



City of Madison

Conditional Use

Location

3801 E Washington Ave

Project Name

Tesla Supercharging Station

Applicant

Hy-Vee Inc / Christina Suarez,
Black & Veatch

Existing Use

Grocery Store

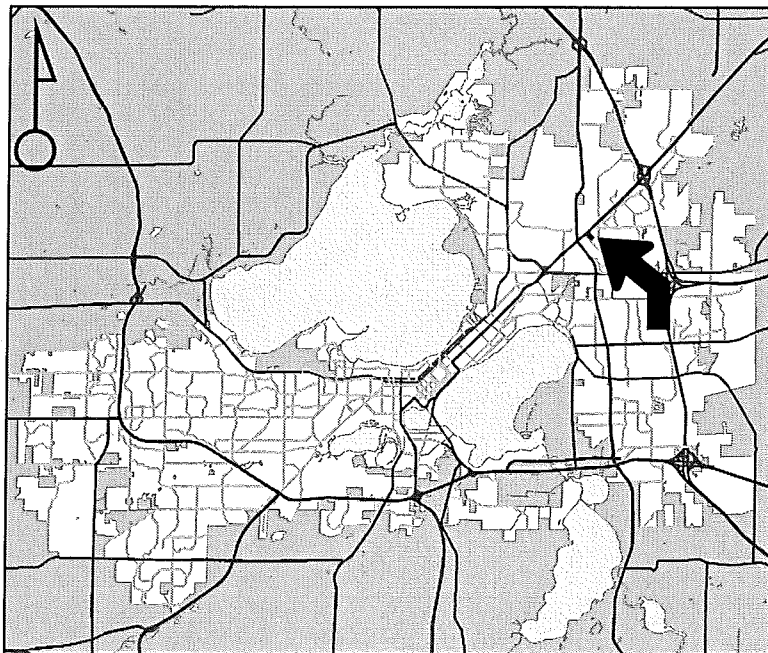
Proposed Use

Construct auto service station
(electric vehicle charging station)
in Urban Design Dist. 5

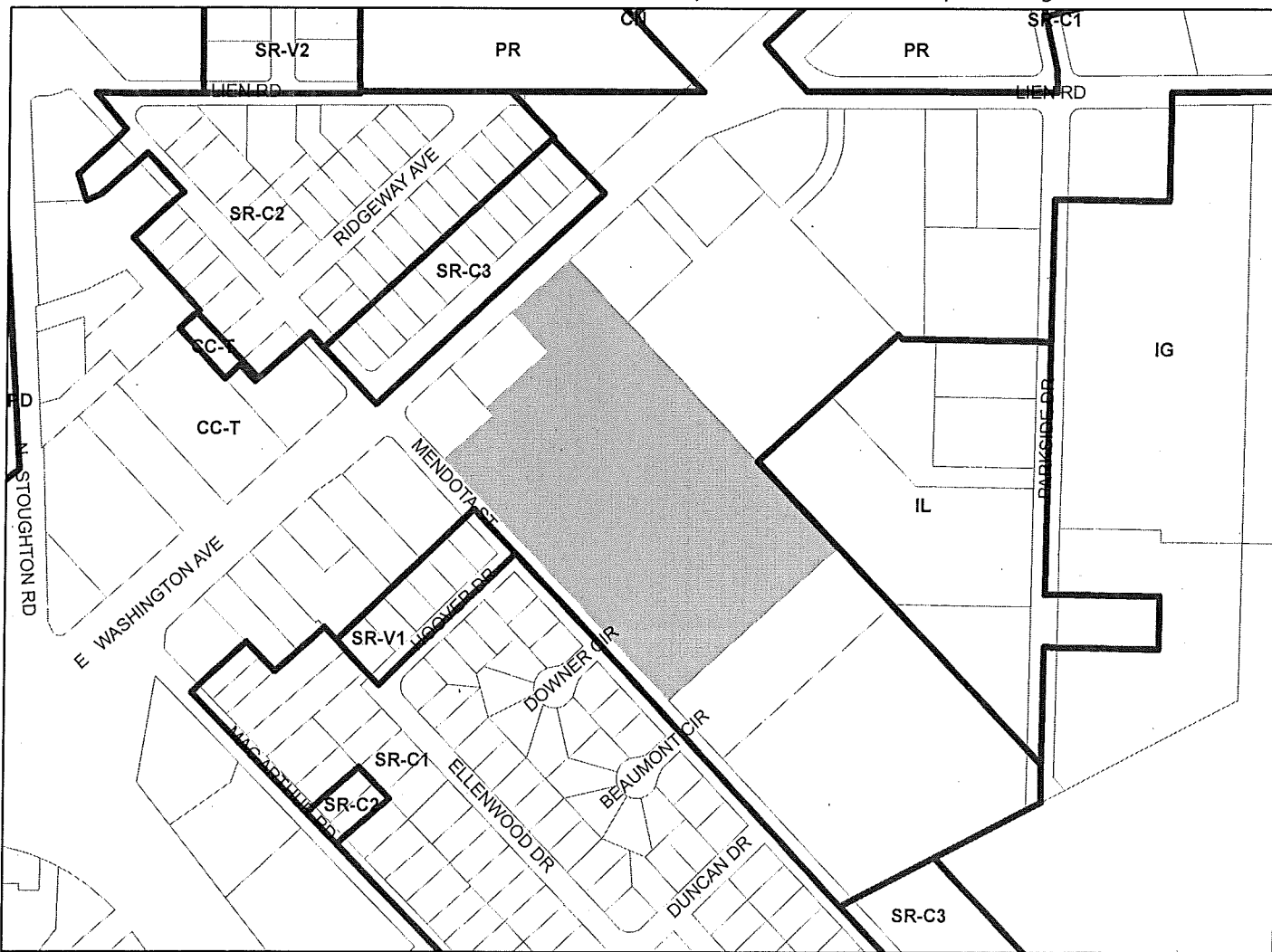
Public Hearing Date

Plan Commission

28 August 2017

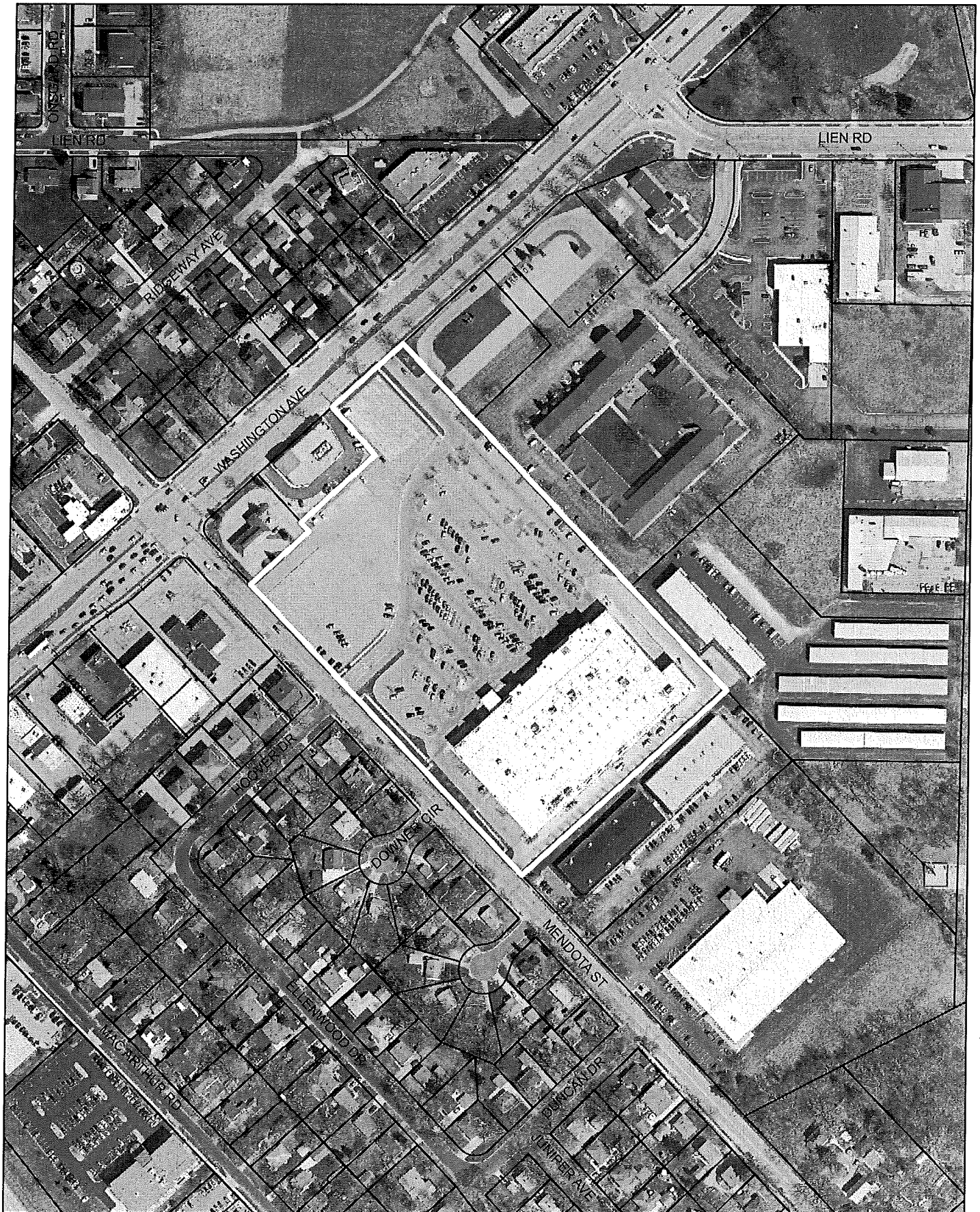


For Questions Contact: Chris Wells at: 261-9135 or cwells@cityofmadison.com or City Planning at 266-4635



Scale : 1" = 400'

City of Madison, Planning Division : PPE : Date : 21 Aug 2017



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LAND USE APPLICATION

LND-B

City of Madison
Planning Division
126 S. Hamilton St.
P.O. Box 2985
Madison, WI 53701-2985
(608) 266-4635



FOR OFFICE USE ONLY:

Paid _____ Receipt # _____
Date received _____
Received by _____
Parcel # _____
Aldermanic district _____
Zoning district _____
Special requirements _____
Review required by _____
 UDC PC
 Common Council Other _____
Reviewed By _____

All Land Use Applications must be filed with the Zoning Office at the above address.

This completed form is required for all applications for Plan Commission review except subdivisions or land divisions, which should be filed using the Subdivision Application found on the City's web site.

1. Project Information

Address: 3801 E. WASHINGTON AVE.
Title: TESLA SUPERCHARGER STATION - W1009 MADISON

2. This is an application for (check all that apply)

- Zoning Map Amendment (rezoning) from _____ to _____
- Major Amendment to an Approved Planned Development-General Development Plan (PD-GDP) Zoning
- Major Amendment to an Approved Planned Development-Specific Implementation Plan (PD-SIP)
- Review of Alteration to Planned Development (PD) (by Plan Commission)
- Conditional Use or Major Alteration to an Approved Conditional Use
- Demolition Permit
- Other requests

3. Applicant, Agent and Property Owner Information

Applicant name BLACK F VEATCH FOR Company TESLA MOTORS, INC.
Street address 3500 DEER CREEK RD. City/State/zip PALO ALTO, CA 94304
Telephone _____ Email _____

Project contact person CHRISTINA SUAREZ ^{FOR} Company BLACK F VEATCH
Street address 5885 MEADOWS RD. City/State/zip LAKE OSWEGO, OR 97035
Telephone 541-490-3080 Email SUAREZC@bfv.com

Property owner (if not applicant) HY-VEE INC.
Street address 5820 WESTOWN PKWY W. City/State/zip DES MOINE, IOWA 50266
Telephone 515-453-2795 Email _____

4. Project Description

Provide a brief description of the project and all proposed uses of the site:

INSTALLATION OF TESLA SUPERCHARGER STATIONS FOR ELECTRIC CAR CHARGING; IN PARKING LOT OF HY VEE STORE. AT PROJECT ADDRESS

Scheduled start date AUG. 2017 Planned completion date SEP. 2017

5. Required Submittal Materials

Refer to the Land Use Application Checklist for detailed submittal requirements.

- Checklist items: Filing fee, Land Use Application, Letter of intent, Legal description, Pre-application notification, Vicinity map, Survey or existing conditions site plan, Development plans, Land Use Application Checklist (LND-C), Supplemental Requirements, Electronic Submittal*

*Electronic copies of all items submitted in hard copy are required. Individual PDF files of each item submitted should be compiled on a CD or flash drive, or submitted via email to pccapplications@cityofmadison.com.

For concurrent UDC applications a separate pre-application meeting with the UDC Secretary is required prior to submittal. Following the pre-application meeting, a complete UDC Application form and all other submittal requirements must be submitted to the UDC Secretary.

6. Applicant Declarations

- Pre-application meeting with staff. Prior to preparation of this application, the applicant is strongly encouraged to discuss the proposed development and review process with Zoning and Planning Division staff. Note staff persons and date.

Planning staff KEVIN FIRCHOW Date 5/26/17
Zoning staff Date

- Demolition Listserv
Public subsidy is being requested (indicate in letter of intent)

- Pre-application notification: The zoning code requires that the applicant notify the district alder and any nearby neighborhood and business associations in writing no later than 30 days prior to FILING this request. List the alderperson, neighborhood association(s), business association(s), AND the dates you sent the notices:

ALDER SAMBA BALDEH, MCC DIST. 17 (6-22-17) (SEE ATTACHED RESPONSES)

The alderperson and the Director of Planning & Community & Economic Development may reduce the 30-day requirement or waive the pre-application notification requirement altogether. Evidence of the pre-application notification is required as part of the application materials.

The applicant attests that this form is accurately completed and all required materials are submitted:

Name of applicant BLACK & VEATCH FOR TESLA MOTORS, INC Relationship to property TENANT

Authorizing signature of property owner (SEE ATTACHED LOA) Date

TESLA MOTORS, INC. NARRATIVE

LETTER OF INTENT

Tesla Motors, Inc

Tesla Motors is a US based company that fully designs and manufactures the world's leading electric vehicles. To date, Tesla has delivered more than 100,000 cars across North America, Europe, and Asia. In our mission to accelerate the adoption of electric vehicles, Tesla has deployed a fast-charging solution called the Supercharger. Currently, over 300 Stations are installed in North America alone, with another 200 around the world and counting. Tesla Superchargers allow Model S owners to travel for free between cities along well-traveled highways in North America. Superchargers provide half a charge in as little as 20 minutes and are strategically placed to allow owners to drive from station to station with minimal stops.

Tesla vehicle charging stations, called Superchargers, allow owners of our car, Model S to charge for free. Model S is a 100% electric vehicle with range capability of up to 285 miles on a single charge significantly larger than any other electric vehicle on the road. The charging stations are available to Tesla customers 24 hours a day, 7 days a week. The station does not require any attendants or employees. Access to the charging stations is via existing roads, parking lots and sidewalks around the proposed site.

Because of the robust range, this car is ideal for road trips and daily driving alike. Traffic in general is minimally impacted during peak hours of travel. The process of Supercharging is very easy—customers stop at one of our charging stations, pull into a parking spot with a Tesla charging cable, and plug in their car. The average charge session is about 35 minutes, with cars fully charged in about 45 minutes if the battery is empty. Because charging is completely free, our customers heavily patronize local businesses to show their support for hosting the Supercharger. Road trippers can stop for a quick meal or shopping and have their Model S charged when they're done.

To maximize efficiency and minimize impact, the car alerts its owner through their cell phone that charging is complete. The national average for charge sessions at our Superchargers of various sizes is about 10-15 per day.

WI009 Madison Proposal

Tesla proposes to minimally impact a portion of the north east Hy-Vee parking lot to accommodate electric parking stalls. Tesla proposes to modify seven (7) existing parking stalls configured as angled parking in the existing Hy-Vee parking lot in order to create eight (8) straight electric vehicle charging stalls. Tesla proposes a back-in configuration. By grinding (13) angled parking lines and removing 23 feet of angled concrete curb and gutter along the east edge of the parking island, the space will be redistributed to create straight lined parking stalls. A portion of the existing pedestrian walkway, approximately 5 feet deep will be removed in front of the (8) modified spaces. A new concrete curb and landscape planter filled with bark mulch will be placed.

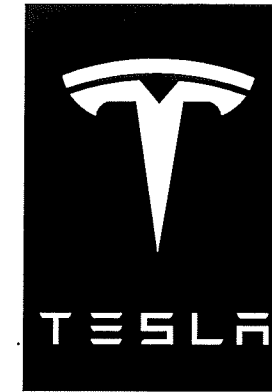
Each parking stall will be equipped with a Supercharger post. These posts are proposed to be placed at the back side of the new curb of the modified parking stalls to accommodate back-in charging. One (1) pedestrian light pole and fixture is proposed to be added behind the charge post, softly illuminating the vehicle charging stalls and the walkway to the store. The charge posts and light pole will be installed in the new planter.

Tesla proposes to install supercharging equipment cabinets within an 8 foot TREX composite fence enclosure located on the modified parking island. The TREX enclosure will be painted to best blend with the landscaped environment in which it is situated. The equipment enclosure will not be roofed and will have secured gates for maintenance access. Tesla will install a new transformer to power the Supercharger equipment, to be located across the walkway in the adjacent parking island south of the proposed enclosure.

Any landscape removed as a result of the proposed equipment enclosure will be replaced. A photosim has been provided as a visual aid, but due to the seasonal hues, the muted colors are somewhat difficult to visually interpret and require careful observation. Two (2) trees are proposed to be relocated (removed and replaced). (1) tree will be removed from an existing planter along the pedestrian walkway and planted in the new planter along the back side of the charge posts, in proximity to another existing tree; and (1) tree removed from the parking island will be relocated to the east edge of the parking island next to the proposed enclosure. Additional landscaping will be provided to mitigate these changes. (6) Additional bushes (switch grass) will be placed in the new planter as well as around the enclosure to soften and blend with the existing landscape. The existing planter in the walkway that had the tree removed will be filled with concrete and made part of the pedestrian walkway to the Hy-Vee Store.

With minimal impact to the current use and parking configuration, TESLA proposes to be construction complete within 30-45 days following permit issuance. Tesla's proposal will have minimal impact to the Hy-Vee Store traffic flow. The charging stations are available to Tesla customers 24 hours a day, 7 days a week. The station does not require attendants or employees, and access to the charging stations is via existing roads and driveways. This proposal will provide charging customers 24/7 access to shopping, food and services. Hy-Vee is touted as having an expansive array of food and products, thus making this location a win-win, ideal for TESLA customers and great for the local economy.

TESLA



SUPERCHARGING STATION

MADISON

WI009_MADISON
3801 E WASHINGTON AVE
MADISON, WI 53704



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



BLACK & VEATCH

6800 W 115th St, Suite 2292
OVERLAND PARK, KS 66211
(913) 458-2000

PROJECT NO: 192745
DRAWN BY: AKJ
CHECKED BY: CNS

REV	DATE	DESCRIPTION
E	06/07/17	RE-ISSUED FOR 100% REVIEW
D	06/02/17	RE-ISSUED FOR 100% REVIEW
C	05/09/17	RE-ISSUED FOR 50% REVIEW
B	09/24/17	RE-ISSUED FOR 50% REVIEW
A	12/07/16	ISSUED FOR 50% REVIEW

**NOT TO BE USED
FOR CONSTRUCTION**

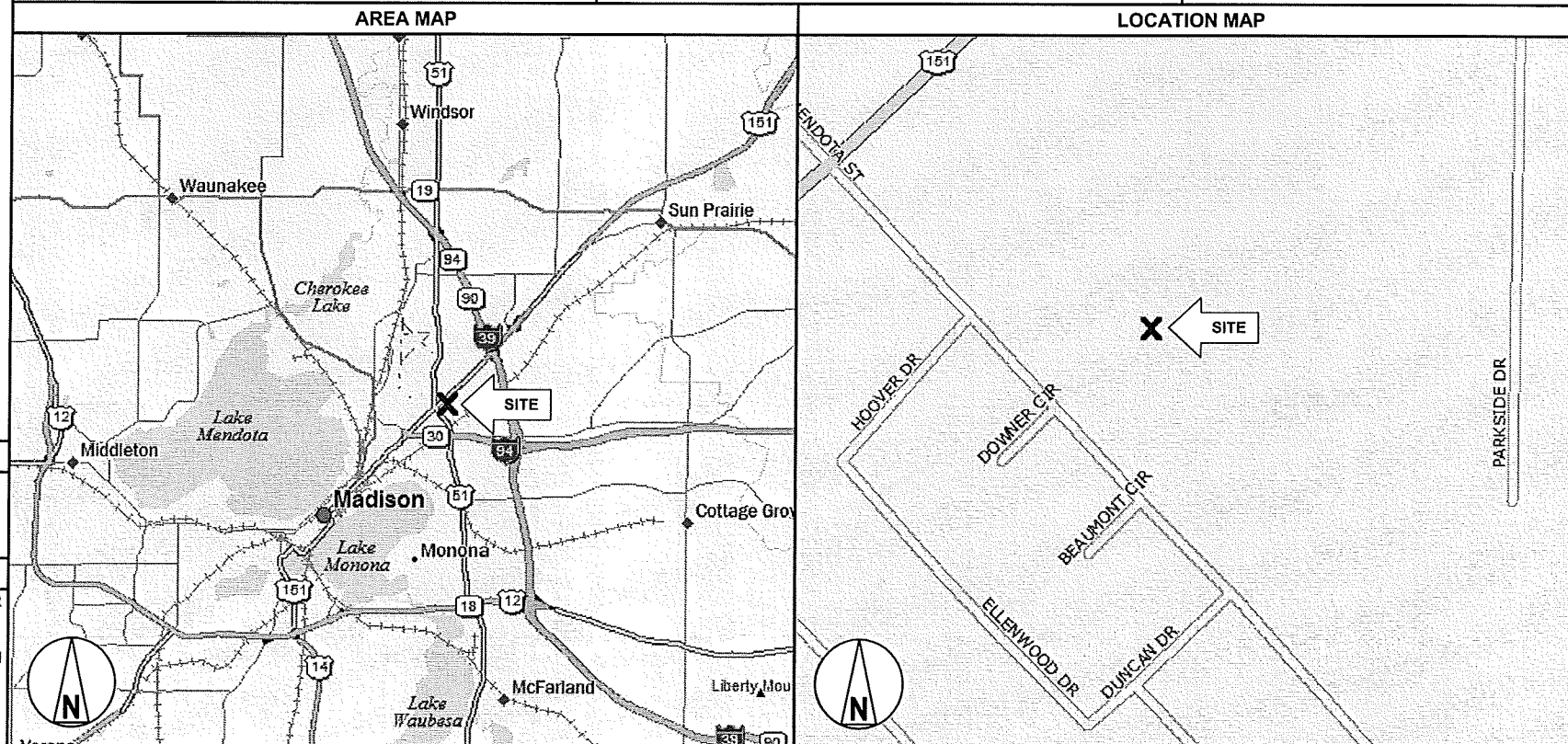
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

WI009_MADISON
MADISON
3801 E WASHINGTON AVE
MADISON, WI 53704

SHEET TITLE
TITLE SHEET & PROJECT DATA

SHEET NUMBER
T-1

SITE INFORMATION	APPLICABLE CODES	PROJECT DESCRIPTION	ZONING INFORMATION	DRAWING INDEX																																																																											
<p>PROPOSED TESLA EV SITE ADDRESS: 3829 E WASHINGTON AVE MADISON, WI 53704</p> <p>EXISTING SITE ADDRESS: 3801 E WASHINGTON AVE MADISON, WI 53704</p> <p>PROPERTY OWNER: HY-VEE, INC. 5820 WESTOWN PARKWAY WEST DES MOINES, IW 50266 (515) 453-2795</p> <p>EQUIPMENT SUPPLIER: TESLA MOTORS, INC. 3500 DEER CREEK RD PALO ALTO, CA 94304 (650) 681-5000</p> <p>POWER COMPANY: MADISON GAS & ELECTRIC CONTACT: KEITH VANDEN WYMELBERG (608) 235-0284</p> <p>COUNTY: DANE</p> <p>LATITUDE (NAD83): 43° 7' 9.30" N 43.11925°</p> <p>LONGITUDE (NAD83): 89° 19' 9.36" W -89.31927°</p> <p>CONTACT ENGINEER: RUSSELL POLLUM (913) 458-6274 POLLUMRE@BV.COM</p>	<p>ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:</p> <p>2011 WISCONSIN COMMERCIAL BUILDING CODE IBC 2009 WISCONSIN MECHANICAL CODE NEC 2008 WISCONSIN ELECTRICAL CODE IBC 2009 WISCONSIN STRUCTURAL CODE IBC 2009 MFPA-1 WISCONSIN FIRE/LIFE SAFETY CODE WISCONSIN COMMERCIAL BUILDING CODE ADA STANDARDS (WISCONSIN COMMERCIAL BUILDING CODE)</p> <p>IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL</p>	<ul style="list-style-type: none"> INSTALL (4) TESLA SUPERCHARGER CABINETS INSTALL (8) TESLA CHARGING STATIONS INSTALL (1) QED SWITCHGEAR ASSEMBLY INSTALL (1) UTILITY TRANSFORMER INSTALL (1) PEDESTRIAN LIGHT POLE AND FIXTURE 	<p>PERMITTING JURISDICTION: CITY OF MADISON ZONING CLASS: SS-1</p> <p>DO NOT SCALE DRAWINGS</p> <p>CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.</p>	<table border="1"> <thead> <tr> <th>SHEET NO:</th> <th>SHEET TITLE</th> <th>REV NO:</th> </tr> </thead> <tbody> <tr><td>T-1</td><td>TITLE SHEET & PROJECT DATA</td><td>E</td></tr> <tr><td>GN-1</td><td>GENERAL NOTES 1</td><td>E</td></tr> <tr><td>GN-2</td><td>GENERAL NOTES 2</td><td>E</td></tr> <tr><td>GN-3</td><td>GENERAL NOTES 3</td><td>E</td></tr> <tr><td>A-1</td><td>OVERALL SITE PLAN</td><td>E</td></tr> <tr><td>A-2</td><td>DEMOLITION SITE PLAN</td><td>E</td></tr> <tr><td>A-3</td><td>PROPOSED SITE PLAN</td><td>E</td></tr> <tr><td>A-4</td><td>ENLARGED PROPOSED EQUIPMENT LAYOUT</td><td>E</td></tr> <tr><td>A-5</td><td>SITE ELEVATIONS</td><td>E</td></tr> <tr><td>A-6</td><td>SIGNAGE DETAILS</td><td>E</td></tr> <tr><td>A-7</td><td>EQUIPMENT DETAILS</td><td>E</td></tr> <tr><td>A-8</td><td>FENCE DETAILS</td><td>E</td></tr> <tr><td>E-1</td><td>UTILITY PLAN</td><td>E</td></tr> <tr><td>E-2</td><td>ELECTRICAL PLAN</td><td>E</td></tr> <tr><td>E-3</td><td>ELECTRICAL DETAILS</td><td>E</td></tr> <tr><td>E-4</td><td>ELECTRICAL DETAILS</td><td>E</td></tr> <tr><td>E-5</td><td>ELECTRICAL DETAILS</td><td>E</td></tr> <tr><td>E-6</td><td>ELECTRICAL DETAILS</td><td>E</td></tr> <tr><td>G-1</td><td>GROUNDING DETAILS</td><td>E</td></tr> <tr><td>G-2</td><td>GROUNDING DETAILS</td><td>E</td></tr> <tr><td>S-1</td><td>STRUCTURAL DETAILS</td><td>E</td></tr> <tr><td>S-2</td><td>STRUCTURAL DETAILS</td><td>E</td></tr> <tr><td>LS-1</td><td>LANDSCAPING PLAN</td><td>E</td></tr> <tr><td>LS-2</td><td>LANDSCAPING DETAILS AND PLANT SCHEDULE</td><td>E</td></tr> </tbody> </table>	SHEET NO:	SHEET TITLE	REV NO:	T-1	TITLE SHEET & PROJECT DATA	E	GN-1	GENERAL NOTES 1	E	GN-2	GENERAL NOTES 2	E	GN-3	GENERAL NOTES 3	E	A-1	OVERALL SITE PLAN	E	A-2	DEMOLITION SITE PLAN	E	A-3	PROPOSED SITE PLAN	E	A-4	ENLARGED PROPOSED EQUIPMENT LAYOUT	E	A-5	SITE ELEVATIONS	E	A-6	SIGNAGE DETAILS	E	A-7	EQUIPMENT DETAILS	E	A-8	FENCE DETAILS	E	E-1	UTILITY PLAN	E	E-2	ELECTRICAL PLAN	E	E-3	ELECTRICAL DETAILS	E	E-4	ELECTRICAL DETAILS	E	E-5	ELECTRICAL DETAILS	E	E-6	ELECTRICAL DETAILS	E	G-1	GROUNDING DETAILS	E	G-2	GROUNDING DETAILS	E	S-1	STRUCTURAL DETAILS	E	S-2	STRUCTURAL DETAILS	E	LS-1	LANDSCAPING PLAN	E	LS-2	LANDSCAPING DETAILS AND PLANT SCHEDULE	E
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FLOOD HAZARD AREA NOTE

THIS SITE IS LOCATED IN FLOOD ZONE "X". NO BASE FLOOD ELEVATION. AREA DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN.

CONTRACTOR NOTE

CONTRACTOR SHALL COMPLETE INSTALL PER THE SIGNED AND SEALED SET OF DRAWINGS. ANY NECESSARY DEVIATIONS FROM THE DRAWINGS MUST BE SUBMITTED THROUGH AN RFI REQUEST PROCESS WITH ENGINEERING FOR AN APPROVAL PRIOR TO CONTRACTOR PROCEEDING WITH A DEVIATION OF THE SIGNED AND SEALED SET OF DRAWINGS.

