ARCHITECTURAL SYMBOLS

WOOD FINISH
WOOD FRAMING - CONTINUOUS
WOOD FRAMING - BLOCKING
PLYWOOD
GYPSUM BOARD
INSULATION-RIGID
INSULATION-BATT
ACOUSTIC TILE OR PANEL
SOIL
AGGREGATE BASE
SAND / MORTAR / PLASTER
MASONRY - ELEVATION
MASONRY - PLAN
BRICK
CONCRETE
METAL

5 / A — GRID LINE NUMBER

X / XX.X — DETAIL NUMBER
DRAWING WHERE DETAIL IS DRAWN OR WHEN "-" BELOW INDICATES SAME SHEET

X / XX.X — INTERIOR OR EXTERIOR ELEVATION OR PHOTO #
DRAWING OR PHOTO WHERE ELEVATION IS DRAWN "-" BELOW INDICATES SAME SHEET

LOBBY / - — ROOM NAME / ROOM NUMBER

℄ — SYMBOL INDICATES THAT ITEM DIMENSIONED IS TO BE CENTERED ON THE WALL IT IS SHOWN ON

ELEVATION ABOVE DATUM POINT

XX — KEY NOTE. REFER TO LISTING ON SAME SHEET FOR DESCRIPTION

PROJECT

Sila

SILA NANOTECHNOLOGIES
2430 NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501

ISSUED FOR PLAN CHECK

07-29-26

DRAWING INDEX

ARCHITECTURAL
CVR COVER SHEET
A1.0 SITE PLAN
A1.1 SITE DETAILS
A2.6 ROOF PLAN
CB CLEAN BAY BLUE PRINT

STRUCTURAL
S1.0 GENERAL NOTES
S2.0 PARTIAL PLAN
S5.0 DETAILS

MECHANICAL
M0.0 COVER SHEET
M0.1 LEGEND & ABBREVIATIONS
M0.2 TITLE-24 DOCUMENTS
M0.3 SCHEDULES & MECHANICAL DETAILS
M2.1 FLOOR PLAN
M2.2 ROOF PLAN
M3.1 ISOMETRIC PLAN VIEW

ELECTRICAL
E0.0 ELECTRICAL SYMBOLS, ABBREVIATIONS, GENERAL NOTES, DRAWING INDEX & PROJECT SCOPE
E1.0 OVERALL ELECTRICAL LIGHTING PLAN
E1.1 ENLARGED ELECTRICAL LIGHTING PLAN
E3.0 PARTIAL ROOF PLAN
E4.0 ELECTRICAL SINGLE LINE DIAGRAM
E7.2 TITLE 24 REQUIREMENTS OUTDOOR LIGHTING

DEFERRED SUBMITTALS

A. NOTE: "THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE BUILDING OFFICIAL HAS APPROVED THEIR DESIGN AND SUBMITTAL DOCUMENTS." CBC SECTION 107.3.4.1.

EXISTING CONDITIONS

ALL INFORMATION RELATING TO EXISTING CONSTRUCTION IS GIVEN AS BEING THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND BUILDING DATUM'S AT THE JOB SITE. ANY DISCREPANCIES REQUIRING MODIFICATION TO THE CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY. NO MODIFICATIONS SHALL BE MADE BY THE CONTRACTOR WITHOUT APPROVAL FROM THE ARCHITECT.

CONDITIONS OF APPROVAL

PRIOR TO FINAL INSPECTION, A CERTIFIED GREEN PROFESSIONAL SHALL PROVIDE A LETTER OF COMPLIANCE TO THE CITY INSPECTOR CERTIFYING THAT THE PROJECT HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS ON THE CALGREEN CHECKLISTS ON PLAN (SEE SHEET CG).

GENERAL NOTES

1. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.
2. ALL DIMENSIONS ARE TAKEN FROM FACE OF FINISHED WALL TO FACE OF FINISHED WALL UNLESS OTHERWISE NOTED.
3. ALL EQUIPMENT SHALL BE LISTED BY AN APPROVED TESTING AGENCY, SUCH AS UL OR OTHER APPROVED AGENCY. IF EQUIPMENT IS NOT LISTED, IT MUST BE TESTED BY AN APPROVED THIRD PARTY TESTING AGENCY.
4. EQUIPMENT WEIGHING 400 LBS. OR MORE REQUIRES SEISMIC ANCHORAGE AND A BUILDING PERMIT.
5. FURNITURE PARTITIONS SHALL BE MAX. 5'-9" A.F.F. PERMIT REQUIRED FOR ELEC. POWER POLES.
6. FIRE EXTINGUISHER CABINETS TO BE SEMI RECESSED, U.N.O PROVIDE FIRE RATED CABINET AT RATED WALL CONDITIONS.

CODES

ALL WORK TO BE IN ACCORDANCE WITH REQUIREMENTS AS STATED IN THE FOLLOWING CODES.

2025 CALIFORNIA BUILDING CODE (CBC)
2025 CALIFORNIA MECHANICAL CODE (CMC)
2025 CALIFORNIA PLUMBING CODE (CPC)
2025 CALIFORNIA ELECTRICAL CODE (CEC)
2025 CALIFORNIA FIRE CODE (CFC)
2025 CALIFORNIA ENERGY STANDARDS (CES)
2025 CALIFORNIA GREEN BUILDING STAND. CODES (CGC)

UNLESS OTHERWISE STATED, IT IS INTENDED THAT THE ABOVE CODES AND REGULATIONS REFER TO THE LATEST EDITION OR REVISION IN FORCE ON THE DATE OF THE CONTRACT.

COUNTY CODES:
LOCAL COUNTY CODES AND ORDINANCES*
(INCLUDING ANY AND ALL APPLICABLE LOCAL, STATE, FEDERAL LAWS AND REGULATIONS SHALL APPLY)

VICINITY MAP

NTS



PROJECT DIRECTORY

CLIENT
SILA NANOTECHNOLOGIES
2450 MARINER SQUARE LOOP
ALAMEDA, CA 94501
408-657-7452
SHANKAR PATHARE

GENERAL CONTRACTOR
APPLIED CONSTRUCTION TECHNOLOGY, INC.
2855 KIFER ROAD, STE 135
SANTA CLARA, CA 95051
408-328-8400
SHANE HAMMOND

ARCHITECT
TDS ARCHITECTS
2060 CLARMAR WAY
SAN JOSE, CA 95128
408-977-9141
BRIAN MAH
ANDREW SHUM

STRUCTURAL
SALAS OBRIEN
55 HARRISON ST. SUITE 550
OAKLAND, CA 94607
510-208-3300
ANTHONY DEMAYO

MECHANICAL
WESTERN ALLIED MECHANICAL
33210 CENTRAL AVE.
UNION CITY, CA 94587
650-326-0750
JEREMY GOODLAND

ELECTRICAL
RK ELECTRIC
49211 MILMONT DR.
FREMONT, CA 94538
510-770-5660
MIKE MANGAOANG

HAZMAT
KENNEDY JENKS
2350 MISSION COLLEGE BLVD #700
SANTA CLARA, CA 95054
916-858-2722
VICTOR FISHER

PROJECT DATA

APN:	74-905-47
(E) BUILDING OCCUPANCY GROUP:	B, F-1, S-1
(N) EQUIPMENT YARD OCCUPANCY GROUP:	U (FOR PUBLIC WORKS & FEMA ONLY)
(N) TYPE OF CONSTRUCTION:	II-B (EXITING BLDG. III-B)
(E) NUMBER OF STORIES:	1 STORY
SQUARE FOOTAGE	
(E) LOT SIZE:	+/- 106,286 SQ.FT.
(E) BUILDING:	+/- 31,997 SQ. FT.
(N) PROJECT AREA:	+/- 314 SQ. FT.
(E) USE:	LANDSCAPE
(N) USE:	EQUIPMENT YARD

(E) FULLY AUTOMATIC SPRINKLERS: YES

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF INSTALLING EXTERIOR YARD W/ METAL FENCE, GATES, CONC. PAD, (X2) ADSORBERS AND EXTERIOR DUCT WORK.

THIS PROJECT IS LOCATED IN A SPECIAL FLOOD HAZARD ZONE WITH BASE FLOOD ELEVATION OF 10' (NAVD88).
(N) EQUIPMENT HOUSEKEEPING PAD TO BE RAISED TO 11.2' (NAVD88).
(N) CONC. PAD AND FENCE ARE ANCILLARY STRUCTURE AND IT HAS BEEN DESIGNED WITH FLOOD DAMAGE-RESISTANT MATERIALS BELOW FLOOD ELEVATION: CONCRETE AND METAL MATERIALS.

PER CBC 2025 SECTION 11B-203.5, (N) EQUIPMENT YARD IS NOT REQUIRED TO COMPLY WITH SECTION 11B REQUIREMENTS OR TO BE ON AN ACCESSIBLE ROUTE, DUE TO IT IS USED ONLY BY SERVICE PERSONNEL FOR MAINTENANCE, REPAIR OR OCCASIONAL MONITORING OF EQUIPMENT.

ABBREVIATIONS

A		CEILING	CLG	DOUGLAS FIR	DF	FLAT BAR	FB	INCLUDE	INCL	NATURAL	NAT	R		STORAGE	STG	VERT. GRAIN DOUGLAS FIR	VGDF		
ALTERNATE	ALT	CENTER	CTR	DRAWING	DWG	FLOOR	FLR			NOT IN CONTRACT	NIC	RADIUS	R	STREET	ST	VERIFY IN FIELD	VIF		
ALUMINUM	ALUM	CENTER LINE	CL	DISHWASHER	DW	FLOOR DRAIN	FD	J		NOT TO SCALE	NTS	REFRIGERATE	REFR	STRUCTURAL	STR				
ANCHOR BOLT	AB	CIRCUIT	CKT	DRINKING FOUNTAIN	DFN	FLUORESCENT	FLUOR	JOINT				REINFORCE	REINF	SURFACED FOUR SIDES	S4S	W			
APARTMENT	APT	CLEANOUT	CO						JT	O		REDWOOD	RWD	SWITCH	SW	WATERCLOSET	WC		
ASPHALT CONCRETE	AC	COLD WATER	CW	E		G		K		OBSCURE	OBSC	REQUIRED	REQD	SOLID CORE	SC	WATER HEATER	WH		
AT	@	COLUMN	COL	ELECTRIC	ELEC	GAGE OR GUAGE	GA	KIP (1,000 LB)	K	ON CENTER	OC	RESAWN	RS			WATER PROOF	WP		
AUTOMATIC FIRE SPRINKLERS	AFS	COMPOSITION	COMP	ENGINEER	ENGR	GALVANIZED SHEET METAL	GSM			OPPOSITE	OPP	RIGHT OF WAY	R/W	T		WELDED WIRE FABRIC	WWF		
AVENUE	AVE	CONCRETE	CONC	EQUIVALENT	EQV	GALVANIZE	GALV	L		OUTSIDE DIAMETER	OD	ROAD	RD	TELEVISION	TV	WITH	W/		
AVERAGE	AVG	CONSTRUCTION	CONST	EXISTING	(E), EX	GLASS	GLS	LAMINATE	LAM	OVERHEAD	OH	ROOM	RM	TEMPERED	TEMP	WITHOUT	W/O		
ABOVE FINISH FLOOR	AFF	CONTINUOUS	CONT	EXPANSION JOINT	EJ	GLAZING	GLZ	LAVATORY	LAV	OVER	O/	RAINWATER LEADER	RWL	THRESHOLD	THS	WOOD	WD		
		CONTRACTOR	CONTR	EXTERIOR	EXT	GYPSUM	GYP	LIGHT	LT			ROUGH SAWN	ROS	THROUGH	THRU	WROUGHT IRON	WI		
B		CONTROL JOINT	CJ					LINEAR	LIN	P				TONGUE & GROOVE	T&G				
BEAM	BM	CUBIC FEET PER MINUTE	CFM	F		H				PAIR	PR	S		TRASH COMPACTOR	TC	Y			
BOARD	BD	CUBIC FOOT	CU FT	FACE OF STUD	FOS	HARDWARE	HDW	M		PENNY(NAILS,ETC)	P	STAINLESS STEEL	SS	TYPICAL	TYP	YARD	YD		
BUILDING	BLDG	CUBIC INCH	CU IN	FACE OF WALL	FOW	HEATING, VENTILATION	HVAC	MANHOLE	MH	PERPENDICULAR	PERP	SCHEDULE	SCH						
BUILDING SET BACK LINE	BSBL	CUBIC YARD	CU YD	FEET	FT	AIR CONDITIONING		MAXIMUM	MAX	PLATE	PL	SELECT	SEL	U		Z			
BUILT-UP ROOFING	BUR			FINISH	FIN	HEIGHT	HT	MECHANICAL	MECH	POUND	LB	SHELF AND POLE	S&P	URINAL	UR	ZINC COATED STEEL	ZCST		
		D		FIRE EXTINGUISHER	FE	HIGH POINT	HP	MEDIUM	MED	POUNDS PER CUBIC FOOT	PCF	SIMILAR	SIM	UNLESS OTHERWISE NOTED	UON				
C		DIAGONAL	DIAG	FIRE EXTINGUISHER CABINET	FEC	HORIZONTAL	HORIZ	METAL	MTL	POUNDS PER SQUARE FOOT	PSF	SLIDING GLASS	SLG						
CAULKING	CLKG	DIAMETER	DIA	FIRE HOSE	FH	HOT WATER	HW	MINIMUM	MIN	POUNDS PER SQUARE INCH	PSI	SMOKE DETECTOR	SD	V					
CASEMENT	CSMT	DIMENSION	DIM	FIREPLACE	FP					PROJECT	PROJ	SPECIFICATION	SPEC	VAPOR BARRIER	VB				
CAST IRON	CI	DOUBLE	DBL	FIXED GLASS	FG	I		N		PRESSURE TREATED	PTDF	SQUARE	SQ	VENTILATE	VENT				
CATCH BASIN	CB	DOWN	DN	FIXTURE	FIXT	INCH	(")IN	NEW	(N)	DOUGLAS FIR		STEEL	STL	VERTICAL	VERT				

COPYRIGHT

ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THESE DRAWINGS ARE OWNED BY, AND ARE THE PROPERTY OF TDS ARCHITECTS, AND WERE CREATED, EVOLVED AND DEVELOPED FOR USE ON, AND IN CONNECTION WITH THE SPECIFIED PROJECT. NONE OF SUCH IDEAS, DESIGNS, ARRANGEMENTS OR PLANS SHALL BE USED BY OR DISCLOSED TO ANY PERSON, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN PERMISSION OF TDS ARCHITECTS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, OR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION AND CONSENT OF TDS ARCHITECTS. IN THE EVENT OF UNAUTHORIZED REUSE OF THESE PLANS BY ANY THIRD PARTY, THE CLIENT AGREES TO HOLD HARMLESS, INDEMNIFY AND DEFEND TDS ARCHITECTS FROM ANY CLAIM ARISING FROM SUCH UNAUTHORIZED REUSE.

TDS ARCHITECTS, INC
total design solutions
ARCHITECTURE
PLANNING
INTERIOR DESIGN
2060 CLARMAR WAY, SUITE 200, SAN JOSE CA. 95128
408-977-9141 FAX 408-977-9144

NO.	DESCRIPTION	DATE
-	ISSUED FOR 90% CLIENT REVIEW	07/22/26
-	ISSUED FOR PLAN CHECK	07/29/26

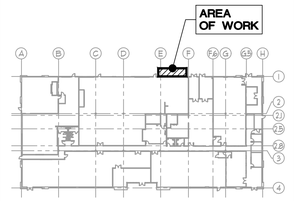
PROJECT

Sila

SILA NANO
2430
NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501

AREA OF WORK



KEY PLAN





BRIAN Y. MAH

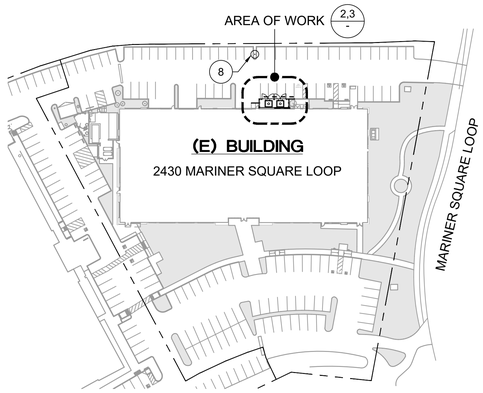
DRAWING TITLE

COVER SHEET

JOB NUMBER	202640.00
DRAWN	SH
PROJECT START DATE	06/03/2026
SCALE	AS INDICATED
CHECKED	202640.00 CVR.dwg

SHEET NUMBER

CVR



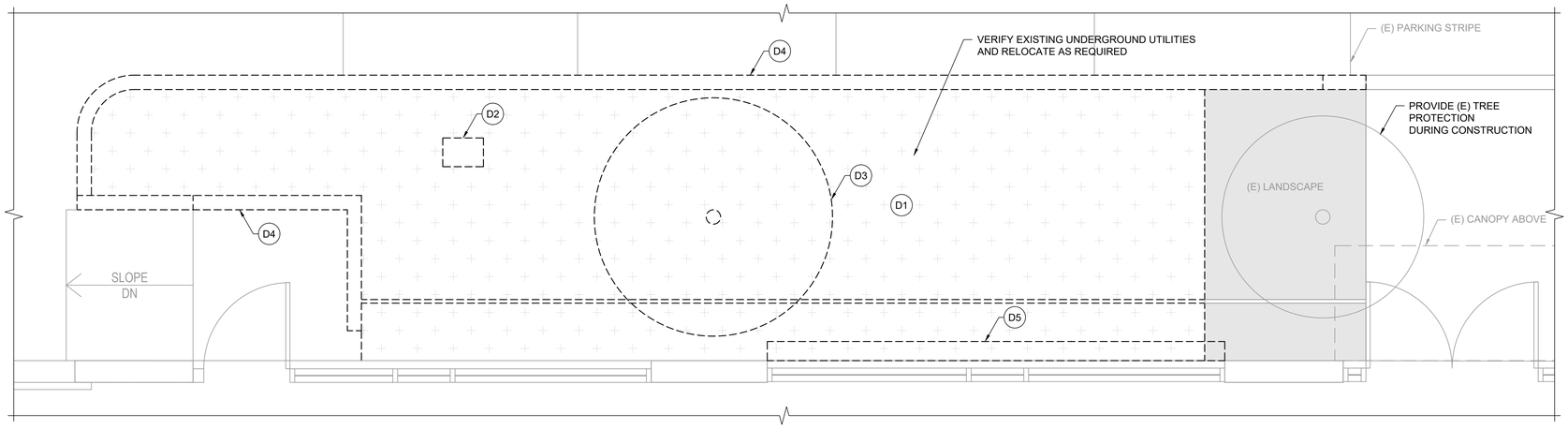
1 OVERALL SITE PLAN
NTS

GENERAL NOTES

1. REFER TO STRUCTURAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL NOTES.
2. PROVIDE UNDERGROUND UTILITY LOCATION SURVEY AS REQUIRED IF ANY TRENCHING OR SUBSURFACE WORK IS PERFORMED.
3. GENERAL CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS AND REPORT DISCREPANCIES TO THE ARCHITECT. THE SITE PLAN HAS NOT BEEN SURVEYED BY A LICENSED SURVEYOR.

LEGEND

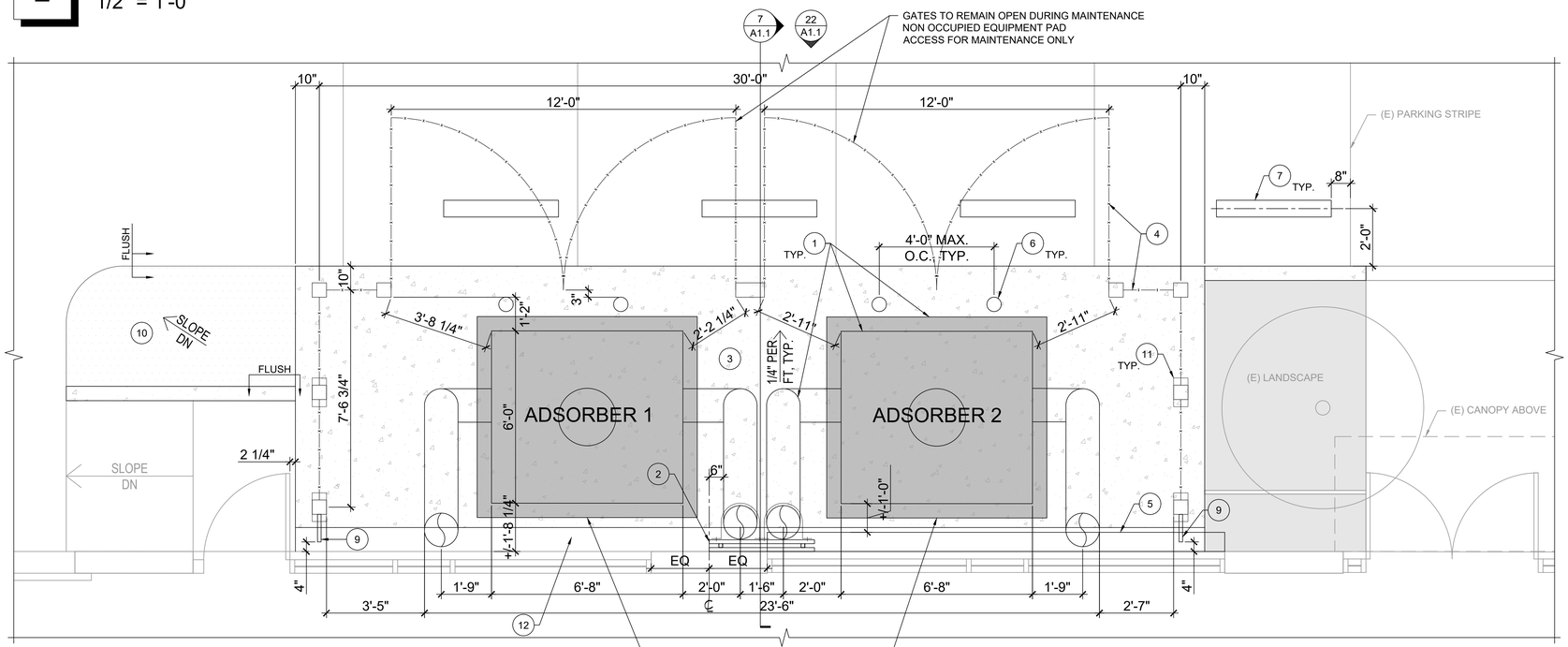
- PROPERTY LINE (ESTIMATED)
- (E) LANDSCAPE
- (E) LANDSCAPE TO BE REMOVED
- (N) FENCE
- (N) CONCRETE PAD
- (N) AC SURFACE



2 ENLARGED SITE PLAN - DEMO
1/2" = 1'-0"

KEYED NOTES - DEMO

- D1 REMOVE (E) LANDSCAPE AND PREPARE AREA TO RECEIVE (N) CONC. EQUIPMENT PAD
- D2 RELOCATE OR CAP (E) IRRIGATION CONTROL BOX AND MODIFY IRRIGATION SYSTEM AS REQUIRED
- D3 REMOVE (E) TREE
- D4 REMOVE (E) CURB
  REMOVE ADJACENT SURFACE AS NEEDED AT AFFECTED AREA FOR (N) EQUIPMENT PAD. PATCH TO MATCH EXISTING
- D5 REMOVE & REINSTALL (E) FLOOD PROTECTION



3 ENLARGED SITE PLAN - NEW
1/2" = 1'-0"

KEYED NOTES - NEW

1. INSTALL (N) EQUIPMENT & DUCT
   SEE MECHANICAL FOR DETAILS
   SEE STRUCTURAL FOR ANCHORAGE DETAIL & HOUSEKEEPING PAD
2. INSTALL (N) UNISTRUT TO SUPPORT WALL MOUNTED (N) DUCT
   SEE MECHANICAL FOR DETAILS & STRUCTURAL FOR SUPPORT
3. INSTALL (N) CONC. EQUIPMENT PAD
   SEE STRUCTURAL FOR DETAILS
4. INSTALL (N) POWER-COATED GALVANIZED STEEL FENCE
   WELDED 12GA, 6" WIDE & 1/2" SPACING HORIZONTAL SLATS & PAIR OF 6'W GATES W/ LOCKING HARDWARE, DIAGONAL BRACING FOR GATE, DRILL HOLE & CANE BOLT. SEE STRUCTURAL FOR DETAILS
   COLOR & FINISH TO MATCH BLDG 2450 CDA PAD FENCE
5. REINSTALL (E) FLOOD PROTECTION
6. INSTALL (N) REMOVABLE BOLLARD
   PRIME & PAINT SAFETY YELLOW
   SEE STRUCTURAL FOR DETAILS
7. INSTALL (N) WHEEL STOP (18 / A1.1)
8. INSTALL (N) TREE. TREE SPECIES TO BE PROVIDED BY LANDLORD
9. INSTALL (N) SIDE FENCE GAP GUARD
10. (N) AC PAVING
11. PRIME & PAINT (N) BASEPLATE
    COLOR & FINISH TO MATCH BLDG 2450 CDA PAD FENCE
12. (N) SLURRY CONCRETE. SEE STRUCTURAL FOR DETAILS

TDS ARCHITECTS, INC
total design solutions
ARCHITECTURE
PLANNING
INTERIOR DESIGN
2060 CLARMAR WAY, SUITE 200, SAN JOSE CA. 95128
408-977-9141 FAX 408-977-9144

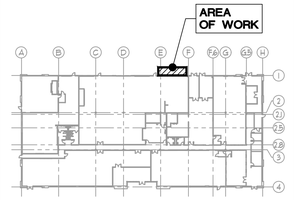
NO.	DESCRIPTION	DATE
-	ISSUED FOR 90% CLIENT REVIEW	07/22/26
-	ISSUED FOR PLAN CHECK	07/29/26

PROJECT

Sila

SILA NANO
2430
NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



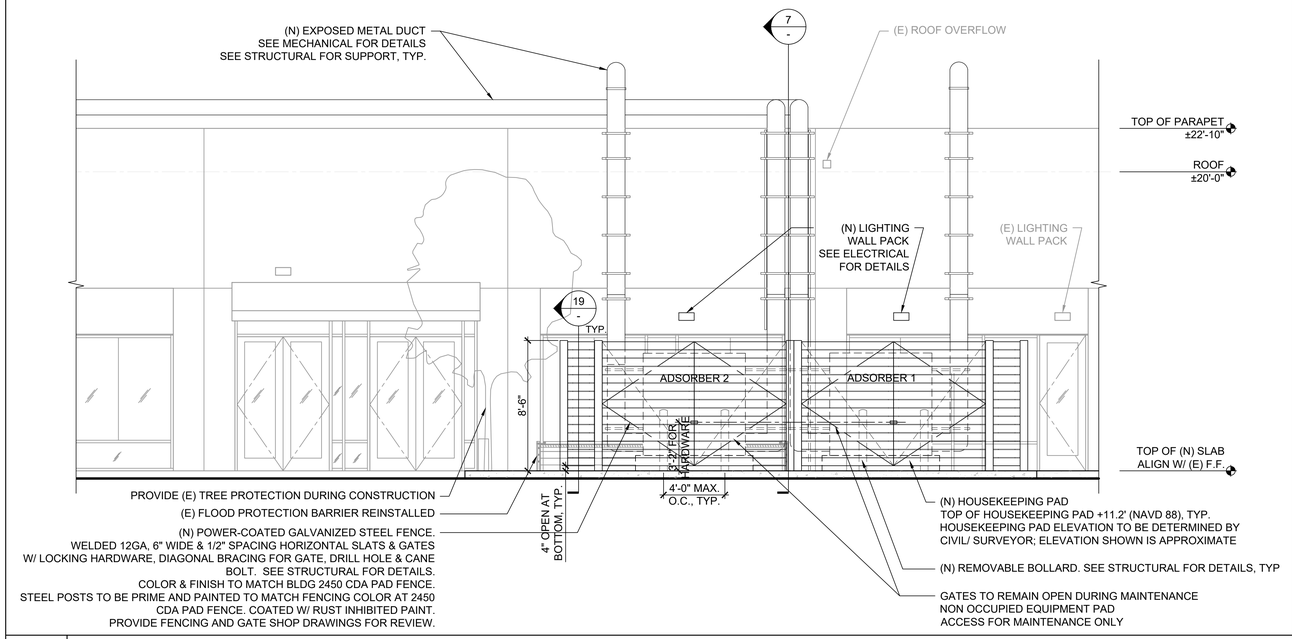
KEY PLAN

LICENSED ARCHITECT
BRIAN Y. MAH
C-23099
11-30-27
RENEWAL DATE
STATE OF CALIFORNIA
BRIAN Y. MAH

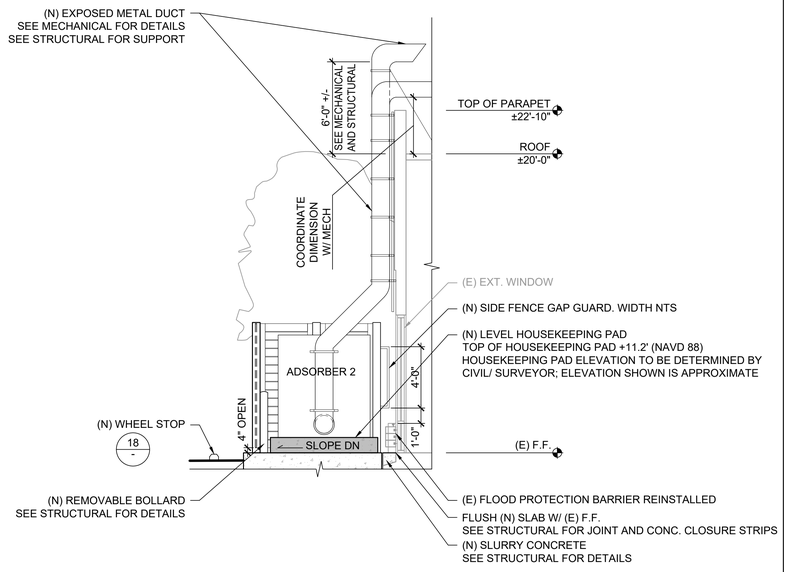
DRAWING TITLE

SITE PLAN

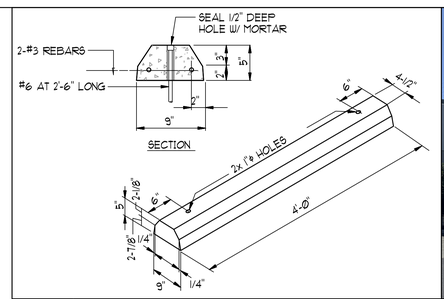
JOB NUMBER	SHEET NUMBER
202640.00	A1.0
DRAWN: SH	
PROJECT START DATE: 06/03/2026	
SCALE: AS INDICATED	
CHECKED: 202640.00 A1.0.dwg	



