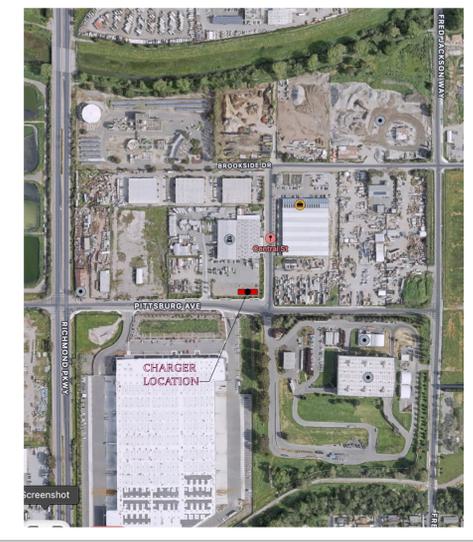


RECEIVED on 06/02/2025 CDLP25-02016
By Contra Costa County
Department of Conservation and Development

VICINITY MAP



PROJECT SCOPE

IN AN EXISTING COMMERCIAL/INDUSTRIAL SITE, A PAVED PORTION OF ONE PARCEL (9) IS TO RECEIVE 6 ELECTRIC TRUCK CHARGING STATIONS. ACCESS TO THE CHARGING AREA IS VIA THE EXISTING SITE ENTRANCE GATE.
A CANOPY OVER THE CHARGING SPACES IS TO BE CONSTRUCTED WITH PHOTOVOLTAIC PANELS TO PROVIDE POWER. THERE WILL ALSO BE A FENCED GROUND LEVEL POWER BANK UNIT TO RECEIVE THE PV ELECTRICITY AND CONVEY IT TO THE CHARGERS.
NO CHANGES TO LANDSCAPE AREAS ARE PROPOSED. NO NEW SIGNAGE OTHER THAN DIRECTIONAL SIGNAGE WITHIN SITE.

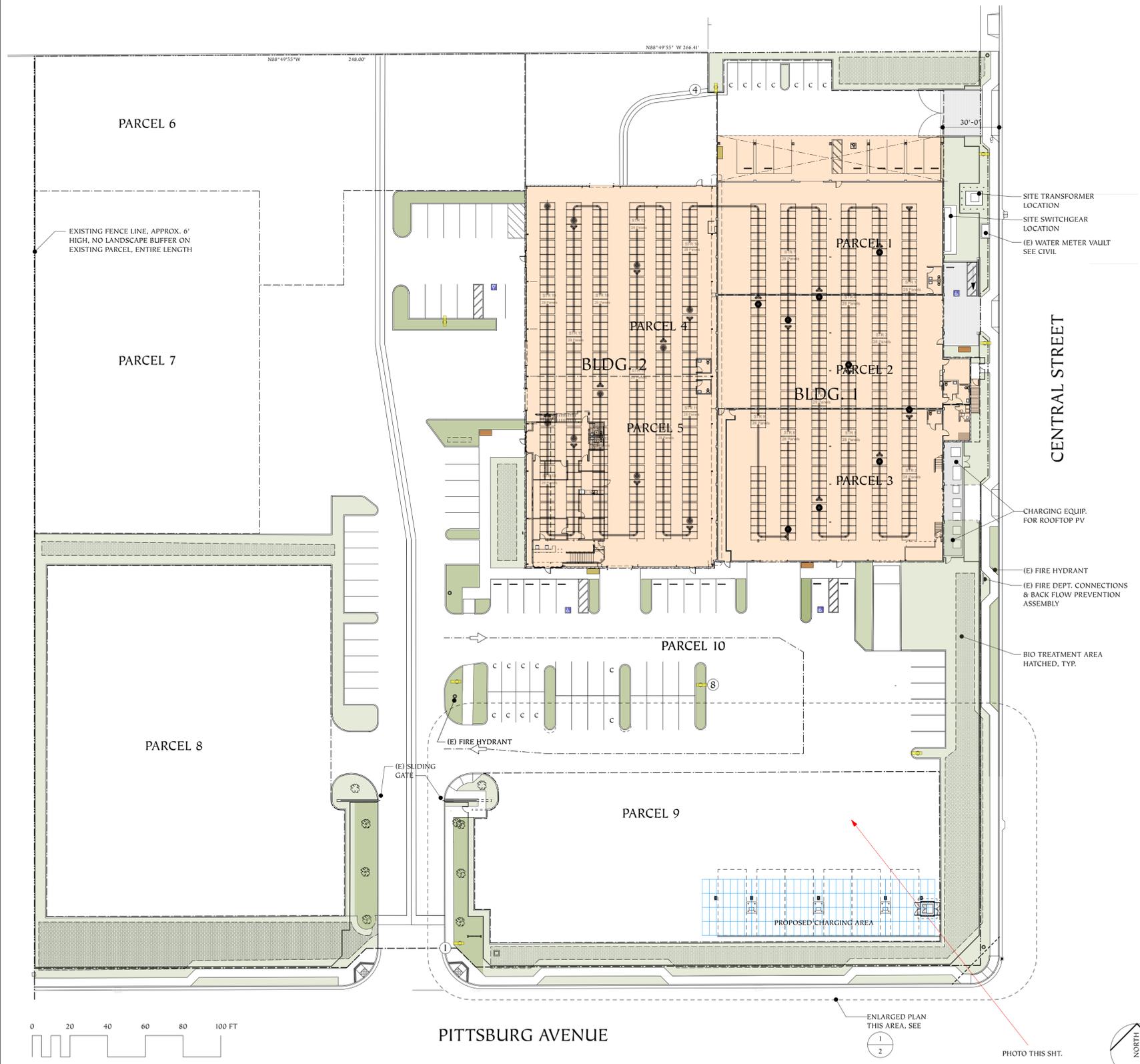
INDEX OF DRAWINGS

SHT. NO.	DESCRIPTION
1	SITE PLAN, PROJECT SCOPE AND DATA
2	SITE PLAN DETAIL, CHARGER PLAN
S-1	KEY PLAN
S-2	CANOPY SECTION & FRAMING PLAN
S-3	CANOPY DETAILS
S-4	MOUNTING DETAILS

PROJECT DESIGN TEAM

ARCHITECT:
More Than Construction, Inc./Donald Wardlaw
2214 13th Ave., Oakland CA 94606
510.318.2752 donald@more-than-construction.com

ENGINEER:
BAJA
CONSTRUCTION CO., INC.
225 PUFFER ST., MARTINEZ CA 94553
415.926.9888 FAX: 415.926.9891



SINEXCEL

SEC 480kW Distributed Charger

Overview

SEC series DC charger is a high-power DC distributed charger independently developed by Sinexcel. It supports new 40KW DC charging module, with a maximum charging power of 480KW. The whole charging system has high efficiency and flexible configuration. By controlling the User Terminal to charge for EV, it can realize not only even load sharing, but also the flexible output distribution of several connectors. In this way, the SEC distributed charger can realize the flexible power distribution among the connectors.
SEC series charger can provide liquid cooling and air cooling User Terminal, as well as CCS1 and CHA charging standard. The charger can meet the charging demand of larger capacity and high endurance from electric vehicle on the market. SEC series charger adopts modular design, and has multiple protections, flexible power distribution and charging control system, which has high efficiency, stable outputs and high reliability. Therefore, it can charge for the EV with high power via reliable User Terminal.



USER UNIT

POWER BANK

CHARGING EQUIPMENT

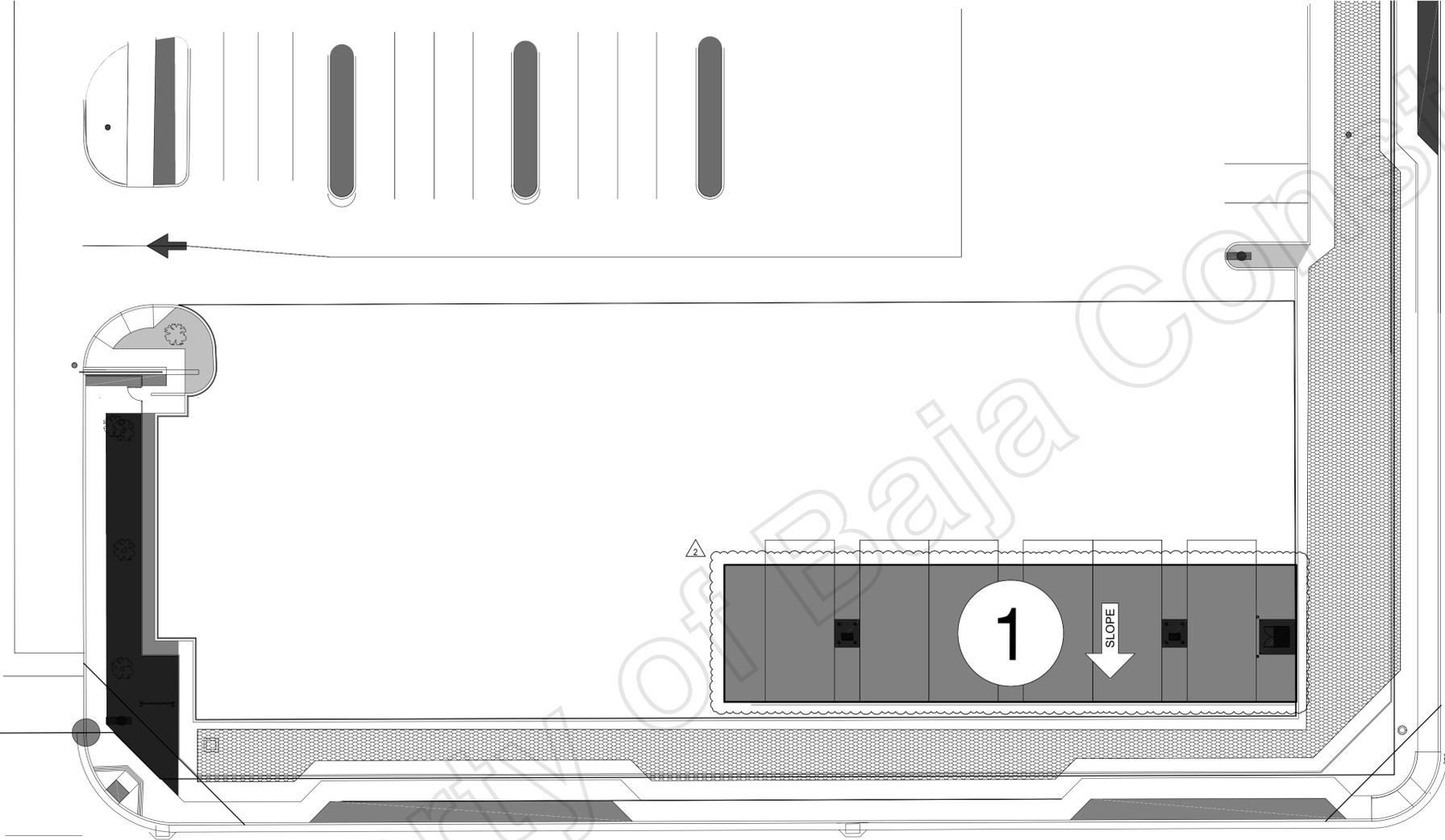
FILE:	Central ChargersZS.vvx
PLOT:	Wednesday, May 14, 2025
PROJECT:	Proposed Site Alteration: 2200 Central DC Chargers 2200 Central, Parcel 9 North Richmond, CA 94539
BUSINESS OWNER:	MSH Group 201 W. Richmond Ave., 'C' Richmond, CA 94801

More Than Construction, Inc.
Architectural Services

Donald Wardlaw, Architect
General Building Contractor (Inactive)
CA Lic. No. 829157
donald@more-than-construction.com 2214 13th Avenue, Oakland CA 94606 510.318.2752

	Date	Item
	MAY 14, 2025	ZONING SUBMITTAL

1



PITTSBURG AVENUE



CUSTOMER REVIEWED & APPROVED THIS PLAN SET

PRELIMINARY PLAN APPROVER SIGNATURE: _____

DATE: _____

1. CODE
2022 CALIFORNIA BUILDING CODE
2016 NAS-AISI COLD-FORMED STEEL DESIGN MANUAL
ASCE 7-16
2. OCCUPANCY CLASSIFICATION AND TYPE OF CONSTRUCTION
OCCUPANCY = GROUP U
CONSTRUCTION TYPE = TYPE II-B
3. LOADS
BUILDING OCCUPANCY CATEGORY II
SOLAR LIVE LOAD: 12 PSF (NON-REDUCIBLE)

