San Mateo County

San Mateo County Sheriff's Office

Maple Street Correctional Facility

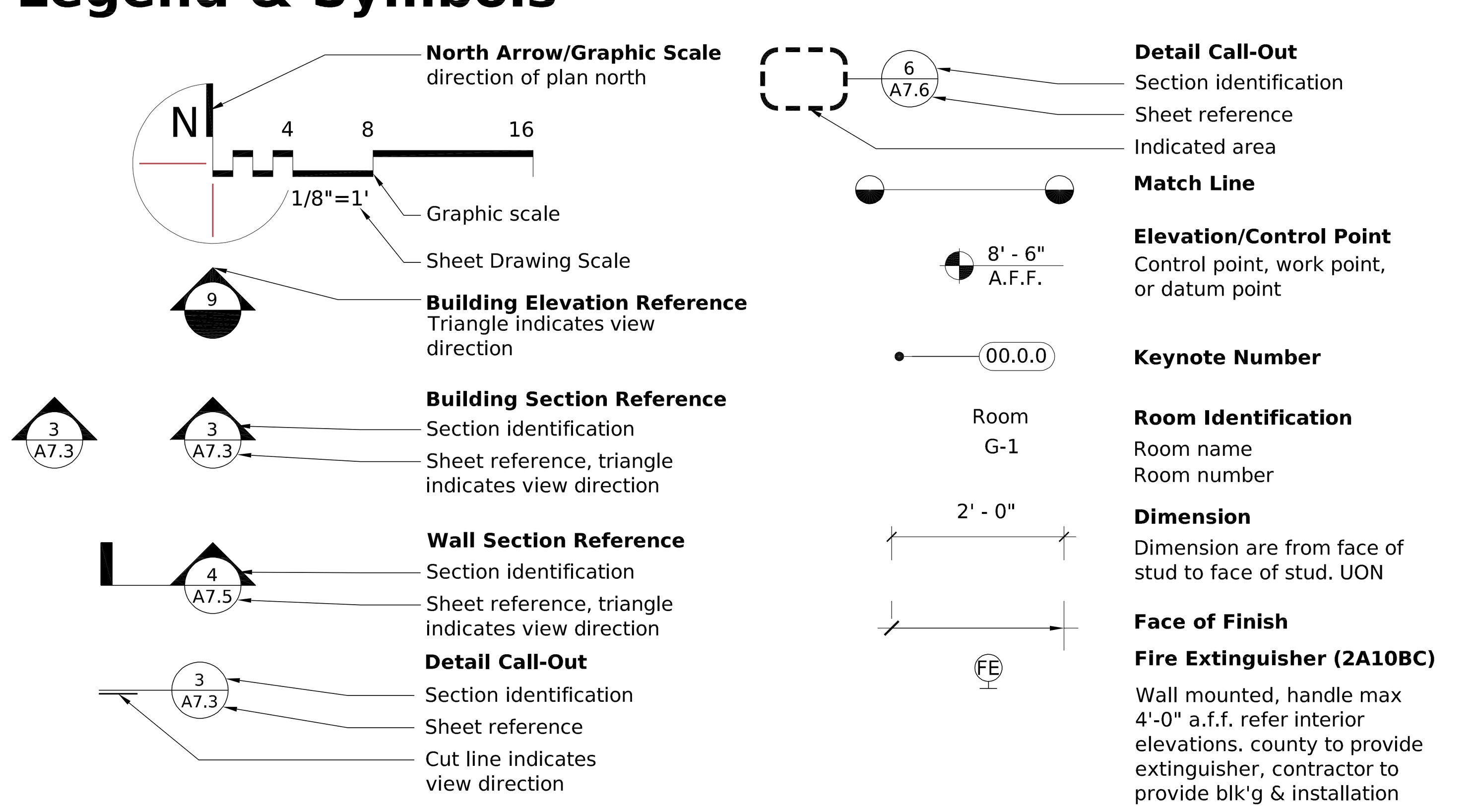
1300 Maple Street

Redwood City, California

Abbreviations

@	At	C O T G	Clean Out To Grade	H B	Hose Bib	PLWD	Plywood
X	By	C W	Cold Water	HDG	Hot Dipped Galvanized	PR	Pair
℄	Center Line	D B L	Double	HDW	Hardware	P T D F	Pressure Treated Doug Fir
°	Degrees	DEMO	Demolition	HM	Hollow Metal	R C P	Reflected Ceiling Plan
Ø	Diameter	DET	Detail	HR	Hour	R D	Roof Drain
(E)	Existing	D F	Drinking Fountain	HT	Height	REF	Refer To:
'	Foot/Feet	DIA	Diameter	J H	Joist Hanger	REINF	Reinforced
"	inch/inches	DIM	Dimension	JT	Joint	REQD	Required
(N)	New	DN	Down	LAM	Laminate	RM	Room
±	Plus/Minus	D S	Downspout	LAV	Lavatory	R O	Rough Opening
#	Pound/Number	DWG	Drawing	LT	Light	RR	Roof Rafter
(R)	Remove	E	East	I D	Inside Diameter	R W L	Rain Water Leader
A B	Anchor Bolt	EA	Each	I E	Invert Elevation	S	South
ABV	Above	E F	Exhaust Fan	INSUL	Insulation	SCH	Schedule
A C	Asphaltic Concrete	E J	Expansion Joint	INT	Interior	SEC	Section
ADJ	Adjustable	ELEC	Electrical	INV	Invert	SHT	Sheet
A F F	Above Finished Floor	ELEV	Elevation	I T	Information Technology	S O V	Shut Off Valve
ALUM	Aluminum	EMER	Emergency	MAX	Maximum	SPEC	Specification
ANCH	Anchor	E P	Electrical Panel	M B	Marker Board	SS	Sanitary Sewer
A P	Access Panel	EQ	Equal	MFR	Manufacturer	STD	Standard
ARCH	Architectural	EQUIP	Equipment	MH	MANHOLE	STO	Storage
ASPH	Asphalt	E/S	Each Side	MIN	Minimum	STRUC	Structural
BD	Board	F A	Fire Alarm	MR	Moisture Resistant	SUSP	Suspended
BLDG	Building	F D	Floor Drain	MTD	Mounted	T B	Tack Board
BLK	Block	F D C	Fire Dept Connection	MTL	Metal	T G	Top of Grate
BLKG	Blocking	FDN	Foundation	MUL	Mullion	T O C	Top Of Concrete
BM	Beam	F E	Fire Extinguisher	N	North	T O P	Top Of Plate
BOT	Bottom	F G	Finished Grade	N A	Not Applicable	T O S	Top Of Slab
B/T	Between	F H	Fire Hydrant	N I C	Not In Contract	T O W	Top Of Wall
BW	Bottom of Wall	FIN	Finish	NOM	Nominal	U O N	Unless Otherwise Noted
C	Conduit	F O C	Face Of Concrete	N R	Not Required	V C T	Vinyl Composite Tile
C A B	Cabinet	F O F	Face Of Finish	N T S	Not To Scale	V C TB	Vinyl Covered Tackboard
C B	Catch Basin	F O M	Face Of Masonry	O C	On Center	V I F	Verify in Field
C I	Cast Iron	F O S	Face Of Stud	O F S	Off Face of Stud	W	Waste
C J	Construction Joint	FRMG	Framing	O H	Overhang	W	West (elevation dwg's)
CLG	Ceiling	F S	Finished Surface	OPG	Opening	W B	White Board
CLR	Clear	FTG	Footing	OPP	Opposite	W C	Water Closet
COL	Column	FUT	Future	O/	Over	W/	With
CONC	Concrete	GALV	Galvanized	P A	Planting Area	W I	Woodwork Institute
CONST	Construction	G B	Grade Break	P C	Portland Cement	W/O	Without
CONT	Continuous	GC	General Contractor	PDF	Powder Driven Fastener	WD	Wood
CORR	Corridor	GL	Glass	P H	Panic Hardware	WP	Waterproof
CTR	Center	GR	Grade	P I P	Protect in Place	WT	Weight
CTSK	Countersink	GSM	Galvanized Sheet Metal	PL	Plate		
CUST	Custodial	GYP	Gypsum	P LAM	Plastic Laminate		

Legend & Symbols



General Notes

All work performed under the conditions of these drawings shall comply in every respect with the following:

2019 Cal. Administrative Code, Part 1, Title 24 CCR
2019 Cal. Building Code (CBC), Part 2, Title 24 CCR
2019 Cal. Electrical Code (CEC), Part 3, T-24 CCR
2019 Cal. Mechanical Code (CMC), Part 4, T-24 CCR
2019 Cal. Plumbing Code (CPC), Part 5, T-24 CCR
2019 Cal. Energy Code, Part 6, T-24 CCR
2019 Cal. Fire Code (CFC), Part 9, T-24 CCR
2019 Cal. Green Building Standards Code, Part 11, Title 24 CCR
2019 Cal. Referenced Standards Code, Part 12, Title 24 CCR, including ACC California building code amendments
Title 19 CCR Public Safety State, Fire Marshal Regulations
2007 ASME A17.1 (w/ A17.1a/CSA B44a-08 Addenda)
Including all Safety Code for Elevators and Escalators
2010 ADA Standard for ACC design
NFPA 13 Standard for installation of Sprinkler System (CA amended) 2016 Ed
NFPA 14 Standard for installation of Standpipe and Hose System2013 Edition
NFPA 17 Standard for Dry Chemical Extinguishing Systems, 2013Edition
NFPA 17A Standard for Wet Chemical Extinguishing Systems, 2013 Ed.
NFPA 20 Standard for installation of Stationary Pumps, 2013 Ed
NFPA 22 Standard for Water tank of Private Fire Protection 2013 Edition
NFPA 24 Standard for installation of Private Fire Service Mains and Their Appurtenance 2016 Edition
NFPA 72 National Fire Alarm and Signaling Code (CA AMDT), 2016 Edition.
NFPA 80 Standard for Fire Doors and Other Opening Protectives, 2016 Edition.
NFPA 2001 Standard on Clean Agent Fire Extinguishing Systems 2015 Edition.
UL 300 Standard for Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment 2005 (R2010)
UL 464 Audible Signaling Devices for Fire Alarm and Signaling Systems, Including Accessories 2003 Edition
UL 521 Standard for Heat Detectors for Fire Protective Signaling Systems1999 Edition
UL 1971 Standard for Signaling Devices for Hearing impaired 2002 Edition
ICC 300 Standard for Bleachers, Folding and Telescopic Seating, and Grandstands 2012 Edition
For a complete list of applicable NFPA standards refer to 2016 CBC (SFM) Chapter 35 and California Fire Code Chapter 80.
See California Building Code, Chapter 35, for State of California amendments to the NFPA Standards.

California Title 24
The intent of these drawings and specifications is that the work of the alteration is to be in accordance with Title 24, CCR. Should any existing conditions such as deterioration or non-complying construction be discovered which is not covered by the contract documents wherein the finished work will not comply with Title 24, CCR, notify the Architect and District before proceeding with the work.

Administrative Requirements
The Contractor shall keep a copy of the 2019 California Building Code.

Changes
Work shall be executed strictly in accordance with approved plans, addenda, and change orders.

Site Examination
The Contractor shall thoroughly examine the site and satisfy himself as to the conditions under which the Work is to be performed. The Contractor shall verify at the site all measurements and conditions affecting his work and shall be responsible for same unless brought to the attention of the Owner or his agent prior to proceeding with the Work. Commencement of work by Contractor or any Subcontractor shall indicate a knowledge and acceptance of all conditions described in the Documents or existing on site which could affect their work.

Moisture Proof Interior Spaces
It is the intent of these Documents to provide for the construction of a moisture proof enclosure of interior space. If the Owner, Contractor or any Sub-contractors become aware of any assembly or condition, either shown in the Drawings or constructed on-site, which does not, in their opinion, satisfy this intent, it is their responsibility to notify the Architect within a reasonable amount of time so that the condition or assembly can be reviewed, and, if necessary, modifications can be made to the Documents or to the Work without impacting the progress.

Moisture Protection During Construction
Should any special situations or climatic conditions occur during construction the Owner, Contractor and Sub-contractors shall so notice and implement any measures required to assure the protection of materials and assemblies. The Contractor shall take all necessary measures to protect new or existing construction and materials from damage due to weather or any other adverse conditions.

Use of Site
Work shall occur while portions of the site are occupied by the Tenant. Contractor is fully responsible for site safety and control of public access near work zones. Roadways shall be maintained clear of construction equipment or materials at all times. Existing landscaping shall be protected as required to prevent any damage to plants and trees unless specified for removal in plans or by Owner.

Americans with Disabilities Act
It is the intent of these Documents to meet guidelines for accessibility to this public place of accommodation, by individuals with disabilities. These guidelines have been applied during design and shall be applied during construction.

If the Owner, Contractor or any Subcontractors become aware of any assembly or condition, either shown in the Drawings or constructed on-site, which does not, in their opinion, satisfy this intent or meet industry standards for construction quality, it is their responsibility to notify the Architect within a reasonable amount of time so that the condition or assembly can be reviewed, and, if necessary, modifications can be made to the Documents or to the Work without impacting the progress.

Disclaimer

This project site is an occupied building. All construction activities shall be contained within fenced or barricaded areas in accordance with project specification and schedule requirements. Certain construction activities that generate disruptive noise , odors, dust, and debris must be scheduled when building is not occupied.

All work shown, noted, or detailed is new, except where indicated as existing or as existing to remain.

Contractor shall field verify all dimensions and existing conditions at the site and shall report any discrepancies in writing to the Architect by the means of a Request for Information (RFI) or as part of the applicable shop drawings or submittals.

Specific items noted to be verified or field verified are required to be verified prior to ordering materials or proceeding with the work.

Contractor is responsible for all incidental work necessary to complete the installation of new work. This includes, but is not limited to, the removal and/or reinstallation of all existing items, or portions of the existing construction whether shown or not.

Underground locating service (811 Dig) responsibility of the contractor prior to excavation work.

Sheet Notes

All dimensions given take precedence over scale. Contractor shall not scale drawings to determine dimensions without consulting the Architect. Contractor shall review all dimensions for accuracy prior to construction.

Dimensions given as "CLR" are to face of finish. Otherwise, all dimensions are to face of stud/structure unless other wise noted.

Repeating items or assemblies may not be noted or dimensioned at all occurrences where repetition is obvious or noted as typical.

Refer to Demolition Plans for items to remain, items to be salvaged and/or relocated. Unless indicated elsewhere.

Refer to Structural Drawings for location of special floor and wall framing, special connections, anchorages.

Refer to Specifications for additional requirements.

For Abatement Work, refer to Specifications and Hazardous Materials Report.

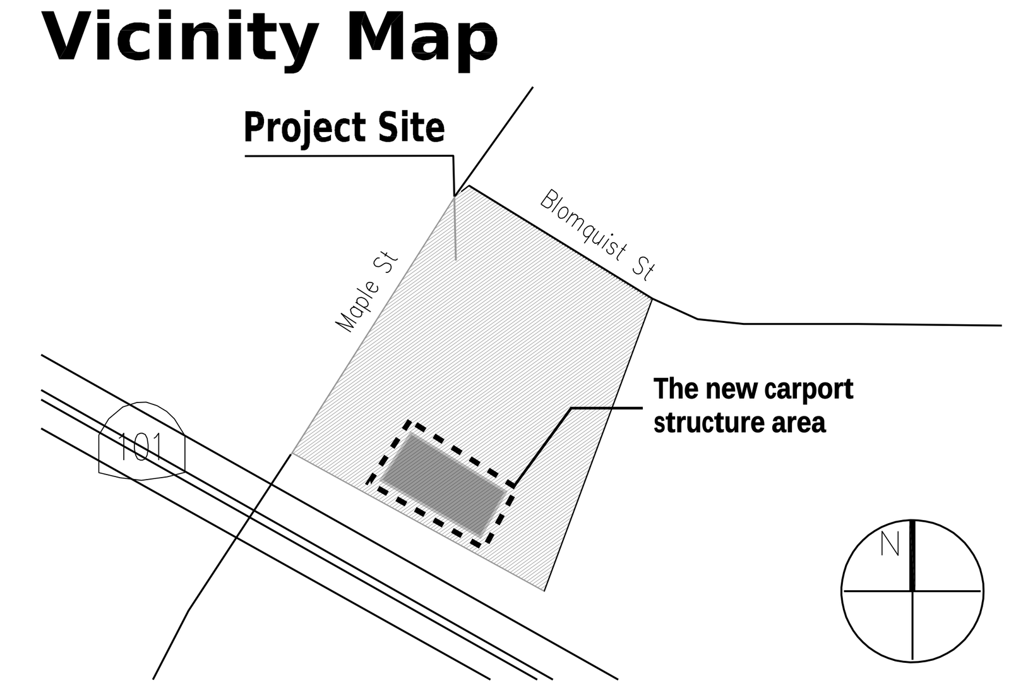
Use of Documents
No guarantee for quality of construction is implied or intended by these Documents. The Contractor shall assume full responsibility for any construction deficiencies.

All Contract Documents described in the Construction Contract shall be considered one document and are intended to be used as one document. Contractor and all sub-contractors shall review all documents prior to bidding. Sub-contractors are responsible for any information pertaining to their work no matter where it may occur in these Documents.

Dimension Control
All dimensions and conditions shall be checked and verified, both in the Documents and on the job, by Contractor and each Sub-contractor before proceeding with the work. Any errors, omissions, discrepancies or deficiencies shall be brought to the attention of the General Contractor prior to proceeding with the Work. All dimensions take precedent over scale. Where dimensions are not entirely clear the Contractor shall notify the Architect and request clarification.

DRAWINGS SHALL NOT BE SCALED

Vicinity Map



Code Analysis

Occupancy Group: U (PV Structure): I-3 (Correctional Facility)
Construction Type: Type I (Steel and concrete)
Allowable area per CBC table 506.2 : 35,000 sf (non sprinkler)
Proposed area: 9,840 sf <35,000 sf . Therefore ok

Project Scope

Construction and installation of parking shade structure and photovoltaic energy system.

- The following items are included in the scope of work. Not all scope items are listed here. Refer to all other components of the construction documents for additional scope.
- ***If contractor does not intend to provide any of these items, contractor should not submit a bid on this project. If any questions arise during bid period as to these requirements, contractor shall contact architect for clarification.***
- ***Contractor shall ensure that construction operations in this project do not inhibit the continuous operation in other areas of the site of all low voltage systems including but not limited to: Fire Alarm, Energy Management, Security, Access, and Data . Contractor is responsible for all means and methods to ensure this requirement is met. Change orders for logistical operations related to continuous operation of these components will not be entertained.***
- Title 24/ADA compliant components throughout.
- Title 24/ADA compliant directional / tactile signage.
- Hazardous material abatement wherever it occurs.
- All demolition required to accomplish and complete the work.
- Parking Striping
- Construction of drilled piers column and steel beam structure.
- Installation of solar panels and electrical system

Project Directory

Owner
San Mateo County
400 County Center
Redwood City, CA 94063
(650) 599-7285

Architect
Bartos Architecture
1730 S. Amphlett Blvd., Suite 225
San Mateo, California 94402
(650) 340-1221

Structural Engineer
Rinne & Peterson, Inc.
1121 San Antonio Rd
Palo Alto, CA 94303
(650) 428-2860

Civil Engineer
Lea & Braze Engineering, Inc.
2495 Industrial Parkway West
Hayward, CA 94545
(510) 887-4086

Electrical Engineer
American Consulting Engineers Electrical, Inc.
1590 The Alameda
San Jose, CA 95126
(408) 236-2312

Drawing Index

BARTOS
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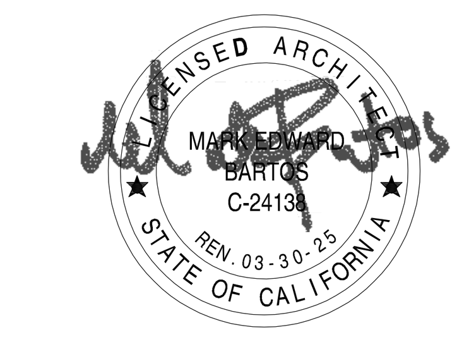

San Mateo County
Sheriff's Office
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Maple Street
Correctional Facility
1300 Maple St
Redwood City, CA 94063

Solar Shade Structure

REVISION	DATE
Issued For Permit	4/14/2021
1 Plan Check Resubmittal	11/11/2021
2 Revision	05/23/2023

RECEIVED
Jun 21 2023
San Mateo County Building Inspection

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SITE AT ALL TIMES

REVIEWED FOR CODE COMPLIANCE
This review does not authorize violation of State or County building laws.
Jun 21 2023
SAN MATEO CO. BLDG. INSP. DIV.

Site Plan

NTS 1

Legend

Accessible Path of Travel and Ground Floor Entry/Exit

Accessible Path of Travel as indicated on plan is a barrier-free access route without any abrupt level changes exceeding 1/2" if beveled at 1:2 max slope, or vertical level changes exceeding 1/4" max and at least 48" in width. Surface is stable, firm, and slip resistant. Cross slope does not exceed 1:48 slope in the direction of travel is less then 5%, unless otherwise indicated. Accessible path of travel shall be maintained free of overhanging obstructions to 80" minimum, and protruding objects greater than 4" projection from wall and above 27" and less than 80".

Design Professions in General Responsible in Charge Statement

The POT identified in these construction documents is compliant with the current applicable California Building Code Accessibility provisions for path of travel requirements for alterations, additions and structural repairs. As a part of the design project, the POT was examined and any elements, components or portions of the POT that were determined to be noncompliant 1) have been identified and 2) the corrective work necessary to bring them into compliance has been included within the scope of this project's work through details, drawings and specifications incorporated into these construction documents. Any noncompliant elements, components or portions of the POT that will not be corrected by this project based on valuation threshold limitations or a finding of unreasonable hardship are so indicated in these construction documents.

During construction, if POT items within the scope of the project represented as code compliant are found to be nonconforming beyond reasonable construction tolerances, they shall be brought into compliance.

(E) Accessible Parking

Indicates (E) Accessible parking spaces w/ accessible parking sign and "NO PARKING" painted in 12" high letters in access aisle. Refer CBC 11B-502.

(E) Van-Accessible Parking

Indicates (E) Van-accessible parking spaces w/ min. 8'-0" wide aisle on side opposite driver's side of vehicle stall. Refer CBC 11B-502.3.4

Scope of Work

Not in Contract NIC

Contractor Entry & Path to Work

Parking Count

Current Parking Spaces	189		
Lost Parking Spaces	12		
New Total Parking Spaces	177		
Per CBC 11B-208.2			
Required Accessible Spaces	6	Provided Spaces	9
Required Accessible Van Spaces	1	Provided Van Spaces	6
Total Spaces Covered	20		
% of Covered Spaces	10%		
Required Covered Spaces	x	Provided Spaces	x
Required Covered Van Spaces	x	Provided Spaces	x

Site Plan Sheet Notes

1 A R100B (CA) sign shall be posted in a conspicuous place at each entrance to off-street parking facilities or immediately adjacent to and visible from each stall. The sign shall include the address where the towed vehicle may be reclaimed and the telephone number of the local traffic law enforcement agency.

2 One in every six accessible off-street parking stalls, but not less than one, shall be served by an accessible aisle of 8'-0" minimum width and shall be signed van accessible. The R7-8b sign shall be mounted below the R99B (CA) plaque or the R99C (CA) sign.

3 In each parking stall, a curb or parking bumper shall be provided if required to prevent encroachment of vehicles over the required width of walkways.

8 Blue paint, instead of white may be used for marking accessibility aisles.

9 The words "NO PARKING", shall be painted in white letters no less that 1'-0" high and located so that it is visible to traffic enforcement officials.

12 Where a van accessible parking space is provided, the loading and unloading access aisle shall be 8'-0" wide minimum, and shall be on the passenger side of the vehicle as the vehicle is going forward into the parking space.

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LICENSED ARCHITECT MARK EDWARD BARTOS C-26138 REN. 03-31-23 STATE OF CALIFORNIA

San Mateo County
Sheriff's Office
400 County Center
Redwood City, CA

Maple Street
Correctional Facility
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Solar Shade Structure

REVISION	DATE
Issued For Permit	4/14/2021
1 Plan Check Resubmittal	11/11/2021

FIRE PLAN REVIEW & ACCEPTANCE
THESE PLANS HAVE BEEN REVIEWED FOR COMPLIANCE WITH THE APPLICABLE CALIFORNIA BUILDING STANDARDS CODES AND NATIONAL STANDARDS AS ADOPTED BY THE STATE OF CALIFORNIA AND AMENDED AND ADOPTED BY THE LOCAL JURISDICTION.
ALL PLANS ARE SUBJECT TO FIELD CONDITIONS AND FINAL APPROVAL AT THE TIME OF INSPECTION. PLAN REVIEW ACCEPTANCE DOES NOT PERMIT CONSTRUCTION TO PROCEED IN VIOLATION OF ANY LAW OR LOCAL REGULATION.
By Scott Adams Date 1/26/2022
WEST COAST CODE CONSULTANTS, WC3

RECEIVED
Jun 21 2023
San Mateo County Building Inspection

N 0 4 8 16 1/8"=1'-0"

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SITE AT ALL TIMES

REVIEWED FOR CODE COMPLIANCE
This review does not authorize violation of State or County building laws.
Jun 21 2023
SAN MATEO CO. BLDG. INSP. DIV.

Site Plan & Staging Diagram

A0.1

BA 21-001

AIA California

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

JOB COPY

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Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

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LICENSED ARCHITECT MARK RICHARD BARTOS C-23138 EXP. 08-31-23 STATE OF CALIFORNIA

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC-CG] The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of $200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and/or alterations [A]. When the code section applies to both, no banner will be used.

301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only:

Note: On and after January 1, 2014, certain commercial real property, as defined in Civil Code Section 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 *et seq.* for definitions, types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for ensuring compliance.

301.3.2 Waste Diversion. The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work.

301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC)
301.5 HEALTH FACILITIES. (see GBSC)

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

SECTION 303 PHASED PROJECTS

303.1 PHASED PROJECTS. For shell buildings and others constructed for future tenant improvements, only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply.

303.1.1 Initial Tenant Improvements. The provisions of this code shall apply only to the initial tenant improvements to a project. Subsequent tenant improvements shall comply with the scoping provisions in Section 301.3 non-residential additions and alterations.

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 5
NONRESIDENTIAL MANDATORY MEASURES

DIVISION 5.1 PLANNING AND DESIGN

SECTION 5.101 GENERAL

5.101.1 SCOPE
The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties.

SECTION 5.102 DEFINITIONS

5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire.

LOW-EMITTING AND FUEL EFFICIENT VEHICLES.
Eligible vehicles are limited to the following:

1. Zero emission vehicle (ZEV), including neighborhood electric vehicles (NEV), partial zero emission vehicle (PZEV), advanced technology PZEV (AT ZEV) or CNG fueled (original equipment manufacturer only) regulated under Health and Safety Code section 43800 and CCR, Title 13, Sections 1961 and 1962.
2. High-efficiency vehicles, regulated by U.S. EPA, bearing High-Occupancy Vehicle (HOV) car pool lane stickers issued by the Department of Motor Vehicles.

NEIGHBORHOOD ELECTRIC VEHICLE (NEV). A motor vehicle that meets the definition of "low-speed vehicle" either in Section 385.5 of the Vehicle Code or in 49CFR571.500 (as it existed on July 1, 2000), and is certified to zero-emission vehicle standards.

TENANT-OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as permanent occupants, such as employees, as distinguished from customers and other transient visitors.

VANPOOL VEHICLE. Eligible vehicles are limited to any motor vehicle, other than a mototrtruck or truck tractor, designed for carrying more than 10 but not more than 15 persons including the driver, which is maintained and used primarily for the nonprofit work-related transportation of adults for the purpose of ridesharing.

Note: Source: Vehicle Code, Division 1, Section 668

ZEV. Any vehicle certified to zero-emission standards.

SECTION 5.106 SITE DEVELOPMENT

5.106.1 STORM WATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB LESS THAN ONE ACRE OF LAND. Newly constructed projects and additions which disturb less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction activities through one or more of the following measures:

5.106.1.1 Local ordinance. Comply with a lawfully enacted storm water management and/or erosion control ordinance.

5.106.1.2 Best Management Practices (BMPs). Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMPs.

1. Soil loss BMPs that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
   a. Scheduling construction activity during dry weather, when possible.
   b. Preservation of natural features, vegetation, soil, and buffers around surface waters.
   c. Drainage swales or lined ditches to control stormwater flow.
   d. Mulching or hydroseeding to stabilize disturbed soils.
   e. Erosion control to protect slopes.
   f. Protection of storm drain inlets (gravel bags or catch basin inserts).
   g. Perimeter sediment control (perimeter silt fence, fiber rolls).
   h. Sediment trap or sediment basin to retain sediment on site.
   i. Stabilized construction exits.
   j. Wind erosion control.
   k. Other soil loss BMPs acceptable to the enforcing agency.
2. Good housekeeping BMPs to manage construction equipment, materials, non-stormwater discharges and wastes that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
   a. Dewatering activities.
   b. Material handling and waste management.
   c. Building materials stockpile management.
   d. Management of washout areas (concrete, paints, stucco, etc.).
   e. Control of vehicle/equipment fueling to contractor's staging area.
   f. Vehicle and equipment cleaning performed off site.
   g Spill prevention and control.
   h. Other housekeeping BMPs acceptable to the enforcing agency.

5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND. Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development sale.

Note: Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of the larger common plan of development or sale must comply with the post-construction requirements detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board or the Lahontan Regional Water Quality Control Board (for projects in the Lake Tahoe Hydrologic Unit).

The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES permits emphasize runoff reduction through on-site stormwater use, interception, evapotranspiration, and infiltration through nonstructural controls, such as Low Impact Development (LID) practices, and conversation design measures. Stormwater volume that cannot be addressed using nonstructural practices is required to be captured in structural practices and be approved by the enforcing agency.

Refer to the current applicable permits on the State Water Resources Control Board website at: www.waterboards.ca.gov/constructionstormwater. Consideration to the stormwater runoff management measures should be given during the initial design process for appropriate integration into site development.

5.106.4 BICYCLE PARKING. For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2

5.106.4.1 Bicycle parking. [BSC-CG] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.

5.106.4.1.1 Short-term bicycle parking. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.
Exception: Additions or alterations which add nine or less visitor vehicular parking spaces.

5.106.4.1.2 Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

5.106.4.1.3 For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicular parking spaces being added, with a minimum of one bicycle parking facility.

5.106.4.1.4 For new shell buildings in phased projects provide secure bicycle parking for 5 percent of the anticipated tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

5.106.4.1.5 Acceptable bicycle parking facility for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall be convenient from the street and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.

5.106.4.2 Bicycle parking. [DSA-SS] For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2

5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.
5.106.4.2.2 Staff bicycle parking. Provide permanent, secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

5.106.5.2 DESIGNATED PARKING FOR CLEAN AIR VEHICLES. In new projects or additions or alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as follows:

TABLE 5.106.5.2 - PARKING

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-9	0
10-25	1
25-50	3
51-75	6
76-100	8
101-150	11
151-200	16
201 AND OVER	AT LEAST 8% OF TOTAL

5.106.5.2.1 - Parking stall marking. Paint, In the paint used for stall striping, the following characters such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle: CLEAN AIR / VAN POOL / EV

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces.

5.106.5.3 Electric vehicle (EV) charging. [N] Construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the *California Building Code*, the *California Electrical Code* and as follows:

5.106.5.3.1 Single charging space requirements. [N] When only a single charging space is required per Table 5.106.5.3.3, a raceway is required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.
2. A listed raceway capable of accommodating a 208/240 -volt dedicated branch circuit.
3. The raceway shall not be less than trade size 1".
4. The raceway shall originate at a service panel or a subpanel serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and listed suitable cabinet, box, enclosure or equivalent.
5. The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.

5.106.5.3.2 Multiple charging space requirements. [N] When multiple charging spaces are required per Table 5.106.5.3.3 raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.
2. The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
3. Plan design shall be based upon 40-ampere minimum branch circuits.
4. Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage.
5. The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

5.106.5.3.3 EV charging space calculations. [N] Table 5.106.5.3.3 shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE.

Exceptions: On a case-by-case basis where the local enforcing agency has determined EV charging and infrastructure is not feasible based upon one or more of the following conditions:

1. Where there is insufficient electrical supply.
2. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.

TABLE 5.106.5.3.3

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-9	0
10-25	1
26-50	2
51-75	4
76-100	5
101-150	7
151-200	10
201 AND OVER	6% of total[1]

1. Calculation for spaces shall be rounded up to the nearest whole number.

5.106.5.3.4 [N] Identification. The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

5.106.5.3.5 [N] Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking for clean air vehicles.

5.106.8 LIGHT POLLUTION REDUCTION. [N].I Outdoor lighting systems shall be designed and installed to comply with the following:

1. The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10, Section 10-114 of the California Administrative Code; and
2. Backlight (B) ratings as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8);
3. Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B in Chapter 8) and
4. Allowable BUG ratings not exceeding those shown in Table 5.106.8, [N] or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]

1. Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code.
2. Emergency lighting.
3. Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6.
4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.

Note: [N]
1. See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.
2. Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table A-1, California Energy Code Tables 130.2-A and 130.2-B.
3. Refer to the California Building Code for requirements for additions and alterations.

TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS 1,2

ALLOWABLE RATING	LIGHTING ZONE LZ0	LIGHTING ZONE LZ1	LIGHTING ZONE LZ2	LIGHTING ZONE LZ3	LIGHTING ZONE LZ4
MAXIMUM ALLOWABLE BACKLIGHT RATING 3					
Luminaire greater than 2 mounting heights (MH) from property line	N/A	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	N/A	B2	B3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	N/A	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	B0	B0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING (U)					
For area lighting 4	N/A	U0	U0	U0	U0
For all other outdoor lighting,including decorative luminaires	N/A	U1	U2	U3	UR
MAXIMUM ALLOWABLE GLARE RATING 5 (G)					
Luminaire greater than 2 MH from property line	N/A	G1	G2	G3	G4
Luminaire front hemisphere is 1-2 MH from property line	N/A	G0	G1	G1	G2
Luminaire front hemisphere is 0.5-1 MH from property line	N/A	G0	G0	G1	G1
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the *California Energy Code* and Chapter 10 of the *California Administrative Code*.

2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.

3. If the nearest property line is less than or equal to two mounting heights from the back hemisphere of the luminaire distribution, the applicable reduced Backlight rating shall be met.

4. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet *U*-value limits for "all other outdoor lighting".

5. If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced Glare rating shall be met.

5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales.
2. Water collection and disposal systems.
3. French drains.
4. Water retention gardens.
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

5.106.12 SHADE TREES [DSA-SS]. Shade Trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6.

5.106.12.1 Surface parking areas. Shade tree plantings, minimum #10 container size or equal, shall be installed to provide shade over 50 percent of the parking area within 15 years.

Exceptions: The surface parking area covered by solar photovoltaic shade structures, or shade structures, with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5, are not included in the total area calculations.

5.106.12.2 Landscape areas. Shade tress plantings, minimum #10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years.

Exceptions: Playfields for organized sport activity are not included in the total area calculation.

5.106.12.3. Hardscape areas. Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade over 20 percent of the hardscape area within 15 years.

Exceptions: Walks, hardscape areas covered by solar photovoltaic shade structures, and hardscape areas covered by shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5, are not included in the total area calculation.

DIVISION 5.2 ENERGY EFFICIENCY

SECTION 5.201 GENERAL

5.201.1 Scope [BSC-CG]. ***California Energy Code [DSA-SS].*** For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION

SECTION 5.301 GENERAL

5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors and in wastewater conveyance.

SECTION 5.302 DEFINITIONS

5.302.1 Definitions. The following terms are defined in Chapter 2 *(and are included here for reference)*

EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS]. An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which ae two major influences on the amount of water that needs to be applied to the landscape.

FOOTPRINT AREA [DSA-SS]. The total area of the furthest exterior wall of the structure projected to natural grade, not including exterior areas such as stairs, covered walkways, patios and decks.

METERING FAUCET. A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjustable.

GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or dishwashers.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and climatological parameters.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO), [HCD] The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and maintenance practices. Local agencies are required to adopt the updated MWELO, or adopt a local ordinance at least as effective as the MWELO.

POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards. See definition in the California Plumbing Code, Part 5.

POTABLE WATER. [HCD] Water that is satisfactory for drinking, culinary, and domestic puroses, and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards and the requirements of the Health Authority Having Jurisdiction.

RECYCLED WATER. Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water treated to remove waste matter attaining a quality that is suitable to use the water again.

SUBMETER. A meter installed subordinate to a site meter. Usually used to measure water intended for one purpose, such as landscape irrigation. For the purposes of CALGreen, a dedicated meter may be considered a submeter.

WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape Ordinance (MWELO).

SECTION 5.303 INDOOR WATER USE

5.303.1 METERS. Separate submeters or metering devices shall be Installed for the uses described in Sections 503,1.1 and 503,1.2.

5.303.1.1 Buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows:

1. For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.
2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
   a. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s).
   b. Makeup water for evaporative coolers greater than 6 gpm (0,04 L/s).
   c. Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW).

5.303.1.2 Excess consumption. A separate submeter or metering device shall be provided for any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day.

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

5.303.3.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

5.303.3.2 Urinals.
5.303.3.2.1 Wall-mounted Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.

5.303.3.2.2 Floor-mounted Urinals. The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.

5.303.3.3 Showerheads. [BSC-CG]
5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.
Note: A hand-held shower shall be considered a showerhead.

San Mateo County Sheriff's Office
400 County Center
Redwood City, CA

Maple Street Correctional Facility
1300 Maple St
Redwood City, CA 94063

Solar Shade Structure

REVISION	DATE
Issued For Permit	4/14/2021
1 Plan Check Resubmittal	11/11/2021

FIRE PLAN REVIEW & ACCEPTANCE THESE PLANS HAVE BEEN REVIEWED FOR COMPLIANCE WITH THE APPLICABLE CALIFORNIA BUILDING STANDARDS CODES AND NATIONAL STANDARDS AS ADOPTED BY THE STATE OF CALIFORNIA AND AMENDED AND ADOPTED BY THE LOCAL JURISDICTION.
ALL PLANS ARE SUBJECT TO FIELD CONDITIONS AND FINAL APPROVAL AT THE TIME OF INSPECTION. PLAN REVIEW ACCEPTANCE DOES NOT PERMIT CONSTRUCTION TO PROCEED IN VIOLATION OF ANY LAW OR LOCAL REGULATION.
By Scott Adams Date 1/26/2022
WEST COAST CODE CONSULTANTS, WC®

RECEIVED
Jun 21 2023
San Mateo County Building Inspection

JOB COPY
TO REMAIN ON
SITE AT ALL TIMES

REVIEWED FOR CODE COMPLIANCE
This review does not authorize violation of State or County building laws.
Jun 21 2023
SAN MATEO CO. BLDG. INSP. DIV.

CAL GBSC
Non-residential
Mandatory Measures

A8.0

BA 21-001

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

JOB COPY

TO REMAIN ON

SITE AT ALL TIMES

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

5.303.3.4 Faucets and fountains.

5.303.3.4.1 Nonresidential Lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.

5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than1.8 gallons per minute/20 [rim space (inches) at 60 psi].

5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.

5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches) at 60 psi].

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

☐ ☒ **5.303.4 COMMERCIAL KITCHEN EQUIPMENT.**

5.303.4.1 Food Waste Disposers. Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.
Note: This code section does not affect local jurisdiction authority to prohibit or require disposer installation.

☐ ☒ **5.303.5 AREAS OF ADDITION OR ALTERATION.** For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new fixtures in additions or areas of alteration to the building.

☐ ☒ **5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS.** Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code,* and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code* and in Chapter 6 of this code.

SECTION 5.304 OUTDOOR WATER USE

☐ ☒ **5.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS.** Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

Notes:
1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code of Regulations, Title 23, Chapter 2.7, Division 2.
2. MWELO and supporting documents, including a water budget calculator, are available at: https://www.water.ca.gov/.

☐ ☒ **5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS.** For public schools and community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations, except that the evapotranspiration adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35.

Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWELO.

5.304.6.1 Newly constructed landscapes. New construction projects with an aggregate landscape area equal to or greater than 500 square feet.

5.304.6.2 Rehabilitated landscapes. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet.

DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

SECTION 5.401 GENERAL

5.401.1 SCOPE. The provisions of this chapter shall outline means of achieving material conservation and resource efficiency through protection of buildings from exterior moisture, construction waste diversion, employment of techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting.

SECTION 5.402 DEFINITIONS

5.402.1 DEFINITIONS. The following terms are defined in Chapter 2 *(and are included here for reference)*

ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust a damper.

BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, according to design quantities.

BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, tested, operated and maintained to meet the owner's project requirements.

ORGANIC WASTE. Food waste, green waste, landscape and pruning wste, nonhazardous wood waste, and food soiled paper waste that is mixed in with food waste.

TEST. A procedure to determine quantitative performance of a system or equipment

SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT

5.407.1 WEATHER PROTECTION. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 (Weather Protection), manufacturer's installation instructions or local ordinance, whichever is more stringent.