22 **FRONT ELEVATION**
1/4"=1'-0"



7 **SECTION**
1/4"=1'-0"



18 **PRECAST CONCRETE WHEEL STOP**
1 1/2"=1'-0" A1.1\CONC.WHEEL STOP.dwg



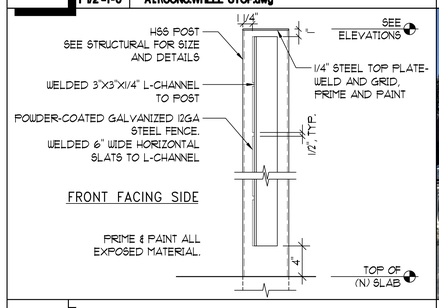
13 **PHOTO - EXISTING SITE**
-



14 **PHOTO - EXISTING SITE**
-



9 **PHOTO - EXISTING SITE**
1/4"=1'-0"



19 **FENCE W/ HORIZONTAL METAL SLAT SECTION**
1-1/2"=1'-0"

ARCHITECTS, INC
total design solutions
ARCHITECTURE
PLANNING
INTERIOR DESIGN
2060 CLARMAR WAY, SUITE 200, SAN JOSE CA. 95128
408-977-9141 FAX 408-977-9144

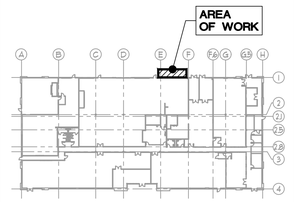
NO.	DESCRIPTION	DATE
-	ISSUED FOR 90% CLIENT REVIEW	07/22/26
-	ISSUED FOR PLAN CHECK	07/29/26

PROJECT

Sila

SILA NANO 2430 NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



KEY PLAN

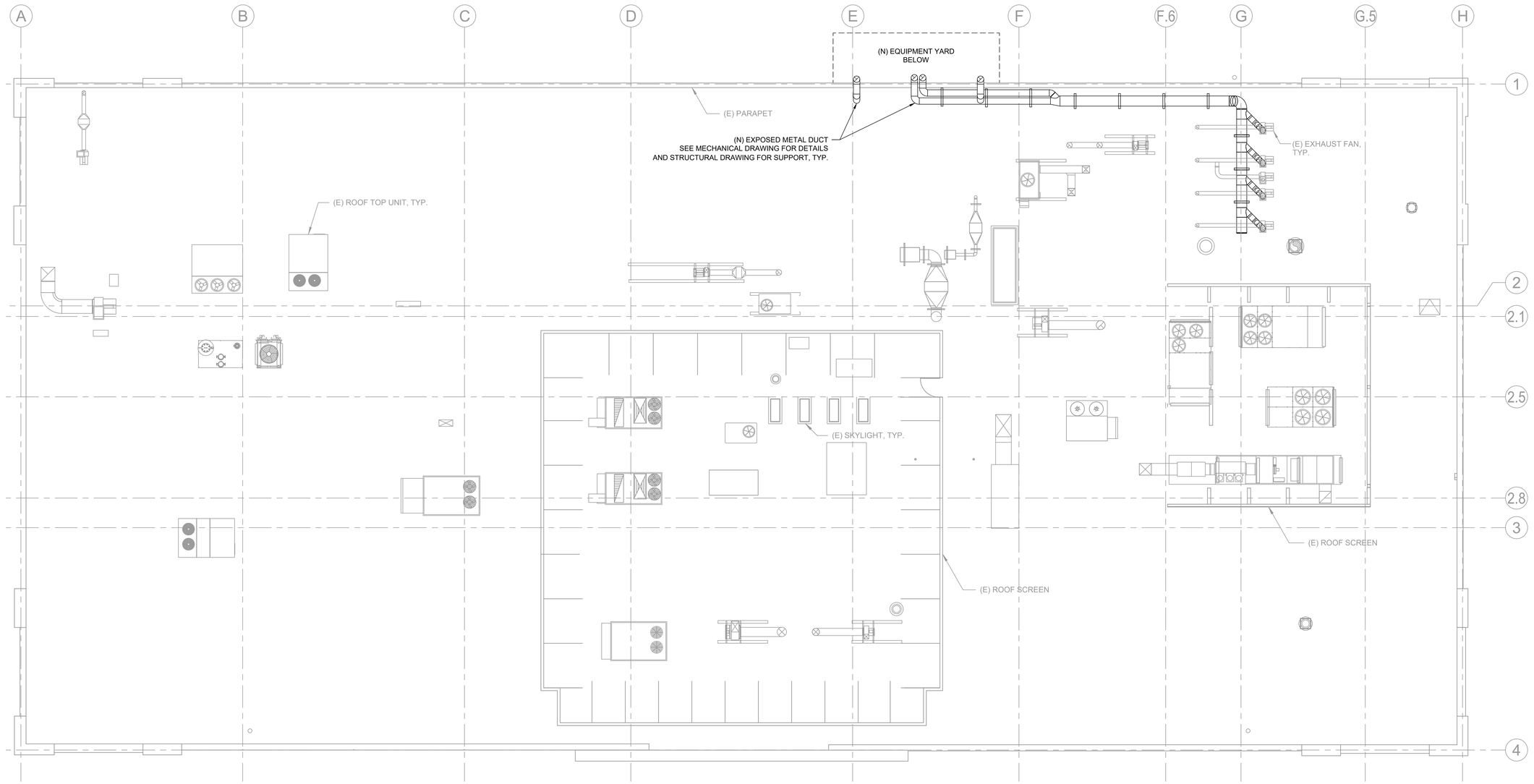


BRIAN Y. MAH

DRAWING TITLE

SITE DETAILS

JOB NUMBER	SHEET NUMBER
202640.00	A1.1
DRAWN: SH	
PROJECT START DATE: 06/03/2026	
SCALE: AS INDICATED	
CHECKED: 202640.00 A1.1.dwg	



1 ROOF PLAN

1/8" = 1'-0"

GENERAL NOTES

1. PROVIDE PATCHING TO AFFECT AREA TO MAINTAIN WATER TIGHT ROOF & WARRANTY.

TDS ARCHITECTS, INC

total design solutions

ARCHITECTURE
PLANNING
INTERIOR DESIGN

2060 CLARMAR WAY, SUITE 200, SAN JOSE CA. 95128
408-977-9141 FAX 408-977-9144

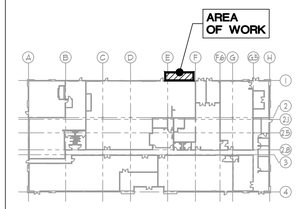
NO.	DESCRIPTION	DATE
-	ISSUED FOR 90% CLIENT REVIEW	07/22/26
-	ISSUED FOR PLAN CHECK	07/29/26

PROJECT

Sila

SILA NANO 2430 NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



KEY PLAN



BRIAN Y. MAH

DRAWING TITLE

ROOF PLAN

JOB NUMBER	SHEET NUMBER
202640.00	A2.6
DRAWN: SH	
PROJECT START DATE: 06/03/2026	
SCALE: AS INDICATED	
CHECKED: 202540.00 A2.6.dwg	

Blueprint for a Clean Bay

Best Management Practices to Prevent Stormwater Pollution from Construction-Related Activities



BASMAA
Bay Area Stormwater Management Agencies Association

The Bay Area Stormwater Management Agencies Association (BASMAA), a consortium of Bay Area municipalities from Alameda, Contra Costa, Marin, San Mateo, Santa Clara, Solano, and Sonoma Counties, developed this booklet as a resource for all general contractors, home builders, and subcontractors working on construction sites.

Introduction

Stormwater pollution is a national environmental problem. In California, stormwater runoff is a major source of water pollution. To help combat the problems of stormwater pollution, federal and state governments have developed a program for monitoring and permitting discharges to municipal storm drain systems, creeks, and water bodies such as San Francisco Bay.

Municipalities in the Bay Area are required by the Clean Water Act to develop stormwater management programs that include requirements for construction activities. Your construction project will need to comply with local municipal requirements. If your construction activity will disturb one acre or more, you must also obtain coverage under the General Construction Activity Permit (see Requirements for Dischargers).

Blueprint for a Clean Bay is an introductory guide to stormwater quality control on construction sites. It contains several principles and techniques that you can use to help prevent stormwater pollution. BASMAA has developed this booklet as a resource for all general contractors, home builders, and subcontractors working on construction sites.

Blueprint for a Clean Bay is not a design manual or a Stormwater Pollution Prevention Plan (SWPPP) (see Requirements for Dischargers). For more information on the General Permit, designing stormwater quality controls, or producing a Stormwater Pollution Prevention Plan, please refer to:

- ❑ the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook for Construction,
- ❑ the Regional Water Quality Control Board's (RWQCB) Guidelines for Construction Projects, or
- ❑ consult your local program or the State Water Resources Control Board (SWRCB) (see below).

Please note that this booklet is concerned only with the management of construction sites and activities during construction.

Stormwater Pollution

Storm Drain System

Stormwater or runoff from sources like sprinklers and hoses flows over the ground into the storm drain system. In the San Francisco Bay Area, storm drain systems consist of gutters, storm drains, underground pipes, open channels, culverts, and creeks. Storm drain systems are designed to drain directly to the Bay, Delta, or Pacific Ocean with no treatment.

Pollution From Construction Sites

Stormwater runoff is part of a natural hydrologic process. However, land development and construction activities can significantly alter natural drainage patterns and pollute stormwater runoff. Runoff picks up pollutants as it flows over the ground or paved areas and carries these pollutants into the storm drain system. Common sources of pollutants from construction sites include: sediments from soil erosion; construction materials and waste (e.g., paint, solvents, concrete, drywall); landscaping runoff containing fertilizers and pesticides; and spilled oil, fuel, and other fluids from construction vehicles and heavy equipment.

Adverse Effects from Stormwater Pollution

Stormwater pollution is a major source of water pollution in California. It can cause declines in fisheries, damage habitats, and limit water recreation activities. Stormwater pollution poses a serious threat to the overall health of the ecosystem.

For more information on stormwater requirements, call the State Water Resources Control Board's Stormwater Information Line at (916) 341-5537 or your local program.

Requirements for Dischargers

Municipal Stormwater Program

Municipalities in the Bay Area are required by federal regulations to develop programs to control the discharge of pollutants to the storm drain system, including the discharge of pollutants from construction sites and areas of new development or significant redevelopment. As a result, your development and construction projects are subject to new requirements designed to improve stormwater quality such as, expanded plan check and review, contract specifications, stormwater treatment measures, runoff monitoring, and increased site inspection. For more information on municipal requirements, please contact the municipal representative listed on the back cover of this booklet.

Projects Equal To Or Greater Than 1 Acre

If your construction activity will disturb one acre or more, you must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the SWRCB for stormwater discharges associated with construction activity. To obtain coverage under the General Permit, a Notice of Intent (NOI) must be filed with the SWRCB. The General Construction Permit requires you to prepare and carry out a "Stormwater Pollution Prevention Plan" or SWPPP. Your SWPPP must identify appropriate stormwater pollution prevention measures or best management practices (BMPs), like the ones described in this booklet, to reduce pollutants in stormwater discharges from the construction site both during and after construction is complete. A best management practice or BMP is defined as any program, technology, process, practice, operating method, measure, or device that controls, prevents, removes, or reduces pollution. The General Permit also requires permanent stormwater quality controls (see BASMAA's Start at the Source manual and CASQA's BMP Handbooks New Development and Redevelopment for examples). You should keep a copy of your SWPPP readily available onsite throughout construction.

Projects Less Than 1 Acre

If your project is less than one acre, you may still need to use BMPs to comply with local municipal requirements. Check with the local stormwater program (listed on back cover), or planning or engineering department for details.

Best Management Practices

General Practices

The following are some general principles that can significantly reduce pollution from construction activity and help make compliance with stormwater regulations easy:

- ❑ Identify all storm drains, drainage swales and creeks located near the construction site and make sure all subcontractors are aware of their locations to prevent pollutants from entering them.
- ❑ Clean up leaks, drips, and other spills immediately so they do not contact stormwater.
- ❑ Refuel vehicles and heavy equipment in one designated location on the site and take care to clean up spills immediately.
- ❑ Wash vehicles at an appropriate off-site facility. If equipment must be washed on-site, do not use soaps, solvents, degreasers, or steam cleaning equipment, and prevent wash water from entering the storm drain. If possible, direct wash water to a low point where it can evaporate and/or infiltrate.
- ❑ Never wash down pavement or surfaces where materials have spilled. Use dry cleanup methods wherever possible.
- ❑ Avoid contaminating clean runoff from areas adjacent to your site by using berms and/or temporary or permanent drainage ditches to divert water flow around the site. Reduce stormwater runoff velocities by constructing temporary check dams and/or berms where appropriate.
- ❑ Protect all storm drain inlets using filter fabric cloth or other best management practices to prevent sediments from entering the storm drainage system during construction activities.
- ❑ Keep materials out of the rain — prevent runoff pollution at the source. Schedule clearing or heavy earth moving activities for periods of dry weather. Cover exposed piles of soil, construction materials and wastes with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.

For more information on the General Permits, call the State Water Resources Control Board's Stormwater Information Line at (916) 341-5537 or your local program.

Best Management Practices

- ❑ Keep pollutants off exposed surfaces. Place trash cans around the site to reduce litter. Dispose of non-hazardous construction wastes in covered dumpsters or recycling receptacles.
- ❑ Practice source reduction — reduce waste by ordering only the amount you need to finish the job.
- ❑ Do not over-apply pesticides or fertilizers and follow manufacturers instructions for mixing and applying materials.
- ❑ Recycle leftover materials whenever possible. Materials such as concrete, asphalt, scrap metal, solvents, degreasers, cleared vegetation, paper, rock, and vehicle maintenance materials such as used oil, antifreeze, batteries, and tires are recyclable (check with the local planning or building department for more information).
- ❑ Dispose of all wastes properly. Materials that cannot be reused or recycled must be taken to an appropriate landfill or may require disposal as hazardous waste. Never throw debris into channels, creeks or into wetland areas. Never store or leave debris in the street or near a creek where it may contact runoff.
- ❑ Illegal dumping is a violation subject to a fine and/or time in jail. Be sure that trailers carrying your materials are covered during transit. If not, the hauler may be cited and fined.
- ❑ Train your employees and inform subcontractors about the stormwater requirements and their own responsibilities.



Specific Practices

Following is a summary of specific best management practices for erosion and sediment control and contractor activities. For more information on erosion and sediment control BMPs and their design, please refer to the RWQCB Erosion and Sediment Control Field Manual (August 2002), the CASQA Stormwater Best Management Practice Handbook for Construction (January 2003), and the Association of Bay Area Governments (ABAG) Manual of Standards for Erosion & Sediment Control Measures (May 1995).

Erosion Prevention and Sediment Control

Prevent erosion

Soil erosion is the process by which soil particles are removed from the land surface, by wind, water and/or gravity. Soil particles removed by stormwater runoff are pollutants that when deposited in local creeks, lakes, Bay or Delta, can have negative impacts on aquatic habitat. Exposed soil after clearing, grading, or excavation is easily eroded by wind or water. The following practices will help prevent erosion from occurring on the construction site:

- ❑ Plan the development to fit the topography, soils, drainage pattern and natural vegetation of the site.
- ❑ Delineate clearing limits, easements, setbacks, sensitive or critical areas, trees, drainage courses, and buffer zones to prevent excessive or unnecessary disturbances and exposure.
- ❑ Phase grading operations to reduce disturbed areas and time of exposure.
- ❑ Avoid excavation and grading during wet weather.
- ❑ Limit on-site construction routes and stabilize construction entrance(s) and exit(s).
- ❑ Remove existing vegetation only when absolutely necessary.
- ❑ Construct diversion dikes and drainage swales to channel runoff around the site.
- ❑ Use berms and drainage ditches to divert runoff around exposed areas. Place diversion ditches across the top of cut slopes.

Best Management Practices

- ❑ Plant vegetation on exposed slopes. Where replanting is not feasible, use erosion control blankets (e.g., jute or straw matting, glass fiber or excelsior matting, mulch netting).
- ❑ Consider slope terracing with cross drains to increase soil stability.
- ❑ Cover stockpiled soil and landscaping materials with secured plastic sheeting and divert runoff around them.
- ❑ As a back-up measure, protect drainage courses, creeks, or catch basins with fiber rolls, silt fences, sand/gravel bags and/or temporary drainage swales.
- ❑ Once grading is completed, stabilize the disturbed areas using permanent vegetation as soon as possible. Use temporary erosion controls until vegetation is established.
- ❑ Conduct routine inspections of erosion control measures especially before and immediately after rainstorms, and repair if necessary.

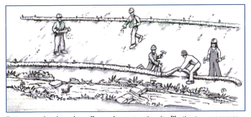
Control sediment

Sedimentation is defined as the process of depositing sediments carried away by runoff. Sediments consist of soil particles, clays, sands, and other minerals. The purpose of sediment control practices is to remove sediments from stormwater before they are transported off-site or reach a storm drain inlet or nearby creek. The most effective sediment control practices reduce runoff velocity and trap or detain runoff allowing sediments to settle out.

- ❑ Use terracing, rip rap, sand/gravel bags, rocks, fiber rolls, and/or temporary vegetation on slopes to reduce runoff velocity and trap sediments. Do not use asphalt rubble or other demolition debris for this purpose.
- ❑ Use check dams in temporary drains and swales to reduce runoff velocity and promote sedimentation.
- ❑ Protect storm drain inlets from sediment-laden runoff. Storm drain inlet protection devices include sand/gravel bag barriers, filter fabric fences, block and gravel filters, catch basin filter inserts, excavated drop inlet sediment traps, or a combination of these.
- ❑ Collect and detain sediment-laden runoff in sediment traps (an excavated or bermed area or constructed device) to allow sediments to settle out prior to discharge.
- ❑ Use sediment controls and filtration to remove sediments from dewatering discharges.
- ❑ Prevent construction vehicle tires from tracking soil onto adjacent streets by constructing a temporary stone pad with a filter fabric underliner near the site exit where dirt and mud can be removed.
- ❑ When cleaning sediments from streets, driveways and paved areas on construction sites, use dry sweeping methods where possible. If water must be used to flush pavement, collect runoff to settle out sediments and protect storm drain inlets.

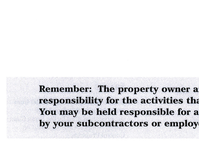
Note: Performance of erosion and sediment controls is dependent on proper installation, routine inspections and maintenance of the controls. Straw bale barriers are an example of a BMP that has not been as effective as expected due to improper use. Most of the BMPs described above are temporary and if left alone can quickly fall into disrepair and/or become ineffective. Routine inspections and maintenance, particularly before and after a storm event, must be part of any erosion and sediment control plan.

The RWQCB's Field Manual, the CASQA Stormwater Best Management Practice Handbook for Construction, and the ABAG Manual of Standards for Erosion and Sediment Control provide specific details and design criteria for erosion and sediment control plans.



Drainage swales channel runoff around a construction site. Planting temporary vegetation on freshly graded areas, and trenching and staking fiber rolls and/or silt fences downslope are common techniques for preventing erosion and controlling sediment.

Best Management Practices



Make sure equipment repair area is bermed or well away from creeks and storm drains.

General Site Maintenance

Prevent spills and leaks

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are common sources of stormwater pollution and soil contamination. Construction material spills can also cause serious problems. Careful site planning, preventive maintenance, and good materials handling practices can eliminate most spills and leaks.

- ❑ Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks.
- ❑ Designate specific areas of the construction site, well away from creeks or storm drain inlets, for vehicle and equipment parking and routine maintenance.
- ❑ Perform major maintenance, repair jobs and vehicle and equipment washing off-site when feasible, or in designated and controlled areas on-site.
- ❑ If you must drain and replace motor oil, radiator coolant, or other fluids on-site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in labeled separate containers, and recycle whenever possible. Note that in order to be recyclable, such liquids must not be mixed with other fluids. Non-recycled fluids generally must be disposed of as hazardous wastes.

Clean up spills immediately after they happen

When vehicle fluids or materials such as paints or solvents are spilled, cleanup should be immediate, automatic, and routine.

- ❑ Sweep up spilled dry materials (e.g., cement, mortar, or fertilizer) immediately. Never attempt to "wash them away" with water, or bury them. Use only minimal water for dust control.
- ❑ Clean up liquid spills on paved or impermeable surfaces using "dry" cleanup methods (e.g., absorbent materials like cat litter, sand or rags).
- ❑ Clean up spills on dirt areas by digging up and properly disposing of the contaminated soil.
- ❑ Report significant spills to the appropriate spill response agencies immediately (See reference list on the back cover of this booklet for more information).

Clean up spills on dirt areas by removing contaminated soil.

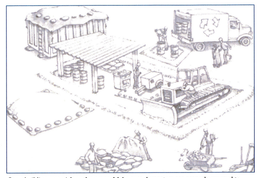
Note: Used cleanup rags that have absorbed hazardous materials must either be sent to a certified industrial laundry or dry cleaner, or disposed of through a licensed hazardous waste disposal company.

Best Management Practices

Store materials under cover

Wet and dry building materials with the potential to pollute runoff should be stored under cover and/or surrounded by berms when rain is forecast or during wet weather.

- ❑ Store stockpiled materials and wastes under a temporary roof or secured plastic sheeting or tarp.
- ❑ Berm around storage areas to prevent contact with runoff.
- ❑ Plaster or other powders can create large quantities of suspended solids in runoff, which may be toxic to aquatic life and cause serious environmental harm even if the materials are inert. Store all such potentially polluting dry materials —especially open bags— under a temporary roof or inside a building, or cover securely with an impermeable tarp. By properly storing dry materials, you may also help protect air quality, as well as water quality.
- ❑ Store containers of paints, chemicals, solvents, and other hazardous materials in accordance with secondary containment regulations and under cover during rainy periods.



Store building materials under cover. Make sure dumpsters are properly covered to keep out rain.

Cover and maintain dumpsters

Open and/or leaking dumpsters can be a source of stormwater pollution.

- ❑ Cover open dumpsters with plastic sheeting or a tarp. Secure the sheeting or tarp around the outside of the dumpster. If your dumpster has a cover, close it.
- ❑ If a dumpster is leaking, contain and collect leaking material. Return the dumpster to the leasing company for repair/exchange.
- ❑ Do not clean dumpsters on-site. Return to leasing company for periodic cleaning, if necessary.

Collect and properly dispose of paint removal wastes

Paint removal wastes include chemical paint stripping residues, paint chips and dust, sand blasting material and wash water. These wastes contain chemicals that are harmful to the wildlife in our creeks and the water bodies they flow to. Keep all paint wastes away from the gutter, street, and storm drains.

- ❑ Non-hazardous paint chips and dust from 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 or tributyl tin must be disposed of as a hazardous waste.
- ❑ When stripping or cleaning building exteriors with high-pressure water, cover or berm storm drain inlets. If possible (and allowed by your local wastewater treatment plant), collect (mop or vacuum) building cleaning water and discharge to the sanitary sewer. Alternatively, discharge non-contaminated wash water onto a dirt area and spade into the soil. Be sure to shovel or sweep up any debris that remains in the gutter and dispose of as garbage.

Clean up paints, solvents, adhesives, and cleaning solutions properly

Although many paint materials can and should be recycled, liquid residues from paints, thinners, solvents, glues, and cleaning fluids are hazardous wastes. When they are thoroughly dry, empty paint cans, used brushes, rags, absorbent materials, and drop cloths are no longer hazardous and may be disposed of as garbage.

- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or creek.
- ❑ For water-based paints, paint out brushes to the extent possible and rinse to a drain leading to the sanitary sewer (i.e., indoor plumbing).
- ❑ For oil-based paints, paint out brushes to the extent possible, and filter and reuse thinners and solvents. Dispose of unusable thinners and residue as hazardous waste.
- ❑ Recycle, return to supplier or donate unwanted water-based (latex) paint. You may be able to recycle clean empty dry paint cans as metal (check with the local planning or building department for more information).
- ❑ Dried latex paint may be disposed of in the garbage.
- ❑ Unwanted paint (that is not recycled), thinners, and sludges must be disposed of as hazardous waste.
- ❑ More and more paint companies are recycling excess latex paint (check with the local planning or building department for more information).

Keep fresh concrete and cement mortars out of gutters, storm drains, and creeks

Concrete and cement-related mortars that wash into gutters and storm drains are toxic to fish and the aquatic environment.

- ❑ Locate mortar/stucco mixers inside bermed areas to avoid discharge to street or storm drains.
- ❑ Avoid mixing excess amounts of fresh concrete or cement mortar.
- ❑ Store dry and wet materials under cover, protected from rainfall and runoff.
- ❑ Wash out concrete transit mixers only in designated wash-out areas where the water will flow into settling ponds or onto dirt or stockpiles of aggregate base or sand. Pump water from settling ponds to the sanitary sewer, where allowed. Whenever possible, recycle washout by pumping back into mixers for reuse. Never dispose of washout into the street, storm drains, drainage ditches, or creeks.
- ❑ Whenever possible, return contents of mixer barrel to the yard for recycling. Dispose of small amounts of excess concrete, grout, and mortar in the trash.

Service and maintain portable toilets

Leaking portable toilets are a potential health and environmental hazard.

- ❑ Inspect portable toilets for leaks.
- ❑ Be sure the leasing company adequately maintains, promptly repairs, and replaces units as needed.
- ❑ The leasing company must have a permit to dispose of waste to the sanitary sewer.
- ❑ Do not place on or near storm drain inlets.

Dispose of cleared vegetation properly

Cleared vegetation, tree trimmings, and other plant material can cause environmental damage if it gets into creeks. Such "organic" material requires large quantities of oxygen to decompose, which reduces the oxygen available for fish and other aquatic life.

- ❑ Do not dispose of plant material in a creek or drainage facility or leave it in a roadway where it can clog storm drain inlets.
- ❑ Avoid disposal of plant material in trash dumpsters or mixing it with other wastes. Compost plant material or take it to a landfill or other facility that composts yard waste (check with the local planning or building department for more information).