BASIC WIND SPEED (3-SECOND GUST): 92 MPH (ULTIMATE), EXP. "C"
WIND IMPORTANCE FACTOR = 1.0
 $K_z = 0.85$ $K_{zt} = 1.0$ $G = 0.85$

SEISMIC DESIGN CATEGORY "D"
SEISMIC IMPORTANCE FACTOR = 1.0
SITE CLASS "D" $S_s = 2.022$ $S_1 = 0.776$ $S_{ds} = 1.618$
SEISMIC FORCE RESISTING SYSTEM: CANTILEVERED COLUMN
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE
DESIGN BASE SHEAR = $C_s(W)$
4. FOUNDATION
FOUNDATION DESIGN BASED ON CBC TABLE 1806.2, SOIL CLASS 5, TWICE THE LATERAL BEARING PRESSURE
MAY BE USED FOR STRUCTURES NOT AFFECTED BY 1/2" GROUND MOTION PER SECTION 1806.3.4
- ALLOWABLE SOIL BEARING PRESSURE = 1500 PSF
- LATERAL BEARING PRESSURE = 100 PSF/FT
5. CONCRETE
ALL CONCRETE REQUIRED HERE-IN SHALL BE DONE IN ACCORDANCE W/ ACI STANDARD 318-19,
SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, WHICH IS HEREBY MADE A PART OF THESE
DOCUMENTS, WITH THE FOLLOWING MODIFICATIONS:
PARA 2.1.2: CEMENT SHALL COMPLY W/ ASTM C150, TYPE II.
PARA 3.2: f'_c SHALL BE 2,500 PSI AT 28 DAYS FOR ALL CONCRETE. NO SPECIAL INSPECTION REQUIRED.
PARA 4.1.3: THE USE OF EARTH CUTS FOR FORMS IS PERMITTED.
PARA 5.2: REINFORCING SHALL BE NEW BILLET STEEL COMPLYING W/ ASTM A615, GRADE 60.
6. SOLAR PANELS
CONTRACTOR SHALL VERIFY ALL FRAME DIMENSIONS AND PANEL DIMENSIONS PRIOR TO STARTING
CONSTRUCTION.

SOLAR PANELS, SOLAR PANEL COMPONENTS AND CONNECTORS SHALL BE DESIGNED, SUPPLIED BY OTHERS
(NOT BY BAJA CONSTRUCTION). MODULES ARE MOUNTED AT 1/4 INCH BETWEEN PANELS BOTH WAYS. THE
SOLAR MODULE SIZE USED TO DETERMINE THE DIMENSIONS SHOWN ON THIS DRAWING WERE 2256mm
(~88.82") X 1133mm (~44.61") (LONGI LR5-72HBD, 530 WATT MODULE). THE BEAM LENGTH NEEDS TO BE
REVISED IF SOLAR MODULES OF DIFFERENT SIZES ARE USED. IF THE BEAM LENGTH INCREASES, THE
STRUCTURAL ENGINEER MUST CHECK THE CALCULATIONS.
7. LIGHT GAUGE STRUCTURAL STEEL FRAMING
ALL STRUCTURAL STEEL FRAMING MATERIALS AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST
EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED
STEEL STRUCTURAL MEMBERS". MINIMUM YIELD STRENGTH $F_y=55$ KSI AND MINIMUM TENSILE STRENGTH
 $F_u=70$ KSI

ALL FRAMING MEMBERS SHALL BE MINIMUM G60 GALVANIZED FOR CORROSION PROTECTION.

ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE AWS D1.1
"STRUCTURAL WELDING CODE - STEEL" AND AWS D1.3 "STRUCTURAL WELDING CODE - SHEET STEEL".
REINFORCING BARS WELDED TO STEEL SHALL CONFORM TO ASTM A706 AND AWS D1.4 "STRUCTURAL WELDING
CODE - REINFORCING STEEL". USE E70xx LOW HYDROGEN ELECTRODES. ALL WELDING TO BE PERFORMED BY
WELDERS HOLDING A VALID CERTIFICATE AND HAVING CURRENT EXPERIENCE IN LIGHT GAUGE STEEL.
CERTIFICATES SHALL BE ISSUED BY AN ACCEPTED TESTING AGENCY. DO NOT DRILL OR NOTCH MEMBERS
WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

STRUCTURAL STEEL MEMBERS SHALL BE FURNISHED TO THE SPECIFIED MINIMUM YIELD POINT OR GREATER.
THE ASTM, GRADE, AND OTHER SPECIFICATIONS SHALL BE INDICATED BY SUITABLE MEANS ON EACH LIFT OR
BUNDLE OF FABRICATED MATERIAL.
8. FASTENERS
STEEL SCREW FASTENERS SHALL BE ITW BULDEX SELF-DRILLING SCREWS (ICC-ES ESR-1976) OR EQUAL.
SCREWS SHALL BE GALVANIZED OR STAINLESS STEEL.
9. CONTRACTORS
THE CONTRACTOR MUST SUBMIT IN WRITING ANY REQUEST FOR MODIFICATIONS TO THE PLANS AND
SPECIFICATIONS. NO STRUCTURAL CHANGES FROM THE APPROVED PLANS SHALL BE MADE IN THE FIELD
UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. SHOP DRAWINGS SUBMITTED TO THE
ENGINEER FOR HIS REVIEW DO NOT CONSTITUTE "IN WRITING" UNLESS IT IS NOTED THAT SPECIFIC CHANGES
ARE BEING REQUESTED. IF CHANGES ARE MADE WITHOUT WRITTEN APPROVAL, SUCH CHANGES SHALL BE THE
LEGAL AND FINANCIAL RESPONSIBILITY OF THE CONTRACTORS OR SUBCONTRACTORS INVOLVED AND IT SHALL
BE THEIR RESPONSIBILITY TO REPLACE OR REPAIR THE CONDITION AS DIRECTED BY THE ENGINEER.

CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING, SHORING, GUYING, OR OTHER MEANS TO AVOID
EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING ERECTION. THESE PROVISIONS
SHALL REMAIN IN POSITION UNTIL SUFFICIENT PERMANENT MEMBERS ARE ERECTED TO INSURE THE SAFETY OF
THE PARTIALLY ERECTED STRUCTURES. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT
THE FINISHED STRUCTURE. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT
INCLUDE INSPECTION OF THE ABOVE ITEMS.
10. ENGINEER OF RECORD
BAJA CONSTRUCTION CO., INC. AND/OR THEIR ENGINEERING CONSULTANTS IS ONLY RESPONSIBLE FOR THE
CONTENTS OF THESE DRAWINGS AND STRUCTURAL CALCULATIONS AS PROVIDED FOR THIS PROJECT. BAJA
CONSTRUCTION CO., INC. AND THEIR ENGINEERING CONSULTANTS ARE NOT CONSIDERED THE ENGINEER OF
RECORD FOR ANYTHING OTHER THAN THE PREFABRICATED STEEL SYSTEM CANOPY/CARPORT/RV & BOAT
STORAGE/OR MINI-STORAGE SYSTEMS THAT IS SHOWN ON THESE PLANS.

THESE PLANS ARE APPLICABLE ONLY TO THE SPECIFIC PROJECT NOTED ON THE PLANS. IN ADDITION, THESE
PLANS ARE ONLY APPLICABLE TO THIS PROJECTS PROVIDED BAJA CONSTRUCTION PROVIDES AND INSTALLS ALL
MATERIAL SPECIFIED HEREIN.
11. ALTERNATE FOOTING AND OPTIONAL TRIM
IF THE ALTERNATE FOOTING SHOWN IN THIS DRAWING IS REQUIRED, THERE WILL BE AN ADDITIONAL CHARGE
FROM BAJA CONSTRUCTION.

KEY PLAN
NOTES

SEMICANT
2200 Central Street
2200 Central St. Richmond, CA
For: MSH Group

BAJA
CONSTRUCTION CO., INC.
223 FOSTER ST., MARTINEZ CA 94553
1-800-366-9600 FAX: (925) 229-0161

REV. NO.	DATE	DESCRIPTION
1	05/13/25	UT DESIGN CHANGES
2	04/25/25	JMR DESIGN CHANGES

PROJ. NO.: 25-2547	DATE: 05/13/25
DRAWN: JMR	CHECKED: IJT

SHEET:
S-1
1 OF 4

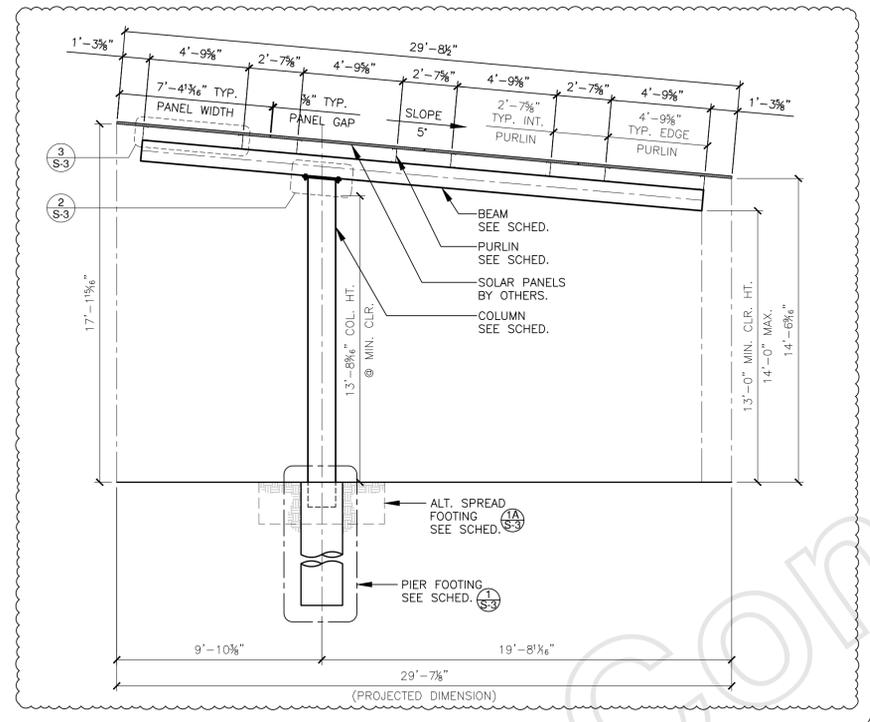
KEY PLAN

SCALE: N.T.S.

GENERAL STRUCTURAL NOTES

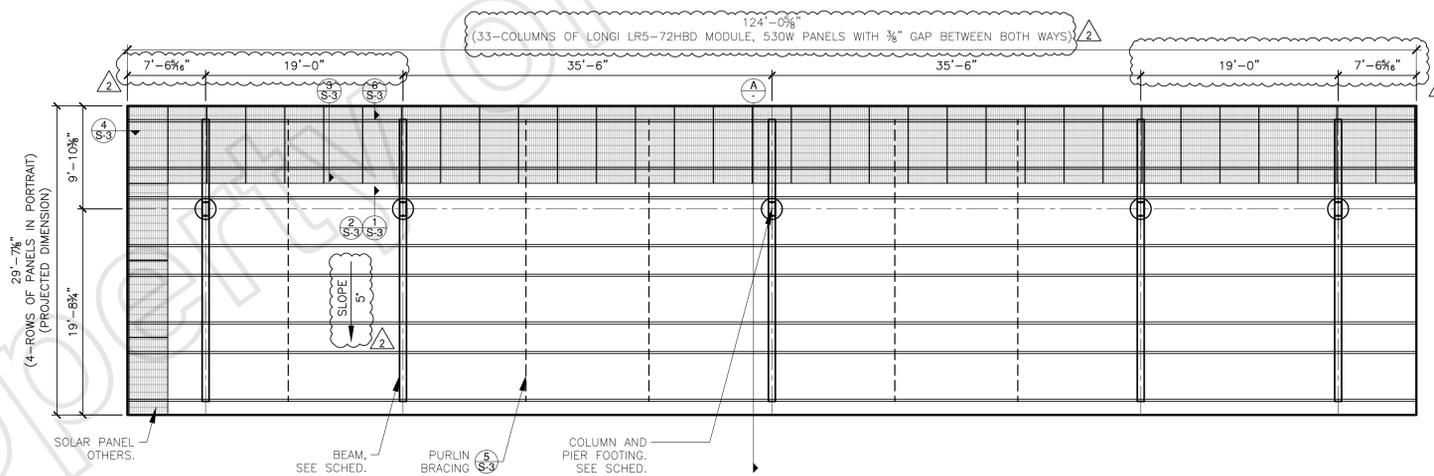
SCALE: N.T.S.