FOR REFERENCE ONLY
PROPERTY SURVEY

ENGINEER OF RECORD
ROBLEY A. EVANS
PE # 37439-006
BLACK & VEATCH CORPORATION

CALL BEFORE YOU DIG

UNDERGROUND SERVICE ALERT
UTILITY NOTIFICATION CENTER OF WISCONSIN
811 OR 1-800-242-8511
3 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

GENERAL CONSTRUCTION NOTES

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY
GENERAL CONTRACTOR: OVERLAND CONTRACTING INC. (BLACK & VEATCH)
CONTRACTOR: (CONSTRUCTION)
OWNER: TESLA
- ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS.
- THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
- THE GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
- CONSTRUCTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE.
- WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
- THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
- THE CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. THE CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.

GENERAL CONSTRUCTION NOTES CONT.

- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
- THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
- ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
- ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
- THE CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
- THE CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
- THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS REQUIRED).
- NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
- CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
- THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

ELECTRICAL NOTES

- THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ANY/ALL ELECTRICAL WORK INDICATED. ANY/ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS AND ANY/ALL APPLICABLE SPECIFICATIONS. IF ANY PROBLEMS ARE ENCOUNTERED BY COMPLYING WITH THESE REQUIREMENTS, CONTRACTOR SHALL NOTIFY 'CONSTRUCTION MANAGER' AS SOON AS POSSIBLE, AFTER THE DISCOVERY OF THE PROBLEMS, AND SHALL NOT PROCEED WITH THAT PORTION OF WORK, UNTIL THE 'CONSTRUCTION MANAGER' HAS DIRECTED THE CORRECTIVE ACTIONS TO BE TAKEN.
- THE ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELVES WITH ANY/ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATION INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. THE CONDITION OF EXISTING ELECTRICAL EQUIP., LIGHT FIXTURES, ETC., THAT ARE PART OF THE FINAL SYSTEM, SHALL BE VERIFIED BY THE CONTRACTOR, PRIOR TO THE SUBMITTAL OF HIS BID. FAILURE TO COMPLY WITH THIS PARAGRAPH WILL IN NO WAY RELIEVE CONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC AND ALL CODES AND LOCAL ORDINANCES OF THE LOCAL POWER COMPANIES HAVING JURISDICTION AND SHALL INCLUDE BUT NOT BE LIMITED TO:
A. UL - UNDERWRITERS LABORATORIES
B. NEC - NATIONAL ELECTRICAL CODE
C. NEMA - NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
D. OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT
E. SBC - STANDARD BUILDING CODE
F. NFPA - NATIONAL FIRE PROTECTION ASSOCIATION
- DO NOT SCALE ELECTRICAL DRAWINGS, REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, BUT CONFIRM WITH 'CONSTRUCTION MANAGER' ANY SIZES AND LOCATIONS WHEN NEEDED.
- EXISTING SERVICES: THE CONTRACTOR SHALL NOT INTERRUPT EXISTING SERVICES WITHOUT WRITTEN PERMISSION OF THE OWNER.
- THE CONTRACTOR SHALL PAY FOR ANY/ALL PERMITS, FEES, INSPECTIONS AND TESTING. THE CONTRACTOR IS TO OBTAIN PERMITS AND APPROVED SUBMITTALS PRIOR TO THE WORK BEGINNING OR ORDERING THE EQUIPMENT.
- THE TERM "PROVIDE" USED IN CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL.

ELECTRICAL NOTES CONT.

- THE CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY/ALL REQUIREMENTS SUCH AS THE: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, SIZE OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC. ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO BEGINNING ANY WORK.
- CONDUCTORS: CONTRACTOR SHALL USE 98% CONDUCTIVITY COPPER OR ALUMINUM WITH TYPE (THWN-2) INSULATION, 600 VOLT, COLOR CODED UNLESS SPECIFIED DIFFERENTLY ON DRAWINGS.
- ALL (THWN-2) WIRING INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
- IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF THE CONSTRUCTION. CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER. CONTRACTOR IS TO PROVIDE ALL ELECTRICAL EQUIPMENT UNLESS OTHERWISE DIRECTED.
- ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS, WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIONAL AND SUBJECT TO REGULATORY INSPECTION AND APPROVAL BY CONSTRUCTION MANAGER.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
- CONTRACTOR SHALL GUARANTEE ANY/ALL MATERIALS AND WORK FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.
- THE CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ANY ADDITIONAL CHARGE AND SHALL INCLUDE THE REPLACEMENT OR THE REPAIR OF ANY OTHER PHASE OF THE INSTALLATION, WHICH MAY HAVE BEEN DAMAGED THEREIN.
- ADEQUATE AND REQUIRED LIABILITY INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF WORK.
- PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES AND DEVICES FOR ALL OUTLETS AS INDICATED.
- TRENCHING AND BACKFILL: THE CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND/OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION. REFER TO GENERAL SITE WORK NOTES.
- MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SHALL APPEAR ON THE LIST OF U.L. APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NEC, NEMA AND IEEE.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR MANUFACTURERS CATALOG INFORMATION OF ANY/ALL LIGHTING FIXTURES, SWITCHES AND ALL OTHER ELECTRICAL ITEMS FOR APPROVAL BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
- ANY CUTTING OR PATCHING DEEMED NECESSARY FOR ELECTRICAL WORK IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE 'CONSTRUCTION MANAGER' UPON FINAL ACCEPTANCE.
- THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN DIRECTORIES.
- DISCONNECT SWITCHES SHALL BE H.P. RATED HEAVY-DUTY, QUICK-MAKE AND QUICK-BREAK ENCLOSURES, AS REQUIRED BY EXPOSURE TYPE.
- ALL CONNECTIONS EXCEPT THE EV CHARGE CABLE TERMINATION IN THE CHARGE POST SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NOALOX" BY IDEAL INDUSTRIAL INC., COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED ALUMINUM & COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED - NO SUBSTITUTIONS.
- ALL EXTERIOR AND INTERIOR ABOVE GROUND CONDUIT SHALL BE RIGID UNLESS SPECIFIED OTHERWISE. ALL BURIED CONDUITS SHALL BE SCH 40 PVC UNLESS SPECIFIED OTHERWISE.
- RACEWAYS: CONDUIT SHALL BE SCHEDULE 40 PVC, MEETING OR EXCEEDING NEMA TC2 - 1990. THE CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LBS TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 3 FT. RADIUS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH 'BRITE ZINC' OR 'GOLD GALV'.
- SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.
- 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.
- THE 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".
- WHEN DIRECTIONAL BORING IS REQUIRED, CONTRACTOR SHALL INSTALL A LOOSE TONING WIRE WITHIN INSTALLED CONDUIT TO ALLOW FOR IDENTIFICATION OF UNDERGROUND CONDUITS.
- ALL BOLTS SHALL BE STAINLESS STEEL.
- ALL MATERIALS AND EQUIPMENT SUPPLIED AND INSTALLED BY THE CONTRACTOR SHOULD BE NEW AND UNUSED.



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PROJECT NO:	192745
DRAWN BY:	AKJ
CHECKED BY:	CNS

REV	DATE	DESCRIPTION
E	06/07/17	RE-ISSUED FOR 100% REVIEW
D	06/02/17	RE-ISSUED FOR 100% REVIEW
C	05/09/17	RE-ISSUED FOR 50% REVIEW
B	09/24/17	RE-ISSUED FOR 50% REVIEW
A	12/07/16	ISSUED FOR 50% REVIEW

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MADISON, WI 53704

SHEET TITLE
GENERAL NOTES 1

SHEET NUMBER
GN-1

REINFORCED CONCRETE NOTES

1. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS UNLESS OTHERWISE NOTED; CONTINUOUS INSPECTION IS NOT REQUIRED.
SLUMP: 4" MIN /6" MAX.
AIR ENTRAINMENT: 4 1/2% - 7% BY VOLUME
2. REINFORCEMENT SHALL BE A NEW BILLET STEEL DEFORMED BARS CONFORMING TO ASTM SPECIFICATION A615 GRADE 60. MAXIMUM COARSE AGGREGATE SIZE SHALL BE 3/4".
3. REINFORCEMENT SHALL COMPLY WITH THE LATEST EDITION OF ACI-318 FOR MINIMUM CLEARANCES.
4. ALL EMBEDDED ITEMS SHALL BE SECURELY HELD IN POSITION PRIOR TO PLACEMENT OF CONCRETE. ALL CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C94.
5. MAINTAIN TEMPERATURE OF CAST IN PLACE CONCRETE BETWEEN 50 DEGREES AND 90 DEGREES FAHRENHEIT.
6. DO NOT USE RETEMPERED CONCRETE, OR ADD WATER TO READY-MIX CONCRETE AT THE JOB SITE.
7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
8. EXCEPT AS DETAILED OR AUTHORIZED. MAKE BARS CONTINUOUS AROUND CORNERS. WHERE PERMITTED, SPLICES MADE BY CONTACT LAPS SHALL BE CLASS "B" TENSION LAPS UNLESS NOTED OTHERWISE.
9. DETAIL BARS IN ACCORDANCE WITH "ACI DETAILING MANUAL - 2004, PUBLICATION SP-66" AND "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318-08.
10. PROVIDE ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING.

GENERAL SITE WORK NOTES

PART 1 - GENERAL

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.

1.1 REFERENCES:

- A. DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-CURRENT EDITION).
- B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).
- C. OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION).

1.2 INSPECTION AND TESTING:

- A. GENERAL CONTRACTOR SHALL PERFORM ALL WORK IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. PERFORM INSPECTIONS BEFORE CONCEALING WORK WITH FOLLOW-ON ACTIVITIES (BACKFILL, CONCRETE POUR, ETC).

1.3 SITE MAINTENANCE AND PROTECTION:

- A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF WORK UNTIL COMPLETION OF THE CONTRACT.
- B. AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.
- C. KEEP SITE FREE OF ALL PONDING WATER.
- D. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT, LOCAL PERMITTING AGENCY AND EPA REQUIREMENTS.
- E. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
- F. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE CONSTRUCTION MANAGER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.
- G. PROVIDE A MINIMUM 48-HOUR NOTICE TO THE CONSTRUCTION MANAGER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.
- H. SOD PLANTED IN THE FALL MUST ESTABLISH ITS ROOTS BEFORE THE FIRST WINTER FROST. DETERMINE WHEN THE FIRST FROST USUALLY OCCURS, AND PLANT THE SOD NO LATER THAN ONE MONTH BEFORE THE FIRST FROST. IF THE CONSTRUCTION IS FINISHED LATER THAN ONE MONTH BEFORE THE FIRST FROST, USE STRAW UNTIL SOD CAN BE INSTALLED.

GENERAL SITE WORK NOTES CONT.

PART 2 - PRODUCTS

2.1 GRANULAR BACKFILL: SHALL MEET THE FOLLOWING GRADATION:

SIEVE SIZE	TOTAL PERCENT PASSING
1 1/2 INCH (37.5 MM)	100
1 INCH (25.0 MM)	75 TO 100
3/4 INCH (19.0 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 (0.075 MM)	3 TO 15

- 2.2 GRANULAR BEDDING AND TRENCH BACKFILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SE OR SW-SM).
- 2.3 COARSE AGGREGATE FOR ACCESS ROAD SUBBASE COURSE SHALL CONFORM TO ASTM D2940.
- 2.4 UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTIC 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.

PART 3 - EXECUTION

3.1 GENERAL:

- A. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ALL TIMES.
 - B. BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.
 - C. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.
 - D. REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS, BRUSH, AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE, RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OF 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.
 - E. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS.
 - F. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED, FILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH SUITABLE FILL.
 - G. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING WILL NOT BE PERMITTED.
 - H. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM NOT SHOWN THAT MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
 - I. SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL. ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.
 - J. DURING EXCAVATION, THE CONTRACTOR SHALL PROVIDE SHORING, SHEETING, AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF EXCAVATION.
- 3.2 BACKFILL:
- A. AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.
 - B. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS, AND UNSUITABLE MATERIALS.
 - C. DO NOT PLACE FROZEN MATERIAL IN AS BACKFILL.

GENERAL SITE WORK NOTES CONT.

- D. BACKFILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 8-INCHES LOOSE THICKNESS AND COMPACTED. WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.
 - E. WHENEVER THE DENSITY TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE CONSTRUCTION MANAGER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE MINIMUM COMPACTION REQUIREMENTS.
 - F. THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.
- 3.3 TRENCH EXCAVATION:
- A. UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS.
 - B. EXTEND THE TRENCH WIDTH A MINIMUM OF 6 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.
 - C. WHEN SOFT YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, EXCAVATE THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION, THEN BACKFILL WITH 12" OF GRANULAR BEDDING MATERIAL.
- 3.4 TRENCH BACKFILL:
- A. PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE DRAWINGS AND THE UTILITY REQUIREMENTS.
 - B. NOTIFY THE GENERAL CONTRACTOR 24 HOURS IN ADVANCE OF BACKFILLING.
 - C. CONDUCT UTILITY CHECK TESTS BEFORE BACKFILLING. BACKFILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.
 - D. PLACE GRANULAR TRENCH BACKFILL UNIFORMLY ON BOTH SIDES OF THE CONDUITS IN 6-INCH UNCOMPACTED LIFTS UNTIL 12 INCHES OVER THE CONDUITS. SOLIDLY RAM AND TAMP BACKFILL INTO SPACE AROUND CONDUITS.
 - E. PROTECT CONDUIT FROM LATERAL MOVEMENT, IMPACT DAMAGE, OR UNBALANCED LOADING.
 - F. ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 8-INCH MAXIMUM LOOSE THICKNESS LIFTS TO RESTORE THE REQUIRED FINISHED SURFACE GRADE.
 - G. COMPACT FINAL TRENCH BACKFILL TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO THE TRENCH BUT NO LESS THAN A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.
- 3.5 FINISH GRADING:
- A. 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.
 - B. UTILIZE SATISFACTORY FILL MATERIAL RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR REPLACEMENT OF REMOVED UNSUITABLE MATERIALS.
 - C. REPAIR ALL ACCESS ROADS AND SURROUNDING AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL CONDITION.
- 3.6 ASPHALT PAVING ROAD:
- WISCONSIN STANDARD SPECIFICATION
- PART 4 - WISCONSIN DEPARTMENT OF TRANSPORTATION PAVEMENT
- A. CONTRACTOR RESPONSIBLE FOR RE-STRIPING AND APPLYING SEALCOATING, UNLESS OTHERWISE SPECIFIED.



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PROJECT NO:	192745
DRAWN BY:	AKJ
CHECKED BY:	CNS

REV	DATE	DESCRIPTION
E	06/07/17	RE-ISSUED FOR 100% REVIEW
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MADISON
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MADISON, WI 53704**

SHEET TITLE
GENERAL NOTES 2

SHEET NUMBER
GN-2

STRUCTURAL STEEL NOTES

- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS, UNLESS NOTED OTHERWISE: WIDE FLANGE SHAPE: A992, 50ksi
ANGLE AND CHANNEL SHAPE: ASTM A36, 36 ksi
PLATE: ASTM A36, 36ksi
PIPE: ASTM A53 GRADE B, 35 ksi
HSS: ASTM A500 GRADE B, 46ksi
- HIGH-STRENGTH BOLTS SHALL CONFORM TO ASTM A325: ONE HIGH-STRENGTH BOLT ASSEMBLY SHALL CONSIST OF A HEAVY HEX STRUCTURAL BOLT, A HEAVY NUT, A HARDENED WASHER CONFORMING TO ASTM F436. THE HARDENED WASHER SHALL BE INSTALLED AGAINST ELEMENT TURNED IN TIGHTENING. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS.
- WELDING ELECTRODES SHALL COMPLY WITH AWS D1.1 USING A5.1 OR A5.5 E70XX AND SHALL BE COMPATIBLE WITH THE WELDING PROCESS SELECTED. WELDERS SHALL BE QUALIFIED AS PRESCRIBED IN AWS D1.1.
- UNLESS NOTED OTHERWISE ON THE DRAWING, ALL ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 WITH HEAVY HEXAGONAL NUT.
- FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH AISC SPECIFICATION.
- ALL EXPOSED STRUCTURAL STEEL AND BOLTS SHALL BE HOT DIP GALVANIZED PER ASTM A123.
- 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.
- PRIMER SHALL BE RED OXIDE-CHROMATE PRIME COMPLYING WITH STEEL STRUCTURES PAINTING COUNCIL (SSPC) PAINT SPECIFICATION NUMBER 11.

SIGN POST NOTES

- ACCEPTABLE COLOR SUBSTITUTIONS:

PAINT COLOR SUBSTITUTIONS	
BRAND	COLOR
PANTONE	COOL GREY #7 #a3a19e
BENJAMIN MOORE	FUSION / AF-675 #a6a3a1
BEHR	EQUINOX FF31-1 #9fa29d
SHERWIN-WILLIAMS	STAMPED CONCRETE - 7655 #a2a29b
VALSPAR	STONE MASON GREY #a19c99

- OTHER ACCEPTABLE COLORS CAN BE FOUND ON ENCYCOLORPEDIA.COM
- CONTRACTOR SHALL COORDINATE WITH CITY WHEN SPECIAL JURISDICTIONAL/CITY REQUESTS ARE NECESSARY FOR ANY SIGN POST INSTALLATIONS, I.E. POST MATERIAL, PAINT COLORS, HARDWARE, ETC. CONTRACTOR IS RESPONSIBLE FOR ENSURING CITY APPROVES ALL MATERIALS PRIOR TO INSTALLATION.

CONCRETE MASONRY NOTES

- CONCRETE MASONRY UNITS SHALL BE MEDIUM WEIGHT UNITS CONFORMING TO ASTM C90, GRADE N-1, (F'M=1,500 PSI), MEDIUM WEIGHT. (115 PCF)
- MORTAR SHALL BE TYPE "S" ABOVE GRADE, TYPE "M" BELOW GRADE CONFORMING TO ASTM C270. (MINIMUM 1,800 PSI AT 28 DAYS)
- GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS CONFORMING TO ASTM C476.
- ALL CELLS CONTAINING REINFORCING STEEL OR EMBEDDED ITEMS AND ALL CELLS IN RETAINING WALLS AND WALLS BELOW GRADE SHALL BE SOLID GROUTED.
- ALL HORIZONTAL REINFORCEMENT SHALL BE PLACED IN BOND BEAM OR LINTEL BEAM UNITS.
- WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE GROUT POUR 1-1/2" BELOW TOP OF THE UPPERMOST UNIT.
- ALL BOND BEAM BLOCK SHALL BE "DEEP CUT" UNITS.
- PROVIDE INSPECTION AND CLEAN-OUT HOLES AT BASE OF VERTICAL CELLS HAVING GROUT LIFTS IN EXCESS OF 4'-0" OF HEIGHT.
- ALL GROUT SHALL BE CONSOLIDATED WITH A MECHANICAL VIBRATOR.
- CEMENT SHALL BE AS SPECIFIED FOR CONCRETE.

CONCRETE MASONRY NOTES CONT.

- REINFORCING BARS - SEE NOTES UNDER "REINFORCED CONCRETE NOTES" FOR REQUIREMENTS. REINFORCEMENT SHALL BE PLACED PRIOR TO GROUTING. LAP SPLICES SHALL BE 48 BAR DIAMETERS, MINIMUM.
- PROVIDE ONE BAR DIAMETER (A MINIMUM OF 1/2") GROUT BETWEEN MAIN REINFORCING AND MASONRY UNITS.
- LOW LIFT CONSTRUCTION, MAXIMUM GROUT POUR HEIGHT IS 4 FEET.
- HIGH LIFT GROUTED CONSTRUCTION MAY BE USED IN CONFORMANCE WITH PROJECT SPECIFICATIONS AND SECTION 2104 OF IBC.
- ALL CELLS IN CONCRETE BLOCKS SHALL BE FILLED SOLID WITH GROUT, EXCEPT AS NOTED IN THE DRAWINGS OR SPECIFICATIONS.
- CELLS SHALL BE IN VERTICAL ALIGNMENT, DOWELS IN FOOTINGS SHALL BE SET TO ALIGN WITH CELLS CONTAINING REINFORCING STEEL.
- REFER TO DRAWINGS FOR SURFACE AND HEIGHT OF UNITS, LAYING PATTERN AND JOINT TYPE.
- SAND SHALL BE CLEAN, SHARP AND WELL GRADED, FREE FROM INJURIOUS AMOUNTS OF DUST, LUMPS, SHALE, ALKALI OR ORGANIC MATERIAL.
- ALL MORTAR FIN OBSTRUCTIONS AND DEBRIS SHALL BE CLEANED FROM INSIDE OF CELLS PRIOR TO GROUTING.

SUPERCHARGER CABINET NOTE

- PER NEC 625.22 - THE USER INTERFACE (CHARGE POST) IS CONTROLLED BY THE ELECTRICAL EQUIPMENT (SUPERCHARGER CABINET) AND THE FOLLOWING PRECAUTIONS HAVE BEEN TAKEN TO ENSURE THE SAFETY OF CUSTOMERS AND THOSE AROUND THE EQUIPMENT. BEFORE ANY VOLTAGE OR CURRENT IS APPLIED TO THE CHARGE POST, THE CABINET MUST COMMUNICATE WITH THE TESLA VEHICLE. THERE IS A 'HANDSHAKE' BETWEEN THE CAR AND THE CABINET CONFIRMING THAT THE VEHICLE IS ACTUALLY A TESLA AND THAT THE VEHICLE CAN HANDLE THE SUPERCHARGING. VOLTAGE IS THEN APPLIED TO THE POWER SOCKETS IN THE CHARGE POST AND ONCE THE VOLTAGE READING FROM THE CAR IS VERIFIED AS THE SAME IN THE CHARGING CABINET, THEN CURRENT BEGINS TO FLOW. IF AT ANY POINT IN THIS PROCESS A FAULT IS DETECTED, THE CHARGING WILL STOP IMMEDIATELY, WITHIN A MATTER OF MILLISECONDS. DURING THE NORMAL CHARGING CYCLE, IF ANY FAULT OR IRREGULARITY IS DETECTED, THE CHARGING WILL AGAIN STOP WITHIN MILLISECONDS OF DETECTION. BEYOND THIS LOGIC PROTECTION, THERE IS PHYSICAL PROTECTION FROM OVER-CURRENT OR OVER-VOLTAGE WITHIN EACH OF THE CHARGERS. BEYOND THAT, FAST ACTING FUSES ALSO PROTECT THE VEHICLE OUTPUTS FROM OUTPUTTING TOO HIGH OF A CURRENT.

CONCRETE SIDEWALK CONSTRUCTION REQUIREMENTS

- PLACING AND FINISHING CONCRETE**
THE CONTRACTOR SHALL PROVIDE ADEQUATE TOOLS AND EQUIPMENT TO PRODUCE QUALITY WORKMANSHIP IN PLACING AND FINISHING CONCRETE. THE SIDEWALK AND RAMPS SHALL BE FINISHED TO THE TOP OF THE FORMS AND THE SURFACE FINISHED WITH A WOOD OR STEEL FLOAT AND SURFACE TEXTURE SHALL BE A COURSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE SIDEWALK OR RAMP. NO "PLASTERING" OF THE SURFACE SHALL BE PERMITTED.
- CONTRACTION JOINTS**
THE SIDEWALK SURFACE SHALL BE MARKED OFF INTO NOMINAL SQUARES OF DIMENSIONS EQUAL TO THE WIDTH OF THE SIDEWALK WITH A MAXIMUM DISTANCE BETWEEN JOINTS OF SEVEN FEET. SAWING JOINTS, THE CONTRACTOR SHALL BEGIN AS SOON AS THE CONCRETE HARDENS SUFFICIENTLY TO PREVENT EXCESSIVE RAVELING ALONG THE SAW CUT AND SHALL FINISH BEFORE CONDITIONS INDUCE UNCONTROLLED CRACKS, REGARDLESS OF THE TIME OR WEATHER.
- EXPANSION JOINTS**
EXPANSION JOINTS SHALL BE CONSTRUCTED AT LOCATIONS WHERE THE SIDEWALK ABUTS EXISTING CONCRETE CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES, AND EVERY TWO HUNDRED FIFTY FEET AND AS SHOWN ON APPROVED PLANS. EXPANSION JOINTS SHALL BE FORMED WITH ONE-HALF INCH PREFABRICATED NON-EXTRUDING FILLER AND SHALL EXTEND THE FULL DEPTH OF THE SLAB.



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PROJECT NO:	192745
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REV	DATE	DESCRIPTION
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C	05/09/17	RE-ISSUED FOR 50% REVIEW
B	09/24/17	RE-ISSUED FOR 50% REVIEW
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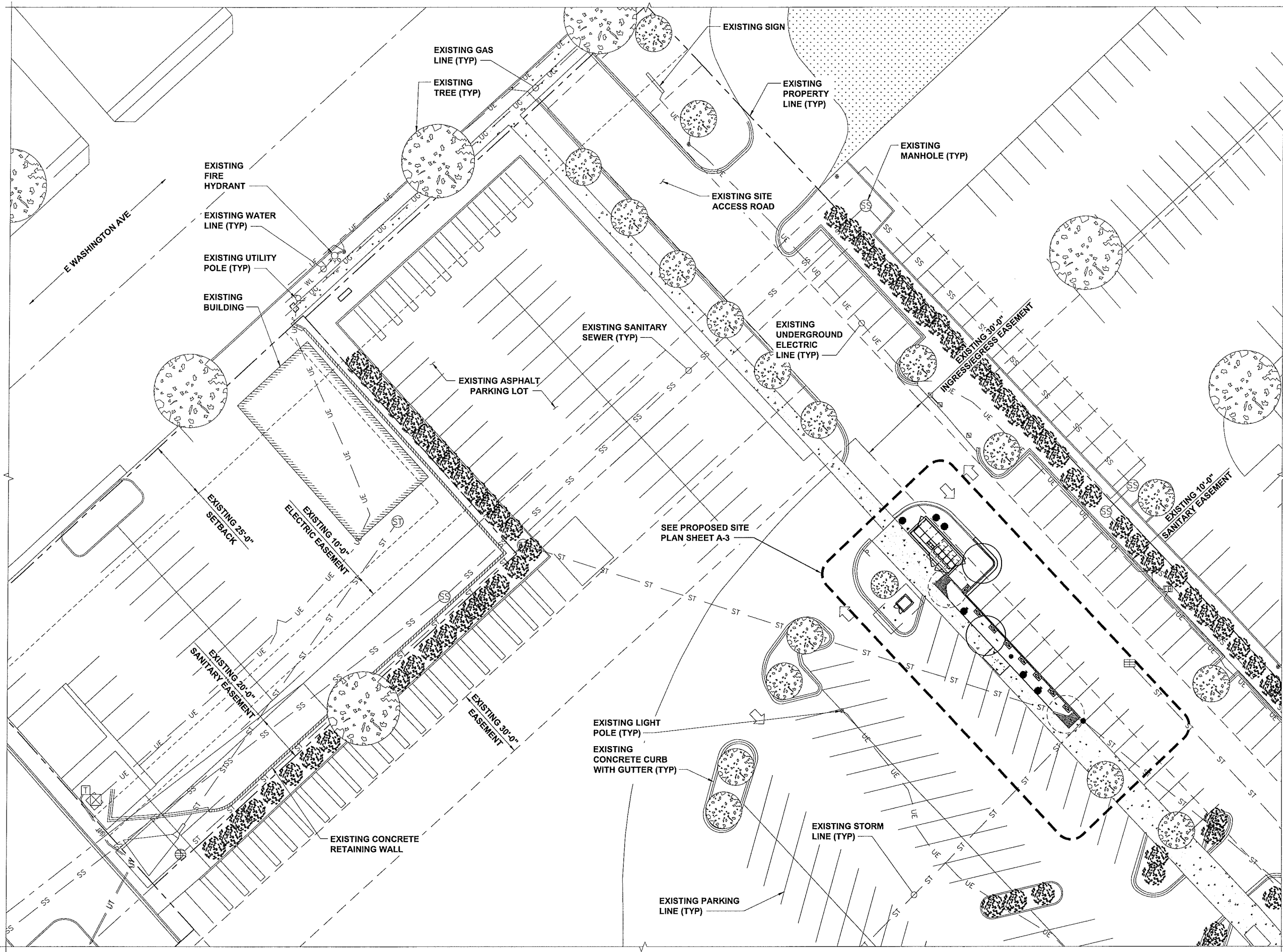
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SHEET TITLE
GENERAL NOTES 3

SHEET NUMBER
GN-3



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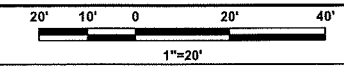
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SHEET TITLE
OVERALL SITE PLAN

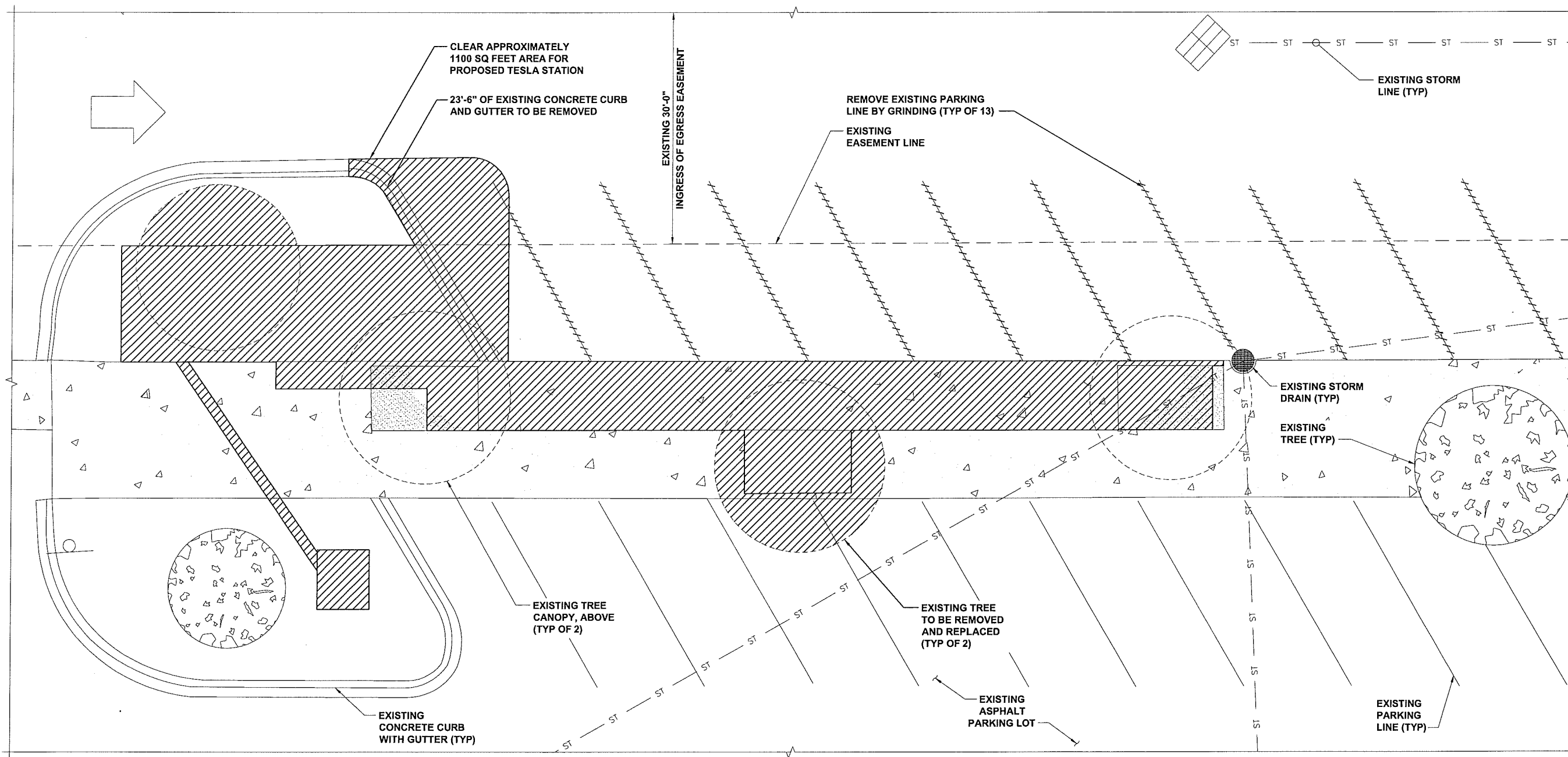
SHEET NUMBER
A-1

OVERALL SITE PLAN



NOTE

1. ALL QUANTITIES LISTED IN DEMOLITION PLAN SHEET ARE ONLY APPROXIMATIONS. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES BEFORE BIDDING.



