

COMMERCIAL
EVCS INSTALLATION

SAN JOAQUIN VALLEY APCD

1990 E GETTYSBURG AVE
FRESNO, CA 93726

(559) 230-6000

SHEET INDEX

PV 1.0	COVER SHEET
PV 2.0	SINGLE LINE DIAGRAM
PV 3.0	SITE PLAN
PV 4.0	SYSTEM LAYOUT
PV 5.0	SPECIFICATION SHEETS
PV 6.0	EVCS STRUCTURAL DETAILS
PV 7.0	XFMR STRUCTURAL DETAILS

INSTALLATION DETAILS

INSTALL TYPE:	ELECTRIC VEHICLE CHARGING STATIONS
MANUFACTURER:	CHARGEPOINT
EVCS TYPE:	DUAL PORT/ BALLARD
MODEL NUMBER:	CT4021
TOTAL COUNT:	(7) DUAL PORT
ELECTICAL TYPE AT LOCATION:	THREE PHASE
JURISDICTION:	CITY OF FRESNO BUILDING DEPARTMENT 2600 FRESNO ST. FRESNO, CA 93721

GENERAL NOTES

- 1) THE APPROVAL OF THESE PLANS AND SPECIFICATIONS DOES NOT PERMIT THE VIOLATION OF ANY SECTION OF THE BUILDING CODE, MUNICIPAL ORDINANCES, OR STATE LAWS.
- 2)THESE PLANS AND RELATED DOCUMENTS MUST BE AT THE JOB SITE DURING INSPECTION ACTIVITY.
- 3)ELECTRICIANS MUST BE CERTIFIED BY THE STATE OF CALIFORNIA. NON-COMPLIANT VIOLATIONS OF THIS REQUIREMENT BY EITHER ELECTRICIANS OR WORKING CONTRACTORS SHALL BE REPORTED TO THE LICENSE BOARD AS REQUIRED UNDER THE EXISTING LABOR CODE SECTION 108.2 AN INDENTURED APPRENTICE OR STATE REGISTERED ELECTRICIAN (AKA TRAINEE) MAY ALSO PERFORM ELECTRICAL WORK IF UNDER DIRECT SUPERVISION OF A "STATE CERTIFIED ELECTRICIAN.
- 4)ANY SURVEY MONUMENTS IN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A PERSON LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA.
- 5)REPAIR ALL DAMAGED AND/OR OFF-GRADE CONCRETE STREET IMPROVEMENTS AS DETERMINED BY THE CONSTRUCTION MANAGEMENT ENGINEER PRIOR TO OCCUPANCY.
- 6)ALL PROPOSED TRANSFORMERS SHALL BE LOCATED WITHIN AN EXISTING SERVICE ROOM, OR PLACED UNDERGROUND.
- 7)EACH EVCS SPACE WILL BE DESIGNATED FOR FLEET EV CHARGING ONLY AND SIGNAGE WILL BE PROVIDED INDICATING THE SPACES ARE NOT FOR USE BY THE GENERAL PUBLIC.

APPLICABLE CODES:

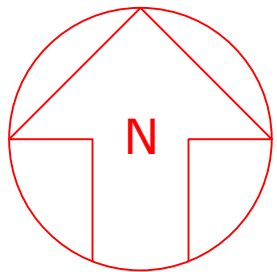
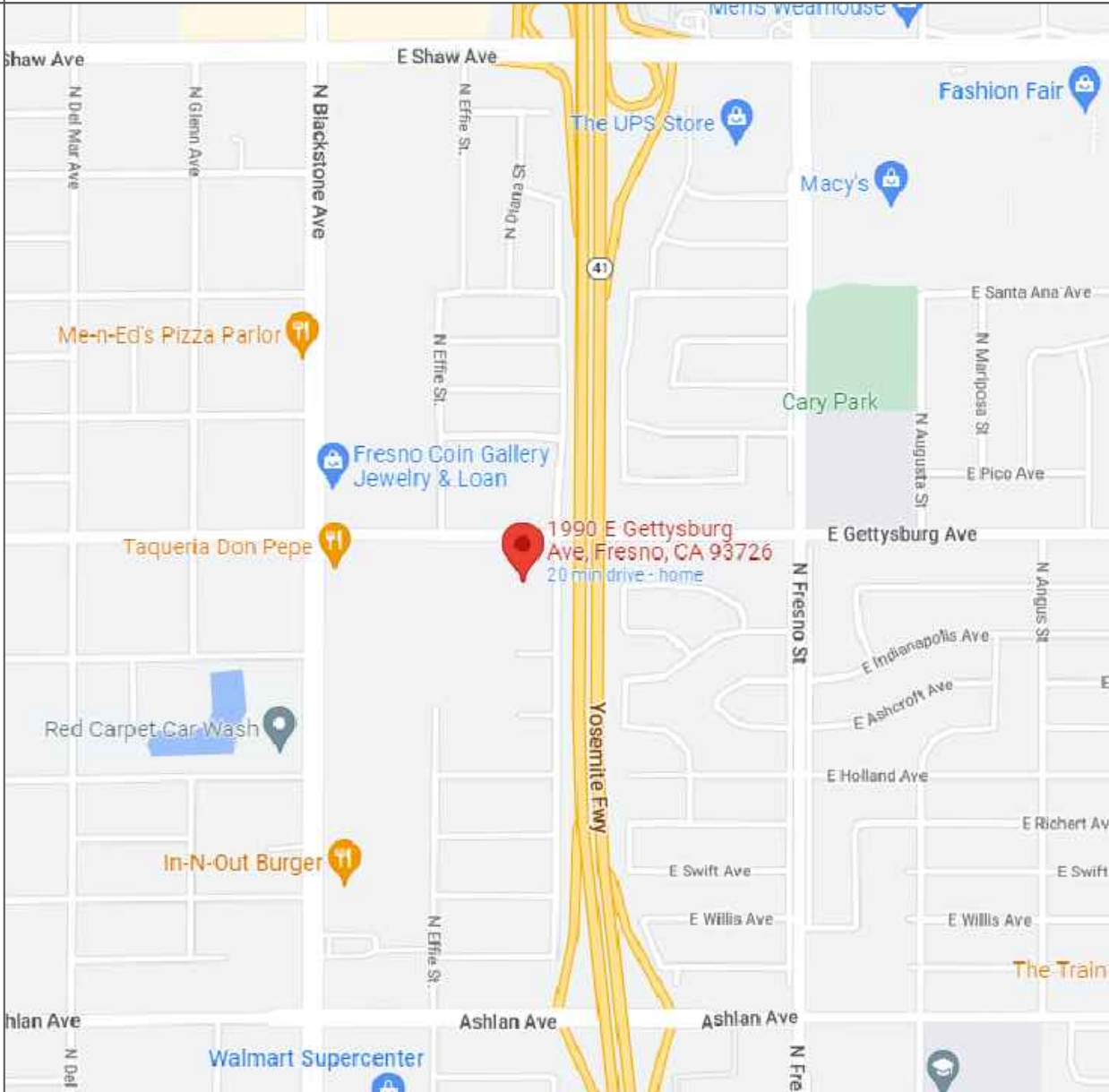
2019 BUILDING CODE
2019 CALIFORNIA MECHANICAL CODE
2019 CALIFORNIA ELECTRICAL CODE
2019 CALIFORNIA PLUMBING CODE
2019 CALIFORNIA FIRE CODE
2019 CALIFORNIA ENERGY CODE
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
AISC 14TH EDITION
ASCE-7 2010