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MEANS WITHOUT THE PRIOR WRITTEN PERMISSION
OF BAJA CONSTRUCTION CO., INC.



CROSS SECTION: ARRAY 1

SCALE: 1/4"=1'-0" A



FRAMING AND FOUNDATION PLAN: ARRAY 1 (160 PANELS TOTAL)

SCALE: 1/8"=1'-0" 1

CROSS SECTION
FRAMING PLAN

SEMICANT
2200 Central Street
2200 Central St. Richmond, CA
For: MSH Group

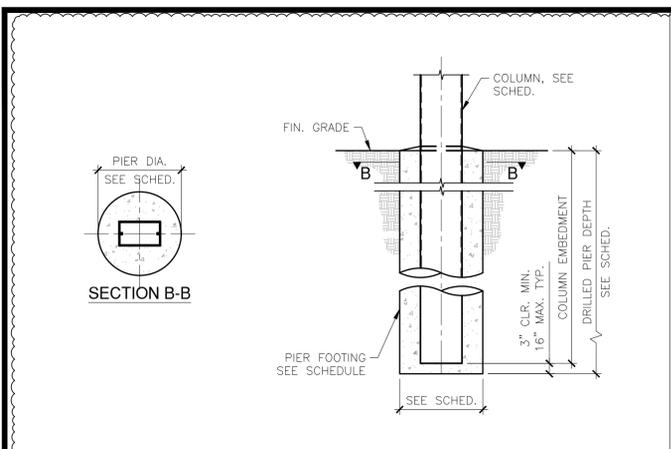
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04/25/25	JMR	DESIGN CHANGES

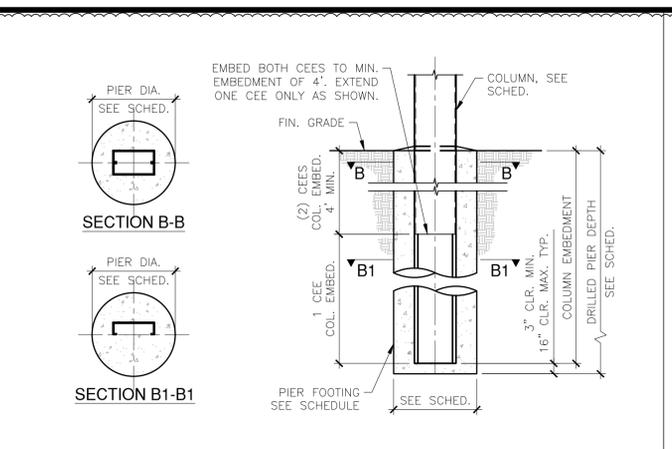
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DRAWN: JMR	CHECKED: IJT