☐ ☒ **5.407.2 MOISTURE CONTROL.** Employ moisture control measures by the following methods.

5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures.

5.407.2.2 Entries and openings. Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows:

5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:

1. An installed awning at least 4 feet in depth.
2. The door is protected by a roof overhang at least 4 feet in depth.
3. The door is recessed at least 4 feet.
4. Other methods which provide equivalent protection.

5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane.

SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

☒ ☐ **5.408.1 CONSTRUCTION WASTE MANAGEMENT.** Recycle and/or salvage for reuse a minimum of 65% of the non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.

5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan that:

1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.
2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
3. Identifies diversion facilities where construction and demolition waste material collected will be taken.
4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.

Note: The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.

Exceptions to Sections 5.408.1.1 and 5.408.1.2:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets.

5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement as approved by the enforcing agency.

5.408.1.4 Documentation. Documentation shall be provided to the enforcing agency which demonstrates compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located at www.bsc.ca.gov/Home/CALGreen.aspx may be used to assist in documenting compliance with the waste management plan.
2. Mixed construction and demolition debris processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

☐ ☒ **5.408.2 UNIVERSAL WASTE. [A]** Additions and alterations to a building or tenant space that meet the scoping provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste materials shall be included in the construction documents.

Note: Refer to the Universal Waste Rule link at: http://www.dtsc.ca.gov/LawsRegsPolicies/Regs/upload/OEAR-A_REGS_UWR_FinalText.pdf

☒ ☐ **5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS.** 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.

Exception: Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation.

Notes:

1. If contamination by disease or pest infestation is suspected, contact the County Agricultural Commissioner and follow its direction for recycling or disposal of the material.
2. For a map of know pest and/or disease quarantine zones, consult with the California Department of Food and Agriculture. (www.cdfa.ca.gov)

SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS

☒ ☐ **5.410.1 RECYCLING BY OCCUPANTS.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code 42649.82 (a)(2)(A) et seq. shall also be exempt from the organic waste portion of this section.

5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site.

Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.

5.410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the *Public Resources Code*. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).

Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the CalRecycle's web site.

☐ ☒ **5.410.2 COMMISSIONING. [N] New buildings 10,000 square feet and over.** For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. For I-occupancies that are not regulated by OSHPD or for I-occupancies and L-occupancies that are not regulated by Section 100.0 Energy Code Section 100.0 Scope, all requirements in sections 5.410.2 through 5.410.2.6 shall apply.

Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements

Commissioning requirements shall include:

1. Owner's or Owner representative's project requirements.
2. Basis of design.
3. Commissioning measures shown in the construction documents.
4. Commissioning plan.
5. Functional performance testing.
6. Documentation and training.
7. Commissioning report.

Exceptions:

1. Unconditioned warehouses of any size.
2. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses.
3. Tenant improvements less than 10,000 square feet as described in Section 303.1.1.
4. Open parking garages of any size, or open parking garage areas, of any size, within a structure.

Note: For the purposes of this section, unconditioned shall mean a building, area, or room which does not provide heating and or air conditioning.

Informational Notes:

1. IAS AC 476 is an accreditation criteria for organizations providing training and/or certification of commissioning personnel. AC 476 is available to the Authority Having Jurisdiction as a reference for qualifications of commissioning personnel. AC 476 des not certify individuals to conduct functional performance tests or to adjust and balance systems.

2. Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the *California Energy Code.*

5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:
1. Environmental and sustainability goals.
2. Building sustainable goals.
3. Indoor environmental quality requirements.
4. Project program, including facility functions and hours of operation, and need for after hours operation.
5. Equipment and systems expectations.
6. Building occupant and operation and maintenance (O&M) personnel expectations.

5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:

1. Renewable energy systems.
2. Landscape irrigation systems.
3. Water reuse system.

5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following:
1. General project information.
2. Commissioning goals.
3. Systems to be commissioned. Plans to test systems and components shall include:
   a. An explanation of the original design intent.
   b. Equipment and systems to be tested, including the extent of tests.
   c. Functions to be tested.
   d. Conditions under which the test shall be performed.
   e. Measurable criteria for acceptable performance.
4. Commissioning team information.
5. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included.

5.410.2.4 Functional performance testing. [N] Functional performance tests shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. Functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.

5.410.2.5 Documentation and training. [N] A Systems Manual and Systems Operations Training are required, including Occupational Safety and Health Act (OSHA) requirements in *California Code of Regulations* (CCR), Title 8, Section 5142, and other related regulations.

5.410.2.5.1 Systems manual. [N] Documentation of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The systems manual shall include the following:
1. Site information, including facility description, history and current requirements.
2. Site contact information.
3. Basic operations and maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log.
4. Major systems.
5. Site equipment Inventory and maintenance notes.
6. A copy of verifications required by the enforcing agency or this code.
7. Other resources and documentation, if applicable.

5.410.2.5.2 Systems operations training. [N] A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and documented in the commissioning report and shall include the following:
1. System/equipment overview (what it is, what it does and with what other systems and/or equipment it interfaces).
2. Review and demonstration of servicing/preventive maintenance.
3. Review of the information in the Systems Manual.
4. Review of the record drawings on the system/equipment.

5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or representative.

☒ ☐ **5.410,4 TESTING AND ADJUSTING. New buildings less than 10,000 square feet.** Testing and adjusting of systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.

5.410.4.2 (Reserved)

Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting system and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements and Sections 120.5, 120.6, 130.4, and 140.9(b)3 for additional testing requirements of specific systems.

5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:

1. Renewable energy systems.
2. Landscape irrigation systems.
3. Water reuse systems.

5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.

5.410.4.3.1 HVAC balancing. In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the enforcing agency.

5.410.4.4 Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.

5.410.4.5 Operation and maintenance (O & M) manual. Provide the building owner or representative with detailed operating and maintenance instructions and copies of guaranties/warranties for each system. O & M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.

5.410.4.5.1 Inspections and reports. Include a copy of all inspection verifications and reports required by the enforcing agency.

DIVISION 5.5 ENVIRONMENTAL QUALITY

SECTION 5.501 GENERAL

5.501.1 SCOPE. The provisions of this chapter shall outline means of reducing the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors.

SECTION 5.502 DEFINITIONS

5.502.1 DEFINITIONS. The following terms are defined In Chapter 2 *(and are included here for reference)*

ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route.

A-WEIGHTED SOUND LEVEL (dBA). The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made.

1 BTU/HOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, the amount of heat required to melt a ton (2,000 pounds) of ice at 32° Fahrenheit.

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a).

Note: See CCR, Title 17, Section 93120.1.

DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.).

DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the *California Electrical Code*, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.

ELECTRIC VEHICLE CHARGING STATION(S) (EVCSj). One or more spaces intended for charging electric vehicles.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

ENERGY EQUIVALENT (NOISE) LEVEL (Leq). The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest.

EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections.

FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections.

GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference compound with a GWP of one.

GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995); or its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 2.14.; the AR4 GWP values are found in column "100 yr" of Table 2.14.

HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a hdrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.5 times the pipe diameter.

LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2–1999.

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundreths of a gram (g O^3/g ROC).

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).

PSIG. Pounds per square inch, guage.

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

SCHRADER ACCESS VALVES. Access fittings with a valve core installed.

SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.0 times the pipe diameter.

SUPERMARKET. For the purposes of Section 5.508,2, a supermarket is any retail food facility with 8,000 square feet or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units.

VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a)

Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition included in that specific regulation is the one that prevails for the specific measure in question.

SECTION 5.503 FIREPLACES

☐ ☒ **5.503.1 FIREPLACES.** Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances.

5.503.1.1 Woodstoves. Woodstoves and pellet stoves shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits.

SECTION 5.504 POLLUTANT CONTROL

☐ ☒ **5.504.1 TEMPORARY VENTILATION.** The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992 Replace all filters immediately prior to occupancy, or, if the building is occupied during alteration, at the conclusion of construction.

☐ ☒ **5.504.3 Covering of duct openings and protection of mechanical equipment during construction.** At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilation equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.

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LICENSED ARCHITECT MARK RICHARD BARTOS C-24138 REN. 08-31-23 STATE OF CALIFORNIA

San Mateo County Sheriff's Office
400 County Center
Redwood City, CA

Maple Street Correctional Facility
1300 Maple St
Redwood City, CA 94063

Solar Shade Structure

REVISION	DATE
Issued For Permit	4/14/2021
⚠1 Plan Check Resubmittal	11/11/2021

FIRE PLAN REVIEW & ACCEPTANCE
THESE PLANS HAVE BEEN REVIEWED FOR COMPLIANCE WITH THE APPLICABLE CALIFORNIA BUILDING STANDARDS CODES AND NATIONAL STANDARDS AS ADOPTED BY THE STATE OF CALIFORNIA AND AMENDED AND ADOPTED BY THE LOCAL JURISDICTION.
ALL PLANS ARE SUBJECT TO FIELD CONDITIONS AND FINAL APPROVAL AT THE TIME OF INSPECTION, PLAN REVIEW ACCEPTANCE DOES NOT PERMIT CONSTRUCTION TO PROCEED IN VIOLATION OF ANY LAW OR LOCAL REGULATION.
By Scott Adams Date 1/26/2022
WEST COAST CODE CONSULTANTS, WC¹

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Jun 21 2023
San Mateo County
Building Inspection

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TO REMAIN ON
SITE AT ALL TIMES

REVIEWED FOR CODE COMPLIANCE
This review does not authorize violation of State or County building laws.

Jun 21 2023
SAN MATEO CO. BLDG. INSP. DIV.

CAL GBSC
Non-residential
Mandatory Measures

A8.1

BA 21-001

DISCLAIMER: *THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE 2016 CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.*

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Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y	N/A	RESPON. PARTY

[X] [ ] **5.504.4 FINISH MATERIAL POLLUTANT CONTROL.** Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.

5.504.4.1 Adhesives, sealants and caulks. Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards:

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as specified in subsection 2, below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with Section 94507.

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT[1,2]

Less Water and Less Exempt Compounds in Grams per Liter

ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168, www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF

TABLE 5.504.4.2 - SEALANT VOC LIMIT

Less Water and Less Exempt Compounds in Grams per Liter

SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.

5.504.4.3.1 Aerosol Paints and coatings. Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of *California Code of Regulations*, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49.

TABLE 5.504.4.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	CURRENT VOC LIMIT
FLAT COATINGS	50
NONFLAT COATINGS	100
NONFLAT HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH-TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[1]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS:	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification
2. Field verification of on-site product containers

5.504.4.4 Carpet Systems. All carpet installed in the building interior shall meet at least one of the testing and product requirements:

1. Carpet and Rug Institute's Green Label Plus Program.
2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1, February 2010 (also known as CDPH Standard Method V1.1 or Specification 01350).
3. NSF/ANSI 140 at the Gold level or higher;
4. Scientific Certifications Systems Sustainable Choice; or
5. Compliant with the Collaborative for High Performance Schools California (2014 CA-CHPS) Criteria listed in the CHPS High Performance Product Database.

5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program.

5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1.

5.504.4.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in Table 5.504.4.5.

5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards.
5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS[1]

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM).

5.504.4.6 Resilient flooring systems. For 80 percent of floor area receiving resilient flooring, installed resilient flooring shall meet at least one of the following:

1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program;
2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation Chambers, Version 1.1, February 2010;
3. Compliant with the Collaborative for High Performance Schools California (2014 CA-CHPS) Criteria and listed in the CHPS High Performance Product Database; or
4. Products certified under UL GREENGUARD Gold (formerly the Greenguard Children's & Schools Program).

5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 13. MERV 13 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

Exceptions: Existing mechanical equipment.

5.504.5.3.1 Labeling. Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.

[ ] [X] **5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL.** Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions.

SECTION 5.505 INDOOR MOISTURE CONTROL

[ ] [X] **5.505.1 INDOOR MOISTURE CONTROL.** Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see Section 5.407.2 of this code.

SECTION 5.506 INDOOR AIR QUALITY

[ ] [X] **5.506.1 OUTSIDE AIR DELIVERY.** For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the *California Energy Code*, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

[ ] [X] **5.506.2 CARBON DIOXIDE (CO_2) MONITORING.** For buildings or additions equipped with demand control ventilation, CO_2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120(c)(4).

SECTION 5.507 ENVIRONMENTAL COMFORT

[ ] [X] **5.507.4 ACOUSTICAL CONTROL.** Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

Exception: [DSA-SS] For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

5.507.4.1 Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

1. Within the 65 CNEL noise contour of an airport.

   Exceptions:

   1. L_{dn} or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.
   2. L_{dn} or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

2. Within the 65 CNEL or L_{dn} noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

5.507.4.1.1. Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB L_{eq} - 1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

5.507.4.2 Performance Method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation.

5.507.4.2.1 Site Features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

5.507.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record.

5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.

Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: www.toolbase.org/PDF/CaseStudies/stc_icc_ratings.pdf.

SECTION 5.508 OUTDOOR AIR QUALITY

[ ] [X] **5.508.1 Ozone depletion and greenhouse gas reductions.** Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.

5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.

5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

[ ] [X] **5.508.2 Supermarket refrigerant leak reduction.** New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO_2), and potentially other refrigerants.

5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.

5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack.

5.508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.

5.508.2.1.2.1 Anchorage. One-fouth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.

Exception: Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.

5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.

5.508.2.2 Valves. Valves Valves and fittings shall comply with the *California Mechanical Code* and as follows.

5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

5.508.2.2.2 Access valves. Only Schrader access valves with a brass or steel body are permitted for use.

5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.

5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place.

5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit ovr the stem are required for valves designed to have seal caps.

Exception: Valves with seal caps that are not removed from the valve during stem operation.

5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel; or be coated to prevent corrosion from these substances.

5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device tha indicates the level of refrigerant in the receiver.

5.508.2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and charging.

5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.

5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.

5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.

5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.

5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.

5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.

5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC-CG] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

BARTOS ARCHITECTURE
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SAN MATEO, CALIFORNIA 94402
www.bartosarchitecture.com

San Mateo County Sheriff's Office
400 County Center
Redwood City, CA

Maple Street Correctional Facility
1300 Maple St
Redwood City, CA 94063

Solar Shade Structure

REVISION	DATE
Issued For Permit	4/14/2021
1 Plan Check Resubmittal	11/11/2021

FIRE PLAN REVIEW & ACCEPTANCE
THESE PLANS HAVE BEEN REVIEWED FOR COMPLIANCE WITH THE APPLICABLE CALIFORNIA BUILDING STANDARDS CODES AND NATIONAL STANDARDS AS ADOPTED BY THE STATE OF CALIFORNIA AND AMENDED AND ADOPTED BY THE LOCAL JURISDICTION.
ALL PLANS ARE SUBJECT TO FIELD CONDITIONS AND FINAL APPROVAL AT THE TIME OF INSPECTION, PLAN REVIEW ACCEPTANCE DOES NOT PERMIT CONSTRUCTION TO PROCEED IN VIOLATION OF ANY LAW OR LOCAL REGULATION.
By Scott Adams Date 1/26/2022
WEST COAST CODE CONSULTANTS, WC³

RECEIVED
Jun 21 2023
San Mateo County Building Inspection

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REVIEWED FOR CODE COMPLIANCE
This review does not authorize violation of State or County building laws.
Jun 21 2023
SAN MATEO CO. BLDG. INSP. DIV.

CAL GBSC Non-residential Mandatory Measures

NEW SOLAR PV SYSTEM
PHASE A
1300 MAPLE STREET
REDWOOD CITY, CALIFORNIA

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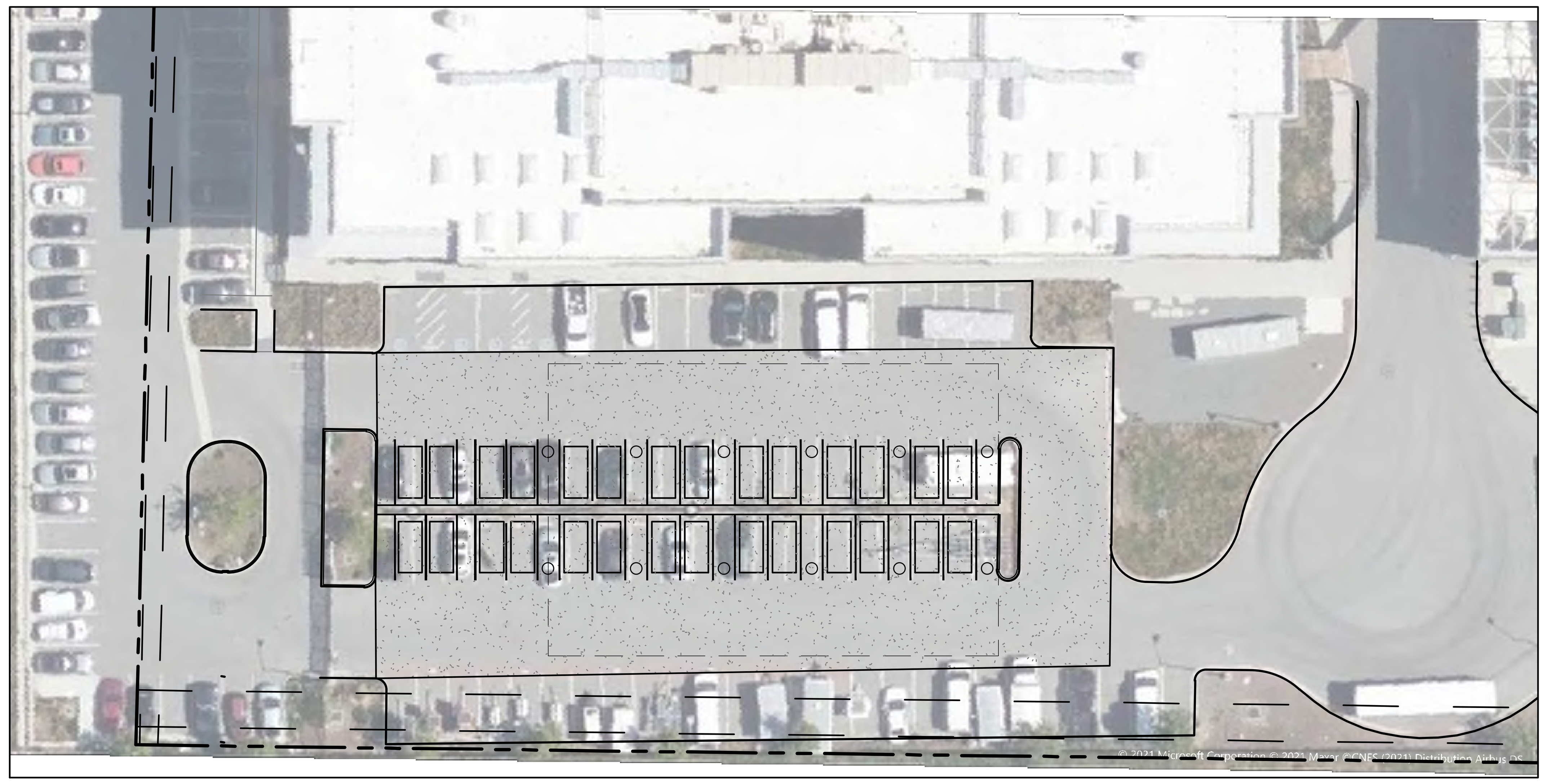
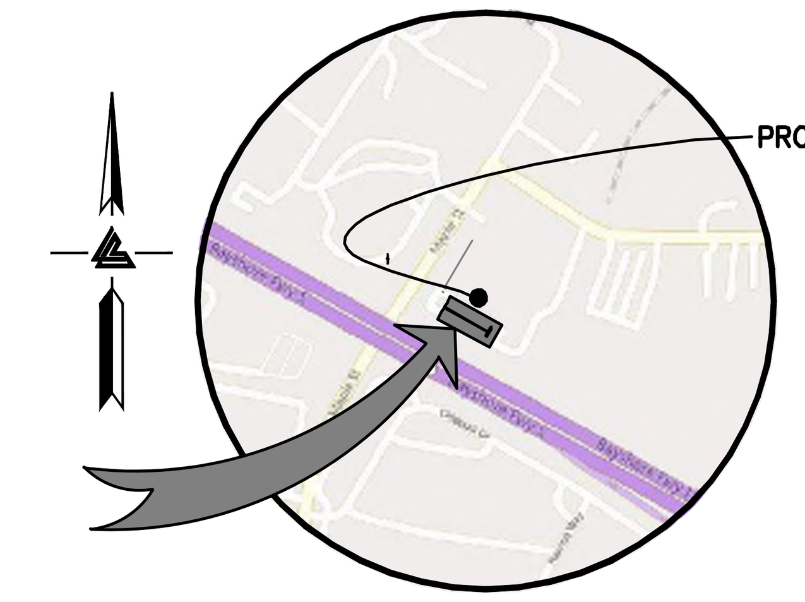
LEGEND

EXISTING	PROPOSED	DESCRIPTION
		BOUNDARY
		PROPERTY LINE
		RETAINING WALL
		LANDSCAPE RETAINING WALL
	RW	RAINWATER TIGHTLINE
	SUB	SUBDRAIN LINE
	TL	TIGHTLINE
SD	SD	STORM DRAIN LINE
SS	SS	SANITARY SEWER LINE
W	W	WATER LINE
G	G	GAS LINE
P	SDP	STORM DRAIN PRESSURE LINE
P	SSP	SANITARY SEWER PRESSURE LINE
JT	JT	JOINT TRENCH
		SET BACK LINE
		CONCRETE VALLEY GUTTER
		EARTHEN SWALE
CB	CB	CATCH BASIN
JB	JB	JUNCTION BOX
AD	AD	AREA DRAIN
		CURB INLET
SDMH	SDMH	STORM DRAIN MANHOLE
		FIRE HYDRANT
SSMH	SSMH	SANITARY SEWER MANHOLE
		STREET SIGN
222.57 INV	222.57 INV	SPOT ELEVATION
		FLOW DIRECTION
	D	DEMOLISH/REMOVE
		BENCHMARK
200	200	CONTOURS
	XX" TREE	TREE TO BE REMOVED
	TP	TREE PROTECTION FENCING



KEY MAP

1" = 30'



VICINITY MAP

NTS

ABBREVIATIONS

AB	AGGREGATE BASE	LF	LINEAR FEET
AC	ASPHALT CONCRETE	MAX	MAXIMUM
ACC	ACCESSIBLE	MH	MANHOLE
AD	AREA DRAIN	MIN	MINIMUM
BC	BEGINNING OF CURVE	MON.	MONUMENT
B & D	BEARING & DISTANCE	MRO	METERED RELEASE OUTLET
BM	BENCHMARK	(N)	NEW
BUB	BUBBLER BOX	NO.	NUMBER
BW/FG	BOTTOM OF WALL/FINISH GRADE	NTS	NOT TO SCALE
		O.C.	ON CENTER
CB	CATCH BASIN	O/	OVER
C & G	CURB AND GUTTER	(PA)	PLANTING AREA
℄	CENTER LINE	PED	PEDESTRIAN
CPP	CORRUGATED PLASTIC PIPE (SMOOTH INTERIOR)	PIV	POST INDICATOR VALVE
		PSS	PUBLIC SERVICES EASEMENT
CO	CLEANOUT	PL	PROPERTY LINE
COTG	CLEANOUT TO GRADE	PP	POWER POLE
CONC	CONCRETE	PUE	PUBLIC UTILITY EASEMENT
CONST	CONSTRUCT or –TION	PVC	POLYVINYL CHLORIDE
CONC COR	CONCRETE CORNER	R	RADIUS
CY	CUBIC YARD	RCP	REINFORCED CONCRETE PIPE
D	DIAMETER	RIM	RIM ELEVATION
DI	DROP INLET	RW	RAINWATER
DIP	DUCTILE IRON PIPE	R/W	RIGHT OF WAY
EA	EACH	S	SLOPE
EC	END OF CURVE	S.A.D.	SEE ARCHITECTURAL DRAWINGS
EG	EXISTING GRADE	SAN	SANITARY
EL	ELEVATIONS	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SDMH	STORM DRAIN MANHOLE
EQ	EQUIPMENT	SHT	SHEET
EW	EACH WAY	S.L.D.	SEE LANDSCAPE DRAWINGS
(E)	EXISTING	SPEC	SPECIFICATION
FC	FACE OF CURB	SS	SANITARY SEWER
FF	FINISHED FLOOR	SSCO	SANITARY SEWER CLEANOUT
FG	FINISHED GRADE	SSMH	SANITARY SEWER MANHOLE
FH	FIRE HYDRANT	ST.	STREET
FL	FLOW LINE	STA	STATION
FS	FINISHED SURFACE	STD	STANDARD
G	GAS	STRUCT	STRUCTURAL
GA	GAGE OR GAUGE	T	TELEPHONE
GB	GRADE BREAK	TC	TOP OF CURB
HDPE	HIGH DENSITY CORRUGATED POLYETHYLENE PIPE	TOW	TOP OF WALL
		TEMP	TEMPORARY
HORIZ	HORIZONTAL	TP	TOP OF PAVEMENT
HI PT	HIGH POINT	TW/FG	TOP OF WALL/FINISH GRADE
H&T	HUB & TACK	TYP	TYPICAL
ID	INSIDE DIAMETER	VC	VERTICAL CURVE
INV	INVERT ELEVATION	VCP	VITRIFIED CLAY PIPE
JB	JUNCTION BOX	VERT	VERTICAL
JT	JOINT TRENCH	W/	WITH
JP	JOINT UTILITY POLE	W, WL	WATER LINE
L	LENGTH	WM	WATER METER
LNDG	LANDING	WWF	WELDED WIRE FABRIC

OWNER'S INFORMATION

OWNER:
SAN MATEO COUNTY – MAPLE STREET CORRECTIONAL FACILITY
1300 MAPLE STREET
REDWOOD CITY, CA

APN: 052-392-580

REFERENCES

THIS SITE PLAN IS SUPPLEMENTAL TO:

1. TOPOGRAPHIC SURVEY BY F3 & ASSOCIATES, INC., ENTITLED; "TOPOGRAPHIC SURVEY" 1300 MAPLE ST REDWOOD CITY, USA DATED: MAY 2013
2. AS-BUILT PLAN BY TELAMON ENGINEERING CONSULTANTS, INC. ENTITLED: "MAPLE STREET CORRECTIONAL CENTER" 1300 MAPLE ST REDWOOD CITY, USA DATED: MAY 2014 PROJECT NO. 12.04009.00

THE CONTRACTOR SHALL REFER TO THE ABOVE NOTED SURVEY AND PLAN, AND SHALL VERIFY BOTH EXISTING AND PROPOSED ITEMS ACCORDING TO THEM.

LB JOB NO: 2210100
DATE: 04-22-21
SCALE: AS NOTED
DESIGN BY: AK
CHECKED BY: RC

NOTE:
FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116. aabaya@leabraze.com

1-800-227-2600 CALL BEFORE YOU DIG
USA UNDERGROUND SERVICE ALERT

SHEET INDEX

BARTOS ARCHITECTURE
1730 S. AMPHLETT BLVD, SUITE 225
SAN MATEO, CALIFORNIA 94402
www.bartosarchitecture.com

LICENSED ARCHITECT MARK EDWARD BARTOS C-29138 REN. 03-31-23 STATE OF CALIFORNIA

LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS I LAND SURVEYORS
MAIN OFFICE: 2495 INDUSTRIAL PKWY WEST HAYWARD, CALIFORNIA 94545 (510) 887-4086
REGIONAL OFFICES: ROSEVILLE DUBLIN SAN JOSE
WWW.LEABRAZE.COM

REGISTERED PROFESSIONAL ENGINEER JAMES TOBY No. 63127 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

San Mateo County
Sheriff's Office
400 County Center
Redwood City, CA

Maple Street
Correctional Facility
1300 Maple St
Redwood City, CA 94063

Solar Shade Structure

REVISION	DATE
Issued For Permit	4/14/2021
Plan Check Resubmittal	11/11/2021

RECEIVED
Jun 21 2023
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SAN MATEO CO. BLDG. INSP. DIV.

Title Sheet
C1.0
BA 21-001

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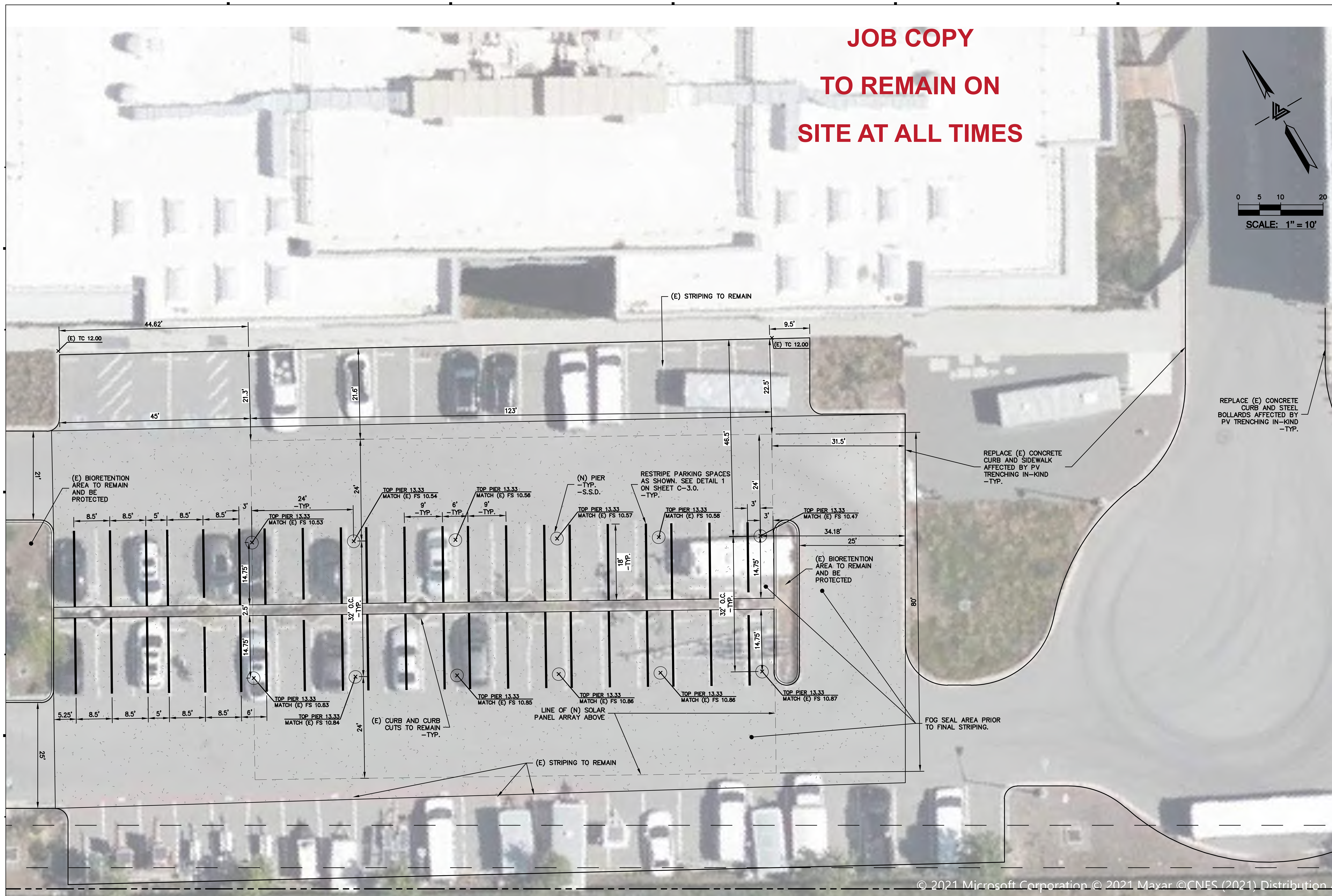

*NOTE:
CONTRACTOR TO VERIFY DIMENSIONS, ELEVATIONS, AND LAYOUT PRIOR TO CONSTRUCTION. IF FIELD CONDITIONS DIFFER FROM PLANS, CONTRACTOR TO NOTIFY LEA & BRAZE ENGINEERING, INC. AND BARTOS ARCHITECTURE.

*AS–BUILT NOTE:
LOCATIONS AND ELEVATIONS SHOWN ARE BASED ON AS–BUILT PLANS BY TELAMON ENGINEERING CONSULTANTS, INC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION AND EXCAVATION. IF FIELD CONDITIONS DIFFER FROM AS–BUILT PLANS, CONTRACTOR TO NOTIFY LEA & BRAZE ENGINEERING, INC.

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LICENSED ARCHITECT MARK EDWARD BARTOS C-XXXXX STATE OF CALIFORNIA

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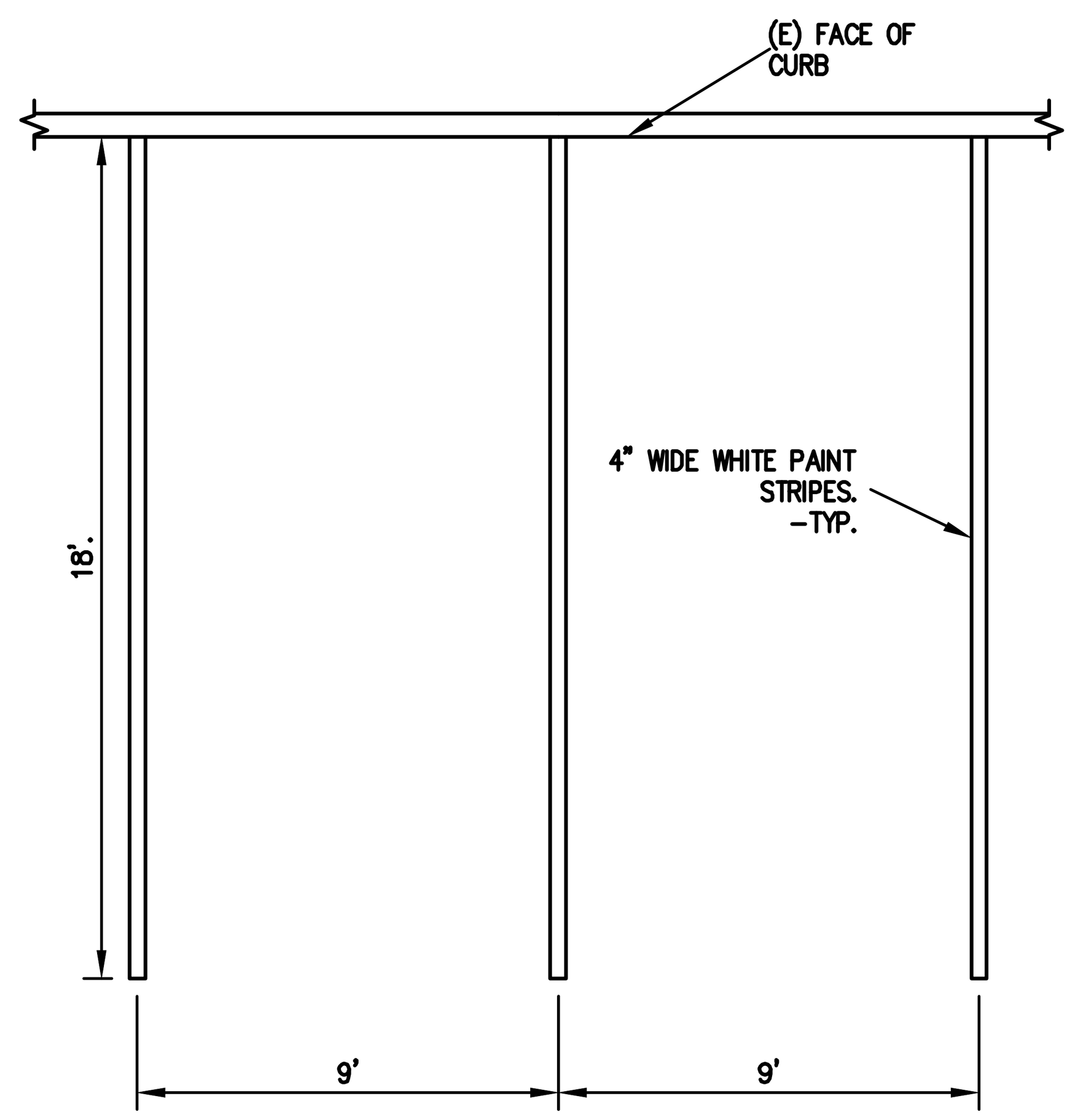
SAN MATEO CO. BLDG. INSP. DIV.

Site Plan
C2.0
BA 21-001



1 / C-3.0 **TYPICAL PARKING STALLS**
NTS

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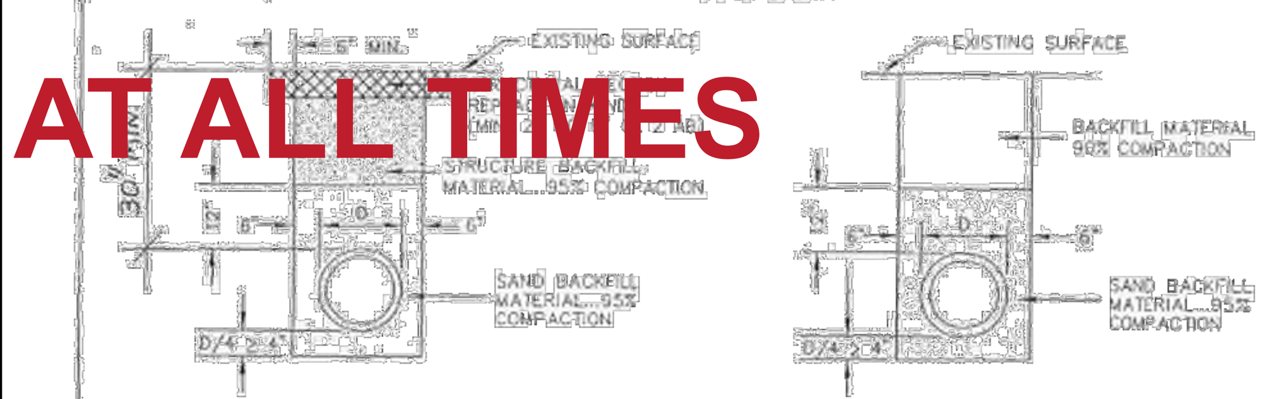
SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS
REDWOOD CITY CALIFORNIA

SCALE: NONE
DATE: 6/95
REVISED: 7/97



TYPE A (IN ROADWAY)
TYPE B (OUTSIDE ROADWAY)

NOTES

1. SAND.... MATERIAL FREE FROM ORGANIC MATTER AND CLAY WITH A SIEVE GRADATION BY WEIGHT AS FOLLOWS:

SIEVE SIZE	% PASSING SIEVE
No. 4	100
No. 200	0–5

2. STRUCTURE BACKFILL MATERIAL.... MATERIAL WITH SAND EQUIVALENT NOT LESS THAN 20 AND SIEVE GRADATION BY WEIGHT AS FOLLOWS:

SIEVE SIZE	% PASSING SIEVE
3"	100
No. 4	35–100
No. 30	20–100

3. BACKFILL MATERIAL.... MATERIAL FROM EXCAVATION, FREE FROM STONES OR LUMPS EXCEEDING 3 INCHES GREATEST DIMENSION, ORGANIC MATTER, OR OTHER UNSATISFACTORY MATERIAL.

STANDARD TRENCH BACKFILL AND BEDDING DETAIL

W-10

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LICENSED ARCHITECT MARK EDWARD BARTOS C-28135 REN. 03-31-23 STATE OF CALIFORNIA

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CIVIL ENGINEERS | LAND SURVEYORS
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Details
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BA 21-001

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SITE AT ALL TIMES

GENERAL NOTES

ALL GENERAL NOTES, SHEET NOTES, AND LEGEND NOTES FOUND IN THESE DOCUMENTS SHALL APPLY TYPICALLY THROUGHOUT. IF INCONSISTENCIES ARE FOUND IN THE VARIOUS NOTATIONS, NOTIFY THE ENGINEER IMMEDIATELY IN WRITING REQUESTING CLARIFICATION.

THESE DRAWINGS AND THEIR CONTENT ARE AND SHALL REMAIN THE PROPERTY OF LEA AND BRAZE ENGINEERING, INC. WHETHER THE PROJECT FOR WHICH THEY ARE PREPARED IS EXECUTED OR NOT. THEY ARE NOT TO BE USED BY ANY PERSONS ON OTHER PROJECTS OR EXTENSIONS OF THE PROJECT EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE ENGINEER.

ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND TRADE STANDARDS WHICH GOVERN EACH PHASE OF WORK INCLUDING, BUT NOT LIMITED TO, CALIFORNIA MECHANICAL CODE, CALIFORNIA PLUMBING CODE, CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, CALTRANS STANDARDS AND SPECIFICATIONS, AND ALL APPLICABLE STATE AND/OR LOCAL CODES AND/OR LEGISLATION.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND ALL SUBCONTRACTORS TO CHECK AND VERIFY ALL CONDITIONS, DIMENSIONS, LINES AND LEVELS INDICATED. PROPER FIT AND ATTACHMENT OF ALL PARTS IS REQUIRED. SHOULD THERE BE ANY DISCREPANCIES, IMMEDIATELY NOTIFY THE ENGINEER FOR CORRECTION OR ADJUSTMENT THE EVENT OF FAILURE TO DO SO, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTION OF ANY ERROR.