OWNERSHIP

SAN JOAQUIN AIR POLLUTION
CONTROL DISTRICT
APN:428-010-34T

ZONE:

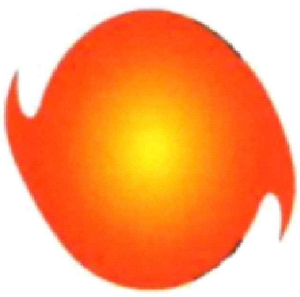
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PACIFIC SOLAR

4920 E Yale
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Contractor License # 812149



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DATE: Jul 29 2022

PLANNING:	
PUBLIC UTILITIES:	
PUBLIC WORKS:	
FIRE:	
GRADING:	
BUILDING:	
STRUCTURAL:	
ELECTRICAL:	
MECHANICAL:	
ENERGY/TITLE 24:	
PLUMBING:	

SAN JOAQUIN VALLEY APCD

1990 E GETTYSBURG AVE

FRESNO, CA 93726

Sheet Name

COVER SHEET

Drawn by: BRITANY BURKS

Job No.: ----

Scale: N/A

Sheet No.

PV-1.0

Date: 7/27/2022

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Aug 12 2022
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By Lori Jalomo

NOTE:PLEASE SEE SHEET PV-2.0 FOR FULL SITE PLAN

[illegible]

NEC 220.12	General Load					55675 sq ft.	x	3va =	167,025 Watts
	(6)Existing Charging Ports(32A continuous)					39936 watts	x	1.25 =	49,920 Watts
	AC Load(continuous)	175 Amps	x	480 Volts	x	1.732	x	1.25 =	181,860 Watts
	Existing Load								398,805 Watts
	(14)Proposed New Charging Ports (32A continuous)				6656 Watts	x	14 ports	x 1.25 =	116,480 Watts
	Total Load (Existing & Proposed)								515,285 Watts
	Total Load(Existing & Proposed)			515285 Watts /	480 Volts /	1.732			619 Amps
	Existing Service								1,600 Amps
	Remaining Available Load After New Installation								981 Amps



LICENSED ELECTRICAL CONTRACTOR
 MICHAEL WARD
 CLASSIFICATION
 C - 10
 LICENSE NO.
 81249
 STATE OF CALIFORNIA

7) SIGNAGE WILL BE POSTED AT EACH EVCS SPACE INDICATING FLEET VEHICLE PARKING ONLY.

EV CHARGING STATION

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Aug 12 2022

COMPANY FLEET
VEHICLE USE
ONLY

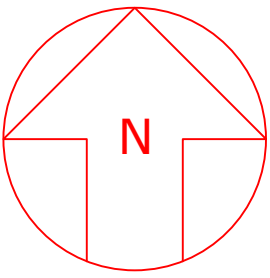
Lori Salama

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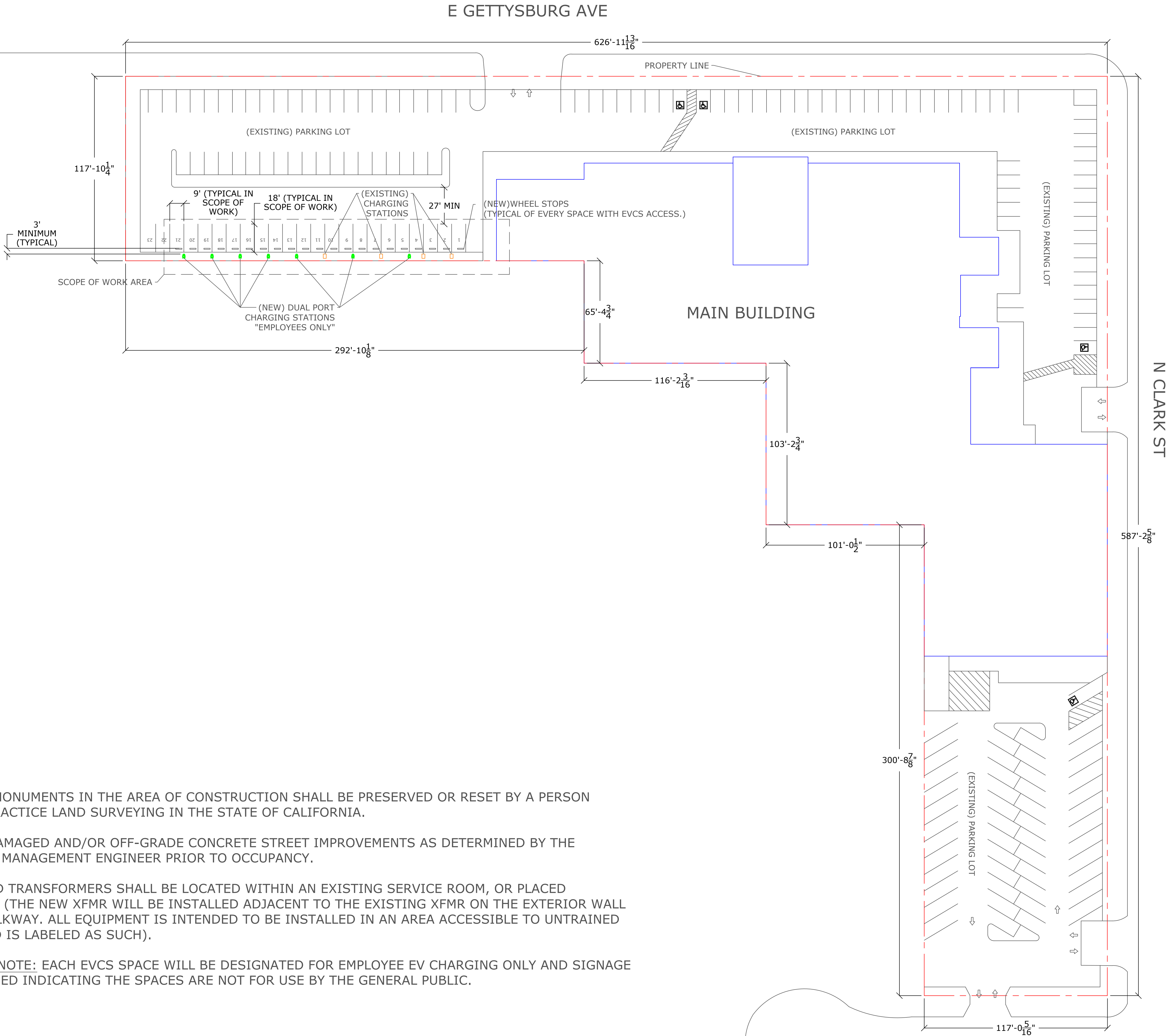
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SCALE : 1" = 30'



