOPE

SQUARE FT LOAD (W) 30150 10050 81600 150750 1200 CONNECT LOAD (W) 23000 24183 10291 20000 FACTOR =30150*125% 75% 100% 25% 100% 100% 125% 150750 15000 23000 10050 LOAD 37688 1500 2573 240561 48A*2

PROCESS LOAD(TABLE E3-1) NEC 430.22 (FUTURE MACHINE) N) EV CHARGER X 2 11.5KW/EA TOTAL AMPS @ 240V 3ø 3W ONCLUSION: SAFE OTAL FEEDER DEMAND LOAD 579 AMPS WITHIN MAIN BREAKER 1200 AMPS SAFETY RANGE W/SQFT NEC 220.42 5% LARGEST MOTOR (HVAC) CEPTACLE NEC220.14 1W/SF HVAC LOAD 15W/SQFT SIGN CONNECTED LOAD 579 A

EXISTING INDOOR SWITCHBOARD "MSA"
(E) SWBD 1200A 30 3W 240V CUTTER HAMMER \bigcirc Œ BLDG $\stackrel{\text{(E)}}{}$ STEEL (E)Œ Œ 75KVA 240V 3ø3W TO 208V 3ø4W (E) STING $\stackrel{\text{(E)}}{}$ BUS FROM SCE $\overline{\mathbb{Q}}$ NTS NGL POLE OUTDOOR SERVICE "MS"
PULL SECTION AND MAIN SW. TO REMAIN (E) \nearrow $\stackrel{\text{(E)}}{=}$ BACK OVERHEAD 1200A. 240V, 3ø,3W Z M THE HOUSE DIAGRAM EXISTING
OUTDOOR
TRANSFORMER
POLE MOUNT
VERIFY RATING
WITH PASADENA DWP

ISSUE

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REVISIONS

60 & 62 N. SIERRA MADRE PASADENA, CA

ACE HARDWARE

		E-2	E-1	
		SITE PLAN	GENERAL NOTES & SINGLE LINE DIAGRAM	SHEET INDEX

THESE DRAWINGS ARE MADE BY THE OWNER'S REQUEST WHICH MAY HAVE INCORRECT INFORMATION. THE DRAWINGS ARE DIPLOMATIC ONLY, AND THE OWNER SHALL BE LIABLE TO THESE PLAN. THE CONTRACTOR SHALL WALK THROUGH SITE AND DISCUSS WITH THE OWNER FOR EVERY DETAILS AND RESPONSIBLE FOR ALL AUTHORITY HAVING JURISDICTION (AHJ). BY THE ACT OF SUBMITTING A BID PROPOSAL FOR WORK, THE CONTRACTOR HAVE REVIEWED THE PLANS THOROUGHLY AND ACCEPT FULL RESPONSIBILITY OF PLAN CORRECTIONS AND CONSTRUCTION COSTS REQUIRED BY AHJ.

		IGLE LINE DIAGRAM	NDEX		
	THESE DRAWING AND SPECIFICATIONS ARE THE PROFILE THE MEDICATION OF PUBLISHED FOR PUBLISHED FOR THE STAMPED ENGINEER IS PROHIBITED.	OF CALIFO	* Exp. 03-31-24	TERED DEN TANK	PROFESSION

