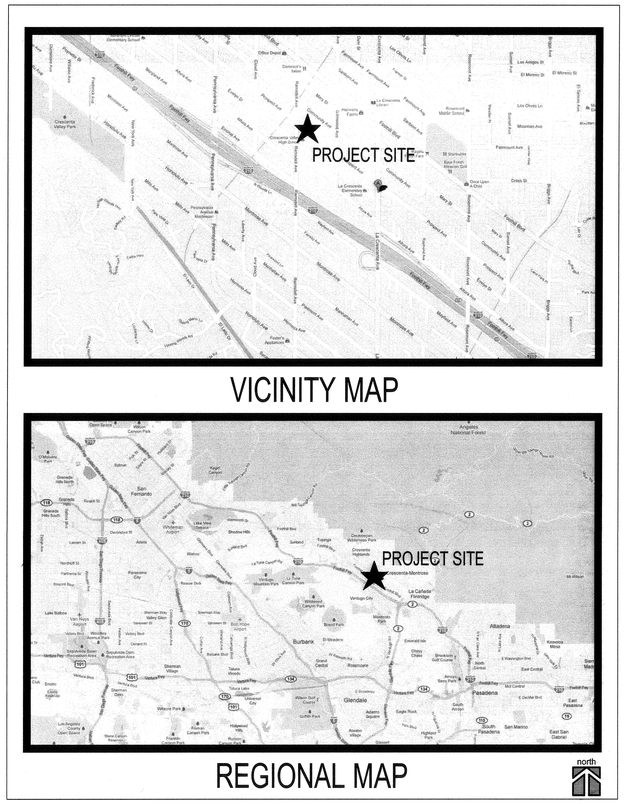
CRESCENTA VALLEY HIGH SCHOOL
SPORTS MEDICINE MODULAR BLDG.

2900 COMMUNITY AVENUE, LA CRESCENTA, CA 91214

GLENDALE UNIFIED SCHOOL DISTRICT



tBP /Architecture

4611 Teller Avenue - Newport Beach - California - 92660
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Architecture
Planning
Interiors

tBP architecture planning interiors

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architect

consultant

FILE NO.: 19-H13
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
DEPARTMENT OF GENERAL SERVICES
A°03-119722
DATE FEB 05 2019

DEPARTMENT OF GENERAL SERVICES
DIVISION OF THE STATE ARCHITECT
355 SOUTH GRAND AVENUE, SUITE 2100
LOS ANGELES, CA 90071
Ph: (213)897-3995 Fx: (213)897-3159/0726

agency

CRESCENTA VALLEY HIGH SCHOOL
SPORTS MEDICINE MODULAR BLDG.

GLENDALE UNIFIED SCHOOL DISTRICT
2900 COMMUNITY AVENUE
LA CRESCENTA, CALIFORNIA 91214

owner

tBP project number : 21015.00
file name:
drawn by: checked by:
date: FEBRUARY 05, 2019

Rev:	date:	description:

drawing title:
COVER SHEET

drawing no.:
T-1
drawing of

ABBREVIATIONS

&	AND	(E)	EXISTING	K	KIP (1000 LB)	R	RISER		
∠	ANGLE	EA.	EACH	KIT.	KITCHEN	RAD.	RADIUS		
@	AT	E.J.	EXPANSION JOINT	KO	KNOCKOUT	R.D.	ROOF DRAIN		
℄	CENTERLINE	ELEC.	ELECTRICAL	KVA	KILOVOLT AMPERE	RDWD.	REDWOOD		
⌀	DIAMETER OR ROUND	ELEV.	ELEVATION			REF.	REFERENCE		
#	NUMBER	EMER.	EMERGENCY	LAB.	LABORATORY	REFR.	REFRIGERATOR		
		ENCL.	ENCLOSURE	LAM.	LAMINATED	REG.	REGISTER		
AB	ANCHOR BOLT	ENG	ENGINEER	LAV.	LAVATORY	REINF.	REINFORCING		
AC	ASPHALTIC CONCRETE	ENGY	ENERGY	LB.	POUND	REQD.	REQUIRED		
ACP	ACOUSTICAL PANEL	ENTR	ENTRANCE	LDG	LANDING	RESIL.	RESILIENT		
ACT	ACOUSTICAL TILE	EP	EPOXY ENAMEL	LL	LIVE LOAD	RET	RETURN		
ACOUS	ACOUSTICAL	EQ.	EQUAL	LT	LIGHT	REV.	REVERSE		
AD	AREA DRAIN	EQUIP.	EQUIPMENT	LTF	LINOLEUM TILE FLOORING	RFG	ROOFING		
ADH	ADHESIVE	EST.	ESTIMATE	LTG	LIGHTING	RM.	ROOM		
ADJ	ADJACENT	E.W.C.	ELECTRIC WATER COOLER	LVL	LEVEL	R.O.	ROUGH OPENING		
AFF	ABOVE FINISH FLOOR	EWH	ELECTRIC WATER HEATER	LVR	LOUVER	R.T.F.	RUBBER TILE FLOORING		
AFP	ACCORDIAN FOLDING PARTITION	EXH	EXHAUST						
AGGR	AGGREGATE	EXIST.	EXISTING	MAINT	MAINTENANCE	S.B.	SPLASH BLOCK		
ALT	ALTERNATE	EXP.	EXPANSION	MAN	MANUAL	S.C.	SOLID CORE		
ALUM	ALUMINUM	EXPSD.	EXPOSED	MAS	MASONRY	SCHED.	SCHEDULE		
AMP	AMPERE	EXT.	EXTERIOR	MATL	MATERIAL	SCN	SOLID CORE NATURAL FINISH		
ANOD	ANODIZED			MAX.	MAXIMUM	SCP	SOLID CORE PAINT FINISH		
APPROX	APPROXIMATELY	F	FACTORY FINISH	MCC	MOTOR CONTROL CENTER	SCPL	SOLID CORE P.LAM FINISH		
ARCH	ARCHITECT	F.A.	FIRE ALARM	MECH.	MECHANICAL	S.D.	STORM DRAIN		
ASB	ASBESTOS	FC	FOOTCANDLE	MED	MEDIUM	SECT.	SECTION		
ASSY	ASSEMBLY	F.D.	FLOOR DRAIN	MEZZ	MEZZANINE	SF	SQUARE FOOT		
		FDC	FIRE DEPARTMENT CONNECTION	MFR.	MANUFACTURER	SHT.	SHEET		
BAT	BATTERY	FDN	FOUNDATION	MH	MANHOLE	SIM.	SIMILAR		
BBD	BULLETIN BOARD	F.E.	FIRE EXTINGUISHER	MIN.	MINIMUM	SLR	SEALER		
BD	BOARD	F.E.C.	FIRE EXTINGUISHER CABINET	MIR	MIRROR	SPEC.	SPECIFICATIONS		
BLDG	BUILDING	F.F.	FINISH FLOOR	MISC.	MISCELLANEOUS	SPLY	SUPPLY		
BLKG	BLOCKING	F.G.	FINISHED GRADE	MKR	MARKER	SQ.	SQUARE		
BLO	BLOWER	F.H.	FIRE HYDRANT	MTL.	METAL	S.SK.	SERVICE SINK		
BLR	BOILER	FIN.	FINISH	MTD.	MOUNTED	SST.	STAINLESS STEEL		
BLW	BELOW	F.L.	FLOW LINE	MUL.	MULLION	ST	STREET		
BM	BEAM	FLASH.	FLASHING	MVBL	MOVABLE	STAG	STAGGERED		
BO	BOTTOM OF	FLR.	FLOOR			STC	SOUND TRANSMISSION CLASS		
BRKR	BREAKER	FLUOR.	FLUORESCENT	(N)	NEW	STD.	STANDARD		
BTU	BRITISH THERMAL UNIT	F.O.	FACE OF	NAT.	NATURAL	STL.	STEEL		
BUR	BUILT UP ROOFING	F.O.C.	FACE OF CONCRETE	NEG	NEGATIVE	STN	STAIN FINISH		
		F.O.F.	FACE OF FINISH	N.I.C.	NOT IN CONTRACT	STOR	STORAGE		
CAB	CABINET	F.O.M.	FACE OF MASONRY	NO.	NUMBER	STRUCT.	STRUCTURAL		
CARP	CARPET	F.O.S.	FACE OF STUD	NOM.	NOMINAL	SURF	SURFACE		
CAT	CATALOG	FPP	FOLDING PANEL PARTITION	N.T.S.	NOT TO SCALE	SUSP.	SUSPENDED		
CB	CATCH BASIN	FPW	FOLDING PANEL WOOD DOOR			SV	SHEET VINYL		
CEM	CEMENT	F.R.	FIRE RETARDANT	O.A.	OVERALL	SWBD	SWITCHBOARD		
CF	CURB FACE	F.R.A.	FIRE RATED ASSEMBLY	O.C.	ON CENTER	SWGR	SWITCHGEAR		
CFM	CUBIC FEET PER MINUTE	F.R.P.	FIBERGLASS REINFORCED PANEL	O.D.	OUTSIDE DIAMETER	SWR	SEWER		
CHBD	CHALKBOARD	F.S.	FLOOR SINK	O.F.	OVERFLOW DRAIN	SYM.	SYMBOL		
CHEM	CHEMICAL	FT.	FOOT OR FEET	OFCI	OWNER FURNISHED-CONTRACTOR INSTALLED	SYS	SYSTEM		
CHWR	CHILLED WATER RETURN	FTG.	FOOTING						
CHWS	CHILLED WATER SUPPLY	FURR.	FURRING	OFF	OFFICE	T.	TREAD		
CI	CAST IRON	FXTR	FIXTURE	OFOI	OWNER FURNISHED-OWNER INSTALLED	T. & B.	TOP AND BOTTOM		
CIR	CIRCLE					T. & G.	TONGUE AND GROOVE		
CJ	CONTROL JOINT	G.	GAS	OPNG.	OPENING	T.C.	TOP OF CURB		
CL	CENTERLINE	GA.	GAGE	OPP.	OPPOSITE	TD	TRENCH DRAIN		
CLG	CEILING	GALV.	GALVANIZED	OVHD	OVERHEAD	TECH	TECHNICAL		
CLO	CLOSET	GB	GRAB BAR			TEL.	TELEPHONE		
CLRM	CLASSROOM	G.I.	GALVANIZED IRON	PART.	PARTITION	TEMP.	TEMPERATURE		
CMT	CERAMIC MOSAIC TILE	GL.	GLASS	PB	PULL BOX	T.G.	TOP OF GRATE		
CMU	CONCRETE MASONRY UNIT	GLU LAM.	GLUE LAMINATED	PBD	PARTICLEBOARD	THK	THICK		
CND	CONDUIT	GND.	GROUND	PC	PORTLAND CEMENT	THRES.	THRESHOLD		
CO	CLEANOUT	GPM	GALLONS PER MINUTE	PD	PLANTER DRAIN	THRU	THROUGH		
COL	COLUMN	GR.	GRADE	PERF	PERFORATED	TKBD	TACKBOARD		
COMM	COMMUNICATION	GYP.	GYPSUM	PERP	PERPENDICULAR	T.O.	TOP OF		
COMP	COMPOSITION			PE	PAINT EGGSHELL	T.O.P.	TOP OF PARAPET		
CONC	CONCRETE	H.B.	HOSE BIBB	PF	PAINT FLAT	TOT	TOTAL		
CONF	CONFERENCE	HCN	HOLLOW CORE NATURAL FINISH	PG	PAINT GLOSS	T.P.	TOP OF PAVING		
CONN	CONNECTION	HCP	HOLLOW CORE PAINT FINISH	P.H.	PANIC HARDWARE	TRNSF.	TRANSFORMER		
CONT	CONTINUOUS	HDBD.	HARDBOARD	PIV	POST INDICATOR VALVE	TW	TOP OF WALL		
CONTR	CONTRACTOR	HDR	HEADER	P.L.	PROPERTY LINE	TYP.	TYPICAL		
COORD	COORDINATE	HDW.	HARDWARE	PL.	PLATE				
CORR	CORRIDOR	HDWD.	HARDWOOD	P.LAM.	PLASTIC LAMINATE	UGND	UNDERGROUND		
COV	COVER	HGT.	HEIGHT	PLAS.	PLASTER	UNFIN.	UNFINISHED		
CP	CONTROL PANEL	H.M.	HOLLOW METAL	PLAT.	PLATFORM	U.N.O.	UNLESS NOTED OTHERWISE		
CR	CONDENSATE RETURN	HORIZ.	HORIZONTAL	PLBG	PLUMBING	U.O.S.	UNDERSIDE OF STRUCTURE		
CSWK	CASEWORK	HP	HORSEPOWER	PLF	POUNDS PER LINEAR FOOT	UR.	URINAL		
CT	CERAMIC TILE	HR.	HOUR	PLYWD.	PLYWOOD	UTIL	UTILITY		
CTSK	COUNTERSUNK	HTG.	HEATING	PNL	PANEL				
CTV	CABLE TELEVISION	HTWR	HOT WATER RETURN	POS	POSITIVE	V	VOLT		
CW	COLD WATER	HTWS	HOT WATER SUPPLY	PR.	PAIR	VAC	VACUUM		
		HVAC	HEATING, VENTILATING, AIR CONDITIONING	PREFAB	PREFABRICATED	VAV	VARIABLE AIR VOLUME		
DBL	DOUBLE			PREFIN	PREFINISHED	V.C.T.	VINYL COMPOSITION TILE		
DEMO	DEMOLITION	HVY	HEAVY	PRELIM	PRELIMINARY	VERT.	VERTICAL		
DEPT	DEPARTMENT	HW	HOT WATER	PROJ	PROJECT	VEST.	VESTIBULE		
DET	DETAIL			PSF	POUNDS PER SQUARE FOOT	VFWC	VINYL FABRIC WALL COVERING		
DF	DRINKING FOUNTAIN	I.D.	INSIDE DIAMETER	PSG	PAINT SEMI-GLOSS				
DG	DECOMPOSED GRANITE	I.E.	INVERT ELEVATION	PSI	POUNDS PER SQUARE INCH	W	WATT		
DIA	DIAMETER	INSUL.	INSULATION	PVC	POLYVINYL CHLORIDE	W/	WITH		
DIM	DIMENSION	INT.	INTERIOR			W.C.	WATER CLOSET		
DISP.	DISPENSER	INV.	INVERT	Q.T.	QUARRY TILE	WD.	WOOD		
DIST.	DISTANCE	IW	IRRIGATION WATER	QTY	QUANTITY	WDW.	WINDOW		
DIV.	DIVISION					WHSE	WAREHOUSE		
D.L.	DEAD LOAD	JAN.	JANITOR			WL	WIND LOAD		
DN.	DOWN	JCT.	JUNCTION			WLD	WELDED		
DS.	DOWN SPOUT	JT.	JOINT			WP	WORKING POINT		
DWG.	DRAWING					WPG	WATERPROOFING		
						WR	WATER RESISTANT		
						WSCT.	WAINSCOT		
						WT	WEIGHT		
						W.W.F.	WELDED WIRE FABRIC		
						XFMR	TRANSFORMER		

SUMMARY OF WORK

THE PROJECT CONSISTS OF THE PLACEMENT OF (1) 32x60 MODULAR BUILDING FOR SPORTS MEDICINE USE. PC#02-116071

THE WORK ALSO INCLUDES SITE GRADING, DRAINAGE AND ELECTRICAL WORK.

GENERAL NOTES

ALL WORK TO CONFORM TO 2016 EDITION TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)

CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENTS APPROVED BY THE DIVISIONS OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.

A DSA CERTIFIED PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24 CCR). INSPECTOR SHALL HAVE CLASS (4) CERTIFICATION MINIMUM. Class 4.

A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE SCHOOL BOARD SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.

GRADING PLANS, DRAINAGE IMPROVEMENT, ROAD AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

THE PROVISIONS OF CFC AND CBC CH. 33 SHALL BE ENFORCED ON THIS PROJECT.

PROJECT DIRECTORY

OWNER
GLENDALE UNIFIED SCHOOL DISTRICT
349 WEST MAGNOLIA
GLENDALE, CA 91204
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ARCHITECT
tBP/ARCHITECTURE
4611 TELLER AVENUE
NEWPORT BEACH, CA 92660
T : (949) 673-0300

ELECTRICAL ENGINEER
FBA ENGINEERING
150 PAULARINO SUITE A120
COSTA MESA, CA 92626
T : (949) 852-9995

CIVIL ENGINEER
FPL AND ASSOCIATES, INC.
30 CORPORATE PARK, SUITE 401
IRVINE, CA 92606
T : (949) 252-1688

APPLICABLE CODES

APPLICABLE CODES AS OF JANUARY 1, 2017:

2016 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.

2016 CALIFORNIA BUILDING CODE (C.B.C.), PART 2, TITLE 24 C.C.R.
(2015 INTERNATIONAL BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH CALIFORNIA AMENDMENTS)

2016 CALIFORNIA ELECTRICAL CODE (C.E.C.), PART 3, TITLE 24 C.C.R.
(2014 NATIONAL ELECTRICAL CODE OF THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA)

2016 CALIFORNIA MECHANICAL CODE (C.M.C.), PART 4, TITLE 24 C.C.R.
(2015 UNIFORM MECHANICAL CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)

2016 CALIFORNIA PLUMBING CODE (C.P.C.), PART 5, TITLE 24 C.C.R.
(2015 UNIFORM PLUMBING CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)

2016 CALIFORNIA ENERGY CODE (C.E.C.), PART 6, TITLE 24 C.C.R.

2016 CALIFORNIA HISTORICAL BUILDING CODE, TITLE 24 C.C.R.

2016 CALIFORNIA FIRE CODE (C.F.C.), PART 9, TITLE 24 C.C.R.
(2015 INTERNATIONAL FIRE CODE OF THE INTERNATIONAL CODE COUNCIL)

2016 CALIFORNIA EXISTING BUILDING CODE, TITLE 24 C.C.R.
(2015 INTERNATIONAL EXISTING BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH AMENDMENTS)

2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 C.C.R.

2016 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.

TITLE 8 C.C.R., DIVISION 1, CHAPTERS 4 AND 6, ELEVATOR SAFETY ORDERS
(INCLUDING ASME A17.1-2004, SAFETY CODE FOR ELEVATORS AND ESCALATORS)

TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

PARTIAL LIST OF APPLICABLE STANDARDS

2016 CALIFORNIA BUILDING CODE (FOR SFM) REFERENCED STANDARDS CHAPTER 35

NFPA 13	AUTOMATIC SPRINKLER SYSTEM (CALIFORNIA AMENDED)	2016 EDITION
NFPA 14	STANDPIPE SYSTEMS (CALIFORNIA AMENDED)	2016 EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2013 EDITION
NFPA 17A	WET CHEMICAL EXTINGUISHING SYSTEMS	2013 EDITION
NFPA 20	STATIONARY PUMPS	2016 EDITION
NFPA 24	PRIVATE FIRE SERVICE MAINS (CALIFORNIA AMENDED)	2016 EDITION
NFPA 72	NATIONAL FIRE ALARM AND SIGNALING CODE (CALIFORNIA AMENDED) (NOTE: SEE UL STANDARD 1971 FOR "VISUAL DEVICES")	2016 EDITION
NFPA 80	FIRE DOOR AND OTHER OPENING PROTECTIVE	2016 EDITION
NFPA 253	CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS	2006 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS (CALIFORNIA AMENDED)	2015 EDITION

PORTABLE NOTES

THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE SHALL SUBMIT A LETTER CERTIFYING THAT THE EXITING BUILDING CONFORMS THE ORIGINALLY APPROVED PLANS AND SPECIFICATIONS AND HAS NOT SUFFERED STRUCTURAL DETERIORATION OR BEEN STRUCTURALLY ALTERED PER DSA IR 16-1.13

THE FOLLOWING DOCUMENTS SHALL BE ON THE JOBSITE PRIOR TO INSTALLATION OF THE UNIT(S):
a. IN-PLANT VERIFIED REPORT
b. LABORATORY VERIFIED REPORT
c. WELDING VERIFIED REPORT
THE SITE INSPECTOR SHALL VERIFY THE ABOVE DOCUMENTS AND SERIAL NUMBERS ARE APPLICABLE TO EACH UNIT PRIOR TO INSTALLATION OF THE UNIT(S).

NOTIFY ARCHITECT AND THE DIVISION OF THE STATE ARCHITECT FIELD ENGINEER IF ANY DISCREPANCIES OCCUR.

IN-PLANT INSPECTOR AND MANUFACTURER SHALL FOLLOW THE REQUIREMENTS OF DSA IR 16-1.13 AND INCLUDE THE FOLLOWING FORMATION ON ID TAG OF SHOP FABRICATED RELOCATABLE STRUCTURES:
1. THE DSA APPLICATION NUMBER AND CBC EDITION UNDER WHICH THE BUILDING CONSTRUCTION WAS AUTHORIZED;
2. THE MANUFACTURER OR BUILDER'S NAME;
3. THE SERIAL NUMBER;
4. THE DESIGN CLIMATE ZONES;
5. THE DESIGN LIVE LOADS FOR THE ROOF AND FLOORS;
6. THE DESIGN WIND SPEED AND EXPOSURE CATEGORY;
7. THE SEISMIC DESIGN PARAMETER Ss.

DETERIORATION OR EXISTING NON-COMPLIANT CONSTRUCTION... IF ANY CONDITIONS IS DISCOVERED WHICH, IF LEFT UNCORRECTED, WOULD MAKE THE BUILDING NON-COMPLIANT WITH THE REQUIREMENTS OF THE EDITION OF THE CBC IN FORCE AFTER TIME OF ORIGINAL CONSTRUCTION, THE CONDITION MUST BE CORRECTED IN ACCORDANCE WITH THE CURRENT CODE REQUIREMENTS. A CONSTRUCTION CHANGE ORDER (CCD), 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.

Statement of General Conformance

(Application No. _____ File No. 19-H13)

☒ The drawings or sheets listed on the cover or index sheet [marked by asterisk (*)]
☐ This drawing, page of specifications/calculations

have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings in this state. It has been examined by me for:

1) design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and

2) coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

This Statement of General Conformance "shall not be construed as relieving me of my rights, duties, and responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344" of Title 24, Part 1. (Title 24, Part 1, Section 4-317 (b))

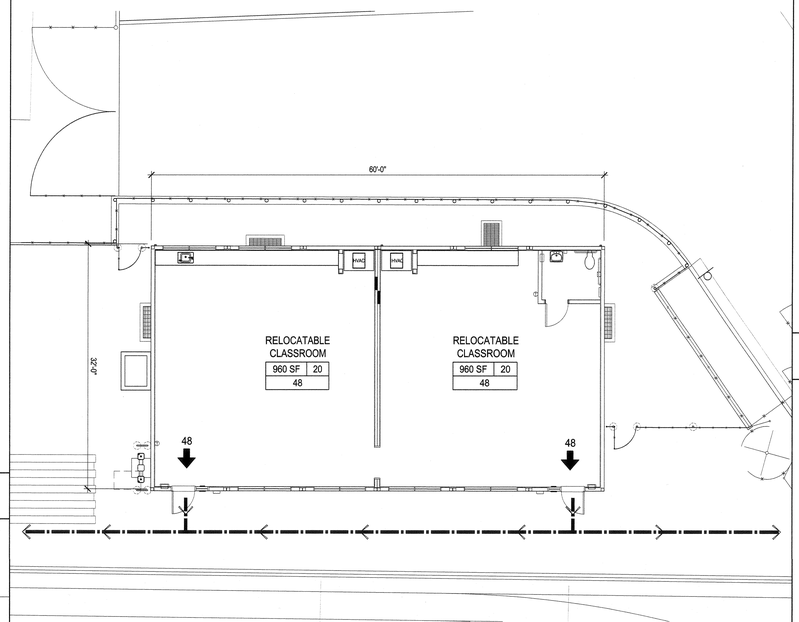
I find that: ☒ All drawings or sheets listed on the cover or index sheet ☐ This drawing or page

☒ is/are in general conformance with the project design, and ☒ has/have been coordinated with the project plans and specifications.	☐ is/are in general conformance with the project design intent, and ☐ has/have been coordinated with the project plans and specifications.
Signature: [signature] Date: 02/05/2019	Signature: _____ Date: _____
Architect or Engineer designated to be in general responsible charge	Architect or Engineer delegated responsibility for this portion of the work
Print Name: Hung L. Cheng	Print Name: _____
License Number: C34187 Expiration Date: April 30, 2019	License Number: _____ Expiration Date: _____

NEW MODULAR BUILDING INFORMATION

MODULAR BLDG. #	SIZE	MANUFACTURER	PC NO.
1	32' x 60'	AMS	02-116071

EXIT WIDTH CALCULATION:
(1) CLASSROOMS - 96 OCCUPANTS x 0.2 = 19.2" (1'-8") REQUIRED
72" (6'-0") EXIT WIDTH PROVIDED



WIND DESIGN DATA

2016 CBC 1603.1.4

1. ULTIMATE DESIGN WIND SPEED V=110 MPH
2. RISK CATEGORY II
3. WIND EXPOSURE CATEGORY C
4. INTERNAL PRESSURE COEFFICIENT +0.18
5. ENCLOSURE CLASSIFICATION ENCLOSED BLDG. (PORTABLE/RELOCATABLE)

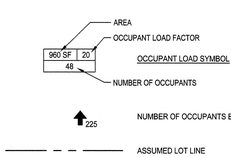
EARTHQUAKE DESIGN DATA

2016 CBC 1603.1.5

SITE COORDINATES: 34.226°N, 118.246°W
1. RISK CATEGORY: II
2. SEISMIC IMPORTANCE FACTOR: 1.25
3. MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS
   Ss = 2.718 g S1 = 0.971 g
4. SITE CLASS: D
5. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS
   SDS = 1.812 g SD1 = 0.971 g

GEOTECHNICAL INFORMATION
1. ALLOWABLE SOIL BEARING PRESSURE = 1500 PSF

CODE ANALYSIS - LEGEND



REFERENCE SYMBOLS

FULL BUILDING SECTION
A / A-4 — LETTER ABOVE - SECTION; NUMBER BELOW - SHEET NUMBER

PARTIAL BUILDING SECTION / WALL SECTION
B / A-4 — LETTER ABOVE - SECTION; NUMBER BELOW - SHEET NUMBER

EXTERIOR ELEVATION
1 / A-3 — NUMBER ABOVE - ELEVATION NUMBER; NUMBER BELOW - SHEET NUMBER

DETAIL
2 / 3.01 — NUMBER ABOVE - DETAIL NUMBER; NUMBER BELOW - SHEET NUMBER

MATERIAL SYMBOLS

EARTH | PLYWOOD | RIGID INSULATION
SAND & GROUT | FINISH WOOD | ACOUSTICAL CEILING PANEL/ TILE
CONCRETE | LATH & PLASTER
MASONRY | GYPSUM BOARD
STEEL | BATT INSULATION

SHEET INDEX

(TOTAL NUMBER OF SHEETS 82)

CODE ANALYSIS

OCCUPANCY GROUP: E
CONSTRUCTION TYPE: TYPE V-B, NON-SPRINKLERED

ALLOWABLE HEIGHT PER TABLE 504.3 & 504.4	ALLOWABLE	ACTUAL
NUMBER OF STORIES	1	1
BUILDING HEIGHT	40'-0"	12'-0"

ALLOWABLE BUILDING AREA	
BASIC ALLOWABLE AREA A(t) PER TABLE 506.2	9,500 S.F.
FRONTAGE INCREASE:	NO
SPRINKLER INCREASE:	~~NOT USED~~
TOTAL ALLOWABLE AREA A(a)	9,500 S.F.
ACTUAL BUILDING AREA	1,920 S.F.

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SHT. INDEX, GEN. NOTES, & CODE ANALYSIS

drawing no.:
T-2
drawing of

CRESCENTA VALLEY WATER DISTRICT
FIRE FLOW TEST FORM

REQUEST

Applicant's Name & Address: tBP/ARCHITECTURE - CAROLYN LOCHMET, 4611 TELLER AVE., NEWPORT BEACH, CA 92660

Applicant's Telephone: (949) 673-0300 x 332

( )

☐ Property Owner or ☒ Owner's Representative

Address of Building Requiring Fire Flow Test: CRESCENTA VALLEY HIGH SCHOOL

Zoning _____ Type of Construction: V-N

Occupancy or Use: EDUCATION E — Fire Flow Requirements: 1500 gpm @ 2 hr. duration as required by L.A. County/Glendale Fire Department

Signature of Applicant: [signature] Date: 12-7-18

District Approval of Flow Test: [signature] Date: 1/19/2019 ☐ Fee Paid

RESULTS: To Be Completed By Tester:		RESULTS: To Be Completed By District:	
Flow Hydrant Distance from Structure	212'	Flow Hydrant No.	Page 21 FH #31
Flow Hydrant Static Pressure	70 PSI	Flow Hydrant Street	Altura
Flow Hydrant Pitot Gauge Read (psi)	35 PSI	Flow Hydrant Cross Street	La Crescenta
Flow Hydrant Orifice Size (in.)	2.5 inch	Flow Hydrant Dist. to Cross Street	605'
Flow Rate (gpm)	998 GPM	Flow Hydrant Size	6"x4"x2.5"
Flow Rate @ 20 psi Residual	1,270	Flow Hydrant Main Size	6"
Residual Hydrant Static Pressure (psi)	65	Residual Hydrant No.	Page 22 FH. 25
Residual Hydrant Residual Pressure (psi)	60	CVWD Witness	Jason Ortega
Tester's Name	David Bowlings	Flow Test Date	1/18/19
Tester's Company	Crescenta Valley Water District	Comments	
Tester's Phone	(818) 248-3925		

FIRE FLOW ANALYSIS

2016 CALIFORNIA FIRE CODE TABLE B105.1(2) - MIN. REQUIRED FIRE FLOW AND FLOW DURATION FOR BUILDINGS

FIRE AREA TYPE V-B	FIRE FLOW (GPM)	FLOW DURATION (HOURS)		
1,920 S.F.	1,500	2		

BUILDING DESCRIPTION

TOTAL BUILDING AREAS: 1,920 S.F.

BUILDING HEIGHT: 12'-0" HIGH

BUILDING USE: E OCCUPANCY

CONSTRUCTION TYPE: TYPE V-B, NON-SPRINKLERED

SCOPE OF WORK

THE PROJECT CONSISTS OF A NEW CONSTRUCTION OF (1) NEW 32'X60' PORTABLE.
THE WORK ALSO INCLUDES SITE PAVING, CIVIL AND ELECTRICAL WORK.

SITE PLAN LEGEND

- EXISTING FIRE DEPARTMENT VEHICULAR ACCESS LANE 20'-0" MINIMUM UNOBSTRUCTED WIDTH
- FIREFIGHTER ACCESS WALKWAY 5'-0" MINIMUM CLEAR WIDTH
- (E) FH — EXISTING FIRE HYDRANT
- NEW PORTABLE BUILDING

FIRE DEPARTMENT NOTES

FIRE DEPARTMENT ACCESS SIGNAGE MAP - PLANS SHOWING THE FIRE DEPARTMENT ACCESS SIGNAGE MAP DETAILS SHALL BE SUBMITTED TO THE FIRE DEPT. FOR APPROVAL WITHIN 60 DAYS. THE SIGNAGE SHALL BE WEATHER RESISTANT AND OF AN APPROVED SIZE, AND SHALL SHOW THE FOLLOWING INFORMATION:

1. BUILDINGS AND BUILDING IDENTIFICATION
2. FIRE ACCESS ROAD(S)
3. APPROVED ACCESS WALKWAYS LEADING FROM FIRE APPARATUS ACCESS ROADS TO EXTERIOR OPENINGS
4. FIRE HYDRANTS
5. KNOX BOXES
6. FENCES AND GATES (VEHICLE AND PERSON GATES
7. FIRE DEPARTMENT CONNECTION AND DOUBLE DETECTOR CHECK
8. OTHER INFORMATION PERTINENT TO FIRE DEPARTMENT ACCESS

THE FIRE DEPARTMENT ACCESS SIGNAGE SHALL BE INSTALLED PRIOR TO THE NEW BUILDING CONSTRUCTION COMMENCING TO FACILITATE FIRE DEPARTMENT ACCESS DURING CONSTRUCTION. THIS SIGNAGE SHALL ALSO REMAIN IN PLACE UPON COMPLETION OF CONSTRUCTION AND SHALL BE UPDATED AS NEEDED TO FACILITATE FIRE DEPARTMENT ACCESS.

FIRE APPARATUS ACCESS ROADS AND WATER SUPPLY FOR FIRE PROTECTION SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION EXCEPT WHEN APPROVED ALTERNATIVE METHODS OF PROTECTION ARE PROVIDED. (SEE CFC SECTION 501.4)

KNOX BOX - THE MOUNTING HEIGHT FOR THE KNOX BOX SHALL NOT EXCEED 6'-0" ABOVE THE GROUND LEVEL / FINISHED FLOOR. PROVIDE (3) SETS OF KEYS (WITH PERMANENT ENGRAVED IDENTIFICATION) FOR ALL EXTERIOR DOORS, GATES AND FIRE ALARM PANEL AND OTHERS AS DIRECTED BY THE FIRE INSPECTOR.

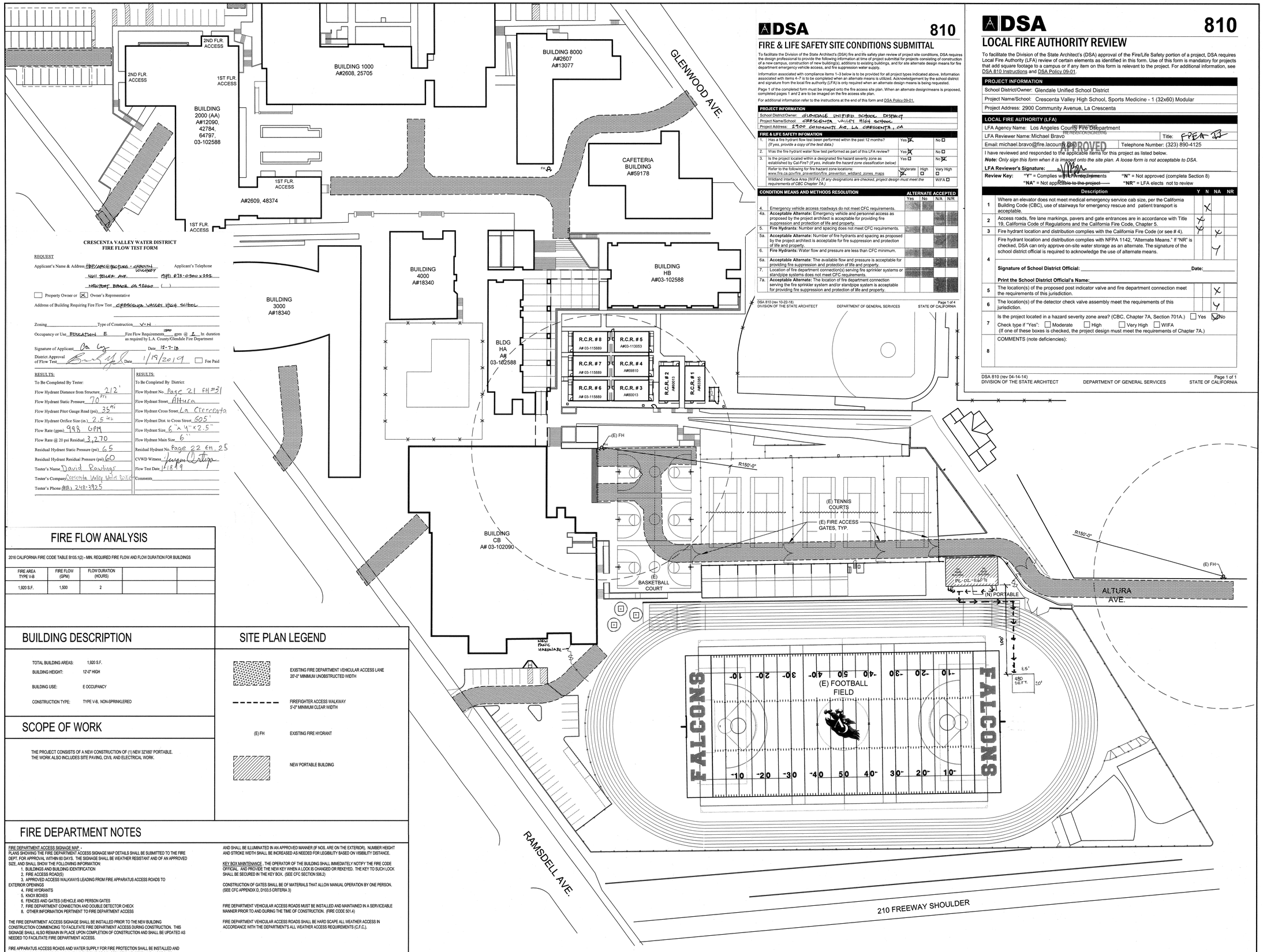
ADDRESS NUMBERS - APPROVED ADDRESS NUMBERS, BUILDING NUMBERS OR APPROVED BUILDING IDENTIFICATION SHALL BE PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET, ROAD, ALLEY AND WALKWAYS GIVING ACCESS TO AND WITHIN THE PROPERTY. THESE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMERALS OR ALPHABET LETTERS. NUMBERS SHALL BE A MIN. OF 4-INCHES (102 MM) HIGH W/ MIN. STROKE WIDTH 0.5 INCH (12.7 MM) AND SHALL BE ILLUMINATED IN AN APPROVED MANNER (IF NOS. ARE ON THE EXTERIOR). NUMBER HEIGHT AND STROKE WIDTH SHALL BE INCREASED AS NEEDED FOR LEGIBILITY BASED ON VISIBILITY DISTANCE.

KEY BOX MAINTENANCE - THE OPERATOR OF THE BUILDING SHALL IMMEDIATELY NOTIFY THE FIRE CODE OFFICIAL AND PROVIDE THE NEW KEY WHEN A LOCK IS CHANGED OR REKEYED. THE KEY TO SUCH LOCK SHALL BE SECURED IN THE KEY BOX. (SEE CFC SECTION 506.2)

CONSTRUCTION OF GATES SHALL BE OF MATERIALS THAT ALLOW MANUAL OPERATION BY ONE PERSON. (SEE CFC APPENDIX D, D103.5 CRITERIA 3)

FIRE DEPARTMENT VEHICULAR ACCESS ROADS MUST BE INSTALLED AND MAINTAINED IN A SERVICEABLE MANNER PRIOR TO AND DURING THE TIME OF CONSTRUCTION. (FIRE CODE 501.4)

FIRE DEPARTMENT VEHICULAR ACCESS ROADS SHALL BE HARD SCAPE ALL WEATHER ACCESS IN ACCORDANCE WITH THE DEPARTMENT'S ALL WEATHER ACCESS REQUIREMENTS (C.F.C.).



DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new building(s), additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply.

Information associated with compliance items 1–3 below is to be provided for all project types indicated above. Information associated with items 4–7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the local fire authority (LFA) is only required when an alternate design means is being requested.

Page 1 of the completed form must be imaged onto the fire access site plan. When an alternate design/means is proposed, completed pages 1 *and 2* are to be imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy 09-01.

PROJECT INFORMATION	
School District/Owner:	GLENDALE UNIFIED SCHOOL DISTRICT
Project Name/School:	CRESCENTA VALLEY HIGH SCHOOL
Project Address:	2900 COMMUNITY AVE, LA CRESCENTA, CA

FIRE & LIFE SAFETY INFOMATION				
1.	Has a fire hydrant flow test been performed within the past 12 months? *(If yes, provide a copy of the test data.)*	Yes ☒		No ☐
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☒		No ☐
3.	Is the project located within a designated fire hazard severity zone as established by *Cal-Fire*? *(If yes, indicate fire hazard zone classification below)*	Yes ☐		No ☒
	Refer to the following for fire hazard zone locations: www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps	Moderate ☒	High ☐	Very High ☐
	Wildland Interface Area (WFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED			
		Yes	No	N/A	N/R
4.	Emergency vehicle access roadways do not meet CFC requirements.				
4a.	**Acceptable Alternate:** Emergency vehicle and personnel access as proposed by the project architect is acceptable for providing fire suppression and protection of life and property.				
5.	**Fire Hydrants:** Number and spacing does not meet CFC requirements.				
5a.	**Acceptable Alternate:** Number of fire hydrants and spacing as proposed by the project architect is acceptable for fire suppression and protection of life and property.				
6.	**Fire Hydrants:** Water flow and pressure are less than CFC minimum.				
6a.	**Acceptable Alternate:** The available flow and pressure is acceptable for providing fire suppression and protection of life and property.				
7.	Location of fire department connection(s) serving fire sprinkler systems or standpipe systems does not meet CFC requirements.				
7a.	**Acceptable Alternate:** The location of fire department connection serving the fire sprinkler system and/or standpipe system is acceptable for providing fire suppression and protection of life and property.				

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DSA 810

LOCAL FIRE AUTHORITY REVIEW

To facilitate the Division of the State Architect's (DSA) approval of the Fire/Life Safety portion of a project, DSA requires Local Fire Authority (LFA) review of certain elements as identified in this form. Use of this form is mandatory for projects that add square footage to a campus or if any item on this form is relevant to the project. For additional information, see DSA 810 Instructions and DSA Policy 09-01.

PROJECT INFORMATION	
School District/Owner:	Glendale Unified School District
Project Name/School:	Crescenta Valley High School, Sports Medicine - 1 (32x60) Modular
Project Address:	2900 Community Avenue, La Crescenta

LOCAL FIRE AUTHORITY (LFA)		
LFA Agency Name:	Los Angeles County Fire Department	
LFA Reviewer Name:	Michael Bravo	Title: FPEA II
Email:	michael.bravo@fire.lacounty.gov	Telephone Number: (323) 890-4125

I have reviewed and responded to the applicable items for this project as listed below.
Note: *Only sign this form when it is imaged onto the site plan. A loose form is not acceptable to DSA.*

LFA Reviewer's Signature: [signature] Date: 12/20/18

Review Key: **"Y"** = Complies with LFA requirements **"N"** = Not approved (complete Section 8) **"NA"** = Not applicable to the project **"NR"** = LFA elects not to review

	Description	Y	N	NA	NR
1	Where an elevator does not meet medical emergency service cab size, per the California Building Code (CBC), use of stairways for emergency rescue and patient transport is acceptable.			X	
2	Access roads, fire lane markings, pavers and gate entrances are in accordance with Title 19, California Code of Regulations and the California Fire Code, Chapter 5.			X	
3	Fire hydrant location and distribution complies with the California Fire Code (or see # 4).			X	
4	Fire hydrant location and distribution complies with NFPA 1142, "Alternate Means." If "NR" is checked, DSA can only approve on-site water storage as an alternate. The signature of the school district official is required to acknowledge the use of alternate means. **Signature of School District Official:** _____ **Date:** _____ **Print the School District Official's Name:** _____			X	
5	The location(s) of the proposed post indicator valve and fire department connection meet the requirements of this jurisdiction.			X	
6	The location(s) of the detector check valve assembly meet the requirements of this jurisdiction.			X	
7	Is the project located in a hazard severity zone area? (CBC, Chapter 7A, Section 701A.) ☐ Yes ☒ No Check type if "Yes": ☐ Moderate ☐ High ☐ Very High ☐ WIFA (If one of these boxes is checked, the project design must meet the requirements of Chapter 7A.)				
8	COMMENTS (note deficiencies):				

DSA 810 (rev 04-14-14) DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES — Page 1 of 1 — STATE OF CALIFORNIA

tBP architecture planning interiors
tBP/Architecture
4611 Teller Avenue
Newport Beach, CA 92660
ph: 949.673.0300 fx: 949.732.3895

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP# 19722
AC [signature] DSA
DATE FEB 05 2019

CRESCENTA VALLEY HIGH SCHOOL SPORTS MEDICINE MODULAR BLDG.

GLENDALE UNIFIED SCHOOL DISTRICT
2900 COMMUNITY AVENUE
LA CRESCENTA, CALIFORNIA

owner

tBP project number : 21015.00
file name: 100T-3_Fire Access Site Plan
drawn by: EL checked by: CL
date: FEBRUARY 05, 2019

Rev:	date:	description:

drawing title:
FIRE ACCESS SITE PLAN

drawing no.:
T-3
drawing of

project north

0 10' 20' 40' 80'

FIRE ACCESS SITE PLAN — SCALE: 1"=40'-0" — 1

SITE IMPROVEMENT PLAN
FOR
CRESCENTA VALLEY HIGH SCHOOL
SPORTS MEDICINE RELOCATABLE

SHEET INDEX	
SHEET	DESIGNATION
C000	SITE IMPROVEMENT PLAN TITLE SHEET
C001	DEMOLITION PLAN
C002	DEMOLITION PLAN
C003	GRADING AND UTILITY PLAN
C004	GRADING AND UTILITY PLAN
C005	GRADING AND UTILITY DETAILS
C006	OFF-SITE DETAILS

GENERAL NOTES FOR GRADING

1. ALL WORK SHALL CONFORM WITH THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), 2015 EDITION AND THE LATEST REVISIONS THERETO, THE WORK AREA TRAFFIC CONTROL HANDBOOK (W.A.T.C.H. MANUAL), A.D.A, TITLE 24 REQUIREMENTS, AND 2016 C.B.C. UNLESS SPECIFIED OTHERWISE IN THE CONTRACT SPECIFICATIONS.
2. A COPY OF THE DIVISION OF STATE ARCHITECT APPROVED PRECISE GRADING PLANS MUST BE IN THE POSSESSION OF A RESPONSIBLE PERSON AND AVAILABLE AT THE JOB SITE AT ALL TIMES.
3. AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE REGIONAL NOTIFICATION CENTER (UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA – U.S.A. AT 811) TO OBTAIN AN INQUIRY IDENTIFICATION NUMBER AND TO REQUEST THE UTILITY OWNERS TO MARK OR OTHERWISE INDICATE THE LOCATION OF THEIR SUBSURFACE FACILITIES. THE CONTRACTOR SHALL DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES, INCLUDING ALL SERVICE CONNECTIONS, WHICH HAVE BEEN MARKED BY THE RESPECTIVE OWNERS AND WHICH MAY AFFECT OR BE AFFECTED BY ITS OPERATIONS. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT ALL UTILITIES AND ALL STRUCTURES FOUND AT THE SITE.
4. ALL PERMITS NECESSARY PRIOR TO BEGINNING CONSTRUCTION SHALL BE OBTAINED BY THE CONTRACTOR.
5. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CLEAN AND FREE FROM RUBBISH AND DEBRIS. THE CONTRACTOR SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER AND USING DUST FENCES OR OTHER METHODS AS DIRECTED BY THE CONSTRUCTION MANAGER OR FIELD INSPECTOR THROUGHOUT THE CONSTRUCTION OPERATION AND SHALL INCORPORATE IN BASE BID.
6. THE CONTRACTOR SHALL KEEP A STRICT RECORD OF ALL CHANGES THAT OCCUR DURING CONSTRUCTION PRACTICES AND SUBMIT THIS RECORD TO THE SCHOOL DISTRICT & DSA CERTIFIED AS "RECORD DRAWING" PLANS.
7. ALL DAMAGE CAUSED TO PUBLIC STREETS, INCLUDING HAUL ROUTES, ALLEYS, SIDEWALKS, CURBS OR STREET FURNISHINGS, OR TO PRIVATE PROPERTY SHALL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR TO THE ENGINEER'S SATISFACTION.
8. THE CONTRACTOR SHALL REMOVE AND REPLACE ANY BROKEN OR DAMAGED SIDEWALK, CURB, GUTTER OR ASPHALT PAVING AND TURF (PATCH, REPAIR OR OVERLAY) CAUSED BY THEIR WORK ON THIS PROJECT AT THE DIRECTION OF THE OWNER.
9. ALL UNDERGROUND SEWER, STORM DRAIN, AND WATER PIPELINES, ELECTRIC POWER, TELEPHONE OR CABLE TV CONDUITS AND CABLE AND GAS PIPELINES SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF CURBS, GUTTERS, SIDEWALKS AND PAVEMENT.
10. WHERE JOINING THE EXISTING PAVEMENT, SAWCUT TO SOUND PAVEMENT AND OVERLAY AS REQUIRED TO PROVIDE PROPER GRADE AND 2% MAX. CROSS-SLOPE OR 5% MAX. RUNNING SLOPE AS NOTED ON PLANS. ANY UNSOUND PAVEMENT SHALL BE REPLACED AS REQUIRED BY THE ENGINEER.
11. AT LEAST TWO (2) WORKING DAYS BEFORE COMMENCING EXCAVATION, THE CONTRACTOR SHALL POTHOLE AND EXPOSE THE EXISTING UTILITIES AT ALL CROSSINGS AND AT THE POINT OF TIE-IN; THEN CONTACT THE ENGINEER TO VERIFY THE ELEVATION OF THE EXISTING FACILITIES.
12. SURVEY MONUMENTS SHALL BE PRESERVED AND REFERENCED BEFORE CONSTRUCTION AND RE-PLACED AFTER CONSTRUCTION PURSUANT TO SECTION 2-9 OF THE S.S.P.W.C. (GREENBOOK).
13. ALL UNSUITABLE MATERIAL SHALL BE REMOVED, AS DIRECTED BY THE SOILS ENGINEER, FROM ALL AREAS ALL UNSUITABLE MATERIAL SHALL BE REMOVED, AS DIRECTED BY THE SOILS ENGINEER, FROM ALL AREAS TO RECEIVE COMPACTED FILL OR DRAINAGE STRUCTURES. TO RECEIVE COMPACTED FILL OR DRAINAGE STRUCTURES.
14. ALL DELETERIOUS MATERIAL (I.E. LUMBER, LOGS, BRUSH, RUBBISH, ETC.) SHALL BE REMOVED FROM ALL AREAS TO RECEIVE COMPACTED FILL AND HAULED TO DUMP-SITE APPROVED BY THE ENGINEER.
15. ALL AREAS TO RECEIVE COMPACTED FILL SHALL BE INSPECTED AND APPROVED BY THE SOILS ENGINEER AFTER REMOVAL OF UNSUITABLE MATERIAL AND EXCAVATION OF KEYWAYS AND BENCHES, AND PRIOR TO PLACEMENT OF SUBSURFACE DRAINAGE SYSTEMS OR ANY FILLS.
16. ALL SOILS OR ROCK MATERIALS DEEMED UNSUITABLE FOR PLACEMENT IN COMPACTED FILL SHALL BE REMOVED FROM THE SITE. ANY IMPORTED MATERIAL SHALL BE APPROVED BY THE SOILS ENGINEER PRIOR TO USE IN COMPACTED FILL. BLOCKY MATERIAL SHALL BE BROKEN INTO SUITABLE PARTICLE SIZES, BEFORE BEING USED AS FILL IN CONFORMANCE WITH THE CITY STANDARDS.
17. ALL TREE ROOTS, ABANDONED IRRIGATION LINES, UTILITY SERVICES AND SIMILAR MATERIALS ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED FROM THE SITE AND VOIDS CREATED THEREBY SHALL BE PROPERLY FILLED AND COMPACTED AS DIRECTED BY THE SOILS ENGINEER.
18. ALL EXCAVATED BACK SLOPES AND KEYS FOR BUTTRESS FILLS MUST BE EXAMINED BY THE ENGINEERING GEOLOGIST AND SOILS ENGINEER TO INSURE ALL POTENTIAL PLANES OF FAILURE HAVE BEEN EXPOSED IN THE EXCAVATION AND WILL BE ADEQUATELY SUPPORTED BY THE PROPOSED BUTTRESS FILLS.
19. THE SOILS ENGINEER SHALL SUBMIT RECOMMENDATIONS FOR CORRECTIVE WORK TO INSURE SLOPE STABILITY WHERE UNSTABLE MATERIAL IS EXPOSED AT THE TOP OF CUTS.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING STORM DAMAGE PREVENTION MEASURES OR EROSION CONTROL DEVICES AND/OR TO PERFORM CERTAIN GRADING TO PREVENT SOIL OR EXCESS RUNOFF FROM FLOWING INTO PUBLIC STREETS OR ADJACENT PROPERTIES. IN THE EVENT OF SUCH AN OCCURRENCE, CLEANUP SHALL COMMENCE IMMEDIATELY. SHOULD CITY FORCES OR THE CITY CONTRACTOR PERFORM ANY CLEANUP RESULTING FROM THIS DEVELOPMENT, THE CONTRACTOR SHALL PAY THE COST INCURRED WITHIN TEN (10) WORKING DAYS UPON RECEIPT OF BILLING.
21. EITHER WATER OR DUST PALLIATIVE, OR BOTH, MUST BE APPLIED FOR THE ALLEVIATION OR PREVENTION OF EXCESSIVE DUST RESULTING FROM THE LOADING OR TRANSPORTATION OF EARTH FROM OR TO THE PROJECT SITE OR PRIVATE AND PUBLIC ROADWAYS.
22. NO OVERSIZE OR OVERWEIGHT LOADS ARE PERMITTED WITHOUT A SEPARATE MOVING PERMIT.
23. ALL EQUIPMENT USED TO HAUL EXCAVATION OR FILL MATERIAL FROM OR TO THE SITE SHALL FOLLOW A DESIGNATED ROUTE OR ROUTES IN GOING TO AND FROM THE SITE. THE CONTRACTOR SHALL BE ENTITLED TO THE DESIGNATION OF A ROUTE PROVIDING ACCESS TO A SPECIFIED PLACE OTHER THAN THE SITE, AFTER SHOWING TO THE SATISFACTION OF THE CITY BUILDING OFFICIAL THAT SUCH SPECIFIED PLACE IS A PLACE WHERE EXCAVATION MATERIAL MAY BE REASONABLY DEPOSITED OR FILL MATERIAL MAY BE OBTAINED. A SEPARATE ENCROACHMENT PERMIT IS REQUIRED WHEN IT IS NECESSARY TO FLAG TRAFFIC OR INSTALL ANY TRAFFIC CONTROL DEVICES ON CITY RIGHT-OF-WAY.
24. ANY EARTH ROCK, GRAVEL, SAND, STONE OR OTHER EXCAVATED MATERIAL DEPOSITED OR CAUSED TO ROLL, FLOW OR WASH UPON ANY PUBLIC PLACE OR PRIVATE PROPERTY SHALL BE REMOVED FROM SUCH PUBLIC PLACE OR PRIVATE PROPERTY BY THE END OF THE WORKDAY BY THE CONTRACTOR RESPONSIBLE FOR THE DEPOSITION. IF AN ADVERSE CONDITION IS CAUSED BY DEPOSIT, THE CONDITION SHALL BE CORRECTED IMMEDIATELY.
25. EVERY EFFORT SHOULD BE MADE TO ELIMINATE THE DISCHARGE OF NON-STORMWATER FROM THE PROJECT SITE AT ALL TIMES.
26. ALL TRUCKS HAULING DIRT, SAND, OIL, OR OTHER LOOSE MATERIALS ARE TO BE COVERED OR SHOULD MAINTAIN AT LEAST TWO FEET OF FREEBOARD IN ACCORDANCE WITH THE REQUIREMENTS OF CVC SECTION 23114.
27. ADJUST UTILITY BOXES TO BE FLUSH WITH ULTIMATE FINISH SURFACE IN PAVING SCOPE OF WORK AREAS.
28. CONTRACTOR SHALL HIRE A LICENSED SURVEYOR TO STAKE ALL CATCH BASINS, STORM DRAIN PIPE, SAW-CUT LINES, BUILDING PADS, FINISH FLOORS, SWALES AND GRADE BREAKS. TWO STAKES SHALL BE PROVIDED FOR ALL CATCH BASINS.
29. IN ORDER TO MITIGATE THE IMPACTS ON CULTURAL RESOURCES OR LANDSCAPING, IF CULTURAL MATERIAL SUGGESTIVE OF PREHISTORIC OR HISTORIC ORIGIN IS ENCOUNTERED, WORK IN THE VICINITY OF THE FIND SHALL BE STOPPED, AND THE OWNER SHALL BE NOTIFIED. GRADING, CONSTRUCTION OR LANDSCAPING SHALL NOT RESUME UNTIL THE FIND IS EVALUATED AND IT IS DETERMINED WHETHER THE MATERIAL IS ARCHAEOLOGICALLY SIGNIFICANT AND ADDITIONAL MITIGATION IS REQUIRED.
30. NO PERSON SHALL, WHEN HAULING ANY EARTH, SAND, GRAVEL, ROCK, STONE OR OTHER EXCAVATED MATERIAL OR DEBRIS OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE, ALLOW SUCH MATERIAL TO BLOW OR SPILL OVER UPON SUCH STREET, ALLEY OR PUBLIC PLACE OR ADJACENT PRIVATE PROPERTY OR ANY WATER BODIES, CREEKS OR STREAMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP AND REMOVAL OF ANY CONSTRUCTION OR SOILS MATERIALS DEPOSITED ON THE PUBLIC RIGHT-OF-WAY, PUBLIC WATERS OR ADJACENT PRIVATE PROPERTY.

GENERAL NOTES TO CONTRACTOR

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7-10, PUBLIC CONVENIENCE AND SAFETY, OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK), IN REGARDS TO SAFETY ORDERS.
2. SCOPE OF WORK:

   A. PROVIDE ALL LABOR, SUPERVISION, MATERIALS, EQUIPMENT & FACILITIES NECESSARY TO FURNISH, FABRICATE, DELIVER, STORE AND INSTALL ALL WORK NOTED ON THE DRAWINGS.

   B. THE CONTRACTOR SHALL FURNISH & INSTALL ALL WORK NECESSARY TO MAKE A COMPLETE SYSTEM WHETHER OR NOT SUCH DETAILS ARE MENTIONED IN THESE SPECIFICATIONS OR SHOWN ON THE PLANS, BUT WHICH ARE OBVIOUSLY NECESSARY TO MAKE A COMPLETE SYSTEM, EXCEPTING ONLY THOSE PORTIONS THAT ARE SPECIFICALLY MENTIONED HEREIN OR PLAINLY MARKED ON THE ACCOMPANYING DRAWINGS AS BEING INSTALLED UNDER ANOTHER SECTION OF THE SPECIFICATION.
3. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY AVAILABLE SPACES FOR INSTALLING THE WORK.
4. COORDINATION: THE DRAWINGS ARE DIAGRAMMATIC & INTENDED TO SHOW SCOPE. CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES TO PROVIDE BEST ARRANGEMENT OF ALL DUCT, PIPES, CONDUIT, ETC.
5. WORKMANSHIP: THE WORK SHALL BE ACCOMPLISHED BY THE USE OF COMPETENT MECHANICS SKILLED IN THEIR TRADE. THE ENGINEER AND ARCHITECT SHALL HAVE THE RIGHT TO INTERPRET COMPLIANCE OF WORKMANSHIP WITH THE CONTRACT DOCUMENTS.
6. MATERIALS: ALL MATERIALS, APPLIANCES & EQUIPMENT SHALL BE NEW & THE BEST OF THEIR RESPECTIVE KIND. FREE FROM ALL DEFECTS AND OF THE MAKE, BRAND, AND QUANTITY SPECIFIED.
7. CLEAN-UP: UPON COMPLETION OF THE WORK UNDER THIS SECTION THE CONTRACTOR SHALL REMOVE ALL SURPLUS MATERIALS, EQUIPMENT & DEBRIS INCIDENTAL TO THIS WORK & LEAVE THE PREMISES CLEAN AND ORDERLY TO THE SATISFACTION OF THE ARCHITECT / OWNER.

GENERAL DEMOLITION NOTES

1. ALL ITEMS, SHOWN ON THIS PLAN TO BE REMOVED, SHALL BE VERIFIED BY THE SCHOOL DISTRICT PRIOR TO DEMOLITION. THE CONTRACTOR SHALL MEET WITH THE SCHOOLS REPRESENTATIVE PRIOR TO CLEARING AND GRUBBING.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION AND QUANTITY OF EXISTING SURFACE STRUCTURES AND SHALL BE SOLELY RESPONSIBLE FOR ANY UNIDENTIFIED UTILITIES, IMPROVEMENTS, TREES, ETC., TO BE DEMOLISHED AND REMOVED WITHIN THE DEMOLITION LIMIT LINE, INCLUDING APPURTENANT FOUNDATIONS OR SUPPORTS.
3. REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIAL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS AND SHALL PAY ALL FEES NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FIELD VERIFY AND FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK. ALL ITEMS TO BE REMOVED SHALL BE MARKED BY THE CONTRACTOR PRIOR TO DEMOLITION.
6. DAMAGE TO ANY EXISTING UTILITIES AND SERVICES WHICH ARE TO REMAIN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
7. TEMPORARY EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT DEBRIS AND UNSUITABLE MATERIALS FROM ENTERING STORM DRAIN, SANITARY SEWERS AND STREETS. REFER TO WATER POLLUTION CONTROL DRAWINGS.
8. DUST CONTROL SHALL BE IMPLEMENTED DURING DEMOLITION.
9. DEMOLITION IS LIMITED TO WITHIN DEMOLITION LIMIT LINE UNLESS NOTED OTHERWISE.
10. CONTACT AND COORDINATE WITH THE UTILITY COMPANYS FOR DEMOLITION AND REMOVAL OF EXISTING UTILITY LINES WITHIN EXISTING PUBLIC RIGHT-OF-WAY.
11. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL LANDSCAPING WATERING SYSTEMS WITHIN THE DEMOLITION LIMIT LINE UNLESS DESIGNATED TO REMAIN IN PLACE ON THE PLANS. WHERE THE DEMOLITION IMPACTS EXISTING LANDSCAPE TO REMAIN, MODIFY THE EXISTING IRRIGATION SYSTEM, INCLUDING ADDING IRRIGATION HEADS AS NECESSARY TO MAINTAIN COMPLETE AND FULL COVERAGE OF EXISTING PLANNING.
12. CONTRACTOR SHALL NOT DAMAGE ANY PUBLIC SIDEWALK DURING THE COURSE OF HIS WORK. THE USE OF SHORING ON SCHOOL PROPERTY WILL BE REQUIRED TO PROTECT THE PUBLIC SIDEWALK IF NECESSARY.
13. THE CONTRACTOR SHALL BACKFILL SOIL IN THE EXCAVATED TREE ROOT PITS AND THE TRENCHES FOR REMOVED EXISTING UNDERGROUND STRUCTURES, UTILITIES, AND IMPROVEMENTS.
14. THE CONTRACTOR SHALL NOT ABANDON-IN-PLACE ANY EXISTING UNDERGROUND STRUCTURE, UTILITY, OR IMPROVEMENT SO DESIGNATED FOR REMOVAL ON THE PROJECT PLANS UNLESS DIRECTED TO BY THE OWNER.
15. CONTRACTOR TO SAWCUT ALL EXISTING A.C. AND CONCRETE PAVEMENT AT DEMOLITION LIMIT LINE. CONTRACTOR SHALL REMOVE SIDEWALK, CURB & GUTTER TO THE NEAREST JOINT.
16. CONTRACTOR SHALL REPLACE ALL EXISTING IMPROVEMENTS OUTSIDE THE DEMOLITION LIMIT LINE THAT ARE DAMAGED DURING CONSTRUCTION TO MATCH EXISTING, INCLUDING PERMANENT TRENCH RESURFACING.
17. CONTRACTOR SHALL FIELD VERIFY THAT THE REMOVAL OF EXISTING UTILITIES WILL NOT IMPACT AREA OPERATIONS.
18. FOR REMOVAL, RELOCATION AND PROTECTION OF EXISTING ELECTRICAL AND COMMUNICATION CONDUITS, AND REMOVAL OF EXISTING LIGHT AND POWER POLES SEE ELECTRICAL SITE PLAN.
19. CONTRACTOR IS RESPONSIBLE TO KEEP ALL UTILITES OPERATIONAL THAT SERVES FACILITIES OUTSIDE THE SCOPE OF THE DEMOLITION ZONE. CONTRACTOR IS ALSO RESPONSIBLE TO REROUTE UTILITIES IF NECESSARY TO COMPLETE DEMOLITION.
20. CONTRACTOR SHALL INSTALL A TEMPORARY MINIMUM 8' HIGH CHAIN LINK CONSTRUCTION FENCE, WITH GREEN SCREEN, AROUND PERIMETER OF DEMOLITION AREA.
21. ALL EXISTING DRAINAGE STRUCTURES ON SITE SHALL BE PROTECTED AND REMAIN FUNCTIONAL DURING DEMOLITION AND THROUGH THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THESE STRUCTURES, OR DAMAGE CAUSED TO ADJACENT PROPERTIES DUE TO THE OBSTRUCTION OF THESE STRUCTURES.
22. ALL CONCRETE & CMU BLOCK WALLS & PLANTERS SHOWN ON THIS PLAN TO BE REMOVED SHALL INCLUDE WALL FOOTINGS & FOUNDATIONS IN THEIR REMOVAL.
23. THE PROVISIONS OF CALIFORNIA FIRE CODE CHAPTER 14 AND CALIFORNIA BUILDING CODE CHAPTER 37 SHALL BE ENFORCED ON THIS PROJECT.
24. CONTRACTOR SHALL ARRANGE TO SHUT OFF UTILITIES WITH EACH UTILITY COMPANY.
25. BEFORE EXCAVATING ANY TRENCH 5 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN TO THE SCHOOL SHOWING THE DESIGN OF SHORING, BRACING, SLOPING, OR OTHER PROVISIONS TO BE MADE FOR THE WORKERS' PROTECTION FROM THE HAZARD OF CAVING GROUND DURING THE EXCAVATION OF SUCH TRENCH. IF THE PLAN VARIES FROM THE SHORING SYSTEM STANDARDS, THE PLAN SHALL BE PREPARED BY A REGISTERED CIVIL ENGINEER. NO EXCAVATION SHALL START UNTIL THE SCHOOL HAS ACCEPTED THE PLAN AND THE CONTRACTOR HAS OBTAINED A PERMIT FROM THE STATE DIVISION OF INDUSTRIAL SAFETY.

FLOOD ZONE INFORMATION

Per Flood Insurance Rate Map Number 06037C1375F, dated SEPTEMBER 26, 2008, the flood zone for this area is "ZONE X". ZONE X is an area determined to be outside the 0.2% annual chance floodplain.

HORIZONTAL CONTROL

A CAD GEOMETRIC ELECTRONIC FILE SHALL BE MADE AVAILABLE TO THE CONTRACTOR UPON REQUEST FOR THE CONTRACTOR'S SURVEYOR TO LAYOUT THE CONSTRUCTION STAKING OF THE PROJECT. THE SURVEYOR OR CONTRACTOR WILL NEED TO SIGN A WAIVER FORM BEFORE RELEASE OF ANY CAD ELECTRONIC DRAWINGS.

EXISTING UNDERGROUND STRUCTURES

THE LOCATIONS OF THE EXISTING UNDERGROUND UTILITIES, AS SHOWN ON THIS PLAN, WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE LOCATIONS OF SUCH UNDERGROUND UTILITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK. CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO ANY EXCAVATION OR IMPROVEMENT. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN TO BE PROTECTED HEREON AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN HEREON.

BENCH MARK

BENCHMARK 9Y 4479, LA CANADA QUAD
LACO CUT SPIKE IN W CB @BCR @NW COR
FOOTHILL BLVD & CRESCENTA AVE.
ELEVATION = 107.644' NAVD88
DATE 2005

STORM WATER POLLUTION CONTROL NOTES:

1. APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTE, SPILLS OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.
2. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
3. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TACKING, OR WIND.
4. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 50%.
5. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REDUCE OR REMOVE SEDIMENT AND OTHER POLLUTANTS.
6. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
7. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
8. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.
9. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A WASHOUT BIN OR SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
10. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
11. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.
12. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
13. THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
14. THE GENERAL CONTRACTOR SHALL NOTIFY ALL SUBCONTRACTORS & MATERIAL SUPPLIERS: THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.
15. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.

THE FOLLOWING BMPs AS OUTLINED IN, BUT NOT LIMITED TO, THE STORMWATER BEST MANAGEMENT PRACTICE HANDBOOK, CONSTRUCTION, CALIFORNIA STORMWATER QUALITY ASSOCIATION, LATEST EDITION, MAY APPLY DURING CONSTRUCTION (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY INSPECTOR):

NON-STORMWATER MANAGEMENT & MATERIAL MANAGEMENT BMPs	EROSION & SEDIMENTAL CONTROL BMPs
NS-1 – WATER CONSERVATION PRACTICES	EC-1 – SCHEDULING
NS-2 – DEWATERING OPERATIONS	EC-2 – PRESERVATION OF EXISTING VEGETATION
NS-3 – PAVING AND GRINDING OPERATIONS	EC-7 – GEOTEXTILES & MATS
NS-6 – ILLICIT CONNECTION/DISCHARGE	EC-9 – EARTH DIKES AND DRAINAGE SWALES
NS-7 – POTABLE WATER/IRRIGATION	EC-11 – SLOPE DRAINS
NS-8 – VEHICLE AND EQUIPMENT CLEANING	SE-1 – SILT FENCE
NS-10 – VEHICLE AND EQUIPMENT MAINTENANCE	SE-2 – SEDIMENT BASIN
NS-12 – CONCRETE CURING	SE-3 – SEDIMENT TRAP
NS-13 – CONCRETE FINISHING	SE-4 – CHECK DAM
NS-14 – MATERIAL AND EQUIPMENT USE	SE-5 – FIBER ROLLS
WM-1 – MATERIAL DELIVERY AND STORAGE	SE-6 – GRAVEL BAG BERM
WM-2 – MATERIAL USE	SE-7 – STREET SWEEPING AND VACUUMING
WM-3 – STOCKPILE MANAGEMENT	SE-8 – SANDBAG BARRIER
WM-4 – SPILL PREVENTION AND CONTROL	SE-9 – STRAW BALE BARRIER
WM-5 – SOLID WASTE MANAGEMENT	SE-10 – STORM DRAIN INLET PROTECTION
WM-6 – HAZARDOUS WASTE MANAGEMENT	WE-1 – WIND EROSION CONTROL
WM-7 – CONTAMINATED SOIL MANAGEMENT	TC-1 – STABILIZED CONSTRUCTION ENTRANCE/EXIT
WM-8 – CONCRETE WASTE MANAGEMENT	TC-2 – STABILIZED CONSTRUCTION ROADWAY
WM-9 – SANITARY/SEPTIC WASTE MANAGEMENT	TC-3 – ENTRANCE/OUTLET TIRE WASH
WM-10 – LIQUID WASTE MANAGEMENT	

NOTE TO CONTRACTOR: BEFORE DEMOLITION OCCURS, THE CONTRACTOR SHALL COMPLETE HIS OWN UNDERGROUND UTILITY MAPPING SURVEY OF THE PROJECT SITE TO DETERMINE WERE EXISTING UTILITIES ARE AND WHERE POSSIBLE UNDERGROUND CONFLICTS MAY OCCUR.

EARTHWORK NOTICE TO CONTRACTOR: NO EARTHWORK ANALYSIS HAS BEEN COMPLETED WITH RESPECT TO VOLUMES OF SOILS TO BE EXCAVATED, PLACED, OR IMPORTED IN ORDER TO PROVIDE THE FINISHED GRADES SHOWN ON THE PLANS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE EARTHWORK QUANTITIES NECESSARY TO COMPLETE THE PROJECT.

CONSTRUCTION STORM WATER NOTE:
GRADING WORK ASSOCIATED WITH THIS PROJECT WILL DISTURB LESS THAN 1 ACRE OF SOIL AND THUS SHALL NOT BE SUBJECT TO COMPLY WITH THE NPDES STORMWATER CONSTRUCTION GENERAL PERMIT 2009-0009-DWQ.

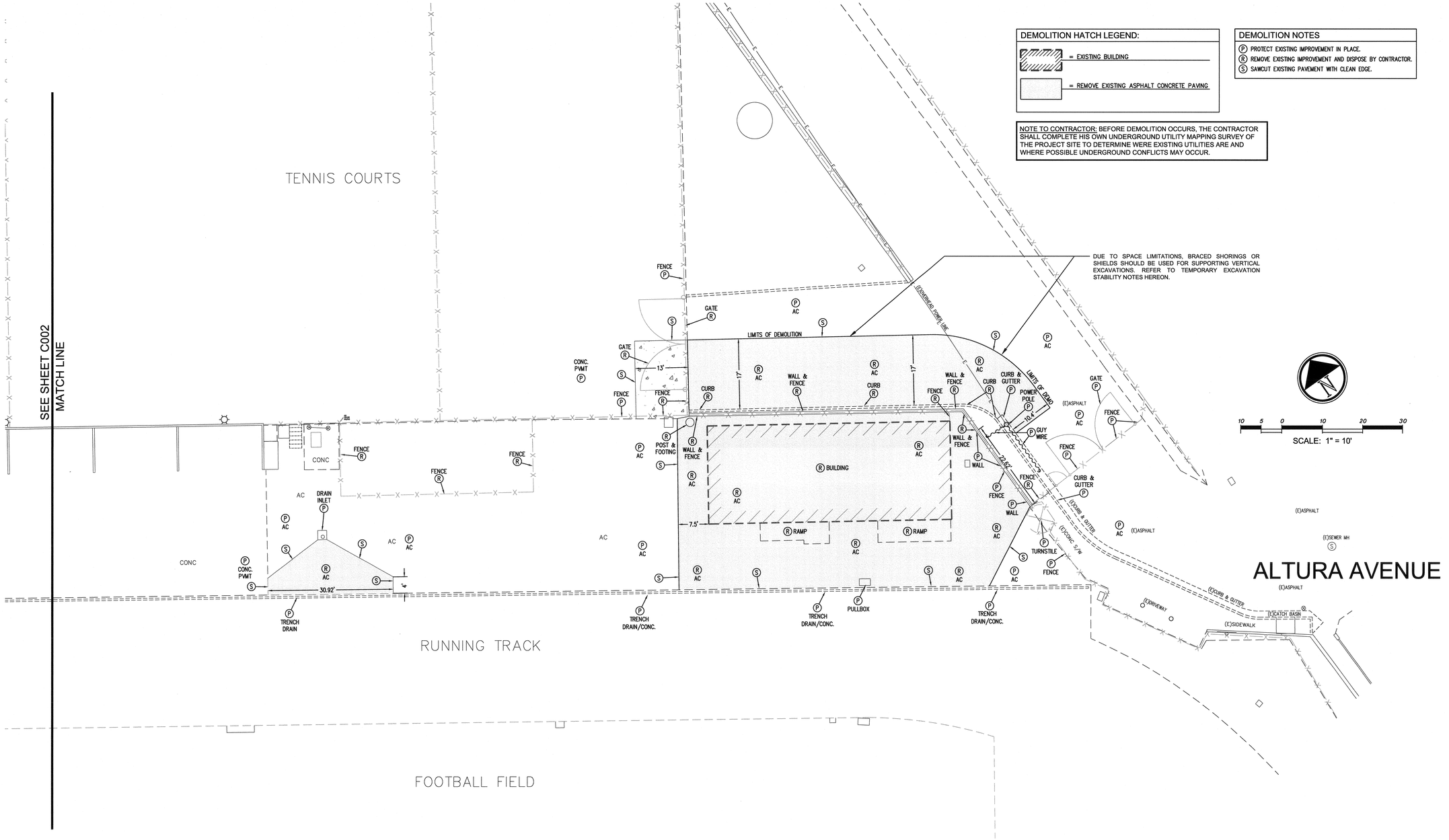
GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

LEGEND

- (S) SEWER MANHOLE
- (D) STORM DRAIN MANHOLE
- (T) TELEPHONE MANHOLE
- FIRE HYDRANT
- (C) SEWER CLEANOUT
- WATER VALVE
- GAS VALVE
- WATER METER
- GAS METER
- WATER VAULT
- GAS VAULT
- TELEPHONE VAULT
- ELECTRIC VAULT
- WELL
- ELECTRIC PULLBOX
- GUY WIRE
- LIGHT
- OVERHANG POST
- SIGN POST
- MAIL BOX
- WIRE FENCE
- CHAIN LINK FENCE
- BLOCK WALL
- TREE
- FLOW DIRECTION
- FS FINISHED SURFACE
- FF FINISHED FLOOR
- (12.5) (E)CONTOUR ELEVATION
- 13.45 PROPOSED ELEVATION
- PROPERTY LINE
- CENTERLINE
- IRRIGATION VALVE
- T TRASH ENCLOSURE
- GRATE
- CF CURB FACE
- INV INVERT
- SD STORM DRAIN
- W DOMESTIC WATER
- SS SANITARY SEWER
- G GAS
- E ELECTRICAL/POWER
- C COMMUNICATIONS

ABBREVIATIONS

ABND	ABANDONED	MH	MANHOLE
AC	ASPHALT PAVEMENT	NG	NATURAL GROUND



OVEREXCAVATION & RECOMPACTION NOTES:

TO MINIMIZE POST-CONSTRUCTION SOIL MOVEMENT AND PROVIDE UNIFORM SUPPORT FOR THE PROPOSED BUILDING AND WALL, OVEREXCAVATION AND RECOMPACTION WITHIN THE PROPOSED BUILDING AND RETAINING WALL AREA SHOULD BE PERFORMED TO TWO (2) FEET BELOW BOTTOM OF THE PROPOSED FOOTINGS. THE OVEREXCAVATION AND RECOMPACTION SHOULD ALSO EXTEND LATERALLY TO A MINIMUM OF 5 FEET BEYOND THE OUTER EDGES OF THE PROPOSED FOOTINGS.

ANY FILL MATERIALS ENCOUNTERED DURING GRADING SHOULD BE REMOVED AND REPLACED WITH ENGINEERED FILL. THE ACTUAL DEPTH OF THE OVEREXCAVATION AND RECOMPACTION SHOULD BE DETERMINED BY THE SOILS ENGINEER DURING CONSTRUCTION. THE UPPER ORGANIC-FREE, ON-SITE, NATIVE SOILS ARE PREDOMINATELY SILTY SAND WITH GRAVEL. THESE SOILS SHOULD BE SUITABLE FOR REUSE AS NON-EXPANSIVE ENGINEERED FILL, PROVIDED THEY ARE CLEANSED OF EXCESSIVE ORGANICS, DEBRIS AND ROCKS OVER 3 INCHES IN SIZE.

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PRIOR TO PLACEMENT OF FILL SOILS, THE UPPER 8 INCHES OF NATIVE SUBGRADE SOILS SHOULD BE SCARIFIED, MOISTURE-CONDITIONED TO NO LESS THAN THE OPTIMUM MOISTURE CONTENT AND RECOMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY BASED ON ASTM D1557-07 TEST METHOD.

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DEPTH OF EXCAVATION (FT)	SLOPE (HORIZONTAL-VERTICAL)
0-5	1:1
5-10	2:1

IF, DUE TO SPACE LIMITATION, EXCAVATIONS NEAR EXISTING STRUCTURES ARE PERFORMED IN A VERTICAL POSITION, BRACED SHORINGS OR SHIELDS MAY BE USED FOR SUPPORTING VERTICAL EXCAVATIONS. THEREFORE, IN ORDER TO COMPLY WITH THE LOCAL AND STATE SAFETY REGULATIONS, A PROPERLY DESIGNED AND INSTALLED SHORING SYSTEM WOULD BE REQUIRED TO ACCOMPLISH PLANNED EXCAVATIONS AND INSTALLATION.

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consultant

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A03-119722
AC RLS SS
DATE FEB 05 2019

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CRESCENTA VALLEY HIGH SCHOOL SPORTS MEDICINE RELOCATABLE

2900 COMMUNITY AVENUE
LA CRESCENTA, CALIFORNIA 91214

GLENDALE UNIFIED SCHOOL DISTRICT

owner

tBP project number : 21015.00

file name:

drawn by: DB checked by: RC

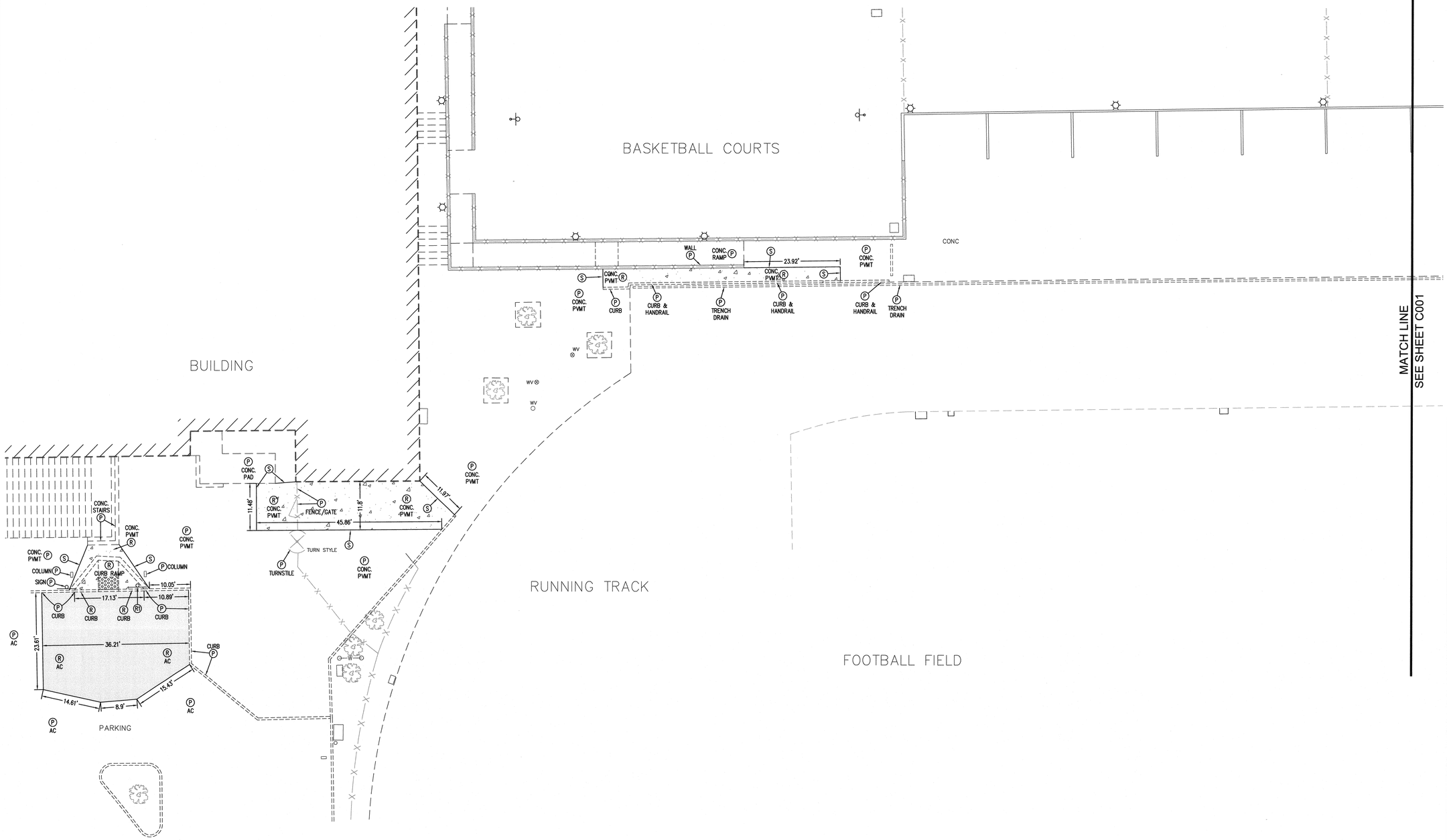
date: 01-21-2019

Rev:	date:	description:

drawing title:
DEMOLITION PLAN

drawing no.:
C001

drawing of



DEMOLITION HATCH LEGEND:	
	= EXISTING BUILDING
	= REMOVE EXISTING ASPHALT CONCRETE PAVING
	= REMOVE EXISTING CONCRETE PAVING

DEMOLITION NOTES

- (P) PROTECT EXISTING IMPROVEMENT IN PLACE.
- (R) REMOVE EXISTING IMPROVEMENT AND DISPOSE BY CONTRACTOR.
- (RI) REMOVE & SALVAGE EXISTING SIGN AND POST. POST & SIGN SHALL BE REINSTALLED.
- (S) SAWCUT EXISTING PAVEMENT WITH CLEAN EDGE.

10 5 0 10 20 30

SCALE: 1" = 10'

tBP architecture planning interiors

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REGISTERED PROFESSIONAL ENGINEER
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Exp. 09-30-19
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owner

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Rev:	date:	description:

drawing title:
DEMOLITION PLAN

drawing no.:
C002

drawing of

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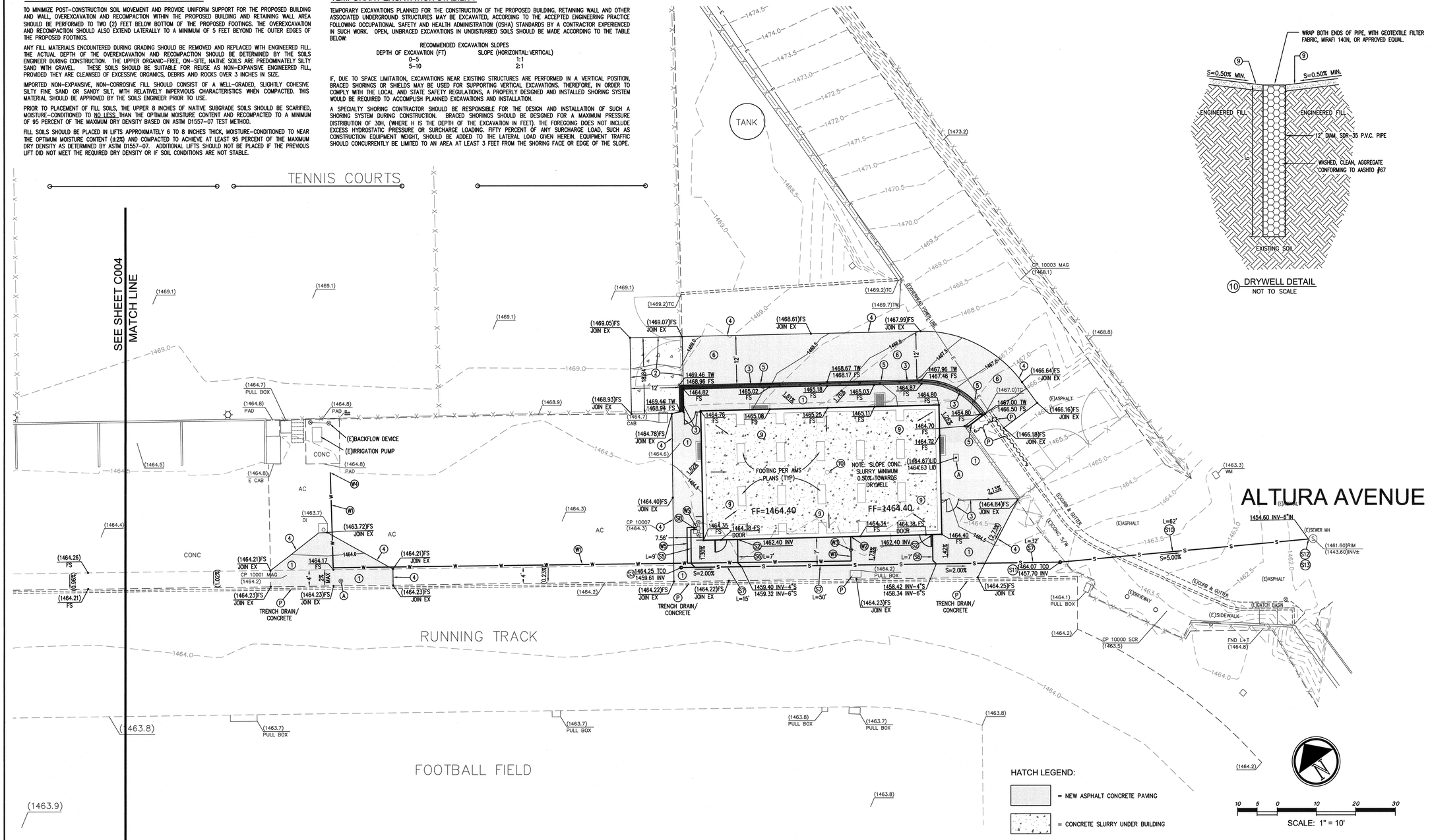


10 DRYWELL DETAIL
NOT TO SCALE

HATCH LEGEND:

= NEW ASPHALT CONCRETE PAVING

= CONCRETE SLURRY UNDER BUILDING

10 5 0 10 20 30
SCALE: 1" = 10'

POTABLE WATER CONSTRUCTION NOTES:

- (W1) CONSTRUCT 1.5" SCH. 80 P.V.C. PIPE, FITTINGS, AND COUPLINGS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON SHEET C005.
- (W2) CONNECT TO BUILDING WATER PER DETAIL 9 ON SHEET POC-2.
- (W3) CONSTRUCT SHUT-OFF VALVE IN YARDBOX TO MATCH WATER LINE SIZE PER DETAIL W3 ON C005.
- (W4) CONNECT TO EXISTING WATER LINE WITH APPLICABLE COUPLINGS AND FITTINGS. CONTRACTOR WILL NEED TO LOCATE EXISTING POTABLE WATER LINE IN THIS AREA.
- (W5) CONSTRUCT 1/2-INCH SCH. 80 P.V.C. PIPE, FITTINGS, AND COUPLINGS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON SHEET C005.
- (W6) CONNECT 1/2-INCH WATER LINE TO DRINKING FOUNTAIN.

SEWER CONSTRUCTION NOTES (ON CAMPUS):

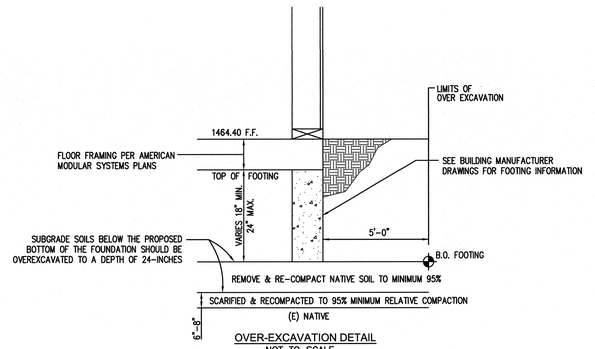
- (S1) PROTECT EXISTING SEWER IMPROVEMENT IN PLACE.
- (S2) CONNECT TO BUILDING SEWER PER DETAIL 9 ON SHEET POC-2.
- (S3) CONSTRUCT SEWER CLEAN OUT & YARD BOX PER DETAIL S3 ON SHEET C005.
- (S4) CONNECT TO EXISTING SEWER LINE AT MANHOLE.
- (S5) CONSTRUCT 2" SCH. 40 PVC PIPE AND FITTINGS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON SHEET C005.
- (S6) CONSTRUCT 4" SDR-35 PVC PIPE AND FITTINGS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON SHEET C005.
- (S7) CONSTRUCT 6" SDR-35 PVC PIPE AND FITTINGS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON SHEET C005.
- (S8) CONNECT 2" SEWER LINE TO DRINKING FOUNTAIN.

GRADING CONSTRUCTION NOTES:

- (P) PROTECT EXISTING IMPROVEMENT IN PLACE.
- (A) ADJUST EXISTING IMPROVEMENT TO BE FLUSH WITH ADJACENT FINISH SURFACE.
- (1) CONSTRUCT ASPHALT PAVEMENT, LIGHT DUTY SECTION, PER TABLE 1 ON SHEET C005.
- (2) CONSTRUCT CONCRETE PAVEMENT PER ARCHITECTURAL PLAN.
- (3) CONSTRUCT FENCE/GATE PER ARCHITECTURAL PLAN.
- (4) APPLY TACK COAT ON EXISTING SIDES OF ASPHALT PAVEMENT PER S.S.P.W.C. PROVISION 302-5.4.
- (5) CONSTRUCT RETAINING WALL PER STRUCTURAL PLANS.
- (6) CONSTRUCT ASPHALT PAVEMENT, HEAVY DUTY SECTION, PER TABLE 1 ON SHEET C005.
- (7) CONSTRUCT CONCRETE CURB PER GRADES HEREON AND DETAIL 7 ON SHEET C005.
- (9) CONSTRUCT 2" MIN. THICK P.C.C. GOPHER SLAB, NO REBAR. CONCRETE CLASS 520-C-2500, PER S.S.P.W.C. SECTION 201-1 PROVISIONS.
- (10) CONSTRUCT DRYWELL PER DETAIL 10 HEREON.

SEWER CONSTRUCTION NOTES (IN CVWD AUTHORITY): CVWD=CRESCENTA VALLEY WATER DISTRICT

- (S10) CONSTRUCT 6" EXTRA STRENGTH VITRIFIED CLAY PIPE & FITTINGS. ALL VCP AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C700 AS IT APPLIES TO EXTRA STRENGTH, UNGLAZED VCP. VCP JOINTS SHALL EITHER BE PLAIN END TO PLAIN END OR BELL AND SPIGOT CONFORMING TO ASTM C425. PLAIN END TO PLAIN END JOINTS SHALL CONSIST OF STEEL BANDED RUBBER OR ELASTOMERIC POLYVINYL CHLORIDE COUPLINGS WITH CORROSION RESISTANT TYPE 316 STAINLESS STEEL CLAMPS AND TYPE 305 BOLTS. TRENCH AND BACKFILL SEWER PIPE PER CVWD STD. DWG 40-S, REFER TO DETAIL ON C006. CONTRACTOR SHALL REPAIR DAMAGED CONCRETE SIDEWALK, CURB & GUTTER TO MATCH EXISTING.
- (S11) CONSTRUCT STANDARD CLEANOUT PER CVWD DWG. NO. 30-S, REFER TO DETAILS ON C006.
- (S12) CORE DRILL OPENING IN EXISTING MANHOLE WALL. GROUT IN NEW 6" SEWER PIPE TO PROVIDE A WATERTIGHT SEAL.
- (S13) CONSTRUCT RELINER IN EXISTING SEWER MANHOLE PER DETAILS ON C006.



OVER-EXCAVATION DETAIL
NOT TO SCALE

NOTE TO CONTRACTOR: THE GENERAL CONTRACTOR IS REQUIRED TO PERFORM ALL SITE PREPRATION WORK, INCLUDING BUT NOT LIMITED TO: EXCAVATION, OVER-EXCAVATION, SCARIFING, COMPACTION & HAULING AWAY EARTH MATERIAL UNDER PROPOSED BUILDING TO FORM PIT FOR FOUNDATIONS. EXISTING SUBGRADE SOILS BELOW THE PROPOSED BOTTOM OF THE FOUNDATIONS SHOULD BE OVEREXCAVATED TO A MINIMUM DEPTH OF 24-INCHES BELOW THE BOTTOM OF THE FOOTING. THE OVEREXCAVATION SHOULD BE EXTENDED BEYOND THE EDGES OF THE FOOTINGS, A DISTANCE OF 5 FEET. PRIOR TO PLACING ANY NEW FILL, THE UPPER 6 TO 8 INCHES OF THE SUBGRADE SHOULD BE SCARIFIED AND REWORKED. ALL REWORKED SOILS AND STRUCTURAL FILLS SHOULD BE DENSIFIED TO ACHIEVE AT LEAST 95% RELATIVE COMPACTION PER ASTM D1557. CONTRACTOR SHALL ALSO INSTALL ACCESS WELLS, AIR VENTS & CONCRETE FOUNDATIONS. CONTRACTOR IS REQUIRED TO REMOVE SUPLUS SOIL AND WASTE MATERIAL, INCLUDING UNSATISFACTORY SOIL, TRASH, & DEBRIS AND LEGALLY DISPOSE OF IT OFF THE OWNER'S PROPERTY.

EARTHWORK NOTICE TO CONTRACTOR:
NO EARTHWORK ANALYSIS HAS BEEN COMPLETED WITH RESPECT TO VOLUMES OF SOILS TO BE EXCAVATED, PLACED, OR IMPORTED IN ORDER TO PROVIDE THE FINISHED GRADES SHOWN ON THE PLANS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE EARTHWORK QUANTITIES NECESSARY TO COMPLETE THE PROJECT.

NOTE TO CONTRACTOR: BEFORE DEMOLITION OCCURS, THE CONTRACTOR SHALL COMPLETE HIS OWN UNDERGROUND UTILITY MAPPING SURVEY OF THE PROJECT SITE TO DETERMINE WERE EXISTING UTILITIES ARE AND WHERE POSSIBLE UNDERGROUND CONFLICTS MAY OCCUR.

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REGISTERED PROFESSIONAL ENGINEER — BRIAN W. NG — No. C 34971 — Exp. 09-30-19 — CIVIL — STATE OF CALIFORNIA

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DEPARTMENT OF GENERAL SERVICES
AC FLS SS
DATE FEB 05 2019

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CRESCENTA VALLEY HIGH SCHOOL SPORTS MEDICINE RELOCATABLE

2900 COMMUNITY AVENUE
LA CRESCENTA, CALIFORNIA 91214

GLENDALE UNIFIED SCHOOL DISTRICT

owner

tBP project number : 21015.00

file name:

drawn by: DB checked by: RC

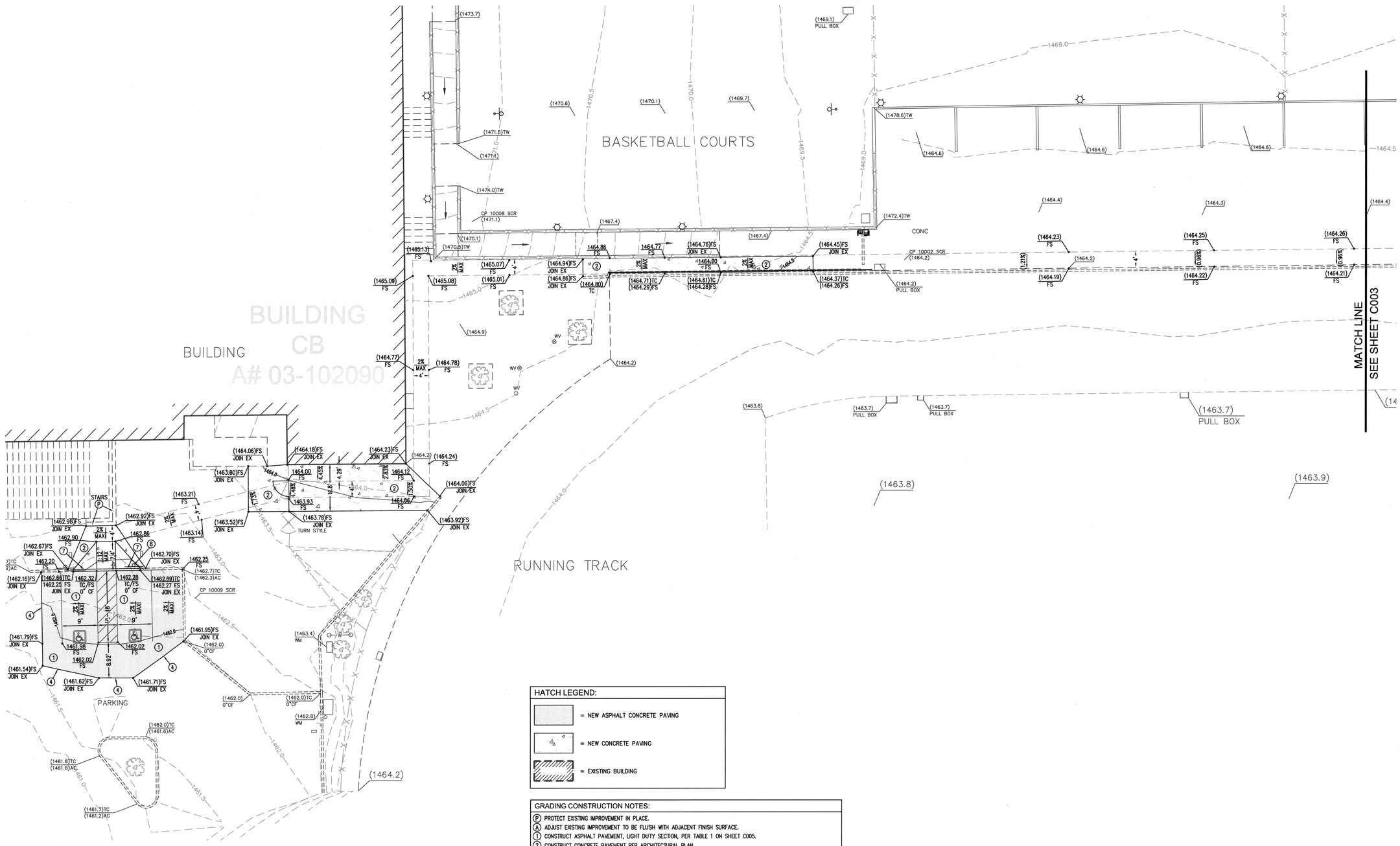
date: 01-21-2019

Rev: date: description:

drawing title:
GRADING AND UTILITY PLAN

drawing no.:
C003

drawing of



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owner

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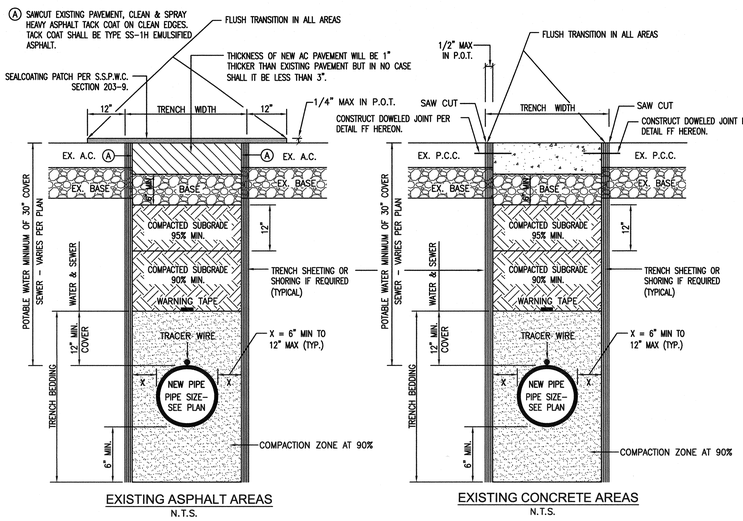
Rev:	date:	description:

drawing title:
GRADING PLAN

drawing no.:
C004

drawing of

ON-SITE TRENCHING DETAILS - SEWER & WATER LINES



EXISTING ASPHALT AREAS
N.T.S.

EXISTING CONCRETE AREAS
N.T.S.

TRENCH EXCAVATION, BEDDING, & BACKFILL NOTES:

EXCAVATION NOTE: THE 2016 CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (CAL/OSHA) WILL REQUIRE A PERMIT FOR THE CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE FIVE (5) FEET OR DEEPER AND INTO WHICH A PERSON IS REQUIRED TO DESCEND. FOR PERMIT PURPOSES, "DESCEND" MEANS TO ENTER ANY PART OF THE TRENCH OR EXCAVATION ONCE THE EXCAVATION HAS ATTAINED A DEPTH OF 5 FEET OR MORE. FOR REGULATIONS RELATING TO PERMITS FOR EXCAVATIONS AND TRENCHES, REFER TO THE CALIFORNIA CODE OF REGULATIONS TITLE 8, CHAPTER 3.2, ARTICLE 2, SECTION 341 OF THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (CAL/OSHA)

THE CONTRACTOR SHALL SUBMIT A DETAIL SHOWING THE DESIGN OR SHORING, BRACING SLOPING OR OTHER PROVISIONS TO BE MADE FOR WORKER PROTECTION FROM THE HAZARDS OF CAVING GROUND DURING THE EXCAVATION. THE PLAN SUBMITTED SHALL BE SIGNED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER CERTIFIED THAT THE PLAN COMPLIES WITH ALL OSHA CONSTRUCTION SAFETY ORDERS.

BEDDING & BACKFILL SHALL BE PLACED IN ACCORDANCE WITH SECTION 306-1.2.1 AND 306-1.3 OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (S.S.P.W.C.), 2015 EDITION" AND AS SUPPLEMENTED HEREIN. TRENCH BACKFILL SLURRY PER SECTION 201-1. EXISTING SITE SOILS, WHERE CONDITIONS DICTATE HEREIN, ARE CONSIDERED SUITABLE FOR BACKFILLING OF UTILITY TRENCHES PROVIDED THEY ARE FREE OF DEBRIS, PARTICLES GREATER THAN 4 INCHES IN MAXIMUM DIMENSION, ORGANIC MATTER OR OTHER DELETERIOUS MATERIALS. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO CONDUITS, PIPES, AND ANY APPURTENANCES. PER SECTION 306-1.2.1 OF S.S.P.W.C., IF SOFT, SPONGY, UNSTABLE OR OTHER UNSUITABLE MATERIAL IS ENCOUNTERED UPON WHICH THE BEDDING MATERIAL OR PIPE IS TO BE PLACED, THIS MATERIAL SHALL BE REMOVED TO A DEPTH ORDERED BY THE CIVIL ENGINEER AND REPLACED WITH BEDDING MATERIAL SUITABLY DENSIFIED.

COMPACTION METHODS: ALL BEDDING & BACKFILL COMPACTION SHALL BE BY HAND-OPERATED, PLATE-TYPE, VIBRATORY, OR OTHER SUITABLE HAND-TAMPERS IN AREAS NOT ACCESSIBLE TO LARGER ROLLERS OR COMPACTERS. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO CONDUITS, PIPES, AND ANY APPURTENANCES. WATER DENSIFICATION BY INUNDATION OR JETTING SHALL NOT BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM CIVIL ENGINEER.

SHEETING: WHEN EXCAVATION DEPTHS OR SOIL CONDITIONS REQUIRE SHORING OR USE OF A TRENCH BOX, THE BOTTOM OF THE SHORING OR TRENCH BOX SHOULD BE PLACED NO LOWER THEN THE TOP OF THE PIPE. THIS PREVENTS DISRUPTION OF THE BACKFILL ENVELOPE WHEN REMOVING THE SHORING OR TRENCH BOX. IF THIS PRACTICE CANNOT BE FOLLOWED, CONSIDERATION SHOULD BE GIVEN TO LEAVING THE SHORING IN PLACE.

* GENERAL NOTES:

IF 90% COMPACTION IS NOT ATTAINABLE DURING CONSTRUCTION THE USE OF A SLURRY BACKFILL MAY BE SUBSTITUTED. SAND SLURRY SHALL CONSIST OF 1 SACK PORTLAND CEMENT (CLASS 100-E-100) PER CUBIC YARD OF SAND SLURRY MIX.

WARNING TAPE NOTES (ON-SITE WATER):

A METALLIC LINED TAPED FOR UNDERGROUND PIPES, MARKED "CAUTION BURIED WATER LINE BELOW", IN POLYETHYLENE FILM COLOR BLUE, INSTALLED ABOVE PIPE, 6" WIDE.

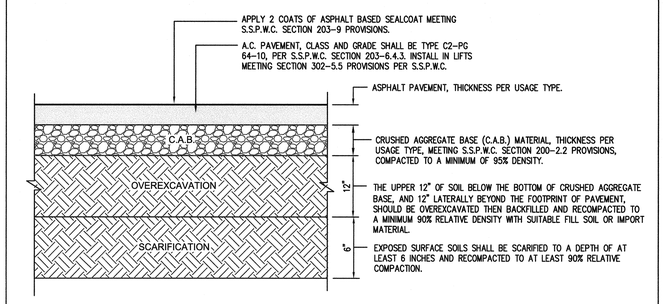
WARNING TAPE NOTES (ON-SITE SEWER):

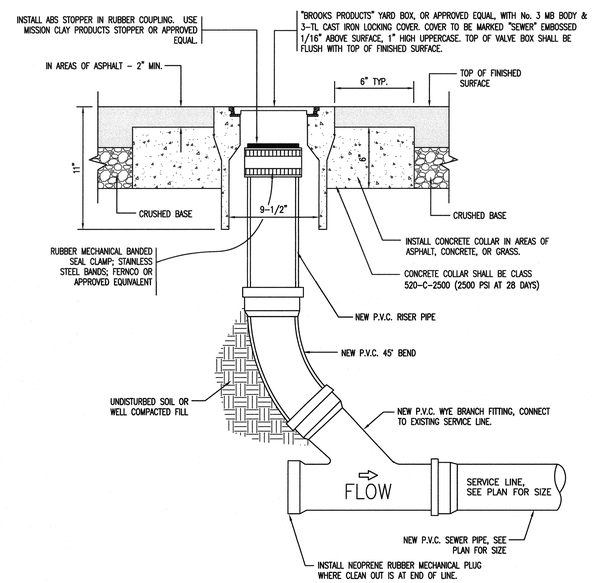
A METALLIC LINED TAPED FOR UNDERGROUND PIPES, MARKED "CAUTION BURIED SEWER LINE BELOW", IN POLYETHYLENE FILM COLOR GREEN, INSTALLED ABOVE PIPE, 6" WIDE.

TRACER WIRE NOTES:

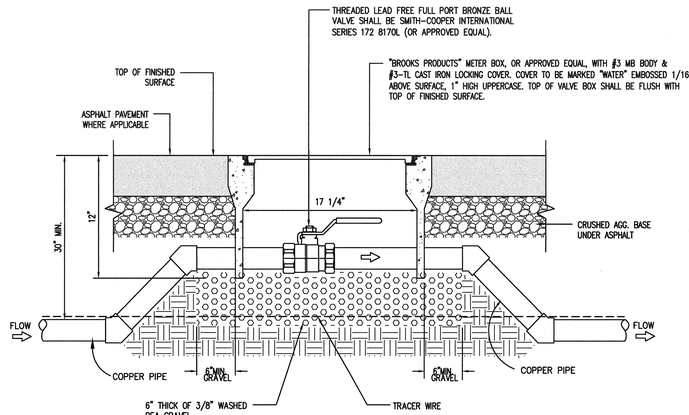
COPPER TRACER WIRE SHALL BE INSTALLED ON ALL NON-METALLIC PIPELINES, 2" AND GREATER, JUST ABOVE THE HORIZONTAL CENTERLINE OF THE PIPE. THE COPPER WIRE SHALL BE #14 AWG.

USAGE TYPE	TABLE 1 ASPHALT CONCRETE PAVEMENT STRUCTURAL SECTION
(1) LIGHT DUTY	3" THICK ASPHALT CONCRETE PAVEMENT OVER 4" THICK BASE PER DETAIL BELOW.
(6) HEAVY DUTY	4" THICK ASPHALT CONCRETE PAVEMENT OVER 6" THICK BASE PER DETAIL BELOW.



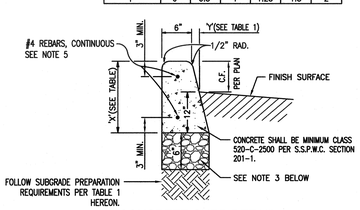


(S3) SEWER CLEAN OUT & YARD BOX DETAIL
NOT TO SCALE



(W3) SHUT-OFF VALVE IN YARDBOX
2" AND BELOW
NOT TO SCALE

CURB FACE	0"	2"	4"	5"	6"	8"
'X'	12"	14"	16"	17"	18"	20"
'Y'	0"	0.5"	1"	1.25"	1.5"	2"



(7) CONCRETE CURB DETAIL
NOT TO SCALE

CURB GENERAL NOTES:

1. ALL EXPOSED EDGES SHALL HAVE A 1/2" RADIUS.
2. CONTROL JOINTS SHALL BE PLACED IN CURBING AT REGULAR INTERVALS OF 10'. EXPANSION JOINTS AT 30' INTERVALS, AND AT DRIVE APPROACHES, B.C.'S, E.C.'S, CROSS GUTTERS AND CATCH BASIN TRANSITIONS PER JOINT DETAILS HEREON.
3. A 6" THICK LAYER OF CRUSHED AGGREGATE BASE SHALL BE PLACED UNDER ALL CURB. MINIMUM COMPACTION OF 95% RELATIVE DENSITY UNLESS WAIVED BY CIVIL ENGINEER.
4. CONCRETE CURB SHALL BE MINIMUM CLASS 520-C-2500 PER S.S.P.W.C. SECTION 201-1.
5. PLACE NO. 4 REBARS 3" MINIMUM FROM TOP AND BOTTOM OF CURB.

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ALBERT WING-CHI NG
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GRADING AND UTILITY DETAILS

drawing no.:
C005

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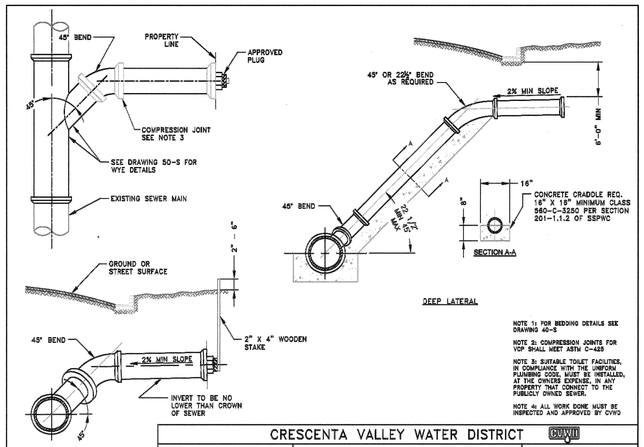


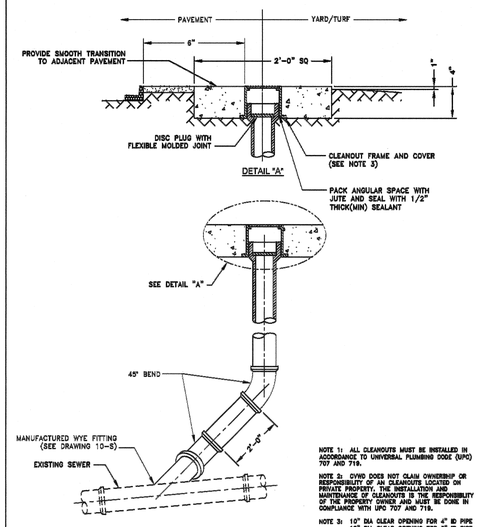
NOTE 1: FOR BEDDING DETAILS SEE DRAWING 40-S

NOTE 2: COMPRESSION JOINTS FOR VCP SHALL MEET ASTM C-425

NOTE 3: SUITABLE TOILET FACILITIES, IN COMPLIANCE WITH THE UNIFORM PLUMBING CODE, MUST BE INSTALLED, AT THE OWNERS EXPENSE, IN ANY PROPERTY THAT CONNECT TO THE PUBLICLY OWNED SEWER.

NOTE 4: ALL WORK DONE MUST BE INSPECTED AND APPROVED BY CVWD

CRESCENTA VALLEY WATER DISTRICT CVWD			
SCALE: NTS	STANDARD SERVICE CONNECTION	DATE: 04/09/2008	
DRAWN BY: B. YARED		JOB NO. –	DWG NO. 10-S
APP'VD BY: D. GOULD			

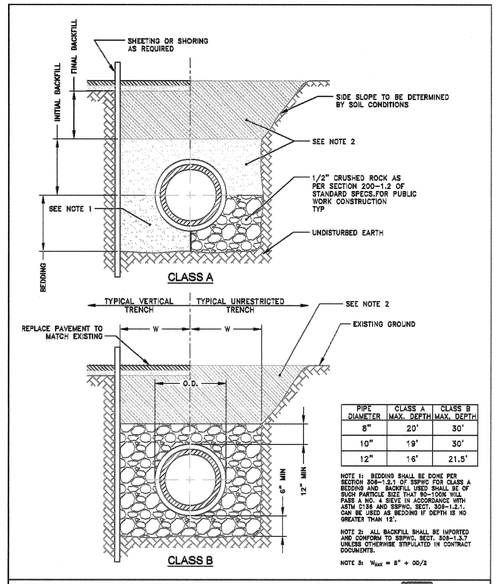


NOTE 1: ALL CLEANOUTS MUST BE INSTALLED IN ACCORDANCE TO UNIVERSAL PLUMBING CODE (UPC) 707 AND 719.

NOTE 2: CVWD DOES NOT CLAIM OWNERSHIP OR RESPONSIBILITY OF AN CLEANOUTS LOCATED ON PRIVATE PROPERTY. THE INSTALLATION AND MAINTENANCE OF CLEANOUTS IS THE RESPONSIBILITY OF THE PROPERTY OWNER AND MUST BE DONE IN COMPLIANCE WITH UPC 707 AND 719.

NOTE 3: 10" DIA CLEAR OPENING FOR 4" ID PIPE
12" DIA CLEAR OPENING FOR 6" ID PIPE
14" DIA CLEAR OPENING FOR 8" ID PIPE

CRESCENTA VALLEY WATER DISTRICT CVWD			
SCALE: NTS	STANDARD CLEANOUT	DATE: 04/18/2008	
DRAWN BY: B YARED		JOB NO. –	DWG NO. 30-S
APP'VD BY: D GOULD			



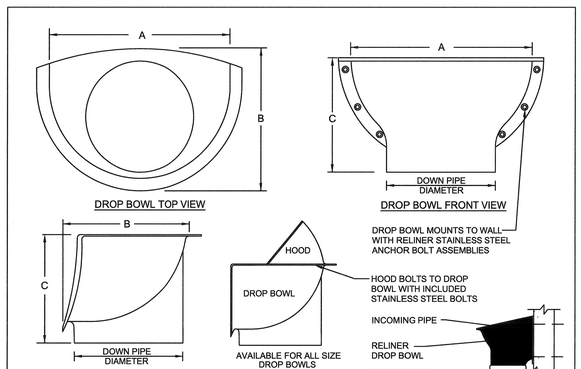
PIPE DIAMETER	CLASS A MAX. DEPTH	CLASS B MAX. DEPTH
8"	20'	30'
10"	19'	30'
12"	16'	21.5'

NOTE 1: BEDDING SHALL BE DONE PER SECTION 306-1.2.1 OF SSPWC FOR CLASS A BEDDING AND BACKFILL USED SHALL BE OF SUCH PARTICLE SIZE THAT 85-100% WILL PASS A NO. 4 SIEVE IN ACCORDANCE WITH ASTM C136 AND SSPWC, SECT. 306-1.3.1. CLASS B PER SSPWC 306-1.2.2(B) IF DEPTH IS NO GREATER THAN 12'.

NOTE 2: ALL BACKFILL SHALL BE IMPORTED AND CONFORM TO SSPWC, SECT. 306-1.3.7 UNLESS OTHERWISE STIPULATED IN CONTRACT DOCUMENTS.

NOTE 3: W_{MIN} = 8" + OD/2

CRESCENTA VALLEY WATER DISTRICT CVWD			
SCALE: NTS	TRENCH AND BACKFILL STANDARD	DATE: 03/14/2008	
DRAWN BY: B. YARED		JOB NO. –	DWG NO. 40-S
APP'VD BY: D. GOULD			



DROP BOWL SELECTION CHART

DOWN PIPE DIAMETER	MANHOLE DIAMETER					
	FLAT WALL	4' DIA	5' DIA	6' DIA	7-8' DIA	9-12' DIA
4"	A4FDB	A4DB	A4DB	A4R96	A4R96	
6"	A6FDB	A6DB	A6DB	A6R96	A6R96	
8"	B8FDB	B8DB	B8DB	B8DBR84	B8DBR84	B8R144
10"	B10FDB	B10DB	B10DB	B10R96	B10R96	B10R144
12"	24/12FDB	24/12R60	24/12R60	24/12R60	24/12R96	24/12R144
15"	24/15FDB	24/15R60	24/15R60	24/15R60	24/15R96	24/15R144
18"	30/18FDB		30/18R60	30/18R60	30/18R96	30/18R144
21"	36/21FDB		36/21R60			36/21R144
24"	48/24FDB			48/24R72	48/24R96	48/24R144

DROP BOWL DIMENSIONS

SERIES	DOWN PIPE DIAMETER	WIDTH "A"	DEPTH "B"	HEIGHT "C"	ANCHOR BOLT QUANTITY & TYPE
A4	4"	12"	9.5"	8.9"	4 - 1" TAMP-IN
A6	6"	12"	11.1"	8.8"	4 - 1" TAMP-IN
B8	8"	18"	13.0"	11.5"	4 - 1" TAMP-IN
B10	10"	18"	13.5"	11.5"	4 - 1" TAMP-IN
24/12	12"	24"	16.5"	15.0"	6 - 1" TAMP-IN
24/15	15"	24"	19.3"	15.8"	6 - 1" TAMP-IN
30/18	18"	30"	23.5"	18.5"	6 - 1" TAMP-IN
36/21	21"	36"	31.6"	23.0"	8 - 3" WEDGE
48/24	24"	48"	30.5"	30.0"	10 - 3" WEDGE

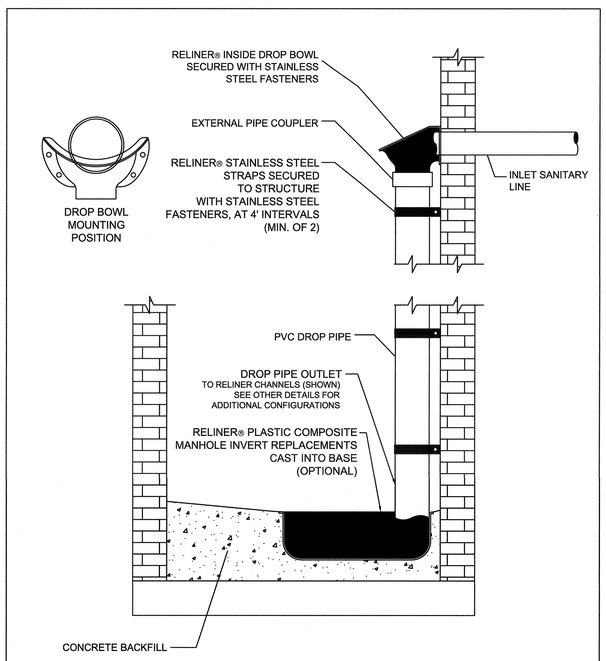
MADE IN U.S.A.
U.S. PAT. # 6074130
CANADIAN PAT. # 2269565

RELINER INSIDE DROP BOWLS ARE FABRICATED IN MARINE GRADE FIBERGLASS AND FINISHED IN BRIGHT WHITE GEL COAT.

USE RELINER STAINLESS STEEL PIPE BRACKETS TO SUPPORT DOWN PIPE. EXTERNAL PIPE COUPLER REQUIRED. PROVIDE SWEEP AT DOWN PIPE OUTLET.

RELINER / DURAN, INC.
53 MT. ARCHER ROAD, LYME, CT. 06371
(800) 508-6001 FAX: (877)434-3197
WWW.RELINER.COM

DESCRIPTION	DATE	SCALE
SANITARY MANHOLE INSIDE DROP BOWL	12/28/16	NONE
	DRAWING NUMBER	DB-1



Drop Bowl U.S. Pat. # 6074130
Drop Bowl Canada Pat. #2269565
Reliner U.S. Pat. # 5553973
Reliner Canada Pat. #2176074

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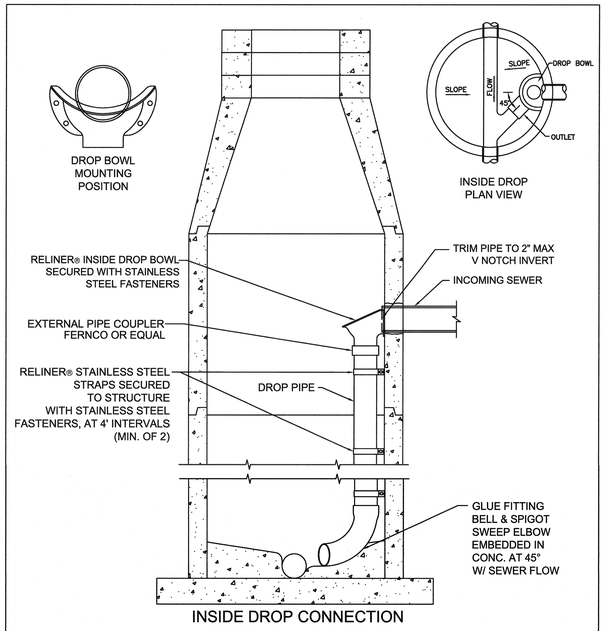
DESCRIPTION	DATE	SCALE
INSIDE DROP MANHOLE DETAIL EXISTING MANHOLE	12/28/16	NONE
	DRAWING NUMBER	AP-REHAB



INSIDE DROP CONNECTION

NOTES:
1. ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP BOWL AS PRODUCED BY:
RELINER-DURAN, INC.
53 MT. ARCHER RD,
LYME, CT 06371
(860)434-0277 FAX: (877)434-3197
2. SECURE DROP PIPE TO MANHOLE WALL WITH RELINER-DURAN, INC STAINLESS STEEL ADJUSTABLE CLAMPING BRACKETS.

RELINER / DURAN, INC.
53 MT. ARCHER ROAD, LYME, CT. 06371
(800) 508-6001 FAX: (877)434-3197
WWW.RELINER.COM

DESCRIPTION	DATE	SCALE
DROP CONNECTIONS	12/28/16	NONE
	DRAWING NUMBER	DC-1

tBP architecture planning interiors
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architect

PLANS PREPARED BY:
FPL FPL and Associates, Inc.
Traffic • Transportation • Civil
30 Corporate Park, Suite 401
Irvine, CA 92606
Phone: 949-252-1688

consultant

FILE NO.:
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
DEPARTMENT OF GENERAL SERVICES
A 03-117122
AC FLS SS BY
DATE FEB 05 2019

DEPARTMENT OF GENERAL SERVICES
DSA Los Angeles Regional Office
700 N. Alameda Street, Suite 5-500
Los Angeles, California 90012
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CRESCENTA VALLEY HIGH SCHOOL SPORTS MEDICINE RELOCATABLE

2900 COMMUNITY AVENUE
LA CRESCENTA, CALIFORNIA 91214

GLENDALE UNIFIED SCHOOL DISTRICT

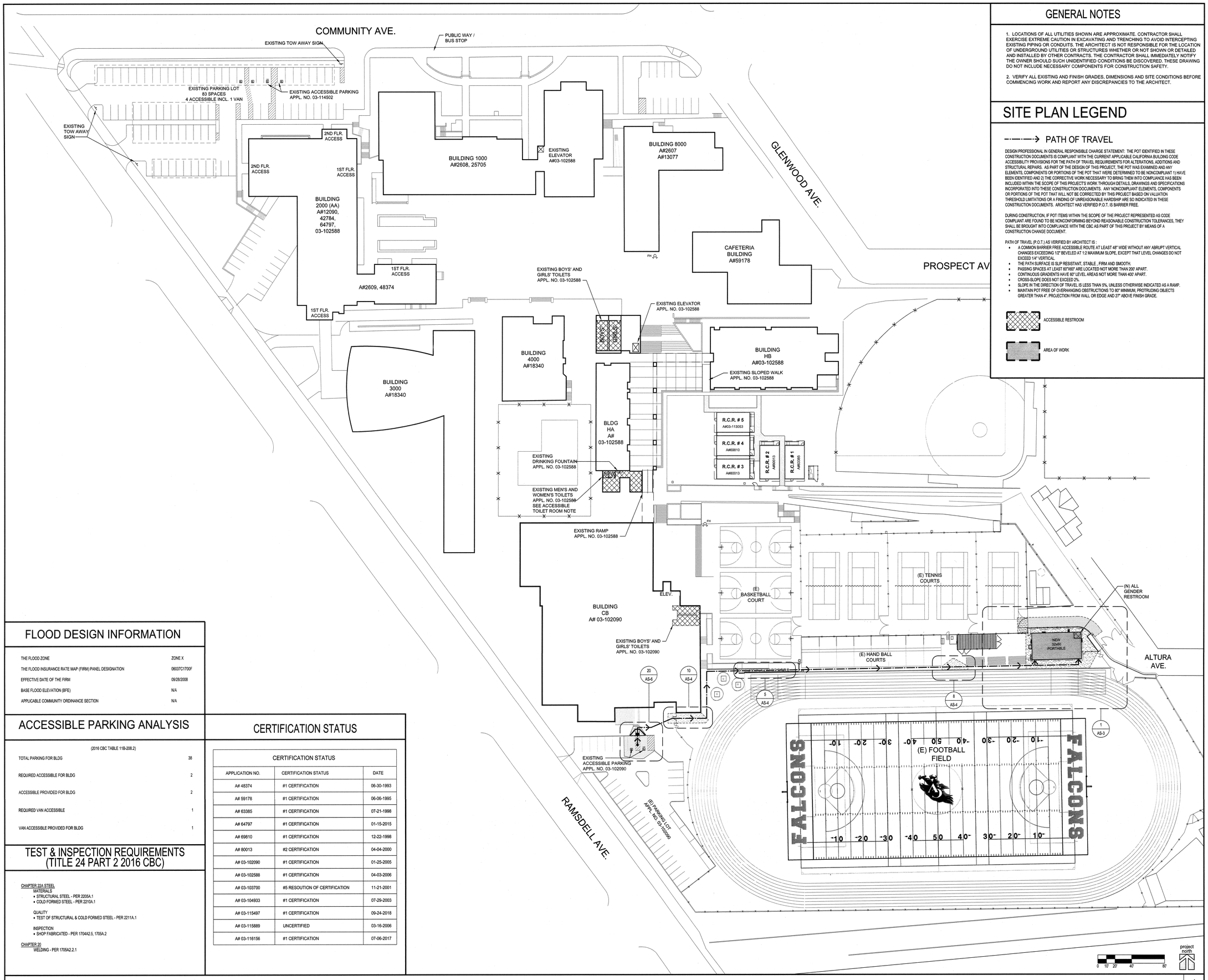
owner

tBP project number : 21015.00
file name:
drawn by: DB checked by: RC
date: 01-21-2019

Rev: date: description:

drawing title:
OFF-SITE DETAILS

drawing no.:
C006
drawing of



GENERAL NOTES

1. LOCATIONS OF ALL UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING TO AVOID INTERCEPTING EXISTING PIPING OR CONDUITS. THE ARCHITECT IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY OTHER CONTRACTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWING DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.

2. VERIFY ALL EXISTING AND FINISH GRADES, DIMENSIONS AND SITE CONDITIONS BEFORE COMMENCING WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.

SITE PLAN LEGEND

PATH OF TRAVEL

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT: THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR THE PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED AND 2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECTS WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS. ARCHITECT HAS VERIFIED P.O.T. IS BARRIER FREE.

DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

PATH OF TRAVEL (P.O.T.) AS VERIFIED BY ARCHITECT IS :

- A COMMON BARRIER FREE ACCESSIBLE ROUTE AT LEAST 48" WIDE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEED 1/4" VERTICAL.
- THE PATH SURFACE IS SLIP RESISTANT, STABLE , FIRM AND SMOOTH.
- PASSING SPACES AT LEAST 60"X60" ARE LOCATED NOT MORE THAN 200' APART.
- CONTINUOUS GRADIENTS HAVE 60" LEVEL AREAS NOT MORE THAN 400' APART.
- CROSS-SLOPE DOES NOT EXCEED 2%.
- SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5%, UNLESS OTHERWISE INDICATED AS A RAMP.
- MAINTAIN POT FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM, PROTRUDING OBJECTS GREATER THAN 4". PROJECTION FROM WALL OR EDGE AND 27" ABOVE FINISH GRADE.

ACCESSIBLE RESTROOM

AREA OF WORK

FLOOD DESIGN INFORMATION

THE FLOOD ZONE	ZONE X
THE FLOOD INSURANCE RATE MAP (FIRM) PANEL DESIGNATION	06037C1700F
EFFECTIVE DATE OF THE FIRM	09/28/2008
BASE FLOOD ELEVATION (BFE)	N/A
APPLICABLE COMMUNITY ORDINANCE SECTION	N/A

ACCESSIBLE PARKING ANALYSIS

(2016 CBC TABLE 11B-208.2)

TOTAL PARKING FOR BLDG	38
REQUIRED ACCESSIBLE FOR BLDG	2
ACCESSIBLE PROVIDED FOR BLDG	2
REQUIRED VAN ACCESSIBLE	1
VAN ACCESSIBLE PROVIDED FOR BLDG	1

TEST & INSPECTION REQUIREMENTS (TITLE 24 PART 2 2016 CBC)

CHAPTER 22A STEEL
MATERIALS
- STRUCTURAL STEEL - PER 2205A.1
- COLD FORMED STEEL - PER 2210A.1

QUALITY
- TEST OF STRUCTURAL & COLD FORMED STEEL - PER 2211A.1

INSPECTION
- SHOP FABRICATED - PER 1704A2.5, 1705A.2

CHAPTER 20
WELDING - PER 1705A2.2.1

CERTIFICATION STATUS

CERTIFICATION STATUS

APPLICATION NO.	CERTIFICATION STATUS	DATE
A# 48374	#1 CERTIFICATION	06-30-1993
A# 59178	#1 CERTIFICATION	06-06-1995
A# 63385	#1 CERTIFICATION	07-21-1998
A# 64797	#1 CERTIFICATION	01-15-2015
A# 69810	#1 CERTIFICATION	12-22-1998
A# 80013	#2 CERTIFICATION	04-04-2000
A# 03-102090	#1 CERTIFICATION	01-25-2005
A# 03-102588	#1 CERTIFICATION	04-03-2006
A# 03-103700	#5 RESOUTION OF CERTIFICATION	11-21-2001
A# 03-104933	#1 CERTIFICATION	07-29-2003
A# 03-115497	#1 CERTIFICATION	09-24-2018
A# 03-115889	UNCERTIFIED	03-16-2006
A# 03-116156	#1 CERTIFICATION	07-06-2017

OVERALL SITE PLAN

SCALE: 1"=40'- 0"

1

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consultant

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A# 03 - 119722
DATE FEB 05 2019

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agency

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tBP project number : 21015.00

file name: 0AS-1_Overall Campus Site Plan

drawn by: EL checked by: CL

date: FEBRUARY 05, 2019

Rev:	date:	description:

drawing title:
OVERALL CAMPUS SITE PLAN

drawing no.:
AS-1
drawing of

GENERAL NOTES

1. WHERE DEMOLITION OR REMOVAL WORK OCCURS, TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ELEMENTS TO REMAIN. FINISHED WORK DAMAGED BY OPERATIONS UNDER DEMOLITION CONTRACT SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF OWNER AND ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
2. DISPOSITION OF MATERIALS: PROMPTLY REMOVE FROM THE SITE ALL MATERIALS RESULTING FROM DEMOLITION WHICH ARE NOT TO BE REUSED.
3. COORDINATE REMOVAL OF ALL ELECTRICAL FIXTURES, CONDUIT, AND JUNCTION BOXES WITH ELECTRICAL CONTRACTOR.
4. REFER TO CIVIL AND UTILITY PLANS FOR ADDITIONAL DEMOLITION WORK AND COORDINATION FOR TERMINATION POINTS OF UTILITIES.
5. ALL DEMOLITION SHALL COMPLY WITH CH. 34 OF THE CBC AND ARTICLE 87 CFC.
7. WHERE AN EXISTING REQUIRED FIRE PROTECTION SYSTEM WILL BE TEMPORARILY OUT OF SERVICE DUE TO CONSTRUCTION ACTIVITIES, COMPLY WITH CFC SECTIONS 1408 AND 901.
8. DURING THE OVER-EXCAVATION PROCESS THE CONTRACTOR MAY ENCOUNTER COBBLE EXCESS OF 6". CONTRACTOR WILL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ANY AND ALL SOIL, ORGANICS, AND COBBLE MATERIAL.

SITE PLAN LEGEND

DASHED AREA INDICATES AREA OF DEMO WORK

NOTE: WORK SHALL COMPLY WITH PROVISIONS OF CHAPTER OF CHAPTER 33 OF CBC & CFC FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION.

(E) TENNIS COURTS

(E) DRIVEWAY

REMOVE (E) GRASS

(E) CONTAINERS TO REMAIN, TYP.

SAWCUT & REMOVE (E) AC PAVING-SEE CIVIL PLANS FOR EXTENT OF WORK

(E) DRIVEWAY

REMOVE (E) CHAIN LINK GATE AND STORE FOR REINSTALLTION

REMOVE (E) RETAINING WALL-SEE CIVIL PLANS FOR EXTENT OF WORK

(E) EQUIPMENT STORAGE TO REAMIN, TYP.

REMOVE AND RELOCATE EXISTING SHIPPING CONTAINERS BY DISTRICT

(E) UTILITY POLE TO REMAIN, TYP.

REMOVE AND RELOCATE EXISTING 24x60 PORTABLE

SEE CIVIL DRAWINGS FOR FLOOR COMPONENTS, TYP.

(E) FIRE ACCESS GATES TO REMAIN, TYP.

(E) TURNSTILE TO REMAIN, TYP.

REMOVE & RELOCATE EXISTING PORTABLE BLEACHERS AS REQUIRED.

(E) AC PAVING

REMOVE (E) AC PAVING - SEE CIVIL PLANS FOR EXTENT OF WORK, TYP.

(E) DEMO

REMOVE (E) AC PAVING

REMOVE EXISTING ACCESSIBLE RAMPS, TYP.

DEMO (E)

ALTURA AVE.

(E) PORTABLE BLEACHERS TO REMAIN

(E) PULL BOX TO REMAIN

(E) RUNNING TRACK TO REMAIN

(E) PULL BOXES TO REMAIN

(E) PULL BOXES TO REMAIN

project north

0 4' 8' 16'

ENLARGED DEMOLITION SITE PLAN

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

1

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owner

tBP project number : 21015.00

file name: 0AS-2_Enlarged Demolition Site Plan

drawn by: EL checked by: CL

date: FEBRUARY 05, 2019

Rev:	date:	description:

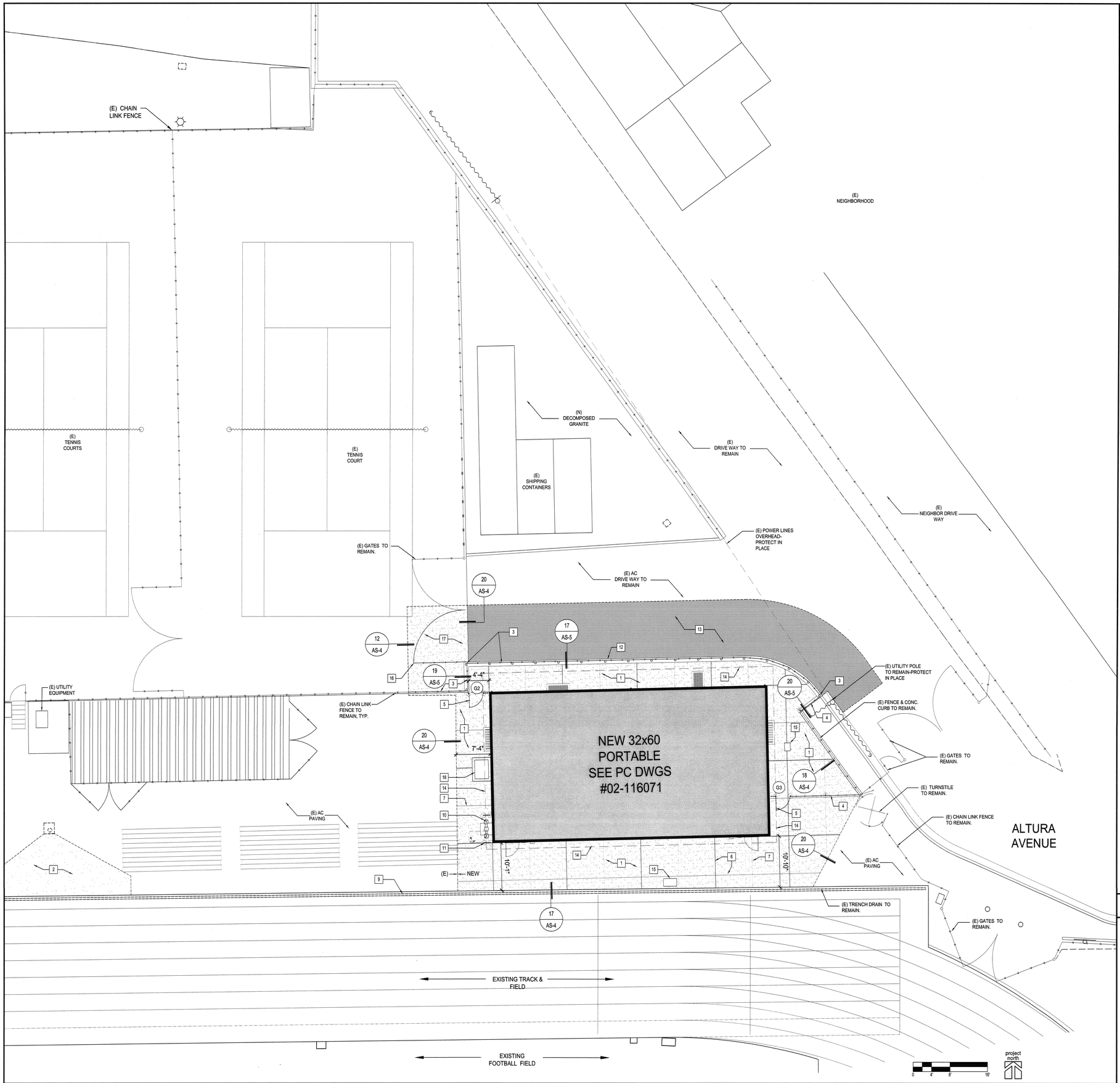
drawing title:

ENLARGED DEMOLITION SITE PLAN

drawing no.:

AS-2

drawing of



KEYNOTES

#	
1	(N) CONC. PAVING PER CIVIL — 19 / AS-4
2	(N) AC PAVING PER CIVIL — 8 / AS-4
3	(N)12' HIGH CHAINLINK FENCE, V.I.F. - SEE DETAIL — 4 / AS-5
4	(N) 6' HIGH CHAINLINK FENCE, V.I.F. - SEE DETAIL — 4 / AS-5
5	(N) 6' HIGH CHAINLINK MAN GATE - SEE DETAIL — 9 / AS-5, 14 / AS-5
6	(N) CONC. EXPANSION JOINT - SEE DETAIL — 13 / AS-5
7	(N) CONC. CONTROL JOINT - SEE DETAIL — 14 / AS-5
8	NOT USED
9	NOT USED
10	(N) DRINKING FOUNTAIN - SEE DETAIL — 4 / AS-6, 5 / AS-6
11	(N) GUARDRAIL - SEE DETAIL — 9 / AS-6
12	(N) RETAINING WALL - SEE STRUCTURAL DWGS
13	(N) ASPHALT BACKFILL
14	MODULAR ROOF OVERHANG.
15	RAISE (E) PULL BOX TO BE FLUSH WITH NEW GRADES, TYP.
16	CAREFULLY REMOVE (E) GATE/POST & STORE FOR REINSTALLATION AFTER CONSTRUCTION
17	NEW TENNIS COURT PAVING TO BE FLUSH & LEVEL WITH (E) PAVING, TYP.
18	NEW TRANSFORMER ON CONCRETE PAD, SEE ELECTRICAL DET. — 5 / E0-2

GENERAL NOTES

1. DETERIORATION OR EXISTING NON-COMPLIANT CONSTRUCTION:

   IF ANY CONDITION IS DISCOVERED WHICH, IF LEFT UNCORRECTED, WOULD MAKE THE BUILDING NON-COMPLIANT WITH THE REQUIREMENTS OF THE EDITION OF THE CBC IN FORCE AT THE TIME OF ORIGINAL CONDITION MUST BE CORRECTED IN ACCORDANCE WITH CURRENT CODE REQUIREMENTS. A CHANGE ORDER, 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.

2. VERIFY ALL EXISTING AND FINISH GRADES, DIMENSIONS AND SITE CONDITIONS BEFORE COMMENCING WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.

3. LOCATIONS OF ALL UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING TO AVOID INTERCEPTING EXISTING PIPING OR CONDUITS. THE ARCHITECT IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY OTHER CONTRACTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED.

4. SEE T-2 FOR EXISTING MODULAR BUILDING INFORMATION

5. SEE CIVIL DRAWING FOR ADDITIONAL GRADING INFORMATION

6. DURING THE OVER-EXCAVATION PROCCESS THE CONTRACTOR MAY ENCOUNTER COBBLE EXCESS OF 6", CONTRACTOR WILL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ANY AND ALL SOIL, ORGANICS, AND COBBLE MATERIAL.

ENLARGED SITE PLAN — SCALE: 1/8"=1'-0" — 1

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A 03- 119722
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agency

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tBP project number : 21015.00

file name: 0AS-3_Enlarged Site Plan

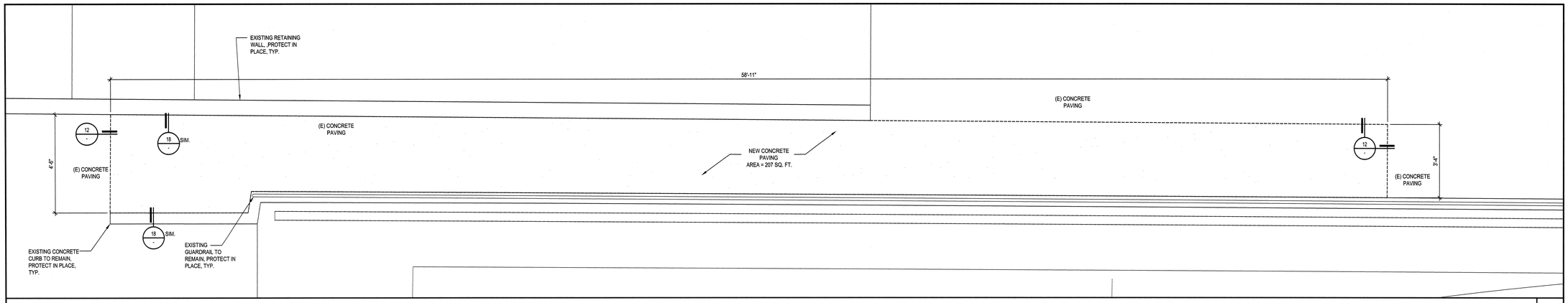
drawn by: EL checked by: CL

date: FEBRUARY 05, 2019

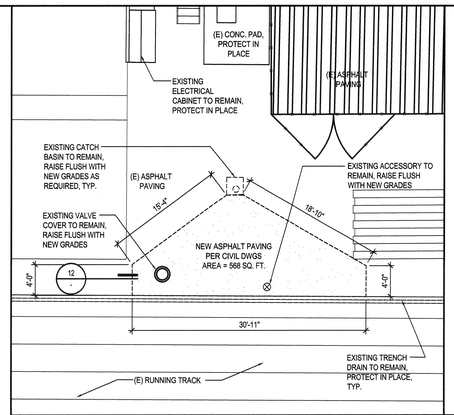
Rev:	date:	description:

drawing title:
ENLARGED SITE PLAN

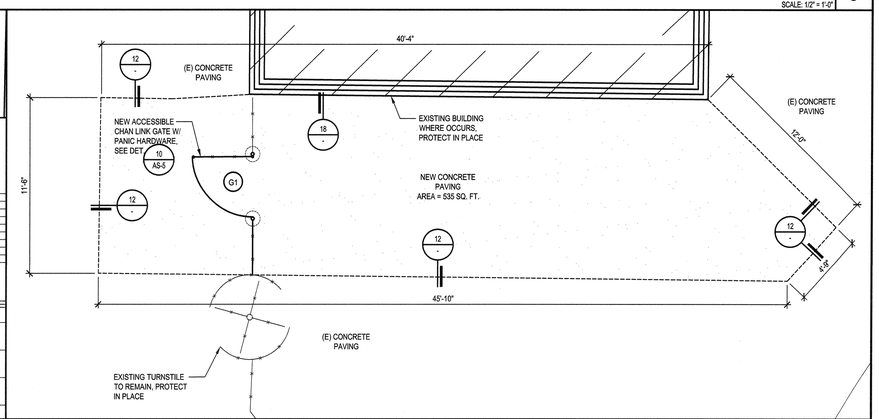
drawing no.:
AS-3
drawing of



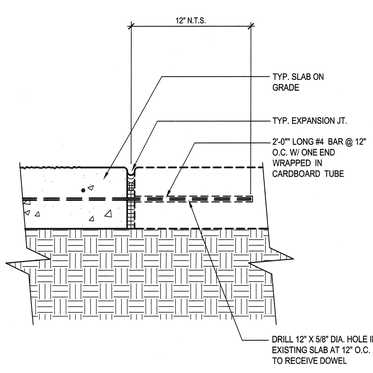
NEW CONCRETE PAVING
SCALE: 1/2" = 1'-0" | 5



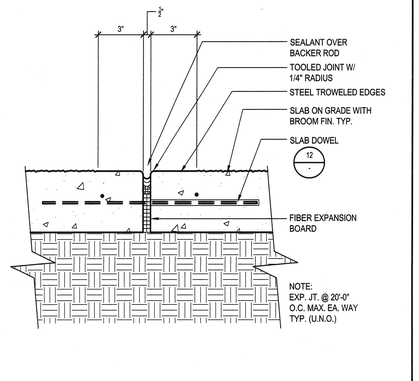
NEW CONCRETE PAVING
SCALE: 1/8" = 1'-0" | 8



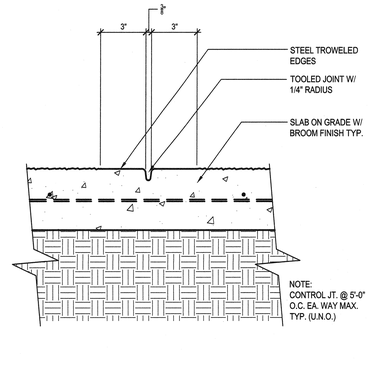
NEW CONCRETE PAVING AT ACCESSIBLE GATE
SCALE: 1/4" = 1'-0" | 10



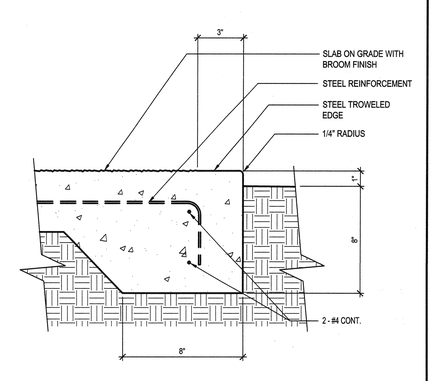
SLAB DOWEL DETAIL - NEW TO EXISTING
SCALE: 3" = 1'-0" | 12



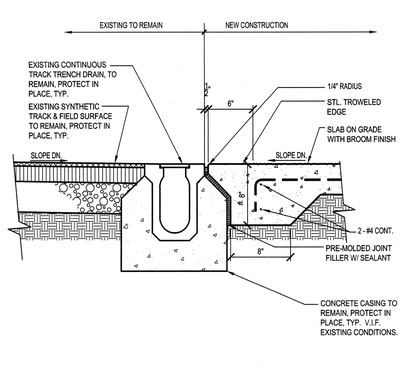
TYPICAL EXPANSION JOINT
SCALE: 3" = 1'-0" | 13



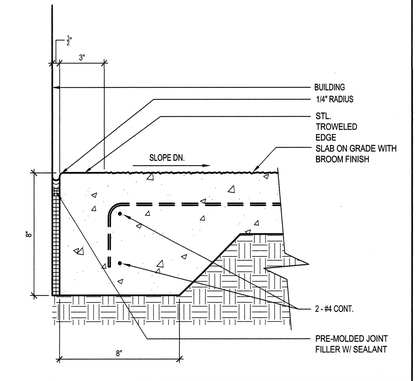
TYPICAL CONTROL JOINT
SCALE: 3" = 1'-0" | 14



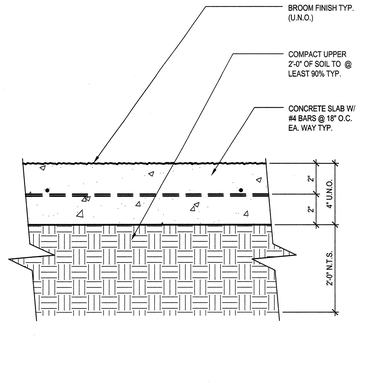
TYPICAL SLAB EDGE ON GRADE
SCALE: 3" = 1'-0" | 15



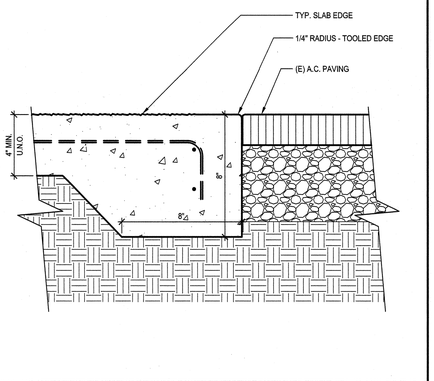
NEW PAVING AT EXISTING TRENCH DRAIN
SCALE: 1-1/2" = 1'-0" | 17



EDGE OF SLAB @ BUILDING
SCALE: 3" = 1'-0" | 18



TYPICAL SLAB ON GRADE
SCALE: 3" = 1'-0" | 19



EDGE OF CONCRETE PAVING @ A.C. PAVING
SCALE: 3" = 1'-0" | 20

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ACC
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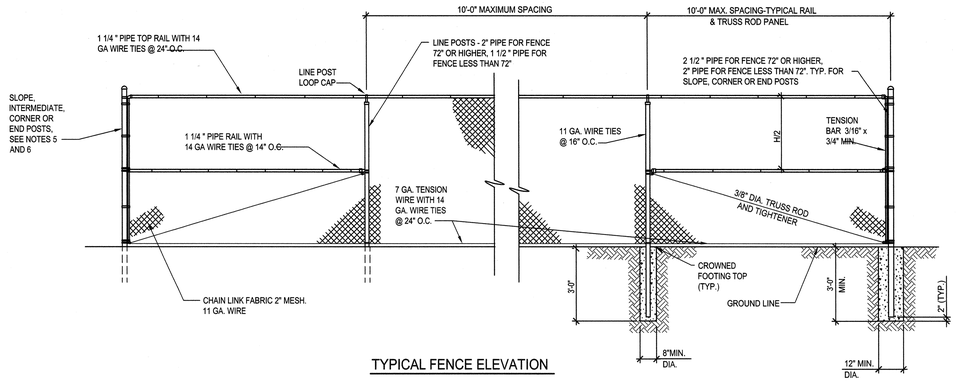
owner

tBP project number : 21015.00
file name:
drawn by: checked by:
date: FEBRUARY 05, 2019

Rev:	date:	description:

drawing title:
SITE DETAILS

drawing no.:
AS-4
drawing of



TYPICAL FENCE ELEVATION

GATE POST FOOTING SCHEDULE			
GATE WIDTH		FOOTING MIN. DEPTH, D	
SINGLE GATE	DOUBLE GATE	H TO 6'	H 6' TO 8'
TO 8'	TO 16'	3'-0"	3'-0"

GATE POST SCHEDULE				
FENCE HEIGHT (H)	GATE WIDTH	NOMINAL SIZE OF PIPE INCHES	ACTUAL O.D. INCHES	WEIGHT PER FOOT POUNDS
6 FEET TO 8 FEET INCLUSIVE	SINGLE GATES 6 FEET OR LESS AND DOUBLE GATES 12 FEET OR LESS	2 1/2	2.875	5.79
6 FEET TO 8 FEET INCLUSIVE	SINGLE GATES 6 TO 12 FEET AND DOUBLE GATES 12 TO 24 FEET	3 1/2	4.00	9.11
6 FEET TO 8 FEET INCLUSIVE	SINGLE GATES 12 TO 18 FEET AND DOUBLE GATES 24 TO 36 FEET	6	6.625	18.97

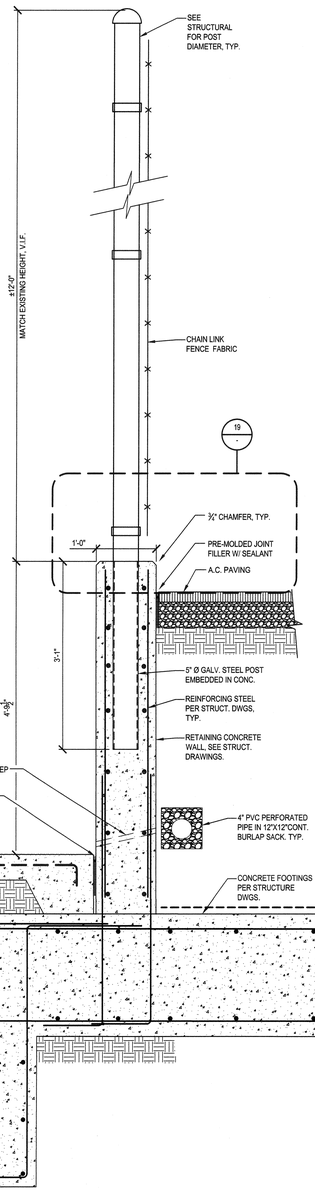
NOTES

1. FABRIC SHALL HAVE KNUCKLED FINISH ON BOTH TOP AND BOTTOM EDGES.
2. ALL GATE HINGES SHALL BE HEAVY DUTY MALLEABLE IRON OR STEEL, INDUSTRIAL SERVICE TYPE AND NOT LESS THAN 3-INCHES IN WIDTH.
3. ALL TIES SHALL BE GALVANIZED STEEL.
4. TOP CAP SHALL BE SECURED TO POST USING 1/4-INCH RIVET.
5. CORNER OR SLOPE POSTS SHALL BE INSTALLED WHEN THE CHANGE IN DEFLECTION ANGLE IS 30 DEGREES OR MORE AT CORNER OR SLOPE POINTS. CONSTRUCT SLOPE POSTS AS THOUGH THEY WERE CORNER POSTS.
6. INTERMEDIATE POSTS SHALL BE PROVIDED WHEN THE DISTANCE BETWEEN CORNER OF SLOPE POSTS EXCEEDS 300 FEET. THEY SHALL BE CONSTRUCTED AS THOUGH THEY WERE CORNER OR SLOPE POSTS.
7. THREADS OF ALL 3/8-INCH ROUND TRUSS RODS SHALL BE PEENDED AFTER INSTALLATION.
8. WHEN TOP RAIL IS OMITTED BY PLAN, PROVIDE 7-GAGE TENSION WIRE WITH 11-GAGE FABRIC TIES OR HOG RINGS SPACED AT 24-INCH INTERVALS.
9. GATES SHALL BE PROVIDED WITH A COMBINATION SPRING LATCH AND PLUNGER ROD, APPROVED BY THE ENGINEER.
10. TENSION WIRE SHALL BE SECURELY FASTENED TO THE TERMINAL POSTS AND BE TAUT AND FREE OF SAG.
11. THE FABRIC SHALL BE PLACED ON THE OUTWARD FACING SIDE OF THE POSTS, STRETCHED TAUT, AND FASTENED SECURELY.

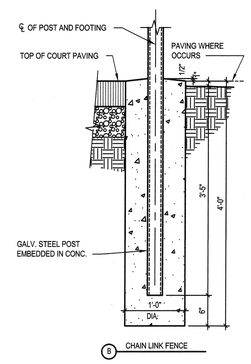
CHAIN LINK FENCE & NOTES — SCALE: N.T.S. — 4

CHAIN LINK GATE SCHEDULE

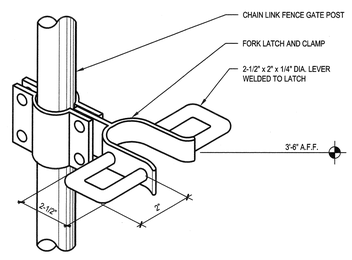
DOOR / GATE NO.	DIMENSION WIDTH	DIMENSION HEIGHT	REMARKS	DETAIL
G1	4'-0"	6'-0"		10 / -
G2	3'-0"	6'-0"		14 / -
G3	3'-0"	6'-0"		9 / -
				/



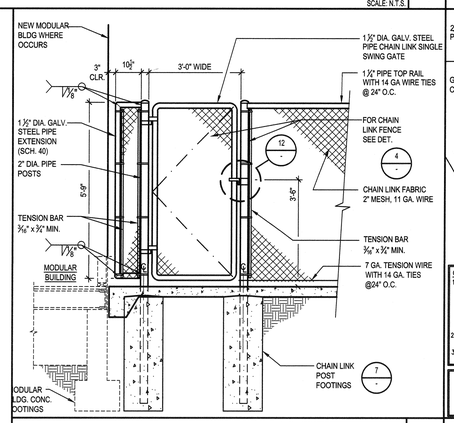
RETAINING CONCRETE WALL FOOTINGS — SCALE: 1" = 1'-0" — 17



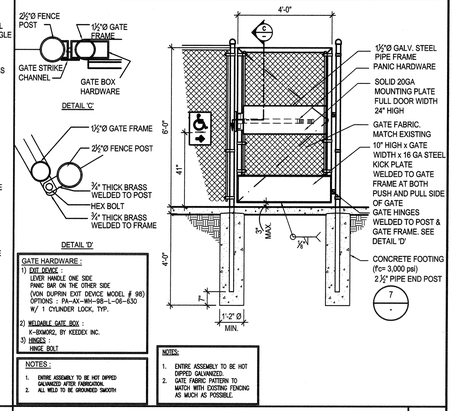
CHAIN LINK POST FOOTINGS — SCALE: 1" = 1'-0" — 7



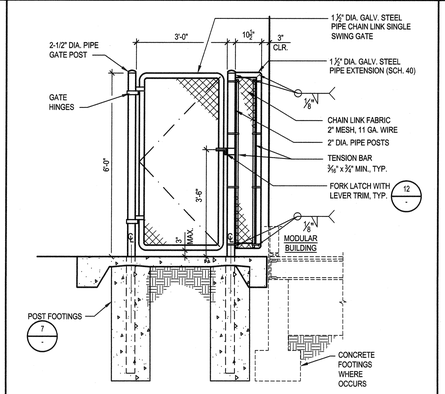
FORK LATCH WITH LEVER TRIM — SCALE: N.T.S. — 12



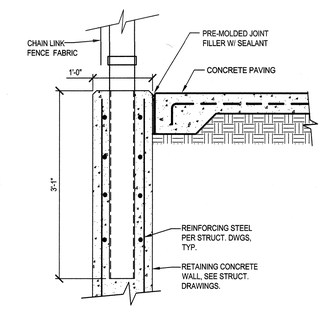
ELEVATION OF UTILITY MAN GATE #3 — SCALE: 1/2" = 1'-0" — 9



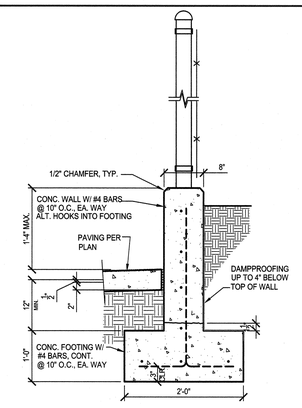
ACCESSIBLE CHAIN LINK MAN GATE W/ PANIC — SCALE: 3/8" = 1'-0" — 10



ELEVATION OF UTILITY MAN GATE #2 — SCALE: 1/2" = 1'-0" — 14



RETAINING CONCRETE WALL — SCALE: 1" = 1'-0" — 19



SHORT RETAINING WALL — SCALE: 1" = 1'-0" — 20

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CRESCENTA VALLEY HIGH SCHOOL SPORTS MEDICINE MODULAR BLDG.

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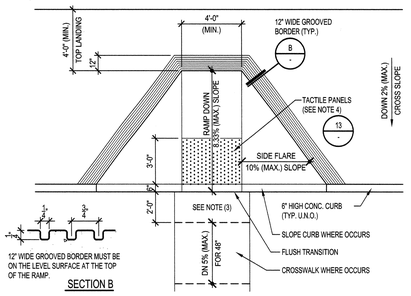
owner

tBP project number : 21015.00
file name:
drawn by: checked by:
date: FEBRUARY 05, 2019

Rev:	date:	description:

drawing title:
SITE DETAILS

drawing no.:
AS-5
drawing of

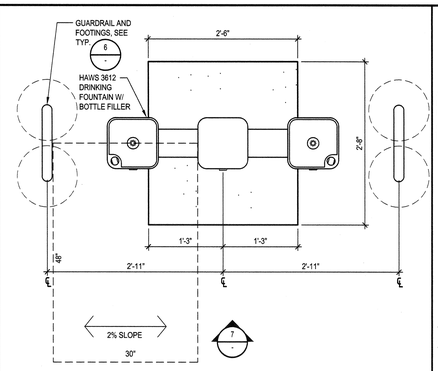


SECTION B

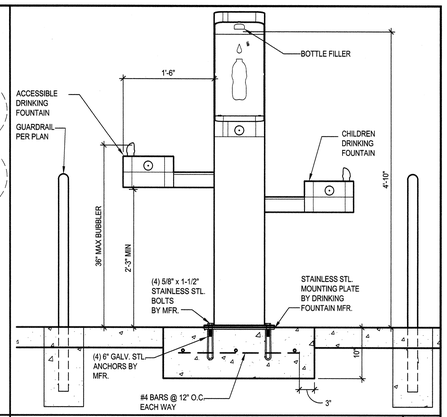
NOTES:

1. CURB RAMPS MAY NOT PROJECT INTO VEHICULAR TRAFFIC LANES OR INTO THE 18' LONG ACCESS AISLE OF ACCESSIBLE PARKING STALL
2. SIDE FLARE SLOPE MUST BE 8.33% MAX. IF TOP LANDING IS LESS THAN 48"
3. PROVIDE A 24" WIDE LEVEL AREA AT THE BOTTOM OF THE RAMP WHEN THE DIFFERENCE OF THE OPPOSING SLOPES IS GREATER THAN 11%
4. PROVIDE INLINE TRUNCATED DOMES AT RAMP SURFACE (EXCLUDING SIDE FLARES) WHEN SERVING CROSSWALKS (NOT REQUIRED WHEN SERVING ACCESSIBLE PARKING SPACES)

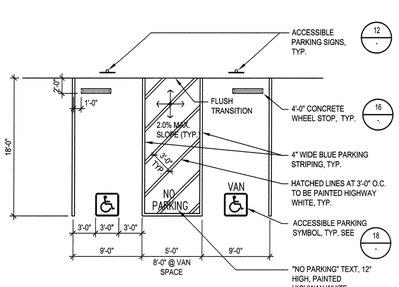
TYP. CURB-CUT RAMP AT 6" HIGH CURB — SCALE: 1/4" = 1'-0" — 3



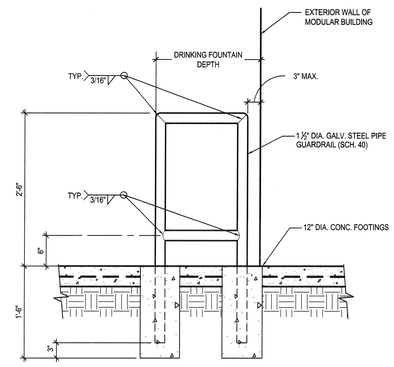
PEDESTAL D.F. W/ BOTTLE FILLER — SCALE: 1" = 1'-0" — 4



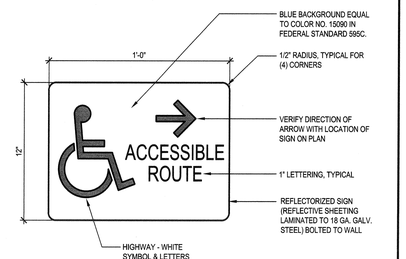
PEDESTAL DRINKING FOUNTAIN ELEVATION — SCALE:1" = 1'-0" — 5



ACCESSIBLE PARKING STALL — SCALE: 1/8" = 1'-0" — 8

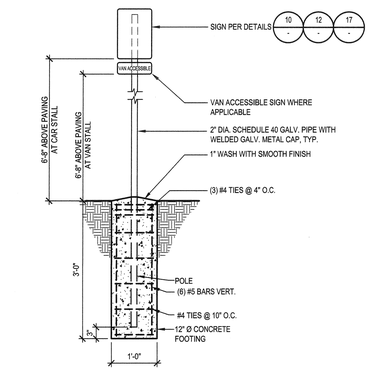


DRINKING FOUNTAIN GUARDRAIL — SCALE: 1" = 1'-0" — 9

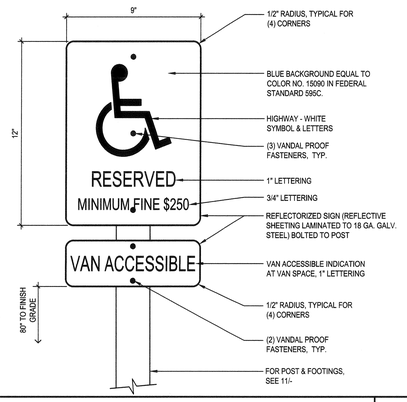


NOTE:
1. SEE DETAIL 5/- FOR MOUNTING HEIGHT

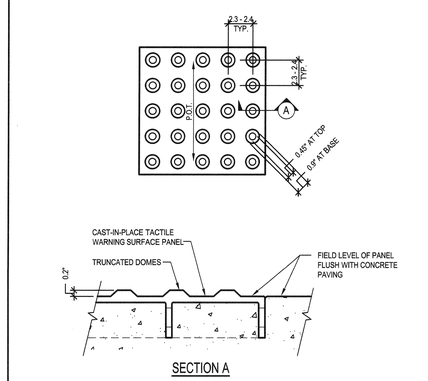
ACCESSIBLE ROUTE SIGNAGE — SCALE: 3" = 1'-0" — 10



SIGN POST FOOTINGS — SCALE: 3/4" = 1'-0" — 11

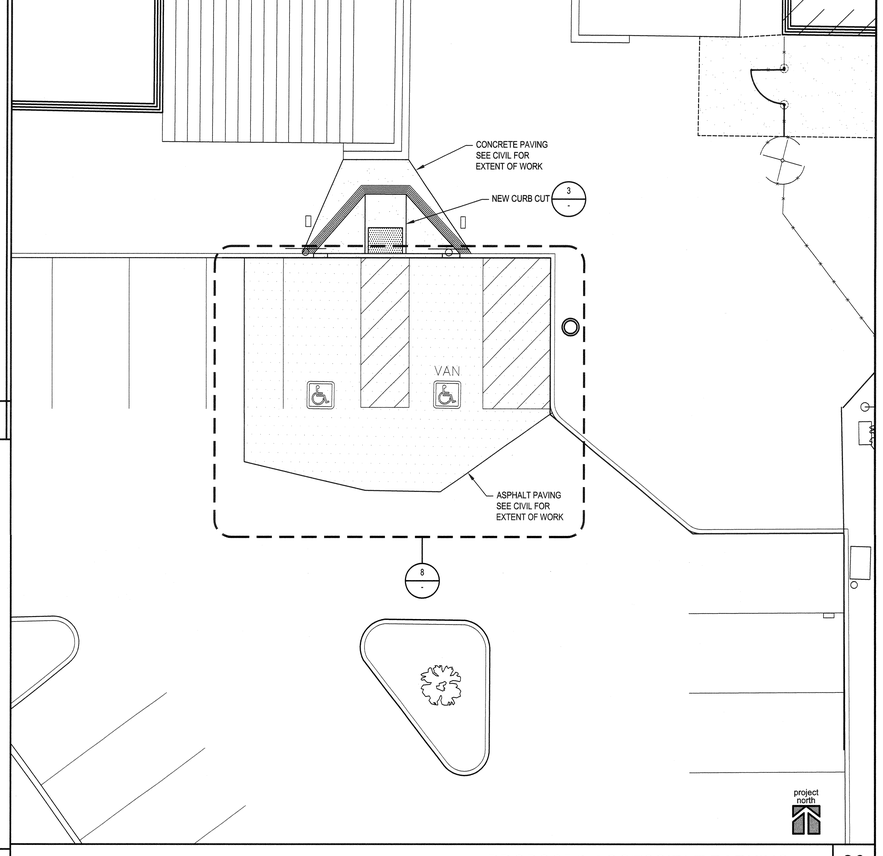


ACCESSIBLE PARKING STALL SIGN — SCALE: 3" = 1'-0" — 12

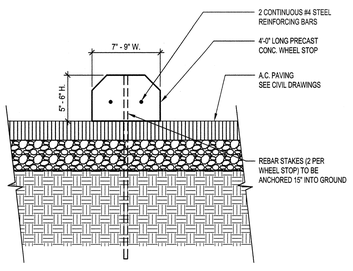


SECTION A

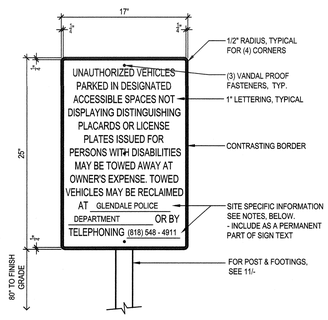
TRUNCATED DOMES DETAIL — SCALE: 3" = 1'-0" — 13



PROPOSED ACCESSIBLE PARKING — SCALE: 1/8" = 1'-0" — 20



CONCRETE WHEEL STOP — SCALE: 1-1/2" = 1'-0" — 16

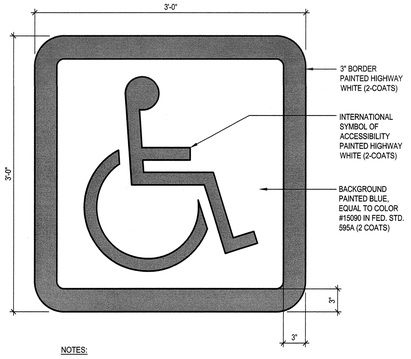


NOTES:

POST SIGN IN CONSPICUOUS PLACE AT THE ENTRANCE TO OFF-STREET PARKING AREA/S.

CONTRACTOR TO VERIFY ADDRESS AND TELEPHONE NUMBER, WHERE TOWED VEHICLES MAY BE RECLAIMED, WITH LOCAL POLICE AUTHORITY.

UNAUTHORIZED VEHICLE SIGNAGE — SCALE: 1-1/2" = 1'-0" — 17



NOTES:

SYMBOL SHALL BE LOCATED SUCH THAT IT IS VISIBLE TO A TRAFFIC ENFORCEMENT OFFICER WHEN A VEHICLE IS PROPERLY PARKED IN THE STALL.

ACCESSIBLE PARKING SYMBOL — SCALE: 1-1/2" = 1'-0" — 18

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CRESCENTA VALLEY HIGH SCHOOL SPORTS MEDICINE MODULAR BLDG.

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owner

tBP project number : 21015.00

file name: 0AS-5_Site Details

drawn by: EL checked by: CL

date: FEBRUARY 05, 2019

Rev:	date:	description:

drawing title:
SITE DETAILS

drawing no.:
AS-6
drawing of

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE OF SAME NATURE AS THOSE SHOWN FOR SIMILAR CONDITIONS. REFER TO THE TYPICAL DETAIL SHEETS FOR TYPICAL DETAILS OF CONSTRUCTION. TYPICAL DETAILS APPLY TO ALL CONSTRUCTION UNLESS SPECIFICALLY NOTED OR SHOWN OTHERWISE. WHERE CONDITIONS REQUIRE MODIFICATIONS OF A TYPICAL DETAIL, THE CONTRACTOR SHALL SUBMIT MODIFIED DETAIL FOR APPROVAL BY THE ENGINEER OF RECORD PRIOR TO FABRICATION AND INSTALLATION. DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE OF SAME NATURE AS THOSE SHOWN FOR SIMILAR CONSTRUCTION.
2. CONTRACTOR SHALL CONSIDER THE PROJECT SPECIFICATIONS A PART OF THE CONTRACT DOCUMENTS. WHERE INFORMATION IS CONFLICTING, SPECIFIC DETAILS SHALL GOVERN OVER TYPICAL DETAILS OF WHICH SHALL GOVERN OVER THESE NOTES WHICH SHALL GOVERN OVER SPECIFICATIONS.
3. ALL DIMENSIONS ON STRUCTURAL DRAWINGS SHALL BE CHECKED AGAINST ARCHITECTURAL DIMENSIONS. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE OMITTED OR NOT CLEAR, CONTACT THE ARCHITECT (ARCH) OR STRUCTURAL ENSGINEER OF RECORD (SEOR). ALL DIMENSIONS RELATED TO EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR. DIMENSIONS ARE TO THE FACE OF STUDS, AND TO CENTERLINE OF COLUMNS UNO.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMMEDIATELY NOTIFY THE SEOR OF ANY CONFLICTS BETWEEN THE STRUCTURAL DRAWINGS AND OTHER DRAWINGS; OR EXISTING CONDITIONS NOT SHOWN OR DIFFERENT FROM THOSE SHOWN ON DRAWINGS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE BUILDING THAT IS IN CONFLICT UNTIL THE CONFLICT IS RESOLVED WITH THE AFFECTED PARTIES.
5. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE SHOWN THEY DO NOT INDICATE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE CONSTRUCTION AND ALL ADJACENT PROPERTIES DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO BRACING, SHORING OF LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT OR SEOR SHALL NOT INCLUDE OBSERVATION OF THE ABOVE ITEMS.
6. SUBSTITUTION REQUESTS FOR MATERIALS SPECIFIED ON THE STRUCTURAL DRAWINGS MAY BE CONSIDERED WITH MATERIALS HAVING EQUIVALENT OR GREATER CAPACITY AND PERFORMANCE. CURRENT EVALUATION REPORTS AND PRODUCT INFORMATION SHALL BE PROVIDED TO THE STRUCTURAL ENGINEER DEMONSTRATING THE REQUIRED CAPACITY AND PERFORMANCE OF THE MATERIAL TO BE SUBSTITUTED. WRITTEN APPROVAL FROM THE SEOR SHALL BE OBTAINED PRIOR TO THE SUBSTITUTION OF ANY MATERIAL SPECIFIED ON THE STRUCTURAL DOCUMENTS.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PERTINENT SECTIONS OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE STATE OF CALIFORNIA, LATEST EDITION, AND ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT. THE ARCHITECT, SEOR, AND THE OWNER DO NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO COMPLY WITH THESE REQUIREMENTS.
8. ALL WORK IS NEW (N) UNLESS INDICATED AS EXISTING (E).
9. CONSTRUCTION MATERIALS SHALL BE DISTRIBUTED WHEN PLACED ON THE STRUCTURE SUCH THAT LOADS DO NOT EXCEED DESIGN LIVE LOADS OR RESULT IN AN UNBALANCED CONDITION.
10. REFER TO THE PROJECT SPECIFICATIONS FOR SHOP DRAWING REQUIREMENTS AND SUBMITTALS.

STRUCTURAL DESIGN CRITERIA:

1. CODES:
   ALL WORK SHALL BE IN CONFORMANCE WITH THE CALIFORNIA BUILDING CODE (CBC) 2016 EDITION, INCLUDING ALL AMENDMENTS. ALL STANDARDS USED SHALL BE THE LATEST VERSION APPROVED BY THE CODE ENFORCEMENT AGENCY ON THE DATE OF THE PERMIT ISSUANCE UNLESS SPECIFICALLY NOTED OTHERWISE.
2. SEISMIC DESIGN INFORMATION:
   ANALYSIS METHOD : ELFP

I = 1.0	OCCUPANCY CAT. II	SITE CLASS D
S_S = 2.715	S_1 = 0.967	S_{DS} = 1.81	S_{D1} = 0.967

3. WIND DESIGN INFORMATION:

RISK CAT. II		EXPOSURE C	
BASIC WIND SPEED V_{ult} = 110 MPH (3 SEC GUST)			
Kz = 0.95	Kzt = 0.85	Kzt = 1	

CONTRACTOR RESPONSIBILITY NOTE:

GENERAL:
1. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN LATERAL-FORCE-RESISTING SYSTEM, DESIGNATED ON PLANS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO DSA AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:

   A. ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS.

   B. ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.

   C. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF THE REPORTS.

   D. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

EXISTING CONDITIONS NOTES:

1. FIELD VERIFY ALL CONDITIONS & DIMENSIONS PRIOR TO SHOP DRAWING PRODUCTION AND FABRICATION OF STRUCTURAL ELEMENTS.
2. WHERE ALL OTHER EXISTING CONDITIONS VARY SIGNIFICANTLY FROM THOSE SHOWN ON THESE DRAWINGS, THE STRUCTURAL ENGINEER SHALL BE NOTIFIED PRIOR TO CONTINUED CONSTRUCTION RELATED TO SUBJECT CONDITIONS.
3. SHORE ALL EXISTING CONSTRUCTION AS REQUIRED.
4. ALL EXISTING (E) CONNECTIONS AT ELEMENTS TO BE REPLACED SHALL BE REPLACED OR RE-ATTACHED TO MATCH EXISTING CONDITIONS.
5. VERIFY LOCATION OF EXISTING (E) REBAR BEFORE FABRICATION USING NON-DESTRUCTIVE TESTING.
6. SPECIAL INSPECTION IS REQUIRED FOR ALL WORK.
7. SEE "AS BUILT" DRAWINGS FOR EXISTING BUILDING DESIGN FOR ITEMS NOT SHOWN OR NOTED.

FOUNDATION AND SLAB ON GRADE NOTES:

1. NO SOILS REPORT AVAILABLE; THEREFORE, MINIMUM VALUES USED PER 2016 CBC.
2. ALLOWABLE VERTICAL BEARING PRESSURE = 1500 PSF
   ALLOWABLE LATERAL BEARING PRESSURE = 100 PSF PER FT OF DEPTH
3. THE CONTRACTOR SHALL CONFORM TO ALL RECOMMENDATIONS AND CONDITIONS INDICATED IN THE 2013 CBC. A GEOTECHNICAL ENGINEER SHALL OBSERVE ALL FOOTING EXCAVATIONS PRIOR TO PLACING CONCRETE.
4. SUBSURFACE SOIL PREPARATION:
   A. ALL EXISTING UNDOCUMENTED FILL SHALL BE REMOVED AND RECOMPACTED. ALL TOPSOILS SHALL BE REMOVED AS REQUIRED BY THE GEOTECHNICAL ENGINEER.
   B. GEOTECHNICAL ENGINEER SHALL BE RETAINED DURING THE OVEREXCAVATION PROCESS. THE ACTUAL DEPTH OF REMOVAL WILL BE DETERMINED DURING GRADING OPERATIONS.
   C. OFFSITE FILL MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
5. SPREAD FOOTINGS ARE CENTERED UNDER WALLS AND COLUMNS, UNO.
6. FOOTING ELEVATIONS ARE NOTED ON THE PLANS AND DETAILS AND SHALL BE USED FOR BIDDING. IN ANY CASE, FOOTINGS SHALL BEAR ON FIRM UNDISTURBED SOIL OR ENGINEERED FILL, IN ACCORDANCE WITH THE 2013 CBC AND DETAILS SHOWN.
7. CONTRACTOR SHALL PROTECT ALL UTILITY LINES, ETC. ENCOUNTERED DURING EXCAVATION AND BACKFILLING.
8. FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS WITH THE APPROVAL OF THE GEOTECHNICAL ENGINEER. FLOODING IS NOT PERMITTED.
9. ALL TRENCHES SHALL COMPLY WITH APPLICABLE OSHA REQUIREMENTS.
10. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED BUT NOT BEHIND RETAINING WALLS BEFORE CONCRETE OR MASONRY ATTAINS ITS FULL DESIGN STRENGTH.
11. THE DESIGN OF ALL RETAINING WALLS AND SUBTERRANEAN BUILDING WALLS INDICATED ON THESE DRAWINGS IS BASED ON DRAINED SOILS.
12. CONSTRUCTION JOINTS (CJ) AND SAWCUT (SC) JOINTS IN SLABS SHALL OCCUR WHERE LOCATED ON PLANS AND DETAILS. CJ'S SHALL HAVE FORMED POUR STOPS. CONSTRUCTION JOINTS IN WALLS AND FOOTINGS NEED NOT OCCUR AT THE SAME LOCATION, UNO.
13. SEE ARCHITECT'S PLANS FOR LOCATIONS OF SLAB SLOPES, DEPRESSIONS, CURBS, DRAINS, NON-STRUCTURAL PARTITIONS AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL PLANS.
14. ALL GRADING, FOUNDATION FOOTINGS, AND DRAINAGE PLANS SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER UPON SUBMITTAL. A CERTIFIED LETTER BY THE GEOTECHNICAL ENGINEER IS REQUESTED STATING THAT THE RECOMMENDATIONS CONTAINED WITHIN THE SOILS REPORT HAVE BEEN INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS PRIOR TO CONSTRUCTION.
15. PRIOR TO THE CONTRACTOR REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE SOILS ENGINEER SHALL ADVISE THE BUILDING OFFICIAL IN WRITING THAT:
   A. THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE 2013 CBC.
   B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED.
   C. THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE 2013 CBC.

STRUCTURAL CONCRETE NOTES:

1. CONCRETE SHALL BE MIXED, PLACED AND CURED IN ACCORDANCE WITH ACI 318, LATEST EDITION, AND PROJECT SPECIFICATIONS.
2. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL (AS IN WALLS) SO AS TO CAUSE SEGREGATION OF AGGREGATES. IN SUCH CASES, HOPPERS AND VERTICAL CHUTES OR TREMIE SHALL BE USED. CHUTES OR TRUNKS SHALL BE OF VARIABLE LENGTHS SO THAT FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED SIX FEET. A SUFFICIENT NUMBER OF CHUTES OR TRUNKS SHALL BE USED TO ENSURE THE CONCRETE IS KEPT LEVEL AT ALL TIMES.
3. CONSTRUCTION JOINTS SHALL BE CLEANED AND ROUGHENED BY REMOVING THE ENTIRE SURFACE TO EXPOSE CLEAN AGGREGATE SOLIDLY EMBEDDED IN THE MORTAR MATRIX, DAMPEN THE JOINT PRIOR TO POUR CONC. SLUSH WITH A COAT OF NEAT CEMENT BEFORE PLACING CONCRETE. SEE PLANS AND DETAILS FOR LOCATION AND TYPE OF CONSTRUCTION JOINT. LOCATIONS OF ADDITIONAL CONSTRUCTION JOINTS NOT SHOWN ON THESE PLANS SHALL BE SUBMITTED FOR APPROVAL BY THE EOR PRIOR TO PLACING ANY CONCRETE.
4. STRUCTURAL CONCRETE SHALL MEET THE FOLLOWING DESIGN CRITERIA:

LOCATION	MIN-28 DAY COMP STRENGTH	CONC TYPE [1]	MAX AGGREGATE SIZE	MAX W/C RATIO	MAX SLUMP [3]
FOUNDATIONS	3000 psi	NWC	1 1/2"	0.45	4"
SLAB ON GRADE	3000 psi	NWC	1"	0.45	4"
FILL OVER METAL DECK	3000 psi	LWC	3/4"	0.45	6"
STRUCT. WALL, COL. & BEAM	4000 psi	NWC	1"	0.45	4"
ALL OTHER STRUCTURAL CONCRETE NOT NOTED ABOVE	3000 psi	NWC	1"	0.45	6"

   a. MAXIMUM DRY WEIGHT OF LIGHTWEIGHT CONCRETE SHALL BE 115 PCF, UNLESS APPROVED BY SEOR.
   b. SLUMP MEASURED PRIOR TO SUPERPLASTICIZER, WHERE OCCURS.
5. CONCRETE MIX DESIGN AND TESTING SHALL MEET THE REQUIREMENTS OF THE BUILDING CODE, AND SPECIFICATIONS. ALL CONCRETE MIXES SHALL BE DESIGNED BY A RECOGNIZED TESTING LAB STAMPED AND SEALED BY A LICENSED CALIFORNIA CIVIL ENGINEER AND SUBMITTED TO THE SEOR FOR REVIEW PRIOR TO CONCRETE PLACEMENT. STRUCTURAL CONCRETE MIXES SHALL CONSIST OF 5 SACK MINIMUM, UNO.
6. AGGREGATES IN NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C-33 (HARDROCK). AGGREGATES IN LIGHT WEIGHT CONCRETE SHALL CONFORM TO ASTM C-330.
7. COMPRESSIVE STRENGTH TEST REPORTS SHALL BE SUBMITTED TO DSA AND THE SEOR.
8. PORTLAND CEMENT SHALL BE TYPE II FOR ALL CONCRETE CONFORMING TO ASTM C150, LOW ALKALI. MILL TESTS WITH CERTIFICATES OF COMPLIANCE SHALL BE SUBMITTED.
9. FLY ASH OR OTHER POZZOLANS CONFORMING TO ASTM C618 CLASS N OR F MAY BE USED AS A PARTIAL SUBSTITUTION FOR PORTLAND CEMENT UP TO A MAXIMUM OF 15% TOTAL CEMENTITIOUS MATERIALS BY WEIGHT IF THE MIX DESIGN IS PROPORTIONED PER ACI 318, SECTION 5.3.
10. CONCRETE MIXING OPERATIONS, ETC. SHALL CONFORM TO ASTM C94.
11. LEAN CONCRETE, WHERE SPECIFICALLY INDICATED, SHALL CONTAIN 2 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
12. DRYPACK OR NONSHRINK GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI, AND CONSIST OF MASTERFLOW 713, FIVE STAR GROUT, SIKA GROUT 212, EMBECO 636, OR APPROVED EQUAL. FOR THICK GROUT LAYERS FOLLOW MANUFACTURER'S GUIDELINES TO ATTAIN THE REQUIRED STRENGTH, WHICH MAY INCLUDE THE ADDITION OF PEA GRAVEL.
13. DO NOT USE ANY CONCRETE OR GROUT CONTAINING CHLORIDES. WATER USED IN MIX SHALL BE CLEAN AND POTABLE.
14. FOR INTERIOR SLABS-ON-GRADE AND ALL OTHER SLABS RECEIVING ADHERED FLOORING FINISHES (I.E., GLUED, ETC.), THE MAXIMUM W/C RATIO SHALL NOT EXCEED 0.46. CURING COMPOUNDS USED ON CONCRETE THAT IS TO RECIEVE FINISHES SHALL BE COMPATIBLE WITH TILE AND ADHESIVES OR GROUTS IN ACCORDANCE WITH MANUFACTURER'S DATA AND BE APPROVED BEFORE USE.
15. MAINTAIN CONCRETE ABOVE 50 DEGREES FAHRENHEIT AND IN A MOIST CONDITION FOR A MINIMUM OF 7 DAYS AFTER PLACEMENT UNLESS OTHERWISE ACCEPTED BY SEOR.
16. SEE ARCHITECTURAL DRAWINGS FOR WALL OPENINGS, WALL OFFSETS, CHAMFERS, KERFS, DRIPS AND FOR EXTENT OF DEPRESSIONS, RAMPS, ETC. PROVIDE SLEEVES FOR ALL PIPES THROUGH CONCRETE WALLS AND FOOTINGS WHERE SHOWN ON THESE DRAWINGS. CORING IS NOT PERMITTED WITHOUT PRIOR APPROVAL BY THE SEOR.
17. EXPOSED CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC. SHALL BE FORMED WITH 3/4" CHAMFER, UNO.
18. CONCRETE SLAB ON GRADE IN BLDG. A IS USED AS DIAPHRAGM FOR LOAD DISTRIBUTION TO LFRS.

REINFORCING STEEL NOTES:

1. REINFORCING GRADES FOR CONCRETE OR MASONRY:
   A. ALL BARS EXCEPT THOSE TO BE WELDED..... ASTM A615, GRADE 60
   B. TIES AND STIRRUPS ..... ASTM A615, GRADE 60
   C. WELDED WIRE FABRIC ..... ASTM A185
   D. ALL BARS TO BE WELDED ..... ASTM A706, GRADE 60
2. MAINTAIN MINIMUM CONCRETE COVER FROM FACE OF CONCRETE TO EDGE OF ALL REINFORCEMENT AS FOLLOWS (UNO):

CONDITION		COVER
CONCRETE POURED AGAINST EARTH		3"
CONCRETE POURED IN FORMS AND EXPOSED TO WEATHER OR EARTH		
	- #6 BARS AND LARGER	2"
	- #5 BARS AND SMALLER	1 1/2"
INTERIOR COLUMNS AND BEAMS		1 1/2"
INTERIOR WALL FACES AND RAISED SLABS		1 1/2"
STRUCTURAL SLABS ON GRADE		
	- FROM BOTTOM OF SLAB	2"
	- FROM TOP OF SLAB	1 1/2"
OTHER CONCRETE NOT EXPOSED TO WEATHER OR EARTH FOR #11 BARS AND SMALLER		3/4"

   PROVIDE THE LARGEST COVER REQUIRED FOR ALL APPLICABLE CONDITIONS. WHERE #3 STIRRUPS OR TIES ARE USED, ENSURE THAT THE COVER FOR LONGITUDINAL BARS IS ADEQUATE.
3. REINFORCEMENT SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE". EACH REINFORCING BAR SHALL BE WIRED TO A CROSS BAR AT A MAXIMUM SPACING OF 24" OC. PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCING IN POSITIONS SHOWN ON THE PLANS.
4. SPLICES IN CONTINUOUS REINFORCEMENT AS USED IN WALLS, WALL FOOTINGS, ETC., SHALL HAVE A CLASS "B" LAP (1'-6" MIN) AND THE SPLICES IN ADJACENT BARS SHALL BE NOT LESS THAN 5'-0" APART. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. BARS MAY BE WIRED TOGETHER AT SPLICES OR LAPS EXCEPT FOR TOP REINFORCING OF BEAMS AND SLABS OR WHERE SPECIFICALLY DETAILED TO BE SEPARATED. WELDED WIRE FABRIC SHALL BE LAPPED 12" MINIMUM.
5. ALL DOWELS, ANCHOR BOLTS AND OTHER HARDWARE TO BE SET IN CONCRETE SHALL BE TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE. NO WET SETTING, STABBING, RODDING OR OTHER MOVEMENT OF EMBEDDED ITEMS SHALL BE PERFORMED DURING PLACEMENT OF CONCRETE.
6. BEND REINFORCING BARS COLD.
7. STEEL SHALL BE KEPT CLEAN AND FREE OF RUST.
8. DOWELS BETWEEN FOOTING AND WALLS OR COLUMNS SHALL BE THE SAME GRADE, SIZE AND SPACING AS THE MAIN REINFORCING UNO.
9. ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN PLACE INSPECTION IS MADE.
10. CHAIRS OR SPACERS FOR REINFORCING SHALL BE NON-FERROUS OR PLASTIC COATED WHEN RESTING ON EXPOSED SURFACES.

STRUCTURAL STEEL NOTES:

1. DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS AND STANDARD OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), AS CONTAINED IN THE LATEST EDITION OF "AISC MANUAL OF STEEL CONSTRUCTION".
2. ALL STRUCTURAL STEEL SHALL BE ERECTED PLUMB AND TRUE TO LINE. TEMPORARY BRACING SHALL BE INSTALLED AND SHALL BE LEFT IN PLACE UNTIL OTHER MEANS IS PROVIDED TO ADEQUATELY BRACE THE STRUCTURE.
3. PROVIDE THE FOLLOWING MATERIALS FOR STRUCTURAL STEEL UNO:

STRUCTURAL STEEL GRADES:		
A.	ALL WIDE FLANGE SECTIONS	ASTM A992
B.	SQUARE OR RECTANGULAR HOLLOW STRUCTURAL SECTIONS (HSS)	ASTM A500, GRADE B (F_y=46 KSI)
C.	ROUND HOLLOW STRUCTURAL SECTIONS (HSS)	ASTM A500, GRADE B (F_y=42 KSI)
D.	PIPES	ASTM A53 TYPE E OR S, GRADE B, (F_y=35 KSI)
E.	PLATES, ANGLES, CHANNELS & TEES	ASTM A36
F.	MACHINE BOLTS (MB)	ASTM A307
G.	HIGH STRENGTH BOLTS (HSB)	ASTM A325 TYPE N
H.	WELDED HEADED STUDS	ASTM A108
I.	THREADED RODS FOR ANCHOR BOLTS	ASTM F1554, GRADE 36

4. EXCEPT AS OTHERWISE NOTED, ALL BOLTS SHALL BE HIGH STRENGTH BOLTS.
5. ALL CONNECTIONS NOT SHOWN SHALL CONFORM TO THE "AISC MANUAL OF STEEL CONSTRUCTION" AND SHALL BE SUBMITTED ON SHOP DRAWINGS FOR REVIEW BY SEOR PRIOR TO FABRICATION.
6. ALL WELDED HEADED STUDS, THREADED STUDS, AND DEFORMED BARS SHALL BE NELSON, OR EQUIVALENT, AND WELDED (IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS BY CERTIFIED WELDERS) SO AS TO FULLY DEVELOP THE TENSILE CAPACITY OF THE CONNECTOR.
7. HIGH STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT EDITION OF THE "AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". SLIP CRITICAL BOLTS(SC) SHALL BE USED FOR ALL "LATERAL FORCE RESISTING SYSTEM"(LFRS) MEMBER STEEL-TO-STEEL CONNECTION. HIGH STRENGTH BOLTS NOT IN THE LFRS MAY BE INSTALLED HAND TIGHT. SEE HIGH STRENGTH BOLT NOTES FOR ADDT'L INFO.
8. BOLTS WITH UPSET THREADS ARE NOT ALLOWED. USE THE APPROPRIATE NUT AND WASHER TYPE FOR THE SPECIFIED BOLT.
9. ALL STEEL FABRICATION SHALL BE PERFORMED BY A LICENSED FABRICATOR.
10. ALL STRUCTURAL STEEL AND MISCELLANEOUS STEEL PERMANENTLY EXPOSED TO THE ELEMENTS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION UNLESS A WEATHER PROOF COATING IS SPECIFIED BY THE ARCHITECT UNO. STAINLESS AND WEATHERING STEELS ARE EXCEPTED WHERE SPECIFIED.
11. SEE ARCHITECTURAL DRAWINGS FOR NAILER HOLES, WELDED STUDS OR OTHER ITEMS NOT SHOWN IN THESE DRAWINGS. WHERE STEEL IS EMBEDDED IN CONCRETE OR MASONRY, PROVIDE HOLES AS REQUIRED FOR PASSAGE OF CONTINUOUS REINFORCING BARS WHERE INDICATED ON DRAWINGS. DO NOT CUT HOLES IN STRUCTURAL STEEL WITHOUT PRIOR APPROVAL OF SEOR.
12. ALL ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) SHALL COMPLY WITH AISC CODE OF STANDARD PRACTICE, SECTION 10.
13. PLACE NON-SHRINK OR DRYPACK GROUT UNDER ALL BASE PLATES AND ALLOW TO CURE BEFORE APPLYING LOADS. SEE NOTE 12 OF STRUCTURAL CONCRETE FOR GROUT INFORMATION.
14. ALL STEEL TUBES SHALL BE CAPPED AT ENDS.

WELDING NOTES:

1. WELDING PROCEDURES, ELECTRODES AND WELDER QUALIFICATIONS SHALL CONFORM TO THE STRUCTURAL WELDING CODE-STEEL AMERICAN WELDING SOCIETY (AWS), D1.1 AND THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".
2. ALL WELDERS SHALL HAVE EVIDENCE OF PASSING THE AWS STANDARD QUALIFICATION TESTS, AND SHALL BE CERTIFIED FOR THE WORK THEY ARE PERFORMING.
3. PROJECT WELDING SHALL BE PERFORMED ONLY IN ACCORDANCE WITH WELDING PROCEDURE SPECIFICATIONS (WPS) SUBMITTED BY THE CONTRACTOR AND REVIEWED BY THE SEOR AND PROJECT WELDING INSPECTOR. THE WPS SHALL BE IN ACCORDANCE WITH AWS D1.1-D1.4 CURRENT EDITION.
4. WELDING OF STRUCTURAL STEEL SHALL BE PERFORMED PER AWS D1.1 USING E70XX ELECTRODES UNLESS OTHERWISED NOTED.
5. WELDING OF REINFORCING BARS SHALL BE PERFORMED PER AWS D1.4 USING E70XX ELECTRODES.
6. WELDING OF METAL DECK AND LIGHT GAGE STEEL SHALL BE IN ACCORDANCE WITH AWS D1.3.
7. ALL FULL PENETRATION WELDS SHALL BE ULTRA-SONIC TESTED PER AWS D1.1.
8. ALL GROOVE OR BUTT WELDS SHALL BE COMPLETE PENETRATION WELDS. ALL EXPOSED BUTT WELDS SHALL BE GROUND SMOOTH.
9. ALL EXPOSED WELDS ON ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) SHALL COMPLY WITH AISC CODE OF STANDARD PRACTICE, SECTION 10.
10. FIELD WELDS HAVE BEEN INDICATED WHERE THEY ARE EXPECTED TO OCCUR. THE CONTRACTOR SHALL DETERMINE THE ACTUAL FIELD WELDING NECESSARY TO COMPLETE THE PROJECT AND INCLUDE ALL ASSOCIATED COSTS WITHIN THE BASE BID.
11. WHERE WELDS ARE DESIGNATED AS DEMAND CRITICAL, THEY SHALL BE MADE WITH A FILLER METAL CAPABLE OF PROVIDING A MINIMUM CHARPY V-NOTCH (CVN) TOUGHNESS OF 20 FT-LB AT 0°F AND 40 FT-LB AT 70°F. SEE AISC 341-10 SECTION A3.4b FOR ADDITIONAL REQUIREMENTS.
12. ALL WELDS WITHIN MEMBERS DESIGNATED AS PART OF THE LATERAL FORCE RESISTING SYSTEM (LFRS) SHALL CONFORM TO THE DETAILING, MATERIALS, WORKMANSHIP, TESTING, AND INSPECTION REQUIREMENTS PER AWS D1.8.

POST INSTALLED ANCHORS (DSA):

1. ANCHOR DIAMETER REFERS TO THE THREAD SIZE FOR THE WEDGE & SHELL CATEGORIES AND TO THE ANCHOR OUTSIDE DIAMETER FOR THE SLEEVE CATEGORY.
2. APPLY PROOF TEST LOADS TO WEDGE & SLEEVE ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE NUT & INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS OF THE ORIGINAL NUT USING A TORQUE WRENCH & APPLY LOAD.
3. FOR SLEEVE/SHELL INTERNALLY THREADED CATEGORIES, VERIFY THAT THE ANCHOR IS NOT PREVENTED FROM WITHDRAWING BY A BASEPLATE OR OTHER FIXTURE BELOW. IF RESTRAINT IS FOUND, LOOSEN AND SHIM OR REMOVE FIXTURE(S) PRIOR TO TESTING.
4. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).
5. TEST EQUIPMENT IS TO BE CALIBATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
6. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
   A. HYDRAULIC RAM METHOD: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. FOR WEDGE AND SLEEVE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE.
10. TESTING SHOULD OCCUR 24 HOURS MINIMUM AFTER INSTALLATION OF THE SUBJECT ANCHORS.
11. ALL TESTS SHALL BE PERFORMED IN ACCORDANCE W/ CBC 1910A.5.3. W/ THE PRESENCE OF THE SPECIAL INSPECTOR/INSPECTOR OF RECORD.
12. TEST LOADS:

EPOXY ANCHORS			
IN NORMAL WEIGHT CONCRETE(3000PSI MIN)			IN CMU
THREADED ROD DIAMETER (IN)	EMBEDMENT (IN)	TENSION TEST VALUE (LBS)	
		SIMPSON SET-XP (ICC-ESR-2508)	SIMPSON SET-XP (IAPMO-265)
⅜	3	3650	2980
½	4	5540	3650
⅝	5	7440	3790
¾	6	9520	3790
⅞	7	9550	*
1	8	13830	
1 ¼	10	21610	
* LISTED EPOXY ADHESIVE MAY NOT BE USED WITH NOTED ROD SIZES			

EPOXY ANCHORS IN NORMAL-WEIGHT CONCRETE (3000 PSI MIN)		
REBAR SIZE	EMBEDMENT (IN)	TENSION TEST VALUE (LBS)
		SIMPSON SET-XP
#3	3	*
#4	4	5790
#5	5	6250
#6	6	8450
#7	7	11070
#8	8	17050
#9	9	*
#10	10	*
* LISTED EPOXY ADHESIVE MAY NOT BE USED WITH NOTED ROD SIZES		

1. TESTING OF EPOXY DOWELS AT JOINTS BETWEEN NEW AND EXISTING SLABS-ON-GRADE IS NOT REQUIRED
2. TESTING OF #3 EPOXY DOWELS AT CURBS AND HOUSEKEEPING PADS IS NOT REQUIRED.

STRUCTURAL OBSERVATIONS:

1. VISUAL OBSERVATIONS WILL BE PERFORMED AT THE DISCRETION OF THE OWNER, ARCHITECT, SEOR, AND AS REQUIRED BY THE BUILDING OFFICIAL IN ACCORDANCE WITH THE BUILDING CODE.
2. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO NOTIFY THE STRUCTURAL ENGINEER AS TO WHEN EACH MAJOR PHASE OF CONSTRUCTION IS READY FOR OBSERVATION A MINIMUM OF FIVE (5) WORKING DAYS IN ADVANCE.
3. THE FOLLOWING MAJOR PHASES OF CONSTRUCTION REQUIRE A SITE VISIT AND STRUCTURAL OBSERVATION REPORT FROM THE SEOR:
   - FOUNDATION REBAR AND ANCHORS - PRIOR TO POUR OF CONCRETE
   - STRUCTURAL FRAMING - AFTER ERECTION AND PRIOR TO CLOSING IN
   - RAISED FLOOR SLABS AND REBAR - PRIOR TO POUR OF CONCRETE
   - COMPLETION OF THE STRUCTURAL SYSTEM
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT NAILING, REINFORCEMENT, WELDS, CONNECTIONS, ETC. ARE VISIBLE FOR OBSERVATION WHEN THE SEOR IS ON SITE AND FOR ANY SCHEDULING DELAYS DUE TO NONCOMPLIANT ITEMS FOUND DURING THE OBSERVATION.

STATEMENT OF SPECIAL INSPECTIONS:

1. THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED P

GENERAL NOTES

1. PORTIONS OF THESE PLANS HAVE BEEN DERIVED FROM INFORMATION TAKEN FROM ORIGINAL ELECTRICAL PLANS. THE INTENT OF THESE PLANS IS TO PROVIDE COMPLETE AND OPERABLE SYSTEMS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL THE FEATURES OF THE BUILDING AND SITE WHICH WAY AFFECT THE PROPER PERFORMANCE OF THIS WORK.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REFER TO THE DRAWINGS OF OTHER TRADES FOR ADDITIONAL DETAILS AND REQUIREMENTS WHICH AFFECT THE PROPER PERFORMANCE OF THIS WORK.
4. RACEWAY ROUTING, DIMENSIONS, AND EQUIPMENT LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXACT RACEWAY ROUTING TO CONFORM TO FIELD CONDITIONS.
5. ELECTRICAL DOWN TIME MUST BE APPROVED BY THE COLLEGE. CONTRACTOR SHALL MAKE PROVISIONS TO ACCOMPLISH THE WORK OF THIS CONTRACT WITHOUT UNDUE INTERFERENCE WITH COLLEGE OPERATIONS.
6. ALL EQUIPMENT DEVICES, CONDUIT FITTINGS, JUNCTION BOXES, AND CONSTRUCTION LOCATED OUTDOORS SHALL BE WEATHERPROOF.
7. ALL SIGNAL AND FIRE ALARM SYSTEMS TERMINATIONS MADE IN JUNCTION BOXES SHALL BE EXECUTED USING TERMINAL BLOCKS.
8. SIGNAL AND/OR FIRE ALARM SYSTEMS SPLICES ARE NOT PERMITTED IN UNDERGROUND PULLBOXES.
9. ALL ELECTRICAL EQUIPMENT INCLUDING PANELS, OUTLET BOXES, CONDUITS, ETC. SHALL BE ANCHORED TO BUILDING STRUCTURE. ANCHORING SHALL BE DESIGNED FOR 1.0 GRAVITY LATERAL ACCELERATION OF THE EQUIPMENT.
10. VERIFY THE EXACT LOCATION OF THE RELOCATABLE BUILDING PANELBOARD WITH THE BUILDING MANUFACTURER PRIOR TO ROUGH-IN.
11. WHERE POSSIBLE ALL RACEWAYS SHALL BE ROUTED CONCEALED IN WALLS AND/OR ABOVE ACCESSIBLE CEILING SPACE.
12. UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBER SHALL BE CUT NEITHER DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DIVISION OF THE STATE ARCHITECT.
13. PROVIDE OZ COMPANY TYPE "DX" EXPANSION/DEFLECTION FITTINGS WITH BONDING JUMPER ON ALL CONDUITS AT ALL BUILDING EXPANSION OR SEISMIC JOINT CROSSINGS.

PERFORMANCE NOTES

1. VISIT THE SITE PRIOR TO BID AND INVESTIGATE THE EXISTING FIRE ALARM, TELEPHONE, INTRUSION DETECTION, EMS, CLOCK, INTERCOM/PA, TELEVISION AND DATA SYSTEMS EQUIPMENT ON CAMPUS. COORDINATE WITH THE EXISTING SYSTEMS MANUFACTURERS FOR ALL REQUIRED EQUIPMENT MODIFICATIONS, CONDUIT, WIRING AND UPGRADING REQUIRED TO EXTEND THE EXISTING SYSTEMS TO THE NEW MODULAR BUILDINGS. INCLUDE ALL COSTS IN BID. ALL NEW COMPONENTS SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM.
2. PAINT ALL EXPOSED RACEWAYS TO MATCH SURROUNDING SURFACE COLOR.
3. PROVIDE GROUNDING SYSTEM PER DETAIL A/E0.2 WHERE METAL RAMPS OR RAILWAYS ARE USED PROVIDE 1#2 BONDING ELECTRODE FROM THE RAMPS AND RAILWAYS TO THE STRUCTURAL STEEL MEMBER OF THE BUILDING.
4. PROVIDE WEATHERPROOF SEALANT AROUND PRECAST CONCRETE PULL BOX COVERS AFTER WORK IS COMPLETED WITHIN BOX.
5. PROVIDE APPROVED WEATHERPROOF SEALANT AROUND ALL WALL PENETRATIONS. SEAL IN A MANNER ACCEPTABLE TO THE ARCHITECT.
6. PROVIDE CORE DRILLING OF ALL STRUCTURES AS REQUIRED FOR RACEWAY ROUTING AND DISCOVERED SITE CONDITIONS.
7. RECONNECT EXISTING CIRCUITS FOR EQUIPMENT THAT IS TO REMAIN IF DISRUPTED BY WORK PERFORMED UNDER THIS CONTRACT. MAINTAIN CONTINUITY OF ALL FEED THRU WIRING.
8. WHERE NEW CONDUCTOR(S)/CABLING IS SPECIFIED IN EXISTING CONDUITS CONTAINING EXISTING WIRING THE CONTRACTOR SHALL REMOVE ENOUGH OF THE EXISTING WIRING TO PULL IN NEW PLUS REPLACEMENT OF EXISTING REMOVED.
9. PROVIDE NEW TELEPHONE(S), SPEAKERS, DATA OUTLETS, AUDIO/VISUAL SYSTEMS AND CLOCKS IN MODULAR BUILDINGS WHERE INDICATED ON DRAWINGS.

EQUIPMENT ANCHORAGE NOTES

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

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

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

A. COMPONENTS 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.

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

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616A.1.24, 1616A.1.25 AND 1615A.1.26.

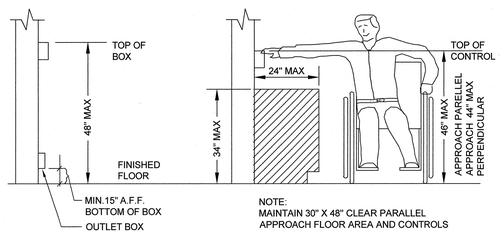
THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (e.g., SMACNA OR OSHPD OPM), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE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

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

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

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

MP ☐ MD ☐ PP ☐ - OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA. FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL _____ AND CONNECTION LEVEL _____ FOR THE PROJECT AND CONDITIONS.



MOUNTING HEIGHT OVER OBSTRUCTION SCALE: N.T.S. 1

SYMBOL LIST

(ALL SYMBOLS NOT NECESSARILY USED ON THESE DRAWINGS)
ALL SYMBOL DESCRIPTIONS ARE SUBJECT TO MODIFICATION AS NOTED ON THE DRAWINGS.
VERIFY EXACT LOCATIONS AND HEIGHTS OF OUTLETS WITH ARCHITECTURAL INTERIOR ELEVATIONS PRIOR TO ROUGH-IN.

- JUNCTION BOX, FLUSH WALL MOUNTED, +18".
- JUNCTION BOX CONCEALED ABOVE ACCESSIBLE CEILING AREA OR MOUNTED ON ROOF.
- INDICATES CONNECTION TO EQUIPMENT AS REQUIRED, TYPICAL.
- PANELBOARD, ADJACENT LINE INDICATES PANEL FRONT. ADJACENT BALLOON INDICATES PANEL DESIGNATION "A", SEE DRAWING E-1 FOR PANEL SCHEDULE.
- TERMINAL CABINET. ADJACENT LINE INDICATES CABINET FRONT.
- EQUIPMENT CABINET. ADJACENT LINE INDICATES CABINET FRONT.
- LIGHTING FIXTURE, SURFACE OR FLUSH MOUNTED AS INDICATED ON FIXTURE SCHEDULE, ON WALL MOUNTED OUTLET BOX, +90". STEM INDICATES WALL MOUNTED OUTLET BOX, TYPICAL.
- SINGLE POLE TOGGLE SWITCH, ON FLUSH WALL MOUNTED OUTLET BOX, +45". INSTALL MULTIPLE SWITCHES UNDER COMMON COVER PLATE. SUBSCRIPT OR SUPERSCRIPT AT SWITCH SYMBOL INDICATES THE FOLLOWING:
  2 - DOUBLE POLE 4 - FOUR WAY M - MANUAL MOTOR STARTERS
  3 - THREE WAY P - PILOT LIGHT K - KEY OPERATED
  R - SPDT MOMENTARY CONTACT RELAY SWITCH V - VAPOR PROOF
  a,b,c,d, ETC. - MULTIPLE SWITCHES WITH IDENTIFICATION OF OUTLET CONTROLLED.
- FIXTURE SCHEDULE DESIGNATION: "2" INDICATES FIXTURE TYPE, "100" INDICATES FIXTURE TOTAL WATTAGE.
- DETAIL CALLOUT, "C" INDICATES DETAIL, "E-2" INDICATES DRAWING WHERE DETAIL OCCURS.
- PLAN NOTE CALLOUT. REFER TO CORRESPONDING NOTE ON DRAWING WHERE CALLOUT OCCURS.
- CONDUIT, INSTALLED CONCEALED IN WALL OR IN CEILING SPACE.
  1/2" C - 2 #12, 1#12(GRD) 3/4" C - 6 #12, 1#12(GRD)
  1/2" C - 3 #12, 1#12(GRD) 1" C - 7 #12, 1#12(GRD)
  3/4" C - 4 #12, 1#12(GRD) 1" C - 8 #12, 1#12(GRD)
  3/4" C - 5 #12, 1#12(GRD) 1 1/4" C - 9 #12, 1#12(GRD)
- CONDUIT, INSTALLED CONCEALED IN OR UNDER FLOOR OR BELOW GRADE, 3/4"C. MINIMUM.
- CONDUIT, INSTALLED EXPOSED.
- HOMERUN TO PANEL "B" FOR CIRCUITS 5, 7, 9 WITH COMMON NEUTRAL
- UNDERGROUND CONDUIT STUBOUT, STUB 5'-0" FROM BUILDING OR WALKWAY, CAP, MARK AND RECORD.
- INDICATES CONDUIT SLEEVE(S) THROUGH WALL ABOVE THE CEILING. NUMBER AND SIZE OF CONDUITS AS NOTED.
- EXISTING CONDUIT.
- FIRE ALARM SYSTEM - 3/4"C. WITH FIRE ALARM SYSTEM CONDUCTORS AS SPECIFIED.
- PUBLIC ADDRESS SYSTEM - 3/4"C., WITH CONDUCTORS AS SPECIFIED.
  P2 - 3/4"C WITH CONDUCTORS AS SPECIFIED.
- TELEVISION SYSTEM - 1"C. WITH CONDUCTORS AS SPECIFIED.
- INTRUSION DETECTION SYSTEM - 3/4"C. WITH CONDUCTORS AS SPECIFIED.
- WEATHERPROOF PUBLIC ADDRESS/CLASS PASSING SPEAKER, HOUSING & GRILLE, FLUSH WALL MOUNTED, +90".
- PUBLIC ADDRESS/CLASS PASSING SPEAKER, HOUSING AND GRILL, FLUSH WALL MOUNTED, +90".
- PUBLIC ADDRESS/CLASS PASSING SPEAKER, HOUSING & GRILLE, FLUSH CEILING MOUNTED.
- CLASSROOM AUDIO ENHANCEMENT SPEAKER IN FLUSH CEILING MOUNTED BACKBOX.
- COMPUTER/DATA PROCESSING SYSTEM - 3/4"C., WITH ONE(1) CAT6 CABLE AS SPECIFIED.
  D2 - 1"C., WITH TWO(2) CAT6E CABLES AS SPECIFIED.
  D3 - 1 1/4"C., WITH THREE(3) CAT6E CABLES AS SPECIFIED.
  D4 - 1 1/4"C., WITH FOUR(4) CAT6E CABLES AS SPECIFIED.
- SELF CORRECTING BATTERY OPERATED CLOCK, +90" A.F.F. REFER TO ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS.
- INTRUSION DETECTION SYSTEM MOTION SENSOR, ON FLUSH CEILING MOUNTED OUTLET BOX.
- COMPUTER/DATA OUTLET WITH TWO (2) DATA OUTLET CONNECTORS, ON FLUSH IN WALL OUTLET BOX, +18". PROVIDE OUTLET BOX, DATA JACKS, FACE PLATE, ETC. AND 1" CONDUIT TO THE ACCESSIBLE CEILING SPACE UNLESS NOTED OTHERWISE. PROVIDE TWO (2) CAT 6E DATA NETWORK CABLES AS SPECIFIED FROM THE OUTLET TO THE RESPECTIVE MDF/IDF.
- WAP COMPUTER/DATA OUTLET WITH TWO (2) DATA OUTLET CONNECTORS, ON CEILING MOUNTED OUTLET BOX, FOR WIRELESS ACCESS POINT. PROVIDE OUTLET BOX, DATA JACK, FACE PLATE, ETC. PROVIDE TWO (2) CAT 6E DATA NETWORK CABLE AS SPECIFIED FROM THE OUTLET TO THE RESPECTIVE MDF/IDF.
- COMPUTER/DATA OUTLET WITH DATA OUTLET CONNECTOR, ON CEILING MOUNTED OUTLET BOX. PROVIDE ONE (1) CAT 6E DATA NETWORK CABLE AS SPECIFIED FROM THE OUTLET TO THE RESPECTIVE MDF/IDF.
- AV AUDIO/VIDEO OUTLET, ON FLUSH WALL MOUNTED OUTLET BOX WITH COVERPLATE AND GROMETTED OPENING PROVIDE OUTLET BOX, COVERPLATE AND 2" CONDUIT CONCEALED IN WALL TO THE ACCESSIBLE CEILING SPACE UNLESS NOTED OTHERWISE.
- FC AUDIO/VIDEO CONTROL PANEL, ON FLUSH IN WALL MOUNTED OUTLET BOX, +45"A.F.F. LOCATED AT TEACHER'S DESK. PROVIDE CONTROL PANEL, OUTLET BOX AND 1" CONDUIT CONCEALED IN WALL DOWN TO AV CONNECTOR PLATE. AT +18"A.F.F.
- TELECOMMUNICATIONS OUTLET ON FLUSH WALL MOUNTED OUTLET BOX +18", WITH DESK MOUNTED DEVICE. PROVIDE 1"C. WITH CONDUCTORS AS SPECIFIED STUBBED INTO ACCESSIBLE CEILING SPACE.
- P DUPLEX CONVENIENCE RECEPTACLE VERTICAL ON FLUSH CEILING MOUNTED OUTLET BOX, +18".
- DUPLEX CONVENIENCE RECEPTACLE VERTICAL ON FLUSH WALL MOUNTED OUTLET BOX, +18". INDICATES WALL MOUNTED OUTLET BOX, TYPICAL.
- DOUBLE DUPLEX (FOUR-PLEX) CONVENIENCE RECEPTACLE ON ONE FLUSH WALL MOUNTED OUTLET BOX
- CIRCUIT BREAKER STATIONARY (NON-DRAWOUT) SECONDARY VOLTAGE.
- DENOTES CONDUIT(S) RISING UP.
- MODULAR BUILDING GROUND ROD. SEE DETAIL 3/E-005.
- E LOW VOLTAGE LIGHTING ENTRANCE CONTROL STATION ON FLUSH IN WALL OUTLET BOX, +45".
- D LOW VOLTAGE LIGHTING INSTRUCTORS CONTROL STATION ON FLUSH IN WALL OUTLET BOX, +45".
- LIGHTING FIXTURE, SURFACE OR PENDANT MOUNTED, ON FLUSH CEILING MOUNTED OUTLET BOX.
- LIGHTING FIXTURE, RECESS MOUNTED, WITH OUTLET BOX.
- LIGHTING FIXTURE, SURFACE OR FLUSH MOUNTED AS INDICATED ON FIXTURE SCHEDULE, ON WALL MOUNTED OUTLET BOX, +90". STEM INDICATES WALL MOUNTED OUTLET BOX, TYPICAL.
- OUTLET ON EMERGENCY LIGHTING CIRCUIT.
- LIGHTING FIXTURE WITH LAMPS ON NORMAL AND EMERGENCY LIGHTING CIRCUITS, PROVIDE SEPARATE LAMP BALLASTS AS REQUIRED.
- EXTERIOR BUILDING MOUNTED LIGHT FIXTURE WITH INTEGRAL BATTERY UNIT FOR 90 MINUTES OF EMERGENCY ILLUMINATION.

ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR
A.F.G.	ABOVE FINISH GRADE
AWG	AMERICAN WIRE GAUGE
AMP, A	AMPERE
AF/AT	AMP FRAME, AMP TRIP
AS/AF	AMP SWITCH, AMP FUSE
AV	AUDIO VISUAL
CIRC., CKT.	CIRCUIT
CB	CIRCUIT BREAKER
C	CONDUIT
C.O.	CONDUIT ONLY
CONN	CONNECTED
DIA	DIAMETER
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
E-O-L	END-OF-LINE CIRCUIT TERMINATOR
EF	EXHAUST FAN
ER	EXISTING EQUIPMENT TO BE REMOVED
E	EXISTING EQUIPMENT
FT. OR '	FEET
FA	FIRE ALARM
FLA	FULL LOAD AMPS
GFI	GROUND FAULT INTERRUPTER
GRD	GROUND
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
H.,W.,D.,L.	HEIGHT, WIDTH, DEPTH, LENGTH
HP	HORSEPOWER
IDF	INTERMEDIATE DISTRIBUTION FRAME
IN. OR "	INCHES
IG	ISOLATED GROUND
J-BOX	JUNCTION BOX
KVA	KILOVOLT AMPERES
KW	KILOWATT
LCL	LONG CONTINUOUS LOAD
L.O.	LUGS ONLY
LTG, LTS	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MDF	MAIN DISTRIBUTION FRAME
MH	METAL HALIDE
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MCP	MOTOR CIRCUIT PROTECTOR
MLO	MAIN LUGS ONLY
MTD	MOUNTED
NEC	NATIONAL ELECTRICAL CODE
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
NIC	NOT IN CONTRACT
NO. OR #	NUMBER
PRIMARY	OVER 600 VOLTS
PH. OR	PHASE
PROVIDE	FURNISH, INSTALL AND CONNECT
PA	PUBLIC ADDRESS
REC, RECEPT	RECEPTACLE
REF	REFRIGERATOR
RGS	RIGID GALVANIZED STEEL
RL	RELOCATED EXISTING EQUIPMENT
SECONDARY	600 VOLTS AND LESS
O	INDICATES DEVICE ON SURFACE WALL MOUNTED OUTLET BOX.
TV	TELEVISION
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V	VOLTS
VA	VOLT AMPERES
WP	WEATHERPROOF
W	WIRE
DFCI	DISTRICT FURNISHED CONTRACTOR INSTALLED
DFDI	DISTRICT FURNISHED DISTRICT INSTALLED
BLDG.	BUILDING
IWB	INTERACTIVE WHITE BOARD
AVC	AUDIO/VIDEO CABINET
1P	SINGLE POLE
2P	DOUBLE POLE
3P	TRIPLE POLE

SHEET INDEX

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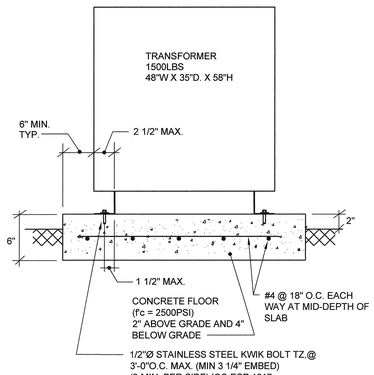
tBP project number : 21015.00
file name:
drawn by: checked by:
date: FEBRUARY 05, 2019

Rev:	date:	description:

drawing title:
GENERAL NOTES, SYMBOL LIST, FIXTURE SCHEDULE AND DETAIL

drawing no.:
E0-1
drawing of

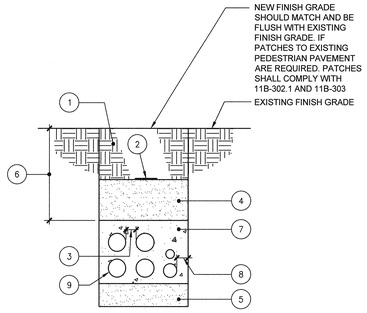
FBA Engineering / Plot Date: 2/4/2019 9:28 AM / Plotted by: Garren Rigonan / Drawing Location: I:\21\21243\E0-1_212243.dwg



NOTE:
FOR OUTDOOR UNITS USE STAINLESS STEEL KB TZ's

TRANSFORMER ANCHORAGE DETAIL

SCALE: NONE | 5



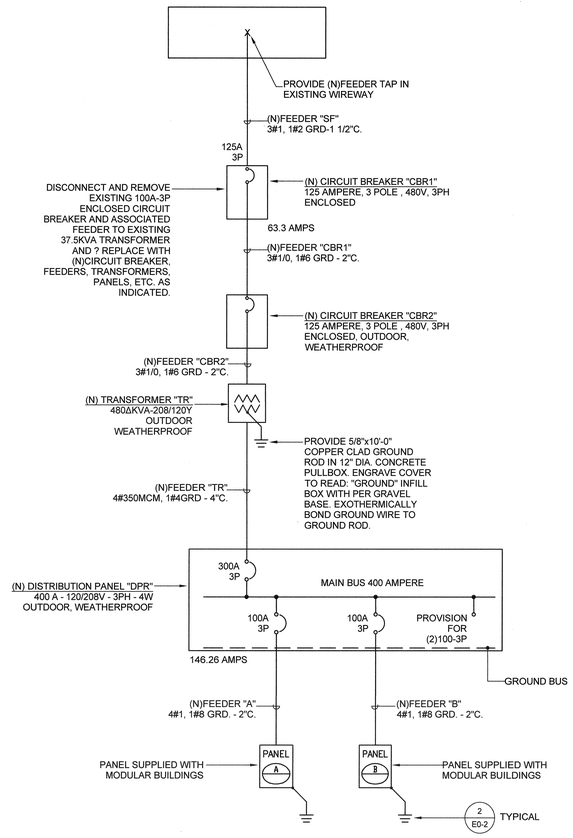
NOTE: SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

DUCT BANK NOTES:

1. NATIVE SOIL BACK FILL
2. 3" WIDE WARNING TAPE LOCATED 12" BELOW GRADE. TAPE SHALL INDICATE: CAUTION BURIED ELECTRICAL CONDUIT".
3. 3" BETWEEN IDENTICAL SYSTEM CONDUITS OR 24" BETWEEN DIFFERENT SYSTEM CONDUITS.
4. DAMP SAND BACK FILL TO WITHIN 12" OF FINISH GRADE.
5. 6" BED OF DAMP SAND.
6. 36" IN TRAFFIC AREAS, 24" IN NON-TRAFFIC AREAS.
7. CONCRETE ENCASEMENT.
8. 3" MINIMUM COVERAGE.
9. REFER TO PLANS FOR CONDUITS SIZE AND QUANTITIES.

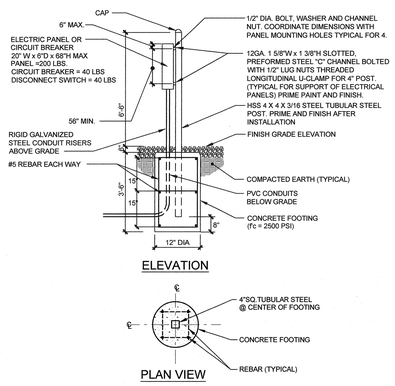
CONDUIT BANK DETAIL

SCALE: NONE | 3



SINGLE LINE DIAGRAM

SCALE: NONE | 1

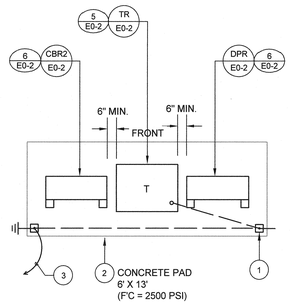


ELEVATION

PLAN VIEW

ELEC. PANEL OR CIRC. BREAKER SUPPORT ASSEMBLY

SCALE: NONE | 6

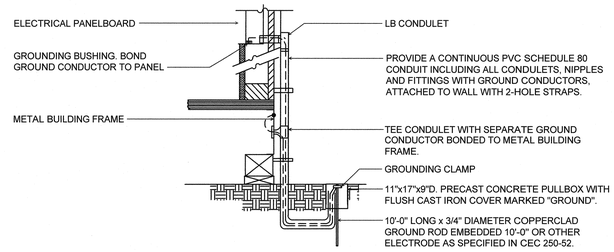


DETAIL NOTES:

1. PROVIDE 12"X 12"X 12"D. BOTTOMLESS CONCRETE PULLBOX WITH PEA-GRAVEL BASE AND 10 FT. LONG X 3/4" DIAMETER COPPER GROUND ROD. MOUNT PULLBOX FLUSH IN GRADE AND ENGRAVE COVER "GROUND". QUANTITY AS REQUIRED TO ACHIEVE 25 OHMS TO GROUND MAXIMUM.
2. PROVIDE 6" THICK REINFORCED CONCRETE PAD EXTENDING 4" BELOW AND 2" ABOVE GRADE. #4 @ 18" O.C. EACH WAY AT MID-DEPTH OF SLAB.
3. BOND TO FENCE POST, WHERE OCCURS.

ENLARGED ELECTRICAL ENCLOSURE

SCALE: NONE | 4



NOTES:

1. SIZE OF CONDUCTORS SHALL COMPLY WITH CEC. TABLE 250.66.
2. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECTRICAL PANEL AND TO METAL BUILDING FRAME (CEC 250.52). IN ADDITION TO THE DETAIL SHOWN ABOVE, BOND THE ELECTRICAL GROUND TO METAL UNDERGROUND WATER PIPE IN DIRECT CONTACT WITH THE EARTH FOR 10 FT. OR MORE, IF AVAILABLE (CEC 250.52)
3. ALL MODULES OF METAL FRAME BUILDINGS SHALL BE ELECTRICALLY BONDED TOGETHER. (BOLTING ONLY IS NOTE ACCEPTABLE BONDING.)
4. CHECK RESISTANCE TO GROUND. IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND ROD GREATER THAN SIX FEET AWAY (CEC 250.56). ONCE THE SECOND GROUND ROD IS INSTALLED, ADDITIONAL GROUND RESISTANCE TESTING IS NOT REQUIRED.
5. WHERE MODULAR BUILDINGS ARE GROUPED TOGETHER, A GROUND ROD MAY BE INSTALLED AT THE END BUILDINGS AND A GROUND RING MAY BE INSTALLED BETWEEN THEM. EACH INTERMEDIATE MODULAR BUILDING MAY BE BONDED TO THAT GROUND RING. WHERE THIS METHOD IS USED, GROUND RESISTANCE TESTING SHALL NOT BE REQUIRED.
6. WHERE MODULAR BUILDINGS ARE INSTALLED ON CONCRETE FOUNDATIONS, A UFER GROUND SHALL BE INSTALLED IN THE FOOTING PER CEC 250.52 (A)(3).
7. OTHER GROUNDING METHODS IDENTIFIED IN CEC 250 SHALL BE ACCEPTABLE MEANS TO ACHIEVE ADEQUATE GROUNDING OF METAL BUILDINGS IN COMPLIANCE WITH THE ABOVE.
8. SEE SPECIFICATIONS FOR TESTING OF GROUNDING REQUIRED.

MODULAR BUILDING GROUND DETAIL

SCALE: NONE | 2

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file name:
drawn by: checked by:
date: FEBRUARY 05, 2019

Rev:	date:	description:

drawing title:
SINGLE LINE DIAGRAM AND DETAILS

drawing no.:
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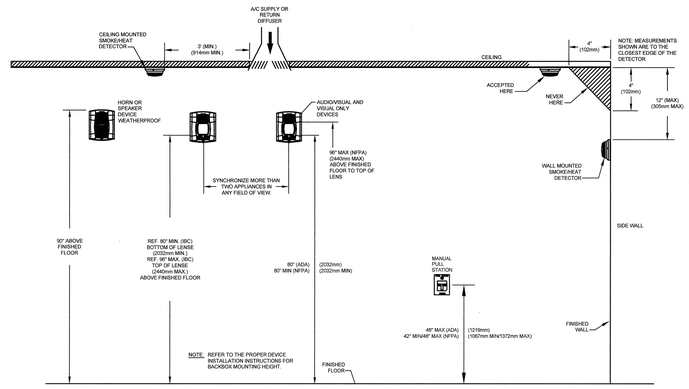
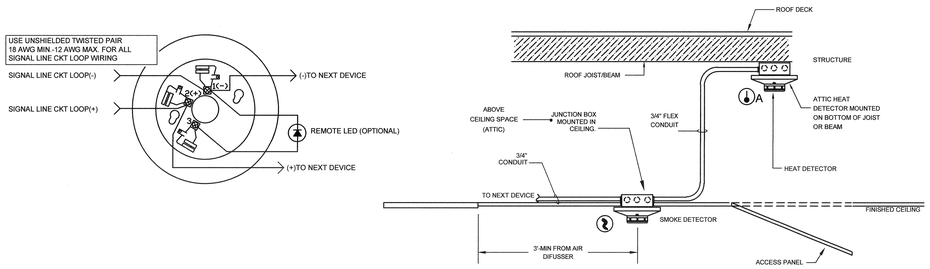
drawing of

FBA Engineering / Plot Date: 2/4/2019 9:28 AM / Plotted by: Garren Rignan / Drawing Location: I:\212\243\E0-2_212243.dwg



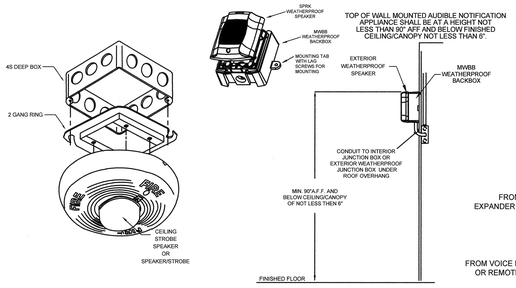
FIRE ALARM SYSTEM DEVICES MOUNTING ELEVATIONS

SCALE:	
NONE	1



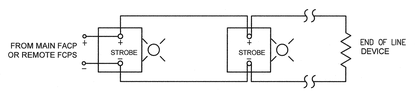
ADDRESSABLE DETECTOR BASE WIRING/MOUNTING

SCALE:	
NONE	2

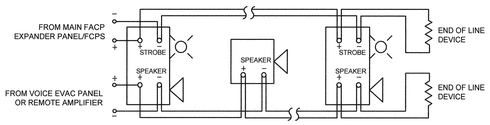


CEILING MOUNT SPEAKER, SPEAKER STROBE

EXTERIOR SPEAKER MOUNTING



STROBE CIRCUIT



SPEAKER/STROBE CIRCUIT

NOTIFICATION APPLIANCE WIRING AND MOUNTING

SCALE:	
NONE	3

FIRE ALARM GENERAL NOTES

1. THE FIRE ALARM SHALL CONFORM TO ARTICLE 760 OF THE CALIFORNIA ELECTRICAL CODE.
2. UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION (FIRE MARSHAL). THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TEST EQUIPMENT (e.g. DIGITAL AMMETER, DECIBEL METER) AND VERIFY THAT THE GROUND FAULT DETECTION FOR THE FIRE ALARM SYSTEM IS OPERATIONAL DURING TESTING AND REMAINS SO ONCE THE SYSTEM IS APPROVED. UPON APPROVAL OF THE FIRE ALARM SYSTEM, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH COMPLETE SET OF OPERATING INSTRUCTIONS FOR THE SYSTEM.
3. A MINIMUM OF 48 HOURS NOTICE SHALL BE REQUIRED PRIOR TO ANY INSPECTION AND/OR TEST.
4. AN APPROVED, STAMPED SET OF THE FIRE ALARM PLANS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION. ANY DEVIATIONS FROM THE APPROVED PLANS, INCLUDING SUBSTITUTION OF DEVICES, SHALL BE APPROVED BY THE INSPECTOR OF RECORD.
5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF THE INSPECTOR OF RECORD.
6. ALL DEVICES OF THE FIRE ALARM SYSTEM SHALL BE APPROVED AND LISTED BY THE CALIFORNIA STATE FIRE MARSHAL.
7. A "RECORD OF COMPLETION" SHALL BE PREPARED BY THE INSTALLER AND GIVEN TO THE FIRE MARSHAL UPON COMPLETION OF THE INSTALLATION.
8. ALL TERMINAL CABINETS AND JUNCTION BOXES SHALL BE CLEARLY MARKED THAT THE ENCLOSURE IS PART OF THE FIRE ALARM SYSTEM.
9. THE CONTRACTOR SHALL LOCATE ALL SMOKE DETECTION DEVICES A MINIMUM OF 36" FROM ANY MECHANICAL REGISTERS.
10. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE. WIRE LENGTHS USED TO CALCULATE VOLTAGE DROPS REPRESENT ESTIMATES BASED ON MEASUREMENTS OF SCALED FLOOR PLAN DRAWINGS. CONTRACTOR TO ROUTE CONDUIT AS FIELD CONDITIONS REQUIRE. CONTRACTOR TO INSTALL ALL DEVICES ACCORDING TO MANUFACTURERS INSTRUCTIONS AND IN COMPLIANCE WITH ALL APPLICABLE CODES.
11. CONTRACTOR SHALL VERIFY LOCATION OF POST INDICATOR VALVES (PIV's) AND/OR OUTSIDE STEM & YOKE (OS&Y) VALVES INSTALLED ON FIRE SPRINKLER SERVICE. CONTRACTOR SHALL PROVIDE AND INSTALL TAMPER SWITCH(ES) AT EACH OF THESE VALVES AND INTERCONNECT TAMPER SWITCH(ES) TO THE FIRE ALARM CONTROL PANEL (FACP).
12. ALL WIRING TO BE IN CONDUIT. ALL CONDUIT IS TO BE A 3/4" MINIMUM. IF FLEX CONDUIT IS USED TO TRANSITION DOWN TO CEILING DEVICE THE FLEX CAN BE NO LONGER THAN 5 FEET.

FIRE ALARM EQUIPMENT SCHEDULE

ITEM DESCRIPTION	SYMBOL	MOUNTING	CATALOG NUMBER	CSFM LISTING NUMBER
EXISTING FIRE ALARM CONTROL PANEL "EFACP"	(E)	EXISTING	NOTIFIER NFS-3030	-
FIRE ALARM CONTROL PANEL WITH DIGITAL VOICE COMMANDER, PAGING MICROPHONE "FACP"		+72" A.F.F. TO TOP OF CABINET	NOTIFIER NFS2-640	7165-0028:02 4 3
FIRE ALARM VOICE EVAC AMPLIFIER		MOUNT IN FACP CABINET	NOTIFIER DAA2 SERIES	7165-0028:02 4 3
FIRE ALARM REMOTE PAGING UNIT "RPU"		+66" A.F.F. TO TOP OF CABINET	NOTIFIER DVC-RPU	7165-0028:02 4 3
FIRE ALARM SYSTEM NETWORK ANNUNCIATOR		+66" A.F.F. TO TOP OF CABINET	NOTIFIER NCA-2	7165-0028:02 4 5
SMOKE DETECTOR PHOTOELECTRIC TYPE ON FLUSH CEILING MOUNTED OUTLET BOX		CEILING	NOTIFIER FSP-951	7272-0028:0503
HEAT DETECTOR ON FLUSH CEILING MOUNTED OUTLET BOX		ATTIC	NOTIFIER FST-951H	7270-0028:0502
FIRE ALARM ADDRESSABLE MANUAL PULL STATION	P	+48" A.F.F. TO CENTER	NOTIFIER NBG-12LX	7150-0028:0199
FIRE ALARM SPEAKER WEATHERPROOF WALL MOUNTED ON WEATHERPROOF BACKBOX	WP	+90 A.F.F. TO BOTTOM	SYSTEM SENSOR SPRK	7320-1653:0201
FIRE ALARM SPEAKERSTROBE CEILING MOUNTED ON 4S DEEP BOX W/ EXT. RING (CD# DENOTES CANDELA)	#cd	CEILING	SYSTEM SENSOR SPSCRL	7320-1653:0505
FIRE ALARM STROBE CEILING MOUNTED ON 4S DEEP BOX (CD# DENOTES CANDELA)	#cd	CEILING	SYSTEM SENSOR SCRL	7125-1653:0504

FIRE ALARM SYSTEM NOTES

FIRE ALARM COMPLETE PLAN SUBMITTAL

1.0 PROJECT INFORMATION

A. OCCUPANCY GROUP

REFER TO ARCHITECTURAL DRAWINGS.

B. CONSTRUCTION TYPE

REFER TO ARCHITECTURAL DRAWINGS.

FIRE ALARM NOTE:
FIRE ALARM SUBMITTAL IS A COMPLETE PLAN SUBMITTAL IN ACCORDANCE WITH CFC-901.1 AND 907.1.1.

C. PENETRATIONS OF FIRE RATED WALLS SHALL BE PROTECTED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE, PART 2, CHAPTER 7, TITLE 24. REFER TO THE ARCHITECTURAL PLANS FOR FIRE-RATE CORRIDOR(S), OCCUPANCY SEPARATION(S) AND AREA SEPARATION WALL(S).

D. UPON COMPLETION OF SYSTEM INSTALLATION, THE SYSTEM SHALL BE TESTED IN THE PRESENCE OF AND IN A MANNER ACCEPTABLE TO THE ENFORCING AGENCY.

E. PROVIDE A STATEMENT OF COMPLIANCE WHEN REQUESTING INSPECTION CFC 901.2.1

F. THE FIRE ALARM SYSTEM DESIGN FOR THIS PROJECT IS ADDRESSABLE AND FULLY AUTOMATIC.

2.0 APPLICABLE CODES AND STANDARDS

A. PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2017

2016 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
(2015 INTERNATIONAL BUILDING CODE VOLUMES 1-2 AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
(2014 NATIONAL ELECTRICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R.
(2015 UNIFORM MECHANICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
(2015 UNIFORM PLUMBING CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA ENERGY CODE (CEC), PART6, TITLE 24 C.C.R.
2016 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 C.C.R.
(2015 INTERNATIONAL FIRE CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.
2016 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.
TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHALL REGULATIONS.
2013 ASME A17.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS.

B. PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	AUTOMATIC SPRINKLER SYSTEMS	2016 EDITION
NFPA 14	STANDPIPE SYSTEMS	2013 EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEM	2013 EDITION
NFPA 17A	WET CHEMICAL SYSTEMS	2013 EDITION
NFPA 20	STATIONARY PUMPS	2016 EDITION
NFPA 22	WATER TANKS FOR PRIVATE FIRE PROTECTION	2013 EDITION
NFPA 24	PRIVATE FIRE MAINS	2016 EDITION
NFPA 72	NATIONAL FIRE ALARM CODE	2016 EDITION
NFPA 80	FIRE DOORS AND OTHER OPENING PROTECTIVES	2016 EDITION
NFPA 92	STANDARDS FOR SMOKE CONTROL SYSTEMS	2015 EDITION
NFPA 253	CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS	2015 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2015 EDITION
ICC 300	ICC STANDS ON BLEACHERS, FOLDING AND TELESCOPING SEATING AND GRAND STANDS	2012 EDITION
UL 300	FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION OF RESTAURANT COOKING AREAS	2005 EDITION
UL 464	AUDIBLE SIGNAL APPLIANCES	2003 EDITION
UL 521	HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	1999 EDITION

REFERENCE CODE SECTION FOR NFPA STANDARDS-2016 CBC (SFM) CHAPTER 35. SEE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO NFPA STANDARDS.

3.0 UPON RECEIPT OF THE CERTIFICATE OF COMPLIANCE, THE INSTALLER SHALL SUPPLY THE OWNER WITH A WRITTEN OPERATING, TESTING AND MAINTENANCE INSTRUCTIONS, POINT-TO-POINT AS BUILD DRAWINGS AND EQUIPMENT SPECIFICATIONS.

4.0 NFPA 72 CHAPTER 10,14 INSPECTION TESTING AND MAINTENANCE COMPLETE THE INSPECTION AND TESTING FORM IN ITS ENTIRETY SUBMIT A COPY TO THE DISTRICT, ARCHITECT AND DSA DIVISION OF FIRE AND LIFE SAFETY.

5.0 OCCUPANCY PROHIBITED TO ANY PORTION OF BUILDING UNTIL FIRE ALARM SYSTEM HAS BEEN TESTED AND APPROVED. CBC 901.5; CFC 901.5.1 RECORD DRAWINGS OF ALL INSPECTION, TEST SHALL BE MAINTAINED ON PREMISES MINIMUM THREE YEARS. CFC 901.6.2 (5 YEARS PER TITLE 14) SMOKE DETECTORS TO UTILIZE CALIBRATED MANUFACTURE SENSITIVITY TEST INSTRUMENT. CFC 907.9.4

6.0 CONTRACTOR TO FIELD VERIFY AND PROVIDE DECIBEL METER FOR TESTING OF AMBIENT NOISE LEVELS (MINIMUM 15db ABOVE AMBIENT NOISE LEVELS REQUIRED - SEE NFPA 72 APPENDIX A-6.3.2). INSTALL ADDITIONAL AUDIBLE DEVICE AS NEEDED TO ATTAIN REQUIRED NOISE LEVELS AND INTELLIGIBILITY IN ALL REQUIRED AREAS. PROVIDE UPDATED PLANS AND CALCULATIONS THROUGH THE "CHANGE ORDER" PROCESS WHEN INSTALLING ADDITIONAL DEVICES AND OR EQUIPMENT. INSPECTOR OF RECORD (IOR) TO WITNESS FINAL TEST OF THE SYSTEM. CONTRACTOR(S) TO PROVIDE FINAL TEST RESULTS AND PROVIDE THE "RECORD OF COMPLETION FORM" TO THE ARCHITECT OF RECORD, OWNER, DIVISION OF THE STATE ARCHITECT, INSPECTOR OF RECORD (IOR)AND LOCAL FIRE AUTHORITY (AHJ).

6.1 FIRE ALARM NOTIFICATION DEVICES WITHIN THE NOTIFICATION ZONE WILL BE SYNCHRONIZED IN ACCORDANCE WITH NFPA 72 3-8.4.1.2.3.

6.2 CONTRACTOR SHALL PROVIDE 24 HOUR FIRE WATCH IN CASE EXISTING CAMPUS FIRE ALARM SYSTEM IS SHUTDOWN OR DURING THE DURATION OF THE CONSTRUCTION PHASE.(IF APPLICABLE TO THE PROJECT).

6.3 EXISTING FIRE ALARM SYSTEM SHALL REMAIN OPERATIONAL DURING THE BUILDING MODERNIZATION CONSTRUCTION UNTIL THE NEW FIRE ALARM SYSTEM IS INSTALLED AND FULLY OPERABLE. UPON COMPLETE FINAL TEST AND APPROVAL OF THE NEW SYSTEM, EXISTING SYSTEM AND ITS DEVCES SHALL BE DISCONNECTED AND REMOVED AS REQUIRED.(IF APPLICABLE TO THE PROJECT).

FIRE ALARM SEQUENCE OF OPERATIONS

DEVICE / ACTION	MANUAL PULL STATION	SMOKE/HEAT DETECTOR	AC POWER FAILURE AT NEW "FACP"	RELAY MODULE
SOUND ALARM AT "FACP"	YES	YES	NO	NO
ACTIVATE RELAY FOR OFF-SITE MONITORING	YES	YES	YES	YES
SOUND TROUBLE BUZZER AT "FACP"	ON WIRING FAULT	ON WIRING FAULT	YES	ON WIRING FAULT
ANNUNCIATE AT "FACP"	YES	YES	YES	YES
NOTIFICATION APPLIANCES VISUAL AND SPEAKER	YES	YES	NO	NO

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REGISTERED PROFESSIONAL ENGINEER
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exp. 09-30-20
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consultant

FILE NO.: 19-H13
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DEPARTMENT OF GENERAL SERVICES
A#03-119722
APPROVED BY
DATE FEB 05 2019

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agency

CRESCENTA VALLEY HIGH SCHOOL
SPORTS MEDICINE MODULAR BLDG.
GLENDALE UNIFIED SCHOOL DISTRICT
2900 COMMUNITY AVENUE
LA CRESCENTA, CALIFORNIA 91214
owner

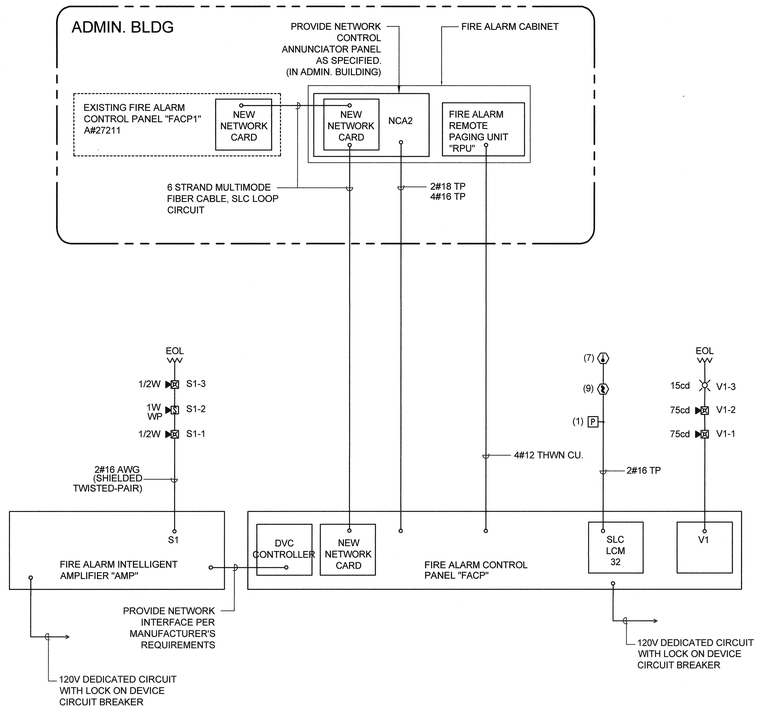
tBP project number : 21015.00
file name:
drawn by: checked by:
date: FEBRUARY 05, 2019

Rev:	date:	description:

drawing title:
FIRE ALARM SYMBOL LIST, NOTES AND DETAILS

drawing no.:
E0-3
drawing of

FBA Engineering / Plot Date: 2/4/2019 9:28 AM / Plotted by: Garren Rigonan / Drawing Location: I:\212\243\E0-3_212243.dwg



FIRE ALARM RISER DIAGRAM | SCALE: NONE | 1

"FACP" FIRE ALARM BATTERY CALCULATIONS

QTY	DEVICE	STAND BY CURRENT	ALARM CURRENT
1	CPU2-640	0.2500	0.2500
1	CPS-24	0.0000	0.0400
1	KEYBOARD DISPLAY	0.2200	0.2200
1	DVC-EM PROCESSOR	0.3000	0.3000
0	DVC-KD	0.0000	0.0000
1	RM-1 (with DVC-EM)	0.0750	0.0750
1	DAA-5070 AMPLIFIER	0.3500	0.6000
1	NEWORK CARD MODULE	0.1000	0.1000
1	LCM-320 LOOP MODULE	0.2000	0.2000
0	LEM-320 LOOP EXPANDER	0.0000	0.0000
0	SLC DEVICE ACTIVATION	0.0000	0.0000
1	NETWORK ANNUNCIATOR	0.4000	0.2000
9	SMOKE DETECTOR	0.0027	0.0585
7	HEAT DETECTOR	0.0021	0.0455
1	PULL STATION	0.0003	0.0003
1	NAC V1 CKT. LOAD	0.0000	0.2630
	TOTAL CURRENTS	1.9001	2.3523

TOTAL STAND-BY CURRENT X 24 HOURS	=	1.900	X	24	=	45.602	A-HR
TOTAL ALARM CURRENT X 15 MINUTES	=	2.35	X	0.250	=	0.588	A-HR
TOTAL MINIMUM AMP HOURS OF BATTERIES					=	46.190	A-HR
ADDITIONAL 20% DERATING SAFETY FACTOR					=	**55.429**	**A-HR**

NOTES:
1. BATTERY CALCULATION SHALL BE BASED ON 24 HOURS OF STAND BY AND 15 MINUTES OF ALARM CURRENT
2. PROVIDE MINIMUM OF 60 A-HOURS ADDITIONAL STANDBY BATTERY POWER.
3. PROVIDE ADDITIONAL FIRE ALARM BATTERY TERMINAL CABINET.

SYSTEM SENSOR (L-SERIES)
VOLTAGE DROP CALCULATION

DEVICE	DEVICE CURRENT (AMPS)	SIGNAL V1-1 QTY	FROM FACP CURR.	QTY TOTAL
Ceiling Strobes				
15cd	0.041	1	0.041	**1**
Ceiling Speaker/Strobes				
75cd	0.111	2	0.222	**2**
TOTAL CURRENT ON CIRCUIT		0.263	CURR. AMPS	
TOTAL WIRE LENGTH		200	FT.	
% VOLTAGE DROP		0.72	%	
WIRE SIZE	# AWG	12	6530	
CIRCUIT LOCATION		MODULAR BLDG		

CIRC. MILS
18 AWG = 1620
16 AWG = 2580
14 AWG = 4110
12 AWG = 6530

$$\text{VOLTAGE DROP} = \frac{\text{DISTANCE} \times \text{TOTAL CURR.} \times 21.6}{\text{CIRCULAR MILS}}$$

$$\%\ \text{VOLTAGE DROP} = \frac{\text{VOLTAGE DROP} \times 100}{24\ \text{VOLTS}}$$

FIRE ALARM BATTERY CALCULATIONS | SCALE: NONE | 2

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DEPARTMENT OF GENERAL SERVICES
A 03-119722
AC ELS SC BS
DATE FEB 05 2019

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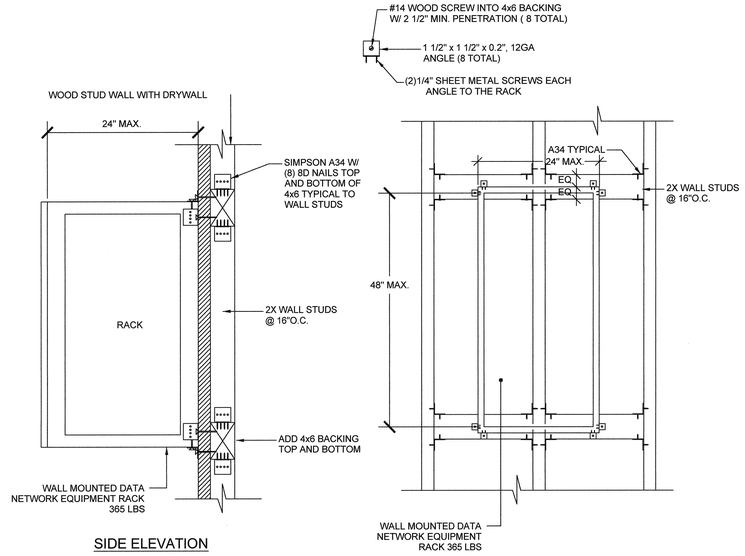
tBP project number : 21015.00
file name:
drawn by: checked by:
date: FEBRUARY 05, 2019

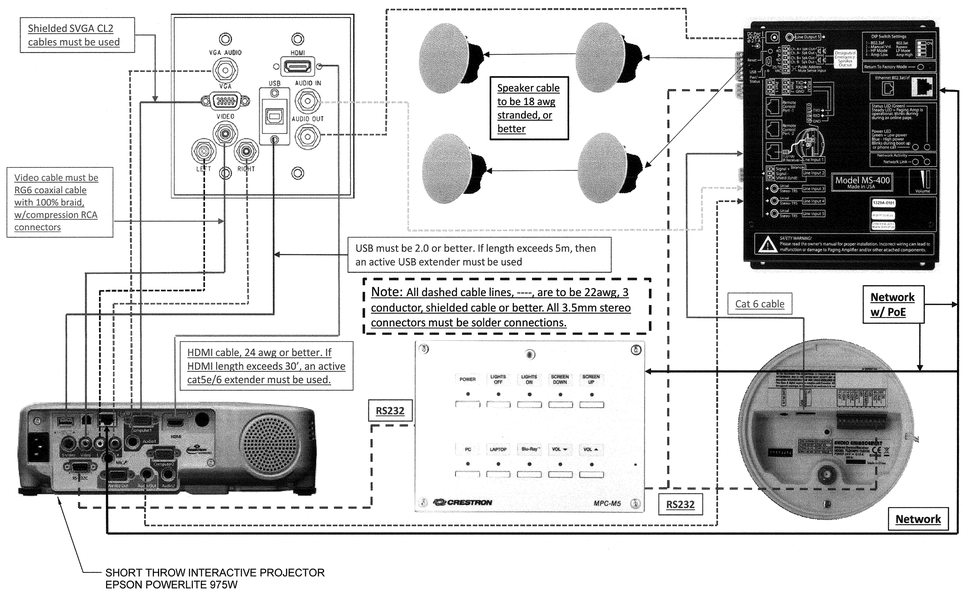
Rev:	date:	description:

drawing title:
FIRE ALARM RISER DIAGRAM AND CALCULATIONS

drawing no.:
E0-4
drawing of



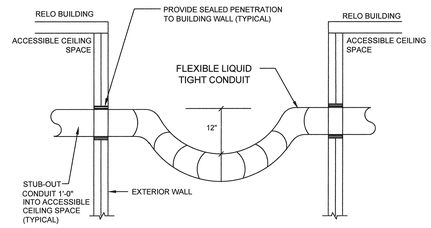
TYPICAL MOUNTED DATA EQUIPMENT RACK | SCALE: NONE | 3



NOTE:

OWNER FURNISHED/OWNER INSTALLED AUDIO/VIDEO SYSTEM INCLUDING EPSON POWERLITE 975W SHORT THROW INTERACTIVE PROJECTOR, LV COMPONENTS, TEACHERS INPUTS, AND CEILING SPEAKERS. CONTRACTOR TO PROVIDE ALL JUNCTION BOXES AND STUD CONDUITS TO THE CEILING SPACE.

AUDIO/VIDEO SYSTEM (TYPICAL FOR EACH CLASSROOM) | SCALE: NONE | 1



NOTES:

TO BE USED WHEN CONNECTING TWO BUILDINGS FOR NO MORE THAN 6' SEPARATION. SIZE OF CONDUIT AS REQUIRED. FOR DISTANCES IN EXCESS OF 6' PROVIDE UNDERGROUND INSTALLATION.

CONDUIT SLEEVE SEISMIC DETAIL | SCALE: NONE | 2

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CRESCENTA VALLEY HIGH SCHOOL
SPORTS MEDICINE MODULAR BLDG.

GLENDALE UNIFIED SCHOOL DISTRICT
2900 COMMUNITY AVENUE
LA CRESCENTA, CALIFORNIA 91214

owner

tBP project number : 21015.00

file name:

drawn by: checked by:

date: FEBRUARY 05, 2019

Rev:	date:	description:

drawing title:
TYPICAL MODULAR BUILDINGS
ELECTRICAL PLAN AND
DETAILS

drawing no.:
E0-5
drawing of

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — NRCC-ELC-E

This document is used to demonstrate compliance with mandatory requirements in §130.5 for electrical systems in newly constructed nonresidential, high-rise residential and hotel/motel occupancies. Additions and alterations to electrical service systems in these occupancies will also use this document to demonstrate compliance per §141.0(b) or §141.0(b)2F for alterations.

Project Name: Crescenta Valley High School Sports Medicine Modular Bldg. — Report Page: Page 1 of 5
Project Address: 2900 Community Avenue — Date Prepared: 2/1/2019

A. GENERAL INFORMATION

01 Project Location (city)	La Crescenta	02 Occupancy Types Within Project:			
☐ Office	☐ Retail	☐ Warehouse	☐ Hotel/ Motel	☑ School	☐ Support Areas
☐ Parking Garage	☐ High-Rise Residential	☑ Relocatable	☐ Other (Write In):		

B. PROJECT SCOPE

Table Instructions: Include any electrical service systems that are within the scope of the permit application.

01 Electrical Service Designation/ Description	02 Scope of Work[1]	03 Rating (kVA)	04 Utility Provided Metering System Exception to §130.5(a)[2]	05 Demand Response Controls
Distribution Panel "DPR"	5	83	☐	Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections §120.2, §130.1 and §130.3 and compliance documents NRCC-MCH, NRCC-LTI and NRCC-LTS will indicate when demand response controls are required.
Panel "A"	5	20	☐	
Panel "B"	5	20	☐	

[1] *FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c), no other requirements from 130.5 are required.*
[2] *Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.*

C. COMPLIANCE RESULTS

Table Instructions: If this table says "DOES NOT COMPLY" refer to Table D. for guidance and review the Table that indicates "No".

01 Service Electrical Metering §130.5(a) (See Table F)		02 Separation for Monitoring §130.5(b) (See Table G)		03 Voltage Drop §130.5(c) (See Table H)		04 Controlled Receptacles §130.5(d) (See Table I)	05 Compliance Results
Yes	AND	Yes	AND	Yes	AND	Yes	COMPLIES

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) — CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-ELC-E
Project Name: Crescenta Valley High School Sports Medicine Modular Bldg. — Report Page: Page 2 of 5
Project Address: 2900 Community Avenue — Date Prepared: 2/1/2019

D. EXCEPTIONAL CONDITIONS

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

No exceptional conditions apply to this project.

E. ADDITIONAL REMARKS

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

F. SERVICE ELECTRICAL METERING

Table Instructions: Complete the table below for new or replacement electrical service systems OR equipment to demonstrate compliance with §130.5(a).

01 Electrical Service Designation/ Description	02 Rating (kVA)	03 Required Metering Capabilities per Table 130.5-A: Instantaneous Demand (kW)	Historical Peak Demand (kW)	Tracking kWh for user-defined period	kWh per rate period	04 Location of Requirements in Construction Documents	05 Field Inspector: Pass	Fail
	50	☑	☐	☑	☐	E0-2	☐	☐

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING

Table Instructions: Complete this table for entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(b). Using the dropdown choices in column 01, indicate the load types included for each service. Any load types that are not included in the service do not need to be shown.

Electrical Service Designation/Description:

01 Load Type per Table 130.5-B[1]	02 Minimum Required Separation of Load per Table 130.5-B	03 Compliance Method[2]	04 Location of Requirements in Construction Documents	05 Field Inspector: Pass	Fail
Plug Loads and appliances < 25kVA		Method 1	E1-1	☐	☐

** NOTES: If "Other*" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.*

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) — CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-ELC-E
Project Name: Crescenta Valley High School Sports Medicine Modular Bldg. — Report Page: Page 3 of 5
Project Address: 2900 Community Avenue — Date Prepared: 2/1/2019

[1] *FOOTNOTES: For each separate load type, up to 10% of the connected load may be of any type.*
[2] *Method 1: Switchboards/ motor control centers/ panelboard loads disaggregated for each load type*
Method 2: Switchboards/ motor control centers/ panelboard supply other distribution equipment with loads disaggregated for each load type
Method 3: Complete metering system measures and reports loads by type
See Chapter 8 of the Nonresidential Compliance Manual for more detail on Compliance Methods.

H. VOLTAGE DROP

Table Instructions: Please complete this table for entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with §130.5(c). For alterations, only the altered circuits must demonstrate compliance per §141.0(b)2Piii.

01 Electrical Service Designation/ Description	02 Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method		03 Location of Voltage Drop Calculations[1]	04 Sheet Number for Voltage Drop Calculations in Construction Documents	05 Field Inspector: Pass	Fail
	☑ Voltage drop < 5%	☐ Permitted by CA Elec Code (Exception to §130.5(c))*	In construction documents	E0-2	☐	☐
Distribution Panel "DPR"	☑ Voltage drop < 5%	☐ Permitted by CA Elec Code (Exception to §130.5(c))*	In construction documents	E0-2	☐	☐
Panel "A"	☑ Voltage drop < 5%	☐ Permitted by CA Elec Code (Exception to §130.5(c))*	In construction documents	E0-2	☐	☐
Panel "B"	☑ Voltage drop < 5%	☐ Permitted by CA Elec Code (Exception to §130.5(c))*	In construction documents	E0-2	☐	☐

**NOTES if "Permitted by CA Elec Code*" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.*
[1] *FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".*

I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES

Table Instructions: Please complete this table for entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(d). Both controlled and uncontrolled receptacles must be provided in office areas, lobbies, conference rooms, kitchen areas in office spaces, copy rooms and hotel/motel guest rooms.

Table Continued

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards — May 2018

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) — CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-ELC-E
Project Name: Crescenta Valley High School Sports Medicine Modular Bldg. — Report Page: Page 4 of 5
Project Address: 2900 Community Avenue — Date Prepared: 2/1/2019

01 Electrical Service Designation/ Description	02 Location/ Type of Controlled Receptacles	03 Shut-Off Controls	04 Permanent Durable Marking Will be Used	05 Location of Requirements in Construction Documents	06 Field Inspector: Pass	Fail
	Within 6ft of uncontrolled receptacles	Occupancy Sensor	☐	E1-1	☐	☐

Add Row | Remove Last

** If "Other*" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.*

J. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCI

YES	NO	Form/Title	Field Inspector: Pass	Fail
◉	○	NRCI-ELC-01-E - Must be submitted for all buildings.	☐	☐

K. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to electrical power distribution requirements.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards — May 2018

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) — CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-ELC-E
Project Name: Crescenta Valley High School Sports Medicine Modular Bldg. — Report Page: Page 5 of 5
Project Address: 2900 Community Avenue — Date Prepared: 2/1/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Documentation Author Name:	Steve R. Zajicek	Documentation Author Signature:	
Company:	FBA Engineering	Signature Date:	2/1/2019
Address:	150 Paularino Avenue Suite A120	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	Costa Mesa, California 92626	Phone:	9498529995

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

Responsible Designer Name:	Stephen R. Zajicek	Responsible Designer Signature:	
Company :	FBA Engineering	Date Signed:	2/1/2019
Address:	150 Paularino	License:	E10372
City/State/Zip:	Costa Mesa, CA 92626	Phone:	949-852-9995

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards — May 2018

SHORT CIRCUIT AND VOLTAGE DROP CALCULATIONS

FEEDERS

DESIGNATION	FEEDER LENGTH (ft)	PHASE ϕ	CONDUCTORS Cu	SIZE	PARALLEL RUNS	CONDUIT MAG=1 NON=2	L-L VOLTAGE	L-N VOLTAGE	STARTING Isc	FEEDER AMPACITY	BUS AVAILABLE Isc 3 ϕ	BUS AVAILABLE Isc 1 ϕ L-L	BUS AVAILABLE Isc 1 ϕ L-N	VOLTAGE DROP %
Panel "P1"	40	3	Cu	#1	1	2	208	120	65,000	63	16,712	N/A	N/A	0.32
Panel "P2"	50	3	Cu	#1	1	2	208	120	65,000	63	14,094	N/A	N/A	0.41

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PROFESSIONAL ENGINEER — REGISTERED — No. 10372 — Exp. 09-30-20 — ELECTRICAL — STATE OF CALIFORNIA

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FBA Job Number: 212.243
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CRESCENTA VALLEY HIGH SCHOOL SPORTS MEDICINE MODULAR BLDG.

GLENDALE UNIFIED SCHOOL DISTRICT
2900 COMMUNITY AVENUE
LA CRESCENTA, CALIFORNIA 91214

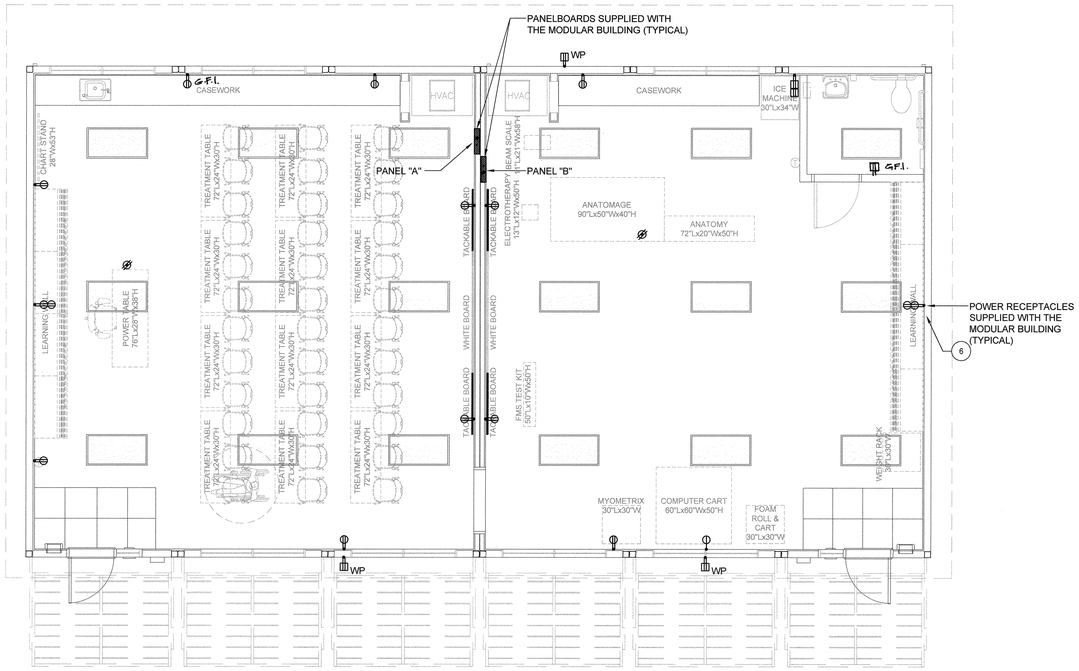
owner

tBP project number : 21015.00
file name:
drawn by: checked by:
date: FEBRUARY 05, 2019

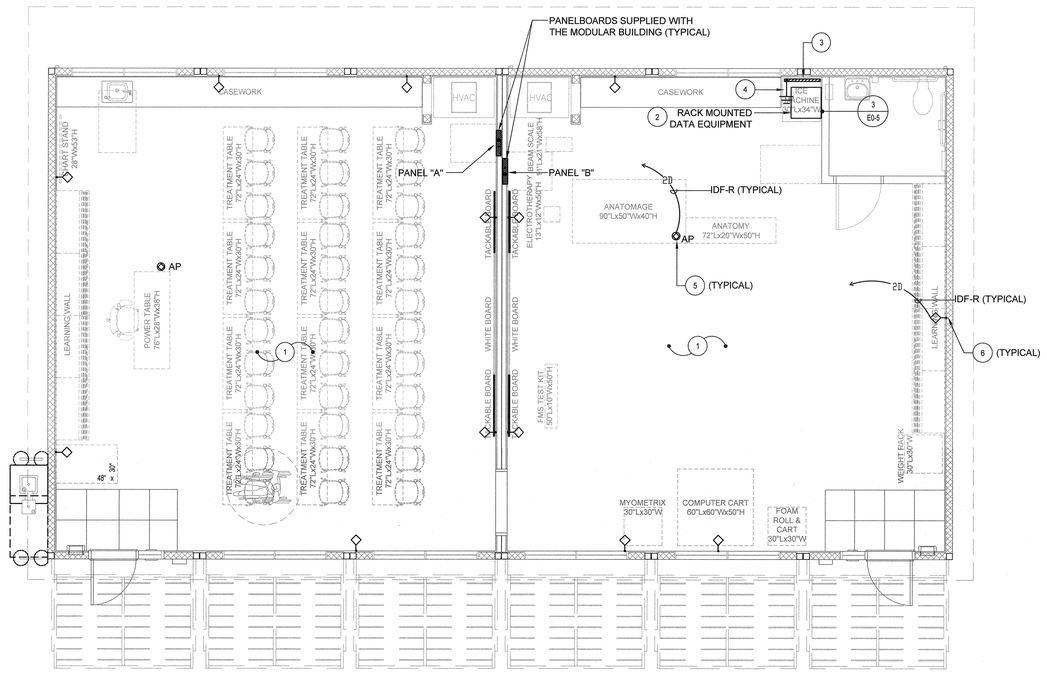
Rev:	date:	description:

drawing title:
POWER DISTRIBUTION
TITLE 24

drawing no.:
E0-6
drawing of



MODULAR BUILDING ELECTRICAL PLAN | SCALE: 1/4" = 1'-0" | 1



MODULAR BUILDING TELECOM PLAN | SCALE: 1/4" = 1'-0" | 2

KEY NOTES:

1. PROVIDE COMPLETE CLASSROOM AUDIO VISUAL SYSTEMS IN ACCORDANCE WITH 1/E0.5 AND THE SPECIFICATIONS.
2. PROVIDE WALL MOUNTED RACK FOR DISTRICT. PROVIDE NETWORK EQUIPMENT. MOUNT HIGH ON WALL.
3. PROVIDE 4' x 4' x 3/4" THICK PLYWOOD BACKBOARD, HIGH ON WALL. PRINT TO MATCH SURROUNDINGS.
4. PROVIDE TERMINAL GROUND BUS AND 1#6 GRD. - 1"C. TO APPROVED GROUNDING LOCATION.
5. PROVIDE TWO PORT DATA NETWORK OUTLET AT CEILING FOR DISTRICT PROVIDED WIRELESS ACCESS POINT.
6. PROVIDE TWO PORT DATA NETWORK AND CONNECTOR AND COVERPLATE AND TWO (2) DATA NETWORK CABLES AS SPECIFIED TO THE IDF.

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CRESCENTA VALLEY HIGH SCHOOL SPORTS MEDICINE MODULAR BLDG.

GLENDALE UNIFIED SCHOOL DISTRICT
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owner

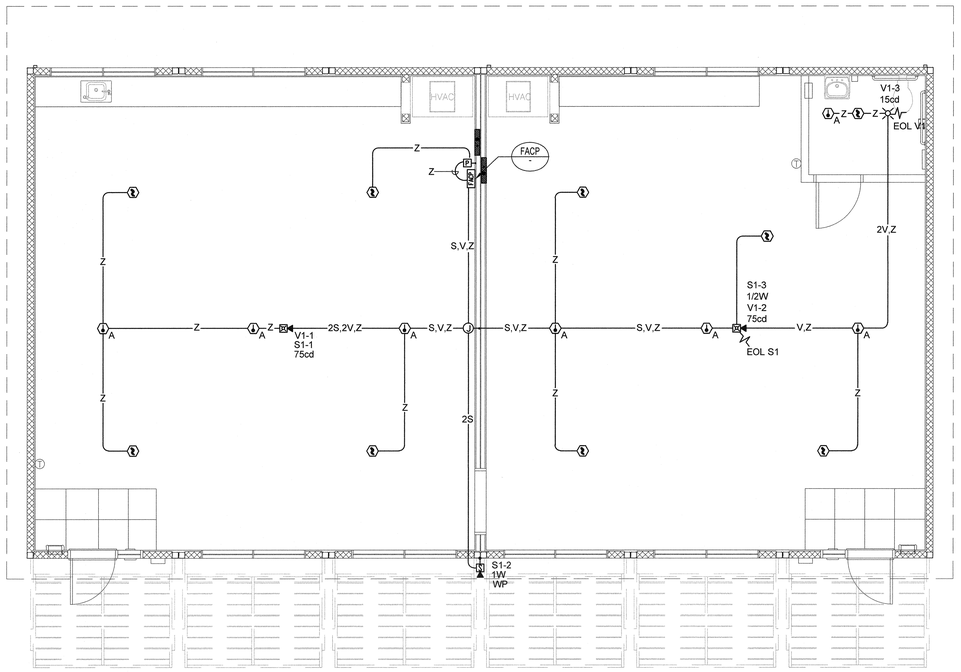
tBP project number : 21015.00
file name:
drawn by: checked by:
date: FEBRUARY 05, 2019

Rev:	date:	description:

drawing title:
ENLARGED BUILDING ELECTRICAL PLANS

drawing no.:
E1-1
drawing of

FBA Engineering / Plot Date: 2/4/2019 9:28 AM / Plotted by: Garren Rigonan / Drawing Location: I:\212\243\E1-1_212243.dwg



FIRE ALARM CONDUIT SCHEDULE		
SYMBOL	CONDUCTORS	SIZE
— Z —	2#16 UNSHEILDED TWISTED-PAIR INITIATING CIRCUIT	3/4"C.
— V —	2#12 AWG THHN VISUAL CIRCUIT	3/4"C.
— S —	2#14 AWG THHN SPEAKER CIRCUIT (SHIELDED TWISTED-PAIR)	3/4"C.
— 2V —	4#12 AWG VISUAL CIRCUIT	3/4"C.
— 2S —	4#18 AWG SPEAKER CIRCUIT (SHIELDED TWISTED-PAIR)	3/4"C.
—Z,2V,2S—	MULTIPLE CONDUCTORS SHALL BE SHARED	1"C.

N
W E
S

MODULAR BUILDING FIRE ALARM PLAN | SCALE: 1/4" = 1'-0" | 1

KEY NOTES

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CRESCENTA VALLEY HIGH SCHOOL
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GLENDALE UNIFIED SCHOOL DISTRICT
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owner

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drawing no.:
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drawing of

FBA Engineering / Plot Date: 2/4/2019 9:28 AM / Plotted by: Garren Rigonan / Drawing Location: I:\212\243\E1-2_212243.dwg

COMMUNITY AVE.

EXISTING FIRE ALARM REMOTE ANNUNCIATOR (3)

NEW FIRE ALARM REMOTE ANNUNCIATOR (4)

2ND FLR. ACCESS

2ND FLR. ACCESS

1ST FLR. ACCESS

BUILDING 1000
A#2608, 25705

BUILDING 8000
A#2607
A#13077

GLENWOOD AVE.

BUILDING 2000 (AA)
A#12090, 42784, 64797, 03-102588

EXISTING UNDERGROUND CONDUIT RUN

CAFETERIA BUILDING
A#59178

PROSPECT AVE.

1ST FLR. ACCESS

A#2609, 48374

1ST FLR. ACCESS

BUILDING 4000
A#18340

BUILDING HB
A#03-102588

BUILDING 3000
A#18340

BLDG HA
A# 03-102588

EXISTING UNDERGROUND CONDUIT RUN

R.C.R. # 5
A#03-113053

R.C.R. # 4
A#69810

R.C.R. # 3
A#60013

R.C.R. # 2
A#60013

R.C.R. # 1
A#63385

BUILDING CB
A# 03-102090

1 E1-2

2 ES-2

NEW UNDERGROUND CONDUIT RUN

ALTURA AVE.

FALCONS

FALCONS

RAMSDELL AVE.

210 FREEWAY SHOULDER

Graphic Scale: 1 Inch = 40 Feet

KEY NOTES:

1. MODIFY EXISTING SIGNAL SYSTEM EQUIPMENT AS REQUIRED TO SERVE THE NEW CONSTRUCTION PROVIDE ADDITIONAL EQUIPMENT AS NEEDED FOR A COMPLETE OPERABLE SYSTEM.
2. CONTRACTOR TO REPROGRAM EXISTING FIRE ALARM CONTROL PANEL AS REQUIRED TO SERVE THE NEW CONSTRUCTION.
3. CONTRACTOR TO REPROGRAM EXISTING FIRE ALARM REMOTE ANNUNCIATOR A#03-110374 TO SERVE THE NEW CONSTRUCTION AS REQUIRED.
4. PROVIDE NEW (NCA2) NETWORK CONTROL ANNUNCIATOR LOCATED IN ADMINISTRATION BUILDING. CONNECT TO NEW FIRE ALARM VOICE/EVAC PANEL.

SITE ELECTRICAL PLAN GENERAL NOTES:

1. CONTRACTOR SHALL EXERCISE CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID EXISTING DUCTS, PIPING, CONDUITS, ETC., AND SHALL PREVENT HAZARD TO PERSONNEL AND/OR DAMAGE TO EXISTING UNDERGROUND UTILITIES OR STRUCTURES, WHETHER OR NOT SHOWN, DETAILED OR INSTALLED BY THIS OR ANY OTHER CONTRACTS. THIS CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.

OVERALL SITE ELECTRICAL PLAN | SCALE: 1" = 40'-0" | 1

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consultant

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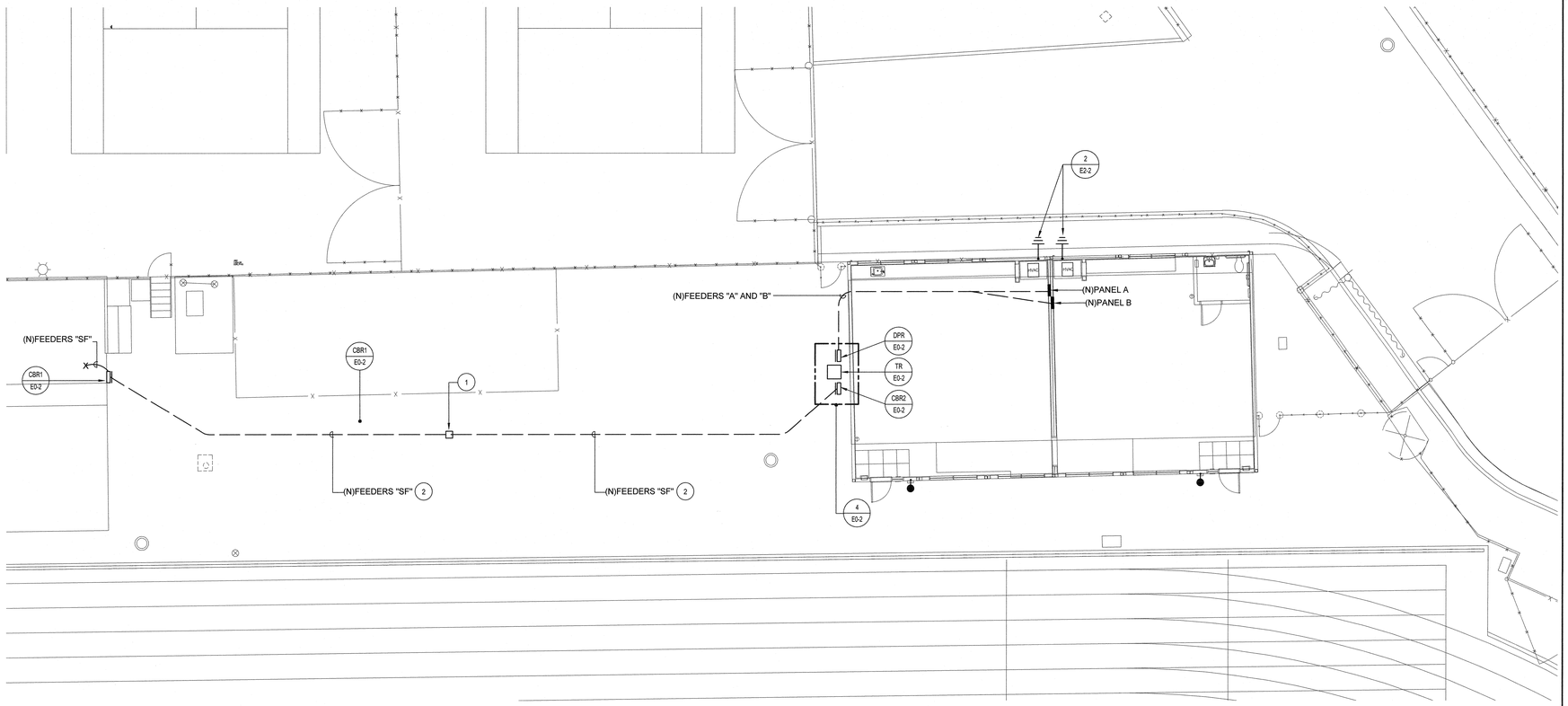
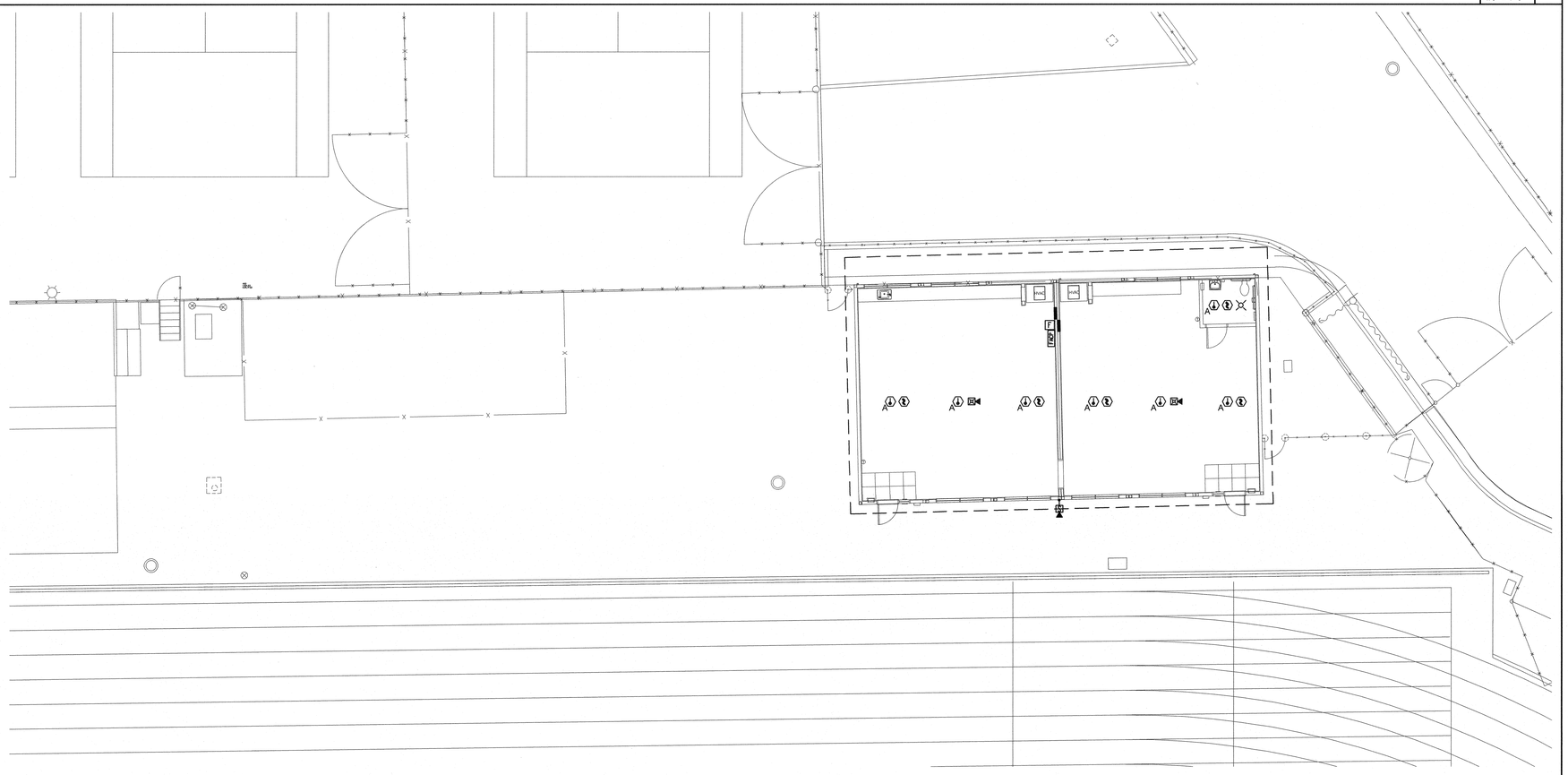


ENLARGED SITE ELECTRICAL PLAN | SCALE: 1/8" = 1'-0" | 1



ENLARGED FIRE ALARM PLAN | SCALE: 1/8" = 1'-0" | 2

KEY NOTES

1. PROVIDE 2'-0" x 3'-0" PRECAST CONCRETE PULLBOX WITH BOLT DOWN TRAFFIC RATED COVER. ENGRAVE COVER TO READ: "ELECTRIC".
2. SAWCUT AND PATCH PAVING TO THE ARCHITECTS SPECIFICATIONS.

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	CONDUCTORS	SIZE
— I —	2#16 UNSHEILDED TWISTED-PAIR INITIATING CIRCUIT	3/4"C.
— V —	2#12 AWG THHN VISUAL CIRCUIT	3/4"C.
— S —	2#14 AWG THHN SPEAKER CIRCUIT (SHIELDED TWISTED-PAIR)	3/4"C.
— 2V —	4#12 AWG VISUAL CIRCUIT	3/4"C.
— 2S —	4#16 AWG SPEAKER CIRCUIT (SHIELDED TWISTED-PAIR)	3/4"C.
— I,2V,2S —	MULTIPLE CONDUCTORS SHALL BE SHARED	1"C.

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drawing title:
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drawing no.:
ES-2
drawing of

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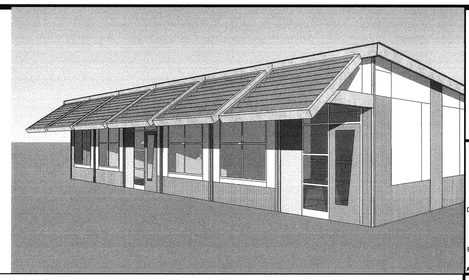
American Modular Systems

GLENDALE UNIFIED SCHOOL DISTRICT
CRESCENTA VALLEY HIGH SCHOOL
(1) 60' x 32' GENERATION 7 BUILDING



American Modular Systems
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Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

APPLICABLE CODES

PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2017

- 2016 CALIFORNIA ADMINISTRATIVE CODE (CAC) – PART 1, TITLE 24, CCR)
- 2016 CALIFORNIA BUILDING CODE (CBC), VOLUME 1 & 2 – (PART 2, TITLE 24 CCR) BASED ON THE 2015 INTERNATIONAL BUILDING CODE
- 2016 CALIFORNIA ELECTRICAL CODE (CEC) – (PART 3, TITLE 24, CCR) BASED ON THE 2014 NATIONAL ELECTRIC CODE
- 2016 CALIFORNIA MECHANICAL CODE (CMC) – (PART 4, TITLE 24, CCR) BASED ON THE 2015 UNIFORM MECHANICAL CODE
- 2016 CALIFORNIA PLUMBING CODE (CPC) – (PART 5, TITLE 24, CCR) BASED ON THE 2015 UNIFORM PLUMBING CODE
- 2016 CALIFORNIA ENERGY CODE (CEC) – (PART 6, TITLE 24, CCR)
- 2016 CALIFORNIA FIRE CODE (CFC) – (PART 9, TITLE 24, CCR) BASED ON THE 2015 INTERNATIONAL FIRE CODE
- 2016 CALIFORNIA GREEN BUILDING CODE (CGC) – (PART 11, TITLE 24, CCR)
- 2016 CALIFORNIA REFERENCED STANDARDS CODE (PART 12, TITLE 24, CCR)

PARTIAL LIST OF APPLICABLE STANDARDS

• NFPA 13	AUTOMATIC SPRINKLER SYSTEM	2016 EDITION
• NFPA 14	STANDPIPE AND HOSE SYSTEMS	2013 EDITION
• NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2013 EDITION
• NFPA 17A	WET CHEMICAL EXTINGUISHING SYSTEMS	2013 EDITION
• NFPA 20	STATIONARY PUMPS	2016 EDITION
• NFPA 24	PRIVATE FIRE MAINS	2016 EDITION
• NFPA 72	NATIONAL FIRE ALARM AND SIGNALING CODE (CALIFORNIA AMENDED) (NOTE: SEE UL, STANDARD 1971 FOR "VISUAL DEVICES")	2016 EDITION
• NFPA 253	CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS	2015 EDITION
• NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2015 EDITION

GENERAL NOTES

1. PC BUILDING CLASSIFIED AS OCCUPANCY "A" WITH OCCUPANT LOAD 100 OR MORE CANNOT BE REVIEWED OVER THE COUNTER (OTC).
2. PC BUILDING APPROVED ONLY FOR OCCUPANCY "E" OR "B", OR "A" CATEGORY I & II, WITH AN OCCUPANT LOAD LESS THAN 250.
3. PC BUILDING EXITING IS BASED ON THE USE OR OCCUPANCY AND WILL BE REVIEWED AS SITE SPECIFIC.
4. PC BUILDINGS LOCATED IN FIRE HAZARD SEVERITY ZONES PER WILDLAND URBAN INTERFACE FIRE AREAS (WUI) SHALL CONFORM TO CBC CHAPTER 7A. PC IS NOT APPROVED FOR WUI.
5. SITE USE SPECIFIC REQUIREMENT FOR AUTOMATIC SPRINKLER SYSTEM MIGHT BE REQUIRED. AUTOMATIC FIRE SPRINKLER REQUIREMENTS ARE NOT INCLUDED IN THIS PC APPROVAL. (NOTE: SEE BUILDING DATA THIS SHEET FOR FIRE SPRINKLER SYSTEM WEIGHT INCLUDED IN BUILDING DESIGN)
6. FIRE SERVICE UNDERGROUND SHALL BE REVIEWED AS A SITE SPECIFIC APPLICATION. WATER SUPPLY SHALL BE DESIGNED TO MEET THE PC SPRINKLER DEMAND REQUIREMENTS.
7. PROVIDE A SITE SPECIFIC FIRE FLOW LETTER OF CERTIFICATION FROM AN APPROVED WATER PURVEYOR OR LOCAL FIRE AUTHORITY.
8. THIS PC PLAN SHALL NOT BE USED TO HOUSE "ROOMS OR AREAS WITH SPECIAL HAZARDS" SUCH AS LABORATORIES, VOCATIONAL SHOPS AND OTHER SUCH AREAS NOT CLASSIFIED AS GROUP H, LOCATED IN GROUP E OCCUPANCIES.
9. A SEPARATE DSA APPLICATION NUMBER IS REQUIRED FOR DESIGN & INSTALLATION OF SOLAR PANEL SYSTEMS, ITS ANCHORAGE & SUPPORT STRUCTURE. (NOTE: SEE BUILDING DATA THIS SHEET FOR SOLAR PANEL SYSTEM WEIGHT INCLUDED IN BUILDING DESIGN) SOLAR SYSTEM SUBMITTALS SHALL NOT BE SUBMITTED AS AN OVER-THE-COUNTER SUBMITTAL.
10. IF THE STRUCTURE IS LOCATED IN AN AREA WITH LIQUEFIABLE SOIL OR SITE CLASS F, OVER-THE-COUNTER SUBMITTAL IS NOT ALLOWED AND REGULAR PROJECT SUBMITTAL IS REQUIRED. IF THE SITE IS NOT IN A MAPPED LIQUEFACTION HAZARD ZONE, IT MAY BE PRESUMED THAT NO LIQUEFACTION HAZARD EXISTS ON THAT SITE UNLESS A SITE-SPECIFIC GEOTECHNICAL REPORT IDENTIFIES SUCH HAZARD.
11. THIS PC BUILDING IS NOT DESIGNED FOR FLOOD HAZARD AREAS.
12. THE PLACEMENT OF THE PC BUILDING(S) ON OR ADJACENT TO SLOPES SHALL COMPLY WITH THE 'FOUNDATION CLEARANCES FROM SLOPES' SPECIFICATIONS FOUND ON SHEET N2.0 OF THESE DRAWINGS.
13. PC BUILDING SHALL NOT BE PLACED OR BE RELOCATED IN AREAS HAVING A NOISE CONTOUR GREATER THAN OR EQUAL TO 65 CNEL, OR IN AREAS EXPOSED TO A NOISE LEVEL OF 65 dB L_{eq}-1-hr DURING ANY HOUR OF OPERATION WHEN NOISE CONTOURS ARE NOT READILY AVAILABLE, AS SPECIFIED IN CALGREEN CODE, SECTION 5.507.4.1 & 5.507.4.1.1.
14. AT SITES WITH SNOW, THE SITE APPLICATION DSA REVIEWER SHALL VERIFY THE STRUCTURE TO BE LOCATED AT LEAST 20 FEET FROM ANY ADJACENT STRUCTURE. SEE ASCE 7, SECTION 7.7. IF THE HORIZONTAL SEPARATION IS LESS THAN 20 FT, SNOW DRIFT ANALYSIS SHALL BE PROVIDED BY THE PC APPLICANT, AND THE PROJECT IS NOT ELIGIBLE FOR OTC SUBMITTAL.

SITE-SPECIFIC OPTIONS

FLOOR DECK	☐ 1½" PLYWOOD SHTG.		☐ BH-36 DECK 1½"x18 GA.				
	☒ 3WH DECK 3"x18 GA.		☐ 3WxH DECK 3"x18 GA.				
WALL STUDS	☒ WOOD		☐ LIGHT-GAUGE STEEL				
EXTERIOR WALL FINISH	☐ DURATEMP 303		☒ SYNTHETIC STUCCO		☐ LAP SIDING		☐ STUCCO
HVAC	☒ INTERIOR FLOOR MOUNTED		☐ EXTERIOR WALL MOUNTED		☐ SPLIT SYSTEM		☐ ROOF MOUNTED
ROOFING	☐ 3" x 20 GA. STANDING SEAM		☒ 3" x 26 GA. STANDING SEAM OVER SHEATHING		☐ SINGLE-PLY		☐ BUILT-UP ROOFING
ROOF DIAPHRAGM	☒ ¾" PLYWOOD		☒ STEEL X-BRACING				
ROOF BEAMS	☒ STANDARD		☐ ALTERNATE 10 GA (SEE SHEET S5.3)				
SOLATUBE ON ROOF	☐ NO	☒ YES					
FIRE SPRINKLERS	☒ NO	☐ YES (SEE GENERAL NOTES #5-#7 THIS SHEET)					
FRONT OVERHANG	☐ NO	☒ YES – LENGTH: 1'-6" MAX		(SEE SHEET S5.4)			
REAR OVERHANG	☐ NO	☒ YES – LENGTH: 4'-0" MAX		(SEE SHEET S5.2)			
FRONT SUN SHADE	☐ NO	☒ YES		(SEE SHEET S5.2)			
SOLAR PANELS	☒ NO	☐ YES (SEE GENERAL NOTE #9 THIS SHEET)					
ALTERNATE OPEN CANOPY	☐ NO	☐ YES – LENGTH:		(SEE SHEET S5.4)			
LIQUEFIABLE SOILS	☒ NO	☐ YES (SEE GENERAL NOTE #10 THIS SHEET)					
GEOHAZARD REPORT	☒ NO	☐ YES					
IF YES	GEOTECHNICAL FIRM:						
	REPORT #:		REPORT DATE:				
GEOTECHNICAL REPORT	☒ NO	☐ YES	* REQUIRED IF BUILDING AREA > 4,000 SF				
IF YES	GEOTECHNICAL FIRM:						
	REPORT #:		REPORT DATE:				
	DEEPER FOOTINGS REQUIRED?	☐ NO	☐ YES – REQUIRED DEPTH:				
	WIDER FOOTINGS REQUIRED?	☐ NO	☐ YES – REQUIRED WIDTH:				

BUILDING DATA

OCCUPANCY	E ~~OR B (CLASSROOM USE FOR COLLEGE), OR A (CATEGORY I/II)~~
TYPE OF CONSTRUCTION	V-B (CATEGORY I & II)
WIND LOAD ASCE 7-10 SECTION 28.6.3 SIMPLIFIED PROCEDURE	V = 110 MPH ULT. WIND SPEED; EXPOSURE = C; INTERNAL PRESSURE COEFF., $GC_{P,I}$ = ±0.18; ROOF ANGLE = 4.8°; RISK CATEGORY II; K_{ZT} = 1.00; λ = 1.21
FLOOR LIVE LOAD (PSF)	☒ 50+15 ☐ 100 ☐ 150
ROOF LIVE LOAD (MAX PSF)	☒ 20 ☐ 20 SNOW* ☐ 30 SNOW*; * AT SITES w/ SNOW, SEE GENERAL NOTE #14 THIS SHEET
DESIGN DEAD LOADS (MAX PSF)	21.0 ROOF – ~~13.0 WOOD FLR~~ – 54.0 CONC. FLR; 13.7 EXTERIOR WALLS – 17.5 FRONT SUNSHADE
FIRE SPRINKLER SYSTEM DESIGN WT.	~~1.5 PSF AT ROOF (SEE GENERAL NOTES #5 – #7 THIS SHEET)~~
SOLAR PANEL SYSTEM DESIGN WT.	2.0 PSF AT ROOF (SEE GENERAL NOTE #9 THIS SHEET)
ALLOWABLE SOIL PRESSURE (PSF)	1,500
FLOOD HAZARD AREA	NO (SEE GENERAL NOTE #11 THIS SHEET)
BUILDING AREA (SQ. FT.)	1,920 SQ. FT.
CLIMATE ZONE	1-16
MODULES	MOMENT-RESISTANT FRAME (SINGLE STORY)
SYSTEM	10'x32' MODULES (3 MODULES MINIMUM)
FOUNDATION TYPE	CONCRETE

SITE SPECIFIC SEISMIC CRITERIA:

SITE SPECIFIC S_S = 2.715 SITE CLASS = D

SITE SPECIFIC S_1 = 0.967

(NOTE: SITE SHALL BE SITE CLASS "D" IF NO SOILS REPORT UNLESS THERE IS EVIDENCE OF CLASS "E" OR "F" SOILS PRESENT.)

SEISMIC:

RISK CATEGORY II

Ie = 1.0 T = 0.240_{S} R = 3.5 (OMF) F_V = 1.5 Max. FOR SITE CLASS A-D = 2.4 Max. FOR SITE CLASS E

Ωo = 3.0 C_d = 3.0 SEISMIC DESIGN CATEGORY: D ($S_1 \leq 0.75$) E ($0.75 < S_1 < 1.5$)

ρ = 1.0

LATERAL FORCE RESISTING SYSTEM: LIGHT MODULAR STEEL MOMENT FRAMES PER 2212A

ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

SITE CLASS A-D:

S_S = 3.257 MAX (SITE) 2.280 (DESIGN)* F_a = 1.0 S_{DS} = 2.17 (SITE) 1.52 (DESIGN)*

C_S = 0.434 W (DESIGN)*

SITE CLASS E:

S_S = 2.533 MAX (SITE) 2.533 (DESIGN)* F_a = 0.9 S_{DS} = 1.52 (SITE) 1.52 (DESIGN)*

C_S = 0.434 W (DESIGN)*

*PER CBC 1616A.1.12 (MODIFICATION TO ASCE 7-10,12.8.1.3): THE VALUE OF C_a AND E_v ARE PERMITTED TO BE CALCULATED USING A VALUE OF S_{DS} EQUAL TO 1.0, BUT NOT LESS THAN 70% OF S_{DS} AS DEFINED IN SECTION 11.4.4, PROVIDED THAT ALL OF THE FOLLOWING CRITERIA ARE MET:

1. STRUCTURE DOES NOT HAVE IRREGULARITIES;
2. STRUCTURE DOES NOT EXCEED FIVE (5) STORIES ABOVE THE BASE;
3. STRUCTURE HAS A FUNDAMENTAL PERIOD, T, THAT DOES NOT EXCEED 0.5 SECONDS;
4. STRUCTURE MEETS REQUIREMENTS FOR REDUNDANCY FACTOR, ρ, TO BE TAKEN AS 1.0;
5. SITE SOIL PROPERTIES ARE NOT CLASSIFIED AS SITE CLASS 'E' OR 'F';
6. STRUCTURE IS CLASSIFIED AS RISK CATEGORY II.

SHEET INDEX

ARCHITECTURAL

OPTIONS		SHEET NUMBER	SHEET TITLE
COVER SHEET		☒ TS	TITLE SHEET
INSPECTION FORM		☒ D1	FORM DSA-103
GENERAL NOTES & SPECIFICATIONS		☒ N1.0	GENERAL NOTES & SPECIFICATIONS
		☒ N2.0	GENERAL NOTES & SPECIFICATIONS
		☒ N3.0	TYPICAL SCHEDULES-DOORS, WINDOWS, & FINISHES
		☒ N4.0	ACCESSIBILITY STANDARDS & DETAILS
		☒ N5.0	MULTIPLE FLOOR PLAN CONFIGURATIONS
		☐ N5.1	MULTIPLE FLOOR PLAN CONFIGURATIONS
		☐ N5.2	MULTIPLE FLOOR PLAN CONFIGURATIONS
ENERGY SHEETS & CALCULATIONS		☒ EN.1	ENERGY CALCULATIONS
		☒ EN.2	ENERGY CALCULATIONS
		☒ EN.3	ENERGY CALCULATIONS
		☒ EN.4	ENERGY CALCULATIONS
		☒ EN.5	ENERGY CALCULATIONS
		☒ EN.6	ENERGY CALCULATIONS
		☒ EN.7	ENERGY CALCULATIONS
		☒ EN.8	ENERGY CALCULATIONS
		☒ EN.9	ENERGY CALCULATIONS
FLOOR PLANS		☐ A1.0	TYPICAL FLOOR PLAN
		☒ A1.1	TYPICAL FLOOR PLAN w/ SOLATUBE OPTION
		☒ A1.2	RESTROOM FLOOR PLAN OPTIONS
ROOF PLAN & DETAILS		☒ A2.0	TYPICAL ROOF PLAN
		☒ A2.1	TYPICAL ROOF DETAILS
INTERIOR ELEVATIONS		☒ A4.0	TYPICAL CLASSROOM INTERIOR ELEVATIONS
		☒ A4.1	RESTROOM INTERIOR ELEVATIONS
EXTERIOR ELEVATIONS & ARCHITECTURAL DETAILS	DURATEMP 303 SIDING	☐ A5.0	TYP. EXTERIOR ELEVATIONS – DURATEMP 303 SIDING OPTION
		☐ A5.1	TYP. ARCHITECTURAL DETAILS – DURATEMP 303 SIDING OPTION
	STUCCO	☐ A5.2	TYP. EXTERIOR ELEVATIONS – STUCCO OPTION
		☐ A5.3	TYP. ARCHITECTURAL DETAILS – STUCCO OPTION
	LAP SIDING	☐ A5.4	TYP. EXTERIOR ELEVATIONS – LAP SIDING OPTION
		☐ A5.5	TYP. ARCHITECTURAL DETAILS – LAP SIDING OPTION
	SYNTHETIC STUCCO	☒ A5.6	TYPICAL EXTERIOR ELEVATIONS – SYNTHETIC STUCCO OPTION
		☒ A5.7	TYPICAL ARCHITECTURAL DETAILS – SYNTHETIC STUCCO OPTION
MISCELLANEOUS DETAILS		☒ A7.0	ARCHITECTURAL OR EXTERIOR FINISH OPTIONAL DETAILS
		☒ A7.1	MISCELLANEOUS ARCHITECTURAL DETAILS
		☐ A8.0	1-HR FIRE RATED CONSTRUCTION DETAILS

STRUCTURAL

OPTIONS		SHEET NUMBER	SHEET TITLE
STEEL MEMBER PROPERTIES		☒ S0.0	LIGHT GAUGE STEEL MEMBER PROPERTIES
FOUNDATION PLANS & DETAILS	CONCRETE	☒ S1.1	CONCRETE FOUNDATION PLAN 50+15 PSF
		☐ S1.2	CONCRETE FOUNDATION PLAN 100 PSF
		☐ S1.3	CONCRETE FOUNDATION PLAN 150 PSF
		☒ S1.4	CONCRETE FOUNDATION DETAILS
		☒ S1.5	CONCRETE FOUNDATION DETAILS
		☒ S1.6A	STANDARD FOUNDATION ANCHORAGE DETAILS
		☒ S1.6B	UPGRADED FOUNDATION ANCHORAGE DETAILS
		☒ S1.7	CONCRETE FOUNDATION – OPTIONAL UTILITY OPENINGS
FLOOR FRAMING PLAN & DETAILS	PLYWOOD	☐ S3.0	FLOOR FRAMING PLAN & DETAILS FOR PLYWOOD FLOOR
	CONCRETE w/ METAL DECK	☐ S3.1	FLOOR FRAMING PLAN & DETAILS FOR CONCRETE FLOOR w/BH-DECK OPTION (150 PSF MAX FLOOR L.L.)
		☒ S3.3	FLOOR FRAMING PLAN & DETAILS FOR CONCRETE FLOOR w/3WH-DECK OR 3WxH-DECK OPTION (150 PSF MAX FLOOR L.L.)
ROOF FRAMING PLAN & DETAILS		☒ S4.0	ROOF FRAMING PLAN & DETAILS
		☒ S4.2	ROOF FRAMING DETAILS
BUILDING FRAMING ELEVATIONS & DETAILS		☒ S5.0	MOMENT FRAME ELEVATIONS
		☒ S5.1	MOMENT FRAME CONNECTION DETAILS
		☒ S5.2	SUNSHADE & REAR ROOF OVERHANG PLAN & DETAILS
		☐ S5.3	ALTERNATE 10 GA. ROOF BEAM ELEVATION & DETAILS
		☒ S5.4	ALTERNATE OPEN CANOPY & FRONT ROOF OVERHANG PLAN & DETAILS
		☒ S6.0	TYPICAL LONGITUDINAL & TRANSVERSE FRAME SECTIONS
WALL FRAMING	WOOD STUDS	☒ S8.0	WALL FRAMING ELEVATIONS – WOOD STUDS
		☐ S8.0A	NANAWALL FRAMING ELEVATIONS & DETAILS – WOOD STUDS
		☒ S8.1	WALL FRAMING DETAILS – WOOD STUDS
	METAL STUDS	☐ S9.0	WALL FRAMING ELEVATIONS– METAL STUD OPTION
		☐ S9.0A	NANAWALL FRAMING ELEVATIONS & DETAILS – METAL STUD OPTION
		☐ S9.1	WALL FRAMING DETAILS – METAL STUD OPTION
		☐ S9.2	TYPICAL METAL STUD FRAMING DETAILS

MECHANICAL

OPTIONS	SHEET NUMBER	SHEET TITLE
FLOOR PLANS	☒ M1.0	TYPICAL REFLECTED CEILING PLAN
	☒ M1.1	TYPICAL MECHANICAL PLAN OPTIONS
	☐ M1.2	OPTIONAL REFLECTED CEILING PLAN
	☐ M1.3	RESTROOM OPTION REFLECTED CEILING PLANS
DETAILS	☒ M1.4	MECHANICAL BUILDING SECTIONS & CEILING DETAILS
	☒ M1.5	CEILING & MECHANICAL DETAILS
	☒ M1.6	MECHANICAL ROOF DETAILS
	☒ M1.6A	MECHANICAL ROOF DETAILS
MISCELLANEUOUS	☒ M1.7	CEILING & MECHANICAL NOTES, SCHEDULES

ELECTRICAL

OPTIONS	SHEET NUMBER	SHEET TITLE
FLOOR PLANS & DETAILS	☒ E1.0	TYP. ELECTRICAL PLAN & NOTES
	☐ E1.1	RESTROOM OPTIONS ELECTRICAL PLANS & NOTES
	☒ E1.2	ELECTRICAL NOTES & DETAILS

PLUMBING

OPTIONS	SHEET NUMBER	SHEET TITLE
FLOOR PLAN & DETAILS	☒ P1.0	RESTROOM OPTIONS PLUMBING PLAN & FIXTURE SCHEDULE
	☒ P2.0	PLUMBING DETAILS & ACCESSIBLE DETAILS
	☒ P3.0	PLUMBING ISOMETRIC

SHEETS w/ SPECIFIC ROOF LIVE LOAD/SNOW LOAD DESIGNATIONS/OPTIONS

TS	TITLE SHEET
S1.1	CONCRETE FOUNDATION PLANS 50+15 PSF
S1.2	CONCRETE FOUNDATION PLANS 100 PSF
S1.3	CONCRETE FOUNDATION PLANS 150 PSF
S5.1	MOMENT FRAME CONNECTION DETAILS
S5.2	SUNSHADE & REAR ROOF OVERHANG PLAN & DETAILS
S5.3	ALTERNATE 10 GA. ROOF BEAM ELEVATION & DETAILS
S5.4	ALTERNATE OPEN CANOPY & FRONT ROOF OVERHANG PLAN & DETAILS

PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE

TITLE SHEET

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT VIRGINIA PATRICK CAMPBELL No. C-20531 Valid: 3-31-19 STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-116071

PRE-CHECK (PC) DOCUMENT

CODE: 2016 CBC

A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

1
2
3
4

DRAWN BY: AS
SCALE: AS NOTED
DATE: 01/04/19

SHEET NUMBER

TS

AUTHORIZED USE: ALL INFORMATION INCLUDED IN ON THIS SHEET (FORM DSA-103) IS FOR THE SOLE PURPOSE OF RECEIVING DSA APPROVAL AND ISSUANCE OF A PC NUMBER. NO OTHER USE IS AUTHORIZED WITHOUT THE EXPRESS WRITTEN CONSENT OF AMERICAN MODULAR SYSTEMS, INC.

Additional Information for PC designs only, not to be added to DSA-103:			
	STOCKPILE	CONSTRUCTION OF PERMANENT MODULAR OR RELOCATABLE BUILDING	RELOCATION OF CERTIFIED RELOCATABLE BUILDING
INSPECTOR CLASS (minimum requirements)	RBIP or Class 1	In Plant: RBIP or Class 1 Site: Class 4 for Single Story Site: Class 2 for Two-Story	Class 4 for Single Story Class 2 for Two-Story
Selection of the Project Inspector and Testing Agency	by the Owner and approved by DSA, A/E of Record and Structural Engineer	by the School District and approved by DSA, A/E responsible for in-plant construction observation.	by the Owner and approved by DSA, A/E of Record and Structural Engineer
Cost of the Project Inspector (Title 24, Part 1, Section 4-333(b)) and Testing/Special Agency (CAC, Section 4-335(b))	by the Owner	by the School District	

HOLLO-BOLT MANUFACTURER'S INSPECTION PROCEDURES

ICC ESR-1539

LA DBS

PERIODIC SPECIAL INSPECTION REQUIREMENTS

TO VERIFY CORRECT INSTALLATION INCLUDING USE IN SEISMIC OR WIND LOADING APPLICATIONS IN ACCORDANCE WITH THE 2016 CALIFORNIA BUILDING CODE SECTIONS 1705A.1, 1705A.2, AND 1704A.3 PLEASE REFER TO THE FOLLOWING INSTRUCTIONS.

A. INSPECTION PRIOR TO INSTALLATION
1. ENSURE THAT THERE ARE NO GAPS BETWEEN THE CONNECTING STEELWORK.
2. ENSURE THAT THE HOLES ARE ALIGNED AND THAT THE HOLES HAVE THE CORRECT DIAMETER AND SPACING FOR THE CHOSEN HOLLO-BOLT.
3. THE HOLES MUST BE STANDARD DIAMETER HOLES CONFORMING TO AISC 360 WHERE THE HOLE DIAMETER MUST BE NO GREATER THAN THE SLEEVE OUTER DIAMETER +1/16".
4. BURRS IN THE HOLES MUST BE REMOVED BEFORE INSERTION OF THE HOLLO-BOLT.

B. INSPECTION DURING INSTALLATION
1. ENSURE THAT THE HOLLO-BOLTS ARE INSTALLED AS PER LINDAPTER'S INSTALLATION INSTRUCTION SHEET.
2. ENSURE THAT THE TORQUE WRENCH(S) HAS A CURRENT VALID CALIBRATION CERTIFICATE AND IS CALIBRATED ON REGULAR BASIS.
3. IF USING AIR POWERED WRENCHES TO TIGHTEN THE HOLLO-BOLT, CHECK THAT THE WRENCH IS SET CORRECTLY TO AVOID OVERTIGHTING. THE FINAL TORQUE MUST BE CHECKED WITH A CALIBRATED TORQUE WRENCH.
4. IF AFTER TIGHTENING THERE IS A GAP EVIDENT BETWEEN THE HOLLO-BOLT AND THE CONTACT SURFACE OF THE CONNECTING ELEMENT THIS MAY INDICATE INCORRECT INSTALLATION. REMOVE AND DISCARD THE HOLLO-BOLT, REALIGN THE CONNECTING STEELWORK AND INSTALL A NEW HOLLO-BOLT AS PER LINDAPTER'S INSTALLATION INSTRUCTION SHEET.
5. IF AFTER TIGHTENING THE BOLT HEAD CONTINUES TO TURN THIS MAY BE AN INDICATION OF OVER TIGHTENING, OR IF USING A STAINLESS STEEL HOLLO-BOLT THIS MAY BE DUE TO GALLING*, REMOVE AND DISCARD THE HOLLO-BOLT AND INSTALL A NEW HOLLO-BOLT AS PER LINDAPTER'S INSTALLATION INSTRUCTION SHEET.

* 'GALLING' IS A TERM USED WHEN TWO SURFACES SEIZE UP AS A RESULT OF COLD WELDING AND IS COMMON WHEN TIGHTENING STAINLESS STEEL BOLTS.

C. INSPECTION AFTER INSTALLATION
1. ENSURE THAT THERE ARE NO GAPS BETWEEN THE CONNECTING STEELWORK.
2. ENSURE THAT THERE ARE NO GAPS BETWEEN THE HOLLO-BOLT AND THE CONTACT SURFACE OF THE CONNECTING ELEMENT.
3. CHECK THE TIGHTENING TORQUE OF BETWEEN 5-10% OF THE INSTALLED HOLLO-BOLTS CHOSEN AT RANDOM USING A CALIBRATED TORQUE WRENCH.

FOOTNOTES

(NOTES APPLY ONLY WHEN TESTS OR INSPECTIONS APPLY TO YOUR PC SUBMITTAL.)

1. WAIVER OF CONTINUOUS BATCH PLANT INSPECTION (PER CBC 1705A3.3.1):
   A. VERIFY THAT EITHER CONDITION a) OR b) ARE NOTED IN THE SPECIFICATIONS:
      a) CONCRETE PLANT COMPLIES FULLY WITH ASTM C94, SECTION 9 AND 10, AND HAS A CURRENT CERTIFICATION FROM THE "NATIONAL READY MIXED CONCRETE ASSOCIATION" OR ANOTHER AGENCY ACCEPTABLE TO THE ENFORCEMENT AGENCY. THE CERTIFICATION SHALL INDICATE THAT THE PLANT HAS AUTOMATIC BATCHING AND RECORDING CAPABILITIES.
      b) FOR SINGLE–STORY BUILDINGS, COMPRESSIVE STRENGTH: 3500 PSI SPECIFIED – 3000 PSI.
   B. DESIGN REQUIREMENTS c) THRU f) ARE MET:
      c) AN APPROVED AGENCY OR CERTIFIED TECHNICIAN OF THE TEST LABORATORY SHALL CHECK THE FIRST BATCHING AT START OF WORK DAY AND FURNISH MIX PROPORTIONS TO LICENSED WEIGHMASTER.
      d) LICENSED WEIGHMASTER TO POSITIVELY IDENTIFY QUANTITY OF MATERIALS AND CERTIFY EACH LOAD BY A BATCH TICKET.
      e) BATCH TICKETS, INCLDUING MATERIAL QUANTITIES AND WEIGHTS SHALL BE TRANSMITTED TO INSPECTOR OF RECORD.
      f) SUBMIT WEIGHMASTER AFFIDAVIT.
2. WAIVER OF CONTINUOUS BATCH PLANT INSPECTION NOT REQUIRED (PER CBC 1705A3.3.2):
   A. PLANT INSPECTION IS NOT REQUIRED FOR ANY OF THE FOLLOWING CONDITIONS:
      a) SITE FLATWORK,
      b) UNENCLOSED SITE STRUCTURES, INCLUDING BUT NOT LIMITED TO LUNCH OR CAR SHELTERS, BLEACHERS, SOLAR STRUCTURES, FLAG OR LIGHT POLES, OR RETAINING WALLS,
      c) CONTROLLED LOW–STRENGTH MATERIAL BACKFILL, OR
      d) SINGLE–STORY RELOCATABLE BUILDINGS LESS THAN 2,160 SQUARE FEET.
3. TESTING IS WAIVED FOR ONE–STORY BUILDINGS IF MILL CERTIFICATE IS PROVIDED.
4. REQUIRED ONLY WHERE DETAILS SPECIFY THE USE OF THESE ATTACHMENTS.
5. INSPECTION OF VANEER DETAILED ON SHT. A7.0 MAY BE WAIVED BY DSA ON A SITE SPECIFIC BASIS.
6. THE APPENDIX TO DSA–103 SHALL BE COMPLETED BY THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE.
7. TESTING SHALL BE PERFORMED ON 100% OF CJP GROOVE WELDS WHEN THE COLUMNS PER SCHEDULE ON SHEET S5.1 HAVE A THICKNESS OF 3/4" OR GREATER. MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON 25% OF ALL BEAM–TO–COLUMN CJP GROOVE WELDS. NONDESTRUCTIVE TESTING OF COMPLETE JOINT PENETRATION WELDS AT GRAVITY CONNECTIONS SHALL COMPLY WITH AISC 360, CHAPTER N, PER 2016 CBC 1705A.2.1.
8. EXAMPLE DSA–103 FORMS WILL BE USED AS GUIDE TO DEVELOP A SITE–SPECIFIC DSA–103 FORM FOR THE SITE–SPECIFIC PROJECT. EXAMPLE FORMS ON THE PC DRAWINGS WILL BE CROSSED OUT WHEN SITE–SPECIFIC DSA–103 FORMS ARE PROVIDED DURING OTC REVIEW. SEE DSA PR 07–01, ITEM 2 & 5. QUALIFIED REPRESENTATIVE OF LABORATORY OF RECORD OR APPROVED SPECIAL INSPECTOR SHALL VERIFY ALL STEEL IDENTIFICATION PER 2016 CBC 2203A.1.

TEST OR INSPECTION (as listed on DSA-103)[8]	STOCKPILE		CONSTRUCTION (Diaphragm - Foundation)			RELOCATION OF CERTIFIED BUILDING	
MATERIAL TYPE	A WOOD FLOOR ONLY	B CONCRETE FLOOR	C WOOD FLOOR ONLY - WOOD FOUNDATION	D WOOD FLOOR - CONCRETE FOUNDATION	E CONCRETE FLOOR - CONCRETE FOUNDATION	F WOOD FOUNDATION	G CONCRETE FOUNDATION
SOILS							
1. GENERAL:							
a. Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations extended to proper depth and have reached proper material. • Materials below footings are adequate to achieve the design bearing capacity.				X	X		X
2. COMPACTED FILLS:							
a. Perform classification and testing of fill materials.				X	X		X
b. Verify use of proper materials, densities, and inspect lift thicknesses, placement and compaction during placement of fill.				X	X		X
c. Test compaction of fill.				X	X		X
CONCRETE							
7. CAST IN PLACE CONCRETE - Lightweight over Metal Deck:							
a. Verify use of required design mix.		X			X		
b. Identify, sample, and test reinforcing steel. [3]		X			X		
c. During concrete placement, fabricate specimens for strength tests, performing slump, and air content tests, and determine the temperature of the concrete.		X			X		
d. Test concrete (f'_c - compression).		X			X		
e. **Batch plant inspection[1][2] – design complies with 1705A.3.3**		X			X		
f. **Not Used**		X			X		
h. Welding of reinforcing steel.		X			X		
7. CAST IN PLACE CONCRETE - Foundation:							
a. Verify use of required design mix.				X	X		X
b. Identify, sample, and test reinforcing steel.[3]				X	X		X
c. During concrete placement, fabricate specimens for strength tests, performing slump, and air content tests, and determine the temperature of the concrete.				X	X		X
d. Test concrete (f'_c - compression).				X	X		X
e. **Batch plant inspection[1][2] – design complies with 1705A.3.3**				X	X		X
f. **Not Used**				X	X		X
h. Welding of reinforcing steel.				X	X		X
11. POST-INSTALLED ANCHORS[4]:							
a. Inspect installation of post-installed anchors'							
b. Test post-installed anchors'							
MASONRY							
14. VENEER OR GLASS BLOCK[5]:							
a. Verify proportions of site-prepared mortar and grout and/or verify certification of premixed mortar.	X	X		X	X		
b. Inspect placement of units and construction of mortar joints.	X	X		X	X		
c. Inspect placement of reinforcement, connectors, and anchors.							
d. Inspect type, size, and location of anchors and all other items to be embedded in masonry including details of anchorage of masonry to structural members, frames, and other construction.							
e. Verify preparation, construction, and protection of masonry during cold weather (temperature below 40° F) or hot weather (above 90°).	X	X		X	X		
f. Test veneer bond strength.	X	X		X	X		
STEEL, ALUMINUM							
17. STRUCTURAL STEEL, COLD-FORMED STEEL, AND ALUMINUM USED FOR STRUCTURAL PURPOSES:							
a. Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements, • Material sizes, types and grades comply with requirements.	X	X		X	X		
b. Test unidentified materials	X	X		X	X		
c. Examine seam welds of HSS shapes	X	X		X	X		
e. Verify and document steel fabrication per DSA approved construction documents.	X	X		X	X		
19. WELDING:							
a. Verify weld filler material identification markings per AWS designation listed on the DSA approved documents and the WPS.	X	X		X	X		
b. Verify weld filler material manufacturer's certificate of compliance.	X	X		X	X		
c. Verify WPS, welder qualifications and equipment.	X	X		X	X		
19.1 SHOP WELDING:							
a. Inspect groove, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds	X	X		X	X		
b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds	X	X		X	X		
c. Inspect welding of stairs and railing systems							
d. Verification of reinforcing steel weldability other than ASTM A706.							
e. Inspect welding of reinforcing steel.							
19.2 FIELD WELDING:							
a. Inspect groove, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds (See foundation anchorage - S1.6 sheets.)				X	X		X
b. Inspect single-pass fillet welds ≤ 5/16" **(See foundation anchorage - S1.6 sheets.)**				X	X		X
c. Inspect end-welded studs (ASTM A-108) installation (including bend test)							
d. Inspect floor and roof deck welds							
e. Inspect welding of structural cold-formed steel							
f. Inspect welding of stairs and railing systems							
g. Verification of reinforcing steel weldability							
h. Inspect welding of reinforcing steel.							
20. NONDESTRUCTIVE TESTING[7]:							
a. Ultrasonic (Test per sheet S5.1)	X	X		X	X		
b. Magnetic Particle (Test per sheet S5.1)	X	X		X	X		
22. SPRAY APPLIED FIRE-PROOFING[5]:							
a. Examine structural steel surface conditions, inspect application, take samples, measure thickness, and verify compliance of all aspects of application with DSA approved documents.							
b. Test bond strength.							
c. Test density.							
23. ANCHOR BOLTS, ANCHOR RODS, & OTHER STEEL:							
a. Anchor Bolts and Anchor Rods							
b. Threaded rod not used for foundation anchorage.							
OTHER							
26. LOAD TEST FOR IDENTIFIED PRODUCT(S):							
a. Column fire rating where specified per 20/A8.0 and tested per 1705A.15	X	X		X	X		

AMS®
American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

FORM DSA-103

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — KENNETH PATRICK CHRISTY — No. C 29531 — Ren. 8-31-19 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS
1
2
3
4

DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER

D1

SECTION 1 GENERAL REQUIREMENTS

1. GENERAL
   - A. THE REQUIREMENTS OF THE GENERAL CONDITIONS OF THE AGREEMENT AND THIS GENERAL REQUIREMENT APPLY TO THE SEVERAL TRADE SECTIONS WITH THE SAME FORCE AS THOUGH FULLY REPEATED IN EACH TRADE SECTION.
   - B. NAME BRANDS ARE INDICATED TO ESTABLISH A STANDARD OF QUALITY. ITEMS OF EQUAL OR BETTER QUALITY MAY BE SUBSTITUTED FOR THE LISTED BRAND NAMED PRODUCTS WITH THE WRITTEN APPROVAL OF D.S.A. AND THE ARCHITECT.
   - C. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF TITLES 19 AND 24 CALIFORNIA CODE OF REGULATIONS, 2016 C.B.C. NO CHANGES SHALL BE MADE FROM D.S.A. APPROVED DRAWINGS OR SPECIFICATIONS WITHOUT PRIOR WRITTEN APPROVAL OF D.S.A. AND THE RDPRC.
2. SCOPE OF WORK
   - A. THE WORK CONSISTS OF MANUFACTURING OFF-SITE IN A PLANT AND INSTALLING ON-SITE, MODULAR RELOCATABLE BUILDINGS AS DEFINED HEREIN AND SHOWN AND DETAILED ON DRAWINGS.
   - B. ALL REQUIREMENTS OF TITLE 24 OF THE STATE OF CALIFORNIA, CODE OF REGULATIONS, RELATING TO INSPECTIONS AND VERIFIED REPORTS SHALL BE COMPLIED WITH AND SHALL INCLUDE:
     1. GENERAL RESPONSIBLE CHARGE OF FIELD ADMINISTRATION TO BE PROVIDED BY THE RDPRC.
     2. INSPECTION IN-PLANT DURING THE COURSE OF CONSTRUCTION BY AN INSPECTOR APPROVED BY THE DIVISION OF THE STATE ARCHITECT AND THE DISTRICT ARCHITECT. THE INSPECTOR SHALL BE RESPONSIBLE FOR AND APPROVED TO INSPECT THE GENERAL CONSTRUCTION WELDING, MECHANICAL, AND ELECTRICAL WORK. COST OF THESE INSPECTIONS SHALL BE BORNE BY THE SCHOOL DISTRICTS.
     3. ON-SITE INSPECTION OF THE BUILDING INSTALLATION ELECTRICAL AND UTILITY INSTALLATION OR CONNECTIONS BY AN INSPECTOR APPROVED BY THE DIVISION OF THE STATE ARCHITECT AND THE DISTRICT ARCHITECT AND RETAINED BY THE SCHOOL DISTRICT.
     4. OTHER SPECIAL TESTS OR INSPECTIONS AS MAY BE REQUIRED BY THE DIVISION OF THE STATE ARCHITECT.
     5. ADDENDUMS SHALL BE SIGNED BY THE RDPRC & APPROVED BY D.S.A.
     6. CHANGES TO CONSTRUCTION DOCUMENT AFFECTING ACS, FLS & SSS SHALL BE SIGNED BY THE OWNER & THE RDPRC & APPROVED BY D.S.A. PRIOR TO COMMENCING WORK. CHANGES TO THE CONSTRUCTION COST ARE REPORTED TO D.S.A. USING FORM DSA-168 AT THE CONCLUSION OF THE PROJECT.
     7. THE TESTING LAB SHALL BE IN THE EMPLOY OF THE OWNER.
     8. ALL CONTRACTORS SHALL VERIFY ALL WORK CONDITIONS, DIMENSIONS AND DETAILS AND REPORT ANY OR ALL OMISSIONS AND DISCREPANCIES TO THE DESIGNER/OWNER IMMEDIATELY BEFORE COMMENCING WORK.
     9. EACH CONTRACTOR TO BE RESPONSIBLE TO SEE THAT THEIR WORK CONFORMS TO ALL GOVERNMENTAL CODES WHETHER OR NOT SO STATED ON THE DRAWINGS.
     10. ALL MATERIALS AND WORKMANSHIP TO CONFORM TO THE LATEST REQUIREMENTS OF THE CODES GOVERNING BUILDING CODES IN EFFECT AT TIME OF DSA APPLICATION.
     11. ALL MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED AND ERECTED PER MANUFACTURER'S DIRECTIONS AND INSTRUCTIONS.
     12. SHOP DRAWINGS MAY BE REQUIRED. IF SO, THEY WILL BE ACCURATELY DRAWN TO A LARGE ENOUGH SCALE TO SHOW ALL PERTINENT FEATURES OF THE ITEM AND ITS CONNECTION TO RELATED WORK.
     13. THE MANUFACTURER OF BUILDING IS TO PLACE TWO PERMANENT METAL IDENTIFICATION LABEL ON EACH MODULE, MECHANICALLY FASTENED TO THE FRAME SEE "GENERAL DESIGN REQUIREMENTS", SHEET N2.0. FOR PROJECTS MANUFACTURED OFF-SITE, THE PLANT INSPECTOR IS TO INDICATE THE MANUFACTURER'S NAME AND SERIAL NUMBER OF EACH MODULE ON THE VERIFIED REPORT AND D.S.A. APP. NUMBER.
     14. ALL TESTS AND INSPECTIONS REQUIRED BY DSA SHALL BE COMPLIED WITH. ALL TESTS REQUIRED BY FIRE AND LIFE SAFETY REGULATIONS SHALL BE BY A NATIONALLY RECOGNIZED TESTING LABORATORY.

SECTION 2 FOUNDATION

1. ASSUMED ALLOWABLE SOIL BEARING:
   - 1500 P.S.F. FOR CONCRETE FOUNDATIONS EMBEDDED 12" MINIMUM BELOW GRADE. (1/3 INCREASE IN SOIL BEARING CAPACITY NOT PERMITTED UNLESS USING ALTERNATIVE BASIC LOAD COMBINATIONS PER CBC SECTION 1605A.3.2)
2. FOOTINGS SHALL BE LOCATED ON UNDISTURBED, FIRM, NATURAL SOIL OR APPROVED COMPACTED FILL.

NOTE: THE FOUNDATION SYSTEM PRESENTED HEREIN COMPLIES WITH INTERPRETATION OF REGULATIONS, IR 16-1, ISSUED BY DIVISION OF THE STATE ARCHITECT, FOR TEMPORARY BUILDINGS. THIS FOUNDATION SYSTEM IS NON-CONVENTIONAL AND THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY FOR ITS CONSTRUCTION OR LONGEVITY.

3. WORK NOT INCLUDED:
   - A. ALL ON-SITE OR OFF-SITE UTILITIES AND THE CONNECTION OF THEM TO THE BUILDING UNLESS INDICATED ON THE DRAWINGS.
   - B. ALL LEVELING, GRADING OR OTHER SITE PREPARATION EXCEPT CONCRETE OR WOOD LEVELING STRIPS WHERE REQUIRED, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
   - C. FIRE ALARM SYSTEM, PROGRAM BELL, PUBLIC ADDRESS SYSTEM, INTERCOM SYSTEM, TV, TELEPHONE SYSTEM, UNLESS OTHERWISE INDICATED ON THE DRAWINGS, OR MODIFIED BY CHANGE ORDER.
4. WHEELS AND HITCH SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
5. ACCESSIBILITY OF SITE: THE SCHOOL DISTRICT SHALL PROVIDE ACCESS TO THE SITE FOR THE INSTALLATION OF BUILDINGS. REMOVAL OF TREES, SHRUBS, FENCING, SPRINKLERS ETC. NECESSARY FOR THE MOVE-IN OF BUILDINGS SHALL BE THE RESPONSIBILITY OF THE SCHOOL DISTRICT.

SECTION 3 CONCRETE

1. CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318-14.
2. THE MINIMUM 28 DAY STRENGTH AND TYPE OF CONCRETE SHALL BE AS FOLLOWS:
   - FOUNDATIONS.....3500 PSI (150 PCF)
   - FOUNDATION VENTS & ACCESS WELLS.....3000 PSI (150 PCF)
   - SLABS-ON-GRADE.....3000 PSI (150 PCF)
   - CONCRETE OVER METAL DECK.....3000 PSI (110 PCF)
3. THE MAXIMUM WATER TO CEMENT (W/C) RATIO SHALL BE 0.55 FOR FOUNDATIONS AND 0.40-0.45 FOR CONCRETE OVER METAL DECK SLABS.
4. CONCRETE SLUMP SHALL BE 4" ± 1".
5. CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II.
   - A. FLY ASH SHALL CONFORM TO ASTM C618 CLASS 'F' OR 'N' AND SHALL NOT EXCEED 25% CEMENT REPLACEMENT BY WEIGHT.
   - B. SLAG CEMENT SHALL CONFORM TO ASTM C989, GRADE 100 OR 120 AND SHALL NOT EXCEED 50% CEMENT REPLACEMENT BY WEIGHT.
   - C. COMBINATION OF FLY ASH & SLAG CEMENT SHALL NOT EXCEED 50% CEMENT REPLACEMENT BY WEIGHT.
6. CONCRETE AGGREGATES:
   - A. NATURAL SAND AND ROCK AGGREGATES SHALL CONFORM TO ASTM C33.
   - B. LIGHTWEIGHT AGGREGATE SHALL CONFORM TO ASTM C330.
   - C. MAX AGGREGATE SIZE SHALL BE 1"±1/4" FOR NORMAL WT. CONCRETE.
   - D. MAX AGGREGATE SIZE SHALL BE 1/2" FOR LIGHT WT. CONCRETE.
7. REINFORCING SHALL CONFORM TO ASTM A615-GRADE 60, UNLESS OTHERWISE NOTED.

CONCRETE continued

8. CONCRETE COVERAGE SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON DRAWINGS:
   - CONCRETE DIRECTLY AGAINST GROUND (EXCEPT SLABS) .....3"
   - CONCRETE EXPOSED TO GROUND BUT PLACED IN FORMS .....2"
   - SLABS (ON GROUND) .....POSITION IN CENTER OF SLAB
9. ALL BARS SHALL HAVE A CLASS B MINIMUM LAP SPLICE PER DETAILS 6 & 9/S1.4 AND SPLICES IN ADJACENT BARS SHALL BE STAGGERED, U.N.O.\
10. REINFORCING BARS SHALL NOT BE WELDED UNLESS SPECIFICALLY DETAILED IN THE APPROVED DRAWINGS. BARS DETAILED TO BE WELDED SHALL BE ASTM A706 BARS AND WELDING ELECTRODES SHALL BE E80XX. WELDING SHALL CONFORM WITH AWS D1.4-11 AND SHALL BE CONTINUOUSLY INSPECTED.
11. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND SHALL BE LAP SPLICED TWO SQUARES MINIMUM EACH DIRECTION.
12. NOTIFY THE STRUCTURAL ENGINEER PRIOR TO PLACING CONCRETE.
13. CHEMICAL ADMIXTURES SHALL CONFORM TO ASTM C494.
14. AIR-ENTRAINING ADMIXTURE SHALL CONFORM TO ASTM C260.
15. NON-SHRINK GROUT: ASTM C1107, 5000 PSI MIN AT 7 DAYS.

SECTION 5 STEEL

1. GENERAL - ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF AISC 360-10, TITLE 24 OF CALIFORNIA CODE OF REGULATIONS SECTION 2212A.1.2, AND THE AMERICAN IRON AND STEEL INSTITUTE SPECIFICATIONS FOR DESIGN OF STEEL STRUCTURAL MEMBERS. A COPY OF TITLE 24 SHALL BE KEPT AT THE JOBSITE AT ALL TIMES.
   - A. FABRICATION AND ERECTION SHALL COMPLY WITH AISC 360-10 CHAPTER 'M' AND AISC 341-10 CHAPTER 'I'.
2. WELDING - ALL WELDING DONE BY SHIELDED ELECTRIC-ARC OR FLUX CORED-ARC PROCESS COMPLYING WITH REQUIREMENTS OF THE "STRUCTURAL WELDING CODE" OF THE AMERICAN WELDING SOCIETY. WELDING DONE BY OPERATORS QUALIFIED BY TESTS ACCEPTABLE TO THE DIVISION OF THE STATE ARCHITECT. WELDING INSPECTION PER TITLE 24, PART 2, CCR, SECTIONS 1705A.2.5 WELDING ELECTRODE SHALL BE E70XX. ALL WELDS USED IN PRIMARY MEMBERS AND CONNECTIONS IN THE LATERAL FORCE-RESISTING SYSTEMS SHALL BE MADE WITH A FILLER METAL THAT HAS A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20FT-LBS AT ZERO DEGREES F AND COMPLYING WITH AWS D1.8-09. SECTION 6.3.
3. STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE FOLLOWING:
   - A. WIDE FLANGE BEAMS SHALL CONFORM TO ASTM A992, GRADE 50, TYP. U.N.O.
   - B. STRUCTURAL STEEL CHANNELS SHALL CONFORM TO ASTM A36 (36 KSI) TYP. U.N.O. NOTE: ASTM A572 (50 KSI) MAY BE SUBSTITUTED FOR A36 (36 KSI). WHERE DRAWINGS SPECIFY 36 KSI MIN., CHANNELS MAY CONFORM TO EITHER ASTM A36 (36KSI) OR ASTM A572 (50 KSI).
   - C. PIPE COLUMNS SHALL CONFORM TO ASTM A-53 WITH SULFUR CONTENT NOT EXCEEDING 0.05% TYP. U.N.O.
   - D. STRUCTURAL STEEL TUBING (HSS) SHALL CONFORM TO ASTM A-500 GRADE B OR C OR ASTM A1085, TYP. U.N.O.
   - E. STEEL PLATES, ANGLES, BARS AND MISC. SHAPES SHALL CONFORM TO ASTM A36 (36 KSI) TYP. U.N.O. NOTE: ASTM A572 (50 KSI) MAY BE SUBSTITUTED FOR A36 (36 KSI).
   - F. STRUCTURAL WELDS ARE DESIGNED FOR FULL ALLOWABLE STRESS UNLESS OTHERWISE NOTED.
4. ERECTION - STRUCTURAL STEEL ERECTED TRUE, STRAIGHT, PLUMB AND TO ITS DESIGNATED LOCATIONS. FIELD CONNECTIONS BOLTED OR WELDED AS INDICATED ON THE DRAWINGS.
5. NAILS, BOLTS, SCREWS AND NUTS, ETC. - FOR EXTERIOR WORK SHALL BE CADMIUM PLATED OR GALVANIZED.
   - A. BOLTS FOR STRUCTURAL STEEL CONNECTIONS SHALL CONFORM TO ASTM A-307 UNLESS OTHERWISE NOTED. ALL HOLES FOR BOLTS THRU STEEL TO BE DRILLED, OR TORCHED PILOT HOLE AND REAMED TO DIAMETER OF BOLT + 1/16" UNLESS OTHERWISE NOTED. NELSON STUDS (WELDED TO STEEL) MAY BE SUBSTITUTED FOR BOLTS SAME LENGTH AND DIAMETER.
   - B. SEE "FASTENERS FOR ATTACHMENT TO STEEL" ON SHEET N2.0 FOR SHOT PINS & SCREWS.
6. HANDRAILS - FABRICATED, AS DETAILED, NON-FILLET WELDS GROUND SMOOTH.
7. SHOP PAINT
   - A. EXPOSED STEEL COATED WITH ONE SHOP COAT OF RED OXIDE PRIMER.
   - B. ALL SURFACES THOROUGHLY CLEANED BY EFFECTIVE MEANS PRIOR TO APPLICATION OF SHOP COATS.
8. TESTS
   - A. PROVIDE MILL CERTIFICATES OR TEST ALL STEEL MEMBERS PER TITLE-24 PART 2, CCR SECTION 1705A.2 & 2203A.

SECTION 6 CARPENTRY

1. SCOPE OF WORK
   CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO INSTALL CARPENTRY.
2. MATERIALS
   LUMBER GRADE MARKED IN ACCORDANCE WITH "STANDARD GRADING AND DRESSING RULES NO. 17" OF WEST COAST LUMBER INSPECTION BUREAU, OR "WESTERN LUMBER GRADING RULES", LATEST EDITION OF WESTERN WOOD PRODUCTS ASSOCIATION. OSB OR PLYWOOD GRADE MARKED IN ACCORDANCE WITH PRODUCT STANDARD PS 1-09 FOR SOFTWOOD OSB OR PLYWOOD, OF AMERICAN PLYWOOD ASSOCIATION. EACH SHEET SHALL BEAR THE STAMP OF APA, PITTSBURGH TESTING, OR TECO. MOISTURE CONTENT SHALL NOT EXCEED 19%.
   - A. JOISTS, HEADERS, PLATES, STUDS: DOUGLAS FIR S4S #2 OR HEM FIR S4S #2 MINIMUM, U.N.O. NOTE: MSR 1650 E1.5 MAY BE SUBSTITUTED FOR #2 GRADE IF IT MEETS THE STRUCTURAL REQUIREMENTS FOR FLOOR AND ROOF MEMBERS.
   - B. PSL HEADERS: TRUS JOIST PARALLAM PSL BY WEYERHAEUSER (ICC ESR-1387) OR EQUIV. MEETING THE FOLLOWING STRUCTURAL PROPERTIES:

BEAMS ≤ 7" DEEP & COLUMNS	BEAMS ≥ 9¼" DEEP
F_b = 2400 PSI MIN.	F_b = 2900 PSI MIN.
F_v = 190 PSI MIN.	F_v = 290 PSI MIN.
E = 1.8E6 PSI MIN.	E = 2.0E6 PSI MIN.

   - C. POSTS AND TIMBERS: DOUGLAS FIR S4S #1 OR HEM FIR S4S #1 MIN.
   - D. BLOCKING: DOUG FIR #3, OR HEM FIR #3, OR STD. & BET.
   - E. SILLS AND LUMBER & SHIM PLATES IN CONTACT WITH CONCRETE, MASONRY OR EARTH: DOUG FIR #2 OR HEM FIR #2 MIN. PRESSURE TREATED IN ACCORDANCE WITH CBC 2304.12.1. EACH PIECE SHALL BEAR AWPA STAMP. AWPA STANDARD U1 & T1 GROUND CONTACT, D.F. (OR H.F.) #2 ABOVE GROUND.
   - F. MOISTURE BARRIER: KRAFT WATERPROOF BUILDING PAPER, OR 15 LB. FELT, CBC SECTION 1404.2. & ASTM D2226, TYPE I.
   - G. STUDS - S4S DOUG FIR #2 OR #2 HEM FIR. MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF INSTALLATION.
   - H. FASTENERS - FASTENERS SHALL BE CORROSION RESISTANT PER C.B.C. 2304.10.1.1 COMMON NAILS PER ASTM F1667 FOR EXTERIOR SIDING & FOUNDATION ONLY.
   - I. BUILDING TRIM - 2x RESAWN SELECT D.F., H.F., OR CEDAR.
   - J. DOOR/WINDOW TRIM - 1x4 RESAWN D.F., H.F., OR CEDAR.
   - K. FRAMING CONNECTORS SHALL BE FROM SIMPSON CATALOG LATEST ED.
   - L. FIRE BLOCKS SHALL CONFORM TO CBC SECTION 718.2
   - M. ALL NAILS SHALL BE COMMON NAILS PER ASTM F1667 UNLESS OTHERWISE NOTED.
   - N. ALL CUT ENDS AND HOLES IN PRESSURE TREATED LUMBER SHALL BE TREATED WITH "CUPRINOL".
   - O. ALL BOLTS AND LAG SCREWS SHALL COMPLY WITH THE 2015 NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (ANSI\AWC NDS-2015).

CARPENTRY continued

   - P. HOLES FOR BOLTS IN WOOD SHALL BE BORED WITH A BIT OF THE SAME NOMINAL DIAMETER AS THE BOLT + 1/16".
   - Q. HOLES FOR LAG SCREWS SHALL BE FIRST BORED TO THE SAME NOMINAL DIAMETER AND DEPTH AS THE SHANK. THE REMAINDER OF THE HOLE SHALL BE NO LARGER THAN THE ROOT OF THE THREAD.
   - R. ALL BOLTS AND LAG SCREWS SHALL BE PROVIDED WITH METAL WASHERS UNDER HEADS AND NUTS WHICH BEAR ON WOOD.
3. WORKMANSHIP
   - A. FRAMING - SECURELY NAILED, BRIDGED AND BLOCKED TO FORM RIGID STRUCTURE. WORK CUT, FITTED AND ASSEMBLED LEVEL PLUMB AND TRUE TO LINE. TRIM IN AS LONG LENGTHS AS POSSIBLE WITH ALL STANDING TRIM IN ONE PIECE. TRIM SEALED AT ALL EDGES.
   - B. NAILING - IN ACCORDANCE WITH TITLE 24, CALIFORNIA BUILDING CODE, TABLE 2304.10.1.
   - C. EXTERIOR WALLS - FACTORY FABRICATED. CAULKING PROVIDED BETWEEN PERIMETER OF WALL AND STRUCTURAL MEMBERS PROVIDING WEATHER-PROOF AND WATER-TIGHT SEAL. NECESSARY CLOSERS, SEALS, AND FLASHINGS PLACED AT TOP AND BASE SUPPORT OF PANELS AND AROUND OPENINGS.
   - D. NAILS INTO P.T. LUMBER TO BE HOT DIPPED GALVANIZED.
   - E. MACHINE APPLIED NAILING: USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL BY THE RDPRC AND THE DIVISION OF THE STATE ARCHITECT. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING WILL NOT BE APPROVED IN 5/16" OSB. IF NAILHEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.
   - F. MOISTURE BARRIER - APPLIED TO STUDS WEATHER-BOARD FASHION, HORIZONTAL JOINTS LAPPED MIN 6" INCLUDING BUILDING CORNERS. SHEATHING APPLIED OVER MOISTURE BARRIER.
   - G. TRIM SEALED AT ALL EDGES. SEALANT PAINTED TO MATCH TRIM OR SIDING UNLESS TRANSPARENT TYPE.

SECTION 7A SHEET METAL (NON-STRUCTURAL)

1. SCOPE OF WORK
   CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO INSTALL INDICATED SHEET METAL.
2. MATERIALS
   - A. SHEET METAL - STEEL SHEETS HOT DIP GALVANIZED WITH 1.25 OZ. PER SQUARE FOOT ZINC COATING CONFORMING TO ASTM A653 MINIMUM 26 GA. UNLESS OTHERWISE NOTED ON THE DRAWINGS.
   - B. SOLDER - OF STAND, GRADE "A" OF EQUAL PARTS, ARD BRAND, LEAD AND TIN ASTM B32.
   - C. FLUX - ZINC SATURATED MURIATIC ACID.
   - D. GUTTERS: 26 GA. G-90 GALV. STEEL
     DOWNSPOUTS: 2"x3" CONVOLUTED 30 GA. G-90 GALV. STEEL
     GUTTER ENDCAPS: 26 GA. G-90 GALV. STEEL
     GUTTER CLIPS: 18 GA. G-90 GALV. STEEL
   - E. FASTENERS:
     SELF-DRILLING OR SELF-TAPPING SHEET METAL SCREWS.
     LENGTH TO HAVE (3) EXPOSED THREADS MIN.
3. WORKMANSHIP
   SHEET METAL ACCURATELY FORMED TO DIMENSIONS AND SHAPES DETAILED WITH TRUE STRAIGHT LINES, CORNERS AND ANGLES. FLASHING INSTALLED IN LONGEST LENGTHS POSSIBLE. EXTERIOR WORK FORMED, FABRICATED AND INSTALLED SO THAT IT ADEQUATELY PROVIDES FOR EXPANSION AND CONTRACTION IN THE COMPLETED WORK AND FINISHES WATER AND WEATHER TIGHT. ALUMINUM SHALL BE SEPARATED FROM FERROUS METAL BY POLYETHYLENE TAPE OR FLOOD COAT OF ASPHALTIC PAINT.

SECTION 7B METAL ROOFING

1. SCOPE OF WORK
   CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO INSTALL METAL ROOFING.
2. MATERIALS
   - A. ROOF: 3 INCH STANDING SEAM, MINIMUM 20-GAUGE G-90 GALV. INTERLOCKING (UN-PENETRATED) SHEET STEEL PANELS (G90). ALTERNATE: 26 GAUGE WHEN INSTALLED OVER PLYWOOD SHEATHING.
   - B. CLASS B FIRE RATING.
   - C. FASTENERS SHALL BE HOT-DIPPED GALVANIZED.

SECTION 7C SEALANT

1. SCOPE OF WORK
   CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL AND SERVICES TO SEAL BUILDINGS.
2. MATERIALS
   VULKEM SEALANT, POLYURETHANE, MANUFACTURED BY MAMECO INTERNATIONAL FOR ROOFS. "GEOCEL" SILICONIZED CAULK, GE, DUPONT, EAGLESEAL OR DAP FOR ALL OTHER APPLICATIONS, OR EQUAL.
   - A. SEALANT V.O.C. LIMITS PER SCAQMD RULE 1168 (AS SHOWN IN TITLE 24, PART 11, TABLE 5.504.4.1 AND TABLE 5.504.4.2)
3. WORKMANSHIP
   SEALANT APPLIED TO DRY CLEAN SURFACES, WHEREVER INDICATED ON DETAILS AND AS NEEDED TO MAKE BUILDING WATERTIGHT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

SECTION 7D SINGLE-PLY / BUILT-UP ROOFING

1. SCOPE OF WORK
   CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL AND SERVICES TO INSTALL SINGLY-PLY OR BUILT-UP ROOFING. TEST RESULTS OR CALCULATIONS SHOWING THE ROOFING SYSTEM WILL WITHSTAND THE UPLIFT OF 110 MPH ULTIMATE WIND SPEED SHALL BE SUBMITTED WITH THE PLANS & SPECIFICATIONS.
2. MATERIALS
   MEMBRANE: PVC FILM LAMINATED TO BOTH SIDES OF A REINFORCEMENT FABRIC, OR EQUIV. - PROPRIETARY THERMOPLASTIC PVC FORMULATION OF RESINS, PLASTICIZERS, STABILIZERS, BIOCIDES, FLAME RETARDANTS, AND U.V. ABSORBENTS. CLASS B FIRE RATING.
   - A. WOOD NAILERS MUST BE A #2 GRADE LUMBER, OR EQUIVALENT, TO SUBSTRATE.
3. WORKMANSHIP
   MEMBRANE APPLIED ON SUBSTRATES THAT ARE DRY, CLEAN, AND FREE OF FINS, SHARP EDGES AND LOOSE, FOREIGN MATERIALS, WHEREVER INDICATED ON DETAILS. AN INSULATION OR SLIP SHEET HAVING AN APPROVED FACER MUST BE USED WHEN ROOFING OVER ASPHALT OR COAL TAR ROOFS.
4. TESTING:
   - A. MEMBRANE SHALL BE DESIGNED TO PERFORM IN ALL TYPES OF WEATHER AND SHALL COMPLY TO ASTM D-2136 TESTING METHODS.
   - B. MEMBRANE SHALL BE DESIGNED IN ACCORDANCE TO ASTM D-4434 "STANDARD SPECIFICATIONS FOR POLY (VINYL CHLORIDE) SHEET ROOFING" AND BE CLASSIFIED AS A TYPE IV, INTERNALLY REINFORCED SHEET.

SECTION 8 HOLLOW METAL DOORS AND FRAMES

1. SCOPE OF WORK
   CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO INSTALL HOLLOW METAL DOORS AND FRAMES.
2. MATERIALS
   - A. DOORS - INSULATED TYPE L FULL FLUSH, MANUFACTURED BY AMWELD MANUFACTURING COMPANY, 18 GA. 1-3/4" THICK PER CS242 MIN, REINFORCE FOR HARDWARE-BOTH FACES FOR CLOSER, SOUND DEADEN INTERIOR.
   - B. FRAMES - 16 GA COLD ROLLED, 2" FACES, CS242 MIN. 3 ANCHORS PER JAMB + ADJUSTABLE FLOOR ANCHOR, EACH JAMB REINFORCE FOR HARDWARE. PROVIDE STRIKE BOX, PROVIDE SOUND DEADENING: 1/8" UNDERCOATING OR INSULATING FILL.
3. WORKMANSHIP
   ALL WORK FABRICATED IN SHOP TO REQUIRED PROFILES BY FORMING AND WELDING, WITH ARISES AND EDGES STRAIGHT, SHARP FIT FABRICATED ACCURATELY WITH SQUARE CORNERS, HAIRLINE JOINTS AND SURFACES FREE FROM WARP, WAVE, BUCKLE OR OTHER DEFECTS AFTER FABRICATION, DOORS AND FRAMES CLEANED THOROUGHLY, ALL WELDS GROUND SMOOTH AND GIVEN PRIME COAT.

SECTION 9A STUCCO (EXTERIOR PORTLAND CEMENT PLASTER)

LATHING AND PLASTERING MATERIALS AND ACCESSORIES SHALL BE MARKED BY THE MANUFACTURER'S DESIGNATION TO INDICATE COMPLIANCE WITH THE APPROPRIATE STANDARDS REFERENCED IN THIS SECTION AND STORED IN SUCH A MANNER TO PROTECT THEM FROM THE WEATHER, PER C.B.C 2507.1.

LATHING AND PLASTERING MATERIALS SHALL CONFORM TO THE STANDARDS LISTED IN C.B.C. TABLE 2507.2 AND CHAPTER 35, AND, WHERE REQUIRED FOR FIRE PROTECTION, SHALL ALSO CONFORM TO THE PROVISIONS OF CHAPTER 7.

GYPSUM BOARD AND GYPSUM PLASTER CONSTRUCTION SHALL BE OF THE MATERIALS LISTED IN C.B.C. TABLES 2506.2 AND 2507.2. THESE MATERIALS SHALL BE ASSEMBLED AND INSTALLED IN COMPLIANCE WITH THE APPROPRIATE STANDARDS LISTED IN TABLES 2508.1 AND 2511.1, AND CHAPTER 35 (PER 2508.1).

2510.6 WATER-RESISTIVE BARRIERS. WATER-RESISTIVE BARRIERS SHALL BE INSTALLED AS REQUIRED IN SECTION 1404.2, AND WHERE APPLIED OVER WOOD-BASED SHEATHING, SHALL INCLUDE A WATER-RESISTIVE VAPOR-PERMEABLE BARRIER WITH A PERFORMANCE AT LEAST EQUIVALENT TO TWO LAYERS OF GRADE D PAPER.

EXCEPTION: WHERE THE WATER-RESISTIVE BARRIER THAT IS APPLIED OVER WOOD-BASED SHEATHING HAS A WATER RESISTANCE EQUAL TO OR GREATER THAN THAT 60-MINUTE GRADE D PAPER COMPLYING WITH ASTM E 2556, TYPE II AND IS SEPARATED FROM THE STUCCO BY AN INTERVENING, SUBSTANTIALLY NONWATER-ABSORBING LAYER OR DRAINAGE SPACE.

1. PLASTER NOTES: PLASTERING WITH CEMENT PLASTER SHALL NOT BE LESS THAN THREE COATS WHEN APPLIED OVER METAL LATH OR WIRE FABRIC LATH AND SHALL NOT BE LESS THAN TWO COATS WHEN APPLIED OVER MASONRY CONCRETE OR GYPSUM BACKING AS SPECIFIED IN SECTION 2510.5.
   - A. THE FIRST COAT SHALL BE MIN. 3/8" THICK & APPLIED WITH SUFFICIENT MATERIAL AND PRESSURE TO FILL SOLIDLY ALL OPENINGS IN THE LATH. THE SURFACE SHALL BE SCORED HORIZONTALLY SUFFICIENTLY ROUGH TO PROVIDE ADEQUATE BOND TO RECEIVE THE SECOND COAT.
   - B. THE SECOND COAT SHALL BEBE BROUGHT OUT TO MIN. 3/8" THICKNESS, RODDED AND FLOATED SUFFICIENTLY ROUGH TO PROVIDE ADEQUATE BOND FOR THE FINISH COAT. THE SECOND COAT SHALL HAVE NO VARIATION GREATER TO THAN 1/4 INCH (6.4 mm) IN ANY DIRECTION UNDER 5-FOOT STRAIGHT EDGE.
   - C. THE FINISH COATS SHALL BE MIN. 1/8" THICK & APPLIED OVER BASE COATS THAT HAVE BEEN MOISTENED FOR THE TIME PERIODS SET FORTH IN ASTM C 926. THE THIRD OR FINISH COAT SHALL BE APPLIED WITH SUFFICIENT MATERIAL AND PRESSURE TO BOND TO AND TO COVER THE BROWN COAT AND SHALL BE OF SUFFICIENT THICKNESS TO CONCEAL THE BROWN COAT.

SECTION 9B PAINTS & COATINGS

1. SCOPE OF WORK.
   CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO PAINT BUILDING. ALL EXPOSED SURFACES OF BUILDING AND RAMPS SHALL BE PAINTED EXCEPT ALUMINUM WINDOW FRAMES, THRESHOLDS, AND ROOFING.
2. MATERIALS
   - A. FOR EXTERIOR WOOD:

REF.BRAND	DUNN EDWARDS	KELLY MOORE	SHERWIN WILLIAMS	SINCLAIR
PRIMER	42-9M	1240	Y24W20	289-N
FINISH	QD-60-XX	1240-XXX	B54W2102	GE2-NXX

   - B. FOR INTERIOR TRIM:

REF.BRAND	DUNN EDWARDS	KELLY MOORE	SHERWIN WILLIAMS	SINCLAIR
FINISH	W45O-XX	1650-XXX	A26W11	40XX

   - C. FOR METAL:

REF.BRAND	DUNN EDWARDS	KELLY MOORE	SHERWIN WILLIAMS	SINCLAIR
PRIMER	43-4	1710	B50NZ6	15N
FINISH	10-XX	1700-XXX	B54W2102	GE2-NXX

   - D. INTERIOR PAINT & COATINGS SHALL COMPLY WITH TITLE 24, PART 11, "CAL-GREEN" SECTION 5.504.4.3, AND V.O.C. LIMITS PER TABLE 5.504.4.3.
3. WORKMANSHIP
   ALL EXPOSED SURFACES SHALL BE PAINTED EXCEPT ALUMINUM WINDOW FRAMES, THRESHOLDS AND METAL ROOFING. MATERIAL SHALL BE OF THE GRADE SPECIFIED OR EQUAL.
   - A. EXTERIOR WOOD SIDING, TRIM AND SKIRTING - FLAT OR SEMI-GLOSS LATEX. APPLY ONE COAT OF PRIME AND AT LEAST ONE FINISH COAT. PRIME COAT SHALL BE BRUSHED ON OR SPRAYED AND BACK BRUSHED INTO ALL GROOVES IN THE SIDING. IF NECESSARY, IN THE OPINION OF THE INSPECTOR, AN EXTRA COAT SHALL BE APPLIED TO ALL GROOVES SO THAT THE FINISH COAT WILL HAVE A UNIFORM APPEARANCE. ALLOW PRIME COAT TO DRY ACCORDING TO MANUFACTURER'S RECOMMENDATION. PRIME AND FINISH COATS SHALL BE COMPATIBLE AND MANUFACTURED BY THE SAME COMPANY.
   - B. INTERIOR TRIM - TRIM NOT PRE-COATED SHALL BE PAINTED WITH TWO COATS OF SEMI-GLOSS LATEX OVER PRIMER.
   - C. INTERIOR HARDWOOD CABINETS - TWO COATS LOW LUSTER POLYURETHANE FINISH. APPLY FIRST COAT THINNED WITH ONE QUART MINERAL SPIRITS PER GALLON. APPLY SECOND COAT AS RECOMMENDED BY MANUFACTURER.
   - D. METAL - ALL METAL SURFACES SHALL BE PAINTED WITH TWO COATS OF ALKYD FINISH COAT OVER ZINC CHROMATE OR EQUAL RUST INHIBITING PRIMER.
   - E. RAMP - ONE COAT OF FERROX NON-SLIP (0.8 MIN. C.O.F.) SURFACING AS MANUFACTURED BY AMERICAN ABRASIVE METALS OR COMPARABLE. ALL PAINTS OF THE T

COORDINATION OF WORK

THE CONTRACTOR IS RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS WITH THE SCHOOL DISTRICT AUTHORIZED REPRESENTATIVE FOR ACCESS TO GROUNDS AND REMOVAL OF EQUIPMENT, IF NECESSARY. THIS CONTACT SHALL BE MADE AT LEAST 48 HOURS PRIOR TO DELIVERY OF ANY MODULE. ON-SITE INSPECTION SHALL BE DONE BY THE SITE INSPECTOR. ALL WORK WHICH THE MANUFACTURER OR HIS SUBCONTRACTORS PERFORM AT THE SITE SHALL BE SUBJECT TO THE INSPECTION OF THE SITE INSPECTOR. THE MANUFACTURER WILL FURNISH THE SITE INSPECTOR WITH SUCH INFORMATION AS MAY BE NECESSARY TO KEEP HIM FULLY INFORMED AS TO PROGRESS OF WORK AND DATES WHEN SITE WORK WILL OCCUR. THE CONTRACTOR SHALL NOTIFY THE INSPECTION AGENCY AT LEAST 48 HOURS PRIOR TO COMMENCING WORK.

THE CONTRACTOR SHALL VERIFY THAT THE DISTRICT'S SITE IS READY TO RECEIVE THE CLASSROOM(S) PRIOR TO THE DELIVERY OF ANY CLASSROOM(S) BY VISITING EACH SITE (THIS MAY BE DONE BY THE INSPECTOR).

MATERIALS AND WORKMANSHIP

1. ALL CONTRACTORS SHALL CERTIFY THAT NO ASBESTOS-CONTAINING BUILDING MATERIALS WHICH EXCEED STATE AND FEDERAL MANDATED SAFE ASBESTOS LEVELS HAVE BEEN USED IN THE CONSTRUCTION OF RELOCATABLE FACILITIES.
2. ALL WORKMEN SHALL BE SKILLED AND QUALIFIED FOR THE WORK WHICH THEY PERFORM. ALL MATERIALS USED, UNLESS OTHERWISE SPECIFIED, SHALL BE NEW AND OF THE TYPES AND GRADES SPECIFIED. THE CONTRACTOR SHALL, IF REQUESTED, FURNISH EVIDENCE SATISFACTORY TO THE RDPRC THAT SUCH IS THE CASE.
3. CONTRACTOR'S CREWS ASSIGNED TO ANY WORK PERFORMED UNDER THIS CONTRACT SHALL INCLUDE ONE COMPETENT AND FULLY EXPERIENCED PERSON DESIGNATED AS THE RESPONSIBLE PERSON IN CHARGE. SUCH PERSON MUST BE IDENTIFIED BY NAME TO THE DISTRICT IN ADVANCE OF ANY WORK. UPON REQUEST, THE CONTRACTOR SHALL PROMPTLY FURNISH TO THE DISTRICT INFORMATION RELATING TO THIS EMPLOYEE'S EXPERIENCE.
4. WORKMANSHIP SHALL BE EQUAL OR BETTER IN QUALITY TO THAT REQUIRED BY THE CONSTRUCTION TRADES FOR A FINISHED PRODUCT. A QUALITY CONTROL SUPERVISOR, DESIGNATED BY THE MANUFACTURER, SHALL REVIEW ALL WORK IN PROGRESS AND SHALL REVIEW THE FINISHED BUILDING PRIOR TO FINAL INSPECTION TO ASSURE IT IS COMPLETE AND CORRECT. THE QUALITY CONTROL SUPERVISOR SHALL HAVE THE AUTHORITY TO HAVE MATERIALS REPLACED AND WORK REDONE IN ORDER TO CORRECT FAULTY MATERIALS OR WORKMANSHIP.

GENERAL DESIGN REQUIREMENTS

1. UP TO FIFTEEN (15) MODULES, APPROXIMATELY 10' x 32', DESIGNED SO THAT THREE (3) OR MORE MODULES MAY BE JOINED TOGETHER TO FORM A COMPLETE STRUCTURE, TO MAINTAIN A POSITIVE ALIGNMENT OF FLOORS, WALLS, AND ROOF, AND TO PERMIT SIMPLE NON-DESTRUCTIVE DETACHMENT FOR FUTURE RELOCATION.
2. EACH MODULE SHALL BE PERMANENTLY IDENTIFIED WITH (2) IMPRINTED (STAMPED, NOT ENGRAVED) METAL IDENTIFICATION TAGS 3"x1-1/2" MINIMUM SIZE WITH THE FOLLOWING INFORMATION:
   A. MANUFACTURER'S NAME AND BUILDING SERIAL NUMBER.
   B. DESIGN WIND SPEED / EXPOSURE
   C. DESIGN SEISMIC S_{DS} VALUE
   D. DESIGN ROOF LIVE LOAD & SNOW LOAD.
   E. DESIGN FLOOR LIVE LOAD
   F. D.S.A. APPLICATION NUMBER
3. 2-TAGS PER MODULE: ONE ON EXTERIOR, AND ONE ON MODULE BEAM AT FRONT OF BUILDING ABOVE CEILING.
4. EACH MODULE SHALL BE CAPABLE OF RESISTING ALL VERTICAL AND LATERAL LOADS DURING TRANSPORTATION AND RELOCATION. (NORMAL INDUSTRY PRACTICE FOR BRACING MODULES DURING TRANSPORTATION AND RELOCATIONS IS ACCEPTABLE.) WHEN MODULES ARE ASSEMBLED JOINTS SHALL BE SEALED WITH REMOVABLE CLOSING STRIPS OR OTHER METHOD TO PRESENT A FINISHED APPEARANCE AND BE PERMANENTLY WATERPROOF.
5. EACH MODULE SHALL BE SUFFICIENTLY RIGID TO BE JACKED UP AT THE FRONT AND BACK CORNERS FOR RELOCATION WITHOUT DAMAGE OR THE MODULE SHALL HAVE LIFT LUGS AT FRONT AND BACK LOCATED AS REQUIRED SO THAT THE MODULE MAY BE JACKED UP FOR RELOCATION IN ONE PIECE WITHOUT ADDITIONAL SUPPORTS OF ANY TYPE. EVIDENCE OF EXCESSIVE BOWING DURING THE INSTALLATION OF THE MODULES WHICH, IN THE OPINION OF THE RDPRC, CAUSES EXCESSIVE WORKING AT ANY JOINT OR COMPROMISES THE STRUCTURAL INTEGRITY OF THE MODULE SHALL BE SUFFICIENT REASON FOR REJECTION OF THE MODULE.
6. FINISH AND BASE MATERIALS AT EACH MODULE SHALL TERMINATE AT INTERIOR MODULE JOINTS IN A MANNER TO JOIN FLUSH AND TIGHT WITH SAME MATERIAL IN ADJACENT MODULE SO THE MODULE MAY BE RELOCATED WITH MINIMUM CUTTING AND PATCHING.

BUILDING COMMISSIONING REQUIREMENTS

A. SITE-SPECIFIC BUILDINGS OVER 10,000 SQUARE FEET MUST BE COMMISSIONED PER CALIF. TITLE 24, PART 6 – CALIFORNIA ENERGY CODE (CEC).

SUMMARY OF COMMISSIONING REQUIREMENTS
1. OWNER'S OR OWNER REPRESENTATIVE'S PROJECT REQUIREMENTS
2. BASIS OF DESIGN
3. DESIGN PHASE DESIGN REVIEW
4. COMMISSIONING MEASURES SHOWN IN THE CONSTRUCTION DOCUMENTS
5. COMMISSIONING PLAN
6. FUNCTIONAL PERFORMANCE TESTING
7. DOCUMENTATION AND TRAINING
8. COMMISSIONING REPORT

B. COMMISSIONING IS NOT A PART OF THE PC APPROVAL.

C. COMMISSIONING, WHEN REQUIRED, SHALL BE PROVIDED BY OTHERS.

MARKERBOARD SPECIFICATIONS

MARKERBOARDS SHALL BE 24 GA. PORCELAIN STEEL FACING SHEET SUITABLE TO ACCEPT DRY ERASE FELT MARKERS. THE FACING SHEET SHALL BE LAMINATED TO PARTICLE BOARD SUBSTRATE WITH A MINIMUM DENSITY OF 45lbs./cu.ft. THE PANEL SHALL HAVE A FOIL BACKING. THE PANELS SHALL HAVE EXTRUDED ALUMINUM MOLDING AND CHALKRAIL WITH A MINIMUM OF 2 15/16" PROJECTION FROM THE FACE OF PANEL. THREE MAP HOOKS WITH CLIPS PER PANEL SHALL BE PROVIDED. ONE FLAG HOLDER, 1/2" SIZE, SHALL BE PROVIDED FOR EACH CLASSROOM. EACH CLASSROOM SHALL HAVE 2 EACH 4'x8' PANELS INSTALLED SIDE BY SIDE TO MAKE A 4'x16' PANEL, CENTERED ON THE WALL.

FOR ANCHORAGE DETAIL, SEE DETAIL 8/A4.0.

REFERENCE BRANDS: CHATFIELD-CLARKE Co, Inc. SERIES 500 OR NELSON ADAMS Co. NACO SERIES 60.

INTERIOR

1. FLOOR COVERING: PER CBC SECTION 804, COMPLY WITH NFPA 253 CLASS I OR II. COMPLY WITH ASTM E 648 FOR SPECIFIC OPTICAL DENSITY SMOKE RATING NOT TO EXCEED 450. IN EXIT PASSAGEWAYS OR CORRIDORS, THE MINIMUM CRITICAL RADIANT FLUX (CBC 804.4.2) SHALL NOT BE LESS THAN CLASS II. (CARPET SHALL BE SECURELY ATTACHED, HAVE FIRM CUSHION, PAD OR BACKING, OR NONE AT ALL. PILE YARN SHALL BE BRANDED NYLON AND HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL-CUT PILE OR LEVEL-CUT/UNCUT PILE TEXTURE. THE MAXIMUM PILE HEIGHT SHALL BE 1/2" INCH. NO CROSS SEAMS SHALL BE ALLOWED. THE CARPET DENSITY SHALL BE 4600 MINIMUM. CARPET EDGE TRIM SHALL COMPLY WITH SECTION 11B-303. COLOR TO BE SELECTED BY THE RDPRC OR OWNER.)
2. BASE: RESILIENT COVE BASE – BEST QUALITY, MOULDED RUBBER, 1/8" THICK, 4" HIGH MOULDED TOP SET COVE. PROVIDE PREFORMED BASE FOR SQUARE EXTERNAL CORNERS AND PREFORMED END STOPS WHERE BASE DOES NOT ABUT SOLID COLOR AS MANUFACTURE BY "JOHNSONITE CO.", FLEXCO, OR EQUAL. APPLY COVE TO COMPLETE PERIMETER OF CLASSROOM.
3. INTERIOR WALLS SHALL BE VINYL COVERED TACKBOARD (U.O.N.) APPLIED IN ONE CONTINUOUS LENGTH FROM FLOOR TO CEILING. THE TACKBOARD SHALL BE INDUSTRIAL INSULATION BOARD MANUFACTURED SPECIFICALLY AS A SUBSTITUTE FOR VINYL COVERED WALL PANELS. THE BOARD SHALL BE ASPHALT FREE, SHALL HAVE AN IRONED-ON COATING AND SHALL HAVE A MINIMUM DENSITY OF 18 LBS. PER FOOT. THE VINYL COATING SHALL BE MADE OF VIRGIN VINYL, CALENDERED BASE COLOR, WEIGHING A MINIMUM OF 8 OZ. PER SQUARE YARD. THE COATING BACKING SHALL BE SHEETING OR NON-WOVEN FABRIC. THE VINYL COATING SHALL BE MECHANICALLY LAMINATED, WITH THE LONG EDGES WRAPPED, TO THE TACKBOARD. TACKBOARD SHALL BE APPLIED OVER 1/2" SHEETROCK OR OSB SHEATHING. THE VINYL WALL COVERED PANEL SHALL HAVE A CLASS 'C' RATING (PER ASTM E 84 OR UL 723). FLAME SPREAD/SMOKE DEVELOPED INDEX MAXIMUMS PER NOTE #6 BELOW. THE PANEL SHALL BE APPROVED FOR CLASSROOM USE BY THE CALIFORNIA STATE FIRE MARSHAL. REFERENCE BRAND: VINYL COVERED TACKBOARD AS MANUFACTURED BY CHATFIELD-CLARKE OR COMPARABLE. CARE SHALL BE TAKEN IN MOUNTING THE TACKBOARD SO THAT THE TEXTURE OF ALL PANELS WILL HAVE THE SAME ORIENTATION AND COLOR MATCH.
4. CEILING: SUSPENDED T-BAR SYSTEM, SEE SHEET M1.4 FOR DETAILS, MATERIALS AND INSTALLATION PER ASTM C635, ASTM C636, ASTM E580, AND DSA-IR 25-2.13 AS APPLICABLE TO CLASSROOMS. PANELS SHALL BE 5/8" MINIMUM THICK, MINERAL FIBERBOARD OR VINYL-FACED FIBERGLASS LAY-IN PANELS, SQUARE EDGE, LIGHT REFLECTION 75% MINIMUM. NOISE REDUCTION COEFFICIENT OF 0.65 MINIMUM. ASTM E 84 TESTED, RATED CLASS 'C': FLAME SPREAD INDEX NOT TO EXCEED 200, SMOKE DEVELOPED INDEX RATING NOT TO EXCEED 450.
5. THE INTERIOR ENVIRONMENT SHALL BE ASSEMBLED WITH PRODUCTS THAT CONTRIBUTE TO A HEALTHY INDOOR AIR QUALITY (IAQ). THE FOLLOWING SHALL COMPLY TITLE 24, PART 11 ("CAL-GREEN"), SECTION 5.504.4. (SEE SHEET N1.0, SECTION 9C "INTERIOR AIR QUALITY CONTROL")
6. FLAME SPREAD/SMOKE-DEVELOPED INDEX (TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723, PER CBC 803.1.1):

WALL FINISH MATERIAL (CLASS 'C')	PIPE INSULATION (CLASS 'A')
FLAME SPREAD MAX = 200	FLAME SPREAD MAX = 25
SMOKE DEVELOPED MAX = 450	SMOKE DEVELOPED MAX = 450
BUILDING INSULATION (CLASS 'A')	**DUCT INSULATION (CLASS 'A')**
FLAME SPREAD MAX = 25	FLAME SPREAD MAX = 25
SMOKE DEVELOPED MAX = 450	SMOKE DEVELOPED MAX = 50

7. TOILET PARTITIONS: SOLID PLASTIC BY ACCURATE PARTITIONS CORP. OR EQUIVALENT w/ FLOOR ANCHORS, OVERHEAD BRACED OR EQUIVALENT. MINIMUM FLAME SPREAD RATING: 50. MINIMUM SMOKE DEVELOPMENT RATING: 450. (BY OTHERS)
8. INTERIOR VENTILATION: EAVE VENTS AND ATTIC VENTS SHALL BE PROVIDED WITH CORROSION-RESTANT WIRE CLOTH SCREENING, HARDWARE CLOTH, PERFORATED VINYL OR SIMILAR MATERIAL WITH OPENINGS HAVING A LEAST DIMENSION OF NOT LESS THAN 1/16" AND NOT MORE THAN 1/4" INCH, PER C.B.C. SECTION 1203.2.1.

DOORS & WINDOWS

1. EXTERIOR DOORS: METAL DOORS – 3'-0"x7'-0" HOLLOW METAL DOOR CONSTRUCTION OF 1 SHEET OF 18 GA. GRADE II STEEL ASSEMBLED PER CS242 MINIMUM, AND REINFORCED WITH 20 GA. MINIMUM FILL FOR LONG SPACES WITH MINERAL WOOL OR OTHER INSULATION. (REINFORCE BOTH FACES FOR CLOSURE.) PROVIDE FLUSH TOP ON DOORS. HARDWARE REINFORCEMENT SHALL BE 10 GA. MIN FOR HINGES, DOOR FRAME SHALL BE 16 GA. PRESSED STEEL FRAME ASTM A366 & CS242. HARDWARE REINFORCEMENT SHALL BE 10 GA. PLATE. FRAMES SHALL BE DESIGNED WITH INTEGRAL STOP AND TRIM. PROVIDE (3) ANCHORS PER JAMB PLUS ADJUSTABLE FLOOR ANCHOR. ROOMS WITH AN OCCUPANT LOAD OF FIVE OR MORE SHALL HAVE DOOR HARDWARE CAPABLE OF BEING LOCKED FROM THE INSIDE (PER CBC 1010.1.11).
2. EXTERIOR WINDOWS: PROVIDE ANODIZED ALUMINUM FRAME 5/8" MINIMUM DUAL PANE WINDOW UNITS, AS SHOWN ON FLOOR PLANS. THE 5/8" DIMENSION IS THE MINIMUM THICKNESS FOR THE DUAL GLAZED WINDOW PANEL CONSISTING OF TWO LITES OF GLASS AND THE AIR SPACE.
3. GLAZING MATERIAL SHALL BE: EXTERIOR LITE – 3/16" MINIMUM TEMPERED GLASS OR LAMINATED AS – 1 GLASS OF SOLAR GRAY GLARE REDUCING TYPE WITH A LIGHT TRANSMISSION FACTOR OF 45% MAXIMUM. INTERIOR LITE – 1/8" MINIMUM CLEAR TEMPERED. MINIMUM AIR SPACE SHALL BE 1/4" SPACE – BENT OR SEALED CORNER ALUMINUM WITH DESICCANT FILL SEALER – BUTYL PRIMARY SEAL AND POLYSULFIDE OR SILICONE SECONDARY SEAL. CERTIFICATION – ALL GLAZING TO BE CERTIFIED IN ACCORDANCE WITH ASTM E-773, E-774.
4. HEADER HEIGHT SHALL BE THE SAME AS THE DOOR. ALL OPERABLE SASH SHALL HAVE ALUMINUM SCREENS. WINDOWS SHALL NOT BE MOUNTED TO THE EXTERIOR OSB SURFACE. ALL WINDOWS SHALL MEET THE AAMA GS101-88 VOLUNTARY SPEC. FOR ALUMINUM PRIME WINDOWS AND SLIDING GLASS (ANS1), COMMERCIAL GRADE.

MECHANICAL EQUIPMENT PROTECTION

1. ALL MECHANICAL EQUIPMENT SHALL BE THOROUGLY CLEANED PROGRESSIVELY DURING CONSTRUCTION AND COMPLETION OF THE JOB. ALL OPEN ENDS OF DUCTWORK AND EQUIPMENT SHALL BE COVERED AT END OF EACH WORK DAY AND DURING SHIPMENT OF RELOCATABLE BUILDINGS

FOUNDATION CLEARANCES FROM SLOPES

1808A.7.1 BUILDING CLEARANCE FROM ASCENDING SLOPES. IN GENERAL, BUILDINGS BELOW SLOPES SHALL BE SET A SUFFICIENT DISTANCE FROM THE SLOPE TO PROVIDE PROTECTION FROM SLOPE DRAINAGE, EROSION AND SHALLOW FAILURES. EXCEPT AS PROVIDED IN SECTION 1808A.7.5 AND FIGURE 1808A.7.1, THE FOLLOWING CRITERIA WILL BE ASSUMED TO PROVIDE THIS PROTECTION. WHERE THE EXISTING SLOPE IS STEEPER THAN ONE UNIT VERTICAL IN ONE UNIT HORIZONTAL (100-PERCENT SLOPE), THE TOE OF THE SLOPE SHALL BE ASSUMED TO BE AT THE INTERSECTION OF A HORIZONTAL PLANE DRAWN FORM THE TOP OF THE FOOTING AND A PLANE DRAWN TANGENT TO THE SLOPE AT AN ANGLE OF 45 DEGREES (0.79 RAD) TO THE HORIZONTAL. WHERE A RETAINING WALL IS CONSTRUCTED AT THE TOE OF THE SLOPE, THE HEIGHT OF THE SLOPE SHALL BE MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE SLOPE.

1808A.7.2 FOUNDATION SETBACK FROM DESCENDING SLOPE SURFACE. FOUNDATIONS ON OR ADJACENT TO SLOPE SURFACES SHALL BE FOUNDED IN FIRM MATERIAL WITH AN EMBEDMENT AND SET BACK FROM THE SLOPE SURFACE SUFFICIENT TO PROVIDE VERTICAL AND LATERAL SUPPORT FOR THE FOUNDATION WITHOUT DETRIMENTAL SETTLEMENT. EXCEPT AS PROVIDED FOR IN SECTION 1808A.7.5 AND FIGURE 1808A.7.1, THE FOLLOWING SETBACK IS DEEMED ADEQUATE TO MEET THE CRITERIA. WHERE THE SLOPE IS STEEPER THAN 1 UNIT VERTICAL IN 1 UNIT HORIZONTAL 100-PERCENT SLOPE), THE REQUIRED SETBACK SHALL BE MEASURED FROM AN IMAGINARY PLANE 45 DEGREES (0.79 RAD) TO THE HORIZONTAL PROJECTED UPWARD FROM THE TOE OF THE SLOPE.

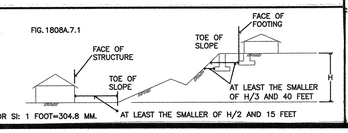


FIG.1808A.7.1

FOR SI: 1 FOOT=304.8 MM.

FIRE EXTINGUISHER

1. EACH CLASSROOM SHALL BE EQUIPPED WITH PRESSURE TYPE FIRE EXTINGUISHERS WITH 2A10BC UL RATING. MOUNT ON THE INTERIOR WALL OF THE BUILDING NEAR THE DOORWAY(S) AT A MAXIMUM HEIGHT OF 4 FEET TO THE TOP OF THE OPERATING HANDLE, AND THE BOTTOM OF F.E. MOUNTED 27" OR LESS A.F.F. FIRE EXTINGUISHERS SHALL BE TOTALLY CHARGED AND HAVE A DIAL INDICATING THE STATE OF CHARGE.

ACCESSIBILITY STANDARDS

REFERENCE: 2016 CALIFORNIA BUILDING CODE (TITLE 24, PART 2, CCR), CHAPTER 11B "ACCESSIBILITY TO PUBLIC..."

SECTION 11B-206.2 BUILDING ACCESSIBILITY, GENERAL
1. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ALL BUILDINGS, ELEMENTS, AND AREAS, AND EACH FLOOR INCLUDING MEZZANINES.

SECTION 11B-216 SIGNAGE
(ALSO REFER TO SECTIONS 11B-703, 1009.9, 1009.10, 1023.9)
SIGNAGE IS REQUIRED:
1. TO IDENTIFY PERMANENT ROOMS & SPACES
2. TO PROVIDE DIRECTIONS AND INFORMATION ABOUT SPACES & FACILITIES
3. TO IDENTIFY MEANS OF EGRESS
   A. AREAS OF REFUGE AND AREA FOR ASSISTED RESCUE (PER 1009.9 AND 1009.11)
   B. DIRECTIONS TO AN EXIT (PER 1009.10)
   C. DELAYED EGRESS LOCKS (PER 1010.1.9.7 ITEM 6)
   D. EXIT WAYS (PER 1013.4)
      - AT EACH GRADE LEVEL EXTERIOR EXIT DOOR
      - AT AN EXIT BY MEANS OF A STAIRWAY OR RAMP ("EXIT STAIR DOWN" OR "EXIT RAMP DOWN")
      - AT AN EXIT ROUTE VIA ENCLOSURE, PASSAGEWAY, CORRIDOR, HALLWAY, ETC.
      - OTHER HORIZONTAL WAYS WHERE THE EXIT OR EXIT PATH IS NOT IMMEDIATELY VISIBLE (PER 1013.1)
4. TO IDENTIFY PARKING SPACES
5. TO IDENTIFY ENTRANCES OR ROUTE TO AN ACCESSIBLE ENTRANCE
6. TO IDENTIFY ELEVATORS
7. TO IDENTIFY TOILET ROOMS
8. TO IDENTIFY PUBLIC TELEPHONES, TTY and ASSISTIVE LISTENING SYSTEMS

SIGNS, WHERE LOCATED WITHIN AN ACCESSIBLE ROUTE, MOUNTED LESS THAN 80" ABOVE THE FINISHED FLOOR, MUST HAVE ROUNDED EDGES OR AN EASED RADIUS MINIMUM OF 0.125".

SECTION 11B-404.2.8 DOOR CLOSING SPEED
1. THE SWEEP PERIOD OF ACCESSIBLE DOORS SHALL BE 5 SECONDS MINIMUM, FROM AN OPEN DOOR POSITION OF 90 DEGREES, TO A DOOR POSITION OF 12" FROM THE LATCH.

SECTION 11B-404.2.9 DOOR OPENING FORCE
1. THE EFFORT TO OPEN ANY DOOR SHALL NOT EXCEED 5LBS, EXCEPT FIRE DOORS, WHICH SHALL NOT EXCEED 15LBS FORCE. THE MINIMUM FORCE NEEDED SHALL BE USED.

SECTIONS 11B-404.2.4.3 RECESSED DOORS
1. DOORS RECESSED 8" OR MORE SHALL HAVE STRIKE EDGE CLEARANCES IN ACCORDANCE WITH FIGURE 11B-404.2.4.3.

SECTION 11B-405.5 RAMP WIDTH
1. THE CLEAR WIDTH OF A RAMP SHALL BE 48" MINIMUM.

SECTION 11B-505 HANDRAILS
1. THE TOP OF THE GRIPPING SURFACE OF HANDRAILS SHALL BE BETWEEN 34" AND 38", MEASURED VERTICALLY FROM WALKING SURFACES AND STAIR NOSINGS.
2. HANDRAILS SHALL HAVE AT LEAST 1-1/2" CLEARANCE ALL AROUND.
3. HANDRAILS SHALL EXTEND BEYOND, AND IN THE SAME DIRECTION, OF STAIRS AND RAMPS.

SECTION 11B-608.5 WATER CONTROLS
1. CONTROLS TO OPERATE A WATER FAUCET OR OUTLET SHALL BE A SINGLE-LEVER DESIGN, CAPABLE OF BEING OPERATED WITH A SINGLE HAND, AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST.
2. THE FORCE REQUIRED TO OPERATE CONTROLS SHALL NOT EXCEED 5 LBS.

SECTION 11B-604 TOILET ROOMS AND BATHING ROOMS
1. AN ACCESSIBLE TOILET STALL SHALL HAVE A MINIMUM WIDTH OF 60" AND SHALL BE EQUIPPED WITH A DOOR THAT HAS AN AUTOMATIC-CLOSING DEVICE, AND SHALL HAVE A CLEAR, UNOBSTRUCTED OPENING WIDTH OF 32 INCHES WHEN LOCATED AT THE END AND 34 INCHES WHEN LOCATED AT THE SIDE, WITH THE DOOR POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.
2. THE INSIDE AND OUTSIDE OF THE ACCESSIBLE COMPARTMENT DOOR SHALL BE EQUIPPED WITH A LOOP OR U-SHAPED HANDLE IMMEDIATELY BELOW THE LATCH. THE LATCH SHALL BE FLIP-OVER STYLE, SLIDING OR OTHER HARDWARE NOT REQUIRING THE USER TO GRASP OR TWIST.
3. EXCEPT FOR DOOR-OPENING WIDTHS AND DOOR SWINGS, A CLEAR, UNOBSTRUCTED ACCESS OF NOT LESS THAN 44 INCHES SHALL BE PROVIDED TO THE WATER CLOSET COMPARTMENTS DESIGNED FOR USE BY PERSONS WITH DISABILITIES.
4. A 27"-29" MINIMUM DIMENSION IS REQUIRED FOR LAVATORY/SINK KNEE CLEARANCE, WHICH IS THE DISTANCE FROM THE FINISH FLOOR TO THE UNDERSIDE OF THE LAVATORY/SINK.
5. TABLE 11B-604.9 SUGGESTS DIMENSIONS FOR CHILDREN'S USE.

OUTDOOR VENTILATION REQUIREMENTS:

1. CLASSROOMS ARE DESIGNED FOR MINIMUM OUTSIDE AIR OF 0.38 CFM PER SF. PER THE CALIFORNIA ENERGY CODE (CEC), SPACES SHALL BE DESIGNED TO THE MINIMUM REQUIREMENTS AS SPECIFIED OR TO 15 CFM PER OCCUPANT, WHICHEVER IS GREATER. PC MANUFACTURER SHALL VERIFY WITH THE SCHOOL DISTRICT THE EXPECTED NUMBER OF OCCUPANTS IN THE CLASSROOM SO THAT THE OUTDOOR VENTILATION RATE FOR MECHANICAL SYSTEMS CAN BE ADEQUIATELY ADJUSTED UPON SITE INSTALLATION OF THE BUILDING. PC MANUFACTURER SHALL ALSO CONFIRM WITH HVAC EQUIPMENT MANUFACTURER THAT THE SELECTED EQUIPMENT WILL BE ABLE TO PERFORM TO ACCOMMODATE THE ADDITIONAL OUTDOOR AIR REQUIREMENTS UNDER PEAK DESIGN CONDITIONS FOR THE CLIMATE ZONE IN WHICH THE BUILDING IS LOCATED. AT OCCUPANCY, THE BUILDING MANUFACTURER SHALL PROVIDE TO BUILDING OWNER A DESCRIPTION OF THE QUANTITIES OF OUTDOOR AND RECIRCULATED AIR THAT THE VENTILATION SYSTEMS ARE DESIGNED TO PROVIDE TO EACH AREA.
2. FOR CLASSROOMS GREATER THAN 750 SF OCCUPANT SENSOR VENTILATION CONTROL DEVICES SHALL BE INSTALLED PER CEC 120.2(e)3, AND SHALL OPERATE IN ACCORDANCE WITH CEC 120.1(c)5.

LIGHT GAUGE METAL STUDS & COLD FORMED STEEL

1. ALL LIGHT GAUGE METAL STUDS & COLD FORMED STEEL SHALL BE FORMED FROM STEEL THAT CORRESPONDS TO THE MINIMUM REQUIREMENTS OF THE AISI S100-07/S2-10.
2. ALL GALVANIZED STUDS, JOISTS, TRACK, BRIDGING AND ACCESSORIES SHALL BE FORMED FROM STEEL HAVING A GALVANIZED COATING MEETING THE REQUIREMENTS OF ASTM A653.
3. CUSTOM FORMED SHAPES SHALL BE BENT FROM ASTM A1011 STEEL SHEETS.
4. STUD AND TRACK DESIGNATIONS ARE BASED ON STEEL STUD MANUFACTURERS ASSOCIATION. ICC-ES EVALUATION REPORT ESR-3064P.
5. GALVANIZED FRAMING PRODUCTS SHALL BE COATED IN ACCORDANCE WITH 2012 AISI S200-12, SECTION A4. PRODUCTS WILL BE FURNISHED WITH A G-60 OR EQUIVALENT COATING IF SPECIFIED, AND SHALL BE IN CONFORMANCE WITH ASTM C-955, OTHERWISE, G-90 OR EQUIVALENT COATING WILL BE PROVIDED.
6. FLAT STRAP CROSS BRACING AT ROOF DIAPHRAGMS SHALL BE:
   6.1. ASTM A1011 SS GRADE 50 (F_Y = 50 KSI),
   6.2. ASTM A1008 SS GRADE 50 (F_Y = 50 KSI), OR
   6.3. ASTM A653 SS GRADE 50 (F_Y = 50 KSI)
7. WELDING OF LIGHT GAUGE METAL STUDS & COLD FORMED STEEL SHALL COMPLY WITH AWS D1.3-08.

FASTENERS FOR ATTACHMENT TO STEEL

1. SCREWS FOR STEEL TO STEEL CONNECTIONS SHALL BE TEKS PER ICC ESR-1976 OR TEKS SELECT PER ICC ESR-3223 BY ITW BUILDEX, U.O.N.
   A. HEAD TYPE AS REQUIRED FOR APPLICATION.
   B. SCREW LENGTHS TO HAVE 3 EXPOSED THREADS MIN.
2. SHOT PINS SPECIFIED FOR PLYWOOD DIAPHRAM TO STEEL CONNECTIONS SHALL BE ET&F PINS PER IAPMO UES REPORT ER-0335.
3. SHOT PINS FOR ATTACHMENT OF 2X WOOD OR LIGHT GAUGE STEEL MEMBERS TO STRUCTURAL STEEL SHALL BE BY HILTI UNO.

METAL FLOOR DECK

1. SECTION PROPERTIES SHALL BE DERIVED IN ACCORDANCE WITH AISI, "SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, LATEST EDITION."
2. METAL DECKING IS TO BE ATTACHED TO THE STRUCTURAL FRAME IN CONFORMANCE WITH AWS D1.1 AND D1.3, "SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURES."
3. ASTM REFERENCE NUMBERS: ASTM A653, STEEL SHEET, ZINC-COATED (GALVANIZED) OR ZINC-IRON ALLOY-COATED (GALVANEALED) BY THE HOT-DIP PROCESS STRUCTURAL (PHYSICAL) QUALITY.
4. STEEL DECK INSTITUTE (SDI)-METAL FLOOR DECK PROFILES SHALL BE IN CONFORMANCE WITH SDI STANDARDS.
5. METAL FLOOR DECK TO BE ASC STEEL DECK PER IAPMO ER-0329:
   5.1. BH-36, 18 GAUGE, 1½" DEEP x 36" WIDE
   5.2. 3WxH-36, 18 GAUGE, 3" DEEP x 36" WIDE
   5.3. 3WH-36, 18 GAUGE, 3" DEEP x 36" WIDE
6. DECK UNITS ARE TO BE FABRICATED FROM SHEET STEEL CONFORMING TO:
   6.1. ASTM A653 SS, F_Y=50 KSI WITH A GALVANIZED COATING, G-60 OR G-90.

ABBREVIATION LEGEND

A	ACCESSIBLE	FURR	FURRED (-ING)	RES	RESILIENT
AC	ASPHALT CONCRETE	GA	GAUGE	RDWD	REDWOOD
A/C	AIR CONDITIONING	GB	GYPSUM BOARD	RWL	RAIN WATER LEADER
ACI	AMERICAN CONCRETE INSTITUTE	GL	GLASS OR GLAZING		
ACOUS	ACOUSTICAL	GLV/GALV	GALVANIZED	SCH/SCHED	SCHEDULE
ADD	ADDENDUM	GSM	GALVANIZED SHEET METAL	SD	STORM DRAIN
ADD'L	ADDITIONAL	GYP	GYPSUM	SDSTS	SELF DRILLING SELF TAPPING SCREW
ADJ	ADJUSTABLE OR ADJACENT	GYP.BD.	GYPSUM BOARD	SEC	SECTION
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	HB	HOSE BIBB	SEP	SEPARATION
AISI	AMERICAN IRON AND STEEL INSTITUTE	HC	HOLLOW CORE	SF	SQUARE FEET
ALT	ALTERNATE	HDR	HEADER	SHT	SHEET
ALUM	ALUMINUM	HDW	HARDWOOD	SHTG	SHEATHING
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	HF	HEM FIR	SIM	SIMILAR
ARCH	ARCHITECT(URAL)	HM	HOLLOW METAL (STEEL)	SMS	SHEET METAL SCREW
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	HOR./HORIZ.	HORIZONTAL	SP	STRUCTURAL PLYWOOD
AWC	AMERICAN WOOD COUNCIL	HSS	HOLLOW STRUCTURAL SECTION (STEEL)	SPEC	SPECIFICATIONS
AWPA	AMERICAN WOOD PROTECTION ASSOCIATION	HT	HEIGHT	SQ	SQUARE
AWS	AMERICAN WELDING SOCIETY	HVAC	HEATING VENTILATING AIR CONDITIONING	SS	STAINLESS STEEL
		HW	HOT WATER	STAGG	STAGGERED
BD	BOARD	IAPMO	INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS	STN	STAIN
BLDG	BUILDING	ICC	INTERNATIONAL CODE COUNCIL	STD	STANDARD
BLK	BLOCK	ID	INSIDE DIAMETER	STL	STEEL
BLKG	BLOCKING	IN	INCH	STS	SELF TAPPING SCREW
BLW	BELOW	INSUL	INSULATE (D), (ION)	STSMS	SELF TAPPING SHEET METAL SCREW
BM	BEAM	INT	INTERIOR	T&B	TOP AND BOTTOM
BN	BOUNDARY NAILING	INV	INVERT	T&G	TONGUE AND GROOVE
BOT/BOTT	BOTTOM	IR	INTERPRETATION OF REGULATIONS	TEMP	TEMPERED
BTWN	BETWEEN	ISA	INTERNATIONAL SYMBOL OF ACCESSIBILITY/ACCESS	THRU	THROUGH
BUR	BUILT UP ROOFING	JT	JOINT	TJ	TOOL JOINT
C	CARPET			TOC	TOP OF CURB, CRICKET, OR CONCRETE
CAB	CABINET	KSI	KIPS PER SQUARE INCH (KIPS = 1,000LBS)	TOP	TOP OF PARAPET
CB	CATCH BASIN	LAM	LAMINATE(D)	TOS	TOP OF SLAB, SHEATHING, OR STEEL
CBC	CALIFORNIA BUILDING CODE	LAV	LAVATORY

DOOR SCHEDULE

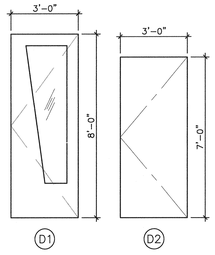
DOOR NO.	DOOR TYPE	DOOR SIZE	QUANTITY	MATERIAL	FINISH	HARDWARE SET NO.	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	REMARKS
1	D1	3'-0" x 8'-0"	2	HM	PT	B	F1	AL	CA	HARDWARE LOCKABLE FROM THE INSIDE, SEE DOOR NOTE #3
2	D2	3'-0" x 7'-0"	1	SC	CLR	D	F2	STL	PT	

DOOR ABBREVIATIONS

HM – HOLLOW METAL
AL – ALUMINUM
S – STEEL
SST – STAINLESS STEEL
STL – STEEL FRAME, 16ga. FULLY WELDED
WWF – WINDOW WALL FRAME
SC – SOLID CORE WOOD
HC – HOLLOW CORE WOOD
PT – PAINTED
CA – CLEAR ANODIZED
BR – BRONZE ANODIZED
CLR – CLEAR FINISH

DOOR NOTES

1. DOORS SHALL COMPLY WITH C.B.C. SECTION 1010.
2. CLASSROOMS ≥ 1000 S.F WILL REQUIRE PANIC HARDWARE THAT COMPLIES WITH C.B.C. SECTION 1010.1.10.
3. PER C.B.C. 1010.1.11: PROVIDE LOCKS THAT ALLOW DOORS TO CLASSROOMS AND ANY ROOM WITH AN OCCUPANCY OF FIVE OR MORE PERSONS TO BE LOCKED FROM THE INSIDE. LOCKS SHALL COMPLY WITH C.B.C. SECTION 1010.1.9.

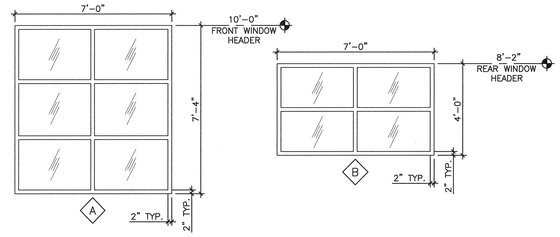


WINDOW SCHEDULE

WINDOW TYPE	QTY.	FUNCTION	'W' WIDTH	'H' HEIGHT	FINISH	GLASS TYPE	U FACTOR	SHGC	VT MIN	MIN STC RATING	REMARKS
A	4	FIXED	7'-0"	7'-4"	CLEAR ANODIZED	ATLANTICA	0.780	0.430	0.37	27	INOPERABLE
B	3	FIXED	7'-0"	4'-0"	CLEAR ANODIZED	ATLANTICA	0.780	0.430	0.37	27	INOPERABLE

WINDOW NOTES

1. EXTERIOR LITE – 3/16" MINIMUM TEMPERED GLASS, OR LAMINATED AS 1 GLASS OF SOLAR GRAY GLARE REDUCING TYPE WITH A LIGHT TRANSMISSION FACTOR OF 45% MAXIMUM.
2. WINDOWS THAT MEETS ALL OF THE FOLLOWING CONDITIONS SPECIFIED IN SECTION 2406.4.3, SHALL BE CONSIDERED A HAZARDOUS LOCATION, SHALL PASS THE IMPACT TEST REQUIREMENTS IN ACCORDANCE WITH "CPSC 16 CFR PART 1201" PER SECTION 2406.2, (WITH A TEST CRITERIA OF CATEGORY II, UNLESS OTHERWISE INDICATED IN C.B.C. TABLE 2406.2(1)), AND SHALL CONTAIN FULLY TEMPERED SAFETY GLAZING:
   A. THE EXPOSED AREA OF AN INDIVIDUAL PANE IS GREATER THAN 9 SQUARE FEET.
   B. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18" ABOVE FINISH FLOOR.
   C. THE TOP EDGE OF THE GLAZING IS GREATER THAN 36" ABOVE FINISH FLOOR.
   D. ONE OR MORE WALKING SURFACE(S) ARE WITHIN 36", MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE PLANE OF THE GLAZING.
3. WINDOWS WITH MAXIMUM HEIGHT GREATER THAN 6'-0" SHALL EITHER:
   A. CONTAIN FULLY TEMPERED SAFETY GLAZING PER SECTION 2406.4.3 OF THE CBC, OR;
   B. MEET THE TESTING REQUIREMENTS OF ASCE 7-10, SECTION 13.5.4.1 FOR STOREFRONTS GLAZING.



NOTE: WINDOWS ARE INOPERABLE.

FINISHES

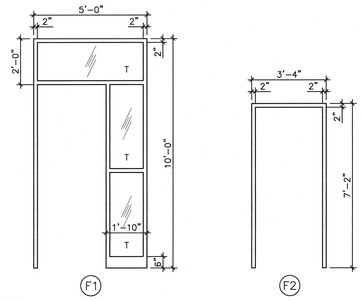
ROOM NUMBER	ROOM NAME	FLOOR	BASE	WALLS FRONT	WALLS REAR	WALLS RIGHT	WALLS LEFT	CEILING	CEILING HEIGHT	REMARKS
101	CLASSROOM	C	D	F	F	F	F	K	8'-3" MIN	WALK-OFF MAT AT ENTRY DOOR
102	CLASSROOM	C	D	F	F	F	F	K	8'-3" MIN	WALK-OFF MAT AT ENTRY DOOR
102A	STAFF RR	N	N	N	N	N	N	M	8'-6"	

FINISH INDICATOR OPTIONS

A – CARPET; PER STATE OF CALIF SPEC COMPLYING WITH GROUP 1, TYPE A OR TYPE B, CLASS 2, DENSITY 4600.
B – VINYL SHEET FLOORING; 0.6 MIN, C.O.F. PER ASTM D 2047
C – VCT; ARMSTRONG, STANDARD, OR EXCELON.
D – TOP SET BASE; 4"
E – TOP SET BASE; 6"
F – WALL FINISH; 1/2" VINYL TACKBOARD CLASS 1 OVER 1/2" GYP BOARD BACKING
G – 1/2" W.R. GYP BOARD; TAPE, PAINTED FINISH
H – 1/2" GYP BOARD; TAPE, PAINTED FINISH
J – 3/32" F.R.P.; OVER 1/2" W.R. GYP BOARD
K – ACOUSTICAL LAY-IN GRID CEILING PANELS; 2'x2' OR 2'x4'
L – 1/2" VINYL TACKBOARD; CLASS 1, OVER 5/8" TYPE "X" GYP BOARD BACKING
M – 5/8" TYPE 'X' GYP BOARD; TAPE, TEXTURE, PAINTED FINISH
N – CERAMIC TILE – (FULL HEIGHT AT WALLS)
O – EXPOSED CONCRETE WITH CONCRETE SEALER
P – CLOUD CEILING PANELS

DOOR TYPES

T = TEMPERED



DOOR HARDWARE SCHEDULE

A	~~EXTERIOR DOOR LOCKSET w/LEVER RHODES SCHLAGE ND95PD~~
B	EXTERIOR DOOR PANIC BAR w/PULL ON EXTERIOR VON DUPRIN AX22NL (REQUIRED WHEN OCCUPANT LOAD IS 50 OR MORE)
C	~~INTERIOR PASSAGE COPPER CREEK 6220 PASSAGE w/ADA LEVER~~
D	INTERIOR RESTROOM COPPER CREEK 6231-RESTROOM w/ADA LEVER
E	~~INTERIOR ENTRY/OFFICE COPPER CREEK 6241-ENTRY/OFFICE w/ADA LEVER~~
F	~~INTERIOR STOREROOM COPPER CREEK 6250-STOREROOM w/ADA LEVER~~
G	~~INTERIOR CLASSROOM COPPER CREEK 6260-CLASSROOM w/ADA LEVER~~

EXTERIOR DOOR HARDWARE

1. HINGES: HAGER 4-1/2x4-1/2 BUTTS, BB1279 US26D, 1-1/2 PAIR PER DOOR, WITH SET SCREW IN BARREL AND BALL BEARING DESIGN.
2. CLOSER: NORTON 8500DA OR 8500BF SERIES, LCN 1460 DEL SERIES OR EQUAL. (5 LBS. MAX. PRESSURE)
3. WEATHERSTRIPPING: ALL EXTERIOR DOORS SHALL BE WEATHERSTRIPPED WITH PEMKO 299D, ULTRA WS007 OR EQUAL, AT DOOR JAMBS AND HEAD.
4. THRESHOLD: THRESHOLD SHALL BE PEMKO 271 AV 5" ALUMINUM WITH PEMKO 216 AV ULTRA TH042 DOOR BOTTOM.
5. LOCKDOWN: INTERIOR TEACHERS' MANUAL LOCK FOR CAMPUS LOCK DOWN CRITERIA – REQUIRED FOR STATE-FUNDED SCHOOLS, PER EDUCATION CODE SECTION 17075.50 (AND ALSO CBC 1010.1.11): PROVIDE LOCKS THAT ALLOW DOORS TO CLASSROOMS AND ANY ROOM WITH AN OCCUPANCY OF FIVE OR MORE PERSONS TO BE LOCKED FROM THE INSIDE. LOCKS SHALL COMPLY WITH C.B.C. SECTION 1010.1.9.

*ADDITIONAL DOORS MAY BE REQUIRED BASED ON BUILDING LAYOUT.

WINDOW TYPES

ROOM FINISHES SCHEDULE

AMS
American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 – Fax (209) 825-7018
www.americanmodular.com

PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE

TYPICAL SCHEDULES
DOORS, WINDOWS
& FINISHES

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT
RICHARD PATRICK CONNOR
No. C-26351
Exp. 3-31-19
STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119729
AC FCS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-116071

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

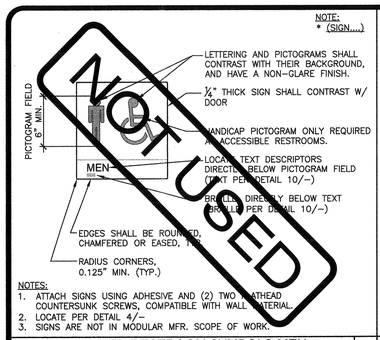
REVISIONS

DRAWN BY:	AS
SCALE:	AS NOTED
DATE:	01/04/19

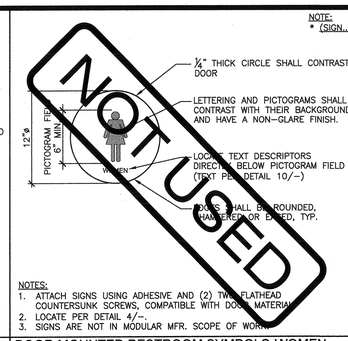
SHEET NUMBER

N3.0

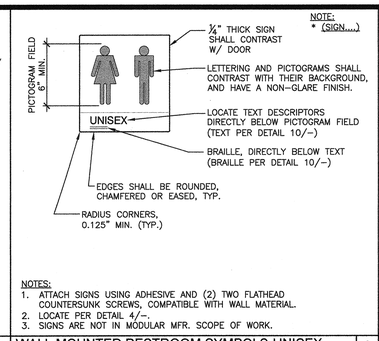
02-XXXXX - 24x36 Gen7 BUILDINGS - SHEETS - 1/4/2019 8:24 AM PLOTTED: 1/4/2019 11:58 AM M:\Projects\1000-1999\1300-1399\1321-18 Glendale USD - Crescenta Valley HS\PW\Submittal\SHEETS\A - 02 - 116071 - Crescenta GEN7 - N3.0 - SchSheets.dwg



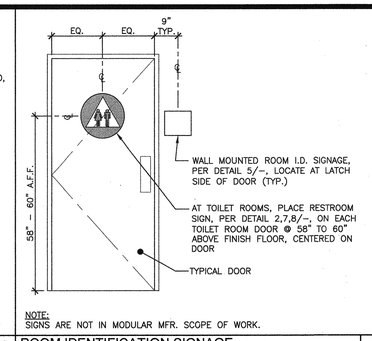
WALL MOUNTED RESTROOM SYMBOLS-MEN — NOT TO SCALE — 1



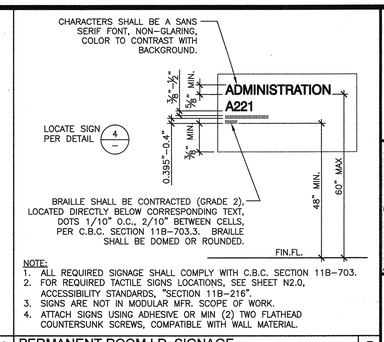
DOOR MOUNTED RESTROOM SYMBOLS-WOMEN — NOT TO SCALE — 2



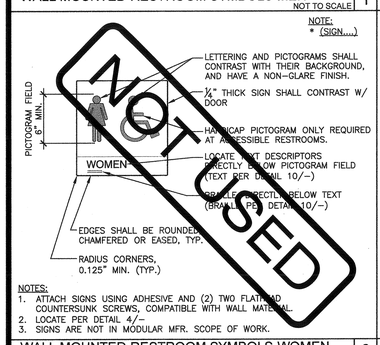
WALL MOUNTED RESTROOM SYMBOLS-UNISEX — NOT TO SCALE — 3



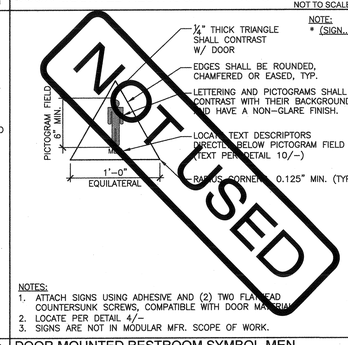
ROOM IDENTIFICATION SIGNAGE — NOT TO SCALE — 4



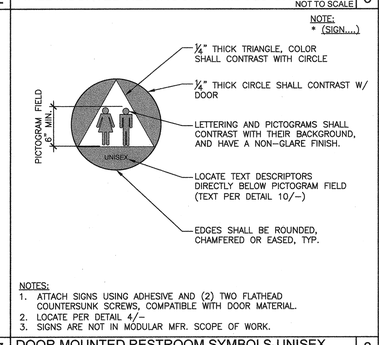
PERMANENT ROOM I.D. SIGNAGE — NOT TO SCALE — 5



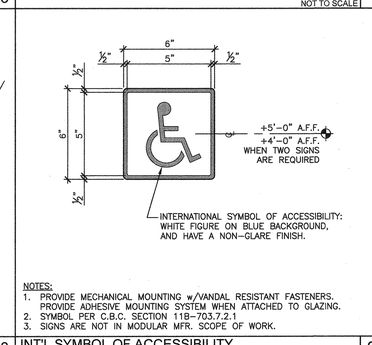
WALL MOUNTED RESTROOM SYMBOLS-WOMEN — NOT TO SCALE — 6



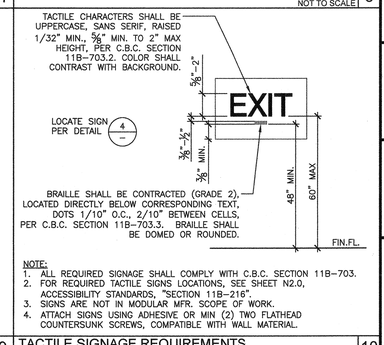
DOOR MOUNTED RESTROOM SYMBOL-MEN — NOT TO SCALE — 7



DOOR MOUNTED RESTROOM SYMBOLS-UNISEX — NOT TO SCALE — 8



INT'L SYMBOL OF ACCESSIBILITY — NOT TO SCALE — 9



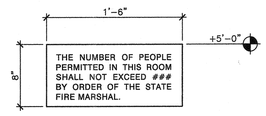
TACTILE SIGNAGE REQUIREMENTS — NOT TO SCALE — 10

A. TYPESTYLE: 1" HIGH BLOCK 1/16" THICK ENGRAVED PLASTIC.

B. MOUNTING: (4) #8x1" SCREWS OR SELF-ADHESIVE. HEIGHT AS SHOWN.

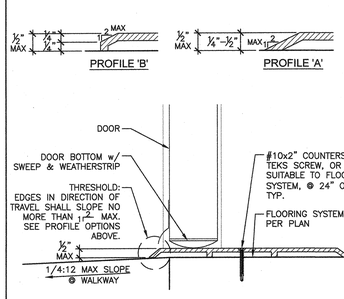
C. CAPACITY POSTING PER C.B.C. SECTION 1004.3 TITLE 19 C.C.R., SECTION 3.30: "THIS ROOM SHALL BE POSTED WITH A DURABLE SIGN NEAR THE MAIN EXIT FROM THE ROOM".

D. THE SIGN SHALL BE WORDED AS FOLLOWS, WITH THE APPROPRIATE CAPACITY NUMBER LISTED:

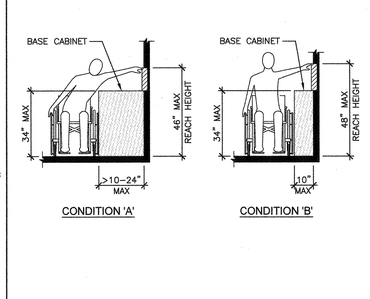


NOTE:
SIGNS ARE NOT IN MODULAR MFR. SCOPE OF WORK.

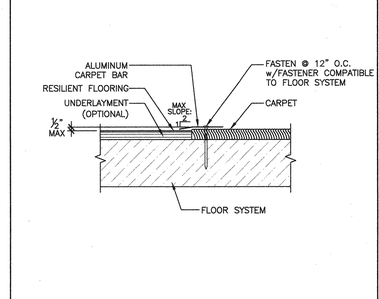
OCCUPANT LOAD SIGN — NOT TO SCALE — 11



THRESHOLD @ EXTERIOR DOOR — NOT TO SCALE — 12



SIDE REACH AT BASE CABINET — NOT TO SCALE — 13



FLOORING TRANSITION DETAIL — NOT TO SCALE — 14

EGRESS SIGNAGE IS REQUIRED:
- TO PROVIDE DIRECTIONS TO AN EXIT (PER C.B.C. 1009.10)
- AT EXIT WAYS (PER C.B.C. 1013.4)
  1. AT EACH GRADE LEVEL EXTERIOR EXIT DOOR
  2. AT AN EXIT BY MEANS OF A RAMP ("EXIT RAMP DOWN")
  3. AT AN EXIT ROUTE VIA ENCLOSURE, PASSAGEWAY, CORRIDOR, HALLWAY, ETC.
  4. OTHER HORIZONTAL WAYS WHERE THE EXIT OR EXIT PATH IS NOT IMMEDIATELY VISIBLE (PER C.B.C. 1013.1)

SIGNAGE PER C.B.C. SECTION 11B-216. (ALSO REFER TO SECTIONS 11B-703, 1009.9, 1009.10, 1023.9)

SIGN REQUIREMENTS PER DETAIL 10 & 16

A. EXIT

B. NOT USED.

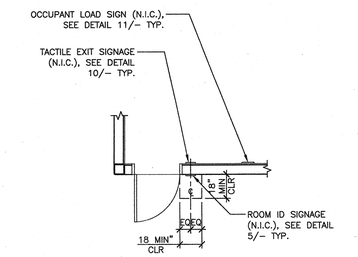
C. EXIT RAMP DOWN

D. EXIT ROUTE

E. TO EXIT

NOTE:
1. SIGNS ARE NOT IN MODULAR MFR. SCOPE OF WORK.

EGRESS SIGNAGE — NOT TO SCALE — 15



TYPICAL CLASSROOM SIGNAGE LOCATION — NOT TO SCALE — 16

NOT USED — 17

NOT USED — 18

NOT USED — 19

NOTE:
* (SIGN....) SHALL CONTRAST WITH BACKGROUND.

SHEET NOTES

AMS®
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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ACCESSIBILITY STANDARDS AND DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — RANDY PATRICK CHILDERS — No. C-30631 — Exp. 3-31-19 — STATE OF CALIFORNIA

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PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP# 11972 2
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS BY
DATE 7 10 18

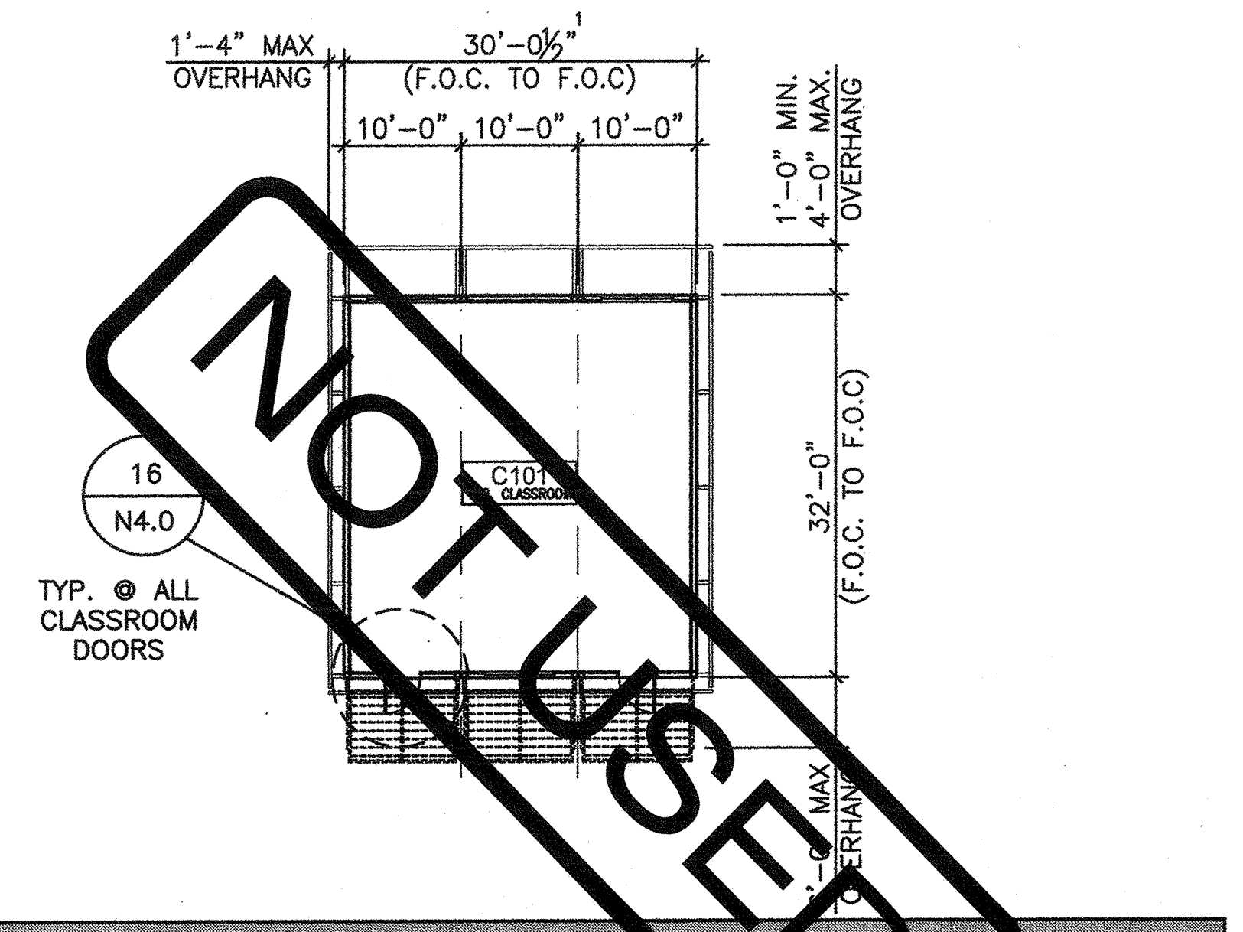
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS
1
2
3
4

DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER

N4.0

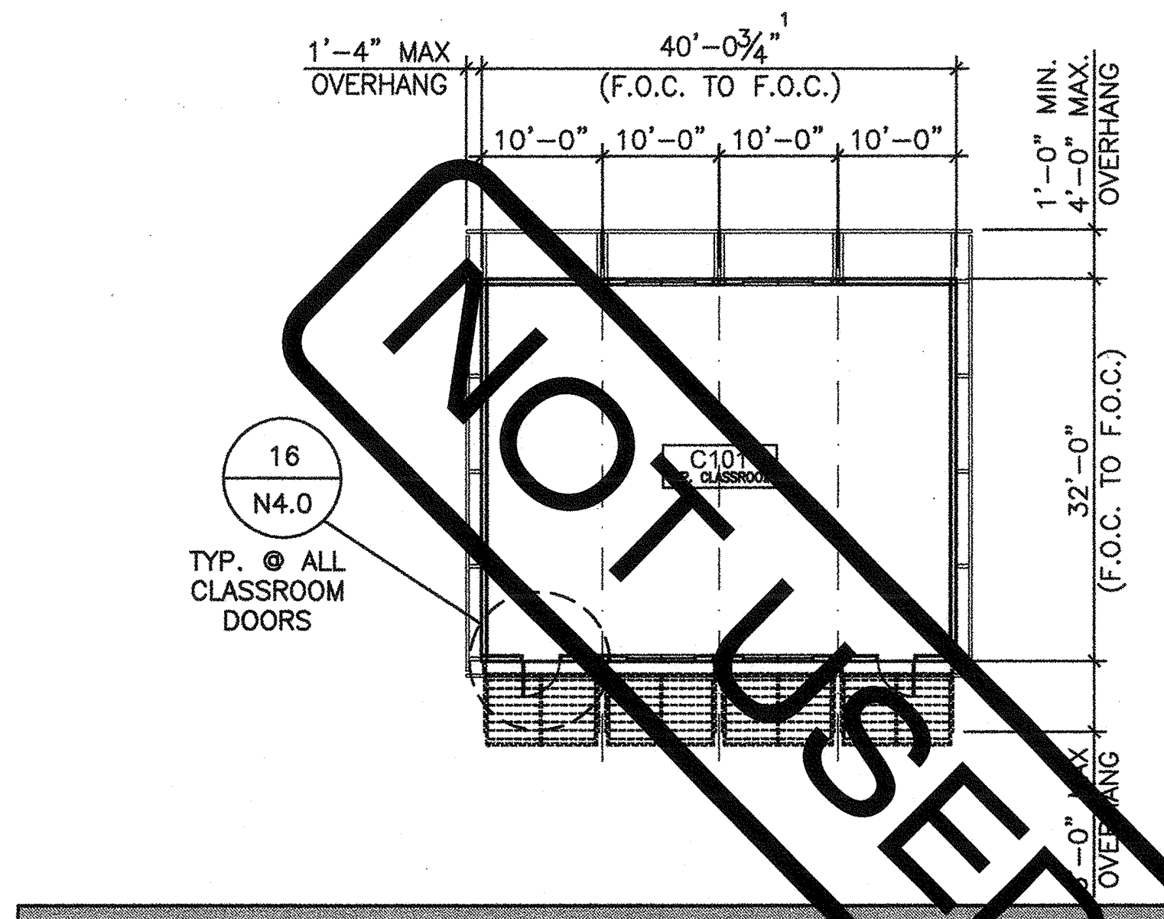


BUILDING DATA					
BUILDING SIZE	OVERALL SIZE[1]	SQUARE FOOTAGE PER FLOOR*	SQ.FT. ALLOWED PER FLOOR	MAXIMUM OCCUPANT LOAD (LOAD FACTOR 20)	EGRESS INCHES REQUIRED (0.2 PER OCCUPANT)
30' x 32'	30'-0½"	960	9500	48	9.5**

*THE BUILDING SQUARE FOOTAGE IS SUBJECT TO INCREASE AS PERMITTED BY C.B.C. SECTION 506.2 AND 506.3. SEE SHEET NOTE 2.
**MINIMUM EGRESS WIDTH SHALL BE 34" , OR DIMENSION GIVEN IN BUILDING DATA, WHICHEVER IS GREATER.
1. SEE GENERAL NOTE #7.

30' x 32' BUILDING FLOOR PLAN

SCALE: 1/16" = 1'-0" 1

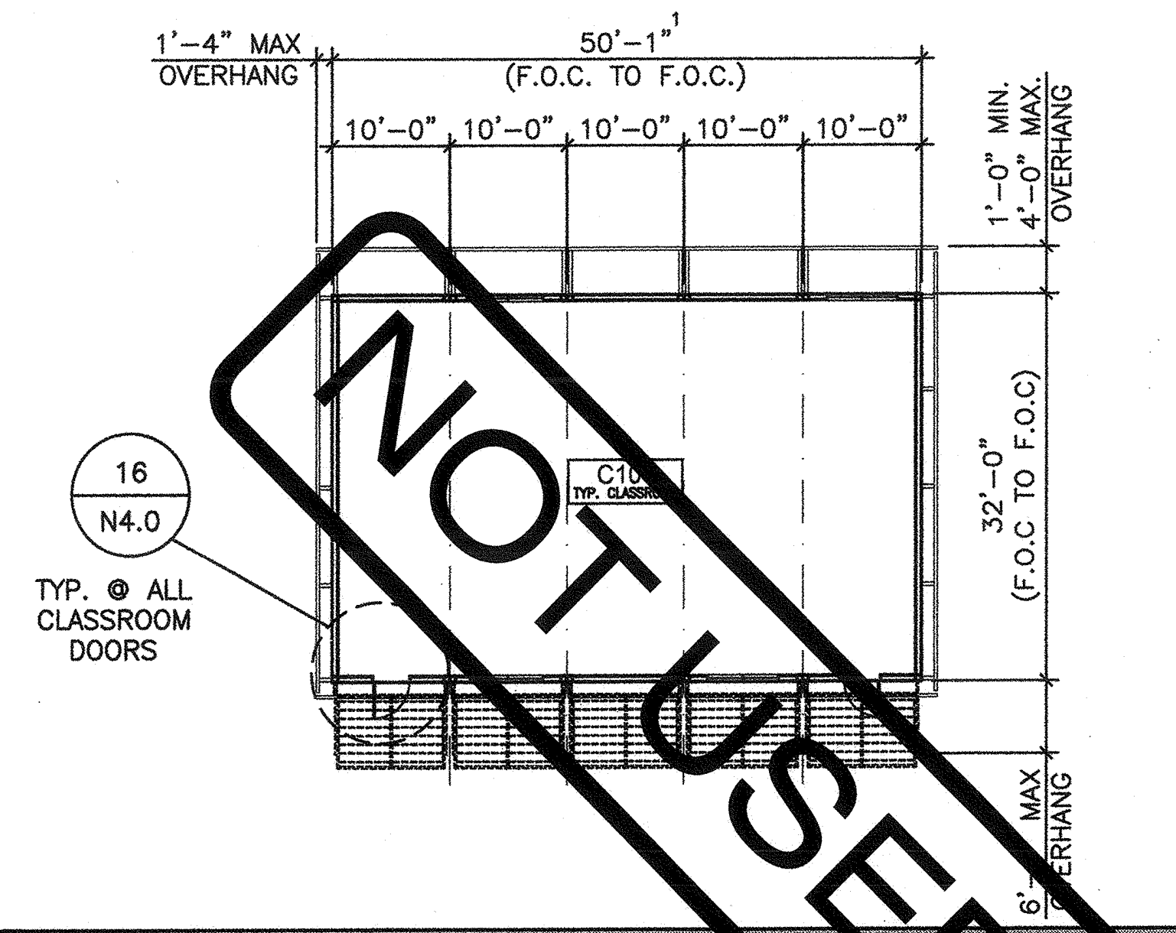


BUILDING DATA					
BUILDING SIZE	OVERALL SIZE[1]	SQUARE FOOTAGE PER FLOOR*	SQ.FT. ALLOWED PER FLOOR	MAXIMUM OCCUPANT LOAD (LOAD FACTOR 20)	EGRESS INCHES REQUIRED (0.2 PER OCCUPANT)
40' x 32'	40'-0¾"	1280	9500	64	12.8**

*THE BUILDING SQUARE FOOTAGE IS SUBJECT TO INCREASE AS PERMITTED BY C.B.C. SECTION 506.2 AND 506.3. SEE SHEET NOTE 2.
**MINIMUM EGRESS WIDTH SHALL BE 34" , OR DIMENSION GIVEN IN BUILDING DATA, WHICHEVER IS GREATER.
1. SEE GENERAL NOTE #7.

40' x 32' BUILDING FLOOR PLAN

SCALE: 1/16" = 1'-0" 2

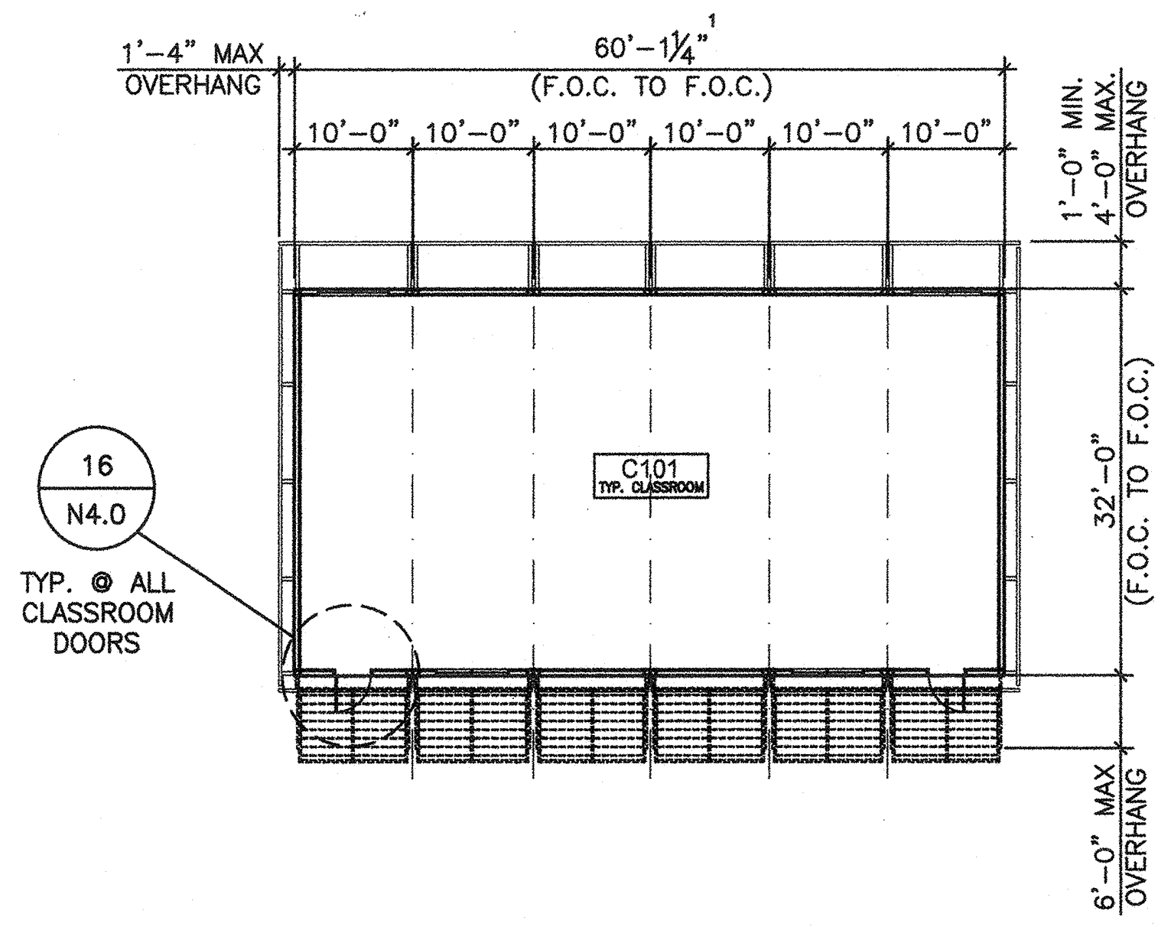


BUILDING DATA					
BUILDING SIZE	OVERALL SIZE[1]	SQUARE FOOTAGE PER FLOOR*	SQ.FT. ALLOWED PER FLOOR	MAXIMUM OCCUPANT LOAD (LOAD FACTOR 20)	EGRESS INCHES REQUIRED (0.2 PER OCCUPANT)
50' x 32'	50'-1"	1600	9500	80	16**

*THE BUILDING SQUARE FOOTAGE IS SUBJECT TO INCREASE AS PERMITTED BY C.B.C. SECTION 506.2 AND 506.3. SEE SHEET NOTE 2.
**MINIMUM EGRESS WIDTH SHALL BE 34" , OR DIMENSION GIVEN IN BUILDING DATA, WHICHEVER IS GREATER.
1. SEE GENERAL NOTE #7.

50' x 32' BUILDING FLOOR PLAN

SCALE: 1/16" = 1'-0" 3

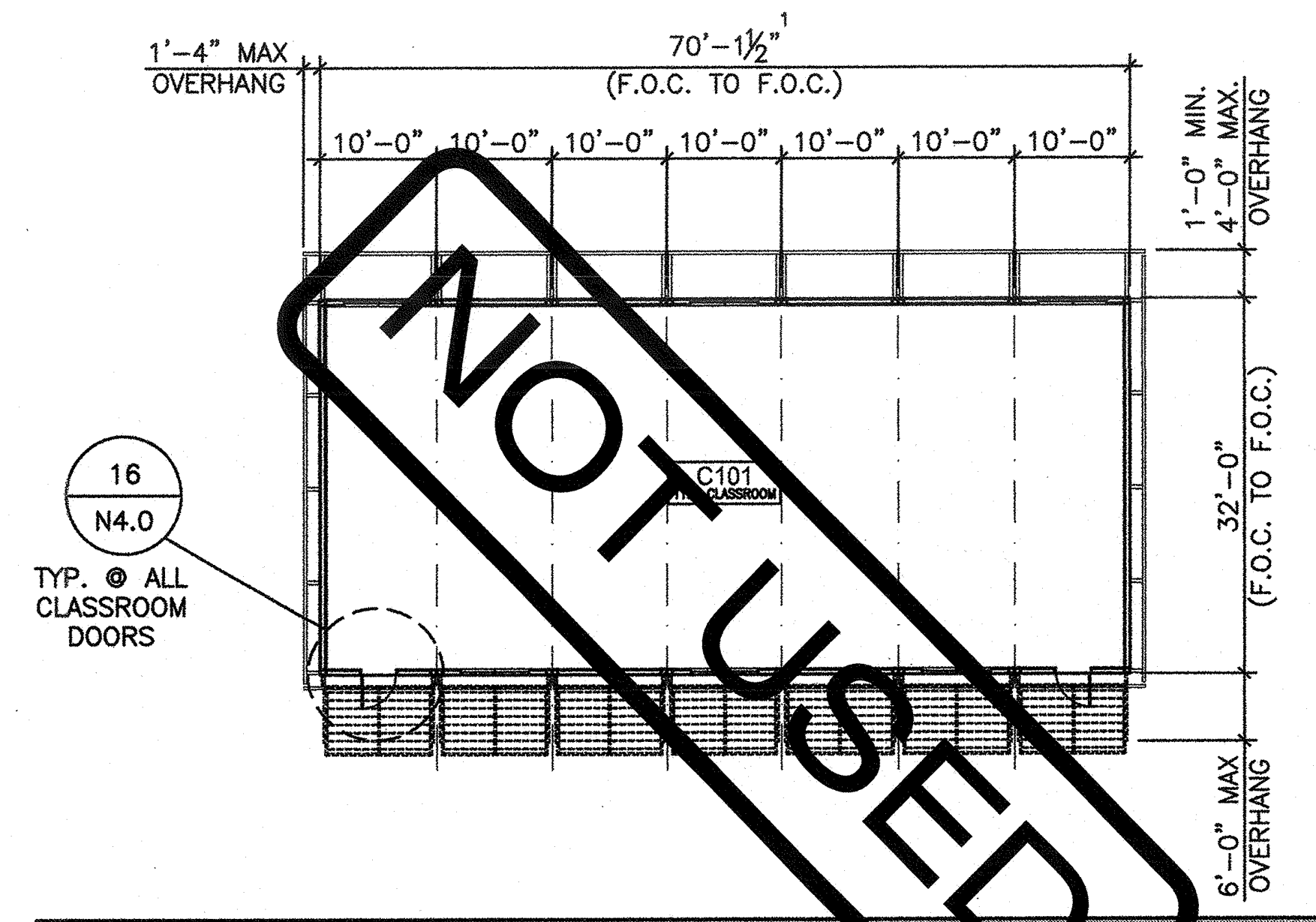


BUILDING DATA					
BUILDING SIZE	OVERALL SIZE[1]	SQUARE FOOTAGE PER FLOOR*	SQ.FT. ALLOWED PER FLOOR	MAXIMUM OCCUPANT LOAD (LOAD FACTOR 20)	EGRESS INCHES REQUIRED (0.2 PER OCCUPANT)
60' x 32'	60'-1¼"	1920	9500	96	19.2**

*THE BUILDING SQUARE FOOTAGE IS SUBJECT TO INCREASE AS PERMITTED BY C.B.C. SECTION 506.2 AND 506.3. SEE SHEET NOTE 2.
**MINIMUM EGRESS WIDTH SHALL BE 34" , OR DIMENSION GIVEN IN BUILDING DATA, WHICHEVER IS GREATER.
1. SEE GENERAL NOTE #7.

60' x 32' BUILDING FLOOR PLAN

SCALE: 1/16" = 1'-0" 4

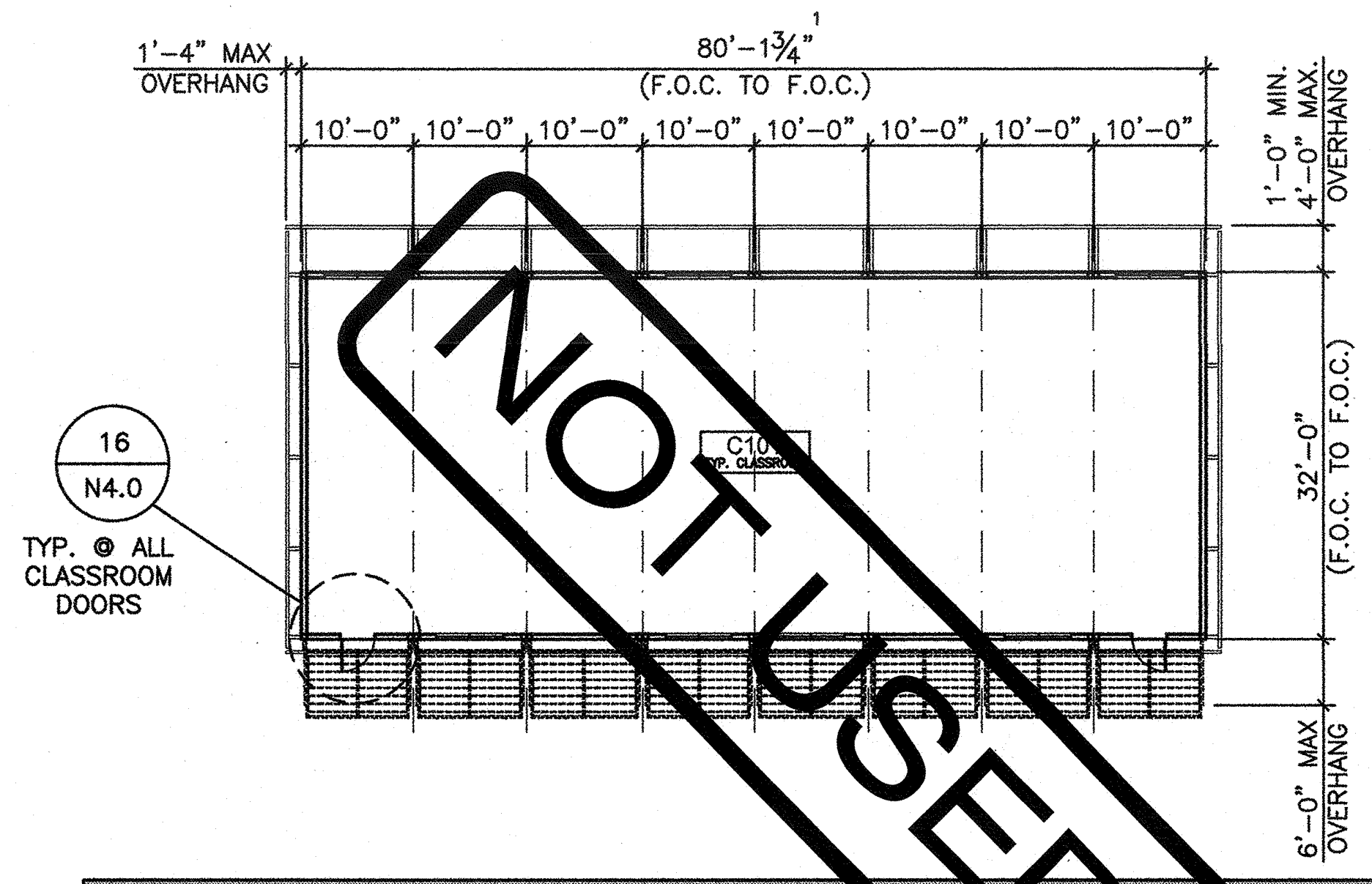


BUILDING DATA					
BUILDING SIZE	OVERALL SIZE[1]	SQUARE FOOTAGE PER FLOOR*	SQ.FT. ALLOWED PER FLOOR	MAXIMUM OCCUPANT LOAD (LOAD FACTOR 20)	EGRESS INCHES REQUIRED (0.2 PER OCCUPANT)
70' x 32'	70' - 1½"	2240	9500	112	22.4**

*THE BUILDING SQUARE FOOTAGE IS SUBJECT TO INCREASE AS PERMITTED BY C.B.C. SECTION 506.2 AND 506.3. SEE SHEET NOTE 2.
**MINIMUM EGRESS WIDTH SHALL BE 34" , OR DIMENSION GIVEN IN BUILDING DATA, WHICHEVER IS GREATER.
1. SEE GENERAL NOTE #7.

70' x 32' BUILDING FLOOR PLAN

SCALE: 1/16" = 1'-0" 5



BUILDING DATA					
BUILDING SIZE	OVERALL SIZE[1]	SQUARE FOOTAGE PER FLOOR*	SQ.FT. ALLOWED PER FLOOR	MAXIMUM OCCUPANT LOAD (LOAD FACTOR 20)	EGRESS INCHES REQUIRED (0.2 PER OCCUPANT)
80' x 32'	80'-1¾"	2560	9500	128	25.6**

*THE BUILDING SQUARE FOOTAGE IS SUBJECT TO INCREASE AS PERMITTED BY C.B.C. SECTION 506.2 AND 506.3. SEE SHEET NOTE 2.
**MINIMUM EGRESS WIDTH SHALL BE 34" , OR DIMENSION GIVEN IN BUILDING DATA, WHICHEVER IS GREATER.
1. SEE GENERAL NOTE #7.

80' x 32' BUILDING FLOOR PLAN

SCALE: 1/16" = 1'-0" 6

1. PANIC HARDWARE IS REQUIRED TO BE INSTALLED WHEN THE CONFIGURATION OF ANY ROOM PROVIDES AN OCCUPANT LOAD OF 50 OR GREATER, PER CBC 1010.1.10.
2. THE BUILDING SIZES AND SQUARE FOOTAGES REFLECTED ON THIS SHEET ARE SUBJECT TO SQUARE FOOTAGE INCREASE AS PERMITTED BY SITE CONDITIONS, PER CBC 506.2, AND BY AUTOMATIC SPRINKLER SYSTEM, PER CBC 506.3.
3. RESTROOM CONFIGURATIONS OCCUR AT OUTER WINGS OF BUILDINGS.
4. SEE FOUNDATION DRAWINGS FOR TRUE DIMENSIONS AT FLOOR PLACEMENT AND OVERALL FOUNDATION SIZE.
5. FOR ROOM ID SIGNAGE (N.I.C.) SEE DETAIL 5/N4.0. TYPICAL FOR ALL BUILDING CONFIGURATIONS.
6. MINIMUM EGRESS REQUIRED SHALL BE 34" PER CLASSROOM OR DIMENSION SPECIFIED IN BUILDING DATA, WHICHEVER IS GREATER
7. TOTAL WIDTH INCLUDES 1/4" PER MODULE CONSTRUCTION TOLERANCE PER FOUNDATION SHEETS.

SITENOTE:

3/16:12 (1%) MINIMUM TO 1/4:12 (2%) MAXIMUM GRADE FROM FACE OF BUILDING MUST BE ADHERED TO FOR WATER RUN-OFF. PONDING MAY OCCUR AROUND THE PERIMETER OF THE BUILDING.

GENERAL NOTES

American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE-CHECKED SET NAME

30'x32' THRU 150'x32'
BUILDINGS

Gen7
healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

MULTIPLE FLOOR PLAN CONFIGURATIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

RANDALL PATRICK CAVANAGH
No. C12631
Ren. 3-31-19

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

~~IDENTIFICATION STAMP~~
~~DIV. OF THE STATE ARCHITECT~~
~~PC 02-116071~~
~~AC FLS SS~~
~~DATE 7 10 18~~

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

△1	
△2	
△3	
△4	

DRAWN BY:	.
SCALE:	AS NOTED
DATE:	.

SHEET NUMBER

N5.0

DSA IR N-1

PRE-CHECK DESIGNS CALGREEN/ENERGY CODE COMPLIANCE REVIEW

Attachment 1
AMS_30x32 PC

Performance Runs and Orientation Table

PC Design Review Information			Title 24, Part 6, Energy Code
Date of Title 24 Report:	4/6/2018	DSA Application:	
Model Name and Option:	AMS_30x32	DSA File No:	
Total Floor Area:	952 sf	DSA-1 Submittal Date:	
HVAC System Type:	Split-DX HP		

Climate Zone (Reference City)	Azimuth (Front Orientation)	TDV - Proposed Design	TDV - Standard Design	Compliance Margin
14 (Palmdale)	30	273.6	326.4	52.8
	75	278.7	330.4	57.6
	120	274.9	330.7	55.9
	165	267.2	314.2	47.0
	210	279.6	333.2	53.6
	255	286.2	334.7	48.4
	300	279.8	327.4	47.6
	345	286.2	306.6	42.3
15 (Palm Springs-Intl)	30	314.3	374.0	59.7
	75	319.4	389.3	69.8
	120	319.1	378.0	59.0
	165	313.6	366.8	53.2
	210	320.5	390.6	70.2
	255	323.9	391.6	67.7
	300	318.6	385.2	66.6
	345	328.6	362.2	33.6
16 (Blue Canyon)	30	280.3	325.5	45.2
	75	295.2	322.6	27.4
	120	280.3	304.1	23.7
	165	292.2	280.9	-25.8
	210	290.0	285.8	-29.8
	255	274.3	302.3	28.2
	300	295.7	260.6	-24.9
	345	259.7	279.4	14.6

Comments to DSA: (Explain why this Model Name and Option generates the smallest compliance margins)

Windows increases heating or cooling load due to orientation

DSA IR N-1

PRE-CHECK DESIGNS CALGREEN/ENERGY CODE COMPLIANCE REVIEW

Attachment 1
AMS_150x32 PC

Performance Runs and Orientation Table

PC Design Review Information			Title 24, Part 6, Energy Code
Date of Title 24 Report:	4/6/2018	DSA Application:	
Model Name and Option:	AMS_150x32	DSA File No:	
Total Floor Area:	4,800 sf	DSA-1 Submittal Date:	
HVAC System Type:	Split-DX HP		

Climate Zone (Reference City)	Azimuth (Front Orientation)	TDV - Proposed Design	TDV - Standard Design	Compliance Margin
14 (Palmdale)	30	242.0	304.1	62.1
	75	248.0	322.3	74.3
	120	243.7	314.9	71.2
	165	236.2	293.0	56.8
	210	227.3	297.0	69.7
	255	242.0	307.2	65.2
	300	238.0	287.1	49.1
	345	231.6	293.0	61.4
15 (Palm Springs-Intl)	30	283.6	381.7	73.1
	75	287.4	400.5	113.1
	120	282.9	380.9	108.0
	165	287.3	337.9	50.6
	210	278.1	352.1	74.0
	255	283.0	364.0	80.8
	300	282.9	356.6	73.5
	345	277.8	344.4	66.7
16 (Blue Canyon)	30	224.1	269.8	45.8
	75	231.3	279.0	47.7
	120	225.7	271.6	46.2
	165	215.3	256.3	41.1
	210	218.9	280.2	60.3
	255	223.7	292.3	68.4
	300	219.3	277.7	58.2
	345	218.0	252.9	36.9

Comments to DSA: (Explain why this Model Name and Option generates the smallest compliance margins)

Windows increases heating or cooling load due to orientation

Project Name:	AMS Modular Classroom 30x32	NRCC-PRF-01-E	Page 3 of 19
Project Address:	Palmdale	Calculation Date/Time:	19:01, Thu, Apr 05, 2018
Compliance Scope:	NewComplete	Input File Name:	AMS_30x32 C2154 (8).ribd16

A. PROJECT GENERAL INFORMATION

1. Project Location (city)	Palmdale	8. Standards Version	Compliance2016
2. CA Zip Code		9. Compliance Software (version)	CBECC-Com 2016.3.0 (r1)
3. Climate Zone	14	10. Weather File	TMY3\USA_CA_PALMDALE_722810.epw
4. Total Conditioned Floor Area in Scope	952 ft²	11. Building Orientation (deg)	345	345 deg
5. Total Unconditioned Floor Area	0 ft²	12. Permitted Scope of Work	NewComplete
6. Total # of Stories (Multifamily Above Grade)	1	13. Building Type(s)	NonresMetal
7. Total # of dwelling units	0	14. Slab Type	NoSlabBlas

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft²-yr) § 140.1

BUILDING COMPLIES

1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	22.63	52.49	-28.86	-122.1%
Space Cooling	219.25	214.94	25.69	10.9%
Indoor Fans	113.32	23.38	91.95	80.4%
Heat Rejection	-	-	-	-
Pumps & Misc.	-	-	-	-
Domestic Hot Water	9.43	9.43	-	0%
Indoor Lighting	53.03	27.65	1.69	22.6%
COMPLIANCE TOTAL	358.76	284.76	42.28	11.7%
Receptacle	64.36	64.36	0.0	0.0%
HVAC Fans	-	-	-	-
Other Ltg	-	-	-	-
Process Loads	-	-	-	-
TOTAL	379.28	333.80	42.3	11.3%

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-(2018-04-05 19:09:53) | Report Generated at: 2018-04-05 19:09:53

Project Name:	AMS Modular Classroom 30x32	NRCC-PRF-01-E	Page 4 of 19
Project Address:	Palmdale	Calculation Date/Time:	19:01, Thu, Apr 05, 2018
Compliance Scope:	NewComplete	Input File Name:	AMS_30x32 C2154 (8).ribd16

C. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components use the performance or prescriptive path for compliance. "N/A" is not a project for components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans.

Building Component	Compliance Path	Compliance Forms (required for submittal)	Location of Mandatory Notes on Plans
Envelope	☒ Performance	NRCC-PRF-01-E (section of the NRCC-PRF-01-E)	M1.7
	☐ Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
	☐ N/A		
Mechanical	☒ Performance	NRCC-PRF-MCH-01-E (section of the NRCC-PRF-01-E)	M1.7
	☐ Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	
	☐ N/A		
Domestic Hot Water	☐ Performance	NRCC-PRF-PLB-01E(incl. section of the NRCC-PRF-01-E)	P1.0
	☒ Prescriptive	NRCC-PLB-01-E	
	☐ N/A		
Lighting (Indoor Constituted)	☒ Performance	NRCC-PRF-LTI/01E(3 (section of the NRCC-PRF-01-E)	E1.0
	☐ Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	
	☐ N/A		
Covered Process: Commercial Kitchens	☐ Performance	(1) (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 03-E	
	☒ N/A		
Covered Process: Computer Rooms	☐ Performance	(1) (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 04-E	
	☒ N/A		
Covered Process: Laboratory Exhaust	☐ Performance	(1) (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 05-E	
	☒ N/A		

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-(2018-04-05 19:09:53) | Report Generated at: 2018-04-05 19:09:53

Project Name:	AMS Modular Classroom 30x32	NRCC-PRF-01-E	Page 5 of 19
Project Address:	Palmdale	Calculation Date/Time:	19:01, Thu, Apr 05, 2018
Compliance Scope:	NewComplete	Input File Name:	AMS_30x32 C2154 (8).ribd16

A. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the Systems to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for field Inspector to verify).
See Tables G. and K. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Confirmed: Pass	Confirmed: Fail
Envelope	☒ NRCI-ENV-03-E – For all buildings	☐	☐
	☒ NRCA-ENV-03-F – NFRC label certification for fenestration	☐	☐
	☒ NRCI-MCH-03-E – For all buildings with Mechanical Systems	☐	☐
Mechanical	☐ NRCA-MCH-03-A – Outdoor Air	☐	☐
	☒ NRCA-MCH-04-A – Constant Volume Single Zone HVAC	☐	☐
	☐ NRCA-MCH-05-A – Air Distribution Duct Leakage	☐	☐
	☐ NRCA-MCH-05-B – Air Economizer Controls	☐	☐
	☐ NRCA-MCH-06-A – Demand Control Ventilation	☐	☐
	☐ NRCA-MCH-07-F-A – Supply Fan Variable Flow Controls	☐	☐
	☐ NRCA-MCH-08-C – Valve Leakage Test	☐	☐
	☐ NRCA-MCH-09-F – Supply Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-10-A – Hydronic System Variable Flow Controls	☐	☐
	☒ NRCA-MCH-11-A – Auto Demand Shed Controls	☐	☐
	☐ NRCA-MCH-12-A – Packaged Direct Expansion Units	☐	☐
	☐ NRCA-MCH-13-A – Air Handling Units and Zone Terminal Units	☐	☐
	☐ NRCA-MCH-14-A – Distributed Energy Storage	☐	☐
	☐ NRCA-MCH-15-A – Thermal Energy Storage	☐	☐
	☐ NRCA-MCH-16-A – Supply Air Temp Reset Controls	☐	☐
	☐ NRCA-MCH-17-A – Condensate Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-18-A– Energy Management Controls System	☐	☐
	☐ NRCV-MCH-04-A– Duct Linkage Test	☐	☐

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-(2018-04-05 19:09:53) | Report Generated at: 2018-04-05 19:09:53

Project Name:	AMS Modular Classroom 30x32	NRCC-PRF-01-E	Page 6 of 19
Project Address:	Palmdale	Calculation Date/Time:	19:01, Thu, Apr 05, 2018
Compliance Scope:	NewComplete	Input File Name:	AMS_30x32 C2154 (8).ribd16

A. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the Systems to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for field Inspector to verify).
See Tables G. and K. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Confirmed: Pass	Confirmed: Fail
Plumbing	☐ NRCI-PLB-01-E – For all buildings with Plumbing Systems	☐	☐
	☐ NRCI-PLB-02-E – required on certified systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-03-E – Single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-03-E – HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCA-PLB-13-F – HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCA-PLB-22-H- HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCA-PLB-23-H – HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCA-STH-01-E – Any solar water heating	☐	☐
Indoor Lighting	☒ NRCI-LTI-01-E – For all buildings	☐	☐
	☒ NRCI-LTI-02-E – Lighting control system, or for an Energy Management Control System (EMCS)	☐	☐
	☐ NRCI-LTI-03- E – Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting.	☐	☐
	☐ NRCI-LTI-04-E – Take-intended systems serving an auditorium, a convention center, a conference room, or a theater	☐	☐
	☐ NRCI-LTI-05-E – Lighting Control Credit Power Adjustment Factor (PAF)	☐	☐
	☐ NRCI-LTI-06-E – Additional settings installed in a video conferencing studio	☐	☐
	☒ NRCA-LTI-02-E – Occupancy sensors and automatic time switch controls.	☐	☐
	☒ NRCA-LTI-03-E – Automatic daylighting controls	☐	☐
	☐ NRCA-LTI-04-E – Demand responsive lighting controls	☐	☐
Outdoor Lighting	☒ NRCI-LTO-01-E – Outdoor lighting	☐	☐
	☐ NRCI-LTO-02-E- EMCS lighting Control System	☐	☐
	☐ NRCA-LTO-03-A – Outdoor Lighting Control	☐	☐
Sign Lighting	☐ NRCI-LTG-01-E – Sign Lighting	☐	☐
Electrical	☒ NRCI-ELC-01-E – Electrical Power Distribution	☐	☐
Photovoltaic	☐ NRCI-LTG-01-E Photovoltaic Systems	☐	☐

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-(2018-04-05 19:09:53) | Report Generated at: 2018-04-05 19:09:53

Project Name:	AMS Modular Classroom 30x32	NRCC-PRF-01-E	Page 7 of 19
Project Address:	Palmdale	Calculation Date/Time:	19:01, Thu, Apr 05, 2018
Compliance Scope:	NewComplete	Input File Name:	AMS_30x32 C2154 (8).ribd16

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the Systems to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for field Inspector to verify).
See Tables G. and K. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Confirmed: Pass	Confirmed: Fail
Covered Process	☐ NRCI-PRC-01-E Covered Processes	☐	☐
	☐ NRCA-PRC-03-F– Cyanogenesis for Systems;	☐	☐
	☐ NRCA-PRC-02-A– Kitchen Exhaust	☐	☐
	☐ NRCA-PRC-03-A– Garage Exhaust	☐	☐
	☐ NRCA-PRC-04-F– Refrigerated Warehouse– Evaporator Fan Motor Controls	☐	☐
	☐ NRCA-PRC-05-F– Refrigerated Warehouse– Evaporative Condenser Controls	☐	☐
	☐ NRCA- PRC-06-F– Refrigerated Warehouse– Air Cooled Condenser Controls	☐	☐
	☐ NRCA-PRC-07F– Refrigerated Warehouse– Variable Speed Compressor	☐	☐
	☐ NRCA-PRC-08-F– Electrical Resistance Underslab Heating System	☐	☐

I. ENVELOPE GENERAL INFORMATION (see NRCC-PRF-ENV-DETAILS for more information)

1.	Total Conditioned Floor Area	952 ft²	4.	Number of Floors Above Grade	1
2.	Total Unconditioned Floor Area	0 ft²	5.	Number of Floors Below Grade	0
3.	Addition Conditioned Floor Area	0 ft²			
4.	Addition Unconditioned Floor Area	0 ft²			

7. Signage Surface & Orientation	8. Total Gross Surface Area	9. Total Penetration Area	10. Window to Wall Ratio	Confirmed: Pass	Confirmed: Fail
North-Wall	280 ft²	169 ft²	57.5%	☐	☐
East-Wall	240 ft²	0 ft²	00.0%	☐	☐
South-Wall	280 ft²	80 ft²	28.6%	☐	☐
West-Wall	240 ft²	0 ft²	00.0%	☐	☐
Total	1,240 ft²	249 ft²	20.1%	☐	☐
Roof	952 ft²	0 ft²	00.0%	☐	☐

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J. FENESTRATION ASSEMBLY SUMMARY § 110.6 | Confirmed: Pass | Confirmed: Fail

1. Fenestration Assembly Name / Tag or ID.	2. Fenestration Type / Product Type / Frame Type	3. Certification Method¹	4. Assembly Method	5. Area ft²	6. Overall U-factor	7. Overall SHGC	8. Overall VT	9. Pass	10. Fail
Solar Grey NFRC	Vertical/Projection Fixed/Window Jalb	NFRC Rated.	Manufactured	240	0.70	0.46	0.57	☒	☐

¹ Area weighted average values are used for certified NFRC rated CMA products from the CEC-default table based on table 110.6-A and Table 110.6-B (interpolation/extrapolation is allowed). For site-built fenestration, other non-certified or non-labeled products, calculate values using rules for simulation.
² Glass: G - Any, A - Atrium, E - Existing

Tailing compliance credit for fenestration shading devices? (If "Yes", see NRCC-PRF-ENV-DETAILS for more information)	No

K. DYNAMIC SURFACE ASSEMBLY SUMMARY § 110.7 / § 140.3 | Confirmed: Pass | Confirmed: Fail

1. Surface Name	2. Surface Type	3. Area (ft²)	4. Framing Type	5. Cavity R-Value	6. Exceptions to Area	7. U-factor / Z-factor / C-factor	8. Pass	9. Fail
Cmon, Make your Crawlspace	SolarWallVar	952	N/A	0	NA	U-Factor: 0.210	☒	☐
Roof-12x0.70 per Estimate	Roof	952	Metal	38	2	U-Factor: 0.071	☒	☐
R-19 in metal frame + R-5 c.c.	ExteriorWall	1240	Metal	13	5	U-Factor: 0.098	☒	☐

¹ Area-ft - Max, F - Allowed, E - Existing

L. ROOFING PRODUCT SUMMARY § 140.3 | Confirmed: Pass | Confirmed: Fail

1. Product Type	2. Product Quality (QII'd)	3. Aged Solar Reflectance	4. Thermal Emittance	5. SRI	6. Cool Roof Credit	7. Roofing Product Description	8. Pass	9. Fail
Roof: 12x0.70 per Estimate	0.569	0.68	0.75	NA	No	NA	☐	☐

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M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) § 110.1 / § 110.2

Dry System Equipment ² (Dec & Evaporative info included below in Table b)

1. Equip Name	2. Equip Type	3. System Type Dlmodel ³ or Complies ⁴?	4. Qty	5. Total Heating Output (kBtu/h)	6. Supp Heat Source (kW)	7. Supp Heat Output (kBtu/h)	8. Total Cooling Output (Btu/h)	9. Efficiency Cooling	Heating	10. Air Acceptance Testing Required? (Y/N)	11. Pass	12. Fail
AC-1	SPVHP (Packaged/Mass)	Simple	1	99	No	0	45	14.9 SEER	COP-3.69	Yes	☒	☐

² Dry System Equipment includes furnaces, air handling units, heat pumps, etc.
³ Simple System must contain ONE of each of the following: a heating source, a cooling source, and a means of control
⁴ Complex System must contain MORE THAN ONE of the following: a heating source, a cooling source, and a means of control
* Economizer, if a fault is indicated, fails an automatic economizer fault. NRCC-PRF-MCH-DETAILS
** Status: A - Area, A - Allowed, E - Existing

Wet System: Wastewater Section Does Not Apply	
Discrepancy between modeled and designed equipment data? (If "Yes", see Table F "Additional Remarks" for an explanation)	No

N. ECONOMIZER & FAN SYSTEMS SUMMARY¹ § 140.4 | Confirmed: Pass | Confirmed: Fail

1. Equip Name	2. Outside Air CFM	3. Supply Fan CFM	4. Supply Fan HP	5. Supply Fan BHP	6. Supply Fan TDP Dmh WG	7. Supply Fan Control	8. Return Fan CFM	9. Return Fan HP	10. Return Fan BHP	11. Return Fan TDP Dmh WG	12. Return Fan Control	13. Economizer Type (if present)	14. Pass	15. Fail
AC-1	357	1200	0.367	0.285	0.92	ConstantVolume	NA	NA	NA	NA	NA	dy/dnconomizer	☐	☐

¹ Mechanical ventilation calculations and reduced fans are included in the NRCC-PRF-MCH-DETAILS sheet

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O. EQUIPMENT CONTROLS § 120.2 | Confirmed: Pass | Confirmed: Fail

1. Equip Name	2. Equip Type	3. Controls	Pass	Fail
AC-1	SPVHP	NS DCV Capable No Economizer No Scheduled Night Temp Control No Optimum Start No Demand Shed Control No Alarm Necessary	☐	☐

P. SYSTEM DISTRIBUTION SUMMARY § 120.4 / § 140.4(l)

Dry System Distribution:						Confirmed: Pass	Confirmed: Fail
1. Equip Name	2. Equip Type	3. Duct Leakage and Testing Required per NA7	4. Duct Leakage will be verified per NA2 and NA4	5. Ducts			
				Insulation R-Value	Location		
AC-1	SPVHP	Yes	No	0	Conditioned	4*	☐	☐

* Status: N - New, E - Existing

Does The Project Include Zonal Systems? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Does the Project include a Water Hot Water System? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Multifamily or Hotel/ Motel Occupancy? (If "Yes", see NRCC-PRF-MCH-DETAILS for DHW system information)	No

Q. INDOOR CONDITIONED LIGHTING GENERAL INFO (see NRCC-PRF-LTI-DETAILS for more info)² § 140.6 | Confirmed: Pass | Confirmed: Fail

1. Occupancy Type ¹	2. Conditioned Floor Area ft² (ft²)	3. Installed Lighting Power (Watts)	4. Lighting Control Credits (Watts)	5. Additional (Custom) Allowance			Pass	Fail
				Area Category Footwatts (Watts)	Tailored Method (Watts)			
Classrooms, Adult+ Training, Vocational Areas	952	540	0	0	0		☐	☐
Building Totals:	952	540	0	0	0			

¹ See Table 140.6-C

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HIGH PERFORMANCE SECTION
APP.# 02-116071 DATE 7-10-18

American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ENERGY CALCULATIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT TIMOTHY PATRICK WILLIAMS No. C12831 Exp. 3-31-19 STATE OF CALIFORNIA

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PROJECT SPECIFIC STATE AGENCY APPROVAL

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REVISIONS

1	–	–
2	–	–
3	–	–
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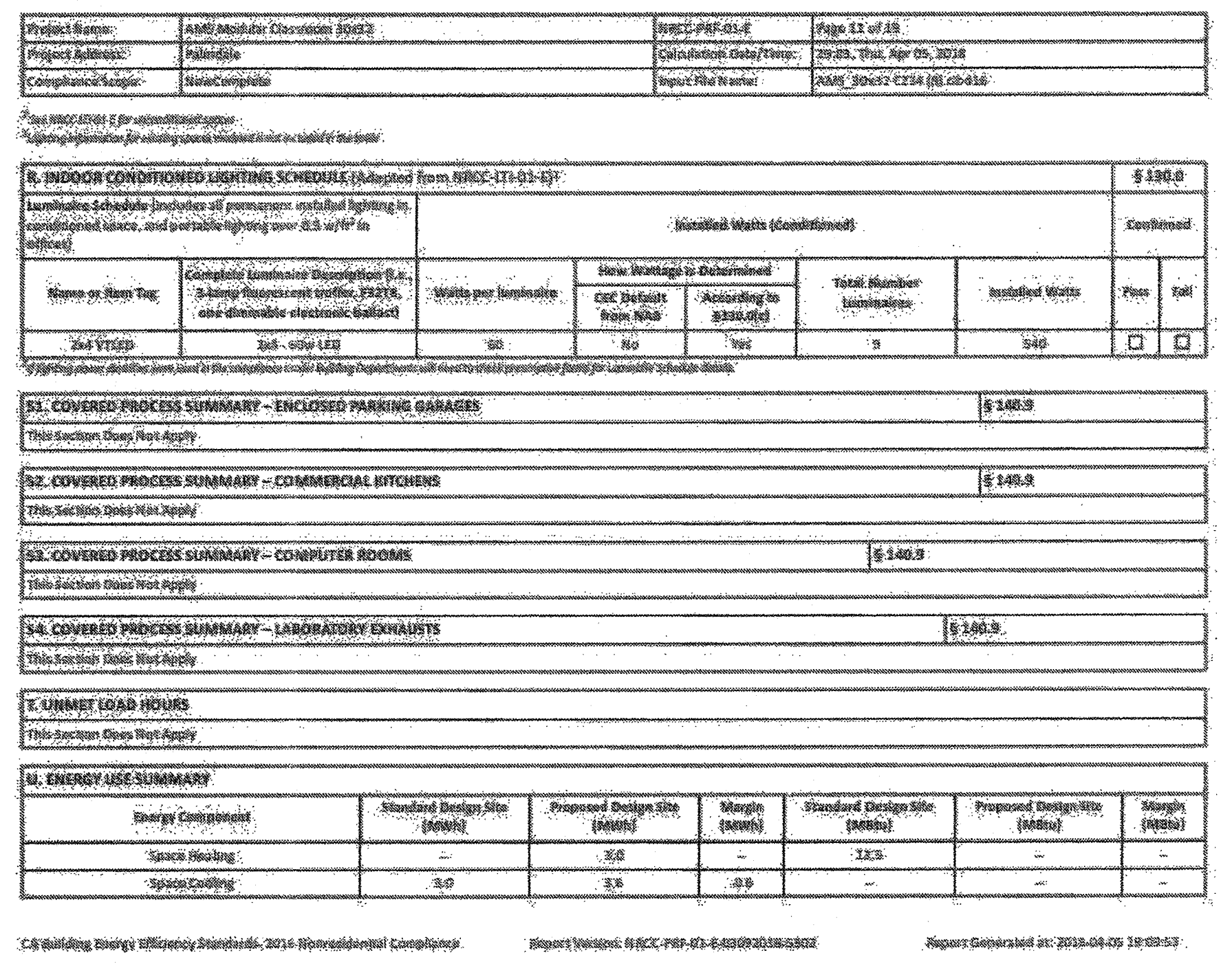
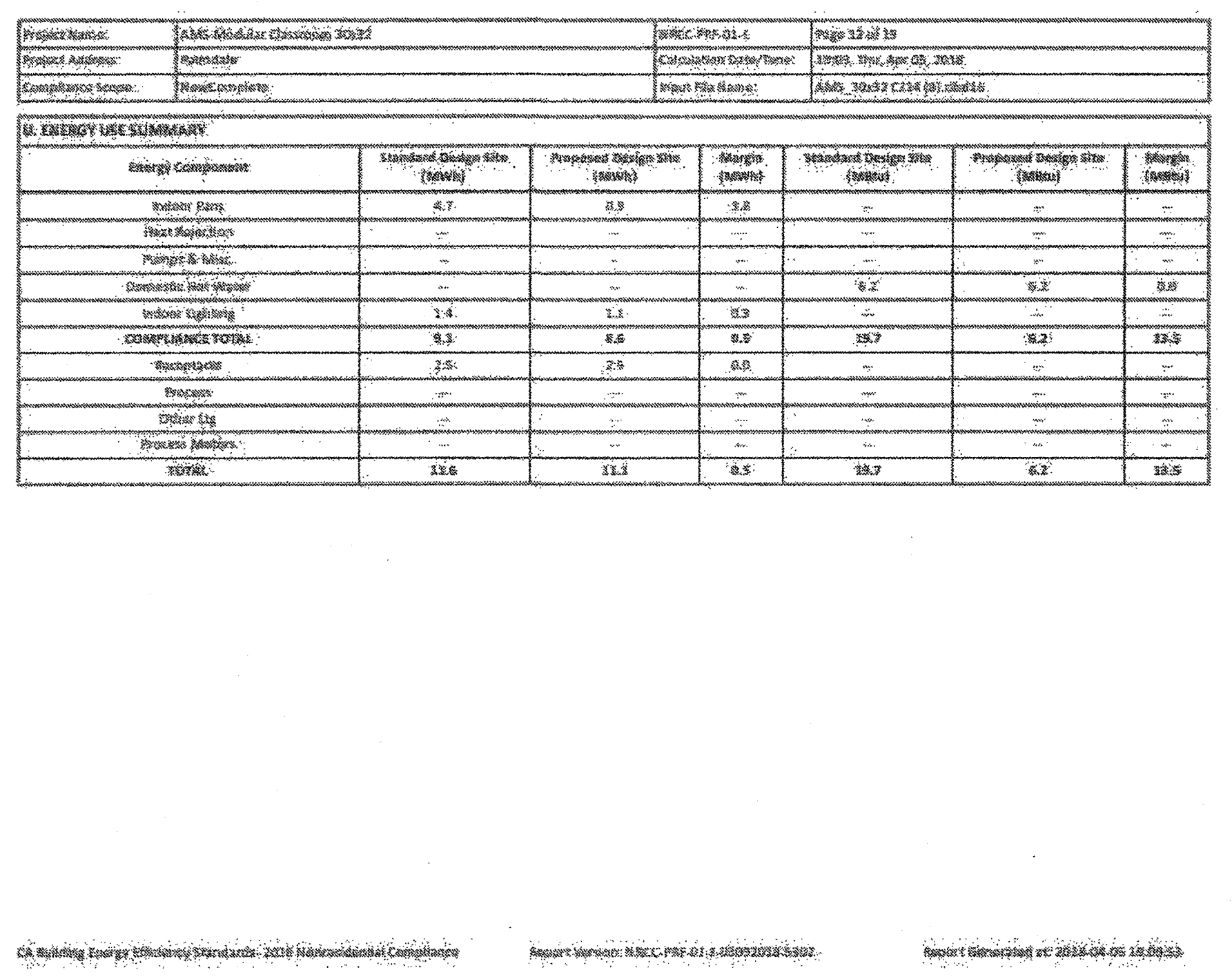
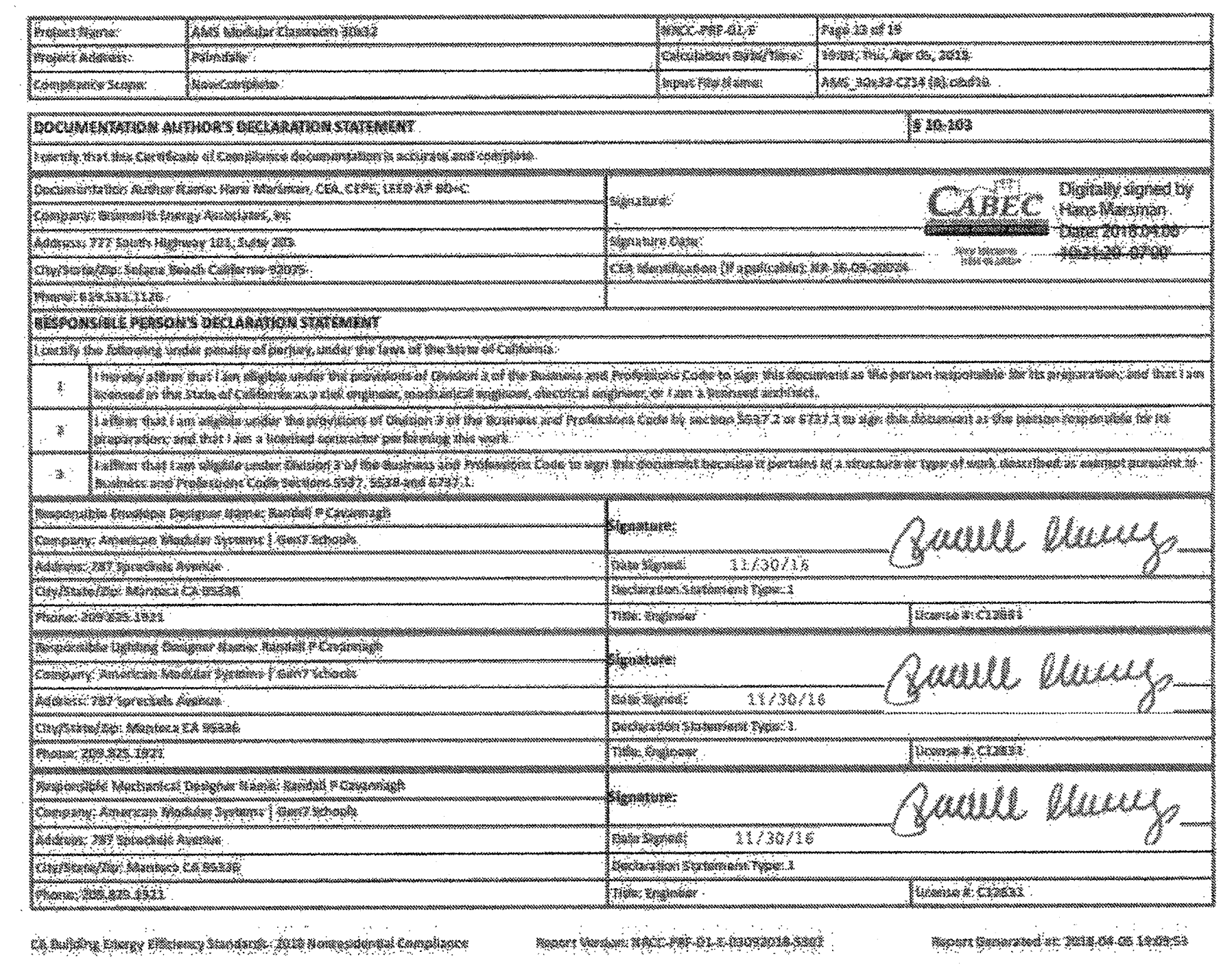
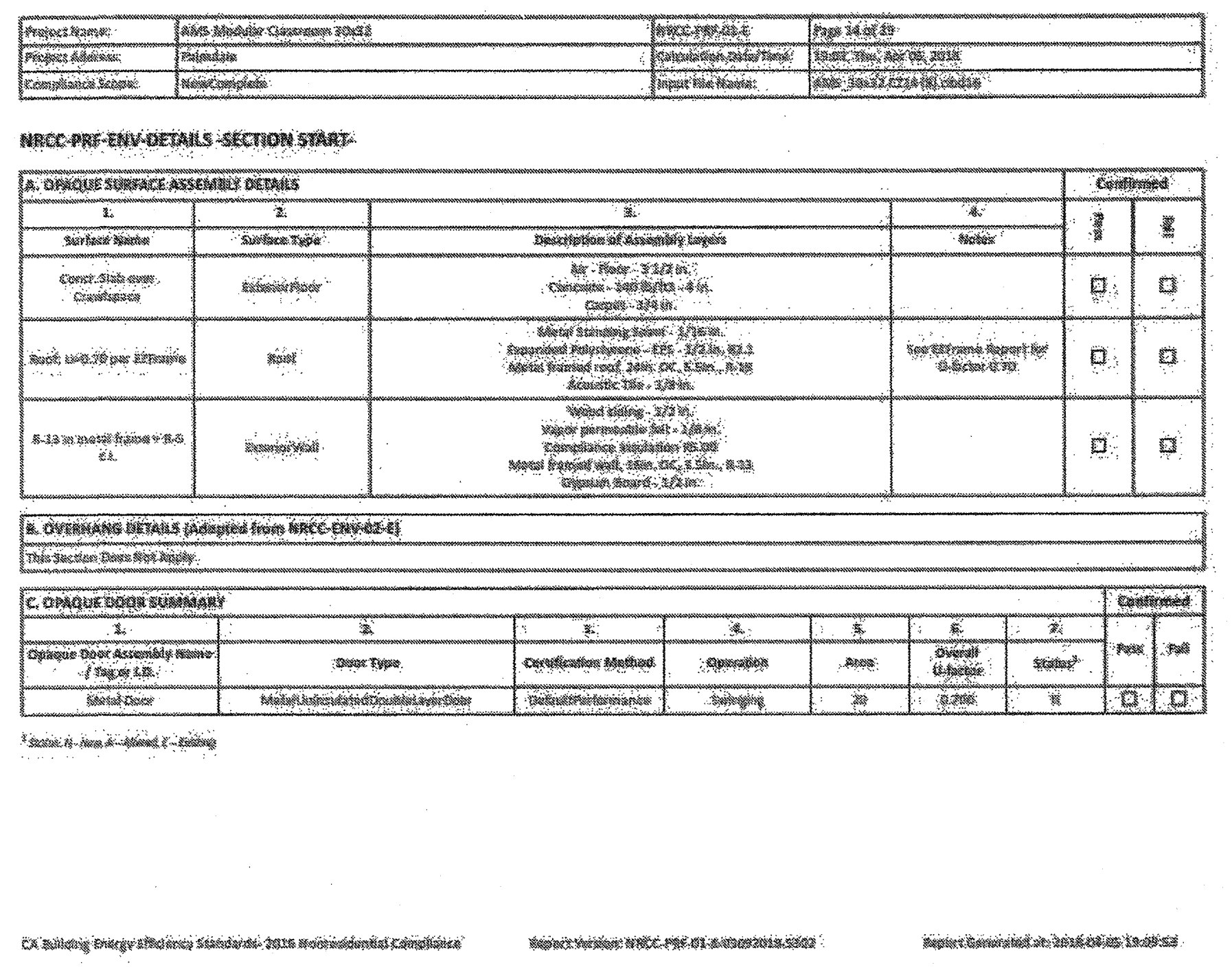
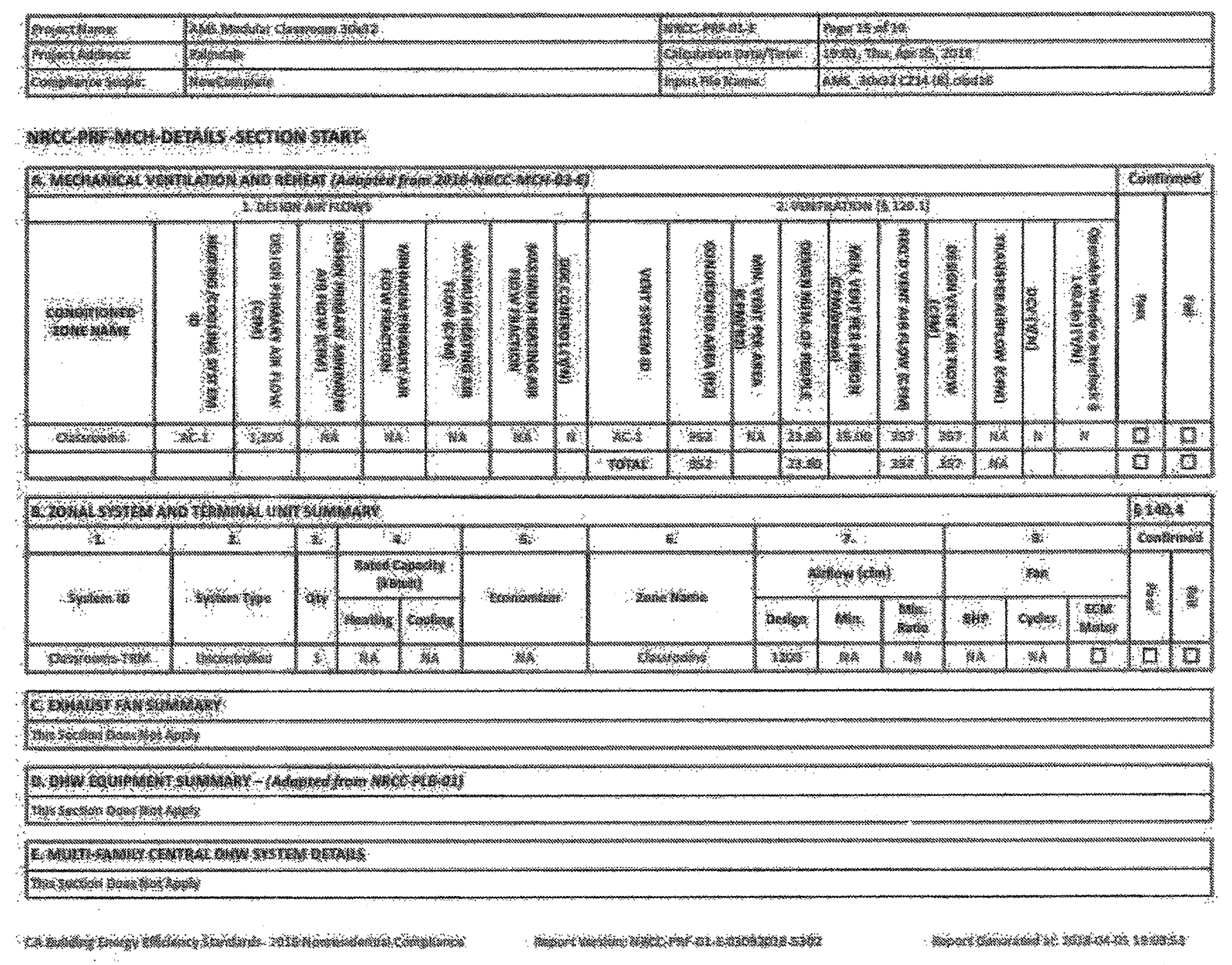
EN.1

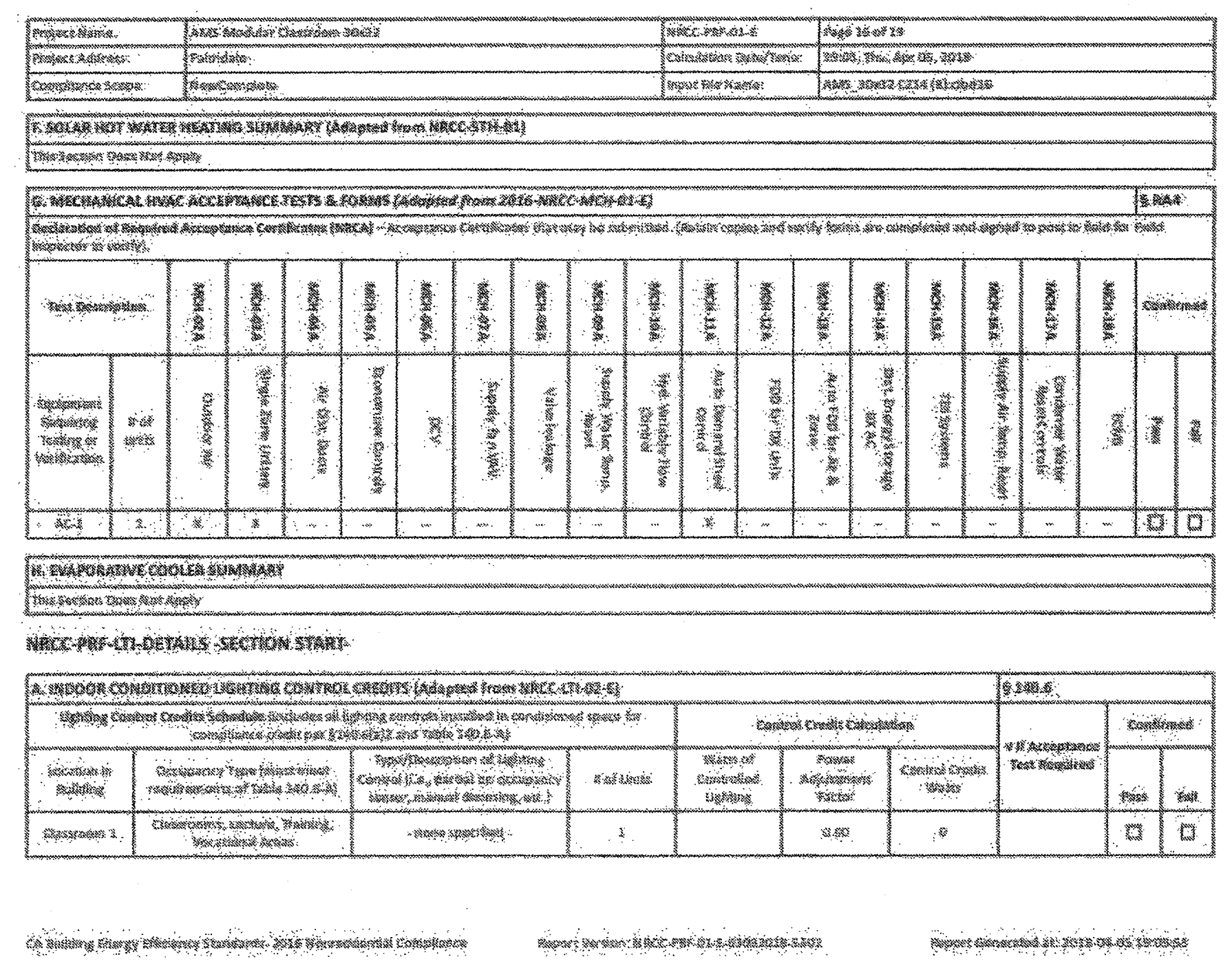


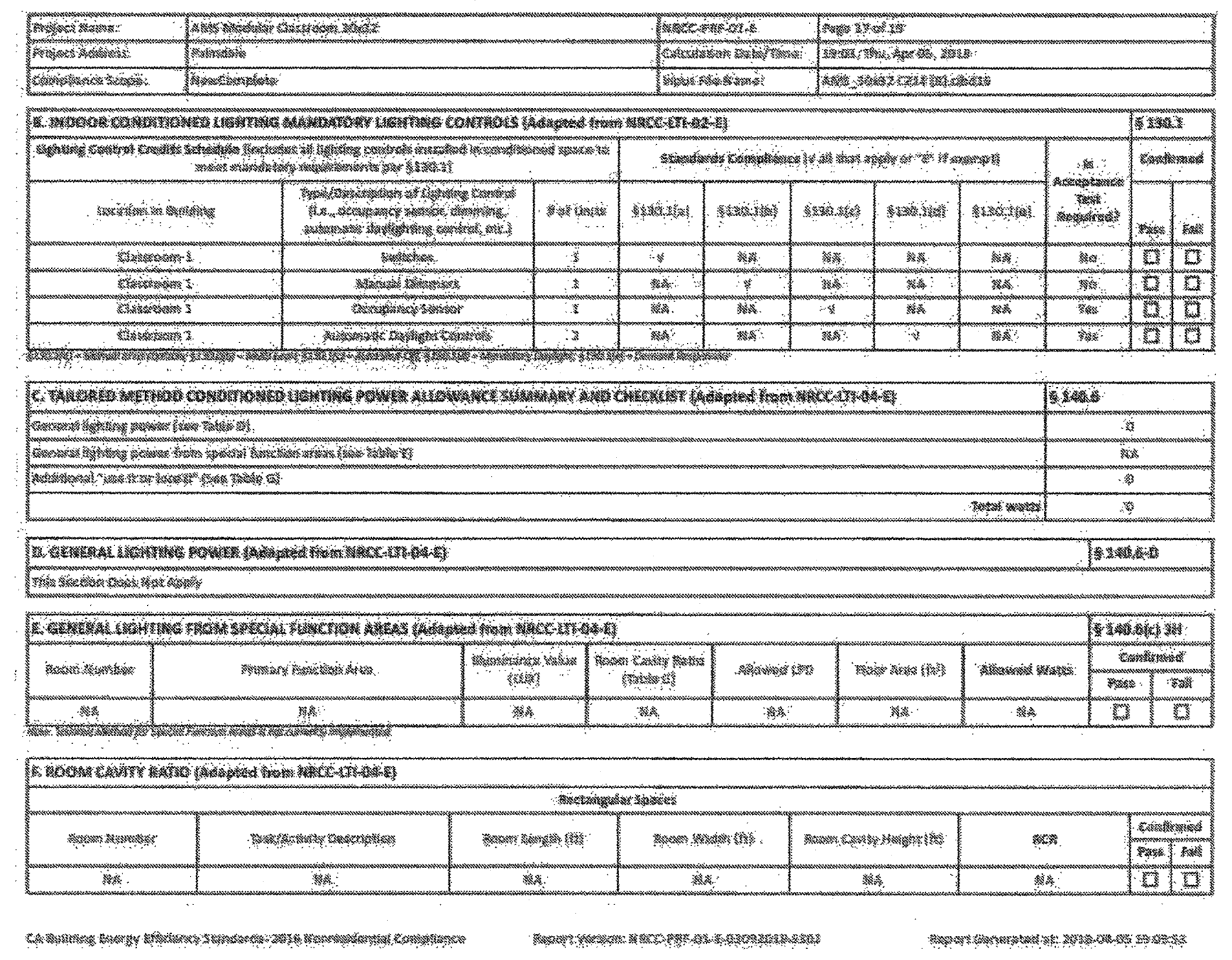


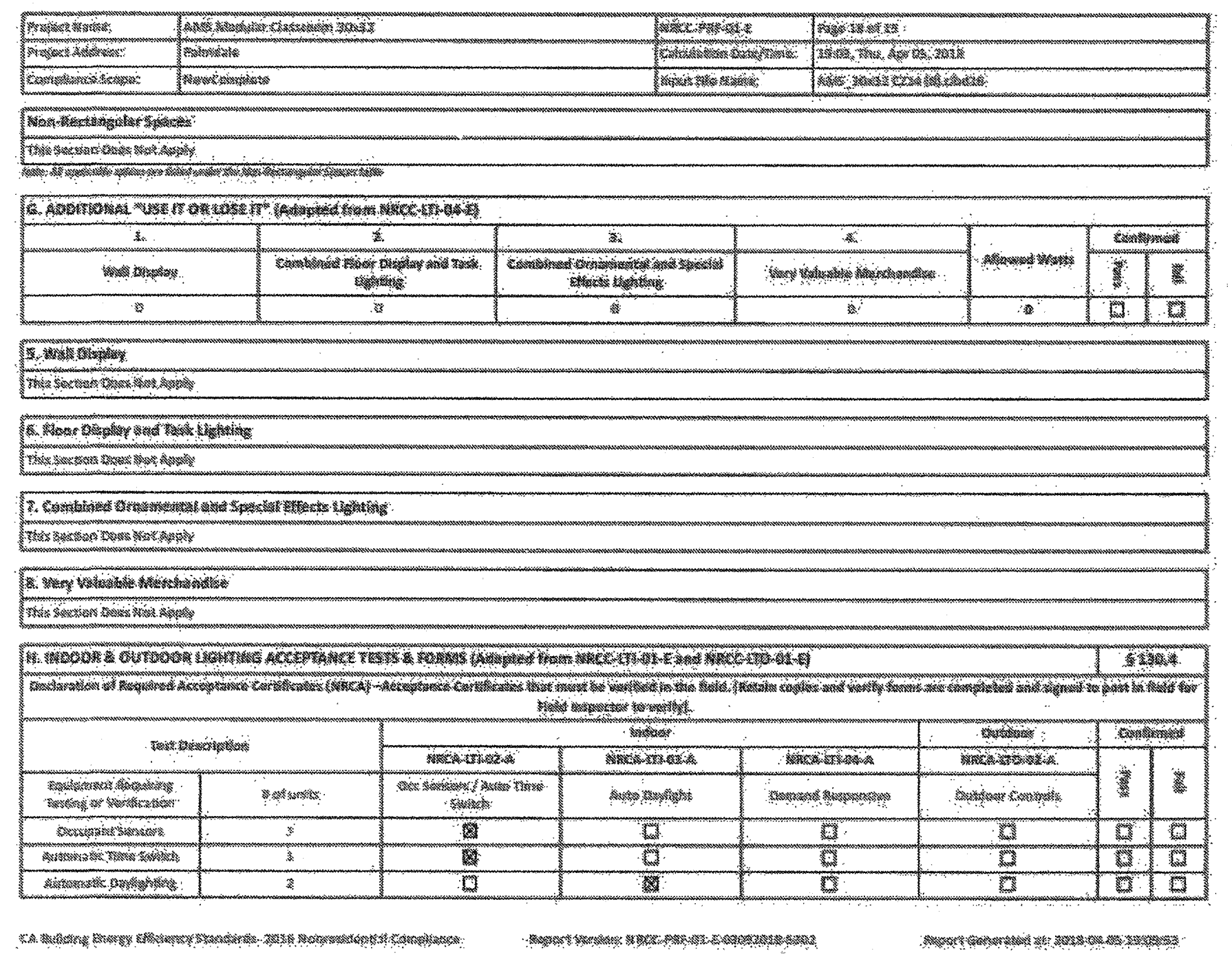












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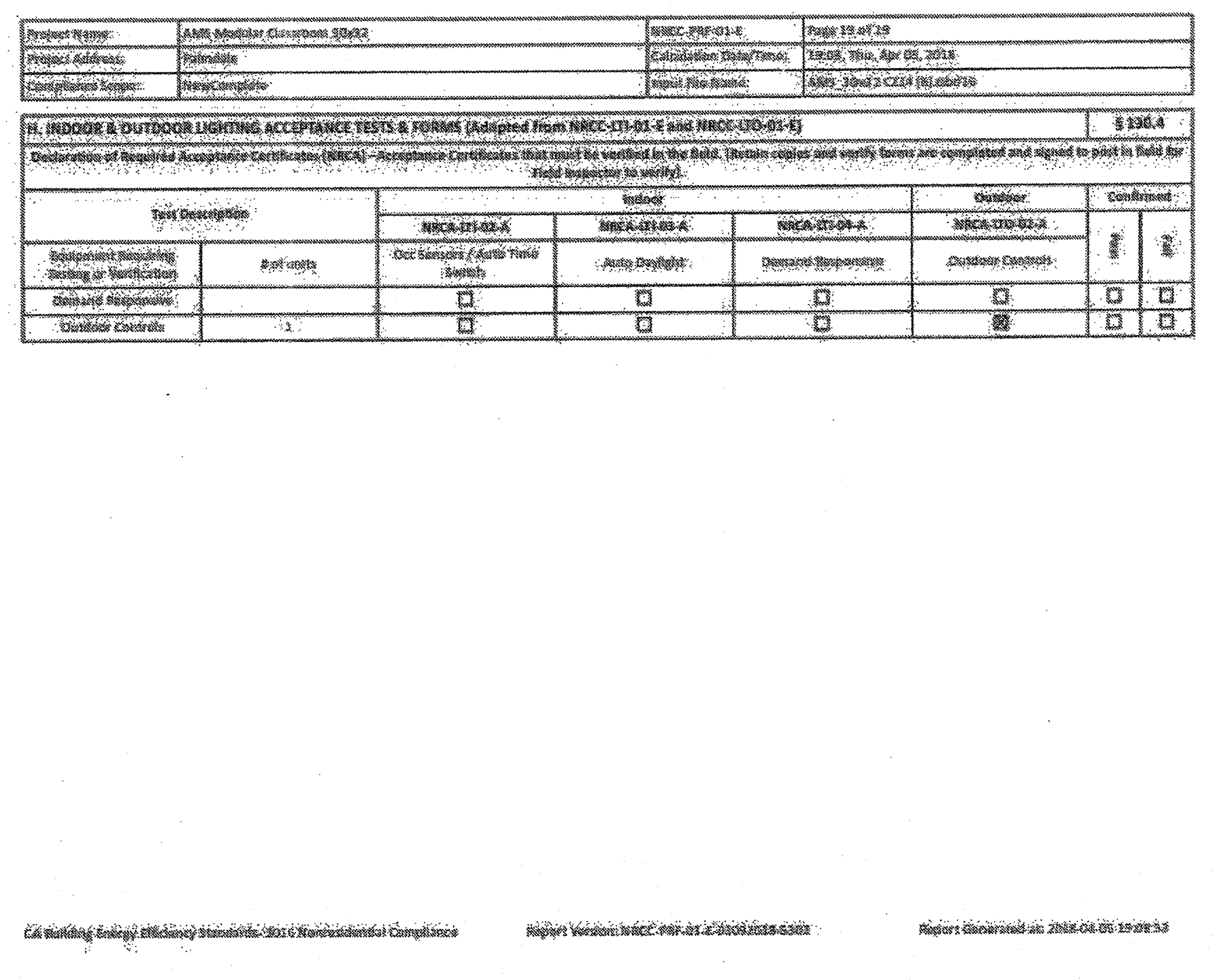

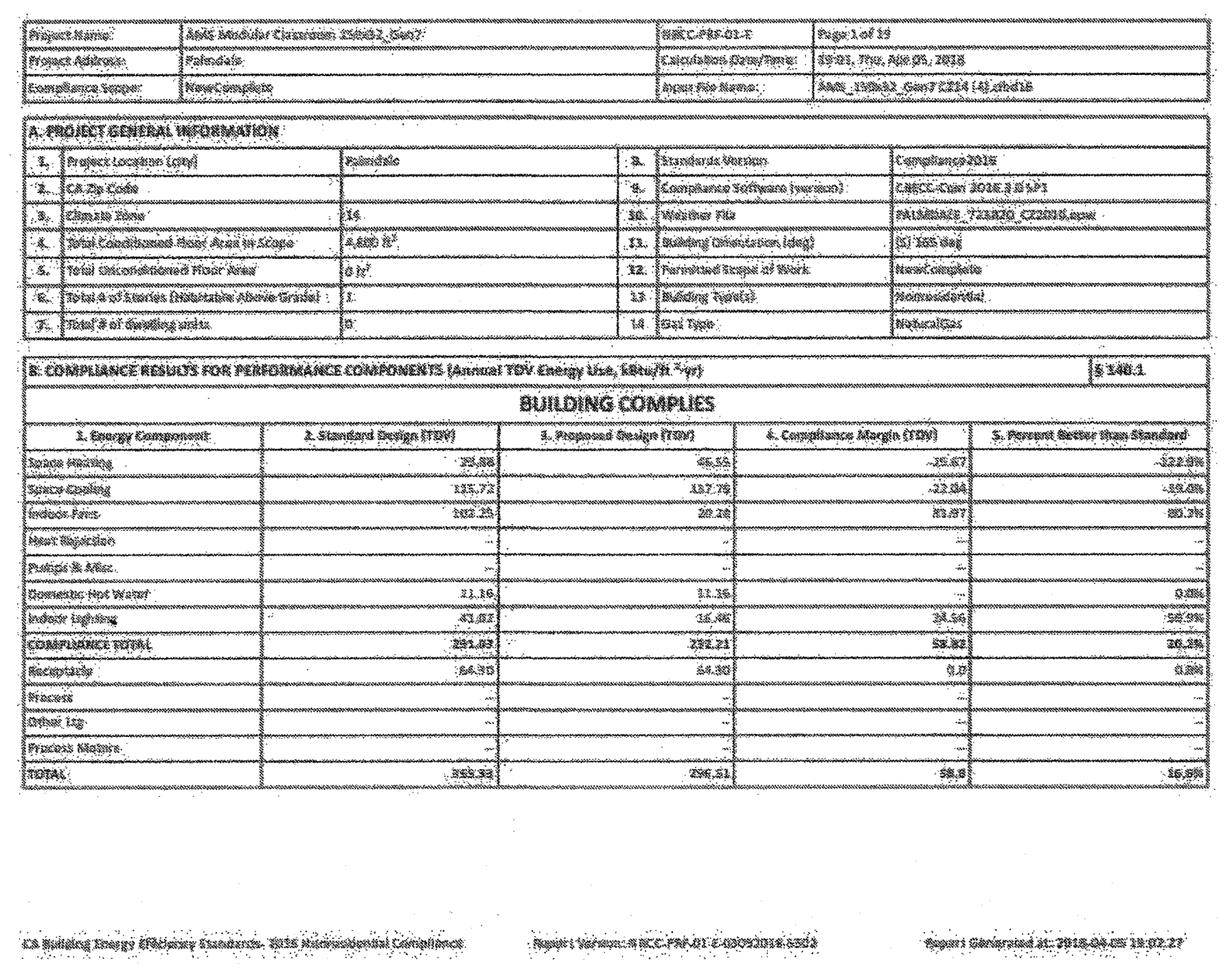

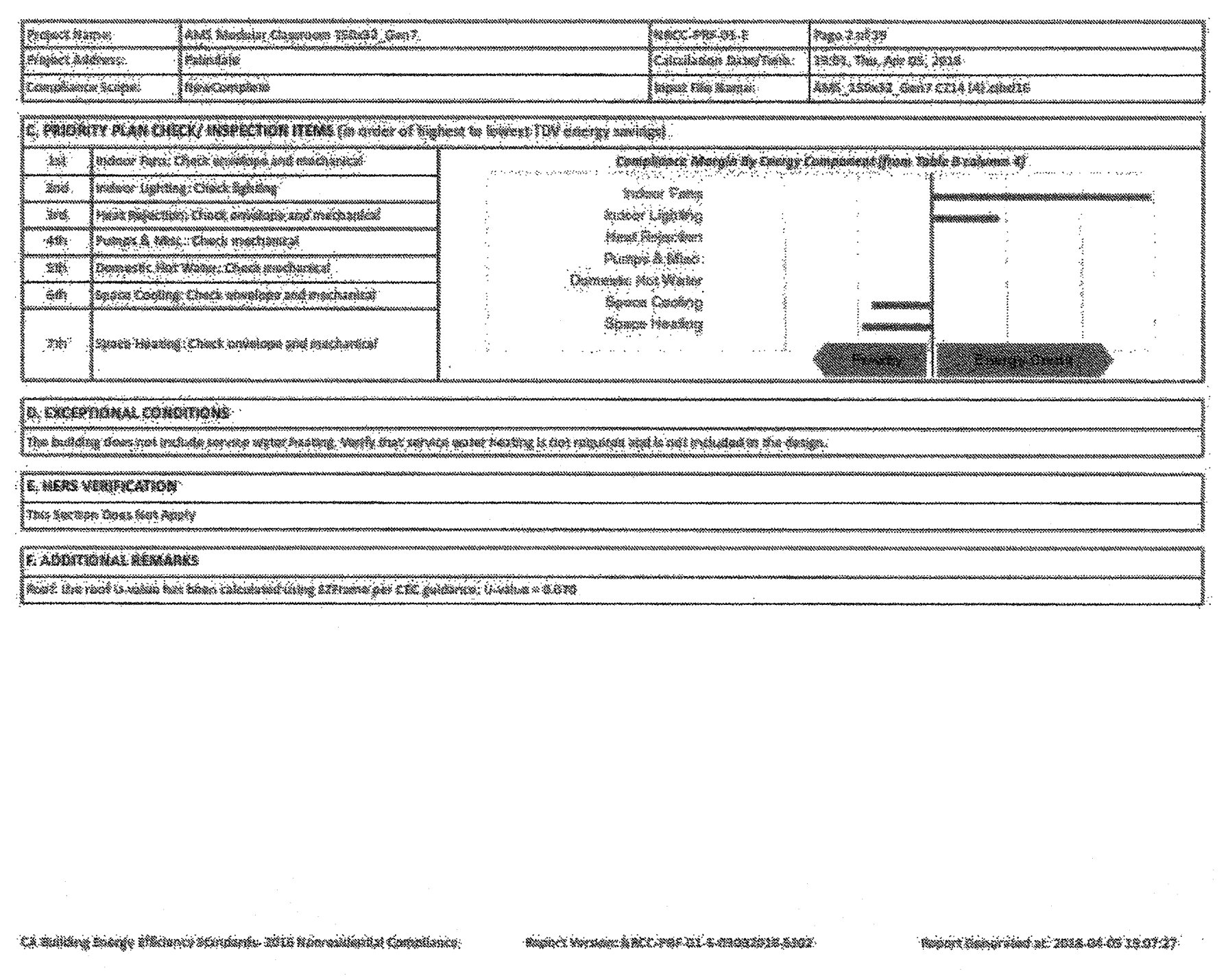

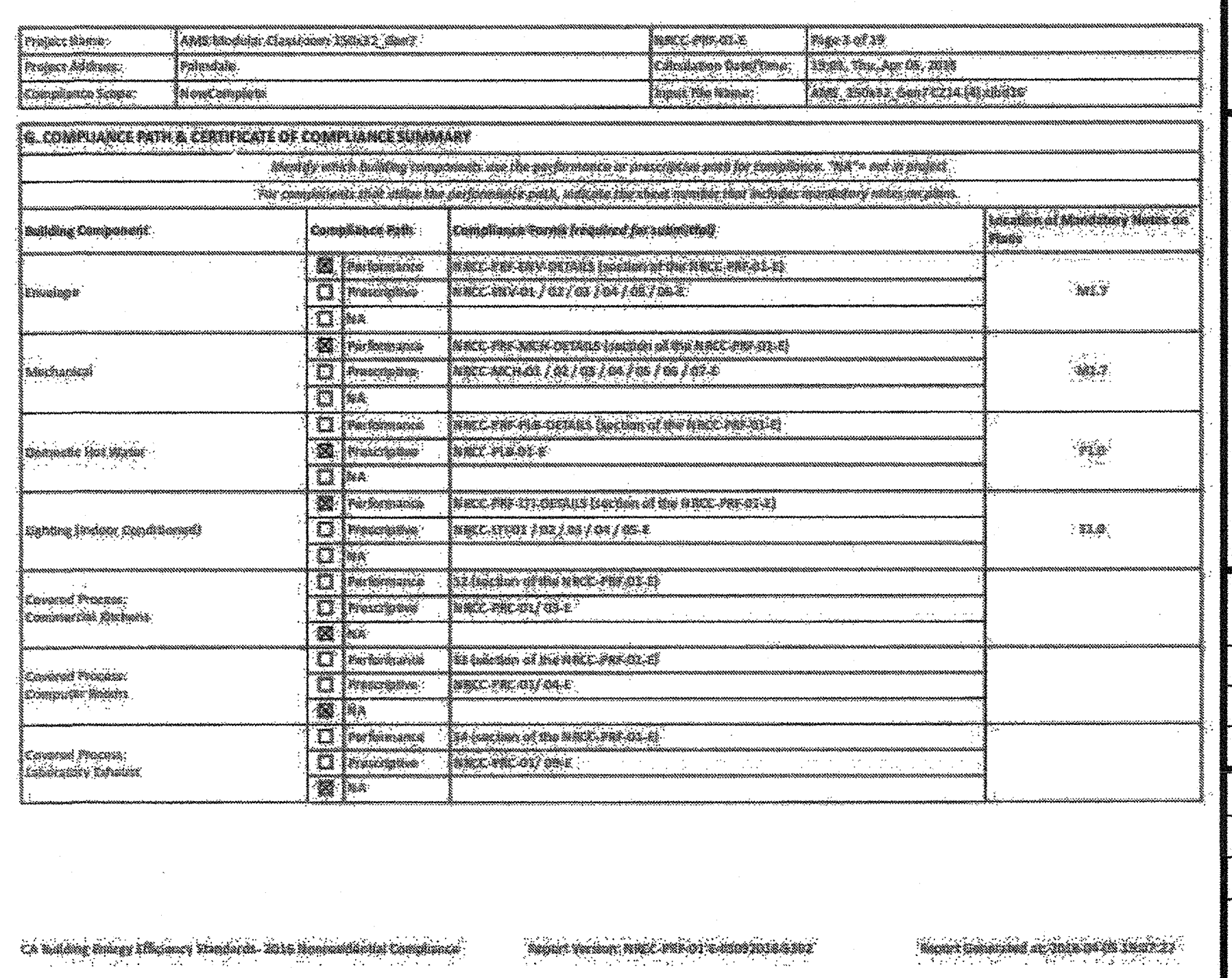

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II. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –

Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Certain copies and verify forms are completed and signed by past in field for Field Inspector to verify). See Tables G and H, in NRCI and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Confirmed: Pass	Confirmed: Fail
Envelope	☒ NRCI-ENV-01-F - For all buildings	☐	☐
	☒ NRCA-ENV-01-F: NFRC Label certification for fenestration	☐	☐
Mechanical	☒ NRCI-MCH-01-F - For all buildings with Mechanical systems	☐	☐
	☒ NRCA-MCH-02-A - Outdoor Air	☐	☐
	☒ NRCA-MCH-03-A — Compact Volume Single Zone HVAC	☐	☐
	☐ NRCA-MCH-04-H - Air Distribution Duct Leakage	☐	☐
	☐ NRCA-MCH-05-A - Air Economizer Controls	☐	☐
	☐ NRCA-MCH-06-A - Natural Control Ventilation	☐	☐
	☐ NRCA-MCH-07-A – Supply fan Variable Flow Controls	☐	☐
	☐ NRCA-MCH-08-A - Valve Leakage Test	☐	☐
	☐ NRCA-MCH-09-A – Supply Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-10-A - Hydronic System Variable Flow Controls	☐	☐
	☒ NRCA-MCH-11-A – Air/Air Demand Shut Controls	☐	☐
	☐ NRCA-MCH-13-A - Packaged Direct Expansion Units	☐	☐
	☐ NRCA-MCH-15-A - Air Handling Units and Zone Terminal Units	☐	☐
	☐ NRCA-MCH-16-A - Distributed Energy Storage	☐	☐
	☐ NRCA-MCH-35-A – Thermal Energy Storage	☐	☐
	☐ NRCA-MCH-36-A - Supply Air Temp Reset Controls	☐	☐
	☐ NRCA-MCH-37-A – Condenser Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-38-A - Energy Management Controls Systems	☐	☐
	☐ NRCV-MCH-04-H - Duct Leakage Test	☐	☐

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Building Component	Compliance Forms (required for submittal)	Confirmed: Pass	Confirmed: Fail
Plumbing	☐ R-ECI-PLR-01-E - For all buildings with Plumbing Systems	☐	☐
	☐ NRCI-PLB-02-E - Installed on central systems in high-rise residential, hotel/motel applications.	☐	☐
	☐ R-ECI-PLB-02-E - Single dwelling unit systems in high-rise residential, hotel/motel applications.	☐	☐
	☐ R-ECI-PLB-25-E - NRER verified central systems in high-rise residential, hotel/motel application	☐	☐
	☐ NRCI-PLB-22-E - NRER verified single dwelling unit systems in high-rise residential, hotel/motel applications.	☐	☐
	☐ NRCV-PLB-01-H- NRER verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-22-H- NRER verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-ALT-03-E - Fire sprinkler Water Heating	☐	☐
Indoor Lighting	☒ NRCI-LTI-01-E - For all buildings	☐	☐
	☒ NRCI-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	☐	☐
	☐ NRCI-LTI-05-E - Low voltage track lighting integral current limiters, or for a supplementary overcurrent protective panel used to energize only low-voltage track lighting	☐	☐
	☐ NRCI-LTI-06-E - Task unarticulated isolated perimeter art, architectural, a conversation corner, a conference room, or a theater	☐	☐
	☐ NRCI-LTI-08-E - Lighting Control Credit Power Adjustment Factor (PAF)	☐	☐
	☐ NRCI-LTI-09-E - Additional wattage installed in a video conferencing studio	☐	☐
	☒ NRCA-LTI-05-A - Occupancy sensors and automatic daylighting controls	☐	☐
	☒ NRCA-LTI-04-A - Automatic daylighting controls	☐	☐
	☐ NRCA-LTI-06-A - Demand responsive lighting controls	☐	☐
Outdoor Lighting	☐ NRCI-LTO-01-E - Outdoor Lighting	☐	☐
	☐ NRCI-LTO-02-E - DMCS Lighting Control System	☐	☐
	☒ NRCA-LTO-02-A - Outdoor Lighting Control	☐	☐
Sign Lighting	☐ R-ECI-LTO-01-E - Sign Lighting	☐	☐
Electrical	☒ R-ECI-ELC-01-E - Electrical Power Distribution	☐	☐
Photovoltaic	☐ R-ECI-EPV-01-E Photovoltaic Systems	☐	☐

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Building Component	Compliance Forms (required for submittal)	Confirmed: Pass	Confirmed: Fail
Covered Process	☐ NRCI-PRC-01-E Covered Process(es)	☐	☐
	☐ NRCA-PRC-01-F Compressed Air Systems	☐	☐
	☐ NRCA-PRC-02-E- Kitchen Exhaust.	☐	☐
	☐ NRCA-PRC-04-F- Process Exhaust	☐	☐
	☐ R-ECI-PRC-04-F- Refrigerated Warehouse- Evaporator Fan Motor Controls.	☐	☐
	☐ NRCA-PRC-03-F- Refrigerated Warehouse- Evaporative Condensers Controls	☐	☐
	☐ R-ECI-PRC-03-F- Refrigerated Warehouse- Air Cooled Condenser Controls.	☐	☐
	☐ R-ECI-PRC-05-F- Refrigerated Warehouse- Variable Speed Compressor	☐	☐
	☐ R-ECI-PRC-06-E - Electrical Resistance Underslab Heating System	☐	☐

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**I. ENVELOPE GENERAL INFORMATION (See NRCC-ENV-02-E/03-E/04-E/05-E/06-E/07-E/08-E/09-E/10-E/11-E/12-E/13-E/14-E/15-E/16-E/17-E/18-E/19-E/20-E/21-E/22-E/23-E/24-E/25-E/26-E/27-E/28-E/29-E/30-E/31-E/32-E/33-E/34-E/35-E/36-E/37-E/38-E/39-E/40-E/41-E/42-E/43-E/44-E/45-E/46-E/47-E/48-E/49-E/50-E/51-E/52-E/53-E/54-E/55-E/56-E/57-E/58-E/59-E/60-E/61-E/62-E/63-E/64-E/65-E/66-E/67-E/68-E/69-E/70-E/71-E/72-E/73-E/74-E/75-E/76-E/77-E/78-E/79-E/80-E/81-E/82-E/83-E/84-E/85-E/86-E/87-E/88-E/89-E/90-E/91-E/92-E/93-E/94-E/95-E/96-E/97-E/98-E/99-E/100-E/101-E/102-E/103-E/104-E/105-E/106-E/107-E/108-E/109-E/110-E/111-E/112-E/113-E/114-E/115-E/116-E/117-E/118-E/119-E/120-E/121-E/122-E/123-E/124-E/125-E/126-E/127-E/128-E/129-E/130-E/131-E/132-E/133-E/134-E/135-E/136-E/137-E/138-E/139-E/140-E/141-E/142-E/143-E/144-E/145-E/146-E/147-E/148-E/149-E/150-E/151-E/152-E/153-E/154-E/155-E/156-E/157-E/158-E/159-E/160-E/161-E/162-E/163-E/164-E/165-E/166-E/167-E/168-E/169-E/170-E/171-E/172-E/173-E/174-E/175-E/176-E/177-E/178-E/179-E/180-E/181-E/182-E/183-E/184-E/185-E/186-E/187-E/188-E/189-E/190-E/191-E/192-E/193-E/194-E/195-E/196-E/197-E/198-E/199-E/200-E/201-E/202-E/203-E/204-E/205-E/206-E/207-E/208-E/209-E/210-E/211-E/212-E/213-E/214-E/215-E/216-E/217-E/218-E/219-E/220-E/221-E/222-E/223-E/224-E/225-E/226-E/227-E/228-E/229-E/230-E/231-E/232-E/233-E/234-E/235-E/236-E/237-E/238-E/239-E/240-E/241-E/242-E/243-E/244-E/245-E/246-E/247-E/248-E/249-E/250-E/251-E/252-E/253-E/254-E/255-E/256-E/257-E/258-E/259-E/260-E/261-E/262-E/263-E/264-E/265-E/266-E/267-E/268-E/269-E/270-E/271-E/272-E/273-E/274-E/275-E/276-E/277-E/278-E/279-E/280-E/281-E/282-E/283-E/284-E/285-E/286-E/287-E/288-E/289-E/290-E/291-E/292-E/293-E/294-E/295-E/296-E/297-E/298-E/299-E/300-E/301-E/302-E/303-E/304-E/305-E/306-E/307-E/308-E/309-E/310-E/311-E/312-E/313-E/314-E/315-E/316-E/317-E/318-E/319-E/320-E/321-E/322-E/323-E/324-E/325-E/326-E/327-E/328-E/329-E/330-E/331-E/332-E/333-E/334-E/335-E/336-E/337-E/338-E/339-E/340-E/341-E/342-E/343-E/344-E/345-E/346-E/347-E/348-E/349-E/350-E/351-E/352-E/353-E/354-E/355-E/356-E/357-E/358-E/359-E/360-E/361-E/362-E/363-E/364-E/365-E/366-E/367-E/368-E/369-E/370-E/371-E/372-E/373-E/374-E/375-E/376-E/377-E/378-E/379-E/380-E/381-E/382-E/383-E/384-E/385-E/386-E/387-E/388-E/389-E/390-E/391-E/392-E/393-E/394-E/395-E/396-E/397-E/398-E/399-E/400-E/401-E/402-E/403-E/404-E/405-E/406-E/407-E/408-E/409-E/410-E/411-E/412-E/413-E/414-E/415-E/416-E/417-E/418-E/419-E/420-E/421-E/422-E/423-E/424-E/425-E/426-E/427-E/428-E/429-E/430-E/431-E/432-E/433-E/434-E/435-E/436-E/437-E/438-E/439-E/440-E/441-E/442-E/443-E/444-E/445-E/446-E/447-E/448-E/449-E/450-E/451-E/452-E/453-E/454-E/455-E/456-E/457-E/458-E/459-E/460-E/461-E/462-E/463-E/464-E/465-E/466-E/467-E/468-E/469-E/470-E/471-E/472-E/473-E/474-E/475-E/476-E/477-E/478-E/479-E/480-E/481-E/482-E/483-E/484-E/485-E/486-E/487-E/488-E/489-E/490-E/491-E/492-E/493-E/494-E/495-E/496-E/497-E/498-E/499-E/500-E/501-E/502-E/503-E/504-E/505-E/506-E/507-E/508-E/509-E/510-E/511-E/512-E/513-E/514-E/515-E/516-E/517-E/518-E/519-E/520-E/521-E/522-E/523-E/524-E/525-E/526-E/527-E/528-E/529-E/530-E/531-E/532-E/533-E/534-E/535-E/536-E/537-E/538-E/539-E/540-E/541-E/542-E/543-E/544-E/545-E/546-E/547-E/548-E/549-E/550-E/551-E/552-E/553-E/554-E/555-E/556-E/557-E/558-E/559-E/560-E/561-E/562-E/563-E/564-E/565-E/566-E/567-E/568-E/569-E/570-E/571-E/572-E/573-E/574-E/575-E/576-E/577-E/578-E/579-E/580-E/581-E/582-E/583-E/584-E/585-E/586-E/587-E/588-E/589-E/590-E/591-E/592-E/593-E/594-E/595-E/596-E/597-E/598-E/599-E/600-E/601-E/602-E/603-E/604-E/605-E/606-E/607-E/608-E/609-E/610-E/611-E/612-E/613-E/614-E/615-E/616-E/617-E/618-E/619-E/620-E/621-E/622-E/623-E/624-E/625-E/626-E/627-E/628-E/629-E/630-E/631-E/632-E/633-E/634-E/635-E/636-E/637-E/638-E/639-E/640-E/641-E/642-E/643-E/644-E/645-E/646-E/647-E/648-E/649-E/650-E/651-E/652-E/653-E/654-E/655-E/656-E/657-E/658-E/659-E/660-E/661-E/662-E/663-E/664-E/665-E/666-E/667-E/668-E/669-E/670-E/671-E/672-E/673-E/674-E/675-E/676-E/677-E/678-E/679-E/680-E/681-E/682-E/683-E/684-E/685-E/686-E/687-E/688-E/689-E/690-E/691-E/692-E/693-E/694-E/695-E/696-E/697-E/698-E/699-E/700-E/701-E/702-E/703-E/704-E/705-E/706-E/707-E/708-E/709-E/710-E/711-E/712-E/713-E/714-E/715-E/716-E/717-E/718-E/719-E/720-E/721-E/722-E/723-E/724-E/725-E/726-E/727-E/728-E/729-E/730-E/731-E/732-E/733-E/734-E/735-E/736-E/737-E/738-E/739-E/740-E/741-E/742-E/743-E/744-E/745-E/746-E/747-E/748-E/749-E/750-E/751-E/752-E/753-E/754-E/755-E/756-E/757-E/758-E/759-E/760-E/761-E/762-E/763-E/764-E/765-E/766-E/767-E/768-E/769-E/770-E/771-E/772-E/773-E/774-E/775-E/776-E/777-E/778-E/779-E/780-E/781-E/782-E/783-E/784-E/785-E/786-E/787-E/788-E/789-E/790-E/791-E/792-E/793-E/794-E/795-E/796-E/797-E/798-E/799-E/800-E/801-E/802-E/803-E/804-E/805-E/806-E/807-E/808-E/809-E/810-E/811-E/812-E/813-E/814-E/815-E/816-E/817-E/818-E/819-E/820-E/821-E/822-E/823-E/824-E/825-E/826-E/827-E/828-E/829-E/830-E/831-E/832-E/833-E/834-E/835-E/836-E/837-E/838-E/839-E/840-E/841-E/842-E/843-E/844-E/845-E/846-E/847-E/848-E/849-E/8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300-E/2301-E/2302-E/2303-E/2304-E/2305-E/2306-E/2307-E/2308-E/2309-E/2310-E/2311-E/2312-E/2313-E/2314-E/2315-E/2316-E/2317-E/2318-E/2319-E/2320-E/2321-E/2322-E/2323-E/2324-E/2325-E/2326-E/2327-E/2328-E/2329-E/2330-E/2331-E/2332-E/2333-E/2334-E/2335-E/2336-E/2337-E/2338-E/2339-E/2340-E/2341-E/2342-E/2343-E/2344-E/2345-E/2346-E/2347-E/2348-E/2349-E/2350-E/2351-E/2352-E/2353-E/2354-E/2355-E/2356-E/2357-E/2358-E/2359-E/2360-E/2361-E/2362-E/2363-E/2364-E/2365-E/2366-E/2367-E/2368-E/2369-E/2370-E/2371-E/2372-E/2373-E/2374-E/2375-E/2376-E/2377-E/2378-E/2379-E/2380-E/2381-E/2382-E/2383-E/2384-E/2385-E/2386-E/2387-E/2388-E/2389-E/2390-E/2391-E/2392-E/2393-E/2394-E/2395-E/2396-E/2397-E/2398-E/2399-E/2400-E/2401-E/2402-E/2403-E/2404-E/2405-E/2406-E/2407-E/2408-E/2409-E/2410-E/2411-E/2412-E/2413-E/2414-E/2415-E/2416-E/2417-E/2418-E/2419-E/2420-E/2421-E/2422-E/2423-E/2424-E/2425-E/2426-E/2427-E/2428-E/2429-E/2430-E/2431-E/2432-E/2433-E/2434-E/2435-E/2436-E/2437-E/2438-E/2439-E/2440-E/2441-E/2442-E/2443-E/2444-E/2445-E/2446-E/2447-E/2448-E/2449-E/2450-E/2451-E/2452-E/2453-E/2454-E/2455-E/2456-E/2457-E/2458-E/2459-E/2460-E/2461-E/2462-E/2463-E/2464-E/2465-E/2466-E/2467-E/2468-E/2469-E/2470-E/2471-E/2472-E/2473-E/2474-E/2475-E/2476-E/2477-E/2478-E/2479-E/2480-E/2481-E/2482-E/2483-E/2484-E/2485-E/2486-E/2487-E/2488-E/2489-E/2490-E/2491-E/2492-E/2493-E/2494-E/2495-E/2496-E/2497-E/2498-E/2499-E/2500-E/2501-E/2502-E/2503-E/2504-E/2505-E/2506-E/2507-E/2508-E/2509-E/2510-E/2511-E/2512-E/2513-E/2514-E/2515-E/2516-E/2517-E/2518-E/2519-E/2520-E/2521-E/2522-E/2523-E/2524-E/2525-E/2526-E/2527-E/2528-E/2529-E/2530-E/2531-E/2532-E/2533-E/2534-E/2535-E/2536-E/2537-E/2538-E/2539-E/2540-E/2541-E/2542-E/2543-E/2544-E/2545-E/2546-E/2547-E/2548-E/2549-E/2550-E/2551-E/2552-E/2553-E/2554-E/2555-E/2556-E/2557-E/2558-E/2559-E/2560-E/2561-E

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G. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS :
This Section Does Not Apply

H. SOLAR HOT WATER HEATING SUMMARY (Adopted from NRCC-STH-01)
This Section Does Not Apply

I. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS (Adopted from 2015-NRCC-MCH-01-E) § 8A4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted, Claimed, Signed, and verify Rated and Completed and signed to post in field for field inspector to verify.

Test Description		MCH-04-A	MCH-04-B	MCH-04-C	MCH-04-D	MCH-04-E	MCH-04-F	MCH-04-G	MCH-04-H	MCH-04-I	MCH-04-J	MCH-04-K	MCH-04-L	MCH-04-M	MCH-04-N	MCH-04-O	MCH-04-P	MCH-04-Q	MCH-04-R	MCH-04-S	MCH-04-T	Confirmed	
Equipment Requiring Testing or Verification	# of units	Economizer Air Flow	Economizer Fault Detection	Air Side Sealing	Refrigerant Charge	VAV	Supply Air VAV	Water Heater	Water Heating Pipe Insulation	Water Heating Tank Insulation	Pool Heater Controls	Pool Heating Pump Time Switch	Pool Cover	Supply Air Temp Reset	Demand Control Ventilation	Hydronic System Variable Flow Control	Boiler Turndown	Boiler Combustion Efficiency	Gas Fired Unit Heater	Gas Fired Infrared Heater	Electric Resistance Heating	Pass	Fail
JCI-5	6	X	X	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--	☐	☐

K. HYDRONIC SYSTEMS SUMMARY
This Section Does Not Apply

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NRCC-PRF-LTI-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) § 140.6

Lighting Control Credits Schedule (Includes all lighting controls installed in conditioned space for compliance credit per §140.6(a)2 and Table 140.6-A)

Location in Building	Occupancy Type (Add more requirements at Table 140.6-A)	Type/Description of Lighting Control (i.e., partial on occupancy sensor, manual-dimming, etc.)	# of Units	Control Credit Calculation			Control Credits Watts	<If Acceptance Test Required	Confirmed	
				Watts of Controlled Lighting	Proper Adjustment Factor	Control Credit Watts			Pass	Fail
Classroom 1	Classrooms, Lecture, Training, Vocational Areas	- none specified -	1		0.20	-0			☐	☐
Classroom 2	Classrooms, Lecture, Training, Vocational Areas	- none specified -	1		0.20	-0			☐	☐
Classroom 3	Classrooms, Lecture, Training, Vocational Areas	- none specified -	1		0.20	-0			☐	☐

B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-03-E) § 130.1

Lighting Control Credits Schedule (Includes all lighting controls installed in conditioned space to meet mandatory requirements per § 130.1)

Location in Building	Type/Description of Lighting Control (i.e., occupancy sensor, dimming, automatic daylighting control, etc.)	# of Units	Standards Compliance (if all don't apply or "0" if exempt)					Is Acceptance Test Required?	Confirmed	
			$130.1(a)	$130.1(b)	$130.1(c)	$130.1(d)	$130.1(e)		Pass	Fail
Classroom 1	Switches	1	Y	N/A	N/A	N/A	N/A	No	☐	☐
Classroom 1	Manual Dimmers	1	N/A	Y	N/A	N/A	N/A	No	☐	☐
Classroom 1	Occupancy Sensor	1	N/A	N/A	Y	N/A	N/A	Yes	☐	☐
Classroom 1	Automatic Daylight Controls	1	N/A	N/A	N/A	Y	N/A	Yes	☐	☐
Classroom 2	Switches	1	Y	N/A	N/A	N/A	N/A	No	☐	☐
Classroom 2	Manual Dimmers	1	N/A	Y	N/A	N/A	N/A	Yes	☐	☐
Classroom 2	Occupancy Sensor	1	N/A	N/A	Y	N/A	N/A	Yes	☐	☐
Classroom 2	Automatic Daylight Controls	2	N/A	N/A	N/A	Y	N/A	Yes	☐	☐
Classroom 3	Switches	1	Y	N/A	N/A	N/A	N/A	No	☐	☐
Classroom 3	Manual Dimmers	1	N/A	Y	N/A	N/A	N/A	No	☐	☐
Classroom 3	Occupancy Sensor	1	N/A	N/A	Y	N/A	N/A	Yes	☐	☐

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C. TAILORED METHOD CONDITIONED LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E) § 140.6

General lighting power [see Table 9]	9
General lighting power from special functions above [see Table 9]	NA
Additional W/sf for Item H* (See Table 6)	0*
Total watts	0*

D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E) § 140.6-D

This Section Does Not Apply

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E) § 140.6(a)2 3H

Room/Number	Primary Function Area	Illuminance Value (LUX)	Room Cavity Ratio (Table 6)	Ballance LPD	Floor Area (SF)	Allowed Watts	Confirmed	
							Pass	Fail
N/A	N/A	NA	N/A	N/A	N/A	N/A	☐	☐

Note: Allowed Watts per Special Function Area is not currently implemented

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)

Rectangular Spaces						
Room Number	Task/Activity Description	Room length (ft)	Room Width (ft)	Room Cavity Height (ft)	RCR:	Confirmed
						Pass / Fail
N/A	N/A	NA	NA	NA	NA	☐ ☐

Non-Rectangular Spaces
This Section Does Not Apply
Note: An additional space may have a non-rectangular space type.

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G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components are the performance or prescriptive path for compliance. "N/A" not in project
For components that utilize the performance path, indicate the sheet number that includes mandatory notes or specs.

Building Component	Compliance Path	Compliance Forms (required for submittal)	Location of Mandatory Notes on Plans
Envelope	☒ Performance	NRCC-PRF-09A Certificate of Compliance	M1.7
	☐ Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
	☐ N/A		
Mechanical	☒ Performance	NRCC-PRF-MCH-02 Section of the NRCC-PRF-01-E	M1.7
	☐ Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	
	☐ N/A		
Domestic Hot Water	☐ Performance	NRCC-PRF-09A-DETAILS (section of the NRCC-PRF-01-E)	P1.0
	☒ Prescriptive	NRCC-PLB-01-E	
	☐ N/A		
Lighting (Indoor/ Central/Shared)	☒ Performance	NRCC-PRF-LTI-DETAILS (section of the NRCC-PRF-01-E)	E1.0
	☐ Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	
	☐ N/A		
Covered Process: Commercial Kitchens	☐ Performance	12 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 09-E	
	☒ N/A		
Covered Process: Computer Rooms	☐ Performance	13 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-02/ 04-E	
	☒ N/A		
Covered Process: Laboratory Exhaust	☐ Performance	14 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 05-E	
	☒ N/A		

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H. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-03-E) § 130.1

Lighting Control Credits Schedule (Includes all lighting controls installed in conditioned space to meet mandatory requirements per § 130.1)

Location in Building	Type/Description of Lighting Control (i.e., occupancy sensor, dimming, automatic daylighting control, etc.)	# of Units	Standards Compliance (if all don't apply or "0" if exempt)					Is Acceptance Test Required?	Confirmed	
			$130.1(a)	$130.1(b)	$130.1(c)	$130.1(d)	$130.1(e)		Pass	Fail
Classroom 1	Automatic Daylighting Controls	2	N/A	N/A	Y	N/A	Yes		☐	☐

Note: Mandatory Daylight Controls Area is not currently implemented

I. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E) § 130.1

L.	J.	K.		Confirmed	
Wall Display	Combined Wall Display and Task Lighting	Combined Wall Display and Special Effects Lighting	Allowed Watts	Pass	Fail
0	a	β	δ	☐	☐

J. WALL DISPLAY
This Section Does Not Apply

K. FLOOR DISPLAY AND TASK LIGHTING
This Section Does Not Apply

L. COMBINED ENVIRONMENTAL AND SPECIAL EFFECTS LIGHTING
This Section Does Not Apply

M. VERY VALUABLE MERCHANDISE
This Section Does Not Apply

N. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) § 130.4

Declaration of Required Acceptance Certificates (NRCA) - Acceptance Certificates that need be verified in the field. Switch inputs and verify items are completed and signed to post in field for field inspector to verify.

Test Description		Indoor		Outdoor		Confirmed	
		NRCA-LTI-02-A	NRCA-LTI-03-A	NRCA-LTI-04-A	NRCA-LTI-05-A	Pass	Fail
Equipment Requiring Testing or Verification	# of units	Occ Sensing / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls		
Occupant Sensors	3	☒	☐	☐	☐	☐	☐
Automatic Time Switch	4	☒	☐	☐	☐	☐	☐
Automatic Daylighting	4	☐	☒	☐	☐	☐	☐
Demand Responsive		☐	☐	☐	☐	☐	☐
Outdoor Controls	3	☐	☐	☐	☒	☐	☐

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Compliance Scope:	NewComplete	Input File Name:	AMS_30x52 CZ16 [8].cbd16

O. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which CF-6Rs that must be submitted for the Permit to be processed for completeness (Details required and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G and H in NRCI and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Confirmed	
		Pass	Fail
Envelope	☒ NRCI-ENV-01-E - For all buildings	☐	☐
	☒ NRCA-ENV-02-E - NRCI blower door/duct test forms for Nonresidential	☐	☐
	☒ NRCI-MCH-02-E - For all buildings with Mechanical systems	☐	☐
Mechanical	☒ NRCA-MCH-02-A - Outdoor Air	☐	☐
	☒ NRCA-MCH-03-A - Constant Volume Single Duct VAVAC	☐	☐
	☐ NRCA-MCH-04-A - Air Economizer Controls	☐	☐
	☐ NRCA-MCH-05-A - Air Economizer Controls	☐	☐
	☐ NRCA-MCH-06-A - Demand Control Ventilation	☐	☐
	☐ NRCA-MCH-07-A - Supply Fan Variable Flow Control	☐	☐
	☐ NRCA-MCH-08-A - Valve Leakage Test	☐	☐
	☐ NRCA-MCH-09-A - Supply Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-10-A - Hydronic System Variable Flow Controls	☐	☐
	☒ NRCA-MCH-11-A - Zone Demand Load Controls	☐	☐
	☒ NRCA-MCH-12-A - Packaged Direct Expansion Units	☐	☐
	☒ NRCA-MCH-13-A - Air Handling Units and Zone Terminal Units	☐	☐
	☐ NRCA-MCH-14-A - Distributed Energy Storage	☐	☐
	☐ NRCA-MCH-15-A - Thermal Energy Storage	☐	☐
	☐ NRCA-MCH-16-A - Supply Air Temp Reset Controls	☐	☐
	☐ NRCA-MCH-17-A - Condensate Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-18-A - Energy Management Control Systems	☐	☐
	☐ NRCI-MCH-08-H - Duct Leakage Test	☐	☐
Plumbing	☒ NRCI-PLB-01-E - For all buildings with Plumbing Systems	☐	☐
	☒ NRCI-PLB-02-E - required on cooked systems in high-rise residential, hotel/motel applications.	☐	☐
	☒ NRCI-PLB-03-E - Single-dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☒ NRCI-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel applications.	☐	☐
	☒ NRCI-PLB-22-E - HERS verified single-dwelling unit systems in high-rise residential, hotel/motel applications.	☐	☐
	☒ NRCI-PLB-23-H - HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCA-PLB-24-A - Pool water heating	☐	☐
Indoor Lighting	☒ NRCI-LTI-01-E - For all buildings	☐	☐
	☒ NRCI-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	☐	☐
	☒ NRCI-LTI-03-E - One skylight track lighting output current limiter, or for a supplementary overcurrent protection panel used to energize only one skylight track lighting	☐	☐
	☒ NRCI-LTI-04-E - Tuna interconnect system serving up to 6 devices, 1 secondary control, 1 hardwired relay, on a disaster	☐	☐
	☒ NRCI-LTI-05-E - Lighting Control Dimmable Fixture Adjustment Factor (FAF)	☐	☐
	☒ NRCI-LTI-06-E - Additional wattage installed in a video conferencing studio	☐	☐
	☒ NRCA-LTI-02-A - Occupancy sensors and automatic time switch controls	☐	☐
	☒ NRCA-LTI-03-A - Automatic daylighting controls	☐	☐
	☐ NRCA-LTI-04-A - Demand responsive lighting controls	☐	☐
Outdoor Lighting	☒ NRCI-LTO-01-E - Outdoor lighting	☐	☐
	☒ NRCI-LTO-02-E - EMCS lighting Control system	☐	☐
	☒ NRCA-LTO-02-A - Outdoor Lighting Control	☐	☐
Sign Lighting	☐ NRCI-LTG-01-E - Sign Lighting	☐	☐
Electrical	☒ NRCI-ELC-01-E - Success Power Distribution	☐	☐
Photovoltaic	☐ NRCI-LPV-01-E Photovoltaic Systems	☐	☐

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Compliance Scope:	NewComplete	Input File Name:	AMS_30x52 CZ16 [8].cbd16

O. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which CF-6Rs that must be submitted for the Permit to be processed for completeness (Details required and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G and H in NRCI and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Confirmed	
		Pass	Fail
Covered Process	☒ NRCI-PRC-01-E Covered Processes	☐	☐
	☒ NRCA-PRC-02-E Computerized Air Systems	☐	☐
	☒ NRCA-PRC-02-I - Kitchen Exhaust	☐	☐
	☒ NRCA-PRC-03-I - Garage Exhaust	☐	☐
	☒ NRCA-PRC-04-E - Refrigerated Warehouse Economizer Fan Motor Controls	☐	☐
	☒ NRCA-PRC-05-F - Refrigerated Warehouse - Evaporative Condenser Controls	☐	☐
	☒ NRCA-PRC-06-F - Refrigerated Warehouse - Air Cooled Condenser Controls	☐	☐
	☒ NRCA-PRC-07F - Refrigerated Warehouse - Variable Speed Compressor	☐	☐
	☒ NRCA-PRC-08-E - Electrical Resistance Underslab Heating System	☐	☐

P. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)

						Confirmed	
1.	Total Conditioned Floor Area	862 ft²	5.	Number of Floors Above Grade	1	Pass	Fail
2.	Total Unconditioned Floor Area	0 ft²	6.	Number of Floors Below Grade	0		
3.	Addition Conditioned Floor Area	0 ft²					
4.	Addition Unconditioned Floor Area	0 ft²					

Q. CLIMATE ZONE & BUILDING SUMMARY § 140.3

1.	2.	3.	4.	5.	6.	7.	8.	Confirmed	
Surface Name	Surface Type	Area (ft²)	Existing / New	Cool Roof Credit	Overhang Projection	Overhang Projection	Sidefin Projection	Pass	Fail
Color/ Slab over Crawlspace	Description	862	N/A	-0	N/A	0 Pitches & 223	N	☐	☐
Roof/ Ceiling per ZEPI area -	Roof	862	New	10	0	0 Pitches & 0.0	N	☐	☐
N 3.3 ft shaded frame + 3 ft 2 i	Exterior Wall	1,240	New	10	0	0 Pitches & 0.998	N	☐	☐

*Notes: 0 - Yes, F - Mixed, E - Existing

R. ROOFING PRODUCT SUMMARY § 140.3 Confirmed

1.	2.	3.	4.	5.	6.	7.	Pass	Fail
Product Type	Product Identity (qty/sf)	Aged Solar Reflectance	Thermal Emittance	SRI	Cool Roof Credit	Roofing Product Description		
Roof, 30x5.25 per ASHRAE	2,160	0.20	0.75	15	No	N/A	☐	☐

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R. FENESTRATION ASSEMBLY SUMMARY § 110.6 Confirmed

1.	2.	3.	4.	5.	6.	7.	8.	9.	Confirmed	
Fenestration Assembly Name / Tag or I.D.	Fenestration Type / Product Type / Frame Type	Certification Method	Assembly Method	Area ft²	Overall U-factor	Overall SHGC	Overall VT	Shading Device	Pass	Fail
Solar Grey NFRC	Vertical Glazing/Curtain Wall/Storefront / Aluminum with Thermal Break	NFRC Rated	Manufactured	288	0.29	0.49	0.37	N	☐	☐

*Area entered fenestration assembly is multiplied by the Glass Multiplier of 1.0 for IECC 2009 and older, 1.1 for IECC 2012 and 2015, and 1.2 for IECC 2018 & Table of 110.6 Table 2 of 2015 IECC when no U or SHGC is given. Glass Multiplier is used for area weighted U-factor and SHGC calculations. Glass, n. Area, F. Glass/F. Glazing

Tabing compliance credit for fenestration shading devices? (If "Yes", see NRCC-PRF-ENV-DETAILS for more information) | No

S. OPAQUE SURFACE ASSEMBLY SUMMARY § 120.7/ § 140.3 Confirmed

1.	2.	3.	4.	5.	6.	7.	8.	Pass	Fail
Surface Name	Surface Type	Area (ft²)	Existing / New	Construction & Assembly	Construction U-factor	U-factor / R-factor / R-factor	Solar Absorptance		
Color/ Slab over Crawlspace	Description/	862	N/A	-0	N/A	0 Pitches & 223	N	☐	☐
Roof/ Ceiling per ZEPI area -	Roof	862	New	10	0	0 Pitches & 0.071	N	☐	☐
N 3.3 ft shaded frame + 3 ft 2 i	Exterior Wall	1,240	New	10	0	0 Pitches & 0.998	N	☐	☐

*Notes: 0 - Yes, F - Mixed, E - Existing

T. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E) § 130.1

L.	J.	K.		Confirmed	
Wall Display	Combined Wall Display and Task Lighting	Combined Wall Display and Special Effects Lighting	Allowed Watts	Pass	Fail
0	a	β	δ	☐	☐

U. WALL DISPLAY
This Section Does Not Apply

V. FLOOR DISPLAY AND TASK LIGHTING
This Section Does Not Apply

W. COMBINED ENVIRONMENTAL AND SPECIAL EFFECTS LIGHTING
This Section Does Not Apply

X. VERY VALUABLE MERCHANDISE
This Section Does Not Apply

Y. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) § 130.4

Declaration of Required Acceptance Certificates (NRCA) - Acceptance Certificates that need be verified in the field. Switch inputs and verify items are completed and signed to post in field for Field Inspector to verify.

Test Description		Indoor		Outdoor		Confirmed	
		NRCA-LTI-02-A	NRCA-LTI-03-A	NRCA-LTI-04-A	NRCA-LTI-05-A	Pass	Fail
Equipment Requiring Testing or Verification	# of units	Occ Sensing / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls		
Occupant Sensors	3	☒	☐	☐	☐	☐	☐
Automatic Time Switch	4	☒	☐	☐	☐	☐	☐
Automatic Daylighting	4	☐	☒	☐	☐	☐	☐
Demand Responsive		☐	☐	☐	☐	☐	☐
Outdoor Controls	3	☐	☐	☐	☒	☐	☐

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Z. FENESTRATION ASSEMBLY SUMMARY § 110.6 Confirmed

1.	2.	3.	4.	5.	6.	7.	8.	9.	Confirmed	
Fenestration Assembly Name / Tag or I.D.	Fenestration Type / Product Type / Frame Type	Certification Method	Assembly Method	Area ft²	Overall U-factor	Overall SHGC	Overall VT	Shading Device	Pass	Fail
Solar Grey NFRC	Vertical Glazing/Curtain Wall/Storefront / Aluminum with Thermal Break	NFRC Rated	Manufactured	288	0.29	0.49	0.37	N	☐	☐

*Area entered fenestration assembly is multiplied by the Glass Multiplier of 1.0 for IECC 2009 and older, 1.1 for IECC 2012 and 2015, and 1.2 for IECC 2018 & Table of 110.6 Table 2 of 2015 IECC when no U or SHGC is given. Glass Multiplier is used for area weighted U-factor and SHGC calculations. Glass, n. Area, F. Glass/F. Glazing

AA. OPAQUE SURFACE ASSEMBLY SUMMARY § 120.7/ § 140.3 Confirmed

1.	2.	3.	4.	5.	6.	7.	8.	Pass	Fail
Surface Name	Surface Type	Area (ft²)	Existing / New	Construction & Assembly	Construction U-factor	U-factor / R-factor / R-factor	Solar Absorptance		
Color/ Slab over Crawlspace	Description/	862	N/A	-0	N/A	0 Pitches & 223	N	☐	☐
Roof/ Ceiling per ZEPI area -	Roof	862	New	10	0	0 Pitches & 0.071	N	☐	☐
N 3.3 ft shaded frame + 3 ft 2 i	Exterior Wall	1,240	New	10	0	0 Pitches & 0.998	N	☐	☐

*Notes: 0 - Yes, F - Mixed, E - Existing

AB. ROOFING PRODUCT SUMMARY § 140.3 Confirmed

1.	2.	3.	4.	5.	6.	7.	Pass	Fail
Product Type	Product Identity (qty/sf)	Aged Solar Reflectance	Thermal Emittance	SRI	Cool Roof Credit	Roofing Product Description		
Roof, 30x5.25 per ASHRAE	2,160	0.20	0.75	15	No	N/A	☐	☐

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7
healthy | ethos | sustainment

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ENERGY CALCULATIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT
ANTHONY PATRICK SCHWARZ
No. C12631
Exp. 3-31-19
STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP. 02-116071 DATE 7/10/18

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP# 02 119722
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS BY
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

1	--	--
2	--	--
3	--	--
4	--	--

DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER

EN.4

Project Name:	AMS Modular Classroom 30x32	NRCC-PRF-01-E	Page 9 of 19
Project Address:	Blue Canyon	Calculation Date/Time:	08:59, Fri, Apr 06, 2018
Compliance Scope:	NewConstruction	Input File Name:	AMS_30x32 CZ10 DEL.ribd16

M. HVAC SYSTEM SUMMARY (use NRCC-PRF-MCH-DETAILS for more information) — § 151.1 / § 110.2

Dry System Equipment * (Fan & Standalone Info included below in Table 4)

1. Equip Name	2. Equip Type	3. Fan Type, (Supply Fan Complies?)	4. Qty	5. Total Heating Output (kBtu/h)	6. Supp Heat Output (kBtu/h)	7. Supp Heat Source (Type)	8. Total Cooling Output (kBtu/h)	9. Efficiency: Cooling	9. Efficiency: Heating	10. Acceptance Testing Required? (Y/N) 4	Confirmed: Pass	Confirmed: Fail
AC-1	SPVHP (Packaged/Split)	Single	1	480	NA	0	421	EER 13.20	COP 3.60	SM	N	☐

* Dry System Equipment includes DX cooling, or chilled or steam heating coils, etc.
1 Single fan does not provide VAV, CAV or PIU zone heating or cooling. Single volume fans
2 Cooling System must comply with 140.4(l)(1) and may not use chilled water or DX cooling.
3 A category of boiler exempted from 140.4(e)(2)(A) is installed in NRCC-PRF-MCH-DETAILS
4 Include for items A - G only if — exists

Was System Equipment Section Does Not Apply	
Discrepancy between modeled and designed equipment sizing? (If "Yes", see Table H "Additional Remarks" for an explanation)	No

N. ECONOMIZER & FAN SYSTEMS SUMMARY[1] — § 150.4 — Confirmed

1. Equip Name	2. Outside Air	3. Supply Fan				4. Return Fan				5. Economizer Type (if present)	Confirmed: Pass	Confirmed: Fail
	CFM	CFM	HP	BHP	TSP (Inch WG)	Control	CFM	HP	BHP	TSP (Inch WG)	Control			
AC-1	357	1,200	0.37	0.338	0.50	Constant Volume	NA	NA	NA	NA	NA	Hydronic	☐	☐

[1] Mechanical ventilation (ventilation) and exhaust fans are not included in table.

O. EQUIPMENT CONTROLS — § 120.2 — Confirmed

1. Equip Name	2. Equip Type	3. Controls	Confirmed: Pass	Confirmed: Fail
AC-1	SPVHP	Dry-DCV (Options) Air-Economizer No-Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐

P. SYSTEM DISTRIBUTION SUMMARY — § 120.4/ § 140.4(l)

1. Equip Name	2. Equip Type	3. Dry System Distribution: Duct Leakage and Sealing Required per (§6.4.4)	4. Duct Leakage will be verified per §6.5 and §6.6	5. Ducts: Insulation & Status	5. Ducts: Location	6. Status[2]	Confirmed: Pass	Confirmed: Fail
AC-1	SPVHP	Yes	Yes	0	Conditioned	N	☐	☐

[2] Status (N, New; E - Altered; E - Existing)

Does the Project Include Zonal Systems? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)		No
Does the Project Include a Solar Hot Water System? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)		No
Multifamily or Hotel/ Motel Occupancy? (If "Yes", see NRCC-PRF-MCH-DETAILS for DHW system information)		No

Q. INDOOR CONDITIONED LIGHTING-GENERAL INFO (use NRCC-PRF-LTI-DETAILS for more info) — § 140.6 — Confirmed

1. Occupancy Type[3]	2. Conditioned Floor Area [ft²]	3. Installed Lighting Power (Watts)	4. Lighting Control Credits (Watts)	5. Additional (Exterior) Allowance: Area Category Footcandles (Watts)	5. Additional (Exterior) Allowance: Tailored Method (Watts)	Confirmed: Pass	Confirmed: Fail
Classrooms, Lecture, Training, Vocational Areas	352	140	0	0	0	☐	☐
Building Totals:	352	140	0	0	0		

[3] See table C

R. SYSTEM DISTRIBUTION SUMMARY — § 120.4/ § 140.4(l)

1. Equip Name	2. Equip Type	3. Dry System Distribution: Duct Leakage and Sealing Required per (§6.4.4)	4. Duct Leakage will be verified per §6.5 and §6.6	5. Ducts: Insulation & Status	5. Ducts: Location	6. Status[2]	Confirmed: Pass	Confirmed: Fail
AC-1	SPVHP	No	No	0	Conditioned	N	☐	☐

[2] Status (N, New; E - Existing)

S. INDOOR CONDITIONED LIGHTING-MANDATORY LIGHTING CONTROLS (Adopted from NRCC-STI-05-E) — § 130.1

Lighting Control Credits Schedule (Includes all lighting controls installed in conditional space to receive mandatory requirements per §130.1)

Location in Building	Tag/Description of Lighting Control (i.e. occupancy sensor, dimming, automatic daylighting control, etc.)	# of Units	Mandatory Compliance (if all that apply for "Y" if missing): §130.1(a)	§130.1(b)	§130.1(c)	§130.1(d)	§130.1(e)	Is Acceptance Test Required?	Confirmed: Pass	Confirmed: Fail
Classroom 1	Switches	1	Y	NA	NA	NA	NA	No	☐	☐
Classroom 1	Multi-Level Switch	1	Y	NA	NA	NA	NA	No	☐	☐
Classroom 2	Occupancy Sensor	1	NA	NA	Y	NA	NA	Yes	☐	☐
Classroom 2	Automatic Daylight Controls	2	NA	NA	NA	Y	NA	Yes	☐	☐

Interlock = Interlock per Manufacturer, Time = Time Switch per §130.1(c)2, Sensor = Occupancy or Vacancy Sensor per §130.1(c)3, Daylight = Daylight Controls per §130.1(c)4

T. LINNET LOAD HOURS — This Section Does Not Apply

U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	--	--	--	27.7	--	--
Space Cooling	1.2	1.4	-0.2	--	--	--

CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-R2013CEC1302 | Report Generated At: 2018-04-06 08:59:30

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Compliance Scope:	NewConstruction	Input File Name:	AMS_30x32 CZ10 DEL.ribd16

NRCC-PRF-ENV-DETAILS -SECTION START-

A. OPAQUE SURFACE ASSEMBLY DETAILS — Confirmed: Pass / Fail

1. Surface Name	2. Surface Type	3. Description of Assembly Layers	4. Notes	Confirmed: Pass	Confirmed: Fail
Color Rib side Overhang	Exterior Floor	Air - Floor - 3.573 in. Concrete - 140 lb/ft3 - 4 in. Carpet - 1/4 in.		☐	☐
Roof-Low.Slope Extreme	Roof	Metal standing Seam - 0.061in. Extruded Polyisocyanurate - R7 - 1.0 in. R5.1 Metal framed roof, 24in. OC, 4.5in., R-19 Acoustic Tile - 3/8 in.	See Extreme Report for U-Factor 0.26	☐	☐
R-13 in metal frame + 0.5 c.i.	Exterior Wall	Metal siding - 1/2 in. Glass Fiberboard Sheathing - 1.25 in. Composite Insulation: R-13 Metal framed wall, 24in. OC, 5.5in., R-13 Cavity Batt - 3.5 in.		☐	☐

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-E)

This Section Does Not Apply

C. OPAQUE DOOR SUMMARY — Confirmed: Pass / Fail

1. Opaque Door Assembly Name / Tag or Lib	2. Door Type	3. Certification Method	4. Operation	5. Area	6. Overall U-Factor	7. Status[1]
Metal Door	Metal/Uninsulated/Double Layer/Door	Default/Performance	Swinging	20	0.700	N

[1] Status (N, New; E - Altered; E - Existing)

D. EXHAUST FAN SUMMARY — This Section Does Not Apply

E. DHW EQUIPMENT SUMMARY -- (Adapted from NRCC-PLB-01) — This Section Does Not Apply

F. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS — This Section Does Not Apply

Project Name:	AMS Modular Classroom 30x32	NRCC-PRF-01-E	Page 11 of 19
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G. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)[1] — § 130.0 — Confirmed

Luminaire Schedule (includes all luminaires installed lighting in conditioned space, and porches lighting over 0.3 watt in offices)

Rooms or Item Tag	Complete Luminaire Description (i.e., 2-Lamp Fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per luminaire	How Wattage is Determined: CEC Default from §130.0(c)	How Wattage is Determined: According to §130.0(c)	Total Number Luminaires	Installed Watts	Confirmed: Pass	Confirmed: Fail
2x4 VELED	2x4 - 40w LED	40	NA	Yes	9	360	☐	☐

[1] lighting power densities once used in the compliance report's building Departments software to flush unconfirmed forms for luminaire schedule inputs.

G1. COVERED PROCESS SUMMARY -- ENCLOSED PARKING GARAGES — § 140.9 — This Section Does Not Apply

G2. COVERED PROCESS SUMMARY -- COMMERCIAL KITCHENS — § 140.5 — This Section Does Not Apply

G3. COVERED PROCESS SUMMARY -- COMPUTER ROOMS — § 140.9 — This Section Does Not Apply

G4. COVERED PROCESS SUMMARY -- LABORATORY EXHAUSTS — § 140.9 — This Section Does Not Apply

T. LINNET LOAD HOURS — This Section Does Not Apply

U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	--	--	--	27.7	--	--
Space Cooling	1.2	1.4	-0.2	--	--	--

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U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Heat Rejection	--	--	--	--	--	--
Pumps & Misc.	--	--	--	--	--	--
Domestic Hot Water	--	--	--	0.5	0.5	0.0
Indoor Lighting	1.4	1.3	0.2	--	--	--
COMPLIANCE TOTAL	2.6	10.6	-2.5	54.9	57.7	-2.7
Receptacle	2.5	2.5	0.0	--	--	--
Process	--	--	--	--	--	--
Other Up	--	--	--	--	--	--
Process Meters	--	--	--	--	--	--
TOTAL	10.5	13.0	-2.5	54.9	57.7	-2.7

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT — § 10-103

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

Documentation Author Name:	Nels Morton at, CDR, CEPE, LEED AP BD+C
Company:	Ecosmith Energy Associates, Inc
Address:	777 South Highway 101, Suite 203
City/State/Zip:	Solana Beach California 92075
Phone:	619.513.1336
Signature:	Digitally signed by Nels Morton DN: cn=Nels Morton, o=CEA, ou=CEPE, email=nels@ecosmith.com, c=US Date: 2018.04.06 08:59:30 -07'00'
Signature Date:	10/30/17
CEA Identification (if applicable):	008-16-05-10028

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

I: I familiarize that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or fire protection engineer.

I: I certify that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.

I: I certify that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to the Business and Professions Code Sections 5537, 5538 and 6737.5.

Responsible Primary Designer Name:	Randall P Cavanaugh
Company:	American Modular Systems (Lodi) Schools
Address:	707 Tokay Blvd
City/State/Zip:	Manteca CA 95336
Phone:	209.825.1921
Signature:	
Date Signed:	11/30/16
Declaration Statement Type:	1
Title:	Engineer
License #:	C-12631

Responsible Lighting Designer Name:	Randall P Cavanaugh
Company:	American Modular Systems (Lodi) Schools
Address:	707 Tokay Blvd
City/State/Zip:	Manteca CA 95336
Phone:	209.825.1921
Signature:	
Date Signed:	11/30/16
Declaration Statement Type:	1
Title:	Engineer
License #:	C-12631

Responsible Mechanical Designer Name:	Randall P Cavanaugh
Company:	American Modular Systems (Lodi) Schools
Address:	707 Tokay Blvd
City/State/Zip:	Manteca CA 95336
Phone:	209.825.1921
Signature:	
Date Signed:	11/30/16
Declaration Statement Type:	1
Title:	Engineer
License #:	C-12631

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NRCC-PRF-ENV-DETAILS -SECTION START-

A. OPAQUE SURFACE ASSEMBLY DETAILS — Confirmed: Pass / Fail

1. Surface Name	2. Surface Type	3. Description of Assembly Layers	4. Notes	Confirmed: Pass	Confirmed: Fail
Color Rib side Overhang	Exterior Floor	Air - Floor - 3.573 in. Concrete - 140 lb/ft3 - 4 in. Carpet - 1/4 in.		☐	☐
Roof-Low.Slope Extreme	Roof	Metal standing Seam - 0.061in. Extruded Polyisocyanurate - R7 - 1.0 in. R5.1 Metal framed roof, 24in. OC, 4.5in., R-19 Acoustic Tile - 3/8 in.	See Extreme Report for U-Factor 0.26	☐	☐
R-13 in metal frame + 0.5 c.i.	Exterior Wall	Metal siding - 1/2 in. Glass Fiberboard Sheathing - 1.25 in. Composite Insulation: R-13 Metal framed wall, 24in. OC, 5.5in., R-13 Cavity Batt - 3.5 in.		☐	☐

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-E)

This Section Does Not Apply

C. OPAQUE DOOR SUMMARY — Confirmed: Pass / Fail

1. Opaque Door Assembly Name / Tag or Lib	2. Door Type	3. Certification Method	4. Operation	5. Area	6. Overall U-Factor	7. Status[1]
Metal Door	Metal/Uninsulated/Double Layer/Door	Default/Performance	Swinging	20	0.700	N

[1] Status (N, New; E - Altered; E - Existing)

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NRCC-PRF-MCH-DETAILS -SECTION START-

A. MECHANICAL VENTILATION AND ASHRAE (Adapted from 2016-NRCC-MCH-02-E) — Confirmed: Pass / Fail

1. OUTDOOR AIR FLOWS

CONDITIONED ZONE NAME	OUTDOOR AIR FLOW PER ZONE (CFM)	OUTDOOR AIR FLOW PER AREA (CFM/SQFT)	OUTDOOR AIR FLOW PER PERSON (CFM/PERSON)	OUTDOOR AIR FLOW (CFM)	OUTDOOR AIR FLOW PER AREA (CFM/SQFT)	OUTDOOR AIR FLOW PER PERSON (CFM/PERSON)	OUTDOOR AIR FLOW (CFM)	OUTDOOR AIR FLOW PER AREA (CFM/SQFT)	OUTDOOR AIR FLOW PER PERSON (CFM/PERSON)	OUTDOOR AIR FLOW (CFM)	VENTILATION IS 130.1(c)
Classrooms,	AC-1	1,200	NA	NA	NA	NA	K	AC-1	352	NA	20.00
								TOTAL	352		20.00

2. VENTILATION IS 130.1(c)

OUTDOOR AIR FLOW (CFM)	OUTDOOR AIR FLOW PER AREA (CFM/SQFT)	OUTDOOR AIR FLOW PER PERSON (CFM/PERSON)	OUTDOOR AIR FLOW (CFM)	OUTDOOR AIR FLOW PER AREA (CFM/SQFT)	OUTDOOR AIR FLOW PER PERSON (CFM/PERSON)	OUTDOOR AIR FLOW (CFM)	Ventilation Is 130.1(c)	Confirmed: Pass	Confirmed: Fail
20.00	15.00	15.00	357	357	N/A	N	N	☐	☐
			357	357	N/A			☐	☐

B. DUCT SYSTEM AND TERMINAL UNIT SUMMARY — § 140.4 — Confirmed: Pass / Fail

1. System ID	2. System Type	3. Fan: Qty	3. Fan: Rated Capacity (kBtuh): Heating	3. Fan: Rated Capacity (kBtuh): Cooling	4. Economizer	5. Zone Name	6. Airflow (cfm): Design	6. Airflow (cfm): Min. Ratio	7. Fan: BHP	7. Fan: Cycle	7. Fan: ECM Motor	Confirmed: Pass	Confirmed: Fail
Classrooms-HVAC	Uncontrolled	1	NA	NA	NA	Classrooms	1200	NA	NA	NA	NA	☐	☐

C. EXHAUST FAN SUMMARY

This Section Does Not Apply

D. DHW EQUIPMENT SUMMARY -- (Adapted from NRCC-PLB-01)

This Section Does Not Apply

E. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS

This Section Does Not Apply

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F. SOLAR HOT WATER HEATING SUMMARY (Adapted from NRCC-STH-01)

This Section Only Applicable

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS (Adapted from 2016-NRCC-MCH-02-E) — § 144

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that must be submitted, (Action copies and verify forms are completed and signed to assist in field verification and inspection to verify).

Test Description	NRCA-MCH-02-A	NRCA-MCH-03-A	NRCA-MCH-04-A	NRCA-MCH-05-A	NRCA-MCH-06-A	NRCA-MCH-07-A	NRCA-MCH-08-A	NRCA-MCH-09-A	NRCA-MCH-10-A	NRCA-MCH-11-A	NRCA-MCH-12-A	NRCA-MCH-13-A	NRCA-MCH-14-A	NRCA-MCH-15-A	NRCA-MCH-16-A	NRCA-MCH-17-A	NRCA-MCH-18-A	NRCA-MCH-19-A	NRCA-MCH-20-A	NRCA-MCH-21-A	Confirmed: Pass	Confirmed: Fail
Equipment Requiring Testing or Verification	# of units	Duct Sealing	Air Filter Face Area	Economizer	Supply Fan Control	Hydronic Pump Control	Boiler	Chiller	Cooling Tower	Condenser Water Temperature Control	Demand Control Ventilation	Supply Air Temperature Reset Control	Hydronic System Measurement and Balancing	Variable Refrigerant Flow System	Packaged Terminal Air Conditioner	Supply Fan Variable Flow Control	Supply Air Temperature Reset Control	Zonal Heating Control	Zonal Cooling Control	Occupant Ventilation Control			
AC-1	1	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

H. EVAPORATIVE COOLER SUMMARY

This Section Does Not Apply

NRCC-PRF-LTI-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) — § 140.6 — Confirmed

Lighting Control Credit Schedule (includes all lighting controls installed in conditional space for compliance with §130.1(c)2 and §130.1(c)4)		Control Credit Calculation			# of Acceptance Test Required	Confirmed: Pass	Confirmed: Fail
Location in Building	Tag/Description of Lighting Control (i.e., part of an occupancy sensor, manual dimming, etc.)	Watts of Controlled Lighting	Power Adjustment Factor	Control Credit Watts			
Classroom 1	Classrooms, Lecture, Training, Vocational Areas - Occupancy Sensor	0	0.00	0		☐	☐

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTD-02-E) — § 130.4

Declaration of Required Acceptance Certificates (NRCA) –Acceptance Certificates that must be verified in the field. Details copies and verify forms are completed and signed to assist in field for field inspection to verify.

Test Description	Indoor: NRCA-LTI-02-A	Indoor: NRCA-LTI-03-A	Indoor: NRCA-LTI-04-A	Outdoor: NRCA-LTD-03-A	Confirmed: Pass	Confirmed: Fail
Equipment Requiring Testing or Verification	# of units	Occ Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls		
Occupant Sensors	1	☒	☐	☐	☐	☐	☐
Autosystem Time Switch	1	☒	☐	☐	☐	☐	☐
Automatic Daylighting	2	☐	☒	☐	☐	☐	☐

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U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Heat Rejection	--	--	--	--	--	--
Pumps & Misc.	--	--	--	--	--	--
Domestic Hot Water	--	--	--	0.5	0.5	0.0
Indoor Lighting	1.4	1.3	0.2	--	--	--
COMPLIANCE TOTAL	2.6	10.6	-2.5	54.9	57.7	-2.7
Receptacle	2.5	2.5	0.0	--	--	--
Process	--	--	--	--	--	--
Other Up	--	--	--	--	--	--
Process Meters	--	--	--	--	--	--
TOTAL	10.5	13.0	-2.5	54.9	57.7	-2.7

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G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS (Adapted from 2016-NRCC-MCH-02-E) — § 144

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that must be submitted, (Action copies and verify forms are completed and signed to assist in field for field inspection to verify).

Test Description	NRCA-MCH-02-A	NRCA-MCH-03-A	NRCA-MCH-04-A	NRCA-MCH-05-A	NRCA-MCH-06-A	NRCA-MCH-07-A	NRCA-MCH-08-A	NRCA-MCH-09-A	NRCA-MCH-10-A	NRCA-MCH-11-A	NRCA-MCH-12-A	NRCA-MCH-13-A	NRCA-MCH-14-A	NRCA-MCH-15-A	NRCA-MCH-16-A	NRCA-MCH-17-A	NRCA-MCH-18-A	NRCA-MCH-19-A	NRCA-MCH-20-A	NRCA-MCH-21-A	Confirmed: Pass	Confirmed: Fail
Equipment Requiring Testing or Verification	# of units	Duct Sealing	Air Filter Face Area	Economizer	Supply Fan Control	Hydronic Pump Control	Boiler	Chiller	Cooling Tower	Condenser Water Temperature Control	Demand Control Ventilation	Supply Air Temperature Reset Control	Hydronic System Measurement and Balancing	Variable Refrigerant Flow System	Packaged Terminal Air Conditioner	Supply Fan Variable Flow Control	Supply Air Temperature Reset Control	Zonal Heating Control	Zonal Cooling Control	Occupant Ventilation Control			
AC-1	1	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

H. EVAPORATIVE COOLER SUMMARY

This Section Does Not Apply

NRCC-PRF-CF1-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) — § 140.6 — Confirmed

Lighting Control Credit Schedule (includes all lighting controls installed in conditional space for compliance with §130.1(c)2 and §130.1(c)4)		Control Credit Calculation			# of Acceptance Test Required	Confirmed: Pass	Confirmed: Fail
Location in Building	Tag/Description of Lighting Control (i.e., part of an occupancy sensor, manual dimming, etc.)	Watts of Controlled Lighting	Power Adjustment Factor	Control Credit Watts			
Classroom 1	Classrooms, Lecture, Training, Vocational Areas - Occupancy Sensor	0	0.00	0		☐	☐

Project Name:	AMS Modular Classroom 30x32	NRCC-PRF-01-E	Page 19 of 19
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H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTD-02-E) — § 130.4

Declaration of Required Acceptance Certificates (NRCA) –Acceptance Certificates that must be verified in the field. Details copies and verify forms are completed and signed to assist in field for field inspection to verify.

Test Description	Indoor: NRCA-LTI-02-A	Indoor: NRCA-LTI-03-A	Indoor: NRCA-LTI-04-A	Outdoor: NRCA-LTD-03-A	Confirmed: Pass	Confirmed: Fail
Equipment Requiring Testing or Verification	# of units	Occ Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls		
Demand Responsive		☐	☐	☐	☐	☐	☐
Outdoor Controls	1	☐	☐	☒	☐	☐	☐

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I. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Forecast TDV Energy Use, kBtu/ft²-yr) — § 140.1

BUILDING COMPLIES

1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	37.92	102.53	-64.61	-170.4%
Space Cooling	48.96	48.00	-16.29	-33.3%
Indoor Fans	118.85	21.92	72.93	61.4%
Heat Rejection	--	--	--	--
Pumps & Misc.	--	--	--	--
Domestic Hot Water	13.55	13.89	--	-2.5%
Indoor Lighting	46.34	16.48	29.86	64.4%
COMPLIANCE TOTAL	322.86	228.88	89.82	28.5%
Receptacle	64.89	64.89	0.0	0.0%
Process	--	--	--	--
Other Up	--	--	--	--
Process Meters	--	--	--	--
TOTAL	322.86	293.51	89.9	28.8%

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A. PROJECT GENERAL INFORMATION

1.	Project Location (city) -	4.	Standards Version -
2.	CZ1-Zip Code -	5.	Compliance Software (version) -
3.	Climate Zone -	6.	Weather File -
4.	Total Conditioned Floor Area in Square Ft² -	7.	Addn'g (Conditioned) Sqft -
5.	Total Unconditioned Floor Area -	8.	Permitted Stories of Work -
6.	Total # of Stories (Countable Above Grade) -	9.	Building Type(s) -
7.	Total # of Dwelling Units -	10.	Climate Zone -

2018

CA

CZ10 DEL

AMS_30x32 CZ10 DEL.ribd16

NewConstruction

1

Nonresidential

Gen7

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Forecast TDV Energy Use, kBtu/ft²-yr) — § 140.1

BUILDING COMPLIES

1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	37.92	102.53	-64.61	-170.4%
Space Cooling	48.96	48.00	-16.29	-33.3%
Indoor Fans	118.85	21.92	72.93	61.4%
Heat Rejection	--	--	--	--
Pumps & Misc.	--	--	--	--
Domestic Hot Water	13.55	13.89	--	-2.5%
Indoor Lighting	46.34	16.48	29.86	64.4%
COMPLIANCE TOTAL	322.86	228.88	89.82	28.5%
Receptacle	64.89

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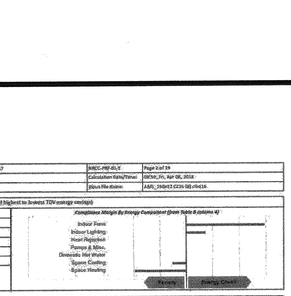
G. PERFORMANCE PLAN CHECK/ INSPECTION ITEMS (*to under all highest to lowest TDV savings energies*)

5th	Interior Floor Check envelope + mechanical
3rd	Indoor Lighting Check lighting
3rd	Heat Rejection Check envelope + mechanical
4th	Pumps & Misc. Check mechanical
5th	Controlled Fan Mtrs. Check mechanical
5th	Space Cooling Check envelope + mechanical
7th	Space Heating Check envelope + mechanical

Compliance Margin By Energy Component (from Table B Column A)



H. EXCEPTIONAL CONDITIONS

The building does not include service water heating. Verify that service water heating is not required and is not included in the design.

I. HERS VERIFICATION

The Section Does Not Apply

K. ADDITIONAL REMARKS

Roof: Thermofit polyiso fuse boom cryogicate using R20 exterior CEC guidance; U-value = 0.039.

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G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify where building components and the performance or prescriptive path for compliance. "Yes"= list in project
For components that utilize the performance path, indicate the exact number that includes mandatory notes on plans.

Building Component	Compliance Path	Compliance Names (required for submittal)	Section of Mandatory Notes on Plans
Envelope	☒ Performance	NRCC-PRF-01-E (NOTES) (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	NS.7
	☐ N/A		
Mechanical	☒ Performance	NRCC-PRF-SECH-01(16) (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	NS.7
	☐ N/A		
Domestic Hot Water	☐ Performance	NRCC-PRF-PLB-01(16) (section of the NRCC-PRF-01-E)	
	☒ Prescriptive	NRCC-PLB-01-E	PLB
	☐ N/A		
Lighting (Indoor/ Outdoor/ Sign)	☒ Performance	NRCC-PRF-LTI-01(16) (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	LTI.3
	☐ N/A		
Covered Process/ Commercial Kitchens	☐ Performance	53 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01 / 05-E	
	☒ N/A		
Covered Process/ Computer Rooms	☐ Performance	53 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01 / 04-E	
	☒ N/A		
Covered Process/ Laboratory Exhaust	☐ Performance	54 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01 / 03-E	
	☒ N/A		

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G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

The following building components are only required for prescriptive compliance. Indicate which are relevant to the project.

The following building components may have mandatory requirements per Part 6. Indicate which are relevant to the project.

"Yes"	N/A	Prescriptive Requirement	Compliance Forms	Yes	N/A	Mandatory Requirement	Compliance Forms
☒	☐	Lighting (Indoor/ Outdoor)/ §140.6	NRCC-LTI-01 / 02 / 04 / 05-E	☒	☐	Outdoor Lighting Controls/ §110.9	NRCC-LTI-01 / 02 / 04 / 05-E
				☐	☒	Sign Controls/ §110.9	NRCC-LTI-01 / 02 / 04 / 05-E
☒	☐	Lighting (Outdoor)/ §140.7	NRCC-LTI-01 / 02 / 03-E	☒	☐	Electrical/ §130.5	NRCC-ELC-01-E
☐	☒	Lighting (Sign)/ §140.8	NRCC-LTI-01-E	☒	☐	Solar Ready/ §110.10	NRCS-ERR-01 / 02-E
☐	☒	Solar Thermal Water Heating/ §140.5	NRCC-STH-01-E	☐	☒	Covered Process/ §120.6	NRCC-PRC-01-E
				☐	☒	Parking Garage	NRCC-PRC-02-E
				☐	☒	Commercial Refrigeration	NRCC-PRC-03-E
				☐	☒	Warehouse Refrigeration	NRCC-PRC-04/NRCI-REF-E
				☐	☒	Compressed Air	NRCC-PRC-05-E
				☐	☒	Process Boilers	NRCC-PRC-11-E

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M. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance.
Check copies and verify forms are completed and signed to post in field for field inspector to verify).
See Tables G, and H, in MCH and 171 Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Confirmed: Pass	Confirmed: Not
Envelope	☒ NRCI-ENV-01-E, for all buildings with Fluorescent Lighting	☐	☐
	☒ NRCI-ENV-02-E - required on central systems in high-rise residential, hotel/motel applications.	☐	☐
	☐ NRCI-MCH-01-E - Single-zoning unit systems in high-rise residential, hotel/motel applications.	☐	☐
	☐ NRCI-MCH-02-E - HERS verified central systems in high-rise residential, hotel/motel applications.	☐	☐
	☐ NRCI-PLB-01-E - HERS verified single dwelling unit systems in high-rise residential, hotel/motel applications.	☐	☐
	☐ NRCI-ELC-01-E - HERS verified central systems in high-rise residential, hotel/motel applications.	☐	☐
	☐ NRCI-LTI-01-E - Any Solar Water Heating	☐	☐
Mechanical	☒ NRCI-MCH-02-E - For all buildings	☐	☐
	☒ NRCI-LTI-02-E - Lighting control systems; or for an Energy Management Control System (EMCS)	☐	☐
	☐ NRCI-LTI-03-E - Daylighting shall be certified by a licensed engineer, architect, or certified interior designer. Lighting power density for daylighted areas shall be determined in accordance with Section 140.3(a)2A. Daylighted areas shall be shown on the building plans. Skylights shall be modeled with the skylight area, type, and properties specified. Interior and exterior shades shall be modeled when automatic daylighting controls are required. Automatic daylighting controls shall be modeled with the lighting power reduction, minimum power or light output fraction, and control type specified.	☐	☐
	☐ NRCI-LTI-04-E - Daylighting shall be certified by a licensed engineer, architect, or certified interior designer. Lighting power density for daylighted areas shall be determined in accordance with Section 140.3(a)2A. Daylighted areas shall be shown on the building plans. Skylights shall be modeled with the skylight area, type, and properties specified. Interior and exterior shades shall be modeled when automatic daylighting controls are required. Automatic daylighting controls shall be modeled with the lighting power reduction, minimum power or light output fraction, and control type specified.	☐	☐
	☐ NRCI-LTI-05-E - Lighting Control Credit Power Adjustment Factor (PAF)	☐	☐
	☐ NRCI-LTI-06-E - Additional daylighting credited to a video conferencing studio	☐	☐
	☒ NRCA-LTI-03-A - Occupancy Sensors and Automatic time switch controls.	☐	☐
	☒ NRCA-LTI-04-A - Acoustic daylighting controls	☐	☐
	☒ NRCA-LTI-05-A - Demand responsive lighting controls.	☐	☐
Outdoor Lighting	☒ NRCI-LTI-01-E – Outdoor Lighting	☐	☐
	☒ NRCA-LTI-03-A - Outdoor Lighting Control System	☐	☐
	☒ NRCA-LTI-03-A - Outdoor Lighting Control	☐	☐
Sign Lighting	☒ NRCI-LTI-02-E – Sign Lighting	☐	☐
Electrical	☒ NRCI-ELC-01-E - Electrical Power Distribution	☐	☐
Photovoltaic	☐ NRCI-LTI-03-E Photovoltaic Systems	☐	☐

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M. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance.
Check copies and verify forms are completed and signed to post in field for field inspector to verify).
See Tables G, and H, in MCH and 171 Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Confirmed: Pass	Confirmed: Not
Colored Process	☐ NRCI-PRC-01-E Exempt Processes	☐	☐
	☐ NRCI-PRC-02-E - Compressed Air Systems	☐	☐
	☐ NRCA-PRC-01-E - Stairway Exhaust	☐	☐
	☐ NRCA-PRC-02-E - Garage Exhaust	☐	☐
	☐ NRCA-PRC-04-E - Refrigerated Warehouse - Evaporator Fan Motor Controls	☐	☐
	☐ NRCA-PRC-05-E - Refrigerated Warehouse - Electronics Commercial Controls	☐	☐
	☐ NRCA-PRC-06-E - Refrigerated Warehouse- Air Cooled Condenser Controls	☐	☐
	☐ NRCA-PRC-07F - Refrigerated Warehouse- Variable Speed Compressor	☐	☐
	☐ NRCA-PRC-08-E - Electrical Resistance Underslab Heating System	☐	☐

I. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)

				Confirmed: Pass	Confirmed: Not
L.	Total Conditioned Floor Area	4,800 ft²	S. Number of Floors Above Grade	1	
M.	Total Unconditioned Floor Area	0 ft²	N. Number of Floors Below Grade	0	
V.	Addition Conditioned Floor Area	0 ft²			
A.	Addition Unconditioned Floor Area	0 ft²			

J. Opaque Surfaces & Orientation

	R-Value Gross Surface Area	R- Total Penetration Area	20. Window to Wall Ratio	Pass	Not
North Wall	1,500 ft²	240 ft²	16.0%	☐	☐
East Wall	720 ft²	0 ft²	00.0%	☐	☐
South Wall	1,380 ft²	680 ft²	47.0%	☐	☐
West Wall	720 ft²	0 ft²	00.0%	☐	☐
Total	3,599 ft²	700 ft²	19.4%	☐	☐
Roof	4,800 ft²	0 ft²	00.0%	☐	☐

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J. FENESTRATION ASSEMBLY SUMMARY — § 110.6 — Confirmed: Pass ☐ / Not ☐

1. Fenestration Assembly Name / Tag at U.E.	2. Fenestration Type / Product Type / Frame Type	3. Certification Method[1]	4. Assembly Method:	5. Area ft²	6. Overall U-Factor	7. Overall SHGC	8. Overall VT	9. Exempt	Pass	Not
Solar Grey NFRC	Vertical Fenestration, Fixed Window N/A Complies ⁵	NFRC Rated	Manufactured	720	0.28	0.41	0.37	N	☐	☐

[1] Every installed fenestration shall have a certificate label (also called a temporary label) as per the CEC default index found in Table 110.6-A and Table 110.6-B. Certain glazings (SGD) shown on the plan only, dimensions to be confirmed, and are shown for area of compliance. Site built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.
[2] Source: N - Rated, A - Altered, E - Existing

Taking compliance credit for fenestration shading devices? (If "Yes", see NRCC-PRF-ENV-DETAILS for more information) — No

K. DISQUS SURFACE ASSEMBLY SUMMARY — § 110.7 & § 150.1 — Confirmed: Pass ☐ / Not ☐

1. Surface Name	Surface Type	2. Area (ft²)	3. Framing Type	4. Cavity R-Value	5. Continuous R-Value	6. Overall U-Factor / F-Factor / C-Factor	Source[2]	Pass	Not
Exterior Walls (over Crawlspace)	Exterior Floor	4800	NA	0	N/A	U-Factor: 0.210	N	☐	☐
South (S-O) Pop EDP Inside	Roof	4800	Metal	38	2	U-Factor: 0.071	N	☐	☐
N-23 on Metal Stamp + R-0.4 c	Basement Wall	1080	Metal	21	5	U-Factor: 0.056	N	☐	☐
Interior Walls	Interior Wall	5087	Metal	21	N/A	U-Factor: 0.288	N	☐	☐

[2] Source: N - New, A - Altered, E - Existing

L. ROOFING PRODUCT SUMMARY — § 140.3 — Confirmed: Pass ☐ / Not ☐

1. Product Type	2. Product Descrip (Roof Color)	3. Aged Solar Reflectance	4. Thermal Emittance	5. (SR)	6. Cool Roof Grade	7. Roofing Product Description
Roof: U=0.50 per EDP Metal	0.263	0.06	0.22	N/A	No	N/A

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M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) — § 150.1 / § 110.2

Dry System Equipment [1] Fan & Evaporator info included below in Table N1

1. Equip Name	2. Equip Type	3a. System Type (Single Zone or Complex [2])	4. Qty	5. Total Heating Output (kBtu/h)	6. Supp Heat Source (kW)	7. Gross Heat Output (kBtu/h)	8. Total Cooling Output (kBtu/h)	9. Efficiency: Cooling	9. Efficiency: Heating	10. Acceptance Testing Required (Y/N) [3]	Confirmed: Pass	Confirmed: Not
AC-1	Split or Packaged Heat Pump	Complex	4	54	N/a	0	47	EER 10.00	COP 3.20	N/a	☐	☐

[1] Dry system equipment includes furnaces, air handling units, heat pumps, etc.
[2] Simple systems must separate each DX coil & its condensing unit into a new line.
[3] Complex systems must complete NRCC-MCH-02-E (Mechanical Equipment Specifications)
[4] Assembly of split systems may not be published & should be listed AHRI Ref or AHRI Certified
Refer to: Req. A – Altered, E – Existing

Wet System Equipment Section Does Not Apply

Dissipation between modeled and designed equipment input? (If "NO", see Table F, "Additional Items to" for all explanation) — No

N. ECONOMIZER & FAN SYSTEMS SUMMARY [1] — § 140.4 — Confirmed: Pass ☐ / Not ☐

1. Equip Name	2. Outside Air	3. Supply Fan CFM	4. Supply Fan HP	5. Supply Fan BHP	6. Supply Fan Control	7. Return Fan CFM	8. Return Fan HP	9. Return Fan BHP	10. Return Fan Control	11. Economizer Type (if present)	Pass	Not
AC-1	VSD	1400	0.500	0.231	Constant Volume	N/A	N/A	N/A	N/A	Non-Economizer	☐	☐

Mechanical ventilation, ventilation and exhaust fans are included in the NRCC-PRF-MCH-02 report

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O. EQUIPMENT CONTROLS — § 130.2 — Confirmed: Pass ☐ / Not ☐

1. Equip Name	2. Equip Type	3. Controls:
AC-1	SPLHP	No DCV Controls No Economizer No Scheduled Temp. Control No Optimum Start See Economizer Cntrls No Mech Recovery

P. SYSTEM DISTRIBUTION SUMMARY

		Dry System Distribution						Confirmed: Pass	Confirmed: Not
1. Equip Name	2. Equip Type	3. Duct Leakage and Sealing Required per §160.4(3)	4. Duct Leakage will be certified per NRA-1 and NA2	5. Ducts: Insulation R-Value	Location	Status[1]			
AC-1	SPLHP	N/a	No	0	Conditioned	N		☐	☐

[1] Status: N - New, E - Existing

Does the Project Include Zonal Systems? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)		No
Does the Project Include a Solar Hot Water System? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)		No
Multifamily or Hotel/ Motel occupancy? (If "Yes", see NRCC-PRF-MCH-DETAILS for DHW system information)		No

Q. INDOOR CONDITIONED LIGHTING GENERAL INFO (see NRCC-PRF-LTI-DETAILS for more info) — § 140.6 — Confirmed: Pass ☐ / Not ☐

1. Occupancy Type /	2. Conditioned Floor Area ft²	3. Installed Lighting Power (Watts)	4. Lighting Control Credit (Watts)	5. Additional (Custom) Allowance: Area Category Footwalls (Watts)	Total Modified (Watts)	Pass	Not
Classrooms, Lecture, Training, Vocational Areas	4,800	3,820	0	0	0	☐	☐
Building Totals:	4,800	3,820	0	0	0	☐	☐

[1] See Table B-7

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* per NRCC-ELC-01-E for unconditioned space
Lighting allowable for existing spaces shall not be included in the tabs

R. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)[1] — § 130.0 — Confirmed: Pass ☐ / Not ☐

Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.5 watt/ft² in offices)

Name or Item Tag	Complete Luminaire Description (i.e., Manufacturer, Model #, Lamp & Ballast Description, and Dimensions)	Watts per luminaire	Installed Watts (Conditioned): Field Verified? (CEC Default from RAR)	Installed Watts (Conditioned): According to §130.6(c)	Total Number Luminaires	Installed Watts	Pass	Not
2x4 VTLED	2x4 - 50W LED	50	No	Yes	77	3,820	☐	☐

[1] Lighting power density and all of the applicable indoor building luminaires will need to be provided on this form for common lighting areas.

S1. COVERED PROCESS SUMMARY – ENCLOSED PARKING GARAGES — § 140.9

This Section Does Not Apply

S2. COVERED PROCESS SUMMARY – COMMERCIAL KITCHENS — § 140.9

This Section Does Not Apply

S3. COVERED PROCESS SUMMARY – COMPUTER ROOMS — § 140.9

This Section Does Not Apply

S4. COVERED PROCESS SUMMARY – LABORATORY EXHAUSTS — § 140.9

This Section Does Not Apply

T. UNMET LOAD HOURS

This Section Does Not Apply

U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (kWh/y)	Proposed Design Site (kWh/y)	Margin (kWh/y)	Standard Design Site (kBtu/y)	Proposed Design Site (kBtu/y)	Margin (kBtu/y)
Space Heating	0.0	20.2	-20.2	113.4	68.9	44.5
Space Cooling	61.1	6.7	-5.6	-	-	-

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U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (kWh/y)	Proposed Design Site (kWh/y)	Margin (kWh/y)	Standard Design Site (kBtu/y)	Proposed Design Site (kBtu/y)	Margin (kBtu/y)
Interior Fans	27.2	4.6	22.7	–	–	–
Heat Rejection	–	–	–	–	–	–
Pumps & Misc.	–	–	–	–	–	–
Domestic Hot Water	–	–	–	46.0	41.0	5.0
Indoor Lighting	8.3	3.2	5.0	–	–	–
COMPLIANCE TOTAL	97.6	43.7	-6.5	159.5	60.9	119.5
Receptacle	12.7	12.7	0.0	–	–	–
Process	–	–	–	–	–	–
Other Up	–	–	–	–	–	–
Process Boilers	–	–	–	–	–	–
TOTAL	50.3	56.4	-6.5	153.5	60.9	113.5

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT — § 10-103

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

Documentation Author Name: Yesta Marsman, CEA, CBEE, HERS-BPI-MFHO	Signature: Digitally signed by Yesta Marsman
Company: Diamond Energy Associates, Inc	Signature Date: Date: 2018.04.06 10:19:17 -07'00'
Address: 777 South Highway 101, Suite 215	CEA Identification (if applicable): HERS-BPI-MFHO-0006
City/State/Zip: Solana Beach, California 92075	
Phone: 619.921.1125	

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

1. I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this documentation. As a person responsible for its preparation; and that I am licensed in the State of California, as a full engineer, architect, mechanical engineer, electrical engineer, or I am a licensed contractor.
2. I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to perform NRCI-2 or ECP-2 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
3. I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document as a person responsible for its preparation; if person is a structure or type of work described in a manner pursuant to: Business and Professions Code Section 5537, 5538 and 6737.1.

Responsible Designer Name: Randall P Cavanaugh	Signature:
Company: American Modular Systems 1 Ike13 Schools	Date Signed: 11/30/16
Address: 787 Sprecklels Avenue	Title: Engineer
City/State/Zip: Manteca CA 95336	Phone: 209.825.1921

Responsible Designer Name: Randall P Cavanaugh	Signature:
Company: American Modular Systems 1 Ike13 Schools	Date Signed: 11/30/16
Address: 787 Sprecklels Avenue	Title: Engineer
City/State/Zip: Manteca CA 95336	Phone: 209.825.1921

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Compliance Scope:	NewComplete	Input File Name:	AMS_150x32 CZ16 (8).ribd16

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT — § 10-103

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

Documentation Author Name: Yesta Marsman, CEA, CBEE, HERS-BPI-MFHO	Signature: Digitally signed by Yesta Marsman
Company: Diamond Energy Associates, Inc	Signature Date: Date: 2018.04.06 10:19:17 -07'00'
Address: 777 South Highway 101, Suite 215	CEA Identification (if applicable): HERS-BPI-MFHO-0006
City/State/Zip: Solana Beach, California 92075	
Phone: 619.921.1125	

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2. I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to perform NRCI-2 or ECP-2 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
3. I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document as a person responsible for its preparation; if person is a structure or type of work described in a manner pursuant to: Business and Professions Code Section 5537, 5538 and 6737.1.

Responsible Designer Name: Randall P Cavanaugh	Signature:
Company: American Modular Systems 1 Ike13 Schools	Date Signed: 11/30/16
Address: 787 Sprecklels Avenue	Title: Engineer
City/State/Zip: Manteca CA 95336	Phone: 209.825.1921

Responsible Mechanical Designer Name: Randall P Cavanaugh	Signature:
Company: American Modular Systems 1 Ike13 Schools	Date Signed: 11/30/16
Address: 787 Sprecklels Avenue	Title: Engineer
City/State/Zip: Manteca CA 95336	Phone: 209.825.1921

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American Modular Systems
787 Sprecklels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE—CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7
healthy schools delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ENERGY CALCULATIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — No. C12831 — Ren. 3-31-19 — RANDALL PATRICK CAVANAUGH — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS 84
DATE FEB 05 2019

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP # 02-116071 DATE 7-10-18

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

1	–
2	–
3	–
4	–

DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER

EN.6

NRCC-PRF-ENV-DETAILS -SECTION START-

A. OPAQUE SURFACE ASSEMBLY DETAILS — Confirmed: Field ☐ HERS ☐

1. Surface Name	2. Surface Type	3. Description of Assembly Layers	4. Notes
Eaves (Sub-area: Classroom 1)	Exterior Roof	26G - Roof > 2:12 in. Oversized - 1.49 lb/ft2 - 4 in. Cellulose - 3.70 in.	
Roof (1,440.00 ft2, 225 Units)	Roof	Metal Building Joist - 12 in. Expanded Polystyrene - EPS - 1.0 in. R8.2 Metal Roofing roof, Okie, OC, 0.5 in., R.09 Roofing - Tile - 0.5 in.	See SIR Interactive Report for U-factor 0.20
35.63 ft2 Metal Stucco + Brick wall	Exterior Wall	Wood siding - 1/2 in. Vapor permeable felt - 1/8 in. Compliance Insulation R5.00 Metal Framed Wall, R30, OC, 6.5in., R-33 - Gypsum Board - 1/2 in.	
Interior Wall	Interior Wall	Gypsum Board - 1/2 in. Metal framed wall, R0, OC, 3.5in., R-13 - Gypsum Board - 1/2 in.	

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-E)
This Section Does Not Apply

C. OPAQUE DOOR SUMMARY — Confirmed: Pass ☐ Fail ☐

1. Opaque Door Assembly Name ("Dbl" or "Sgl" in it)	2. Door Type	3. Certification Method	4. Operation	5. Area	6. Glazed Subarea	7. *Status
Metal Door	Metal/Insulated/Framed/Double/Light/Door	Default/Prescriptive	Swinging	3.57	0.700	N

*Enter 1 = New, 2 = Altered, C = Existing

NRCC-PRF-MCH-DETAILS -SECTION START-

A. MECHANICAL VENTILATION AND RSHEAT *(Adapted from 2016-NRCC-MCH-03-F)* — Confirmed: Pass ☐ Fail ☐

1. DEFAULT AIR FLOWS: Conditioned Zone Name	ID	Conditioned Floor Area (CFA) (sq ft)	Ventilation Area (VA) (sq ft)	Required Ventilation Airflow Rate (cfm)	Required Exhaust Airflow Rate (cfm)	Required Recirculation Airflow Rate (cfm)	Required Makeup Air Rate (cfm)	Dwelling Unit (Y or N)
Classrooms	AC-1	1,440	NA	NA	NA	NA	N	N

2. VENTILATION: Fan Name	ID	Fan Airflow (cfm)	Fan Power (watts)	Heat Recovery Effectiveness (Sens)	Heat Recovery Effectiveness (Lat)	Outdoor Air Ventilation Airflow (cfm)	Minimum Outdoor Air Ventilation Airflow (cfm)	Fan Control	Pass	Fail
AC-1	4,800	ref	520.0	0.00	1,800	1,800	NA	M	☐	☐
TOTAL	4,800		520.0		1,800	1,800	N/A		☐	☐

B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY — § 140.4

1. System ID	2. System Type	3. Qty	4. Rated Capacity (kBtu/h) Heating	4. Rated Capacity (kBtu/h) Cooling	5. Ventilation	6. Zone Name	7. Airflow (cfm) Design	7. Airflow (cfm) Min.	7. Airflow (cfm) Min. Ratio	8. Fan BHP	8. Fan Cycles	8. Fan DCV Modul	Pass	Fail
Classrooms-TEMP	Uncontrolled	1	N/A	N/A	N/A	Classrooms	1400	NA	NA	N/A	N/A	☐	☐	☐

C. EXHAUST FAN SUMMARY
This Section Does Not Apply

D. DHW EQUIPMENT SUMMARY *(Adapted from NRCC-PLB-01)*
This Section Does Not Apply

NRCC-PRF-LTI-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) — § 140.6

Lighting Control Credits Schedule (Includes all lighting controls installed to conditioned space for compliance credit per §140.6(a)2i and Table 140.6-A)

Location or Building	Occupancy Type (exact vision requirements of Table 140.6-A)	# of Units	Control Credit Calculation: Watts of Controlled Lighting	Control Credit Calculation: Power Adjustment Factor	Control Credit Calculation: Control Credit Watts	Acceptance Test Required	Confirmed: Pass	Confirmed: Fail
Classroom 1	Classrooms, Library, Training, Vocational Areas	1		0.00	0		☐	☐
Classroom 2	Classrooms, Library, Training, Vocational Areas	1		0.00	0		☐	☐
Classroom 3	Classrooms, Library, Training, Vocational Areas	1		0.00	0		☐	☐

B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E) — § 130.1

Lighting Control Credits Schedule (Includes all lighting controls installed to conditioned space to meet mandatory requirements per §130.1)

Location in Building	Type/Description of Lighting Control (i.e., occupancy sensor, dimming, automatic daylighting control, etc.)	# of Units	Standards Compliance (Y at that apply or "C" if existing): Watts	Power Adjustment Factor	Control Credit Watts	In Acceptance Test Required	Confirmed: Pass	Confirmed: Fail
Classroom 1	Fixtures	1	n/a	n/a	n/a	n/a	☐	☐
Classroom 1	Manual Dimmer	1	n/a	y	n/a	n/a	☐	☐
Classroom 1	Occupancy Sensor	1	n/a	n/a	n/a	n/a	☐	☐
Classroom 1	Automatic Daylight Controls	1	n/a	n/a	y	n/a	☐	☐
Classroom 2	Switches	1	y	n/a	n/a	n/a	☑	☐
Classroom 2	Manual Dimmers	1	n/a	y	n/a	n/a	☐	☐
Classroom 2	Occupancy Sensor	1	n/a	n/a	y	n/a	☐	☐
Classroom 2	Automatic Daylight Controls	1	n/a	n/a	y	n/a	☐	☐
Classrooms 3	Switches	1	y	n/a	n/a	n/a	☐	☐
Classroom 3	Manual Dimmers	1	n/a	y	n/a	n/a	☐	☐
Classroom 3	Occupancy Sensor	1	n/a	n/a	y	n/a	☐	☐
Classroom 3	Automatic Daylight Controls	1	n/a	n/a	y	n/a	☐	☐

C. TAILORED METHOD CONDITIONED LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E) — § 140.6

General lighting power (see Table B)	-0-
General lighting power from special function areas (see Table C)	N/A
Additional "uses as listed" (See Table D)	-0-
Total watts	0

D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E) — § 140.6-D
This Section Does Not Apply

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E) — § 140.6(c) (3)

Room Number	Area of Function Area	Luminaire Value (LED)	Room Cavity Ratio (1a1b or 2)	Allowed LPD	Floor Area (SF)	Allowed Watts	Confirmed: Pass	Confirmed: Fail
N/A	N/A	N/A	N/A	N/C	N/A	N/A	☐	☐

Note: Documentation of special uses area is currently unresolved

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)

Room Number	Area (Actually Determine	Rectangular Space: Room Width (W)	Room Width (W)	Room Cavity Height (H)	RCR	Confirmed: Pass	Confirmed: Fail
N/A	N/A	N/A	N/A	N/A	N/A	☐	☐

Non-Rectangular Spaces
This Section Does Not Apply
Note: A special space definition is not in a logical space type

G. ADDITIONAL "USE IT OR LOSE IT" (Adopted from NRCC-LTI-04-E)

1. Wall Display	2. Combined Floor Display and Task Lighting	3. Combined Ornamental and Spotlit Effects Lighting	4. Very Valuable Merchandise	Allowed Watts	Confirmed: Pass	Confirmed: Fail
0	0	0	0	0	☐	☐

H. Wall Display
This Section Does Not Apply

I. Floor Display and Task Lighting
This Section Does Not Apply

J. Combined Ornamental and Special Effects Lighting
This Section Does Not Apply

K. Very Valuable Merchandise
This Section Does Not Apply

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adopted from NRCC-LTI-05-E and NRCC-LTI-03-E) — § 130.4

Declaration of Required Acceptance Certificates (NRCA) - Acceptance Certificates that must be verified in the field. (Retain copies and verify forms are completed and signed by plan to field for field inspector to verify).

Test Description	Indoor: NRCA-LTI-02-A: Occ Sensors / Auto Time Switch	Indoor: NRCA-LTI-03-A: Auto Daylight	Indoor: NRCA-LTI-05-A: Demand Responsive	Outdoor: NRCA-LTI-03-A: Outdoor Controls	Confirmed: Pass	Confirmed: Fail
Requirement/Requiring Testing or Verification	# of units					
Occupant Sensors	3	☒	☐	☐	☐	☐
Automatic Time Switch	n	☒	☐	☐	☐	☐
Automatic Daylighting	n	☐	☒	☐	☐	☐
Demand Responsive	n	☐	☐	☐	☐	☐
Outdoor Controls	y	☐	☐	☐	☒	☐

I. EVAPORATIVE COOLER SUMMARY
This Section Does Not Apply

J. SOLAR HOT WATER HEATING SUMMARY (Adopted from NRCC-LTI-01)
This Solution Does Not Apply

K. SOLAR HOT WATER HEATING ACCEPTANCE TESTS & FORMS (Adopted from NRCC-LTI-01) — § 110.5

Declaration of Required Acceptance Certificates (NRCA) - Acceptance Certificates that must be submitted. (Retain copies and verify forms are completed and signed to prove to field for field inspector to verify).

Test Description	NRCA-SWH-02-A	NRCA-SWH-03-A	NRCA-SWH-04-A	NRCA-SWH-05-A	NRCA-SWH-06-A	NRCA-SWH-07-A	NRCA-SWH-08-A	NRCA-SWH-09-A	NRCA-SWH-10-A	NRCA-SWH-11-A	NRCA-SWH-12-A	NRCA-SWH-13-A	NRCA-SWH-14-A	NRCA-SWH-15-A	NRCA-SWH-16-A	NRCA-SWH-17-A	Confirmed: Pass	Confirmed: Fail
Requirement/Requiring Testing or Verification	Solar Water Heating System	Collector Tilt	Collector Orientation	Collector Shading	Pipe Insulation	Storage Tank Insulation	Heat Trap	Recirculation Loop	Pipe Insulation	Pump Power	Controls	Freeze Protection	Drain Down	Backflow Prevention	Expansion Tank	Pressure Relief Valve		
AC-1	X	X	—	—	—	—	—	—	—	X	—	—	—	—	—	—	☐	☐

L. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E) — § 130.1

Lighting Control Credits Schedule (Includes all lighting controls installed to conditioned space to meet mandatory requirements per §130.1)

Location in Building	Type/Description of Lighting Control (i.e., occupancy sensor, dimming, automatic daylighting control, etc.)	# of Units	Standards Compliance (Y at that apply or "C" if existing): Watts	Power Adjustment Factor	Control Credit Watts	In Acceptance Test Required	Confirmed: Pass	Confirmed: Fail
Classroom 1	Fixtures	1	n/a	n/a	n/a	n/a	☐	☐
Classroom 1	Manual Dimmer	1	n/a	y	n/a	n/a	☐	☐
Classroom 1	Occupancy Sensor	1	n/a	n/a	y	n/a	☐	☐
Classroom 1	Automatic Daylight Controls	1	n/a	n/a	y	n/a	☐	☐
Classroom 2	Switches	1	y	n/a	n/a	n/a	☑	☐
Classroom 2	Manual Dimmers	1	n/a	y	n/a	n/a	☐	☐
Classroom 2	Occupancy Sensor	1	n/a	n/a	y	n/a	☐	☐
Classroom 2	Automatic Daylight Controls	1	n/a	n/a	y	n/a	☐	☐
Classrooms 3	Switches	1	y	n/a	n/a	n/a	☐	☐
Classroom 3	Manual Dimmers	1	n/a	y	n/a	n/a	☐	☐
Classroom 3	Occupancy Sensor	1	n/a	n/a	y	n/a	☐	☐

M. Declaration of Required Certificates of Installation
Declare by inspecting lan for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.).

YES	NO	Compliance Document/Title	
☑	☐	NRCI-LTI-01-E - Must be submitted for all luminaires	☐ Field Inspector
☐	☑	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐ Field Inspector
☐	☑	NRCI-LTI-03-E - Must be submitted for a line voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line voltage track lighting, to be recognized for compliance.	☐ Field Inspector
☐	☑	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a gymnasium, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐ Field Inspector
☐	☑	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐ Field Inspector
☐	☑	NRCV-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐ Field Inspector

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016

STATE OF CALIFORNIA — INDOOR LIGHTING — CALIFORNIA ENERGY COMMISSION — NRCC-LTI-01-E (Page 1 of 6)

CERTIFICATE OF COMPLIANCE — Indoor Lighting

Project Name: AMS Modular Classroom 30'x32' Ext Ltg — Date Prepared: 11/30/2016

A. Summary of Allowed Lighting Power:
Conditioned and Unconditioned space Lighting must not be combined for compliance.

	Indoor Lighting Power for Conditioned Spaces:		watts:		Indoor Lighting Power for Unconditioned Spaces:		Watts
01	Installed Lighting: NRCC-LTI-01-E, Table 2, page 2	+	0		Installed Lighting: NRCC-LTI-01-E, Table 3, page 3	+	160
02	Portable Desk or Office: NRCC-LTI-01-E, Table C, page 4	+	-				
03	Minus Lighting Control Credits: NRCC-LTI-02-E, page 2	-	0		Minus Lighting Control Credits: NRCC-LTI-02-E, page 2	-	0
04	Adjusted Installed Lighting Power: Enter 1 when row 3 means row 3C	=	0		Adjusted Installed Lighting Power: Enter 1 when row 3	=	160

Complies ONLY if **Installed ≤ Allowed** (Row 04 ≤ Row 05)

	Allowed Lighting Power: Conditioned: NRCC-LTI-04-E, page 3		Allowed Lighting Power: Unconditioned: NRCC-LTI-04-E, page 3	
05	Alterations with replacement luminaires that have at least 90/80% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-05, page 2	0	Alterations with replacement luminaires that have at least 90/80% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-05, page 2	160

B. Declaration of Required Certificates of Installation
Declare by inspecting lan for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.).

YES	NO	Compliance Document/Title	
☑	☐	NRCI-LTI-01-E - Must be submitted for all luminaires	☐ Field Inspector
☐	☑	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐ Field Inspector
☐	☑	NRCI-LTI-03-E - Must be submitted for a line voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line voltage track lighting, to be recognized for compliance.	☐ Field Inspector
☐	☑	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a gymnasium, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐ Field Inspector
☐	☑	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐ Field Inspector
☐	☑	NRCV-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐ Field Inspector

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016

STATE OF CALIFORNIA — INDOOR LIGHTING — CALIFORNIA ENERGY COMMISSION — NRCC-LTI-02-E (Page 4 of 6)

CERTIFICATE OF COMPLIANCE — Indoor Lighting

Project Name: AMS Modular Classroom 30'x32' Ext Ltg — Date Prepared: 11/30/2016

B. Declaration of Required Certificates of Acceptance
Declare by inspecting lan for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.).

YES	NO	Compliance Document/Title	
☑	☐	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐ Field Inspector
☐	☑	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐ Field Inspector
☐	☑	NRCA-LTI-05-A - Must be submitted for demand responsive lighting controls.	☐ Field Inspector
☐	☑	NRCA-LTI-07-A - Must be submitted for institutional tuning power adjustment factor (PAF).	☐ Field Inspector

A Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:
☑ CONDITIONED SPACE ☐ UNCONDITIONED SPACE

C. Indoor Lighting Schedule and Field Inspection Energy Checklist:
- ☐ The actual indoor lighting power listed on the next 3 pages includes all installed luminaires and planned portable lighting systems.
- ☐ When Complete Building Method is used for compliance, list each different type of luminaire on separate lines.
- ☐ When Area Category Method or Tailored Method is used for compliance, list each different type of luminaire by each different function area on separate lines.
- ☐ Also indicate track lighting in schedule, and submit the track lighting compliance document (NRCC-LTI-03-E) when line-voltage track lighting is installed.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016

STATE OF CALIFORNIA — INDOOR LIGHTING — CALIFORNIA ENERGY COMMISSION — NRCC-LTI-02-E (Page 5 of 6)

CERTIFICATE OF COMPLIANCE — Indoor Lighting

Project Name: AMS Modular Classroom 30'x32' Ext Ltg — Date Prepared: 11/30/2016

G. Installed Portable Luminaires in Offices — Exception to Section 140.4(k)
- ☐ This section shall be filled out ONLY for portable luminaires in offices (As defined in §100.1). All other planned portable luminaires shall be disconnected on next page of this compliance document.
- ☐ This section is used to determine if greater than 0.5 watts of portable lighting is planned for any office
- ☐ Fill out a separate line for each different office. Small offices that are tenant finishing the same general and scalable lighting may be grouped together. This allowance shall not be loaded between offices having different lighting systems.

Office Portable Luminaire Schedule

1	2	3	4	5	6	7	8	9	10	11
Complete Luminaire Description (i.e., LED, under cabinet, furniture mounted down/indirect)	Watts per Luminaire	Number of Luminaires	Office Installed Portable Luminaire Watts: Installed portable, hardwire, wires to the office (LTG1 + LTG2)	Watts per square foot (Col 7 / Col 8)	Watts per square foot (Col 7 / 800)	If 500 s. 0.3, enter zero; If one > 0.3, (Col 6 - 0.3)	(LTG 1 + LTG 2)	Office Location: Identify Office area to which these portable luminaires are installed	Field Inspection: Pass	Field Inspection: Fail
									☐	☐
									☐	☐
									☐	☐
									☐	☐
									☐	☐
Total installed portable luminaire watts that are greater than 0.3 W/ft² per office:								Enter sum total of all pages into NRCC-LTI-01-E) Page 1		

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016

STATE OF CALIFORNIA — INDOOR LIGHTING — CALIFORNIA ENERGY COMMISSION — NRCC-LTI-03-E (Page 1 of 2)

CERTIFICATE OF COMPLIANCE — Indoor Lighting

Project Name: AMS Modular Classroom 30'x32' Ext Ltg — Date Prepared: 11/30/2016

A Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:
☑ CONDITIONED SPACE ☐ UNCONDITIONED SPACE

H. Indoor Lighting Schedule and Field Inspection Energy Checklist

01	02	03	04	05	06	07	08	
Luminaire Schedule		Installed Watts				Location	Field Inspector	
Name or Item Tag	Complete Luminaire Description (i.e. 2 lamp fluorescent troffer, 75WTD, one dimmable electronic ballast)	Watts per Luminaire	How wattage was determined: Off Line Power Meter	How wattage was determined: Luminaire Nameplate	How wattage was determined: Field Installed Watts (for this luminaire schedule)	Primary Function area in which these luminaires are installed	Pass	Fail
LED	A - Rtw LED	40.0	☒	☐	4	160 Corridor/Restroom/Support	☐	☐
			☐	☐			☐	☐
			☐	☐			☐	☐
			☐	☐			☐	☐
			☐	☐			☐	☐
			☐	☐			☐	☐
			☐	☐			☐	☐
			☐	☐			☐	☐
	INSTALLED WATTS PAGE TOTAL:	160	Enter sum total of all pages into: NRCC-LTI-01-E) Page 2					

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016

STATE OF CALIFORNIA — INDOOR LIGHTING — CALIFORNIA ENERGY COMMISSION — NRCC-LTI-03-E (Page 2 of 2)

CERTIFICATE OF COMPLIANCE — Indoor Lighting

Project Name: AMS Modular Classroom 30'x32' Ext Ltg — Date Prepared: 11/30/2016

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I certify that the Certificate of Compliance documentation is complete and checklist.

Documentation Author Name:	Alex Meschner	Documentation Author Signature:	
Company:	Bonnett Energy Associates, Inc	Signature Date:	11/30/2016
Address:	777 Highway 101, Suite 203	CEA/ HERS Certification Identification (if applicable):	CABEC
City/State/Zip:	Solana Beach, CA 92075	Phone:	858-259-0750

Digitally signed by Alex Meschner
Date: 2016.12.19 16:49:59 -07'00'

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

Responsible Designer Name:	Randall P Cavanaugh	Responsible Designer Signature:	
Company:	American Modular Systems (Gen7 Schools)	Date Signed:	11/30/16
Address:	787 Spreckels Avenue	License:	C12631
City/State/Zip:	Manteca, CA 95336	Phone:	209.825.1921

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016

American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 — healthy. efficient. sheltered.

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ENERGY CALCULATIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — PATRICK CAVANAUGH — No. C12631 — Ren. 3-31-19 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03-119722
AC FLS SS BY
DATE FEB 05 2019

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP # 02-HPO-PC-116071 DATE 1/10/19

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC PLS SS BY
DATE 1 10 19

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

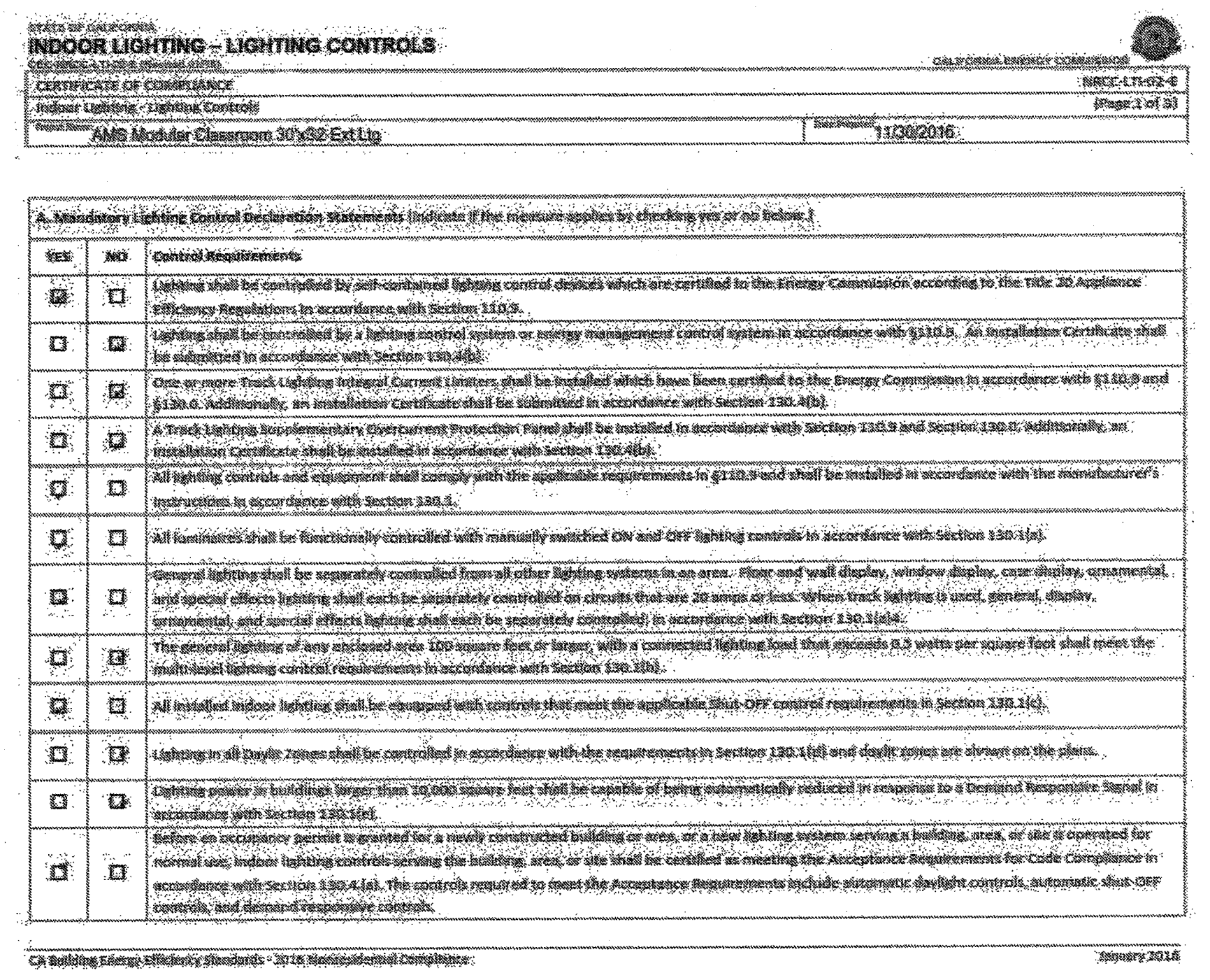
REVISIONS

1	–	–
2	–	–
3	–	–
4	–	–
5	–	–

DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER

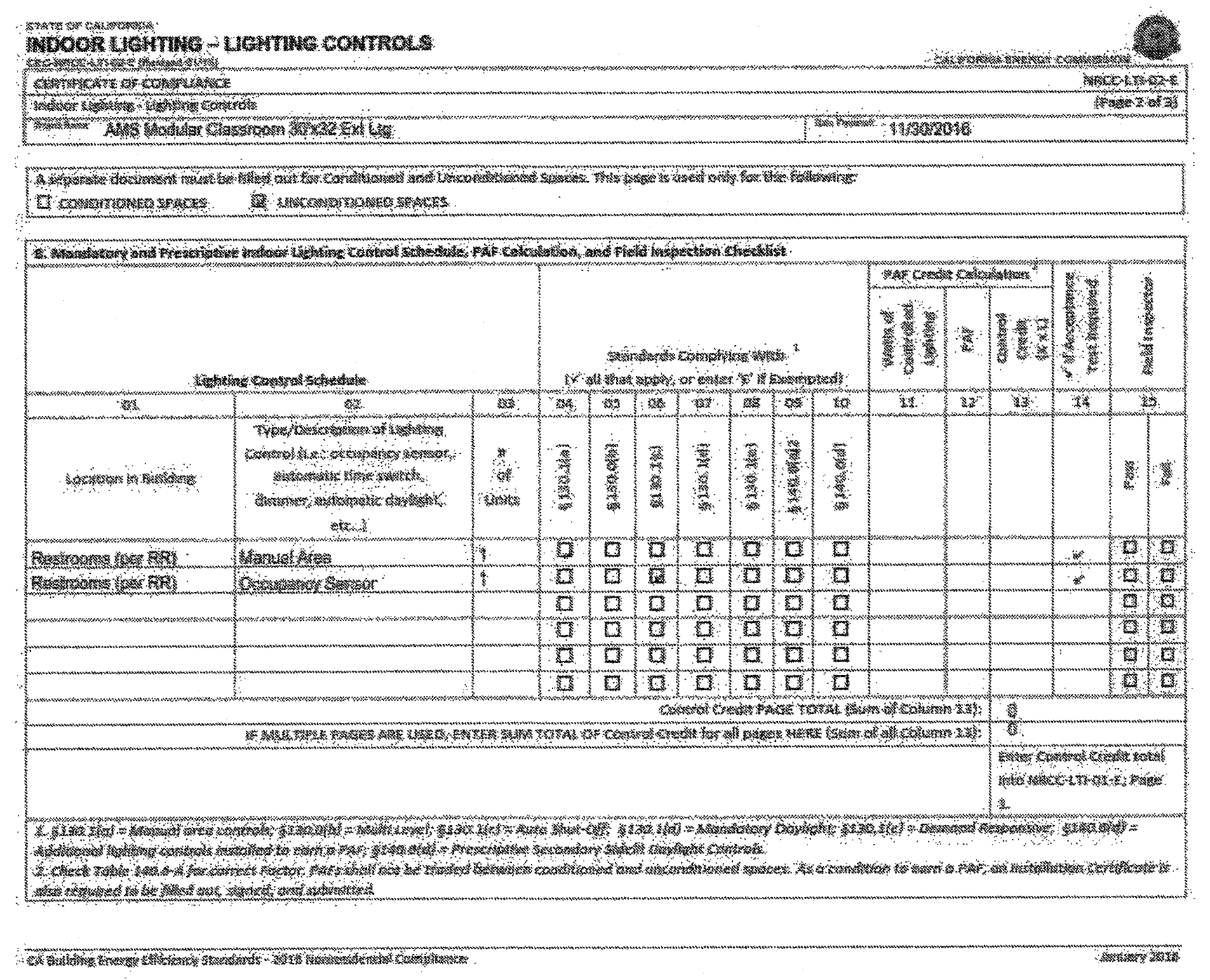
EN.7


STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-LTI-02-E
Indoor Lighting - Lighting Controls — (Page 1 of 3)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg — Date Prepared: 11/30/2016

A. Mandatory Lighting Control Declaration Statements (Indicate if the measure applies by checking yes or no below.)

YES	NO	Control Requirements
☒	☐	Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with Section 110.9.
☐	☒	Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with Section 130.4(b).
☐	☒	One or more Track Lighting Integral Current Limiters shall be installed which have been certified to the Energy Commission in accordance with §110.9 and §130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
☐	☒	A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be installed in accordance with Section 130.4(b).
☒	☐	All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with Section 130.1.
☒	☐	All luminaires shall be functionally controlled with manually switched ON and OFF lighting controls in accordance with Section 130.1(a).
☒	☐	General lighting shall be separately controlled from all other lighting systems in an area. Floor and wall display, window display, case display, ornamental, and special effects lighting shall each be separately controlled on circuits that are 20 amps or less. When track lighting is used, general, display, ornamental, and special effects lighting shall each be separately controlled, in accordance with Section 130.1(a)4.
☐	☒	The general lighting of any enclosed area 100 square feet or larger, with a connected lighting load that exceeds 0.5 watts per square foot shall meet the multi-level lighting control requirements in accordance with Section 130.1(b).
☒	☐	All installed indoor lighting shall be equipped with controls that meet the applicable Shut-OFF control requirements in Section 130.1(c).
☐	☒	Lighting in all Daylit Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylit zones are shown on the plans.
☐	☒	Lighting power in buildings larger than 10,000 square feet shall be capable of being automatically reduced in response to a Demand Responsive Signal in accordance with Section 130.1(e).
☒	☐	Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with Section 130.4(a). The controls required to meet the Acceptance Requirements include automatic daylight controls, automatic shut-OFF controls, and demand responsive controls.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — January 2016


STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-LTI-02-E
Indoor Lighting - Lighting Controls — (Page 2 of 3)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg — Date Prepared: 11/30/2016

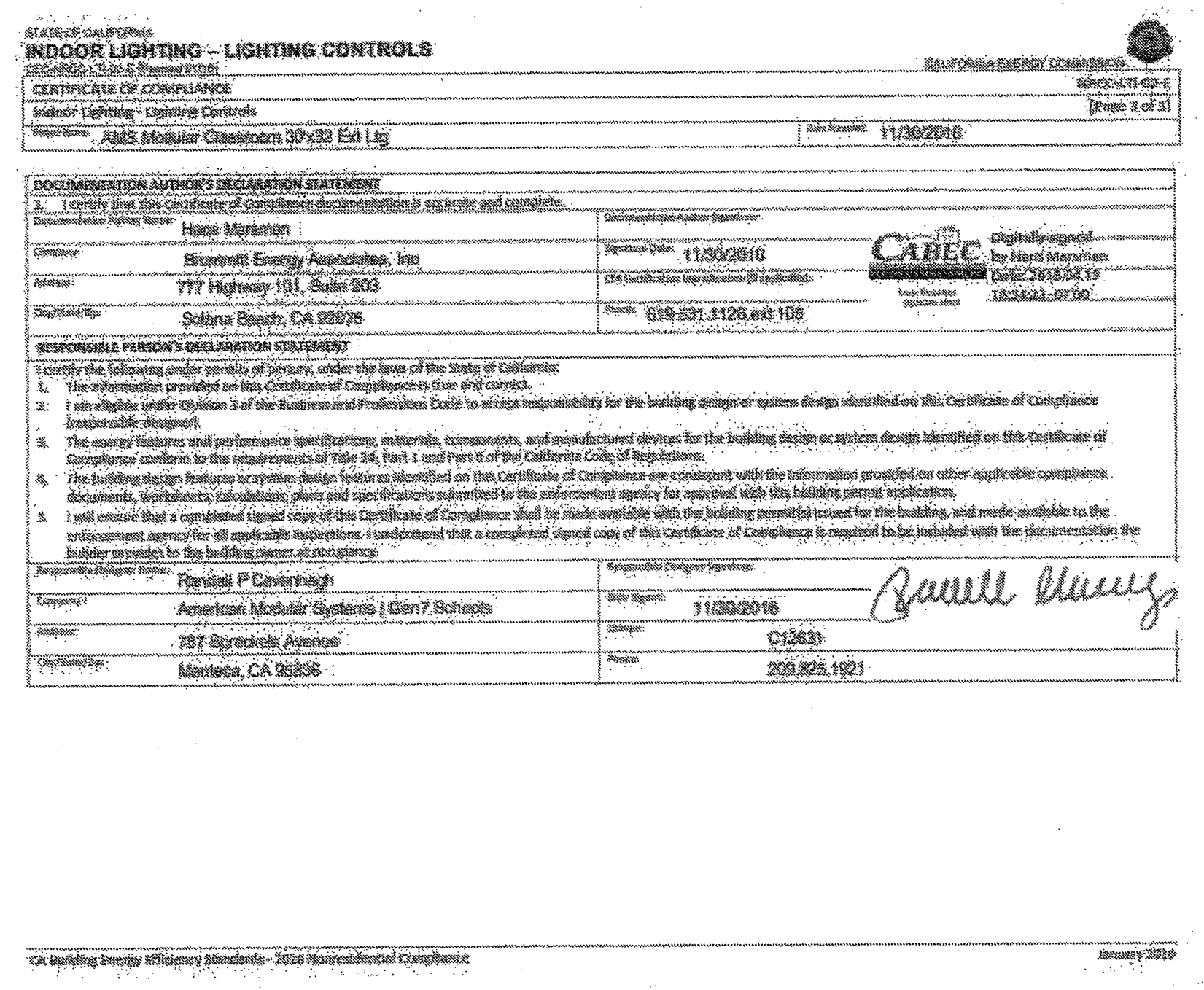
A separate document must be filled out for Conditioned and Unconditioned Spaces. This page is used only for the following:
☐ CONDITIONED SPACES ