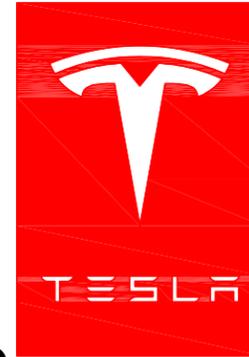


TESLA



BUC-EE'S #43 LEEDS, AL - 6900 BUC-EE'S BLVD

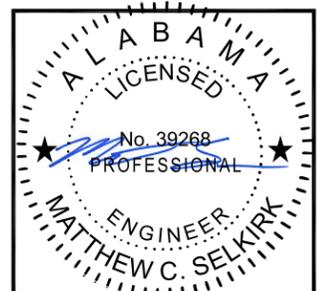
TRT ID: 25798
SITE ADDRESS:
6900 BUC-EE'S BLVD
LEEDS, AL 35094



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



Dewberry Engineers Inc.
2835 BRANDYWINE ROAD
SUITE 100
ATLANTA, GA 30341-4015
PHONE: 678.530.002



SITE INFORMATION	APPLICABLE CODES	PROJECT DESCRIPTION	ZONING INFORMATION	DRAWING INDEX
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PROPOSED TESLA EV SITE ADDRESS:
6900 BUC-EE'S BLVD
LEEDS, AL 35094

PROPERTY OWNER:
BUC-EE'S ALABAMA II LLC
327 FM 2004
LAKE JACKSON TX 77566

PARCEL ID:
PARCEL ID: 2400241000002000

POWER COMPANY:
ALABAMA POWER
CONTACT: CEDRICK DANIELS
PHONE: (205) 613-1447
EMAIL: CDANIEL@southernco.com
WORK ORDER: TBD

COUNTY:
JEFFERSON COUNTY

LATITUDE*:
33° 32' 39.2" N

LONGITUDE*:
86° 35' 15.7" W
*BASED ON GOOGLE EARTH

CONTACT ENGINEER:
MATTHEW SELKIRK, P.E.
DEWBERRY ENGINEERS INC.
(804) 205-3361
mselkirk@dewberry.com

ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:
ALABAMA STATE UNIFORM BUILDING & ENERGY CODES, CONSISTENT WITH THE FOLLOWING CODES:

2015 BUILDING CODE OF ALABAMA.
2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) WITH AMENDMENTS.
2014 NATIONAL ELECTRIC CODE (NEC) WITHOUT AMENDMENTS.

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

- INSTALL (4) TESLA PRE-ASSEMBLED SUPERCHARGER UNITS EACH WITH (1) V3 SUPERCHARGER CABINET, (1) 600A SERVICE DISCONNECT & (4) CHARGE POSTS
- INSTALL (1) PAD MOUNTED UTILITY TRANSFORMER

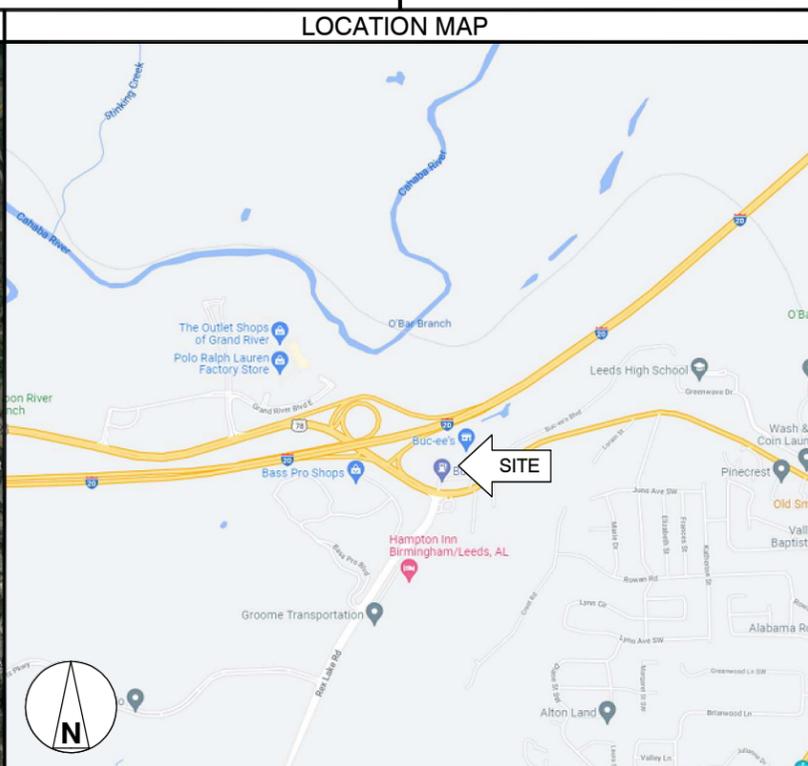
PERMITTING JURISDICTION: CITY OF LEEDS
APN: 2400241000002000