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SHEET

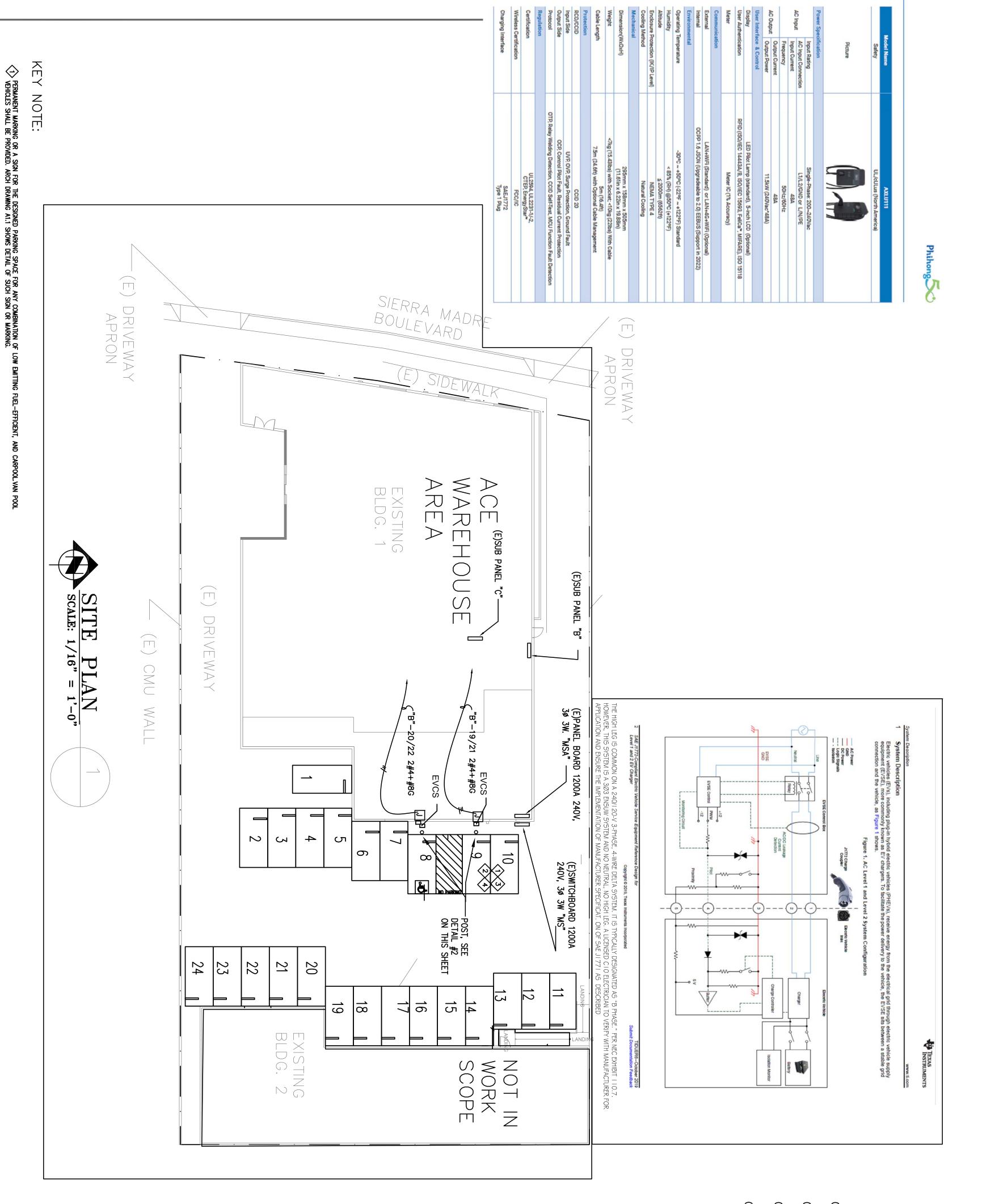
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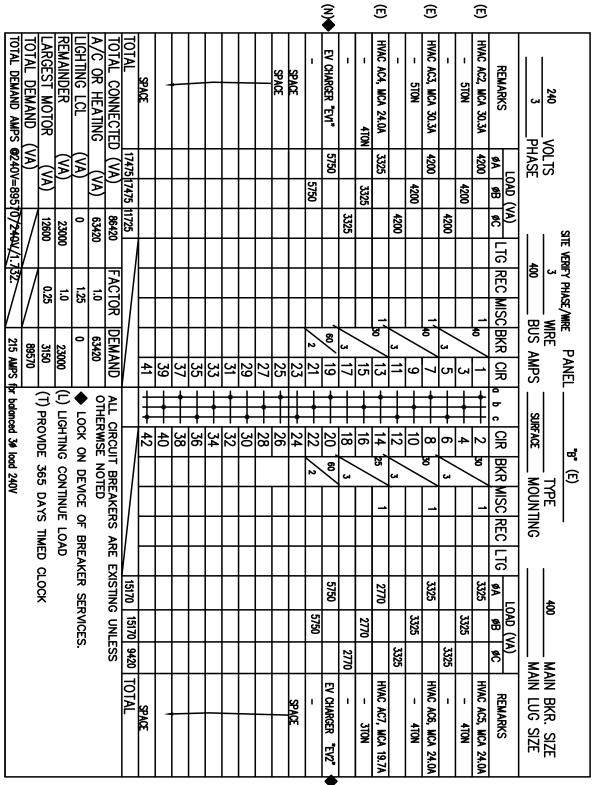
GENERAL NOTE SINGLE LINE

PROJECT NUMBER
DRAWN RT
2023/01/04
SHEET NUMBER

MEP22015

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PLANNING ARCHITECTURE & ENGINEERING

LOAD CALCULATION FOR 30 UNBALANCED LOAD:

BALANCED AC LOAD = 152 AMPS TOTAL

UNBALANCED LOAD - 48A * 2 = 96A BETWEEN L1&L2(a&b)

96A * 0.87 = 83.5A

83.5A+152A + 8A(LARGEST MOTOR*0.25) = 243.5A <--- W

MHIN

SAFE RANGE

ISSUES

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REVISIONS

60 & 62 N. SIERRA MADRE PASADENA, CA

ACE HARDWARE

The primary EVSE functionality includes:

Regulated electrical current: Ensures that the opmaximum current the EV can handle.