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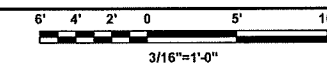
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SHEET TITLE
DEMOLITION SITE PLAN

SHEET NUMBER
A-2

DEMOLITION SITE PLAN



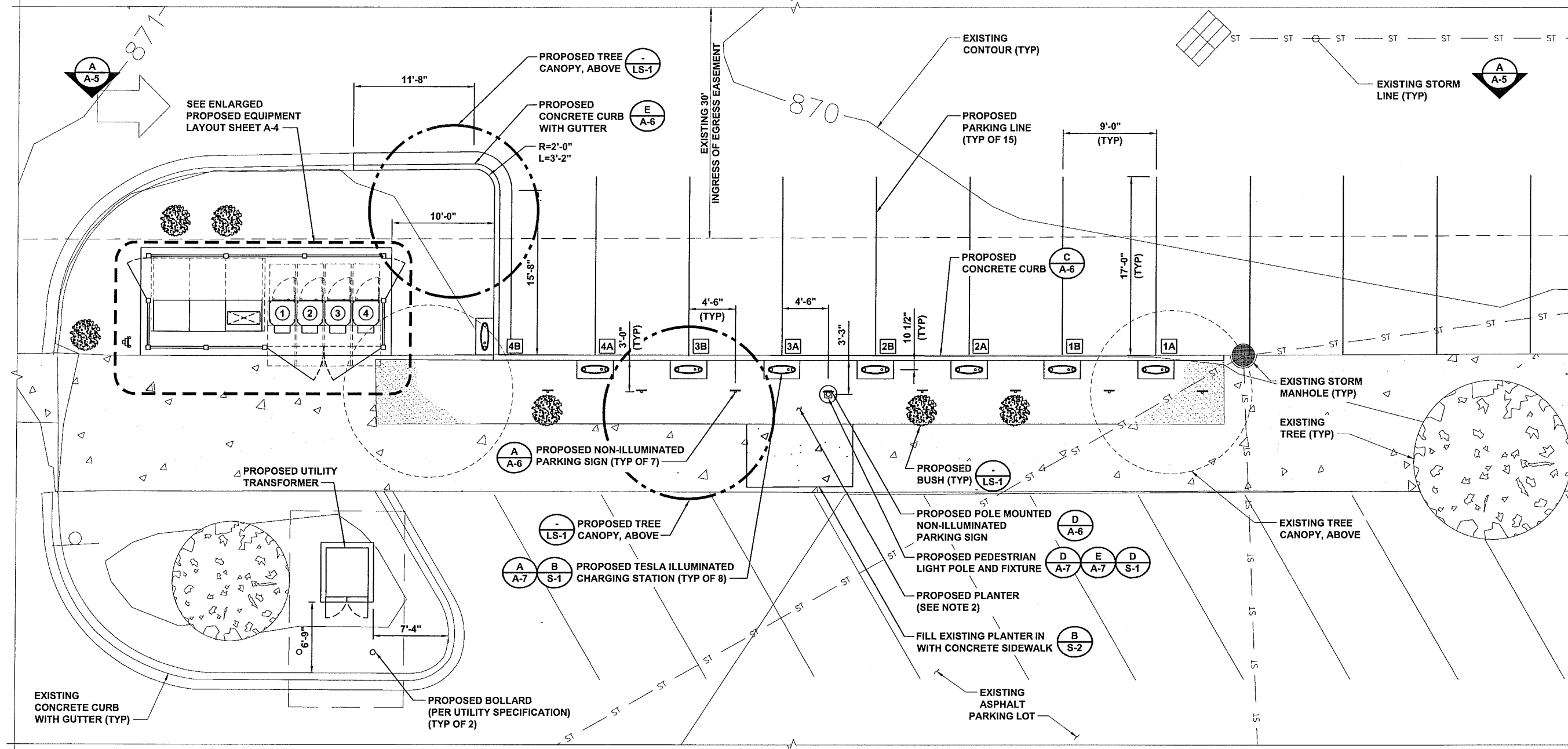
NOTES

- SOD PLANTED IN THE FALL MUST ESTABLISH ITS ROOTS BEFORE THE FIRST WINTER FROST. DETERMINE WHEN THE FIRST FROST USUALLY OCCURS, AND PLANT THE SOD NO LATER THAN ONE MONTH BEFORE THE FIRST FROST. IF THE CONSTRUCTION IS FINISHED LATER THAN ONE MONTH BEFORE THE FIRST FROST, USE STRAW UNTIL SOD CAN BE INSTALLED.
- FILL PROPOSED PLANTER AREA WITH BARK MULCH TO MATCH EXISTING.
- PROPOSED PLANTER AREA TO BE ADDED EXCEEDS TOTAL PLANTER AREA TO BE REMOVED.

PROJECT AREA STALL COUNT	
EXISTING STALL COUNT	7
PROPOSED TESLA CHARGING STALLS	8

TESLA EQUIPMENT SCHEDULE			
TESLA EQUIPMENT	DESCRIPTION	PART NUMBER	QUANTITY
SUPERCHARGING CABINETS	GEN 2 L-N SUPERCHARGER	1033026-04-E	4
CHARGE POST BOLLARDS	BOLT DOWN BOLLARDS	1024070-01-D	8
CHARGE POST JUNCTION BOX	DUAL CONDUCTORS	1048082-00-A	8
CHARGE POST DOCK	NORTH AMERICA	1028384-00-C	8

CHARGING POST CIRCUIT SCHEDULE		
SUPERCHARGER	CHARGE POST	DEDICATED / ENABLED
①	1A	DEDICATED
	1B	DEDICATED
②	2A	DEDICATED
	2B	DEDICATED
③	3A	DEDICATED
	3B	DEDICATED
④	4A	DEDICATED
	4B	DEDICATED



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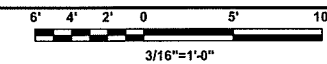
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SHEET TITLE
PROPOSED SITE PLAN

SHEET NUMBER
A-3

PROPOSED SITE PLAN





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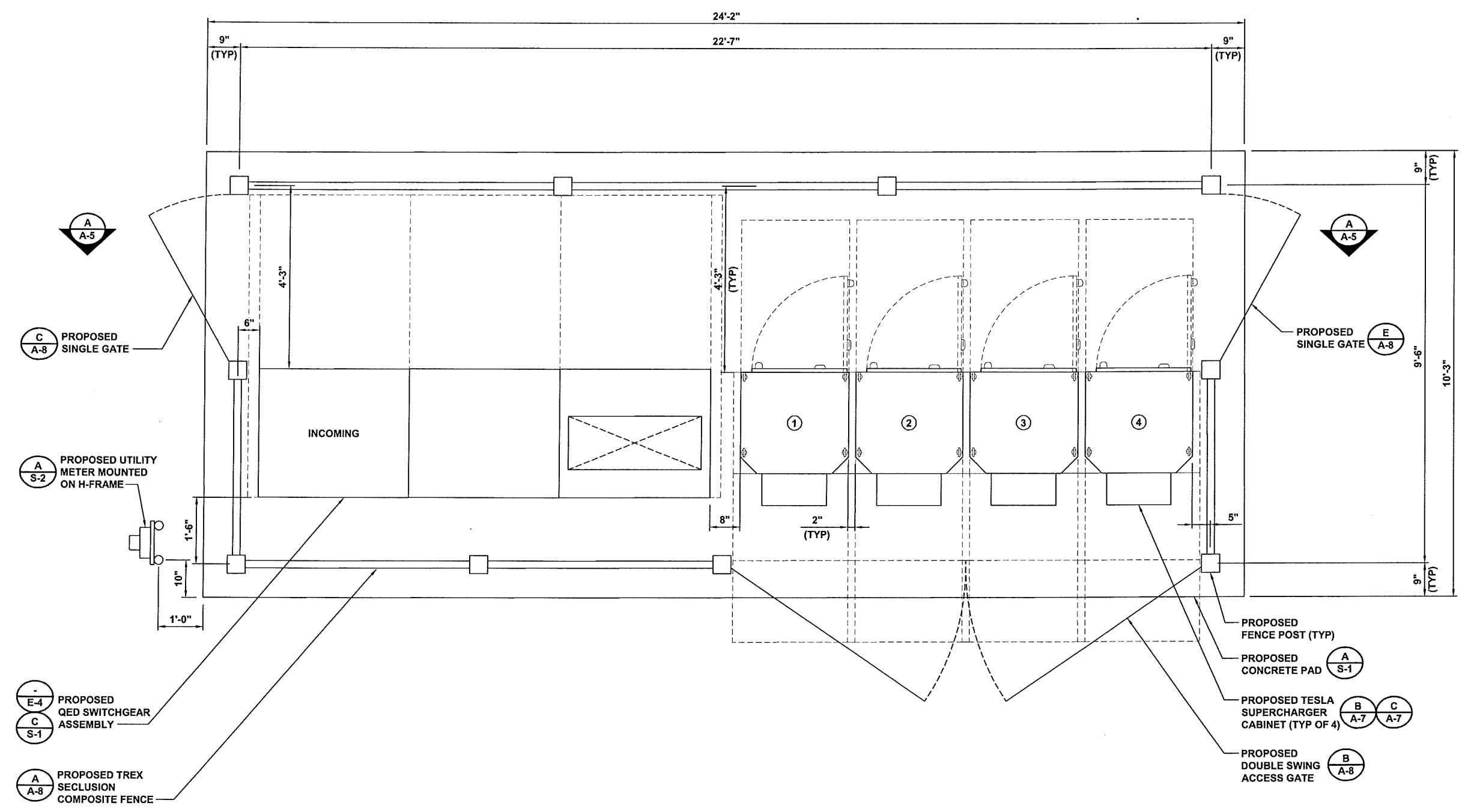
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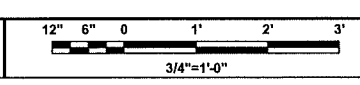
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SHEET TITLE
ENLARGED PROPOSED EQUIPMENT LAYOUT

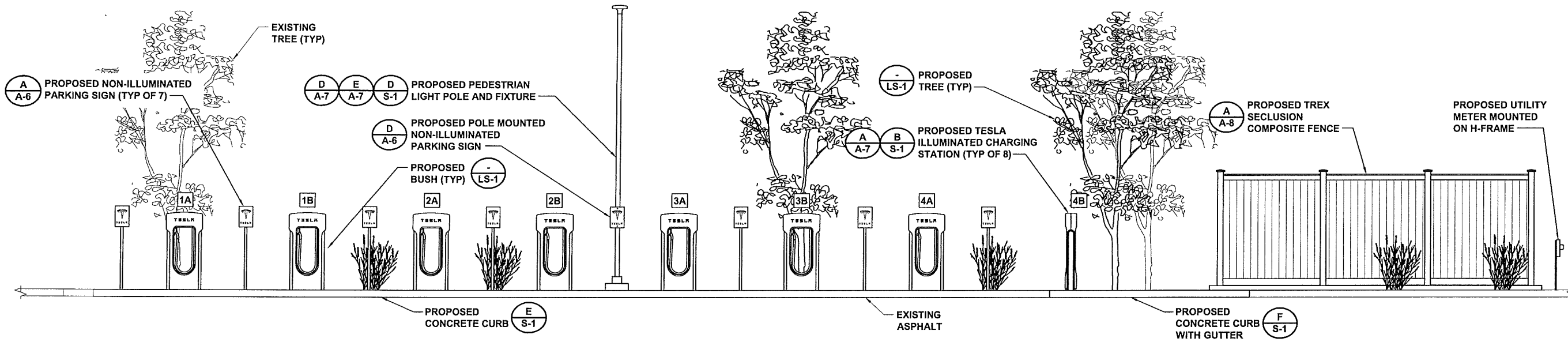
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A-4



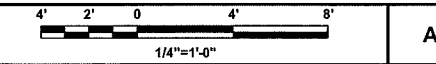
ENLARGED PROPOSED EQUIPMENT LAYOUT



CHARGING POST CIRCUIT SCHEDULE		
SUPERCHARGER	CHARGE POST	DEDICATED / ENABLED
①	1A	DEDICATED
	1B	DEDICATED
②	2A	DEDICATED
	2B	DEDICATED
③	3A	DEDICATED
	3B	DEDICATED
④	4A	DEDICATED
	4B	DEDICATED

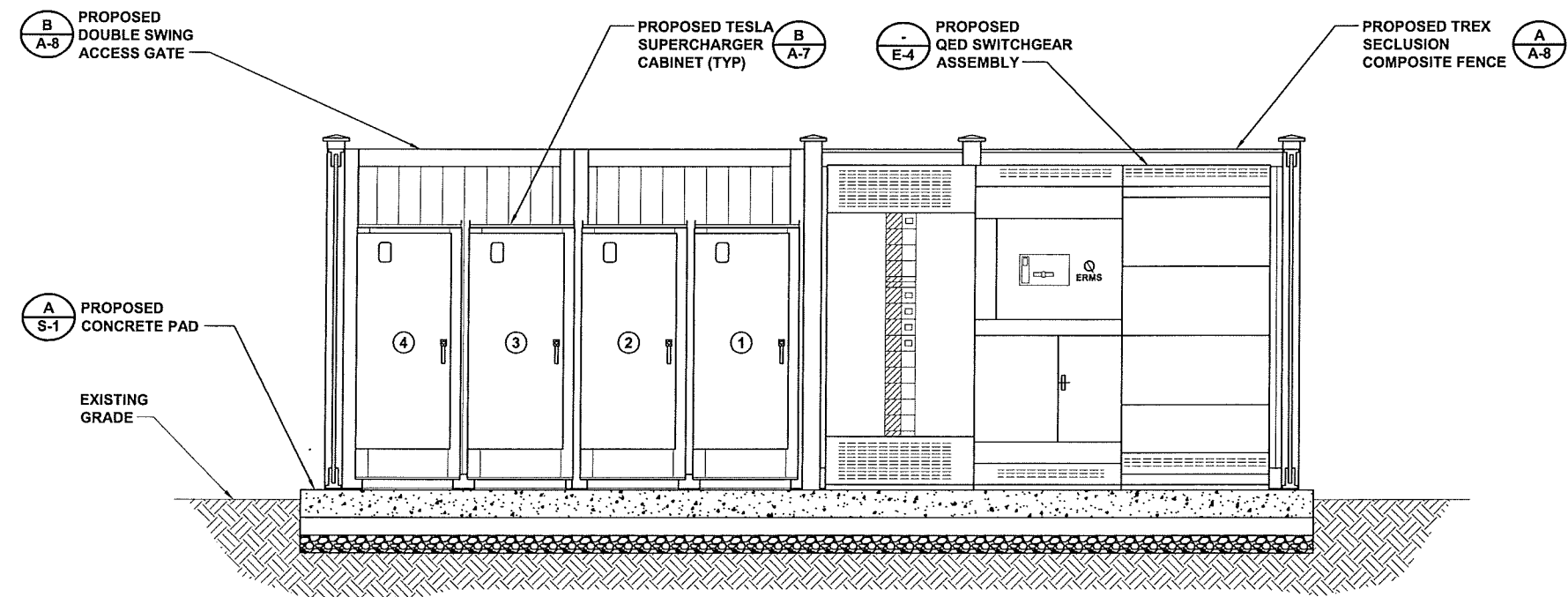


SITE ELEVATION

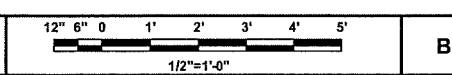


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SITE ELEVATION



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SHEET TITLE
 SITE ELEVATIONS

SHEET NUMBER
 A-5



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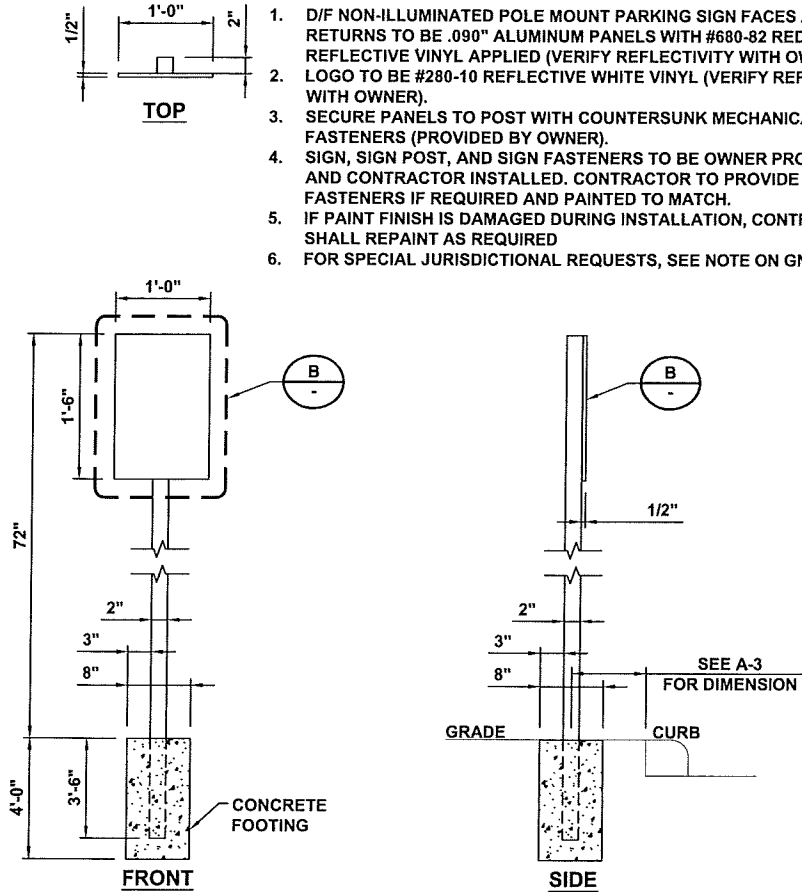


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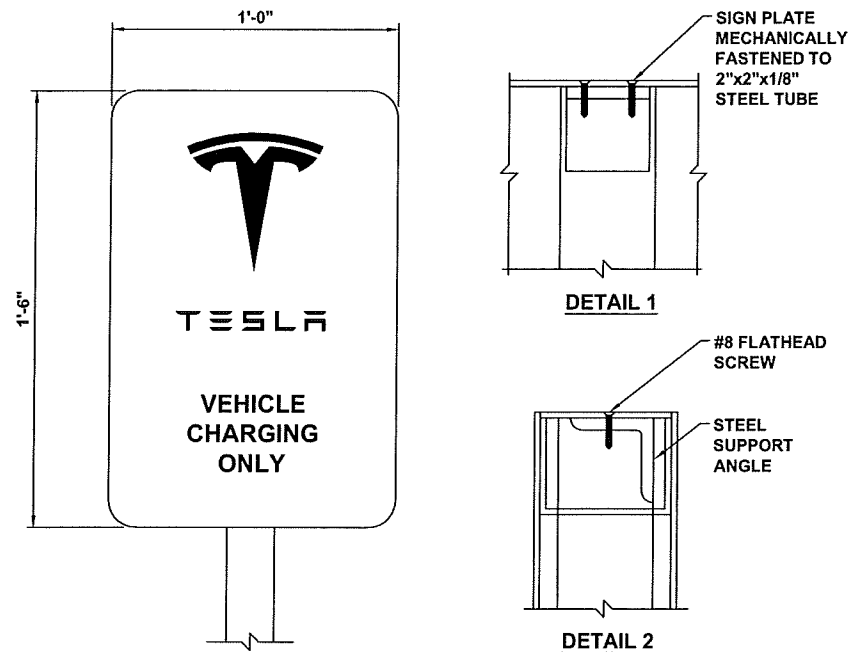
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NOTES

1. D/F NON-ILLUMINATED POLE MOUNT PARKING SIGN FACES AND RETURNS TO BE .090" ALUMINUM PANELS WITH #680-82 RED REFLECTIVE VINYL APPLIED (VERIFY REFLECTIVITY WITH OWNER).
2. LOGO TO BE #280-10 REFLECTIVE WHITE VINYL (VERIFY REFLECTIVITY WITH OWNER).
3. SECURE PANELS TO POST WITH COUNTERSUNK MECHANICAL FASTENERS (PROVIDED BY OWNER).
4. SIGN, SIGN POST, AND SIGN FASTENERS TO BE OWNER PROVIDED AND CONTRACTOR INSTALLED. CONTRACTOR TO PROVIDE SIGN POST FASTENERS IF REQUIRED AND PAINTED TO MATCH.
5. IF PAINT FINISH IS DAMAGED DURING INSTALLATION, CONTRACTOR SHALL REPAINT AS REQUIRED.
6. FOR SPECIAL JURISDICTIONAL REQUESTS, SEE NOTE ON GN-3.

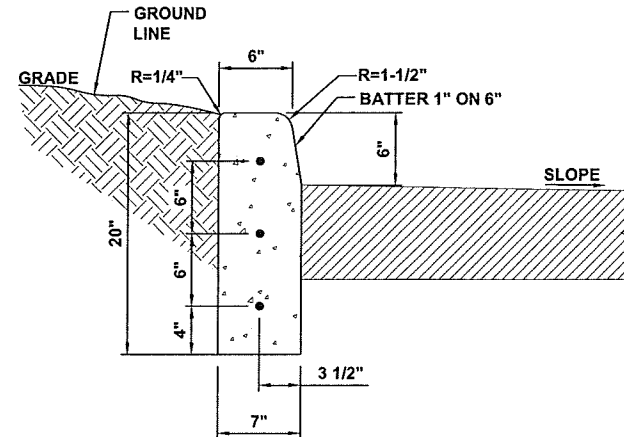


TO BE PROVIDED BY TESLA



NOTES

1. SEE TYPICAL TESLA PARKING SIGNAGE DETAIL FOR SIGNAGE VARIATIONS (IF APPLICABLE).
2. SEE CHARGING POST CIRCUIT SCHEDULE ON PROPOSED SITE PLAN FOR DEDICATED, ENABLED, AND ADA LOCATIONS.



NOTES

1. BREAKUP AND REMOVE AREA TO BE REPAIRED/REPLACED TO THE NEAREST JOINT OR SAW CUT. DISPOSE OF DEBRIS OFF SITE.
2. INSTALL FORMS AS NECESSARY.
3. COMPACT EXISTING SUBGRADE MATERIAL TO ACHIEVE 95% COMPACTION.
4. POUR CONCRETE USING 3500 PSI AIR ENTRAINED CONCRETE TO MATCH EXISTING ADJACENT CURB.
5. INSTALL CONTROL JOINTS EVERY 10 LINEAR FEET.

NON-ILLUMINATED SIGN & FOUNDATION DETAIL

NO SCALE

A

NON-ILLUMINATED PARKING SIGNAGE - FRONT DETAIL

NO SCALE

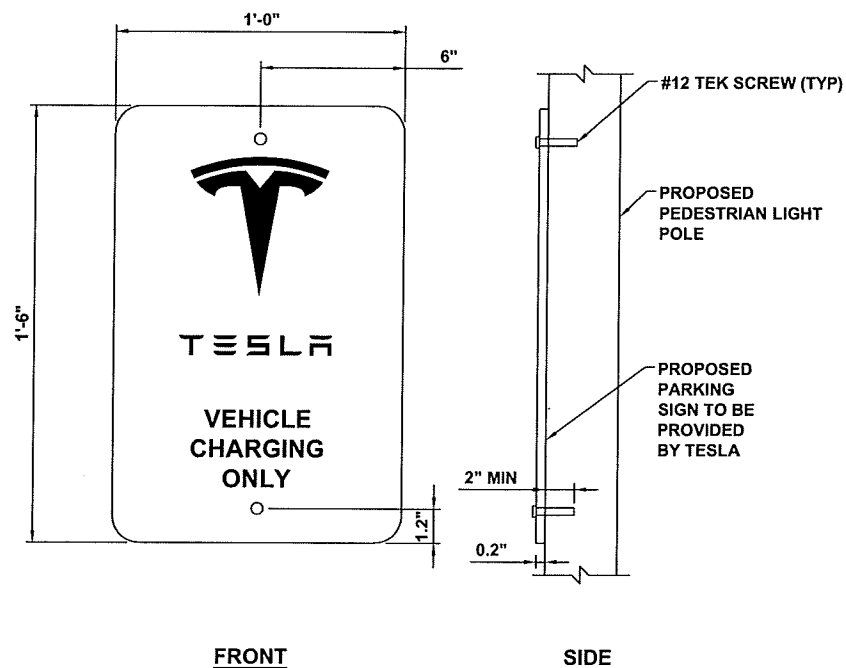
B

STRAIGHT CURB DETAIL

NO SCALE

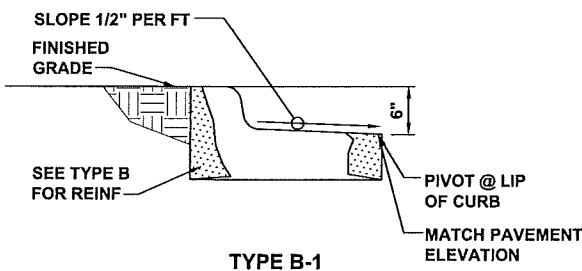
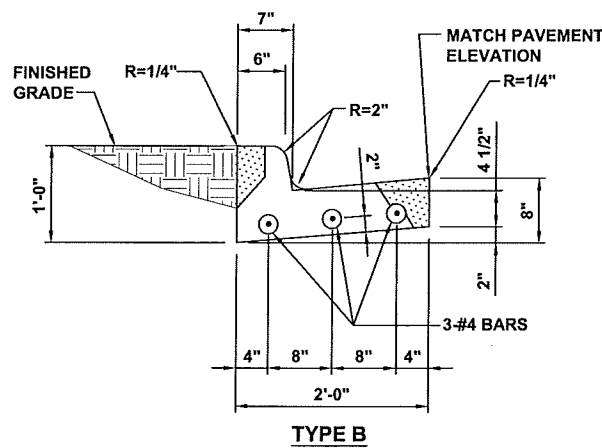
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NOTES

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2. SEE CHARGING POST CIRCUIT SCHEDULE ON PROPOSED SITE PLAN FOR DEDICATED AND ENABLED LOCATIONS.
3. TOP OF SIGN TO BE INSTALLED 72" ABOVE GRADE.



NOTE

1. 1/2" PRE MOLDED EXPANSION JOINTS SHALL BE PLACED AT POINTS OF CURVATURE, CURB RETURNS, CURB INLETS, AND AT 250' CENTERS. CONTRACTION JOINTS SHALL BE 2" DEEP, 3/16" WIDE, AND PLACED AT 15' INTERVALS EQUALLY SPACED BETWEEN EXPANSION JOINTS.