APN:428-010-34T



NOTES:

1)ANY SURVEY MONUMENTS IN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A PERSON LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA.

2)REPAIR ALL DAMAGED AND/OR OFF-GRADE CONCRETE STREET IMPROVEMENTS AS DETERMINED BY THE CONSTRUCTION MANAGEMENT ENGINEER PRIOR TO OCCUPANCY.

3)ALL PROPOSED TRANSFORMERS SHALL BE LOCATED WITHIN AN EXISTING SERVICE ROOM, OR PLACED UNDERGROUND. (THE NEW XFMR WILL BE INSTALLED ADJACENT TO THE EXISTING XFMR ON THE EXTERIOR WALL NOT IN ANY WALKWAY. ALL EQUIPMENT IS INTENDED TO BE INSTALLED IN AN AREA ACCESSIBLE TO UNTRAINED PERSONNEL AND IS LABELED AS SUCH).

ACCESSIBILITY NOTE: EACH EVCS SPACE WILL BE DESIGNATED FOR EMPLOYEE EV CHARGING ONLY AND SIGNAGE WILL BE PROVIDED INDICATING THE SPACES ARE NOT FOR USE BY THE GENERAL PUBLIC.

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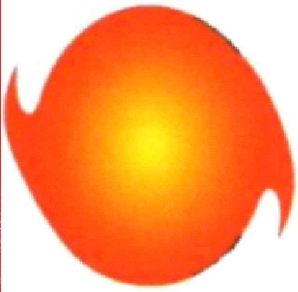
STRUCTURAL: _____

ELECTRICAL: _____

MECHANICAL: _____

ENERGY/TITLE 24: _____

PLUMBING: _____



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By: Lori Jalomo

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SAN JOAQUIN VALLEY APCD

1990 E GETTYSBURG AVE

FRESNO, CA 93726

Sheet Name

SITE PLAN

Drawn by: BRITANY BURKS

Job No.: ----

Scale: N/A

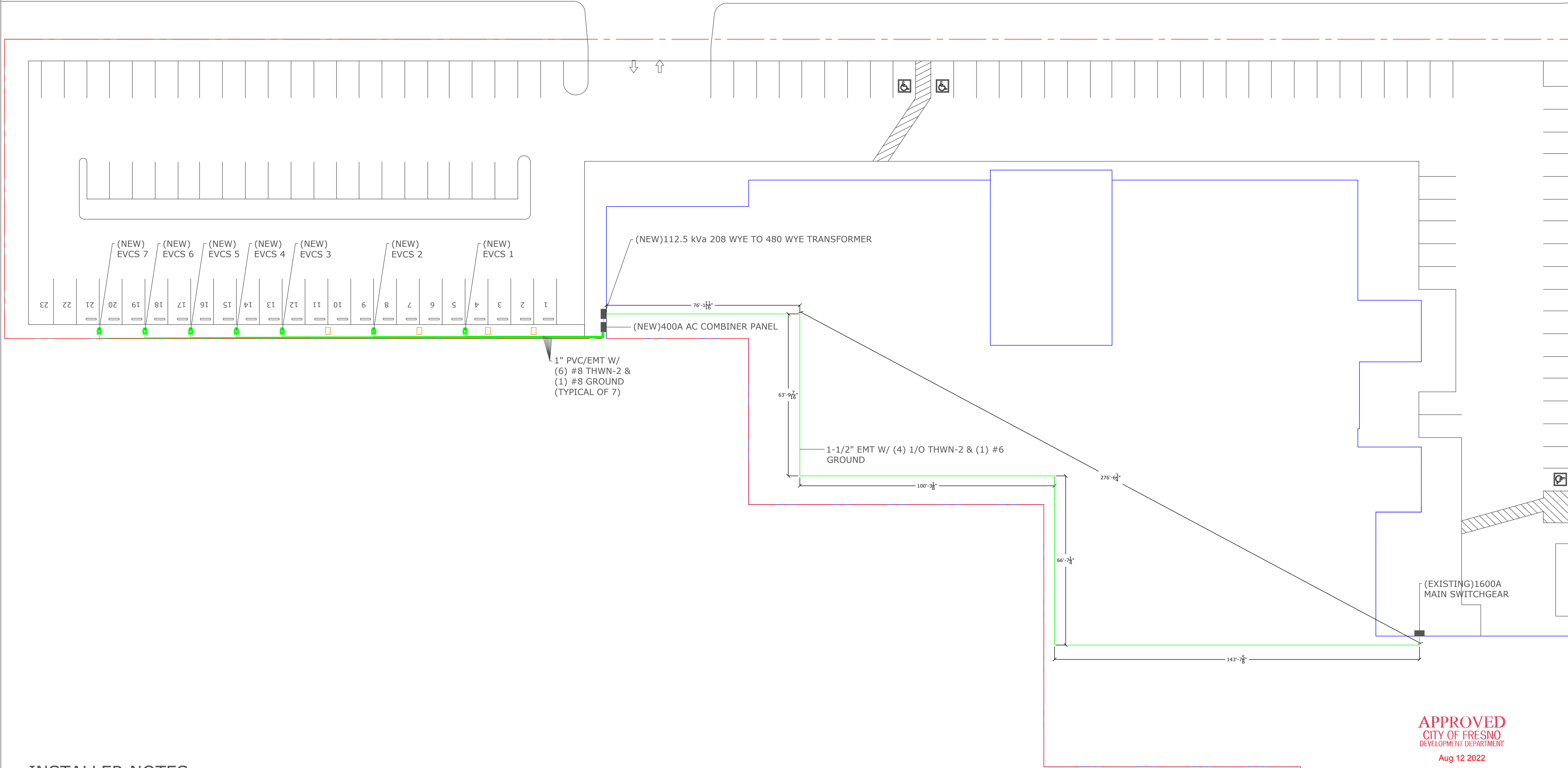
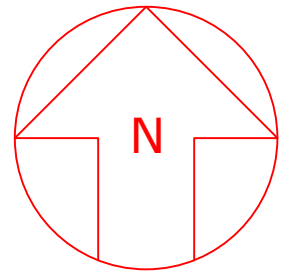
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PV-3.0