Recycle yard waste and tree prunings at a landfill that chips and composts plant material.

Best Management Practices

Demolition Waste Management

Make sure all demolition waste is properly disposed of

Demolition debris that is left in the street or pushed over a bank into a creek bed or drainage facility causes serious problems for flood control, storm drain maintenance, and the health of our environment. Different types of materials have different disposal requirements or recycling options.

- ❑ Materials that can be recycled from demolition projects include: metal framing, wood, concrete, asphalt, and plate glass.
- ❑ Materials that can be salvaged for reuse from old structures include: doors, banisters, floorboards, windows, 2x4s, and other old, dense lumber.
- ❑ Unusable, unrecyclable debris should be confined to dumpsters, covered at night and during wet weather, and taken to a landfill for disposal.
- ❑ Hazardous debris such as asbestos must be handled in accordance with specific laws and regulations and disposed of as a hazardous waste. For more information of asbestos handling and disposal regulations, contact the Bay Area Air Quality Management District.
- ❑ Arrange for an adequate debris disposal schedule to ensure that dumpsters do not overflow.
- ❑ Most local planning or building departments have lists of recycling and disposal services for construction and demolition debris.

Roadwork and Pavement Construction

Plan roadwork and pavement construction to avoid stormwater pollution

Road paving, surfacing, and asphalt removal happen right in the street, with numerous opportunities for stormwater pollution from the asphalt mix, saw-cut slurry, or excavated material. Properly proportioned asphalt mix and well-compacted pavement avoid a host of water pollution problems.

- ❑ Apply concrete, asphalt, and seal coat during dry weather to prevent contaminants from contacting stormwater runoff.
- ❑ Cover storm drain inlets and manholes when paving or applying seal coat, slurry seal, fog seal, etc.
- ❑ Always park paving machines over drip pans or absorbent materials, since they tend to drip continuously.
- ❑ When making saw-cuts in pavement, use as little water as possible. Cover each catch basin completely with filter fabric during the sawing operation and contain the slurry by placing sand/gravel bags around the catch basin. After the liquid drains or evaporates, shovel or vacuum the slurry residue from the pavement or gutter and remove from site.
- ❑ Wash down exposed aggregate concrete only when the wash water can: (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.
- ❑ Allow aggregate rinse to settle, and pump the water to the sanitary sewer if allowed by your local wastewater authority.
- ❑ Never wash sweepings from exposed aggregate concrete into a street or storm drain. Collect and return to aggregate base stockpile, or dispose with trash.
- ❑ Recycle broken concrete and asphalt (check with the local planning or building department for more information).

Contaminated Ponded Stormwater, Groundwater, and Soil Guidance

Look for ponded stormwater, groundwater, and/or soil contamination

Ponded stormwater, groundwater and soil may become contaminated if exposed to hazardous materials. If any of the following conditions apply, contaminated ponded stormwater, groundwater, and/or soil may be present and pose a potential health and environmental hazard:

- ❑ The project site is in an area of previous commercial/industrial activity;
- ❑ There is a history of illegal dumping on the site or adjacent properties;
- ❑ The construction site is subject to a Superfund, state, or local cleanup order;
- ❑ Ponded stormwater, groundwater and/or water generated by dewatering exhibits an oily-sheen and/or smells of petroleum;
- ❑ Soil appears discolored, smells of petroleum and/or exhibits other unusual properties;
- ❑ Abandoned underground storage tanks, drums, or other buried debris are encountered during construction activities; or
- ❑ Spills have occurred on the site or adjacent properties involving pesticides and herbicides; fertilizers; detergents; plaster and other products; petroleum products such as fuel, oil, and grease; or other hazardous chemicals such as acids, lime, glues, paints, solvents, and curing compounds.

Take appropriate action

Ponded stormwater, groundwater, or water generated by dewatering that is contaminated cannot be discharged to a street, gutter, or storm drain. If contamination is suspected, the water should be contained and held for testing. Call the appropriate local agency and/or the Regional Water Quality Control Board for further guidance (See reference list on the back cover of this booklet for more information).

Remember: The property owner and the contractor share ultimate responsibility for the activities that occur on a construction site. You may be held responsible for any environmental damage caused by your subcontractors or employees.

Pollution Control Agencies and Sources of Information

Storm water quality management programs

Alameda Countywide Clean Water Program
951 Turner Court, Hayward, CA 94545
(510) 670-5543
www.cleanwaterprogram.com

Contra Costa Clean Water Program
255 Glacier Drive, Martinez, CA
94553-4897 (925) 313-2392
(800) NO DUMPING
www.cccleanwater.org

Fairfield-Suisun Urban Runoff Management Program
1010 Chadbourne Road
Fairfield, CA 94534 (707) 429-8930

Marin County Stormwater Pollution Prevention Program
3501 Civic Center Drive, Room 304,
San Rafael, CA 94903 (415) 499-6528
www.mcstoppp.org

San Francisco Stormwater Management Program
3801 3rd Street, Suite 600
San Francisco, CA 94124 (415) 695-7310
http://stormwater.sfwater.org

San Mateo Countywide Stormwater Pollution Prevention Program
555 County Center, Fifth Floor
Redwood City, CA 94063
(650) 363-4305
www.flowstobay.org

Santa Clara Valley Urban Runoff Pollution Prevention Program
699 Town & Country Village
Sunnyvale, CA 94086 (800) 794-2482
www.scvurppp.org

Sonoma County Water Agency
2150 West College Avenue
Santa Rosa, CA 95401
(707) 526-5370
www.scwa.org

Vallejo Sanitation and Flood Control District
450 Ryder Street, Vallejo, CA 94590
(707) 644-8949
www.vsfcd.com

Bay Area Stormwater Management Agencies Association (BASMAA)
1515 Clay Street, Suite 1400,
Oakland, CA 94612 (510) 622-2326
(888)BayWise www.basmaa.org

Agencies to call in the event of a spill

You are required by law to report all significant releases or suspected significant releases of hazardous materials, including oil.

To report a spill, call the following agencies:

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).

For spills of "Federal Reportable Quantities" of oil, chemicals, or other hazardous materials to land, air, or water, notify the National Response Center (800-424-8802). If you are not sure whether the spill is of a "reportable quantity," call the federal Environmental Protection Agency (800) 424-9340 for clarification.

For further information, see *California Hazardous Material Spill/ Release Notification Guidance* (State Office of Emergency Services, Hazardous Materials Division).

Agencies to call if you find or suspect contaminated soil or groundwater

Regional Water Quality Control Board:

San Francisco Bay Region
(510) 622-2300

Central Valley Region
(916) 255-3000

California Environmental Protection Agency (Cal EPA), Department of Toxic Substances Control (DTSC)
(510) 540-3732

Documents and available resources

From State Water Resources Control Board (SWRCB)
(916) 341-5537
www.swrcb.ca.gov

General Construction Activity Storm Water Permit

From Friends of the San Francisco Estuary
(510) 622-2465
www.abag.ca.gov/bayarea/sfep

Field Manual

Guidelines for Construction Projects

Hold On to Your Dirt – Video

Keep it Clean – Video

From Association of Bay Area Governments (ABAG)
(510) 464-7900
www.abag.ca.gov

Manual of Standards for Erosion and Sediment Control Measures

From Cal EPA, DTSC
(916) 322-3670
www.dtsc.ca.gov

Waste Minimization for the Building Construction Industry - Fact Sheet

From California Stormwater Quality Association (CASQA)
www.cabmphandooks.com

Stormwater Best Management Practice Handbook – Construction

THANKS

BASMAA adapted this booklet from one originally developed and generously shared by the Santa Clara Valley Nonpoint Source Pollution Control Program.

Illustrations by John Finger

© 2004 Bay Area Stormwater Management Agencies Association

♻ Printed on Recycled Paper

TDS ARCHITECTS, INC
total design solutions
ARCHITECTURE
PLANNING
INTERIOR DESIGN
2060 CLARMAR WAY, SUITE 200, SAN JOSE CA. 95128
408-977-9141 FAX 408-977-9144

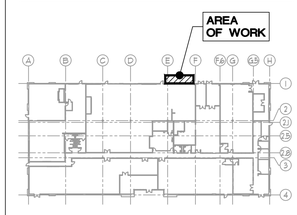
NO.	DESCRIPTION	DATE
-	ISSUED FOR 90% CLIENT REVIEW	07/22/26
-	ISSUED FOR PLAN CHECK	07/29/26

PROJECT

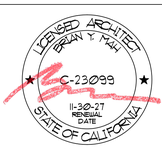
Sila

SILA NANO
2430
NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



KEY PLAN



BRIAN Y. MAH

DRAWING TITLE

CLEAN BAY
BLUE PRINT

JOB NUMBER	202640.00
DRAWN	SH
PROJECT START DATE	06/03/2026
SCALE	AS INDICATED
CHECKED	202640.00 CB.dwg

SHEET NUMBER

CB

ABBREVIATIONS

Ø	DIAMETER
AB	ANCHOR BOLT
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
ARCH	ARCHITECTURAL
BLDG	BUILDING
BLK'G	BLOCKING
BM	BEAM
BO	BOTTOM OF
BOF	BOTTOM OF FOOTING
BOT	BOTTOM
CB	COLUMN BASE
CC	CENTER TO CENTER
CL	CENTER LINE
CJ	CONSTRUCTION JOINT
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONN	CONNECTION
CONT	CONTINUOUS
CJP	COMPLETE JOINT PENETRATION
CTR	CENTER
CTRSK	COUNTERSINK
DCW	DEMAND CRITICAL WELD
DET	DETAIL
DF	DOUGLAS FIR
DWG	DRAWING
(E)	EXISTING
EA	EACH
EF	EACH FACE
EL OR ELEV	ELEVATION
ELECT	ELECTRICAL
EN	END (OR EDGE) NAILING
EQ	EQUAL
ES	EACH SIDE
EW	EACH WAY
EXT	EXTERIOR
FDN	FOUNDATION
FG	FINISH GRADE
FIN	FINISH
FL OR FLR	FLOOR
FOC	FACE OF CONCRETE
FOS	FACE OF STUD
FRM'G	FRAMING
FS	FAR SIDE
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GLB	GLU-LAMINATED BEAM
HD	HOLD DOWN
HORIZ	HORIZONTAL
HSB	HIGH STRENGTH BOLT
HT	HEIGHT
INT	INTERIOR
JH	JOIST HANGER
JT	JOINT
LLH (LLV)	LONG LEG HORIZONTAL (VERTICAL)
LT	LIGHT
LT WT	LIGHT WEIGHT
MB	UNFINISHED MACHINE BOLTS
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MTL	METAL
MIN	MINIMUM
MISC	MISCELLANEOUS
(N)	NEW
NIC	NOT IN CONTRACT
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
NW	NORMAL WEIGHT
OC	ON CENTER
OD (ID)	OUTSIDE (INSIDE) DIAMETER
OPG	OPENING
OPP	OPPOSITE
PA	PURLIN ANCHOR
PAF	POWER ACTUATED FASTENER
PL	PLATE
PJP or PP	PARTIAL JOINT PENETRATION
PLY	PLYWOOD
PSL	PARALLAM
PT	POINT
PTN	PARTITION
REF	REFERENCE
REINF	REINFORCEMENT
REQ	REQUIRED
RO	ROUGH OPENING
RWD	REDWOOD
SAD	SEE ARCHITECTURAL DRAWINGS
SED	SEE ELECTRICAL DRAWINGS
SCHED	SCHEDULE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SLRS	SEISMIC LOAD RESISTING SYSTEM
SMD	SEE MECHANICAL DRAWINGS
SPA	SPACE
SPEC	SPECIFICATION
SQ	SQUARE
ST	STRAP TIE
STAGG'D	STAGGERED
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SYMM	SYMMETRICAL
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TD	TIEDOWN
THRD'D	THREADED
TO	TOP OF
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOP	TOP OF PLATE
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
W/	WITH
W/O	WITHOUT
WP	WORK POINT
WT	WEIGHT

CONTRACTOR SUBMITTALS:

1. REVIEW OF SHOP DRAWINGS AND SUBMITTALS BY THE EOR IS FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS.
2. SHOP DRAWINGS MUST BE SUBMITTED TO THE ARCHITECT AND EOR FOR REVIEW PRIOR TO FABRICATION. THE CONTRACTOR IS RESPONSIBLE FOR ALL ERRORS OF DETAILING, FABRICATION, AND INSTALLATION OF STRUCTURAL MEMBERS INCLUDING COORDINATION WITH OTHER TRADES.
   A. SHOP DRAWING SUBMITTAL IS TO CONSIST OF EITHER ELECTRONIC FILES OR TWO HARD COPIES (ONE SET FOR OUR RECORDS AND ONE REPRODUCIBLE SET).
   B. SUBMITTALS ARE TO ACCOUNT FOR A REVIEW DURATION OF 10 BUSINESS DAYS.
   C. REPRODUCTION OF STRUCTURAL PLANS AND DETAILS FOR USE IN SHOP DRAWINGS IS PROHIBITED.
3. SHOP DRAWINGS AND SUBMITTALS DO NOT CONSTITUTE CHANGE ORDERS. ANY PROPOSED CHANGES TO THE STRUCTURAL DOCUMENTS MUST BE SUBMITTED AS A REQUEST FOR SUBSTITUTION TO THE ARCHITECT AND EOR FOR APPROVAL.
4. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND- OR SEISMIC FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A WIND- OR SEISMIC FORCE-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS MUST SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER OR OWNER'S AUTHORIZED AGENT PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OF COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY MUST CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.
5. THE FOLLOWING ITEMS SHOWN WITH AN 'X' ARE TO BE SUBMITTED TO THE ARCHITECT AND EOR:

SUBMITTAL	SHOP DRAWINGS	CALCULATIONS	CERTIFICATE OF CONFORMANCE
CONCRETE REINFORCING	X		X
CONCRETE MIX DESIGN	X		X
STRUCTURAL STEEL			X

STRUCTURAL OBSERVATION

1. STRUCTURAL OBSERVATION WILL BE PERFORMED IN ACCORDANCE WITH CBC CHAPTER 17 AT THE DISCRETION OF THE OWNER, ARCHITECT, EOR, AND AS REQUIRED BY THE BUILDING OFFICIAL.
2. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THIRD PARTY SPECIAL INSPECTIONS OR INSPECTIONS REQUIRED BY THE CITY.
3. THE FOLLOWING CONSTRUCTION PHASES REQUIRE A SITE VISIT AND STRUCTURAL OBSERVATION REPORT FROM THE EOR. ADDITIONAL SITE VISITS MAY BE REQUIR
   A. FINAL OBSERVATION OF COMPLETED STRUCTURE
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE EOR AS TO WHEN EACH AJOR PHASE OF CONSTRUCTION IS READY FOR OBSERVATION A MINIMUM OF FIVE WORKING DAYS IN ADVANCE.
5. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT REINFORCEMENT, NAILING, WELDS, CONNECTIONS, ETC. ARE VISIBLE FOR OBSERVATION WHEN THE EOR IS ON SITE.
6. AT THE CONCLUSION OF WORK INCLUDED IN THE PERMIT, THE STRUCTURAL OBSERVER IS TO SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE OBSERVATIONS HAVE BEEN MADE AND IDENTIFY ANY REPORTED DEFICIENCIES THAT HAVE NOT BEEN ADDRESSED.

STATEMENT OF SPECIAL INSPECTIONS AND TESTING

1. SPECIAL INSPECTIONS AND TESTING WILL BE PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND CBC SECTIONS 1704 AND 1705.
2. THE OWNER IS OBLIGATED TO ENSURE THAT THE CONSTRUCTION COMPLIES WITH THE APPROVED PERMIT DOCUMENTS AND TO IMPLEMENT THIS PROGRAM OF SPECIAL INSPECTIONS. IN PARTIAL FULFILLMENT OF THESE OBLIGATIONS, THE OWNER WILL RETAIN AND DIRECTLY PAY FOR THE SPECIAL INSPECTIONS AND TESTING AS REQUIRED IN CBC SECTION 1704.2.
3. THE BUILDING OFFICIAL IS RESPONSIBLE FOR:
   a. REVIEWING AND APPROVING THE QUALIFICATIONS OF THE SPECIAL INSPECTORS WHO WILL PERFORM THE INSPECTIONS,
   b. MONITORING SPECIAL INSPECTION ACTIVITIES ON THE JOB SITE TO ASSURE THAT THE SPECIAL INSPECTORS ARE QUALIFIED AND ARE PERFORMING THEIR DUTIES AS REQUIRED,
   c. REVIEWING SUBMITTED INSPECTION REPORTS
   d. PERFORMING INSPECTIONS AS REQUIRED BY THE LOCAL BUILDING CODE.
4. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND- OR SEISMIC FORCE RESISTING SYSTEM OR DESIGNATED COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS MUST SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY MUST CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STAEMENT OF SPECIAL INSPECTIONS.
5. THE MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM AND DESIGNATED COMPONENTS ARE SUBJECT TO SPECIAL INSPECTIONS PER CBC SECTION 1705.12 AND 1705.13. THE EXTENT OF THE WIND AND SEISMIC FORCE RESISTING SYSTEMS ARE DEFINED IN MORE DETAIL IN THE CONSTRUCTION DOCUMENTS.
6. APPROVED AGENCIES MUST KEEP RECORDS OF SPECIAL INSPECTIONS AND TESTS. AGENCIES MUST SUBMIT REPORTS OF SPECIAL INSPECTIONS AND TESTS TO THE BUILDING OFFICIAL AND TO THE EOR. REPORTS MUST INDICATE THAT WORK INSPECTED OR TESTED WAS OR WAS NOT COMPLETED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND EOR PRIOR TO COMPLETION. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS, TESTS, AND CORRECTION OF DISCREPANCIES MUST BE SUBMITTED PRIOR TO ISSUANCE OF A CERTIFICATE OF USE AND OCCUPANCY.
7. THIS SPECIAL INSPECTION PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO COMPLY WITH THE CONTRACT DOCUMENTS. JOBSITE SAFETY AND MEANS AND METHODS OF CONSTRUCTION ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

FOUNDATIONS

1. SIZES OF FOOTINGS AND ELEVATIONS AT BOTTOMS OF FOOTINGS HAVE BEEN ESTABLISHED BASED ON THE SOILS REPORT "GEOTECHNICAL LETTER REPORT – NMP VAPOR ABATEMENT" BY LANGAN, DATED 31 JULY 2026.
2. WITHIN THE BUILDING PAD AREA, AFTER DEMOLITION, CLEARING AND GRUBBING, THE SOILS SHALL BE REMOVED TO A DEPTH OF AT LEAST 24 INCHES BELOW EXISTING GRADE. THE SOILS EXPOSED AT THE BASE OF THIS OVER-EXCAVATION SHOULD BE EXAMINED BY THE GEOTECHNICAL ENGINEER TO DOCUMENT THAT THE EXPOSED SOILS ARE SUITABLE FOR BUILDING SUPPORT. THE LATERAL EXTENT OF THIS RECOMMENDATION SHOULD EXTEND AT LEAST 3 FEET BEYOND THE BUILDING FOOTPRINT, EXCEPT WHERE CONSTRAINED BY EXISTING PADS, CURBS OR THE 2430 BUILDING. THE SOILS EXPOSED AT THE BASE OF THIS OVER-EXCAVATION SHOULD THEN BE SCARIFIED TO A DEPTH OF 6 INCHES, MOISTURE TREATED TO NEAR OPTIMUM MOISTURE CONTENT, AND THEN COMPACTED TO AT LEAST 90% OF THE SOILS MAXIMUM DRY DENSITY, PER ASTM D1557. IF SOFT AREAS ARE ENCOUNTERED, THE SOFT MATERIAL SHOULD BE REMOVED AND REPLACED WITH EITHER LEAN CONCRETE OR ENGINEERED FILL, UNLESS BAY MUD IS ENCOUNTERED IN THE BOTTOM OF THE EXCAVATION. IF BAY MUD IS ENCOUNTERED IN THE BOTTOM OF THE EXCAVATION, PROVIDED THE EXCAVATION IS DEEP ENOUGH TO ACCOMMODATE THE PROPOSED MAT FOUNDATION AND TWO ADDITIONAL FEET OF COMPACTED FILL UNDERNEATH THE MAT, NO ADDITIONAL EXCAVATION IS REQUIRED. PRIOR TO PLACING ENGINEERED FILL, NATIVE SOIL SHALL BE PROOF ROLLED & THE GEOTECHNICAL ENGINEER SHALL BE NOTIFIED TO VERIFY STABILITY.
3. MINIMUM ALLOWABLE SOIL BEARING PRESSURES ARE:
   A. DEAD + LIVE: 1500 PSF
   B. DEAD + LIVE + SEISMIC LOADS: 2000 PSF
   C. PASSIVE PRESSURE: 300 PCF
   D. FRICTIONAL RESISTANCE: 0.35
4. PLACEMENT OF FILL AND RE-COMPACTION OF NATIVE SOILS SHALL BE IN ACCORDANCE WITH THE SOILS REPORTS LISTED.

STEEL

1. PLATES: ASTM A36.
2. ANGLES: ASTM A36, GR 50.
3. HSS: ASTM A500, GRADE B.
4. PIPES: ASTM A53, GRADE B.
5. MACHINE BOLTS: ASTM A307.
6. WELDING ELECTRODES: E-70XX.
7. HOT-DIP GALVANIZE ALL STEEL SHAPES, PLATES, AND STEEL DECKING EXPOSED TO WEATHER OR UNHEATED SPACES IN ACCORDANCE WITH C90 GALVANIZATION, OR PAINT PER OWNER REQUIREMENTS. TOUCH UP WELDED AREAS WITH ZINC-RICH PAINT. PAINT EXPOSED SURFACES WITH EPOXY PAINT SYSTEMS AS REQUIRED BY ARCHITECTURAL DRAWINGS.

POST-INSTALLED ANCHORS

1. EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE MANUFACTURER OR OTHER SUCH METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS OR DRILLING METHODS MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT MEETS OR EXCEEDS THE PERFORMANCE CAPACITIES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BASED ON AN APPROVED EVALUATION REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USE, LOAD RESISTANCE, INSTALLATION CATEGORY, AND/OR AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE, AND INSTALLATION TEMPERATURE.
2. EXPANSION ANCHORS INTO CONCRETE
   A. HILTI KWIK BOLT TZ2 (ESR-4266)

HILTI KWIK BOLT TZ IN NORMAL WEIGHT, CRACKED CONCRETE					
ANCHOR DIAMETER (in.)	MINIMUM EMBEDMENT DEPTH, h_{nom} (in.)	MINIMUM CONCRETE THICKNESS (in.)	TENSION TEST VALUE (lbs)		TORQUE TEST VALUE (ft-lbs)
			CONCRETE STRENGTH (psi)		
			2,500	4,000	
⅜	2⅜	4	1,383	1,750	25
½	3⅜	6	2,995	3,789	40
⅝	4⅞	6	4,144	5,241	60
¾	5⅛	8	5,363	6,783	110

   B. SIMPSON STRONG-TIE STRONG-BOLT 2 (ESR-3037)

SIMPSON STRONG-TIE STRONG-BOLT 2 IN NORMAL WEIGHT, CRACKED CONCRETE					
ANCHOR DIAMETER (in.)	MINIMUM EMBEDMENT DEPTH, h_{nom} (in.)	MINIMUM CONCRETE THICKNESS (in.)	TENSION TEST VALUE (lbs)		TORQUE TEST VALUE (ft-lbs)
			CONCRETE STRENGTH (psi)		
			2,500	4,000	
⅜	2⅜	4½	1,690	2,138	30
½	3⅛	6	3,038	3,843	60
⅝	5⅛	7⅛	4,200	5,315	90
¾	5¾	8¾	5,180	6,550	150
1	9¾	13½	5,768	7,295	230

3. ANCHORS ARE CARBON STEEL, UON AS STAINLESS STEEL OR HOT-DIPPED GALVANIZED IN THE DETAIL.
4. STEEL ELEMENTS FOR USE WITH ADHESIVE MUST BE ONE OF THE FOLLOWING UON:
   A. THREADED STEEL RODS: ASTM A193 GRADE B7, ASTM A307, ASTM F1554 GRADE 36/55/105, OR GRADE 304 OR 316 STAINLESS STEEL AS SPECIFIED ON PLANS.
   B. REINFORCING BARS: ASTM A615 GRADE 60.
5. INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS INCLUDING HOLE DRILLING, HOLE CLEANING, AND MINIMUM INSTALLATION TEMPERATURE. USE OF A DIAMOND CORE BIT WITH ROUGHENING TOOL FOR ANCHOR HOLES REQUIRES APPROVAL FROM ENGINEER OF RECORD PRIOR TO DRILLING. DRILL ALL HOLES PERPENDICULAR TO THE CONCRETE SURFACE UON.
6. CONCRETE AT TIME OF INSTALLATION MUST HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500. PSI AND A MINIMUM AGE OF 21 DAYS FOR ADHESIVE ANCHORS AND 7 DAYS FOR MECHANICAL ANCHORS. CMU AT TIME OF INSTALLATION MUST HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1,500 PSI AND A MINIMUM AGE OF 7 DAYS.
7. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL ANCHOR PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF ANCHOR INSTALLATION.
8. ANCHOR CAPACITY IS DEPENDENT ON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
9. WHEN INSTALLING ANCHORS INTO EXISTING NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING REINFORCING BARS.
10. FOR CONCRETE, TENSION TEST VALUES CORRESPOND TO 125% OF THE STRENGTH DESIGN VALUES CALCULATED FROM THE CODE REPORTS FOR ANCHORS IN CRACKED CONCRETE, HIGH SEISMIC ZONES, TEMPERATURE RANGE A/1, DRY CONCRETE, PERIODIC SPECIAL INSPECTION, AND CONDITION B WITHOUT EDGE DISTANCE OR SPACING EFFECTS.
11. ALTERNATE PRODUCTS MUST BE SUBMITTED VIA PROPER CHANNELS TO THE EOR FOR SUBSTITUTION AND APPROVED BY THE EOR PRIOR TO INSTALLATION.
12. ALL ANCHORS REQUIRE A MINIMUM OF PERIODIC SPECIAL INSPECTION UON.

GENERAL

1. THESE DRAWINGS ARE COPY RIGHTED INSTRUMENTS OF SERVICE OF SALAS O'BRIEN STRUCTURAL ENGINEERS. FOR USE ONLY ON THIS PROJECT UNLESS OTHERWISE NOTED.
2. CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO SHORING AND TEMPORARY BRACING. THE CONTRACTOR MUST TAKE ALL NECESSARY MEASURES TO ENSURE SAFETY OF ALL PERSONS AND STRUCTURES THROUGHOUT CONSTRUCTION IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL SAFETY ORDINANCES. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT, ENGINEER, OR CONSTRUCTION MANAGER DO NOT RELIEVE THE CONTRACTOR OF SUCH RESPONSIBILITY.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL NECESSARY LICENSES AND PERMITS. THE CONTRACTOR MUST CONFORM TO ALL STATE AND LOCAL LAWS GOVERNING THE WORK.
4. THE CONTRACTOR MUST VERIFY THE LOCATION OF EXISTING UTILITIES BEFORE BEGINNING WORK. SPECIAL CARE MUST BE TAKEN TO PROTECT UTILITIES THAT ARE TO REMAIN IN SERVICE DURING CONSTRUCTION.
5. ALL CONSTRUCTION TO BE PERFORMED IN A MANNER THAT WILL MINIMIZE IMPACT ON THE CONTINUING OPERATION OF THE BUILDING & SITE. CONTRACTOR TO PROVIDE APPROPRIATE BARRIERS AROUND CONSTRUCTION. COORDINATE ALL OPERATIONS WITH THE OWNER.
6. THE SCOPE OF WORK INCLUDES CLEANUP NECESSARY TO LEAVE THE BUILDING IN A NEAT AND USABLE CONDITION. ALL REMOVED ITEMS, MATERIALS AND DEBRIS, UNLESS OTHERWISE NOTED, BECOME THE PROPERTY OF THE DEMOLITION CONTRACTOR AND MUST BE REMOVED PROMPTLY FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
7. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH CONSTRUCTION DOCUMENTS FROM OTHER DISCIPLINES. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DISCIPLINES INTO THEIR SHOP DRAWINGS AND WORK.
8. SEE DRAWINGS OTHER THAN STRUCTURAL FOR TYPES OF FLOOR FINISH AND THEIR LOCATION, DEPRESSIONS IN FLOOR SLABS, OPENINGS IN WALLS AND FLOORS REQUIRED BY ARCHITECTURAL AND MECHANICAL FEATURES, WALKS, RAMPS, STAIRS, CURBS, PAVING, ETC.
9. DO NOT USE SCALED DIMENSIONS; USE WRITTEN DIMENSIONS. WHERE NO DIMENSION IS PROVIDED CONSULT THE ARCHITECT FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
10. CHANGES TO THE SIZE OR MATERIAL OF STRUCTURAL ELEMENTS AND PENETRATIONS THROUGH STRUCTURAL MEMBERS CAN NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
11. OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS, NOTES, AND DETAILS MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND RESOLVED BEFORE PROCEEDING WITH THE WORK. IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR CALLED FOR ON THE DRAWINGS OR SPECIFICATIONS, THEIR CONSTRUCTION WILL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE CALLED FOR OR SHOWN. ALL DETAILS REFERENCED ONCE APPLY TO ALL SIMILAR CONDITIONS.