SHT. NO.	SHEET TITLE
T-1	TITLE SHEET
GN-1	GENERAL NOTES I
GN-2	GENERAL NOTES II
C-1	DETAILED SITE PLAN
C-2	EXISTING CONDITIONS PLAN
C-3	EQUIPMENT/PARKING PLAN
C-4	CONSTRUCTION DETAILS I
C-5	CONSTRUCTION DETAILS II
C-6	CONSTRUCTION DETAILS III
E-1	ELECTRICAL ONE-LINE DIAGRAM
E-2	ELECTRICAL & UTILITY DETAILS
G-1	GROUNDING PLAN, SCHEMATIC & DETAILS

DRAWN BY:	WG
CHECKED BY:	SES
APPROVED BY:	MCS
PROJECT #:	50123704
JOB #:	50144337

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.



SUBMITTALS

REV.	DATE	DESCRIPTION
O	11/16/21	ISSUED FOR PERMIT
B	11/12/21	ISSUED FOR 90% REVIEW
A	10/13/21	ISSUED FOR 90% REVIEW

SITE NAME:
BUC-EE'S #43
LEEDS, AL
(TRT ID: 25798)

SITE ADDRESS:
6900 BUC-EE'S BLVD
LEEDS, AL 35094

BEFORE SCALING

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

CALL BEFORE YOU DIG

ALABAMA 811

ALABAMA 811
811 OR 1-800-292-8525

SHEET TITLE	TITLE SHEET
SHEET NUMBER	T-1

LEGEND

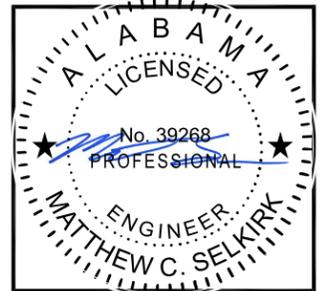
- PROPERTY LINE
- CALCULATED POINT
- UTILITY POLE w/GUY
- OE— OVERHEAD POWER LINE
- OHT— OVERHEAD TELEPHONE LINE
- SS— SANITARY SEWER LINE
- WL— UNDERGROUND WATER LINE
- G— UNDERGROUND GAS LINE
- T— UNDERGROUND COMMUNICATION LINE
- ROW— RIGHT OF WAY
- ▲ WATER VALVE
- ▲ WATER METER
- GAS REGULATOR
- X—X— FENCE
- ▨ ASPHALT SURFACE
- ▨ CONCRETE SURFACE
- ▨ GRAVEL SURFACE
- ⊗ STORM SEWER MANHOLE
- ⊗ SANITARY SEWER MANHOLE
- ⊗ MONITORING WELL
- ⊗ TELEPHONE PEDESTAL
- ⊗ SANITARY SEWER CLEANOUT
- ⊗ ELECTRIC BOX
- ⊗ AIR CONDITIONER
- ⊗ LIGHT STANDARD
- ⊗ SIGN
- ⊗ TELEPHONE BOX
- ⊗ FIRE HYDRATE
- ⊗ TELEPHONE MANHOLE
- ⊗ BOLLARD
- ⊗ MAILBOX



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PHONE: 678.530.002



DRAWN BY: WG

CHECKED BY: SES

APPROVED BY: MCS

PROJECT #: 50123704

JOB #: 50144337

SUBMITTALS

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(TRT ID: 25798)