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SCALE : 3/32"=1'



INSTALLER NOTES:

- 1) "EMPLOYEE ONLY EV CHARGING STATION" SIGNAGE TO BE INSTALLED FOR EACH SPACE.
- 2) WHEEL STOPS WILL BE INSTALLED IN EACH EVCS ACCESSIBLE SPACE A MINIMUM OF 3' FROM FRONT SIDE OF WHEEL STOP TO FIRST ACCESSIBLE TOUCH POINT OF EVCS.

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1990 E GETTYSBURG AVE

FRESNO, CA 93726

Sheet Name

SYSTEM
LAYOUT

Drawn by: BRITANY BURKS

Job No.: ----

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PV-4.0

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ELECTRIC VEHICLE CHARGING STATIONS SPECIFICATIONS



CT4000 Level 2 Commercial Charging Station

Specifications and Ordering Information



CT4021

CT4000 Datasheet

Ordering Information

The order codes below represent specific product configurations. Other product options are available. Please contact ChargePoint Sales for information and order codes.

Specify model number followed by the applicable code(s). The order code sequence is: **Model-Options. Software, Services and Misc** are ordered as separate line items.

Hardware

Description	Order Code
Model	1830 mm (6 ft) Single Port Bollard Mount CT4011-GW1
	1830 mm (6 ft) Dual Port Bollard Mount CT4021-GW1
	1830 mm (6 ft) Single Port Wall Mount CT4013-GW1
	1830 mm (6 ft) Dual Port Wall Mount CT4023-GW1
	2440 mm (8 ft) Dual Port Bollard Mount CT4025-GW1
	2440 mm (8 ft) Dual Port Wall Mount CT4027-GW1
Included	Integral Modern – North America -GW1
Misc	Power Management Kit Bollard Concrete Mounting Kit CT4000-PMGMT
	Bollard Concrete Mounting Kit CT4001-CCM

*Note: ALL CT4000 stations include Integral Modern -GW1.

Software & Services

Description	Order Code
ChargePoint Commercial Service Plan	CPCLD-COMMERCIAL-n*
ChargePoint Enterprise Plan	CPCLD-ENTERPRISE-n*
ChargePoint Assure	CT4000-ASSUREn*
Station Activation and Configuration	CPSUPPORT-ACTIVE
ChargePoint Station Installation and Validation	CT4000-INSTALLVALID

Note: All CT4000 stations require a network service plan per port.