ALL DIMENSIONS AND CONDITIONS SHALL BE CHECKED AND VERIFIED ON THE JOB BY EACH SUBCONTRACTOR BEFORE HE/SHE BEGINS HIS/HER WORK. ANY ERRORS, OMISSION, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER/CONTRACTOR BEFORE CONSTRUCTION BEGINS.

COMMENCEMENT OF WORK BY THE CONTRACTOR AND/OR ANY SUBCONTRACTOR SHALL INDICATE KNOWLEDGE AND ACCEPTANCE OF ALL CONDITIONS DESCRIBED IN THESE CONSTRUCTION DOCUMENTS, OR EXISTING ON SITE, WHICH COULD AFFECT THEIR WORK.

WORK SEQUENCE

IN THE EVENT ANY SPECIAL SEQUENCING OF THE WORK IS REQUIRED BY THE OWNER OR THE CONTRACTOR, THE CONTRACTOR SHALL ARRANGE A CONFERENCE BEFORE ANY SUCH WORK IS BEGUN.

SITE EXAMINATION: THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL THOROUGHLY EXAMINE THE SITE AND FAMILIARIZE HIM/HERSELF WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE CONTRACTOR SHALL VERIFY AT THE SITE ALL MEASUREMENTS AFFECTING HIS/HER WORK AND SHALL BE RESPONSIBLE FOR THE CORRECTIONS OF THE SAME. NO EXTRA COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR EXPENSES DUE TO HIS/HER NEGLECT TO EXAMINE, OR FAILURE TO DISCOVER, CONDITIONS WHICH AFFECT HIS/HER WORK.

LEA AND BRAZE ENGINEERING, INC. EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF LEA AND BRAZE ENGINEERING, INC. IN THE EVENT OF UNAUTHORIZED REUSE OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD HARMLESS LEA AND BRAZE ENGINEERING, INC.

CONSTRUCTION IS ALWAYS LESS THAN PERFECT SINCE PROJECTS REQUIRE THE COORDINATION AND INSTALLATION OF MANY INDIVIDUAL COMPONENTS BY VARIOUS CONSTRUCTION INDUSTRY TRADES. THESE DOCUMENTS CANNOT PORTRAY ALL COMPONENTS OR ASSEMBLIES EXACTLY. IT IS THE INTENTION OF THESE ENGINEERING DOCUMENTS THAT THEY REPRESENT A REASONABLE STANDARD OF CARE IN THEIR CONTENT. IT IS ALSO PRESUMED BY THESE DOCUMENTS THAT CONSTRUCTION REVIEW SERVICES WILL BE PROVIDED BY THE ENGINEER. SHOULD THE OWNER NOT RETAIN THE ENGINEER TO PROVIDE SUCH SERVICES, OR SHOULD HE/SHE RETAIN THE ENGINEER TO PROVIDE ONLY PARTIAL OR LIMITED SERVICES, THEN IT SHALL BE THE OWNER'S AND CONTRACTOR'S RESPONSIBILITY TO FULLY RECOGNIZE AND PROVIDE THAT STANDARD OF CARE.

IF THE OWNER OR CONTRACTOR OBSERVES OR OTHERWISE BECOMES AWARE OF ANY FAULT OR DEFECT IN THE PROJECT OR NONCONFORMANCE WITH THE CONTRACT DOCUMENTS, PROMPT WRITTEN NOTICE THEREOF SHALL BE GIVEN BY THE OWNER AND/OR CONTRACTOR TO THE ENGINEER.

THE ENGINEER SHALL NOT HAVE CONTROL OF OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

SITE PROTECTION

PROTECT ALL LANDSCAPING THAT IS TO REMAIN. ANY DAMAGE OR LOSS RESULTING FROM EXCAVATION, GRADING, OR CONSTRUCTION WORK SHALL BE CORRECTED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING SITE UTILITIES AND SHALL COORDINATE THEIR REMOVAL OR MODIFICATIONS (IF ANY) TO AVOID ANY INTERRUPTION OF SERVICE TO ADJACENT AREAS. THE GENERAL CONTRACTOR SHALL INFORM HIM/HERSELF OF MUNICIPAL REGULATIONS AND CARRY OUT HIS/HER WORK IN COMPLIANCE WITH ALL FEDERAL AND STATE REQUIREMENTS TO REDUCE FIRE HAZARDS AND INJURIES TO THE PUBLIC.

STORMWATER POLLUTION PREVENTION NOTES

1) STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.

2) CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING SOLID WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENT, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATER COURSES.

3) USE SEDIMENT CONTROL OR FILTRATION TO REMOVE SEDIMENT FROM DEWATERING EFFLUENT.

4) AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON SITE, EXCEPT IN A DESIGNATED AREA IN WHICH RUNOFF IS CONTAINED AND TREATED.

5) DELINEATE CLEARING LIMITS, EASEMENTS, SETBACKS, SENSITIVE OR CRITICAL AREAS, BUFFER ZONES, TREES AND DISCHARGE COURSE WITH FIELD MARKERS.

6) PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OF FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.

7) PERFORM CLEARING AND EARTH MOVING ACTIVITIES DURING DRY WEATHER TO THE MAXIMUM EXTENT PRACTICAL.

8) LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.

9) LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.

10) AVOID TRACKING DIRT OR MATERIALS OFF-SITE; CLEAN OFF-SITE PAVED AREAS AND SIDEWALKS USING DRY SWEEPING METHODS TO THE MAXIMUM EXTENT PRACTICAL.

SUPPLEMENTAL MEASURES

A. THE PHRASE "NO DUMPING - DRAINS TO BAY" OR EQUALLY EFFECTIVE PHRASE MUST BE LABELED ON STORM DRAIN INLETS (BY STENCILING, BRANDING, OR PLAQUES) TO ALERT THE PUBLIC TO THE DESTINATION OF STORM WATER AND TO PREVENT DIRECT DISCHARGE OF POLLUTANTS INTO THE STORM DRAIN.

B. USING FILTRATION MATERIALS ON STORM DRAIN COVERS TO REMOVE SEDIMENT FROM DEWATERING EFFLUENT.

C. STABILIZING ALL DENUDED AREAS AND MAINTAINING EROSION CONTROL MEASURES CONTINUOUSLY FROM OCTOBER 15 AND APRIL 15.

D. REMOVING SPOILS PROMPTLY, AND AVOID STOCKPILING OF FILL MATERIALS, WHEN RAIN IS FORECAST. IF RAIN THREATENS, STOCKPILED SOILS AND OTHER MATERIALS SHALL BE COVERED WITH A TARP OR OTHER WATERPROOF MATERIAL.

E. STORING, HANDLING, AND DISPOSING OF CONSTRUCTION MATERIALS AND WASTES SO AS TO AVOID THEIR ENTRY TO THE STORM DRAIN SYSTEMS OR WATER BODY.

F. AVOIDING CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN AN AREA DESIGNATED TO CONTAIN AND TREAT RUNOFF.

GRADING & DRAINAGE NOTES:

1. SCOPE OF WORK

THESE SPECIFICATIONS AND APPLICABLE PLANS PERTAIN TO AND INCLUDE ALL SITE GRADING AND EARTHWORK ASSOCIATED WITH THE PROJECT INCLUDING, BUT NOT LIMITED TO THE FURNISHING OF ALL LABOR, TOOLS AND EQUIPMENT NECESSARY FOR SITE CLEARING AND GRUBBING, SITE PREPARATION, DISPOSAL OF EXCESS OR UNSUITABLE MATERIAL, STRIPPING, KEYING, EXCAVATION, OVER EXCAVATION, RECOMPACTION PREPARATION FOR SOIL RECEIVING FILL, PAVEMENT, FOUNDATION OF SLABS, EXCAVATION, IMPORTATION OF ANY REQUIRED FILL MATERIAL, PROCESSING, PLACEMENT AND COMPACTION OF FILL AND SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES, GRADING AND SLOPE SHOWN ON THE PROJECT GRADING PLANS.

2. GENERAL

A. ALL SITE GRADING AND EARTHWORK SHALL CONFORM TO THE RECOMMENDATIONS OF THESE SPECIFICATIONS, THE SOILS REPORT BY ENGEO, INC.; AND THE COUNTY OF SAN MATEO.

B. ALL FILL MATERIALS SHALL BE DENSIFIED SO AS TO PRODUCE A DENSITY NOT LESS THAN 90% RELATIVE COMPACTION BASED UPON ASTM TEST DESIGNATION D1557. FIELD DENSITY TEST WILL BE PERFORMED IN ACCORDANCE WITH ASTM TEST DESIGNATION 2922 AND 3017. THE LOCATION AND FREQUENCY OF THE FIELD DENSITY TEST WILL BE AS DETERMINED BY THE SOIL ENGINEER. THE RESULTS OF THESE TEST AND COMPLIANCE WITH THE SPECIFICATIONS WILL BE THE BASIS UPON WHICH SATISFACTORY COMPLETION OF THE WORK WILL BE JUDGED BY THE SOIL ENGINEER. ALL CUT AND FILL SLOPES SHALL BE CONSTRUCTED AS SHOWN ON PLANS, BUT NO STEEPER THAN TWO (2) HORIZONTAL TO ONE (1) VERTICAL.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF ALL THE EARTHWORK IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. NO DEVIATION FROM THESE SPECIFICATIONS SHALL BE MADE EXCEPT UPON WRITTEN APPROVAL BY THE SOILS ENGINEER. BOTH CUT AND FILL AREAS SHALL BE SURFACE COMPLETED TO THE SATISFACTION OF THE SOILS ENGINEER AT THE CONCLUSION OF ALL GRADING OPERATIONS AND PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL NOTIFY THE SOILS ENGINEER AT LEAST TWO (2) WORKING DAYS PRIOR TO DOING ANY SITE GRADING AND EARTHWORK INCLUDING CLEARING.

3. CLEARING AND GRUBBING

A. THE CONTRACTOR SHALL ACCEPT THE SITE IN ITS PRESENT CONDITION. ALL EXISTING PUBLIC IMPROVEMENTS SHALL BE PROTECTED. ANY IMPROVEMENTS DAMAGED SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE LOCAL JURISDICTION WITH NO EXTRA COMPENSATION.

B. ALL ABANDONED BUILDINGS AND FOUNDATIONS, TREE (EXCEPT THOSE SPECIFIED TO REMAIN FOR LANDSCAPING PURPOSES), FENCES, VEGETATION AND ANY SURFACE DEBRIS SHALL BE REMOVED AND DISPOSED OF OFF THE SITE BY THE CONTRACTOR.

C. ALL ABANDONED SEPTIC TANKS AND ANY OTHER SUBSURFACE STRUCTURES EXISTING IN PROPOSED DEVELOPMENT AREAS SHALL BE REMOVED PRIOR TO ANY GRADING OR FILL OPERATION. ALL APPURTENANT DRAIN FIELDS AND OTHER CONNECTING LINES MUST ALSO BE TOTALLY REMOVED.

D. ALL ABANDONED UNDERGROUND IRRIGATION OR UTILITY LINES SHALL BE REMOVED OR DEMOLISHED. THE APPROPRIATE FINAL DISPOSITION OF SUCH LINES DEPEND UPON THEIR DEPTH AND LOCATION AND THE METHOD OF REMOVAL OR DEMOLITION SHALL BE DETERMINED BY THE SOILS ENGINEER. ONE OF THE FOLLOWING METHODS WILL BE USED:

(1) EXCAVATE AND TOTALLY REMOVE THE UTILITY LINE FROM THE TRENCH.

(2) EXCAVATE AND CRUSH THE UTILITY LINE IN THE TRENCH.

(3) CAP THE ENDS OF THE UTILITY LINE WITH CONCRETE TO PREVENT THE ENTRANCE OF WATER. THE LOCATIONS AT WHICH THE UTILITY LINE WILL BE CAPPED WILL BE DETERMINED BY THE UTILITY DISTRICT ENGINEER. THE LENGTH OF THE CAP SHALL NOT BE LESS THAN FIVE FEET, AND THE CONCRETED MIX EMPLOYED SHALL HAVE MINIMUM SHRINKAGE.

4. SITE PREPARATION AND STRIPPING

A. ALL SURFACE ORGANICS SHALL BE STRIPPED AND REMOVED FROM BUILDING PADS, AREAS TO RECEIVE COMPACTED FILL AND PAVEMENT AREAS.

B. UPON THE COMPLETION OF THE ORGANIC STRIPPING OPERATION, THE GROUND SURFACE (NATIVE SOIL SUBGRADE) OVER THE ENTIRE AREA OF ALL BUILDING PADS, STREET AND PAVEMENT AREAS AND ALL AREAS TO RECEIVE COMPACTED FILL SHALL BE PLOWED OR SCARIFIED UNTIL THE SURFACE IS FREE OF RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH MAY INHIBIT UNIFORM SOIL COMPACTION. THE GROUND SURFACE SHALL THEN BE DISCED OR BLADED TO A DEPTH OF AT LEAST 6 INCHES. UPON ENGINEER'S SATISFACTION, THE NEW SURFACE SHALL BE WATER CONDITIONED AND RECOMPACTED PER REQUIREMENTS FOR COMPACTING FILL MATERIAL.

5. EXCAVATION

A. UPON COMPLETION OF THE CLEARING AND GRUBBING, SITE PREPARATION AND STRIPPING, THE CONTRACTOR SHALL MAKE EXCAVATIONS TO LINES AND GRADES NOTED ON THE PLAN. WHERE REQUIRED BY THE SOILS ENGINEER, UNACCEPTABLE NATIVE SOILS OR UNENGINEERED FILL SHALL BE OVER EXCAVATED BELOW THE DESIGN GRADE. SEE PROJECT SOILS REPORT FOR DISCUSSION OF OVER EXCAVATION OF THE UNACCEPTABLE MATERIAL. RESULTING GROUND LINE SHALL BE SCARIFIED, MOISTURE-CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS. COMPACTED FILL MATERIAL SHALL BE PLACED TO BRING GROUND LEVEL BACK TO DESIGN GRADE.

B. EXCAVATED MATERIALS SUITABLE FOR COMPACTED FILL MATERIAL SHALL BE UTILIZED IN MAKING THE REQUIRED COMPACTED FILLS. THOSE NATIVE MATERIALS CONSIDERED UNSUITABLE BY THE SOILS ENGINEER SHALL BE DISPOSED OF OFF THE SITE BY THE CONTRACTOR.

6. PLACING, SPREADING AND COMPACTING FILL MATERIAL

A. FILL MATERIALS

THE MATERIALS PROPOSED FOR USE AS COMPACTED FILL SHALL BE APPROVED BY THE SOILS ENGINEER BEFORE COMMENCEMENT OF GRADING OPERATIONS. THE NATIVE MATERIAL IS CONSIDERED SUITABLE FOR FILL; HOWEVER, ANY NATIVE MATERIAL DESIGNATED UNSUITABLE BY THE SOILS ENGINEER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. ANY IMPORTED MATERIAL SHALL BE APPROVED FOR USE BY THE SOILS ENGINEER, IN WRITING, BEFORE BEING IMPORTED TO THE SITE AND SHALL POSSESS SUFFICIENT FINES TO PROVIDE A COMPETENT SOIL MATRIX AND SHALL BE FREE OF VEGETATIVE AND ORGANIC MATTER AND OTHER DELETERIOUS MATERIALS. ALL FILL VOIDS SHALL BE FILLED AND PROPERLY COMPACTED. NO ROCKS LARGER THAN THREE INCHES IN DIAMETER SHALL BE PERMITTED.

B. FILL CONSTRUCTION

THE SOILS ENGINEER SHALL APPROVE THE NATIVE SOIL SUBGRADE BEFORE PLACEMENT OF ANY COMPACTED FILL MATERIAL. UNACCEPTABLE NATIVE SOIL SHALL BE REMOVED AS DIRECTED BY THE SOILS ENGINEER. THE RESULTING GROUND LINE SHALL BE SCARIFIED MOISTURE CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS. COMPACTED FILL MATERIAL SHALL BE PLACED TO BRING GROUND LEVEL BACK TO DESIGN GRADE. GROUND PREPARATION SHALL BE FOLLOWED CLOSELY BY FILL PLACEMENT TO PREVENT DRYING OUT OF THE SUBSOIL BEFORE PLACEMENT OF THE FILL.

THE APPROVED FILL MATERIALS SHALL BE PLACED IN UNIFORM HORIZONTAL LAYERS NO THICKER THAN 8" IN LOOSE THICKNESS. LAYERS SHALL BE SPREAD EVENLY AND SHALL BE THOROUGHLY BLADE MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. THE SCARIFIED SUBGRADE AND FILL MATERIAL SHALL BE MOISTURE CONDITIONED TO AT LEAST OPTIMUM MOISTURE. WHEN THE MOISTURE CONTENT OF THE FILL IS BELOW THAT SPECIFIED, WATER SHALL BE ADDED UNTIL THE MOISTURE DURING THE COMPACTION PROCESS. WHEN THE MOISTURE CONTENT OF THE FILL IS ABOVE THAT SPECIFIED, THE FILL MATERIAL SHALL BE AERATED BY BLADING OR OTHER SATISFACTORY METHODS UNTIL THE MOISTURE CONTENT IS AS SPECIFIED.

AFTER EACH LAYER HAS BEEN PLACED, MIXED, SPREAD EVENLY AND MOISTURE CONDITIONED, IT SHALL BE COMPACTED TO AT LEAST THE SPECIFIED DENSITY.

THE FILL OPERATION SHALL BE CONTINUED IN COMPACTED LAYERS AS SPECIFIED ABOVE UNTIL THE FILL HAS BEEN BROUGHT TO THE FINISHED SLOPES AND GRADES AS SHOWN ON THE PLANS. NO LAYER SHALL BE ALLOWED TO DRY OUT BEFORE SUBSEQUENT LAYERS ARE PLACED.

COMPACTION EQUIPMENT SHALL BE OF SUCH DESIGN THAT IT WILL BE ABLE TO COMPACT THE FILL TO THE SPECIFIED MINIMUM COMPACTION WITHIN THE SPECIFIED MOISTURE CONTENT RANGE. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER ITS ENTIRE AREA UNTIL THE REQUIRED MINIMUM DENSITY HAS BEEN OBTAINED.

7. CUT OR FILL SLOPES

ALL CONSTRUCTED SLOPES, BOTH CUT AND FILL, SHALL BE NO STEEPER THAN 2 TO 1 (HORIZONTAL TO VERTICAL). DURING THE GRADING OPERATION, COMPACTED FILL SLOPES SHALL BE OVERFILLED BY AT LEAST ONE FOOT HORIZONTALLY AT THE COMPLETION OF THE GRADING OPERATIONS, THE EXCESS FILL EXISTING ON THE SLOPES SHALL BE BLADED OFF TO CREATE THE FINISHED SLOPE EMBANKMENT. ALL CUT AND FILL SLOPES SHALL BE TRACK WALKED AFTER BEING BROUGHT TO FINISH GRADE AND THEN BE PLANTED WITH EROSION CONTROL SLOPE PLANTING. THE SOILS ENGINEER SHALL REVIEW ALL CUT SLOPES TO DETERMINE IF ANY ADVERSE GEOLOGIC CONDITIONS ARE EXPOSED. IF SUCH CONDITIONS DO OCCUR, THE SOILS ENGINEER SHALL RECOMMEND THE APPROPRIATE MITIGATION MEASURES AT THE TIME OF THEIR DETECTION.

8. SEASONAL LIMITS AND DRAINAGE CONTROL

FILL MATERIALS SHALL NOT BE PLACED, SPREAD OR COMPACTED WHILE IT IS AT AN UNSUITABLY HIGH MOISTURE CONTENT OR DURING OTHERWISE UNFAVORABLE CONDITIONS. WHEN THE WORK IS INTERRUPTED FOR ANY REASON THE FILL OPERATIONS SHALL NOT BE RESUMED UNTIL FIELD TEST PERFORMED BY THE SOILS ENGINEER INDICATE THAT THE MOISTURE CONDITIONS IN AREAS TO BE FILLED ARE AS PREVIOUSLY SPECIFIED. ALL EARTH MOVING AND WORKING OPERATIONS SHALL BE CONTROLLED TO PREVENT WATER FROM RUNNING INTO EXCAVATED AREAS. ALL EXCESS WATER SHALL BE PROMPTLY REMOVED AND THE SITE KEPT DRY.

9. DUST CONTROL

THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY FOR THE ALLEVIATION OR PREVENTION OF ANY DUST NUISANCE ON OR ABOUT THE SITE CAUSED BY THE CONTRACTOR'S OPERATION EITHER DURING THE PERFORMANCE OF THE GRADING OR RESULTING FROM THE CONDITION IN WHICH THE CONTRACTOR LEAVES THE SITE. THE CONTRACTOR SHALL ASSUME ALL LIABILITY INCLUDING COURT COST OF CO-DEFENDANTS FOR ALL CLAIMS RELATED TO DUST OR WIND-BLOWN MATERIALS ATTRIBUTABLE TO HIS WORK. COST FOR THIS ITEM OF WORK IS TO BE INCLUDED IN THE EXCAVATION ITEM AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

10. INDEMNITY

THE CONTRACTOR WILL HOLD HARMLESS, INDEMNIFY AND DEFEND THE ENGINEER, THE OWNER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS, FROM ANY AND ALL LIABILITY CLAIMS, LOSSES OR DAMAGE ARISING OR ALLEGED TO HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, THE ARCHITECT, THE ENGINEER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS.

11. SAFETY

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE. INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

THE DUTY OF THE ENGINEERS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

12. GUARANTEE

NEITHER THE FINAL PAYMENT, NOR THE PROVISIONS IN THE CONTRACT, NOR PARTIAL, NOR ENTIRE USE OR OCCUPANCY OF THE PREMISES BY THE OWNER SHALL CONSTITUTE AN ACCEPTANCE OF THE WORK NOT DONE IN ACCORDANCE WITH THE CONTRACT OR RELIEVES THE CONTRACTOR OF LIABILITY IN RESPECT TO ANY EXPRESS WARRANTIES OR RESPONSIBILITY FOR FAULTY MATERIAL OR WORKMANSHIP.

THE CONTRACTOR SHALL REMEDY ANY DEFECTS IN WORK AND PAY FOR ANY DAMAGE TO OTHER WORK RESULTING THERE FROM WHICH SHALL APPEAR WITHIN A PERIOD OF ONE (1) CALENDAR YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

13. TRENCH BACKFILL

EITHER THE ON-SITE INORGANIC SOIL OR APPROVED IMPORTED SOIL MAY BE USED AS TRENCH BACKFILL. THE BACKFILL MATERIAL SHALL BE MOISTURE CONDITIONED PER THESE SPECIFICATIONS AND SHALL BE PLACED IN LIFTS OF NOT MORE THAN SIX INCHES IN HORIZONTAL UNCOMPACTED LAYERS AND BE COMPACTED BY MECHANICAL MEANS TO A MINIMUM OF 90% RELATIVE COMPACTION. IMPORTED SAND MAY BE USED FOR TRENCH BACKFILL MATERIAL PROVIDED IT IS COMPACTED TO AT LEAST 90% RELATIVE COMPACTION. WATER JETTING ASSOCIATED WITH COMPACTION USING VIBRATORY EQUIPMENT WILL BE PERMITTED ONLY WITH IMPORTED SAND BACKFILL WITH THE APPROVAL OF THE SOILS ENGINEER. ALL PIPES SHALL BE BEDDED WITH SAND EXTENDING FROM THE TRENCH BOTTOM TO TWELVE INCHES ABOVE THE PIPE. SAND BEDDING IS TO BE COMPACTED AS SPECIFIED ABOVE FOR SAND BACKFILL.

14. EROSION CONTROL

A. ALL GRADING, EROSION AND SEDIMENT CONTROL AND RELATED WORK UNDERTAKEN ON THIS SITE IS SUBJECT TO ALL TERMS AND CONDITIONS OF THE COUNTY GRADING ORDINANCE AND MADE A PART HEREOF BY REFERENCE.

B. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO ANY PUBLICLY OWNED AND MAINTAINED ROAD CAUSED BY THE AFORESAID CONTRACTOR'S GRADING ACTIVITIES, AND SHALL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE.

C. THE EROSION CONTROL MEASURES ARE TO BE OPERABLE DURING THE RAINY SEASON, GENERALLY FROM OCTOBER FIRST TO APRIL FIFTEENTH. EROSION CONTROL PLANTING IS TO BE COMPLETED BY OCTOBER FIRST. NO GRADING OR UTILITY TRENCHING SHALL OCCUR BETWEEN OCTOBER FIRST AND APRIL FIFTEENTH UNLESS AUTHORIZED BY THE LOCAL JURISDICTION.

D. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED AND CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE SOILS ENGINEER.

E. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM.

F. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED AT THE END OF EACH WORKING DAY DURING THE RAINY SEASON.

G. WHEN NO LONGER NECESSARY AND PRIOR TO FINAL ACCEPTANCE OF DEVELOPMENT, SEDIMENT BASINS SHALL BE REMOVED OR OTHERWISE DEACTIVATED AS REQUIRED BY THE LOCAL JURISDICTION.

H. A CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT ANY POINT OF EGRESS FROM THE SITE TO ROADWAY. A CONSTRUCTION ENTRANCE SHOULD BE COMPOSED OF COARSE DRAIN ROCK (2" TO 3") MINIMUM DIAMETER) AT LEAST EIGHT INCHES THICK BY FIFTY (50) FEET LONG BY TWENTY (20) FEET WIDE UNLESS SHOWN OTHERWISE ON PLAN AND SHALL BE MAINTAINED UNTIL THE SITE IS PAVED.

I. ALL AREAS SPECIFIED FOR HYDROSEEDING SHALL BE NOZZLE PLANTED WITH STABILIZATION MATERIAL CONSISTING OF FIBER, SEED, FERTILIZER AND WATER, MIXED AND APPLIED IN THE FOLLOWING PROPORTIONS:

FIBER, 2000 LBS/ACRE
SEED, 200 LBS/ACRE (SEE NOTE J, BELOW)
FERTILIZER (11-8-4), 500 LBS/ACRE
WATER, AS REQUIRED FOR APPLICATION

J. SEED MIX SHALL BE PER CALTRANS STANDARDS.

K. WATER UTILIZED IN THE STABILIZATION MATERIAL SHALL BE OF SUCH QUALITY THAT IT WILL PROMOTE GERMINATION AND STIMULATE GROWTH OF PLANTS. IT SHALL BE FREE OF POLLUTANT MATERIALS AND WEED SEED.

L. HYDROSEEDING SHALL CONFORM TO THE PROVISIONS OF SECTION 20, EROSION CONTROL AND HIGHWAY PLANTING", OF THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LAST REVISED.

M. A DISPERSING AGENT MAY BE ADDED TO THE HYDROSEEDING MATERIAL, PROVIDED THAT THE CONTRACTOR FURNISHES SUITABLE EVIDENCE THAT THE ADDITIVE WILL NOT ADVERSELY AFFECT THE PERFORMANCE OF THE SEEDING MIXTURE.

N. STABILIZATION MATERIALS SHALL BE APPLIED AS SOON AS PRACTICABLE AFTER COMPLETION OF GRADING OPERATIONS AND PRIOR TO THE ONSET OF WINTER RAINS, OR AT SUCH OTHER TIME AS DIRECTED BY THE COUNTY ENGINEER. THE MATERIAL SHALL BE APPLIED BEFORE INSTALLATION OF OTHER LANDSCAPING MATERIALS SUCH AS TREES, SHRUBS AND GROUND COVERS.

O. THE STABILIZATION MATERIAL SHALL BE APPLIED WITHIN 4-HOURS AFTER MIXING. MIXED MATERIAL NOT USED WITHIN 4-HOURS SHALL BE REMOVED FROM THE SITE.

P. THE CONTRACTOR SHALL MAINTAIN THE SOIL STABILIZATION MATERIAL AFTER PLACEMENT. THE COUNTY ENGINEER MAY REQUIRE SPRAY APPLICATION OF WATER OR OTHER MAINTENANCE ACTIVITIES TO ASSURE THE EFFECTIVENESS OF THE STABILIZATION PROCESS. APPLICATION OF WATER SHALL BE ACCOMPLISHED USING NOZZLES THAT PRODUCE A SPRAY THAT DOES NOT CONCENTRATE OR WASH AWAY THE STABILIZATION MATERIALS.

15. CLEANUP

THE CONTRACTOR MUST MAINTAIN THE SITE CLEAN, SAFE AND IN USABLE CONDITION. ANY SPILLS OF SOIL, ROCK OR CONSTRUCTION MATERIAL MUST BE REMOVED FROM THE SITE BY THE CONTRACTOR DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. COST FOR THIS ITEM OF WORK SHALL BE INCLUDED IN THE EXCAVATION AND COMPACTION ITEM AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

NOTE:
THESE NOTES ARE INTENDED TO BE USED AS A GENERAL GUIDELINE. THE REFERENCED SOILS REPORT FOR THE PROJECT AND GOVERNING AGENCY GRADING ORDINANCE SHALL SUPERSEDE THESE NOTES. THE SOILS ENGINEER MAY MAKE ON-SITE RECOMMENDATIONS DURING GRADING OPERATIONS.

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DUBLIN
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JAMES TOBY
No. 63127
CIVIL
ORIGINAL SIGNATURES IN BLUE INK

San Mateo County
Sheriff's Office
400 County Center
Redwood City, CA

Maple Street
Correctional Facility
1300 Maple St
Redwood City, CA 94063

Solar Shade Structure

REVISION	DATE
Issued For Permit	4/14/2021
△1 Plan Check Resubmittal	11/11/2021

RECEIVED
Jun 21 2023
San Mateo County
Building Inspection

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TO REMAIN ON

SITE AT ALL TIMES

REVIEWED FOR CODE COMPLIANCE
This review does not authorize violation
of State or County building laws.
Jun 21 2023
SAN MATEO CO. BLDG. INSP. DIV.
Stephen Chan

Grading Specifications

C4.0

BA 21-001

PURPOSE:

THE PURPOSE OF THIS PLAN IS TO STABILIZE THE SITE TO PREVENT EROSION OF GRADED AREAS AND TO PREVENT SEDIMENTATION FROM LEAVING THE CONSTRUCTION AREA AND AFFECTING NEIGHBORING SITES, NATURAL AREAS, PUBLIC FACILITIES OR ANY OTHER AREA THAT MIGHT BE AFFECTED BY SEDIMENTATION. ALL MEASURES SHOWN ON THIS PLAN SHOULD BE CONSIDERED THE MINIMUM REQUIREMENTS NECESSARY. SHOULD FIELD CONDITIONS DICTATE ADDITIONAL MEASURES, SUCH MEASURES SHALL BE PER CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL AND THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION. LEA & BRAZE ENGINEERING SHOULD BE NOTIFIED IMMEDIATELY SHOULD CONDITIONS CHANGE.

EROSION CONTROL NOTES:

1. IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THIS EROSION CONTROL PLAN.
2. THE INTENTION OF THIS PLAN IS FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. ALL EROSION CONTROL MEASURES SHALL CONFORM TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL, THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION, AND THE LOCAL GOVERNING AGENCY FOR THIS PROJECT.
3. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS. PERSON IN CHARGE OF MAINTAINING EROSION CONTROL MEASURES SHOULD WATCH LOCAL WEATHER REPORTS AND ACT APPROPRIATELY TO MAKE SURE ALL NECESSARY MEASURES ARE IN PLACE.
4. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATERCOURSES.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS CONCERNING POLLUTION SHALL BE MAINTAINED AT ALL TIMES.
7. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.
8. ALL MATERIALS NECESSARY FOR THE APPROVED EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 15TH.
9. EROSION CONTROL SYSTEMS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON, OR FROM OCTOBER 15TH THROUGH APRIL 15TH, WHICHEVER IS LONGER.
10. IN THE EVENT OF RAIN, ALL GRADING WORK IS TO CEASE IMMEDIATELY AND THE SITE IS TO BE SEALED IN ACCORDANCE WITH THE APPROVAL EROSION CONTROL MEASURES AND APPROVED EROSION CONTROL PLAN.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND REPAIRING EROSION CONTROL SYSTEMS AFTER EACH STORM.
12. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY LOCAL JURISDICTION'S ENGINEERING DEPARTMENT OR BUILDING OFFICIALS.
13. MEASURES SHALL BE TAKEN TO COLLECT OR CLEAN ANY ACCUMULATION OR DEPOSIT OF DIRT, MUD, SAND, ROCKS, GRAVEL OR DEBRIS ON THE SURFACE OF ANY STREET, ALLEY OR PUBLIC PLACE OR IN ANY PUBLIC STORM DRAIN SYSTEMS. THE REMOVAL OF AFORESAID SHALL BE DONE BY STREET SWEEPING OR HAND SWEEPING. WATER SHALL NOT BE USED TO WASH SEDIMENTS INTO PUBLIC OR PRIVATE DRAINAGE FACILITIES.
14. EROSION CONTROL MEASURES SHALL BE ON-SITE FROM SEPTEMBER 15TH THRU APRIL 15TH.
15. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON OR FROM OCTOBER 1 THROUGH APRIL 30T, WHICHEVER IS GREATER.
16. PLANS SHALL BE DESIGNED TO MEET C3 REQUIREMENTS OF THE MUNICIPAL STORMWATER REGIONAL PERMIT("MRP") NPDES PERMIT CAS 612008.
17. THE CONTRACTOR TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES (BMP) FOR SEDIMENTATION PREVENTION AND EROSION CONTROL TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE TOWN OR COUNTY STORM DRAIN SYSTEMS.
18. THE CONTRACTOR MUST INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE INCEPTION OF ANY WORK ONSITE AND MAINTAIN THE MEASURES UNTIL THE COMPLETION OF ALL LANDSCAPING.
19. THE CONTRACTOR SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE TOWN INSPECTOR. THE ADJACENT STREET SHALL AT ALL TIMES BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY THE BY THEIR CONSTRUCTION, METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPILING OF BUILDING MATERIALS WITHIN THE TOWN RIGHT-OF-WAY.
20. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONTRACTOR SHALL INSTALL A STABILIZED CONSTRUCTION ENTRANCE PRIOR TO THE INSPECTION OF ANY WORK ONSITE AND MAINTAIN IT FOR THE DURATION OF THE CONSTRUCTION PROCESS SO AS TO NOT INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT-OF-WAY UNTIL THE COMPLETION OF ALL LANDSCAPING.
21. THE CONTRACTOR SHALL PROTECT DOWN SLOPE DRAINAGE COURSES, STREAMS AND STORM DRAINS WITH ROCK FILLED SAND BAGS, TEMPORARY SWALES, SILT FENCES, AND EARTH PERMS IN CONJUNCTION OF ALL LANDSCAPING.
22. STOCKPILED MATERIALS SHALL BE COVERED WITH VISQUEEN OR A TARPAULIN UNTIL THE MATERIAL IS REMOVED FROM THE SITE. ANY REMAINING BARE SOIL THAT EXISTS AFTER THE STOCKPILE HAS BEEN REMOVED SHALL BE COVERED UNTIL A NATURAL GROUND COVER IS ESTABLISHED OR IT IS SEEDED OR PLANTED TO PROVIDE GROUND COVER PRIOR TO THE FALL RAINY SEASON.
23. EXCESS OR WASTE CONCRETE MUST NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAYOR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
24. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WIND

EROSION CONTROL NOTES CONTINUED:

24. FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MUST NOT BE WASHED INTO THE DRAINAGE SYSTEM,
25. DUST CONTROL SHALL BE DONE BY WATERING AND AS OFTEN AS REQUIRED BY THE TOWN INSPECTOR.
26. SILT FENCE(S) AND/OR FIBER ROLL(S) SHALL BE INSTALLED PRIOR TO SEPTEMBER 15TH AND SHALL REMAIN IN PLACE UNTIL THE LANDSCAPING GROUND COVER IS INSTALLED. CONTRACTOR SHALL CONTINUOUSLY MONITOR THESE MEASURES, FOLLOWING AND DURING ALL RAIN EVENTS,TO PUBLIC OWNED FACILITIES.

EROSION CONTROL MEASURES:

1. THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 15TH TO APRIL 15. EROSION CONTROL FACILITIES SHALL BE IN PLACE PRIOR TO OCTOBER 15TH OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES.
2. SITE CONDITIONS AT TIME OF PLACEMENT OF EROSION CONTROL MEASURES WILL VARY. APPROPRIATE ACTION INCLUDING TEMPORARY SWALES, INLETS, HYDROSEEDING, STRAW BALES, ROCK SACKS, ETC. SHALL BE TAKEN TO PREVENT EROSION AND SEDIMENTATION FROM LEAVING SITE. EROSION CONTROL MEASURES SHALL BE ADJUSTED AS THE CONDITIONS CHANGE AND THE NEED OF CONSTRUCTION SHIFT.
3. CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCES. CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE GOVERNING AGENCY.
4. ALL EXPOSED SLOPES THAT ARE NOT VEGETATED SHALL BE HYDROSEEDED. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY OCTOBER 15, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL BLANKETS, OR A THREE-STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH. HYDROSEEDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 20" EROSION CONTROL AND HIGHWAY PLANTING" OF THE STANDARD SPECIFICATION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LAST REVISED. REFER TO THE EROSION CONTROL SECTION OF THE GRADING SPECIFICATIONS THAT ARE A PART OF THIS PLAN SET FOR FURTHER INFORMATION.
5. INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT. MINIMUM INLET PROTECTION SHALL CONSIST OF A ROCK SACKS OR AS SHOWN ON THIS PLAN
6. THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. A REPRESENTATIVE OF LEA & BRAZE ENGINEERING SHALL PERFORM A FIELD REVIEW AND MAKE RECOMMENDATIONS AS NEEDED. CONTRACTOR IS RESPONSIBLE TO NOTIFY LEA & BRAZE ENGINEERING AND THE GOVERNING AGENCY OF ANY CHANGES.
7. THE EROSION CONTROL MEASURES SHALL CONFORM TO THE LOCAL JURISDICTION'S STANDARDS AND THE APPROVAL OF THE LOCAL JURISDICTION'S ENGINEERING DEPARTMENT.
8. STRAW ROLLS SHALL BE PLACED AT THE TOE OF SLOPES AND ALONG THE DOWN SLOPE PERIMETER OF THE PROJECT. THEY SHALL BE PLACED AT 25 FOOT INTERVALS ON GRADED SLOPES. PLACEMENT SHALL RUN WITH THE CONTOURS AND ROLLS SHALL BE TIGHTLY END BUTTED. CONTRACTOR SHALL REFER TO MANUFACTURES SPECIFICATIONS FOR PLACEMENT AND INSTALLATION INSTRUCTIONS.