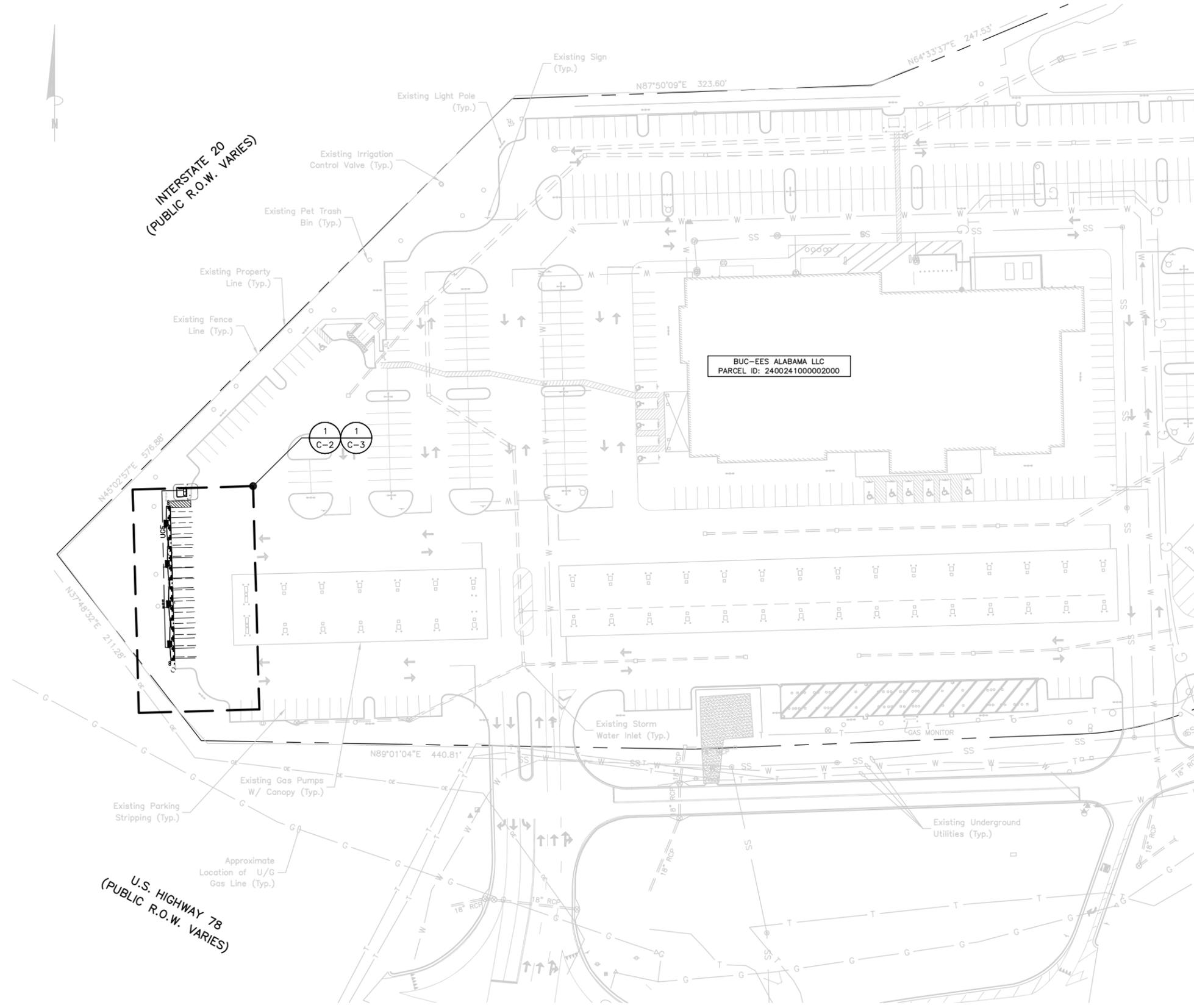
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6900 BUC-EE'S BLVD
LEEDS, AL 35094

SHEET TITLE

DETAILED SITE PLAN

SHEET NUMBER

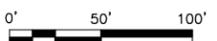
C-1



BUC-EES ALABAMA LLC
PARCEL ID: 240024100002000

DETAILED SITE PLAN

SCALE: 1"=100' FOR 11"x17"
1"=50' FOR 22"x34"