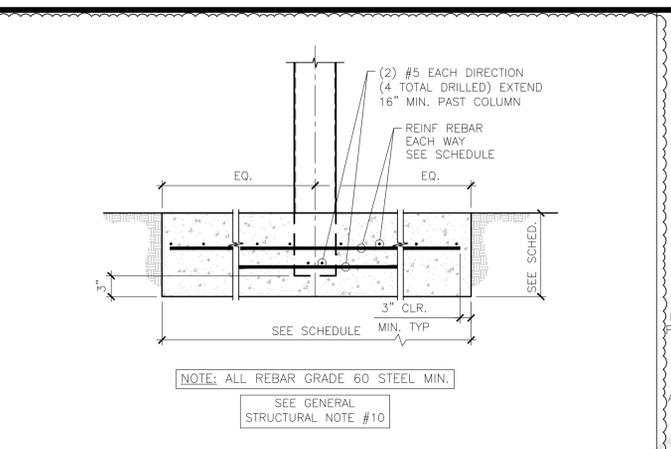
SHEET:
S-2
2 OF 4



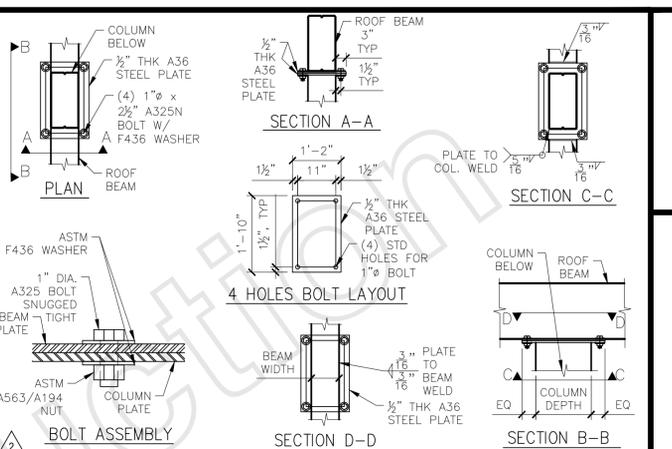
PIER FOOTING SCALE: N.T.S. 1



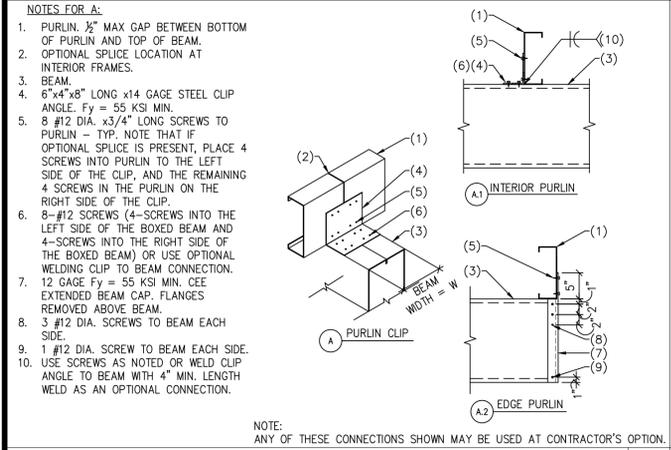
PIER FOOTING (OPTION) SCALE: N.T.S. 1A



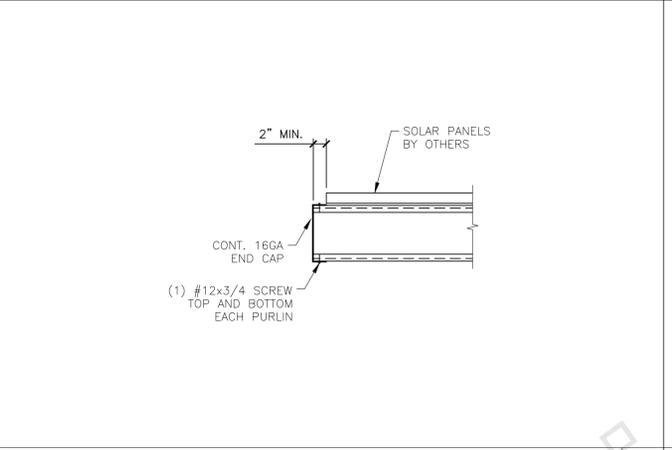
ALTERNATE FOOTING SCALE: N.T.S. 1A



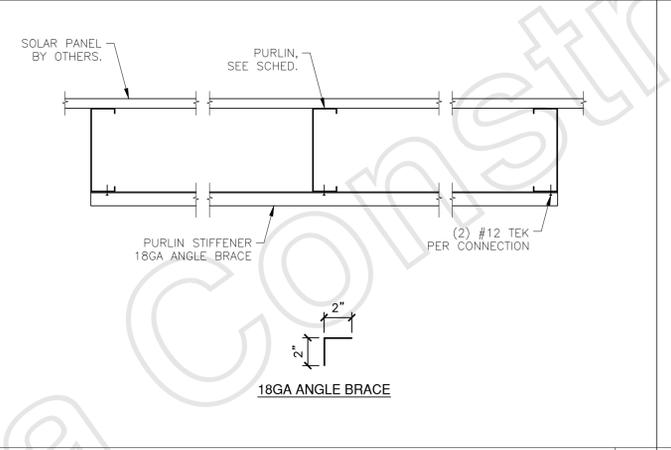
BEAM TO COLUMN CONNECTION SCALE: N.T.S. 2



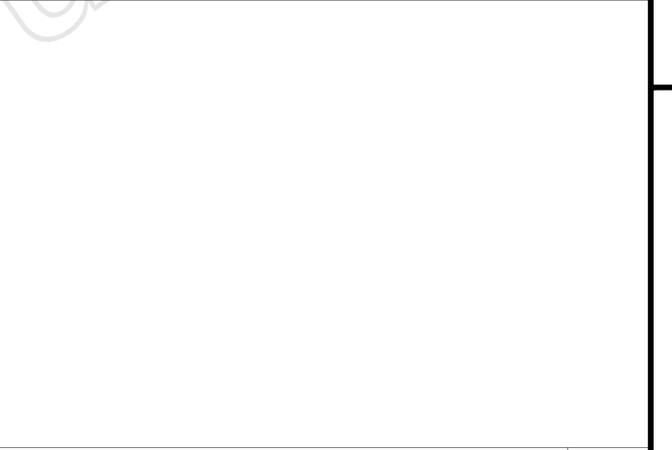
PURLIN TO BEAM CONNECTION SCALE: N.T.S. 3