NON-ILLUMINATED PARKING SIGNAGE

NO SCALE

D

CONCRETE CURB DETAIL

NO SCALE

E

DETAIL NOT USED

NO SCALE

F



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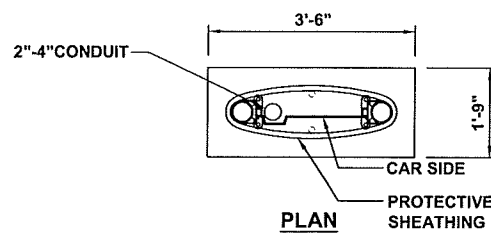
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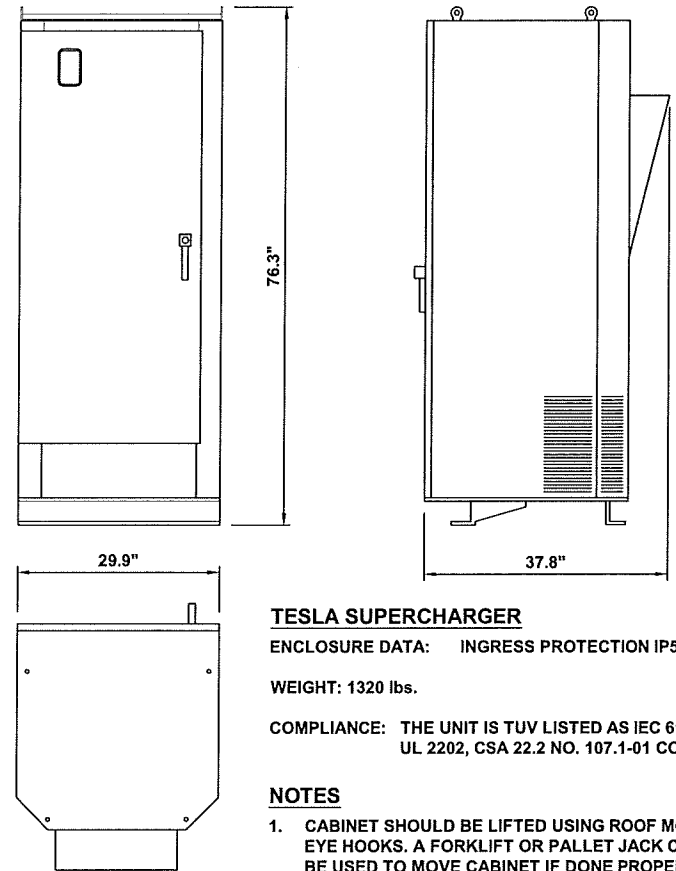
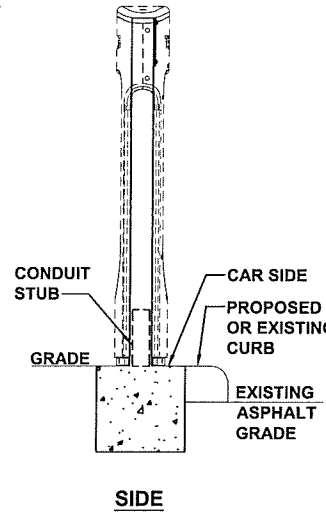
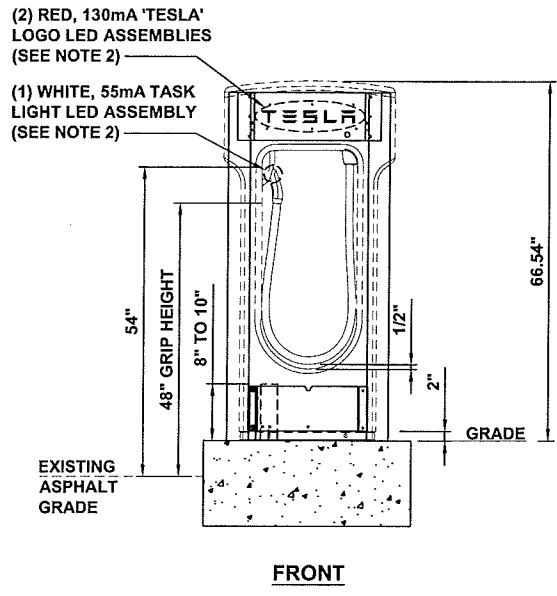
SHEET TITLE
SIGNAGE DETAILS

SHEET NUMBER
A-6



NOTES

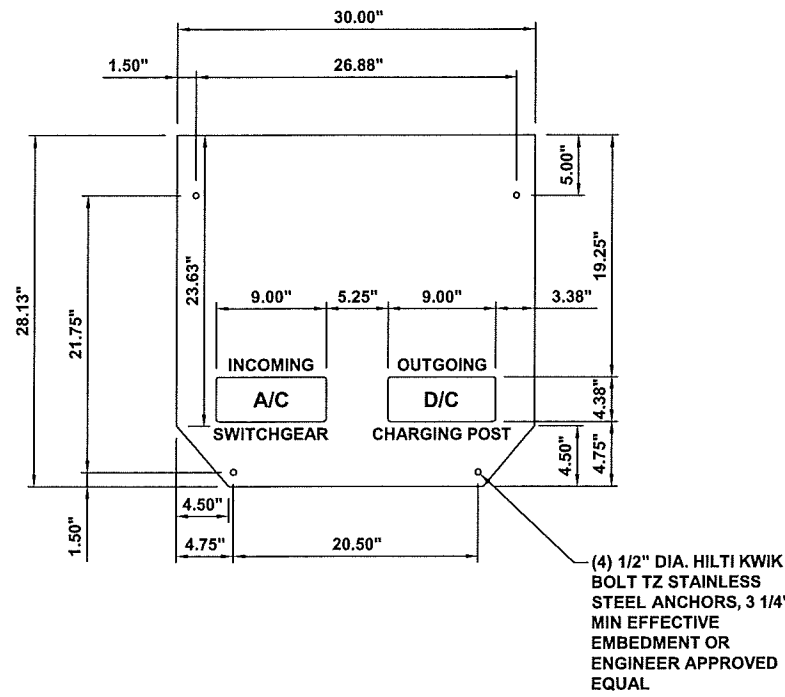
1. BOLLARD MUST BE FROM TESLA AND INCLUDE WELDED ON FIXTURE ATTACHMENT PADS.
2. THE 4.33W, 315mA COMBINED TESLA LOGO AND TASK LIGHT LED ASSEMBLIES DRAWS POWER FROM THE PROPOSED SUPERCHARGER.



TESLA SUPERCHARGER
 ENCLOSURE DATA: INGRESS PROTECTION IP55
 WEIGHT: 1320 lbs.
 COMPLIANCE: THE UNIT IS TUV LISTED AS IEC 61851-23, UL 2202, CSA 22.2 NO. 107.1-01 COMPLIANT.

NOTES

1. CABINET SHOULD BE LIFTED USING ROOF MOUNTED EYE HOOKS. A FORKLIFT OR PALLET JACK CAN ALSO BE USED TO MOVE CABINET IF DONE PROPERLY.
2. SEE SHEET GN-3 FOR CABINET NOTES.



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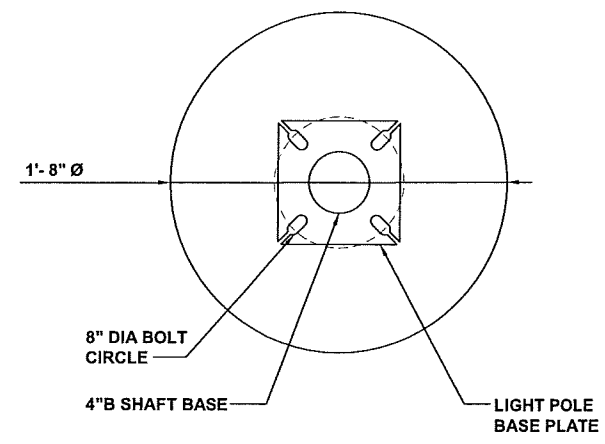
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SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-7

TESLA ILLUMINATED CHARGING STATION DETAIL NO SCALE A

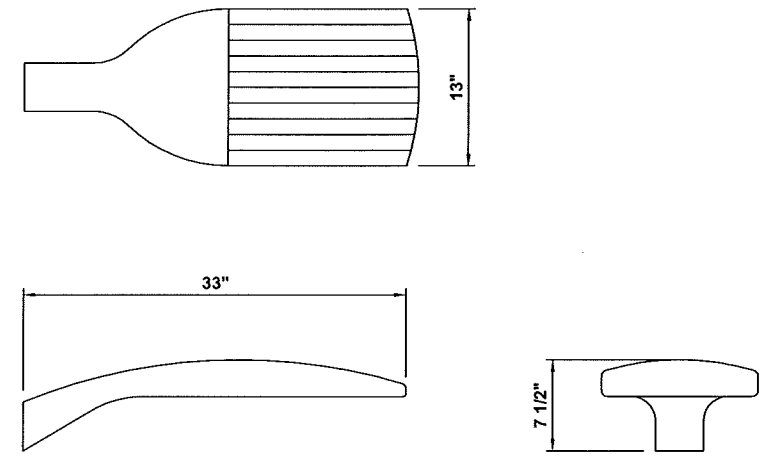
LITHONIA LIGHTING ANCHOR BASE POLE
 SERIES: RSS
 CATALOG NUMBER: RSS 20 4B
 FIXTURE HEIGHT: 20 FEET
 MOUNTING: DM19AS
 FINISH: DNA (NATURAL ALUMINUM)



PEDESTRIAN LIGHT POLE DETAIL NO SCALE D

TESLA SUPERCHARGER CABINET DETAIL NO SCALE B

LITHONIA LIGHTING/ D-SERIES SIZE 1 LED AREA LUMINAIRE
 SERIES: DSX1 LED
 LIGHTING ENGINES: (2) ENGINES (60 LEDs)
 PERFORMANCE PACKAGE: 700/50K (5000K)
 DISTRIBUTION: T3M
 VOLTAGE: MVOLT (120-277V)(50/60Hz)
 MOUNTING: ROUND POLE (RPA)
 DRILLING: DM19AS
 OPTIONS: PER (NEMA TWIST LOCK RECEPTACLE ONLY, NO CONTROLS)
 HS (HOUSE-SIDE SHIELD)
 SF (SINGLE FUSE (120, 277, 347V))
 WT (UTILITY TERMINAL BLOCK)
 FINISH: DNAXD (NATURAL ALUMINUM)
 ACCESSORIES: DLL127F 1.5 JU (PHOTOCELL - SSL TWIST LOCK, 120-277V)
 LUMEN OUTPUT: 700mA, 131W



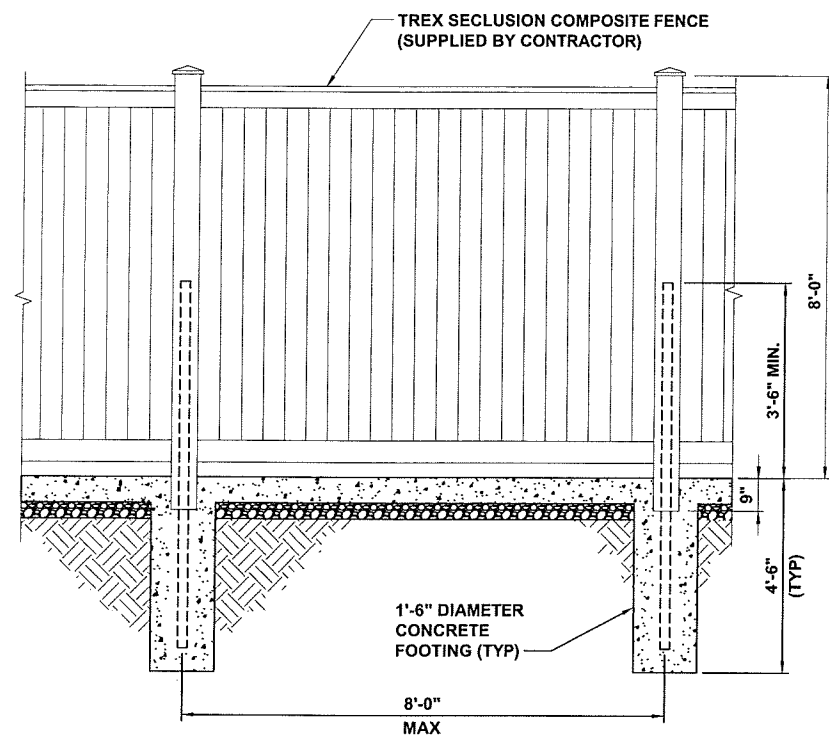
PEDESTRIAN LIGHT FIXTURE DETAIL NO SCALE E

TESLA SUPERCHARGER ANCHOR BOLT PLAN NO SCALE C

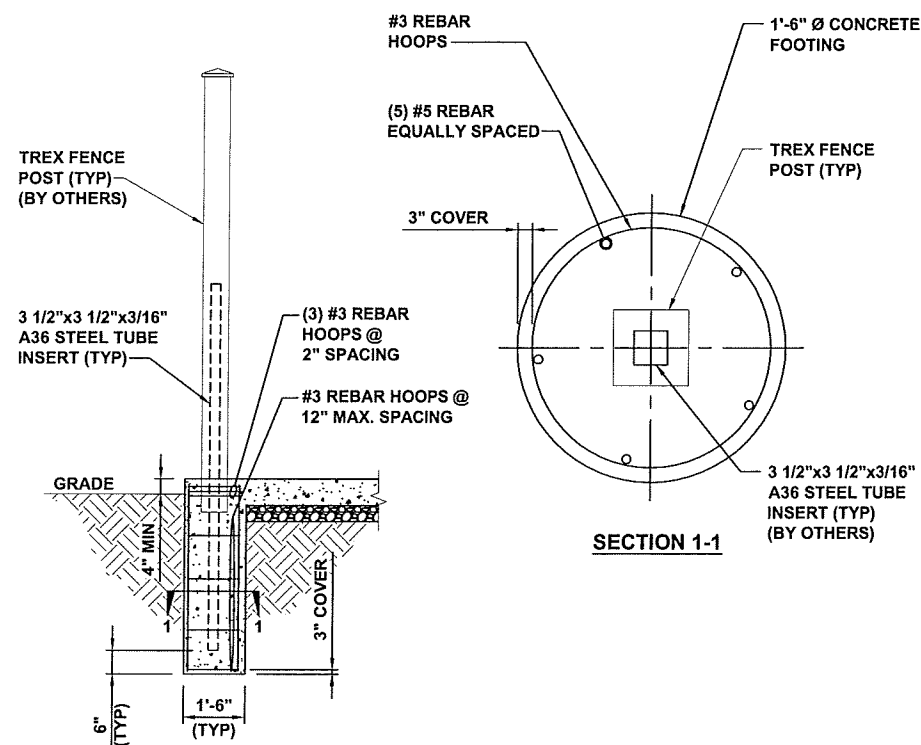
DETAIL NOT USED NO SCALE F

NOTES:

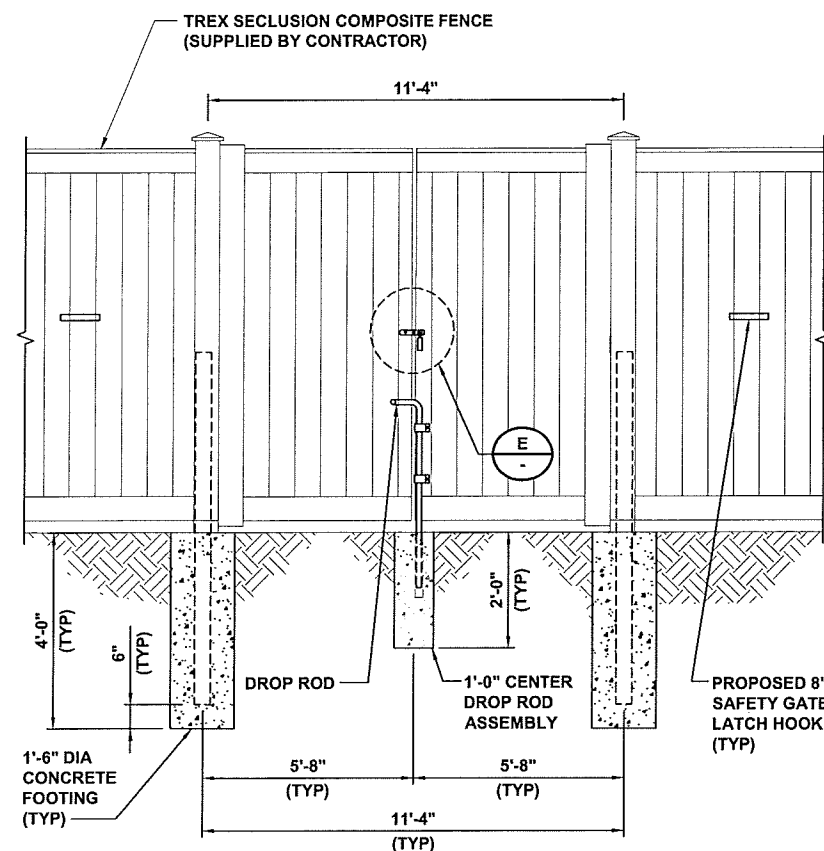
- COLOR: "XXXX"
- PICK TREX SECLUSION COMPOSITE FENCE THAT MEETS THESE REQUIREMENTS. WIND SPEED = 90 MPH, WIND EXPOSURE = C, SEISMIC: SDS = 0.111G, SEISMIC DESIGN CATEGORY B.



TREX FENCE ELEVATION



TYPICAL TREX FENCE ELEVATION



DUAL GATE DETAIL

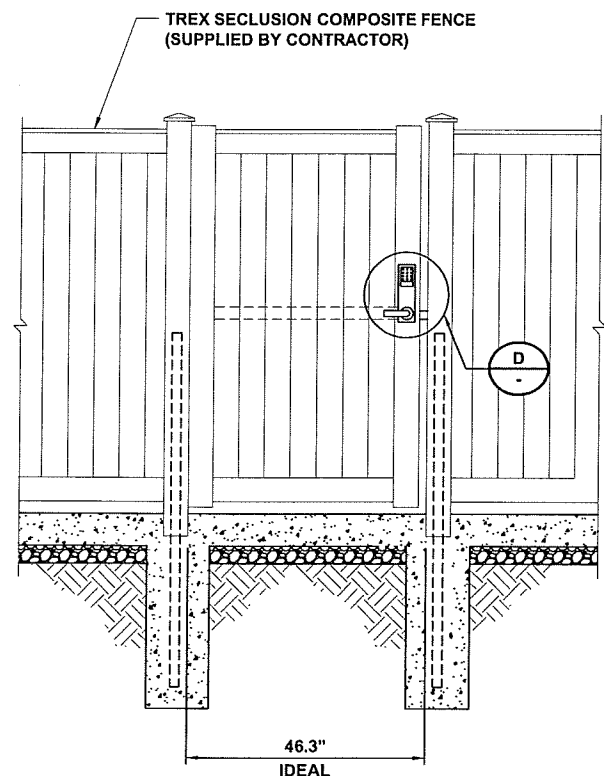
TYPICAL TREX FENCE AND GATE POST DETAIL

NO SCALE

A

NO SCALE

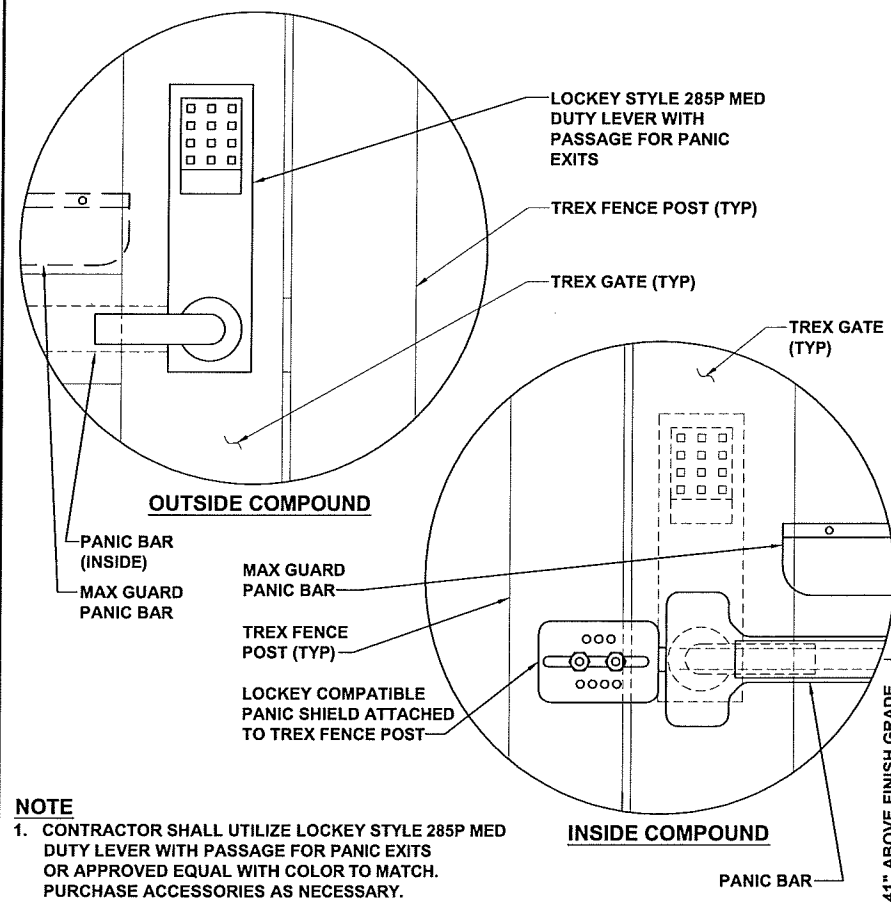
B



SINGLE GATE DETAIL

NO SCALE

C



OUTSIDE COMPOUND

INSIDE COMPOUND

NOTE

- CONTRACTOR SHALL UTILIZE LOCKEY STYLE 285P MED DUTY LEVER WITH PASSAGE FOR PANIC EXITS OR APPROVED EQUAL WITH COLOR TO MATCH. PURCHASE ACCESSORIES AS NECESSARY.

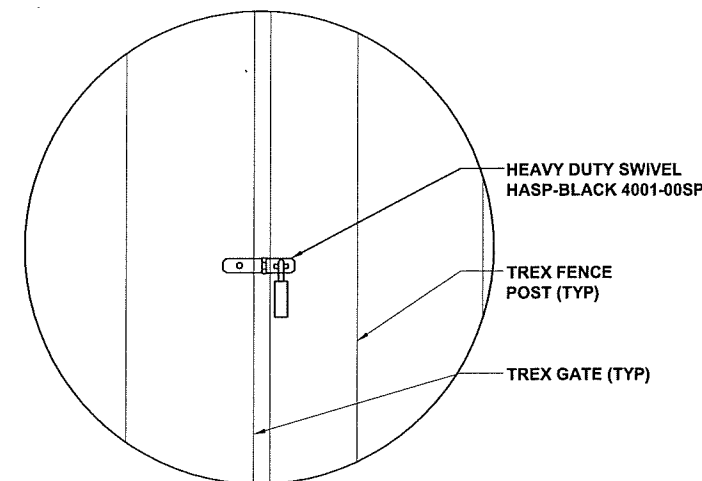
SINGLE GATE LOCK DETAIL W/ KEYPAD

NO SCALE

D

NOTE

- HARDWARE NOT TO BE INSTALLED ON MEANS OF EGRESS GATES.



SINGLE GATE LOCK DETAIL

NO SCALE

E



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



BLACK & VEATCH

6800 W 115th St, Suite 2292
OVERLAND PARK, KS 66211
(913) 458-2000

PROJECT NO:	192745
DRAWN BY:	AKJ
CHECKED BY:	CNS

REV	DATE	DESCRIPTION
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D	06/02/17	RE-ISSUED FOR 100% REVIEW
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SHEET TITLE
FENCE DETAILS

SHEET NUMBER
A-8

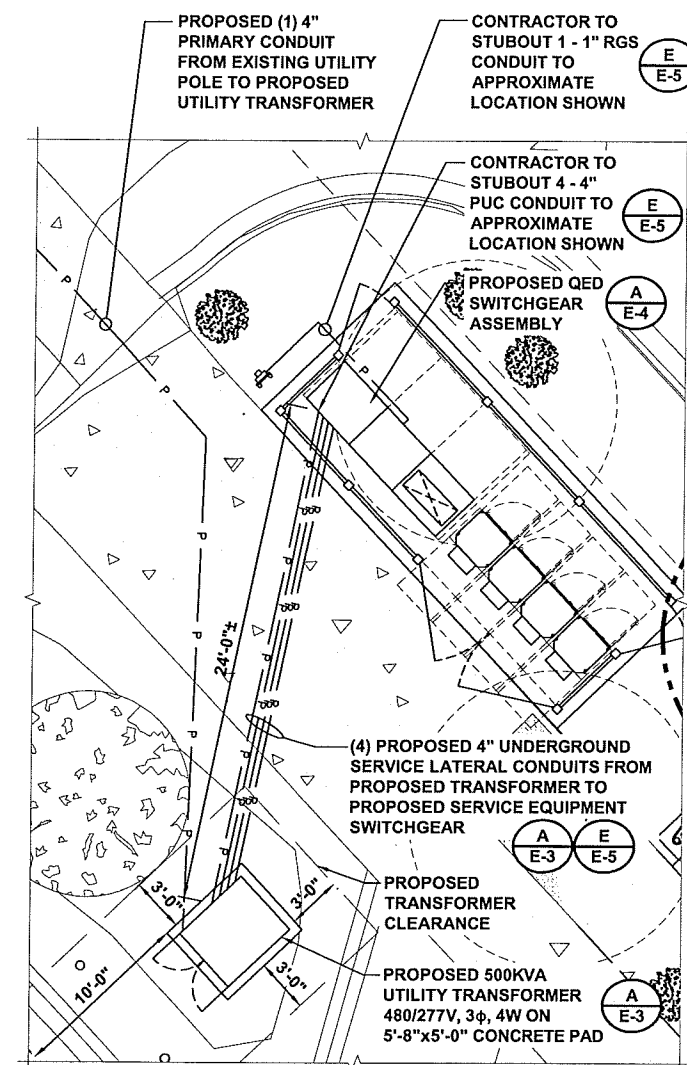
NOTES

1. THE UTILITY DESIGN DETAILS SUMMARIZED ON THIS SHEET ARE FOR PROPERTY OWNER REVIEW.
2. THE CONTRACTOR SHOULD REFERENCE THE UTILITY DESIGN PACKAGE (UDP), PROVIDED WITH THE "ISSUED FOR CONSTRUCTION" DRAWINGS FOR BIDDING. THE CONTRACTOR SHALL INSTALL THE UTILITY RELATED SCOPE OF WORK PER UTILITY CONSTRUCTION SPECIFICATION REQUIREMENTS.
3. UTILITY EQUIPMENT INSTALLATIONS AND PREP WORK SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY ENGINEER AT TIME OF PRECONSTRUCTION MEETING TO ENSURE ACCURACY OF INSTALLATIONS.
4. TRANSFORMER BOLLARD PROTECTION TO BE INSTALLED PER UTILITY SPECIFICATION. ADDITIONAL BOLLARD REQUIREMENTS MAY BE DETERMINED AT THE DISCRETION OF THE UTILITY FIELD INSPECTION PERSONNEL.
5. CONTRACTOR TO COORDINATE THE TERMINATION OF THE SERVICE CONDUCTORS WITH THE UTILITY.