REFERENCES:

1. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL
2. CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION

PERIODIC MAINTENANCE:

1. MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
   - A. DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION SHALL BE REPAIRED AT THE END OF EACH WORKING DAY.
   - B. SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS NEEDED.
   - C. SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
   - D. SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1' FOOT.
   - E. SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
   - F. RILLS AND GULLIES MUST BE REPAIRED.
2. GRAVEL BAG INLET PROTECTION SHALL BE CLEANED OUT WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE GRAVEL BAG.
3. STRAW ROLLS SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHED HALF THE HEIGHT OF THE ROLL.
4. SILT FENCE SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHES ONE FOOT IN HEIGHT.
5. CONSTRUCTION ENTRANCE SHALL BE REGRAVELED AS NECESSARY FOLLOWING SILT/SOIL BUILDUP.
6. ANY OTHER EROSION CONTROL MEASURES SHOULD BE CHECKED AT REGULAR INTERVALS TO ASSURE PROPER FUNCTION

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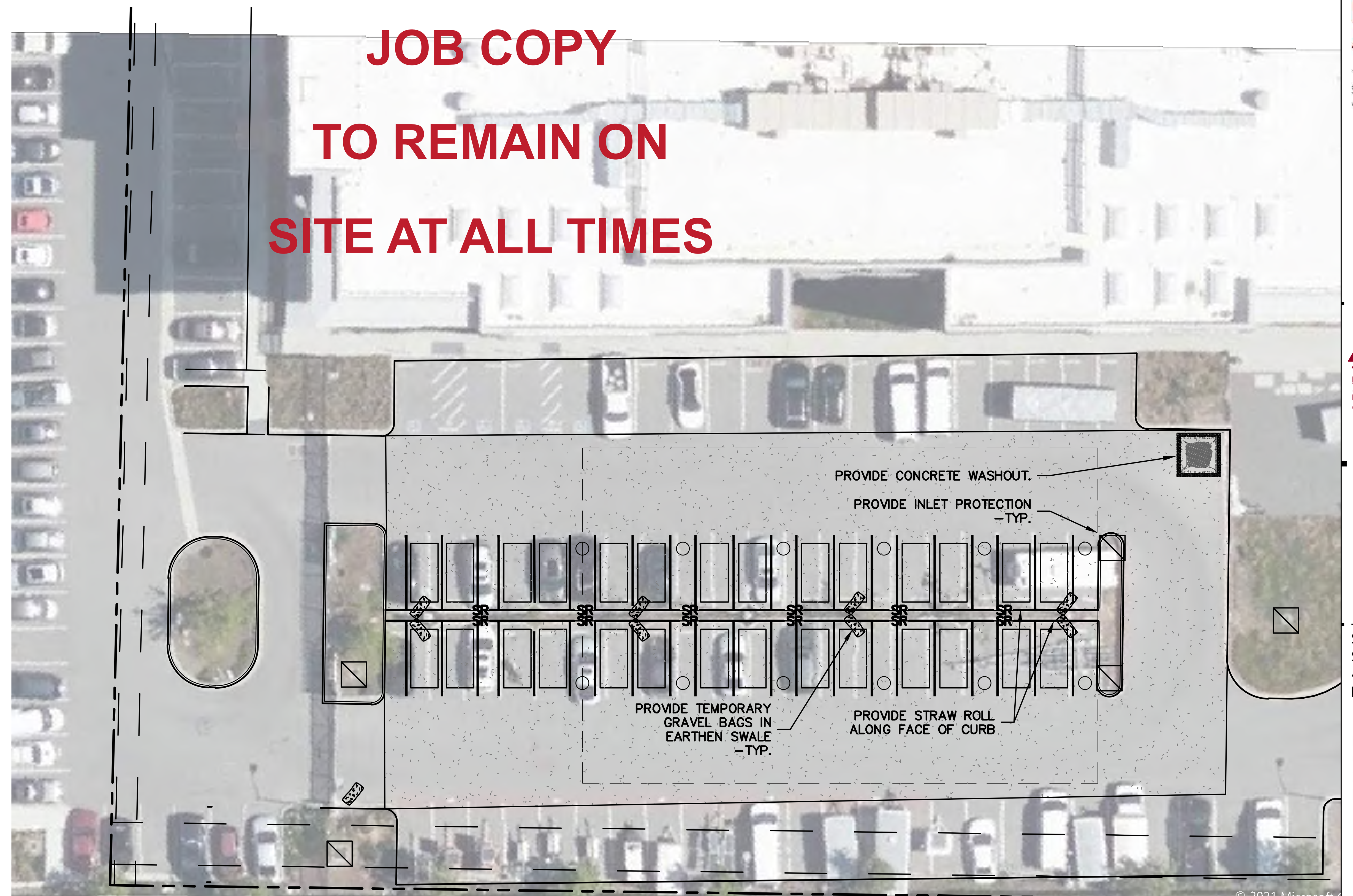

EROSION CONTROL LEGEND

- GRAVEL BAG
- INLET PROTECTION
- SR —— SR STRAW ROLL
- X —— X SILT FENCE
- CONCRETE WASHOUT

NOTE:
SEAL ALL OTHER INLETS NOT INTENDED TO ACCEPT STORM WATER AND DIRECT FLOWS TEMPORARILY TO FUNCTIONAL SEDIMENTATION BASIN INLETS. —TYP

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LEA & BRAZE ENGINEERING, INC.
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REGIONAL OFFICES: ROSEVILLE, DUBLIN, SAN JOSE
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REGISTERED PROFESSIONAL ENGINEER JAMES TOBY No. 63127 CIVIL STATE OF CALIFORNIA
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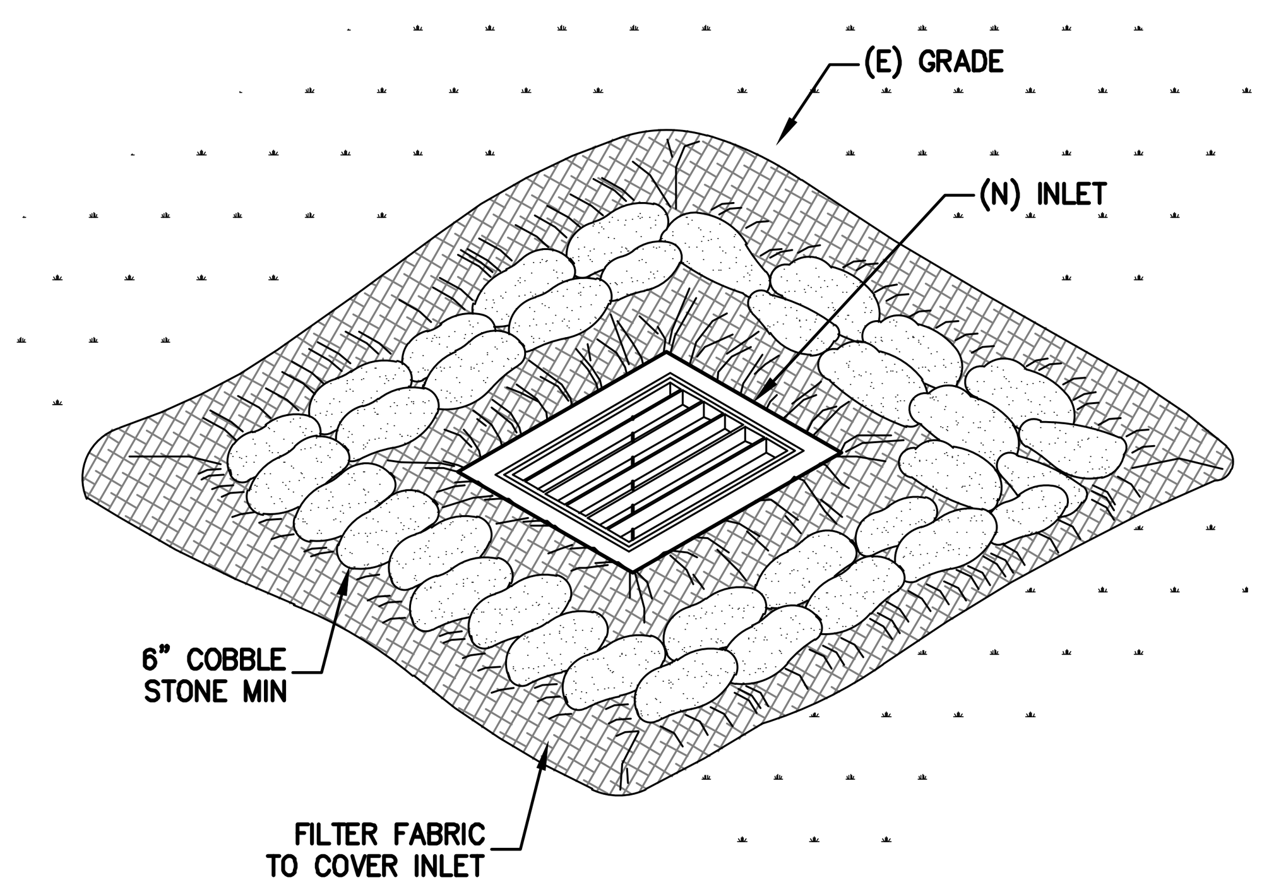
Erosion Control

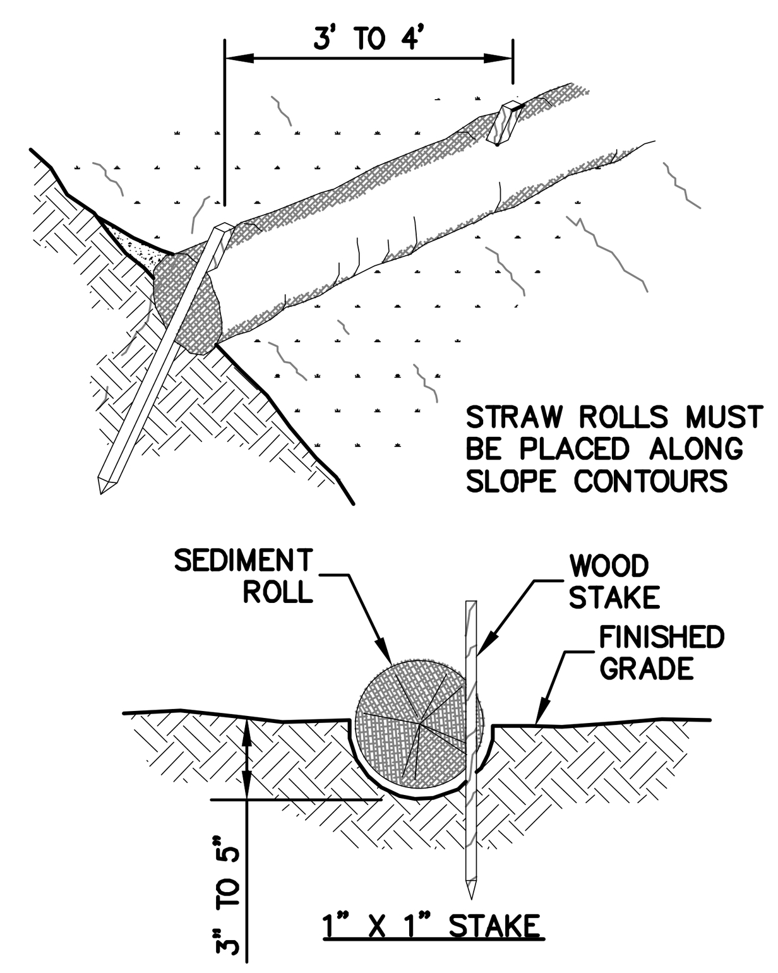
ER-1

BA 21-001



1 ER-2 INLET PROTECTION

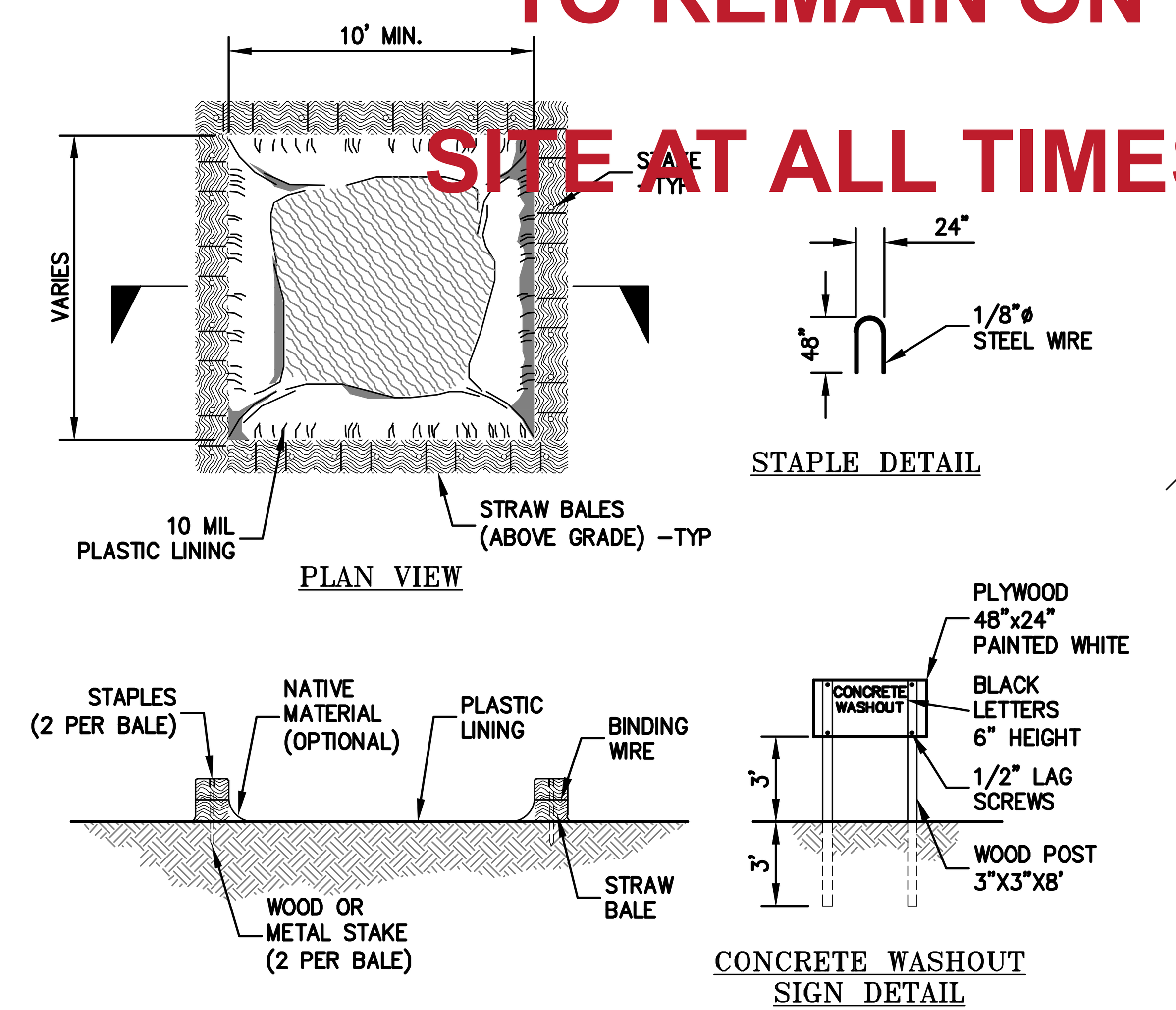
NTS



NOTE:
1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.
2. CONTRACTOR IS RESPONSIBLE FOR REGULAR MAINTENANCE AND INSPECTION. THE SILT SHALL BE CLEANED OUT WHEN IT REACHES HALF THE HEIGHT OF THE ROLL.

2 ER-2 STRAW ROLLS

NTS

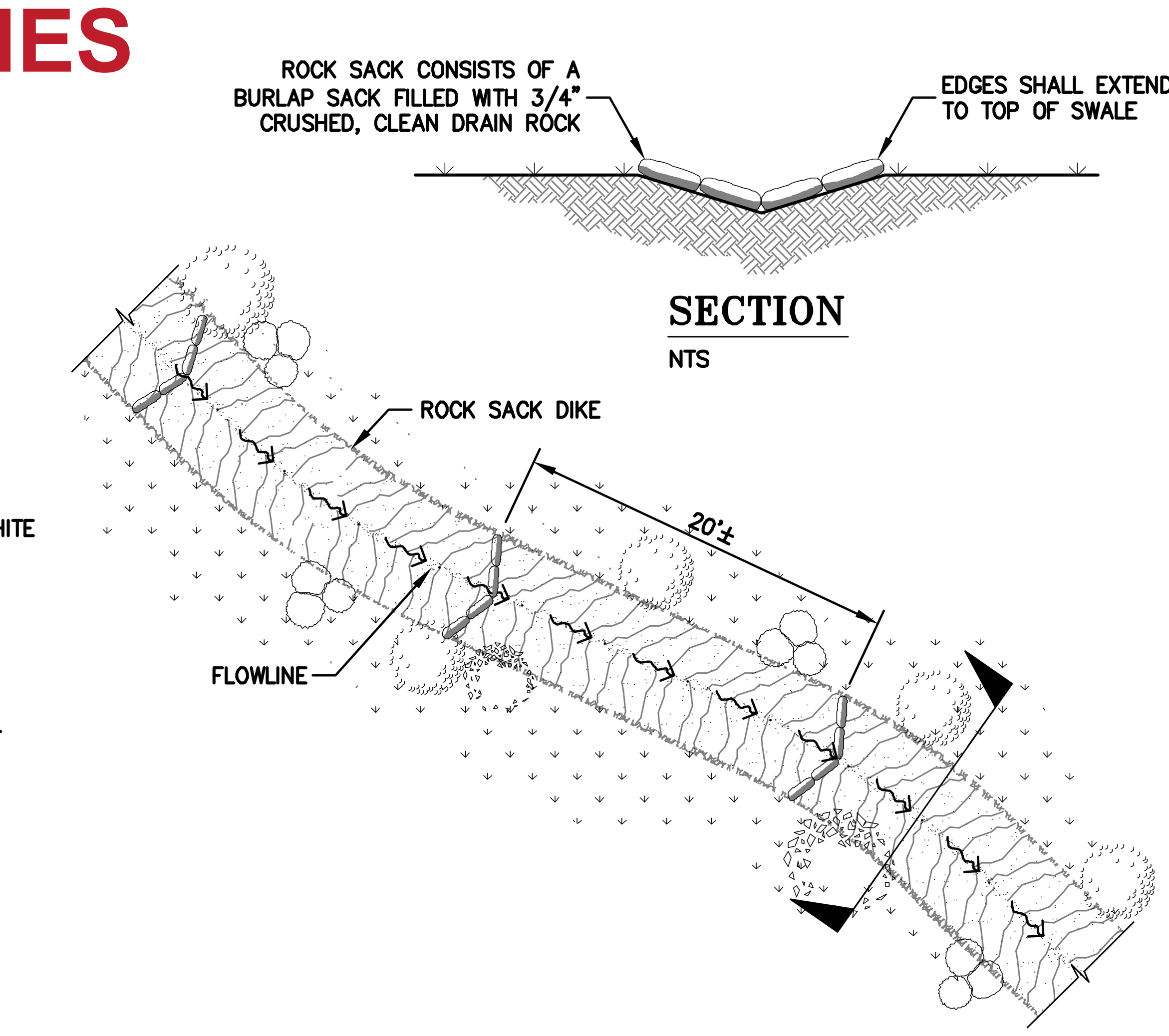


NOTES:
ACTUAL LAYOUT DETERMINED IN FIELD.

THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 10' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

3 ER-2 CONCRETE WASHOUT

NTS



4 ER-2 ROCK SACK DIKE IN SWALE

NTS

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LICENSED ARCHITECT MARK EDWARD BARTOS C-28135 STATE OF CALIFORNIA

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Erosion Control Details

ER-2

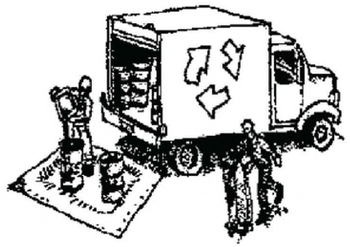
BA 21-001

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Materials & Waste Management



Non-Hazardous Materials

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- ❑ Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ❑ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ❑ Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- ❑ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- ❑ Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- ❑ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ❑ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control

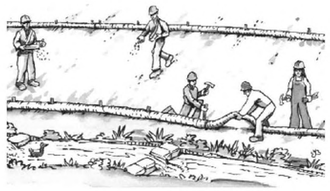
Maintenance and Parking

- ❑ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ❑ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- ❑ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ❑ Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up spills or leaks immediately and dispose of cleanup materials properly.
- ❑ Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- ❑ Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving



- ❑ Schedule grading and excavation work during dry weather.
- ❑ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- ❑ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells
  - Buried barrels, debris, or trash.

Paving/Asphalt Work

- ❑ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- ❑ Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

- ❑ Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- ❑ Shovel, absorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ❑ If sawcut slurry enters a catch basin, clean it up immediately.

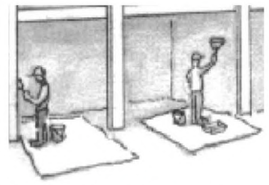
Concrete, Grout & Mortar Application

- ❑ Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- ❑ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- ❑ When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping

- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

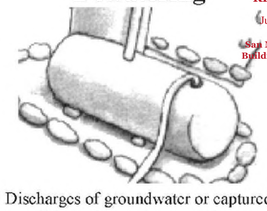
Painting & Paint Removal



Painting Cleanup and Removal

- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ❑ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ❑ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ❑ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.

Dewatering



- ❑ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- ❑ Divert run-on water from offsite away from all disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ❑ In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

Storm drain polluters may be liable for fines of up to $10,000 per day!

GENERAL NOTES

GENERAL:

A. PERFORM THE WORK IN THE ORDER INDICATED ON THE DRAWINGS WHERE WORK REQUIRES SEQUENTIAL OPERATIONS.

B. WHEN REQUESTING SUBSTITUTIONS FOR PRODUCTS, PROCEDURES, METHODS OR MATERIALS SPECIFIED FOR THE PROJECT, SUBMIT ENGINEERING DATA ESTABLISHING EQUIVALENCE AND ICC OR IAPMO EVALUATION REPORT NUMBER, IF APPLICABLE, FOR REVIEW BY THE ENGINEER AND APPROVAL BY AHJ PRIOR TO INCORPORATING INTO THE WORK.

C. WHERE REFERENCED INDUSTRY STANDARDS ARE LISTED, USE THE LATEST CBC ACCEPTED AND APPROVED EDITION.

D. THESE DRAWINGS HAVE BEEN CREATED BASED ON THE FOLLOWING DESIGN CRITERIA:

DESIGN CRITERIA

GENERAL			
CODE		2019 CALIFORNIA BUILDING CODE [CBC]	
JURISDICTION		COUNTY OF SAN MATEO	
RISK CATEGORY		II	
LOWEST ANTICIPATED SERVICE TEMPERATURE		NA	
LOCATION OF BASE OF STRUCTURE			
LIVE LOAD		EARTHQUAKE LOAD	
ROOF	12 PSF	IMPORTANCE FACTOR	1.0
		DESIGN CATEGORY	D
		Ss	1.63
		S1	.660
WIND LOAD		SITE CLASS	D
BASIC WIND SPEED, Vult	95 MPH	SDS	1.08
BASIC WIND SPEED, Vasd	74 MPH	SD1	NULL
EXPOSURE	D	R	1.25
INTERNAL PRESSURE	0.00	DESIGN BASE SHEAR	70 KIPS/0.864W [LRFD]
COMPONENTS/CLADDING	32.6 PSF	ρ	
SNOW LOAD		OVERSTRENGTH FACTOR	1.25
Pf	NA	ANALYSIS PROCEDURE	LINEAR STATIC
Ce	NA	BASIC RESISTING SYSTEM	ORD. CANTILEVER COL
IMPORTANCE FACTOR	NA	Ip	1.0
Ct	NA	SOG AS STRUCT. DIAPH.	NA
LONGITUDE	-122.219	LATITUDE	37.493

1

DELEGATED DESIGN ELEMENTS:

A. DELEGATED DESIGN ELEMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. COORDINATE WITH THE ARCHITECT FOR STRUCTURAL REVIEW OF THE FOLLOWING DELEGATED DESIGN ELEMENTS:

1. SOLAR PANEL MODULES ANCHORAGE DESIGN AND SECONDARY SUPPORTS NEEDED TO SPAN BETWEEN STRUCTURAL STEEL FRAMING SHOWN ON THESE DRAWINGS.

B. DESIGN OF ALL DELEGATED DESIGN ELEMENTS SHALL BE PERFORMED BY A REGISTERED ENGINEER LICENSED TO PRACTICE IN THE STATE OF CALIFORNIA, AS REQUIRED BY JURISDICTION.

C. DELEGATED DESIGN ELEMENTS SHALL FIRST BE SUBMITTED TO THE PROJECT ARCHITECT/STRUCTURAL ENGINEER FOR REVIEW AND COORDINATION; FOLLOWING THE COMPLETION OF PROJECT ARCHITECT/ENGINEER REVIEW AND COORDINATION, A SUBMITTAL TO THE BUILDING DEPARTMENT SHALL BE MADE (FOR REVIEW AND APPROVAL) WHEN REQUIRED BY THE BUILDING DEPARTMENT.

FOUNDATION:

A. COMPLY WITH THE PROVISIONS OF CBC CHAPTER 18.

B. WHERE PRACTICABLE, MAKE EXCAVATIONS AS NEAR AS POSSIBLE TO THE NEAT LINES REQUIRED BY THE SIZE AND SHAPE OF THE STRUCTURE. EXCAVATE NO MATERIAL UNNECESSARILY.

C. WHERE EXCAVATIONS CANNOT BE MAINTAINED FOR A NEAT POUR, FORM THE SIDES. WHEN POURING FOOTINGS NEAT, ADD ONE INCH EACH SIDE OF FOOTINGS TO THE SIZES SHOWN ON THE DRAWINGS.

D. ELEVATIONS OF BOTTOMS OF FOOTINGS HAVE BEEN ESTABLISHED TO REACH COMPETENT NATURAL SOILS OR ENGINEERED FILL AS DETERMINED FROM SUPPLEMENTAL GEOTECHNICAL REPORT "MAPLE STREET CORRECTIONAL FACILITY-SOLAR POWER GENERATION" (PROJECT NO. 09515.000.003) PREPARED BY ENGEO DATED MARCH 16, 2021. THIS MATERIAL IS CAPABLE OF SUPPORTING ALLOWABLE LOADS AS INDICATED BELOW:

[SPREAD FOOTINGS]
DEAD LOAD + LIVE LOAD 1,000 PSF
TOTAL LOAD INCL. SEISMIC 1,333 PSF
PASSIVE PRESSURE 300 PCF
SLIDING FRICTION 0.25[.125 WHEN COMBINE w/PASSIVE]

[DRILLED PIERS]
SKIN FRICTION 500 PSF
PASSIVE RESISTANCE 300 PCF
$\frac{1}{3}$ INCREASE WHEN CONSIDERING SEISMIC/WIND

E. AS EXCAVATION PROGRESSES, CONDITIONS MAY DEVELOP REQUIRING CHANGES IN ELEVATIONS OF FOOTINGS SHOWN ON THE DRAWINGS. MAKE SUCH CHANGES ONLY AS DIRECTED BY THE ENGINEER.

F. CLEAN EXCAVATIONS JUST PRIOR TO PLACING CONCRETE.

G. PLACE BACKFILL AS DIRECTED IN THE GEOTECHNICAL REPORT. OPEN GRADED GRAVEL OR ROCK MATERIAL SHALL NOT BE USED AS BACK FILL UNLESS APPROVED BY MOORE TWINING ASSOCIATES. WHERE BACKFILL IS TO BE PLACED AGAINST WALLS BEFORE THEY HAVE ATTAINED THEIR DESIGN STRENGTH, SHORE THE WALLS TO SUPPORT THE SOIL LOADING. THE SHORING IS TO REMAIN IN PLACE UNTIL THE WALL HAS ATTAINED ITS DESIGN STRENGTH AND/OR OTHER CONSTRUCTION INTENDED TO BRACE THE WALLS IS INSTALLED AND ADEQUATELY STRONG TO SUPPORT THE SOIL LOADING.

H. ENGINEERED FILL SHOULD BE PLACED IN LOOSE LIFTS NO GREATER THAN 8 INCHES, MOSITURE-CONDITION OR AIR DRIED TO BETWEEN OPTIMUM AND 3 PERCENT ABOVE OPTIMUM MOSITURE CONTENT. FILL SHALL BE COMPACTED TO 92% PERCENT COMPACTION IN CONFORMANCE WITH ASTM D1557 WITH THE EXCEPTION OF THE FINAL 12 INCHES BELOW STRUCTURAL ELEMENTS WHICH SHOULD BE 95%. ADDITIONAL LIFTS SHALL NOT BE PLACED IF THE PREVIOUS LIFT DID NOT MEET THE REQUIRED PERCENT COMPACTION OR IF SOIL CONDITIONS ARE NOT STABLE. ALL ENGINEERED FILL, INCLUDING RE-USE OF EXISTING SOILS, SHALL BE REVIEWED AND APPROVED BY GEOTECHNICAL ENGINEER OF RECORD PRIOR TO PROCEEDING WITH NEXT OPERATIONS.

STRUCTURAL STEEL:

A. COMPLY WITH THE PROVISIONS OF CBC CHAPTER 22, AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND AISC "CODE OF STANDARD PRACTICE".

B. MATERIALS:

WIDE FLANGE MEMBERS: ASTM A992
OTHER ROLLED SHAPES: ASTM A36
PLATES AND BARS: ASTM A36, UON.
STRUCTURAL PIPE: ASTM A53, TYPE S, GRADE B
HSS TUBING: ASTM A500, GRADE B
WELDING: AWS D1.1
ELECTRODES: E70XX OR AS DETERMINED BY WELDING PROCEDURES
HIGH STRENGTH BOLTS: ASTM F3125 GRADE A325X, UON.
M.B.: ASTM A307
WELDED STUDS: ASTM A29 GRADES C1010 - C1020
ANCHOR RODS: ASTM F1554 GRADE 55 OR AS NOTED ON THE DRAWINGS
THREADED RODS: ASTM A36

C. USE ASTM A563 NUTS AND ASTM F436 WASHERS WHERE BOLTS AND RODS ARE SPECIFIED, UON. WASHERS FOR ANCHOR RODS SHALL BE ASTM F844.

D. HOLES MAY BE 1/16" LARGER THAN BOLT DIAMETER EXCEPT HOLES TO FIT OVER ANCHOR BOLTS MAY BE 1/4" DIAMETER LARGER THAN BOLT DIAMETER.

E. PAINT ONE SHOP COAT AND FIELD TOUCH UP WITH APPROVED PAINT: EXCLUDE AT HSB CONNECTION CONTACT SURFACES, WHERE FIREPROOFING IS TO BE INSTALLED AND AT LOCATIONS AND AREAS TO BE WELDED OR EMBEDDED IN CONCRETE.

F. USE NON-SHRINK GROUT UNDER COLUMN BASES. GROUT TO COMPLY WITH CORPS OF ENGINEERS SPECIFICATION CRD-C621. FIVE STAR GROUT, MASTER BUILDERS, SIKA, OR EQUAL. MINIMUM COMPRESSIVE STRENGTH: F'c = 3,000 PSI AT 7 DAYS AND F'c = 7,000 PSI AT 28 DAYS.

G. USE COMPLETE JOINT PENETRATION WELDED JOINTS AT ALL SPLICES NOT INDICATED ON THE DRAWINGS.

H. SUBMIT QUALIFICATIONS AND CERTIFICATES FOR ALL WELDERS. SUBMIT WELDING PROCEDURES FOR APPROVAL BY THE ENGINEER. SUBMIT HEAT NUMBERS FOR ALL MEMBERS INCLUDED IN THE WORK.

I. ALL WELDS SPECIFIED ON DRAWINGS ARE NOT CLASSIFIED AS FIELD OR SHOP APPLIED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF FIELD OR SHOP WELDING IS BEST SUITED FOR FABRICATION AND ERECTION OF SPECIFIC COMPONENTS.

J. FILLET WELD SIZES SHOWN ON THE DRAWINGS ARE MINIMUM SIZES, INCREASE WELD SIZE AS NECESSARY TO MEET AWS MINIMUM SIZES DUE TO BASE MATERIAL THICKNESS.

K. ALL GROOVE AND BUTT WELDS SHALL BE COMPLETE JOINT PENETRATION [CJP] TYPE, UON.

L. WELDS DESIGNATED ON DRAWINGS AS PART OF THE SEISMIC FORCE RESISTING SYSTEM ["SFRS" IN WELD SYMBOL TAIL OR ELSEWHERE] SHALL HAVE THE FOLLOWING ADDITIONAL WELDING REQUIREMENTS:

1. FILLER METAL WITH A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LB AT 0 °F.
2. WELD DAMS ARE NOT ALLOWED.
3. IF BACKING BARS ARE USED AT THE BOTTOM BEAM FLANGE, THE BACKING BAR SHALL BE REMOVED, THE REMOVAL AREA GROUND SOUND, AND THE AREA MAGNETIC PARTICLE TESTED FOR DEFECTS. A 1/4" REINFORCING FILLET WELD SHALL BE PLACED IN THIS LOCATION.
4. AT COMPLETE JOINT PENETRATION WELDS, WELDS SHALL BE STARTED AND ENDED WITH A MINIMUM LENGTH OF ONE INCH ON WELD TABS EXCEPT AT BEAM WEB ACCESS HOLES. WELD TABS SHALL BE REMOVED, THE REMOVAL AREA GROUND SMOOTH AND MAGNETIC PARTICLE TESTED FOR DEFECTS.

M. BOLTED CONNECTIONS DESIGNATED ON DRAWINGS AS PART OF THE SEISMIC FORCE RESISTING SYSTEM ["SFRS"] SHALL BE PRETENSIONED AND HAVE SURFACES MEETING CLASS A FAYING SURFACES AS DEFINED IN "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS.

N. ROLLED SHAPES WITH FLANGES 1-1/2" AND THICKER AND PLATES 2" AND THICKER THAT ARE DESIGNATED ON DRAWINGS AS PART OF THE SEISMIC LOAD RESISTING SYSTEM ["SFRS"] SHALL HAVE A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LB AT 70 °F.

DIMENSIONS AND DATUM:

A. DIMENSIONS ARE GIVEN TO CENTERLINE OF COLUMNS AND BEAMS OR FACE OF WALLS AND ROUGH CONCRETE SURFACES, UON.

B. ELEVATIONS ARE GIVEN WITH REFERENCE TO EXISTING FINISHED GROUND FLOOR ELEVATION: EL. = 0'-0", UON. [DATUM EL.]

CONCRETE:

A. COMPLY WITH THE PROVISIONS OF CBC CHAPTER 19 AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY".

B. MATERIALS:

CEMENT: ASTM C150, TYPE II
AGGREGATE: ASTM C33, NORMAL WEIGHT CONCRETE
CONCRETE: F'c = 5,000 PSI FOR ALL CONCRETE
SLUMP: 4$\frac{1}{2}$" MAX
SHRINKAGE: ~~LESS THAN 0.05%~~
w/c RATIO: 0.35 (2)

C. FLY ASH MEETING ASTM C618 CLASS F OR N MAY BE USED AS A PARTIAL REPLACEMENT FOR CEMENT. FLY ASH SHALL NOT EXCEED 25% [MEASURED BY WEIGHT] OF THE TOTAL CEMENTITIOUS CONTENT. GROUND-GRANULATED BLAST-FURNACE SLAG MEETING ASTM C989 MAY BE USED AS A PARTIAL REPLACEMENT FOR CEMENT. SLAG SHALL NOT EXCEED 50% [MEASURED BY WEIGHT] OF THE TOTAL CEMENTITIOUS CONTENT. TOTAL FLY ASH AND SLAG SHALL NOT EXCEED 50% [MEASURED BY WEIGHT] OF THE TOTAL CEMENTIOUS CONTENT. COMPLY WITH CBC SECTION 1903.6, ACI SECTION 26.4.2.2(b) & TABLE 26.4.2.2.

D. SUBMIT FOR REVIEW BY THE ENGINEER THE PROPOSED MIX DESIGNS, IN CONFORMANCE WITH ACI SECTION 26.4.2-26.4.4, REVIEWED AND APPROVED BY AN INDEPENDENT TESTING LABORATORY, CONCRETE MIX DESIGNS FOR EACH TYPE AND STRENGTH OF CONCRETE, INCLUDING SHRINKAGE HISTORY, UON, MIX DESIGN SHALL COMPLY WITH ACI 318 SECTION 26.4.3 - PROPORTIONING OF CONCRETE MIXTURES.

E. USE NO ADDITIVES OR ADMIXTURES UNLESS APPROVED BY THE ENGINEER AND AHJ.

F. REINFORCE ALL CONCRETE UNLESS SPECIFICALLY MARKED "NOT REINFORCED". WHERE REINFORCEMENT IS NOT OTHERWISE INDICATED ON THE DRAWINGS, REINFORCE WALLS WITH THE FOLLOWING MINIMUM REQUIREMENTS:

WALL THICKNESS	REINFORCING EACH WAY
LESS THAN 8"	#4 @ 12", CENTERED
8" TO LESS THAN 10"	#4 @ 9", CENTERED
10" TO LESS THAN 16"	#4 @ 12", EACH FACE
MORE THAN 16"	#5 @ 12", EACH FACE

G. COORDINATE WITH THE TESTING AGENCY DESIGNATED BY THE OWNER'S REPRESENTATIVE FOR STRENGTH AND SLUMP TESTING AS SCHEDULED IN SPECIAL INSPECTION AND TESTING SCHEDULE. COST OF TESTING AS SCHEDULED WILL BE PAID BY THE OWNER. COST OF TESTING, REMOVAL AND REPAIR OF NONCONFORMING CONCRETE TO BE PAID BY THE CONTRACTOR.

H. COORDINATE WITH THE INSPECTION AGENCY DESIGNATED BY THE OWNER'S REPRESENTATIVE FOR INSPECTION OF REINFORCEMENT PLACEMENT AND PLACING OF CONCRETE AS SCHEDULED IN SPECIAL INSPECTION AND TESTING SCHEDULE.

I. NOTIFY THE OWNER'S REPRESENTATIVE AT LEAST 48 HOURS IN ADVANCE OF CONCRETE PLACEMENT.

J. DESIGN FORMWORK IN ACCORDANCE WITH ACI 318 SECTION 26.11 AND ACI 347 "GUIDE TO FORMWORK FOR CONCRETE". USE BOND BREAKER OR FORM RELEASE AGENT FOR EASE OF REMOVAL FROM THE PLACED CONCRETE.

K. CHAMFER ALL CORNERS TO PREVENT DAMAGE.

L. USE VIBRATORS TO CONSOLIDATE CONCRETE. DO NOT USE VIBRATORS TO MOVE CONCRETE. DO NOT VIBRATE FORMS OR USE FORM VIBRATORS.

M. FINISH FLATWORK TO STEEL TROWEL FINISH UNLESS INDICATED OTHERWISE ON THE DRAWINGS OR INSTRUCTED BY THE OWNER'S REPRESENTATIVE. ELEVATION OF FINISHED SLABS MAY VARY NO MORE THAN 1/8" IN 10'.

N. REMOVE FINS AND FILL VOIDS WITH APPROVED PATCHING MIX ON WALLS AND COLUMNS AND EXPOSED SURFACES.

O. THOROUGHLY SANDBLAST WITH COARSE SILICA SAND ALL CONSTRUCTION JOINTS TO CLEAN AND ROUGHEN THE ENTIRE JOINT, EXPOSING CLEAN COARSE AGGREGATE SOLIDLY EMBEDDED IN MORTAR MATRIX AND PAINT WITH A BONDING AGENT PRIOR TO PLACING NEW CONCRETE. COMPLY WITH THE PROVISIONS OF ACI 318, SECTIONS 26.5.6, 18.10.9 AND TABLE 22.9.4.2 CONDITION (b).

P. REPAIR STRUCTURAL AND FINISH DEFECTS AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

DRILLED PIERS:

A. COMPLY WITH THE PROVISIONS OF CBC CHAPTER 18 AND ACI 336.1 "SPECIFICATION FOR THE CONSTRUCTION OF DRILLED PIERS".

B. SEE GEOTECHNICAL REPORT FOR SOILS INFORMATION, DRILLING METHODS AND CONDITIONS, CASING REQUIREMENTS, BEARING STRATUM AND MINIMUM DEPTHS.

C. USE CATEGORY B TOLERANCES FOR OUT-OF PLUMB. MAINTAIN PLAN LOCATIONS AND TOP OF PIER ELEVATIONS WITHIN 3" OF THOSE ON THE DRAWINGS.

D. REINFORCE AS SHOWN ON THE DRAWINGS. PLACE REINFORCEMENT CENTERED IN HOLE. USE DEVICES TO PREVENT DISPLACEMENT BY OPERATIONS BEFORE AND DURING CONCRETE PLACEMENT.

E. PROVIDE REINFORCEMENT IN THE LONGEST LENGTH CONSISTENT WITH THE REQUIREMENTS OF THE WORK.

F. PUMP CONCRETE OR USE PLACING DEVICES TO PREVENT FREE FALL GREATER THAN 6 FEET AND SEGREGATION OF AGGREGATE. HOLES CONTAINING MORE THAN TWO INCHES OF STANDING WATER SHALL BE PUMPED DRY PRIOR TO PLACING CONCRETE.

STEEL REINFORCEMENT:

A. COMPLY WITH THE PROVISIONS OF CBC CHAPTER 21 AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY".

B. MATERIALS:

BARS: ASTM A615, GRADE 60, UON, EXCEPT STIRRUPS AND TIES #3 AND SMALLER MAY BE GRADE 40
WELDED BARS: ASTM A706
WWF: ASTM A185

C. PLACE REINFORCEMENT CONTINUOUS WITH SPLICES STAGGERED. UNLESS OTHERWISE DETAILED, LAP BARS AS FOLLOWS:

CONCRETE: ACI 318, CHAPTER 25

IN LIEU OF LAP SPLICE, SPLICING DEVICES CAPABLE OF DEVELOPING 125% OF THE YIELD CAPACITY OF THE BARS IN TENSION AND COMPRESSION CAN BE USED. SUBMIT SUBSTANTIATING DATA FOR REVIEW BY THE ENGINEER AND AHJ.

D. HOLD REINFORCEMENT IN ITS TRUE POSITION WITH DEVICES SUFFICIENTLY NUMEROUS TO PREVENT DISPLACEMENT BY OPERATIONS BEFORE AND DURING CONCRETE PLACEMENT.

E. USE CBC STANDARD HOOKS, BENDS AND CLEARANCES BETWEEN BARS, UNLESS OTHERWISE DETAILED.

F. MINIMUM CONCRETE COVER AROUND REINFORCEMENT:

CONCRETE PLACED AGAINST EARTH....................3"
FORMED, EXPOSED TO WEATHER OR EARTH....................2"
BEAMS, COLUMNS-PRIMARY REINF., TIES, STIRRUPS OR SPIRALS.......1-1/2"
WALLS, INTERIOR SUSPENDED SLABS AND JOISTS....................3/4"

G. SUBMIT HEAT NUMBERS FOR ALL REINFORCEMENT INCLUDED IN THE WORK.

H. WHERE WELDING OF REINFORCEMENT IS DETAILED ON THE DRAWINGS, SUBMIT QUALIFICATIONS AND CERTIFICATES FOR ALL WELDERS. SUBMIT WELDING PROCEDURES FOR APPROVAL BY THE ENGINEER AND AHJ.