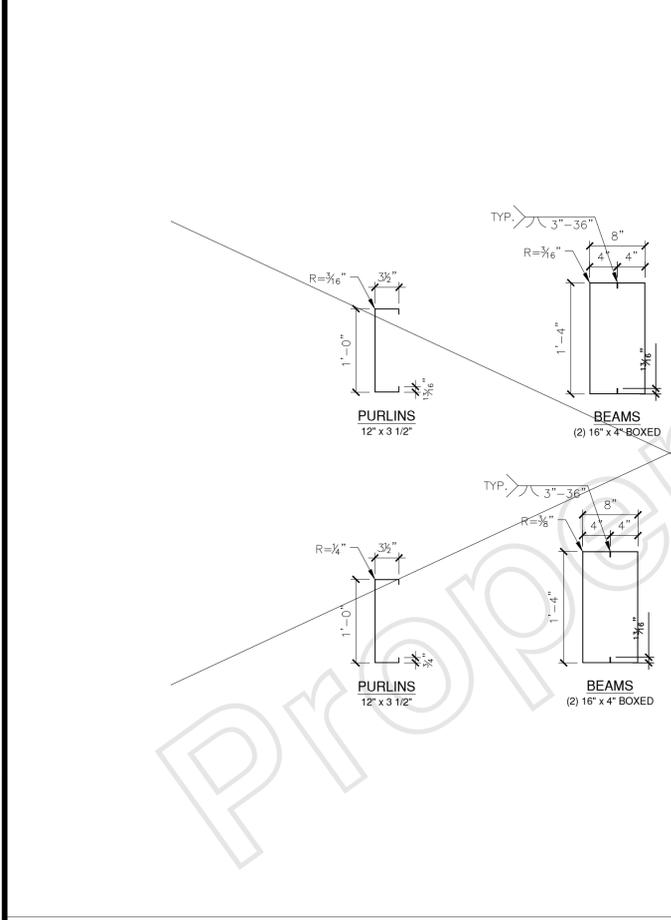
PURLIN CLOSURE SCALE: N.T.S. 4



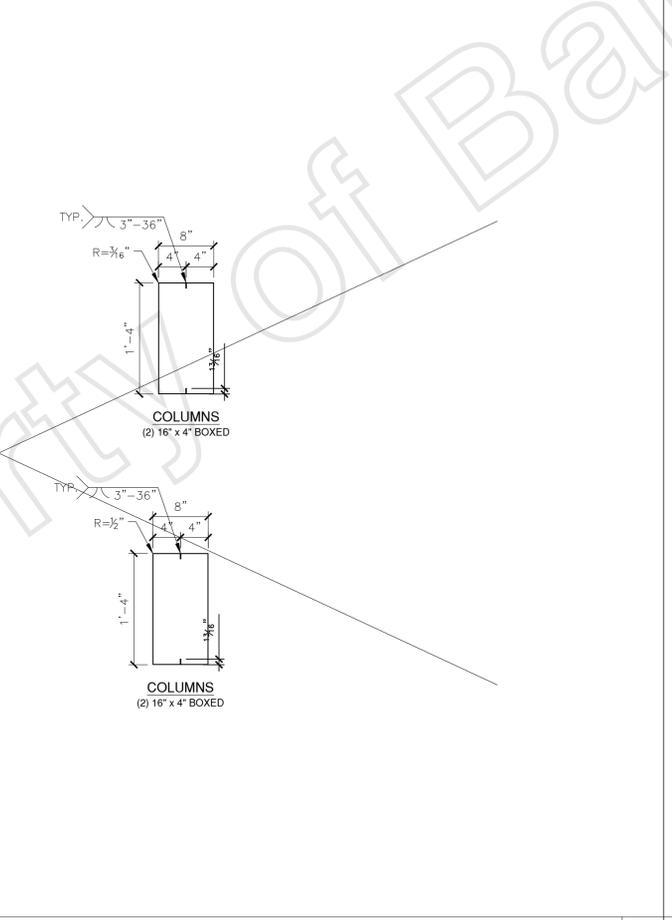
PURLIN BRACING SCALE: N.T.S. 5



NOT USED



MEMBER PROFILES (SEE MEMBER SCHEDULE FOR THICKNESS) SCALE: 1"=1'-0"



MEMBER SCHEDULE SCALE: N.T.S.

MODEL	SSS SEMICANT
STRUCTURE	ARRAY 1
CROSS SECTION	A
BUILDING DEPTH	29'-7 7/8"
BAY WIDTH	24'-0"
SOLAR PANEL	SOLAR PANEL, DESIGNED, SUPPLIED BY OTHERS (NOT BY BAJA)
PURLIN	CEE ___ x ___ x ___ LIP x ___ GA [0.] Fy=___ KSI OR CEE ___ x ___ x ___ LIP x ___ GA [0.] Fy=___ KSI
BEAM	(2) CEE ___ x ___ x ___ LIP x ___ GA [0.] BOXED Fy=___ KSI OR (2) CEE ___ x ___ x ___ LIP x ___ GA [0.] BOXED Fy=___ KSI
COLUMN	(2) CEE ___ x ___ x ___ LIP x ___ GA [0.] BOXED Fy=___ KSI OR (2) CEE ___ x ___ x ___ LIP x ___ GA [0.] BOXED Fy=___ KSI
PIER FOOTING	AT DIRT: ___" x ___" x ___" DEEP AT ASPHALT: ___" x ___" x ___" DEEP AT CONCRETE SLAB: ___" x ___" x ___" DEEP
ALTERNATE SPREAD FOOTING	___" SQUARE x ___" DEEP WITH (_)# REINF. BARS EACH WAY

MEMBER SCHEDULE SCALE: N.T.S.

PROJ. NO.	DATE
25-2547	05/13/25
DRAWN	CHECKED
JMR	IJT
SHEET	
S-3	

SCALE: N.T.S.

DETAILS, PROFILES, SCHEDULE

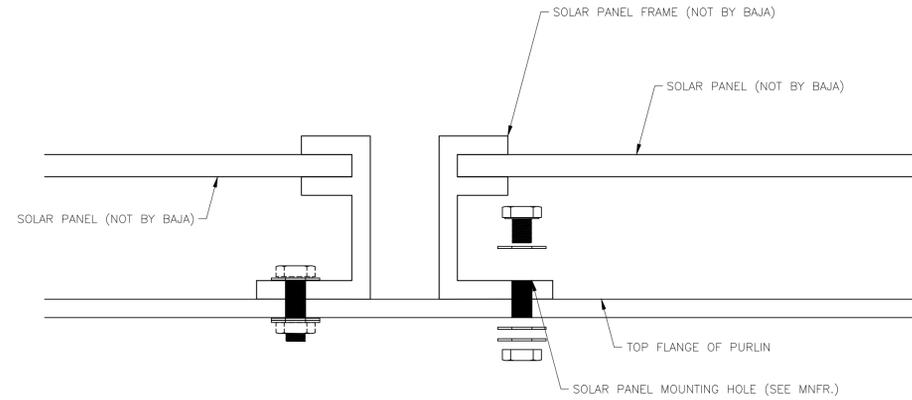
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2200 Central St. Richmond, CA
For: MSH Group

BAJA
CONSTRUCTION CO., INC.
223 FOSTER ST., MARTINEZ CA 94553
1-800-366-9600 FAX: (925) 229-0161

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2	04/25/25	JMR	DESIGN CHANGES

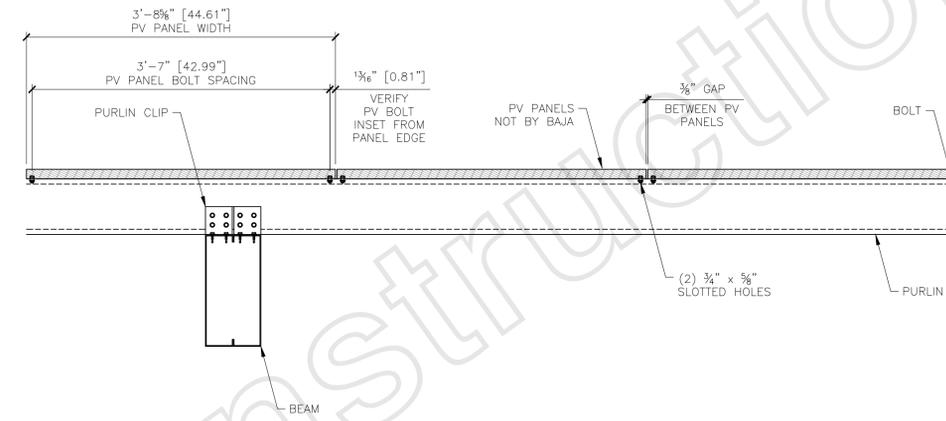
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NOTE:
 (A) SOLAR PANELS TO BE MOUNTED USING (4) MOUNTING HOLES AS SHOWN ON MNFR'S OEM DATA SHEET.
 (B) MNFR'S PANEL INSTALLATION DETAIL SHALL SUPERCEDE THIS DETAIL.
 (C) BOLT ASSEMBLY TO BE PER MNFR'S RECOMMENDATIONS.



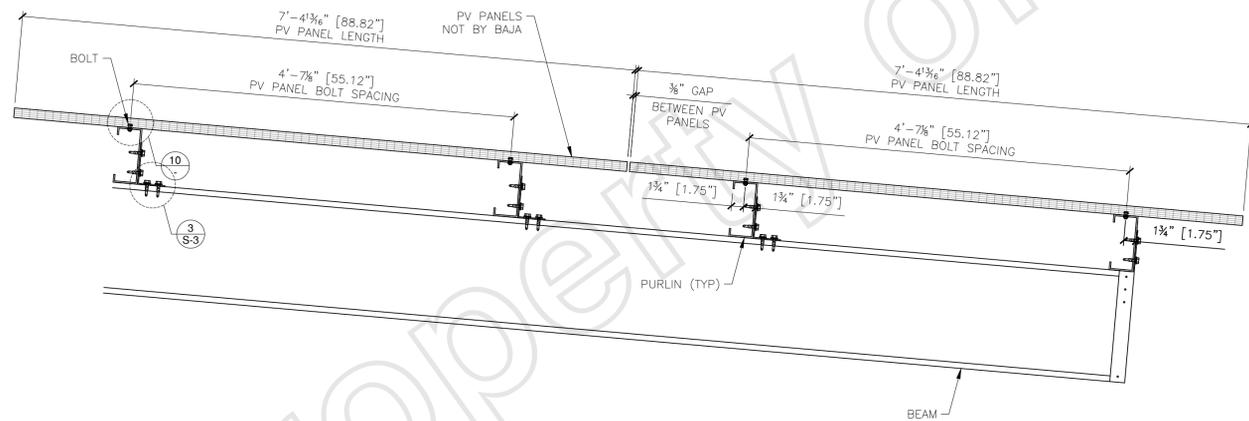
STANDARD SOLAR PANEL MOUNTING DETAIL

SCALE: N.T.S. 10



SOLAR PANEL SECTION (WIDTH)

SCALE: N.T.S. 11



SOLAR PANEL SECTION (LENGTH)

SCALE: N.T.S. 12

Hi-MO 5 LR5-72HBD 530~550M

- Based on M10 wafer, best choice for ultra-large power plants
- Advanced module technology delivers superior module efficiency
 - M10 Gallium-doped Wafer
 - Smart Soldering
 - 9-busbar Half-cut Cell
- Globally validated bifacial energy yield
- High module quality ensures long-term reliability

- 12-year Warranty for Materials and Processing
- 30-year Warranty for Extra Linear Power Output

Complete System and Product Certifications
 IEC 61215, IEC 61730, UL 61730
 ISO9001:2015: ISO Quality Management System
 ISO14001:2015: ISO Environment Management System
 ISO45001:2018: Occupational Health and Safety
 IEC62941: Guideline for module design qualification and type approval

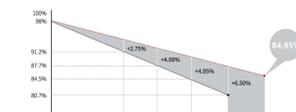
LONGI



Hi-MO 5 LR5-72HBD 530~550M
 21.5% MAX MODULE EFFICIENCY
 0~3% POWER TOLERANCE
 <2% FIRST YEAR POWER DEGRADATION
 0.45% YEAR 2-30 POWER DEGRADATION
 HALF-CELL Lower operating temperature

Additional Value

30-Year Power Warranty



Mechanical Parameters

Cell Orientation: 144 (6x24)
 Junction Box: IP68, three diodes
 Output Cable: 4mm² ±40, 200mm ±140mm length can be customized
 Glass: Dual glass, 2.0±0.0mm heat strengthened glass
 Frame: Anodized aluminum alloy frame
 Weight: 32.3kg
 Dimension: 2256x1133x35mm
 Packaging: 31pcs per pallet / 155pcs per 20' GP / 558pcs per 40' HC

Module Type	STC: AM1.5 1000W/m ² 25°C		NOCT: AM1.5 800W/m ² 20°C 1m/s		Test uncertainty for Pmax < 3%	
	LR5-72HBD-530M	LR5-72HBD-535M	LR5-72HBD-540M	LR5-72HBD-545M	LR5-72HBD-550M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	530	535	540	545	550	555
Open Circuit Voltage (Voc/V)	49.29	49.36	49.35	49.30	49.65	49.68
Short Circuit Current (Isc/A)	13.71	13.87	13.78	13.85	13.92	13.99
Voltage at Maximum Power (Vmp/V)	41.35	41.50	41.50	41.65	41.80	41.95
Current at Maximum Power (Imp/A)	12.82	12.87	12.90	12.97	13.04	13.12
Module Efficiency(%)	20.7	20.9	21.1	21.3	21.5	21.5

Electrical characteristics with different rear side power gain (reference to 540W front)

Pmax /W	Voc/V	Isc/A	Vmp/V	Imp/A	Pmax gain
567	49.50	14.54	41.65	13.61	5%
594	49.50	15.23	41.65	14.26	10%
621	49.60	15.91	41.75	14.91	15%
648	49.60	16.60	41.75	15.56	20%
675	49.60	17.31	41.75	16.21	25%

Operating Parameters

Operational Temperature: -40°C ~ +85°C
 Power Output Tolerance: 0~3%
 Voc and Isc Tolerance: ±3%
 Maximum System Voltage: DC1500V (IEC61713)
 Maximum Series Fuse Rating: 30A
 Nominal Operating Cell Temperature: 45±2°C
 Protection Class: Class II
 Bifaciality: 91.5% (front)
 Fire Rating: Class C

Mechanical Loading

Front Side Maximum Static Loading: 5400Pa
 Rear Side Maximum Static Loading: 2400Pa
 Hailstone Test: 25mm Hailstone at the speed of 23m/s

LONGI

SOLAR PANEL DATASHEET

SCALE: N.T.S. -

MOUNTING DETAILS

SEMICANT
 2200 Central Street
 2200 Central St. Richmond, CA
 For: MSH Group

BAJA
 CONSTRUCTION CO., INC.
 223 FOSTER ST., MARTINEZ CA 94553
 1-800-366-9600 FAX: (925) 229-0161

REV. NO.	DATE	DESCRIPTION
1	05/13/25	UT (NOT ON THIS SHEET)
2	04/25/25	JMR (NOT ON THIS SHEET)

PROJ. NO.: 25-2547
 DATE: 05/13/25
 DRAWN: JMR
 CHECKED: UT

SHEET: S-4
 4 OF 4