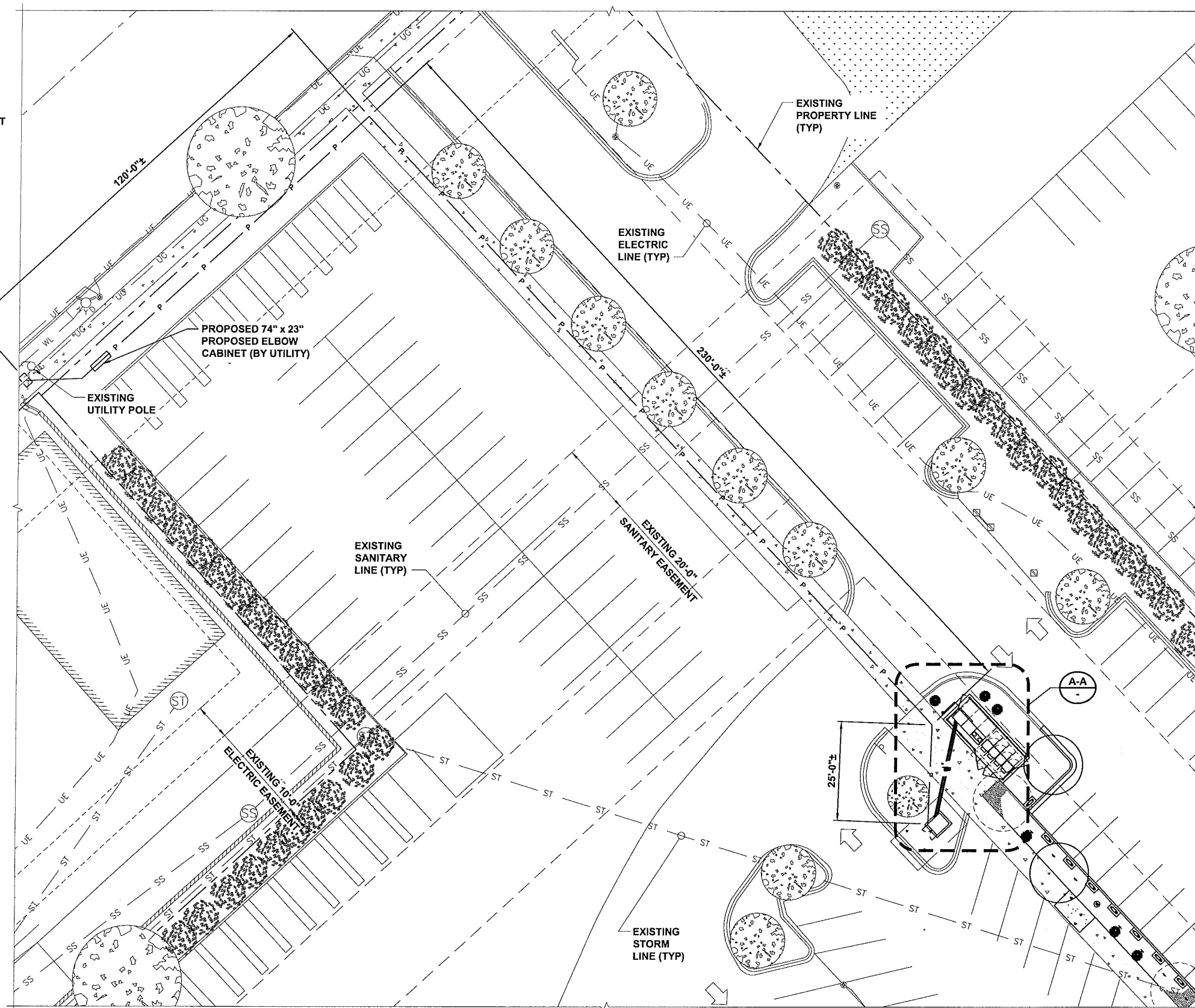
CONSTRUCTION RESPONSIBILITIES:

- UTILITY:**
- PRIMARY SIDE BORING
 - PRIMARY SIDE CONDUIT
 - PRIMARY SIDE WIRING
 - TRANSFORMER PAD/VAULT
 - METERING CONDUIT (FROM STUBOUT)
 - H-FRAME INSTALLATION
 - SECONDARY TRENCHING (FROM STUBOUT)
 - SECONDARY CONDUIT INSTALLATION
 - SECONDARY WIRING

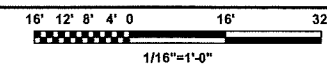
- CONTRACTOR:**
- METERING CONDUIT STUBOUT
 - SECONDARY CONDUIT STUBOUT



PLAN A-A
SCALE: NO SCALE



UTILITY PLAN



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SHEET TITLE
UTILITY PLAN

SHEET NUMBER
E-1



NOTES

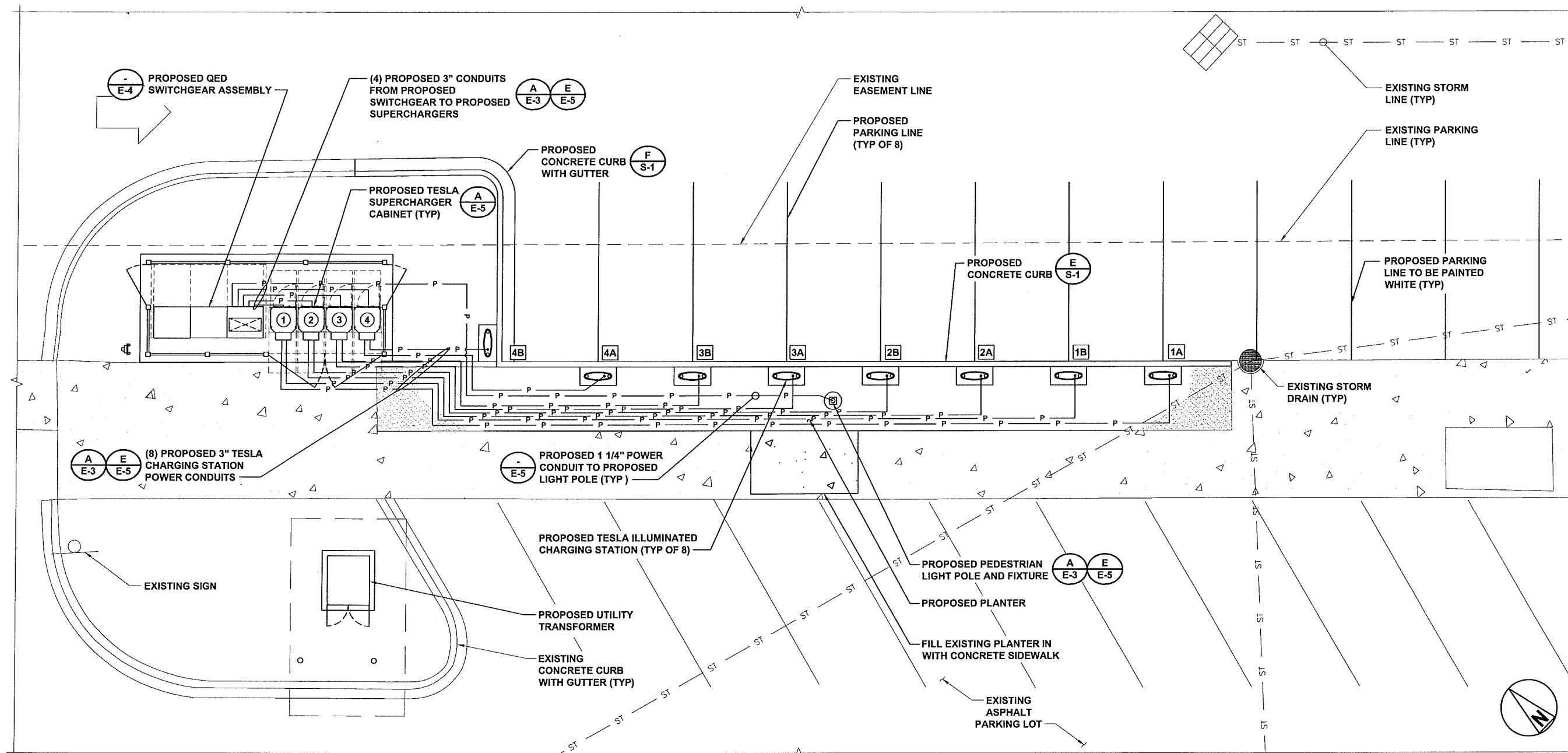
- * AC UTILITY SERVICE CONDUCTORS: 22 FEET IS ADDED TO THE HORIZONTAL RUN LENGTH TO ACCOUNT FOR BURIED DEPTH.
- ** AC CONDUCTORS: 16 FEET IS ADDED TO THE HORIZONTAL RUN LENGTH TO ACCOUNT FOR BURIED DEPTH.
- *** DC CONDUCTORS: 22 FEET IS ADDED TO THE HORIZONTAL RUN LENGTH TO ACCOUNT FOR BURIED DEPTH.
- 1. CONDUCTOR LENGTHS ARE ESTIMATES ONLY. LENGTHS ARE BASED ON DIAGRAMMATICAL MEASUREMENTS AND APPROXIMATED BURIED DEPTHS. THE EXACT ROUTING PATH AND CONDUCTOR RUN LENGTHS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD BASED ON PHYSICAL MEASUREMENTS. CONTRACTOR TO ORDER CONDUCTOR BASED ON FIELD MEASUREMENTS (MUST BE APPROVED BY TESLA INSTALLATION MANAGER).
- 2. ALL ELECTRICAL WORK AND RELATED ACTIVITIES PERFORMED ON-SITE SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (NEC) STANDARDS BEING ENFORCED BY ALL APPLICABLE JURISDICTIONAL REQUIREMENTS AT THE TIME OF CONSTRUCTION.
- 3. DC RUN LENGTH MAXIMUM IS 120'-0" INCLUDING BURIED DEPTH. ANY DC RUN LENGTHS BEYOND THIS MAXIMUM SHALL BE ADDRESSED WITH THE APPROPRIATE ENGINEERING TEAMS AS SOON AS THE SITUATION ARISES.

AC SUPERCHARGER LENGTHS			
SERVICE EQUIPMENT	SUPERCHARGER	LINEAR LENGTH (FT)	**ESTIMATED LENGTH (FT)**
CIRCUIT 2 I-LINE PANEL	①	5	21
CIRCUIT 3 I-LINE PANEL	②	9	25
CIRCUIT 4 I-LINE PANEL	③	14	30
CIRCUIT 5 I-LINE PANEL	④	17	33
TOTAL LENGTH OF AC Cu WIRE =			436
TOTAL LENGTH OF GND Cu WIRE =			109

(SEE SHEET E-3 FOR WIRE CONFIGURATION)
 **TOTAL LENGTH OF AC Cu WIRE = SUM OF ESTIMATED LENGTH x 4 WIRES PER SUPERCHARGER
 ***TOTAL LENGTH GND Cu WIRE = SUM OF ESTIMATED LENGTHS

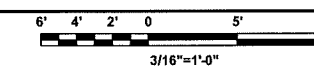
DC CHARGING POST LENGTHS			
SUPERCHARGER	CHARGE POST	LINEAR LENGTH (FT)	***ESTIMATED LENGTH (FT)***
①	1A	97	119
	1B	87	109
②	2A	75	97
	2B	65	87
③	3A	55	77
	3B	43	65
④	4A	28	50
	4B	12	34
TOTAL LENGTH OF DC AL WIRE =			2552
TOTAL LENGTH OF #3 AWG GND Cu & COMM CABLE WIRE =			638

(SEE SHEET E-3 FOR WIRE CONFIGURATION)
 ***TOTAL LENGTH OF DC AL WIRE = SUM OF ESTIMATED LENGTH x 4 WIRES PER CHARGE POST
 ***TOTAL LENGTH OF GND Cu AND COMM CABLE WIRE = SUM OF ESTIMATED LENGTHS



REFERENCE SHEET E-1 FOR A SUMMARY OF THE UTILITY RELATED CONSTRUCTION RESPONSIBILITIES AND DESIGN DETAILS

ELECTRICAL PLAN



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 PALO ALTO, CA 94304
 (650) 681-5000



BLACK & VEATCH

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 OVERLAND PARK, KS 66211
 (913) 458-2000

PROJECT NO: 192745
 DRAWN BY: AKJ
 CHECKED BY: CNS

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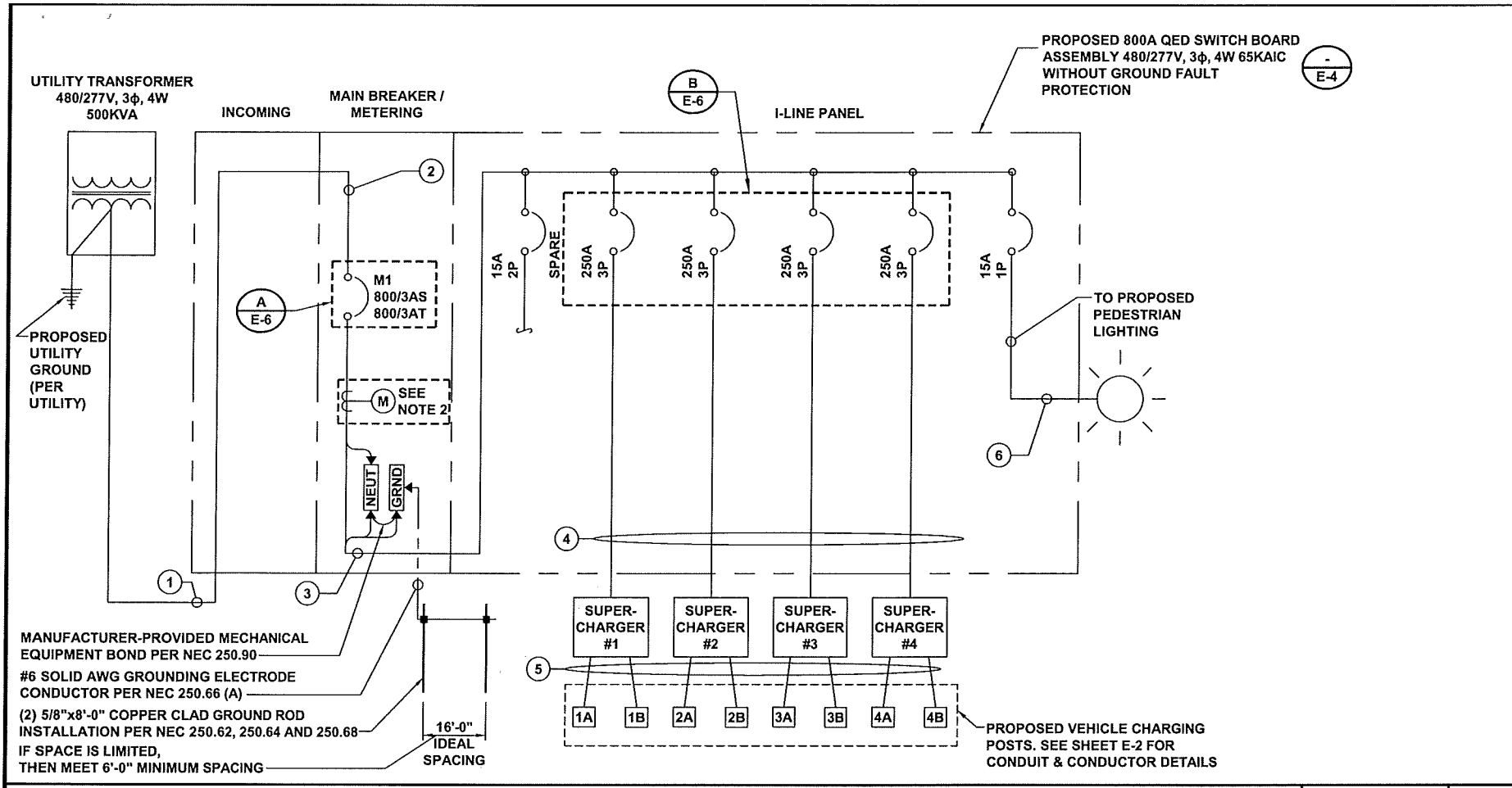
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 MADISON, WI 53704

SHEET TITLE
ELECTRICAL PLAN

SHEET NUMBER
E-2

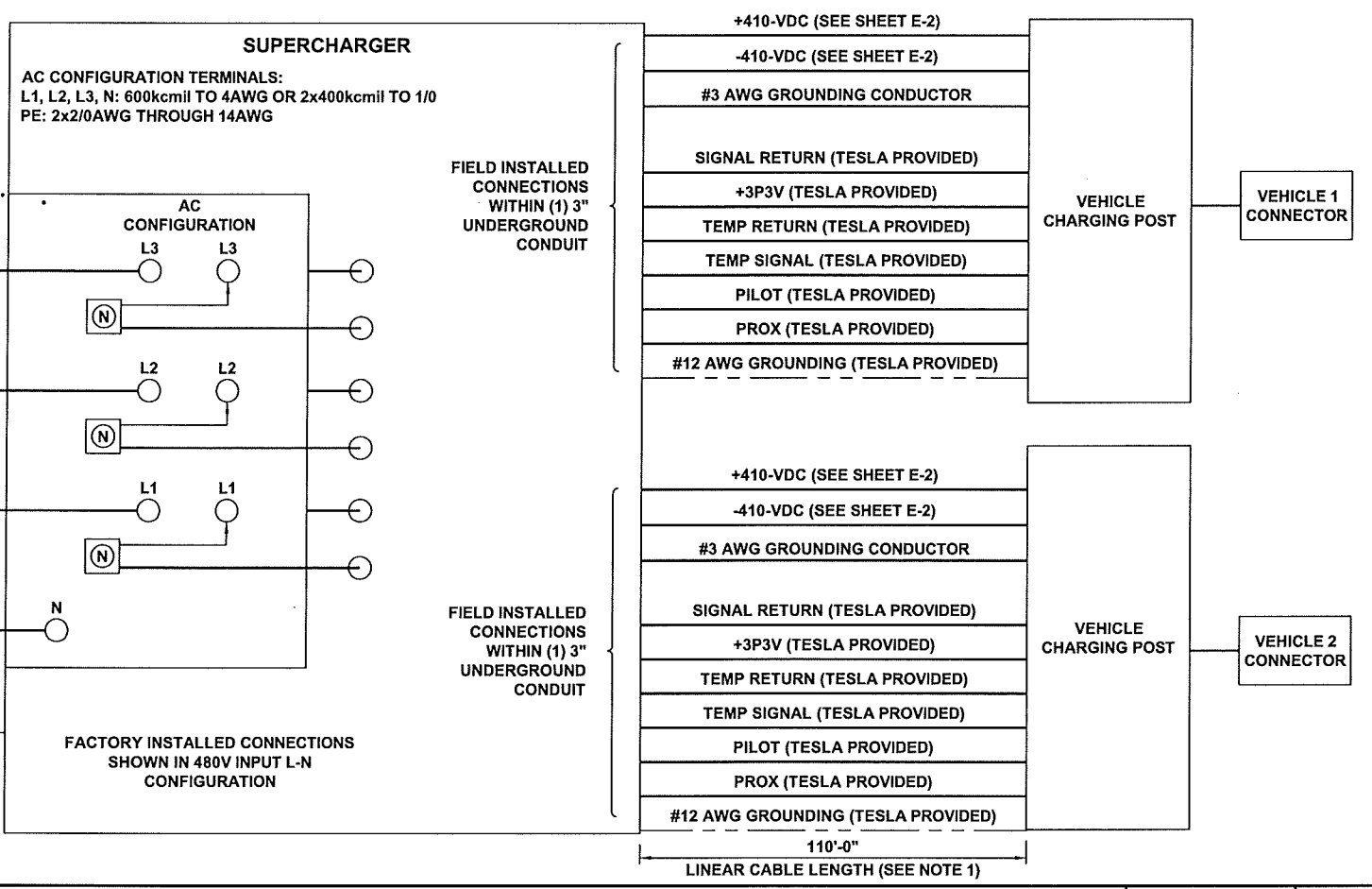


SYSTEM ONE-LINE DIAGRAM

NO SCALE A

NOTE

1. IF SECONDARY CONDUCTORS FROM SUPERCHARGER CABINET EXCEED 120'-0", TESLA ENGINEERING GROUP MUST APPROVE THE DESIGN PRIOR TO INSTALLATION.



SUPERCHARGER CONNECTION ONE-LINE DIAGRAM

NO SCALE B

SERVICE ELECTRICAL CIRCUIT SCHEDULE			
NO	FROM	TO	CONFIGURATION
1	UTILITY TRANSFORMER	PROPOSED SERVICE EQUIPMENT; INCOMING	3 SETS OF 500 MCM AL QWAD IN 4'-4" PVC CONDUITS (BY UTILITY) + (1) SPARE 4" CONDUIT
2	PROPOSED SERVICE EQUIPMENT; INCOMING	PROPOSED SERVICE EQUIPMENT; 800A TRIP MAIN BREAKER	FACTORY INSTALLED 800A BUSS
3	PROPOSED SERVICE EQUIPMENT; 800A TRIP MAIN BREAKER	PROPOSED SERVICE EQUIPMENT; BRANCH CIRCUIT DISTRIBUTION I-LINE PANEL	FACTORY INSTALLED 800A BUSS
4	PROPOSED SERVICE EQUIPMENT; CIRCUIT 2 I-LINE PANEL (250 AMP)	PROPOSED TESLA SUPERCHARGER #1	(3) 300MCM Cu (THWN-2), (1) 300MCM Cu (THWN-2) NEUT, (1) #4 Cu AWG GND IN 3" CONDUIT
	PROPOSED SERVICE EQUIPMENT; CIRCUIT 3 I-LINE PANEL (250 AMP)	PROPOSED TESLA SUPERCHARGER #2	(3) 300MCM Cu (THWN-2), (1) 300MCM Cu (THWN-2) NEUT, (1) #4 Cu AWG GND IN 3" CONDUIT
	PROPOSED SERVICE EQUIPMENT; CIRCUIT 4 I-LINE PANEL (250 AMP)	PROPOSED TESLA SUPERCHARGER #3	(3) 300MCM Cu (THWN-2), (1) 300MCM Cu (THWN-2) NEUT, (1) #4 Cu AWG GND IN 3" CONDUIT
	PROPOSED SERVICE EQUIPMENT; CIRCUIT 5 I-LINE PANEL (250 AMP)	PROPOSED TESLA SUPERCHARGER #4	(3) 300MCM Cu (THWN-2), (1) 300MCM Cu (THWN-2) NEUT, (1) #4 Cu AWG GND IN 3" CONDUIT
5	PROPOSED TESLA SUPERCHARGER #1	PROPOSED TESLA CHARGING POST	1A (4) 250MCM AWG AL (THWN-2) + #3 AWG Cu GND + COMM CABLE (PER TESLA) IN 3" CONDUIT 1B
	PROPOSED TESLA SUPERCHARGER #2	PROPOSED TESLA CHARGING POST	2A (4) 250MCM AWG AL (THWN-2) + #3 AWG Cu GND + COMM CABLE (PER TESLA) IN 3" CONDUIT 2B
	PROPOSED TESLA SUPERCHARGER #3	PROPOSED TESLA CHARGING POST	3A (4) 250MCM AWG AL (THWN-2) + #3 AWG Cu GND + COMM CABLE (PER TESLA) IN 3" CONDUIT 3B
	PROPOSED TESLA SUPERCHARGER #4	PROPOSED TESLA CHARGING POST	4A (4) 250MCM AWG AL (THWN-2) + #3 AWG Cu GND + COMM CABLE (PER TESLA) IN 3" CONDUIT 4B
6	PROPOSED SERVICE EQUIPMENT; CIRCUIT 6 I-LINE PANEL (15 AMP)	PROPOSED 277V PEDESTRIAN LIGHT FUTURE	(1) #12 THWN - 2 CU, (1) #12 THWN - 2 NGVT, (1) #12 AWG GND CU, IN 1 1/4" CONDUIT

NOTES

- NEUTRAL MUST BE INCLUDED FOR PROPER OPERATION OF TESLA SUPERCHARGERS.
- PROPOSED UTILITY CTs SHALL BE LOCATED WITHIN APPROVED CT COMPARTMENTS APPROVED BY UTILITY AS SHOWN IN THIS DRAWING PACKAGE.
- ALL CONDUCTORS TO RECEIVE ANTI-OXIDATIVE COATING DURING INSTALLATION.
- CONTRACTOR TO USE 'SIMPULL THHN' ALUMINUM WIRING PER TESLA'S REQUIREMENTS WHEN ALUMINUM IS INDICATED IN THE CIRCUIT SCHEDULE ABOVE.
- AVAILABLE FAULT CURRENT AT THE TRANSFORMER IS XX,XXX AMPS.

SERVICE ELECTRICAL CIRCUIT SCHEDULE

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PALO ALTO, CA 94304
(650) 681-5000

6800 W 115th St, Suite 2292
OVERLAND PARK, KS 66211
(913) 458-2000

PROJECT NO: 192745
DRAWN BY: AKJ
CHECKED BY: CNS

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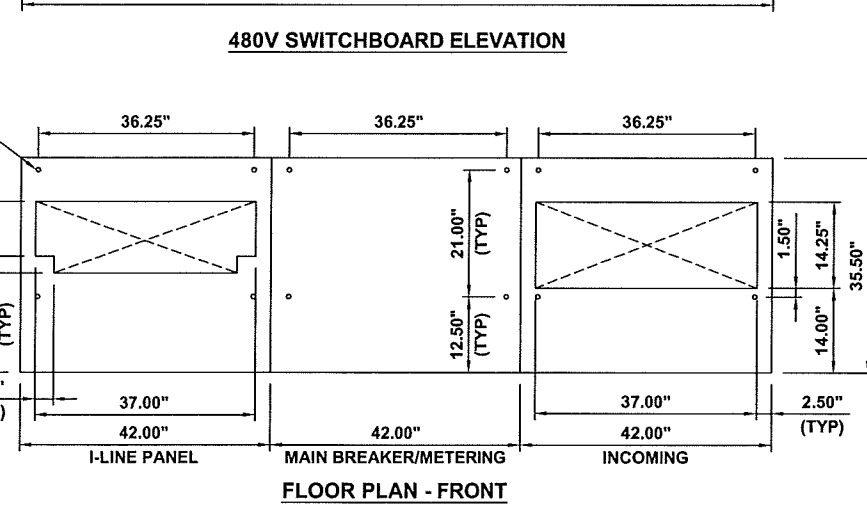
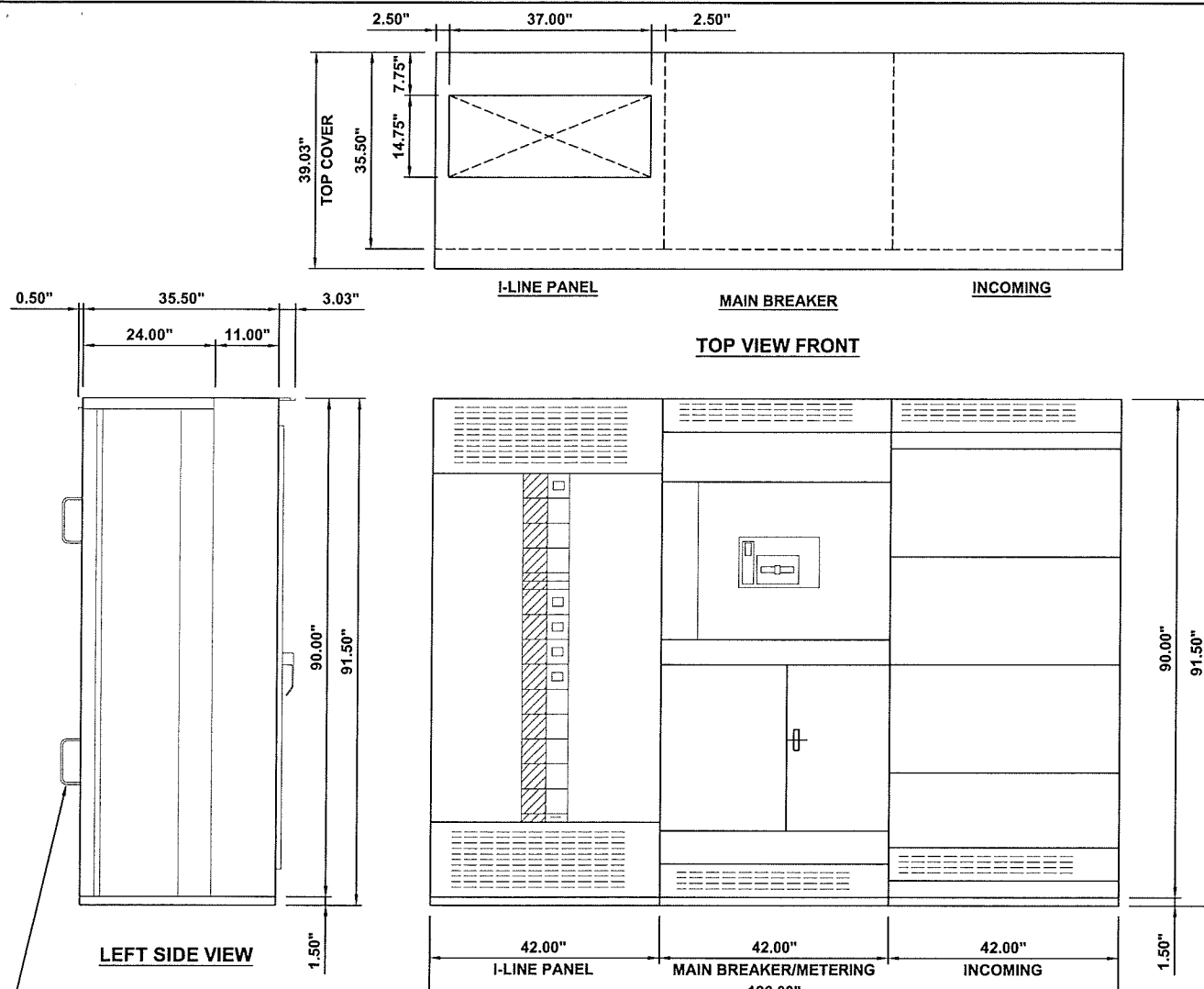
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MADISON
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MADISON, WI 53704

SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-3

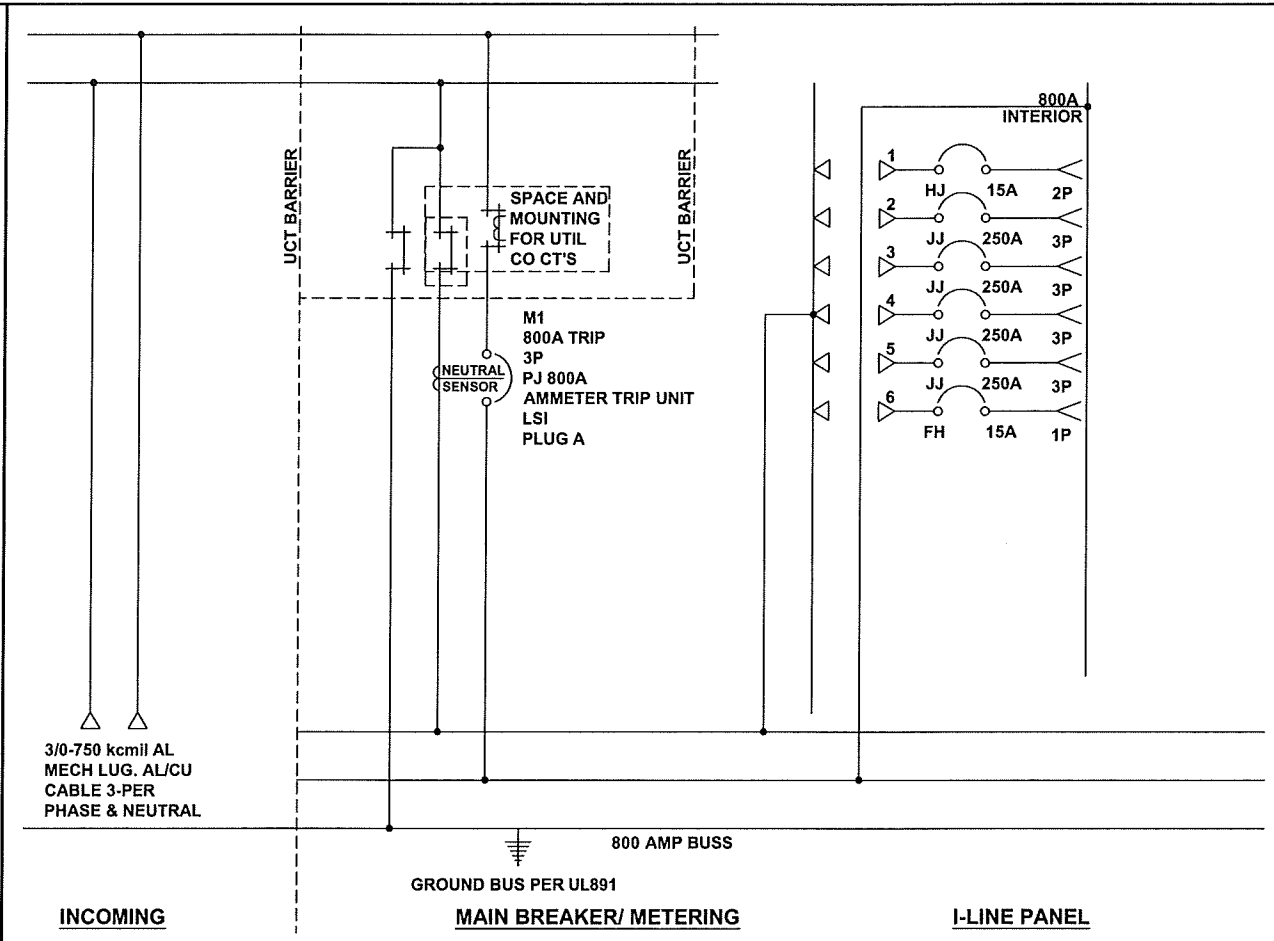


QED SWITCHBOARD

ENCLOSURE DATA
 TYPE 3R FREE STANDING
 EXTERIOR PAINT COLOR: ANSI 49
 FRONT ACCESSIBILITY ONLY REQUIRED
 HANDLING: ROLLERS
 RODENT BARRIERS
 1.5H CORROSION RESIST BASE CHANNELS
 BASE CHANNELS CANNOT BE REMOVED FROM
 EUSERC SWITCHBOARD LINEUPS
 UTILITY SEALING HARDWARE INSTALLED FOR
 UNMETERED BUS COMPARTMENTS

CODE STANDARDS
 U.L. DEADFRONT AND SUITABLE FOR USE AS
 SERVICE ENTRANCE
 WHEN NOT MORE THAN SIX (6) DISCONNECTING
 MEANS ARE PROVIDED.
 ERMS = ENERGY REDUCING MAINTENANCE
 SWITCHING WITH LOCAL STATUS INDICATOR

TO BE PROVIDED BY TESLA



QED SWITCHBOARD ONE-LINE DIAGRAM NO SCALE B

CIRCUIT NO.	GMD HEIGHT	DEVICE/ FRAME RATING	TRIP AMP	FUSE/ TRIP	#P	DESIGNATION	N/P	LUG INFORMATION			ACCESSORIES	
								QTY	PHASE WIRE RANGE	QTY		NEUT. WIRE RANGE
-	-	INCOMING CONNECTION	-	-	-		NO	6	3/0 - 750 kcmil	6	3/0 - 750 kcmil	
-	-	STRIP HEATER	-	-	-	UTILITY	-	-	-	-	-	SHR
UCT	-	800A	-	-	-		NO	-	-	-	-	
M1	-	PJ 800AS PLUG A 100%	800A	A-LSI	3P		NO	-	-	-	-	GF, SDE, PLA
1	4.5"	HJ	15A	S-LI	2P	SPARE	NO	1	#14 - 1/0 AWG	1	#14 - 1/0 AWG	PLA
2	4.5"	JJ 250 AMP 80%	250A	S-LI	3P		NO	1	3/0 - 350 kcmil	1	3/0 - 350 kcmil	PLA
3	4.5"	JJ 250 AMP 80%	250A	S-LI	3P		NO	1	3/0 - 350 kcmil	1	3/0 - 350 kcmil	PLA
4	4.5"	JJ 250 AMP 80%	250A	S-LI	3P		NO	1	3/0 - 350 kcmil	1	3/0 - 350 kcmil	PLA
5	4.5"	JJ 250 AMP 80%	250A	S-LI	3P		NO	1	3/0 - 350 kcmil	1	3/0 - 350 kcmil	PLA
6	1.5"	FH	15A	S-LI	1P		NO	1	#12 - #4 AWG	1	#12 - #4 AWG	

QED SWITCHBOARD CIRCUIT SCHEDULE NO SCALE C

TESLA MOTORS, INC.

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

BLACK & VEATCH

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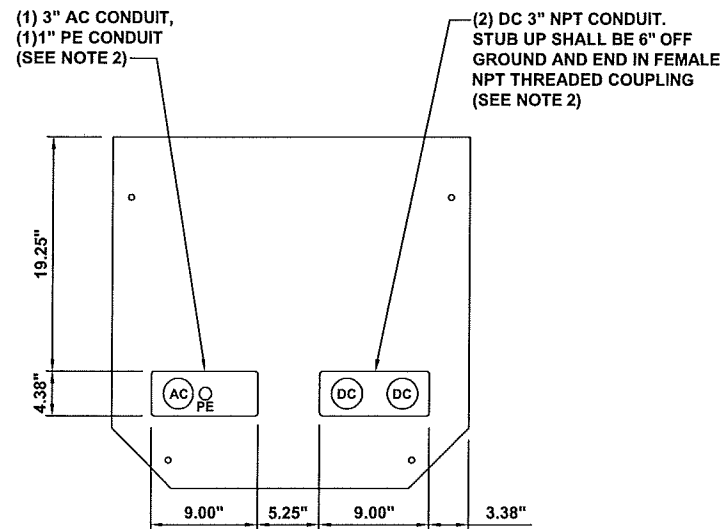
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SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-4

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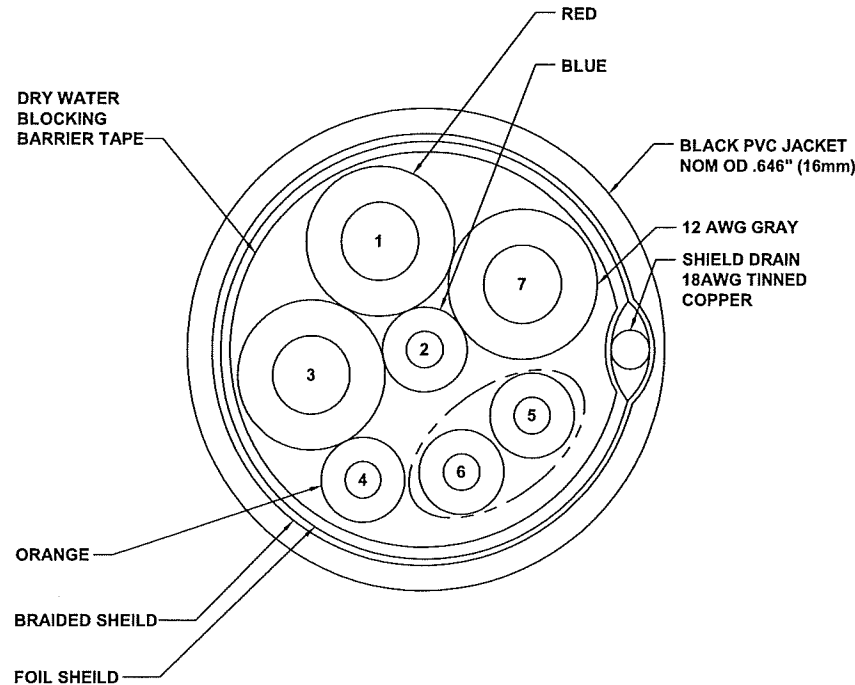
NOTES

- BOLT HOLES FOR REFERENCE ONLY.
- USE DOTTIE DUCT SEAL COMPOUND PC 6130 (CAT NO LHD1) TO SEAL ENDS OF CONDUIT (TYP. ALL CONDUITS FOR SUPERCHARGERS AND CHARGE STATIONS)
- USE BELL FITTINGS ON ALL AC AND DC CONDUIT STUBS.

TESLA SUPERCHARGER CONDUIT ENTRY DETAIL

NO SCALE

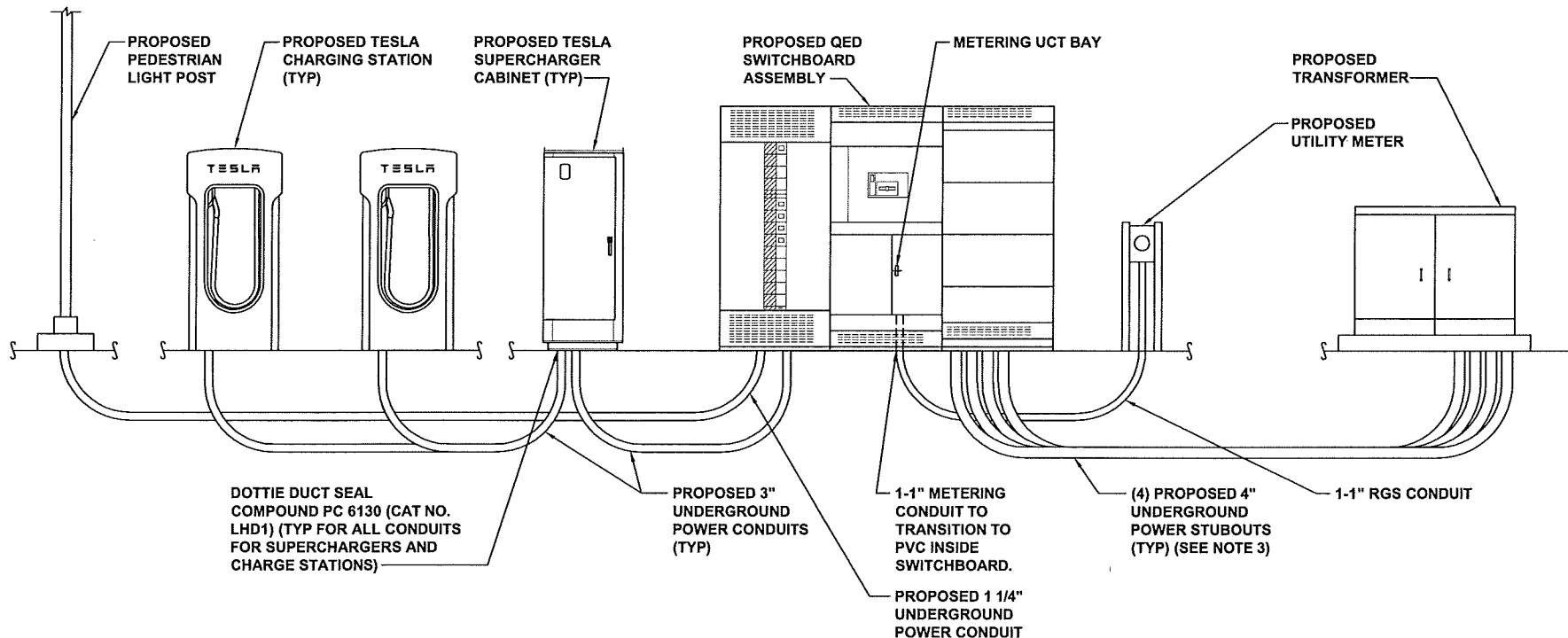
A



E73202 3/C 18AWG(.824MM2)+1/PR 18 AWG(.824MM2)+1/C 12 AWG(3.31MM2)+1/C 10 AWG(5.26MM2) (UL) TYPE TC-ER 90C DRY 75C WET 600V SUN RES DIR BUR OIL RES II UL 1277 OR c(UL) CIC-TC FT4 --- LL41103 CSA AWM I/II A/B 90C 600V FT4 --- CE ROHS

NOTES

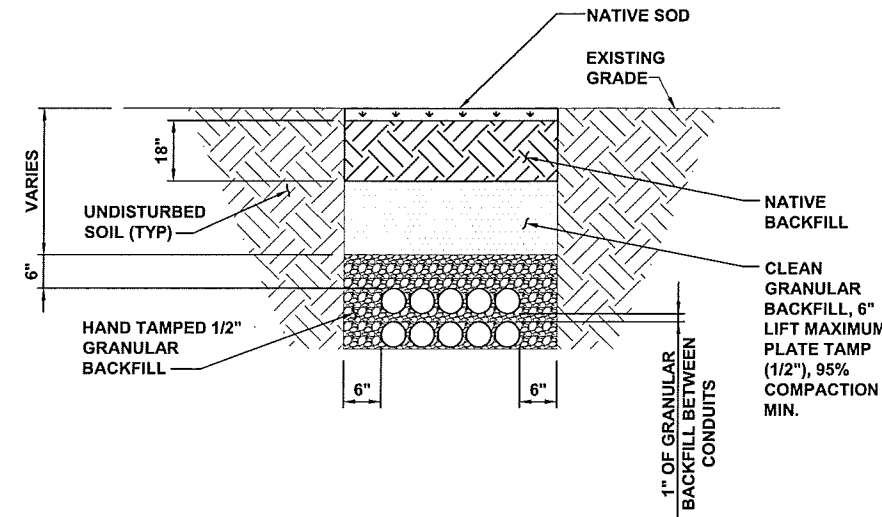
- CONDUITS SHALL BE BURIED BELOW FROST LINE AND IN COMPLIANCE WITH LOCAL AND NATIONAL CODE REQUIREMENTS.
- REFER TO SHEET E-3 FOR CONDUCTOR REQUIREMENTS WITHIN CONDUITS.
- REFERENCE SHEET E-1 AND E-2 FOR ADDITIONAL DETAIL.



CAR CHARGER CONDUIT ELEVATION

NO SCALE

D



NOTES

- ANY EXCAVATION LEFT OPEN SHOULD BE SECURELY FENCED OFF.
- ANY PAVEMENT DAMAGE DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO PRE CONSTRUCTION CONDITIONS OR BETTER.

TYPICAL NON-UTILITY CONDUIT UNDER SOIL TRENCH DETAIL

NO SCALE

C



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SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-5

DETAIL NOT USED

NO SCALE

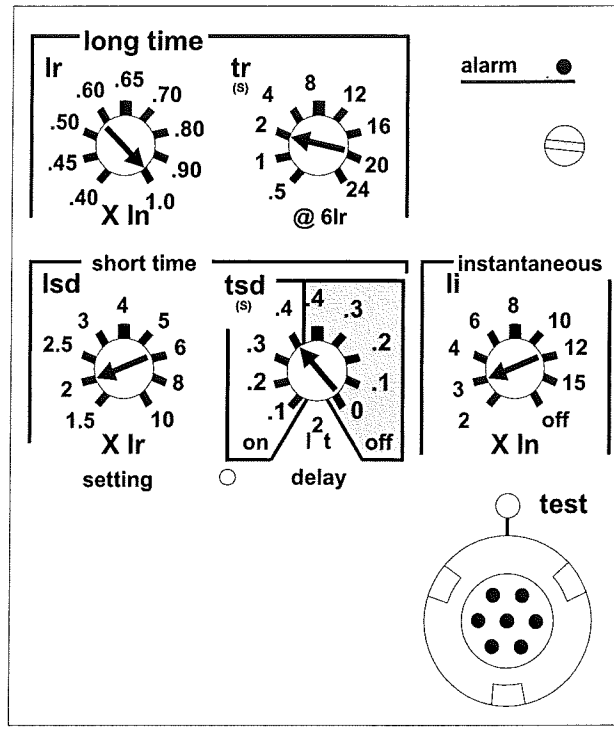
D

NO SCALE

E

THE MICROLOGIC 6.0A TRIP UNIT PROVIDES SELECTIVE AND GROUND-FAULT PROTECTION FOR EQUIPMENT (≥ 1000 A) (LSIG) AND A BUILT-IN AMMETER.

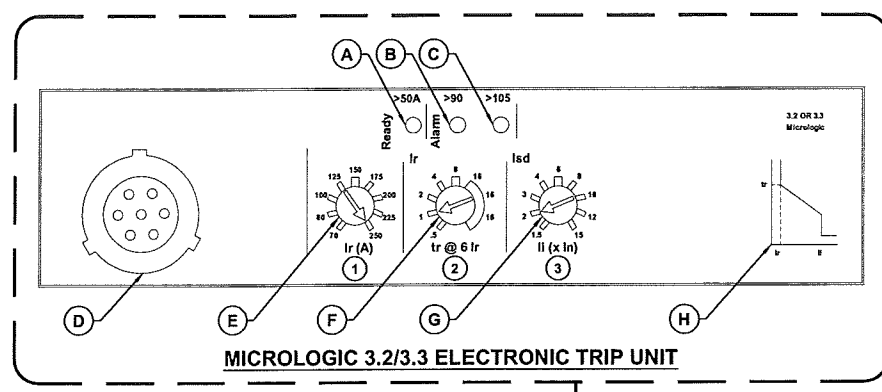
- A. TRIP UNIT NAME
- B. ALPHANUMERIC DISPLAY
- C. THREE-PHASE BAR GRAPH
- D. SCROLL BUTTON
- E. MENU BUTTON
- F. LONG-TIME PICKUP (I_r) SWITCH
- G. LONG-TIME DELAY (t_r) SWITCH
- H. SHORT-TIME PICKUP (I_{sd}) SWITCH
- I. SHORT-TIME DELAY (t_{sd}) SWITCH
- J. INSTANTANEOUS PICKUP (I_i) SWITCH
- K. GROUND-FAULT PICKUP (I_g) SWITCH
- L. GROUND-FAULT DELAY (t_g) SWITCH
- M. TEST PLUG RECEPTACLE
- N. GROUND FAULT PUSH-TO-TRIP BUTTON
- O. OVERLOAD INDICATOR LIGHT
- P. RESET BUTTON FOR BATTERY STATUS CHECK AND TRIP INDICATOR LED
- Q. SELF-PROTECTOR INDICATOR LIGHT
- R. GROUND-FAULT INDICATOR LIGHT
- S. SHORT-TIME OR INSTANTANEOUS TRIP INDICATOR LIGHT
- T. LONG-TIME TRIP INDICATOR LIGHT



NOTES

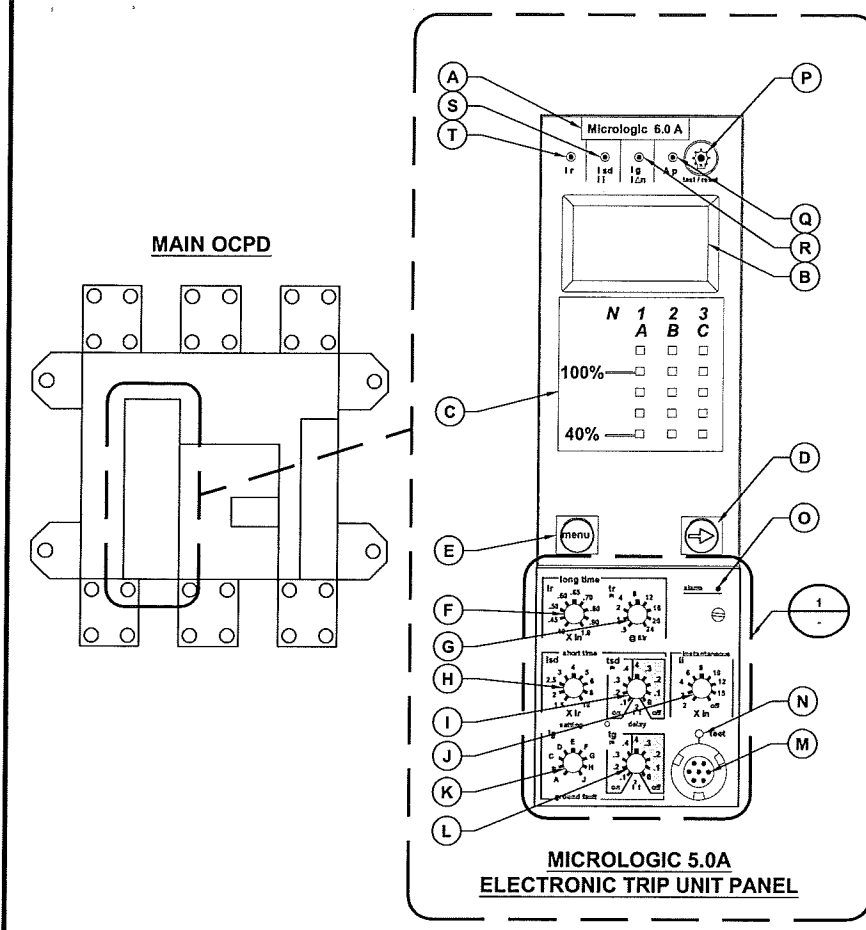
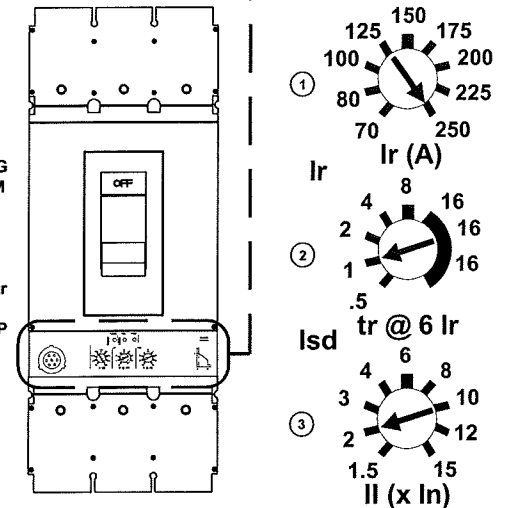
1. THE PLUG SETTINGS DEPICTED WITHIN THIS DETAIL SHALL BE USED ON ALL R-FRAME CIRCUIT BREAKERS REGARDLESS OF AMP RATING.
2. THESE CIRCUIT BREAKER TRIP SETTINGS ARE NOT COORDINATED WITH UTILITY TRIP SETTINGS.

SECTION 1



*** JJ CIRCUIT BREAKER**

- 480VAC L-L**
- A. READY LED (GREEN)
 - B. OVERLOAD PRE-ALARM LED (ORANGE): 90% I_r
 - C. OVERLOAD ALARM LED (RED): 105% I_r THE TRIP UNIT'S I_r RATING CORRESPONDS TO THE MAXIMUM VALUE OF THE ADJUSTMENT RANGE
 - D. TEST PORT
 - E. ADJUSTMENT DIAL FOR LONG-TIME PROTECTION DELAY t_r
 - F. ADJUSTMENT DIAL FOR SHORT-TIME PROTECTION PICKUP I_{sd}
 - G. ADJUSTMENT DIAL FOR INSTANTANEOUS PROTECTION PICKUP I_i
 - H. TRIP CURVE
- * BREAKERS ARE RATED FOR 80%**



MICROLOGIC 5.0A ELECTRONIC TRIP UNIT PANEL

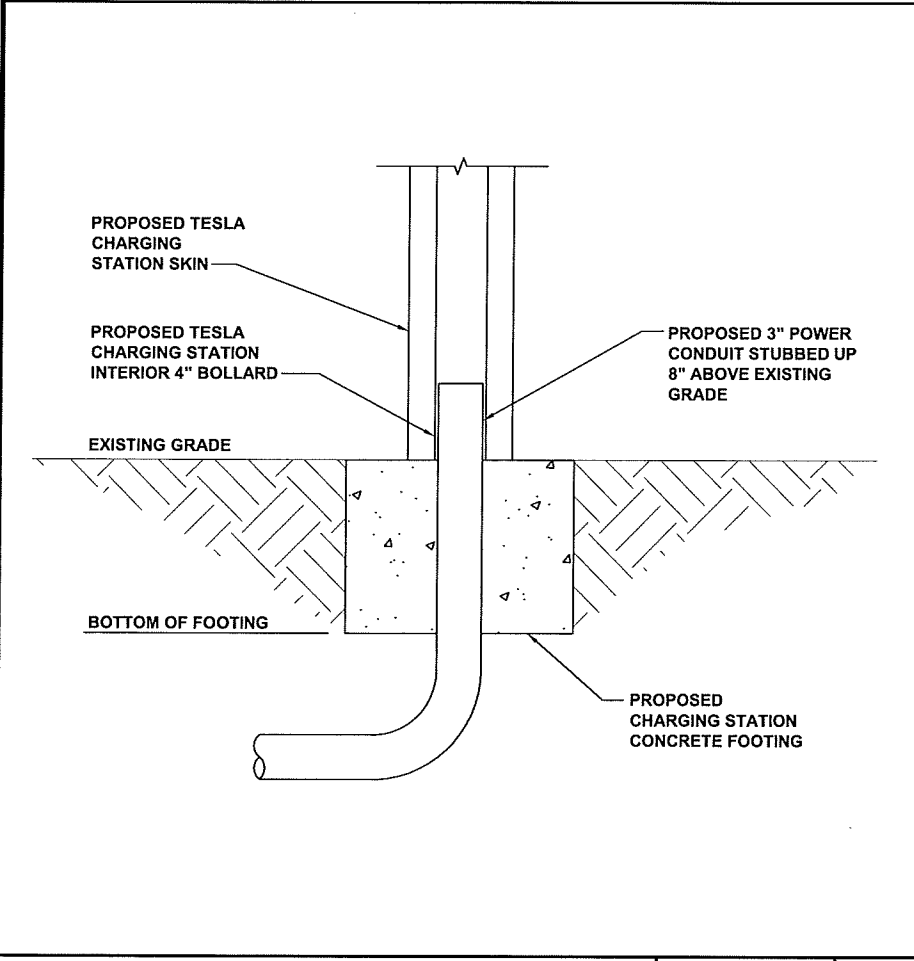
MICROLOGIC 5.0A ELECTRONIC TRIP UNIT DETAIL

A

MICROLOGIC 3.2/3.3 ELECTRONIC TRIP UNIT DETAIL

NO SCALE

B



CONDUIT STUB UP DETAIL

NO SCALE

C

DETAIL NOT USED

NO SCALE

D

DETAIL NOT USED

NO SCALE

E



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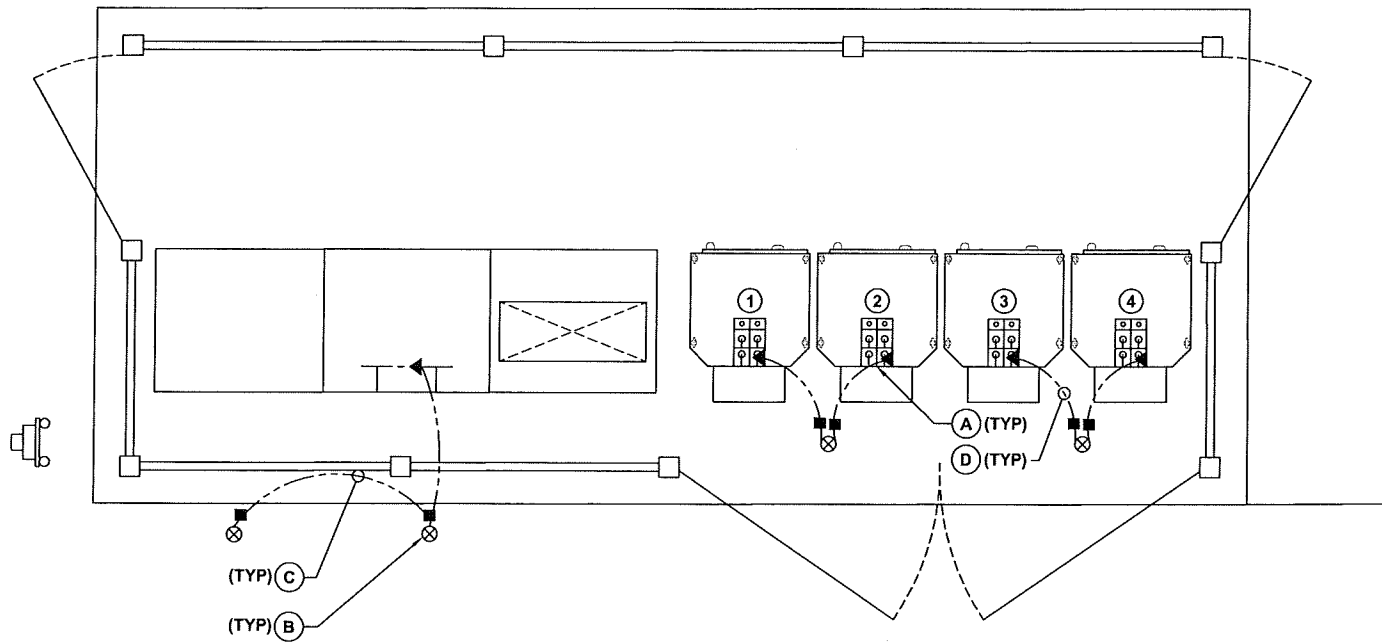
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SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-6