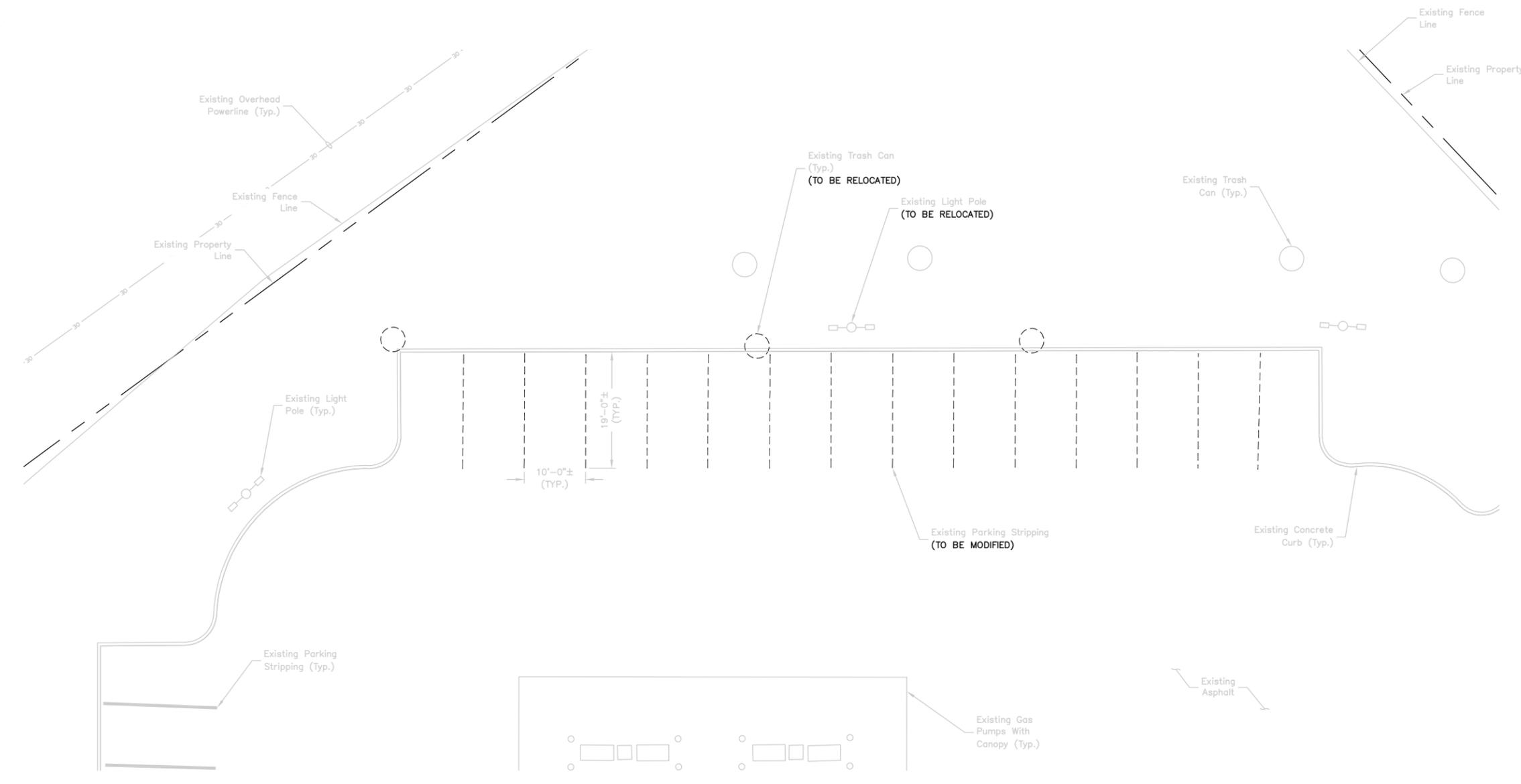
1

NOTES:

1. SITE PLAN BASED ON AS-BUILT SURVEY PREPARED BY GONZALEZ-STRENGTH & ASSOCIATES DATED 04/29/2021.
2. UTILITY CONNECTION TO BE MADE UNDER ALABAMA POWER UTILITY STANDARDS, CONFIRM FINAL DESIGN PRIOR TO CONSTRUCTION, ALABAMA POWER WORK ORDER TBD.
3. EXISTING UNDERGROUND UTILITIES LIKELY WITHIN AREA OF PROPOSED TRENCH & EQUIPMENT SITE AREA. HAND DIG AND RELOCATE AS REQUIRED.
4. EXISTING STORM DRAIN INLETS TO BE COVERED WITH SILT BAG DURING CONSTRUCTION.

INTERSTATE 20
(PUBLIC R.O.W. VARIES)

U.S. HIGHWAY 78
(PUBLIC R.O.W. VARIES)



EXISTING CONDITIONS PLAN ①

SCALE: 1"=20' FOR 11"x17"
1"=10' FOR 22"x34"



NOTES:

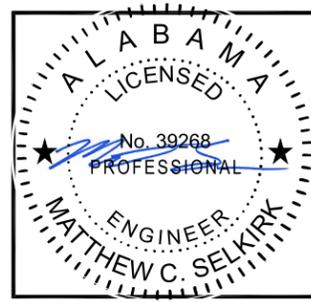
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TESLA

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(650) 681-5000

Dewberry

Dewberry Engineers Inc.
2835 BRANDYWINE ROAD
SUITE 100
ATLANTA, GA 30341-4015
PHONE: 678.530.002