EXISTING CONSTRUCTION

1. WORK SHOWN IS NEW UNLESS NOTED AS EXISTING: (E).
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS, AND VERIFY DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST NOTIFY THE ARCHITECT OF ALL DISCREPANCIES AND EXCEPTIONS BEFORE PROCEEDING WITH THE WORK.
3. THE REMOVAL, CUTTING, DRILLING, ETC. OF EXISTING WORK MUST BE PERFORMED WITH GREAT CARE AND SMALL TOOLS IN ORDER NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE BUILDING. SEE ARCHITECTURAL DRAWINGS FOR REQUIRED DEMOLITION. IF STRUCTURAL MEMBERS OR MECHANICAL, ELECTRICAL, OR ARCHITECTURAL FEATURES NOT INDICATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE ARCHITECT MUST BE IMMEDIATELY NOTIFIED AND PRIOR APPROVAL MUST BE OBTAINED BEFORE REMOVAL OF MEMBERS.
4. THE CONTRACTOR MUST SAFELY SHORE EXISTING CONSTRUCTION WHEREVER EXISTING SUPPORTS ARE REMOVED TO ALLOW THE INSTALLATION OF THE NEW WORK. ALL SHORING METHODS AND SEQUENCING OF DEMOLITION MUST BE SPECIFIED BY A LICENSED CIVIL OR STRUCTURAL ENGINEER RETAINED BY THE CONTRACTOR.
5. ALL FINISHES, STRUCTURAL ELEMENTS, AND ARCHITECTURAL FEATURES AFFECTED BY CONSTRUCTION TO BE REPAIRED AND/OR REPLACED ARE TO MATCH EXISTING CONSTRUCTION.

DESIGN BASIS

1. APPLICABLE CODE: CALIFORNIA BUILDING CODE, 2025 EDITION.
2. VERTICAL LIVE LOADS:
   SOG: 100 PSF
   ROOF LIVE LOAD: 20 PSF
3. WIND LOADS:
   V_{ULT} = 92 MPH
   RISK CATEGORY II
   EXPOSURE C
   OPEN STRUCTURE (GC_{Pi} = 0)
4. SEISMIC LOADS:
   RISK CATEGORY II
   SEISMIC IMPORTANCE FACTOR I_E = 1.0
   SEISMIC COMPONENT IMPORTANCE FACTOR I_P = 1.5
   SITE CLASS DEFAULT
   S_{DS} = 1.74
   S_1 = 0.6
   S_{DS} = 1.27
   S_{D1} = 1.13
   SEISMIC DESIGN CATEOGRY D
5. EQUIPMENT ANCHORAGE IS PER ASCE 7-22 CH 13 WITH AP, RP AND Ω PER TABLE 13.5-1 AND 13.6-1 FOR EACH EQUIPMENT.

CONCRETE

1. CONCRETE CLASSES:

CLASS	USE	28-DAY STRENGTH (PSI)	MAXIMUM AGGREGATE SIZE (INCH)	MAX WEIGHT (PCF)	MAX W/C RATIO	% FLYASH	MAX SLAG %
A	MAT SLAB, HOUSEKEEPING PAD	4000	1	155	0.5	15-25	30

2. CONCRETE MIXING MUST COMPLY WITH ASTM C94.
3. THOROUGHLY CONSOLIDATE ALL CONCRETE.
4. REINFORCING STEEL:
   A. BARS: ASTM A615, GRADE 60.
   B. ALL CONCRETE IS REINFORCED UNLESS SPECIFICALLY MARKED "NOT REINFORCED"
5. TERMINATION OF REINFORCEMENT
   A. TERMINATE ALL BARS IN LAPS, 90 DEGREE BENDS, OR WITH DOWELS INTO EXISTING CONCRETE.
   B. BEND TOP FOOTING BARS DOWN TO BOTTOM MAT AT ENDS.
   C. BEND BOTTOM FOOTING BARS UP WITH STANDARD 90 DEGREE BENDS.
   D. PROVIDE DOWELS INTO FOOTINGS AT WALLS OF SAME SIZE AND SPACING AS WALL VERTICAL REINFORCEMENT.
   E. ALL REINFORCEMENT MAY LAP WITH COUPLERS WHICH ARE 125% OF BAR STRENGTH OR GREATER. SUBMIT ICBO REPORT.
   F. DO NOT FIELD BEND REINFORCING WITHOUT PRIOR APPROVAL FROM THE EOR.
6. MINIMUM CONCRETE COVER FOR REINFORCING STEEL:
   A. SURFACES PLACED AGAINST EARTH 3"
   B. FORMED SURFACES BELOW GRADE 2"
   C. SURFACES EXPOSED TO WEATHER 2"
   D. SLABS AND WALLS NOT EXPOSED TO WEATHER 1"

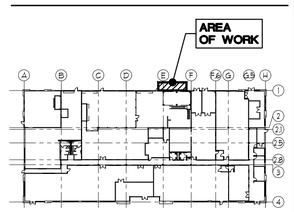
NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMIT	07/27/26

PROJECT

Sila

SILA NANO 2430 NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



KEY PLAN

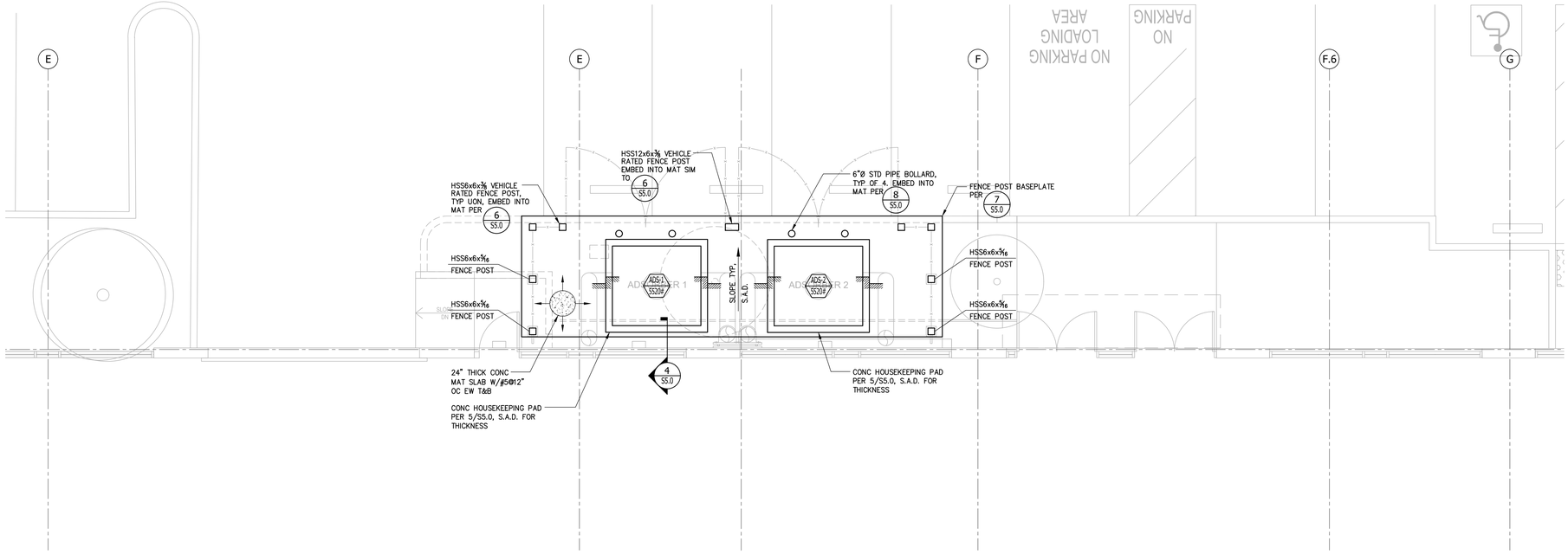


DRAWING TITLE

GENERAL NOTES

JOB NUMBER	2699-00027-00
SHEET NUMBER	S1.0
DRAWN	PIL
PROJECT START DATE	-
SCALE	AS NOTED
CHECKED	ADM

Z:\BE\Projects\Legacy\BEW\99\2026 Projects\2699-00027-00 Sila NMP Vapor Abatement\03_BIM-CAD\02_Struct\2699-00027-00-S1.0.dwg Aug 04, 2026 - 2:35pm anthony.demayo



1 FOUNDATION PLAN

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

EQUIPMENT ANCHORAGE SCHEDULE								
SYMBOL	EQUIPMENT	"L" LENGTH (IN)	"W" OR DIA (IN)	"H" HEIGHT (IN)	MAX WT (LBS)	ANCHOR QTY	REF DETAIL	NOTES
ADS 1–2	ADSORBER	72	80	80	5520	⅜"ø x 3¼ EFF EMBED KB–TZ2 SS	13/S5.0	1–5

NOTES:

1. CONTRACTOR SHALL SUBMIT ALL EQUIPMENT CUTSHEETS (INDICATING DIMENSIONS AND OPERATING WEIGHTS) TO SALAS O'BRIEN FOR FINAL REVIEW PRIOR TO INSTALLATION.
2. ANCHORS SPECIFIED ARE MINIMUM QUANTITIES. ADDITIONAL ANCHORS SHALL BE INSTALLED AS REQUIRED BY MANUFACTURER. ANCHOR SPECIFIED ARE TO BE EQUALLY SPACED ALONG EACH SIDE OF THE UNIT UNLESS OTHERWISE REQUIRED BY THE MFR OR IN THE NOTES ABOVE.
3. SEE DRAWINGS BY OTHERS FOR EQUIPMENT LOCATIONS.
4. ALL ANCHORS & HARDWARE (INCLUDING BUT NOT LIMITED TO UNISTRUT CHANNELS, ANCHOR PLATES, BOLTS, NUTS, WASHERS, EMBEDDED ANCHORS, ETC) LOCATED IN CLEAN ROOMS OR EXPOSED TO WEATHER SHALL BE STAINLESS STEEL.
5. CONTRACTOR TO COORDINATE ANCHORAGE WITH MANUFACTURER.

2 OUTDOOR EQUIPMENT ANCHORAGE SCHEDULE

Scale: NTS

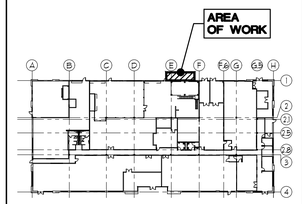
NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMIT	07/27/26

PROJECT

Sila

SILA NANO 2430 NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



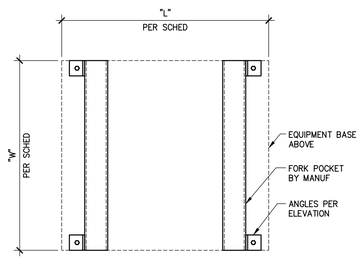
KEY PLAN



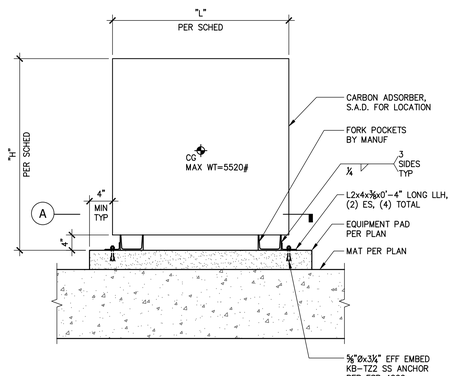
DRAWING TITLE

JOB NUMBER	SHEET NUMBER
2699-00027-00	S2.0
DRAWN: PIL	
PROJECT START DATE: -	
SCALE:	
CHECKED:	

Z:\BE\Projects\Legacy\BEW\99\2026 Projects\2699-00027-00 Sila NMP Vapor Abatement\03_BIM-CAD\02_Struct\2699-00027-00-S2.0.dwg Aug 04, 2026 - 2:37pm anthony.demoyo

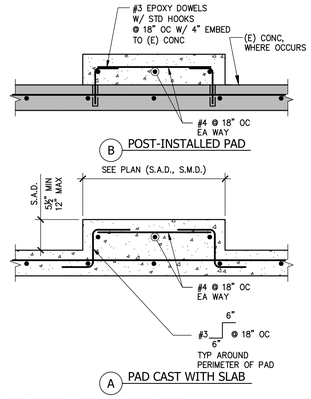


PLAN



13 CARBON ADSORBER ANCHORAGE

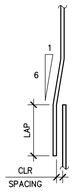
Scale: NTS



5 TYPICAL CURB AND PAD

Scale: NTS

CONCRETE STRENGTH	f'c = 4,000 PSI			
CLASS OF LAP SPLICE	CLASS "A"		CLASS "B"	
BAR SIZE \ CASE	BOTTOM BARS	TOP BARS	BOTTOM BARS	TOP BARS
#3	1'-3"	1'-7"	1'-7"	2'-1"
#4	1'-7"	2'-1"	2'-1"	2'-9"
#5	2'-0"	2'-7"	2'-7"	3'-5"
#6	2'-5"	3'-1"	3'-1"	4'-1"
#7	3'-6"	4'-6"	4'-6"	5'-11"
#8	4'-0"	5'-2"	5'-2"	6'-9"
#9	4'-6"	5'-10"	5'-10"	7'-7"
#10	5'-0"	6'-6"	6'-6"	8'-5"
#11	5'-6"	7'-1"	7'-1"	9'-3"



NOTES:

1. USE THE CLASS B LAP SPLICE LENGTHS, MULTIPLIED BY THE APPLICABLE FACTOR(S) LISTED BELOW, UNLESS OTHERWISE NOTED. CLASS A SPLICES MAY ONLY BE USED WHERE NOTED ON THE DRAWINGS.
2. TOP BARS ARE ALL HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
3. WHERE THE CLEAR SPACING OF BARS BEING SPLICED IS LESS THAN TWO BAR DIAMETERS OR BAR COVER IS LESS THAN ONE BAR DIAMETER, INCREASE THE LAP OR DEVELOPMENT LENGTH BY 50%.
4. LAP SPLICE LENGTHS IN TABLE ARE FOR NORMAL WEIGHT CONCRETE. WHERE LIGHTWEIGHT CONCRETE IS USED, INCREASE LAP SPLICE LENGTHS BY 33%.
5. WHEN DIFFERENT SIZE BARS ARE LAPPED, PROVIDE THE LARGER LAP SPLICE LENGTH PER THE TABLE.
6. AS AN ALTERNATIVE TO LAP SPLICES, ICC APPROVED MECHANICAL BAR COUPLERS MAY BE USED. MECHANICAL COUPLERS SHALL TRANSMIT 125% OF THE YIELD STRENGTH OF THE REINFORCING BARS THAT ARE SPLICED.
7. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS SHALL BE STAGGERED.
8. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS CONTAINING TWO CURTAINS OF REINFORCEMENT SHALL NOT OCCUR IN THE SAME LOCATION.
9. IN SHOTCRETE WALLS, PROVIDE NON-CONTACT LAP SPLICES WITH 2" MINIMUM CLEAR SPACING BETWEEN BARS

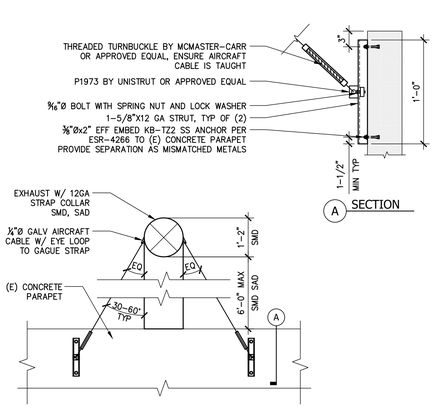
1 LAP SPLICE LENGTHS AND DEVELOPMENT (Fy=60 KSI)

Scale: NTS

BAR SIZE	MAIN REINFORCING			STIRRUPS & TIES		
	D	180° HOOK L	90° HOOK L	D	90° HOOK L	135° HOOK L
#3	2¼"	4"	6"	1½"	4"	4¼"
#4	3"	4½"	8"	2"	4½"	4½"
#5	3⅜"	5"	10"	2½"	6"	5½"
#6	4½"	6"	12"	4½"	12"	8"
#7	5¼"	7"	14"	5¼"	14"	9"
#8	6"	8"	16"	6"	16"	10½"
#9	9½"	10½"	19½"			
#10	10¾"	11¾"	22"			
#11	12"	13¾"	24½"			
#14	18¼"	17¾"	31¼"			
#18	24"	23½"	41½"			

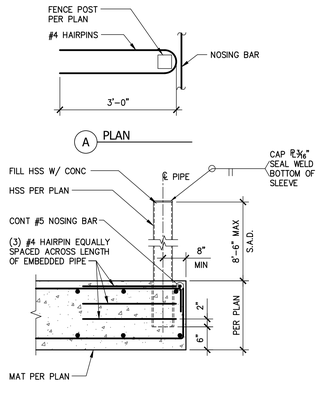
2 TYPICAL REBAR BENDS AND HOOKS

Scale: NTS



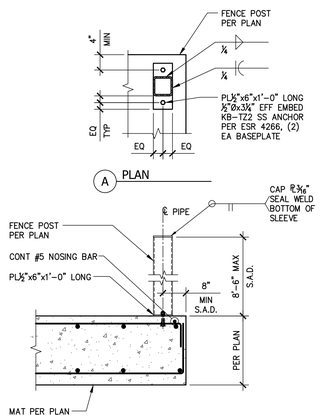
10 EXHAUST DUCT SUPPORT

Scale: NTS



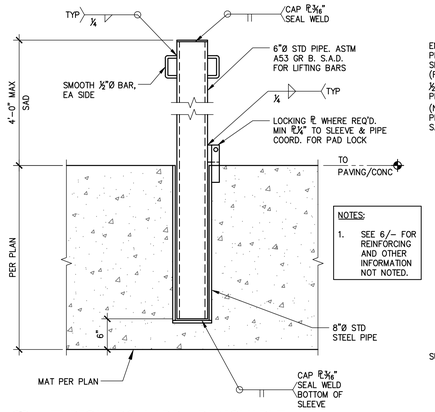
6 VEHICLE BOLLARD AT MAT THICKENED EDGE

Scale: NTS



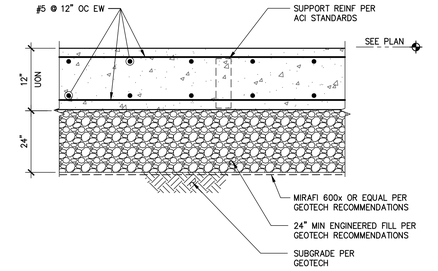
7 FENCE POST AT MAT THICKENED EDGE

Scale: NTS



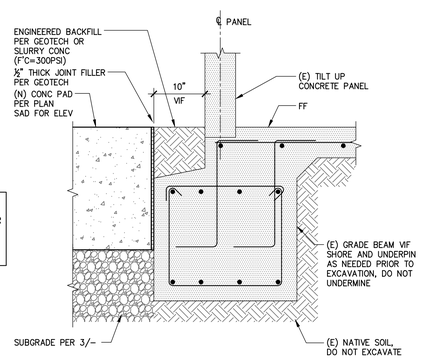
8 TYPICAL BOLLARD - REMOVABLE

Scale: 1"=1'-0"



3 TYPICAL EQUIPMENT PAD

Scale: NTS



4 (N) PAD AT (E) EXTERIOR GRADE BEAM

Scale: NTS

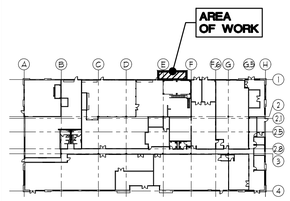
NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMIT	07/27/26

PROJECT

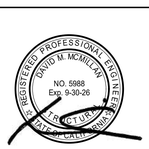
Sila

SILA NANO 2430 NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



KEY PLAN



DRAWING TITLE

DETAILS

JOB NUMBER	SHEET NUMBER
2699-00027-00	S5.0
DRAWN: PIL	
PROJECT START DATE: -	
SCALE: AS NOTED	
CHECKED: ADM	

Z:\BE\Projects\Legacy\BEW\99\2026 Projects\2699-00027-00 Sila NMP Vapor Abatement\03_BIM-CAD\02_Struct\2699-00027-00-S5.0.dwg Jul 28, 2026 - 5:23pm anthony.demoyo

NCE POST PER PLAN

SILA NANOTECHNOLOGIES

NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501

Western Allied MECHANICAL
33210 Central Ave, Union City, CA 94587
(650) 326-0750
CA State License No. 826782

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF WESTERN ALLIED MECHANICAL, INC. THE DRAWINGS CONTAINING THIS DESIGN ARE AND SHALL REMAIN THE PROPERTY OF WESTERN ALLIED MECHANICAL, INC.

COMMUNICATION OF THIS DESIGN WITHOUT THE CONSENT OF WESTERN ALLIED MECHANICAL, INC. CONSTITUTES A VIOLATION OF THE LAWS OF THIS STATE.

CONTACT INFORMATION

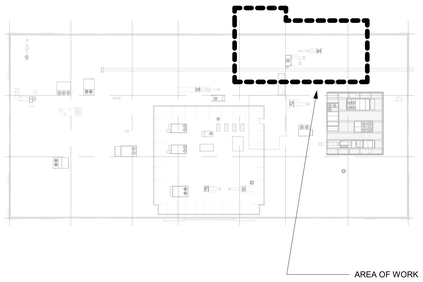
Western Allied MECHANICAL
33210 Central Ave, Union City, CA 94587
(650) 326-0750
CA State License No. 826782

PROJECT MANAGER: JEREMY GOODLAND
(650) 326-0750
DESIGN ENGINEER: CHRIS BUI
(650) 326-0750

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF WESTERN ALLIED MECHANICAL, INC. THE DRAWINGS CONTAINING THIS DESIGN ARE AND SHALL REMAIN THE PROPERTY OF WESTERN ALLIED MECHANICAL, INC.

COMMUNICATION OF THIS DESIGN WITHOUT THE CONSENT OF WESTERN ALLIED MECHANICAL, INC. CONSTITUTES A VIOLATION OF THE LAWS OF THIS STATE

KEY PLAN



SITE PLAN



DRAWING INDEX

SHEET NUMBER	SHEET NAME	CURRENT REVISION
M0.0	COVER SHEET	-
M0.1	LEGEND & ABBREVIATIONS	-
M0.2	TITLE-24 DOCUMENTS	-
M0.3	SCHEDULES & MECHANICAL DETAILS	-
M2.1	FLOOR PLAN	-
M2.2	ROOF PLAN	-
M3.1	ISOMETRIC PLAN VIEW	-

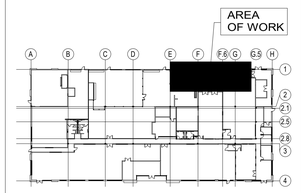
NO.	DESCRIPTION	DATE
-	IFP	07/29/26

PROJECT

Sila

SILA NANO
NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



KEY PLAN



DRAWING TITLE

COVER SHEET

JOB NUMBER	SHEET NUMBER
48549053	M0.0
DRAWN: CB	
PROJECT START DATE: 05/20/2026	
SCALE: 1" = 40'-0"	
CHECKED: DG	

CODES AND REGULATIONS

APPLICABLE CODES

CALIFORNIA BUILDING CODE	2025 ED.
CALIFORNIA FIRE CODE	2025 ED.
CALIFORNIA MECHANICAL CODE	2025 ED.
CALIFORNIA PLUMBING CODE	2025 ED.
CALIFORNIA ELECTRICAL CODE	2025 ED.
CALIFORNIA ENERGY STANDARDS	2025 ED.
CAL GREEN CODE	2025 ED.
ALONG WITH ANY OTHER APPLICABLE LOCAL AND STATE LAWS AND REGULATIONS	

SCOPE OF WORK

1. SUPPLY, FABRICATE, AND INSTALL DUCTWORK CONNECTING THE PCL COATER FAN TO THE CARBON ADSORBER.

PROJECT INFORMATION

BUILDING:	SEE ARCH. DRAWINGS
ADDRESS:	2430 MARINER SQUARE LOOP, ALAMEDA, CA 94501
BUILDING OCCUPANCY:	SEE ARCH. DRAWINGS
NUMBER OF FLOORS:	SEE ARCH. DRAWINGS
TOTAL SQUARE FEET:	SEE ARCH. DRAWINGS
AREA OF WORK:	SEE ARCH. DRAWINGS

TITLE-24 ENERGY EFFICIENCY STANDARDS FOR NON-RESIDENTIAL BUILDINGS

CERTIFICATION OF EQUIPMENT EFFICIENCY (§ 110.0 AND § 110.1)

A. ANY APPLIANCE FOR WHICH THERE IS A CALIFORNIA STANDARD ESTABLISHED IN THE APPLIANCE EFFICIENCY REGULATIONS MAY BE INSTALLED ONLY IF THE MANUFACTURER HAS CERTIFIED TO THE COMMISSIONS, AS SPECIFIED IN THOSE REGULATIONS, THAT THE APPLIANCE COMPLIES WITH THE APPLICABLE STANDARD FOR THAT APPLIANCE. FOR CERTIFIED APPLIANCES, GO TOWWW.ENERGY.CA.GOV/APPLIANCE/DATABASE

HVAC EQUIPMENT EFFICIENCIES (§ 110.2)

A. MECHANICAL EQUIPMENT INSTALLED IN A BUILDING SUBJECT TO THESE REGULATIONS MUST BE CERTIFIED AS MEETING CERTAIN MINIMUM EFFICIENCY. THESE REQUIREMENTS ARE CONTAINED IN §110.2. THE AFUE, COP, EER, IPLV, COMBUSTION EFFICIENCY, AND THERMAL EFFICIENCY VALUES OF ALL EQUIPMENT MUST BE DETERMINED USING THE APPLICABLE TEST METHOD SPECIFIED IN THE STANDARDS.

B. THE FOLLOWING SPACE-CONDITIONING EQUIPMENT MAY BE INSTALLED ONLY IF THE MANUFACTURER HAS CERTIFIED THAT THE EQUIPMENT MEETS OR EXCEEDS ALL APPLICABLE EFFICIENCY REQUIREMENTS OF THE STANDARDS: ALL AIR CONDITIONERS, HEAT PUMPS AND CONDENSING UNITS >135,000 BTU/HR ALL WATER CHILLERS AND OPEN AND CLOSED-CIRCUIT COOLING TOWERS.

C. ALL GAS AND OIL FIRED FURNACES AIR FURNACES WITH INPUT RATING >225,000 BTU/HR SHALL HAVE AN INTERMITTENT IGNITION OR INTERRUPTED DEVICE (IDD), AND HAVE EITHER POWER VENTING OR A FLUE DAMPER.

VENTILATION (§ 120.1)

A. ALL ENCLOSED SPACES IN A BUILDING THAT ARE NORMALLY USED BY HUMANS SHALL BE VENTILATED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION AND THE CBC.

B. THE OUTDOOR AIR-VENTILATION RATE AND AIR-DISTRIBUTION ASSUMPTIONS MADE IN THE DESIGN OF THE VENTILATING SYSTEM SHALL BE CLEARLY IDENTIFIED ON THE BUILDING PLANS REQUIRED BY §10-103 OF TITLE 24, PART 1

C. EVERY SPACE IN A BUILDING SHALL BE DESIGNED TO HAVE OUTDOOR AIR-VENTILATION EITHER BY NATURAL VENTILATION OR MECHANICAL VENTILATION.

D. TIMES OF OCCUPANCY: THE MINIMUM RATE OF OUTDOOR AIR REQUIRED BY SECTION 120.1(C) SHALL BE SUPPLIED TO EACH SPACE AT ALL TIMES WHEN THE SPACE IS USUALLY OCCUPIED. OCCUPANT SENSING OR VENTILATION CONTROLS ARE REQUIRED FOR SPACE- CONDITIONING ZONES.