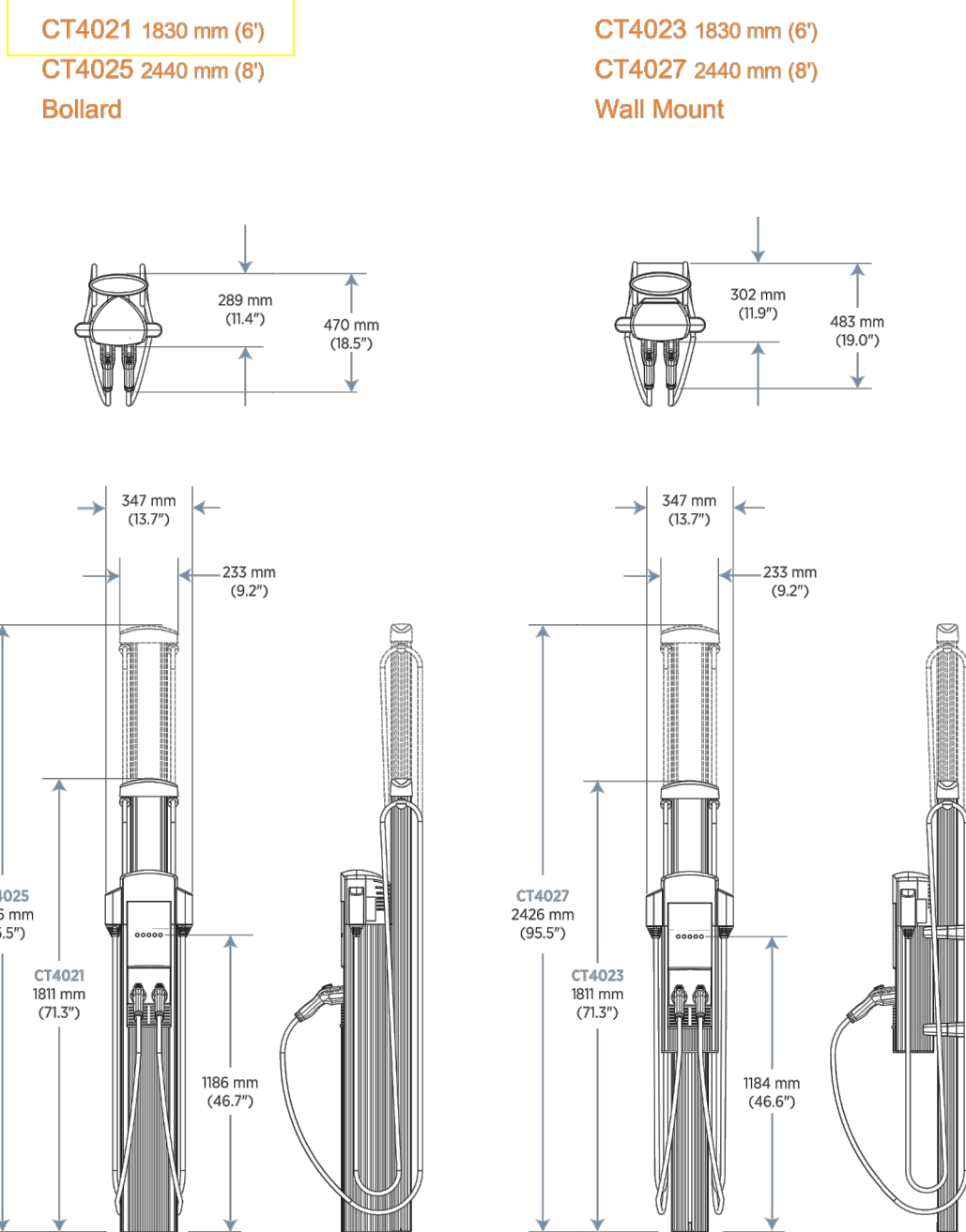
*Substitute n for desired years (1, 2, 3, 4 or 5 years)

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2 of 7

CT4000 Datasheet

Architectural Drawings (Dimensions)



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4 of 7

CT4000 Datasheet

General Specifications

Electrical Input

Electrical Input	Single Port (AC Voltage 208 / 240V AC)			Dual Port (AC Voltage 208 / 240V AC)		
	Input Current	Input Power Connection	Required Service Panel Breaker	Input Current	Input Power Connection	Required Service Panel Breaker
Standard	30A	One 40A branch circuit	40A dual pole (non-GFCI type)	30A x 2	Two independent 40A branch circuits	40A dual pole (non-GFCI type) x 2
Standard Power Share	n/a	n/a	n/a	32A	One 40A branch circuit	40A dual pole (non-GFCI type)
Power Select 24A	24A	One 30A branch circuit	30A dual pole (non-GFCI type)	24A x 2	Two independent 30A branch circuits	30A dual pole (non-GFCI type) x 2
Power Select 24A Power Share	n/a	n/a	n/a	24A	One 30A branch circuit	30A dual pole (non-GFCI type)
Power Select 16A	16A	One 20A branch circuit	20A dual pole (non-GFCI type)	16A x 2	Two independent 20A branch circuits	20A dual pole (non-GFCI type) x 2
Power Select 16A Power Share	n/a	n/a	n/a	16A	One 20A branch circuit	20A dual pole (non-GFCI type)
Service Panel GFCI	Do not provide external GFCI as it may conflict with internal GFCI (CCID)					
Wiring – Standard	3-wire (L1, L2, Earth)			5-wire (L1, L1, L2, L2, Earth)		
Wiring – Power Share	n/a			3-wire (L1, L2, Earth)		
Station Power	8 W typical (standby), 15 W maximum (operation)					

Electrical Output

Electrical Output	Single Port (AC Voltage 208 / 240V AC)	Dual Port (AC Voltage 208 / 240V AC)
Standard	7.2 kW (240V AC @ 30A)	7.2 kW (240V AC @ 30A) x 2
Standard Power Share	n/a	7.2 kW (240V AC @ 30A) x 1 or 3.8 kW (240V AC @ 16A) x 2