AC/DC residual current detection (RCD)

Relay and contactor drive and latched contact dete Energy metering

Automatic disconnect: When a hardware fault is battery damage, an electrical short or a fire.

Safety lock-out feature: Prevents current from flow

current is

provided and falls

within the

SAE J1772 or equivalent standard compliant EV charging stations: any electric vehicle

EV. The same spe

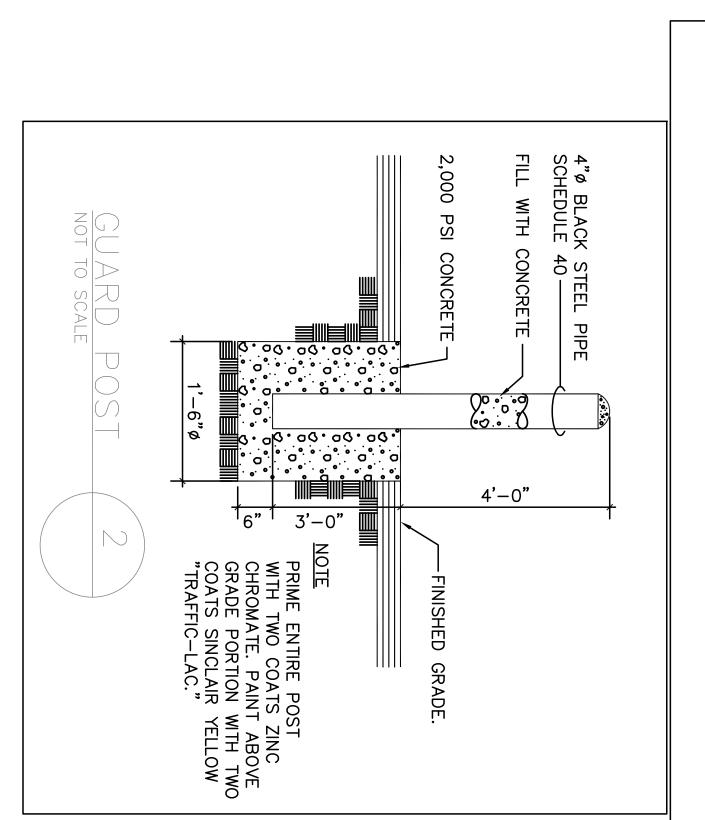
e control pilot is the

ontrol circuitry on the Verifies that the vehicle is present and connected Permits energization and de-energization of the supply Transmits supply equipment current rating to the vehicle Monitors the presence of the equipment ground Establishes vehicle ventilation requirements manufacturers have adopted the SAE J1772 standard for electrical connections to ecifications also translate into international localizations, with differing form factors. ne primary control conductor and is connected to the equipment ground through ne vehicle and performs the following functions:

An EVSE control system mainly consists of auxiliary power stage, off-board AC/DC high power stage (only in DC charging stations), energy metering, AC and DC residual current detection, isolation monitor unit, relays and contactors with drive, two-way communication, and service and user interfaces. The EVSE design for EV charging stations can present several challenges such as:

onnect: When a hardware fault is detected, the power is shut off, to avoid risks like an electrical short or a fire.

feature: Prevents current from flowing when the charger is not connected to an EV.



A SEPARATE ELECTRICAL PLAN CHECK IS REQUIRED TO VERIFY THE RACEWAY METHOD(S) WIRING SCHEMATICS AND ELECT ELECTRICAL CHARGING SYSTEM. THE RACEWAY SHALL NOT BE LESS THAN TRADE SIZE 1.

ICAL CALCULATIONS FOR THE

BRANCH CIRCUIT(S) FOR

THE SERVICE PANE; OF SUBPANEL(S) SHALL HAVE THE FUTURE INSTALLATION OF THE EVSE.

* Exp. 03-31-24 *	No. E12677	PROFESSION TANGET	

SHEET

TITLE

SITE PLAN

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2023/01/04 SHEET NUMBER