E. DUCTING FOR ZONAL HEATING AND COOLING UNITS. WHERE A RETURN PLENUM IS USED TO DISTRIBUTE OUTDOOR AIR TO A ZONAL HEATING OR COOLING UNIT WHICH THEN SUPPLIES THE AIR TO A SPACE IN ORDER TO MEET THE REQUIREMENTS OF SECTION 120.1(C)3, THE OUTDOOR AIR SHALL BE DUCTED TO DISCHARGE EITHER: WITHIN 5 FEET OF THE UNIT; OR WITHIN 15 FEET OF THE UNIT, SUBSTANTIALLY TOWARD THE UNIT, AND AT A VELOCITY NOT LESS THAN 500 FEET PER MINUTE.

F. DESIGN AND CONTROL REQUIREMENTS FOR QUANTITIES OF OUTDOOR AIR. ALL MECHANICAL VENTILATION AND SPACE-CONDITIONING SYSTEMS SHALL BE DESIGNED WITH AND HAVE INSTALLED DUCTWORK, DAMPERS, AND CONTROLS TO ALLOW OUTSIDE AIR RATES TO BE OPERATED AT THE LARGER OF (1) THE MINIMUM LEVELS SPECIFIED IN SECTION 120.1(C)3 OR (2) THE RATE REQUIRED FOR MAKE-UP OF EXHAUST SYSTEMS THAT ARE REQUIRED FOR A PROCESS, FOR CONTROL OF ODORS, OR FOR THE REMOVAL OF CONTAMINANTS WITHIN THE SPACE.

DEMAND CONTROL VENTILATION § 120.1

A. EVERY SYSTEM REQUIRING DEMAND CONTROL VENTILATION. THEY MUST HAVE AND AIR ECONOMIZER; AND THEY SERVE A SPACE WITH A DESIGN OCCUPANT DENSITY, OR A MAXIMUM OCCUPANT LOAD FACTOR FOR EGRESS PURPOSES, GREATER THAN OR EQUAL TO 25 PEOPLE PER 1000FT ² (40 SQUARE FOOT PER PERSON); AND IS EITHER A SINGLE ZONE SYSTEM WITH ANY CONTROLS OR MULTIPLE ZONE SYSTEMS WITH DIRECT DIGITAL CONTROLS (DDC) TO THE ZONE LEVEL.

CONTROLS (§ 120.2 & § 110.2)

A. HEAT PUMPS WITH SUPPLEMENTARY ELECTRIC RESISTANCE HEATERS SHOULD PREVENT SUPPLEMENTARY HEATER OPERATION WHEN THE HEATING LOAD CAN BE MET BY THE HEAT PUMP ALONE; AND

B. IN WHICH THE CUT-ON TEMPERATURE FOR COMPRESSION HEATING IS HIGHER THAN THE CUT-ON TEMPERATURE FOR SUPPLEMENTARY HEATING, AND THE CUT-OFF TEMPERATURE FOR COMPRESSION HEATING IS HIGHER THAN THE CUTOFF TEMPERATURE FOR SUPPLEMENTARY HEATING.

C. THERMOSTATS, ALL UNITARY HEATING AND /OR COOLING SYSTEMS HEAT PUMPS THAT ARE NOT CONTROLLED BY A CENTRAL ENERGY MANAGEMENT CONTROL SYSTEM (EMCS) SHALL HAVE A SETBACK THERMOSTAT.

D. THERMOSTATIC CONTROLS FOR EACH ZONE. THE SUPPLY OF HEATING AND COOLING ENERGY TO EACH SPACE-CONDITIONING ZONE OR DWELLING UNIT SHALL BE CONTROLLED BY AN INDIVIDUAL THERMOSTATIC CONTROL THAT RESPONDS TO TEMPERATURE WITHIN THE ZONE AND THAT MEETS THE APPLICABLE REQUIREMENTS OF SECTION 120.2(B).

E. CRITERIA FOR ZONAL THERMOSTATIC CONTROLS. THE INDIVIDUAL THERMOSTATIC CONTROLS REQUIRED BY SECTION 120.2(A) SHALL MEET REQUIREMENTS ; FOR HEATING SHALL BE CAPABLE OF BEING SET, LOCALLY OR REMOTELY, DOWN TO 55 °F OR LOWER. FOR COOLING IT SHALL BE CAPABLE OF BEING SET, LOCALLY OR REMOTELY, UP TO 85 °F OR HIGHER.

F. HEAT PUMP CONTROLS. ALL HEAT PUMPS WITH SUPPLEMENTARY ELECTRIC RESISTANCE HEATERS SHALL BE INSTALLED WITH CONTROLS THAT COMPLY WITH SECTION 110.2(B)

G. SHUT-OFF AND RESET CONTROLS FOR SPACE-CONDITIONING SYSTEMS ; SHALL BE INSTALLED WITH CONTROLS THAT COMPLY WITH CONTROLS CAPABLE OF AUTOMATICALLY SHUTTING OFF THE SYSTEM DURING PERIODS OF NONUSE AND SHALL HAVE BY HAVING AN AUTOMATIC TIME SWITCH CONTROL DEVICE AND ACCESSIBLE MANUAL OVERRIDE THAT ALLOWS OPERATION OF THE SYSTEM FOR UP TO 4 HOURS OR AN OCCUPANCY SENSOR OR A 4-HOUR TIMER THAT CAN BE MANUALLY OPERATED.

H. DAMPERS FOR AIR SUPPLY AND EXHAUST EQUIPMENT. OUTDOOR AIR SUPPLY AND EXHAUST EQUIPMENT SHALL BE INSTALLED WITH DAMPERS THAT AUTOMATICALLY CLOSE UPON FAN SHUTDOWN.

I. ISOLATION AREA DEVICES. EACH SPACE-CONDITIONING SYSTEM SERVING MULTIPLE ZONES WITH A COMBINED CONDITIONED FLOOR AREA OF MORE THAN 25,000 SQUARE FEET SHALL BE DESIGNED, INSTALLED, AND CONTROLLED TO SERVE ISOLATION AREAS.

J. AUTOMATIC DEMAND SHED CONTROLS. HVAC SYSTEMS WITH DDC TO THE ZONE LEVEL SHALL BE PROGRAMMED TO ALLOW CENTRALIZED DEMAND SHED FOR NON-CRITICAL ZONES.

PIPE INSULATION (§ 120.3)

A. THE PIPING FOR ALL SPACE-CONDITIONING AND SERVICE WATER-HEATING SYSTEMS WITH FLUID TEMPERATURES LISTED TABLE 120.3. SHALL INSTALL THE AMOUNT OF INSULATION SPECIFIED.

DUCT CONSTRUCTION AND INSULATION (§120.4)

A. ALL AIR DISTRIBUTION SYSTEM DUCTS AND PLENUMS, INCLUDING, BUT NOT LIMITED TO, BUILDING CAVITIES, MECHANICAL CLOSETS, AIR-HANDLER BOXES AND SUPPORT PLATFORMS USED AS DUCTS OR PLENUMS, SHALL BE INSTALLED, SEALED AND INSULATED TO MEET THE REQUIREMENTS OF THE CMC SECTIONS 601, 602, 603, 604, 605 AND ANSI-SMACNA-006-2006 HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE 3RD EDITION. ALL DUCTWORK AND PLENUMS SHALL BE CONSTRUCTED TO SEAL CLASS A.

ACCEPTANCE TEST (§ 120.5 AND REFERENCE NONRESIDENTIAL APPENDIX NA7)

A. BEFORE AN OCCUPANCY PERMIT IS GRANTED THE CERTIFICATE OF ACCEPTANCE SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY THAT CERTIFIES THAT THE EQUIPMENT AND SYSTEMS MEET THE ACCEPTANCE REQUIREMENTS.

COMMERCIAL BOILERS (§ 120.9)

A. COMBUSTION AIR POSITIVE SHUT-OFF ON BOILERS MUST HAVE AN INPUT CAPACITY > 2.5MMBtu/h. BOILER COMBUSTION AIR FANS WITH MOTORS > 10 HORSEPOWER MUST BE DRIVED BY VARIABLE SPEED OR INCLUDE CONTROLS THAT LIMIT THE FAN MOTOR DEMAND PER 120.9.

KITCHEN RANGE HOODS SHALL BE RATED FOR SOUND IN ACCORDANCE WITH SECTION 7.2 OF ASHRAE 62.2

GENERAL NOTES

1. ALL CUTTING, PATCHING, AND PAINTING BY GENERAL CONTRACTOR.
2. ALL ROOF, FLOOR, AND WALL OPENINGS BY GENERAL CONTRACTOR.
3. CONDENSATE DRAIN LINES SHALL BE SLOPED AT 1/4" PER FOOT TO AN APPROVED RECEPTOR, ALL BY PLUMBING CONTRACTOR
4. ROOF MOUNTED EQUIPMENT SHALL BE LABELED.
5. ALL APPLIANCES TO BE INSTALLED IN A PERMANENT POSITION SHALL BE SECURELY FASTENED IN PLACE.
6. LINING MATERIALS WITHIN DUCT SHALL HAVE A MOLD, HUMIDITY, AND EROSION RESISTANT SURFACE THAT MEETS THE REQUIREMETNS OF CMC SECTION 604
7. ALL FACTORY MADE DUCT SHALL BE CLASS 1
8. INSULATION MATERIALS APPLIED TO THE EXTERIOR OF THE DUCTS LOCATED IN THE BUILDING SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND A GENERATED SMOKE-DENSITY NOT EXCEEDING 50 WHEN TESTED AS A COMPOSITE INSTALLATION.
9. ALL DUCTS SHALL BE SUPPORTED, BRACED AND GUYED TO PREVENT LATERAL OR HORIZONTAL SWING IN ACCORDANCE WITH SMACNA GUIDELINES.
10. ALL NEW THERMOSTATS TO BE WHITE AND MOUNTED TO MATCH WALL LIGHT SWITCHES WITH NO GREATER HEIGHT OF 42" ABOVE FINISHED FLOOR.
11. ALL DUCT SIZE DIMENSIONS CALLED OUT ARE NET INSIDE DIMENSIONS OF DUCT, UNLESS OTHERWISE NOTED.
12. AT TIME OF ROUGH INSTALLATION, OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING AND COOLING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENING SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST OR DEBRIS WHICH MAY COLLECT IN THE SYSTEM PER CGBSC SECTION 5.504.3.
13. BUILDING SHALL MEET OR EXCEED THE PROVISIONS OF THE CALIFORNIA BUILDING CODE, CCR, TITLE 24, SECTION 120.1 (VENTILATION)
14. MECHANICAL DESIGN TO MEET THE MINIMUM REQUIREMENTS OF THE CALIFORNIA ENERGY CODE, TITLE 24, CHAPTER 4 OF THE CCR, TITLE 8 HVAC AND REFRIGERANT EQUIPMENT SHALL NOT CONTAIN CFC'S PER CGBSC SECTION 5.508.1.1

GENERAL ABBREVIATIONS

ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION
A/C	AIR CONDITIONING	EER	ENERGY EFFICIENCY RATIO	LH	LEFT HAND ON COIL	ΔT	TEMPERATURE DIFFERENCE
AC	ALTERNATING CURRENT	EEF	EFFICIENCY	LMTD	LOG MEAN TEMPERATURE DIFFERENCE	TCP	TEMPERATURE CONTROL PANEL
AD	ACCESS DOOR	EL	ELEVATION	LP	LOW PRESSURE	TEMP	TEMPERATURE
ADP	APPARATUS DEW POINT	ELEC	ELECTRIC	LWT	LEAVING WATER TEMPERATURE	TFA	TO FLOOR ABOVE
AFF	ABOVE FINISHED FLOOR	ELEV	ELEVATOR	MATRL	MATERIAL	TFB	TO FLOOR BELOW
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	EMER	EMERGENCY	MAU	MAKE UP AIR UNIT	THR	TOTAL HEAT REJECTED
AHU	AIR HANDLING UNIT	ENCL	ENCLOSURE	MAX	MAXIMUM	TONS	TONS OF REFRIGERATION
AMB	AMBIENT	ENT	ENTERING	KBTUH	BTU/HR X 1000	TSP	TOTAL STATIC PRESSURE
AMP	AMPERE (AMPS)	EQIV FT	EQUIVALENT FEET	MCA	MINIMUM CIRCUIT AMPACITY	TYP	TYPICAL
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	ESP	EXTERNAL STATIC PRESSURE	MOCP	MAXIMUM OVER CURRENT PROTECTION	T+	TOP ELEVATION FROM CURRENT LEVEL
APPROX	APPORXIMATE (LY)	EVAP	EVAPORATOR	MP	MEDIUM PRESSURE	UH	UNIT HEATER
ARCH	ARCHITECT	EWT	ENTERING WATER TEMPERATURE	MVD	MANUAL VOLUME DAMPER	UON	UNLESS OTHERWISE NOTED
ARI	AMERICAN REFRIGERATION INSTITUTE	EXP	EXPANSION	(N)	NEW	UTR	UP THROUGH ROOF
AWG	AMERICAN WIRE GAUGE	EXT	EXTERIOR	NC	NORMALLY CLOSED	V	VENT
BHP	BRAKE HORSEPOWER	(F)	FUTURE	NC	NOISE CRITERIA	V	VOLTAGE
BLDG	BUILDING	°F	DEGREES FARENHEIT	NEMA	NATIONAL ELECTRICAL MANUFACTURING ASSOCIATION	VA	VOLT AMPERE
BOT	BOTTOM	FA	FACE AREA	NIC	NOT IN CONTRACT	VAV	VARIABLE AIR VOLUME
BTU	BRITISH THERMAL UNIT	FC	FLEXIBLE CONNECTION	NO	NORMALLY OPEN	VFD	VARIABLE FREQUENCY DRIVE
BYP	BYPASS	FCU	FAN COIL UNIT	NOM	NOMINAL	ME	VELOCITY PRESSURE
B+	BOTTOM ELEVATION FROM CURRENT LEVEL	FD	FIRE DAMPER, FLOOR DRAIN	NPLV	NOMINAL PART LOAD VALVE (EFF)	VSD	VARIABLE SPEED DRIVE
CAP	CAPACITY	FF	FINAL FILTERS	NTS	NOT TO SCALE	VVT	VARIABLE VOLUME TERMINAL
CC	COOLING COIL	FFA	FROM FLOOR ABOVE	OAD	OUTSIDE AIR DAMPER	WBT	WET BULB TEMPERATURE
CCW	COUNTER CLOCKWISE	FFB	FROM FLOOR BELOW	OAT	OUTSIDE AIR TEMPERATURE	WPD	WATER PRESSURE DROP
CFOI	CONTRACTOR FURNISHED OWNER INSTALLED	FP	FIRE PROTECTION	OD	OUTSIDE DIAMETER	WT	WEIGHT
CLG	CEILING	FPD	FINAL PRESSURE DROP	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED		
CLG HT	CEILING HEIGHT	FPI	FINS PER INCH	OFOI	OWNER FURNISHED OWNER INSTALLED		
C02	CARBON DIOXIDE	FRP	FIBERGLASS REINFORCED PLASTIC	OPER	OPERATING		
COL	COLUMN	FS	FLOW SWITCH	OUT	OUTLET		
COMM	COMMUNICATIONS CONNECTION	FSTAT	FREEZE STAT	PCC	PRECOOL COIL		
COMP	COMPRESSOR	FT	FEET	PD	PRESSURE DROP/DIFFERENCE		
CONC	CONCRETE	FTG	FOOTING	PF	PREFILTER		
COND	CONDENSOR	FV	FACE VELOCITY	PH	PHASE (ELECTRIC)		
CONN	CONNECTION	GA	GAGE	PHC	PREHEAT COIL		
CONST	CONSTRUCTION	H	HEIGHT	POC	POINT OF CONNECTION		
CONT	CONTINUE, CONTINUOUS	HEPA	HIGH EFFICIENCY PARTICULATE AIR FILTER	PRESS	PRESSURE		
COP	COEFFICIENT OF PERFORMANCE	HOA	HAND, AUTO, OFF	PRI	PRIMARY		
CU	CONDENSING UNIT	HP	HORSE POWER	PVC	POLYVINYL CHLORIDE		
CU FT	CUBIC FEET	HSTAT	HUMIDITY STAT	QTY	QUANTITY		
CU IN	CUBIC INCHES	HVAC	HEATING, VENTILZATION, AND AIR CONDITIONING	(R)	RELOCATE		
dB	DECIBLE(S)	HX	HEAT EXCHANGER	RAT	RETURN AIR TEMPERATURE		
DBT	DRY BULB TEMPERATURE	HZ	HERTZ	(REB)	REBALANCE EXISTING		
DC	DIRECT CURRENT	IAQ	INDOOR AIR QUALITY	RED	REDUCER		
DDC	DIRECT DIGITAL CONTROL	ID	INSIDE DIAMTER	REF	REFRIGERATION/ REFRIGERANT		
DEG	DEGREE	INSUL	INSULAT(E),(ED),(ION)	REV	REVISION		
DISCH	DISCHARGE	INT	INTERIOR	RH	RELATIVE HUMIDITY, RIGHT HAND ON COIL		
DP	DIFFERENTIAL PRESSURE	IN WC	INCHES WATER COLUMN	RHC	REHEAT COIL		
DPS	DIFFERENTIAL PRESSURE SWITCH	I/O	INPUT/OUTPUT	RPM	REVOLUTIONS PER MINUTE		

DUCT ABBREV.

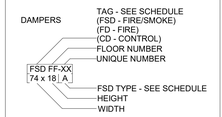
ABBREV.	DESCRIPTION
AFMS	AIR FLOW MEASURING STATION
APD	AIR PRESSURE DROP
BDD	BACKDRAFT DAMPER
CAV	CONSTANT AIR VOLUME
CD	CONTROL DAMPER
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CSD	CEILING SUPPLY DIFFUSER
CSG	CASING
DAP	DUCT ACCESS PANEL
DH	DUCT HEATER
DMPR	DAMPER
EA	EXHAUST AIR
EAD	EXHAUST DUCT
EAG	EXHAUST AIR GRILLE
EAR	EXHAUST AIR REGISTER
EF	EXHAUST FAN
EH	ELECTRIC HEATER
EXH	EXHAUST
EXHV	EXHAUST VENT
FLR REG	FLOOR REGISTER
FPH	FAN POWERED HEPA
FPT	FAN POWERED TERMINAL
FSD	FIRE SMOKE DAMPER
FUS LINK	FUSIBLE LINK
GALV	GALVANIZED
LD/LSD	LINEAR DIFFUSER
LFD	LAMINAR FLOW DIFFUSER
LFH	LAMINAR FLOW HOOD
LVR	LOUVER
MA	MIXED AIR
MAT	MIXED AIR TEMPERATURE
MB	MIXING BOX
MOD	MOTOR OPERATED DAMPER
MVD	MANUAL VOLUME DAMPER
MZ	MULTIZONE
OSA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
RA	RETURN AIR
RAG	RETURN AIR GRILLE
REG	REGISTER
RF	RETURN AIR FAN
SA	SUPPLY AIR
SF	SUPPLY AIR FAN
SAG	SUPPLY AIR GRILLE
SD	SMOKE DAMPER
SP	STATIC PRESSURE
TAG	TRANSFER AIR GRILLE

DUCT SYMBOLS

SYMBOL	DESCRIPTION
	CONTROL DAMPER
16x12	SHEETMETAL DUCT
16x12	INTERNALLY LINED SHEET METAL DUCT
16x12	HIDDEN SHEET METAL DUCT
	FLEX CONNECTION
	FLEX DUCT
	ALUMINUM FLEX
	DEMOLITION
	SUPPLY AIR DUCT
	RETURN DUCT
	EXHAUST AIR DUCT
	SUPPLY AND RETURN (NO SPLITTER)
	WYE JUNCTION
	SPLITTER (R=0.75)
	ROUND DUCT
	MITER ELBOW WITH TURNING CURVES
T	THERMOSTAT (WALL)
C02	C02 SENSOR
SD	SMOKE DETECTOR
H	HUMIDISTAT (WALL)
SP	STATIC PRESSURE SENSOR
M	MAGNEHELIC GAGE
AP	ACCESS PANEL
AD	ACCESS DOOR
1	REVISION TAG
	MANUAL VOLUME DAMPER
VAV	VAV BOX
	SOUND BOOT
D	FIRE DAMPER
	SMOKE DAMPER
	SUPPLY AIR GRILLE OR REGISTER
	RETURN AIR GRILLE OR REGISTER
	EXHAUST AIR GRILLE OR REGISTER
	POINT OF CONNECT
	POINT OF DEMOLITION

TAGS

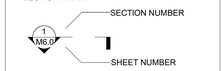
DAMPERS



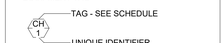
GRILLE OR DIFFUSER



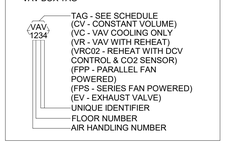
SECTION MARK



EQUIPMENT TAG



VAV BOX TAG



Western Allied MECHANICAL

33210 Central Ave, Union City, CA 94587
(650) 326-0750
CA State License No. 826782

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF WESTERN ALLIED MECHANICAL, INC. THE DRAWINGS CONTAINING THIS DESIGN ARE AND SHALL REMAIN THE PROPERTY OF WESTERN ALLIED MECHANICAL, INC.

COMMUNICATION OF THIS DESIGN WITHOUT THE CONSENT OF WESTERN ALLIED MECHANICAL, INC. CONSTITUTES A VIOLATION OF THE LAWS OF THIS STATE.

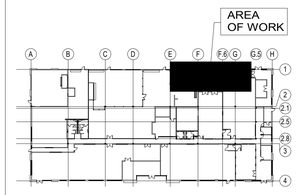
NO.	DESCRIPTION	DATE
-	IFP	07/29/26

PROJECT

Sila

SILA NANO NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



KEY PLAN



DRAWING TITLE

LEGEND & ABBREVIATIONS

JOB NUMBER	SHEET NUMBER
48549053	M0.1
DRAWN: CB	
PROJECT START DATE: 05/20/2026	
SCALE: 12" = 1'-0"	
CHECKED: DG	

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.	
Project Name: Sila Nanotechnologies NMP	**Report Page:** (Page 1 of 6)
Project Address: 2430 Mariner Square Loop, Alameda, CA 94501	**Date Prepared:** 2026-07-20T15:05:19-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Alameda	04	Total Conditioned Floor Area	1000
02	Climate Zone	3	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

● All Other Occupancies

B. PROJECT SCOPE

This table includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, §170.2(b) or §141.0(b)2 and §180.2(b)2 for alterations.

01	02	03
Air System(s)	Wet System Components	Dry System Components
☐ Heating Air System	☐ Water Economizer	☐ Air Economizer
☐ Cooling Air System	☐ Pumps	☐ Electric Resistance Heat
☐ Ventilation (including DOAS, ERV, HRV systems)	☐ System Piping	☐ Fan Systems
Mechanical Controls	☐ Cooling Towers	☒ Ductwork (existing to remain, altered or new)
	☐ Chillers	
☐ Mechanical Controls (existing to remain, altered or new)	☐ Boilers	☐ Zonal Systems/ Terminal Boxes

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
Project Name: Sila Nanotechnologies NMP	**Report Page:** (Page 2 of 6)
	Date Prepared: 2026-07-20T15:05:19-04:00

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.

01		02		03		04		05		06		07		08	09
System Summary §110.1, §110.2, §140.4, §170.2(c), §141.0(b), §180.2(b2)	AND	Pumps §140.4(k), §170.2(c)4I	AND	Fans/Economizers §140.4(c), §140.4(e), §140.4(p), §170.2(c)	AND	System Controls § 110.2, §120.2, §140.4(f), §140.4(r), §170.2(c)	AND	Ventilation §120.1, §160.2	AND	Terminal Box Controls §140.4(d), §170.2(c)4B	AND	Distribution §120.3, §140.4(l), §160.2, §160.3, §141.0(b)2D, §180.2(b)2Bi	AND	Cooling Towers §110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
	AND		AND		AND		AND		AND		AND	Yes	AND		COMPLIES
Mandatory Measures Compliance (See Table Q for Details)												COMPLIES			

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

This section does not apply to this project.

G. PUMPS

This section does not apply to this project.

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance Report Version: 2025.0.000 Schema Version: rev 20250101 Compliance ID: ECA-425619-0726-0001 Report Generated: 2026-07-20 12:05:33

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
Project Name: Sila Nanotechnologies NMP	**Report Page:** (Page 3 of 6)
	Date Prepared: 2026-07-20T15:05:19-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

This section does not apply to this project.

I. SYSTEM CONTROLS

This section does not apply to this project.

J. VENTILATION AND INDOOR AIR QUALITY

This section does not apply to this project.

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK and PIPING)

This table is used to show compliance with mandatory pipe insulation requirements found in §120.3 and mandatory requirements found in §120.4(g) for duct sealing.

01	☐	Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service. Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space shall have a Class I or Class II vapor retarder. All penetrations and joints of which shall be sealed.

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Outdoor Exhaust	**NR/ Common Use:** Duct leakage testing shall not exceed 15% per NA7.5.3 required for these systems?	No

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance Report Version: 2025.0.000 Schema Version: rev 20250101 Compliance ID: ECA-425619-0726-0001 Report Generated: 2026-07-20 12:05:33

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
Project Name: Sila Nanotechnologies NMP	**Report Page:** (Page 4 of 6)
	Date Prepared: 2026-07-20T15:05:19-04:00

L. DISTRIBUTION (DUCTWORK and PIPING)

		Dwelling Units: Total duct leakage of duct system shall not exceed 15% or duct system to outside shall not exceed 10% per RA3.1.4 required for systems?	---
		Duct leakage testing per CMC Section 603.9.2 required for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	No	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft² of conditioned floor area.	
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:	
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16	Yes	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A	
18	Yes	All ductwork is an extension of an existing duct system	
19	No	Ductwork serving individual dwelling unit	
20	No	< 25 ft of new or replacement space conditioning ducts installed	
21	R-8	Duct Insulation R-value	
22	Yes	Ductwork Existing To Remain	
23	Yes	Duct System Connected To Altered Space Conditioning System	

M. COOLING TOWERS

This section does not apply to this project.

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance Report Version: 2025.0.000 Schema Version: rev 20250101 Compliance ID: ECA-425619-0726-0001 Report Generated: 2026-07-20 12:05:33

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
Project Name: Sila Nanotechnologies NMP	**Report Page:** (Page 5 of 6)
	Date Prepared: 2026-07-20T15:05:19-04:00

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-4

Form/Title
NRCI-MCH-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no NRCA forms required for this project.

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	Yes	Plan sheet or construction document location: M0.0

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance Report Version: 2025.0.000 Schema Version: rev 20250101 Compliance ID: ECA-425619-0726-0001 Report Generated: 2026-07-20 12:05:33

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
Project Name: Sila Nanotechnologies NMP	**Report Page:** (Page 6 of 6)
Project Address: 2430 Mariner Square Loop, Alameda, CA 94501	**Date Prepared:** 2026-07-20T15:05:19-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Chris Bui	Documentation Author Signature:
Company: WESTERN ALLIED MECHANICAL	Signature Date: 07/20/2026
Address: 33210 CENTRAL AVE.	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip: UNION CITY, CA 94587	Phone: (650) 326-0750

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Person Name: Chris Bui	Responsible Person Signature:
Responsible Person Scope: CHRIS BUI	
Company: WESTERN ALLIED MECHANICAL	Date Signed: 07/20/2026
Address: 33210 CENTRAL AVE.	License: 826782
City/State/Zip: UNION CITY, CA 94587	Phone: (650) 326-0750

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance Report Version: 2025.0.000 Schema Version: rev 20250101 Compliance ID: ECA-425619-0726-0001 Report Generated: 2026-07-20 12:05:33

Western Allied MECHANICAL
33210 Central Ave, Union City, CA 94587
(650) 326-0750
CA State License No. 826782

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF WESTERN ALLIED MECHANICAL, INC. THE DRAWINGS CONTAINING THIS DESIGN ARE AND SHALL REMAIN THE PROPERTY OF WESTERN ALLIED MECHANICAL, INC.

COMMUNICATION OF THIS DESIGN WITHOUT THE CONSENT OF WESTERN ALLIED MECHANICAL, INC. CONSTITUTES A VIOLATION OF THE LAWS OF THIS STATE.