I. FIELD BENDING OF REINFORCEMENT IS NOT PERMITTED WITHOUT PRIOR APPROVAL FROM ENGINEER.

CONCRETE ANCHORING:

A. COMPLY WITH THE PROVISIONS OF CBC SECTION 1910.5.

B. SUBMIT MANUFACTURER'S DATA, INCLUDING ICC ACCEPTANCE REPORTS, TO THE ENGINEER FOR APPROVAL.

C. INSTALL ALL FASTENERS PER THE MANUFACTURER'S RECOMMENDATIONS OR CBC REQUIREMENTS FOR PENETRATION, EMBEDMENT, SPACING, EDGE DISTANCE AND END DISTANCE, UON, ON THE DRAWINGS.

D. EXPANSION ANCHOR DESIGNATIONS SHOWN ON THE DRAWINGS REFER TO HILTI KWIK BOLT TZ [ICC ESR-1917] OR SIMPSON STRONG-BOLT 2 ANCHORS [ICC ESR-3037], UON. USE STAINLESS STEEL MODELS AT EXTERIOR, CORROSIVE, AND NON-DRY INTERIOR ENVIRONMENTS. TIGHTEN NUTS OR BOLTS TO THE MANUFACTURER'S RECOMMENDED TORQUE.

E. SELF-DRILLING TAPPING SCREWS DESIGNATIONS SHOWN ON THE DRAWINGS REFER TO ITW BUILDEX TEKS PRODUCTS [ICC ESR-1976], UON. USE THE SIZE INDICATED ON THE DRAWINGS AND THE TYPE APPROPRIATE TO THE MATERIALS BEING FASTENED AND THE STRUCTURAL COMPONENT BEING ATTACHED TO.

F. ADHESIVE ANCHORS SHOWN ON THE DRAWINGS REFER TO HIT-HY-200 ADHESIVE BY HILTI, INC. [ICC ESR-3187], OR PURE 110+ BY POWERS FASTENERS [ICC ESR-3298], UON. INSTALL ANCHORS AFTER CONCRETE HAS AGED A MINIMUM OF 21 DAYS. EMBEDMENT AS NOTED ON THE DRAWINGS. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS SUPPORTING SUSTAINED TENSION LOADS SHALL BE PERFORMED BY PERSONNEL CERTIFIED THROUGH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM.

G. FILL ABANDONED HOLES IN CONCRETE AND MASONRY WITH NON-SHRINK GROUT.

H. PRIOR TO DRILLING IN EXISTING CONCRETE MEMBERS, EXISTING REINFORCING LOCATIONS SHALL BE MAPPED. NOTIFY ENGINEER IF INTERFERENCE BETWEEN EXISTING REINFORCING AND DRILLED HOLES OCCUR. DO NOT CUT OR DAMAGE EXISTING REINFORCING BARS, UON.

DRAWING INDEX

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MARK EDWARD BARTOS
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REN. 03-31-23
STATE OF CALIFORNIA

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REGISTERED PROFESSIONAL ENGINEER
RODNEY B. HARTUNIAN
NO. S 4438
1-17-22
STRUCTURAL
STATE OF CALIFORNIA

San Mateo County
Sheriff's Office
400 County Center
Redwood City, CA

Maple Street
Correctional Facility
1300 Maple St
Redwood City, CA 94063

Solar Shade Structure

REVISION	DATE
Issued For Permit	4/14/2021
1 Plan Check Resubmittal	11/11/2021
2 Geotech Approval	1/17/2022

RECEIVED
Jun 21 2023
San Mateo County
Building Inspection

JOB COPY
TO REMAIN ON
SITE AT ALL TIMES

REVIEWED FOR CODE COMPLIANCE
This review does not authorize violation of State or County building laws.
Jun 21 2023
SAN MATEO CO. BLDG. INSP. DIV.

General Notes

S0.1

BA 21-001

R. & P. JOB No. 20205
PRINCIPAL-IN-CHARGE RH
REMARKS:

QUALITY ASSURANCE PLAN

GENERAL:

A. QUALITY ASSURANCE PLAN SHALL CONFORM TO CHAPTER 17A OF THE 2019 CALIFORNIA BUILDING CODE.

B. THE INTENT OF THE QUALITY ASSURANCE PLAN IS TO IDENTIFY COMPONENTS OF WORK THAT ARE SUBJECT TO QUALITY ASSURANCE PROCEDURES AND IDENTIFY SPECIAL INSPECTION, TESTING AND OBSERVATION REQUIREMENTS TO CONFIRM CONSTRUCTION QUALITY.

C. PRIOR TO COMMENCEMENT OF WORK, GENERAL CONTRACTOR SHALL PARTICIPATE IN PRE-CONSTRUCION MEETING WITH OWNER, ARCHITECT, AND STRUCTURAL ENGINEER.

D. DURING THE COURSE OF CONSTRUCTION, FIELD CONDITIONS MAY ARISE REQUIRING MODIFICATIONS TO THE PROJECT DRAWINGS. CONTRACTOR SHALL NOTIFY STRUCTURAL ENGINEER AS SOON AS POSSIBLE OF SPECIFIC CONDITION, ARRANGE ACCESS IN THE FIELD, AND WILL NOT PROCEED WITH WORK UNTIL AS DIRECTED BY THE STRUCTURAL ENGINEER.

STRUCTURAL OBSERVATIONS:

A. CONTRACTOR SHALL COORDINATE WITH RINNE & PETERSON SCHEDULING OF AND ACCESS FOR JOBSITE OBSERVATIONS OVER THE COURSE OF CONSTRUCTION IN CONFORMANCE WITH CBC SECTION 1704.

B. ANY DEFICIENCIES FOUND DURING THE OBSERVATION PROCESS WILL BE NOTED ALONG WITH PROPOSED CORRECTIVE MEASURES IN WRITTEN FORMAT AND FORWARDED TO THE OWNER'S REPRESENTATIVE, ARCHITECT, AND GENERAL CONTRACTOR.

C. UPON COMPLETION OF THE WORK, A WRITTEN STATEMENT PREPARED BY RINNE & PETERSON ATTESTING THAT SITE VISITS HAVE BEEN MADE AND IDENTIFYING ANY OUTSTANDING DEFICIENCIES WILL BE PROVIDED.

D. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED BY CBC CHAPTER 1, DIVISION II, SECTION 110 AND 1704A.

SPECIAL INSPECTION & TESTING:

A. COORDINATE WITH THE INDEPENDENT INSPECTION AGENCY DESIGNATED BY THE ARCHITECT TO PERFORM THE FOLLOWING INSPECTIONS DENOTED WITH 'X':

SPECIAL INSPECTION & TESTING SCHEDULE

	ITEM	REFERENCE STANDARD [CBC UON]	REMARKS
POST INSTALLED ANCHORS			
X	MECHANICAL ANCHORS	TABLE 1705A.3 APPLICABLE ICC/IAPMO REPORT	WHERE NOTED ON DRAWINGS
X	ADHESIVE AND EPOXY ANCHORS	1910A.5, TABLE 1705A.3 APPLICABLE ICC/IAPMO REPORT, ACI 318: 17.8.2.2, 26.7.1(i)	WHERE NOTED ON DRAWINGS
CONCRETE			
X	MIX DESIGNS	ACI 318: 26.4.2 - 26.4.4	
X	CAST SPECIMENS FOR STRENGTH, SLUMP, AIR CONTENT TESTS, & CONCRETE TEMPERATURE	ASTM C172, ASTM C31 & ACI 318: 26.5.1, 26.5.2, 26.12	
X	CAST IN PLACE ANCHORS	ACI 318: 17.1, 17.8	
X	INSPECT CONCRETE PLACEMENT	1705A.3.5 & ACI 318: 26.5.2.1, 26.13, 26.13.3	
X	FORMWORK INSPECTION	TABLE 1705A.3 & ACI 318: 26.11.1.2(b), 26.13.3.3	
X	CURING TEMPERATURE & TECHNIQUE INSPECTIONS	1705A.3 & ACI 318: 26.5.3-26.5.5, 26.13.3.3	
X	TENSILE & BEND TEST	1910A.2 & ACI 318: 26.6	ONE SET PER HEAT PER 10 TONS ONE SET EACH SIZE PER 2-1/2 TONS FOR UNIDENTIFIED REBAR
X	INSPECTION OF REINFORCING STEEL AND PLACEMENT	TABLE 1705A.3 & ACI 318: 25.2, 25.3, 26.5.1-26.5.3	
	INSPECTION OF WELDING	1705A.3.1, TABLE 1705A.3, ITEM 2, AWS D1.4 & ACI 318: 26.6.4	
X	BATCH PLANT INSPECTION	1705A.3.2 & 1705A.3.3	
PIER FOUNDATION			
X	DRILLING OPERATIONS & COMPLETE RECORD KEEPING OF EACH PIER		
X	VERIFY PLACEMENT LOCATIONS & PLUMBNESS, PIER DIAMETERS, BELL DIAMETERS, LENGTHS, EMBEDMENT INTO BEDROCK & ADEQUATE END BEARING STRATA CAPACITY		
X	CONCRETE PIERS		INSPECTIONS PER SECTION 1705.3
	MASONRY PIERS		INSPECTIONS PER SECTION 1705.4
STRUCTURAL STEEL			
X	STRUCTURAL STEEL MATERIAL AND SUBMIT CERTIFIED MILL TEST REPORTS	1705A.2.1, 2202A, AISC 360: SECTION A3, ASTM A6 & ASTM A568	
X	WELD FILLER MATERIALS AND SUBMIT CERTIFICATE OF COMPLIANCE	AISC 360: SECTION A3.5 & N5.4 & AWS D1.1, D1.8	
X	GROOVE WELDS INSPECTION	1705A.2.5 & AWS D1.1, D1.8	
X	FILLET WELDS INSPECTION	1705A.2.5 & AWS D1.1, D1.8	
	WELDED JOINT NON-DESTRUCTIVE TESTING	AISC 360: SECTION N5 AISC 341: SECTION J6.2	
X	HIGH-STRENGTH BOLTS, NUTS, WASHERS & CERTIFICATE OF COMPLIANCE	ASTM SPECS. & AISC 360: SECTION A3.3	
X	HIGH-STRENGTH BOLTING INSPECTION	TABLE 1705A.2.1 & AISC 360: SECTION N5.6 & AISC 341: SECTION J7	
	STEEL FRAME JOINT DETAILS	TABLE 1705A.2.1 & AISC 360: SECTION N5.7	
	METAL DECK MATERIAL AND CERTIFIED TEST REPORT	APPLICABLE ASTM STANDARD	
	METAL DECK WELDING INSPECTION	1705A.2.5	
SOILS			
X	VERIFY MATERIALS BELOW FOOTING & DEPTH EXCAVATIONS	1705A.6	PERFORMED BY GEOTECHNICAL ENG.
X	CLASSIFICATION & TESTING OF FILL MATERIALS	1705A.6	PERFORMED BY GEOTECHNICAL ENG.
X	VERIFY USE OF MATERIALS, DENSITIES & LIFT THICKNESSES DURING PLACEMENT & COMPACTION OF FILL	1705A.6	PERFORMED BY GEOTECHNICAL ENG.
X	SITE PREPARATION & OBSERVE SUBGRADE	1705A.6	PERFORMED BY GEOTECHNICAL ENG.

INSPECTION & TESTING PARAMETERS (CONTINUOUS, PERIODIC, SAMPLING FREQUENCY, ETC.) SHALL BE AS SPECIFIED IN ABOVE REFERENCED SECTIONS, UNLESS OTHERWISE NOTED. THE SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED ACCREDITED INDEPENDENT AGENCY MEETING THE REQUIREMENTS OF ASTM E329 (MATERIALS), ASTM D3740 (SOILS), ASTM C1093 (MASONRY), ASTM C1077 (CONCRETE), ASTM A880 (STEEL), AND ASTM E543 (NON DESTRUCTIVE). SPECIAL INSPECTORS SHALL BE CERTIFIED BY THE BUILDING OFFICIAL. WELDING INSPECTORS SHALL BE QUALIFIED PER SECTION 6.1.4.1.1 OF AWS D1.1.

B. WHERE THE ABOVE LISTED INSPECTION AND TESTING ITEMS ARE IN CONFLICT WITH THE APPLICABLE BUILDING JURISDICTION SPECIAL INSPECTION AND TESTING FORM SPECIFIC TO THIS PROJECT, THE MORE STRINGENT APPLICATION SHALL APPLY.

C. THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, NOTED IN THE INSPECTION REPORTS, AND IF NOT CORRECTED, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL.

D. THE SPECIAL INSPECTOR SHALL FURNISH A VERIFIED REPORT TO THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OF CONSTRUCTION OBSERVATION, THE STRUCTURAL ENGINEER AND THE ENFORCEMENT AGENCY, IN ACCORDANCE WITH TITLE 24, PART 1 AND CHAPTER 17A. THE VERIFIED REPORT SHALL LIST ALL INSPECTED MEMBERS OR TRUSSES AND SHALL INDICATE WHETHER OR NOT THE INSPECTED MEMBERS OR TRUSSES CONFORM WITH APPLICABLE STANDARDS AND THE APPROVED DRAWINGS AND SPECIFICATIONS. ANY NONCONFORMING ITEMS SHALL BE INDICATED ON THE VERIFIED REPORT.

E. COORDINATE WITH THE INDEPENDENT INSPECTION AGENCY DESIGNATED BY THE ARCHITECT TO PERFORM THE INSPECTIONS LISTED IN STRUCTURAL TESTS AND INSPECTIONS FORM DSA-103 REPLICATED ABOVE.

POST-INSTALLED ANCHORS IN CONCRETE:

A. COMPLY WITH THE PROVISIONS OF CBC SECTION 1910A.5.

B. POST-INSTALLED ANCHORS SHALL BE PRODUCTS SPECIFIED UNDER SECTION CONCRETE & MASONRY ANCHORING ON THESE DRAWINGS.

C. CARBON STEEL MECHANICAL ANCHORS IS LIMITED TO DRY, INTERIOR LOCATIONS. STAINLESS STEEL TYPE SHALL BE USED AT EXTERIOR, EXPOSED TO WEATHER, AND DAMP LOCATIONS AND WHERE SPECIFICALLY NOTED ON THESE DRAWINGS.

D. ANCHOR SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS GIVEN IN THE ICC/IAPMO RESEARCH COMMITTEE RECOMMENDATIONS FOR THE SPECIFIC ANCHOR.

E. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SUCH THAT INTERFERENCE OF REINFORCING STEEL WITH CONCRETE ANCHOR PLACEMENT DOES NOT OCCUR. IF REINFORCING STEEL IS ENCOUNTERED DURING DRILLING, ADJUST THE ANCHOR LOCATION IF POSSIBLE AND NOTIFY THE OWNER'S REPRESENTATIVE. ABANDONED HOLES SHALL BE FILLED WITH NON-SHRINK GROUT. ANCHORS SHALL BE SET WITHIN 3 INCHES OF THEIR SPECIFIED LOCATION, BUT AT LEAST 1 INCH FROM EDGE OF ANY ABANDONED HOLE. CARE SHALL BE TAKEN NOT TO BREAK OR DAMAGE REINFORCING STEEL DURING DRILLING, UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE.

TESTING SHALL BE IN THE PRESENCE OF THE OWNER'S PROJECT INSPECTOR OR TESTING LABORATORY AND THE TEST RESULTS SUBMITTED TO THE PROJECT ENGINEER. TEST REQUIREMENTS FOR EXPANSION ANCHORS USED IN METAL SUSPENSION SYSTEM FOR LAY IN PANEL CEILINGS SHALL BE IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. TEST VALUES LISTED ARE FOR A TORQUE WRENCH TEST.

TESTING PROCEDURE SHALL BE AS PERMITTED BY AN APPROVED TEST REPORT USING CRITERIA ADOPTED IN THE CBC. TORQUE CONTROLLED POST-INSTALLED ANCHORS SHALL BE TESTED USING TORQUE BASED ON VALUES LISTED BELOW FOR SPECIFIC ANCHORS USING CRITERIA ADOPTED IN THE CBC. ALL OTHER POST-INSTALLED ANCHORS SHALL BE TENSION TESTED.

TORQUE BASED ANCHORS INSTALLED IN NORMAL WEIGHT CONCRETE, MINIMUM EMBEDMENT & TEST VALUES:

BOLT DIAMETER (INCHES)	MIN. HOLE DEPTH IN CONCRETE, U.O.N. (INCHES)	MIN. CONCRETE THICKNESS (INCHES)	TORQUE TEST (FT-LBS)
HILTI KWIK BOLT TZ:			
3/8	2 3/8	4	25
1/2	2 3/8	4	40
	4	6	
5/8	3 1/4	5	60
	4 3/4	6	
3/4	4 1/2	6	110
	5 3/4	8	
SIMPSON STRONG BOLT 2:			
3/8	2	3 1/4	30
	3	4 1/2	
1/2	3	4 1/2	60
	4 1/8	6	
5/8	3 5/8	5 1/2	90
	5 3/8	7 7/8	
3/4	4 3/8	6 3/4	150
	6	8 3/4	

F. ADHESIVE ANCHORS INSTALLED IN NORMAL WEIGHT CONCRETE SHALL BE EMBEDDED AND TENSION TESTED TO VALUES SPECIFIED ON THESE DRAWINGS. TESTING IS NOT REQUIRED WHERE NO VALUE IS SPECIFIED.

G. ALL POST INSTALLED ANCHORS OF EACH SIZE SHALL BE TESTED. WHERE ANCHORS ARE USED FOR EQUIPMENT ANCHORAGE, 50% OF ALTERNATE BOLTS IN EACH GROUP SHALL BE TESTED. WHERE ANCHORS ARE USED FOR SILL PLATE BOLTING APPLICATION, 10% OF THE ANCHORS SHALL BE TESTED. FOR EXCEPTIONS TO FREQUENCY REFER TO CBC SECTION 1910A.5.

H. APPLY PROOF TEST LOADS TO TORQUE BASED ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS OF THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY LOAD.

I. FOR SLEEVE INTERNALLY THREADED CATEGORIES, VERIFY THAT THE ANCHOR IS NOT PREVENTED FROM WITHDRAWING BY A BASE PLATE OR OTHER FIXTURES. IF RESTRAINT IS FOUND, LOOSEN AND SHIM OR REMOVE FIXTURE(S) PRIOR TO TESTING.

J. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).

K. TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.

L. FIELD TEST ACCEPTANCE CRITERIA SHALL SATISFY CBC SECTION 1913A.7.4 WITH THE FOLLOWING MINIMUM REQUIREMENTS:

1. HYDRAULIC RAM METHOD: MAINTAIN TEST LOAD FOR 15 SECONDS MINIMUM WITH NO DISCERNIBLE MOVEMENT DURING TEST.

2. TORQUE WRENCH METHOD: MAINTAIN SPECIFIED TORQUE WITHIN ONE-HALF TURN OF THE NUT. SEE CBC SECTION 1910A FOR EXCEPTIONS.

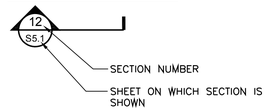
M. IN THE EVENT OF ANY TEST FAILURE, TEST ALL ANCHORS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL TWENTY CONSECUTIVE PASS. THEN RESUME INITIAL TESTING FREQUENCY. PATCH ALL HOLES WHERE FASTENERS ARE REMOVED USING NON-SHRINK GROUT, PACKED SOLIDLY.

N. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS SUPPORTING SUSTAINED TENSION LOADS SHALL BE PERFORMED BY PERSONNEL CERTIFIED THROUGH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM.

ABBREVIATIONS

A.B.	ANCHOR BOLT	LAT.	LATERAL
ALT.	ALTERNATE	L.L.	LIVE LOAD
APPROX.	APPROXIMATE [LY]	L.L.V.	LONG LEG VERTICAL
ARCH.	ARCHITECT [URAL]	L.L.H.	LONG LEG HORIZONTAL
		LONGIT.	LONGITUDINAL
BETW.	BETWEEN	LWT.	LIGHTWEIGHT
BLDG.	BUILDING		
BLK.	BLOCK [ING]	MAT.	MATERIAL
B.N.	BOUNDARY NAIL	MAX.	MAXIMUM
B.O.F.	BOTTOM OF FOOTING	M.B.	MACHINE BOLT
B.O.P.	BOTTOM OF PIER CAP	MECH.	MECHANICAL
BOT.	BOTTOM	MFR.	MANUFACTURER
BSMT.	BASEMENT	MIN.	MINIMUM
		MISC.	MISCELLANEOUS
c.c.	CENTER TO CENTER		
CL	CENTER LINE	[N]	NEW
C.J.	CONSTRUCTION JOINT	N	NORTH
	COLD JOINT	N.I.C.	NOT IN CONTRACT
CLG.	CEILING	NO.	NUMBER [#]
CLR.	CLEAR	NOM.	NOMINAL
COL.	COLUMN	N.S.	NEAR SIDE
CMU	CONCRETE MASONRY UNIT	N.T.S.	NOT TO SCALE
CJP	COMPLETE JOINT PENETRATION		
CONC.	CONCRETE	o.c.	ON CENTER
CONN.	CONNECTION	O.D.	OUTSIDE DIAMETER
CONSTR.	CONSTRUCTION	O.F.C.	OUTSIDE FACE OF CONCRETE
CONT.	CONTINUOUS	O.F.S.	OUTSIDE FACE OF STUDS
COORD.	COORDINATE	O.H.	OPPOSITE HAND
CTRD.	CENTERED	OPNG.	OPENING
CSK.	COUNTERSINK	OPP.	OPPOSITE
CTBR.	COUNTERBORE	O.W.J.	OPEN WEB JOIST
DBL.	DOUBLE	PJP	PARTIAL JOINT PENETRATION
DCW	DEMAND CRITICAL WELD	P.D.F.	POWDER DRIVEN FASTENER
DET.	DETAIL	P.E.N.	PLYWOOD EDGE NAILING
DF	DOUGLAS FIR	P.J.	POUR JOINT
DIAG.	DIAGONAL	PL	PLATE
DIA. OR ø	DIAMETER	PLF	POUNDS PER LINEAL FOOT
DIM.	DIMENSION	PLY.	PLYWOOD
DN.	DOWN	PSF	POUNDS PER SQUARE FOOT
DO.	DITTO	PSI	POUNDS PER SQUARE INCH
DWG.	DRAWING	PT.	POINT
		PTDF	PRESSURE TREATED DOUGLAS FIR
EA.	EACH		
E.B.	EXPANSION BOLT	RAD.	RADIUS
E.D.	EDGE OF DECK	REINF.	REINFORCED [ING]
E.E.	EACH END	REQD.	REQUIRED
E.F.	EACH FACE	REV.	REVISION
E.J.	EXPANSION JOINT		
EL.	ELEVATION	S.A.D.	SEE ARCHITECTURAL DRAWINGS
ELEC.	ELECTRICAL	S.C.D.	SEE CIVIL DRAWINGS
ELEV'R.	ELEVATOR	SCHED.	SCHEDULE
EMBED.	EMBEDMENT	SECT.	SECTION
ENG.	ENGINEER [ED]	SH.	SHEET
E.N.	EDGE NAILING	SIM.	SIMILAR
EQ.	EQUAL	SFRS	SEISMIC FORCE RESISTING SYSTEM
EQPT.	EQUIPMENT	S.M.S.	SHEET METAL SCREW
EQUIV.	EQUIVALENT	S.M.D.	SEE MECHANICAL DRAWINGS
E.S.	EACH SIDE	S.O.G.	SLAB ON GRADE
EST.	ESTIMATE [D]	SPECS.	SPECIFICATIONS
E.W.	EACH WAY	SQ.	SQUARE
EXIST. [E]	EXISTING	STAG.	STAGGERED
		S.S.	STAINLESS STEEL
FDN.	FOUNDATION	STD.	STANDARD
FIN.	FINISH [ED]	STIFF.	STIFFENER
FL.	FLOOR	STL.	STEEL
FLG.	FLANGE	STRUCT.	STRUCTURAL
FHWS	FLAT HEAD WOOD SCREW	STSMS	SELF TAPPING SHEET METAL SCREW
F.O.C.	FACE OF CONCRETE	SYM.	SYMMETRICAL
F.O.M.	FACE OF MASONRY		
F.O.S.	FACE OF STUDS	T&B	TOP AND BOTTOM
F.S.	FAR SIDE	T&G	TONGUE AND GROOVE
FT.	FEET	THK.	THICK [NESS]
FTG.	FOOTING	T.O.F.	TOP OF FOOTING
[F]	FUTURE	T.O.P.	TOP OF PLYWOOD
		T.O.S.	TOP OF STEEL
GA.	GAUGE	THRD.	THREADED
GALV.	GALVANIZED	THRU	THROUGH
GLB	GLULAM BEAM	T.N.	TOE NAIL
GR.	GRADE	TRANSV.	TRANSVERSE
		TYP.	TYPICAL
H.D.G.	HOT DIPPED GALVANIZED		
HDR.	HEADER	UON	UNLESS OTHERWISE NOTED
HEX.	HEXAGONAL		
HGR.	HANGER	VERT.	VERTICAL
HORIZ.	HORIZONTAL	V.I.F.	VERIFY IN FIELD
HSB	HIGH STRENGTH BOLT		
HT.	HEIGHT	w/	WITH
HSS	HOLLOW STRUCTURAL SECTION	WF	WIDE FLANGE
		W.P.	WORK POINT
I.D.	INSIDE DIAMETER	W.S.	WOOD SCREW
INCL.	INCLUDING	W.T.S.	WELDED THREADED STUD
INFO.	INFORMATION	WT.	WEIGHT
INSUL.	INSULATION	WWF	WELDED WIRE FABRIC
JT.	JOINT		

LEGEND



POURED IN PLACE CONCRETE

CONTINUOUS WOOD

DISCONTINUOUS WOOD [BLOCKING]

EXISTING CONCRETE

STRUCTURAL STEEL

R & P JOB No. 20205
PRINCIPAL-IN-CHARGE RH
REMARKS:

BARTOS ARCHITECTURE
1730 S. AMPHLETT BLVD, SUITE 225
SAN MATEO, CALIFORNIA 94402
www.bartosarchitecture.com

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STATE OF CALIFORNIA

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400 County Center
Redwood City, CA

Maple Street
Correctional Facility
1300 Maple St
Redwood City, CA 94063

Solar Shade Structure

REVISION	DATE
Issued For Permit	4/14/2021
1 Plan Check Resubmittal	11/11/2021

RECEIVED
Jun 21 2023
San Mateo County
Building Inspection

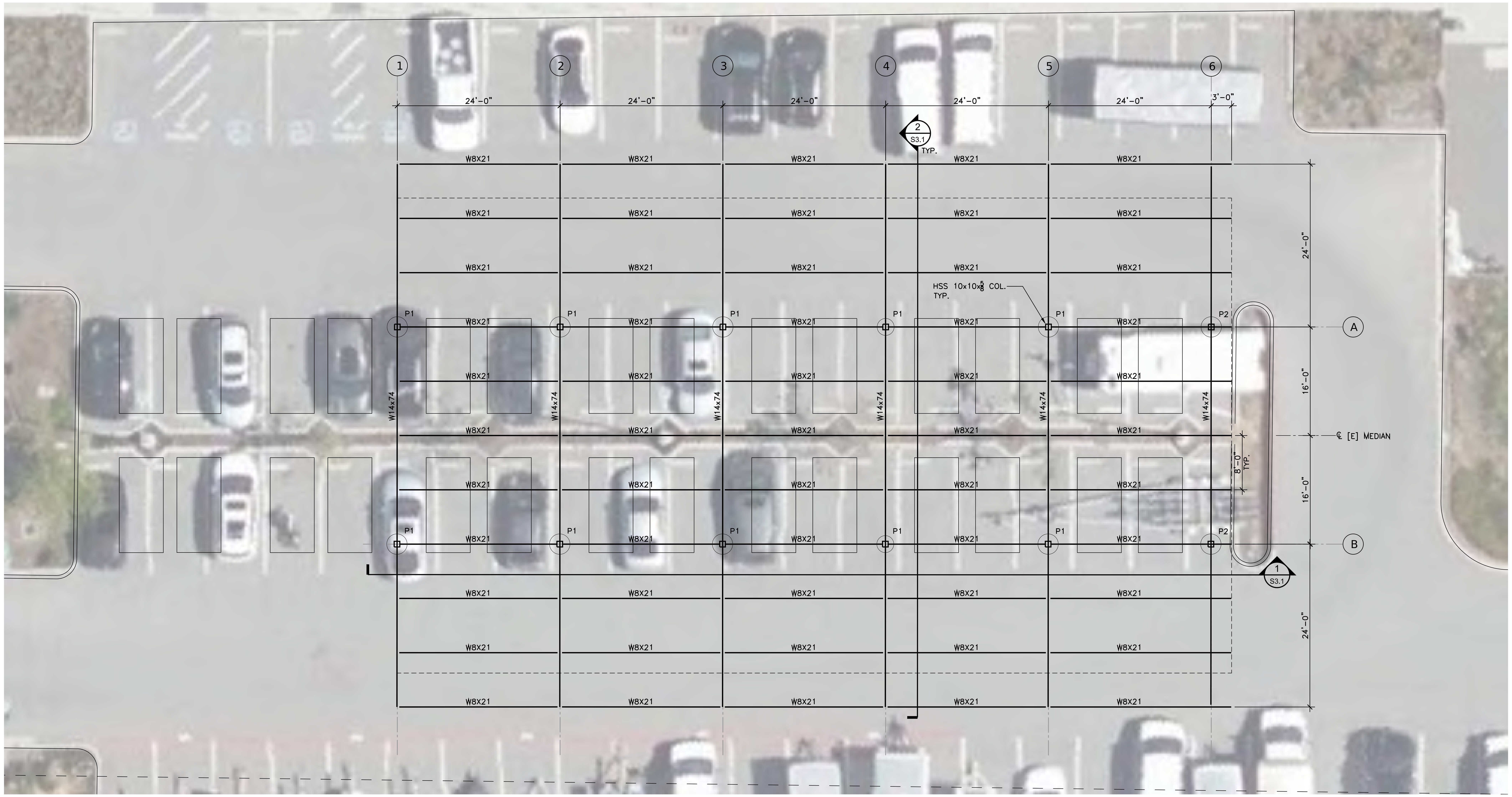
JOB COPY
TO REMAIN ON
SITE AT ALL TIMES

REVIEWED FOR CODE COMPLIANCE
This review does not authorize violation of State or County building laws.
Jun 21 2023
SAN MATEO CO. BLDG. INSP. DIV.

General Notes

S0.2

BA 21-001



1 SOLAR STRUCTURE FRAMING PLAN

1/8"=1'-0"

NOTES:

1. SEE SHEET S0.1 FOR GENERAL NOTES.
2. P1 DENOTES PIER, SEE SCHEDULE 2/-

MARK	DIAMETER	DEPTH
P1	36"	10'
P2	36"	15'

NOTE: 1. SEE 3/S5.1 FOR PROFILE.
2. DEPTH IS FEET BELOW ADJACENT GRADE.

2 PIER SCHEDULE

20205-S21-2

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www.bartosarchitecture.com

LICENSED ARCHITECT MARK EDWARD BARTOS C-24138 REN 03-31-23 STATE OF CALIFORNIA

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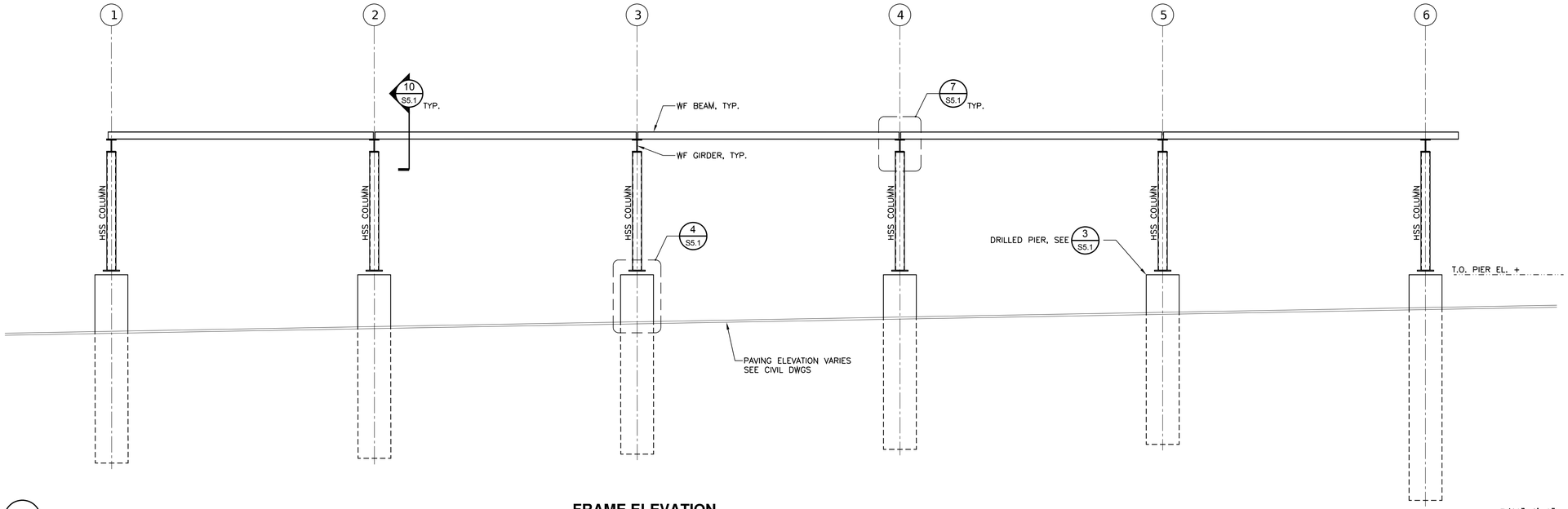
Solar Structure Framing Plan and Elevation

S2.1

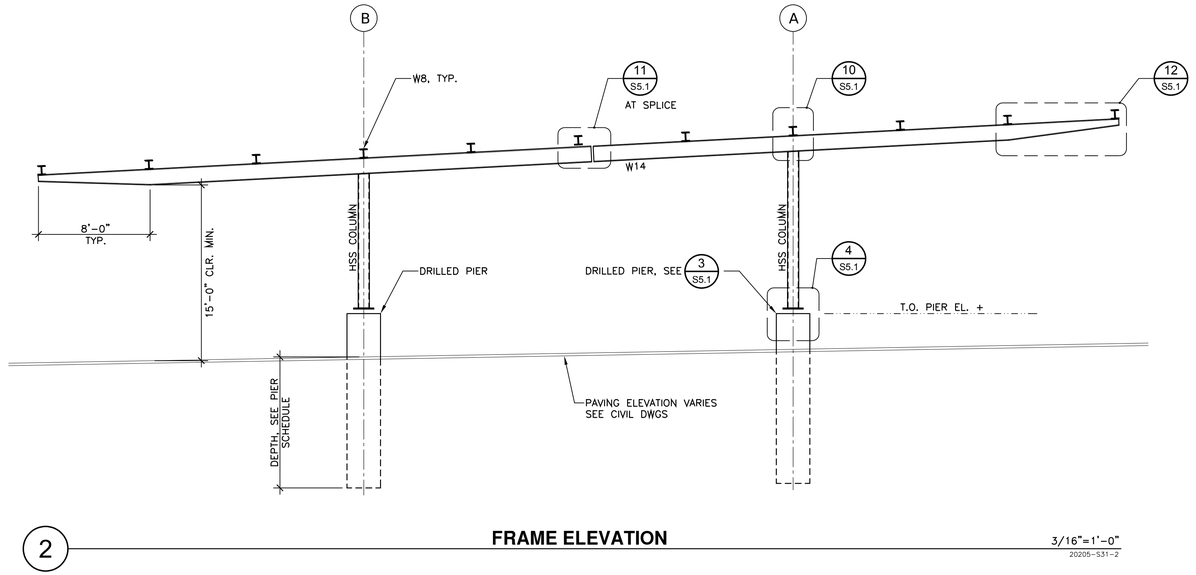
BA 21-001

R & P JOB No. 20205
PRINCIPAL-IN-CHARGE RH
REMARKS:



1 **FRAME ELEVATION** 3/16"=1'-0"

20205-S31-1



2 **FRAME ELEVATION** 3/16"=1'-0"

20205-S31-2

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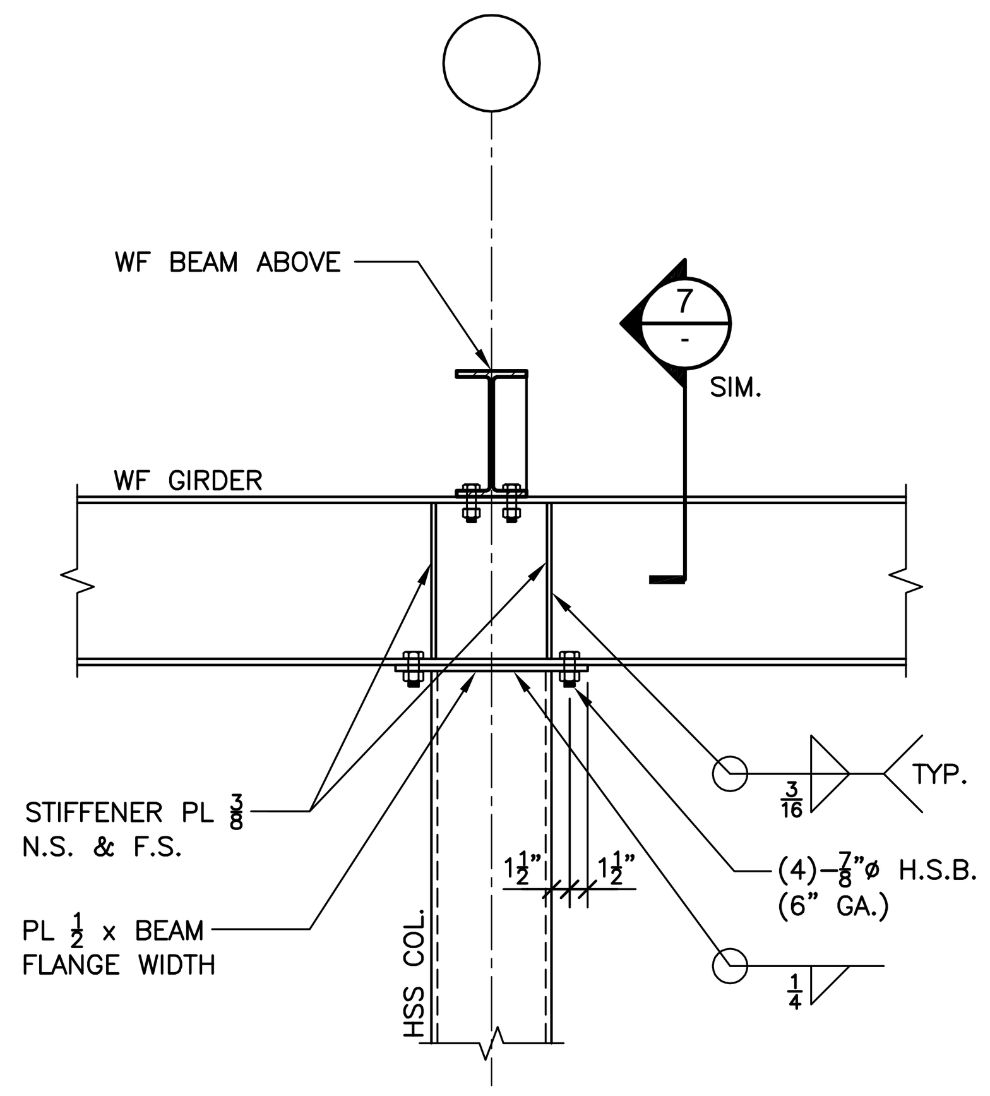
PRINCIPAL-IN-CHARGE RH
REMARKS:

Frame Elevations

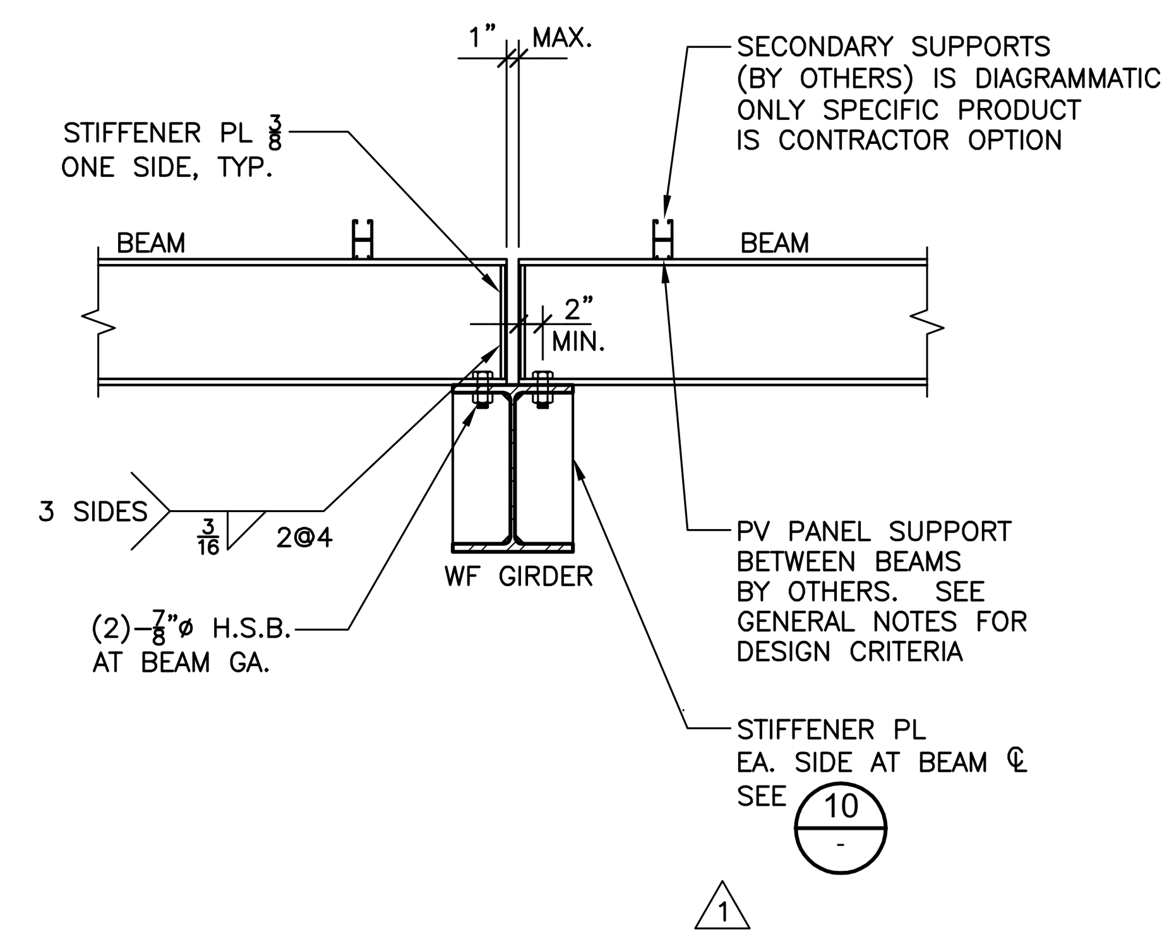
S3.1

BA 21-001



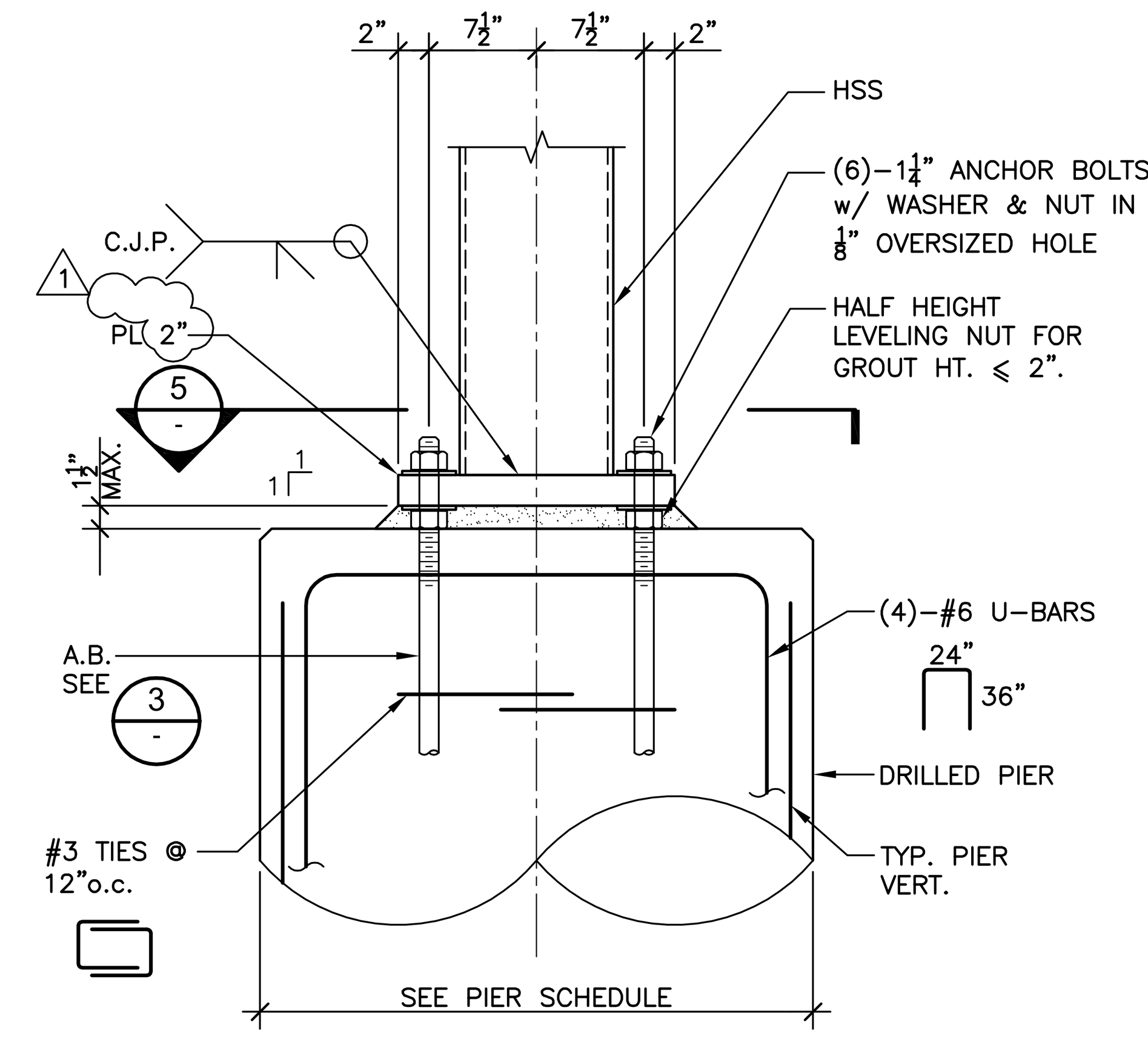
10 GIRDER TO COLUMN CONNECTION

20205-S51-10



7 BEAM TO GIRDER CONNECTION

20205-S51-7



4 COLUMN BASE DETAIL

1"=1'-0"

20205-S51-4

CLASS B LAP SPLICE	F'c = 3000 PSI		F'c = 4000 PSI	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	28	21	24	18
#4	37	28	32	25
#5	46	36	40	31
#6	56	43	48	37
#7	81	62	70	54
#8	93	71	80	62
#9	104	80	90	70
#10	118	90	102	78
#11	131	100	113	87

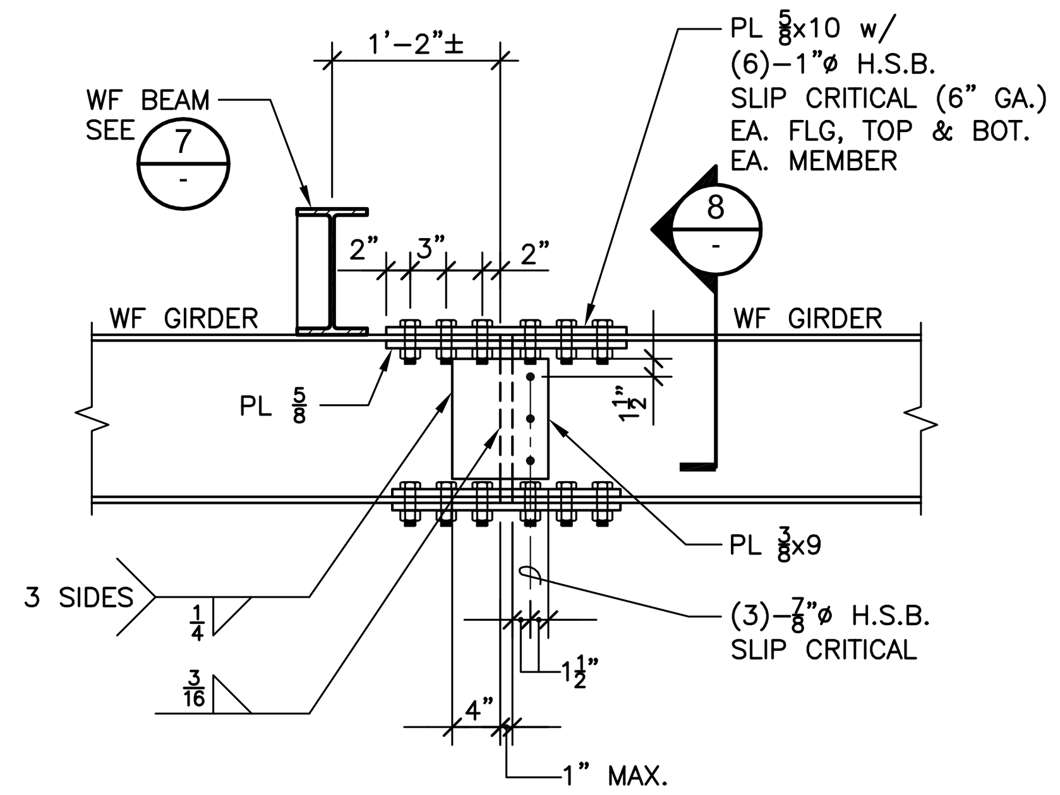
NOTES:

1. DEVELOPMENT LENGTH AND SPLICE LENGTH REQUIREMENTS ARE BASED ON 2010 CBC AND ACI-318-08. SPLICE LENGTHS SHOWN IN TABLE ARE IN INCHES.
2. TENSION BAR LAP SPLICES SHALL CONFORM TO ACI CLASS B SPLICE LENGTHS, UNLESS NOTED OTHERWISE.
3. LAP SPLICE LENGTHS ARE BASED ON GRADE 60 REINFORCING AND NORMAL WEIGHT CONCRETE.
4. TOP REINFORCEMENT IS DEFINED AS HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE CAST IN MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICES.
5. TENSION LAP SPLICE CANNOT BE USED FOR #14 AND #18 BARS.
6. WHERE 2 DIFFERENT BAR SIZES ARE LAPPED, THE SPLICE LENGTH SHALL BE BASED ON THE LARGER BAR SIZE.
7. COMPLY WITH ACI SECTION 12.2
   DEVELOPMENT LENGTH = LAP LENGTH / 1.3

1 REINFORCING BAR SPLICES

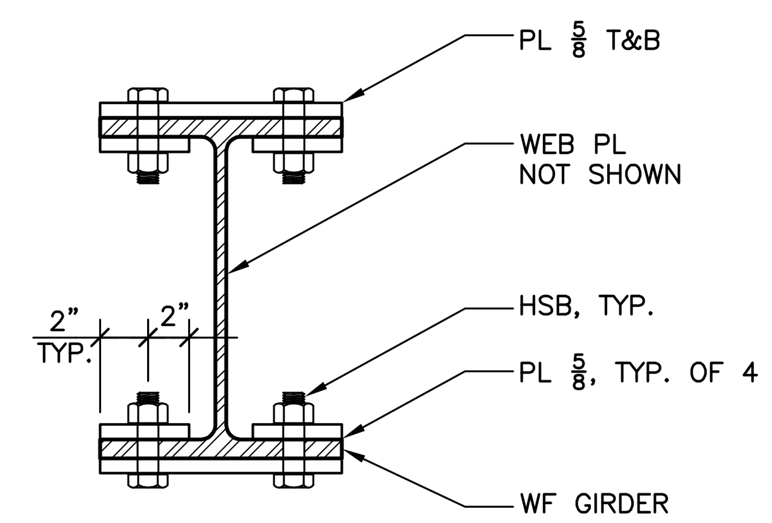
[NORMAL WEIGHT CONCRETE]

20205-S51-1



11 GIRDER SPLICE

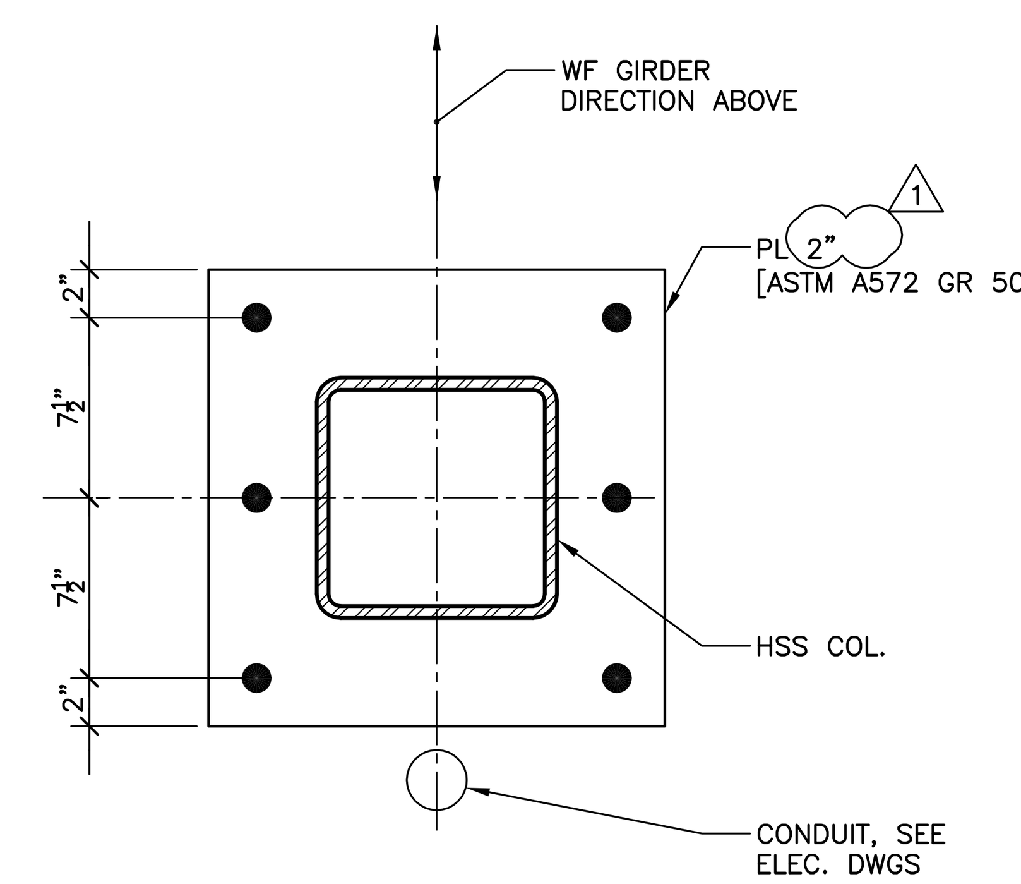
20205-S51-11



8

1 1/2"=1'-0"

20205-S51-8

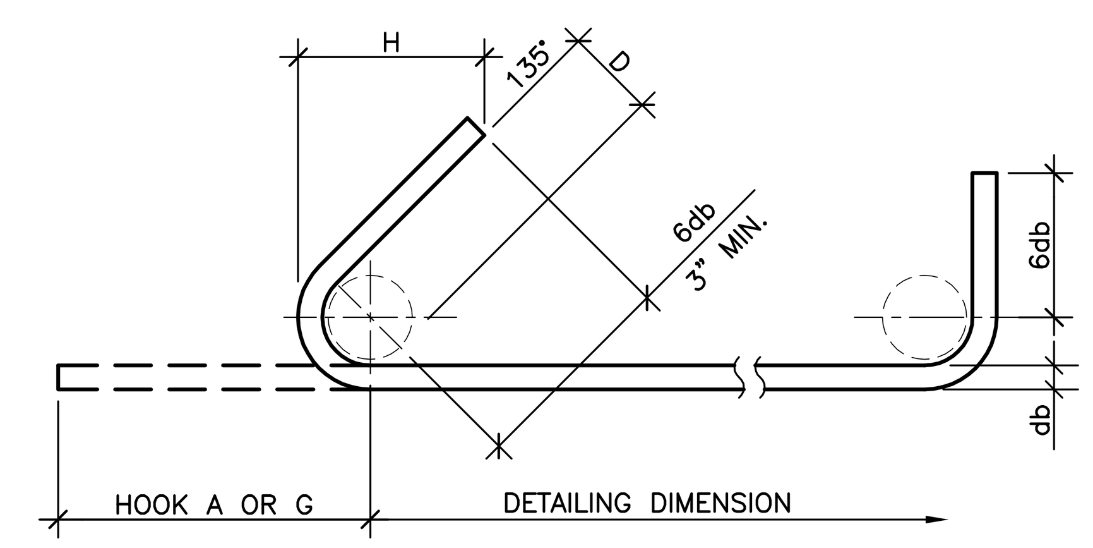


5 BASE PLATE PLAN

1 1/2"=1'-0"

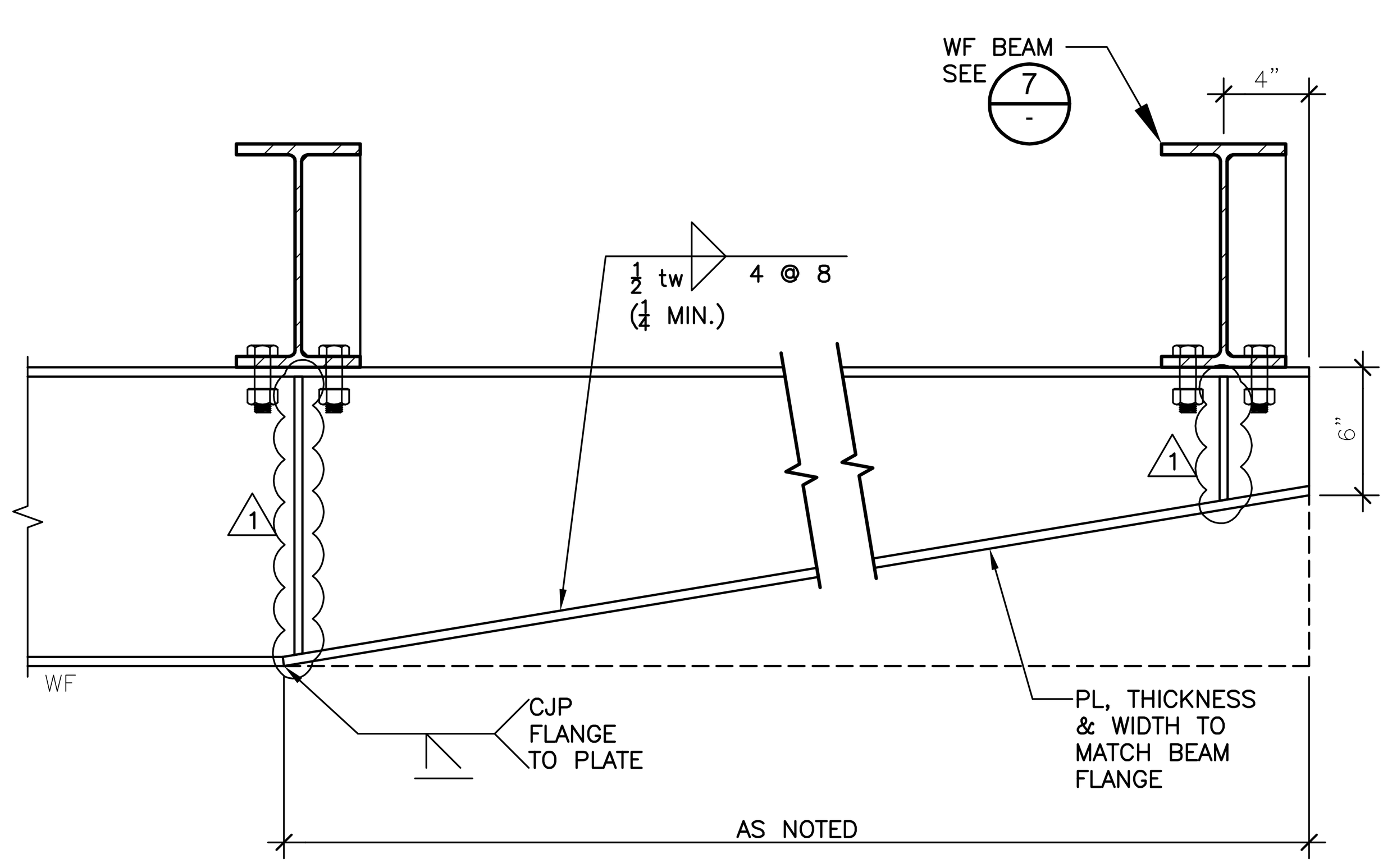
20205-S51-5

BAR SIZE	D	135° HOOK	
		HOOK A OR G	H APPROX.
#3	1 1/2"	5"	3 1/2"
#4	2"	6 1/2"	4 1/2"
#5	2 1/2"	8"	5 1/2"
#6	4 1/2"	10 1/2"	6 1/2"



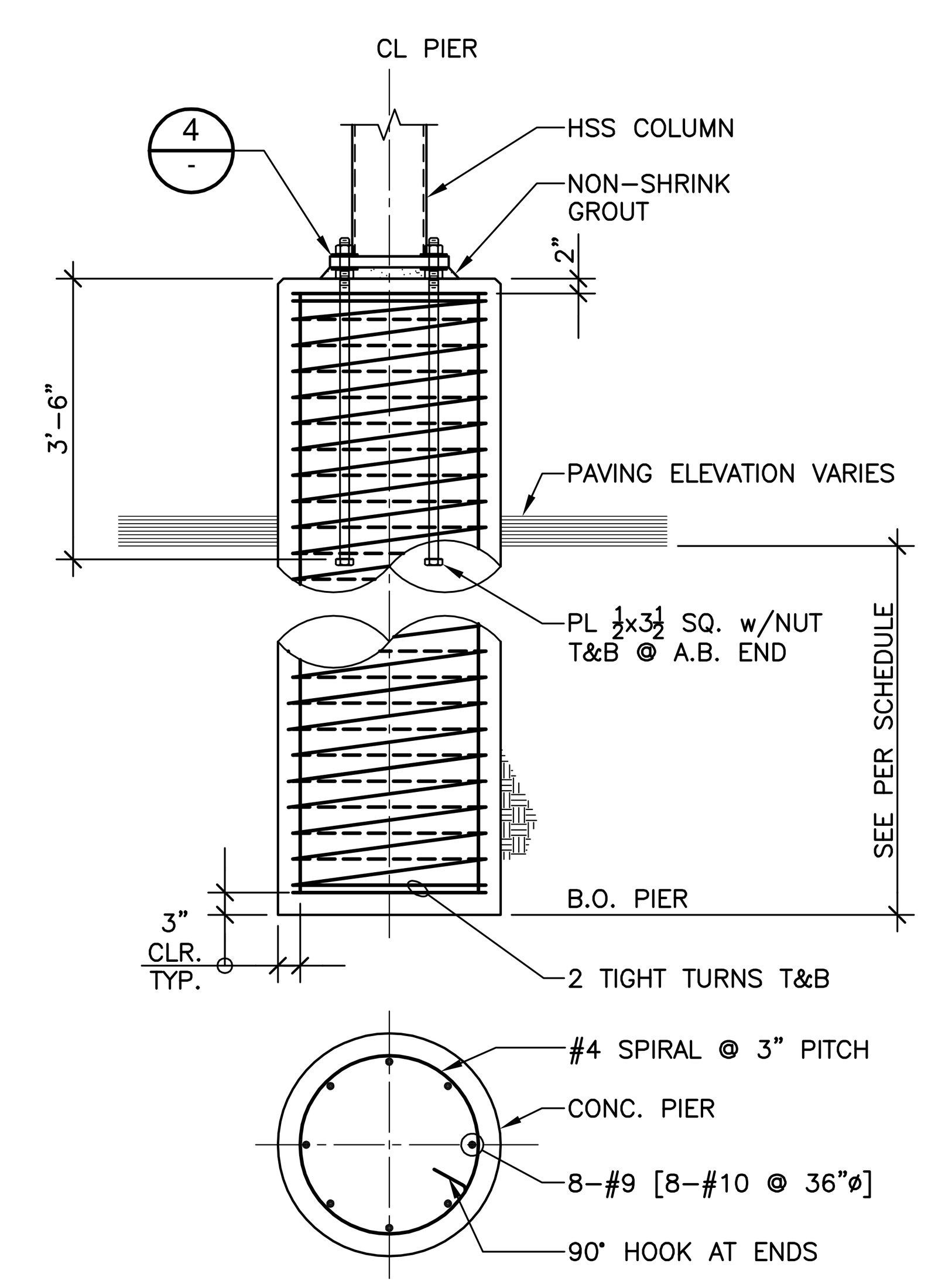
2 SEISMIC STIRRUP/TIE HOOK

20205-S51-2



12 TAPERED WF BEAM

20205-S51-12



3 DRILLED PIER

1/2"=1'-0"

20205-S51-3

BARTOS ARCHITECTURE
1730 S. AMPHLETT BLVD, SUITE 225
SAN MATEO, CALIFORNIA 94402
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LICENSED ARCHITECT
MARK EDWARD BARTOS
C-24138
REN. 03-31-23
STATE OF CALIFORNIA

Rinne & Peterson
STRUCTURAL ENGINEERS

NO. S 4438
5-22-23

San Mateo County
Sheriff's Office
400 County Center
Redwood City, CA

Maple Street
Correctional Facility
1300 Maple St
Redwood City, CA 94063

Solar Shade Structure

REVISION	DATE
Issued For Permit	4/14/2021
1 Plan Check Resubmittal	11/11/2021
2 Geotech Approval	1/17/2022

RECEIVED
Jun 21 2023
San Mateo County
Building Inspection

JOB COPY
TO REMAIN ON
SITE AT ALL TIMES

REVIEWED FOR CODE COMPLIANCE
This review does not authorize violation
of State or County building laws.
Jun 21 2023
SAN MATEO CO. BLDG. INSP. DIV.

Details

S5.1

BA 21-001

JOB No. 20205
PRINCIPAL-IN-CHARGE RH
REMARKS:

K:\ACAD\Projects\San Mateo County Correctional Facility Solar Panels 20205 RH\20205-S51.dwg, 5/22/2023 7:38:05 PM

SYMBOL LIST:

E1/1 — PLAN, DETAIL OR SECTION DESIGNATION.

201 — ROOM NUMBER.

1 — SHEET REFERENCE SYMBOL - SEE ASSOCIATED NOTE ON SAME SHEET.

3 — FEEDER SCHEDULE SYMBOL.

GH 1 — MECHANICAL EQUIPMENT TAG.

A — INDICATES FIXTURE TYPE

LUMINAIRE SYMBOLS

LUMINAIRE - SEE SCHEDULE.

LUMINAIRE - SEE SCHEDULE.

LUMINAIRE - SEE SCHEDULE.

LUMINAIRE - SEE SCHEDULE.

POLE MOUNTED LUMINAIRE - SEE SCHEDULE.

POLE MOUNTED LUMINAIRE - SEE SCHEDULE.

LUMINAIRE - SEE SCHEDULE.

LUMINAIRE - SEE SCHEDULE.

LUMINAIRE WALL MOUNTED-SEE SCHEDULE.

EMERGENCY LUMINAIRE - PROVIDE EMERGENCY BATTERY BALLAST

EM — EMERGENCY LUMINAIRE - PROVIDE EMERGENCY BATTERY BALLAST

EMERGENCY LUMINAIRE - PROVIDE EMERGENCY BATTERY BALLAST

EMERGENCY LUMINAIRE - PROVIDE EMERGENCY BATTERY BALLAST

EMERGENCY LUMINAIRE WALL MOUNTED- PROVIDE EM. BATTERY BALLAST

EXIT LIGHT SINGLE FACE - SEE SCHEDULE.

EXIT LIGHT SINGLE FACE (WITH ARROW)- SEE SCHEDULE.

EXIT LIGHT (DOUBLE FACED WITH ARROW)- SEE SCHEDULE.

EMERGENCY BATTERY PACK EXIT LIGHT INSTALL AS DIRECTED.

RECEPTACLE SYMBOLS

CONVENIENCE RECEPTACLE - DUPLEX AT + 18" AFF UON.

GFCI CONVENIENCE RECEPTACLE - DUPLEX.

B — CONVENIENCE RECEPTACLE - DUPLEX CONNECTED TO GFCI CIRCUIT BREAKER. MOUNTED AT +18" AFF UON.

RECEPTACLE - DOUBLE DUPLEX AT + 18" AFF UON.

RECEPTACLE - DOUBLE DUPLEX ON CEILING

SINGLE RECEPTACLE - NEMA 5-20R UON, AT + 18" AFF UON.

SINGLE RECEPTACLE - NEMA L21 - 208 VOLT, THREE PHASE, 5 WIRE, AT +18" AFF UON.

CEILING MOUNTED BOX WITH DATA OUTLET AND DOUBLE DUPLEX RECEPTACLE.

FLOOR MOUNTED BOX WITH DATA OUTLET AND DUPLEX RECEPTACLE AND A/V CONNECTION. SEE A/V DETAIL FOR ADDITIONAL INFORMATION.

3-CHANNEL SURFACE RACEWAY, INSTALL AT +36" AFF UON. RACEWAY SHALL BE WIREMOLD #5500.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE LOCATING ALL EXISTING UNDERGROUND SYSTEMS IN AREA OF NEW TRENCHING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGED SYSTEMS TO OWNERS SATISFACTION. EXTREME CARE SHALL BE MAINTAINED DURING TRENCHING AS EXISTING SYSTEMS ARE KNOWN TO EXIST IN AREA. MODIFICATIONS TO EXISTING SYSTEMS MAY BE REQUIRED TO ACCOMMODATE NEW SYSTEM CONFIGURATION AND SHALL BE MADE BY THE CONTRACTOR WITHOUT EXTRA EXPENSE TO THE OWNER THE DRAWINGS AND SPECIFICATIONS ARE FOR THE ASSISTANCE AND GUIDANCE OF THE CONTRACTOR. EXACT LOCATIONS, DISTANCES AND ELEVATIONS WILL BE GOVERNED BY ACTUAL CONDITIONS. THE CONTRACTOR SHALL EXAMINE THE CONTRACT DOCUMENTS AND FIELD CONDITIONS TO DETERMINE EXACT ROUTING AND FINAL TERMINATIONS FOR ALL NEW WORK.

POWER DISTRIBUTION SYMBOLS

PANELBOARD - SURFACE OR FLUSH MOUNTED.

JUNCTION BOX - CEILING OR WALL MOUNTED, SIZE TO CODE, TAPE AND TAG WIRES. PROVIDE FLEX AND/OR RECEPTACLE AS REQUIRED TO CONNECT EQUIPMENT.

DISTRIBUTION PANEL.

M — MOTOR.

30 — COMBINATION MAGNETIC STARTER FUSED DISCONNECT SWITCH. RATING AS INDICATED.

60 — UNFUSED DISCONNECT SWITCH - RATING AS INDICATED.

100 — FUSED DISCONNECT SWITCH - SIZE FUSES PER MOTOR MANUFACTURER'S RECOMMENDATIONS. RATING AS INDICATED.

II — MAGNETIC STARTER - NEMA SIZE INDICATED.

T — TRANSFORMER - SEE SINGLE LINE FOR SIZE.

GROUND ROD.

WIRING & CONDUIT RUN SYMBOLS

CONDUIT - CONCEALED IN WALLS OR CEILING.

CONDUIT - EXPOSED.

CONDUIT - IN OR BELOW FLOOR: 3/4"MIN.

#10 / 6 — CONDUIT - HOME RUN TO PANEL, TERMINAL CABINET, ETC. RUNS MARKED WITH CROSSHATCHES INDICATE NUMBER OF #12 AWG WIRES. CROSSHATCH WITH SUBSCRIPT "G" INDICATES GREEN GROUND WIRE. SIZE CONDUIT ACCORDING TO SPECIFICATIONS AND APPLICABLE CODE. CROSSHATCHES WITH "#10" INDICATES WIRE SIZE OTHER THAN #12'S.

FLEX CONDUIT WITH CONNECTION.

CONDUIT - STUB UP.

CONDUIT - STUB DOWN.

CONDUIT EMERGENCY SYSTEM.

E — CAPPED CONDUIT.

CONDUIT CONTINUATION.

POWER DISTRIBUTION SINGLE LINE SYMBOLS

DRAW-OUT CIRCUIT BREAKER.

CIRCUIT BREAKER.

FUSED SWITCH.

M — "PG&E" METER W/ CURRENT TRANSFORMER.

TRANSFORMER.

NORMALLY OPENED, AUXILIARY CONTACT.

NORMALLY CLOSED, AUXILIARY CONTACT.

AUTOMATIC TRANSFER SWITCH.

EMERGENCY GENERATOR.

DRAWING INDEX

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE LICENSED BY THE STATE OF CALIFORNIA C-10 AND SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS. MATERIALS AND EQUIPMENT SHALL BE U.L. LISTED AND LABELED FOR THE APPLICATION.
2. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTION FEES REQUIRED BY THIS CONTRACT WORK.
3. PRIOR TO SUBMITTING A BID THE CONTRACTOR SHALL VISIT THE SITE, REVIEW THE EXISTING CONDITIONS AND ALLOW FOR LABOR, MATERIAL AND COORDINATION THAT IS NECESSARY TO PROVIDE A COMPLETE INSTALLATION OF EACH SYSTEM. THE CONTRACTOR SHALL OBTAIN AND BE FAMILIAR WITH ALL OTHER TRADES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL WORK NOTED AND CALLED OUT ON ALL CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN OTHER TRADES ON PROJECT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF PERSONS AND PROPERTY AND SHALL PROVIDE INSURANCE COVERAGE AS NECESSARY FOR LIABILITY, PERSONAL, PROPERTY DAMAGE, TO FULLY PROTECT THE OWNER, ARCHITECT AND ENGINEER FROM ANY AND ALL CLAIMS RESULTING FROM THIS WORK.
5. THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS AT THE PROJECT SITE INDICATING ALL MODIFICATIONS TO ELECTRICAL SYSTEMS. THE CONTRACTOR SHALL AT THE CONCLUSION OF THE PROJECT PROVIDE ACCURATE "AS-BUILT" DRAWINGS. "AS-BUILT" DRAWINGS SHALL SHOW ACTUAL CHANGES TO ORIGINAL ELECTRICAL DRAWING, SHOW LOCATIONS OF PULLBOXES, CONDUIT RUNS AND WIRING CHANGES.
6. ALL MATERIALS PROVIDED TO THE PROJECT SHALL BE NEW. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL INCIDENTAL MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.
7. THE CONTRACTOR SHALL PROVIDE TO THE ARCHITECT A CONSTRUCTION SCHEDULE OF ELECTRICAL WORK. THE CONSTRUCTION SCHEDULE SHALL IDENTIFY ALL SIGNIFICANT MILESTONES WITH COMPLETION DATES.
8. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED "CUTTING, PATCHING, EXCAVATION, BACKFILL AND REPAIRS" NECESSARY TO RESTORE DAMAGED SURFACES TO EQUAL OR BETTER THAN ORIGINAL CONDITIONS EXISTING AT START OF WORK. THE CONTRACTOR SHALL CONTACT "UNDERGROUND SERVICES ALERT" FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF UNDERGROUND WORK.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAINTING ALL EXPOSED CONDUITS AND ELECTRICAL EQUIPMENT. REFER TO ARCHITECTS PAINTING SECTION FOR REQUIREMENTS.
10. ALL ELECTRICAL EQUIPMENT INSTALLED OUTDOORS SHALL BE WEATHERPROOF. EXTERIOR CONDUITS RUN INTO BUILDINGS SHALL BE INSTALLED WITH FLASHING, CAULKED AND SEALED. CONDUITS FOR EXTERIOR ELECTRICAL DEVICES SHALL BE RUN INSIDE BUILDING UNLESS OTHERWISE NOTED ON DRAWINGS. ALL EXTERIOR CONDUITS SHALL BE "RSG" UNLESS OTHERWISE NOTED ON DRAWINGS.
11. ALL CONDUITS UNLESS OTHERWISE NOTED ON DRAWINGS SHALL HAVE AS A MINIMUM: TWO (2) #12'S WITH ONE (1) #12 GROUND. "TICK" MARKS SHOWN ON CIRCUITRY ARE FOR "ROUGH" ESTIMATING ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WIRES AND WIRE SIZES REQUIRED BY LATEST CODE.
12. COORDINATE ALL CONDUIT RUNS, ELECTRICAL EQUIPMENT AND PANELS WITH ALL OTHER WORK TO AVOID CONFLICTS.
13. SEE ARCHITECTURAL DOCUMENTS FOR EXACT PLACEMENT OF LIGHTING FIXTURES AND DEVICES. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF CEILING TYPES FROM ARCHITECTURAL DOCUMENTS AND PROVIDE AND INSTALL ALL REQUIRED FIXTURE MOUNTING HARDWARE. PROVIDE AND INSTALL U.L. LISTED FIRE STOP ENCLOSURES FOR ALL RECESSED FIXTURES IN FIRE RATED CEILINGS.
14. FROM ALL NEW PANELS; THE CONTRACTOR SHALL STUB UP INTO ACCESSIBLE CEILING SPACE A MINIMUM OF FOUR (4) 3/4" CONDUITS FOR FUTURE USE.
15. THE CONTRACTOR SHALL PRIOR TO BID, FIELD VERIFY ALL REQUIREMENTS FOR MODIFYING THE EXISTING FIRE ALARM, CATV, DATA, TELEPHONE, CLOCK AND INTERCOM SYSTEMS TO ACCOMMODATE ADDITIONS NOTED. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS NEEDED TO MAKE A FULLY OPERATIONAL SYSTEM AT THE CONCLUSION OF PROJECT WORK.
16. UTILITY SERVICE WORK SHALL BE IN ACCORDANCE WITH THE SERVING UTILITY COMPANY'S RULES, REGULATIONS AND STANDARDS, AND SHALL BE VERIFIED WITH UTILITY COMPANY'S ENGINEERING DRAWINGS AND FIELD SUPERVISOR PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL DETERMINE EXACT LOCATION OF UNDERGROUND POWER, CATV AND TELEPHONE SERVICES FROM SERVING UTILITIES. FIELD ADJUSTMENTS MAY BE REQUIRED IN INDIVIDUAL SERVICE LOCATIONS. THE CONTRACTOR SHALL REMAIN IN CONTACT WITH UTILITY COMPANY ENGINEERING DEPARTMENTS THROUGHOUT PROJECT TO INSURE COORDINATION AND SCHEDULING OF WORK.
17. THE CONTRACTOR SHALL PROVIDE IN EVERY CONDUIT A DRAW STRING FOR USE IN FUTURE CONSTRUCTION.
18. PROVIDE CONDUIT BETWEEN THERMOSTATS, AIR CONDITIONING CONTROL PANELS MOTOR STARTERS, SOLENOID VALVES AND AIR CONDITIONING UNITS. SEE MECHANICAL DRAWINGS FOR CONTROL WIRING SIZES OR SIZE CONDUITS PER NATIONAL ELECTRICAL CODE AS REQUIRED, MINIMUM CONDUIT SIZE: 3/4".
19. POWER FEEDERS MAY NOT BE SHOWN ON THE DRAWINGS, REFER TO THE SINGLE LINE DIAGRAM FOR CONDUIT AND FEEDER INFORMATION. ALL DRAWINGS ARE DIAGRAMMATIC INDICATING LOCATION OR POSITION OF EQUIPMENT. FIELD VERIFY CONDITIONS PRIOR TO INSTALLATION OF ANY WORK.
20. MANUFACTURER'S RECOMMENDATIONS FOR CONDUCTOR SIZING, CIRCUIT BREAKER OR FUSE PROTECTION OF ELECTRICALLY OPERATED EQUIPMENT MAY DIFFER FROM THOSE INDICATED ON DRAWINGS. CONTRACTOR SHALL CONFIRM RATINGS PRIOR TO ORDERING EQUIPMENT. PROVIDE ELECTRICAL PROTECTION TO EQUIPMENT IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS AND PER NATIONAL ELECTRICAL CODE REQUIREMENTS.
21. CONTRACTOR SHALL REVIEW EQUIPMENT REQUIREMENTS OF OTHER TRADES AND PROVIDE POWER CIRCUITS AND CONNECTIONS TO ELECTRICALLY OPERATED EQUIPMENT.
22. PROVIDE SEISMIC BRACING FOR ALL PENDANT LIGHT FIXTURES, FREESTANDING ELECTRICAL DISTRIBUTION EQUIPMENT, MOTOR CONTROL CENTERS ETC, AND CONDUIT RACKS PER SEISMIC CRITERIA 2016 UBC REQUIREMENTS INCLUDING ENGINEERED LOAD CALCULATIONS COMPLETE WITH SWAY BRACING CRITERIA.
23. EFFECTIVELY BOND ELECTRICAL CABINETS, ENCLOSURES AND CONDUIT RACEWAYS TO CODE APPROVED GROUND AS PART OF THE CONTINUOUS GROUNDING SYSTEM.
24. MEASURE THE MAIN 3-PHASE AND PHASE TO NEUTRAL SERVICE VOLTAGE PRIOR TO ENERGIZING ANY PANELS OR EQUIPMENT. AVOID ENERGIZING 277V LIGHTING PANELS WITH VOLTAGE ABOVE 282V.
25. SERVICE VOLTAGE PRIOR TO ENERGIZING ANY PANELS OR EQUIPMENT. AVOID ENERGIZING 208V PANELS PHASE TO NEUTRAL VOLTAGE ABOVE 130 VOLTS. TRANSFORMER TAP SETTING MAY REQUIRE CHANGING.
26. MEASURE THE MAIN SECONDARY 1-PHASE AND PHASE TO NEUTRAL SERVICE VOLTAGE PRIOR TO ENERGIZING ANY PANELS OR EQUIPMENT. AVOID ENERGIZING 240V PANELS PHASE TO NEUTRAL VOLTAGE ABOVE 130 VOLTS. TRANSFORMER TAP SETTING MAY REQUIRE CHANGING.
27. DO NOT SUBSTITUTE SPECIFIED MATERIAL OR EQUIPMENT WITHOUT FIRST OBTAINING APPROVAL FROM THE OWNER OR HIS REPRESENTATIVE.
28. IDENTIFY ALL ABOVE CEILING JUNCTION BOXES COVERS WITH PANEL AND CIRCUITS IN LEGIBLE PRINT USING BLACK INDELIBLE INK.
29. LABEL ALL WALL AND/OR WIREMOLD MOUNTED OUTLET DEVICES WITH PANEL CIRCUIT IDENTIFICATION WITH BOLD TYPE-PRINTED LABELING. BLACK LETTERING ON WHITE BACKGROUND PREFERRED.
30. DERATE CONDUCTORS IN RACEWAYS IN ACCORDANCE WITH NEC CODE REQUIREMENTS. PANEL FEEDERS TO WIREMOLDS CAN ENTER AT VARIOUS LOCATIONS TO LIMIT CONDUCTOR CIRCUITS PER WIREMOLD CAPACITIES.
31. ELECTRICAL RACEWAYS BETWEEN STRUCTURES NEED TO BE SUFFICIENTLY FLEXIBLE TO WITHSTAND RELATIVE MOTION OF SUPPORT POINTS WHERE EXPANSION JOINTS OCCUR. THE CONTRACTOR SHALL COORDINATE WITH STRUCTURAL / ARCHITECTURAL DRAWINGS AND PROVIDE FLEXIBLE CONDUITS AT THE EXPANSION JOINTS. FLEXIBLE CONDUIT SHALL BE MAXIMUM OF 6' WITH LESS 45° BENDS TOTAL.