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5 of 7

TRANSFORMER SPECIFICATIONS



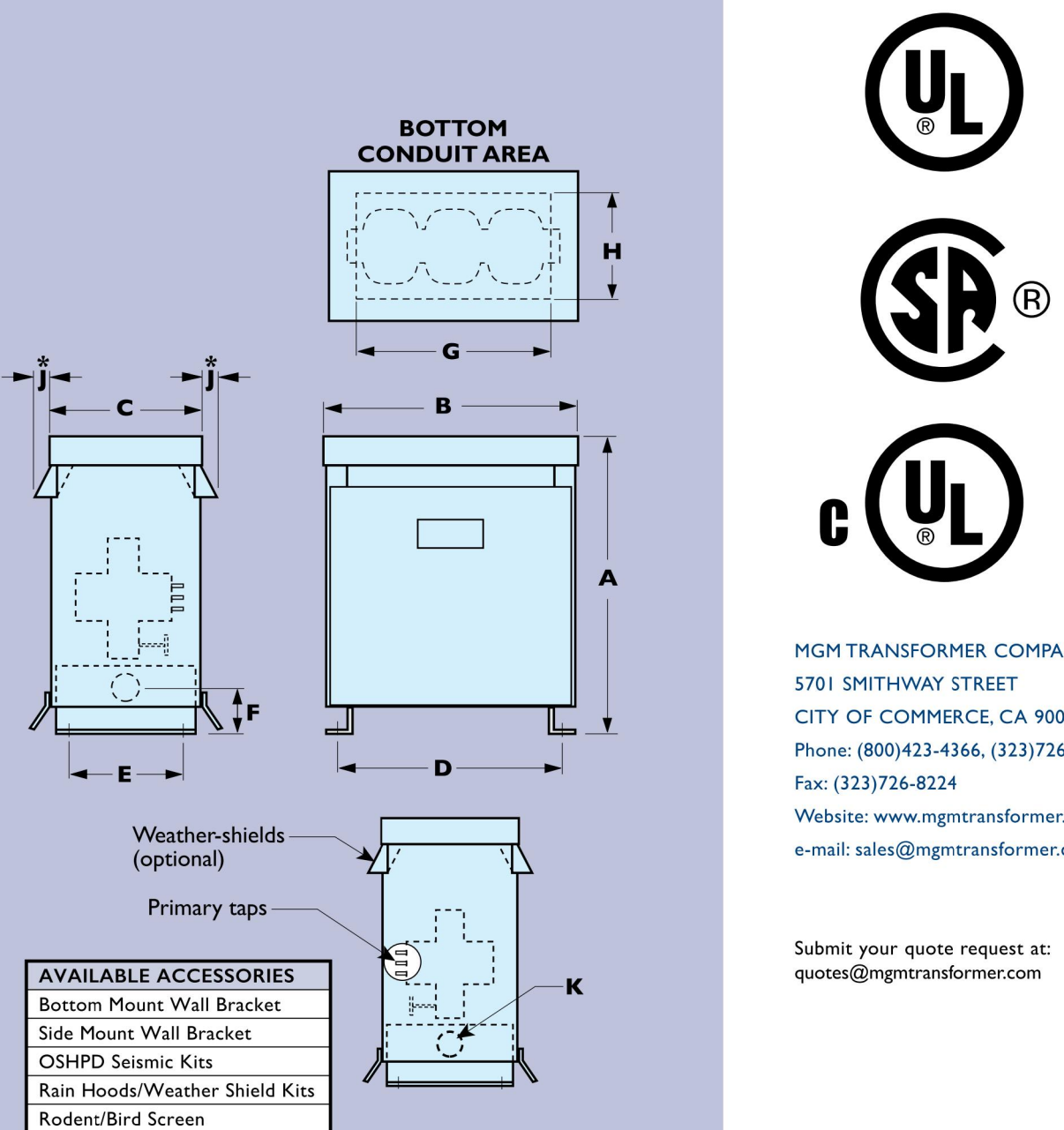
Custom 600 V Class, Dry Type General Purpose Distribution Transformers



600V, Dry Type, General Purpose Distribution Transformer Catalog Numbering System

	1	2	3	4	5	6	7	8	9	10	11	12	13	
Example:	H	T	112	A	3	B	2	SH	-	H	KI	060	LN0	01
1	Certifications H = UL Listed, CSA, 220° C Insulation System													
2	Phase S = Single Phase, rated max. 500 kVA T = Three Phase, rated max. 1500 kVA													
3	kVA: As called out in numerals. 9, 10, 15, 25, 30, 37½, 45, 50, 75, 100, 112½, 150, 225, 300, 500, or 1000. (Other numbers between 9 and 1000 may be used. Construction same as next larger number.)													
4 & 6	Primary & Secondary Voltage:													
4	Single Phase:													
4	A: 480	B: 120/240	C: 240 x 480	D: 240	E: 120	F: 600								
4	G: 208	H: 230/460	J: 460	K: 277	P: 230/115									
4	V: 110/220	W: 230	AZ: 450	BZ: 440	HZ: 115									
6	Three Phase:													
6	A: 480D	B: 208Y/120	C: 240D	D: 480Y/277	E: 120D	F: 600D								
6	G: 208D	H: 230D	J: 460D	K: 240/120 4W	L: 240Y/139									
6	M: 380D	N: 575D	P: 230Y/133	Q: 400Y/231	R: 380Y/220									
6	T: 240Y/139	U: 440D	V: 220D	W: 500D	X: 320Y/185									
6	AZ: 450D	BZ: 440Y/254	CZ: 415D											
6	DZ: 240 X 480	EZ: 220Y/127	FZ: 416Y/240	GZ: 460Y/266	HZ: 115D									
6	JZ: 550D	KZ: 380D	LZ: 360D	MZ: 160Y/93	NZ: 130Y/75									
6	PZ: 240Y X 208Y	RZ: 208D X 230D	SZ: 277Y/160	TZ: 490D										
5	Taps													
5	1: No Taps			2: 2 - 2½% FCAN and 2 - 2½% FCBN										
5	3: 2 - 2½% FCAN and 4 - 2½% FCBN			4: 4 - 2½% FCBN										
5	5: 1 - 5% FCAN and 1 - 5% FCBN			6: 2 - 5% FCBN										
5	7: 2 - 2½% FCAN and 1 - 2½% FCBN			8: 1 - 5% FCAN and 2 - 5% FCBN										
7	Winding Material													
7	1 = Copper 2 = Aluminum													
8	Special Features													
8	SH = Electrostatic Shield None (Blank) = No Shield													
9	Temperature C Rise													
9	H = 150° C (Standard) F = 115° C B = 80° C													
10	K-Factor													
10	K1: K01 (Standard)			K4 = K04		K6 = K06		K9 = K09		K13 = K13				
10	K20 = K20			other numbers between K2 and K9 may be used										
11	Frequency													
11	60 = 60 Hertz (Standard)			50 = 50 Hertz		400 = 400 Hertz								
12	Sound Level													
12	LN0 = NEMA ST-20 (Standard)						LNI = 1 dB Below NEMA							
12	LN3 = 3 dB Below NEMA						LNS = 5 dB Below NEMA							
12	LN8 = 8 dB Below NEMA													
13	Enclosure Type													
13	01 = NEMA 1 (Indoor)						1X = NEMA (Indoor - SS)							
13	3R = NEMA 3R (Outdoor)						3X = NEMA 3RX (Outdoor - SS)							
13	04 = NEMA 4 (TENV)						4X = NEMA 4X (TENV - SS)							
13	CC = Core & Coil only													

* We can build units that fall outside of this cataloging scheme. Please contact us for details.