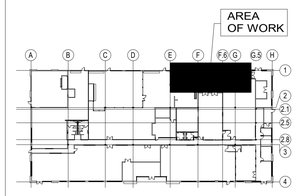
NO.	DESCRIPTION	DATE
-	IFP	07/29/26

PROJECT

Sila

SILA NANO NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



KEY PLAN



DRAWING TITLE

TITLE-24 DOCUMENTS

JOB NUMBER	SHEET NUMBER
48549053	M0.2
DRAWN: CB	
PROJECT START DATE: 05/20/2026	
SCALE:	
CHECKED: DG	

FANS (EXISTING)

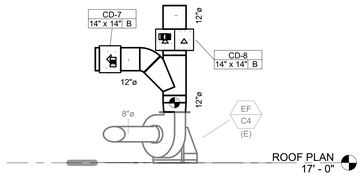
TAG	MANUFACTURER & MODEL	AREA SERVED	LOCATION	TYPE	DRIVE	DESIGN AIRFLOW	MIN AIRFLOW	ESP	RPM	BHP	HP	SONES	ELECTRICAL				HT. W/O LEVELING	OP. WT (LBS)	ACCESSORIES	REMARKS
													V/PH	AMPS	VFD/ECM	E-POWER				
EF-C1	NEW YORK BLOWER 126 COMPACT GI CW UB	CLEANROOM	ROOF	CW/CCW (UTILITY)	DIRECT DRIVE	220	-	4	2205	0.414	1	-	460/3	-	-	N	21"	125	DISCONNECT/STARTER WIRED BY ELEC. CONTRACTOR, UPBLAST DISCHARGE, AMCA-B SPARK RESISTANT CONSTRUCTION	EXISTING
EF-C2	NEW YORK BLOWER 126 COMPACT GI CW UB	CLEANROOM	ROOF	CW/CCW (UTILITY)	DIRECT DRIVE	220	-	4	2205	0.414	1	-	460/3	-	-	N	21"	125	DISCONNECT/STARTER WIRED BY ELEC. CONTRACTOR, UPBLAST DISCHARGE, AMCA-B SPARK RESISTANT CONSTRUCTION	EXISTING
EF-C3	NEW YORK BLOWER 126 COMPACT GI CW UB	CLEANROOM	ROOF	CW/CCW (UTILITY)	DIRECT DRIVE	220	-	4	2205	0.414	1	-	460/3	-	-	N	21"	125	DISCONNECT/STARTER WIRED BY ELEC. CONTRACTOR, UPBLAST DISCHARGE, AMCA-B SPARK RESISTANT CONSTRUCTION	EXISTING
EF-C4	NEW YORK BLOWER 126 COMPACT GI CW UB	CLEANROOM	ROOF	CW/CCW (UTILITY)	DIRECT DRIVE	220	-	4	2205	0.414	1	-	460/3	-	-	N	21"	125	DISCONNECT/STARTER WIRED BY ELEC. CONTRACTOR, UPBLAST DISCHARGE, AMCA-B SPARK RESISTANT CONSTRUCTION	EXISTING
EF-CE1	NEW YORK BLOWER 126 COMPACT GI CW UB	CLEANROOM	ROOF	CW/CCW (UTILITY)	DIRECT DRIVE	250	-	4	2205	0.414	1	-	460/3	-	-	N	21"	125	DISCONNECT/STARTER WIRED BY ELEC. CONTRACTOR, UPBLAST DISCHARGE, AMCA-B SPARK RESISTANT CONSTRUCTION, ON EMERGENCY POWER	EXISTING

DUCT SYSTEM

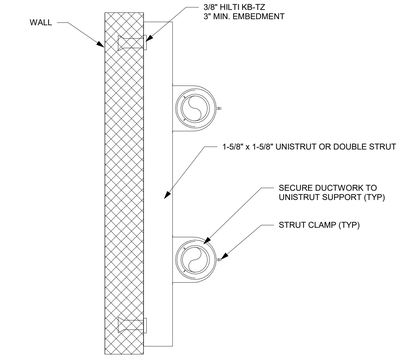
TAG	DUCT SYSTEM	DESIGN PRESSURE	PRESSURE CLASS	SMACNA SEAL CLASS	MATERIAL	INSULATION	ACCESSORIES	REMARKS
EXHAUST ON ROOF	EXHAUST	-1.5"	3" WG	A	GALVANIZED STEEL G90	N/A	-	-
GENERAL AND TOOL EXHAUST	EXHAUST	-2.5"	3" WG	A	GALVANIZED STEEL G90	N/A	-	-

CONTROL DAMPER

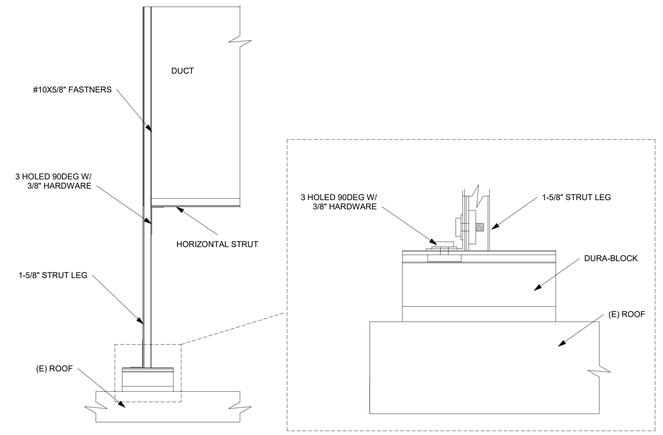
TAG	MANUFACTURER & MODEL	SERVING	LENGTH (IN.)	WIDTH (IN.)	HEIGHT (IN.)	LEAKAGE CLASS	ACTUATOR		ACCESSORIES	REMARKS
							TYPE	QTY		
CD-1	RUSKIN CD50	EF-C1 ADSORBER	8	14	14	1A	2-WAY	1	-	12" ROUND DUCT CONNECTION
CD-2	RUSKIN CD50	EF-C1	8	14	14	1A	2-WAY	1	-	12" ROUND DUCT CONNECTION
CD-3	RUSKIN CD50	EF-C2 ADSORBER	8	14	14	1A	2-WAY	1	-	12" ROUND DUCT CONNECTION
CD-4	RUSKIN CD50	EF-C2	8	14	14	1A	2-WAY	1	-	12" ROUND DUCT CONNECTION
CD-5	RUSKIN CD50	EF-C3 ADSORBER	8	14	14	1A	2-WAY	1	-	12" ROUND DUCT CONNECTION
CD-6	RUSKIN CD50	EF-C3	8	14	14	1A	2-WAY	1	-	12" ROUND DUCT CONNECTION
CD-7	RUSKIN CD50	EF-C4 ADSORBER	8	14	14	1A	2-WAY	1	-	12" ROUND DUCT CONNECTION
CD-8	RUSKIN CD50	EF-C4	8	14	14	1A	2-WAY	1	-	12" ROUND DUCT CONNECTION



7 EXHAUST STACK POC W/ CONTROL DAMPERS



4 WALL SUPPORT



5 DUCT SUPPORT - DURABLOCK

Western Allied MECHANICAL

33210 Central Ave, Union City, CA 94587
(650) 326-0750
CA State License No. 826782

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF WESTERN ALLIED MECHANICAL, INC. THE DRAWINGS CONTAINING THIS DESIGN ARE AND SHALL REMAIN THE PROPERTY OF WESTERN ALLIED MECHANICAL, INC.

COMMUNICATION OF THIS DESIGN WITHOUT THE CONSENT OF WESTERN ALLIED MECHANICAL, INC. CONSTITUTES A VIOLATION OF THE LAWS OF THIS STATE.

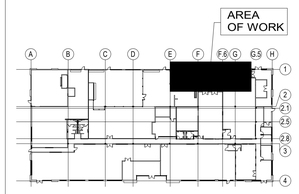
NO.	DESCRIPTION	DATE
-	IFP	07/29/26

PROJECT

Sila

SILA NANO NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



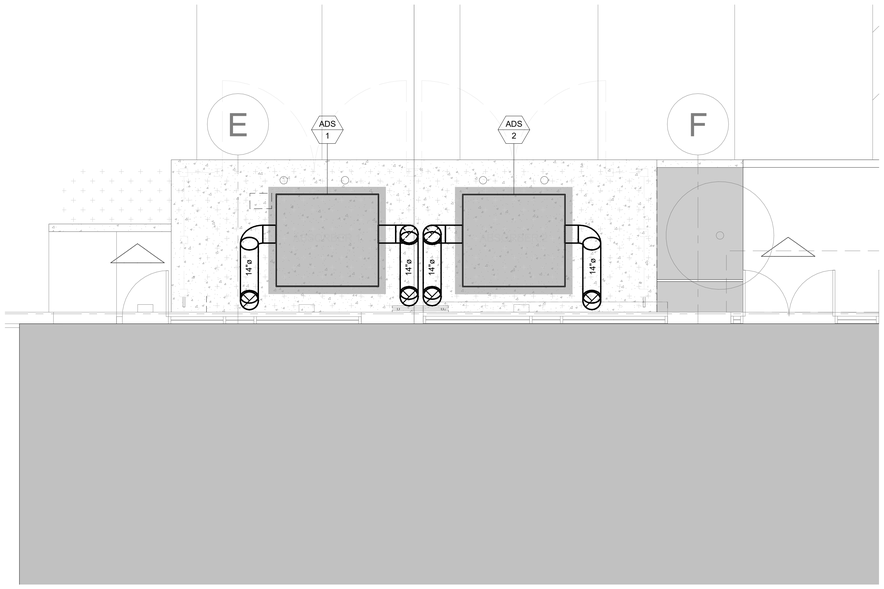
KEY PLAN



DRAWING TITLE

SCHEDULES & MECHANICAL DETAILS

JOB NUMBER	SHEET NUMBER
48549053	M0.3
DRAWN: CB	
PROJECT START DATE: 05/20/2026	
SCALE: As indicated	
CHECKED: DG	



1 NMP MECHANICAL PLAN
1/4" = 1'-0"

Western Allied
MECHANICAL

33210 Central Ave, Union City, CA 94587
(650) 326-0750
CA State License No. 826782

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF WESTERN ALLIED MECHANICAL, INC. THE DRAWINGS CONTAINING THIS DESIGN ARE AND SHALL REMAIN THE PROPERTY OF WESTERN ALLIED MECHANICAL, INC.

COMMUNICATION OF THIS DESIGN WITHOUT THE CONSENT OF WESTERN ALLIED MECHANICAL, INC. CONSTITUTES A VIOLATION OF THE LAWS OF THIS STATE.

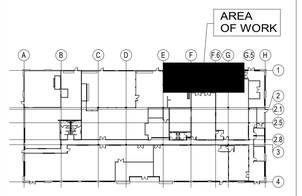
NO.	DESCRIPTION	DATE
-	IFP	07/29/26

PROJECT

Sila

SILA NANO
NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



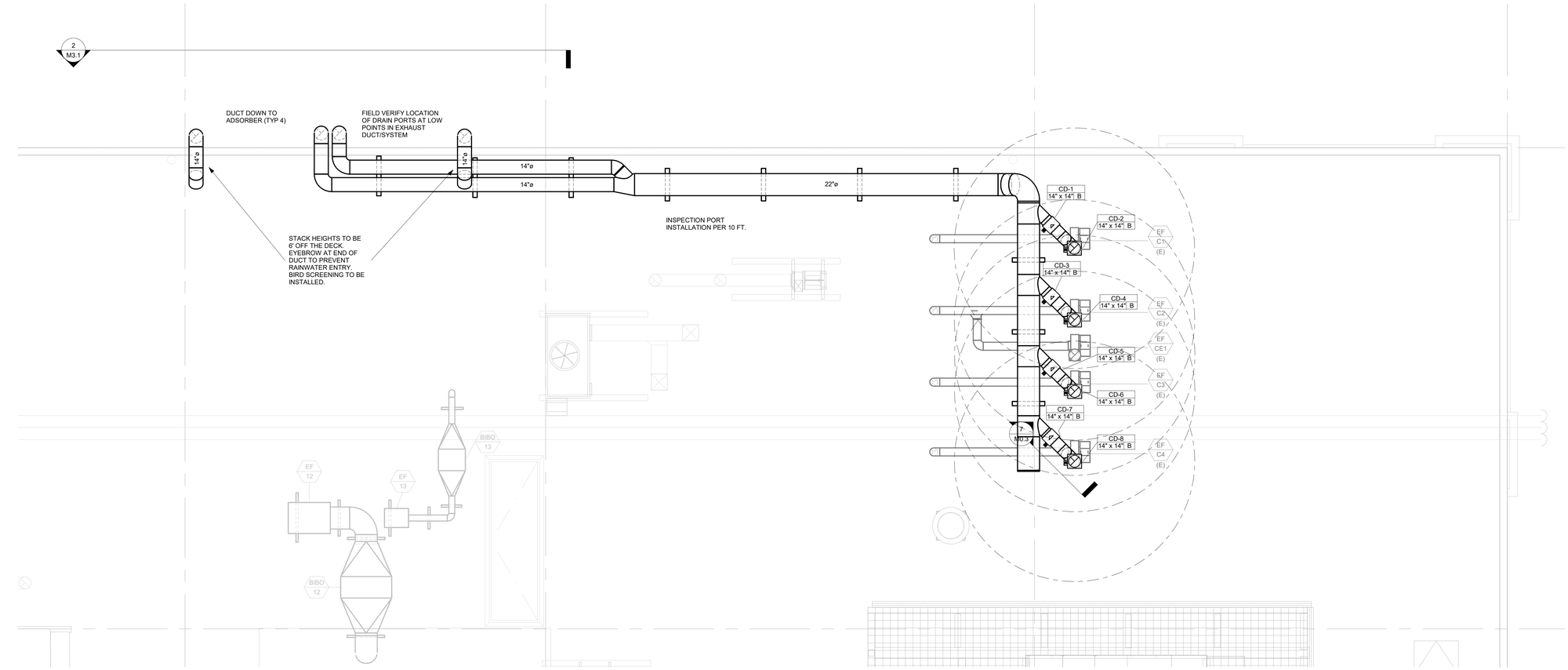
KEY PLAN



DRAWING TITLE

FLOOR
PLAN

JOB NUMBER	SHEET NUMBER
48549053	M2.1
DRAWN: CB	
PROJECT START DATE: 05/20/2026	
SCALE: 1/4" = 1'-0"	
CHECKED: DG	



1 NMP ROOF PLAN
1/4" = 1'-0"

Western Allied MECHANICAL

33210 Central Ave, Union City, CA 94587
(650) 326-0750
CA State License No. 826782

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF WESTERN ALLIED MECHANICAL, INC. THE DRAWINGS CONTAINING THIS DESIGN ARE AND SHALL REMAIN THE PROPERTY OF WESTERN ALLIED MECHANICAL, INC.

COMMUNICATION OF THIS DESIGN WITHOUT THE CONSENT OF WESTERN ALLIED MECHANICAL, INC. CONSTITUTES A VIOLATION OF THE LAWS OF THIS STATE.

NO.	DESCRIPTION	DATE
-	IFP	07/29/26

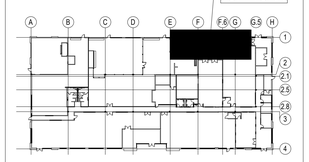
PROJECT

Sila

SILA NANO NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501

AREA OF WORK



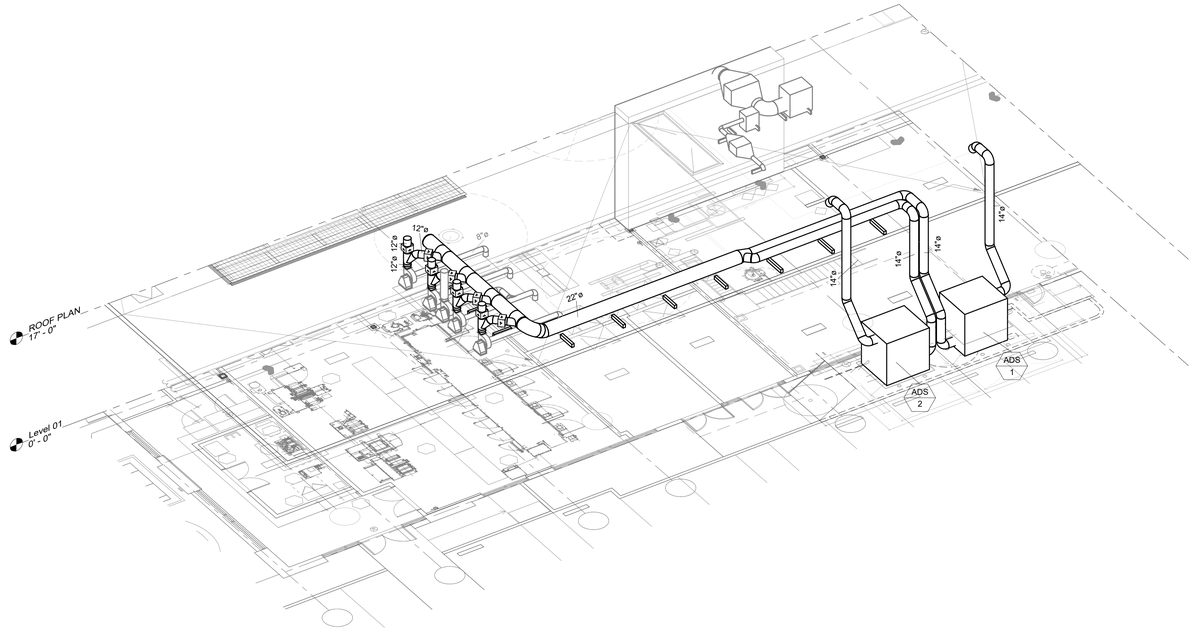
KEY PLAN



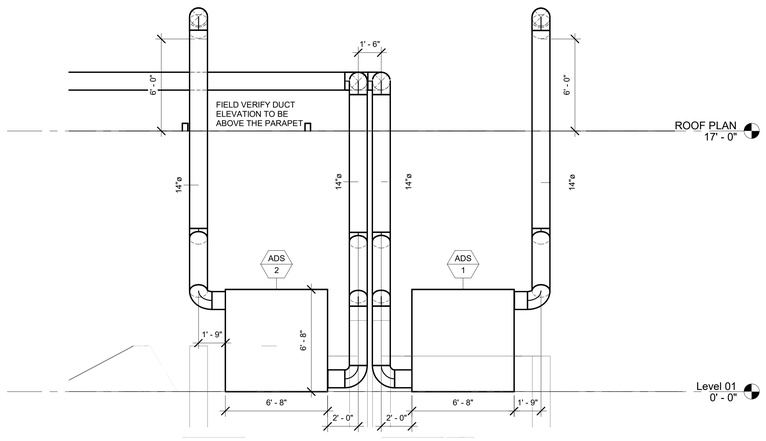
DRAWING TITLE

ROOF PLAN

JOB NUMBER	SHEET NUMBER
48549053	M2.2
DRAWN: CB	
PROJECT START DATE: 05/20/2026	
SCALE: 1/4" = 1'-0"	
CHECKED: DG	



1 Isometric View



2 Section View - Carbon Adsorber Ductwork
1/4" = 1'-0"

Western Allied
MECHANICAL

33210 Central Ave, Union City, CA 94587
(650) 326-0750
CA State License No. 826782

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF WESTERN ALLIED MECHANICAL, INC. THE DRAWINGS CONTAINING THIS DESIGN ARE AND SHALL REMAIN THE PROPERTY OF WESTERN ALLIED MECHANICAL, INC.

COMMUNICATION OF THIS DESIGN WITHOUT THE CONSENT OF WESTERN ALLIED MECHANICAL, INC. CONSTITUTES A VIOLATION OF THE LAWS OF THIS STATE.

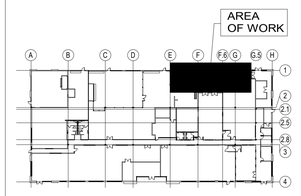
NO.	DESCRIPTION	DATE
-	IFP	07/29/26

PROJECT

Sila

SILA NANO
NMP ABATEMENT

2430 MARINER SQUARE LOOP
ALAMEDA, CA 94501



KEY PLAN



DRAWING TITLE

ISOMETRIC
PLAN VIEW

JOB NUMBER	SHEET NUMBER
48549053	M3.1
DRAWN: CB	
PROJECT START DATE: 05/20/2026	
SCALE: 1/4" = 1'-0"	
CHECKED: DG	

ELECTRICAL GENERAL NOTES

1. ALL ELECTRICAL WORK TO COMPLY WITH 2025 CALIFORNIA BUILDING CODE (CCR TITLE 24, PART 2).
2. ALL ELECTRICAL WORK TO COMPLY WITH 2025 CALIFORNIA ELECTRICAL CODE (CCR TITLE 24, PART 3).
3. ALL ELECTRICAL WORK TO COMPLY WITH 2025 CALIFORNIA ENERGY CODE (CCR TITLE 24, PART 6).
4. ALL ELECTRICAL WORK TO COMPLY WITH 2025 CALIFORNIA FIRE CODE (CCR TITLE 24, PART 9).
5. ALL ELECTRICAL WORK TO COMPLY WITH 2025 CALIFORNIA GREEN BUILDING CODE (CCR TITLE 24, PART 11).
6. ALL ELECTRICAL WORK TO COMPLY WITH 2025 CEC ARTICLE 500 FOR HAZARDOUS LOCATIONS.
7. ALL ALARM SYSTEMS WILL REQUIRE A SEPARATE PERMIT AND PLAN REVIEW FROM FIRE DEPARTMENT.
8. RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEMS RECEPTACLES SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE OUTLET BOX OR RECEPTACLE HOUSING NOR LESS THAN 15 INCHES MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISH FLOOR OR WORKING PLATFORM PER 2025 CBC SECTION 11B-308.1.2.
9. CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE OUTLET BOX NOR LESS THAN 15 INCHES MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISH FLOOR OR WORKING PLATFORM PER 2025 CBC SECTION 11B-308.1.1.
10. ALL CEILING MOUNTED ELECTRICAL DEVICES AND/OR EQUIPMENT SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE, NOT FROM THE CEILING TILES, PROVIDE SUPPORTS AS REQUIRED.
11. OUTLET BOXES INSTALLED IN FIRE WALLS SHALL BE ONE PIECE STEEL AND INSTALLED IN SEPARATED (STAGGERED) STUD PENETRATIONS. FIRE WALL PENETRATIONS SHALL BE MADE IN ACCORDANCE WITH THE LATEST BUILDING AND ELECTRICAL CODES.
12. ALL WIRING SHALL BE IN APPROVED RACEWAYS. ALL CONDUCTORS SHALL BE STRANDED COPPER WITH THHN/THWN INSULATION.
13. ELECTRICAL INSTALLATION IN IT EQUIPMENT ROOMS SHALL BE IN ACCORDANCE WITH 2025 CEC ARTICLE 645, INCLUDING WIRING, DISCONNECTING MEANS, AND PENETRATION OF FIRE RESISTIVE BOUNDARY.
14. LOW-VOLTAGE DRY-TYPE TRANSFORMERS SHALL BE COMPLIANT WITH THE ENERGY EFFICIENCY STANDARDS OF 2025 CA TITLE 20 PER 2025 CEnC SECTION 110.11(a) UNLESS THEY MEET 1 OF THE 13 EXCEPTIONS TO THIS SECTION.
15. WHERE MORE THAN ONE NOMINAL VOLTAGE SYSTEM EXISTS IN A BUILDING, EACH UNGROUNDED SYSTEM CONDUCTOR SHALL BE IDENTIFIED BY PHASE AND SYSTEM. THE MEANS OF IDENTIFICATION SHALL BE PERMANENTLY POSTED AT EACH BRANCH CIRCUIT PANELBOARD PER 2025 CEC 210.5(C) & 215.12(C). THE PHASE COLOR CODING OF THE INSULATION OF CONDUCTORS SHALL BE
    - 15.1. BROWN - PURPLE - YELLOW FOR 480/277 - VOLTS.
    - 15.2. BLACK - RED - BLUE FOR 208/120 - VOLTS.
16. WHERE GROUNDED CONDUCTORS OF DIFFERENT SYSTEMS ARE INSTALLED IN THE SAME RACEWAY, CABLE, BOX, AUXILIARY GUTTER, OR OTHER TYPE OF ENCLOSURE, EACH GROUNDED CONDUCTOR SHALL BE INDENTIFIED BY SYSTEM PER 2025 CEC 200.6(D). THE COLOR CODING OF THE INSULATION OF CONDUCTORS SHALL BE:
    - 16.1. GRAY FOR 480/277 - VOLTS.
    - 16.2. WHITE FOR 208/120 - VOLTS.
17. RECESSED FIXTURES IN SUSPENDED CEILING SHALL BE SUPPORTED FROM ROOF STRUCTURES & SECURELY FASTENED TO EACH OTHER AND SHALL BE SECURELY ATTACHED TO THE BUILDING STRUCTURE AT APPROPRIATE INTERVALS. LUMINAIRES SHALL BE SECURELY FASTENED TO THE CEILING FRAMING MEMBER BY MECHANICAL MEANS SUCH AS BOLTS, SCREWS, OR RIVETS. (2025 CEC 410.36(B)).
18. CONTRACTOR SHALL VERIFY THAT ALL LIGHTING FIXTURES, CEILING TRIMS AND FRAMES ARE COMPATIBLE WITH CEILING SYSTEM INSTALLED.
19. A COPY OF THE LIGHTING INSTALLATION CERTIFICATION FORMS NRCI-LTI-E, AS LISTED ON NRCC-LTI-E, SHALL BE COMPLETED AND SUBMITTED TO THE CITY PRIOR TO BUILDING FINAL APPROVAL, PER 2025 CEnC SECTION 130.4(b).
20. A COPY OF THE LIGHTING ACCEPTANCE CERTIFICATION FORMS NRCA-LTI-02-A, NRCA-LTI-03-A, NRCA-LTI-04-A, AS LISTED ON NRCC-LTI-E, SHALL BE COMPLETED AND SUBMITTED TO THE ELECTRICAL DEPT. PRIOR TO BUILDING FINAL APPROVAL, PER 2025 CEnC SECTION 130.4(a).
21. PROVIDE DISCONNECTING MEANS IN INDOOR LOCATIONS, OTHER THAN DWELLINGS AND ASSOCIATED ACCESSORY STRUCTURES, FOR FLUORESCENT OR LED LUMINAIRES (FIXTURES) THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLAST(S) OR LED DRIVER(S) THAT CAN BE SERVICED IN PLACE. THESE LUMINAIRES SHALL HAVE A DISCONNECTING MEANS EITHER INTERNAL OR EXTERNAL TO EACH LUMINAIRE (FIXTURE) TO DISCONNECT SIMULTANEOUSLY FROM THE SOURCE OF SUPPLY ALL CONDUCTORS OF THE BALLAST, INCLUDING THE GROUNDED CONDUCTOR IF ANY. FOR EXISTING INSTALLED LUMINAIRES WITHOUT DISCONNECTING MEANS, AT THE TIME A BALLAST OR LED DRIVER IS ADDED OR REPLACED A DISCONNECTING MEANS SHALL BE INSTALLED. THE LINE SIDE TERMINALS OF THE DISCONNECTING MEANS SHALL BE GUARDED PER 2025 CEC 410.71.
22. ALL EMERGENCY LIGHTING FIXTURES ILLUMINATION LEVELS SHALL BE IN ACCORDANCE WITH 2025 CBC SECTION 1008.3.
23. ALL ELECTRICAL PANELS AND SERVICE EQUIPMENT TO BE ANCHORED PER 2025 CEC 110.13 AND HAVE ACCESS AS PER 2025 CEC 110.26.
24. ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL HAVE A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) DESIGN LISTING/NUMBER. ANY EQUIPMENT NOT LISTED WILL BE REQUIRED TO BE FIELD TESTED AND CERTIFIED BY AN APPROVED TESTING AGENCY OR THIRD PARTY. IT IS THE RESPONSIBILITY OF THE OWNER AND HIS DESIGN/CONSTRUCTION TEAM TO NOTIFY THE BUILDING DEPARTMENT IF FIELD TESTING IS REQUIRED FOR ANY EQUIPMENT WITHOUT AN NRTL OR EQUIVALENT LISTED LABEL APPROVED BY THE BUILDING DEPARTMENT. THE NRTL SHALL BE APPROVED BY THE CITY PRIOR TO TESTING AND PROOF OF EQUIPMENT CERTIFICATION WILL NEED TO BE SUBMITTED AND APPROVED BEFORE A CERTIFICATE OF OCCUPANCY CAN BE ISSUED.
25. NO MORE THAN 25 FEET OF TRANSFORMER SECONDARY CONDUCTORS SHALL BE LOCATED ON THE SECONDARY SIDE OF THE TRANSFORMER BEFORE TERMINATING ON AN OVERCURRENT DEVICE.
26. ALL SWITCHBOARDS, PANEL BOARDS, INDUSTRIAL CONTROL PANELS AND MOTOR CONTROL CENTERS SHALL BE FIELD MARKED WARNING QUALIFIED PERSONNEL OF THE POTENTIAL ARC FLASH HAZARDS AND THE APPROPRIATE PPE REQUIRED PER 2025 CEC ARTICLE 110.16 AND 2024 NFPA-70E.
27. ALL GROUNDING SHALL BE IN ACCORDANCE PER 2025 CEC ARTICLE 250.
    - 27.1. A GROUNDING ELECTRODE SHALL BE BONDED TO THE GROUNDING ELECTRODE CONDUCTOR, THE GROUNDED SERVICE ENTRANCE CONDUCTOR, THE GROUNDED SERVICE RACEWAYS, OR ANY GROUNDED SERVICE ENCLOSURE. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE INSTALLED UNSPLICED BETWEEN THE SERVICE DISCONNECT ENCLOSURE AND THE ELECTRODE, THE INTERIOR METAL WATER PIPING LOCATED NOT MORE THAN 5 FEET FROM THE POINT OF ENTRANCE TO THE BUILDING SHALL BE BONDED TO THE GROUNDING ELECTRODE AND THE GROUNDING ELECTRODE CONDUCTOR.
    - 27.2. EXPOSED INTERIOR STRUCTURAL STEEL THAT IS INTERCONNECTED TO FORM STEEL BUILDING FRAME SHALL BE BONDED TO THE SERVICE EQUIPMENT ENCLOSURE, THE GROUNDED CONDUCTOR AT THE SERVICE, THE GROUNDING ELECTRODE CONDUCTOR WHERE OF SUFFICIENT SIZE, OR TO THE ONE OR MORE GROUNDING ELECTRODES USED. THE BONDING JUMPER SHALL BE SIZED IN ACCORDANCE WITH TABLE 250.66 OF THE 2025 CEC, THE POINT OF ATTACHMENT OF THE BONDING JUMPER SHALL BE ACCESSIBLE.
    - 27.3. WHERE THERE IS SEPARATELY DERIVED SYSTEM USING A GROUNDING ELECTRODE, THE NEAREST AVAILABLE POINT ON THE INTERIOR METAL WATER PIPING SYSTEM IN THE SEPARATELY DERIVED SYSTEM SHALL BE BONDED TO THE GROUNDED CONDUCTOR OF THE SEPARATELY DERIVED SYSTEM.
28. ALL UPS (UNINTERRUPTED POWER SUPPLY) WITH STATIONARY OR MOBILE BATTERY SYSTEMS EXCEEDING THE CAPACITIES LISTED IN 2025 CFC TABLE 1207.1.3 SHALL BE IN ACCORDANCE WITH 2025 CFC SECTION 1207.1 THROUGH 1207.11.9 OF THE 2025 CFC AS APPLICABLE. PROVIDE SIGNAGE FOR UPS BATTERIES PER 2025 CFC SECTION 1207.4.8.
29. VERIFY EXACT LOCATION OF ALL MECHANICAL EQUIPMENT PRIOR TO INSTALLATION OF CONDUITS AND CONNECT AS REQUIRED.
30. ALL ELECTRICAL DEVICES AND EQUIPMENT ON ROOF & OUTDOORS SHALL BE WEATHERPROOF WITH USE IN COVERS. A WP-GFCI WEATHER-PROOF PROTECTED RECEPTACLE SHALL BE INSTALLED WITHIN 25'-0" OF ALL NEW HVAC AND VENTILATING EQUIPMENT ON THE ROOF.
31. ALL DISCONNECT SWITCHES FOR PACKAGED MECHANICAL EQUIPMENT SHALL BE WITH DUAL ELEMENT FUSES AND SHALL BE SIZED BY UNIT LABEL, AND SHALL BE WITHIN SIGHT OF EQUIPMENT OR AS APPROVED BY BUILDING INSPECTOR.
32. ALL NON-THERMALLY PROTECTED MOTORS TO HAVE THERMAL OVERLOAD PROTECTION.
33. ALL DISCONNECTS FOR MOTORS TO BE LOCATED WITHIN SIGHT OF THE APPROPRIATE MOTOR AND SHALL BE CAPABLE OF BEING LOCKED IN THE OPEN POSITION. THE OPEN POSITION SHALL BE CLEARLY INDICATED. ALL MOTOR DISCONNECTS SHALL BE READILY ACCESSIBLE PER 2022 CEC 430.102, 430.104 & 430.107.
34. ALL MOTOR STARTERS TO HAVE APPROPRIATE SIZE HEATER ELEMENTS INSTALLED AND ALL FUSES TO BE DUAL ELEMENT. OVERCURRENT TO BE TIME DELAY TYPE.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	WALL SCONCE LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	RECESSED DOWN-LIGHT FIXTURE
	RECESSED WALL-WASHER LIGHT FIXTURE
	2'x4' RECESSED LIGHT FIXTURE
	2'x2' RECESSED LIGHT FIXTURE
R	2'x4' RELOCATED RECESSED LIGHT FIXTURE
EM	2'x4' EMERGENCY RECESSED LIGHT FIXTURE W/ BATTERY BACKUP
	2'x4' TANDEM WIRED RECESSED LIGHT FIXTURE
	2'x4' RECESSED INDIRECT/DIRECT LIGHT FIXTURE
	2'x2' RECESSED INDIRECT/DIRECT LIGHT FIXTURE
EM	2'x4' EMERGENCY RECESSED INDIRECT/DIRECT LIGHT FIXTURE
	4' STRIP LIGHT FIXTURE
	8' STRIP LIGHT FIXTURE
	TRACK LIGHT FIXTURE
	4' WRAP-AROUND LIGHT FIXTURE
	4' HI-BAY LIGHT FIXTURE
	8' STRIP LIGHT FIXTURE W/ REFLECTOR
	1'x4' ACRYLIC LIGHT FIXTURE STRUT SURFACE MOUNT W/ (2)17W T8 LAMP & ELECTRONIC BALLAST
	WALL PACK LIGHT FIXTURE
	8' STRIP LIGHT FIXTURE W/ WIREGUARD
	PAGING SPEAKER - WALL MOUNT
	PAGING SPEAKER - FLUSH CEILING MOUNT
	PHOTO-CELL
	EMERGENCY RED STROBE LIGHT FIXTURE
	BLDG. STD. EXIT SIGN - LED; LIGHT SHADE INDICATES ILLUMINATED FACE, INTEGRAL 90-MIN. BATTERY BACKUP
	CEILING MOUNTED OCCUPANCY / MOTION SENSOR
OSDC	WALL MOUNTED OCCUPANCY / MOTION SENSOR, DIGITAL DIMMER SWITCH (SINGLE CIRCUIT)
D	WALL MOUNTED DIGITAL DIMMER SWITCH
WOS	WALL MOUNTED OCCUPANCY / MOTION SENSOR
	DUAL-HEAD EMERGENCY LED LIGHT FIXTURE, INTEGRAL 90-MIN. BATTERY BACKUP
	COMBINATION DUAL-HEAD EMERGENCY LED LIGHT FIXTURE & EXIT SIGN WITH INTEGRAL 90-MIN. BATTERY BACKUP
RC	CEILING SINGLE RELAY ROOM CONTROLLER, 0-10V DIMMING
	SINGLE POLE LIGHT SWITCH
3	3-WAY LIGHT SWITCH
4	4-WAY LIGHT SWITCH
D	SINGLE POLE DIMMER LIGHT SWITCH
WP	SINGLE POLE SWITCH, WEATHERPROOF
S	SENTRY LIGHT SWITCH
LV	LOW-VOLTAGE LIGHT SWITCH
DLV	DIGITAL LOW VOLTAGE LIGHT SWITCH
PLS	CEILING MOUNTED OPEN LOOP DIGITAL PHOTOSENSOR, WATTSTOPPER LMLS-500
PLS	CEILING MOUNTED CLOSED LOOP DIGITAL PHOTOSENSOR, WATTSTOPPER LMLS-400
	CORNER MOUNT DIGITAL PIR / ULTRASONIC OCCUPANCY / MOTION SENSOR, WATTSTOPPER LMDX-100
	CEILING DIGITAL ULTRASONIC OCCUPANCY / MOTION SENSOR, WATTSTOPPER LMUC-100
	CEILING DIGITAL PIR OCCUPANCY / MOTION SENSOR, WATTSTOPPER LMPC-100
	CEILING DIGITAL DUAL TECHNOLOGY (PIR & ULTRASONIC) OCCUPANCY / MOTION SENSOR, WATTSTOPPER LMDC-100
1	WALL MOUNTED 1-BUTTON DIGITAL DIMMER SWITCH, WATTSTOPPER LMDM-101 (SINGLE-GANG)
4	WALL MOUNTED 4-BUTTON DIGITAL DIMMER SWITCH, WATTSTOPPER LMSW-104 (SINGLE GANG)
5	WALL MOUNTED 5-BUTTON DIGITAL DIMMER SWITCH, WATTSTOPPER LMSW-105 (SINGLE-GANG)
8	WALL MOUNTED 8-BUTTON DIGITAL DIMMER SWITCH, WATTSTOPPER LMSW-108 (SINGLE-GANG)
PW	WALL MOUNTED 0-10V 2-BUTTON DIMMER SWITCH W/ OCCUPANCY SENSOR, WATTSTOPPER PW-311 (SINGLE-GANG)
DW	WALL MOUNTED 1-BUTTON DIGITAL DIMMER SWITCH W/ OCCUPANCY SENSOR, WATTSTOPPER LMDW-102 (SINGLE-GANG)
PW	WALL MOUNTED SINGLE RELAY LIGHT SWITCH W/ OCCUPANCY SENSOR, WATTSTOPPER PW-301
PW	WALL MOUNTED DUAL RELAY LIGHT SWITCH W/ OCCUPANCY SENSOR, WATTSTOPPER PW-302
RC111 RC113	CEILING 1- OR 2-RELAY ROOM CONTROLLER, 0-10V DIMMING, 10A RATED, WATTSTOPPER LMRC-111 / LMRC-112
RC211 RC212 RC213	CEILING 1-,2-, OR 3-RELAY ROOM CONTROLLER, 0-10V DIMMING, 20A RATED, WATTSTOPPER LMRC-211 / LMRC-212 / LMRC-213
RC221 RC222	CEILING 1- OR 2-RELAY ROOM CONTROLLER, UNIVERSAL DIMMING, 20A RATED, WATTSTOPPER LMRC-221 / LMRC-222
LMBC	CEILING DLM DIGITAL NETWORK BRIDGE, LMBC-300
SM201 SM603	CEILING DLM SEGMENT MANAGER, LMSM-201/ LMSM-603
	CAT 5E CABLE (LIGHTING CONTROL)
	MSTP CABLE (LIGHTING CONTROL BACKBONE)
A	LIGHT FIXTURE ANNOTATION TAG

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
P	POWER POLE
J	FLOOR FLUSH MOUNTED JUNCTION BOX
J	CEILING FLUSH MOUNTED JUNCTION BOX
BF	BASE-FEED BOX
	DUPLEX RECEPTACLE 15A 120V +18" A.F.F.
	DUPLEX RECEPTACLE 20A 120V +18" A.F.F.
2	DEDICATED DUPLEX RECEPTACLE 20A 120V +18" A.F.F.
C	CONTROLLED DUPLEX RECEPTACLE 15A 120V (1 OUTLET CONTROLLED, 1 OUTLET UNCONTROLLED) +18" A.F.F.
C	CONTROLLED DUPLEX RECEPTACLE 20A 120V (1 OUTLET CONTROLLED, 1 OUTLET NON-CONTROLLED) +18" A.F.F.
IG	DUPLEX RECEPTACLE WITH ISOLATED GROUND 20A 120V +18" A.F.F.
GFCI	RECEPTACLE W/ GFCI - GROUND FAULT CIRCUITRY PROTECTION 20A 120V +18" A.F.F.
GFCI WP	RECEPTACLE W/ WP - WEATHERPROOF IN-USE COVER AND GFCI - GROUND FAULT CIRCUITRY PROTECTION 20A 120V +18" A.F.F.
	DOUBLE DUPLEX RECEPTACLE (2) 20A 120V +18" A.F.F.
C IG	CONTROLLED DOUBLE DUPLEX RECEPTACLE (2) 20A 120V - (2-GANG, (1) CONTROLLED DUPLEX & (1) NON-CONTROLLED DUPLEX) +18" A.F.F.
	DOUBLE-DUPLEX CORD-DROP RECEPTACLE (2) 20A 120V
	DUPLEX CORD-DROP RECEPTACLE 20A 120V
2	2-CKT CORD-DROP RECEPTACLE
	L6-15, 15A 208V 1Ø RECEPTACLE + 18" A.F.F.
	L5-20, 20A 120V 1Ø RECEPTACLE + 18" A.F.F.
	L6-20, 20A 208V 1Ø RECEPTACLE +18" A.F.F.
	L14-20, 20A 120/208V 1Ø RECEPTACLE +18" A.F.F.
	L15-20, 20A 208V 3Ø RECEPTACLE +18"A.F.F.
	L21-20, 20A 120/208V 3Ø RECEPTACLE +18" A.F.F.
	L5-30, 30A 120V 1Ø RECEPTACLE +18" A.F.F.
	L6-30, 30A 208V 1Ø RECEPTACLE +18" A.F.F.
	L14-30, 30A 120/208V 1Ø RECEPTACLE +18" A.F.F.
	L15-30, 30A 208V 3Ø RECEPTACLE +18" A.F.F.
	L21-30, 30A 120/208V 3Ø RECEPTACLE +18" A.F.F.
SPEX	SPECIAL RECEPTACLE +18" A.F.F.
#12 AWG PHASE CONDUCTORS #12 AWG NEUTRAL CONDUCTORS CONTROLLED CIRCUIT	CONDUIT WITH WIRES, CONCEALED IN CEILING OR WALL. HASH MARKS INDICATE NUMBER OF WIRES IF MORE THAN (2); "#6" INDICATES WIRE SIZE IF OTHER THAN #12 AWG. GROUND WIRE NOT SHOWN, BUT SHALL BE INSTALLED AND SIZED PER 2022 CEC 250.122.
PLV01 PLD01	SINGLE RELAY DIGITAL PLUG LOAD CONTROLLER, WATTSTOPPER LMPL-101 OR LMPL-201
RIB	SINGLE RELAY IN BOX (PLUG LOAD CONTROL), FUNCTIONAL DEVICES RIB2421B
	EPO BUTTON
	DISCONNECT, FUSED OR NON-FUSED
	COMBINATION MOTOR STARTER
	VFD - VARIABLE FREQUENCY DRIVE (STANDALONE OR WITH DISCONNECT)
	MOTOR RATED SWITCH, 2-POLE
WM4000, WM6000	WIREMOLD RACEWAY, 4000 OR 6000 & VERTICAL WIREMOLD RACEWAY
AV	MULTI-DEVICE ELECTRICAL & TELECOM FLUSH FLOOR BOX (STANDALONE OR WITH AV)
AV	MULTI-DEVICE ELECTRICAL & TELECOM FLUSH POKE-THRU (STANDALONE OR WITH AV)
	MULTI-DEVICE ELECTRICAL & TELECOM FLUSH CEILING BOX
	TELECOM VOICE-TELEPHONE & DATA FLUSH FLOOR BOX
	TELECOM VOICE-TELEPHONE & DATA OUTLET + 18" A.F.F.
	TELECOM VOICE-TELEPHONE & DATA CEILING BOX
	TELECOM SECURITY CAMERA LOCATION
EQP-##	EQUIPMENT TAG (SEE MECHANICAL EQUIPMENT SCHEDULE)

ELECTRICAL ABBREVIATIONS

AMPS	AMPERES	KWH	KILOWATT HOURS
A/C	AIR CONDITIONER	LCP	LIGHTING CONTROL PANEL
AF	AMPERE FRAME / FUSE	LTG	LIGHTING
AFF	ABOVE FINISH FLOOR	LV	LOW-VOLTAGE
AIC	AMPERE INTERRRUPTION CURRENT	LVDB	LOW-VOLTAGE DISTRIBUTION BOARD
AL	ALUMINUM CONDUCTOR OR BUS	MAX	MAXIMUM
AM	AMMETER	MCB	MAIN CIRCUIT BREAKER
ARCH	ARCHITECT / ARCHITECTURAL	MCC	MOTOR CONTROL CENTER
AT	AMPERES TRIP	MCCB	MOLDED CASE CIRCUIT BREAKER
ATS	AUTOMATIC TRANSFER SWITCH	MCP	MOTOR CIRCUIT PROTECTOR
AWG	AMERICAN WIRE GAUGE	MFG	MANUFACTURING
BKR	BREAKER	MECH	MECHANICAL
BLDG	BUILDING	MIN	MINIMUM
C	CONDUIT	MISC	MISCELLANEOUS
CB	CIRCUIT BREAKER	MLO	MAIN LUG ONLY
CKT	CIRCUIT	MTG HT	MOUNTING HEIGHT
CLG	CEILING	MSB	MAIN SWITCHBOARD
CLR	CLEAR	MSG	MAIN SWITCHGEAR
CTR	CENTER	(N),	NEW
CU	COPPER	N	NEUTRAL
(D)	REMOVE / DEMOLITION - TO BE REMOVED	NIC	NOT IN CONTRACT
DET	DETAIL	NTS	NOT TO SCALE
DIA	DIAMETER	NL	NIGHT-LIGHT
DIST.PNL	DISTRIBUTION PANEL	OC	ON CENTER
DWG	DRAWING	P	POLE
(E)	EXISTING	PC	PHOTO-CELL
EMERG	EMERGENCY	PH, Ø	PHASE
EMS	ENERGY MANAGEMENT SYSTEM	PNL	PANEL
EMT	ELECTRICAL METALLIC TUBING	PVC	POLYVINYL CHLORIDE DUCT
ENCL	ENCLOSURE / ENCLOSED	PUE	PUBLIC UTILITY EASEMENT
EPO	EMERGENCY POWER OFF	(R), (REL)	EXISTING TO BE RELOCATED
EQ	EQUAL	SCA	SHORT CIRCUIT AMPERES
EQUIP	EQUIPMENT	SEC	SECONDARY
FA	FIRE ALARM	SN	SOLID NEUTRAL
FAAP	FIRE ALARM ANNUNCIATOR PANEL	STD	STANDARD
FACP	FIRE ALARM CONTROL PANEL	ST	SHUNT TRIP
FLA	FULL LOAD AMPERES	SWBD	SWITCHBOARD
(F)	FUTURE	SYM	SYMMETRICAL
GALV	GALVANIZED	TC	TIME CLOCK
GFI	GROUND FAULT INTERRUPTER	TCP	TEMPERATURE CONTROL PANEL
GND	GROUND	TYP	TYPICAL
HOA	HAND-OFF-AUTO	TX/XFMR	TRANSFORMER
HP	HORSEPOWER	UG	UNDERGROUND
HV	HIGH VOLTAGE	UL	UNDERWRITERS LABORATORIES
HVDB	HIGH VOLTAGE DISTRIBUTION BOARD	UON	UNLESS OTHERWISE NOTED
HZ	HERTZ	V	VOLTS
IG	ISOLATED GROUND CONDUCTOR OR BUS	VA	VOLT-AMPERE
JB	JUNCTION BOX	VFD	VARIABLE FREQUENCY DRIVE BY HVAC
KV	KILOVOLTS	W/	WITH
KVA	KILOVOLT AMPERES	WM	WIREMOLD
KW	KILOWATT	WP/WR	WEATHERPROOF OR WEATHER RESISTANT

DRAWING INDEX

E0.0	ELECTRICAL SYMBOLS, ABBREVIATIONS, GENERAL NOTES, DRAWING INDEX & PROJECT SCOPE
E1.0	OVERALL ELECTRICAL LIGHTING PLAN
E1.1	ENLARGED ELECTRICAL LIGHTING PLAN
E3.0	PARTIAL ROOF PLAN
E4.0	ELECTRICAL SINGLE LINE DIAGRAM
E7.2	TITLE 24 REQUIREMENTS OUTDOOR LIGHTING

PROJECT SCOPE

THE PURPOSE OF THIS PROJECT IS TO INSTALL (N) LUMINARIES FOR AN OUTDOOR MECHANICAL PAD IMPROVEMENT AT SILA NANO.

CITY STAMP

RK ELECTRIC
A CRITICORE GROUP COMPANY
49211 Milmont Dr. Fremont, CA 94538
Ph: 510.770.5660 Fax: 510.770.5684
Cont. License # 471290

Contractor Stamp

This drawing is and shall remain the property of RK Electric, Inc. whether the project for which it was made is executed or not. It is to be used by RK Electric personnel only and is not to be used by anyone else for any purpose except by agreement in writing with RK Electric, inc. for the specified project. RK Electric's Professional Liability Insurance Coverage requires all work designed by the engineering group to be performed by RK Electric Inc. Design concepts and work product are the intellectual property of RK Electric Inc. and are not to be reproduced or distributed to solicit bids or proposals from other engineering or contracting firms.

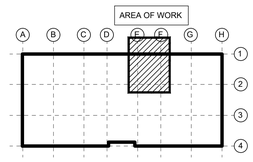
NO.	DESCRIPTION	DATE
	ISSUED FOR PERMIT	07-29-26

PROJECT

Sila

SILA NANO NMP ABATEMENT

2430 MARINER SQUARE LOOP, ALAMEDA, CA 94501



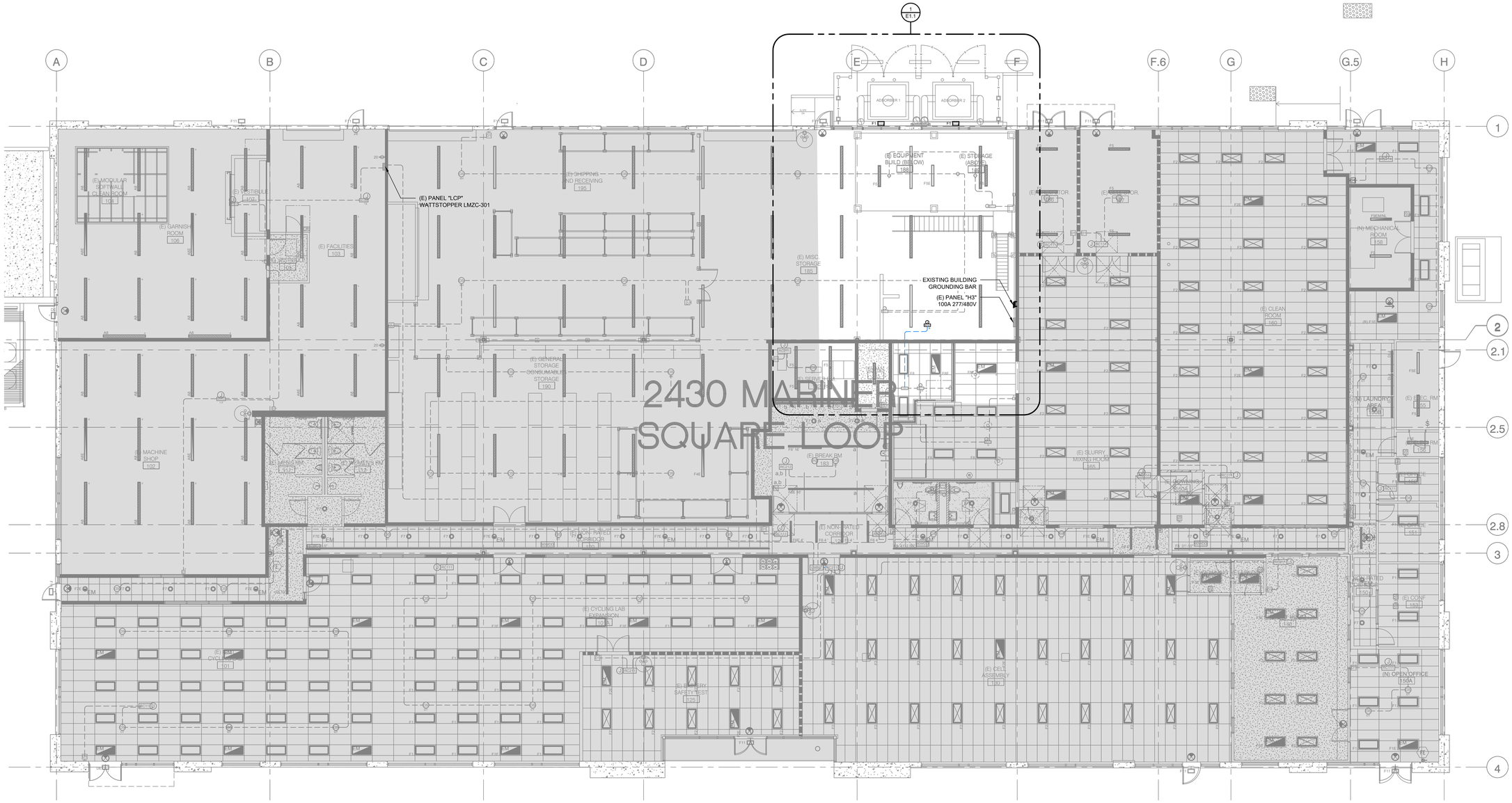
KEY PLAN

DRAWING TITLE

ELECTRICAL SYMBOLS, ABBREVIATIONS, GENERAL NOTES, DRAWING INDEX & PROJECT SCOPE

JOB NUMBER	SHEET NUMBER
DRAWN: F.K.	**E0.0**
DATE: 07/17/26	
SCALE: AS NOTED	
CAD FILE	

RK PROJ. # 260039



OVERALL ELECTRICAL LIGHTING PLAN

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

RK ELECTRIC
A CRITICORE GROUP COMPANY
49211 Milmont Dr. Fremont, CA 94538
Ph: 510.770.5660 Fax: 510.770.5684
Cont. License # 471290

Contractor Stamp

This drawing is and shall remain the property of RK Electric, Inc. whether the project for which it was made is executed or not. It is to be used by RK Electric personnel only and is not to be used by anyone else for any purpose except by agreement in writing with RK Electric, inc. for the specified project. RK Electric's Professional Liability Insurance Coverage requires all work designed by the engineering group to be performed by RK Electric Inc. Design concepts and work product are the intellectual property of RK Electric Inc. and are not to be reproduced or distributed to solicit bids or proposals from other engineering or contracting firms.

NO.	DESCRIPTION	DATE
	ISSUED FOR PERMIT	07-29-26

PROJECT

Sila

SILA NANO NMP ABATEMENT

2430 MARINER SQUARE LOOP, ALAMEDA, CA 94501

AREA OF WORK

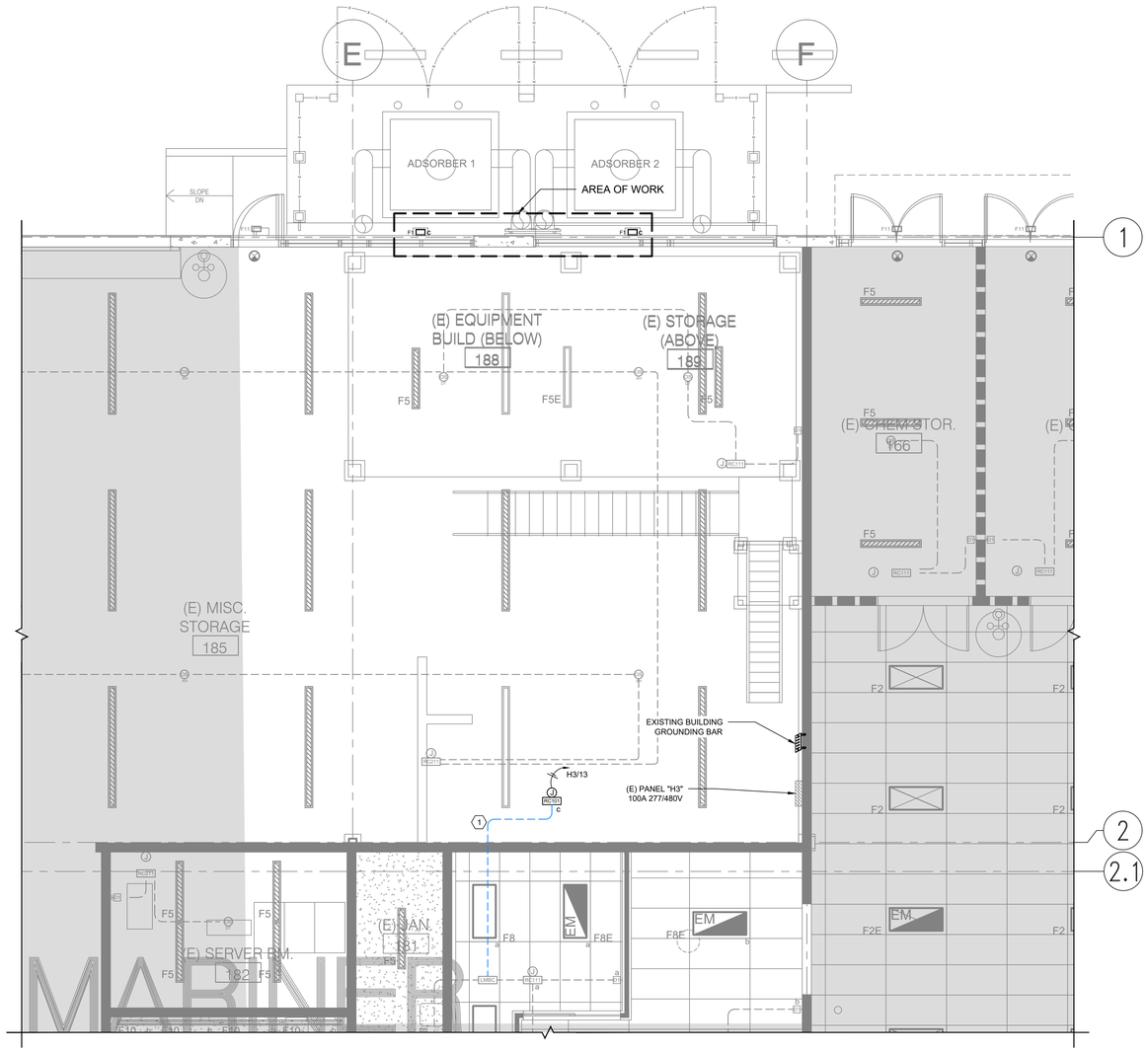
KEY PLAN

DRAWING TITLE

OVERALL ELECTRICAL LIGHTING PLAN

JOB NUMBER	SHEET NUMBER
DRAWN: F.K.	**E1.0**
DATE: 07/17/26	
SCALE: AS NOTED	
CAD FILE	

RK PROJ. # 260039



1 ENLARGED ELECTRICAL LIGHTING PLAN
SCALE: 1/4" = 1' - 0"

(E) PANEL H3

SECTION: 1				BUSS AMPS: 100 A								FED FROM MSB 2430(A)			
MOUNTING: SURFACE				VOLTAGE: 277 / 480 V								SOURCE CB 100 A			
COVER TYPE: DOOR IN DOOR				SYSTEM: 3PH/4W								LOCATION 2430(A)			
MANUFACTURER: IEM				MAIN CB: MLO								NEUTRAL BUS (Y/N*%) Y			
BREAKER TYPE: GE				FEED DIRECTION: TOP								GROUND BUS (Y/N) Y			
# OF CIRCUITS: 42				AIC RATING: 10 KAIC								ISOLATED GROUND BUS Y/N N			
LOAD TYPE: R - RECEPTACLE C - CONTINUOUS N - NON CONTINUOUS M - MOTOR															
CIRCUIT DESCRIPTION	Load Type	Load VA A	Load VA B	Load VA C	Circuit Bkr	Circuit No.	Phase	Circuit No.	Circuit Bkr	Load VA A	Load VA B	Load VA C	Load Type	CIRCUIT DESCRIPTION	
LIGHTS 150	C				20/1	1	A	2	20/1	100			C	MENS/WOMEN BATH LTS	
LIGHTS BRK RM 165,166,181,182	C		710		20/1	3	B	4	20/1					SPARE	
LIGHTS 125, 130	C			1,822	20/1	5	C	6	20/3			1,108	N	(E) WAREHOUSE DRUM LIFTER	
LIGHTS 160,165,500	C	1,854			20/1	7	A	8	"	1,108			N	"	
LIGHTS 151,157, CONF., MECH RI	C		764		20/1	9	B	10	"		1,108		N	"	
LIGHTS 130, 130A,140,140A	C			2,033	20/1	11	C	12	40/3			1,560	N	(E) ELECTRICAL RM H-1	
ET MILL / SLURRY / NMP LIGHT	**C**	**455**			**20/1**	**13**	A	14	"	1,560			N	"	
SPARE					20/1	15	B	16	"		1,560		N	"	
SPARE					20/1	17	C	18	20/3					SPARE	
SPARE					20/1	19	A	20	"					"	
(E) WAREHOUSE LTS	C		2,000		20/1	21	B	22	"					"	
I) WAREHOUSE FORKLIFT CHARGE	C			2,300	30/3	23	C	24	20/3			1,108	N	DRUM TUMBLER	
"	C	2,300			"	25	A	26	"	1,108			N	"	
"	C		2,300		"	27	B	28	"		1,108		N	"	
SPACE						29	C	30	20/1			2,743	M	CLEAN RM 160 HEPA	
SPACE						31	A	32	20/1	2,743			M	CLEAN RM 160 HEPA	
SPACE						33	B	34	20/1		2,743		M	CLEAN RM 160 HEPA	
SPACE						35	C	36	20/1			2,743	M	CLEAN RM 160 HEPA	
SPACE						37	A	38	20/1	2,743			M	CLEAN RM 160 HEPA	
SPACE						39	B	40						SPACE	
SPACE						41	C	42						SPACE	

*PROVIDE APPROVED HANDLE TIES ON CIRCUIT BREAKER THAT HAVE A COMMON NEUTRAL

	CONNECTED	DEMAND	DEMAND FACTORS 2011 NEC				
RECEPTACLE	0 VA	0 VA	(R) §220.44	CONNECTED LOAD - PHASE A	50.4 A	13.97	KVA
CONTINUOUS	16,638 VA	20,798 VA	(C) §210.19(A), §215.2	CONNECTED LOAD - PHASE B	44.4 A	12.29	KVA
NON-CONTINUOUS	11,328 VA	11,328 VA	(N) §210.19(A), §215.2	CONNECTED LOAD - PHASE C	55.7 A	15.42	KVA
MOTOR	13,715 VA	14,401 VA	(M) §220.18, §430.26	CONNECTED LOAD - TOTAL	50.2 A	41.68	KVA
				TOTAL DEMAND LOAD	**56.0 A**	**46.53**	**KVA**

LIGHTING LEGEND

F1	(N) WALL PACK LED LIGHT FIXTURE W/ INTEGRAL MOTION SENSOR, 35W, 5279 LUMENS, 4000K, 0-10V DIM, LITHONIA DSXW2 LED-P2-40K-80CRI-T3M-MVOLT-BBW-PIRH-DDBXD
RC101	(N) CEILING SINGLE RELAY ROOM CONTROLLER, 20A RATED, WATTSTOPPER LMRC-101

SHEET NOTES

1. ALL LIGHTS ARE FED FROM (E) PANEL(S).
2. THIS PROJECT IS ADDING LIGHTING CONTROLS TO 20 OR FEWER LUMINAIRES. PER 2025 CEnC SECTION 141.0(b)2I EXCEPTION 4, ACCEPTANCE TESTING REQUIREMENTS OF 130.4 ARE NOT REQUIRED.

KEY NOTES

1. TIE NEW LMRC-101 CONTROLLER TO EXISTING LMBC-200 NETWORK BRIDGE AS SHOWN.

RK ELECTRIC
A ERITECORE GROUP COMPANY
49211 Milmont Dr, Fremont, CA 94538
Ph: 510.770.5660 Fax: 510.770.5684
Cont. License # 471290

Contractor Stamp

This drawing is and shall remain the property of RK Electric, Inc. whether the project for which it was made is executed or not. It is to be used by RK Electric personnel only and is not to be used by anyone else for any purpose except by agreement in writing with RK Electric, inc. for the specified project. RK Electric's Professional Liability Insurance Coverage requires all work designed by the engineering group to be performed by RK Electric Inc. Design concepts and work product are the intellectual property of RK Electric Inc. and are not to be reproduced or distributed to solicit bids or proposals from other engineering or contracting firms.

NO.	DESCRIPTION	DATE
	ISSUED FOR PERMIT	07-29-26

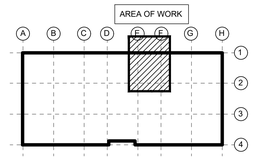
PROJECT

Sila

SILA NANO NMP ABATEMENT

2430 MARINER SQUARE LOOP, ALAMEDA, CA 94501

AREA OF WORK



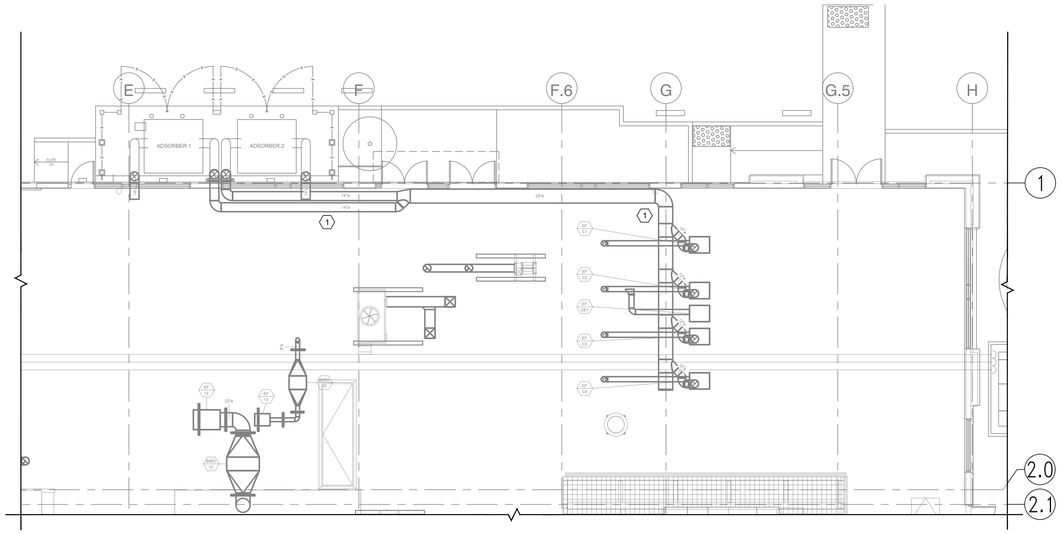
KEY PLAN

DRAWING TITLE

ENLARGED ELECTRICAL LIGHTING PLAN

JOB NUMBER	SHEET NUMBER
DRAWN: F.K.	**E1.1**
DATE: 07/17/26	
SCALE: AS NOTED	
CAD FILE	

RK PROJ. # 260039



PARTIAL ROOF PLAN

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

KEY NOTES

1. TO CONTROL STATIC ELECTRICITY BUILD-UP PER 2024 NFPA 77 CHAPTER 7, PROVIDE AND INSTALL (1) SOLID BARE #6 CU GROUND WIRE ALONG THE LENGTH OF MECHANICAL DUCTWORK AND EQUIPMENT. GROUND WIRE TO BE BONDED TO INDIVIDUAL EQUIPMENT COMPONENTS THROUGH THE USE OF LAY-IN GROUND LUGS AND BONDED TO THE EXISTING BUILDING GROUNDING ELECTRODE SYSTEM.

RK ELECTRIC
A CRITICORE GROUP COMPANY
49211 Milmont Dr. Fremont, CA 94538
Ph: 510.770.5660 Fax: 510.770.5684
Cont. License # 471290

Contractor Stamp



This drawing is and shall remain the property of RK Electric, Inc. whether the project for which it was made is executed or not. It is to be used by RK Electric personnel only and is not to be used by anyone else for any purpose except by agreement in writing with RK Electric, inc. for the specified project. RK Electric's Professional Liability Insurance Coverage requires all work designed by the engineering group to be performed by RK Electric Inc. Design concepts and work product are the intellectuall property of RK Electric Inc. and are not to be reproduced or distributed to solicit bids or proposals from other engineering or contracting firms.

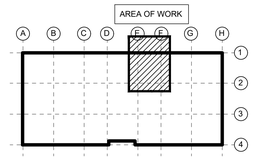
NO.	DESCRIPTION	DATE
	ISSUED FOR PERMIT	07-29-26

PROJECT

Sila

SILA NANO
NMP ABATEMENT

2430 MARINER SQUARE LOOP,
ALAMEDA, CA 94501



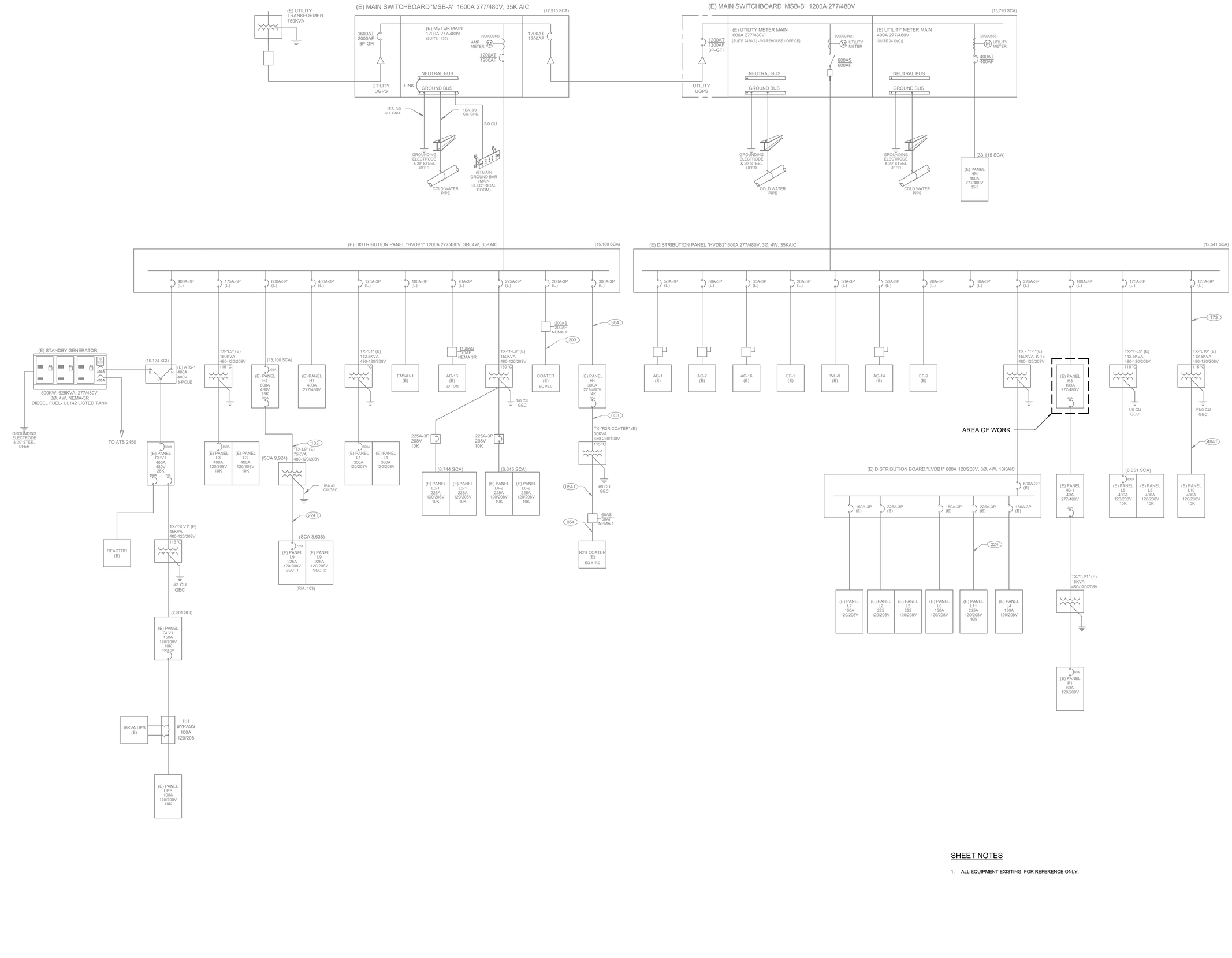
KEY PLAN

DRAWING TITLE

PARTIAL ROOF PLAN

JOB NUMBER	SHEET NUMBER
DRAWN: F.K.	**E3.0**
DATE: 07/17/26	
SCALE: AS NOTED	
CAD FILE:	

RK PROJ. # 260039



SHEET NOTES

1. ALL EQUIPMENT EXISTING. FOR REFERENCE ONLY.

RK ELECTRIC
A CRITICORE GROUP COMPANY
49211 Milmont Dr. Fremont, CA 94538
Ph: 510.770.5660 Fax: 510.770.5684
Cont. License # 471290

Contractor Stamp

This drawing is and shall remain the property of RK Electric, Inc. whether the project for which it was made is executed or not. It is to be used by RK Electric personnel only and is not to be used by anyone else for any purpose except by agreement in writing with RK Electric, inc. for the specified project. RK Electric's Professional Liability Insurance Coverage requires all work designed by the engineering group to be performed by RK Electric Inc. Design concepts and work product are the intellectual property of RK Electric Inc. and are not to be reproduced or distributed to solicit bids or proposals from other engineering or contracting firms.

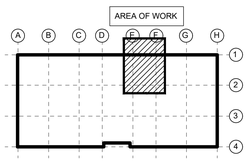
NO.	DESCRIPTION	DATE
	ISSUED FOR PERMIT	07-29-26

PROJECT

Sila

SILA NANO NMP ABATEMENT

2430 MARINER SQUARE LOOP, ALAMEDA, CA 94501



KEY PLAN



DRAWING TITLE

ELECTRICAL SINGLE LINE DIAGRAM

JOB NUMBER	SHEET NUMBER
DRAWN: F.K.	**E4.0**
DATE: 07/17/26	
SCALE: AS NOTED	
CAD FILE:	

RK PROJ. # 260039

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: SILA Nano - NMP Abetement	Report Page: (Page 1 of 7)
Project Address: 2430 Mariner Square Loop	Date Prepared: 7/19/2026

This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.2, §140.7, and §141.0(b)2L for outdoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in §160.5, §170.2(e)6, §180.1(a) and §180.2(b)4Bv for outdoor lighting scopes using the prescriptive path for multifamily and mixed-use occupancies. Multifamily includes dormitory and senior living facilities.

A. GENERAL INFORMATION

01	Project Location (city)	Alameda	04	Total Illuminated Hardscape Area (ft²)	315
02	Climate Zone	3			
03	Outdoor Lighting Zone per Title 24 Part 1 §10.114 or as designated by Authority Having Jurisdiction (AHJ):				
☐	LZ-0: Very Low - Undeveloped Parkland	☐ LZ-2: Moderate - Urban Clusters	☐	LZ-4: High - Must be reviewed by CA Energy Commission for Approval	
☐	LZ-1: Low - Rural Areas	☒ LZ-3: Moderately High - Urban Areas			
05	Occupancy Types within Project				
●	All Other Occupancies				

B. PROJECT SCOPE

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 / §170.2(e)6 or §141.0(b)2L / § 180.2(b)4Bv for alterations.

My Project Consists of:

01	02	
☐ New Lighting System	Must Comply with Allowances from §140.7 / §170.2(e)6	
☒ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)?	● Yes ○ No
03	04	05
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method
☐ < 10% ☐ >= 10% and < 50% ☐ >= 50%	0	

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.

[1] FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: SILA Nano - NMP Abetement

Report Page: (Page 2 of 7)
Date Prepared: 7/19/2026

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through N. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

Calculations of Total Allowed Lighting Power (Watts) §140.7 / §170.2(e)6 or §141.0(b)2L / § 180.2(b)4Bv												Compliance Results		
01		02		03		04		05		06		07		08	09
General Hardscape Allowance §140.7(d)1 / §170.2(e)6 (See Table I)	+	Per Application §140.7(d)2 / §170.2(e)6 (See Table J)	+	Sales Frontage §140.7(d)2 (See Table K)	+	Ornamental §140.7(d)2 / §170.2(e)6 (See Table L)	+	Per Specific Area §140.7(d)2 / §170.2(e)6 (See Table M)	OR	Existing Power Allowance §141.0(b)2L / § 180.2(b)4Bv (See Table N)	=	**Total Allowed** (Watts)	≥	**Total Actual** (Watts)	**07 must be >= 08**
273	+	---	+	---	+	---	+	---	OR	---	=	273	≥	70	COMPLIES
Shielding Compliance (See Table G for Details)															N/A
Controls Compliance (See Table H for Details)															COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

<40W per Luminaire

CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance
Generated Date/Time:
Report Version: 2025.0.000
Schema Version: rev 20250101
Documentation Software: EnergyPro
Compliance ID: EPR-5700-0726-0006
Report Generated: 2026-07-19 17:03:36

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: SILA Nano - NMP Abetement

Report Page: (Page 3 of 7)
Date Prepared: 7/19/2026

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with §140.7 / §170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

Designed Wattage:

01	02		03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description		Watts per luminaire[1, 2]	How is Wattage determined	Total Number Luminaires [2]	Luminaire Status[3]	Excluded per §140.7(a) / §170.2(e)6A	Design Watts	Cutoff Req. > 6,200 initial lumen output §130.2(b) /§160.5(c)1 [4]	Field Inspector	
										Pass	Fail
F1	F1 - 35W Wall Pack	☐ Linear	35	Mfr. Spec	2	New	☐	70	NA; < 6200 lumens	☐	☐
							Total Design Watts:	70			

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue; EXCEPTION 2 to §130.2(b)

[1] FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) / §160.5(b)

[2] For linear luminaires, wattage should be indicated as W/ft instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.

[3] Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.

[4] Compliance with mandatory shielding requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by §130.2(b)/ §160.5(c)

G. SHIELDING REQUIREMENTS (BUG)

This section does not apply to this project.

CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance
Generated Date/Time:
Report Version: 2025.0.000
Schema Version: rev 20250101
Documentation Software: EnergyPro
Compliance ID: EPR-5700-0726-0006
Report Generated: 2026-07-19 17:03:36

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: SILA Nano - NMP Abetement

Report Page: (Page 4 of 7)
Date Prepared: 7/19/2026

H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
Outdoor lighting for nonresidential buildings, parking garages and common service areas in multifamily buildings must be documented separately from outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit

Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Areas in Multifamily Buildings

01	02	03	04	05	
Area Description	Shut-Off §130.2(c)1 / §160.5(c)	Auto-Schedule §130.2(c)2 / §160.5(c)	Motion Sensor §130.2(c)3 / §160.5(c)	Field Inspector	
				Pass	Fail
Mechanical Pad	Astronomical Timer	Provided	NA: Each Luminaire <= 40 Watts	☐	☐

[1] FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.
[2] Authority having jurisdiction may ask for cutsheets or other documentation to confirm compliance of light source.
[3] Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are excepted from ii and iii.

CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance
Generated Date/Time:
Report Version: 2025.0.000
Schema Version: rev 20250101
Documentation Software: EnergyPro
Compliance ID: EPR-5700-0726-0006
Report Generated: 2026-07-19 17:03:36

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: SILA Nano - NMP Abetement

Report Page: (Page 5 of 7)
Date Prepared: 7/19/2026

I. LIGHTING POWER ALLOWANCE (per §140.7 /§170.2(e))

This table includes areas using allowance calculations per §140.7 /§170.2(e). General Hardscape Allowance is per Table 140.7-A/Table 170.2-R while "Use it or lose it" Allowances are per Table 140.7-B /Table 170.2-S. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.
Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

	01				
		"Use it or lose it" Allowance (select all that apply) (select all that apply)			
☒ General Hardscape Allowance Table I (below)	☐ Per Application Table J	☐ Sales Frontage Table K	☐ Ornamental Table L	☐ Per Specific Area Table M	

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A for Nonresidential & Hotel/Motel

02	03	04	05	06	07	08	09
Area Description	Area Wattage Allowance (AWA)			Linear Wattage Allowance (LWA)			Total General AWA + LWA (Watts)
	Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	
Mechanical NMP Pad	315	0.021	6.6	83	0.2	16.6	23
					Initial Wattage Allowance for Entire Site (Watts):		250
					Instances of Initial Wattage Allowance (LZ 0 only)[1]		
					Total General Hardscape Allowance (Watts):		273

J. LIGHTING ALLOWANCE: PER APPLICATION

This section does not apply to this project.

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL

This section does not apply to this project.

CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance
Generated Date/Time:
Report Version: 2025.0.000
Schema Version: rev 20250101
Documentation Software: EnergyPro
Compliance ID: EPR-5700-0726-0006
Report Generated: 2026-07-19 17:03:36

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: SILA Nano - NMP Abetement

Report Page: (Page 6 of 7)
Date Prepared: 7/19/2026

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This section does not apply to this project.

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This section does not apply to this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTO-E - Must be submitted for all buildings

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	Mechanical Pad;

CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance
Generated Date/Time:
Report Version: 2025.0.000
Schema Version: rev 20250101
Documentation Software: EnergyPro
Compliance ID: EPR-5700-0726-0006
Report Generated: 2026-07-19 17:03:36

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: SILA Nano - NMP Abetement	Report Page: (Page 7 of 7)
Project Address: 2430 Mariner Square Loop	Date Prepared: 7/19/2026

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Fidel Kebede	Documentation Author Signature: Fidel Kebede
Company: RK Electric Inc	Signature Date: 2026-07-19
Address: 49211 Milmont Dr	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip: Fremont CA 94538	Phone: 510-770-5660

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Person Name: Fidel Kebede	Responsible Person Signature: Fidel Kebede
Responsible Person Scope:	
Company: RK Electric, Inc	Date Signed: 2026-07-19
Address: 49211 Milmont Drive	License: 471290
City/State/Zip: Fremont CA 94538	Phone: 510-770-5660

CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance
Generated Date/Time:
Report Version: 2025.0.000
Schema Version: rev 20250101
Documentation Software: EnergyPro
Compliance ID: EPR-5700-0726-0006
Report Generated: 2026-07-19 17:03:36

FORM NOTES

1. THIS PROJECT IS ADDING LIGHTING CONTROLS TO 20 OR FEWER LUMINAIRES. PER 2025 CEnC SECTION 141.0(b)2L EXCEPTION, ACCEPTANCE TESTING REQUIREMENTS OF 130.4 ARE NOT REQUIRED.

RK ELECTRIC
A CRITICORE GROUP COMPANY
49211 Milmont Dr. Fremont, CA 94538
Ph: 510.770.5660 Fax: 510.770.5684
Cont. License # 471290

Contractor Stamp



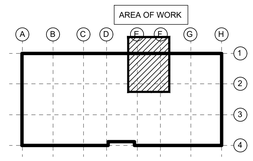
This drawing is and shall remain the property of RK Electric, Inc. whether the project for which it was made is executed or not. It is to be used by RK Electric personnel only and is not to be used by anyone else for any purpose except by agreement in writing with RK Electric, Inc. for the specified project. RK Electric's Professional Liability Insurance Coverage requires all work designed by the engineering group to be performed by RK Electric Inc. Design concepts and work product are the intellectual property of RK Electric Inc. and are not to be reproduced or distributed to solicit bids or proposals from other engineering or contracting firms.

NO.	DESCRIPTION	DATE
	ISSUED FOR PERMIT	07-29-26

PROJECT

Sila

SILA NANO NMP ABATEMENT
2430 MARINER SQUARE LOOP, ALAMEDA, CA 94501



KEY PLAN



DRAWING TITLE

TITLE 24 REQUIREMENTS OUTDOOR LIGHTING

JOB NUMBER	SHEET NUMBER
DRAWN: F.K.	E7.2
DATE: 07/17/26	
SCALE: AS NOTED	
CAD FILE	

RK PROJ. # 260039

CITY OF ALAMEDA
2263 SANTA CLARA AVENUE, ROOM 190
ALAMEDA, CA 94501

(510) 747-6800

Accommodations Request

If you need accessibility accommodations in an alternative or translated format, please fill out our ADA request form or contact ada@alamedaca.gov.