ABBREVIATIONS

A	AMPERE	KV	KILOVOLT
ABV	ABOVE	KVA	KILOVOLT AMPERES
AF	AMP FRAME OR AMP FUSE	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	LTG	LIGHTING
ARCH	ARCHITECTURAL	MCM	THOUSAND CIRCULAR MILS
AS	AMP SWITCH	MDF	MAIN DISTRIBUTION FRAME
AT	AMP TRIP	MECH	MECHANICAL
ATS	AUTOMATIC TRANSFER SWITCH	MH	MANHOLE
BKR	BREAKER	MTD	MOUNTED
BLDG	BUILDING	MTG	MOUNTING
C	CONDUIT	(N)	NEW
CATV	CABLE TELEVISION	NC	NORMALLY CLOSED
CB	CIRCUIT BREAKER	NIC	NOT IN CONTRACT
CD	CANDELAS	NIEC	NOT IN ELECTRICAL CONTRACT
CKT	CIRCUIT	NO	NUMBER/ NORMALLY OPEN
CL	CENTER LINE	NTS	NOT TO SCALE
CLG	CEILING	O.C.	ON CENTER
CO	CONDUIT ONLY	P	POLE CIRCUIT BREAKER
CTR	CENTER	PA	PUBLIC ADDRESS
(D)	DEMOLISH	PB	PULL BOX
DET	DETAIL	PF	POWER FACTOR
DIM	DIMENSION	PH	PHASE
DISTR	DISTRIBUTION	PNL	PANEL
DWG	DRAWING	(R)	EXISTING TO BE RELOCATED
(E)	EXISTING	REQD	REQUIRED
EM	EMERGENCY	REQT	REQUIREMENT(S)
EQPT	EQUIPMENT	RM	ROOM
FA	FIRE ALARM	RSG	RIGID STEEL CONDUIT
FACP	FIRE ALARM CONTROL PANEL	SHT	SHEET
(F)	FUTURE	SW	SWITCH
FIN	FINISH	SWBD	SWITCHBOARD
FL	FLOOR	TC	TERMINAL CABINET
G , GND	GROUND	TEL	TELEPHONE
HGT	HEIGHT	TYP	TYPICAL
HP	HORSEPOWER	UON	UNLESS OTHERWISE NOTED
IC	INTERCOM	V	VOLT
IDF	INTERMEDIATE DISTRIBUTION FRAME	W	WATT
JB	JUNCTION BOX	WP	WEATHERPROOF
KAIC	KILOAMPERE INTERRUPTING CAPACITY	XFMR	TRANSFORMER

GENERAL ANCHORAGE NOTES:

MEP COMPONENT ANCHORAGE NOTE:

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1615A.1.18 THOUGH 1615A.1.26 AND ASCE 7-10 CHAPTER 13, 26, AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRE) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAT 8 HOURS AND HEAVIER THAT 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING AND CONDUIT.

A. COMPONENTS WEIGHTING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

B. COMPONENTS WEIGHTING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE:

PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.8, 13.6.7, 13.6.5.6 AND 2016 CBC, SECTION 1615A.1.24, 1615A.1.25 AND 1615A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G. SMACNA OR OSHPD OPM), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEM. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP☐ MD☐ PP☐ E☒ - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP☐ MD☐ PP☐ E☐ - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVED (OPM #) #_____.

MP☐ MD☐ PP☐ - OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2008), INCLUDING ANY ADDENDA. FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL AND CONNECTION LEVEL FOR THE PROJECT AND CONDITIONS.

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REGISTERED PROFESSIONAL ENGINEER — GREGORY S. FERRANTE — E16890 Exp. 06/30/23 — ELECTRICAL — STATE OF CALIFORNIA

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JOB # EK201169.00

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400 County Center
Redwood City, CA

Maple Street
Correctional Facility
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Solar Shade Structure

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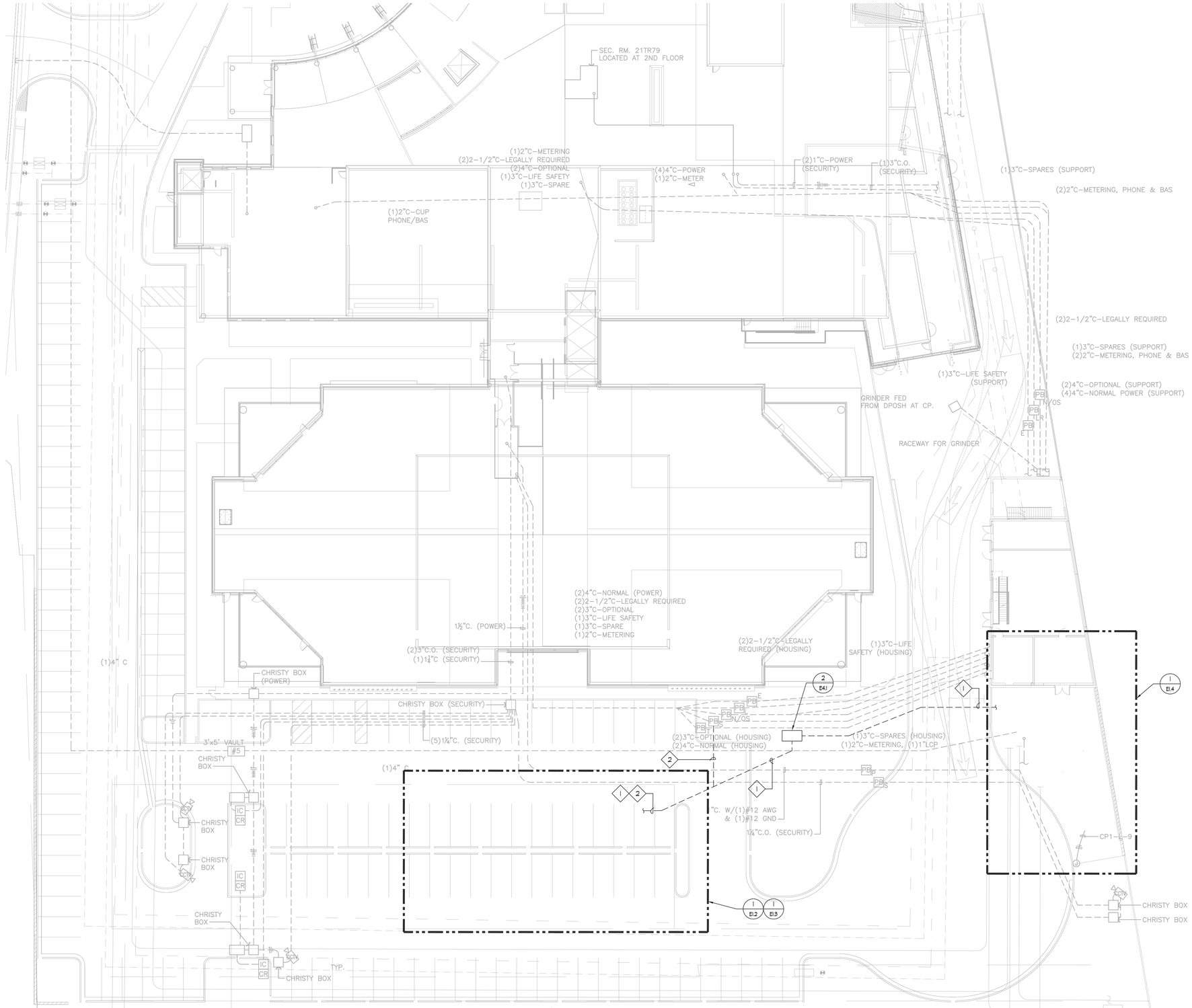
ELECTRICAL COVER PAGE

E0.1

BA 21-001



GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE UNDERGROUND REQUIREMENTS WITH ALL OTHER TRADES TO AVOID CONFLICTS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SAW CUTTING AND REMOVAL OF EXISTING SURFACES TO FACILITATE UNDERGROUND SYSTEMS. THE CONTRACTOR SHALL PATCH AND REPAIR ALL DAMAGED AND CUT SURFACES TO MATCH ADJACENT.
3. CONTRACTOR TO SITE SURVEY EXISTING CONDITIONS AND LOCATIONS OF EXISTING UNDERGROUND SYSTEMS, WHERE NEW TRENCH WORK OCCURS PRIOR TO BIDDING. CONTRACTOR SHALL TAKE PROPER PRECAUTIONS TO ENSURE EXISTING UNDERGROUND SYSTEMS/CONDUIT/PIPES ARE NOT DAMAGED DURING INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR ANY REPAIRS REQUIRED IN THE EVENT THE EXISTING UNDERGROUND SYSTEMS ARE DAMAGED AS A RESULT OF THE NEW ELECTRICAL TRENCH WORK.
4. CONTRACTOR SHALL COORDINATE RECOMMENDED ELECTRICAL MILESTONE PLANS WITH THE ARCHITECTURAL MILESTONE PLANS TO ENSURE APPROPRIATE WORK IS COMPLETED DURING EACH MILESTONE.

CONDUIT SCHEDULE:

1. (N) (4) 2"C - PV INVERTER
2. (N) (2) 2"C - SIGNAL

1 ELECTRICAL NEW SITE PLAN

E1.1

SCALE: 1" = 20'-0"

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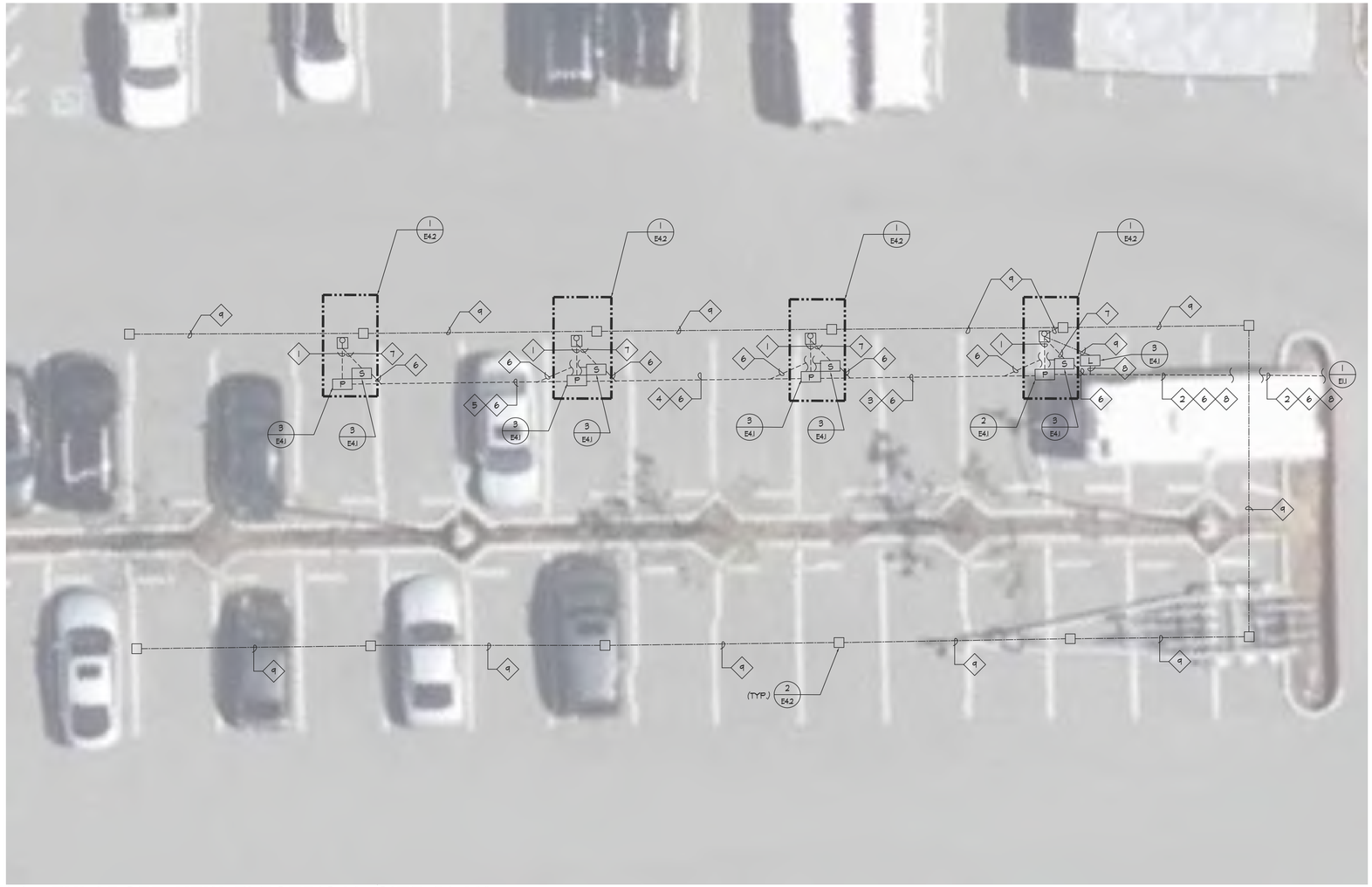
SAN MATEO CO. BLDG. INSP. DIV.

ELECTRICAL
NEW SITE PLAN
E1.1

BA 21-001



1 E1.2 **ENLARGED NEW ELECTRICAL SITE PLAN**

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

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE UNDERGROUND REQUIREMENTS WITH ALL OTHER TRADES TO AVOID CONFLICTS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SAW CUTTING AND REMOVAL OF EXISTING SURFACES TO FACILITATE UNDERGROUND SYSTEMS. THE CONTRACTOR SHALL PATCH AND REPAIR ALL DAMAGED AND CUT SURFACES TO MATCH ADJACENT.
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4. CONTRACTOR SHALL COORDINATE RECOMMENDED ELECTRICAL MILESTONE PLANS WITH THE ARCHITECTURAL MILESTONE PLANS TO ENSURE APPROPRIATE WORK IS COMPLETED DURING EACH MILESTONE.

CONDUIT SCHEDULE:

1. (N) (1) 1 ¼"C - PV INVERTER
2. (N) (4) 2"C - PV INVERTER
3. (N) (3) 2"C - PV INVERTER
4. (N) (2) 2"C - PV INVERTER
5. (N) (1) 2"C - PV INVERTER
6. (N) (2) 2"C - SIGNAL
7. (N) (2) 1 1/4"C - SIGNAL
8. (N) (1) 2"C - LIGHTING
9. (N) (1) 1 ¼"C - LIGHTING

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NEW SITE PLAN
E1.2
BA 21-001

4-10-6	4-6-3	4-6-2	4-1-9	4-1-8	3-7-5	3-7-4	3-3-1	3-2-10	2-8-7	2-8-6	2-4-3	2-4-2	1-4-9	1-4-8	1-5-5	1-5-4	1-1-1
4-10-5	4-6-4	4-6-1	4-1-10	4-1-7	3-7-6	3-7-3	3-3-2	3-2-9	2-8-8	2-8-5	2-4-4	2-4-1	1-4-10	1-4-7	1-5-6	1-5-3	1-1-2
4-10-4	4-6-5	4-5-10	4-2-1	4-1-6	3-7-7	3-7-2	3-3-3	3-2-8	2-8-9	2-8-4	2-4-5	2-3-10	1-10-1	1-4-6	1-5-7	1-5-2	1-1-3
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4-8-5	4-8-4	4-4-1	4-3-10	3-9-7	3-9-6	3-5-3	3-5-2	2-10-9	2-10-8	2-6-5	2-6-4	2-2-1	2-1-10	1-7-7	1-7-6	1-3-3	1-3-2

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE UNDERGROUND REQUIREMENTS WITH ALL OTHER TRADES TO AVOID CONFLICTS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SAW CUTTING AND REMOVAL OF EXISTING SURFACES TO FACILITATE UNDERGROUND SYSTEMS. THE CONTRACTOR SHALL PATCH AND REPAIR ALL DAMAGED AND CUT SURFACES TO MATCH ADJACENT.
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4. CONTRACTOR SHALL COORDINATE RECOMMENDED ELECTRICAL MILESTONE PLANS WITH THE ARCHITECTURAL MILESTONE PLANS TO ENSURE APPROPRIATE WORK IS COMPLETED DURING EACH MILESTONE.
5. SOLAR PANEL SHOULD BE SUNPOWER 410W X SERIES #X21-410-COM PANEL. OR APPROVED EQUAL PRODUCTS WILL BE REVIEWED AND APPROVED PROVIDED THAT PROVED SIMILAR PERFORMANCE CHARACTERISTICS TO THE SUN POWER SOLAR PANEL. THE CONTRACTOR WILL BE RESPONSIBLE FOR RESIZING THE STRINGS AND PROVIDING STRINGS CALCULATIONS TO CONFIRM QUANTITY OF PANELS PER STRING. OVERALL SYSTEM SIZE AND FOOTPRINT SHOULD BE EQUIVALENT TO THE SUN POWER SOLAR SYSTEM.
6. MOUNTING OF THE PANELS TO THE STRUCTURE SHALL BE THE RESPONSIBILITY TO CONTRACTOR. RACKING SYSTEM AND MOUNTING SHALL BE DESIGNED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR SHALL PROVIDE SUBMITTAL WITH ALL DETAILING AND CALCULATIONS REQUIRED FOR RACKING/MOUNTING SYSTEM AND HOW IT IS SECURED TO THE STRUCTURE.

1 PV PANEL LAYOUT

E1.3

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

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PV PANEL LAYOUT

E1.3

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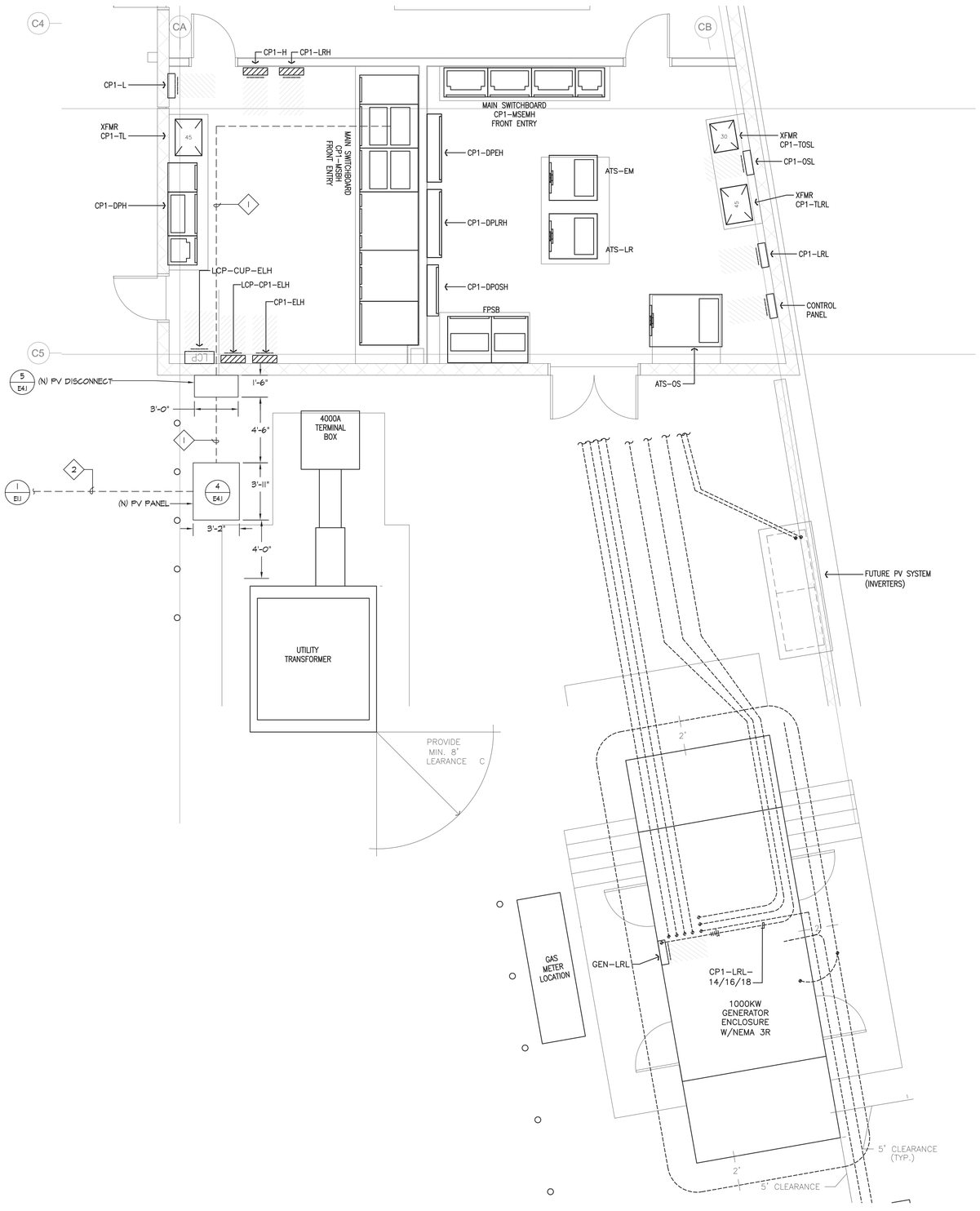

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CONDUIT SCHEDULE:

1. 2 SET OF (N) 4"C WITH (4) #600KCMIL + (1) #1/0 CU GND
2. (N) (4) 2"C - PV INVERTER

1 E1.4 **ENLARGED ELECTRICAL EQUIPMENT YARD**

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

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ENLARGED ELECTRICAL EQUIPMENT YARD
E1.4

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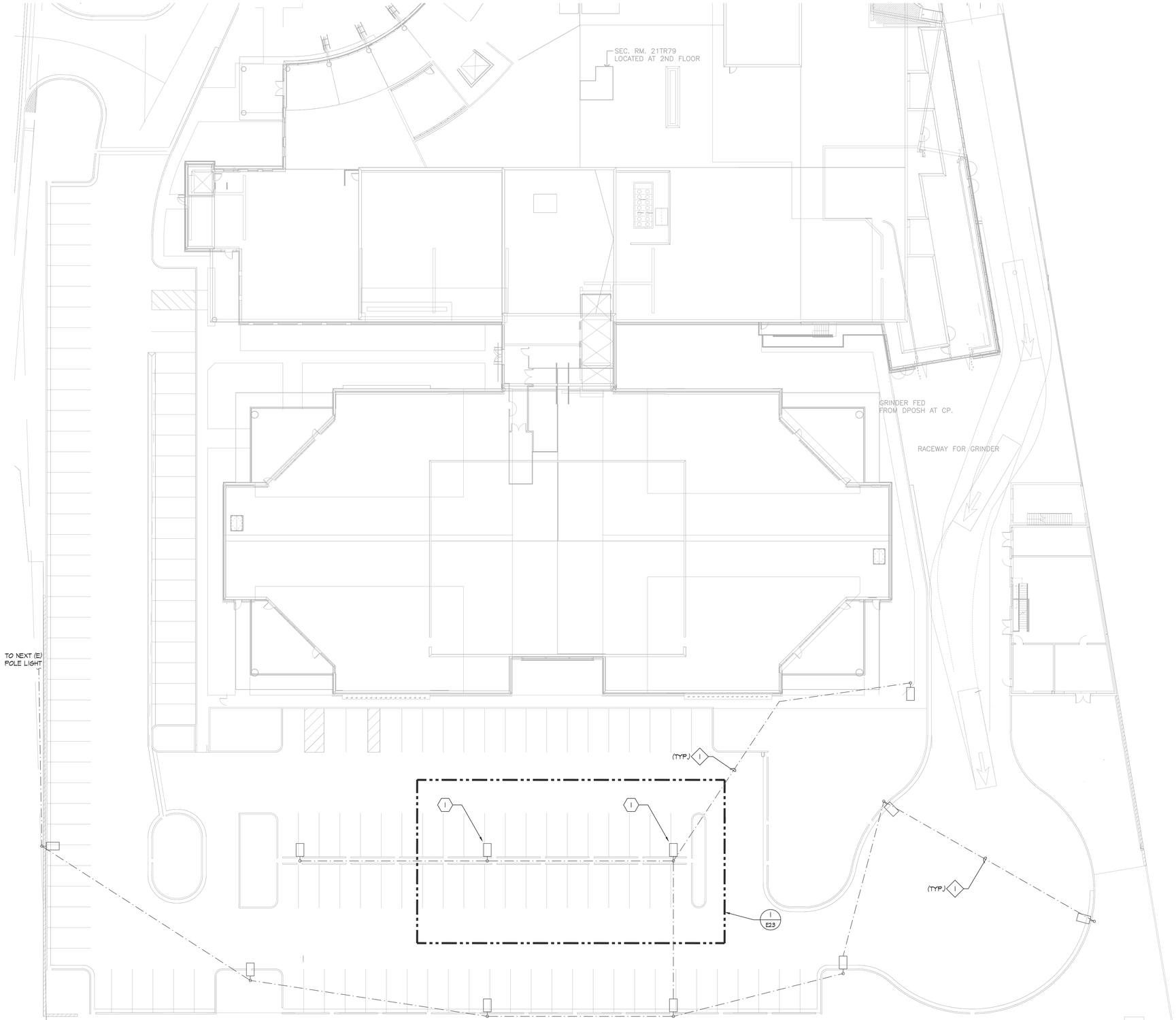

SHEET NOTES:

1. EXISTING LIGHT POLE TO BE REMOVED. PROVIDE NEW PULLBOX IN PLACE FOR RECONNECTING ANY DOWNSTREAM LIGHT POLES AS REQUIRED. SEE NEW LIGHTING SITE PLAN FOR ADDITIONAL REQUIREMENTS.

CONDUIT SCHEDULE:

1. (E) UNDERGROUND CONDUIT WITH CABLES

1 / E2.1 **DEMOLITION LIGHTING SITE PLAN**

SCALE: 1" = 20'-0"

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DEMOLITION LIGHTING SITE PLAN
E2.1

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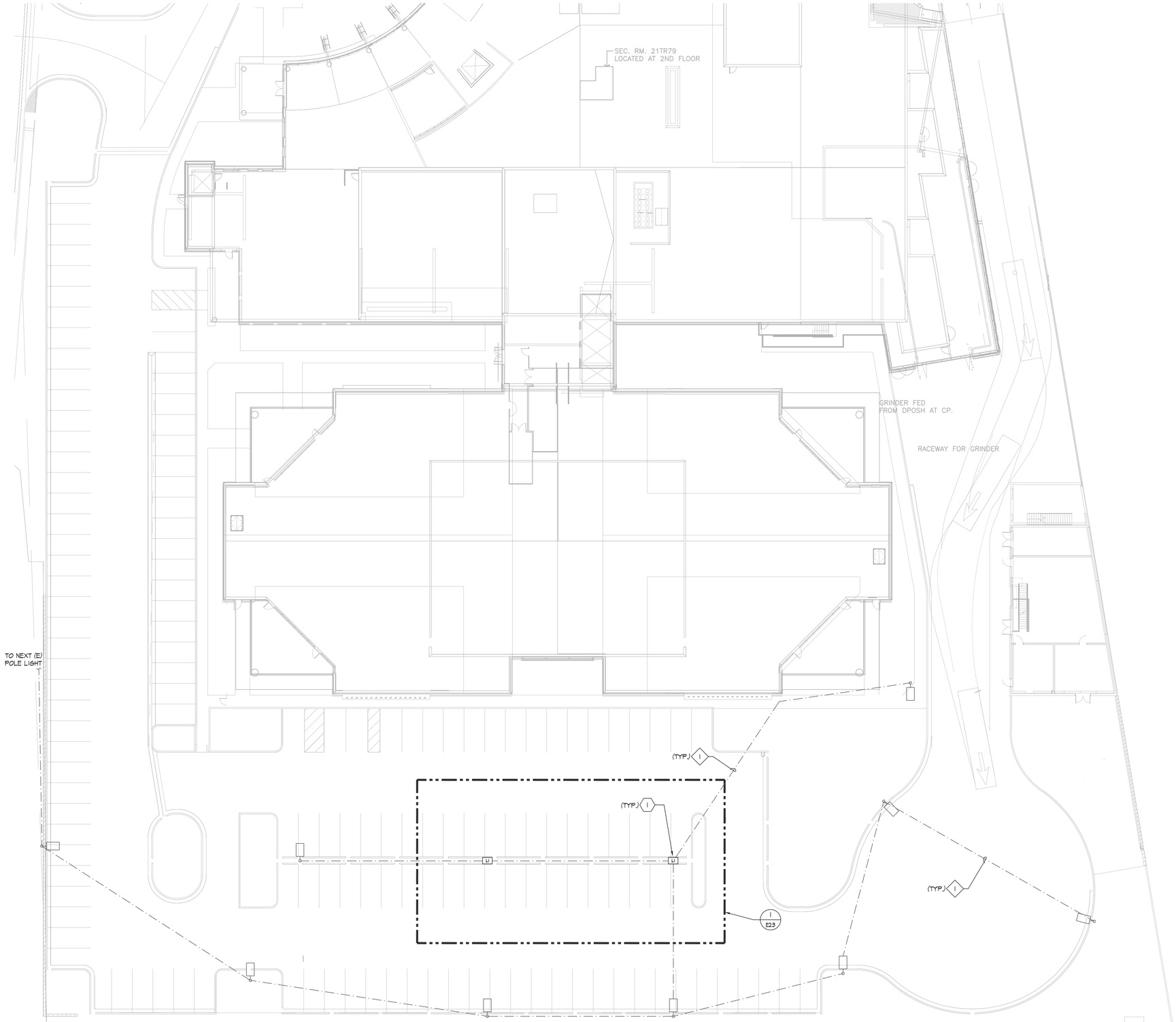

1 E2.2 **NEW LIGHTING SITE PLAN**

SCALE: 1" = 20'-0"

SHEET NOTES:

1. NEW ELECTRICAL PULLBOX. CONTRACTOR IS RESPONSIBLE FOR RECONNECTING DOWNSTREAM LIGHT POLES AS REQUIRED. EXTEND AND MODIFY EXISTING UNDERGROUND LIGHTING CONDUIT AND CONDUCTORS AS NEEDED.

CONDUIT SCHEDULE:

1 (E) UNDERGROUND CONDUIT WITH CABLES

PULLBOX SCHEDULE:

LI - BIOIT LIGHTING PULLBOX WITH TRAFFIC RATED LID. LABEL LID 'LIGHTING'.

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NEW LIGHTING SITE PLAN
E2.2

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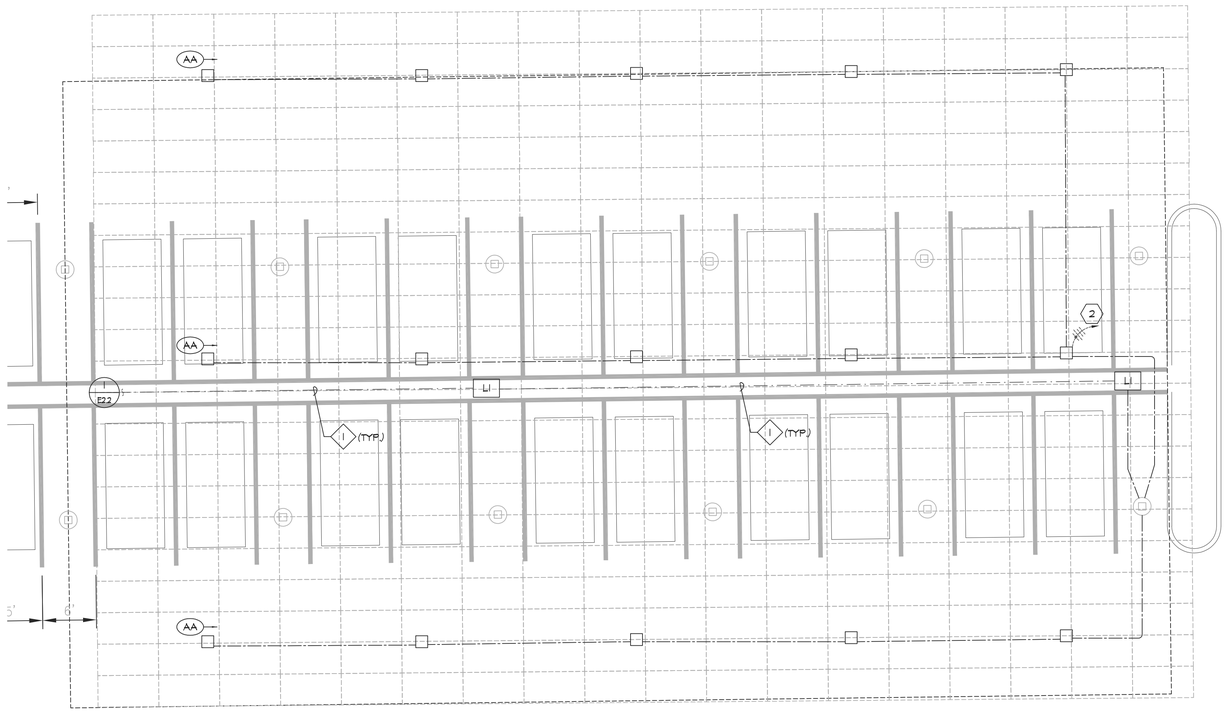

SHEET NOTES:

1. NEW ELECTRICAL PULLBOX. CONTRACTOR IS RESPONSIBLE FOR RECONNECTING DOWNSTREAM LIGHT POLES AS REQUIRED. EXTEND AND MODIFY EXISTING UNDERGROUND LIGHTING CONDUIT AND CONDUCTORS AS NEEDED.
2. CONNECT NEW CANOPY FIXTURE TO THE EXISTING 277V LIGHTING CIRCUITRY SERVING IN THIS AREA AS REQUIRED.

CONDUIT SCHEDULE:

1. (E) UNDERGROUND CONDUIT WITH CABLES

PULLBOX SCHEDULE:

LI - BIOIT LIGHTING PULLBOX WITH TRAFFIC RATED LID. LABEL LID 'LIGHTING'.

1 / E2.3 **ENLARGED LIGHTING SITE PLAN**

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

FIXTURE SCHEDULE

TYPE	LAMPS	LAMP QUANTITY	BALLAST/ DRIVER	MOUNTING	DESCRIPTION	WEIGHT
					ALL FIXTURE TYPES FOLLOWED BY AN "E" AND HALF SHADED ON THE FLOOR PLANS ARE EMERGENCY FIXTURES. FIXTURES SHALL BE CONNECTED TO THE LIGHTING INVERTER WITH A MINIMUM OF 90 MINUTES. EMERGENCY FIXTURES SHALL WIRED FOR SWITCHING CAPABILITIES AND SHALL BE SWITCHED PER THE FLOOR PLAN. EXIT SIGNS SHALL BE CONNECTED TO THE EMERGENCY LIGHTING CIRCUIT.	
AA	L.E.D. 38W	N/A	0-10V DIMMING DRIVER	SURFACE MOUNTED IN CANOPY WALKWAY	SLENDERFORM SFC/SFCR GARAGE AND CANOPY LUMINAIRE FEATURES HIGH OUTPUT LEDS AND A SLEEK, YET POWERFUL, LOW PROFILE DESIGN. THE THIN 3" PROFILE COMBINED WITH LED HIGH PERFORMANCE, RUGGED EXTRUDED ALUMINUM HOUSING BODY WITH AN INTEGRAL LED THERMAL MANAGEMENT SYSTEM, WITH DIE CAST ALUMINUM END CAPS. GARDCO - SFC-5R-48L-250-NW-G2-277-MSY OR APPROVED EQUAL 277 VOLT	27 LBS

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ENLARGED LIGHTING SITE PLAN
E2.3

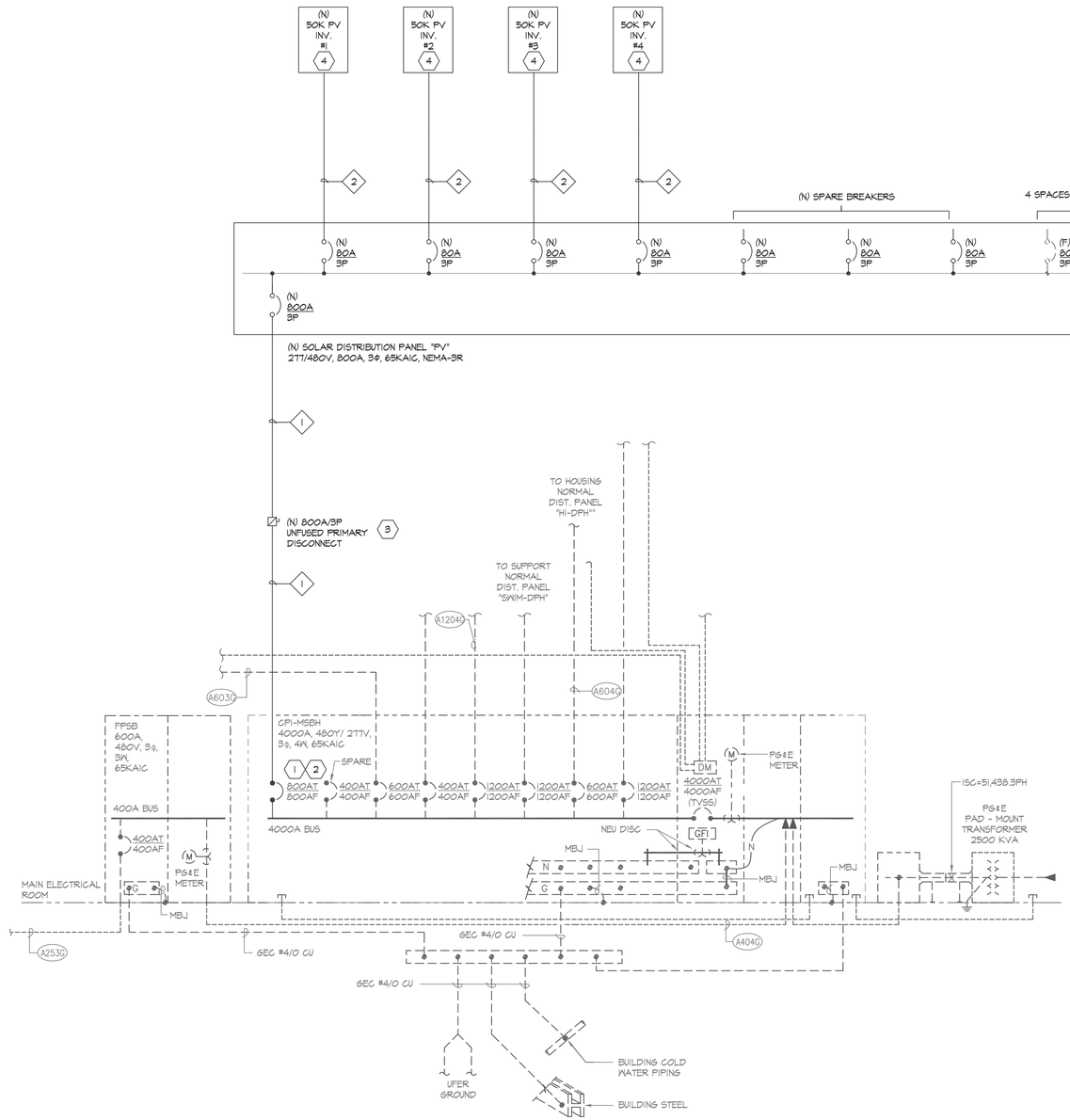
BA 21-001

SHEET NOTES:

1. INSTALL (N) BREAKER IN SPACE AT FURTHEST POINT FROM MAIN BREAKER.
2. PROVIDE NEW BREAKER. MATCH EXISTING BREAKER FRAME, STYLE AND AIC RATING.
3. DISCONNECT SHALL BE ON PG&E'S APPROVED LIST FOR PV SYSTEM DISCONNECTS.
4. (N) PV INVERTER WITH BUILT IN DISCONNECT SWITCH.