KVA	DIMENSIONS (Inches)											Wall Bracket	Weather Shield	Enclosure
	A	B	C	D	E	F	G	H	J	K				
9 - 15	28	21	14	18½	11½	-	17	10	-	-	-	WB1/NWB	†	GPA
25 - 50	32	26½	17	23	14	-	22	13	-	-	-	WB1/NWB	†	GPB
75	38½	28½	20	28½	17½	-	28	16½	-	-	-	WB2/NWB	†	GPB+
112.5	40½	31½	21½	28½	19	-	28	16½	-	-	-	-	†	GPC
150	40½	36½	21½	33½	19	-	31	16½	-	-	-	-	†	GPC+
225 - 300	51½	40½	26½	37	21	10½	35	19	4½	5"	-	RH5*	-	GPD
500	66	50½	32	47½	24	11½	44	24	4½	2-5"	-	RH6*	-	GPE

*GPD and GPE enclosures require weather shield kits for outdoor (NEMA 3R) installations.

† Dual rated enclosures suitable for indoor or outdoor installations. (NEMA 1, NEMA 3R)

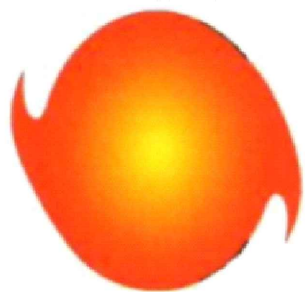
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Fresno, CA 93727

Contractor License # 812149



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FRESNO, CA 93726

Sheet Name

SPECIFICATION SHEETS

Drawn by: BRITANY BURKS

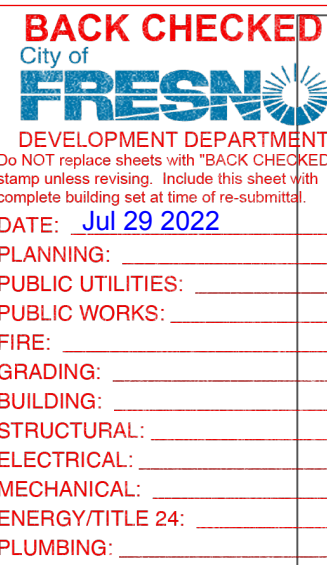
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Sheet No.

PV-5.0

Date: 7/27/2022



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By: Lari Jalomo

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ASSOCIATED DESIGN AND ENGINEERING INC.
351 West Cromwell Ave. Suite #108 Fresno, CA 93711-6115
Office: 559.431.2389 Fax: 559.431.2074 Email: office@adeinc.biz

STRUCTURAL CALCULATIONS
FOR
Pacific Solar
Anchorage of Vehicle Charging Station
San Joaquin Valley APCD, 1990 E. Gettysburg Ave., Fresno, CA 93726

DESIGN DATA

GOVERNING CODE

2019 California Building Code

BASIC STRESSES

CONCRETE

f'_c

3000 PSI for design

MASONRY

f'_m

na PSI

REINFORCING

f_y

na KSI

STRUCT. STL.

f_y

na KSI

LUMBER

na

ALLOWABLE SOIL PRESSURE

DL+LL

- PSF

eq. Act. Fluid Pres.

- PCF

eq. Pas. Fluid Pres.

- PCF

DESIGN LOADS

SEISMIC (CAT. D)

SITE CLASS

D

WIND

EXP.

na

na MPH

ROOF LIVE LOAD

na PSF

FLOOR LIVE LOAD

na PSF

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07/21/2022

NO. 58582

REGISTERED PROFESSIONAL ENGINEER
CIVIL
STATE OF CALIFORNIA

JOB 1

S22-021

Preparing the Installation Site for a Bollard Mount

Before You Start

The ChargePoint® Charging Station's bollard mount can be installed either:

- into the ground
- onto an existing concrete surface (on an intermediate floor only)

The kit components you need to use, the tools required, and the installation steps vary depending on the type of installation. This appendix provides basic guidelines for both types of installations.

IMPORTANT: Always check local codes to ensure compliance. You may need to adjust the guidelines provided in this appendix to comply with codes that apply at your installation location.

Installation Overview

To install the CT4000 bollard mount into the ground, you will need the components shown below. These components can be purchased from ChargePoint by ordering a CT4000 Concrete Mount Kit.

NOTE: When installing onto an existing concrete surface, you will need only 6 Galvanized Hex Nuts and 6 Galvanized Washers. But you will need several consumables as described on page A-3.

ChargePoint® Charging Stations

Casting into New Concrete

Before casting into new concrete, review the site for suitability to install a CT4000. The CT4000's Clean Cord Technology requires space behind the power stub-up for the Cord Management Kit (CMK). To ensure adequate space, refer to the illustrations below and to the CT4000 Installation Template (75-001094-0) included in this installation kit.

IMPORTANT:

- Always check local codes to ensure compliance. You may need to adjust these instructions to comply with codes that apply at your installation location.
- The concrete block must measure at least 24" on all sides.
- The bolt threads must extend 3" above the concrete.
- The conduit must be at least 1 1/2" in diameter and extend 12" to 24" above the concrete.
- Refer to the CT4000 Installation Guide for detailed installation instructions.

Kit Components Needed

You will need the entire contents of the CT4000 Concrete Mount Kit.

Follow These Steps

- Install two nuts, with two washers captured between them, onto each of the three bolts, as illustrated. Lock them together so the lower end of the upper nut is located 6 - 6 1/4" from the bottom of the bolt. This sets the length of the exposed threads.
- Insert the three bolts through the Plastic Bolt Installation Template. This ensures the relative position of the bolts and that the flange of the pole fits over the bolts.
- On the bottom of each bolt, install a nut, a washer, and a nut. Lock the two nuts together so that the lower nut aligns to the bottom of the bolt.
- Immediately after pouring the concrete, push the bolts into the concrete 6" deep, as illustrated. Ensure correct alignment and that the top 3" of the bolts remain exposed. Rotate the bolts as you insert them to draw concrete into the threads.

NOTE:

- It is important to rotate the bolts as you insert them. This allows the concrete to fully coat the threads of the bolts, reducing the amount of trapped air.
- The Plastic Bolt Installation Template template can be left in place.

When the concrete is fully set, remove the upper nuts and one washer to install the bollard's mounting post.

You are now ready to install the CT4000's bollard mount. Refer to the CT4000 Installation Guide.

ChargePoint® Charging Stations

Follow These Steps

- Install two nuts with two washers captured between them. Lock them together so the lower end of the nut is located 6" from the bottom of the bolt. This sets the length of the exposed threads.
- Use the Plastic Concrete Bolt Installation Template to mark the hole locations.
- Remove the template and drill three 3/4" diameter holes 6" deep into the concrete. When locating the template, consider the charging station's total footprint. For reference, a template for the CT4000 charging station with CMK is included in this kit.

NOTE:

- It is important that the bolts are parallel after installation. Therefore, ensure the drill holes are plumb by using a bubble level to check the angle of the drill after drilling 1 to 1 1/2".
- If installing over existing buried conduit, position the center of the template around the conduit stub-up.
- You may need two drill bits - one for the concrete (with the pilot) and another for the rebar (without the pilot). Always start the hole using the standard drill bit, then switch to the rebar drill bit only if drilling through rebar.

- Remove all dust from inside the drilled holes using compressed air, or a vacuum and/or a brush.
- If the concrete slab is only 6" deep, insert a plug (McMaster Product #9753K56) in each hole to keep the epoxy in place until it hardens. Place the plug over the long end of a bolt and then use the bolt to push the plug to the bottom of the hole.
- Fill each hole with epoxy to about 2 1/2" to 3" below the top. Continue immediately to the next step because the epoxy sets within about eight minutes.

NOTE: Inserting the threaded bolts displaces the epoxy, causing it to fill the holes to grade level. If the epoxy is below grade level, you can add more after the next step.

- Place the Plastic Concrete Bolt Installation Template over the holes. This ensures the relative position of the bolts and that the flange of the pole fits over the bolts.
- Insert the bolts through the template, into the holes. Rotate the bolts as you insert them to draw epoxy into the threads.

IMPORTANT: The epoxy is very thick. Therefore, it is important to rotate the bolts as you insert them. This allows the epoxy to fully coat the threads of the bolts, reducing the amount of trapped air.

NOTE: The installation template can be left in place.

- If needed, top up the holes with epoxy to grade level.
- Allow the epoxy to cure for at least 15 minutes* before removing the top nuts and washers.
- Allow the epoxy to cure for 45 minutes* before applying torque to the nuts.

*Epoxy cure times assume you are using epoxy ordered from McMaster (Product # 7505A55). If using a different type of epoxy, you may need to adjust these times. Refer to the cure times provided with the epoxy.

You are now ready to install the CT4000's bollard mount (see Chapter 2).

Anchor Designer™
Software
Version 3.0.7947.0

Company:
Engineer:
Project: S22-021 VEHICLE CHARGING STATION ANCHORAGE
Address: WIND
Phone:
E-mail:

Date: 7/21/2022
Page:

Load and Geometry
Load factor source: ACI 318 Section 5.3
Load combination: U = 0.9D + 1.0W
Seismic design: No
Anchors subjected to sustained tension: Not applicable
Apply entire shear load at front row: No
Anchors only resisting wind and/or seismic loads: Yes

Service level loads:

D

W

Strength level loads

N_u (lb)

-135

0

-122

V_u (lb)

0

0

0

V_{uw} (lb)

0

170

170

M_u (ft-lb)

0

560

560

M_{uw} (ft-lb)

0

0

0

M_w (ft-lb)

0

0

0

<Figure 1>

Anchor Designer™
Software
Version 3.0.7947.0

Company:
Engineer:
Project: S22-021 VEHICLE CHARGING STATION ANCHORAGE
Address: WIND
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E-mail:

Date: 7/21/2022
Page:

<Figure 2>

Anchor Designer™
Software
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Company:
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Page:

3. Resulting Anchor Forces

Anchor	Tension load, N _u (lb)	Shear load x, V _{ux} (lb)	Shear load y, V _{uy} (lb)	Shear load combined, √(V _{ux} ² + V _{uy} ²) (lb)
1	0.0	0.0	56.7	56.7
2	1230.1	0.0	56.7	56.7
3	0.0	0.0	56.7	56.7
Sum	1230.1	0.0	170.0	170.0

<Figure 3>

Steel Strength of Anchor in Tension (Sec. 17.4.1)

N _u (lb)	φ	φN _u (lb)
16950	0.75	12713

Steel Strength of Anchor in Shear (Sec. 17.5.1)

V _{ux} (lb)	φ _{vc}	φ	φ _{vc} V _{ux} (lb)
10170	1.0	0.65	6611

CONCRETE STRENGTH

$$CSR = [1230/2991]^{0.8} + [57/1761]^{0.8} = 0.922 < 1.0$$

USE: 5/8" φ F1554 GR 55 w/ MIN 6" EMBED. INTO 3000 PSI CONCRETE

BACK CHECKED

City of
FRESNO
DEVELOPMENT DEPARTMENT

Do NOT replace sheets with "BACK CHECKED" stamp unless reviewing. Include this sheet with complete building set at time of re-submittal.

DATE: Jul 29 2022

PLANNING: _____

PUBLIC UTILITIES: _____

PUBLIC WORKS: _____

FIRE: _____

GRADING: _____

BUILDING: _____

STRUCTURAL: _____

ELECTRICAL: _____

MECHANICAL: _____

ENERGY/TITLE 24: _____

PLUMBING: _____

PACIFIC SOLAR

4920 E Yale
Fresno, CA 93727

Phone: (559) 251-5592
Fax: (559) 251-5595

Contractor License # 812149

SAN JOAQUIN VALLEY APCD

1990 E GETTYSBURG AVE
FRESNO, CA 93726

Sheet Name

EVCS
STRUCTURAL
DETAILS

Drawn by: BRITANY BURKS

Job No.: ----

Scale: N/A

Sheet No.
PV-6.0

Date: 7/27/2022

APPROVED
CITY OF FRESNO
DEVELOPMENT DEPARTMENT

Aug 12 2022

Any changes to these plans must be approved by the Development Department. The issuance of a permit does not grant to any person the right to violate City or State Laws.

By: Lori Jalomo

Input data and results must be checked for agreement with the existing circumstances, the standards and guidelines must be checked for plausibility.
Simpson Strong-Tie Company Inc. 6966 W. Las Positas Boulevard Pleasanton, CA 94588 Phone: 925.560.9000 Fax: 925.847.3871 www.strongtie.com

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