GROUNDING LEGEND

- (A) GROUND BAR/LUG WITHIN PROPOSED EQUIPMENT
- (B) PROPOSED 5/8"x8'-0" GROUND ROD, SEE DETAIL A, SHEET G-2
- (C) PROPOSED SERVICE GROUND, SEE DETAIL C, THIS SHEET
- (D) PROPOSED SUPERCHARGER CABINET GROUND FOR EMC, SEE DETAIL C, THIS SHEET
- PROPOSED GROUND RING
- CADWELD CONNECTION (EXOTHERMIC WELD)
- ▲ MECHANICAL CONNECTION
- ⊗ GROUND ROD

BURNDY CONNECTIONS OR ENGINEER APPROVED EQUAL	CADWELD CONNECTIONS OR ENGINEER APPROVED EQUAL	
BOND JUMPER FIELD FABRICATED GREEN STRANDED INSULATED TYPE 2-YA-2	HORIZONTAL SPLICE SPLICE OF HORIZONTAL CABLES TYPE SS	PARALLEL HORIZONTAL CONDUCTORS PARALLEL THROUGH CONNECTION OF HORIZONTAL CABLES TYPE PT
COPPER LUGS TWO HOLE - LONG BARREL LENGTH TYPE YA-2	HORIZONTAL STEEL SURFACE TO FLAT STEEL SURFACE OR HORIZONTAL PIPE TYPE HS	PARALLEL HORIZONTAL CONDUCTORS PARALLEL DEAD END TAP OR HORIZONTAL THRU CONDUCTOR TYPE PC
	VERTICAL PIPE CABLE DOWN AT 45° TO RANGE OF VERTICAL PIPES TYPE VS	VERTICAL STEEL SURFACE CABLE DOWN AT 45° TO VERTICAL STEEL SURFACE INCLUDING PIPE TYPE VS
	HORIZONTAL TEE TEE OF HORIZONTAL RUN AND TAP CABLES TYPE TA	THROUGH CABLE TO GROUND ROD THROUGH CABLE TO TOP OF GROUND ROD TYPE GT



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GROUNDING PLAN

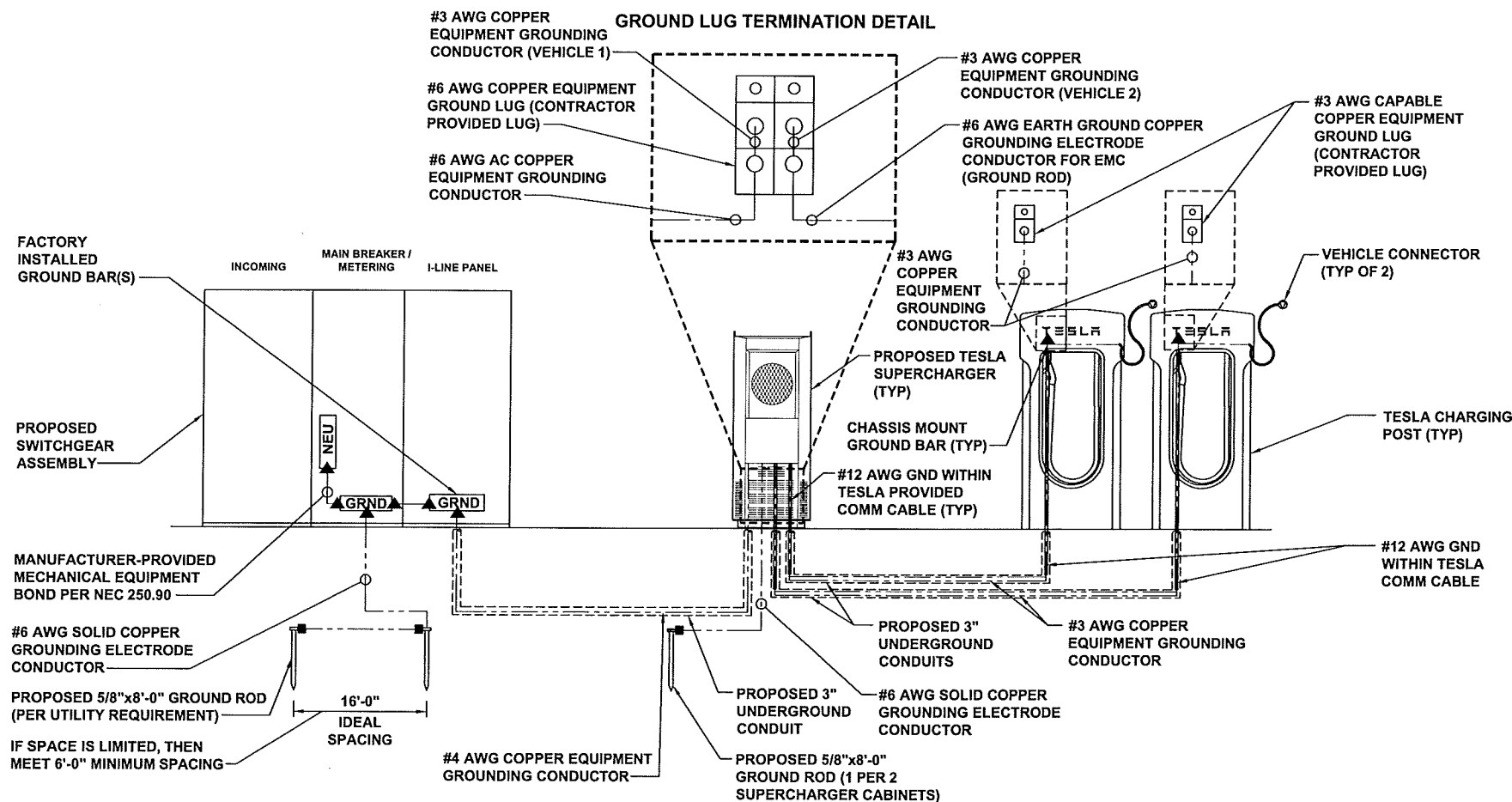
NO SCALE

A

CADWELD CONNECTION DETAIL

NO SCALE

B



GROUNDING SCHEMATIC

NO SCALE

C

GROUNDING NOTES

NO SCALE

D

NOTES

- ALL GROUND BARS SHALL HAVE STAMPED IN TO THE METAL "IF STOLEN DO NOT RECYCLE."
- 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, 600 VOLT INSULATION, ON ALL GROUND TERMINATIONS. THE INTENT IS TO WEATHERPROOF THE COMPRESSION CONNECTION.
- SUPPLIED AND INSTALLED BY CONTRACTOR.
- ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).
- TESLA CHARGERS HAVE INTERNAL HIGH IMPEDANCE GROUND FAULT PROTECTION (10MΩ).
- EMC - ELECTROMAGNETIC COMPATIBILITY

NOT TO BE USED FOR CONSTRUCTION

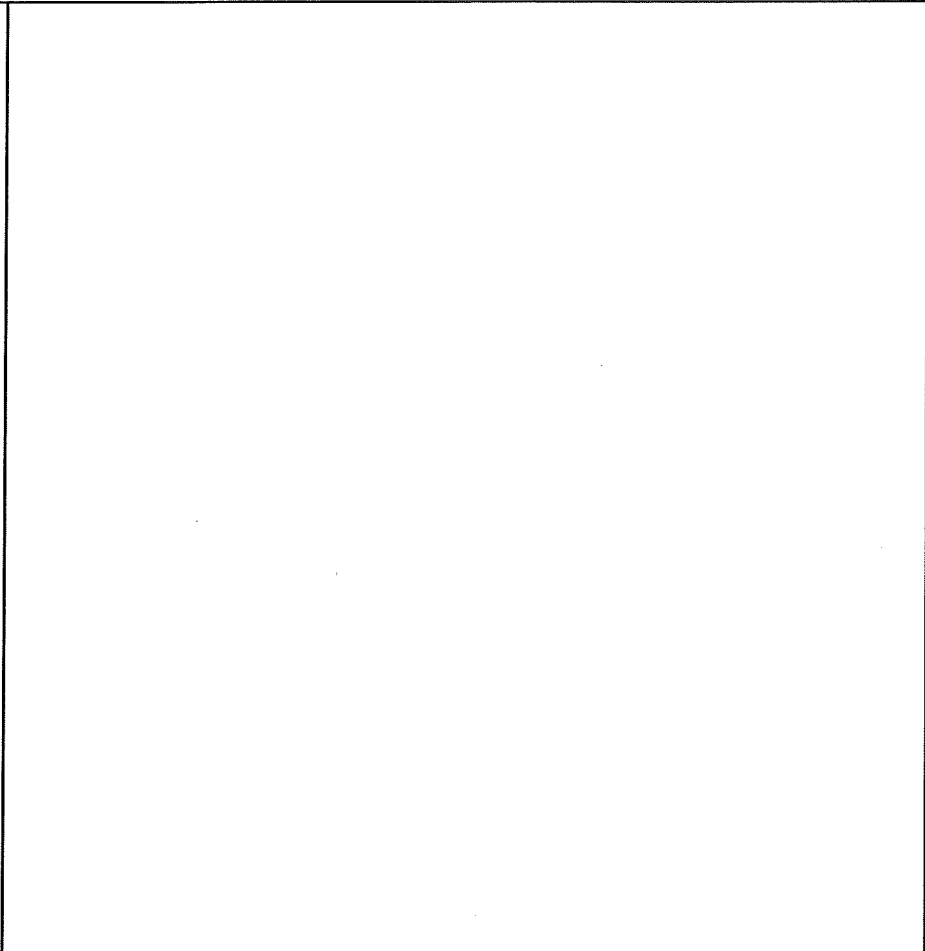
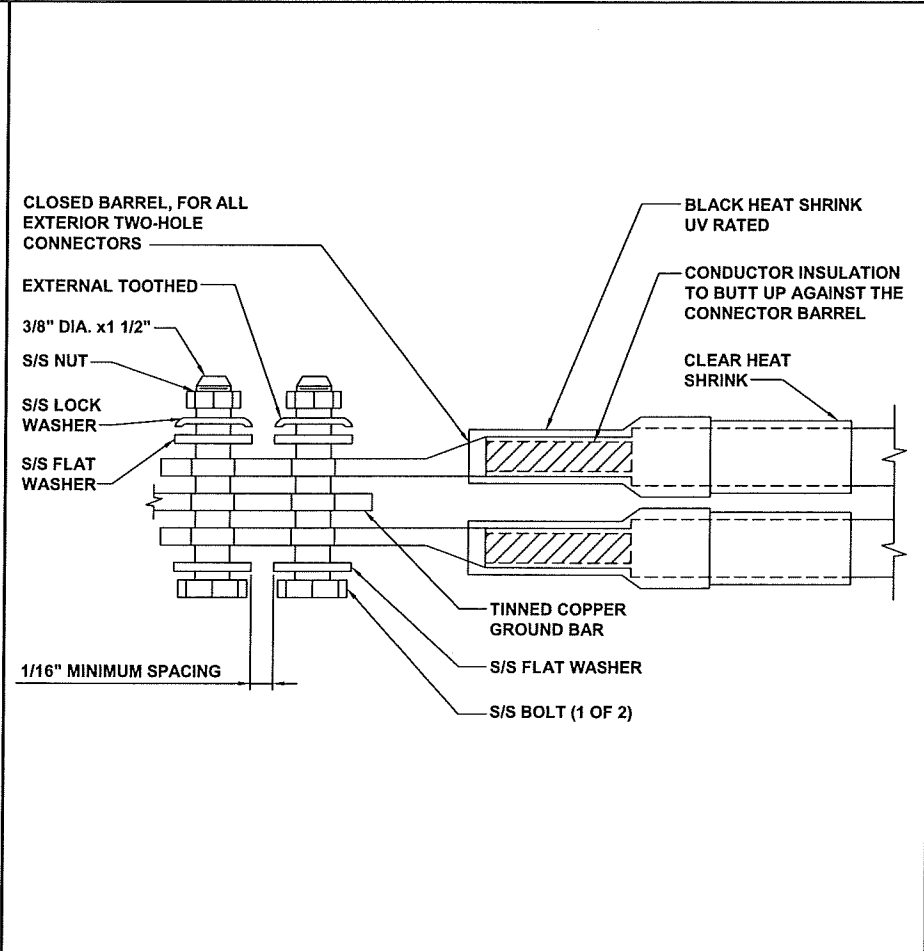
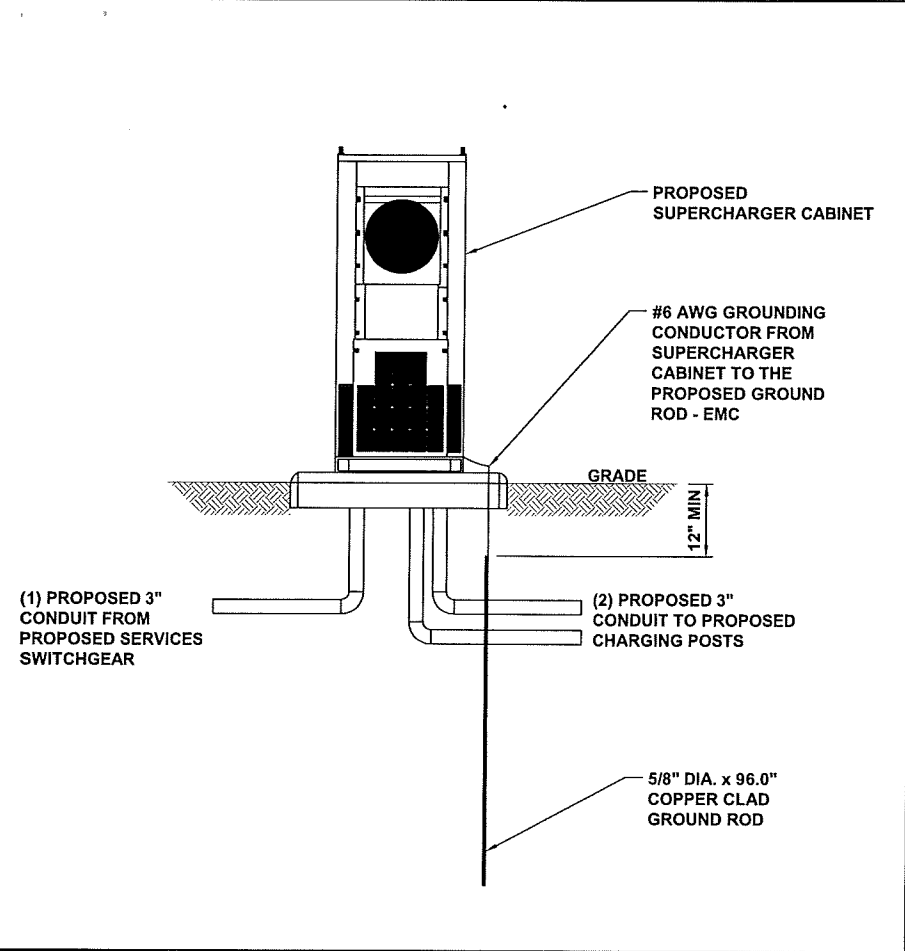
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SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER

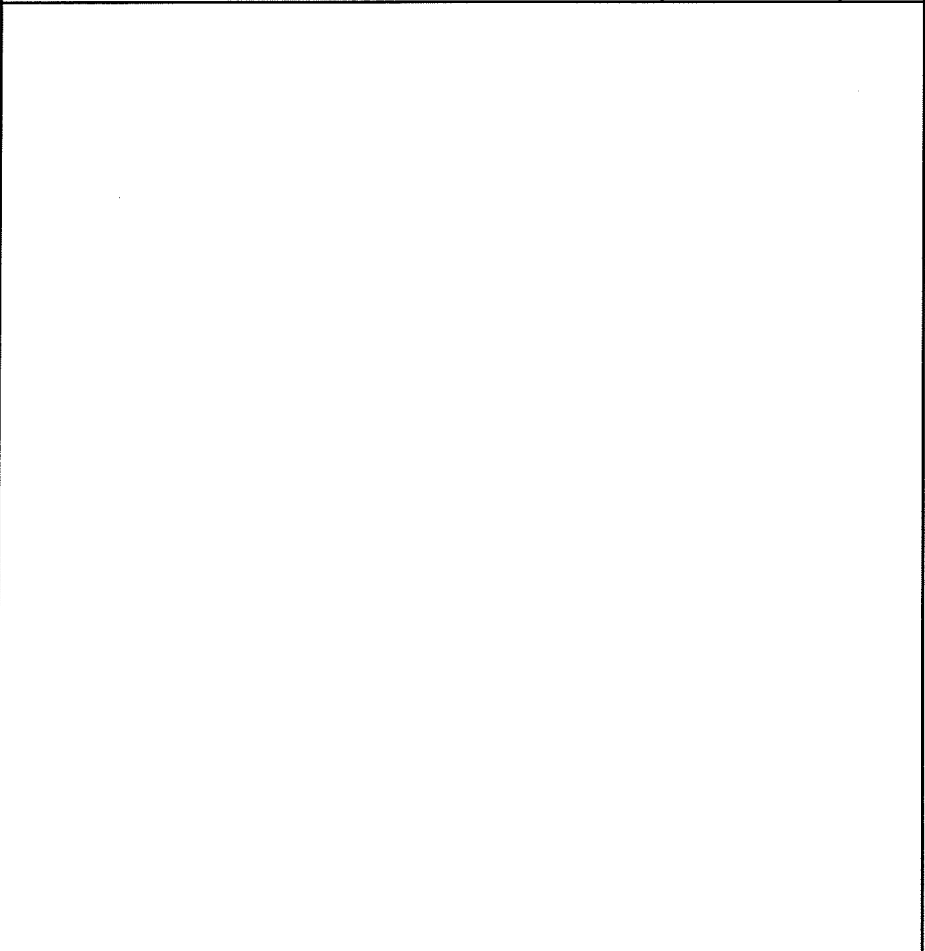
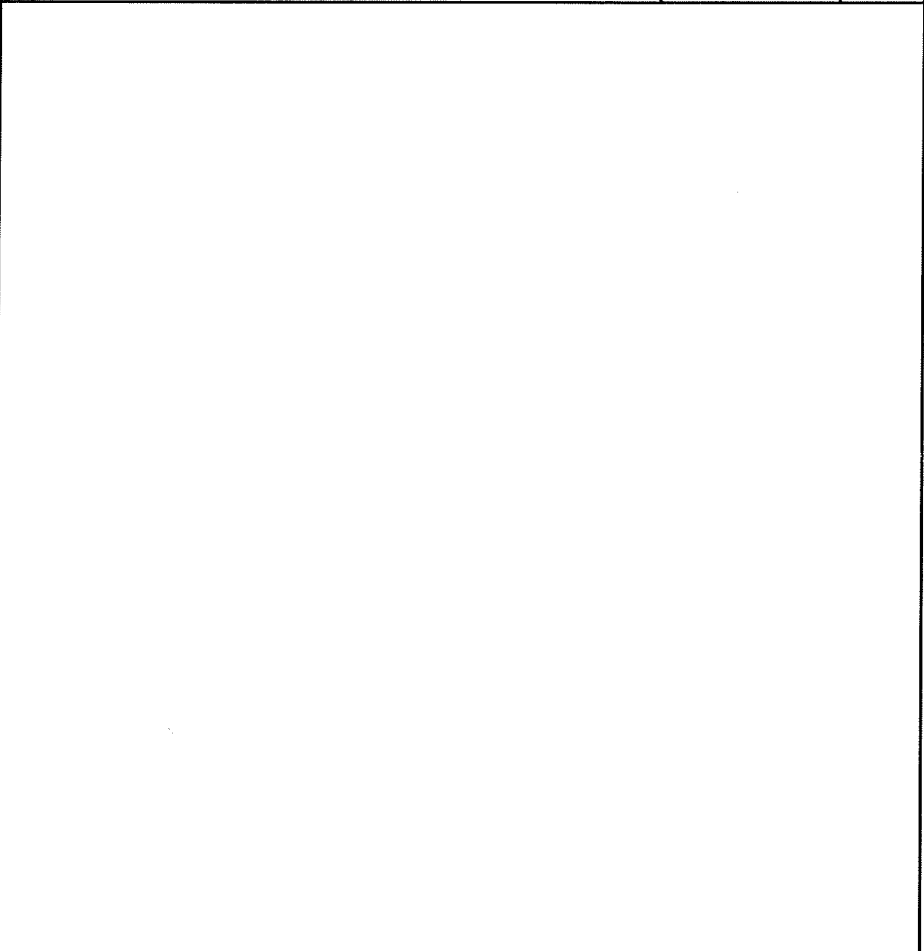
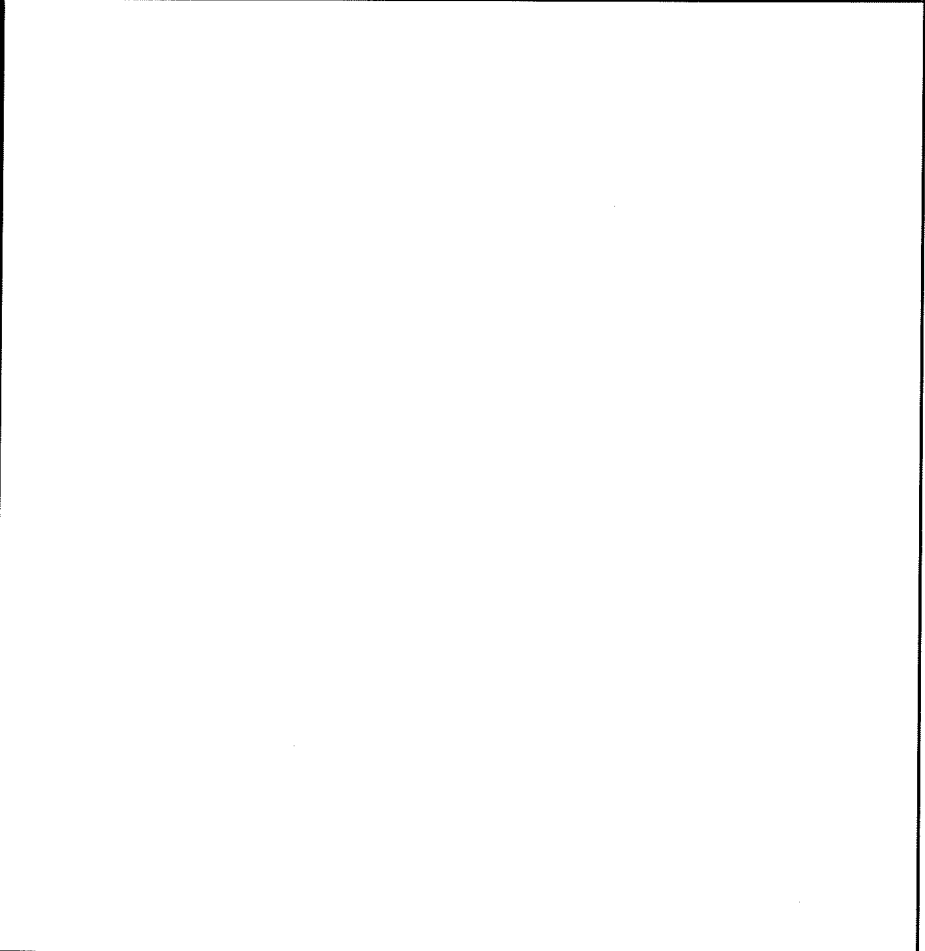
G-1



SUPERCHARGER GROUNDING DETAIL NO SCALE A

EXTERIOR TWO HOLE LUG DETAIL NO SCALE B

DETAIL NOT USED NO SCALE C



DETAIL NOT USED NO SCALE D

DETAIL NOT USED NO SCALE E

DETAIL NOT USED NO SCALE F

TESLA
MOTORS, INC.

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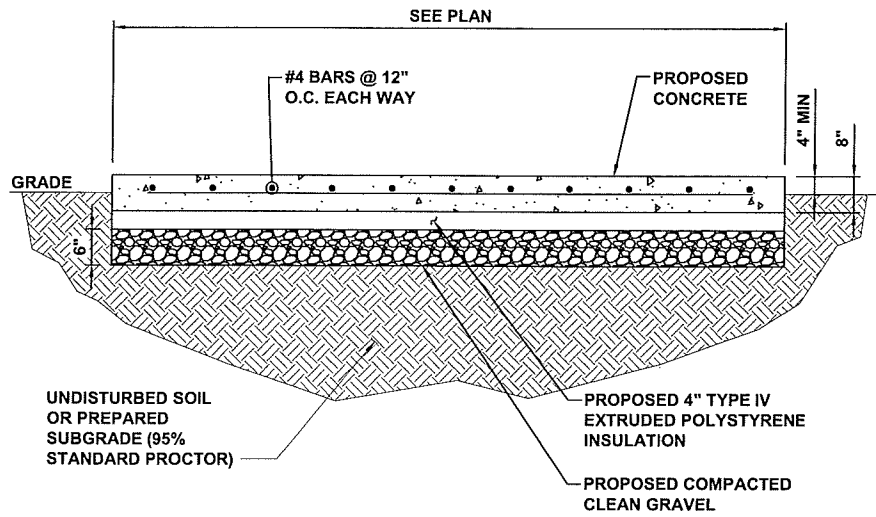
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GROUNDING DETAILS

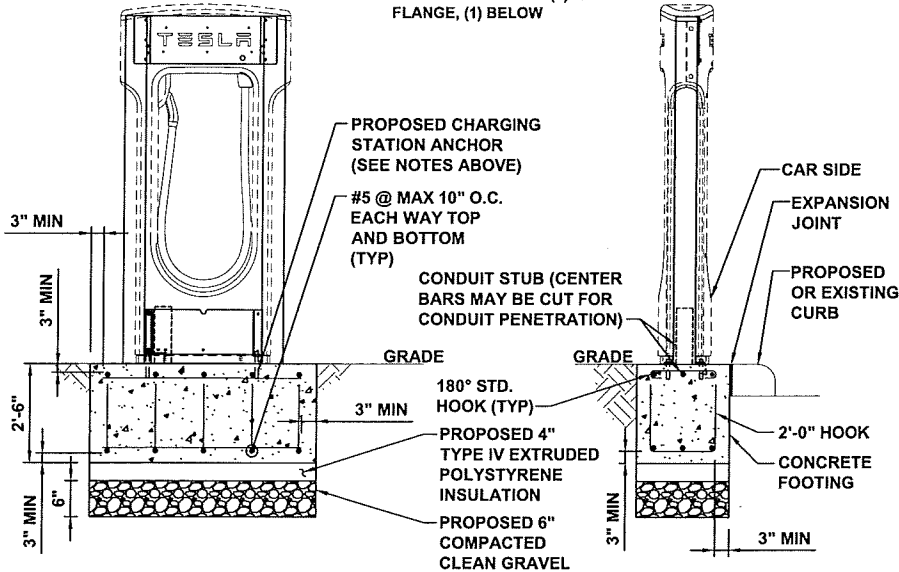
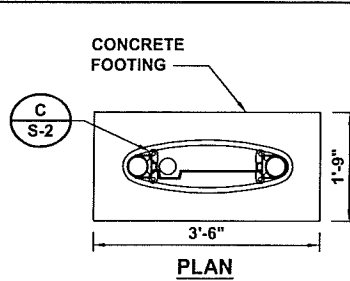
SHEET NUMBER
G-2



CONCRETE PAD DETAIL

NO SCALE

A

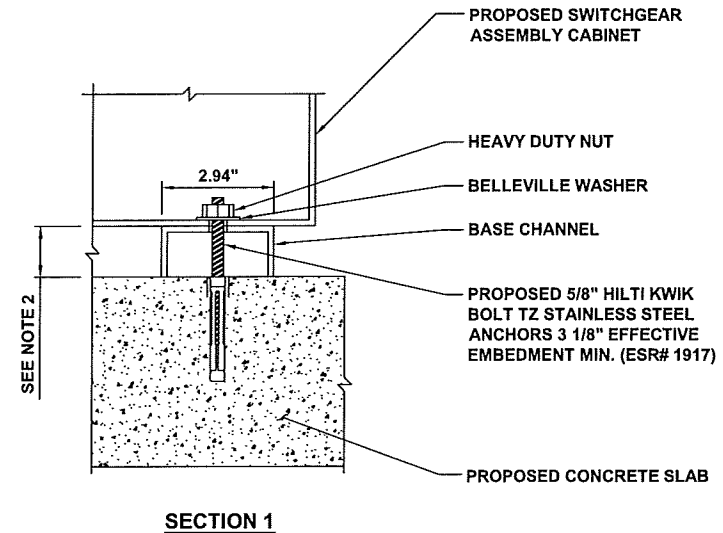
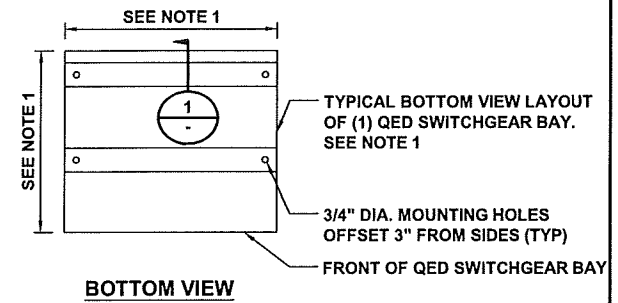


ILLUMINATED CHARGING STATION FOOTING DETAIL

NO SCALE

B

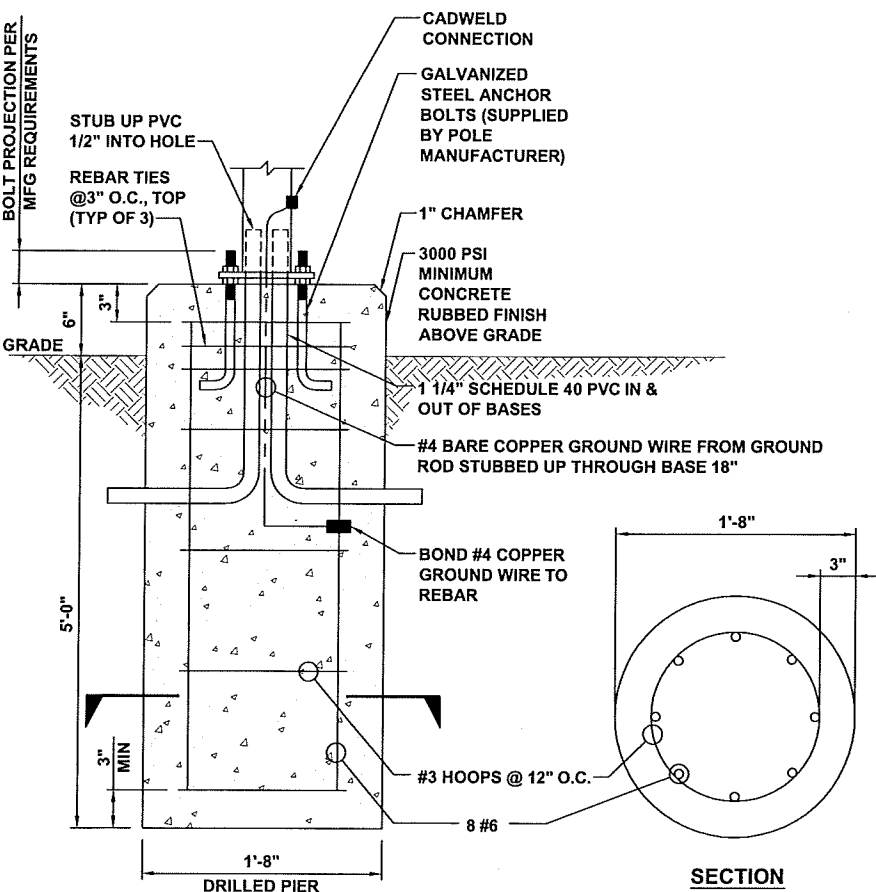
- NOTES:**
- SEE FLOOR PLAN IN DETAIL A, SHEET E-4 FOR MOUNTING HOLE LOCATION AND SWITCHGEAR BAY DIMENSIONS.
 - SEE ELEVATION IN DETAIL A, SHEET E-4 FOR BASE CHANNEL DIMENSION.
 - MINIMUM 6" CONCRETE EDGE DISTANCE REQUIRED FOR PROPOSED ANCHORAGE.



QED SWITCHGEAR MOUNTING DETAIL

NO SCALE

C



PEDESTRIAN LIGHT POLE BASE DETAIL

NO SCALE

D

DETAIL NOT USED

NO SCALE

E

DETAIL NOT USED

NO SCALE

F



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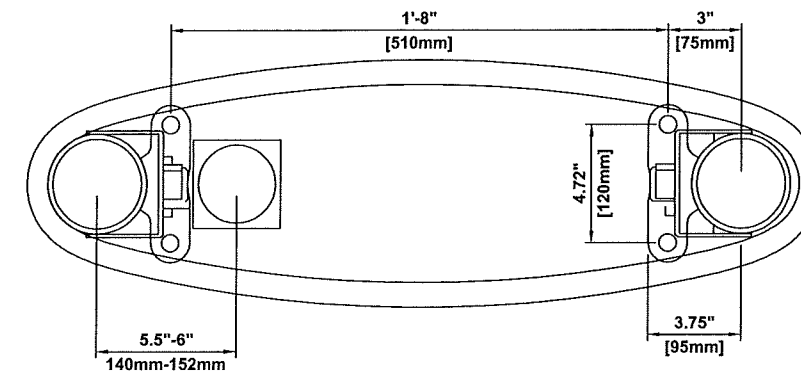
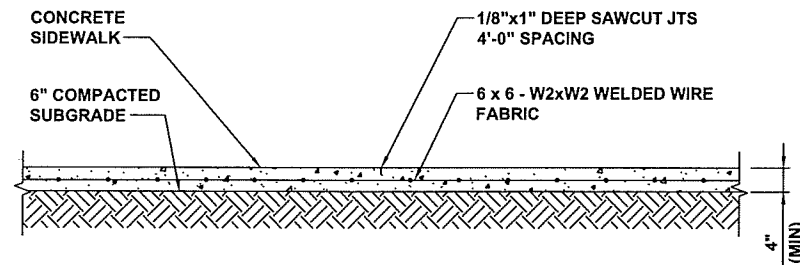
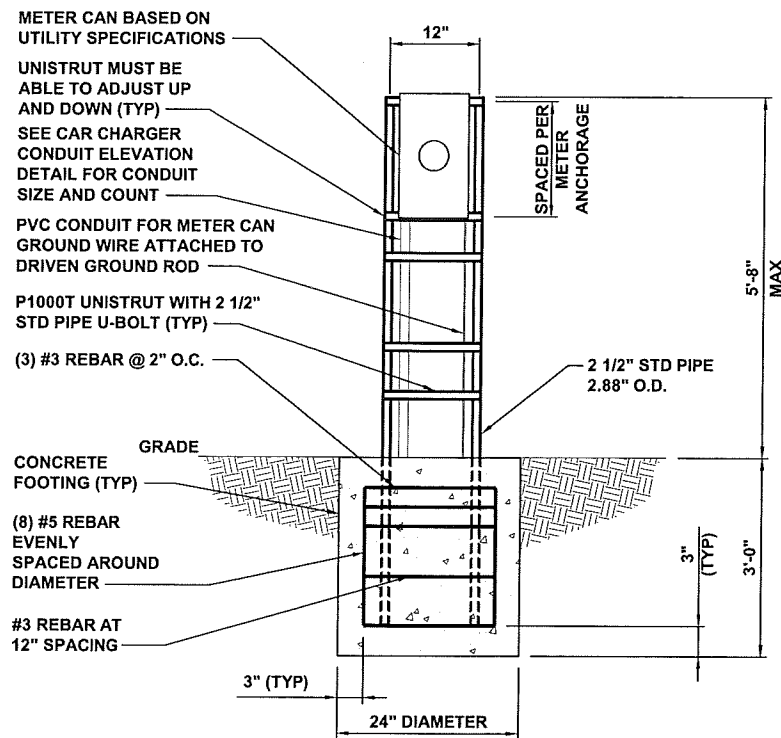
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SHEET TITLE
STRUCTURAL DETAILS

SHEET NUMBER
S-1

STANDALONE CUSTOMER PROVIDED TUV INSTRUMENT RATED METER CAN ON UNISTRUT SUPPORT

NOTE:
REFERENCE GN-3 FOR SIDEWALK CONSTRUCTION REQUIREMENTS.



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SHEET TITLE
STRUCTURAL DETAILS

SHEET NUMBER
S-2

STANDALONE METER CAN UNISTRUT SUPPORT

NO SCALE

A

TYPICAL SIDEWALK DETAIL

NO SCALE

B

BOLTDOWN DETAIL

NO SCALE

C

DETAIL NOT USED

NO SCALE

D

DETAIL NOT USED

NO SCALE

E

DETAIL NOT USED

NO SCALE

F



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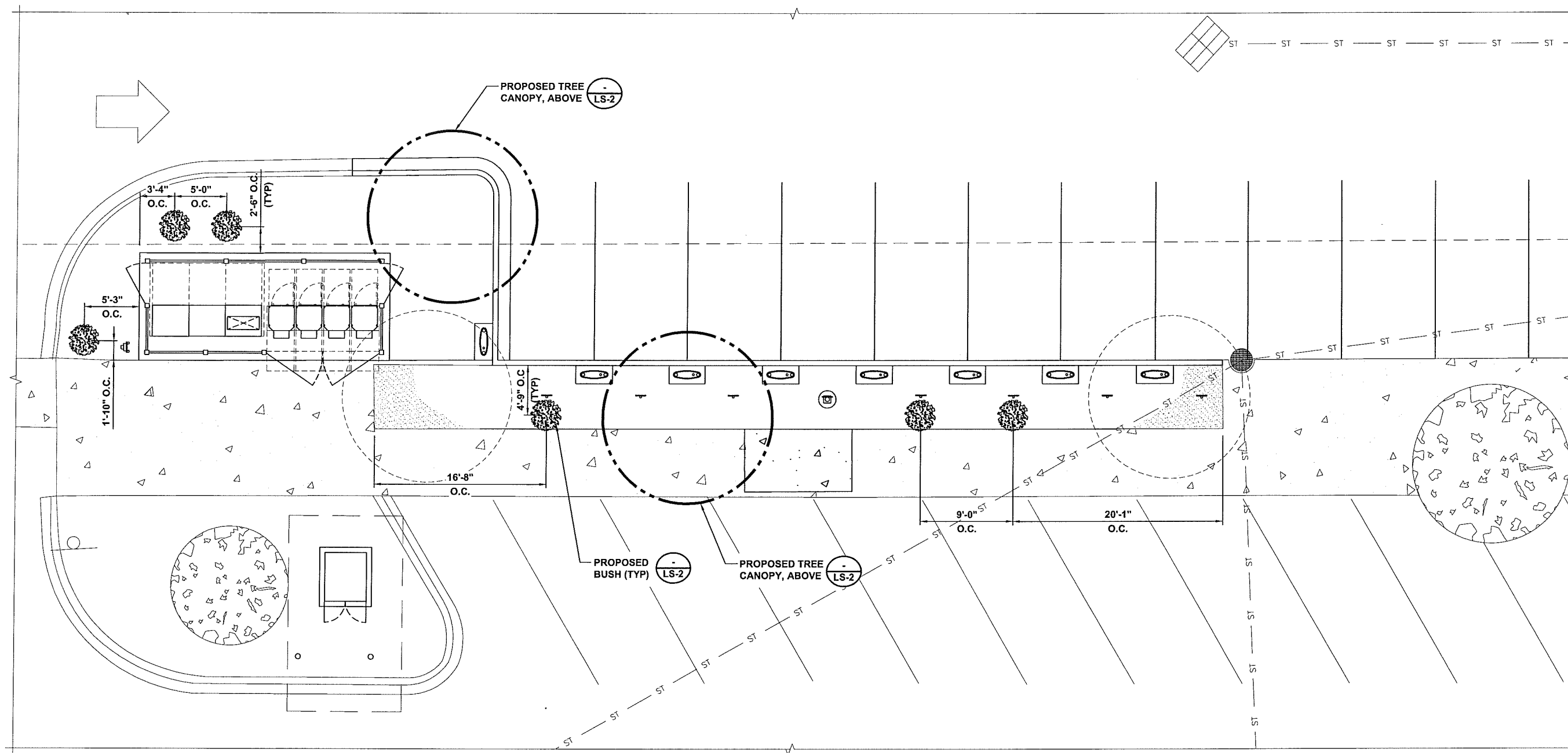
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SHEET TITLE
LANDSCAPING PLAN

SHEET NUMBER
LS-1

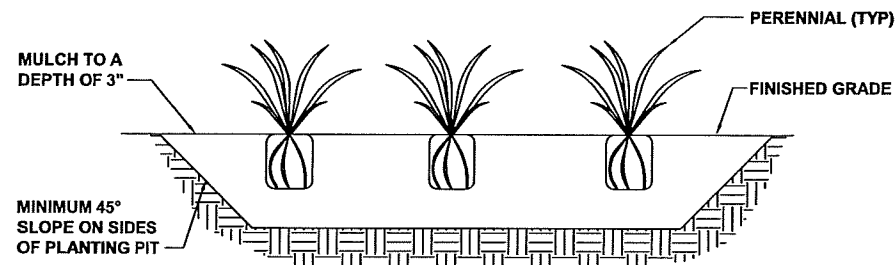


LANDSCAPING PLAN

NO SCALE

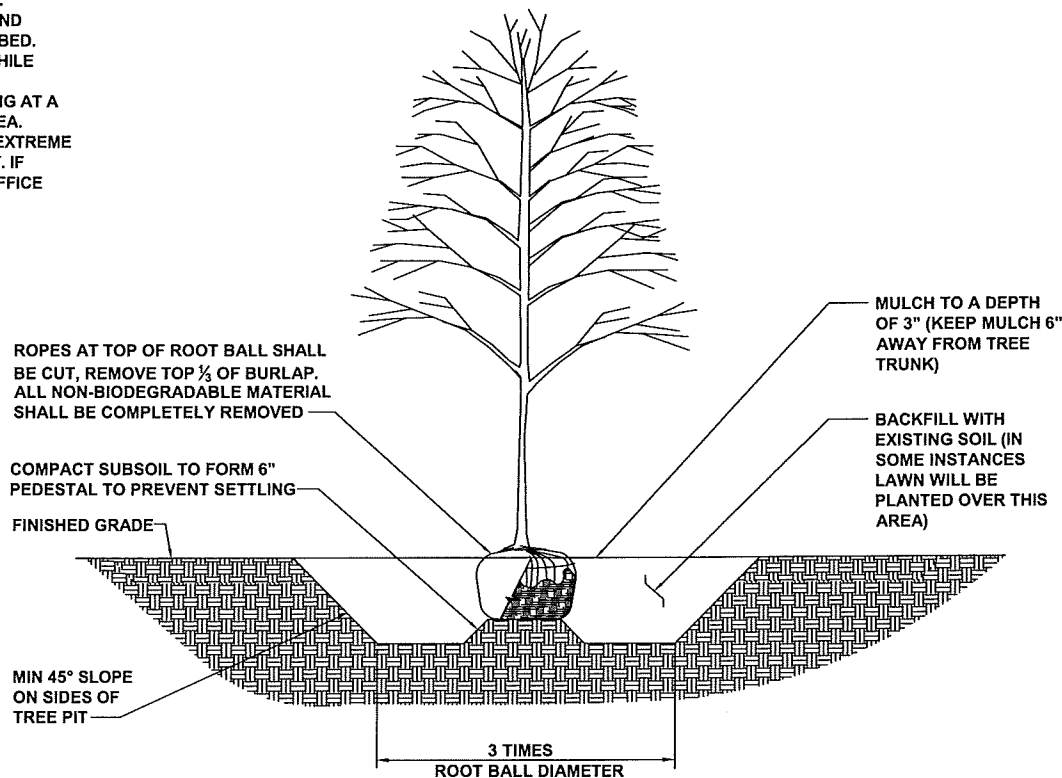
NOTES

1. THOROUGHLY MIX IN SOIL AMENDMENTS TO DEPTH OF 8" THROUGHOUT GROUND COVER AREA OF BEDS.
2. HAND TAMP TO BACK TO REMOVE AIR POCKETS.
3. WATER IMMEDIATELY FOLLOWING PLANTING UNTIL NO MORE WATER IS ABSORBED.
4. SPACE AS SHOWN ON PLAN.



GENERAL TREE PLANTING NOTES

1. SITUATE ROOT BALL SO THAT TOP OF ROOT BALL IS 2" ABOVE FINISHED GRADE.
2. SCARIFY SIDES AND BOTTOM OF TREE PIT.
3. BACKFILL TREE PIT WITH EXISTING SOIL AND WATER UNTIL NO MORE WATER IS ABSORBED.
4. DO NOT ALLOW AIR POCKETS TO FORM WHILE BACKFILLING.
5. INSTALL A MIN. 4'-0" DIAMETER MULCH RING AT A MIN. DEPTH OF 3" FOR TREES IN LAWN AREA.
6. TREES NEED TO BE STAKED ONLY WHEN EXTREME WIND MAKES SUCH SUPPORT NECESSARY. IF STAKING IS NECESSARY CONTACT THIS OFFICE AND A DETAIL WILL BE PROVIDED.



TYPICAL GROUNDCOVER PLANTING

NO SCALE

A

GENERAL TREE PLANTING DETAIL

NO SCALE

B

NOTE

1. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY, AND MORE FREQUENTLY DURING TIMES OF EXTREME HEAT, FOR THE DURATION OF THE FIRST GROWING SEASON.

PLANT SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	QTY	SIZE (AT CONSTRUCTION)	SPACING	SPECIFICATIONS (AT FULL SIZE)
<u>TREES</u>	TO MATCH TREES BEING REMOVED		2		AS SHOWN	
<u>BUSHES</u>	PANICUM VIRGATUM	SHENANDOAH SWITCH GRASS	6		AS SHOWN	4 FT TALL, 2-3 FT WIDE
<u>GROUND COVER</u>						
<u>OTHER</u>						

DETAIL NOT USED

NO SCALE

C

PLANT NOTES AND SCHEDULE

NO SCALE

D



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MADISON, WI 53704

SHEET TITLE
LANDSCAPING PLAN

SHEET NUMBER
LS-2

PROPERTY DESCRIPTION:

Order No. RC1733800, APN: 081033209091

Lots One (1) and Two (2) of Certified Survey Map No. 8221, recorded in the Office of the Register of Deeds for Dane County, Wisconsin, in Volume 44 of Certified Survey Maps, pages 156-161, as Document No. 2765198, located in the City of Madison, Dane County, Wisconsin.

Together with an Easement for Access as established in Cross easement and agreement contained in instrument recorded on September 27, 1968, in Volume 58 of Records, Page 144, as Document No. 1224537, as modified by an instrument recorded on June 19, 1995, in Volume 30095 of Records, Page 1, as Document No. 2682865.

Together with an Easement as established in Warranty Deed recorded September 27, 1968, in Volume 58 of Records, Page 141, as Document No. 1224536. Together with and ingress/egress easement as set forth on Certified Survey Map No. 8221 benefiting Lot One.

Order No. RC1730523, APN: 081033209231

Parcel A:

Outlot 92A, Burke Assessor's Plat No.1, In the City of Madison, Dane County, Wisconsin, EXCEPT that part conveyed to Dane County in Vol. 589 of Deeds, page 341, as #847156. Also EXCEPTING that part contained in instrument recorded in Vol. 188 of Records, page 428, as #1268867.

Parcel B:

The Northeastly 1/2 of the following described parcel, being part of the Northwest 1/4 of Section 33, Town 8 North, Range 10 East, in the City of Madison, Dane County, Wisconsin, to-wit: Beginning at a point which is 33 feet Southeast, measured along the extension of the Northeast line of Outlot 113 of Burke Assessor's Plat No.1 (formerly Sunnyside Plat) and Northeastly along the former centerline of Sun Prairie Road 231 feet from the Easterly corner of Outlot 113 of Burke Assessor's Plat No.1 (formerly Southeast corner of Lot 13, Block 2, Plat of Sunnyside); thence Southeast at right angles to said Sun Prairie Road 214.5 feet; thence Northeastly parallel with the centerline of said Sun Prairie Road 203 feet; thence Northwestly 214.5 feet to the centerline of said Sun Prairie Road; thence Southwestly along said centerline 203 feet to the point of beginning.

EXCEPT that part conveyed to Dane County for highway purposes as set forth in Warranty Deed recorded in Vol. 598 of Deeds, page 81, as #857735.

Also EXCEPTING that part contained in instrument recorded in Vol. 188 of Records, page 413, as #1268862.

Also Described as Follows:

Part of the Northwest 1/4 of Section 33, Town 8 North, Range 10 East, in the Town of Burke (now in the City of Madison), Dane County, Wisconsin, more fully described as follows: Beginning at the Southeast corner of Outlot 92A, Assessor's Plat No.1 a recorded plat in Section 33, Town 8 North, Range 10 East, in the Town of Burke (now in the City of Madison), Dane County, Wisconsin; thence Northeastly parallel to the Sun Prairie Road 101.5 feet; thence Northwestly parallel to the Northeast line of said Outlot 92A to the centerline of said road; thence Southwestly along said centerline to the Northerly corner of said Outlot 92A; thence Southeastly along the Northeastly line of said Outlot 92A to the point of beginning.

Also Sometimes Described as Follows:

Section 33, Township 8 North, Range 10 East, part of the North 1/2 of the Northwest 1/4, Commencing at the Southeast corner of Outlot 92A of Burke Assessor's Plat #1, Sun Prairie Road 101.5 feet, Northwest parallel to the Northeast line of said Outlot 92A to the centerline of said road Southwest along said centerline of the Northerly corner of said Outlot 92A Southeast to the point of beginning.

SCHEDULE B2 EXCEPTIONS:

Order No. RC1733800

(A)
Item No.

- Easements and matters - March 21, 1960 - Book 347 (of Miscellaneous), Page 192 - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Right of Way Grant - November 01, 1963 - Book 400, Page 83 - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Easements and matters - July 13, 1960 - 350, Page 566 - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Sanitary Sewer Easement and matters - November 15, 1968 - Book 69, Page 260 - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Access Restrictions, Easements, Notes and other matters as set forth on that certain filed map Certified Survey No. 8221 referenced in the vesting deed herein - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Easement - March 21, 1960 - 998745 - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Terms conditions and provisions of the following appurtenant easements and agreements thereto: Recorded September 27, 1968 in Book 58, Page 144; as modified by agreement recorded June 19, 1995 in Book 30095, Page 1 - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Stormwater Drainage Agreement - October 06, 2015 - 5189208 - AFFECTS SURVEY AREA, BUT CANNOT BE PLOTTED, THERE WAS NO MATHEMATICAL DESCRIPTION PROVIDED.

Order No. RC1730523

(B)
Item No.

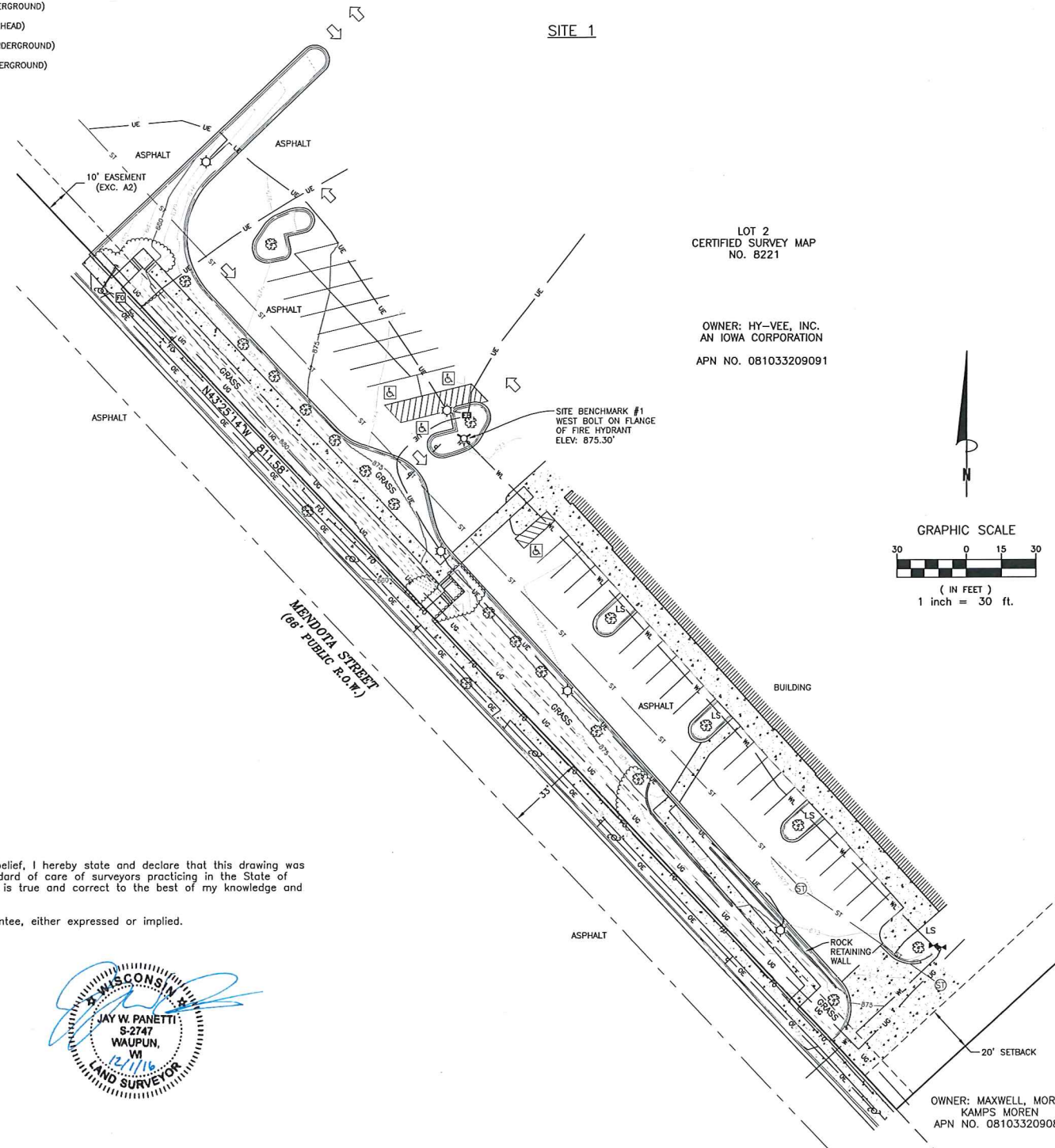
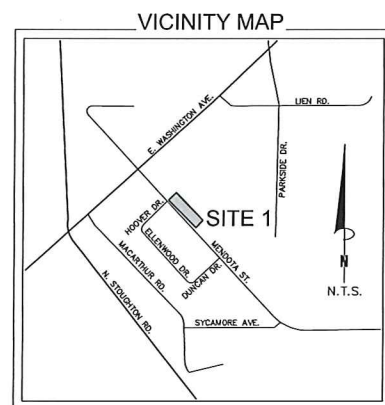
- Easement and Right of Way for Sanitary Sewer - March 21, 1960 - 998713 - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Easement and Right of Way for Sanitary Sewer - March 21, 1960 - 998714 - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Easement and Right of Way for Sanitary Sewer - July 12, 1960 - 1005923 - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Easements and other matters set forth on the filed map - Recorded in Volume 94 of Certified Surveys, Page 66-69 - 5175142 - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Consent to Occupy Easement - August 31, 2015 - 5180701 - AFFECTS SUBJECT PARCEL, BUT THERE IS NOTHING TO PLOT.
- Electric Easement - October 14, 2015 - 5190723 - AFFECTS SURVEY AREA AND IS SHOWN HEREON.
- Stormwater Drainage Agreement - October 06, 2015 - 5189208 - AFFECTS SURVEY AREA, BUT CANNOT BE PLOTTED, THERE WAS NO MATHEMATICAL DESCRIPTION PROVIDED.

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

LEGEND	
	SANITARY MANHOLE
	STORM MANHOLE
	STORM INLET (RECTANGULAR)
	STORM INLET (ROUND)
	FIRE HYDRANT
	WATER VALVE
	LIGHT POLE
	POWER POLE
	GUY WIRE
	ELECTRIC TRANSFORMER
	ELECTRIC BOX
	TELEPHONE PEDESTAL
	FIBEROPTIC PEDESTAL
	DECIDUOUS TREE
	LANDSCAPED AREA
	WOOD POST
	HANDICAP PARKING SPACE
	SIGN
	STORM LINE (UNDERGROUND)
	SANITARY LINE (UNDERGROUND)
	WATER LINE (UNDERGROUND)
	GAS LINE (UNDERGROUND)
	ELECTRIC LINE (UNDERGROUND)
	ELECTRIC LINE (OVERHEAD)
	TELEPHONE LINE (UNDERGROUND)
	CABLE TV LINE (UNDERGROUND)
	HEDGE LINE
	CONCRETE AREA

NOTES:

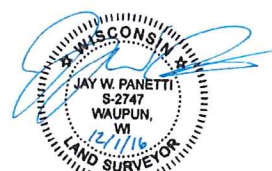
- This is a topographic map. This is not a boundary survey and is only intended to depict those topographic features or improvements shown. The property lines shown are record lines only and are shown for graphical reference only.
- Any underground utilities shown have been located from field survey 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.
- FEDERAL EMERGENCY MANAGEMENT AGENCY, Flood Insurance Rate Map, Map Number 55025C0427H effective date September 17, 2014, indicates this parcel of land is located in Zone X (Areas determined to be outside the 0.2% annual chance floodplain).
- 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 Title Search, prepared by Pacific Corporate & Title Services, order numbers RC1733800 & RC1730523, dated November 21, 2016 & November 22, 2016, respectively.
- SITE BENCHMARK #1: West Bolt on Flange of Fire Hydrant, as shown. Elevation: 875.30' (NAVD 88).
SITE BENCHMARK #2: Mag Nail in Asphalt, as shown. Elevation: 877.30' (NAVD 88).
- BASIS OF BEARINGS: Bearings are relative to those shown upon the Certified Survey Map No. 8221, recorded in the Office of the Register of Deeds for Dane County, Wisconsin, in Volume 44 of Certified Survey Maps, pages 156-161, as Document No. 2765198 in the Records of Dane County, Wisconsin, if rotated 0°22'46" counter-clockwise.
- Field work for this survey was completed on November 22, 2016.
- This site is zoned "CC-T" (Commercial Corridor) per City of Madison Planning Department.
Building Setbacks:
Front: 25'
Side: None.
Rear: 20'



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 Wisconsin 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.



Jay W. Panetti
Wisconsin Professional Land Surveyor No. 2747
For and on behalf of Clark Land Surveying, Inc.

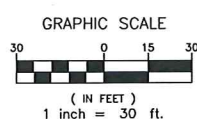


No.	Revisions	Description	By	Date

SITE NAME:
W1009 Madison

TOPOGRAPHIC SURVEY
A PORTION OF THE NW1/4 OF SECTION 33,
TOWNSHIP 8 NORTH, RANGE 10 EAST OF THE 4TH P.M.
CITY OF MADISON, DANE COUNTY, WISCONSIN

Project No. 160868
Date: 12/1/2016
Sheet 1 of 2
Drawn By: CEB
Checked By: JWP



OWNER: MAXWELL, MOREN
KAMPS MOREN
APN NO. 081033209083