DRAWN BY:	WG
CHECKED BY:	SES
APPROVED BY:	MCS
PROJECT #:	50123704
JOB #:	50144337

SUBMITTALS		
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BUC-EE'S #43
LEEDS, AL
(TRT ID: 25798)

SITE ADDRESS:
6900 BUC-EE'S BLVD
LEEDS, AL 35094

SHEET TITLE
**EXISTING
CONDITIONS PLAN**

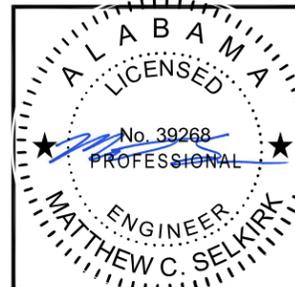
SHEET NUMBER
C-2



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SUITE 100
ATLANTA, GA 30341-4015
PHONE: 678.530.002



DRAWN BY: WG

CHECKED BY: SES

APPROVED BY: MCS

PROJECT #: 50123704

JOB #: 50144337

SUBMITTALS

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0	11/16/21	ISSUED FOR PERMIT
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BUC-EE'S #43
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(TRT ID: 25798)

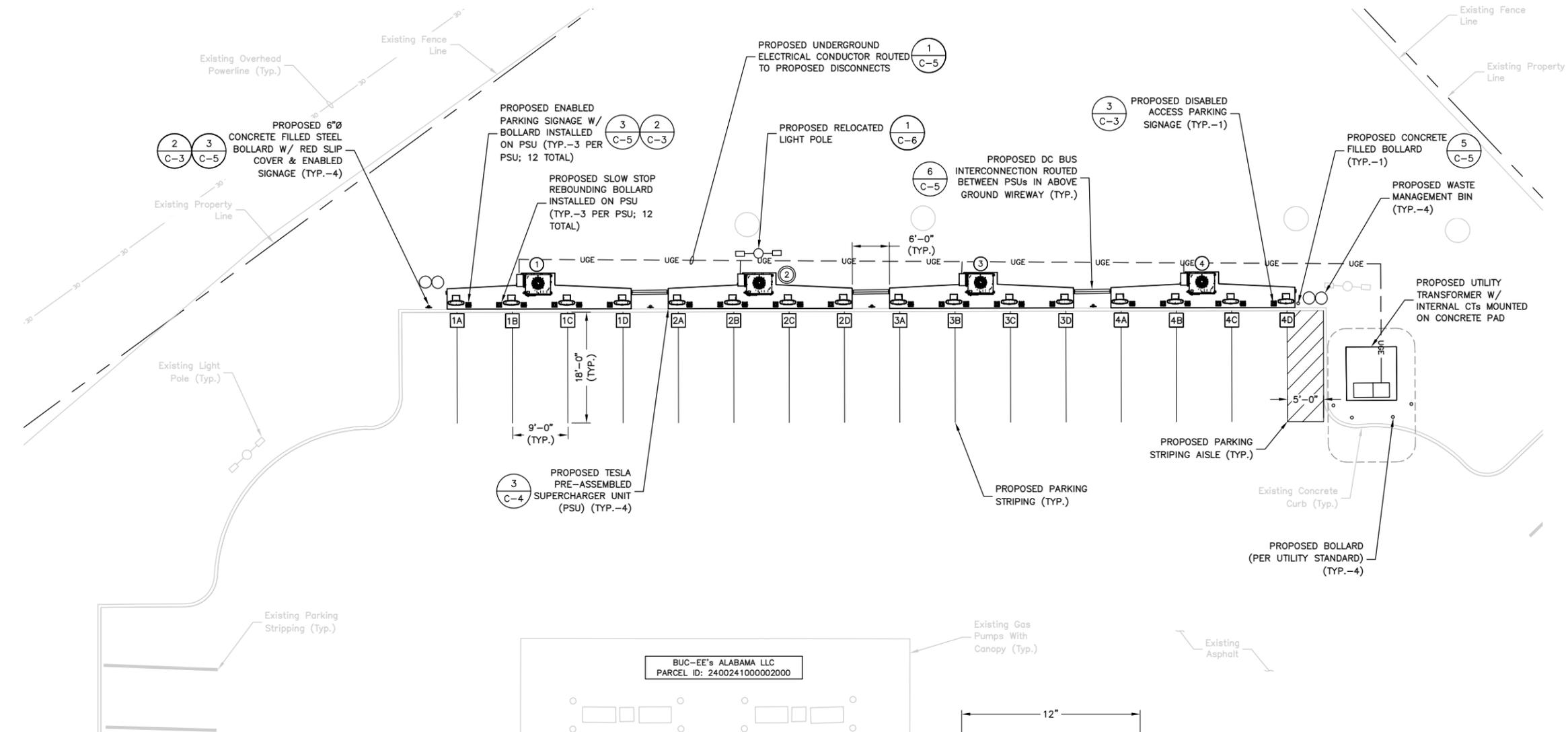
SITE ADDRESS:
6900 BUC-EE'S BLVD
LEEDS, AL 35094

