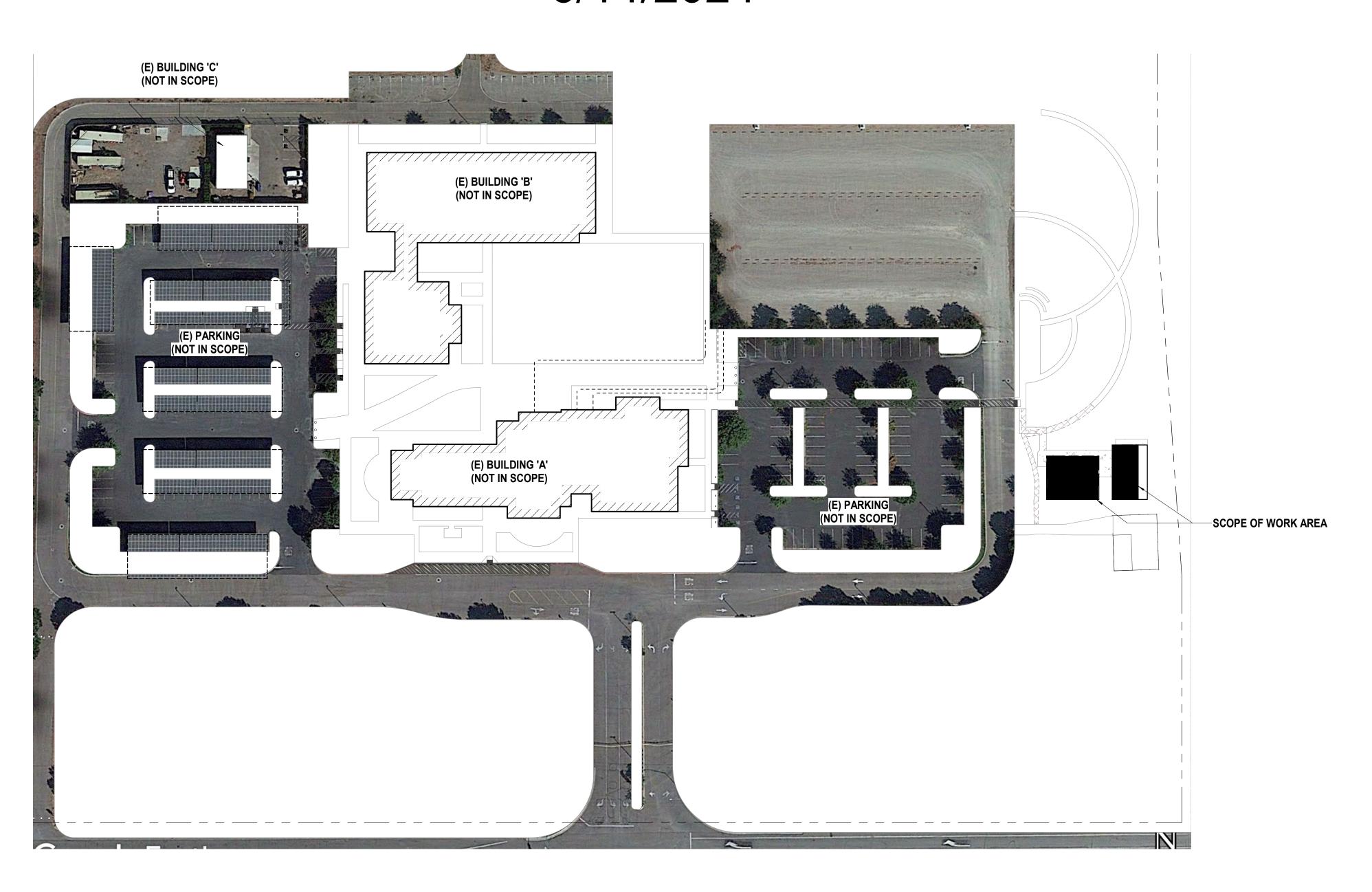


# MERCED COMMUNITY COLLEGE DISTRICT

## PLANT SCIENCE BUILDING

6/14/2024



### <u>OWNER</u>

MERCED COMMUNITY COLLEGE DISTRICT 3600 M STREET MERCED, CA 95348 209-384-6301 P 209-384-6310 F

## **ARCHITECT**

PBK ARCHITECTS 1110 IRON POINT RD SUITE 200 FOLSOM, CA 95630 916-355-9922 P

## <u>CIVIL</u>

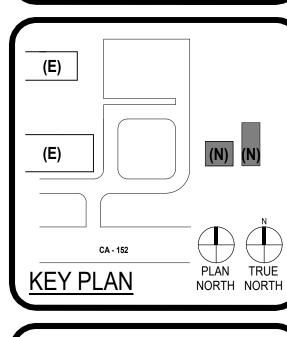
BLAIR, CHURCH & FLYNN CONSULTING ENGINEERS 2520 VENTURE OAKS WAY #160 SACRAMENTO, CA 95833 559-326-1400 P

### **ELECTRICAL/ FIRE ALARM**

LEAF ENGINEERS 1110 IRON POINT RD SUITE 200 FOLSOM, CA 95630 916-355-9922 P

## **MODULAR BUILDING**

CLASS LEASING LLC. 1651 SOUTH JUANITA ST. SAN JACINTO, CA. 92583 951-943-1908 P 951-943-5768 F



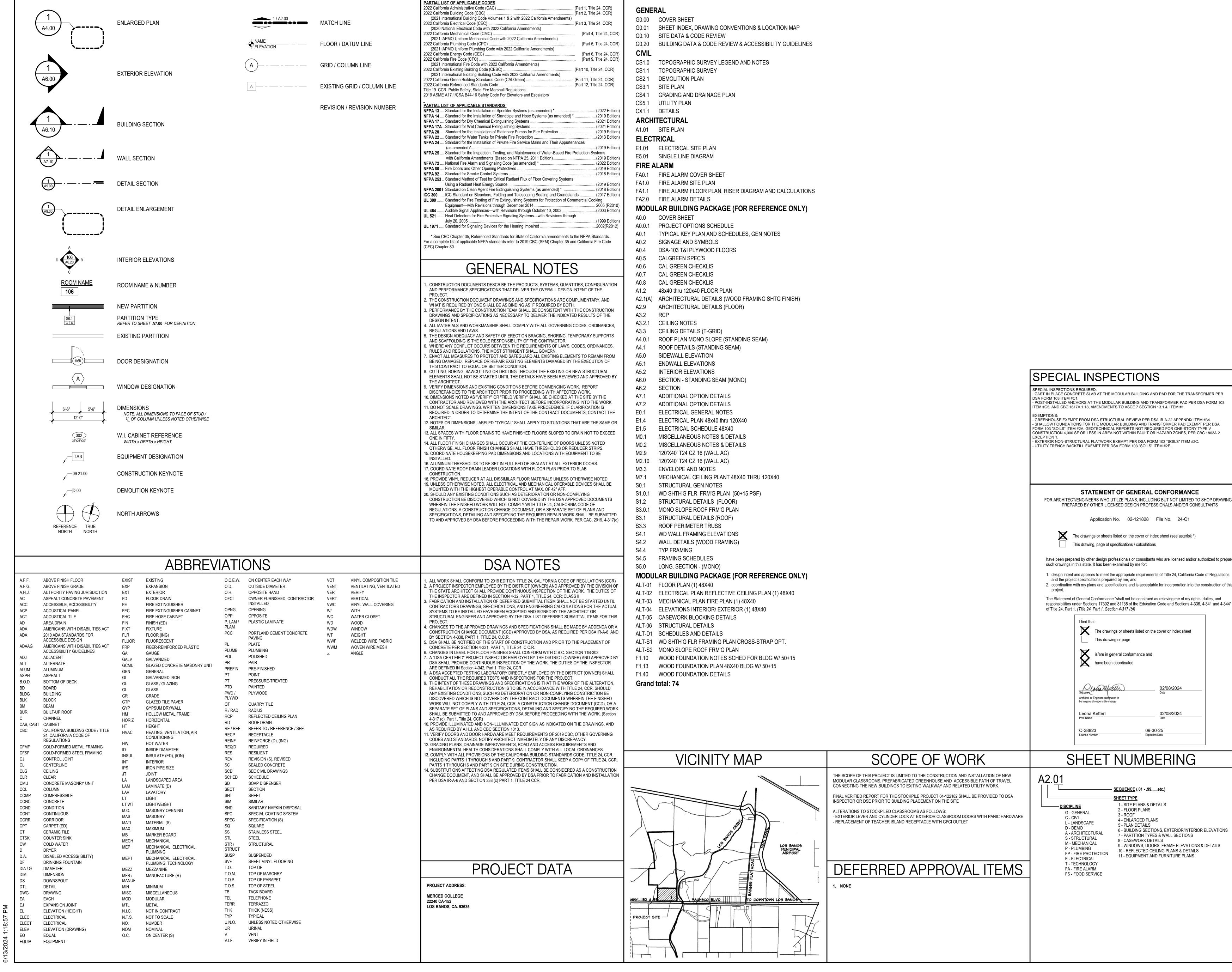


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	230268							
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DRAWING CONVENTIONS





CODES & STANDARDS

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121828 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

DRAWING INDEX

1110 Iron Point Rd, Suite 200

Folsom, CA 95630

916-355-9922 P

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Application No. 02-121828 File No. 24-C1

The drawings or sheets listed on the cover or index sheet

- <u>SEQUENCE</u> (.01 - .99.....etc.)

2 - FLOOR PLANS

5 - PLAN DETAILS

4 - ENLARGED PLANS

8 - CASEWORK DETAILS

3 - ROOF

1 - SITE PLANS & DETAILS

02/08/2024

02/08/2024

6 - BUILDING SECTIONS, EXTERIOR/INTERIOR ELEVATIONS

9 - WINDOWS, DOORS, FRAME ELEVATIONS & DETAILS

7 - PARTITION TYPES & WALL SECTIONS

10 - REFLECTED CEILING PLANS & DETAILS

11 - EQUIPMENT AND FURNITURE PLANS

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ERCED COMMUNITY COLLEGE DISTR PROJECT NUMBER 230268 6/14/2024 DRAWN BY: **NS** DESCRIPTION

**KEY PLAN** 

CHKED BY: JM CONSTRUCTION DOCUMENTS SHEET INDEX. **DRAWING** 

LEONA M. KETTERL

PLAN TRUE

NORTH NORTH

**CONVENTIONS & LOCATION MAP** 

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC

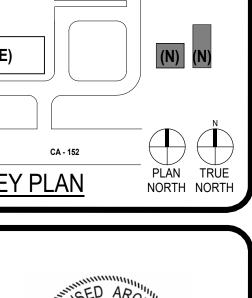
> APP: 02-121828 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE: 7/24/2024

ARCHITECT PBK Architects, Inc FOLSOM 1110 Iron Point Rd, Suite 200 Folsom, CA 95630 916-355-9922 P

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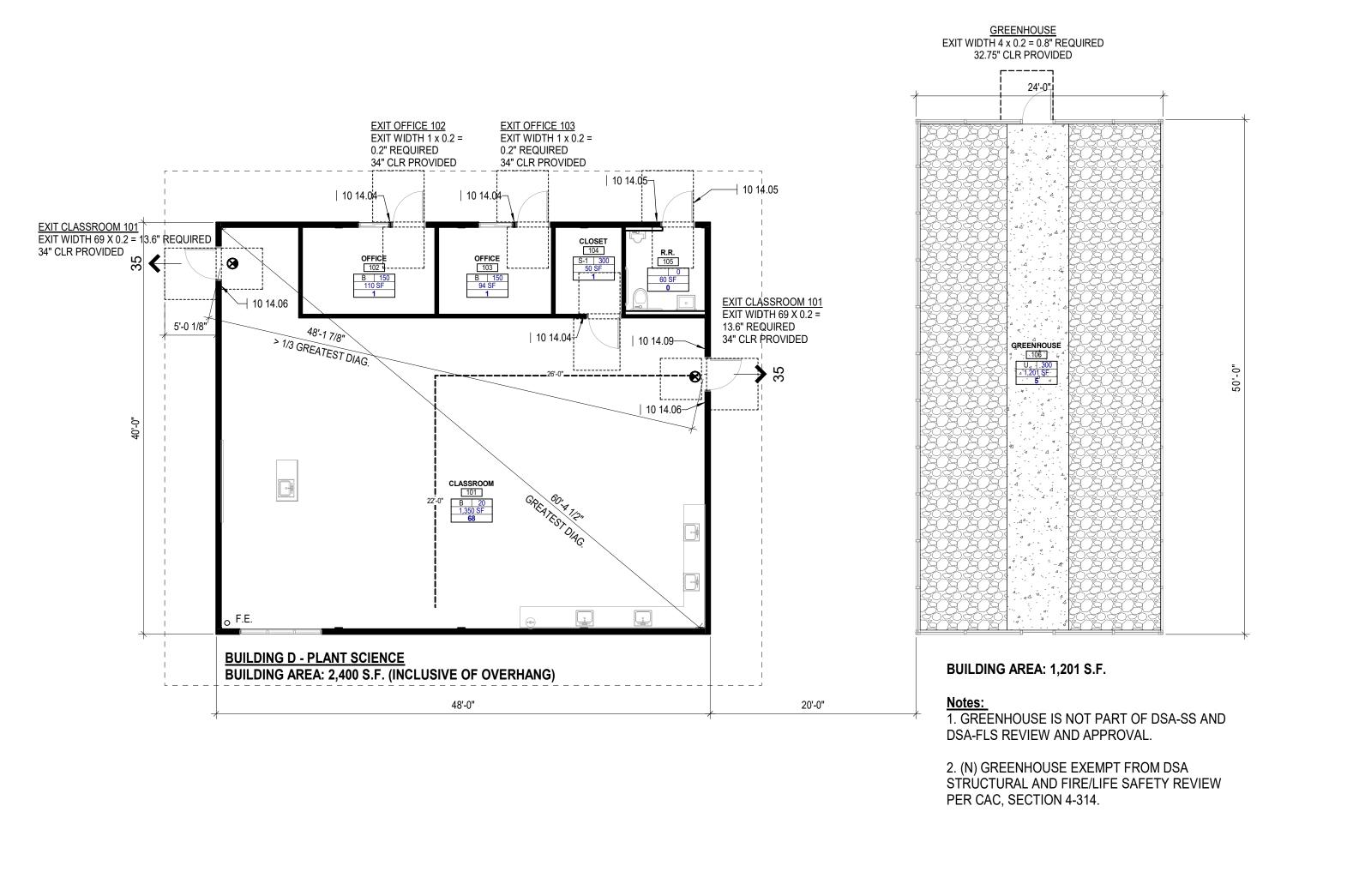


ERCED COMMUNITY COLLEGE DISTRI PROJECT NUMBER 6/14/2024 DRAWN BY: **NS** CHKED BY: **JM** 

**CONSTRUCTION DOCUMENTS** 

SITE DATA & **CODE REVIEW** 

18 CODE ANALYSIS-CLASSROOM AND GREENHOUSE



CODE ANALYSIS - BLDG **GENERAL NOTES** GOVERNING CODE: 2022 CALIFORNIA BUILDING CODE (CBC) 1. REFER TO G0.31 FOR SIGNAGE INFORMATION INCLUDING TYPE, SIZE AND INSTALLATION OCCUPANCY TYPE: 2. REFER TO 24/G0.30 FOR DOOR CLEARANCES, TYPICAL. (CBC 302) 3. REFER TO 27/G0.30 FOR TYPICAL BLOCKING DETAILS. CONSTRUCTION TYPE: TYPE VB WITHOUT AUTOMATIC FIRE SPRINKLER SYSTEM (CBC 602 & TABLE 601) OCC. GROUP | ALLOWABLE | ALLOWABLE # | ALLOWABLE BASIC ALLOWABLE HEIGHT & BLDG AREA OF STORIES BLDG HEIGHT BUILDING AREA: LIFE SAFETY SYMBOLS LEGEND (CBC TABLES 504.3, 504.4, 506.2) GROUP B 9,000 SF 40' - 0" GROUP U 40' - 0" 5,500 SF ACTUAL ACTUAL # OF | BLDG HEIGHT | OCC. GROUP . ACTUAL BUILDING DATA: STORIES BLDG AREA MEANS OF EGRESS - EXTERIOR EXIT NUMBER INDICATES OCCUPANT LOAD GROUP B 2,400 SF 11' - 0" GROUP U 1,200 SF 12' - 0" COMMON PATH OF EGRESS TRAVEL DISTANCE / 3,600 SF W/O.H. TOTAL: EXIT ACCESS TRAVEL DISTANCE 5' OVERHANG . OVERHANG FIRE EXTINGUISHER NON-SEPARATED USE 3,600 SF < 5,500 SF ILLUMINATED EXIT SIGNS - ROOM NAME - ROOM AREA / OCCUPANT LOAD FACTOR S-1, 56 SF ACCESSORY SPACES: (CBC 508.2) OCCUPANT LOAD FIRE RESISTANCE STRUCTURAL FRAME: 0 HOURS NEW 2X WOOD STUDS WALLS REQUIREMENTS: BEARING WALLS - EXTERIOR: 0 HOURS (CBC TABLE 601) BEARING WALLS - INTERIOR: 0 HOURS **KEYNOTE LEGEND** NON-BEARING WALLS & FIRE RATING BASED ON PARTITIONS - EXTERIOR: FIRE SEPARATION DISTANCE: (CBC TABLE 602) X<5' 1 HOURS 5'≤X<10' 1 HOURS 10 14.04 ROOM IDENTIFICATION SIGN 10'≤X<30' 0 HOURS 10 14.05 TOILET ROOM SIGN 10'≤X<30' 0 HOURS 10 14.06 TACTILE EXIT SIGN ACTUAL SEPARATION DIST: 10'-0">X 0 HOURS 10 14.09 OCCUPANT LOAD SIGN NON-BEARING WALLS & 0 HOURS PARTITIONS - INTERIOR: FLOOR CONSTRUCTION: 0 HOURS ROOF CONSTRUCTION: 0 HOURS SHAFT ENCLOSURES: 0 HOURS (CBC 713) PROJECTIONS: 0 HOURS - MAY BE OF ANY APPROVED MATERIALS (CBC 705.2) **EXTERIOR OPENINGS:** UNPROTECTED, (CBC TABLE 705.8) NONSPRINKLERED NO AREA LIMIT (20'≤X<25') CORRIDORS: 0 HOURS (CBC TABLE 1020.1) OCCUPANT LOAD: SHOWN ON PLAN **EQUIPMENT SCHEDULE** (CBC TABLE 1004.5) TOTAL EGRESS WIDTH SHOWN ON PLAN MARK DESCRIPTION REQUIRED: 1 ZOOM CAMERA (CBC 1005.1) 10. COMMON PATH OF EGRESS TRAVEL: IDF CABINET PROJECTOR TWO EXITS OR EXIT ACCESS DOORWAYS FROM A SPACE SHALL BE PROVIDED WHERE THE COMMON PATH OF TRAVEL EXCEEDS PROJECTOR SCREEN
WHITEBOARD
BATHROOM ACCESSORIES (CBC TABLE 1006.2.1)

—FIRE ALARM (COMBINATION SPEAKER AND STROBE) ALIGN STACKED -**DEVICES WHERE** POSSIBLE FIREMAN'S PHONE JACK CHANGE IN FLOORING MATERIAL @ DOOR OPENING SHALL BE @ PUSH SIDE / / CENTER OF DOOR PULL SHOE PROVIDE ADDITIONAL SPACE IF DOOR HAS BOTH LATCH & CLOSER HATCH INDICATES -LIGHT SWITCH / DIMMER MINIMUM CLEAR LEVEL AREA, 2% MAX SLOPE ANY DIRECTION, TYP. THERMOSTAT OR OTHER CONTROL DEVICE 8" MAX OBSTRUCTION DEPTH 32" CLEAR 44" MIN ; OR OBSTRUCTION WHERE OCCURS 48" MIN IF DOOR 10 - 24"——OBSTRUCTION HAS BOTH A CLOSER AND A LATCH PUSH.8IDE 1'-6" MIN. @ INT. DOOR2'-0" MIN. @ EXT. DOOR 18" CLEAR SPACE AT TACTILE SIGNAGE ELECTRIC, TELEPHONE, – OR DATA RECEPTACLE TYP. HINGE SIDE-APPROACH DOOR CLEARANCE TYP. FRONT-APPROACH DOOR CLEARANCE ALIGN ITEMS WHEN POSSIBLE— 4 DOOR CLEARANCES
SCALE: 1/4" = 1'-0" 1 MISCELLANEOUS MOUNTING HEIGHTS
SCALE: NOT TO SCALE

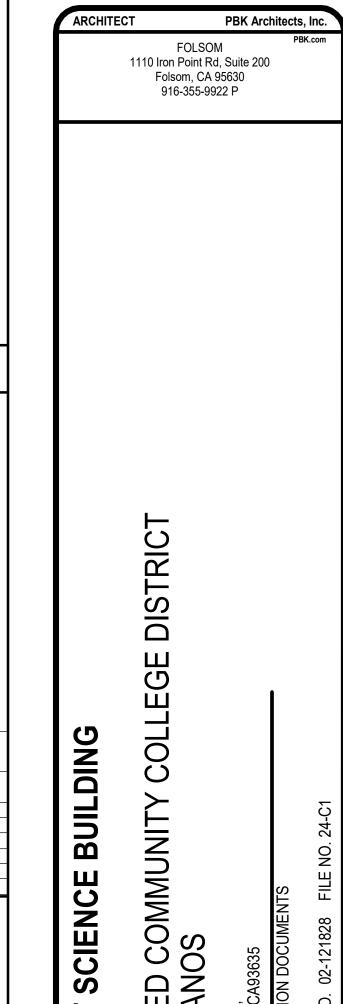
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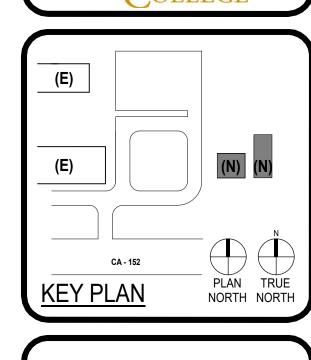
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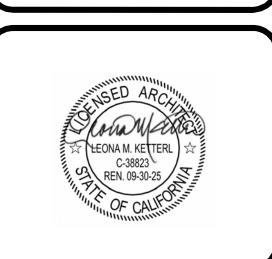
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	AL TOPOGRAPHIC SURVEY						DIDE OF SELVE DIAMSTED AS OUR WAY		40010111 TUDAL IDDIO 4TION LINE 0175 40
(NOT ALL SYMB	OLS SHOWN APPEAR ON THE PLANS)	PA	PATIO	○ <i>BO</i>	BOLLARD	。 4" SLE	PIPE SLEEVE; DIAMETER AS SHOWN	——— AG <u>12"</u>	AGRICULTURAL IRRIGATION LINE; SIZE AS NOTED
AB	ABUTMENT	PGTH	PROPANE GAS TRENCH	0 <i>CO</i>	CLEANOUT	<b>&gt;</b> —	SLOPE	A	AIR LINE; SIZE AS NOTED
AC	ASPHALTIC CONCRETE	POS	POINT ON SLOPE	□ COPB	COMMUNICATION PULLBOX	□ SLPB	STREET LIGHT PULLBOX	C	COMMUNICATION LINE
ACE	ASPHALTIC CONCRETE EDGE	RCP	REINFORCED CONCRETE	□CVA	COMMUNICATION VAULT	∘ 4"SLV	PIPE SLEEVE; DIAMETER AS SHOWN	<i>350</i>	MAJOR GRADE CONTOUR LINE
AD	ASPHALTIC CONCRETE DIKE	RIEL	RIPARIAN EDGE OF LAKE	<u>\( \sqrt{312.55} \)</u>	SURVEY CONTROL MONUMENT	S	SANITARY SEWER MANHOLE	<i>345</i>	MINOR GRADE CONTOUR LINE
AWT	ALL-WEATHER TRACK	RIEP	RIPARIAN EDGE OF POND	o DF	DRINKING FOUNTAIN	⊜ SP	SERVICE POLE	CW	CHILLED WATER LINE: SIZE AS NOTED
BD	BRIDGE DECK	RIES	RIPARIAN EDGE OF STREAM	o DS	DOORSTOP	□ SPB	SIGNAL PULLBOX		*
BFC	BOTTOM FACE OF CURB	RIEW	RIPARIAN EDGE OF WETLAND	ODW	DRYWELL	*	SPRINKLER		CHILLED WATER RETURN LINE; SIZE AS NOTED
BGST	STEPS	RIFL	RIPARIAN FLOWLINE	∘ <i>EG</i>	ELECTRICAL GROUND	∘ 4″ SPO	STEEL POST; DIAMETER AS SHOWN	CWS <sup>2"</sup>	CHILLED WATER SUPPLY LINE; SIZE AS NOTED
BGTR	TOP OF ROOF	RIMC	RIPARIAN MISC.	∘ <i>ELC</i>	ELECTRICAL CONDUIT	o 12"SS	SAND SEPARATOR; SIZE AS NOTED		LIMIT OF DIRT
BGV	BUILDING VENTS	RIP	RIP-RAP SLOPE PROTECTION	E	ELECTRICAL METER	○ 24"STP	STAND PIPE; DIAMETER AS NOTED		LIMIT OF TURF
BOD	BOTTOM OF DITCH	RK	ROCK	□ ЕРВ	ELECTRICAL PULLBOX	⊘ 12"STUMP	TREE STUMP; DIAMETER AS SHOWN	DL <u>1"</u>	DRAIN LINE; SIZE AS NOTED
BR	BARRICADE	RW	RETAINING WALL	E	ELECTRICAL VAULT LID	O MW	SURVEY MONUMENT WELL		,
BRK	BRICK	SB	SPEED BUMP	∘ <i>ETS</i>	GAS ELECTRONIC TESTING STATION	∘ <i>4"TEL</i>	TELEPHONE; DIAMETER AS SHOWN	EMS	EMERGENCY MANAGEMENT SYSTEM
BW	BARRIER WALL	SDCD	STORM DRAIN CROSS DRAIN	otin FDC	FIRE DEPARTMENT CONNECTION	T	TELEPHONE MANHOLE	——— FA ———	, , , , , , , , , , , , , , , , , , ,
СВ	CATCH BASIN	SDFL	STORM DRAIN FLOWLINE	q	FIRE HYDRANT	∘ <i>™</i>	TENNIS NET POLE		FIRE LINE; SIZE AS NOTED
CDA	CONCRETE DRIVE APPROACH	SDGR	STORM DRAIN GRATE	o FP	FENCE POST	∅ TP	TELEPHONE POLE	F0	FIBER OPTIC LINE
CE	CONCRETE EDGE	SDMH	STORM DRAIN MANHOLE	o <i>FLP</i>	FLAG POLE	<i>□ TPB</i>	TELEPHONE PULLBOX	=======	DRAIN TUBE
CMP	CORRUGATED METAL PIPE	SSFL	SEWER FLOWLINE	∘ <i>GAS</i>	GAS LINE; DIAMETER AS SHOWN	□ <i>TVPB</i>	TELEVISION PULLBOX	———HW <u>2"</u>	HOT WATER LINE; SIZE AS NOTED
		SDTH	STORM DRAIN TRENCH	☐ <i>GR</i>	GAS REGULATOR			HWR <sup>2"</sup>	HOT WATER RETURN LINE; SIZE AS NOTED
CON	CONCRETE	SSGT	STORM DRAIN GREASE TRAP	GAV ⊳<	IRRIGATION GATE VALVE	6	TREE; SPREAD SHOWN GRAPHICALLY AND TRUNK DIAMETER AS SHOWN	2"	
сотн	COMMUNICATION TRENCH	SSMH	SANITARY SEWER MANHOLE		GAS METER			HWS <sup>2</sup>	HOT WATER SUPPLY LINE; SIZE AS NOTED
CR	CROWN OF ROAD	SSTH	SEWER TRENCH	G			PALM TREE; SPREAD SHOWN GRAPHICALLY		HYDRAULIC LINE
CRQ	QUARTER CROWN	SWK	SIDEWALK	○ <i>GOP</i>	GOAL POST	ATTACK.	THEM THEE, OF NEXE SHOWN GIVE THOREET	——— ID <u>18"</u>	IRRIGATION DISTRICT; SIZE AS NOTED
CS	CONCRETE SLAB	SWL	SWALE	○ GP	GUY POLE	□ TSB	TELEPHONE SPLICE BOX		IRON FENCE
CULV	CULVERT	3WL	TURF	∘ <i>GS</i>	GATE STOP	·	TRAFFIC SIGNAL POLE	IRR 3"	IRRIGATION MAIN LINE: SIZE AS NOTED
CW	CONCRETE WALL	7		∘ GSR	GAS RISER	□ <i>TSPB</i>	TRAFFIC SIGNAL PULLBOX	1"	*
DD	DOWN DRAIN	TBC	TOP BACK OF CURB	$\bigoplus GV$	GAS VALVE	∅ UP	UTILITY POLE	L	IRRIGATION LATERAL LINE; SIZE AS NOTED
DFL	DITCH FLOWLINE	TBW	TOP BACK OF WALK	∘ <i>GRD</i>	GROUNDING ROD	∘ <i>VB</i>	VACUUM BREAKER	——— ITS ———	INTELLIGENT TRAFFIC SYSTEM
DWY	DRIVEWAY	TF	TOP OF FOOTING	$\in$ $GUY$	GUY WIRE	o <i>V</i> /V	VOLLEYBALL NET POST	JT	JOINTLY TRENCHED UTILITIES
ECTH	ELECTRICAL TRENCH	TFC	TOP FACE OF CURB	∘ <i>HB</i>	HOSE BIBB	o 2"VP	VENT PIPE; DIAMETER AS SHOWN	oc	OVERHEAD COMMUNICATIONS LINE
EDR	EDGE OF DIRT ROAD	TFW	TOP FACE OF WALK	∘ <i>HR</i>	HANDRAIL	○ WELL	WELL	——— OE———	OVERHEAD ELECTRIC LINE
EGR	EDGE OF GRAVEL ROAD	TLTH	TELEPHONE TRENCH	□ ICB	IRRIGATION CONTROLLER	W	WATER METER	OEC	OVERHEAD ELECTRIC AND COMMUNICATION LINE
EOD	EDGE OF OILED DIRT	ТОВ	TOP OF BANK		IRRIGATION DISTRICT MANHOLE	₩ WP	WELL PUMP	OET	OVERHEAD ELECTRIC AND TELEPHONE LINE
EP	EDGE OF PAVEMENT	TOE	TOE OF SLOPE	/VA	IRRIGATION REMOTE CONTROL VALVE			OETV	OVERHEAD ELECTRIC AND TELEVISION LINE
ES	EDGE OF SHOULDER	TOP	TOP OF SLOPE	/SB ⊠	IRRIGATION SPLICE BOX	∘ <i>6"WPO</i>	CIRCULAR WOOD POST; DIAMETER AS SHOWN		OVERHEAD ELECTRIC, TELEVISION AND
ET	EDGE OF TRAVELED WAY	TRDO	TRUNCATED DOMES	□ <i>IHB</i>	IN-GROUND HOSE BIBB	□ 4"X4"WPO	SQUARE WOOD POST; SIZE AS SHOWN	OETVT	TELEPHONE LINE
FF	FINISH FLOOR	TVTH	TV TRENCH	∘ <i>IP</i>	IRON PIPE	o 4"W	WATER LINE; DIAMETER AS SHOWN	OTS	OVERHEAD TRAFFIC SIGNAL LINE
FOTH	FIBER OPTIC TRENCH	TW	TOP OF WALL	Ø JP	JOINT UTILITY POLE		WATER VALVE	OTV	OVERHEAD TELEVISION LINE
GB	GRADE BREAK	UTH	UNIDENTIFIED TRENCH/SCAR LINE	-\(\frac{1}{2}\)-LP	LIGHT POLE		ASPHALT PAVEMENT	OU	OVERHEAD UTILITY LINE
GFL	GUTTER FLOWLINE	VGFL	VALLEY GUTTER FLOWLINE	,			CONCRETE BLOCK WALL	P	PETROLEUM LINE; SIZE AS NOTED
GR	GRATE	VGR	VALLEY GUTTER	⊠ MB	MAIL BOX		BUILDING	RWI 3"	RECYCLED WATER IRRIGATION LINE; SIZE AS
GRA	GRAVEL SPOT SHOT	WALBA	BARRIER WALL	(MH)	MANHOLE	<b> </b>			NOTED
GRAE	EDGE OF GRAVEL	WALBW	BLOCK WALL	<i>MI</i> ⋈	MANUAL IRRIGATION VALVE		CONCRETE	——— S&SD <del>8″</del>	SEWER AND STORM DRAIN LINE; SIZE AS NOTED
GSTH	GAS TRENCH	WALCW	CONCRETE WALL	$\square$ PB	PULLBOX	000000000000000000000000000000000000000	DETECTABLE WARNINGS	SFM	SEWER FORCE MAIN; SIZE AS NOTED
HDR	WOOD HEADER	WALHW	HEAD WALL	<i>□PIV</i>	POST INDICATOR VALVE		DG OR GRAVEL		
		WALRW	RETAINING WALL	€—	UTILITY STUB			——— ST <del>2"</del>	STEAM LINE; SIZE AS NOTED
HW	HEAD WALL	WALWW	WING WALL	₩	PARKING METER		CHAIN LINK FENCE	TFO	TRAFFIC FIBER OPTIC LINE
KR	K-RAIL	WCR	WHEELCHAIR RAMP	o 4"POST	POST; DIAMETER AS SHOWN		CHAIN LINK ROLL GATE	——— TS ———	TRAFFIC SIGNAL LINE
LIP	LIP OF GUTTER	WLPD	WELL PAD	Ø PP	POWER POLE		EDGE OF ASPHALT PAVEMENT	TV	TELEVISION LINE
LSDE	DECOMPOSED GRANITE EDGE	WTTH	WATER TRENCH	∘ <i>6"PVC</i>	PVC PIPE; DIAMETER AS SHOWN	0	WOOD FENCE	UNK	UNKNOWN UTILITY LINE
LSDG	DECOMPOSED GRANITE	ww	WING WALL	△ <i>QC</i>	QUICK COUPLER VALVE	<del></del>	DIRECTION OF FLOW	X	WIRE FENCE
LSGC	GROUND COVER	(335.21)	EXISTING ELEVATION	o RD	ROOF DRAIN	——— E———	UNDERGROUND ELECTRIC		PROPERTY LINE
LSGF	GOLF COURSE FAIRWAY			∘ <i>RDU</i>	ROOF DRAIN UNDERGROUND	G <u>8"</u>	GAS LINE; SIZE AS NOTED		CITY LIMIT
LSGG	GOLF COURSE GREEN	○ AL	ACCENT LIGHT	。 <i>RS</i>	ROOF SUPPORT	OT	OVERHEAD TELEPHONE		EASEMENT 1
LSGT	GOLF COURSE TEE	AV ⊠	ALFALFA VALVE		STADIUM LIGHT POLE	SD	STORM DRAIN LINE; SIZE AS NOTED		EASEMENT 2
LSSA	SAND		BACKFLOW ASSEMBLY						RIGHT-OF-WAY LINE
LSSP	SLOPE PROTECTION		BASKETBALL GOAL	D	STORM DRAIN MANHOLE	s_ <u>''</u>	SEWER LINE; SIZE AS NOTED		RIGHT-OF-WAY CENTER LINE
LSST	GOLF COURSE SAND TRAP	∘ <i>BOV</i>	BLOW-OFF VALVE	-	SIGN	T	UNDERGROUND TELEPHONE		SETBACK LINE
NPTH	NON-POTABLE TRENCH			© PPB	SIGNAL LIGHT PUSH BUTTON	——————————————————————————————————————	WATER LINE; SIZE AS NOTED		
		•	BM=BENCHMARK; OR SBM=SITE BENCHMARK	o <del></del>	STREET LIGHT				

### **SURVEY NOTES:**

- 1. THIS TOPOGRAPHIC SURVEY LOCATES SPECIFIC PHYSICAL FEATURES OF THE SITE AND THEIR ELEVATION AS DETERMINED NECESSARY BY THE PROJECT ENGINEER. IT IS NOT A COMPLETE TOPOGRAPHIC SURVEY OF THE SITE. THE INFORMATION SHOWN REFLECTS THE DATA OBTAINED BY FIELD SURVEY CONDUCTED ON JUNE 21, 2023.
- 2. UTILITY INFORMATION SHOWN HEREON IS BASED ON RECORD INFORMATION SUPPLIED TO THE ENGINEER BY UTILITY COMPANIES, PUBLIC AGENCIES AND THE PROPERTY OWNER, TOGETHER WITH OBSERVATION OF VISIBLE EVIDENCE BY A FIELD SURVEY. THE ENGINEER CAN MAKE NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF THE UNDERGROUND UTILITY FACILITIES SHOWN. PRIOR TO ANY SITE EXCAVATIONS, THE CONTRACTOR SHALL CONTACT THE OWNER AND UNDERGROUND SERVICE ALERT (USA) AND REQUEST THAT THEY IDENTIFY THE LOCATION OF ALL UNDERGROUND UTILITIES AT THE SITE.

### **BENCHMARK**:

FOUND BRASS CAP MONUMENT FLUSH WITH CONCRETE HEADWALL ON THE SOUTH SIDE OF THE EASTBOUND LANES OF HIGHWAY 152, APPROXIMATELY 940' EAST OF THE COLLEGE ENTRANCE.

ELEV.= 138.30 U.S.G.S. DATUM

### SITE BENCHMARK:

CHISELED "X" IN CONCRETE MEDIAN ISLAND IN PARKING LOT

ELEV.= 134.46 U.S.G.S. DATUM

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

APP: 02-121828 INC:

REVIEWED FOR

SS FLS ACS D

DATE: 7/24/2024



FRESNO
7790 North Palm Avenue
Fresno, CA 93711
559-448-8400 P

Blair, Church Flynn

559-448-8467 F

PBK.com

CFlynn

CONSULTING ENGINEERS

MERCED COLLEGE - LOS BANOS CAMPUS
MERCED COLLEGE DISTRICT

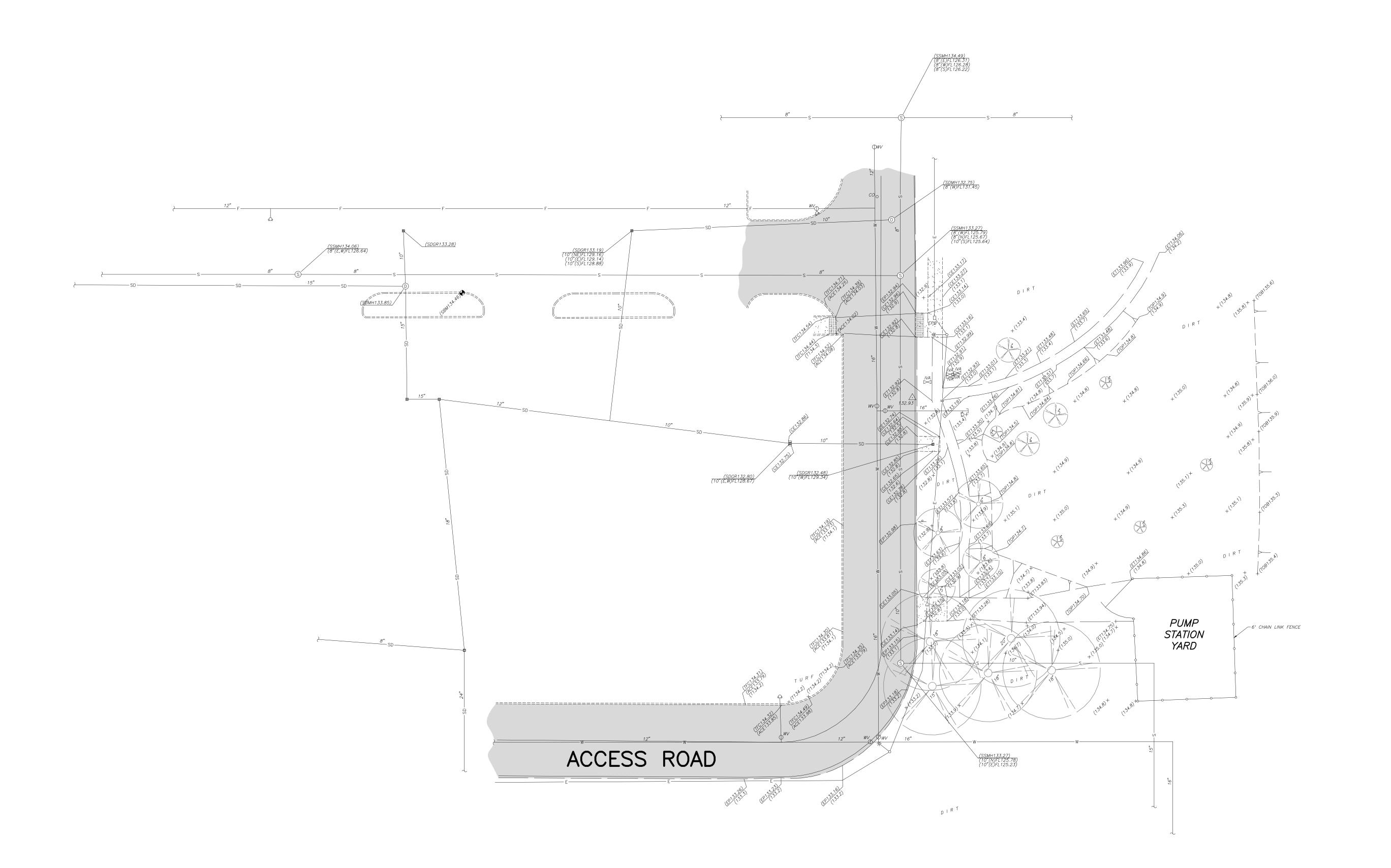
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	02-121828					
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	24-C1					
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SURVEY LEGEND AND NOTES

**351.0** 





IDENTIFICATION STAMP

**SURVEY NOTES:** 

**BENCHMARK**:

ELEV.= 138.30 U.S.G.S. DATUM

ELEV.= 134.46 U.S.G.S. DATUM

SITE BENCHMARK:

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FOUND BRASS CAP MONUMENT FLUSH WITH CONCRETE HEADWALL ON THE SOUTH SIDE OF THE EASTBOUND LANES OF HIGHWAY 152, APPROXIMATELY 940' EAST OF THE COLLEGE ENTRANCE.

CHISELED "X" IN CONCRETE MEDIAN ISLAND IN PARKING LOT

PUBLIC AGENCIES AND THE PROPERTY OWNER, TOGETHER WITH OBSERVATION OF VISIBLE EVIDENCE BY A FIELD SURVEY. THE ENGINEER CAN MAKE NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF

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PBK Architects, Inc. 7790 North Palm Avenue Fresno, CA 93711

559-448-8400 P 559-448-8467 F PBK.com

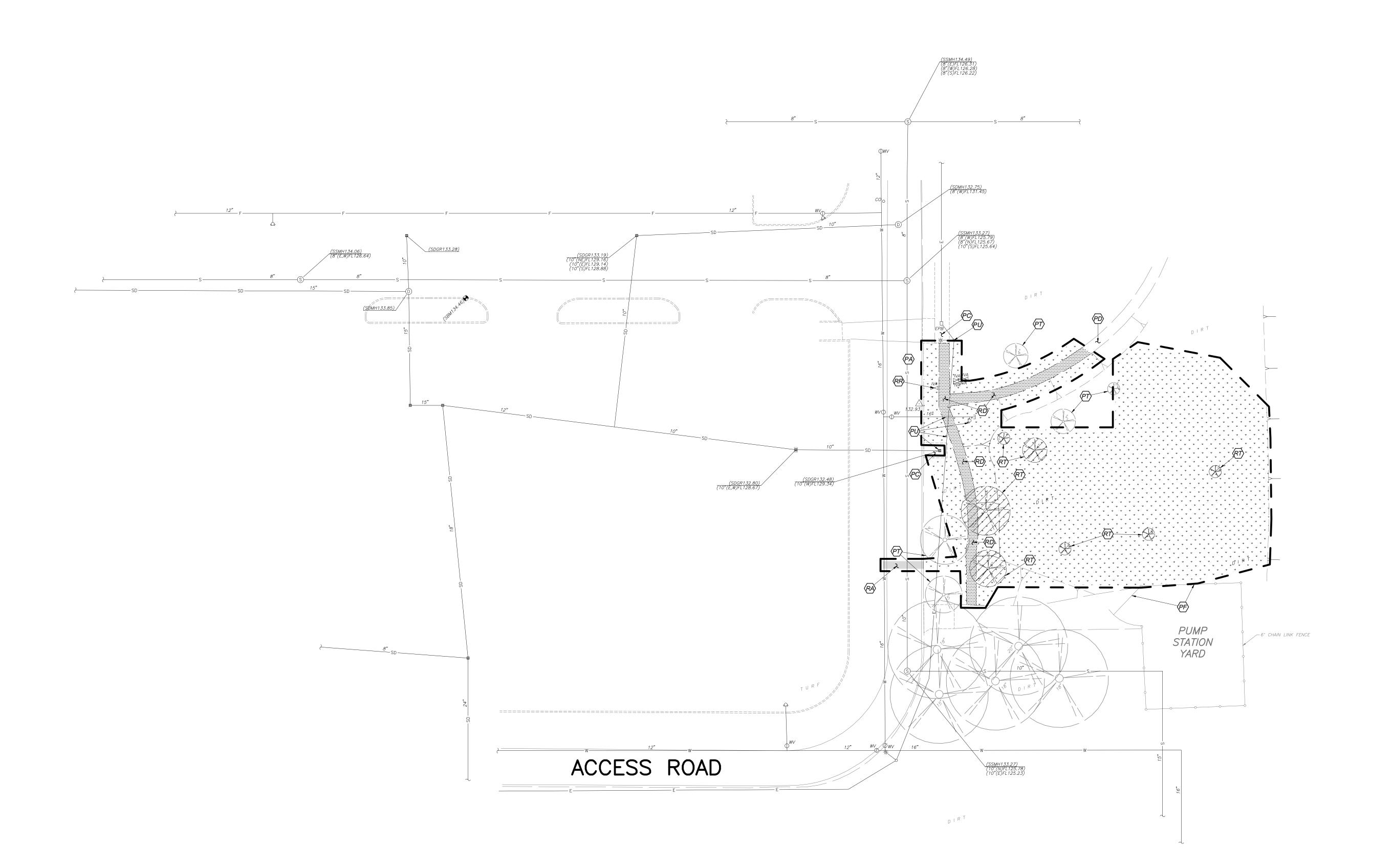
CONSULTING ENGINEERS

- LOS BANOS ( EGE EGE



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TUPUGRAPHIC **SURVEY** 



### **DEMOLITION LEGEND:**

REMOVE EXISTING IMPROVEMENTS AS NECESSARY TO CONSTRUCT NEW IMPROVEMENTS SHOWN ON THESE PLANS UNLESS OTHERWISE NOTED ON THE PLAN. THE REMOVAL OF IMPROVEMENTS MUST BE COORDINATED WITH ALL PLAN SHEETS. CONTRACTOR MUST ALSO COORDINATE REMOVAL OF IMPROVEMENTS WITH UTILITY AGENCIES. PROTECT ALL IMPROVEMENTS NOT DESIGNATED FOR REMOVAL. SEE NOTE 1 LIMITS OF VEGETATION REMOVAL. 4" MINIMUM DEPTH

LIMITS OF DECOMPOSED GRANITE REMOVAL

LIMITS OF ASPHALTIC CONCRETE IMPROVEMENT REMOVAL PROTECT ASPHALT CONCRETE PAVEMENT TO

REMAIN PROTECT CONCRETE IMPROVEMENTS TO

PROTECT DECOMPOSED GRANITE TO REMAIN PROTECT FENCE TO REMAIN

PROTECT TREE AND ROOTS TO REMAIN

PROTECT UTILITY TO REMAIN

REMOVE AND LAWFULLY DISPOSE OF ASPHALT CONCRETE PAVEMENT STRUCTURAL SECTION

REMOVE AND LAWFULLY DISPOSE OF DECOMPOSED GRANITE

REMOVE AND RELOCATE UTILITY AS NEEDED REMOVE AND LAWFULLY DISPOSE OF TREE AND

REMOVE TREE



### **GENERAL DEMOLITION NOTES:**

- 1. THE "LIMIT OF DEMOLITION" SHOWN IS APPROXIMATE AND IS GENERALLY CONSIDERED TO BE THE MINIMUM REMOVAL REQUIREMENTS. CONTRACTOR MUST COORDINATE AS NOTED IN THE LEGEND.
- 2. CONTRACTOR SHALL LEGALLY DISPOSE OF ALL DEMOLISHED MATERIALS OFF SITE.
- 3. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITY IMPROVEMENTS NOT SPECIFICALLY DESIGNATED FOR
- 4. THE ON-SITE UNDERGROUND UTILITIES SHOWN ON THIS SHEET ARE AT APPROXIMATE LOCATIONS. THE EXTENT, LOCATIONS AND SIZES ARE UNKNOWN. THE CONTRACTOR SHALL POTHOLE TO LOCATE AND VERIFY THE UNDERGROUND
- UTILITY LINES PRIOR TO REMOVAL. 5. CONTRACTOR TO PROTECT AND PRESERVE IN PLACE ANY FOUND SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE RESET BY A CALIFORNIA LICENSED SURVEYOR AND

COUNTY, AT CONTRACTOR'S EXPENSE.

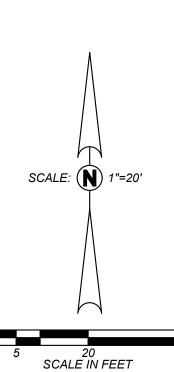
CONTRACTOR'S SOLE EXPENSE.

BE ENFORCED.

6. ALL HAZARDOUS MATERIALS ENCOUNTERED DURING SITE DEMOLITION SHALL BE REMEDIATED AND DISPOSED OF PER STATE AND EPA REQUIREMENTS.

THE APPROPRIATE PAPERWORK FILED WITH THE CITY OR

- 7. CONTRACTOR SHALL CONTACT AND COORDINATE WITH ALL UTILITY AGENCIES PRIOR TO THE START OF ANY DEMOLITION
- OR CONSTRUCTION. 8. ANY EXISTING UTILITIES AND/OR IMPROVEMENTS WHICH ARE TO REMAIN, THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE OWNER AND AGENCY HAVING AUTHORITY, AT THE
- REMOVE EXISTING IMPROVEMENTS AS NECESSARY TO CONSTRUCT NEW IMPROVEMENTS SHOWN ON THESE PLANS.
  - a) FOR CONCRETE REMOVAL, REMOVE TO THE NEXT NEAREST TOOLED JOINT OR EXPANSION JOINT OF IMPROVEMENTS DESIGNATED TO REMAIN.
- b) FOR ASPHALTIC PAVEMENT REMOVAL. SAWCUT TO A STRAIGHT, CLEAN EDGE AT LOCATIONS INDICATED ON THE PLANS.
- 10. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, IRRIGATION, AND ARCHITECTURAL PLANS FOR ADDITIONAL DEMOLITION AND COORDINATION. 11. COMPLIANCE WITH FIRE SAFETY DURING CONSTRUCTION WILL





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APP: 02-121828 INC: REVIEWED FOR

PBK Architects, Inc

7790 North Palm Avenue Fresno, CA 93711 559-448-8400 P 559-448-8467 F PBK.com

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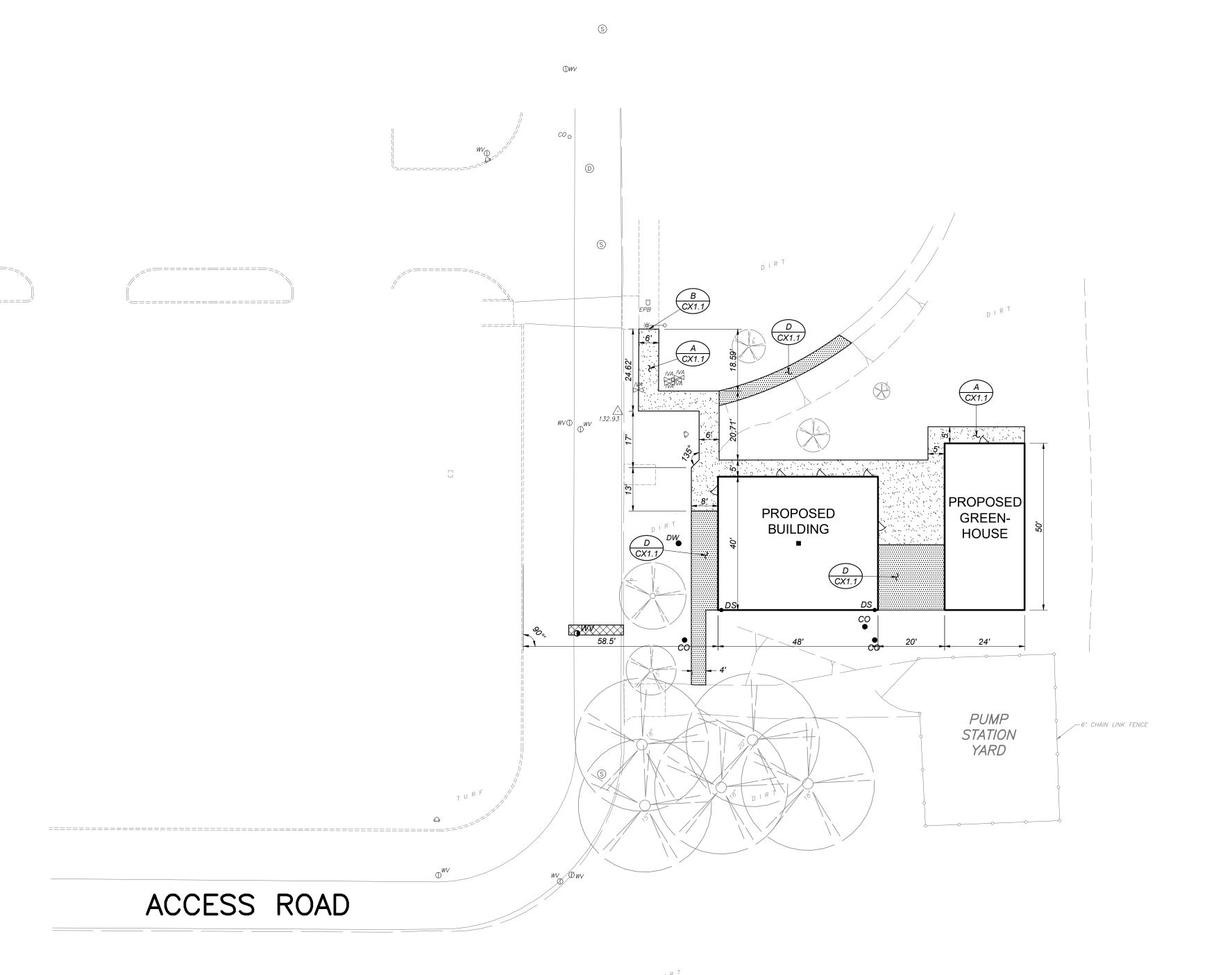
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PROJECT NUMBER 230268 DATE 02/08/24 DSA APPLICATION NO. 02-121828 FILE NO. 24-C1 PTN NO. DRAWN BY REVISIONS

CONSTRUCTION DOCUMENTS

**DEMOLITION PLAN** 





LIMITS OF CONCRETE IMPROVEMENTS LIMITS OF DECOMPOSED GRANITE IMPROVEMENTS

LIMITS OF ASPHALT PLUG IMPROVEMENTS

### **GENERAL SITE NOTES:**

1. ALL CONCRETE MOWSTRIPS, RAMPS AND SIDEWALKS SHALL HAVE WEAKENED PLANE JOINTS AT 10 FEET MAXIMUM ON CENTER AND EXPANSION JOINTS AT 30 FEET MAXIMUM ON CENTER PER DETAIL [A/CX1.1]

2. INSTALL DOWELED CONNECTION AT JOINT OF NEW

- CONCRETE TO EXISTING CONCRETE PER DETAIL [B/CX1.1]
- 3. NO CONCRETE MAY BE POURED UNTIL THE FORMS HAVE BEEN REVIEWED AND APPROVED BY THE PROJECT INSPECTOR.
- 4. ALL BURIED METALLIC OBJECTS SHALL HAVE A PROTECTIVE COATING OR BE WRAPPED WITH APPROVED PROTECTIVE WRAP.
- 5. ADJUST EXISTING SPRINKLER HEADS AND LATERAL LINES AS REQUIRED BY NEW IMPROVEMENTS, OR AS SHOWN ON THE IRRIGATION PLANS.
- 6. 2 WORKING DAYS BEFORE COMMENCING EXCAVATION OPERATIONS WITHIN THE STREET RIGHT-OF-WAY AND/OR UTILITY EASEMENTS, ALL EXISTING UNDERGROUND FACILITIES SHALL HAVE BEEN LOCATED BY UNDERGROUND SERVICES ALERT (USA). CALL 1-800-642-2444
- 7. ANY SURVEY MONUMENTS WITHIN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A PERSON LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA. REPLACEMENT TO BE AT CONTRACTOR'S SOLE EXPENSE.





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559-448-8467 F PBK.com

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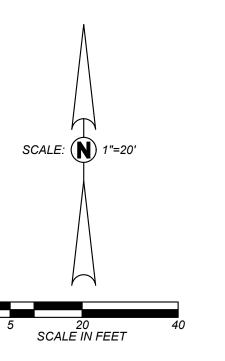
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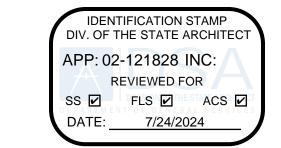
SITE PLAN



Know what's **below. Call before you dig.** 

FG 133.98

ENLARGE PLAN



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DATE 02/08/24 DSA APPLICATION NO. 02-121828 FILE NO. 24-C1 DRAWN BY REVISIONS DESCRIPTION CONSTRUCTION DOCUMENTS

**GRADING AND** DRAINAGE **PLAN** 

CONTRACTOR'S CONVENIENCE AND DO NOT ENCOMPASS ALL PROJECT REQUIREMENTS DESCRIBED BY THE PROJECT PLANS AND SPECIFICATIONS AND/OR APPLICABLE LAWS, REGULATIONS AND/OR BUILDING CODES. CONSTRUCTION OF ALL PROJECT SITE IMPROVEMENTS SUBJECT TO ADA ACCESS COMPLIANCE, INCLUDING ACCESSIBLE PATH OF TRAVEL, CURB RETURNS, PARKING STALL(S) AND UNLOADING AREAS, BARRIER FREE AMENITIES AND/OR OTHER APPLICABLE SITE IMPROVEMENTS SHALL CONFORM TO THE AMERICANS ED WITH DISABILITIES ACT, CALIFORNIA TITLE 24, THE CALIFORNIA BUILDING CODE, CURRENT EDITION(S).  $\circ$ CONTRACTOR SHALL FIELD VERIFY ALL GRADES AND SLOPES PRIOR TO THE ER( PLACEMENT OF CONCRETE AND/OR PAVEMENT FOR CONFORMANCE WITH ADA ACCESS COMPLIANCE REQUIREMENTS. EXAMPLES OF MINIMUM AND MAXIMUM LIMITS RELATED TO ADA ACCESS COMPLIANCE INCLUDE, BUT ARE NOT LIMITED a) ACCESSIBLE PATH OF TRAVEL CROSS-SLOPE SHALL NOT EXCEED 2% b) ACCESSIBLE PATH OF TRAVEL LONGITUDINAL SLOPES SHALL NOT EXCEED 5% c) RAMP LONGITUDINAL SLOPES SHALL NOT EXCEED 8.33% d) ACCESSIBLE WALKS SHALL NOT HAVE LESS THAN 48 INCHES IN UNOBSTRUCTED WIDTH e) ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION f) LANDINGS AT THE TOP AND BOTTOM OF ACCESSIBLE RAMPS SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION g) GUTTERS AND ROAD SURFACES DIRECTLY ADJACENT TO AND WITHIN 2 FEET OF A CURB RAMP SHALL HAVE A COUNTER SLOPE NOT TO EXCEED 5% CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IDENTIFIED BY THE PROFESSIONAL ENGINEERING SEAL AND SIGNATURE ON PROFESSIONAL SEAL THESE PLANS, OF ANY SITE CONDITION(S) AND/OR DESIGN INFORMATION THAT PREVENTS THE CONTRACTOR FROM COMPLYING WITH THE LAWS, REGULATIONS AND/OR BUILDING CODES GOVERNING ADA ACCESS COMPLIANCE. 4. GROUND SLOPES AWAY FROM BUILDING PADS IN LANDSCAPED OR DIRT AREAS SHALL BE NO LESS THAN 5% FOR AT LEAST TEN (10) FEET, OR AS OTHERWISE NOTED ON THE PLANS. 5. DRAINAGE SHALL NOT BE ALLOWED ONTO ADJACENT PROPERTY. 6. ALL FILL MATERIAL USED TO SUPPORT THE FOUNDATIONS OF ANY BUILDING OR STRUCTURE SHALL BE PLACED UNDER THE DIRECTION OF A LICENSED GEOTECHNICAL ENGINEER, AND IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS. A SOILS COMPACTION REPORT SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AS REQUIRED BY THE PROJECT SPECIFICATIONS. 7. THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES AS REQUIRED BY THE PROJECT SPECIFICATIONS, AND BY GOVERNING PUBLIC AGENCIES. 8. THE CONTRACTOR SHALL IMPLEMENT A STORM WATER POLLUTION PREVENTION PROJECT NUMBER PLAN (SWPPP) AS REQUIRED BY THE PROJECT SPECIFICATIONS AND THE STATE 230268 WATER RESOURCES CONTROL BOARD'S CONSTRUCTION GENERAL PERMIT. IMPLEMENT BEST MANAGEMENT PRACTICES WITHIN PUBLIC RIGHT OF WAY PER LOCAL JURISDICTION REQUIREMENTS. 9. AS A FIRST ORDER OF WORK, THE CONTRACTOR SHALL POT HOLE THE EXISTING UTILITY LINES AT THE POINT OF CONNECTION TO VERIFY THE LOCATION, SIZE, PIPE MATERIAL AND ELEVATION SO THAT THE ENGINEER CAN MAKE ELEVATION AND/OR ALIGNMENT ADJUSTMENTS IF NECESSARY. SHOULD POT HOLING DISCOVER ANY DISCREPANCIES, CONTACT THE ENGINEER AND OBTAIN WRITTEN DIRECTION BEFORE PROCEEDING.

SCALE: (N) 1"=20' Know what's **below. Call** before you dig.

10. ADJUST UTILITY LIDS WITHIN NEW CONSTRUCTION AREA TO FINISHED GRADE PER DETAIL [E/CX1.1]. REPLACE ALL BROKEN LIDS WITH NEW. PROVIDE TRAFFIC RATED

STRUCTURE(S), WITHIN ADA PATH, SHALL BE 1% MINIMUM AND 2% MAXIMUM. WHERE DOOR AND GATE LANDINGS OCCUR THE CROSS SLOPE SHALL BE 2%

11. MINIMUM SLOPE ON IMPERVIOUS SURFACES PERPENDICULAR TO ADJACENT

LIDS WITHIN VEHICLE LOADING AREAS.

MAXIMUM IN ALL DIRECTIONS

GRADING AND DRAINAGE LEGEND:

DECOMPOSED GRANITE / CRUSHED ROCK

CONCRETE

FLOWLINE

MOWSTRIP

SWALE

FINISHED FLOOR

FINISHED GRADE

STORM DRAIN GRATE

EXISTING ELEVATION

NEW FINISHED GRADE

DIRECTION OF SURFACE DRAINAGE

PIPE SLOPE AND DIRECTION OF FLOW

DOWNSPOUT; SEE MODULAR PLANS

DOWNSPOUT TO STORM DRAIN PIPE.

SURFACE CLEANOUT PER DETAIL [H/CX1.1]

POINT OF CONNECTION TO DOWNSPOUT. PROVIDE WATERTIGHT FITTINGS TO TRANSITION FROM

STORM DRAIN PIPELINE; SIZE AS NOTED. TRENCH AND

CONNECT TO EXISTING STORM DRAIN LINE WITH WATER-TIGHT CONNECTION. VERIFY SIZE, DEPTH, AND

P6 STORM DRAIN INLET PER DETAIL [C/CX1.1]

**GENERAL GRADING AND DRAINAGE NOTES:** 

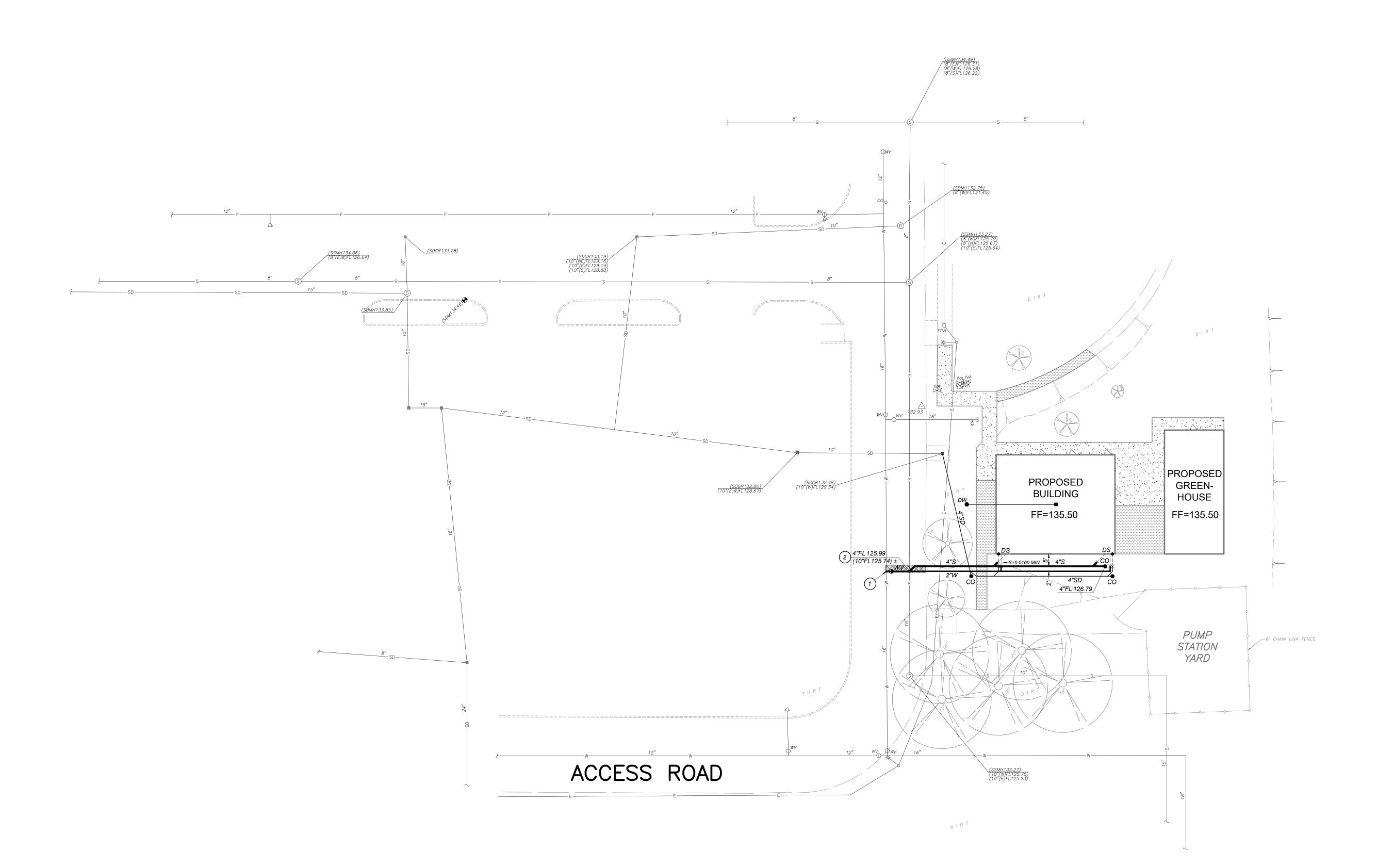
THE REQUIREMENTS AND INFORMATION SET OUT BELOW ARE PROVIDED FOR THE

SWALE AND DIRECTION OF FLOW

DRYWELL PER DETAIL [K/CX1.1]

■ BACKFILL PER DETAIL [F/CX1.1]

S=0.0020 - FLOWLINE SLOPE AND DIRECTION OF FLOW



### **UTILITY LEGEND:**

SEWER MAIN, SIZE AS NOTED ON PLANS. PIPE BEDDING AND BACKFILL PER DETAIL [F/CX1.1] WATER MAIN, SIZE AS NOTED ON PLANS, MIN. 30" W COVER. PIPE BEDDING AND BACKFILL PER DETAIL

\_\_\_\_\_SD \_\_\_\_ STORM DRAIN PIPE, SEE GRADING PLAN

LIMITS OF ASPHALT PLUG IMPROVEMENTS PER DETAIL [J/CX1.1]

FINISHED FLOOR

FLOWLINE SEWER CLEANOUT PER DETAIL [H/CX1.1]

DRYWELL PER DETAIL [K/CX1.1] DOWNSPOUT; SEE MODULAR PLANS

WATER VALVE PER [I/CX1.1]

CAP END OF UTILITY LINE. POINT OF CONNECTION TO EXISTING OR PROPOSED

UTILITY, COORDINATE WITH PLUMBING PLANS PRIOR TO CONNECTION. S=0.0020→ FLOWLINE SLOPE AND DIRECTION OF FLOW

CONNECT TO EXISTING WATER LINE WITH WATER-TIGHT CONNECTION. VERIFY SIZE, DEPTH,

AND LOCATION. CONNECT TO EXISTING SEWER LINE WITH

WATER-TIGHT CONNECTION. VERIFY SIZE, DEPTH, AND LOCATION.

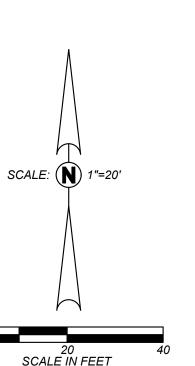
### **GENERAL SITE UTILITY NOTES:**

1. AS FIRST ORDER OF WORK, CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF LOCATIONS, SIZE AND DEPTH.

- 2. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION, SIZE, DEPTH, AND TYPE OF ALL EXISTING UTILITIES AND INTERFERENCES SITUATED ALONG THE ROUTE OF THE PROPOSED CONSTRUCTION PRIOR TO COMMENCEMENT OF EXCAVATION, FABRICATION, AND INSTALLATION. THE CONTRACTOR SHALL CONSTRUCT ALL IMPROVEMENTS IN SUCH A MANNER AS WILL PROTECT ALL EXISTING UNDERGROUND UTILITIES AND, IN THE EVENT OF ANY CONFLICTS, SHALL NOTIFY THE ENGINEER BEFORE
- 3. SEE IRRIGATION PLANS FOR PROPOSED IRRIGATION PIPE ALIGNMENT.
- 4. COORDINATE EXACT POINTS OF CONNECTION TO BUILDING PLUMBING AND NOTIFY THE ENGINEER OF ANY CONFLICT SO THAT ADJUSTMENTS CAN BE MADE IF NEEDED.
- 5. SAWCUT EXISTING CONCRETE IMPROVEMENTS AS NECESSARY TO INSTALL NEW WATER OR SEWER IMPROVEMENTS. CONSTRUCT NEW CONCRETE IMPROVEMENTS TO MATCH ADJACENT CONCRETE IMPROVEMENTS AND JOIN TOGETHER WITH DOWEL BARS PER DETAIL [B/CX1.1]
- 6. INSTALLATION, TYPE, AND MANUFACTURER'S MODELS OF DOMESTIC WATER METERS, DRAIN INLETS/OUTLETS AND OTHER APPURTENANCES OF SITE UTILITY SYSTEMS SHALL BE DONE IN STRICT ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
- 7. LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. THE ACTUAL LOCATIONS OF ALL MATERIALS, PIPING, FIXTURES, EQUIPMENT, SUPPORTS, ETC., SHALL BE CAREFULLY PLANNED PRIOR TO INSTALLATION OF ANY WORK TO AVOID ALL INTERFERENCES WITH EACH OTHER OR WITH STRUCTURAL, ELECTRICAL, PLUMBING AND MECHANICAL, ARCHITECTURAL OR ANY OTHER ELEMENTS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO THE INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.
- 8. ANY INSPECTION TO BE MADE BY THE AUTHORITY HAVING JURISDICTION SHALL REQUIRE A MINIMUM OF 24 HOUR NOTICE.
- 9. PURITY TESTS ARE REQUIRED ON ALL WATER SYSTEM INSTALLATIONS. CONTRACTOR TO COORDINATE WITH THE
- AUTHORITY HAVING JURISDICTION. 10. IF THE TOP OF THE STEM OF ANY WATER GATE VALVE IS DEEPER THAN 4' BELOW FINISHED PAVEMENT GRADE, THE CONTRACTOR SHALL INSTALL A STEM EXTENSION SO THAT THE TOP OF THE STEM, WITH EXTENSION, SHALL BE NO DEEPER THAN 4' NOR
- SHALLOWER THAN 2' FROM FINISHED GRADE. 11. BACKFILL UTILITY TRENCHES PER DETAIL [F/CX1.1]

LOCATED IN A TRAFFIC AREA.

12. ADJUST EXISTING UTILITY LIDS TO FINISHED GRADE PER UTILITY COMPANY STANDARDS AND DETAIL [E/CX1.1] AND INSTALL TRAFFIC RATED LIDS WHERE





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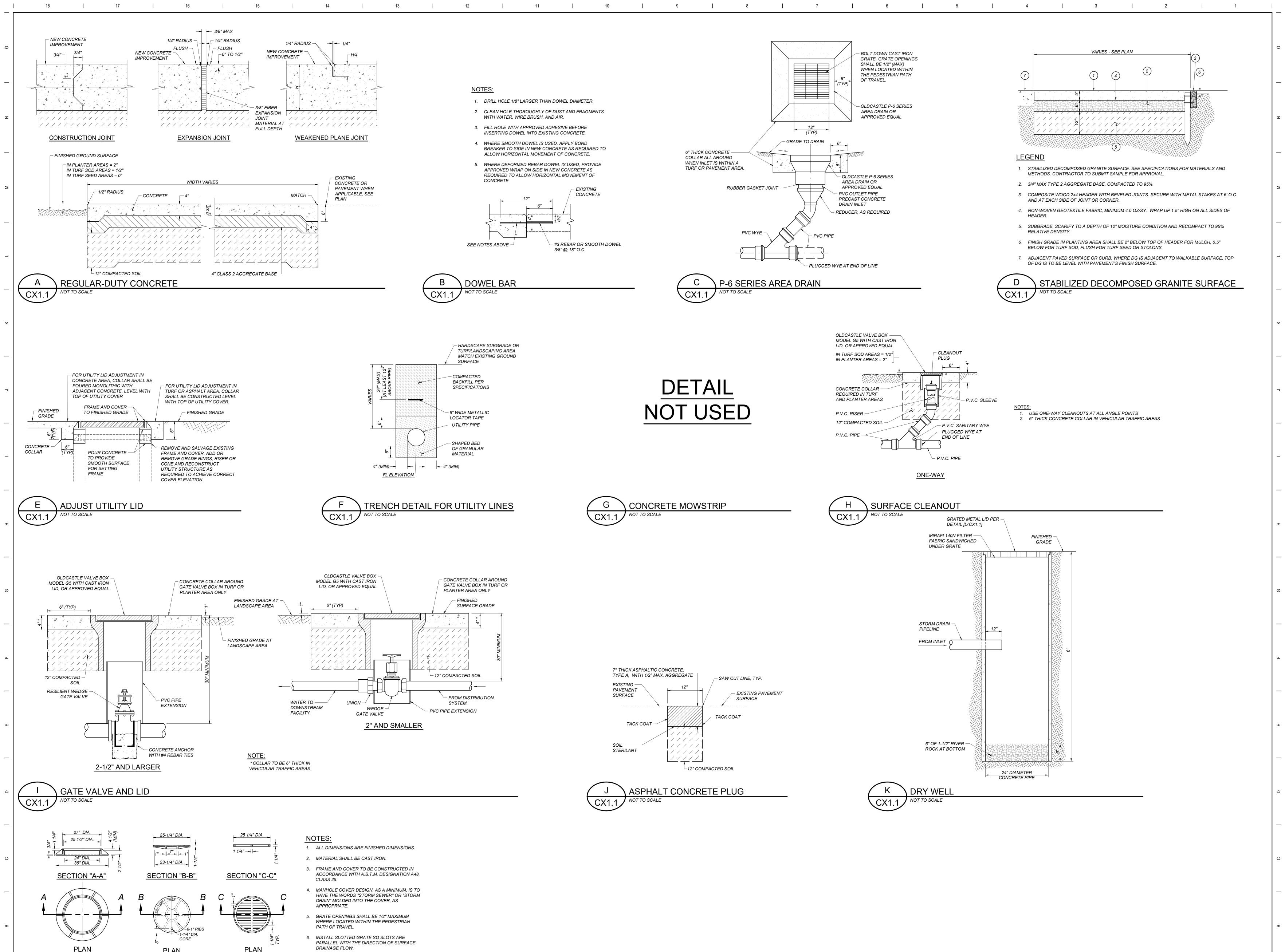
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PROJECT NUMBER 230268

**UTILITY PLAN** 



MANHOLE COVER 24" CAST IRON GRATE

MANHOLE FRAME

MANHOLE FRAME AND LID

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PROJECT NUMBER 230268 DATE 02/08/24 DSA APPLICATION NO. 02-121828 FILE NO. 24-C1 PTN NO. DRAWN BY **REVISIONS** DESCRIPTION

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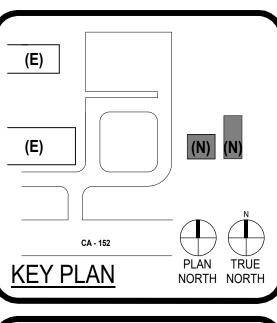
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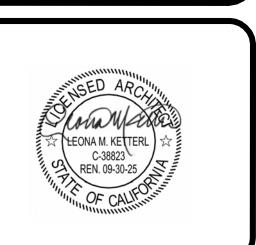
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1 ELECTRICAL SITE PLAN SCALE: 1" = 30'-0"

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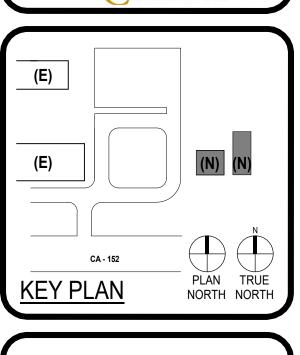
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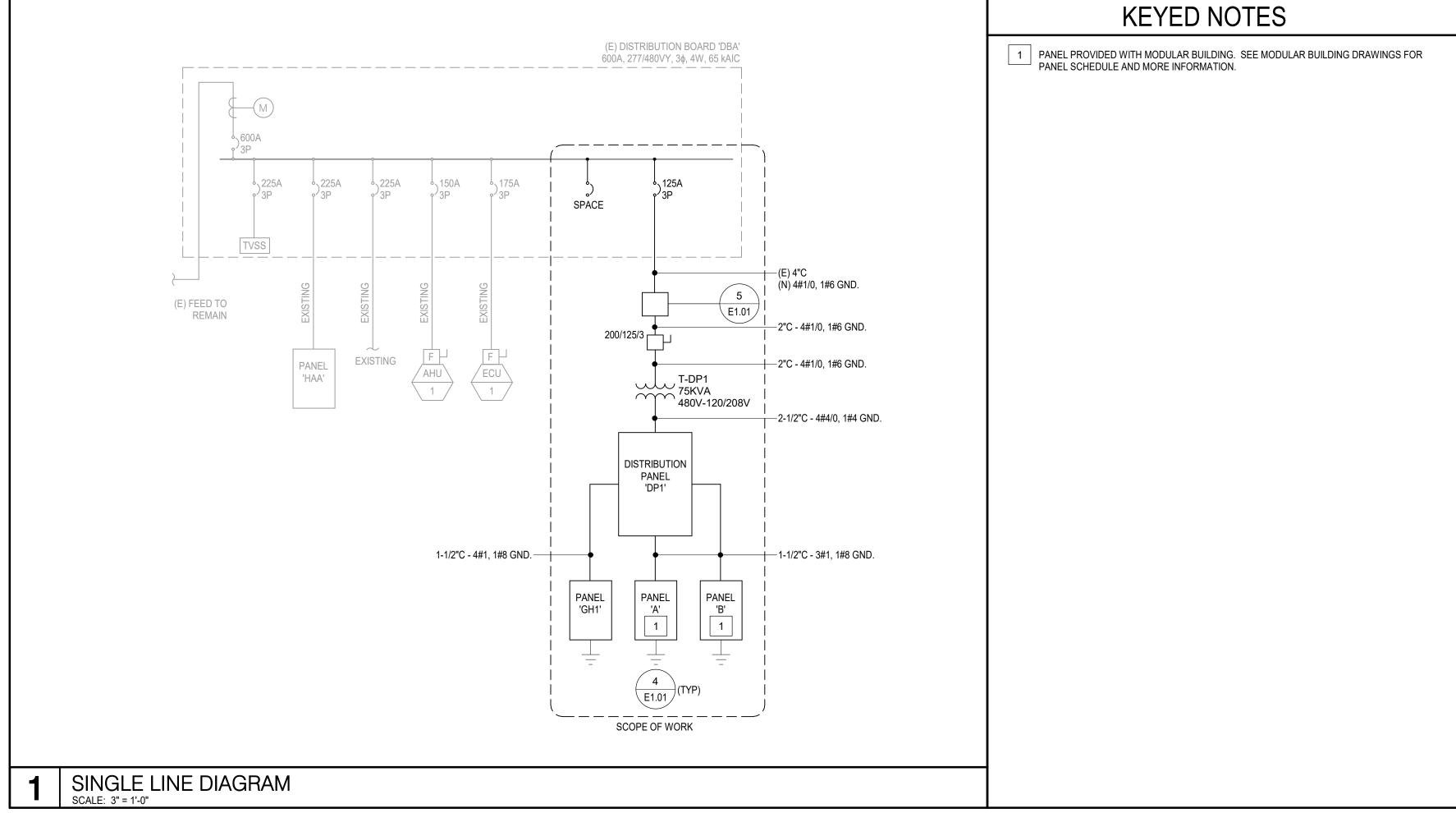
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ELECTRICAL SITE PLAN								

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Distribution Panel: DP1  NEUTRAL BUS: 225 NEUTRAL RATING: 225 GROUND BUS: 225 ISOLATED GROUND NO MOUNTING: UNIS							VOLTAGE: 120/208V  MAINS: 225 A  Main CIR. BKR: 225 A  AIC RATING: 10KAIC  TRUT  FEED THRU LUGS: No					
CIR NO	Circuit Description	Breake amps/p			A	В	С	Leg	end		Circuit Description	CIR NO
1	·				8700 / 8700				2	100 A	PANEL A	2
3	PANEL GH1	100 A	3			8700 / 8700				100 A	PANELA	4
5							8700 / 8700		2	100 4	DANIELD	6
7	SPACE		1		0 / 8700				2	100 A	PANEL B	8
9	SPACE		1			0/0			1		SPACE	10
11	SPACE		1				0/0		1		SPACE	12
13	SPACE		1		0/0				1		SPACE	14
15	SPACE		1			0/0			1		SPACE	16
17	SPACE		1				0/0		1		SPACE	18
19	SPACE		1		0/0				1		SPACE	20
21	SPACE		1			0/0			1		SPACE	22
23	SPACE		1				0/0		1		SPACE	24
25	SPACE		1		0/0				1		SPACE	26
27	SPACE		1			0/0			1		SPACE	28
29	SPACE		1				0/0		1		SPACE	30
31	SPACE		1		0/0				1		SPACE	32
33	SPACE		1			0/0			1		SPACE	34
35	SPACE		1				0/0		1		SPACE	36
37	SPACE		1		0/0				1		SPACE	38
39	SPACE		1			0/0			1		SPACE	40
41	SPACE		1				0/0		1		SPACE	42
30 mA GRO	UND FAULT CIRCUIT BREAKER UND FAULT CIRCUIT BREAKER	CONNE BY PH A:		D LC	26100 VA	CONNECTED 60900 VA 169 A	KVA 3 PH. AMPS			REMAR	KS:	
# LOCK-ON ( ST - SHUNT	CIRCUIT BREAKER HANDLE	В С:			17400 VA 17400 VA	DEMAND LOA 169 A	3 PH. AMPS					

			ISOL	NEUTRAL   GROU! ATED GROU	AL BUS: 100 RATING: 100 ND BUS: 100 IND NO UNTING: SURF	ACE	VOLTAGE: 120/208V  MAINS: 100 A  Main CIR. BKR: 100 A  AIC RATING: 10KAIC  FEED THRU LUGS: No				
CIR NO	Circuit Description	Breaker amps/poles		Α	В	С	Lege	end		Circuit Description	CIR NO
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3	SPARE	20 A 1			0/0			1	20 A	SPARE	4
5	SPARE	20 A 1				0/0		1	20 A	SPARE	6
7	SPARE	20 A 1		0/0				1	20 A	SPARE	8
9	SPARE	20 A 1			0/0			1	20 A	SPARE	10
11	SPARE	20 A 1				0/0		1	20 A	SPARE	12
13	SPARE	20 A 1		0/0				1	20 A	SPARE	14
15	SPARE	20 A 1			0/0			1	20 A	SPARE	16
17	SPARE	20 A 1				0/0		1	20 A	SPARE	18
19	SPARE	20 A 1		0/0				1	20 A	SPARE	20
21	SPARE	20 A 1			0/0			1	20 A	SPARE	22
23	SPARE	20 A 1				0/0		1	20 A	SPARE	24
25	SPARE	20 A 1		0/0				1	20 A	SPARE	26
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31	SPARE	20 A 1		0/0				1	20 A	SPARE	32
33	SPARE	20 A 1			0/0			1	20 A	SPARE	34
35	SPARE	20 A 1				0/0		1	20 A	SPARE	36
37	SPARE	20 A 1		0/0				1	20 A	SPARE	38
39	SPARE	20 A 1			0/0			1	20 A	SPARE	40
41	SPARE	20 A 1				0/0		1	20 A	SPARE	42
	OUND FAULT CIRCUIT BREAKER	CONNECTE BY PHASE:			CONNECTED 0 VA	KVA			REMARKS	S:	
	UND FAULT CIRCUIT BREAKER CIRCUIT BREAKER HANDLE	A: B		0 VA 0 VA	0 A <b>DEMAND LO</b>	3 PH. AMPS					

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

APP: 02-121828 INC:

REVIEWED FOR

SS FLS ACS D

DATE: 7/24/2024

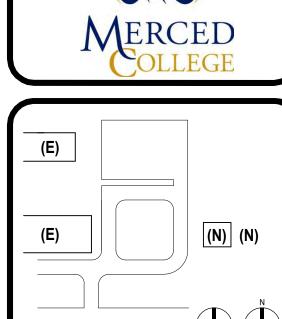
PRK

FOLSOM
1110 Iron Point Rd, Suite 200
Folsom, CA 95630
916-355-9922 P

PLANT SCIENCE BUILDING

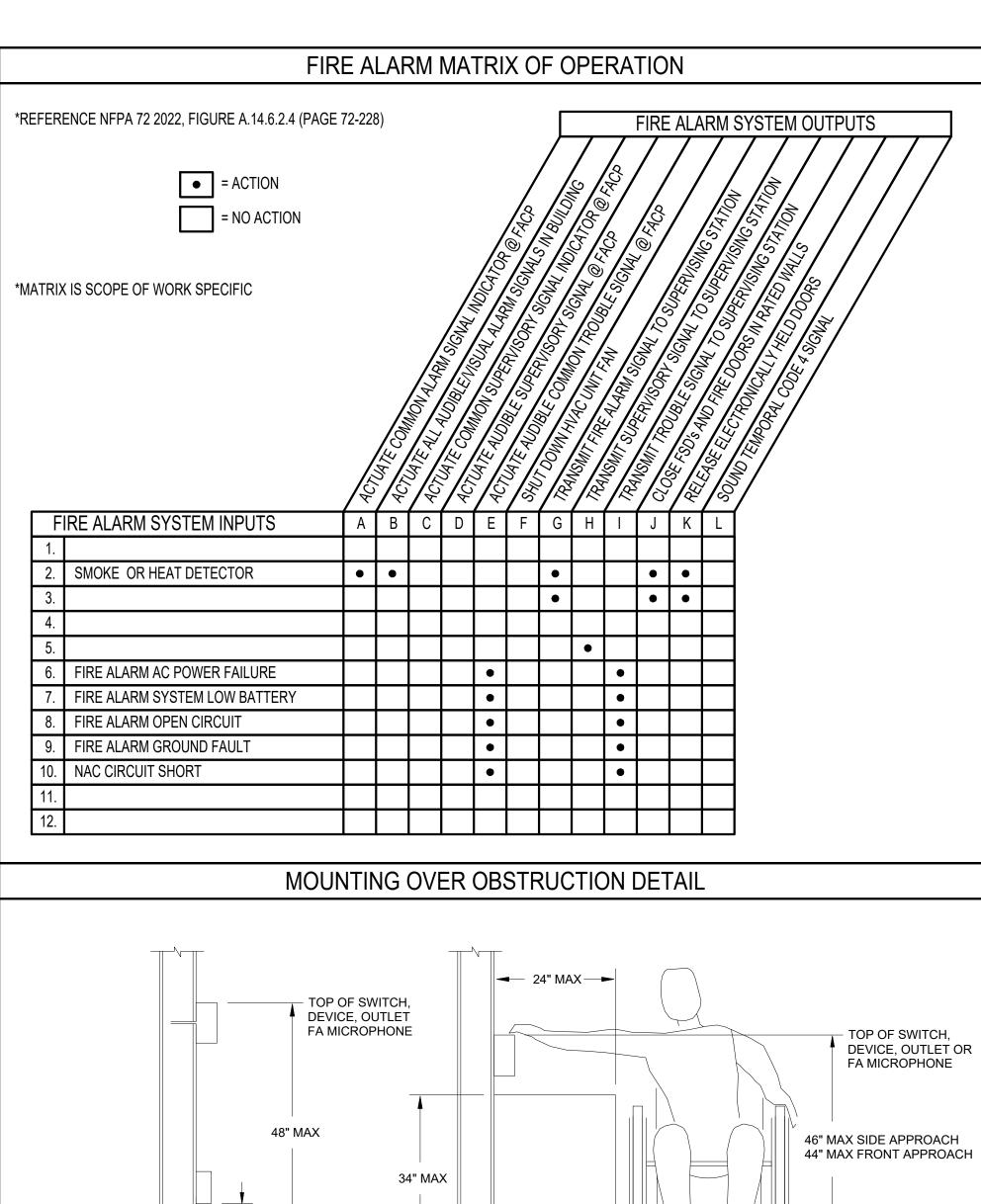
MERCED COMMUNITY COLLEGE DISTRICT

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DATE	11,	/15/2023						
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CONSTRUCTION DOCUMENTS								
SINGLE LINE DIAGRAM								
	DIAGRAIN							



2022 CBC

11B-308.2.2

THIS DETAIL APPLIES TO MOUNTING OF ANY MECHANICAL AND ELECTRICAL DEVICE WHICH CONTAINS AN OPERABLE PART THAT IS ADJUSTABLE BY

THE OCCUPANT. THIS DOES NOT APPLY TO SENSORS OR CONTROLS THAT ARE ONLY ADJUSTABLE THROUGH THE BUILDING AUTOMATION SYSTEM

2. FORWARD OR FRONT APPROACH FOR DEVICES MOUNTED ABOVE COUNTERS ASSUMES THAT DIRECTLY BELOW THE DEVICE, THE COUNTER HAS A

FIRE ALARM ELEVATION MOUNTING DETAIL

FIRE ALARM DEVICE ADDRESS LEGEND

("cd" = CANDELA SETTING)

SPEAKER ADDRESSES.

\*DEVICE ADDRESSING VARIES DEPENDING ON THE MANUFACTURER. F/A CONTRACTOR TO PROGRAM DEVICES ACCORDING TO THE MANUFACTURER'S OPERATION MANUAL.

("W" = WATTS)

1. SIGNATURE LINE CIRCUIT (INITIATION) DEVICE ADDRESS. ADDRESSES

3. REMOTE POWER SUPPLY NOTIFICATION APPLIANCE CIRCUIT ADDRESS.

4. EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM AMPLIFIER AND

MAY DIFFER DEPENDING ON MANUFACTURER

2. FACP NOTIFICATION APPLIANCE CIRCUIT ADDRESS.

(DECIBEL SETTINGS DEPEND ON MANUFACTURER)

2022 CBC

ACCEPTED HERE -

WALL MOUNTED -

DETECTOR

FLOOR

FINISHED -

11B-308.3.2

15" MIN TO

BOTTOM

30"MIN. WIDTH X27" HIGH X19" MIN. DEEP CLEAR OPENING. CBC SECTIONS 11B-306 & 11B-308.

CEILING MOUNTED ----

DETECTOR

A.F.F. (SEE NOTE 1)

1. WALL-MOUNTED APPLIANCES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN

80 IN. (2.03m) AND NOT GREATER THAN 96 IN. (2.44m) ABOVE THE FINISHED FLOOR OR AT THE

MOUNTING HEIGHT SPECIFIED USING THE PERFORMANCE-BASED ALTERNATIVE OF 18.5.5.7. (NFPA

WHERE LOW CEILING HEIGHTS DO NOT PERMIT ALL MOUNTING AT A MINIMUM OF 80 IN. (2.03m), WALL

MOUNTED VISUAL NOTIFICATION APPLIANCES SHALL BE MOUNTED WITHIN 6 IN. (150mm) OF THE

OF BOX

2022 CBC

11B-308.2.1

(IE: TEMPERATURE AND HUMIDITY SENSORS).

FINISHED FLOOR -

NFPA 72

FACP NAC#

TO TOP OF ENCLOSURE

MOUNT AT 60" A.F.F.

TO TOP OF

72, CHAPTER 18.5.5.1\*)

CEILING. (NFPA 72, CHAPTER 18.5.5.2)

**ENCLOSURE** 

(REFERENCE NFPA 72, 17.15.6)

SLC OR ZONE DEVICE #

└ NAC DEVICE

NAC POWER SUPPLY #

(REMOTE POWER SUPPLY)

SPEAKER CIRCUIT

- AMPLIFIER NUMBER

SPEAKER/SPEAKER STROBE

└─ NAC CIRCUIT

(FACP)

#. #. #

	SYM.	MODEL	MFR.	DESCRIPTION	MOUNTING	CSFM #
Ī	FACP	MXL-IQ	SIEMENS	EXISTING FIRE ALARM CONTROL PANEL	EXISTING	7165-0067:0
Ī	NAC-F	PAD-3	SIEMENS	FIRE ALARM NOTIFICATION APPLIANCE POWER SUPPLY	WALL MOUNT	7315-0067:0
Ī	NO SYMBOL	PS-1270	POWER SONIC	12VDC, 7AH SEALED LEAD ACID BATTERY	ENCLOSURE	UL LISTED
Ī	(AOM)	TRI-R	SIEMENS	FIRE ALARM ADDRESSABLE CONTROL MODULE	4-11/16" SQUARE BOX 2-1/8" MIN. DEPTH	7300-0067:0
	(S) <sub>P</sub>	FP-11 DB-11	SIEMENS	FIRE ALARM ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR DETECTOR BASE	4-11/16" SQUARE BOX W/ 3 O RING	7272-0067:0
Ī	$\langle H \rangle$	FPT-11 DB-11	SIEMENS	FIRE ALARM ADDRESSABLE HEAT DETECTOR DETECTOR BASE	4-11/16" SQUARE BOX W/ 3 O RING	7270-0067:0
		HSR	WHEELOCK	FIRE ALARM MULTI CANDELA HORN STROBE (WALL MOUNT)	4-11/16" SQUARE BOX	7125-0785:0
١	WP F	AH-24WP-FR	WHEELOCK	WEATHER PROOF FIRE ALARM HORN (WALL MOUNT)	WEATHER PROOF BACK BOX	7125-0785:0
	$\mapsto$	STR	WHEELOCK	FIRE ALARM MULTI CANDELA STROBE (WALL MOUNT)	4-11/16" SQUARE BOX	7125-0785:0
	J	#	#	ELECTRICAL JUNCTION BOX	TBD	###-####:##
Ī	SS	DTK-120HWLOK	DITEK	ELECTRICAL SURGE PROTECTOR	4" SQUARE. BOX	7300-2105:0

FIRE ALARM SYSTEM EQUIPMENT LEGEND AND SYMBOLS

	А	2	SOLID	18	#18/2, RED JACKET, FPLP	SIGNAL LINE CIRCUIT (SLC)
	Au	2	STRANDED	16	#16/2, RED JACKET (FIRE UNDERGROUND RATED)	SIGNAL LINE CIRCUIT (SLC) - UNDERGROUND
	В	2	SOLID	16	#16/2, RED JACKET, FPLP	SBUS
	Bu	2	STRANDED	16	#16 THWN RED(+) BLACK(-) JACKET (FIRE UNDERGROUND RATED)	SBUS - UNDERGROUND
	Н	2	SOLID	16	#16/2, RED JACKET, FPLP	INDICATING CIRCUIT (IDC)
	Hu	2	STRANDED	16	#16 THWN RED(+) BLACK(-) JACKET (FIRE UNDERGROUND RATED)	INDICATING CIRCUIT (IDC) - UNDERGROUND
	N	2	SOLID	14	#14/2, RED JACKET, FPLP	NOTIFICATION APPLIANCE CIRCUIT
	IN	2	STRANDED	14	#14, THWN, RED (+) BLACK (-) WHEN USED IN CONDUIT	NOTIFICATION APPLIANCE CIRCUIT
	Nu	2	STRANDED	12	#12 THHN, THWN RED(+) BLACK(-) (FIRE UNDERGROUND RATED)	NOTIFICATION APPLIANCE CKTUNDERGROUND
	S	2	STRANDED	16	#16/2 -OVERALL SHIELDED CLASS 2 CABLE	SPEAKER CIRCUIT
1			070411050	40	WAR OF THE STREET OF THE STREE	OPENICED OIDQUIT LINDERODOUND

TAG COND. TYPE **DESCRIPTION** USE

ALL FIRE ALARM WIRING SHALL BE CLASS "B", STYLE "Y" UNLESS OTHERWISE NOTED.

FIRE ALARM WIRE SCHEDULE

Α	2	SOLID	18	#18/2, RED JACKET, FPLP	SIGNAL LINE CIRCUIT (SLC)
Au	2	STRANDED	16	#16/2, RED JACKET (FIRE UNDERGROUND RATED)	SIGNAL LINE CIRCUIT (SLC) - UNDERGROUND
В	2	SOLID	16	#16/2, RED JACKET, FPLP	SBUS
Bu	2	STRANDED	16	#16 THWN RED(+) BLACK(-) JACKET (FIRE UNDERGROUND RATED)	SBUS - UNDERGROUND
Н	2	SOLID	16	#16/2, RED JACKET, FPLP	INDICATING CIRCUIT (IDC)
Hu	2	STRANDED	16	#16 THWN RED(+) BLACK(-) JACKET (FIRE UNDERGROUND RATED)	INDICATING CIRCUIT (IDC) - UNDERGROUND
N	2	SOLID STRANDED	14	#14/2, RED JACKET, FPLP #14, THWN, RED (+) BLACK (-) WHEN USED IN CONDUIT	NOTIFICATION APPLIANCE CIRCUIT
Nu	2	STRANDED	12	#12 THHN, THWN RED(+) BLACK(-) (FIRE UNDERGROUND RATED)	NOTIFICATION APPLIANCE CKTUNDERGROUND
S	2	STRANDED	16	#16/2 -OVERALL SHIELDED CLASS 2 CABLE	SPEAKER CIRCUIT
Su	2	STRANDED	16	#46/2 OVEDALL SHIELDED C2 CADLE (LINDEDCDOLIND DATE)	SDEAKED CIDCUIT LINDED COOLIND

FIRE ALARM GENERAL NOTES

INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE

SYSTEM, HAS BEEN APPROVED BY DSA. UPON COMPLETION OF SYSTEM INSTALLATION, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE

MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.

ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.

DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND/OR TESTING. ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE

PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER APPROVED LAB TESTING CRITERIA. APPROVED TYPES OF MATERIALS SHALL BE IDENTIFIED WITHIN THE PROJECT SPECIFICATIONS WITHIN THE FIRE ALARM SECTION. WALL MOUNTED VISIBLE NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80" MINIMUM

AND 96" MAXIMUM FROM THE FINISHED FLOOR.

WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THAN 6" TO A HORIZONTAL STRUCTURE. 10. AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (dBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPIABLE SPACE WITHIN THE BUILDING. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.

12. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS. 13. VISIBLE DEVICES SHOULD NOT EXCEED TWO FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN

ONE FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELLA. VISIBLE DEVICES WITHIN THE SAME VIEW OF EACH OTHER SHALL BE SYNCHRONIZED. 14. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER TIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.

5. ALL FIRE ALARM WIRING SHALL BE FPLR OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE TYPE THHN OR THWN. 16. PER CEC STANDARDS. ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. ALL BOXES TO BE SIZED PER CEC.

7. SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM, DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER. UL300 STANDARD FOR FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION

8. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS. UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANOR AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.

19. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS' SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS. 20. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL

BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL." CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS. . THE INSTALLING CONTRACTOR SHALL PROVIDE A COMPLETED "SYSTEM RECORD OF COMPLETION" PER

NFPA 72, FIGURE 7.8.2(a). 22. FIRE ALARM CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48" ABOVE THE FINISHED FLOOR.

. MICROPHONES ASSOCIATED WITH EMERGENCY VOICE ALARM COMMUNICATION SYSTEMS (EVAC) SHALL BE ACCESSIBLE FOR USE, INSTALLED IN COMPLIANCE WITH CBC SECTIONS 11B-305 AND 11B-308. 24. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING

PER CBC SECTION 907.6.6. 25. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.

26. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR

27. THE AUDIBLE CARBON MONOXIDE ALARM SIGNAL SHALL BE A FOUR-PULSE TEMPORAL PATTER AND COMPLY WITH THE FOLLOWING: (1) SIGNALS SHALL BE A PATTER CONSISTING OF FOUR CYCLES OF 100 MILLISECONDS +/- 10 PERCENT "ON"

AND 100 MILLISECONDS +/- 10 PERCENT "OFF" (2) AFTER THE INITIAL 4 MINUTES OF ALARM, THE 5-SECOND "OFF" TIME SHALL BE PERMITTED TO BE CHANGED TO 60 SECONDS +/- 10 PERCENT.

(3) THE ALARM SIGNAL SHALL BE REPEATED IN COMPLIANCE WITH 5.8.6.5.1(1) AND 5.8.6.5.1(2) UNTIL THE ALARM RESETS OR THE ALARM SIGNAL IS MANUALLY SILENCED.

28. A CARBON MONOXIDE ALARM SIGNAL SHALL TAKE PRECEDENCE OVER SUPERVISORY OR TROUBLE SIGNALS. (NFPA 72, 26.2.4.1) THE ACTUATION OF A CARBON MONOXIDE DETECTOR OR SYSTEM SHALL BE DISTINCTIVELY INDICATED AS A CARBON MONOXIDE ALARM SIGNAL. (NFPA 72, 26.2.4.1.2)

29. ALL EQUIPMENT SHALL BE NEW, UNDERWRITERS LABORATORY AND CALIFORNIA STATE FIRE MARSHAL 30. ELECTRICAL CONTRACTOR SHALL FURNISH ACCESS PANELS TO AREAS THAT REQUIRE SERVICING,

TROUBLESHOOTING, ETC. 31. DO NOT DEVIATE FROM CONDUIT RUNS AS SHOWN ON FLOOR PLANS WITHOUT PRIOR APPROVAL FROM SYSTEM SUPPLIER. FACTORS SUCH AS EXCESSIVE VOLTAGE DROP, ADDITIONAL PARTS, ENGINEERING. ETC., THAT ARE A RESULT OF CONDUIT RUN DEVIATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

32. ALL FAN SHUTDOWN FUNCTIONS, DAMPER CLOSURES, AND ASSOCIATED MECHANICAL SYSTEM FIRE ALARM INTERFACE SHALL BE BY MECHANICAL CONTRACTOR IN ACCORDANCE WITH CMC §608. 33. ALL DUCT SMOKE DETECTORS SHALL BE MOUNTED BY THE MECHANICAL CONTRACTOR. DUCT SMOKE DETECTORS EXPOSED TO THE WEATHER SHALL BE WEATHER PROTECTED BY THE MECHANICAL

CONTRACTOR. ALL AIR VELOCITY TESTING SHALL BE PERFORMED BY THE MECHANICAL CONTRACTOR. 34. ALL 120VAC POWER REQUIREMENTS FOR THE FIRE ALARM SYSTEM SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR AND SHALL MEET ALL REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.

35. ALL FIRE ALARM DEVICE BACKBOXES, FIRE ALARM TERMINAL CABINETS, GUTTERS, JUNCTION BOXES, AND ASSOCIATED CONDUITS SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED. REFER TO FIRE ALARM SYMBOL LIST AND/OR MOUNTING DETAILS FOR ADDITIONAL INFORMATION. SYSTEM SUPPLIER PROVIDED BACKBOXES SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED.

36. SMOKE DETECTOR TESTING SHALL BE ACCOMPLISHED PER THE MANUFACTURER'S INSTRUCTIONS. 37. ALL WIRING, INITIATING DEVICES AND ANNUNCIATOR PANEL SHALL BE SUPERVISED TO THE PRINCIPAL POINT OF ANNUNCIATION. THE FIRE ALARM CONTROL PANEL TO SUPERVISE THE ANNUNCIATOR PANEL,

ALL INITIATING AND INDICATING DEVICE CIRCUITS. 38. ALL WIRING SHALL BE CUT FOR IN AND OUT. WIRING SHALL NOT BE LOOPED THROUGH DEVICES. 39. POINT, COMMON ANNUNCIATION, AND T-TAPPING ARE PROHIBITED.

40. PROVIDE 3/4" CONDUIT FROM FIRE ALARM CONTROL PANEL TO TELEPHONE BACKBOARD FOR OWNER PROVIDED CENTRAL STATION MONITORING.

41. ALL CONDUIT SHALL BE 3/4" MINIMUM, UNLESS OTHERWISE NOTED.

42. ALL FIRE SPRINKLER WATER FLOW SWITCHES SHALL BE 2 WIRE WITH NON-ELECTRONIC RETARD TYPE. 43. ALL DEVICES IN THE ALARM SYSTEM SHALL BE COMPATIBLE AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

44. FIRE ALARM SYSTEM SHALL BE UL LISTED (UUJS). 45. CBC 907.6.6.4 GROUP E SCHOOLS: AUTOMATIC FIRE ALARM SYSTEMS SHALL BE MONITORED AND SHALL

TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX (CENTRAL STATION) OR UUJS (REMOTE & PROPRIETARY) BY THE UNDERWRITERS LABORATORY INC. (UL) OR OTHER APPROVED LISTING AND TESTING LABORATORY OR SHALL COMPLY WITH THE REQUIREMENTS OF STANDARD, FM 3011. TERMINATION OF MONITORING SERVICES SHALL BE IN ACCORDANCE WITH SECTION 46. SUBSTITUTION OF SYSTEM COMPONENTS OR MANUFACTURER WILL REQUIRE THE CONTRACTOR TO

SEPARATELY OBTAIN APPROVAL WITH THE CSFM AT CONTRACTOR'S EXPENSE AND SHALL MEET ALL REQUIREMENTS OF THE SYSTEM AS DESIGNED AND PRE-APPROVED. ALL PROPOSED SUBSTITUTIONS SHALL BE LISTED WITH THE CALIFORNIA STATE FIRE MARSHAL.

47. FINAL ACCEPTANCE TEST TO INCLUDE TESTING THE CONNECTION BETWEEN THE FIRE ALARM PANEL AND THE SUPERVISING STATION. 48. COORDINATE WITH THE ENGINEER FOR USE OF EXISTING CONDUIT ON A CASE BY CASE BASIS. 49. PRIOR TO DEMOLITION, CONTRACTOR SHALL TEST THE INTERCOM SYSTEM TO ENSURE FULL

FUNCTIONALITY. GENERATE A LIST OF FAULTY EQUIPMENT AND PROVIDE TO THE OWNER AND THE ARCHITECT. PROVIDE PRICING FOR ANY REQUIRED EQUIPMENT REPAIRS OR REPLACEMENT. 50. CONTRACTOR SHALL DISCONNECT EXISTING FIRE ALARM SYSTEM FROM THE EXISTING INTERCOM SYSTEM. ENSURE THE INTERCOM SYSTEM IS COMPLETELY FUNCTIONAL AFTER DISCONNECTION. 51. CONTRACTOR SHALL CLEARLY MARK THE ABANDON SECTION OF PUBLIC ADDRESS SYSTEM.

52. PROVIDE A FIRE ALARM DOCUMENTATION CABINET PER NFPA72,7.7. 53. FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION SHALL COMPLY WITH CBC CHAPTER 33 AND CFC 54. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE

WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATION CHANGE DOCUMENT, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK 55. CHANGES TO THE DIVISION OF THE STATE ARCHITECT APPROVED DRAWINGS AND SPECIFICATIONS SHALL

DISCOVERED WHICH IS NOT COVERED BY THE DSA APPROVED DOCUMENTS WHEREIN THE FINISHED

BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENTS FOR CHANGES TO THE STRUCTURAL, ACCESSIBILITY OR FIRE -SAFETY PORTIONS OF THE PROJECT. CHANGES SHALL BE SUBMITTED TO AND APPROVED BY DSA PRIOR TO COMMENCEMENT OF THE WORK SHOWN THEREON CAC 4-338(C)). 56. PROJECT INSPECTOR TO APPROVE SYSTEM VOICE-EVACUATION INTELLIGIBILITY DURING TESTING PHASE. 57. CONTRACTOR SHALL PROVIDE ALL CABLING, RELAYS, MOUNTING HARDWARE AND ANY OTHER DEVICES

(FIRE ALARM SYSTEM DEVICES) TO PROVIDE A FULLY FUNCTIONING FIRE ALARM OVERRIDE SYSTEM.

WHEN FIRE ALARM CEASES, EACH LOCAL SOUND SYSTEM SHALL AUTOMATICALLY REVERT TO NORMAL OPERATION. FIRE ALARM MODULES AND CABLING BY FIRE ALARM CONTRACTOR. 58. FOR ALL HEAT DETECTORS THAT ARE LOCATED ABOVE CEILING/ATTIC SPACES, CONTRACTOR SHALL PROVIDE STICKER AND LABEL "HD" AT THE REFLECTED CEILING DIRECTLY BELOW THE DEVICE TO INDICATE LOCATION.

59. NOTIFICATION APPLIANCES USED FOR SIGNALING OTHER THAN FIRE SHALL NOT HAVE THE WORD "FIRE" OR ANY FIRE SYMBOL, IN ANY FORM (I.E., STAMPED, IMPRINTED, ETC. ) ON THE APPLIANCE VISIBLE TO THE PUBLIC.NOTIFICATION APPLIANCES WITH MULTIPLE VISIBLE ELEMENTS SHALL BE PERMITTED TO HAVE FIRE MARKING ONLY ON THOSE VISIBLE ELEMENTS USED FOR FIRE SIGNALING. PER NFPA 72. 18.3.3.2/ NFPA 720, 6.3.3.2/ IR 9-2, 5.4.4 & 5.4.5. 60. AUTOMATIC FIRE ALARM SYSTEMS SHALL BE MONITORED AND SHALL TRANSMIT THE ALARM,

SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX (CENTRAL STATION) OR UUJS (REMOTE & PROPRIETARY) BY THE UNDERWRITERS LABORATORY INC. (UL) OR OTHER APPROVED LISTING AND TESTING LABORATORY OR SHALL COMPLY WITH THE REQUIREMENTS OF FM 3011. TERMINATION OF MONITORING SERVICES SHALL BE IN ACCORDANCE WITH SECTION 907.6.6.2. 61. THE NEW PROJECT SUBMITTAL TO INCLUDE DIRECTION THAT FIRE ALARM SYSTEM RECORD OF

COMPLETION AND FIRE ALARM SYSTEM RECORD OF INSPECTION AND TESTING FORM THESE TWO DOCUMENTS FROM NFPA 72 ARE TO BE COMPLETED AND SUBMITTED PRIOR TO CLOSE OUT OF THE PROJECT. A COPY OF COMPLETED AND SIGNED FORM SHALL BE GIVEN TO THE ARCHITECT OR ENGINEER OF RECORD, THE PROJECT INSPECTOR, THE OWNER (SCHOOL DISTRICT) AND LOCAL FIRE AUTHORITY. 62. INTELLIGIBILITY SHALL BE TESTED ACCORDING TO NFPA 72 ANNEX D.2 (SPEECH INTELLIGIBILITY).

63. UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBERS SHALL BE CUT, DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DISTRICT STRUCTURAL ENGINEER FROM THE DIVISION OF THE STATE ARCHITECT.

ı	Α	2	SOLID	18	#18/2, RED JACKET, FPLP	SIGNAL LINE CIRCUIT (SLC)
	Au	2	STRANDED	16	#16/2, RED JACKET (FIRE UNDERGROUND RATED)	SIGNAL LINE CIRCUIT (SLC) - UNDERGROUND
	В	2	SOLID	16	#16/2, RED JACKET, FPLP	SBUS
	Bu	2	STRANDED	16	#16 THWN RED(+) BLACK(-) JACKET (FIRE UNDERGROUND RATED)	SBUS - UNDERGROUND
	Н	2	SOLID	16	#16/2, RED JACKET, FPLP	INDICATING CIRCUIT (IDC)
	Hu	2	STRANDED	16	#16 THWN RED(+) BLACK(-) JACKET (FIRE UNDERGROUND RATED)	INDICATING CIRCUIT (IDC) - UNDERGROUND
	N	2	SOLID	14	#14/2, RED JACKET, FPLP	NOTIFICATION APPLIANCE CIRCUIT
	IN	2	STRANDED	14	#14, THWN, RED (+) BLACK (-) WHEN USED IN CONDUIT	NOTIFICATION AFFLIANCE CIRCUIT
	Nu	2	STRANDED	12	#12 THHN, THWN RED(+) BLACK(-) (FIRE UNDERGROUND RATED)	NOTIFICATION APPLIANCE CKTUNDERGROUND
	S	2	STRANDED	16	#16/2 -OVERALL SHIELDED CLASS 2 CABLE	SPEAKER CIRCUIT
	Su	2	STRANDED	16	#16/2 -OVERALL SHIELDED C2 CABLE (UNDERGROUND RATE)	SPEAKER CIRCUIT - UNDERGROUND

## FIRE ALARM REQUIREMENTS

TO THE NFPA STANDARDS.

GRANDSTANDS 2017 EDITION.

2018 EDITION.

1999 EDITION.

THE CONTRACTOR SHALL PROVIDE AND SUBMIT THE FIRE ALARM SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OF THE FIRE ALARM SYSTEM. SUBMITTAL SHALL CONTAIN THE FOLLOWING:

FIRE ALARM SCOPE OF WORK

FIRE ALARM SYSTEM CODES AND STANDARDS

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24

NFPA 13 STANDARD FOR INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDED) 2022

NFPA 17 STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS 2021 EDITION.

NFPA 17A STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS 2021 EDITION.

NFPA 14 STANDARD FOR INSTALLATION OF STANDPIP AND HOSE SYSTEMS (CA AMENDED)

NFPA 20 STANDARD FOR INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION

NFPA 22 STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION  $\,$  2013 EDITION.

NFPA 24 STANDARD FOR INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR

NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED) 2022 EDITION

UL464 AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS

UL1971 STANDARD FOR SIGNALING DEVICES FOR HEARING IMPAIRED 2002 (R2010)

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2022 CBC (SFM)

SEE CALIFORNIA BUILDING CODE, CHAPTER 35, FOR STATE OF CALIFORNIA AMENDMENTS

ICC300 STANDARD FOR BLEACHERS, FOLDING AND TELESCOPIC SEATING AND

NFPA 80 STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES 2019 EDITION.

NFPA 2001 STANDARD FOR CLEAN AGENT FIRE EXTINGUISHING SYSTEMS (CA AMENDED)

UL 521 STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS

§907.2.3, DSA GL-2, IR 9-1 AND THE AUTHORITY HAVING JURISDICTION.

2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR

2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR

2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR

FITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR

2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR

2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR

2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR

APPURTENANCES (CA AMENDED) 2019 EDITION.

**INCLUDING ACCESSORIES 2003 EDITION** 

OF COMMERCIAL COOKING EQUIPMENT 2005 (R2010) EDITION.

CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80.

022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR

2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR

ADDITION TO AN EXISTING FIRE ALARM SYSTEM IN ACCORDANCE WITH NFPA 72, CFC

SHOP DRAWINGS: COMPLETE 1/8" MINIMUM SCALE FLOOR PLANS SHOWING ALL DEVICES, APPLIANCES, COMPONENTS, CONDUIT AND WIRING INDICATING A COMPLETE AND OPERABLE SYSTEM AS DESIGNED AND SPECIFIED. REPRODUCED COPIES OF THE BID SET OF FIRE ALARM PLANS ARE NOT ACCEPTABLE AS SHOP DRAWINGS OR AS BUILT/RECORD DRAWINGS. SHOP DRAWINGS MUST ALSO INDICATE DEVICE MOUNTING HEIGHTS, ROOM NAMES AND NUMBER AND LOCATIONS OF ALL FIRE RATED WALLS. ADDITIONALLY SHOP DRAWINGS ARE TO REFLECT INSTALLING COMPANY'S NAME AND LICENSE NUMBER(S) IN THEIR TITLE BLOCK. ALL SHOP DRAWINGS SHALL INCLUDE NFPA-170 SYMBOLOGY. ALL OTHER SYMBOLS ARE NOT ACCEPTABLE. ELECTRICAL CONTRACTOR'S AND FIRE ALARM SYSTEM INSTALLERS NAME,

ADDRESS, PHONE NUMBER AND C-10 LICENSE NUMBER. LIST OF SYSTEM COMPONENTS, EQUIPMENT AND DEVICES, INCLUDING MANUFACTURE'S MODEL NUMBER(S) AND CALIFORNIA STATE FIRE MARSHALL

ORIGINAL COPIES OF MANUFACTURE'S SPECIFICATION SHEETS FOR ALL EQUIPMENT AND DEVICES AS INDICATED. E. VOLTAGE DROP CALCULATIONS TO INCLUDE THE FOLLOWING:

(a) POINT-TO-POINT OR OHMS LAW CALCULATIONS (b) IDENTIFICATION OF THE ZONE OR CIRCUIT IN CALCULATIONS (c) VOLTAGE DROP PERCENTAGE (NOT TO EXCEED THE LISTED MANUFACTURE'S

OPERATING VOLTAGE RANGES)

(d) NOTE OF CIRCUIT NUMBER FOR WORST CASE CALCULATION

F. BATTERY TYPE(S), AMP HOURS AND CALCULATIONS. INCLUDE THE FOLLOWING: NORMAL OPERATION: 100% OF APPLICABLE DEVICES FOR 24 HOURS = CONTROL PANEL AMPS PLUS LIST OF AMPS PER DEVICE WHICH DRAW POWER FROM THE

PANEL DURING STANDBY. (I.E.: ZONE MODULES, DETECTORS AND OTHER IDENTIFIED DEVICES. ALARM CONDITION: 100% OF THE APPLICABLE DEVICES FOR 15 MINUTES = CONTROL PANEL AMPS PLUS LIST OF AMPS PER DEVICE WHICH DRAW POWER FROM THE PANEL DURING ALARM. (I.E.: ZONE MODULES, SIGNAL MODULES, DETECTORS, SIGNAL DEVICES, ANNUNCIATORS, AMPLIFIERS AND OTHER

IDENTIFIED DEVICES) NORMAL OPERATION + ALARM OPERATION a. TOTAL AMP HOURS REQUIRED.

b. TOTAL AMP HOURS PROVIDED.

**ABBREVIATION** 

### FIRE WATCH NOTE

A FIRE WATCH SHALL BE ESTABLISHED AND THE FIRE DEPARTMENT & FIRE CODE OFFICIAL SHALL BE NOTIFIED IMMEDIATELY WHENEVER THE FIRE PROTECTION / ALARM SYSTEM IS RENDERED OUT OF SERVICE. A FIRE WATCH SHALL BE STAGED WHENEVER THE BUILDING IS OCCUPIED (PARTIAL OR WHOLE) PER DSA IR F-2 AND CFC 901.7.

### FIRE ALARM SYSTEM ABBREVIATIONS

**DESCRIPTION** 

AFF	ABOVE FINISHED FLOOR
AIC	AMPERES INTERRUPTING CAPACITY
ARCH.	ARCHITECT; ARCHITECTURAL
AWG	AMERICAN WIRE GAUGE
С	CEILING
CFC	CALIFORNIA FIRE CODE
CKT	CIRCUIT
C.O.	CONDUIT ONLY WITH PULL WIRE
CU	COPPER
DWG	DRAWING
(E)	EXISTING
EMT	ELECTRICAL METALLIC TUBING
FA	FIRE ALARM
FLR	FLOOR
FT	FEET
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
(N)	NEW
NIC	NOT IN CONTRACT
PNL	PANEL
(R)	REMOVE or REPLACE or RELOCATE
REQ'D	REQUIRED
SF	SQUARE FEET
SHT	SHEET
SW	SWITCH
TYP	TYPICAL
UG	UNDERGROUND
U.O.N.	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF

FIRE ALARM SHEET INDEX	

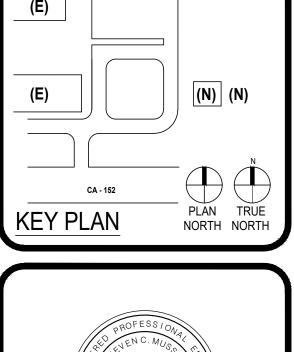
SHEET#	SHEET DESCRIPTION
FA0.1	FIRE ALARM COVER SHEET
FA1.0	FIRE ALARM SITE PLAN
FA1.1	FIRE ALARM FLOOR PLAN, RISER DIAGRAM & CALCULATI

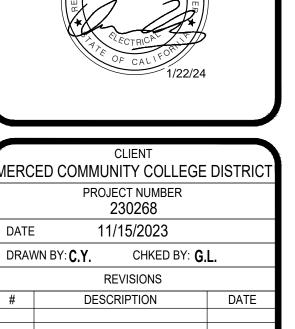
TIONS FIRE ALARM DETAILS

IDENTIFICATION STAMP APPLICABLE STANDARD NFPA 72, AS ADOPTED AND AMENDED IN CBC CHAPTER 35. DIV. OF THE STATE ARCHITEC APP: 02-121828 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

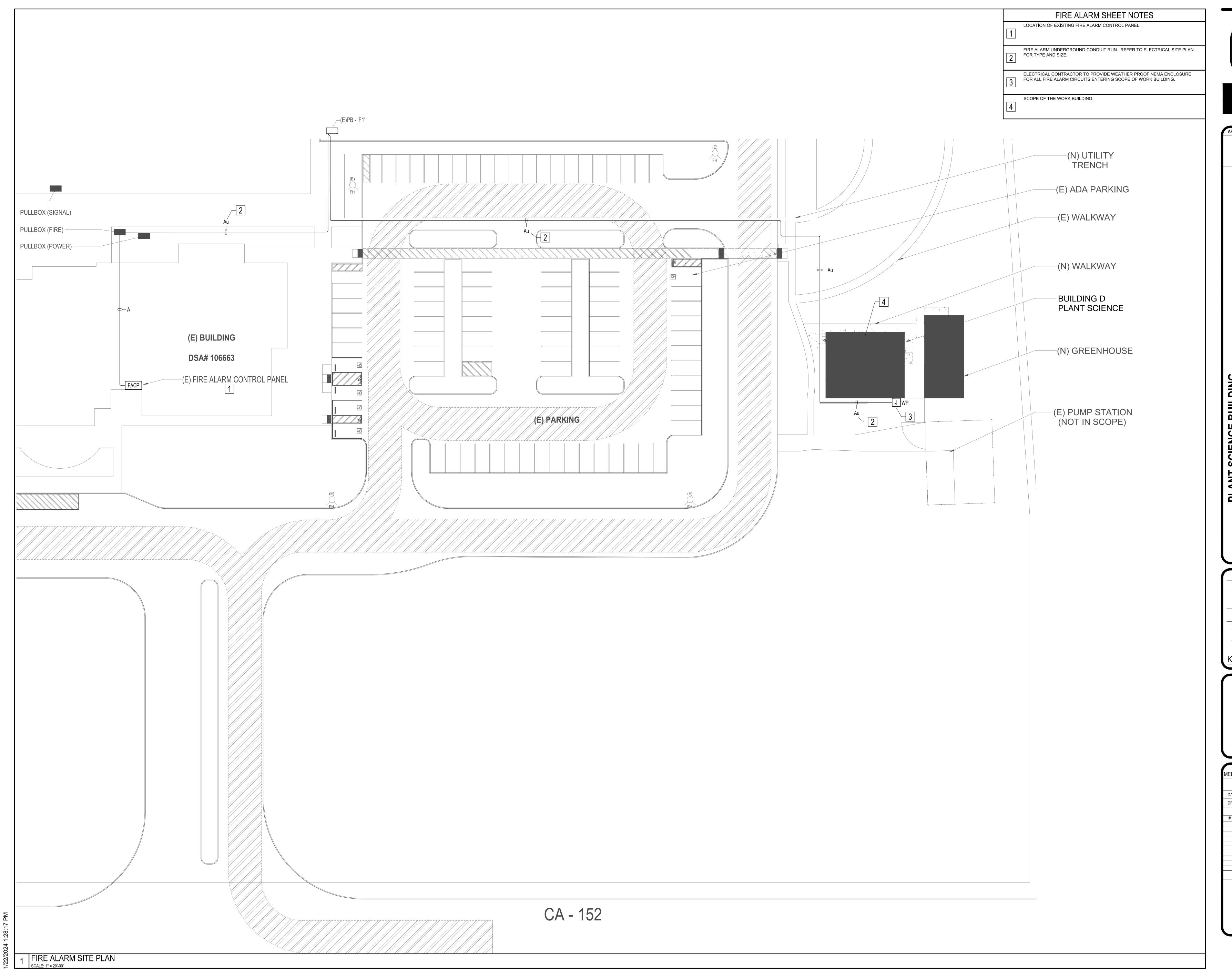
ARCHITECT 1110 Iron Point Rd, Suite 200 Folsom, CA 95630 916-355-9922 P

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CONSTRUCTION DOCUMENTS FIRE ALARM



IDENTIFICATION STAMP
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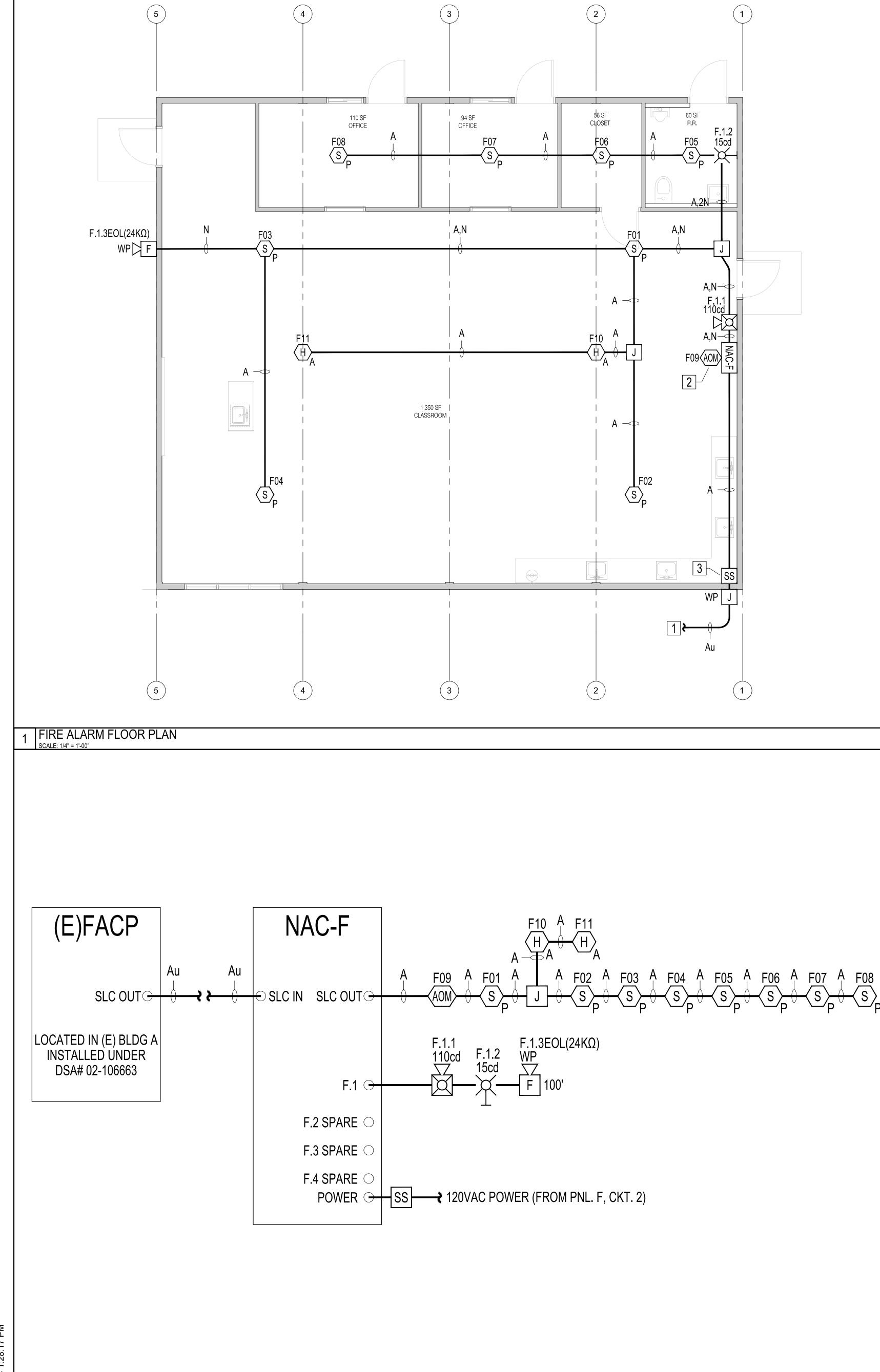
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FIRE ALARM SITE PLAN

2 PARTIAL FIRE ALARM RISER DIAGRAM SCALE: NO SCALE



	BATTERY CALCULATIONS						===::
PART#	DESCRIPTION		QTY	STANDBY	TOTAL	CURRENT	TOTAL
PANEL CONTROLL	ER AND CARDS						
EX. FACP	EXISTING FACP DEVICES		1	0.54930	0.54930	8.14300	8.1430
TRI-R	ADDRESSABLE CONTROL MODULE		1	0.00150	0.00150	0.00150	0.0015
FP-11	ADDRESSABLE SMOKE DETECTOR		8	0.00010	0.00080	0.05000	0.4000
FPT-11	ADDRESSABLE HEAT DETECTOR		2	0.00075	0.00150	0.00075	0.0015
			PAN	EL TOTALS	0.553		8.546
PANEL CIRCUIT	FIELD NOTIFICATION APPLIANCE CIRCU	NAC	тот		0.000		0.000
		0	VERA	LL TOTALS	0.553	><	8.546
	TOTAL ALARM AMPS 8.5	46 X	15	MINS=	2.137		
	TOTAL STANDBY AMPS 0.5	53 X	24	HOURS=	13.274		
5 MINS = 0.083	TOTAL	L AMP HO	URS	REQUIRED=	15.411		
15 MINS = 0.250	RECOMMENDED	MINIMUM	BAT	TERY SIZE=	26.0	AMP HOURS	5
	LESS	25% DEF	MITAS	G FACTOR=	19.5	AMP HOURS	3
		SP	ARE A	MP HOURS	4.1	AMP HOURS	

	BATTERY CAL	PAD-3   CULATI			24	ног	JR ST	NDB	,	© 24 © 60
PART#	DESCRIPT				ΣΤΥ	STAN	NDBY .	TOTAL	ALARM	TOTAL
PANEL CONTROL	LER AND CARDS									
PAD-3	6 AMP DISTRIBUTED POWER SUPP	LY			1	0.01	000 0	.01000	0.07500	0.07500
	-			P	ANE	EL TO	TALS	0.010	><	0.075
24V AUXILIARY D	EVICES									
			24V	AUX. DE	EVIC	E TOT	ALS	0.000		0.000
PANEL CIRCUIT	FIELD NOTIFICATION A	PPLIANCE (	CIRCUITS	3						
N1	NOTIFICATION APPLIANCE CIRCUI	T -F.1.1			1	0.0	00	0.000	0.304	0.304
				NAC 1	тот	ALS		0.000		0.304
				OVE	ERA	LL TO	TALS	0.010		0.379
5 MINS = 0.083	TOTAL STAND	_	0.010 TOTAL A	MP HOU	RS	REQUI		0.240 0.335		
NOT  STARTING VOLTA  WIRE RESISTAN  UTILIZING EOL C	IFICATION CIRCUIT AGE (24Vdc) AT 85% EFFICIENCY: CE (OHMS) = (#14 FEET x 3.07/1000 OHM'S CALCULATIONS, ACCEPTAB RRENT X DISTANCE <sup>2</sup> X RESIST	Vdc = 24Vdc +#12 FEET x LE VOLTAGE	VOL x .85 = 20. 1.93/1000 DROP IS	% DERA' SPAF TAGE 4Vdc +#10 FE NO LESS	E C	ORC 1.21/10 AN 16V	OURS  OURS  OURS  OURS	S PER UL	864 10TH EDI	S TION
NOT  STARTING VOLTA  WIRE RESISTAN  UTILIZING EOL C	AGE (24Vdc) AT 85% EFFICIENCY: CE (OHMS) = (#14 FEET x 3.07/1000 OHM'S CALCULATIONS, ACCEPTAB	Γ - <b>F.1</b> - Vdc = 24Vdc +#12 FEET x SLE VOLTAGE	VOL x .85 = 20, 1.93/1000 DROP IS STANT / 0	% DERA' SPAF TAGE 4Vdc +#10 FE NO LESS	E C ET X S TH.	ORC 1.21/10 AN 16V	OURS  OURS  OURS  OURS	5.3 4.9 LCUL	AMP HOUR AMP HOUR ATION 864 10TH EDI	S TION
NOT  STARTING VOLTA  WIRE RESISTAN  UTILIZING EOL OF FORMULA = CU	AGE (24Vdc) AT 85% EFFICIENCY: CE (OHMS) = (#14 FEET x 3.07/1000 OHM'S CALCULATIONS, ACCEPTAB RRENT X DISTANCE <sup>2</sup> X RESIST	Vdc = 24Vdc +#12 FEET x BLE VOLTAGE IVITY CONS	VOL x .85 = 20. 1.93/1000 E DROP IS STANT / 0	% DERA' SPAF  TAGE  4Vdc +#10 FE  NO LESS CIRCUL	E C ET X S TH. AR I	ORC 1.21/10 AN 16V	OURS OURS OURS OURS OURS OURS OURS OURS	5.3 4.9 LCUL S PER UL GE X 100	AMP HOUR AMP HOUR ATION 864 10TH EDI 0 = % OF D	S TION ROP
NOT  STARTING VOLTA  WIRE RESISTAN  UTILIZING EOL C	AGE (24Vdc) AT 85% EFFICIENCY: CE (OHMS) = (#14 FEET x 3.07/1000 OHM'S CALCULATIONS, ACCEPTAB RRENT X DISTANCE <sup>2</sup> X RESIST	Vdc = 24Vdc +#12 FEET x SLE VOLTAGE IVITY CONS	VOL x .85 = 20. 1.93/1000 E DROP IS STANT / 0	% DERA' SPAF  TAGE  4Vdc +#10 FE NO LESS CIRCULA  DTAL LINE EET OF WI	E C ET X S TH. AR I	ORC 1.21/10 AN 16V MILLS	OURS OURS OURS OURS OURS OF WIRES	S PER UL GE X 100	AMP HOUR  AMP HOUR  ATION  864 10TH EDI  0 = % OF DI  TOTAL  LOAD	S TION ROP VOLTAGE DROP
NOT  STARTING VOLTA  WIRE RESISTAN  OF FORMULA = CU	AGE (24Vdc) AT 85% EFFICIENCY: CE (OHMS) = (#14 FEET x 3.07/1000 OHM'S CALCULATIONS, ACCEPTAB RRENT X DISTANCE <sup>2</sup> X RESIST  DEVICE TYPE	Vdc = 24Vdc: +#12 FEET x BLE VOLTAGE IVITY CONS	VOL x .85 = 20. 1.93/1000 DROP IS STANT / 0	% DERA' SPAF  TAGE  4Vdc +#10 FE  NO LESS CIRCUL	E C ET X S TH. AR I	ORC 1.21/10 AN 16V	OURS OURS OURS OURS OURS OURS OURS OURS	S PER UL GE X 100	AMP HOUR  AMP HOUR  ATION  864 10TH EDI  0 = % OF DI  TOTAL  LOAD  (AMPS)	S TION ROP
NOT  STARTING VOLTA  WIRE RESISTAN  OF FORMULA = CU  PART  #  HS @ 110cd	AGE (24Vdc) AT 85% EFFICIENCY: CE (OHMS) = (#14 FEET x 3.07/1000 OHM'S CALCULATIONS, ACCEPTAB RRENT X DISTANCE <sup>2</sup> X RESIST  DEVICE TYPE HORN/STROBE SET @ 110CD	Vdc = 24Vdc +#12 FEET x SLE VOLTAGE IVITY CONS NO. OF DEVICE ON CKT	VOL x .85 = 20. 1.93/1000 DROP IS STANT / 0	% DERA' SPAF  TAGE  4Vdc +#10 FE NO LESS CIRCULA  DTAL LINE EET OF WI	E C ET X S TH. AR I	ORC 1.21/10 AN 16V MILLS	OURS OURS OURS OURS OURS OF WIRES	S PER UL GE X 100 (AMPS) 0.197	AMP HOUR AMP HOUR  ATION  864 10TH EDI  0 = % OF DI  TOTAL  LOAD  (AMPS)  0.197	S TION ROP VOLTAGE DROP
NOT  I) STARTING VOLTA  I) WIRE RESISTAN  II) UTILIZING EOL OF  FORMULA = CU  PART  #  HS @ 110cd  ST @ 15cd	AGE (24Vdc) AT 85% EFFICIENCY: CE (OHMS) = (#14 FEET x 3.07/1000 OHM'S CALCULATIONS, ACCEPTAB RRENT X DISTANCE <sup>2</sup> X RESIST  DEVICE TYPE HORN/STROBE SET @ 110CD STROBE SET @ 15CD	Vdc = 24Vdc +#12 FEET x SLE VOLTAGE IVITY CONS NO. OF DEVICE ON CKT	VOL x .85 = 20. 1.93/1000 DROP IS STANT / 0	% DERA' SPAF  TAGE  4Vdc +#10 FE NO LESS CIRCULA  DTAL LINE EET OF WI	E C ET X S TH. AR I	ORC 1.21/10 AN 16V MILLS	OURS OURS OURS OURS OURS OF WIRES	S PER UL GE X 100 DEVICE (AMPS) 0.197 0.057	AMP HOUR AMP HOUR  ATION  864 10TH EDI  0 = % OF DI  TOTAL LOAD (AMPS)  0.197  0.057	S TION ROP VOLTAGE DROP
NOT  STARTING VOLTA  WIRE RESISTAN  OF FORMULA = CU  PART  #  HS @ 110cd	AGE (24Vdc) AT 85% EFFICIENCY: CE (OHMS) = (#14 FEET x 3.07/1000 OHM'S CALCULATIONS, ACCEPTAB RRENT X DISTANCE <sup>2</sup> X RESIST  DEVICE TYPE HORN/STROBE SET @ 110CD	Vdc = 24Vdc +#12 FEET x SLE VOLTAGE IVITY CONS NO. OF DEVICE ON CKT	VOL x .85 = 20. 1.93/1000 DROP IS STANT / 0	% DERA' SPAF  TAGE  4Vdc +#10 FE NO LESS CIRCULA  DTAL LINE EET OF WI	E C ET X S TH. AR I	ORC 1.21/10 AN 16V MILLS	OURS OURS OURS OURS OURS OF WIRES	S PER UL GE X 100 (AMPS) 0.197	AMP HOUR AMP HOUR  ATION  864 10TH EDI  0 = % OF DI  TOTAL LOAD (AMPS)  0.197  0.057	S TION ROP VOLTAGE DROP

AS STATED IN NFPA 72, CHAPTER 10.3.5: EQUIPMENT SHALL BE DESIGNED SO THAT IT IS CAPABLE OF PERFORMING ITS INTENDED FUNCTIONS UNDER THE FOLLOWING CONDITIONS:
(1) *AT 85 PERCENT AND AT 110 PERCENT OF THE NAMEPLATE PRIMARY (MAIN) AND SECONDARY (STANDBY) INPUT VOLTAGE(S)
(2) AT AMBIENT TEMPERATURES OF 32°F (0°C) AND 120°F (49°C)
(3) AT A RELATIVE HUMIDITY OF 85 PERCENT AND AN AMBIENT TEMPERATURE OF 86°F (30°C)
AS PER THE MANUFACTURE, THE FIRE ALARM CONTROL PANEL'S LISTED VOLTAGE IS 24VDC. THE OPERATING VOLTAGE RANGES FROM 20.4VDC TO 26.4VDC.
WHERE BACK-UP BATTERIES ARE USED, THE BATTERY CALCULATIONS ARE BASED ON A BACK-UP POWER (BATTERY) THAT DERATED BY 25%.

FIRE ALARM FUNDAMENTAL OF DESIGN: CALCULATIONS

STARTING VOLTAGE 19.2VDC ACTUAL FINISH VOLTAGE 19.01 VDC

EXAMPLE:

BATTERY POWER (24VDC) X 80% = DERATING FACTOR (STARTING VOLTAGE)

24VDC X .80 = 19.2VDC

3 FIRE ALARM CALCULATIONS
SCALE: NO SCALE

AS PER UL864, 10TH EDITION, THE NOTIFICATION APPLIANCES MUST OPERATE BETWEEN 16VDC AND 33VDC AND STATES THAT THE END OF LINE VOLTAGE FOR A NOTIFICATION APPLIANCE CIRCUIT MUST BE NOT LESS THAN 16VDC (MANUFACTURE'S UL LISTED OPERATING VOLTAGE). THUS ALL NOTIFICATION APPLIANCE CIRCUITS ARE CALCULATED WITH A 20% DERATED FACTOR AND THE STARTING VOLTAGE IN 20.4VDC. ALTHOUGH THE PERCENTAGE OF VOLTAGE DROP MAY VARY, ALL NOTIFICATION APPLIANCE CIRCUITS AND BATTERY CALCULATIONS MUST AND WILL CONFIRM TO THIS STANDARD.

FIRE ALARM SHEET NOTES

REFER TO SHEET FA1.0 SITE PLAN FOR LOCATION OF CONDUIT RUN TO EXISTING FACP TO THIS SCOPE OF WORK.

INSTALL CONTROL MODULE IN POWER SUPPLY ENCLOSURE.

INSTALL SURGE PROTECTION FOR POWER SUPPLY PROTECTION IN ACCORDANCE WITH NFPA 72 AND NFPA 70.

CALCULATIONS REFLECT SCOPE OF WORK ONLY. REFER TO AS BUILT RECORD OR LATEST APPROVED FIRE ALARM DRAWINGS FOR ALL EXISTING CALCULATIONS NOT IN THIS SCOPE OF WORK.

NO CHANGE TO EXISTING FACP BATTERIES AT THIS TIME. INSTALL TWO 12VDC, 7
AH BATTERIES IN POWER SUPPLY ENCLOSURE.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

APP: 02-121828 INC:

REVIEWED FOR

SS FLS ACS D

DATE: 7/24/2024

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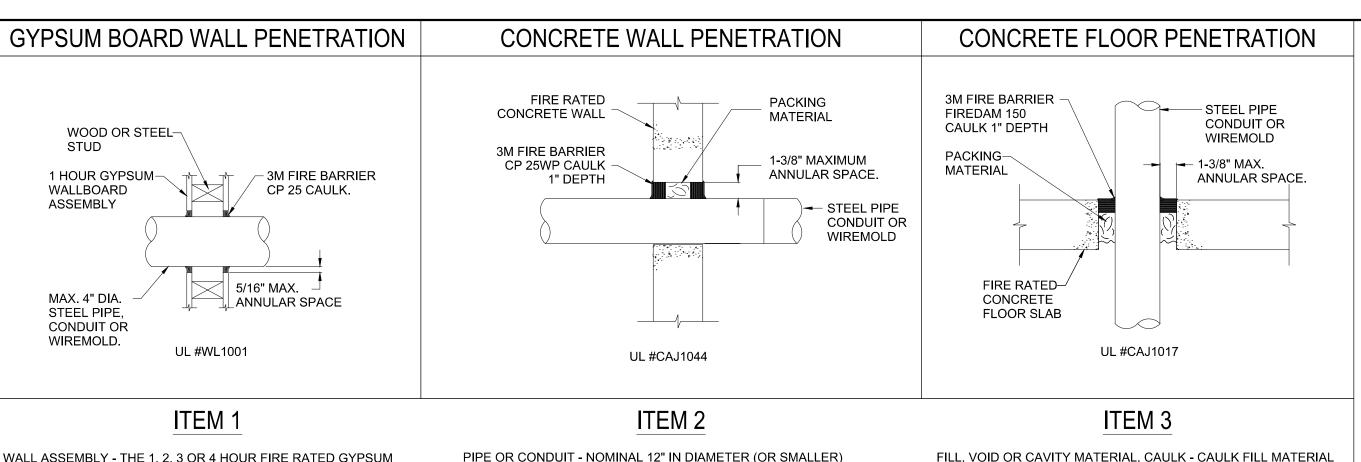
PLANT SCIENCE BUILDING	MERCED COMMUNITY COLLEGE DISTRICT LOS BANOS	22240 CA-152, LOS BANOS, CA93635	CONSTRUCTION DOCUMENTS	DSA APPL. NO. 02-121828 FILE NO. 24-C1
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**FA1.1** 

REFERENCE NFPA 72, CHAPTER 17.6.3\*



SCHEDULE 10 (OR HEAVIER), STEEL PIPE NOMINAL 6" IN DIAMETER

(OR SMALLER), STEEL CONDUIT NOMINAL 4" IN DIAMETER (OR

HEAVIER), COPPER TUBING NOMINAL 1" IN DIAMETER (OR

FLEXIBLE STEEL CONDUIT IS USED, MAXIMUM F RATING OF

NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY

SUPPORTED IN BOTH SIDES OF WALL ASSEMBLY.

SMALLER), STEEL ELECTRICAL METALLIC TUBING OR TYPE L (OR

SMALLER), FLEXIBLE STEEL CONDUIT. WHEN COPPER PIPE OR

FIRESTOP SYSTEM (TIEM CONSTRUCTED USING STEEL CHANNEL

IN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE INSTALLED

STUDS). A MAXIMUM OF ONE (1) PIPE OR CONDUIT IS PERMITTED

WALL ASSEMBLY - THE 1, 2, 3 OR 4 HOUR FIRE RATED GYPSUM WALL BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

- A. STUDS WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX. 2 HR. RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOMINAL 2" X 4" LUMBER SPACED IN 18" ON CENTER WITH NOMINAL 2" X 4" LUMBER AND PLATES AND CROSS BRACES. STEEL STUDS TO BE MINIMUM 3-8/8" WIDE BY 1-3/8" DEEP CHANNELS SPACED MAXIMUM 24" ON CENTER.
- . WALLBOARD/GYPSUM NOMINAL ½ oR & THICK, 4' WIDE SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARDS RYPS, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE SPECIFIED IN THE INDIVIDUAL U300 OR U400 DESIGN IN THE UL FIRE RESISTANCE DIRECTORY.

MAXIMUM DIAMETER OF OPENINGS IS 13-1/2".

SYSTEM NUMBER: WL1001 (FORMERLY SYSTEM NUMBER 147) F RATINGS: 1, 2, 3 AND 4 HOUR (SEE ITEMS 2 AND 3) T RATINGS: 0, 1, 2, 3 AND 4 HOUR (SEE ITEM 3) L RATING AT AMBIENT: LESS THAN 1 CFM/SQ FT (SEE ITEM 3)

FILL, VOID OR CAVITY MATERIAL, CAULK - CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MINIMUM OF 1" IN DIAMETER BOARD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED. AS SHOWN IN THE FOLLOWING TABLE. IN THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT

MAX PIPE OR CONDUIT DIA. (INCHES)	ANNULAR SPACE (INCHES)	F RATING (HOURS)	T RATING (HOURS)
1	0 TO 3/16	1 OR 2	0 + 1 OR 2
1	1/4 TO 1/2	3 OR 4	3 OR 4
4	0 TO 1/4	1 OR 2	0
6	1/4 TO 1/2	3 OR 4	0

UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE

INSTALLED AS TABULATED BELOW:

HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS

+WHEN COPPER PIPE IS USED, T RATING IS 0 NOMINAL MINNESOTA MINING & MFG. CO. - TYPES CP-23 S/L, CP-25 N/8, CP-25 WS, CP-25 WS + (NOTE: L RATINGS APPLY WHEN THE TYPE CP-25WS+CAULK IS USED)

3/16 TO 3/8

1 OR 2

### THROUGH WALL & FIRE STOP PENETRATION DETAILS

ALL WORK SHALL BE IN CONFORMANCE WITH TITLE 24, 2022 CALIFORNIA CODE OF REGULATIONS (CCR), 2022 CALIFORNIA BUILDING CODE, PART 2, TITLE 24 CCR, 2022 CALIFORNIA ELECTRICAL CODE, PART 3, TITLE 24 CCR

CUTTING, BORING, SAWCUTTING OR DRILLING THROUGH THE NEW OR EXISTING STRUCTURAL ELEMENTS TO BE DONE ONLY WHEN SO DETAILED IN THE DRAWINGS OR ACCEPTED BY THE ARCHITECT AND STRUCTURAL ENGINEER WITH THE APPROVAL OF DSA REPRESENTATIVE.

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS.

THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30: I. ALL PERMANENT EQUIPMENT AND COMPONENTS. 2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY

ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE. 3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS: A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT. B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

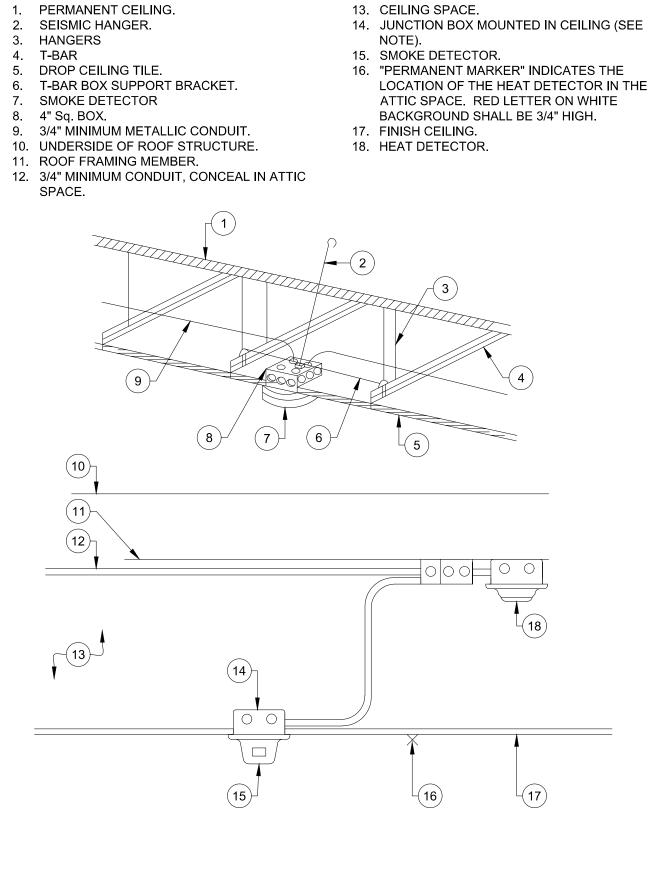
PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2022 CBC SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

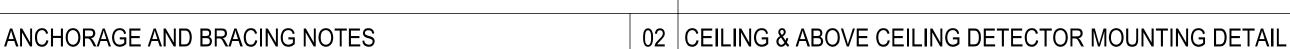
THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., OSHPD OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

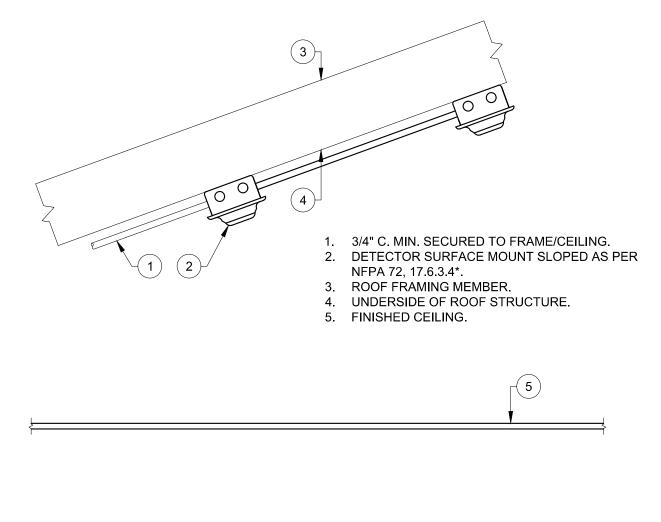
MECHANICALPIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION

MP [] MD [] PP [] E [X] OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. MP [] MD [] PP [] E [] OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #)

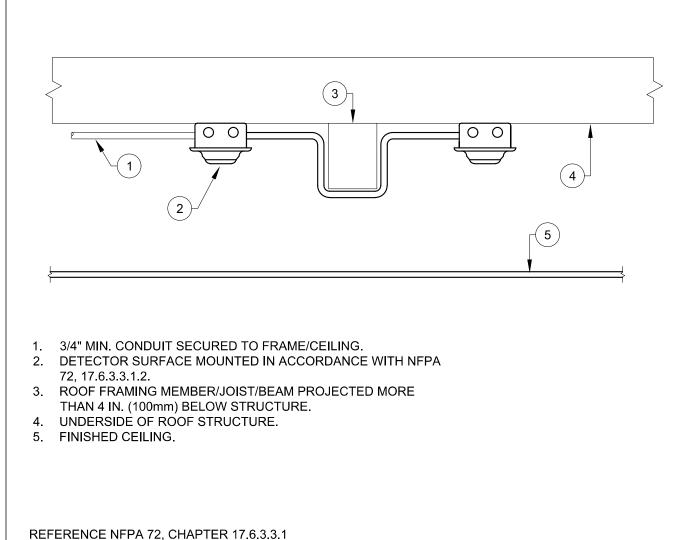


REFERENCE NFPA 72, CHAPTER 17

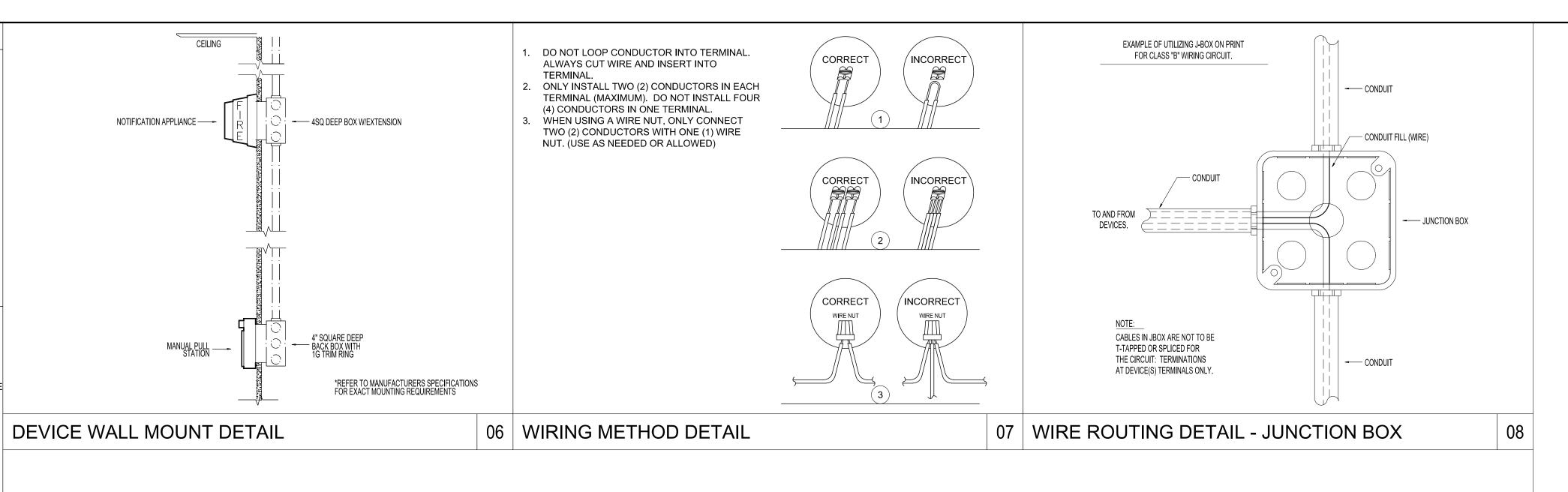


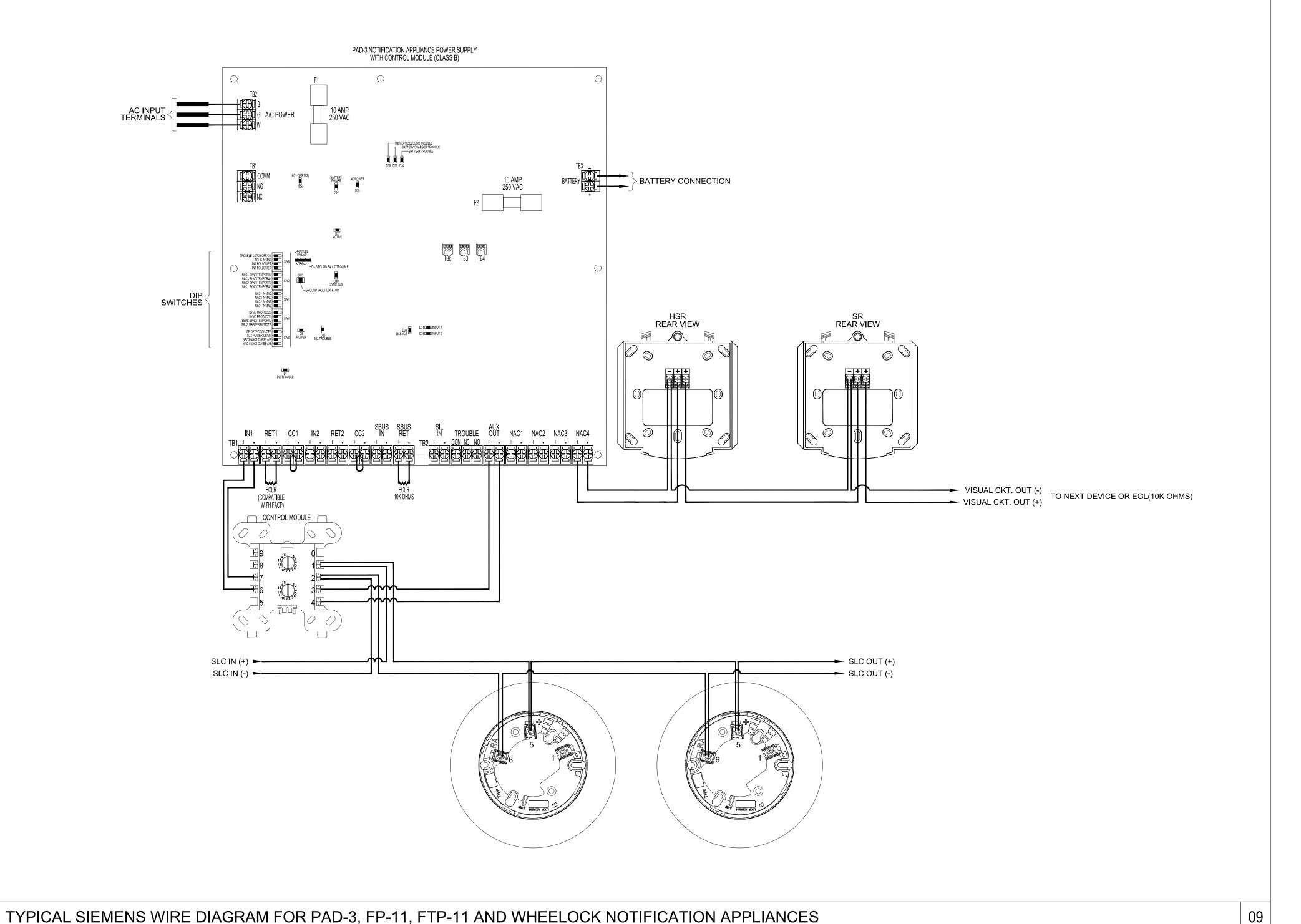


ABOVE CEILING SLOPED DETECTOR MOUNTING DETAIL



02 CEILING & ABOVE CEILING DETECTOR MOUNTING DETAIL 04 03 PORTABLE ABOVE CEILING DETECTOR MOUNTING DETAIL 05





IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121828 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE: 7/24/2024

R		
ARCHITEC	FOLSC 1110 Iron Point R Folsom, CA 916-355-9	d, Suite 200 95630
PLANT SCIENCE BUILDING	MERCED COMMUNITY COLLEGE DISTRICT LOS BANOS	22240 CA-152, LOS BANOS, CA93635 CONSTRUCTION DOCUMENTS
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	CA-152	PLAN TR NORTH NOR
	PROFESS RED VEN C. M. SO E-19817 PARE OF CAL	PA NEED
MERCED O	PROJECT N 23026 03/26/20	COLLEGE DIST UMBER 68 024 UKED BY: <b>G.L.</b>
	INE VIOIC	
#	DESCRIPTIO	DN DA

CONSTRUCTION DOCUMENTS

FIRE ALARM

**DETAILS** 

	Sheet List			Sheet List							
Sheet Number	Sheet Name	Sheet Number		Sheet Name		ST	OCK	PII	LE#	323	3
Cover	Sneet Name	S4.2	WALL DETAILS	(WOOD FRAMING)	104	1) 04-		E\ 2/	C-40 e1	<b>60\</b> 40	OV 4
A0.0 A0.0.1	COVER SHEET PROJECT OPTIONS SCHEDULE	<del>\$4.3</del> \$4.4	WALL DETAILS TYP FRAMING	(MTL FRAMING)	(24	<del>) 24</del> 2	x40, (x1				<b>8</b> X4
A0.1 A0.2	TYPICAL KEY PLAN AND SCHEDULES, GEN NOTES, SIGNAGE AND SYMBOLS	S4.5 S5.0	FRAMING SCHEDULES LONG. SECTION - (MC		SN' <del>s 24×</del> 40	<b>)s:</b> C-23	CLASSF 3-2472A/B, C-2		M BLDG'S		:-23 <del>-24</del>
A0.3 A0.4	DSA-103 T&I CONCRETE FLOORS DSA-103 T&I PLYWOOD FLOORS	\$5.1 \$R0	LONG SECTION - (DU/ MODULE PLAN AND N	,	C-23-2476A	√B, C-23	3-2477A/B, C-2	23-2478	8A/B, C-23-24	79A/B, (	C-23-24
A0.5 A0.6	CALGREEN SPEC'S CAL GREEN CHECKLIST	SR1 SR2	RAMP LANDING LANDING FRAME			,	3-2482A/B, C-2 3-2487A/B, C-2			•	
A0.7 A0.8	CAL GREEN CHECKLIST CAL GREEN CHECKLIST	SR3 SR4	FOUNDATION PLAN RAMP ELEVATION			-	3-2492A/B, C-2		•	, -	
Architectur	24x40 FLOOR PLAN	SR5 SR6	RAMP DETAILS RAMP DETAILS				C-23-2496A/B/	•	•		
A1.1 A1.2	36x40 FLOOR PLAN 48x40 thru 120x40 FLOOR PLAN	SR7 Fire Sprink					, C-23- <del>2500</del> A/I , C-23- <del>2518A/</del> I			•	
A2.1(A) A2.1(B)	ARCHITECTURAL DETAILS (WOOD FRAMING SHTG FINISH)  ARCHITECTURAL WUI DETAILS (WOOD FRAMING SHTG FINISH)	<del>FS-1</del> <del>FS-2</del>	FIRE SPRINKLER DES		<del>C-23-25</del> 2	21A/B/C	, C-23-2522A/I	B/C, C-	-23-2523A/B/(	C, C-23-2	2524A/
A2.2 A2.3(A) A2.3(B)	ARCHITECTURAL DETAILS (WOOD FRAMING PLASTER FINISH)  ARCHITECTURAL DETAILS (MTL FRAMING SHTG FINISH)  ARCHITECTURAL WUI DETAILS (MTL FRAMING SHTG FINISH)	Grand Tot	FLOOR FRAMING PLAN				<mark>3-2502A/B/C/</mark> E A/B/C/D, C-23-	·		· ·	
A2.4 A2.5(A)	ARCHITECTURAL WOLDETAILS (MTL FRAMING PLASTER FINISH)  ARCHITECTURAL DETAILS (1-HR WOOD FRAMING SHTG FINISH)		ECTRICAL / REFLECTIVE CE	-			C-23-2508A/B/		•		
A2.5(B) A2.6	ARCHITECTURAL WUI DETAILS (1-HR WOOD FRAMING SHTG FINISH)  ARCHITECTURAL DETAILS (1-HR WOOD FRAMING PLASTER FINISH)	ALT-04 EL ALT-05 CA	CHANICAL / FIRE PLAN EVATIONS PLAN SEWORK DETAILS					10			
A2.7(A) A2.7(B)	ARCHITECTURAL DETAILS (1-HR MTL FRAMING SHTG FINISH)  ARCHITECTURAL WUI DETAILS (1-HR MTL FRAMING SHTG FINISH)	ALT-D1 SC	RUCTURAL DETAILS HEDULE AND DETAILS			1	W SEISM		<b>51</b> A	2/	<b>'</b> ~
A2.8 A2.9	ARCHITECTURAL DETAILS (1-HR MTL FRAMING PLASTER FINISH)  ARCHITECTURAL DETAILS (FLOOR)		OF APPLICABLE CODE rative Code (CAC), Part 1	S AS OF JANUARY 1, 2020		DE	SIGN CR		KIA	4	
A2.9.1 A2.9.2	DETERIORATION PROT.NON-WOOD FINISH SIDING CONC FLOOR - WD STUDS DETORIORATION PRO. STUCCO EXTERIOR RINISH CONC FLOOR-WD STUDS	2019 California	Building Code (CBC), Pa		ments)	NAE	ERCED C	OM	MIINITY	COL	IEC
A2.9.3 A2.9.4	DETERIORATION PRO. NON-WOOD FINISH SIDING WOOD FLOOR - WD STUDS DETERIORATION PRO. STUCCO EXTERIOR FINISH WOOD FLR- WD STUDS	(2017		with 2019 California Amendments)		IVIL					-LEC
A2.9.5 A2.9.6	DETERIORATION PRO. NON WOOD FINISH SIDING CONC. FLR-STL STUDS DETERIORATION PRO. STUCCO EXTEIOR FINISH CONC. FLR- STL TUDS	(2018) 2019 California	Plumbing Code (CPC), F	cal Code with 2019 California Amendme Part 5, Title 24 C.C.R.	,				BANOS		
A2.9.7 A2.9.8	DETERIORATION PRO NON-WOOD FINISH SIDING WOOD FLR-STL STUDS DETERIORATION PRO STUCCO EXTEIOR FINISH WOOD FLR -STL STUDS	(2018 – 2019 California	IAPMO Uniform Plumbing Energy Code (CEC), Pa	g Code with 2019 California Amendments rt 6, Title 24 C.C.R	s)		ST		KPILE#	323	
A2.9.9 A3.0	DETERIORATION T-111 EXTERIOR FINISH WOOD FLR -STL / WOOD STUDS ADDITIONAL FIRE RATING DETAILS AND NOTES	(2018		4 C.C.R. ith 2019 California Amendments) ls Code, Part 11, Title 24 C.C.R.				~ -	48X40		
A3.1.1	SINGLE OCC. BATHROOM SINGLE OCC. BATHROOM AGE GROUP	2019 California Title 19 C.C.R.	Referenced Standards, I , Public Safety, State Fire	Part 12, Title 24 C.C.R Marshal Regulations.			SN# (	<b>C-23</b>	-2503 A	,B,C,	D
A3.2.1	RCP CEILING NOTES	(per 2019 CBC	PART 2 CH 35)	fety Code for Elevators and Escalators NFORCES CCR TITLE 8 AND USES TH	HE 2004 ASMF Δ17 1 BV	@ AB ABC	AT ANCHOR BOLT AGGREGATE BASE COURSE		FIXTURE FLUSH JOINT	PAR PBD PCC	PARALLEL PARTICLE B PRECAST C
A3.3 A3.4	CEILING DETAILS (T-GRID)  CEILING DETAILS (GYP BOARD)	ADOPTION			12 200 17 (GML 7(17.1 B)	ABC ABV AD ADD	ABOVE AREA DRAIN ADDENDUM	FLUR FLEX	FLOOR FLUORESCENT FLEXIBLE FOUNDATION	PCC PCF PCS PERF	PRECAST CO POUNDS PE PIECES PERFORATE
A4.0.1 A4.0.2	ROOF PLAN MONO SLOPE (STANDING SEAM)  ROOF PLAN DUAL SLOPE (STANDING SEAM)	-	OF APPLICABLE STANI	<u>DARDS</u> of Sprinkler Systems (CA amended)	2016 Edition	ADH ADJ ADOH	ADHESIVE ADJACENT, ADJUSTABLE ALTERNATE DIRECTION OF HOOK	FP	FACE OF FIREPROOF (ED) FIREPROOFING FRAME (D)(ING)	PERI PFB PFS PL	PERIMETER PREFABRICA POUNDS PE PLATE
A4.1 A4.2.1 A4.2.2	ROOF DETAILS (STANDING SEAM)  ROOF PLAN MONO SLOPE (EPDM)  ROOF PLAN DUAL SLOPE (EPDM)	NFPA 14 - Sta NFPA 17 - Sta	ndard for the Installation on ndard for Dry Chemical E	of Standpipe and Hose Systems (CA ame xtinguishing Systems	ended)2016 Edition 2017 Edition	AFF AGG _ALT	ABOVE FINISHED FLOOR AGGREGATE ALTERNATE	FRC FRGD FRMG	FIRE RESISTANT COATING FORGED FRAMING	PL PLBG PLF P.L.	PLUMBING POUNDS PE PARALLAM
A4.2.2 A4.3 A4.4.1	ROOF PLAN W/ PARAPET MONO SLOPE (EPDM)	NFPA 20 - Sta	ndard for the Installation o	Extinguishing Systems  If Stationary Pumps for Fire Protection  Private Fire Protection	2017 Edition 2016 Edition 2013 Edition	ALUM ANCH A ANOD APPRX	ALUMINUM ANCHOR (AGE) ANODIZED APPROXIMATE	FURR	FOOT, FEET FOOTING FURRED, FURRING FIELD VERIFY	PLWD PMT PNL POSTEN	PLYWOOD PAVEMENT PANEL N POST TENSI
A4.5 A5.0	ARCHITECTURAL DETAILS (PARAPET) SIDEWALL ELEVATION	NFPA 24 - Sta	ndard for the Installation o ir Appurtenances (CA am	of Private Fire Service Mains and ended)	2016 Edition	ARCH ASPH AUTO	ARCHITECT (URAL) ASPHALT AUTOMATIC	GA GALV	GAUGE GALVANIZED	PRETEN POLY PR	N PRETENSION POLYETHYL PAIR
A5.1 A5.2	ENDWALL ELEVATIONS INTERIOR ELEVATIONS	NFPA 80 - Sta	ndard for Fire Doors and	aling Code (CA amended) Other Opening Protectives Fire Extinguishing Systems (CA amende	2016 Edition 2016 Edition d)2015 Edition	B BB BC	BOTTOM BOND BEAM BOTTOM CHORD	GI	GENERAL CONTRACTOR GALVANIZED IRON GASKET GLASS, GLAZING	PRJ PSC PSF PSI	PROJECT PRESTRESS POUNDS PE POUNDS PE
A6.0.1	SECTION - STANDING SEAM (MONO) SECTION - STANDING SEAM (DUAL)	UL 300 - Stand Prote	lard for Fire Testing of Fir ction of Commercial Cool	e Extinguishing Systems for king Equipment	2013 Edition	BD BEG BEL BIT	BOARD BEGIN (ING) BELOW	GLM GP GPM	GLULAM GALVANIZED PIPE GALLONS PER MINUTE	PT P.T. PTC PTD	POINT PRESSURE T POST-TENSI PAINTED
A6.1 A6.2	SECTION - EPDM (DUAL) SECTION	Includ	dina Accessories	r Fire Protective Signaling Systems,	2003 Edition	BJT BLDG BLK	BITUMINOUS BED JOINT BUILDING BLOCK ('G, ING)	GRVL GRD GRN	GYPSUM PLASTER GRAVEL, GRANULAR GRADE, GRADING GRANITE	PVC PVMT	POLYVINYL ( PAVEMENT
A6.3 A7.0	SECTION - EPDM (MONO) ADDITIONAL OPTION DETAILS	UL 1971 - Star	dard for Signaling Device	is for the Hearing Impairedng and Telescopic Seating, and Grandsta	2002 (R2010)	BLW BM BMK BO*	BELOW BEAM BENCH MARK BOTTOM OF	GT GVL	GALVANIZED SHEET STEEL GROUT GRAVEL GYPSUM WALLBOARD	QTY R RAD RD	QUANTITY RADIUS, RIS RADIUS ROOF DRAIN
A7.1 A7.2	ADDITIONAL OPTION DETAILS ADDITIONAL OPTION DETAILS	Reference Cod	la Saction for NEDA Stan	dards - 2019 CBC (SFM) Chapter 35 and	l California Eiro	BPL BRD BRDG	BEARING PLATE BOARD BRIDGING	GYP H	GYPSUM HIGH	RECT REF REINF	RETANGULA REFERENCE REFORCE (I
MEP E0.1	ELECTRICAL GENERAL NOTES	Code Chapter		datus - 2019 CBC (SFIM) Chapter 33 and	d California File	BRG BRK BRZ BS	BEARING BRICK BRONZE BOTH SIDES	HC HD	HARDBOARD HOLLOW CORE HEAVY DUTY HARDENER	REM REQD REQS RETG	REMOVE REQUIRED REQUIREME RETAINING
E1.0 E1.1	ELECTRICAL PLAN 24x40 ELECTRICAL SCHEDULES 24x40	-		nendments to NFPA Standards.  Chapter 10, Administrative Regulations	for the	BTWN BVL BW	BETWEEN BEVELED BOTH WAYS		HEADER HARDWARE HARDWOOD HIGH EARLY STRENGTH CEM	REV RFG RFH ENT RFL	REVISION, R ROOFING ROOF HATC REFLECT (E
E1.2 E1.3 E1.4	ELECTRICAL PLAN 36x40  ELECTRICAL SCHEDULE 36x40  ELECTRICAL PLAN 48x40 thru 120x40		gy Commission (CEC).	Chapter 10, Administrative Regulations	ioi uie	C CAD CAM	CHANNEL, COMPRESSION CADMIUM CAMBER	HH HJT HK	HANDHOLE HEADJOINT HOOK	RM RO RT	ROOM ROUGH OPE FIRE RETAR
E1.5 M0.1	ELECTRICAL PLAN 48X40 tillu 120X40  ELECTRICAL SCHEDULE 48X40  MISCELLANEOUS NOTES & DETAILS	date for the us	e of the 2019 Building End	Code become effective January 1, 2020 ergy Efficiency Standards (Title 24, Part of the use of the California Administrative	1, Chapter 10) is	C/C CEM CF CHAM	CENTER TO CENTER CEMENT CUBIC FOOT CHAMFER	HM HORIZ HPT HR	HOLLOW METAL HORIZONTAL HIGH POINT HOUR	RT RTG RVS RVT	RUBBER TIL RATING REVERSE SI RIVET
M0.2 M2.9	MISCELLANEOUS NOTES & DETAILS  120'x40' T24 CZ 16 (WALL AC)	Chapter 4) is J	anuary 8, 2019.		•	CI CIP CIR CIRC	CAST IRON CAST-IN-PLACE CIRCLE CIRCUMFERENCE	HSB HT	HEADED STUD ANCHOR HIGH STRENGHT BOLT HEIGHT HARDWOOD	S SC SCHED	SOUTH SOLID CORE SCHEDULE
M2.10 <del>M2.13</del>	120'x40' T24 CZ 16 (WALL AC) 36'x60' T24 CZ 16 (WALL AC)	is not allowed t		LGREEN CODE) Section 5.507.4. This pairport:	ore-check building	CJ CJT CLG	CONSTRUCTION JOINT CONTROL JOINT CEILING	ID	INSIDE DIAMETER	SDL SDS SE	SUPERIMPO SELF DRILL STRUCTURA
<del>M2.14</del> M3.3	36'x60' T24 CZ 16 (WALL AC) ENVELOPE AND NOTES	<ul> <li>Within the 65 guideway;</li> </ul>	CNEL or Ldn noise conto	our of a freeway, expressway, railroad, or		CLK CLKG CLR CLS	CAULK, ('G, ING) CAULKING CLEAR CLOSURE	INCL INSUL	INCHE (ES) INCLUDE (D), INCLUDING INSULATE, INSULATION INTERIOR	SDST SECT SF SHO	SELF-DRILL, SECTION SQUARE FO SHORE, SHO
M5.1 M5.2	MECHANICAL CEILING PLAN 24x40 MECHANICAL ROOF MOUNT 24x40	-	·	el of 65 dB Leq-1Hr, during any hour of o	operation.	CM CMP CMU CNTR	CENTIMETER CORRUDATED METAL PIPE CONCRETE MASONRY UNIT CENTER	INTM	INTERMEDIATE INVERT JOIST	SHT SHTH SI SIM	SHEET SHEATHING SQUARE INC SIMILAR
M6.1 M6.2	MECHANICAL CEILING PLAN 36x40 MECHANICAL ROOF MOUNT 36x40	CODE NFPA 13	<b>ADOPTED YEAR</b> 2016 2016	ITEM AUTOMATIC SPRINKLER SYSTEM	1S	COL COG COMB C	COLUMN CENTER OF GRAVITY COMBINATION	JT K	JOINT KIP (S)	SL SLNT SMS	SLOPE SEALANT SHEET MET
M7.1 <del>M7.2</del>	MECHANICAL CEILING PLAN 48x40 thru 120x40  MECHANICAL ROOF MOUNT 48x40 thru 120x40  TYPICAL PLANDING DETAILS	NFPA 72		NATIONAL FIRE ALARM CODE w/ CALIFORNIA AMENDMENTS			COMPRESS (ED)(ION)(IBLE) COMPOSITE CONNECT (ION) CONCRETE		KNOCKOUT KIPS PER SQUARE INCH LONG, LENGTH	SOG SPA SPC SPEC	SLAB ON GF SPACE, (ING SPACER SPECIFICAT
P1.0 Foundation			AL DEVICES PER UL ST			CONST CONT CONTR	CONSTRUCT (ION) (ED) CONTINUE, CONTINUOUS CONTRACTOR	LB LBL	LAMINATE (D) POUND, LAG BOLT LABEL	SQ SSTL STG	SQUARE STAINLESS STAGGEREI
F1.10 <del>F1.11</del> <del>F1.12</del>	WOOD FOUNDATION NOTES SCHED FOR BLDG W/ 50+15  WOOD FOUNDATION PLAN 24x40 BLDG W/ 50+15  WOOD FOUNDATION 36x40 BLDG W/ 50+15		S A "PRE-DESIGNED" FI FOR SITE REQUIREME	RE SPRINKLER SYSTEM INSTALLED. NTS BY OWNER		COR CP CPG CPR	CORRUGATED COMPLETE PENETRATION COPING COPPER	LD LF LH	LIGHT CONTROL DEVELOPMENT LENGHT LINEAR FOOT LEFT HAND	STD STL STOR STRUCT	
F1.12 F1.13 F1.14	WOOD FOUNDATION 30X40 BLDG W/ 50+15 WOOD FOUNDATION PLAN 48X40 BLDG W/ 50+15 MODLINE "B" W/ EXTERIOR WALLS BACK TO BACK 100 PSF	AND	PRESSURE (PSI)CAN E	NSIBILITY TO ENSURE THE MINIMUM BE ATTAINED AT THE BASE OF THE F		CRS CS CTSK	COURSE (S) COUNTERSINK COUNTERSUNK SCREW	LLH LLV	LIVE LOAD LONG LEG HORIZONTAL LONG LEG VERTICAL LOW POINT	STR SYM SYS	STRUCTURA SYMETRICA SYSTEM
F1.20 F1.21	WOOD FOUNDATION PLAN 24×40 BLDG W/ 100 PSF	- PRC	POSED SITE FOR EACH THIS PC REQUIRES MINIMUM G			CU CX CY	CUBIC CONNECTION CUBIC YARD	LT LTL LVL	LIGHT LINTEL LEVEL (ING)	T T&B	TOP, TORSIO
=1.22 =1.23	WOOD FOUNDATION PLAN 36x40 BLDG W/ 100 PSF WOOD FOUNDATION PLAN 48x40 BLDG W/ 100 PSF	_	MINIMUM PS	SI: 35	NOTALL ATION	D DBL DEF	DEEP, DEPTH DOUBLE DEFLECTION	LWC LWF	LIGHT WEIGHT LIGHT WEIGHT CONCRETE LIGHT WEIGHT FILL	T&G TC TEN TEMP	TONGUE AN TOP CHORD TESION, TEN TEMPORAR
F1.24 F1.30	MODLINE "B" W/ EXTERIOR WALLS BACK-TO-BACK 100 PSF WOOD FOUNDATION NOTES SCHED FOR BLDG W/ 150 PSF			N GPM/PSI MAY NECESSITATE THE I FOLLOWING ITEMS/EQUIPMENTS.	NSTALLATION	DEG DEM0 DEP DEPT	DEGREE DEMOLISH, DEMOLITION DEPRESSED	MAS	METER (S) MOMENT MATERIAL MASONRY	THD THK TMPD TO*	THREAD (ED THICK (NESS TEMPERED TOP OF
F1.31 F1.32	WOOD FOUNDATION PLAN 24X40 BLDG W/ 150 PSF WOOD FOUNDATION PLAN 36x40 BLDG W/ 150 PSF	A. W		E PUMP		DET DIAG DIA	DEPARTMENT DETAIL DIAGONAL DIAMETER	MB MBR MCONN	MAXIMUM MACHINE BOLT MEMBER MOMENT CONNECTION	TL TR TS	TOTAL LOAD TREAD TUBE STEEL
F1.33 F1.34	WOOD FOUNDATION PLAN 48x40 BLDG W/ 150 PSF MODLINE "B" W/ EXTERIOR WALL BACK-TO-BACK 150 PSF		DDITIONAL UNDERGRO	K UP FIRE SUPPLY  UND FIRE LINE TAPS  ON OF THE ABOVE OR ANY OTHERS	AS RECUIRED	DIM DIV DL DN	DIMENSION (ED) DIVISION DEAD LOAD DOWN	MECH MED MET	MECHANICAL MEDIUM METAL MEMBER	TYP UC UGD	TYPICAL  UNDERCUT UNDERGRO
F1.40	WOOD FOUNDATION DETAILS  CONCRETE FOUNDATION PLAN	TO	D ENSURE PROPER OP	ERATION OF THE AFSS		DO DP DWL	DITTO DAMPROOFING DOWEL (ED)	MEP MFD	MECHANICAL, ELECTRICAL, & PLUMBING METAL FLOOR DECKING	UL UND UNF	UNDEREWR UNDER UNFINISHED
F2.20 F2.22	CONCRETE FOUNDATION DETAILS  CONCRETE FOUNDATION DETAILS			SUPPLIED TO DSA AT THE TIME OF S EACH PROPOSED BUILDING WITH AN REQUIRED		DWG E	DRAWING, (S)  EAST, MODULUS OF ELASTICITY	MID MIN MISC	MANUFACTURE (R) (ED) MID, MIDDLE MINIMUM, MINUTE MISCELLANEOUS	UNO V VB	UNLESS NO SHEAR FOR VAPOR BAR
Structural	STRUCTURAL CEN NOTES	2. 3.	WATER FLOW DATA SITE PLAN SHOWIN	A (SEE DSA AFFS GUIDELINES) G THE LOCATION OF THE "FLOW" AN	ID "TEST"	EA EB EF EJT	EACH EXPANSION BOLT EACH FACE EXPANSION JOINT	MM MMB MO	MILLIMETER (S) MEMBRANE MASONRY OPENING MODEL	VER VERT VG VIF	VERIFY VERTICAL VERTICAL G VERIFY IN F
S0.1 S1.0.1	STRUCTURAL GEN NOTES  WD SHTH'G FLR FRM'G PLAN (50+15 PSF)  WD SHTH'G FLR FRM'G PLAN (100 PSF)	4.		DIMENSIONED) STING) UNDERGROUND FIRE LINES/P S LOCATION AND METHOD OF UNDER		EL ELEC ENCL	ELEVATION ELECTRIC (AL) ENCLOSURE, ENCLOSED	MODU MOV	MODEL MODULAR MOVABLE MATERIAL	VIF VJ VNR V.T.R.	VERIFY IN FI V-JOINTED VENEER VENT THRO
\$1.0.2 \$1.0.3 \$1.1.1	WD SHTH'G FLR FRM'G PLAN (100 PSF)  WD SHTH'G FLR FRM'G PLAN (150 PSF)  CONC FLR FRM'G PLAN (50+15 PSF)	5.	PIPING RESTRAINTS LOCATION OF ALL (	S TO TEST HYDRANT NEW AND EXISTING) ;	CHOONE	ENG EQ EQUIP ESTM	ENGINEER EQUAL, EQUALIBRIUM EQUIPMENT ESTIMATE (ED)	N NAT NL	NORTH, NEW NATURAL NAILABLE	W W/	WEST, WIDT WIDE FLANC WITH
31.1.1 S1.1.2 S1.1.3	CONC FLR FRM'G PLAN (30+13 PSF)  CONC FLR FRM'G PLAN (100 PSF)  CONC FLR FRM'G PLAN (150 PSF)	1	A. FIRE HYDRÀ B. POST INDIC	ANTS		EV EW EXCA	EXPANSION BÓLT EACH WAY EXCAVATE (D) (ION)	NMT NO NOM	NONMETALLIC NUMBER NOMINAL	W/O WD WI	WITHOUT WOOD WROUGHT I
S1.1.3 S1.2 S3.0.1	STRUCTURAL DETAILS (FLOOR)  MONO SLOPE ROOF FRM'G PLAN		D. PRESSURE E. BACK-FLOW	REDUCERS / PREVENTION/DETECTOR CHECK V/		ÈXMP EXP EXPN	ET EXISTING  EXPANDED METAL PLATE  EXPOSED  EXPANSION	OA	NOT TO SCALE  OVERALL  ON CENTER	WM WP WPR WPT	WIRE MESH WATERPRO WATER REP WORKING P
<del>S3.0.1</del> <del>S3.0.2</del> S3.1	DUAL SLOPE ROOF FRM'G PLAN  STRUCTURAL DETAILS (ROOF)	6.	F. OTHER FIRE HYDRAULIC CALCUI	E RELATED ITEM/EQUIPMENTS APPLI LATIONS FOR THE UNDERGROUND F	ICABLE PIPING WITH	EXS EXT	EXTRA STRONG EXTERIOR, EXTERNAL	OD OH OHMS	OUTSIDE DIAMETER OVERHEAD OVALHEAD MACHINE SCREW	WS WT WTW	WATER STO WEIGHT WALL TO WA
\$3.2 \$3.3	ROOF DETAILS (ROOF) ROOF PERIMETER TRUSS	7	MEET OR EXCEED I	M/PSI AT THE BASE OF EACH AFSS F MIN REQ'T) THE CONFIGURATION (WALLS,CEILIN	•	FAS FBO FD FHMS	FASTENER FURNISHED BY OTHERS FLOOR DRAIN FLATHEAD MACHINE SCREW	OJ OPH OPNG	OVALHEAD WOOD SCREW OPEN-WEB JOINT (S) OPPOSITE HAND OPENING	WWF WWM	WELDED WIF
<del>S4.0</del> S4.1	MTL WALL FRAMING ELEVATIONS  WD WALL FRAMING ELEVATIONS	1	CONSTRUCTION TY	PE) OR OCCUPANCY OF THE PC WIL TIONAL/REVISED HYDRAULIC CALC	L	FHS FHWS FIN	FIRE HOSE STATION FLATHEAD WOOD SCREW FINISH (ED)	OPP	OPPOSITE		
						<u> </u>					



DIV. OF THE STATE ARCHITEC APP. 04-122182 INC:

PC#

04-119408

## 24' x 40' EXPANDABLE TO 120' x 40'

APPROVED

REVIEWED FOR

01/22/2024

FLS []

ON, OF THE STATE ARCHIT

APP. 04-122182 INC:

## MERCED COMMUNITY COLLEGE-LOS BANOS STOCKPILE# 323 (1) 48X40

ANCHOR BOLT PARTICLE BOARD PRECAST CONCRETE AGGREGATE BASE COURSE FLUORESCENT FLEXIBLE POUNDS PER CUBIC FOC PIECES FOUNDATION FACE OF \_\_\_\_ PERFORATE (D) PERIMETER FIREPROOF (ED)
FIREPROOFING PREFABRICATE (D)
POUNDS PER SQUARE FOOT ADJACENT, ADJUSTABLE ALTERNATE DIRECTION FRAME (D)(ING)
FIRE RESISTANT COATING OF HOOK ABOVE FINISHED FLOOR FORGED FRAMING FOOT, FEET FOOTING AGGREGATE \_ALTERNATE POUNDS PER LINEAR FOOT ALUM ALUMINUM ANCH ANCHOR (AGE) ANODIZED APPROXIMATE PANEL POST TENSION (D FURRED, FURRING FIELD VERIFY ARCHITECT (URAL) ASPHALT AUTOMATIC PRETENSIONED POLYETHYLENE GALVANIZED GENERAL CONTRACTOR PRESTRESSED CONCRETE POUNDS PER SQUARE FOOT GLASS, GLAZING POUNDS PER SQUARE INCH POINT PRESSURE TREATED GALVANIZED PIPE GALLONS PER MINUTE PAINTED POLYVINYL CHLORIDE GYPSUM PLASTER GRAVEL, GRANULAR GRADE, GRADING **PAVEMENT** GALVANIZED SHEET STEEI RADIUS, RISER RADIUS ROOF DRAIN GYPSUM WALLBOARD BOARD BRIDGING BEARING BRICK BRONZE REFORCE (D) (ING) REMOVE HIGH HARDBOARD HOLLOW CORE REQUIRED REQUIREMENTS HARDENER HEADER RETAINING REVISION, REVISED BEVELED BOTH WAYS HARDWARE HARDWOOD ROOFING ROOF HATCH REFLECT (ED)(IVE)(OR) ROOM HIGH EARLY STRENGTH CEMENT CHANNEL, COMPRESSION **HANDHOLE** ROUGH OPENING FIRE RETARDANT TREATED HEADJOIN1 CAMBER CENTER TO CENTER HOLLOW METAL HORIZONTAL REVERSE SIDE RIVET HOUR CHAMFER CAST IRON HEADED STUD ANCHOR SOUTH SOLID CORE CAST-IN-PLACE CIRCLE HIGH STRENGHT BOLT CIRCUMFERENCE CONSTRUCTION JOINT HARDWOOD SCHEDULE SUPERIMPOSED DEAD LOAD SELF DRILL SCREW CONTROL JOINT CEILING INSIDE DIAMETER STRUCTURAL ENGINEER CAULK, ('G, ING) SELF-DRILL, SELF-TAP'G SCREW INCHE (ES)
INCLUDE (D), INCLUDING SQUARE FOOT, SQUARE FEET INSULATE, INSULATION CLOSURE INTERIOR SHORE, SHORING CENTIMETER INTERMEDIATE SHEET SHEATHING CORRUDATED METAL PIPE INVERT CONCRETE MASONRY UNI SQUARE INCH SIMILAR COLUMN SLOPE SEALANT SHEET METAL SCREW CENTER OF GRAVITY KIP (S) COMP COMPRESS (ED)(ION)(IBLE) KNOCKOUT SLAB ON GRADE SPACE, (ING) CONNECT (ION) CONCRETE SPACER LONG, LENGTH SPECIFICATION (S) CONSTRUCT (ION) (ED)
CONTINUE, CONTINUOUS LAMINATE (D) POUND, LAG BOLT SQUARE STAINLESS STEEL STAGGERED STANDARD LABEL LIGHT CONTROL CORRUGATED STEEL STORAGE COMPLETE PENETRATION DEVELOPMENT LENGHT LINEAR FOOT **STRUCTURE** LIVE LOAD STRUCTURAL COURSE (S) LONG LEG HORIZONTAL SYMETRICAL, SYMETRY LONG LEG VERTICAL COUNTERSUNK SCREW TOP TORSION, TREAD CONNECTION LEVEL (ING) LIGHT WEIGHT LIGHT WEIGHT CONCRETE TOP AND BOTTOM TONGUE AND GROOVE TOP CHORD TESION, TENSILE DOUBLE DEFLECTION LIGHT WEIGHT FILL TEMPORARY, TEMPERATURE METER (S) MOMENT THREAD (ED) THK TMPD TO\* DEMOLISH, DEMOLITION THICK (NESS) MATERIAL MASONRY TEMPERED TOTAL LOAD MACHINE BOLT MCONN MOMENT CONNECTION DIAMETER TUBE STEEL MECHANICAL MEDIUM MEMBER UNDERGROUND MECHANICAL, ELECTRICAL, UNDEREWRITERS LABORATORY DAMPROOFING UNDER UNLESS NOTED OTHERWISE MANUFACTURE (R) (ED) SHEAR FORCE, VELOCITY MINIMUM, MINUTE VAPOR BARRIER MILLIMETER (S) VERIFY VERTICAL EACH FACE EXPANSION JOINT MASONRY OPENING VERTICAL GRAIN MODEL MODUL AR V-JOINTED ELECTRIC (AL) MOVABLE VENEER ENCLOSURE, ENCLOSED MATERIAL V.T.R. VENT THROUGH ROOF EQUAL. EQUALIBRIUM NORTH NEW WEST, WIDTH, WIDE, WIDE FLANGE ESTIMATE (ED) NAII ABI F WITHOUT NONMETALLIC WOOD WROUGHT IRON NUMBER EXCAVATE (D) (ION) NOT TO SCALE WIRE MESH EXPANDED METAL PLATE WATERPROFFING OVERALL WATER REPELLEN WORKING POINT ON CENTER

WALL TO WALL (W/W) WELDED WIRE FABRIC

WELDED WIRE MESH

**DOCUMENT PREPARATION REQUIREMENT** 

Prior to the start of back-check, the Design Professional shall prepare the back-check submittals per PR 18-04. If the documents are not prepared properly the Design Professional will be required to reformat the documents, prior to the start of the back-check. Please note, that the preparation requirements for the back-check submittals (V2 and greater) is the same preparation that was performed on the V1 submittals. If you have any questions on how to prepare these submittals, please contact the DSA San Diego Regional Office's EPR Administrator via email at least three business days prior to the scheduled back check appointment at SDEPR@dgs.ca.gov.

Prior to the start of back-check, all plan review comments (red marks) must be INCORPORATED (turned to green) by the Design Professional per PR 18-04. Any questions and/or points of disagreement with plan review comments must be resolved with the plan reviewer thoroughly familiar with the project and the plan review comments/corrections. The back-check may prior to back-check. The person or persons representing the design firm at the back-check must be be terminated and rescheduled if it is determined by the plan reviewer, with concurrence of the supervisor/manager, the plan review items have not been addressed in full, or significant new items have been added that require additional unscheduled review time or that the representative of the design firm is not sufficiently familiar with the project.

BACK CHECK READINESS REQUIREMENTS

REVIEWED FOR

FLS

Back Check is the final step in the DSA CBC Compliance Review. The back check process is for verification that all redline comments from DSA's plan review have been responded to and that the corresponding corrections to the construction documents have been completed and that the project under the designated application has met all the DSA requirements necessary to receive DSA approval and is ready for construction use.

The following is provided as a minimum list of requirements necessary to secure a complete back check appointment. Failure to meet or supply one or more of these requirements may result in a

a. The most knowledgeable design professionals directly responsible for this project and available for this back check

### Construction Documents

a. Response to plan review comments and the corrections for all disciplines have been made and are fully incorporated into the construction documents.

b. Questions or disagreements about DSA plan review comments have been resolved prior to this back check appointment.

c. No new un-reviewed scope has been added to the project scope without prior approval to be added and has been reviewed and commented on prior to this back check.

CONSTRUCTION OF CLASSROOM BUILDING (RELOCATABLE) d. EPR back checks documents are to be formatted in compliance with Procedures in DSA PR

### SCOPE OF WORK

### **BUILDING DESIGN**

OCCUPANCY: "E" and "B"

CONSTRUCTION TYPE: FLOOR LIVE LOAD: 💢 50+15 PSF PARTITION 100 PSF □ 150 PSF FLOOR DEAD LOAD: UNOOD FLOOR - 11 PSF CONC. FLOOR - 33 PSF

ROOF LIVE LOAD: ROOF SNOW LOAD: 0 PSF

ROOF DEAD LOAD: 18.5 PSF (INCLUDES SPRINKLERS & 3PSF SOLAR PANEL) RAMPLIVE LOAD: 100PSF FLOOD DESIGN: This PC has not been designed to accommodate flood loads. If located in a zone other than X, a letter stamped and signed from a soils engineer is needed to validate the

Illowable soil values assumed in this PC are still applicable. **BUILDING AREA NO OVERHANG** WITH OVERHANG (5' @ EA. END) LLOWABLE AREA □ 24x40 960 sf <del>- ¥ 24x40 1200 sf -</del> <del>X</del> 36x40 1800 sf — =9500 sf □ 36x40 1440 sf

X 48x40 2400 sf E" (9500SF) □ 48x40 1920 sf B" (9000SF) □ 60x40 2400 sf □ 60x40 3000 sf □ 72x40 2880 sf □ 72x40 3600 sf ACTUAL AREA □ 84x40 4200 sf\* □ 84x40 3360 sf =4320 sf □ 96x40 4800 sf\* □ 96x40 3840 sf 108x40 4320 sf\* 108x40 5400 sf\* □ 120x40 6000 sf\* □ 120x40 4800 sf\* Geo-hazard site specific report must be provided and approved by CGS for building area more than

ALLOWABLE SOIL PRESSURE: XWOOD FTG -1000PSF XCONCRETE FTG 1500PSF

X CONCRETE ABOVE GRADE **FOUNDATION:** ★WOOD (conditional) **★ CONCRETE BELOW GRADE <2160sf (conditional)** CONCRETE BELOW GRADE (AMM\*\*)

\*\*SEE GENERAL NOTE 14 BELOW

CEC CLIMATE ZONE: 1-16 □ CZ 1-2 RIGID R-10 / 2" X CZ 3-15 RIGID R-5 / 1" □ CZ 16 RIGID R-15 / 4" <u>VIND DESIGN</u>

PC IS DESIGNED BASED ON A PINNED CONNECTION TO THE FOUNDATION.

JLTIMATE DESIGN SPEED: Vult = 110 mph, 3 sec GUST, Kzt = 1.0 **RISK CATEGORY: EXPOSURE:** 

### EARTHQUAKE DESIGN

STORY DRIFT LIMIT:

MIN. SEISMIC GAP:

**RISK CATEGORY:** SEISMIC IMPORTANCE FACTOR: **MAPPED SPECTRAL RESPONSE:** 

I = 1 t**x**Ss = 1.76, □ Ss =2.14 \*\* S1 = 1.99 \*

Sds = 1.432

Sd1 = 2.26

SITE CLASS: SEISMIC DESIGN CATEGORY: Note: For SDC (E) site specific motion analysis is not require if not in seismic hazard zone and/or meets other exemptions in DSA IR A-4 SHORT/LONG PERIOD SITE COEFFICIENT: X Fa = 1.2, □ Fa = 1.0 \*\*, Fv = 1.7

DESIGN SPECTRAL RESPONSE: SEISMIC RESPONSE COEFFICIENT:

**ANALYSIS PROCEDURE:** 

BASIC SEISMIC FORCE-RESISTING SYS: BASE SHEAR PER 24X40 MODULE:

Cs = 0.286 (w/ reduced Sds PER ASCE 7-16§12.8.1.3) OMF, R = 3.5**EQUIVALENT LATERAL FORCE** WOOD FLOOR, LL ≤ 100, BASE SHEAR= 20.04 kip WOOD FLOOR, LL = 150, BASE SHEAR= 26,71 kip

 $0.02h_{sx} = 2.82in. PER ASCE 7-16§12.12.1$ 

CONC. FLOOR, LL ≤ 100, BASE SHEAR= 26.07 kip CONC. FLOOR, LL = 150, BASE SHEAR= 36.36 kip

This design does not require a ground motion hazard analysis because it meets ASCE -15, 11.4.7 Exception #2. Cs is determined by Eq. (12.8-3) for values of T< 1.5Ts Geo-hazard report with verification of site class D must be provieded and approved by CGS for site specific areas with Ss > 1.76.

3. Supporting Documents

a. All supporting information pertinent to the approval of this application have been secured and are provided as necessary for this back check.

b. All required DSA forms for the scope and complexity of this application are fully executed, signed and provided for at this back check, including the final signed DSA-103, the final sheet index and DSA 145 for final scanning if a paper submittal.

### **VOIDANCE OF APPLICATION**

project by filing a new application and new fee.

In accordance with California Administrative Code (Title 24, Part 1) and IR A-17, DSA will use the following criteria to void projects during the plan review phase:

1. The corrected plans must be filed for backcheck within six months after the date of the return of the checked plans to the architect or engineer.

1.1 DSA may, upon request, grant an extension. The extension would typically not exceed

1.2 The backcheck must be completed within two months after being initiated. 2. For incremental projects, subsequent incremental plans and specifications must be submitted to

DSA for checking within six months after the approval of the previous increment.

Any project application or approval that has been voided by DSA can be re-submitted as a new

### **GENERAL NOTES**

ARCHITECT OF RECORD SHALL PROVIDE FIRE ALARM DRAWINGS WITH SITE ADAPTED PROJECTS. FIRE ALARM IS NOT PART OF THIS PC. THIS PC HAS BEEN STRUCTURALLY DESIGNED TO SUPPORT THE WEIGHT OF A FIRE SPRINKLER SYSTEM

ALLOWABLE AREA IS BASED ON 10'-0" SETBACK FROM ASSUMED LINE PC DESIGNED AS A SINGLE-STORY MODULAR BUILDING SEE STRUCTURAL FOR SOIL TYPES & BEARING STRENGTHS WORK SHALL CONFORM TO TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS

THIS PC IS NOT APPROVED FOR "A" OCCUPANCY USAGE EXTERIOR PROJECTIONS TO BE FIRE PROTECTED WHERE REQUIRED SEE A0.5 AND ENGERY CALC M-SHEETS FOR REQUIRED ENVELOPE ASSEMBLIES & HVAC SYSTEMS

ALL SPECIFICATIONS BASED ON PERFORMANCE AND ABLE TO BE SUBSTITUTED BY "EQUAL" PRODUCTS PENDING APPROVAL BY D.S.A.

BUILDINGS TO COMPLY WITH WILDLAND URBAN INTERFACE GUIDELINES WHERE APPLICABLE

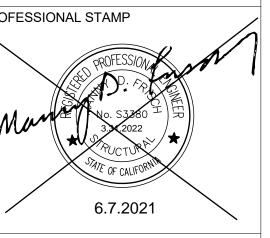
BUILDING AND SITE FEATURES MUST COMPLY WITH CALGREEN CODE FOR ITS SPECIFIC LOCATION WHEN ADAPTED FOR SITE-USE SHOULD THIS P.C. CLASSROOM BE DESIGNED TO CONNECT TO

ANOTHER P.C. CLASSROOM, INTERIOR SOUND TRANSMISSION IN THE WALL AND FLOOR-CEILING ASSEMBLY MUST MEET A MINIMUM STC OF 40 PER CALGREEN

THE CONCRETE BELOW GRADE FOUNDATION (AMM) OPTION IN THIS PC USES A DSA-APPROVED ALTERNATE MEANS OF COMPLIANCE FOR FOUNDATION DURABILITY REQUIREMENTS OF CBC SECTIONS 1402.2 AND 1403.2 FOR PROVIDING A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE AND CONTINUOUS WATER-RESISTIVE BARRIER ON WALLS DOWN TO THE FOUNDATION, AND CBC SECTION 2304.12.1.2 FOR PROTECTION AGAINST DECAY AND TERMITES.

PROJECT SPECIFIC STATE AGENCY APPROVAL **IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC' APP: 02-121828 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 7/24/2024





THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF **R&S TAVARES ASSOCIATES, INC. DEVISED** SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE **EXPRESS WRITTEN CONSENT OF R&S** TAVARES ASSOCIATES, INC. ©



ORIGINAL PC STATE AGENCY APPROVAL

DIV. OF THE STATE ARCHITEC APP: 04-419408 PC SS V FLS V ACS V CG V

Revision Schedule

Description CCD\_001 CUSTOM BUILT

CCD\_002 CUSTOM BUILT 10-30-23 

CCD\_003 CHANGE ORDER 05-07-24 

PRE-CHECK (PC) DOCUMENT

Code: 2019 CBC

A separate project application for construction is required

PROJECT TITLE PC 2019 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

**COVER SHEET** 

PROJECT NUMBER

20093

**DRAWN BY** 

rMc/SC CHECKED BY

DATE 06/07/2021

SHEET OF

RH/RT

A6.2

### ARCHITECTURAL

Exterior Elevation 1/4" = 1'-0"	ARCHITECTURAL EXTE	ERIOR EL	EVATIO	ONS			
		De	etail	Sheet	De	tail	Sheet
Exterior Elevations:	<del>x: 24'x40'</del>	Left	Right		Front	Rear	
	<sub>Д</sub> Mono Slope	1	2	A5.0	1	2	A5.1
	□ Parapet Roof - Mono Slope	3	4	A5.0	3	4	A5.1
	□ Dual Slope	5	6	A5.0	11	2	A5.1
	<u> </u>						
	ฎ Mono Slope	1	2	A5.0	5	6	A5.1
	□ Parapet Roof - Mono Slope	3	4	A5.0	7	8	A5.1
	□ Dual Slope	5	6	A5.0	5	6	A5.1
	ĭ 48'x40'						
	д Mono Slope	1	2	A5.0	9	10	A5.1
	□ Parapet Roof - Mono Slope	3	4	A5.0	11	12	A5.1
	□ Dual Slope	5	6	A5.0	9	10	A5.1
Interior Elevation	S ARCHITECTURAL INTE	RIOR EL	EVATIO	NS			
				[	Detail		Sheet
Interior Elevations:			Le	eft Right	Front	Rear	
	<u>₩ 24'x40'</u>		1	2	3	4	A5.2
	<del>⋈ 36'x40'</del>		1	2	5	6	A5.2
	🕱 48'x40'		1	2	8	7	A5.2
23 ADDITIONAL OF 1/4" = 1'-0"	PTIONS DETAILS ADDITIONAL OPTION	S DETAIL	_S				
							Sheet
ADDITIONAL OPTION	IS DETAILS						A7.0
ADDITIONAL OPTION	IS DETAILS						A7.1
ADDITIONAL OPTION							A7.2

		MEP		
9 Plumbing 1/4" = 1'-0'	ı	PLUMBING		Sheet
☐ Plumbing Detail:		28		P1.0
Mechanica		MECHANICAL	Sh	
1/4" = 1'-0' MISCELLANEOUS NO		WEGIANICAL	M0	
MISCELLANEOUS NO	TES & DETAILS		Ceiling Plan	Roof Plan
Mechanical	x 24' x 40'	⋈ Wall Mount	M5.1	M5.2
Plans:		□ Roof Mount	M5.1	M5.2
	x 36' x 40'	⊠ Wall Mount	M6.1	M6.2
		□ Roof Mount	M6.1	M6.2
	x 48′ x 40′	ĭ Wall Mount	M7.1	M7.2
		□ Roof Mount	M7.1	M7.2
	□ 60' x 40'	□ Wall Mount		
		□ Roof Mount		
	□ 72' x 40'	□ Wall Mount		
		□ Roof Mount		
	□ 84' x 40'	□ Wall Mount		
	001 401	□ Roof Mount	AC	0.1
	□ 96' x 40'	□ Wall Mount		
	4001 + 401	□ Roof Mount		
	□ 108' x 40'	☑ Wall Mount □ Roof Mount		
	□120' x 40'	□ Wall Mount		
	120 740	□ Roof Mount		
(1) Electrical		- Noor Mount		
1/4" = 1'-0'	Λ.	ELECTRICAL	Sh	eet
Reflected Ceiling Plans:	x 24' x 40'	№ 8 (2'x4') Recessed Light Fixture		
i idiis.		□ 12 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light	E1.0	E1.1
	x 36' x 40'	x 12 (2'x4') Recessed Light Fixture	E1.0	□ 1.1
	A 30 % +0 \	□ 18 (1'x8') Pendant Light w/ 4	1	
		(1'x16') Recessed Light	E1.2	E1.3
	x 48' x 40'	x 16 (2'x4') Recessed Light Fixture		
		□ 24 (1'x8') Pendant Light w/ 4	1	
		(1'x16') Recessed Light	E1.4	E1.5
	□ <b>6</b> 0' x 40'	□ 20 (2'x4') Recessed Light Fixture		
		□ 30 (1'x8') Pendant Light w/ 4		
		(1'x16') Recessed Light		
	□ 72' x 40'	□ 24 (2'x4') Recessed Light Fixture		
		□ 36 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light		
	□ 84' x 40'	□ 28 (2'x4') Recessed Light Fixture		
	D 04 X 40	□ 42 (1'x8') Rendant Light w/ 4		
		(1'x16') Recessed Light		
	□ 96' x 40'	□ 32 (2'x4') Recessed Light Fixture		
		□ 48 (1'x8') Pendant Light w/ 4		
		(1'x16') Recessed Light		
	□ 108' x 40'	ුන්6 (2'x4') Recessed Light Fixture		
		□ 54 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light		
	□ 120' x 40'			
	120 140	□ 40 (2'x4') Recessed Light Fixture □ 60 (1'x8') Pendant Light w/ 4		
		(1'x16') Recessed Light	]	
Fire Sprink		FIRE SPRINKLERS PLANS		01 (
<u> </u>		□ Floor Plans		Sheet
□ Fire Sprinklers D	nawings.	□ Floor Plans □ Details		FS-2 ——FS-1
		u Dotalio		10-1

Foundations Plans 1/4" = 1'-0"	FOUNDATION	
M Wood		Sh
Foundation	Wood Foundation NOTES SCHED FOR BLDG W/ 50+15	F1
Plan:	<del>⅓ 24'x40' (50+15 PSF)</del>	F1
	□ 24'x40' (100 PSF)	F1
	□ 24'x40' (1 <del>50 PSF)</del>	E1
	<del>X 36'x40' (50+15 PSF)</del>	F1
	□ 36'x40' (100 PSF)	F1
	□ 36'x40' (150 PSF)	E1
	🕱 48'x40' (50+15 PSF)	F1
	□ 48'x40' (100 PSF)	F1
	□ 48'x40' (150 PSF)	F1
	Wood Foundation Details	F1
★ Concrete Foundation Plan		F2
Concrete Above Grade Foundation Details		F2
X Concrete Below Grade Foundation Details		F2
		F2
General Structural Sheets	ENERAL OTRUCTURAL OUTSTO	
1/4" = 1'-0"	ENERAL STRUCTURAL SHEETS	Sh
STRUCTURAL GEN NOTES		SC
Floor Framing Plans	LICTURAL EL COR ERAMINIO DI ANIO	
<u> </u>	UCTURAL FLOOR FRAMING PLANS	
M Wood		Sh
Sheating Floor:	文 (50+15 PSF)	S1
	□ (100 PSF)	<del>- S1</del>
	□ (150 PSF)	<u>S1</u>
□ Concrete		
Framing Floor:	□ (50+15 P <del>SF)</del>	S1
	□ (100 PSF)	S1
	□(150 PSF)	S1
19 Floor Framing Details	LIOTUDAL EL COD EDAMINIO DETAILO	Sh
	UCTURAL FLOOR FRAMING DETAILS	
ฎ Wood Framing		S1
<del>□ Concrete Framing</del>		- S1
Roof Framing Plans STR	UCTURAL ROOF FRAMING PLANS	Sh
<u> </u>	OCTOTAL ROOF FRAMING FLANS	
Mono Slope Roof Framing		S3
□ Dual Slope Roof Framing		S3
STR	UCTURAL DETAILS ROOF	Sh
STRUCTURAL DETAILS		S3
		S3
ROOF DETAILS(SOFFIT/ PARRAPET)		S3
ROOF PERIMETER TRUSS		<u> </u>
Wall Framing Details	UCTURAL WALL FRAMING DETAILS	
<u> </u>		Sh
₩ Wood:		Sn S4
★ Framing Elevation		
⋈ Wall Details		S4
□ Metal:		0.4
□ Framing Elevation		S4
□ Wall Details  M Typ Framing:		S4
ฎ Typ Framing:		S4
ฎ Framing Schedule:		S4
Building Section STE	RUCTURAL BUILDING SECTION	Sh
<u> </u>	CO. O. C. E BOILDING GLOTION	
Mono Dual		S5
Structural Pamps		S <sub>5</sub>
Structural Ramps 1/4" = 1'-0"  STR	UCTURAL RAMP DETAILS	
- 1/ <del>4</del> - 1-0		Sh
MORH E DI ANI AND NOTES		SII
MODULE PLAN AND NOTES		
RAMP LANDING		SF
LANDING FRAME		SF
FOUNDATION PLAN		SF
RAMP ELEVATION		SF
RAMP DETAILS		SF
RAMP DETAILS		SF
STAIR CONN		SF

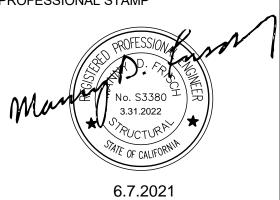


IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-121828 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 7/24/2024

PROJECT SPECIFIC STATE AGENCY APPROVAL



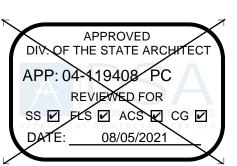
PROFESSIONAL STAMP



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ORIGINAL PC STATE AGENCY APPROVAL



Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

Code: 2019 CBC A separate project application for construction is required

PC 2019 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

PROJECT OPTIONS SCHEDULE

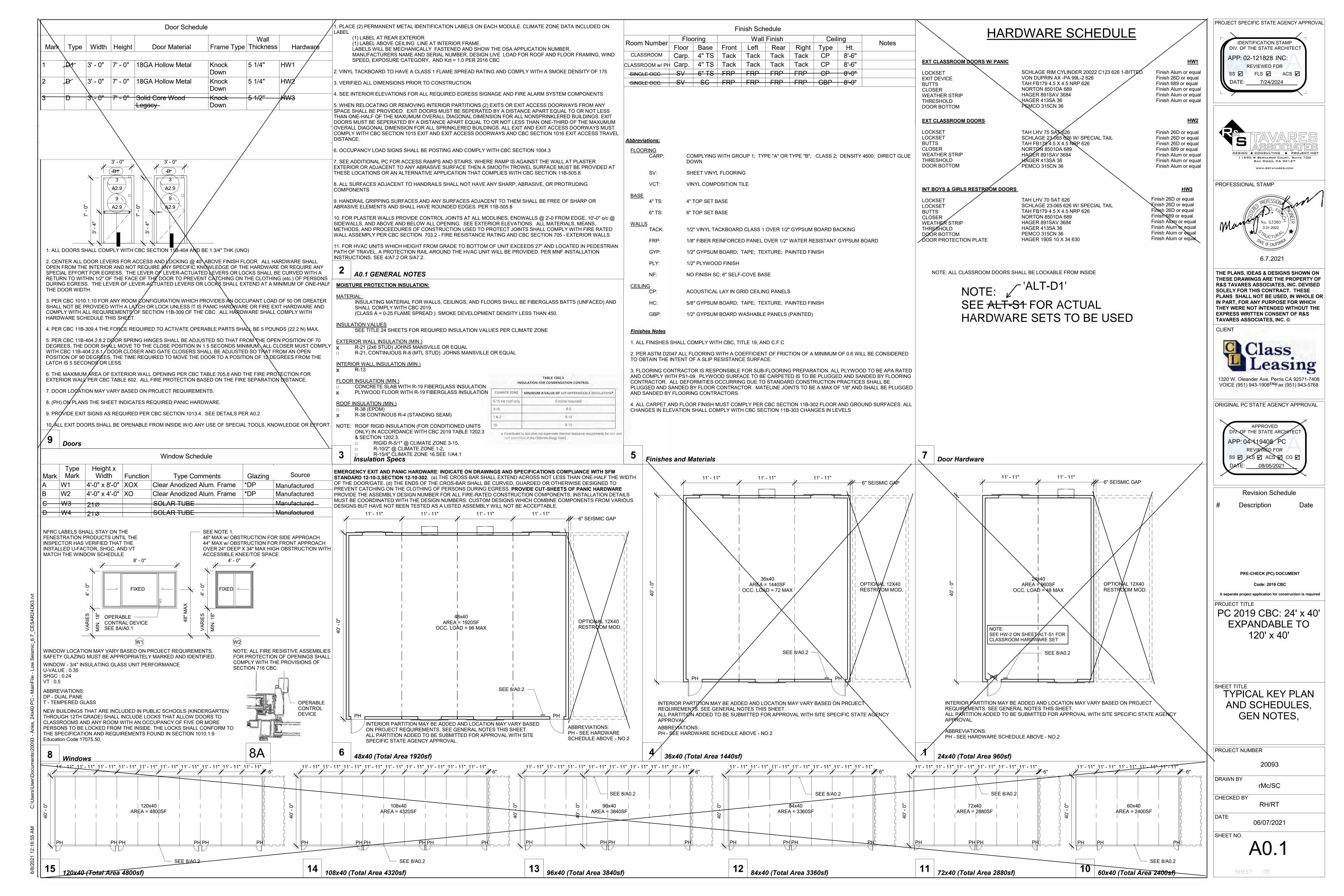
PROJECT NUMBER 20093 DRAWN BY rMc/SC CHECKED BY RH/RT

06/07/2021

SHEET OF

SHEET NO. A0.0.1

Section



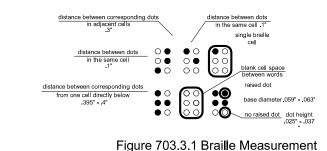
11B.703.2.6 Stroke Thickness for raised characters. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the

11B.703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

11B.703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

11B.703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4.

11B.703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.



11B.703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

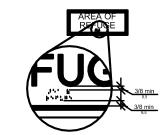


Figure 703.3.2 Position of Braille

1/32" RAISED TEXT

MARGIN AREA

PAINT-FILLED
TEXT IF PREFERRED

PLASTIC LAMINATE FACE

OVER ACRYLIC BACK

DEMARCATION LINE EITHER RAISED AND CHEMICALLY WELDED TO ACRYLIC

CORE OR ENGRAVED AND PAINT FILLED PER USER

GRADE II BRAILLE BEADS

SEE FIGURE AND TABLE.

CORNER TREATMENT

(EITHER SQUARE

OR RADIUS) PER

SEE 9/A0.2

PREFERENCE LINE SIZE PER USER

11B.703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4. 11B.703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest braille character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from

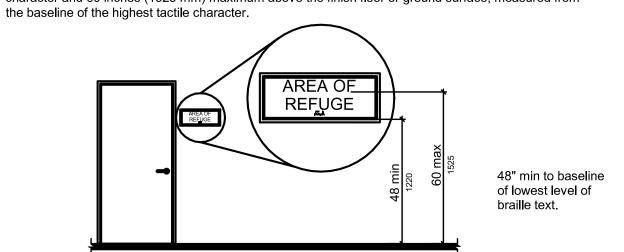


Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

MOUNTING TAPE

MOUNTING TAPE

SILICONE ADHESIVE

11B,703,4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

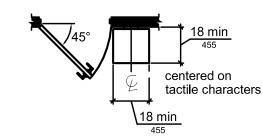


Figure 703.4.2 Location of Tactile Signs at Doors

11B.703.5 Visual Characters. Visual characters shall comply with 703.5. 11B.703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters

11B.703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

11B.703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

11B.703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 60 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

11B.703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

11B.703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the finish floor or ground.

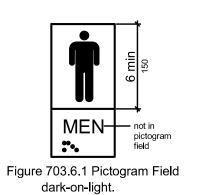
11B.703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 20 percent maximum of the height of the character.

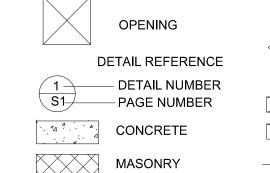
11B.703.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

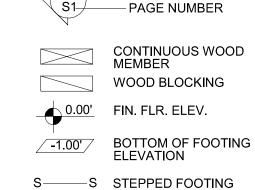
11B.703.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

11B.703.6 Pictograms. Pictograms shall comply with 703.6.

11B.703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.

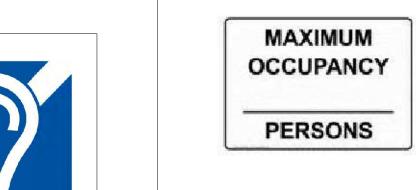






SECTION REFERENCE

- SECTION LABEL



**BRAILLE DIMENSIONS** 

**MEASUREMENT RANGE** 

ASSISTIVE LISTENING SYSTEM AVAILABLE - PLEASE ASK -

REQUIRED PER 11B-219 & 11B-706 (SEE FLOOR PLANS FOR MORE INFO) NOTE: TEXT ON THIS SIGN IN VISUAL

7 | 1" = 1'-0"

Dont base diameter

Dot height

Distance between two dots in the same cell<sup>1</sup>

Distance between corresponding dots in adjacent cells

Distance between corresponding dots from once cell directly below<sup>1</sup>

distance between corresponding dots

in adjacent cells

distance between dots

in the same cell

distance between corresponding dots from one cell directly below

OCCUPANT LOAD SIGN REQUIRED PER DSA BU11-08.

EVERY ROOM OR SPACE WHICH IS USED FOR ASSEMBLY, CLASSROOM, DINING OR SIMILAR PURPOSES HAVING AN OCCUPANT LOAD OF 50 OR MORE SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE, NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY

Assistive Listening System Symbol **EQUIPMENT ANCHORAGE** 

MINIMUM IN INCHES

**MAXIUMN IN INCHES** 

0.100 (2.5 mm)

0.300 (7.6 mm)

distance between dots

in the same cell

single braille

blank cell space

raised dot

base diameter

0.059 (1.5mm) to 0.063 (1.6mm)

0.025 (0.6 mm) to 0.037 (0.09mm)

0.395 (10 mm) to 0.400 (10.2 mm)



Description

Revision Schedule

PROJECT SPECIFIC STATE AGENCY APPROVAL

**IDENTIFICATION STAMP** 

DIV. OF THE STATE ARCHITEC'

REVIEWED FOR

SS 🗹 FLS 🗹 ACS 🗹

DESIGN ♦ CONSULTING ♦ PROJECT MG

11590 W BERNARDO COURT, SUITE 100

SAN DIEGO, CA 92127

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1320 W. Oleander Ave. Perris CA 92571-7408

VOICE (951) 943-1908 FAI Fax (951) 943-5768

ORIGINAL PC STATE AGENCY APPROVAL

TAVARES ASSOCIATES, INC. ©

CLIENT

SOLELY FOR THIS CONTRACT. THESE

PROFESSIONAL STAMP

APP: 02-121828 INC:

PRE-CHECK (PC) DOCUMENT

Code: 2019 CBC

A separate project application for construction is require

PROJECT TITLE

PC 2019 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

SIGNAGE AND

**SYMBOLS** 

PROJECT NUMBER 20093

DRAWN BY rMc/SC CHECKED BY RH/RT

DATE 06/07/2021

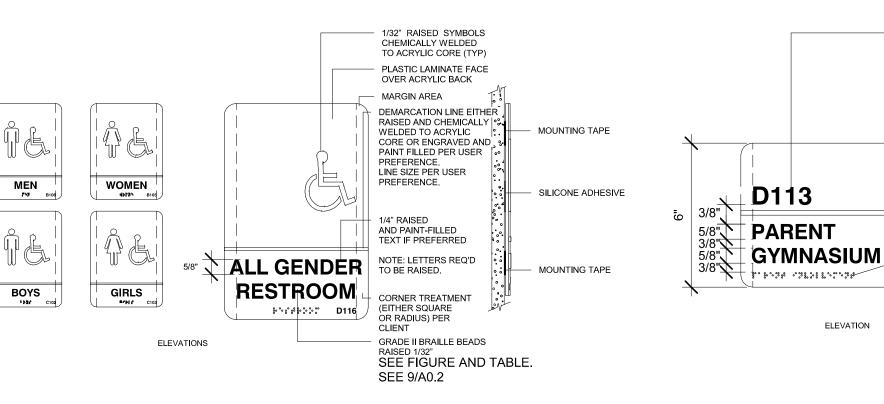
SHEET NO.

SHEET OF

1/4" = 1'-0' Sign Notes

1/2" = 1'-0'

Signage



CHAPTER 11:COMMUNICATION ELEMENTS AND FEATURES

communication features shall comply with NFPA 72 (2016 edition)

11B.702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with

except that the maximum allowable sound level of audible notification appliances complying with section

11B.703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either

11B.703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille

hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide

one sign with both visual and tactile characters, or two separate signs, one with visual, and one with

11B.703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

11B.703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly

letter "O" is 60 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

11B.703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase

11B.703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be

Figure 703.2.5 Height of Raised Characters

TABLE 11B-703.3.1

MINIMUM IN INCHES

0,059 (1,5 mm) to 0.063 (1.6 mm)

0.100 (2.5 mm)

0.300 (7.6 mm)

0.025 (0.6 mm) to 0.037 (0.9 mm)

0.395 (10 mm) to 0.400 (10.2 mm)

**BRAILLE DIMENSIONS** 

5/8 inch (15.9 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter

11B.4-3.2.1 of NFPA 72 shall have a sound level no more than 110 dB at the minimum

complying with 703.3. Raised characters shall be installed in accordance with 703.4.

11B.702 Fire Alarm Systems

tactile characters, shall be provided.

decorative, or of other unusual forms.

11B.703.2.2 Case. Characters shall be uppercase.

MEASUREMENT RANGE

Dot base diameter

Distance between two dots in the same cell

Distance between corresponding dots in adjacent cells'

Dot height

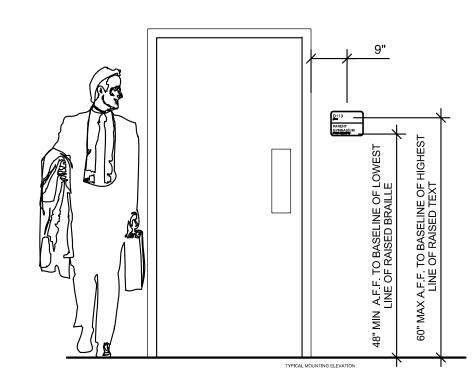
1. Measured center to center

ace between corresponding dots from one cell directly below

NFPA 72 (2016 edition)

11B.703 Signs





MULTIPURPOSE ROUTE WALL SIGN DOOR SYMBOLS: CIRLCLE & TRIANGLE1/4" **RESTROOM** THICK. 1/4" THICK TRIANGLE SHALL BE WALL SIGN SUPERIMPOSED OVER 1/4" THICK CIRCLE AT UNISEX AND GENDER NEUTRAL RR. MEASURED FROM F. F. TO BOTTOM OF TACTILE LETTERING VERTICES SHALL BE  $\frac{1}{8}$ " -  $\frac{1}{4}$ " RADIUS EDGES SHALL BE EASED  $\frac{1}{16}$ " -  $\frac{1}{8}$ " CHAMFERED RESTROOM DOOR SIGN 1/4" THICK GRAPHIC 1/4"=1'-0" 1'- 0" SYMBOL 1/4" TRIANGLE 1. CHARACTERS ON SIGNS SHALL BE RAISED 1/32 INCH MIN. SUPERIMPOSED AND SHALL BE SANS SERIF UPPERCASE CHARACTERS **OVER 1/4" CIRCLE** ACCOMPANIED BY GRADE 2. 2. RAISED CHARACTERS SHALL BE A MINIMUM OF 5/8 INCH AND A MAXIMUM OF 2 INCHES HIGH. 3. CONTRAST BETWEEN CHARACTERS, SYMBOLS AND THEIR BACKGROUND MUST BE 70% MINIMUM AND HAVE A NON-GLARE FINISH. 11B-703-5.1. 6. 11B-703.2.6 STROKE THICKNESS. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.

CALIFORNIA CONTRACTED BRAILLE SHALL BE USED WHENEVER BRAILLE IS REQUIRED IN OTHER PORTIONS OF THESE STANDARDS. DOTS SHALL BE 1/10 INCH ON CENTERS IN EACH CELL WITH 2/10 INCH SPACE BETWEEN CELLS, MEASURED THE SECOND COLUMN OF DOTS IN THE FIRSTCELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL. DOTS SHALL BE RAISED A MINIMUM OF 1/40 INCHES ABOVE THE BACKGROUND. SEE FIGURE AND TABLE. SEE 2/A0.2

NOTE: TACTILE SIGN TEXT SHALL BE CENTERED 18" CLEAR FROM STRIKE OF DOOR

1/4" = 1'-0"

Signage and Notes

9 | 1/2" = 1'-0" BRAILLE DIMENSIONS

1. TYPE  2. PERFORMED BY  GE - Indicates that the special inspection shall be performed by a regulated general properties that a continuous special inspection is required  Continuous - Indicates that the special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335.  PI - Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335.  PI - Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA.  SI - Indicates that the special inspection shall be performed by an appropriatory qualified/approved special inspector.  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  DSA 103-19: LISTING OF STRUCTURA	EY TO	**NO E: Undefined section and table reference	ces found in t	his documer	nt are from the CBC, or California Building Code.
continuous - Indicates that a continuous special inspection is equired.  LOR - Indicates that a periodic pecial impection in required.  LOR - Indicates that a periodic pecial impection in required.  Pil- Indicates that a periodic pecial impection in required.  Pil- Indicates that a periodic pecial impection in required.  Pil- Indicates that a periodic pecial impection in required.  SI - Indicates that a periodic pecial impection in required.  Pil- Indicates that a periodic pecial impection in required.  SI - Indicates that a periodic pecial impection in required.  SI - Indicates that a periodic pecial impection in required.  SI - Indicates that a periodic pecial impection in required.  SI - Indicates that in section impection in required.  SI - Indicates that the section impection impection in required in special impection in the periodic periodi	oner G	DO SOURCE CONTROLOGICAL		1000000 00 40	Ser vels lacters and motion state of the sta
ibborarony accepted in the DSA Laboratory delutation and Acceptance (LEA) Programs—See CA. Section 5.9 and section in sequence ### Indicates that a periodeclased inspection is required ### Indicates that a test is required by an appropriately ### Indicates that a test is required by an appropriately ### Indicates that a test is required by an appropriately ### Indicates that a test is required by an appropriately ### Indicates that a test is required by an appropriately ### Indicates that a test is required by an appropriately #### Indicates that a test is required by an appropriately #### Indicates that a test is required by an appropriately #### Indicates that a test is required by an appropriately #### Indicates that a test is required by an appropriately #### Indicates that a test is required by an appropriately #### Indicates that a test is required by an appropriately #### Indicates that a test is required by an appropriately #### Indicates that test is required by an appropriate by an appropriate b		36		registered represent	d geotechnical engineer or his or her authorized ative.
inspector when specifically approved by DSA.  Indicates that the special inspector shall be performed by an appropriately qualified-approved special inspector.  SIDA NO 19 (Newtond 67/16/2020)  SA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  963.A.2.1, inside 1796A.2.1; AIXC 391-14, AISC 398-16, AISC 380-16, AISC 380-16, AISC 350-16 (AISC 350-16)  ITY, STRUCTURAL STEEL, COLD-FORMED STEEL AND ALLMINUM USED FOR STRUCTURAL PURPOSES.  INSIDE TO Special Inspection  Type  Performed  Test or Special Inspection  Type  Test or Special Inspection  Test or Special Inspection  Test or Special Inspection  Type  Te	Perio	dic – Indicates that a periodic pecial inspection is required		laboratory Program.	y accepted in the DSA Laboratory Evaluation and Acceptance (LEA) See CAC Section 4-335.
So So 183-19 (Revised 07/16/2020)   So 183-19 (Revised 07/16/202	Гest –	Indicates that a test is required		inspector SI – Indica	when specifically approved by DSA.  ates that the special inspection shall be performed by an appropriately
DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC  7/85A 2.1, Table 1705A 2.1; AISC 303-16, AISC 341-18, AISC 358-16, AISC 360-16, AISI 5100-16  17. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES  Material Verification and Testing:  17. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES  Material Verification and Testing:  17. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES  Material Steel Structure and Structure				qualified/	approved special inspector.
Test or Special Inspection   Type   Ferformed   Egy   Table 1705A.2.1 Item 3a – 3c. 2022A.1; Apt 5100-16 Section A3.1 8.A3.2, Alst 5240-15 Section A3.6 A, SMS 5220-15 S	S <b>A</b> 1	103-19: LISTING OF STRUCTURAL TESTS & SF 2.1, Table 1705A.2.1; AISC 303-16, AISC 341-10, AISC 358-16, A 17. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALU	AISC 360-16; AIS	SI S100-16	
By   Table 1705A.2.1 Rem 3a-3c. 2202A.1; AVS 1500-16 Section A3.1 & A3.2, AVS 5220-16 Section A3.1 & A3.2, AVS 5220-16 Section A3.8 & AS. ASS 5220-16 Section A3.8 & AS. ASS 5220-16 Section A4.8 & AS. AS. AS. ASS 5220-16 Section A4.8 & AS. AS. AS. ASS 5220-16 Section A4.8			Type	Performed	Code References and Notes
D. Test unidentified materials	☑	a. Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with		Ву	Table 1705A.2.1 Item 3a–3c. 2202A.1; AISI S100-16 Section A3.1 & A3.2, AISI S240-15 Section A3 & A5, AISI S220-16 Sections A4 & A6. * By special
Inspection:    Averify and document steel fabrication per DSA-approved   Periodic   SI   Not applicable to cold-former steel light-frame construction. except for trusses (1705A.2.4). Evans 4.8.5; AWS D1.1 ydd AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel with SD1.4 for reinforcing steel; DSA IR 17-3   See Appendix for exemptions.]    Verification of Materials, Equipment, Welders, etc.:   Test or Special Inspection   Type   Periodic   Si   DSA IR 17-3.	V	<u> </u>	Test	LOR	2202A.1.
d. Verify and document steel fabrication per DSA-approved   Periodic   SI   Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4).		500 (2000) 500 (2000) (	Periodic	SI	DSA IR 17-3.
D1.2 for Alum\num: AWS D1.3 for cold-formed steel; WS D1.4 for reinforcing steel; DSA IR 17-3 (See Appendix for exemptions.)	<b>V</b>	d. Verify and document steel fabrication per DSA-approved	Periodic	SI	
Test or Special Inspection   Type   Performed   DSA IR 17-3.		19. WELDING:	D1.2 for Alumi	num; AWS D1	.3 for cold-formed steel; WS D1.4 for reinforcing steel; DSA IR 17-
By   DSA IR 17-3.	erific	cation of Materials, Equipment, Welders, etc.:	3 (See Append	nx for exempt	(IONS.)
☑       a. Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.       DSA IR 17-3.         ☑       b. Verify weld filler material manufacturer's certificate of compliance.       Periodic       SI       DSA IR 17/3.         ☑       c. Verify WPS, welder qualifications and equipment.       Periodic       SI       DSA IR 17/3.         ☐       19.1 SHOP WELDING:       Test or Special Inspection       Type       Performed By       Code References and Notes         ☑       a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16°, plug and slot welds.       Continuous       SI       Table 17/65A.2.1 Items 5a.1-4; AISC 360-16 (and AISC 341-16 as applicable) DSA IR 17-3.         ☑       b. Inspect single-pass fillet welds ≤ 5/16°, floor and roof deck welds.       SI       17/05A.2.2, Robe 17/05A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and AISC 341-16 as applicable) DSA IR 17-3.         ☑       c. Inspect welding of stairs and railing systems.       Periodic       SI       17/05A.2.1, AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.         ☑       20. NONDESTRUCTIVE TESTING: 17/05A.2.1; AISC 303-16, AISC 341-16, AISC 358-16.       Test       LOR       17/05A.2.1, 17/05A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/ ASNI CP-189, SNIT-TC-1A; AVS D1.1, AWS D1.8; DSA IR 17-2.         ☑       b. Magnetic Particle       Test       LOR       17/05A.2.1, 17/05A.2.5; AISC 341-1		Test or Special Inspection	Туре		Code References and Notes
compliance.  c. Verify WPS, welder qualifications and equipment.  Periodic  SI  DSA IB 17-3.  19.1 SHOP WELDING:  Test or Special Inspection  Type  Performed By  Continuous  SI  Table 17 05A.2.1 Items 5a.1−4; AISC 360-16 (and AISC 341-16 as applicable). DSA IR 17-3.  Discreting in the service of the serv	V	AWS designation listed on the DSA-approved documents	Periodic	34	DSA IR 17-3.
19.1 SHOP WELDING:  Test or Special Inspection  Type  Performed By  Code References and Notes By  Itable 1705A.2.1 Items 5a.1-4; AISC 360-16 (and AISC 341-16 as applicable) DSA IR 17-3.  Itable 1705A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.  Itable 1705A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.  Itable 1705A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.  Itable 1705A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.  Itable 1705A.2.1, AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.  Itable 1705A.2.1, AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.  Itable 1705A.2.1, AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.  Itable 1705A.2.1, AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.  Itable 1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16  Itall Test LOR 1705A.2.1, 1705A.2.5; AISC 341-16 JG.2, AISC 360-16 N5.5; ANSI/ ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2.  Itall DIA Magnetic Particle  Itall LOR 1705A.2.1, 1705A.2.5; AISC 341-16 JG.2, AISC 360-16 N5.5; ANSI/ ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2.	<b>7</b>		Periodic	SI	DSA IR 17/3.
Type Performed By Code References and Notes    Zerial Inspection   Type   Performed By   Perfor	<b>V</b>	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	OSA IR 17-3.
By  a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.  □ b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.  □ b. Inspect welding of stairs and railing systems.  □ c.				In 2	
fillet welds > 5/16", plug and slot welds.  □ b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.  □ c. Inspect welding of stairs and railing systems.  □ c. Inspect welding of stairs and railing systems.  □ c. Inspect welding of stairs and railing systems.  □ c. Inspect welding of stairs and railing systems.  □ c. Inspect welding of stairs and railing systems.  □ c. Inspect welding of stairs and railing systems.  □ c. Inspect welding of stairs and railing systems.  □ c. Inspect welding of stairs and railing systems.  □ c. Inspect welding of stairs and railing systems.  □ c. Inspect welding of stairs and railing systems.  □ c. Inspect welding of stairs and railing systems.  □ c. Inspect welding of stairs and railing systems.  □ DSA IR 17-3.  □ DSA IR 1	_	, C. 100 Sept. 100 - 100 Sept. 10 Complete - 100 Sept. 1	20 Beta 22	Ву	
deck welds.  341-16 as applicable); DSA IR 17-3.  20. NONDESTRUCTIVE TESTING: 1705A.2.1; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.  20. NONDESTRUCTIVE TESTING: 1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI 5100-16  Test or Special Inspection  Type Performed By Code References and Notes  a. Ultrasonic  Test LOR 1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2.		fillet welds > 5/16", plug and slot welds.			applicable) DSA IR 17-3.
DSA IR 17-3.  20. NONDESTRUCTIVE TESTING: 1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16  Test or Special Inspection  Type  Performed By  Code References and Notes  ✓ a. Ultrasonic  Test  LOR  1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/ ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2.  ✓ b. Magnetic Particle  Test  LOR  1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/	V	deck welds.	Periodic	SI	341-16 as applicable); DSA IR 17-3.
1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16         Test or Special Inspection       Type       Performed By       Code References and Notes         ✓ a. Ultrasonic       Test       LOR       1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/ ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2.         ✓ b. Magnetic Particle       Test       LOR       1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/	Ø	c. Inspect welding of stairs and railing systems.	Periodic	SI	
Code References and Notes			AISC 358-16,	ISC 360-16; A	NISI S100-16
ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2.  D b. Magnetic Particle  Test  LOR  1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/		Test or Special Inspection	Туре		Code References and Notes
	<b>V</b>	a. Ultrasonic	Test	LOR	
	<b>V</b>	b. Magnetic Particle	Test	LOR	
			1	1	
INITIAL I		A FORM DSA-103 IS TO BE COMPLETED FO	OR EACH A	APPLICAT	ION THAT THIS PC BEING
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THE EXAMPLE OF FORM DSA-103s SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSE ONLY. A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC BEING					

Date Created:

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2019 CBC

Increment Number:

Application Number:

DSA File Number:

Increment Number Date Created: MORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection of structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2019 CBC). \*\*NOTE: Undefined section and table references found in this document are from the CBC, or California Building Code. KEY TO COLUMNS 1. TYPE GE - Indicates that the special inspection shall be performed by a LOR - Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335. Periodic - Indicates that a periodic special inspection is required inspector when specifically approved by DSA. Test – Indicates that a test is required SI - Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector. DGS DSA 103-19 (Revised 07/16/2020) DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC Geotechnical Reports: Project does NOT have and does NOT require a geotechnical report 1. GENERAL: Test or Special Inspection a. Verify that: Refer to specific items identified in the Appendix listing exemptions for · Site has been prepared properly prior to placement of nitations. Placement of controlled fill exceeding 12" depth under controlled fill and/or excavations for foundations. dations is not permitted without a geotechnical report. depth and have reached proper material. Materials below footings are adequate to achieve the design bearing capacity. 2. SOIL COMPACTION AND FIL Test or Special Inspection a. Verify use of proper materials, densities and inspec thicknesses, placement and compaction during anager. Refer to specific items identified in the Appendix listing \* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing b. Compaction testing DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC Table 1705A.3; ACI 318-14 Sections 26.12 & 26.13 7. CAST-IN-PLACE CONCRETE Test or Special Inspection Material Verification and Testing a. Verify use of required design mix. LOR 1910A.2; ACI 318-14 Section 26.6.1.2; DSA IR 17-10. (See App. b. Identifiy, sample, and test reinforcing steel LOR Table 1705A.3 Item 6; ACI 318-14 Sections 26.5 & 26.12. for strength tests, perform slump and air content tests, and determine the temperature of the LOR 1905A.1.15; ACI 318-14 Section 26.12. d. Test concrete (f'c) e. Batch plant inspection: Continuous inspection may be reduced to 'Periodic' subject to equirements in Section 1705A.3.3.1, or eliminated per 1705A.3.3.2. (See Appendix for 11. POST-INSTALLED ANCHORS: Test or Special Inspection a. Inspect installation of post-installed anchors 1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic). 1705A.3.8 (See Appendix for exemptions). ACI 318-14 Sections 17.8 & 26.13. \* May be performed by the project inspector when specifically b. Test post-installed anchors. Test LOR 1910A.5. (See Appendix for exemptions DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC 1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16 17. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES Material Verification and Testing: Test or Special Inspection a. Verify identification of all materials and: Table 1705 A.2.1 tem 3a–3c. 2202 A.1; AISI S100-16 Section A3.1 a A3.. AISI S240-15 Section A3 & A5, AISI S220-15 Sections A4 & A6. \* By specia · Mill certificates indicate material properties that comply Material sizes, types and grades comply with d. Verify and document steel fabrication per DSA-approconstruction documents. 19. WELDING ems 4 & 5; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.8 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-Verification of Materials, Equipment, Welders, etc. Test or Special Inspection Type Performed Code References and Notes AWS designation listed on the DSA-approved documen and the WPS. b. Verify weld filler material manufacturer's certificate of c. Verify WPS, welder qualifications and equipment 19.1 SHOP WELDING: Performed | Code References and Notes Table 1705A.2.1 Items 5a.1-4; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3. fillet welds > 5/16", plug and slot welds. 341-16 as applicable); DSA IR 17-3. 705A.2.1; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; SI 1705A.3.1; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8; 19.2 FIELD WELDING Test or Special Inspection SI Table 1705A.2.1 Items 5a.1-4; AISC 360-16 (AISC 341-16 as fillet welds > 5/16", plug and slot weld applicable); DSA IR 17-3. Table 1705 A.2.1 Item 5a.5; AISC 360-16 (AISC 341-16 as applicable); DSA 1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16 Performed Code References and Notes LOR 1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/ ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2. a. Ultrasonic LOR 1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/ ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2. NØTES: THE EXAMPLE OF FORM DSA-103s SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSE ONLY.

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2019 CBC DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2019 CBC **DSA File Number:** Increment Number: Date Created: 2019 CBC MPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2019 CBC). \*\*NOTE\Undefined section and table references found in this document are from the CBC, or California Building Code. **KEY TO COLUMNS** 1. TYPE 2. PERFORMED BY GE – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized Continuous – Indicates that a continuous special inspection is representative. LOR - Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335. Periodic – Indicates that a periodic special inspection is required PI – Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA. Test - Indicates that a test is required SI – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector. DGS DSA 103-19 (Revised 07/16/2020) DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC 1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16 17. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES Material Verification and Testing: Performed Code References and Notes Test or Special Inspection a. Verify identification of all materials and Table 1705A.2.1 Item 3a-3c. 2202A.1; AISI S100-16 Section A3.1 & A3.2, · Mill certificates indicate material properties that comply AISI S240-15 Section A3 & A5, AISI S220-15 Sections A4 & A6. \* By special with requirements. inspector or qualified technician when performed off-site. Material sizes, types and grades comply with requirements. ☑ b. Test unidentified materials LOR 2202A.1. ✓ c. Examine seam welds of HSS shapes SI DSA IR 17-3. d. Verify and document steel fabrication per DSA-approved Not applicable to cold-formed steel light-frame construction, except for construction documents. trusses (1705A.2.4). 1705A.2.5, Table 1705A.2.1 Items 4 & 5; AWS D1.1 and AWS D1.8 for structural steel; AWS 19. WELDING: D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3 (See Appendix for exemptions.) Verification of Materials, Equipment, Welders, etc.: Type Performed Code References and Notes Test or Special Inspection ☑ a. Verify weld filler material identification markings per Periodic SI \ DSA IR 17-3. AWS designation listed on the DSA-approved documents and the WPS. ☑ b. Verify weld filler material manufacturer's certificate of SA IR 17-3. compliance. c. Verify WPS, welder qualifications and equipment. Periodic 19.1 SHOP WELDING: Test or Special Inspection Type Performed Code References and Notes a. Inspect groove welds, multi-pass fillet welds, single pass | Continuous Table 1705A. 1 Items 5a.1–4; AISC 360-16 (and AISC 341-16 as fillet welds > 5/16", plug and slot welds. applicable); DSA IR 17-3. b. Inspect single-pass fillet welds ≤ 5/16", floor and roof 1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and AISC Periodic 341-16 as applicable); DSA IR 17-3. deck welds. c. Inspect welding of stairs and railing systems. 1705A.2.1; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; 19.2 FIELD WELDING: Test or Special Inspection Performed | Code References and Notes a. Inspect groove welds, multi-pass fillet welds, single pass | Continuous Table 1705A.2.1 Items 5a.1-4; AISC 360-16 (AISC 341-16 as fillet welds > 5/16", plug and slot welds. applicable); DSA IR 17-3. Table 1705A.2.1 Item 5a.5; AISC 360-16 (AISC 341-16 as applicable); DSA 20. NONDESTRUCTIVE TESTING 1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16 Performed Code References and Notes Test or Special Inspection a. Ultrasonic LOR 1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/ ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2. b. Magnetic Particle LOR 1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/ ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; QSA IR 17-2. 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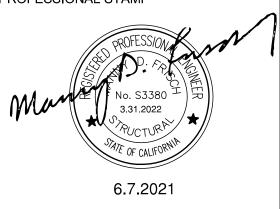
**IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-121828 INC: REVIEWED FOR

SS 🗹 FLS 🗹 ACS 🗹

PROJECT SPECIFIC STATE AGENCY APPROVAL

DESIGN ♦ CONSULTING ♦ PROJECT MGT 11590 W BERNARDO COURT, SUITE 100 SAN DIEGO, CA 92127

PROFESSIONAL STAMP



THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT, THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

ORIGINAL PC STATE AGENCY APPROVAL

1320 W. Oleander Ave. Perris CA 92571-7408 VOICE (951) 943-1908 FAI Fax (951) 943-5768

DIV. OF THE STATE ARCHITEC

Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT Code: 2019 CBC

A separate project application for construction is required PROJECT TITLE

PC 2019 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

DSA-103 T&I STRUCTURAL STEEL AND CONCRETE **FOUNDATION** 

PROJECT NUMBER 20093

rMc/SC

CHECKED BY RH/RT

DATE

SHEET NO.

DSA-103 PLYWOOD FLOOR (CONCRETE FOUNDATION)

INSTEAD OF PROJECT INSPECTOR (PI).

A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC BEING

INCORPORATED INTO AND EXAMPLE FORM DSA-103s ARE TO BE CROSSED OUT ON THIS DRAWING.

IF THERE IS A GEOTECHNICAL REPORT, THE GEOTECH ENGINEER SHOULD DO THE INSPECTION

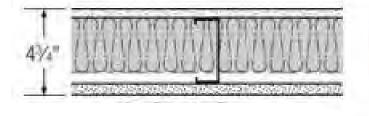
DSA-103 PLYWOOD FLOOR (STOCKPILE)

DSA-103 PLYWOOD FLOOR (WOOD FOUNDATION)

## UL U419 OR UL U465 (OR EQ) TO BE USED FOR INT. STC RATING. WOOD STUD MAY BE USED ILO OF MTL STUD



UL U457 (OR EQ) TO BE USED FOR EXT. STC RATING. WOOD STUD MAY BE USED ILO OF MTL STUD



UL U457
Steel Stud (Non-loachearing)
Interior Partitions
Sound Test: USG-840222

Fire Rating STC Thickness 1 hr. 50 4-3

- Cement Board 1/2 thick board, square edge DUROCK Brand Cement Board Next Gen
- Steel Studs 3-5/8 in. wide by 1-1/4 ir. deep, min. 20 gauge steel, max 16 in. OC 362S125-30
- Batts and Blankets 3 in. mineral wool batt insulation

Visit U457 3 U457 3

Gypsum Board - 5/8 in. thick gypsum board applied vertically - SHEETROCK Brand FIRECODE Core (Type X)

the Pre-check building is site adapted, the building and site features need to comply with the CALGreen Code, Section 5.507.4 for the specific site location, and when PC building is place adjacent to another PC building, the adjoining wall section for interior sound transmission must meet the minimum requirement of a STC rating of 40 (per 2013 CALGreen Code, Section 507.4.3).

ACOUSTIC CONTROL- When

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

APP: 02-121828 INC:

REVIEWED FOR
SS FLS ACS D

DATE: 7/24/2024



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CLIENT



ORIGINAL PC STATE AGENCY APPROVAL

APPROVED
DIV: OF THE STATE ARCHITECT

APP: 04-119408 PC

REVIEWED FOR
SS FLS ACS CG CD

DATE: 08/05/2021

Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

Code: 2019 CBC

parate project application for construction is requ

PC 2019 CBC: 24' x 40' EXPANDABLE TO 120' x 40'

SHEET TITLE
CALGREEN SPEC'S

PROJECT NUMBER
20093

rMc/SC

RH/RT

DATE
06/07/2021

SHEET NO.

A0.5



Other housekeeping BMPs acceptable to the enforcing agency.

## 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

charging and infrastructure is not feasible based upon one or more of the following conditions:

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement) **CHAPTER 3** 5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF 5.106.12 SHADE TREES [DSA-SS]. Shade Trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, LAND. Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or Where there is insufficient electrical supply. and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation GREEN BUILDING more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development sale. . Where there is evidence suitable to the local enforcing agency substantiating that necessary to establish and maintain tree health shall comply with Section 5.304.6. additional local utility infrastructure design requirements, directly related to the **SECTION 301 GENERAL** Note: Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of the Implementation of Section 5.106.5.3, may adversely impact the construction cost of the 5.106.12.1 Surface parking areas. Shade tree plantings, minimum #10 container size or equal, shall be installed larger common plan of development or sale must comply with the post-construction requirements detailed in the 301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in to provide shade over 50 percent of the parking area within 15 years. applicable National Pollutant Discharge Elimination System (NPDES) General permit for Stormwater Discharges the application checklists contained in this code. Voluntary green building measures are also included in the Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board or Exceptions: The surface parking area covered by solar photovoltaic shade structures, or shade TABLE 5.106.5.3.3 application checklists and may be included in the design and construction of structures covered by this code, the Lahontan Regional Water Quality Control Board (for projects in the Lake Tahoe Hydrologic Unit). structures, with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5, are not but are not required unless adopted by a city, county, or city and county as specified in Section 101.7. included in the total area calculations. TOTAL NUMBER OF PARKING SPACES NUMBER OF REQUIRED SPACES The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff 301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC-CG] The provisions (pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES 5.106.12.2 Landscape areas. Shade tress plantings, minimum #10 container size or equal shall be installed to of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square ermits emphasize runoff reduction through on-site stormwater use, interception, evapotranspiration, and infiltration provide shade of 20% of the landscape area within 15 years. feet or greater, and/or building alterations with a permit valuation of \$200,000 or above (for occupancies within through nonstructural controls, such as Low Impact Development (LID) practices, and conversation design measures. 10-25 the authority of California Building Standards Commission). Code sections relevant to additions and Stormwater volume that cannot be addressed using nonstructural practices is required to be captured in structural Exceptions: Playfields for organized sport activity are not included in the total area calculation. alterations shall only apply to the portions of the building being added or altered within the scope of the practices and be approved by the enforcing agency. 26-50 5.106.12.3. Hardscape areas. Shade tree plantings, minimum #10 container size or equal shall be installed to 51-75 Refer to the current applicable permits on the State Water Resources Control Board website at: provide shade over 20 percent of the hardscape area within 15 years. A code section will be designated by a banner to indicate where the code section only applies to newly www.waterboards.ca.gov/constructionstormwater. Consideration to the stormwater runoff management measures 76-100 constructed buildings [N] or to additions and/or alterations [A]. When the code section applies to both, no should be given during the initial design process for appropriate integration into site development. Exceptions: Walks, hardscape areas covered by solar photovoltaic shade structures, and hardscape areas covered by shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5, are not included in the total area calculation. 301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only: 5.106.4 BICYCLE PARKING. For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State 6% of total1 Note: On and after January 1, 2014, certain commercial real property, as defined in Civil Code Section Architect pursuant to Section 105, comply with Section 5.106.4.2 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving **DIVISION 5.2 ENERGY EFFICIENCY** 1. Calculation for spaces shall be rounded up to the nearest whole number. plumbling flutures under specific droumstances. See Civil Code Section 1101.1 et seq. for definitions, 5.106.4.1 Bicycle parking. [BSC-CG] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the types of commercial real property affected, effective dates, circumstances necessitating SECTION 5.201 GENERAL 5.106.5.3.4 [N] Identification. The service panel or subpanel(s) circuit directory shall identify the replacement of noncompliant plumbing fixtures, and duties and responsibilities for 5.201.1 Scope [BSC-CG]. California Energy Code [DSA-SS]. For the purposes of mandatory energy efficiency reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE". The raceway 5.106.4.1.1 Short-term bicycle parking. If the new project or an addition or alteration is anticipated standards in this code, the California Energy Commission will continue to adopt mandatory building standards. termination location shall be permanently and visibly marked as "EV CAPABLE". to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' 301.3.2 Waste Diversion. The requirements of Section 5.408 shall be required for additions and DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being 5.106.5.3.5 [N] Future charging spaces qualify as designated parking as described in Section 5.106.5.2 alterations whenever a permit is required for work. added, with a minimum of one two-blke capacity rack. Designated parking for clean air vehicles. SECTION 5.301 GENERAL Exception: Additions or alterations which add nine or less visitor vehicular parking spaces, 301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC) 5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors 301.5 HEALTH FACILITIES. (see GBSC) 5.106.4.1.2 Long-term blcycle parking. For new buildings with tenant spaces that have 10 or more and in wastewater conveyance. 5.106.8 LIGHT POLLUTION REDUCTION. [N].I Outdoor lighting systems shall be designed and installed to comply tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking SECTION 302 MIXED OCCUPANCY BUILDINGS SECTION 5.302 DEFINITIONS spaces with a minimum of one bicycle parking facility. 5.302.1 Definitions. The following terms are defined in Chapter 2 (and are included here for reference) 302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building 1. The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10, 5,106,4,1,3 For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces, shall comply with the specific green building measures applicable to each specific occupancy. Section 10-114 of the California Administrative Code; and EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS]. An adjustment factor when applied to provide secure bicycle parking for 5 percent of the tenant vehicular parking spaces being added, with a 2. Backlight (B) ratings as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8); reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which ae two major influences on minimum of one bloycle parking facility. 3. Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B in the amount of water that needs to be applied to the landscape. SECTION 303 PHASED PROJECTS 5.106.4.1.4 For new shell buildings in phased projects provide secure bicycle parking for 5 percent of the 4. Allowable BUG ratings not exceeding those shown in Table 5.106.8, [N] or Comply with a local ordinance FOOTPRINT AREA [DSA-SS]. The total area of the furthest exterior wall of the structure projected to natural grade, anticipated tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. 303.1 PHASED PROJECTS. For shell buildings and others constructed for future tenant improvements lawfully enacted pursuant to Section 101.7, whichever is more stringent. not including exterior areas such as stairs, covered walkways, patios and decks. only those code measures relevant to the building components and systems considered to be new 5.106.4.1.5 Acceptable bicycle parking facility for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall construction (or newly constructed) shall apply. METERING FAUCET. A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The be convenient from the street and shall meet one of the following: volume or cycle duration can be fixed or adjustable 303.1.1 Initial Tenant Improvements. The provisions of this code shall apply only to the initial tenant Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code. Covered, lockable enclosures with permanently anchored racks for bicycles: Improvements to a project. Subsequent tenant Improvements shall comply with the scoping provisions in GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that Lockable bicycle rooms with permanently anchored racks; or Section 301.3 non-residential additions and alterations. 3. Building facade meeting the requirements in Table 140,7-B of the California Energy Code, Part 6. has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy Lockable, permanently anchored blovdle lockers. 4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 bodlly wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or ABBREVIATION DEFINITIONS: Alternate materials, designs and methods of construction. operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom Note: Additional information on recommended bicycle accommodations may be obtained from Department of Housing and Community Development washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or Sacramento Area Bicycle Advocates. California Building Standards Commission Division of the State Architect, Structural Safety 1. See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting 5.106.4.2 Blcycle parking. [DSA-SS] For public schools and community colleges, comply with Sections Office of Statewide Health Planning and Development OSHPD requirements for parking facilities and walkways. MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). The California ordinance regulating landscape Low Rise 2. Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed A-1, Callfornla Energy Code Tables 130.2-A and 130.2-B. landscapes greater than 2500 square feet meet an Imgation water budget developed based on landscaped area and 5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently Additions and Alterations 3. Refer to the California Building Code for requirements for additions and alterations. accessed with a minimum of four two-bike capacity racks per new building. 5.106.4.2.2 Staff bloycle parking. Provide permanent, secure bloycle parking conveniently accessed MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). [HCD] The Callfornia model ordinance with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and shall be convenient from the street or staff parking area and shall meet one of the following: TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT maintenance practices. Local agencies are required to adopt the updated MWELO, or adopt a local ordinance at least NONRESIDENTIAL MANDATORY MEASURES AND GLARE (BUG) RATINGS 1,2 1. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; or POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking DIVISION 5.1 PLANNING AND DESIGN 3. Lockable, permanently anchored blcycle lockers. LIGHTING LIGHTING LIGHTING ALLOWABLE RATING ZONE Water Standards. See definition in the California Plumbing Code, Part 5. SECTION 5.101 GENERAL 5.106.5.2 DESIGNATED PARKING FOR CLEAN AIR VEHICLES. In new projects or additions or alterations POTABLE WATER. [HCD] Water that is satisfactory for drinking, culinary, and domestic puroses, and meets the U.S. that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, MAXIMUM ALLOWABLE The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the fuel-efficient and carpool/van pool vehicles as follows: Environmental Protection Agency (EPA) Drinking Water Standards and the regulrements of the Health Authority BACKLIGHT RATING : Luminaire greater than 2 environmental quality of the site and respect the integrity of adjacent properties. RECYCLED WATER. Water which, as a result of treatment of waste, is sultable for a direct beneficial use or a TABLE 5.106.5.2 - PARKING mounting heights (MH) from No Limit No Limit controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water property line SECTION 5.102 DEFINITIONS TOTAL NUMBER OF PARKING SPACES NUMBER OF REQUIRED SPACES treated to remove waste matter attaining a quality that is suitable to use the water again 5.102.1 DEFINITIONS Luminaire back hemisphere is The following terms are defined in Chapter 2 (and are included here for reference) B2 **B4** SUBMETER. A meter installed subordinate to a site meter. Usually used to measure water intended for one purpose, 1-2 MH from property line such as landscape irrigation. For the purposes of CALGreen, a dedicated meter may be considered a submeter. 10-25 CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candela per 1000 lamp lumens does not Luminaire back hemisphere is N/A B3 B1 B2 B3 numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the maximum applied 25-50 0.5-1 MH from property line 80 degrees above nadir. This applies to all lateral angles around the luminaire. water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape Luminaire back hemisphere is 51-75 LOW-EMITTING AND FUEL EFFICIENT VEHICLES. less than 0.5 MH from property SECTION 5.303 INDOOR WATER USE 76-100 Eligible vehicles are limited to the following: 5.303.1 METERS. Separate submeters or metering devices shall be installed for the uses described in Sections 101-150 11 1. Zero emission vehicle (ZEV), including neighborhood electric vehicles (NEV), partial zero emission UPLIGHT RATING (U) vehicle (PZEV), advanced technology PZEV (AT ZEV) or CNG fueled (original equipment manufacturer 151-200 5.303.1.1 Buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows: only) regulated under Health and Safety Code section 43800 and CCR. Title 13, Sections 1961 and 1962. For area lighting 4 U0 U0 AT LEAST 8% OF TOTAL 2. High-efficiency vehicles, regulated by U.S. EPA, bearing High-Occupancy Vehicle (HOV) car pool lane 201 AND OVER 1. For each individual leased, rented or other tenant space within the building projected to consume stickers issued by the Department of Motor Vehicles. For all other outdoor more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, lighting,including decorative U3 UR restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop. NEIGHBORHOOD ELECTRIC VEHICLE (NEV). A motor vehicle that meets the definition of "low-speed vehicle" 5.106.5.2.1 - Parking stall marking. Paint, in the paint used for stall striping, the following luminaires either in Section 385,5 of the Vehicle Code or in 49CFR571,500 (as it existed on July 1, 2000), and is certified to 2. Where separate submeters for Individual building tenants are unfeasible, for water supplied to the characters such that the lower edge of the last word alligns with the end of the stall striping and is MAXIMUM ALLOWABLE visible beneath a parked vehicle: CLEAN AIR / VAN POOL / EV following subsystems: a. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s). GLARE RATING 5 (G) TENANT-OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as permanent Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s). Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be Luminaire greater than 2 MH Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW). G3 considered eligible for designated parking spaces. from property line VANPOOL VEHICLE. Eliable vehicles are limited to any motor vehicle, other than a motortruck or truck tractor. 5.303.1.2 Excess consumption. A separate submeter or metering device shall be provided for any tenant 5.106.5.3 Electric vehicle (EV) charging. [N] Construction shall comply with Section 5.106.5.3.1 Luminaire front hemisphere is designed for carrying more than 10 but not more than 15 persons including the driver, which is maintained and used G0 G1 within a new building or within an addition that is projected to consume more than 1,000 gal/day. 1-2 MH from property line primarily for the nonprofit work-related transportation of adults for the purpose of ridesharing. or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) Is/are Installed, It shall be in accordance with the California Building Code, the Luminaire front hemisphere is 5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and N/A Note: Source: Vehicle Code, Division 1, Section 668 G0 G1 G1 California Electrical Code and as follows: 0.5-1 MH from property line urinals) and fittings (faucets and showerheads) shall comply with the following: ZEV. Any vehicle certifled to zero-emission standards. Luminaire back hemisphere is 5.106.5.3.1 Single charging space requirements. [N] When only a single charging space is 5.303.3.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per G0 less than 0.5 MH from property required per Table 5.106.5.3.3. a raceway is required to be installed at the time of construction flush. Tank-type water closets shall be certifled to the performance criteria of the U.S. EPA WaterSense SECTION 5.106 SITE DEVELOPMENT and shall be installed in accordance with the California Electrical Code. Construction plans and 5.106.1 STORM WATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB LESS THAN ONE ACRE specifications shall include, but are not limited to, the following: IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the OF LAND. Newly constructed projects and additions which disturb less than one acre of land, and are not part of a Note: The effective flush volume of dual flush tollets is defined as the composite, average flush volume of California Energy Code and Chapter 10 of the Callifornia Administrative Code larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction two reduced flushes and one full flush. 1. The type and location of the EVSE. activities through one or more of the following measures: 2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property 2. A listed raceway capable of accommodating a 208/240 -volt dedicated branch dircuit. line may be considered to be 5 feet beyond the actual property line for purpose of determining 3. The raceway shall not be less than trade size 1". 5.106.1.1 Local ordinance. Comply with a lawfully enacted storm water management and/or erosion control 5.303.3.2.1 Wall-mounted Urinals. The effective flush volume of wall-mounted urinals shall not exceed compliance with this section. For property lines that abut public roadways and public transit 4. The raceway shall originate at a service panel or a subpanel serving the area, and shall 0.125 gallons per flush. corridors, the property line may be considered to be the centerline of the public roadway or public terminate in close proximity to the proposed location of the charging equipment and listed transit corridor for the purpose of determining compliance with this section. 5.106.1.2 Best Management Practices (BMPs). Prevent the loss of soil through wind or water erosion by suitable cabinet, box, enclosure or equivalent. 5,303,3,2,2 Floor-mounted Urinals. The effective flush volume of floor-mounted or other urinals shall implementing an effective combination of erosion and sediment control and good housekeeping BMPs. 5. The service panel or subpanel shall have sufficient capacity to accommodate a minimum 3. If the nearest property line is less than or equal to two mounting heights from the back not exceed 0.5 gallons per flush. 40-ampere dedicated branch circuit for the future installation of the EVSE. hemisphere of the luminaire distribution, the applicable reduced Backlight rating shall be met. 1. Soll loss BMPs that should be considered for implementation as appropriate for each project include, but are not limited to, the following: 4. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet 5.106.5.3.2 Multiple charging space requirements. [N] When multiple charging spaces are 5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 Scheduling construction activity during dry weather, when possible. required per Table 5.106.5.3.3 raceway(s) is/are required to be installed at the time of construction these reduced ratings. Decorative luminaires located in these areas shall meet U-value limits for gallons per minute at 80 psl. Showerheads shall be certified to the performance criteria of the U.S. EPA Preservation of natural features, vegetation, soil, and buffers around surface waters. "all other outdoor lighting". WaterSense Specification for Showerheads. and shall be installed in accordance with the California Electrical Code. Construction plans and Drainage swales or lined ditches to control stormwater flow. specifications shall include, but are not limited to, the following: Mulching or hydroseeding to stabilize disturbed soils. 5. If the nearest property line is less than or equal to two mounting heights from the front 5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one Erosion control to protect slopes. hemisphere of the luminaire distribution, the applicable reduced Glare rating shall be met. showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a . The type and location of the EVSE. Protection of storm drain inlets (gravel bags or catch basin inserts). single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to 2. The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and Perimeter sediment control (perimeter silt fence, fiber rolls). allow only one shower outlet to be in operation at a time. shall terminate in close proximity to the proposed location of the charging equipment and Sediment trap or sediment basin to retain sediment on site. Note: A hand-held shower shall be considered a showerhead Into listed suitable cabinet(s), box(es), enclosure(s) or equivalent. Stabilized construction exits. 3. Plan design shall be based upon 40-ampere minimum branch circuits. Wind erosion control. 5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will . Other soil loss BMPs acceptable to the enforcing agency. 4. Electrical calculations shall substantiate the design of the electrical system, to include the manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water 2. Good housekeeping BMPs to manage construction equipment, materials, non-stormwater discharges rating of equipment and any on-site distribution transformers and have sufficient capacity Include, but are not limited to the following: and wastes that should be considered for implementation as appropriate for each project include, but to simultaneously charge all required EVs at its full rated amperage. are not limited to, the following: 5. The service panel or subpanel(s) shall have sufficient capacity to accommodate the Dewatering activities. required number of dedicated branch circuit(s) for the future installation of the EVSE. Water collection and disposal systems. Material handling and waste management. French drains. Building materials stockpile management. 5.106.5.3.3 EV charging space calculations. [N] Table 5.106.5.3.3 shall be used to determine if Water retention gardens. Management of washout areas (concrete, paints, stucco, etc.). single or multiple charging space requirements apply for the future installation of EVSE. 5. Other water measures which keep surface water away from buildings and aid in groundwater Control of vehicle/equipment fueling to contractor's staging area. Vehicle and equipment cleaning performed off site. Exception: Additions and alterations not altering the drainage path. Exceptions: On a case-by-case basis where the local enforcing agency has determined EV Spill prevention and control.

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE EVE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

PROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC' APP: 02-121828 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹





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ORIGINAL PC STATE AGENCY APPROVAL

DIV. OF THE STATE ARCHITE

Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

Code: 2019 CBC

A separate project application for construction is required

PROJECT TITLE PC 2019 CBC: 24' x 40'

**EXPANDABLE TO** 

CAL GREEN

PROJECT NUMBER 20093

rMc/SC

CHECKED BY RH/RT

DATE

## 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

N/A RESPON. PARTY SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT 5,407,1 WEATHER PROTECTION, Provide a weather-resistant exterior wall and foundation envelope as required by 5.303.3.4 Faucets and fountains California Building Code Section 1402,2 (Weather Protection), manufacturer's installation instructions or local ordinance, whichever is more stringent. 5.303.3.4.1 Nonresidential Lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi. 5.407.2 MOISTURE CONTROL. Employ moisture control measures by the following methods. 5.303,3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures. gallions per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons **5.407.2.2 Entries and openings.** Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows: 5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than 1.8 5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water gallons per minute/20 frim space (inches) at 60 psli. Intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following: 5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle. An Installed awning at least 4 feet in depth. 5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a The door is protected by a roof overhang at least 4 feet in depth. maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches) at 60 psi]. The door is recessed at least 4 feet. 4. Other methods which provide equivalent protection. Note: Where complying faucets are unavailable, aerators or other means may be used to achieve 5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane. 5.303.4 COMMERCIAL KITCHEN EQUIPMENT. SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND 5,303,4.1 Food Waste Disposers. Disposers shall either modulate the use of water to no more than 1 gpm RECYCLING when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no 5.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65% of the more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water. non-hazardous construction and demolition waste in accordance with Section 5,408,1,1, 5,408,1,2 or 5,408,1,3; or Note: This code section does not affect local jurisdiction authority to prohibit or require disposer meet a local construction and demolition waste management ordinance, whichever is more stringent. 5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and 5,303,5 AREAS OF ADDITION OR ALTERATION. For those occupancies within the authority of the California demolition waste management ordinance, submit a construction waste management plan that: Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new flxtures in additions or areas of alteration to the building. 1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient 5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed usage, recycling, reuse on the project or salvage for future use or sale. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or In accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code and In Chapter 6 of this code. Identifies diversion facilities where construction and demolition waste material collected will be taken. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both. SECTION 5.304 OUTDOOR WATER USE 5.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Nonresidential developments shall comply 5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water documentation that the percentage of construction and demolition waste material diverted from the landfill Efficient Landscape Ordinance (MWELO), whichever is more stringent. complies with this section. Note: The owner or contractor shall make the determination if the construction and demolition waste material 1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code of Regulations, will be diverted by a waste management company. Title 23, Chapter 2.7, Division 2. 2. MWELO and supporting documents, including a water budget calculator, are available at: Exceptions to Sections 5.408.1.1 and 5.408.1.2: https://www.water.ca.gov/. 5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. For public schools and community colleges, Alternate waste reduction methods developed by working with local agencies if diversion or recycle landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of facilities capable of compliance with this Item do not exist. Water Resources Model Water Efficient Landscape Ordinance (MWELO) commencing with Section 490 of Chapter 3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities 2.7, Division 2, Title 23, California Code of Regulations, except that the evapotranspiration adjustment factor (ETAF) and markets. shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35. 5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement prescriptive measures contained in Appendix D of the MWELO. as approved by the enforcing agency. 5.304.6.1 Newly constructed landscapes. New construction projects with an aggregate landscape 5.408.1.4 Documentation, Documentation shall be provided to the enforcing agency which demonstrates area equal to or greater than 500 square feet. compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency. 5,304,6,2 Rehabilitated landscapes. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet. 1. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located at www.bsc.ca.gov/Home/CALGreen.aspx may be used to assist in documenting compliance DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE 2. Mixed construction and demolition debris processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle). EFFICIENCY 5.408.2 UNIVERSAL WASTE. [A] Additions and alterations to a building or tenant space that meet the scoping SECTION 5.401 GENERAL provisions in Section 301,3 for nonresidential additions and alterations, shall require verification that Universal Waste 5.401.1 SCOPE. The provisions of this chapter shall outline means of achieving material conservation and resource tems such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited efficiency through protection of buildings from exterior moisture, construction waste diversion, employment of Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting. materials shall be included in the construction documents. Note: Refer to the Universal Waste Rule link at: SECTION 5,402 DEFINITIONS http://www.dtsc.ca.gov/LawsRegsPolicies/Regs/upload/OEAR-A\_REGS\_UWR\_FinalText.pdf 5.402.1 DEFINITIONS. The following terms are defined in Chapter 2 (and are included here for reference) 5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS. 100 percent of trees, stumps, rocks and associated regetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust material may be stockpiled on site until the storage site is developed. BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, **Exception:** Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation. according to design quantities. BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, 1. If contamination by disease or pest infestation is suspected, contact the County Agricultural tested, operated and maintained to meet the owner's project requirements. Commissioner and follow its direction for recycling or disposal of the material. . For a map of know pest and/or disease quarantine zones, consult with the California Department of ORGANIC WASTE. Food waste, green waste, landscape and pruning wste, nonhazardous wood waste, and food Food and Agriculture. (www.cdfa.ca.gov) soiled paper waste that is mixed in with food waste. SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS **TEST.** A procedure to determine quantitative performance of a system or equipment 5.410.1 RECYCLING BY OCCUPANTS. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance. If more restrictive. Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code 42649.82 (a)(2)(A) et seq. shall also be exempt from the organic waste portion of this section. 5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site. Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space 5.410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the Public Resources Code. Chapter 18 is known as the California Solid Waste Reuse and Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the

5.410.2 COMMISSIONING. [N] New buildings 10,000 square feet and over. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. For Loccupancies that are not regulated by OSHPD or for l-occupandes and L-occupandes that are not regulated y the California Energy Code Section 100.0 Scope, all requirements in Sections 5.410.2 through 5.410.2.6 shall apply. Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements Commissioning requirements shall include: Owner's or Owner representative's project requirements. Basis of design. Commissioning measures shown in the construction documents. . Commissioning plan. Functional performance testing.

Documentation and training,

Commissioning report.

1. Unconditioned warehouses of any size. 2. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within

 Tenant Improvements less than 10,000 square feet as described in Section 303.1.1. 4. Open parking garages of any size, or open parking garage areas, of any size, within a structure.

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

### Informational Notes:

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

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

5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:

Environmental and sustainability goals.

Indoor environmental quality requirements. 4. Project program, including facility functions and hours of operation, and need for after hours

 Equipment and systems expectations. 6. Building occupant and operation and maintenance (O&M) personnel expectations.

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

Renewable energy systems. Landscape irrigation systems.

5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following: General project Information.

Commissioning goals. 3. Systems to be commissioned. Plans to test systems and components shall include:

a. An explanation of the original design intent. . Equipment and systems to be tested, including the extent of tests,

Functions to be tested.

d. Conditions under which the test shall be performed. e. Measurable criteria for acceptable performance.

Commissioning team information.

5. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included.

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

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

5.410.2.5.1 Systems manual. [N] Documentation of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The

systems manual shall include the following: Site information, including facility description, history and current requirements.

. Site contact information.

3. Basic operations and maintenance, including general site operating procedures, basic

troubleshooting, recommended maintenance requirements, site events log.

Major systems.

5. Site equipment inventory and maintenance notes. 6. A copy of verifications required by the enforcing agency or this code.

Other resources and documentation, if applicable.

5.410.2.5.2 Systems operations training. [N] A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and documented in the commissioning

System/equipment overview (what it is, what it does and with what other systems and/or equipment it interfaces). 2. Review and demonstration of servicing/preventive maintenance.

Review of the information in the Systems Manual.

4. Review of the record drawings on the system/equipment.

design and construction phases of the building project shall be completed and provided to the owner or representative. 5,410,4 TESTING AND ADJUSTING. New buildings less than 10,000 square feet, Testing and adjusting of

5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the

systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.

### 5.410.4.2 (Reserved)

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

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

. Renewable energy systems. Landscape Irrigation systems.

Water reuse systems.

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

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

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

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

5.410.4.5.1 Inspections and reports. Include a copy of all inspection verifications and reports required

### **DIVISION 5.5 ENVIRONMENTAL QUALITY**

SECTION 5.501 GENERAL

adjustments have been made.

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

SECTION 5.502 DEFINITIONS 5.502.1 DEFINITIONS. The following terms are defined in Chapter 2 (and are included here for reference)

ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route. A-WEIGHTED SOUND LEVEL (dBA). The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting

1 BTU/HOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound of water one degree Fahrenhelt per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, the amount of heat required to melt a ton (2,000 pounds) of ice at 320 Fahrenheit.

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

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

Note: See CCR, Title 17, Section 93120.1. DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a

24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.). DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.

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

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

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

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

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

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

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

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

LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction,

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

sec.82.3 (as amended March 10, 2009).

MERV. Filter minimum efficiency reporting value, based on ASHRAE 52,2-1999. MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to

hundreths of a gram (g O3/g ROC). PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of

PSIG. Pounds per square inch, guage.

product (excluding container and packaging).

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

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

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

SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coclers or freezers connected to remote compressor units or condensing units.

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

Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition included in that specific regulation is the one that prevails for the specific measure in question. SECTION 5.503 FIREPLACES

woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150, Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances. 5.503.1.1 Woodstoves. Woodstoves and pellet stoves shall comply with U.S. EPA New Source Performance

5.503.1 FIREPLACES. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed

Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits.

SECTION 5.504 POLLUTANT CONTROL

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

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

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06/07/2021

CHECKED BY

DATE

PROJECT NUMBER

PROJECT SPECIFIC STATE AGENCY APPROVAL

DESIGN ♦ CONSULTING ♦ PROJECT MG

11590 W BERNARDO COURT, SUITE 100

SAN DIEGO, CA 92127

THE PLANS, IDEAS & DESIGNS SHOWN ON

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PLANS SHALL NOT BE USED, IN WHOLE OR

IN PART, FOR ANY PURPOSE FOR WHICH

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**TAVARES ASSOCIATES, INC. ©** 

THEY WERE NOT INTENDED WITHOUT THE

1320 W. Oleander Ave. Perris CA 92571-7408

VOICE (951) 943-1908 FA Fax (951) 943-5768

ORIGINAL PC STATE AGENCY APPROVAL

DIV. OF THE STATE ARCHITEC

Revision Schedule

PRE-CHECK (PC) DOCUMENT

Code: 2019 CBC

A separate project application for construction is required

PC 2019 CBC: 24' x 40'

**EXPANDABLE TO** 

CAL GREEN

20093

rMc/SC

RH/RT

PROJECT TITLE

APP: 04-119408 PC

Description

R&S TAVARES ASSOCIATES. INC. DEVISED

SOLELY FOR THIS CONTRACT. THESE

PROFESSIONAL STAMP

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC'

APP: 02-121828 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

TABLE 5.504.4.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL

Y N/A RESPON. PARTY 5.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.504.4.1 through

aerosol products as specified in subsection 2, below.

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

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

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

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

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

Less Water and Less Exempt Compounds In	Grams per Liter
SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5,504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.

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

COATINGS <sub>2,3</sub>		MAXIMU
GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EX	(EMPT COMPOUNDS	
COATING CATEGORY	CURRENT VOC LIMIT	PRODU
FLAT COATINGS	50	HARDW
NONFLAT COATINGS	100	HARDW
NONFLAT HIGH GLOSS COATINGS	150	PARTIC
SPECIALTY COATINGS		MEDIUN
ALUMINUM ROOF COATINGS	400	THIN ME
BASEMENT SPECIALTY COATINGS	400	1. VALUE
BITUMINOUS ROOF COATINGS	50	ADDITION 93120.12.
BITUMINOUS ROOF PRIMERS	350	2. THIN M
BOND BREAKERS	350	5.504.4
CONCRETE CURING COMPOUNDS	350	resilien
CONCRETE/MASONRY SEALERS	100	
DRIVEWAY SEALERS	50	"
DRY FOG COATINGS	150	
FAUX FINISHING COATINGS	350	
FIRE RESISTIVE COATINGS	350	
ELOOD COATINGS	100	

FLOOR COATINGS FORM-RELEASE COMPOUNDS 250 GRAPHIC ARTS COATINGS (SIGN PAINTS) 500 HIGH-TEMPERATURE COATINGS 420 INDUSTRIAL MAINTENANCE COATINGS 250 LOW SOLIDS COATINGS1 120 MAGNESITE CEMENT COATINGS 450 MASTIC TEXTURE COATINGS 100 METALLIC PIGMENTED COATINGS 500 MULTICOLOR COATINGS 250 PRETREATMENT WASH PRIMERS 420 PRIMERS, SEALERS, & UNDERCOATERS REACTIVE PENETRATING SEALERS RECYCLED COATINGS 250 ROOF COATINGS RUST PREVENTATIVE COATINGS 250 SHELLACS: CLEAR 730 OPAQUE 550 SPECIALTY PRIMERS, SEALERS & UNDERCOATERS 100 250 STONE CONSOLIDANTS 450 SWIMMING POOL COATINGS 100 TRAFFIC MARKING COATINGS TUB & TILE REFINISH COATINGS 420 WATERPROOFING MEMBRANES 250 WOOD COATINGS 275 WOOD PRESERVATIVES 350

ZINC-RICH PRIMERS 1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS 2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE 5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of

the enforcing agency. Documentation may include, but is not limited to, the following:

. Fleld verification of on-site product containers 5.504.4.4 Carpet Systems. All carpet installed in the building interior shall meet at least one of the testing and

. Carpet and Rug Institute's Green Label Plus Program.

. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1, February 2010 (also known as CDPH Standard Method V1.1 or Specification 01350).

NSF/ANSI 140 at the Gold level or higher; 4. Scientific Certifications Systems Sustainable Choice; or

Manufacturer's product specification

product requirements:

Compliant with the Collaborative for High Performance Schools California (2014 CA-CHPS) Criteria listed in the CHPS High Performance Product Database.

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

5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1. 5,504.4.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in

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

Product certifications and specifications.

Chain of custody certifications. Product labeled and invoiced as meeting the Composite Wood Products regulation (see

CCR. Title 17, Section 93120, et seq.). 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S

5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS JM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION **CURRENT LIMIT** OOD PLYWOOD VENEER CORE 0.05 OOD PLYWOOD COMPOSITE CORE 0.05 LE BOARD 0.09 DENSITY FIBERBOARD 0.11 EDIUM DENSITY FIBERBOARD: S IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD S CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333, FOR NAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH

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

the same value shall be included in the operation and maintenance manual.

.6 Resillent flooring systems. For 80 percent of floor area receiving resilient flooring, installed nt flooring shall meet at least one of the following: Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program;

Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation Chambers, Version 1.1, February 2010;

Compliant with the Collaborative for High Performance Schools Callifornia (2014 CA-CHPS) Criteria and listed in the CHPS High Performance Product Database; or Products certified under UL GREENGUARD Gold (formerly the Greenguard Children's & Schools

5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring

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

Exceptions: Existing mechanical equipment.

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

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

SECTION 5.505 INDOOR MOISTURE CONTROL

5,505.1 INDOOR MOISTURE CONTROL. Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see Section 5.407.2 of this code.

SECTION 5.506 INDOOR AIR QUALITY

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

5,506,2 CARBON DIOXIDE (CO2) MONITORING. For buildings or additions equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the Callfornia Energy Code, Section 120(c)(4).

SECTION 5.507 ENVIRONMENTAL COMFORT
5.507.4 ACOUSTICAL CONTROL. Employ building assemblies and components with Sound Transmission Class ) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmissio Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in

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

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

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

Within the 65 CNEL noise contour of an airport.

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

. Within the 65 CNEL or Lan noise contour of a freeway or expressway, railroad, industrial source or fixed-quideway source as determined by the Noise Element of the General Plan.

5.507.4.1.1. Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB L<sub>eg</sub> - 1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of

at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30). 5.507.4.2 Performance Method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1, wall and roof-celling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does

5.507.4.2.1 Site Features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior. 5.507.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior

not exceed an hourly equivalent noise level (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation.

sound levels shall be prepared by personnel approved by the architect or engineer of record. 5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant

spaces and public places shall have an STC of at least 40.

Note: Examples of assemblies and their various STC ratings may be found at the California Office of Nolse Control: www.toolbase.org/PDF/CaseStudles/stc\_lcc\_ratings.pdf.

SECTION 5.508 OUTDOOR AIR QUALITY
5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.

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

5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the

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

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

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that Include ammonla, carbon dioxide (CO<sub>2</sub>), and potentially other refrigerants.

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

5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack. 5.508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a

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

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

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

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

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

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

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

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

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

5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place. 5.508.2.2.2.1 Chain tethers. Chain tethers to fit ovr the stem are required for valves

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

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

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

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

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

5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum. 5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same

5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more

than a +/- one pound pressure change from 300 psig, measured with the same gauge. **5.508.2.6 Evacuation.** The system shall be evacuated after pressure testing and prior to charging.

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

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

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

### **INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS**

702 QUALIFICATIONS

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

State certified apprenticeship programs. Public utility training programs.

Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.

Programs sponsored by manufacturing organizations. 5. Other programs acceptable to the enforcing agency.

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

Certification by a national or regional green building program or standard publisher. 2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building

performance contractors, and home energy auditors. . Successful completion of a third party apprentice training program in the appropriate trade.

Other programs acceptable to the enforcing agency.

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

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

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

### 703 VERIFICATIONS

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

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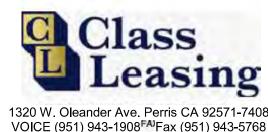
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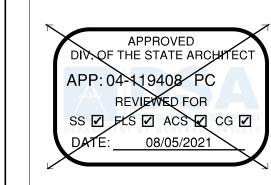




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ORIGINAL PC STATE AGENCY APPROVAL



Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

Code: 2019 CBC

A separate project application for construction is required

PROJECT TITLE PC 2019 CBC: 24' x 40' EXPANDABLE TO

CAL GREEN

**CHECKLIST** 

PROJECT NUMBER 20093

rMc/SC CHECKED BY

DATE 06/07/2021

RH/RT