CONDUIT SCHEDULE:

1. 2 SET OF (N) 4"C WITH (4) #600KCMIL + (1) #1/0 CU GND
2. (N) 2"C WITH (4) #2 + (1) #6 CU GND



1 / E3.1 **SINGLE LINE DIAGRAM**

NOT TO SCALE

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BA 21-001

GENERAL NOTES:

1. TOTAL OF (4) ARRAYS WITH 396 SOLAR PHOTOVOLTAIC MODULES. SEE SOLAR PHOTOVOLTAIC MODULE LIST FOR SPECIFICATIONS. MODULE IS DESIGNED TO MEET UL 1703, UL 4703, UL FIRE SAFETY CLASS C, IEC 61215 ED.2, AND IEC 61730 CLASS A STANDARDS.
2. INVERTER HAS 6MMPT WITH 2 INPUTS PER MMPT.
3. AC DISCONNECT IS INTEGRAL TO THE INVERTER.
4. STRING INVERTERS RATED AT 50 KW OUTPUT AND IS RATED TO PROVIDE MAX 64A AT 480V AT AMBIENT TEMPERATURE BETWEEN -25 TO 60 DEG C. MAXIMUM INPUT CURRENT IS 120A. CEC WEIGHTED EFFICIENCY IS 97.5%. POWER FACTOR AT FULL LOAD IS GREATER THAN 0.99.
5. INVERTER HAS INTERNAL GROUND FAULT PROTECTION (GFDI) IN ACCORDANCE WITH UL 1741. AND INVERTER IS IN COMPLIANCE WITH UL 1741, IEEE 1547, CSA 107.1-01, IEEE C62.41.2, NEC ART. AND 690 REQUIREMENTS.
6. INVERTER WILL BE CONFIGURED FOR 480V SYSTEM TO ALIGN WITH MAIN SERVICE PANEL.
7. MAIN SERVICE PANEL IS 3 PHASE, 480VAC, 4000A, 4-WIRE.
8. ALL CONDUCTORS SIZED ACCORDING TO NEC TABLE 310.16 CONDUIT COPPER AND NEC ARTICLE 690.8. ALSO SEE DESIGN CALCULATIONS.
9. ALL CONDUITS SIZED ACCORDING TO NEC TABLE C.1 AND TABLE 310.15 (B)(2)(a). ALSO SEE DESIGN CALCULATIONS.
10. ALL ELECTRICAL WORK SHALL COMPLY WITH THE 2019 CEC CODE, UNLESS OTHERWISE NOTED
11. MODULE AND ARRAY GROUNDING IS PER RACKING MANUFACTURER'S SPECIFICATIONS.
12. STRING CONDUCTORS MAXIMUM VOLTAGE DROP IS 1%, INVERTER FEEDER MAXIMUM VOLTAGE DROP IS 2%.
13. PROVIDE ALL PV SYSTEM LABELING REQUIREMENTS PER CEC AND SHEET E4.4.

CONDUIT SCHEDULE:

1 (2) #10 2KV 90° PV WIRE & (1) #6 BARE CU GND

PHOTOVOLTAIC SYSTEM:

COMPONENT	MANUFACTURER AND MODEL NUMBER
1. PHOTOVOLTAIC MODULES	SUNPOWER SPR-X21-470-COM (470W)
2. STRING INVERTERS	SMA SUNNY TRIPOWER CORE1 50-US

MODULE SPECS:(NOMINAL)
- ISC = 6.45A
- VOC = 81.5V
- IPM = 6.06A
- VPM = 77.6V
- STC = 470W
- PTC = 328.7W

INVERTER SPECS: CORE1 50-US
- NOMINAL DC INPUT = 120A
- MAX CONTINUOUS AC OUTPUT = 64A/PHASE @ 480V
- CEC EFF. = 97.5%
- AC OUTPUT VOLTAGE = 480V, 4 WIRE, 60HZ

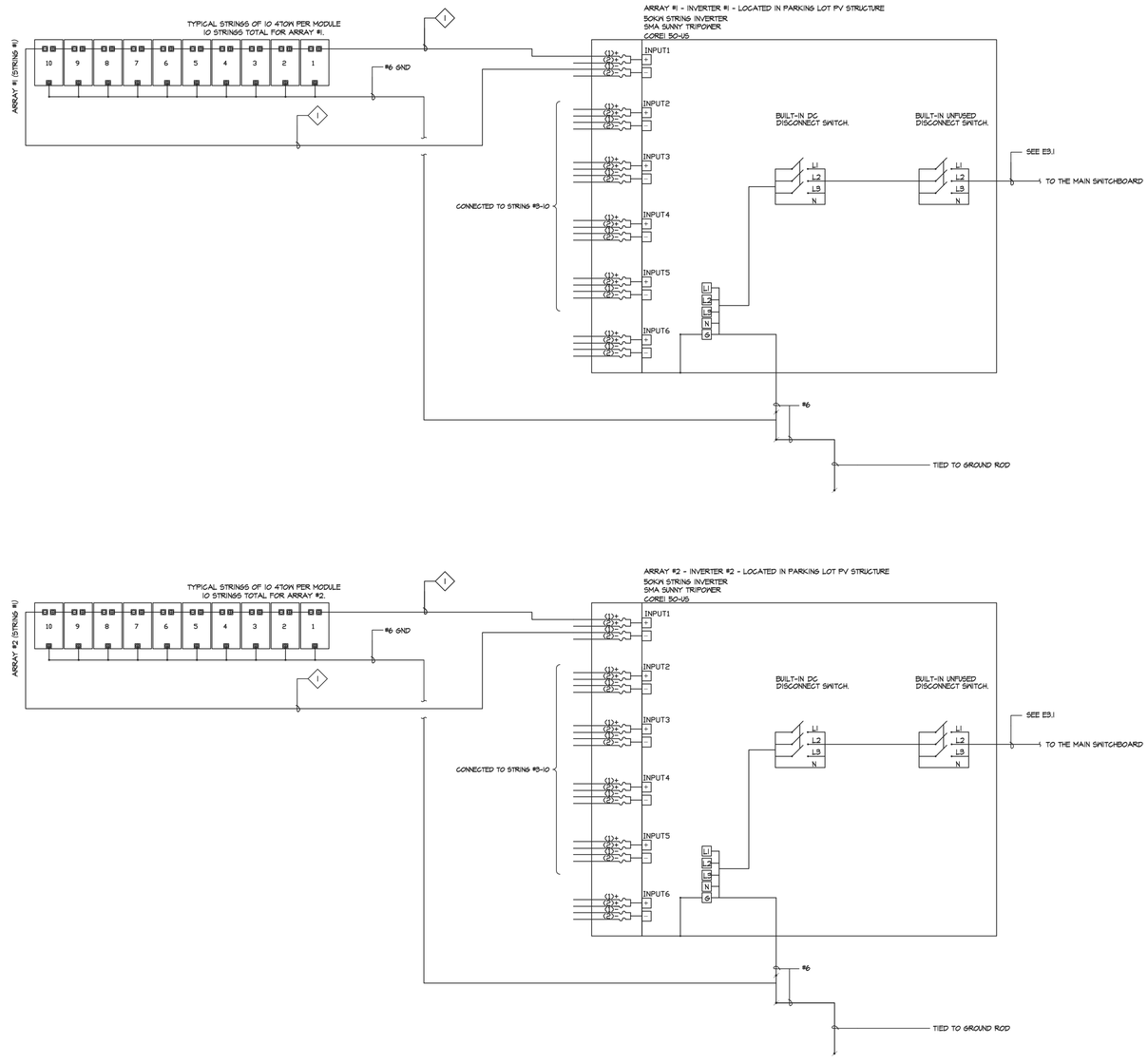
ARRAY #1
INVERTER CORE1 50-US
TOTAL NUMBER OF MODULES PER ARRAY = 100
- MODULES PER STRINGS = 10
- TOTAL NUMBER OF STRINGS = 10 PER ARRAY

ARRAY #2
INVERTER CORE1 50-US
TOTAL NUMBER OF MODULES PER ARRAY = 100
- MODULES PER STRINGS = 10
- TOTAL NUMBER OF STRINGS = 10 PER ARRAY

ARRAY #3
INVERTER CORE1 50-US
TOTAL NUMBER OF MODULES PER ARRAY = 100
- MODULES PER STRINGS = 10
- TOTAL NUMBER OF STRINGS = 12 PER ARRAY

ARRAY #4
INVERTER CORE1 50-US
TOTAL NUMBER OF MODULES PER ARRAY = 96
- MODULES PER STRINGS = 10
- TOTAL NUMBER OF STRINGS = 9 PER ARRAY
- MODULES PER STRINGS = 6
- TOTAL NUMBER OF STRINGS = 1 PER ARRAY

NOTE: SOLAR PANEL SHOULD BE SUNPOWER 470W X SERIES #X21-470-COM PANEL, OR APPROVED EQUAL. PRODUCTS WILL BE REVIEWED AND APPROVED PROVIDED THAT PROVED SIMILAR PERFORMANCE CHARACTERISTICS TO THE SUN POWER SOLAR PANEL. THE CONTRACTOR WILL BE RESPONSIBLE FOR RESIZING THE STRINGS AND PROVIDING STRINGS CALCULATIONS TO CONFIRM QUANTITY OF PANELS PER STRING. OVERALL SYSTEM SIZE AND FOOTPRINT SHOULD BE EQUIVALENT TO THE SUN POWER SOLAR SYSTEM.



1 E3.2 **PV RISER DIAGRAM**

SCALE: NOT TO SCALE

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PV RISER DIAGRAM

E3.2

BA 21-001

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INVERTER CORE1 50-US
TOTAL NUMBER OF MODULES PER ARRAY = 100
- MODULES PER STRINGS = 10
- TOTAL NUMBER OF STRINGS = 12 PER ARRAY

ARRAY #4
INVERTER CORE1 50-US
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- MODULES PER STRINGS = 10
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- MODULES PER STRINGS = 6
- TOTAL NUMBER OF STRINGS = 1 PER ARRAY

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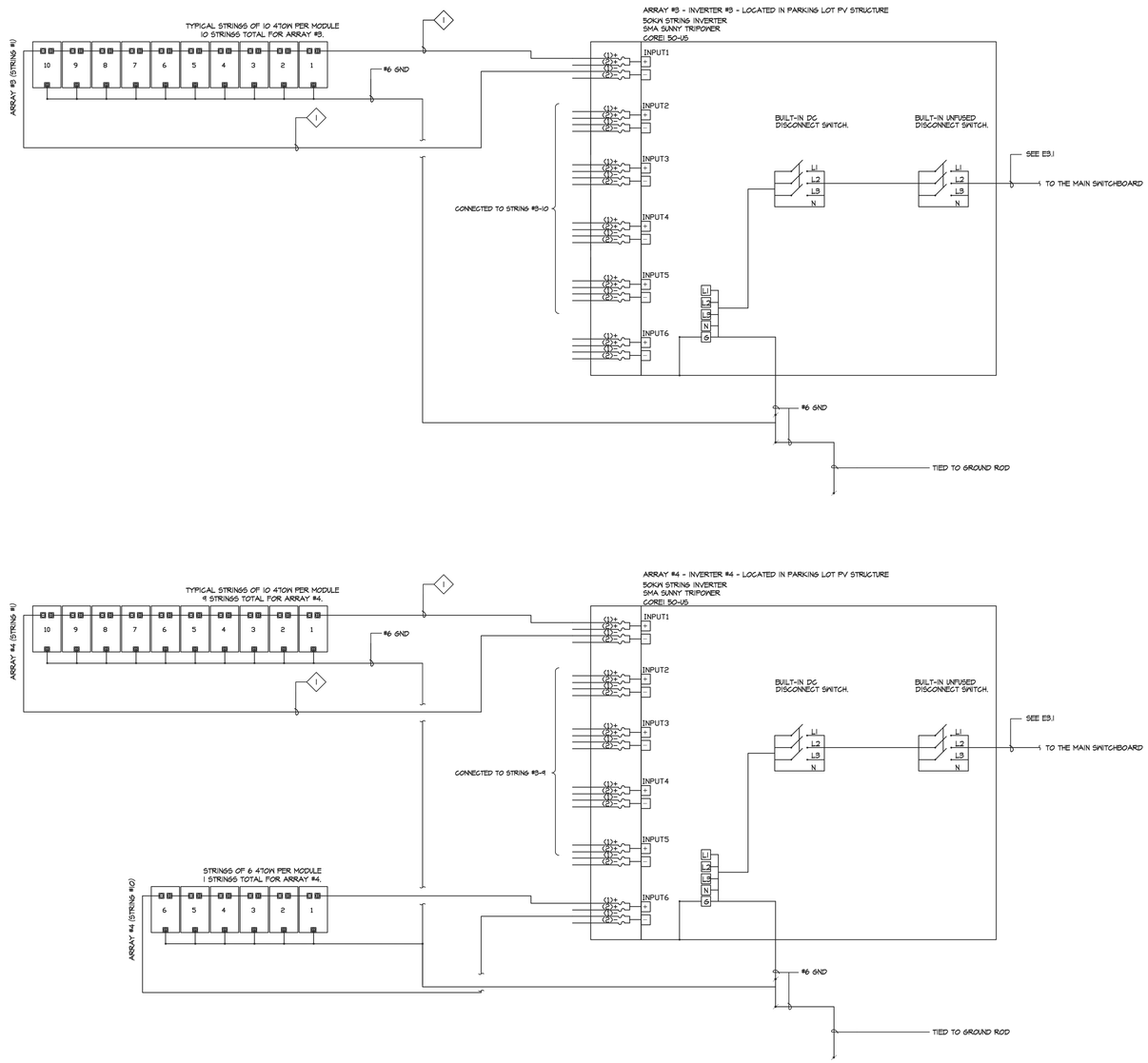

1 / E3.3 **PV RISER DIAGRAM**

SCALE: NOT TO SCALE

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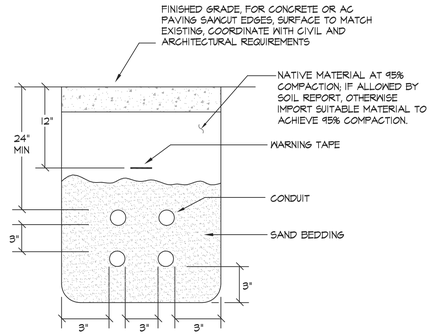
PV RISER DIAGRAM

E3.3

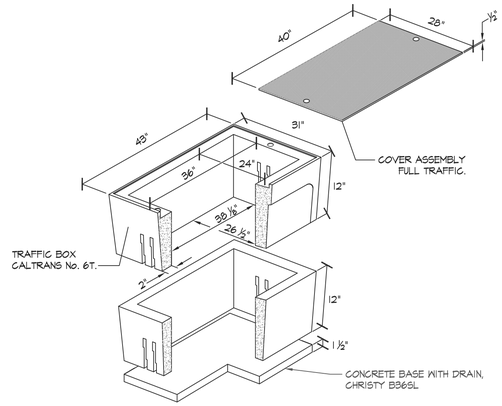
BA 21-001



1. COORDINATE TRENCH CONDUIT LAYOUT WITH OTHER CONDUIT SYSTEMS.

1 E4.1 TYPICAL TRENCH DETAIL

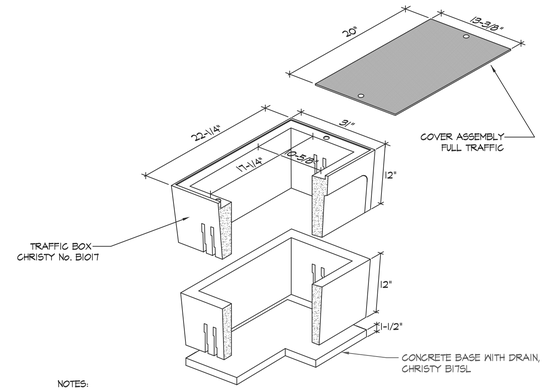
NOT TO SCALE



NOTE:
HIGH DENSITY REINFORCED CONCRETE BOX WITH NON-SETTING SHOULDERS POSITIONED TO MAINTAIN GRADE AND FACILITATE BACK FILLING. APPROXIMATE DIMENSIONS SHOWN.

2 E4.1 B2436 TRAFFIC BOX DETAIL

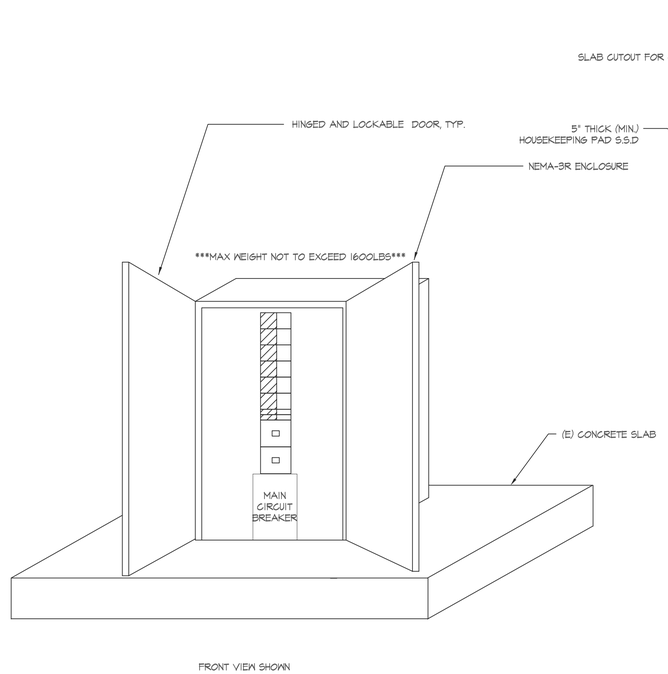
SCALE: N.T.S.



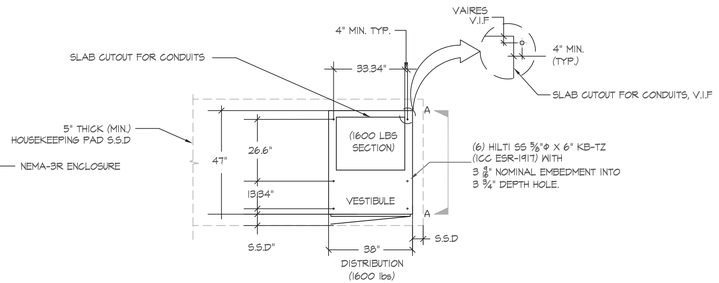
NOTES:
1. HIGH DENSITY REINFORCED CONCRETE BOX WITH NON-SETTING SHOULDERS POSITIONED TO MAINTAIN GRADE AND FACILITATE BACK FILLING. APPROXIMATE DIMENSIONS SHOWN.
2. ALL CONDUITS SHALL ENTER FROM SIDES OF PULL BOX. CONTRACTOR SHALL PROVIDE PULL BOX EXTENSION AS REQUIRED. NO CONDUITS SHALL BE ALLOWED FROM THE BOTTOM OF THE PULL BOX.
3. CONTRACTOR SHALL STACK CONDUITS AS REQUIRED TO MEET THE NEC CODE REQUIREMENTS.
4. PROVIDE BELL ENDS ON ALL CONDUIT.

3 E4.1 B1017 ELECTRICAL VAULT

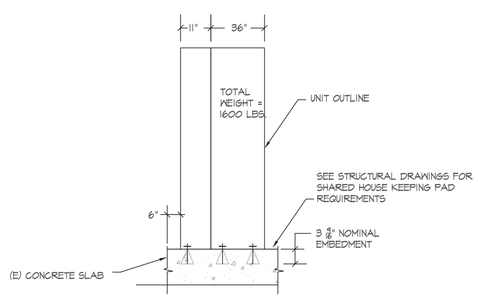
NOT TO SCALE (FULL TRAFFIC COVER)



FRONT VIEW SHOWN



PLAN VIEW

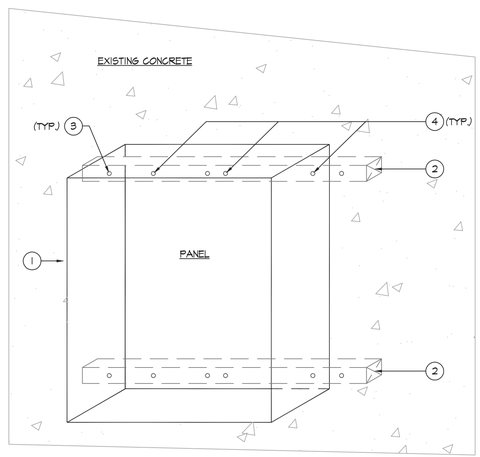


SECTION A-A

Note:
SEE STRUCTURAL DRAWING SHEET S0.2 FOR POST-INSTALLED ANCHOR INSPECTION AND TESTING.

4 E4.1 NEMA 3R 800A DISTRIBUTION PANEL ELEVATION

NOT TO SCALE



1. NEMA-3R ELECTRICAL ELECTRICAL DISCONNECT MAX WEIGHT (175LBS).
2. UNISTRUT P1000 MIN. 50" SPANNING OVER 3 STUDS.
3. PROVIDE CONCRETE ANCHORS. (1) BOLT PER WALL STUD, MINIMUM (3) STUDS.
4. PROVIDE ⅜" HEX HEAD CAP SCREW (MIN. OF 3) WITH ⅜" CHANNEL NUT.

5 E4.1 WALL MOUNTED PANEL INSTALLATION (100A-600A)

NOT TO SCALE

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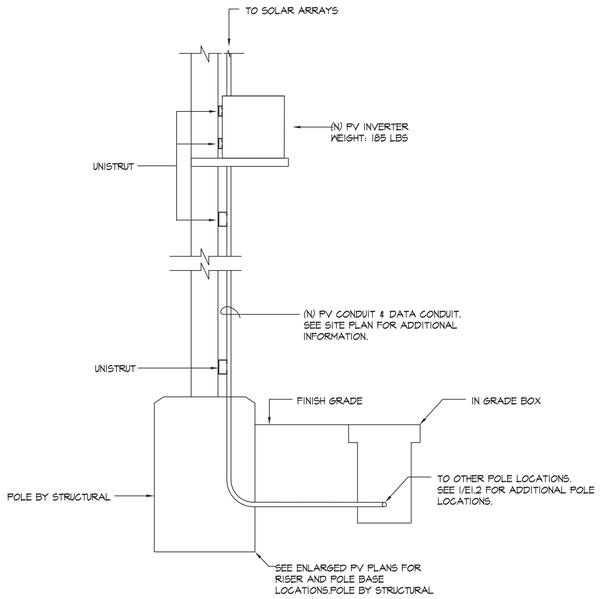
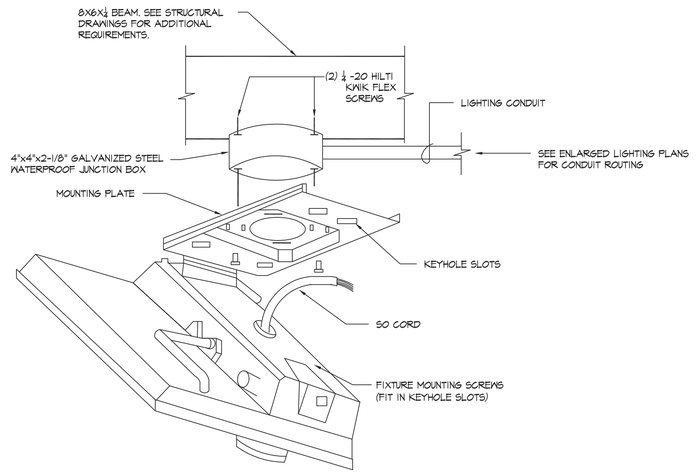
ELECTRICAL DETAILS
E4.1

BA 21-001



1 POLE RISER DETAIL (PV)

E4.2 NOT TO SCALE



MOUNTING PLATE INSTALLATION

1. SECURE MOUNTING PLATE TO WEATHER PROOF CAST METAL JUNCTION BOX. SEAL BETWEEN THE MOUTH OF CAST BOX AND MOUNTING PLATE WITH TRV SILICONE SEALANT OR EQUIVALENT TO PREVENT WATER ENTRY.

2 SOLAR STRUCTURE LIGHT MOUNTING

E4.2 NOT TO SCALE

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ELECTRICAL
DETAILS
E4.2
BA 21-001

Electrical Design Calculations

PV System Specifications

1. System Size: 186kW / (4) 50kW inverters

2. System Components:

Component	
Photovoltaic Modules	SunPower 470W SPR-X21-470-COM
Inverters	SMA Sunny Tripower Core1 50-US
Mounting System	ProSolar

3. PV Module Specs:

Isc= 6.45A Vmp= 77.6V
Voc= 91.5V STC= 470W
Imp= 6.06A
Temp. Coefficient VOC (mV/DEG C)= -223.2mV/degC

4. Inverter Specs:

	50kW
CEC efficiency=	98%
Max Continuous AC Output=	64A
AC output Voltage=	480V
Phases=	3 phase

5. Array Strings:

Inverter Size =	1- 50kW	2-50kW	3-50kW	4-50kW
Mods per string =	10	10	10	10/6
# of Strings =	10	10	10	9/1
Total # Modules =	100	100	100	96

6. Array Wiring Data: Required Conductor Ampacity (NEC 690.8.B.1): 10.08A
Fuse Size (Next Size > Req. Cond. Amps.) Per Mfgr's data sheet: 15A
String Home Run Conductor Chosen: #10
Number of Current Carrying Conductors in Free Air: 2
Longest String Distance: 100 feet

Inverter Feeder Sizing

Inverter to Main Switchboard

1. NEC Required Wire Ampacity:
CEC-Required OCPD >= Inverter Maximum Continuous Output Current x 1.25 Continuous Duty

	50kW	
Max. Continuous Output Current =	64A	
CEC-Required OCPD >=	80A	
Overcurrent Protection (AC breaker) Size =	80A	Equals next higer Std. Size per CEC 240.6(A)

2. Wire Type and Size:

	50kW	
# of Parallel Conductors =	1	
# of Phases =	3	
Type =	THWN-2	
Conductor Size =	2	
Conductor Ampacity =	115	CEC 310.16 (75 degreeC column)

3. Working Voltage: 480V

4. Derated Ampacity of Wire:
Derated Amp = base ampacity x temp. correction factor x CCC derating factor

	50kW	
base ampacity =	115	CEC 310.16 (90 degree C column) degrees C
Average High Ambient Temperature =	86 deg F	
temperature correction factor =	1	
# of Current Carrying Conductors =	3	CEC 310.15(B)(2)(a))
CCC derating factor =	1	
Total derated Amperage =	115	

5. Grounding Electrode Conductor Size:

	50kW	
Ungrounded Conductor Size =	2	
GEC =	#6 Bare	CEC 250.66

6. Inverter Output Voltage Drop:

	50kW
Conductor Length =	350
Conductor Size =	2
Maximum Current Draw =	64
Volts Dropped =	7.3
% Voltage Drop =	1.57%

Array Specifications

Array Electrical Specifications (Per Inverter)

1. Maximum Power Point Current (at STC) Produced by Array:
Max. Imp = Imp x Number of Strings
Imp= 6.06A
# of Strings = 10
Max Imp = 60.6A

2. Short Circuit Current Produced by Array:
Array Isc = Isc x Number of Strings
Isc = 6.45A
# of Strings = 10
Array Isc = 64.5A

3. Maximum Power Point Voltage (at STC) Produced by Array:
Max Vmp = Vmp x Modules per String
Vmp = 77.6V
Modules per String = 10
Max Vmp = 776V

4. Open Circuit Voltage Produced by Array:
Array Voc = Voc x Modules per String
Voc = 91.5V
Moduls per String = 10
Array Voc = 915V

5. STC Watts Produced by Array;
STC Watts = Total Number of Modules x STC watts of Module

	50kW	50kW	
Total # Modules =	100	96	
STC Watts of Modules =	470	470	CEC 250.66
STC Watts =	47000	45120	

System Voltage Calculations

Maximum System Voltage Calculations

1. Lowest Ambient Temperature for Site:
Delta Celcius Temp. from STC= Record Low Temp. at Site - STC Temp
STC Temp= 25
Record Low Temp. at Site = -8.9
Delta Celcius Temp. from STC= -33.9

2. Low Temperature Voltage Multiplier (per NEC 690.7(A)):
LTVM=Delta Celcius Temp x Mfg. Voc Temp. Coeffecient/100
Mfg. Voc Temp. Coefficient = -0.2232
LTVM= 0.0756

3.Maximum System Voltage (DC) at Low Temperature:
Max. Voltage LT = ((LVTM)x(max voltage produced by array))+(max voltage by array)
Max voltage by array= 915V
Max Voltage Low Temp = 984V

Array Wiring

Array Wiring - PV source Circuits and Calculations (DC) CEC690.8 (A)(1) to (A)(4)

1. Wire Type/Size: #10 AWG (USE-2 or PV Wire in Free Air)

2. Temperature Derated Ampacity of HomeRun Wires in Free Air:
Tem. Derated Amps = base ampacity x temp. correction factor x CCC derating factor
base ampacity = 55A (CEC 310.17)
temp. corr. Factor = 0.91 (CEC 310.17 & 690.31(B))
CCC derating Factor = 1
Tem. Derated Amps = 50.05A

3. Temperature Derated Ampacity of HomeRun Wires in Conduit
Tem. Derated Amps = base ampacity x temp. correction factor x CCC derating factor
base ampacity = 55A
temp. corr. Factor = 1
CCC derating Factor = 0.5
Tem. Derated Amps = 27.5A

4. NEC Required Wire Ampacity:
CEC-Required Amp Rating = Isc x 1.25 max illumination x 1.25 continuous load
c 6.45A
CEC-Required Amp Rating= 10.08A

5. Equipment Ground Conductor Size:
Ground Size = #10 in Jacket or #6 Bare Copper

6. Overcurrent Protection (Fuse) Size:
Source Circuit Protective Fuse Size = 15A Equals next higher Standard Size per CEC 240.6(A)

7. PV Source Voltage Drop Calculation:
Voltage Drop (VD) = (2 x Length of Conductor x Conductor Resistance x Imp)/1000
Average Homerun Length = 100 feet
Conductor Resistance = 1.24 (CEC Chapter 9, Table 8, Uncoated Stranded Copper)
Module Imp/String = 6.06 (CEC 690.8(A)(1) through (B)(1))
VDC = 1.50V

Warmest Day Voltage (WDV)= # of modules/string x Vmp
WDV = 776.0V

Voltage Drop Percent = VD/WDV x 100
VD % = 0.19%

Combiner Box Corrected Voltage - WDV - VD
CBCV = 774.5V

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San Mateo County
Sheriff's Office
400 County Center
Redwood City, CA

Maple Street
Correctional Facility
1300 Maple St
Redwood City, CA 94063

Solar Shade Structure

REVISION DATE

RECEIVED
Jun 21 2023
San Mateo County
Building Inspection

JOB COPY
TO REMAIN ON
SITE AT ALL TIMES

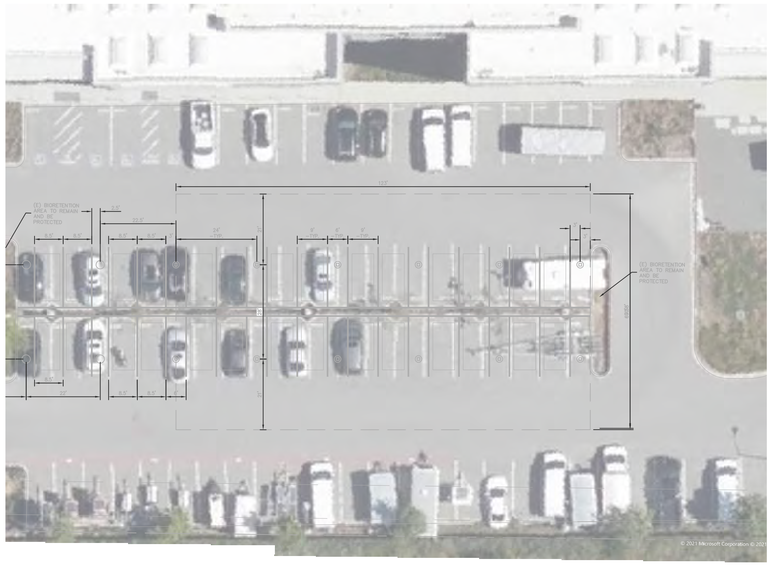
REVIEWED FOR CODE COMPLIANCE
This review does not authorize violation of State or County building laws.

Jun 21 2023
SAN MATEO CO. BLDG. INSP. DIV.

PV CALCULATIONS

E4.3

BA 21-001



1 E4.4 **SOLAR PANEL INSTALLATION** (1)

SCALE: NOT TO SCALE

PHOTOVOLTAIC
UN FUSED AC DISCONNECT

AC DISCONNECT RATINGS:
OPERATING CURRENT: 30 AMPS PER PHASE
OPERATING VOLTAGE: 480 VOLTS AC, 3 PHASE
CURRENT RATING: 400 AMPS
VOLTAGE RATING: 600 VOLTS AC

2 E4.4 **LABEL FOR SOLAR** (2)

SCALE: NOT TO SCALE

WARNING

ELECTRIC SHOCK HAZARD.
DO NOT TOUCH TERMINAL.
TERMINALS ON BOTH THE LINE AND LOADS SIDES MAY BE ENERGIZED IN THE OPEN POSITION.

4 E4.4 **LABEL FOR SOLAR** (4)

SCALE: NOT TO SCALE

SMA INTERNAL PHOTOVOLTAIC
DC DISCONNECT COMBINER

MAXIMUM POWER POINT CURRENT: 67.12A
MAXIMUM POWER POINT VOLTAGE: 425.6VDC
MAXIMUM PV SYSTEM VOLTAGE: 525.0VDC
SHORT CIRCUIT CURRENT: 70.88A

3 E4.4 **LABEL FOR SOLAR** (3)

SCALE: NOT TO SCALE

SMA INTERNAL PHOTOVOLTAIC
DC DISCONNECT COMBINER

MAXIMUM POWER POINT CURRENT: 58.73A
MAXIMUM POWER POINT VOLTAGE: 425.6VDC
MAXIMUM PV SYSTEM VOLTAGE: 525.0VDC
SHORT CIRCUIT CURRENT: 60.02A

5 E4.4 **LABEL FOR SOLAR** (5)

SCALE: NOT TO SCALE

SMA TRIPOWER
PHOTOVOLTAIC INVERTER

GRID TIED PHOTOVOLTAIC POWER SOURCE
WITH INTERNAL DC DISCONNECT/COMBINER

MAXIMUM INVERTER INPUT:
OPERATING CURRENT 66ADC
OPERATING VOLTAGE 150-1000 VDC
OPERATING DC POWER 24.5 KW STC
MAXIMUM SYSTEM VOLTAGE 1000 VDC

MAXIMUM INVERTER OUTPUT:
AC OPERATING VOLTAGE 480 VAC 39
MAX. AC OUTPUT CURRENT PER PHASE
18A/36A (10)

6 E4.4 **LABEL FOR SOLAR** (6)

SCALE: NOT TO SCALE

WARNING

ELECTRIC SHOCK HAZARD.
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED.

7 E4.4 **LABEL FOR SOLAR** (7)

SCALE: NOT TO SCALE

WARNING

ELECTRIC SHOCK HAZARD.
IF A GROUND FAULT IS INDICATED, NORMALLY GROUNDED CONDUCTORS MAY BE UNGROUNDED AND ENERGIZED

8 E4.4 **LABEL FOR SOLAR** (7)

SCALE: NOT TO SCALE

WARNING

THIS PANEL HAS A SECONDARY POWER SOURCE FROM (2) PHOTOVOLTAIC SYSTEMS
TURN OFF PHOTOVOLTAIC AC DISCONNECT PRIOR TO SERVICING THE PANEL
MAXIMUM AC OUTPUT CURRENT:
29 AMPS/PHASE
OPERATING AC VOLTAGE: 480 VOLTS

9 E4.4 **LABEL FOR SOLAR** (8)

SCALE: NOT TO SCALE

GENERAL NOTES:

1. LABELS AND MARKINGS SHALL BE APPLIED TO THE APPROPRIATE COMPONENTS IN ACCORDANCE WITH THE NEC.
2. SOLAR MODULES ARE SUPPLIED FROM THE MANUFACTURER WITH MARKINGS PRE-APPLIED TO MEET THE REQUIREMENTS OF THE NEC.
3. THE INVERTER IS SUPPLIED FROM THE MANUFACTURER WITH THE APPROPRIATE LABELS AND MARKINGS TO MEET THE REQUIREMENTS OF NEC.
4. ALL LABELS WILL BE ETCHED WITH WHITE GRAPHICS ONTO $\frac{1}{16}$" RED PLASTIC PLACARDS WITH A MINIMUM TEXT HEIGHT OF $\frac{3}{8}$". THE LABEL WILL BE EFFECTIVELY BONDED TO THE APPROPRIATE LOCATIONS AND COMPONENT ENCLOSURES IN CLEARLY VISIBLY PLACES WITH REFLECTIVE, WEATHER RESISTANT MATERIAL SUITABLE FOR THE ENVIRONMENT. ALL CAPITAL LETTERS SHOULD BE USED IN ARIAL OR SIMILAR NON-BOLD FONT.

SHEET NOTES:

(1) PROVIDED THE LOCATION OF THE SERVICE DISCONNECTING MEANS AND THE PHOTOVOLTAIC DISCONNECTING MEANS. THIS PLACE SHALL BE APPLIED TO THE MAIN SERVICE DISCONNECTING MEANS AND THE PHOTOVOLTAIC DISCONNECTING MEANS.

(2) LABEL FOR UTILITY AC DISCONNECT.

(3) PHOTOVOLTAIC DC COMBINER. OPERATING SPECIFICATIONS LABEL APPLIED TO EACH (TYP).

(4) UTILITY AC DISCONNECT WARNING LABEL WITH SYSTEM SPECIFICATIONS, APPLIED TO ALL AC DISCONNECTING MEANS.

(5) PHOTOVOLTAIC DC COMBINER. OPERATING SPECIFICATIONS LABEL APPLIED TO EACH (TYP).

(6) LABEL REQUIRED AT EACH INVERTER TO SPECIFY INDIVIDUAL INVERTER OPERATING PARAMETERS.

(7) LABEL REQUIRED AT EACH JUNCTION BOX, COMBINER BOX, DISCONNECT, AND DEVICE WHERE ENERGIZED, UNDERGROUND CIRCUITS MAY BE EXPOSED DURING SERVICE.

(8) LABEL REQUIRED FOR MAIN SERVICE PANEL TO INFORM PERSONNEL THAT MAIN IS ALSO SUPPLIED BY A PHOTOVOLTAIC POWER SOURCE.

(9) LABEL FOR SYSTEM OWNER'S KWH GENERATION METER BEING FED BY A PHOTOVOLTAIC SYSTEM.

(10) LABEL FOR INVERTER SHALL BE DEPENDENT ON SIZE OF INVERTER. 30KW INVERTER SHALL HAVE A MAXIMUM AC OUTPUT OF 36A PER PHASE, WHILE 15KW INVERTER SHALL HAVE A MAXIMUM AC OUTPUT OF 18A PER PHASE.

PHOTOVOLTAIC
GENERATION METER

10 E4.4 **LABEL FOR SOLAR** (9)

SCALE: NOT TO SCALE

CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED

11 E4.4 **LABEL FOR SOLAR** (9)

SCALE: NOT TO SCALE

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REN. 03-31-2025
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PV LABELING

E4.4

BA 21-001