SHEET TITLE

EQUIPMENT/
PARKING PLAN

SHEET NUMBER

C-3



PROPOSED STALL SCHEDULE

DESCRIPTION	QUANTITY
PROPOSED TELSA STALLS	16
PROPOSED STANDARD STALLS	4
EXISTING STALLS (TO BE MODIFIED)	15
TOTAL STALL SCHEDULE	
DESCRIPTION	QUANTITY
TOTAL STALL COUNT	16
NET STALL CHANGE	+1

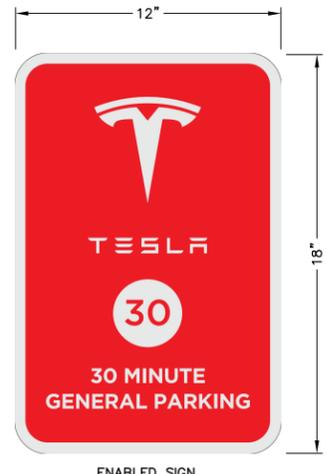
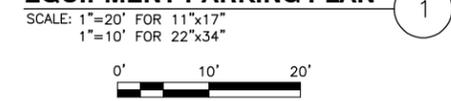
LEGEND

Ⓚ	SUPERCHARGER #
Ⓚ	'STAR-CENTER' MASTER CABINET #
1A	CHARGE POST

CHARGING POST CIRCUIT SCHEDULE

SUPERCHARGER	CHARGE POST	DEDICATED/ENABLED
①	1A	ENABLED
	1B	ENABLED
	1C	ENABLED
	1D	ENABLED
②	2A	ENABLED
	2B	ENABLED
	2C	ENABLED
	2D	ENABLED
③	3A	ENABLED
	3B	ENABLED
	3C	ENABLED
	3D	ENABLED
④	4A	ENABLED
	4B	ENABLED
	4C	ENABLED
	4D	ENABLED

EQUIPMENT PARKING PLAN



- SIGNAGE NOTES:**
- 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).
 - LOGO TO BE #280-10 REFLECTIVE WHITE VINYL.

PARKING SIGNAGE
SCALE: N.T.S. (2)



SCALE: N.T.S. (3)

- NOTES:**
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 - EXISTING STORM DRAIN INLETS TO BE COVERED WITH SILT BAG DURING CONSTRUCTION.



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PROJECT #: 50123704

JOB #: 50144337

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LEEDS, AL
(TRT ID: 25798)

SITE ADDRESS:
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LEEDS, AL 35094

SHEET TITLE

ELECTRICAL
ONE-LINE DIAGRAM

SHEET NUMBER

E-1

SERVICE ELECTRICAL CIRCUIT SCHEDULE

NO.	FROM	TO	CONFIGURATION
1	PROPOSED UTILITY TRANSFORMER	PROPOSED SERVICE BREAKER (600A, 80% RATED)	[2 SETS] (3) 500MCM AL (THWN-2) (1) 500MCM AL (THWN-2) NEUT IN 4" CONDUIT (INSTALL PVC CONDUIT BELOW GRADE AND RGS CONDUIT ABOVE GRADE)
2	PROPOSED SERVICE BREAKER (600A, 80% RATED)	PROPOSED TESLA SUPERCHARGER (TYP.-4)	[2 SETS] (3) 500MCM AL (THWN-2) (1) 500MCM AL (THWN-2) NEUT (1) #1 AWG CU EGC OR 2/0 AL EGC*
3	PROPOSED TESLA SUPERCHARGER	PROPOSED TESLA POST (TYP.-16)	[1 SET PER POST; PRE-INSTALLED] (4) 350MCM AL (XHHW-2) (1000V RATED), (1) #1 AWG OR 2/0 AL EGC* & SHIELDED COMM CABLE (600V RATED) (PER TESLA)
4	DC BUS BETWEEN PROPOSED SUPERCHARGERS	DC BUS BETWEEN PROPOSED SUPERCHARGERS	[2 SETS] (2) 500MCM AL (XHHW-2) (1) 1/0 CU GROUND & (1) 3/0 AWG AL DC MID (1000V RATED) IN TESLA CUSTOM ABOVE GROUND WIREWAY
5	SITE CONTROLLER (INTERNAL TO STAR CENTER PSU)	SUPERCHARGER (TYP.)	SHIELDED CAT6E IN 1" CONDUIT**

* MODIFIED PER NEC 250.64(A)(2)

** PER UL LISTED HDPE CONDUIT PERMITTED. CONTRACTOR TO CONFIRM USE W/ TESLA CM

UTILITY S.O.W. RESPONSIBILITIES

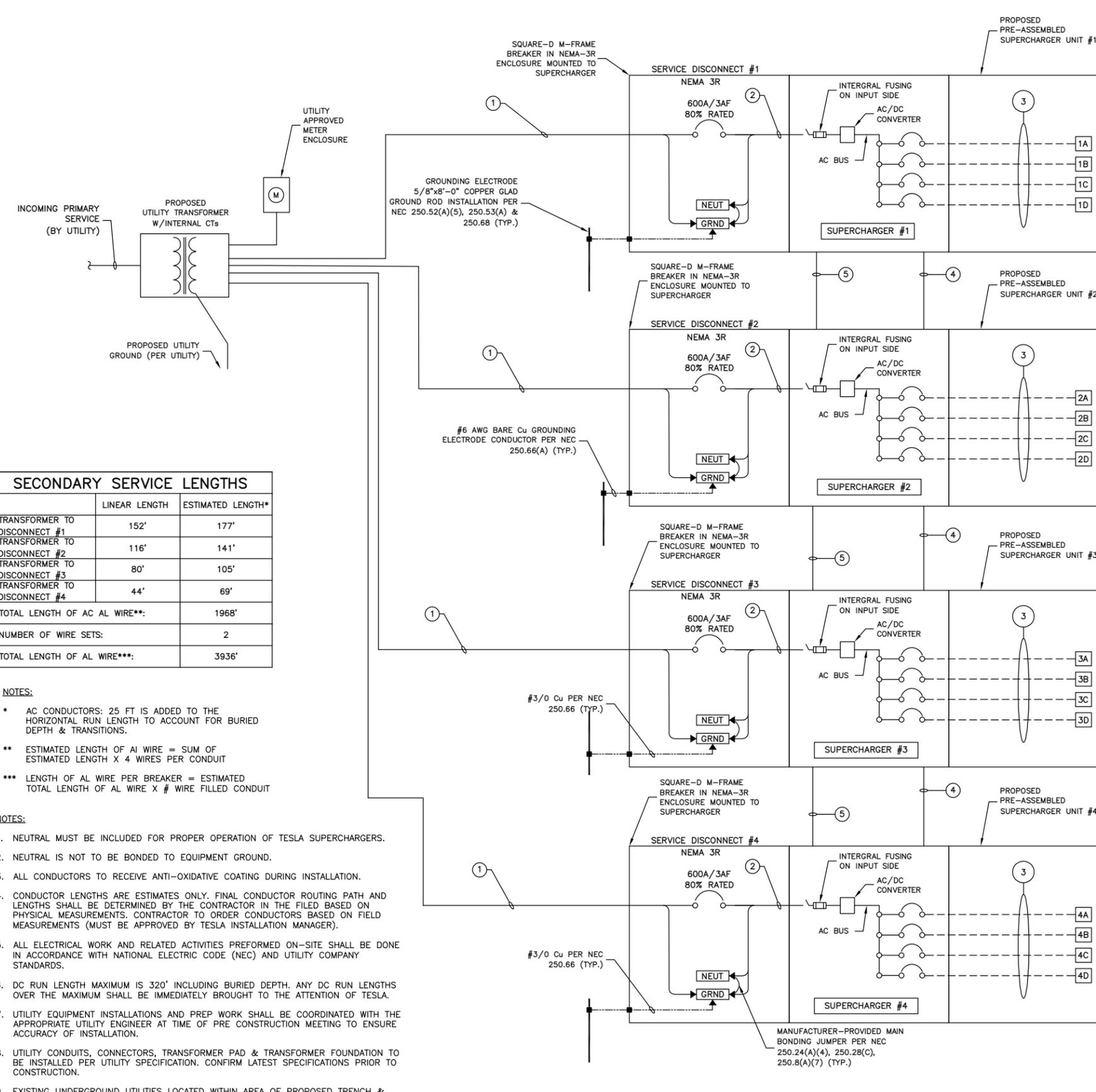
SCOPE OF WORK	BY UTILITY	BY CONTRACTOR
PROVIDE & INSTALL PRIMARY CONDUCTORS	X	
PROVIDE & INSTALL PRIMARY TRENCHING & CONDUITS		X
PROVIDE & INSTALL TRANSFORMER PAD & ASSOCIATED GROUNDING	X	
PROVIDE UTILITY TRANSFORMER W/INTERNAL CTs	X	
INSTALL PRIMARY CONNECTIONS AT TRANSFORMER	X	
INSTALL SECONDARY CONNECTIONS AT TRANSFORMER	X	
PROVIDE UTILITY METER BASE & METER PEDESTAL	X	
INSTALL UTILITY METER BASE & METER PEDESTAL		X
PROVIDE & INSTALL UTILITY METER	X	
PROVIDE & INSTALL SECONDARY TRENCHING & CONDUITS		X
PROVIDE & INSTALL SECONDARY CONDUCTORS		X

BREAKER TRIP SETTINGS

600A (80%) SUPERCHARGER BREAKER:
(EATON PDG33G0600TFAJ)
LONG TIME PICK UP (I_r) = FIXED 600A
INSTANTANEOUS = 5

UTILITY FAULT CURRENT

TRANSFORMER: TBD
SECONDARY VOLTAGE: 277/480V
SECONDARY FAULT CURRENT: TBD



SECONDARY SERVICE LENGTHS

	LINEAR LENGTH	ESTIMATED LENGTH*
TRANSFORMER TO DISCONNECT #1	152'	177'
TRANSFORMER TO DISCONNECT #2	116'	141'
TRANSFORMER TO DISCONNECT #3	80'	105'
TRANSFORMER TO DISCONNECT #4	44'	69'
TOTAL LENGTH OF AC AL WIRE**		1968'
NUMBER OF WIRE SETS:		2
TOTAL LENGTH OF AL WIRE***		3936'

NOTES:

- * AC CONDUCTORS: 25 FT IS ADDED TO THE HORIZONTAL RUN LENGTH TO ACCOUNT FOR BURIED DEPTH & TRANSITIONS.
 - ** ESTIMATED LENGTH OF AL WIRE = SUM OF ESTIMATED LENGTH X 4 WIRES PER CONDUIT
 - *** LENGTH OF AL WIRE PER BREAKER = ESTIMATED TOTAL LENGTH OF AL WIRE X # WIRE FILLED CONDUIT
1. NEUTRAL MUST BE INCLUDED FOR PROPER OPERATION OF TESLA SUPERCHARGERS.
 2. NEUTRAL IS NOT TO BE BONDED TO EQUIPMENT GROUND.
 3. ALL CONDUCTORS TO RECEIVE ANTI-OXIDATIVE COATING DURING INSTALLATION.
 4. CONDUCTOR LENGTHS ARE ESTIMATES ONLY. FINAL CONDUCTOR ROUTING PATH AND LENGTHS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FILED BASED ON PHYSICAL MEASUREMENTS. CONTRACTOR TO ORDER CONDUCTORS BASED ON FIELD MEASUREMENTS (MUST BE APPROVED BY TESLA INSTALLATION MANAGER).
 5. ALL ELECTRICAL WORK AND RELATED ACTIVITIES PERFORMED ON-SITE SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (NEC) AND UTILITY COMPANY STANDARDS.
 6. DC RUN LENGTH MAXIMUM IS 320' INCLUDING BURIED DEPTH. ANY DC RUN LENGTHS OVER THE MAXIMUM SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF TESLA.
 7. UTILITY EQUIPMENT INSTALLATIONS AND PREP WORK SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY ENGINEER AT TIME OF PRE CONSTRUCTION MEETING TO ENSURE ACCURACY OF INSTALLATION.
 8. UTILITY CONDUITS, CONNECTORS, TRANSFORMER PAD & TRANSFORMER FOUNDATION TO BE INSTALLED PER UTILITY SPECIFICATION. CONFIRM LATEST SPECIFICATIONS PRIOR TO CONSTRUCTION.
 9. EXISTING UNDERGROUND UTILITIES LOCATED WITHIN AREA OF PROPOSED TRENCH & EQUIPMENT SITE AREA. HAND DIG AND RELOCATE AS REQUIRED.
 10. CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC SAFETY MEASURES THROUGHOUT DURATION OF CONSTRUCTION. COORDINATE ANY ACCESS ROAD CLOSURES W/OWNER.
 11. ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL BE IN NEMA 3R RATED UNLESS OTHERWISE NOTED.

SYSTEM ONE-LINE DIAGRAM

SCALE: N.T.S.

1

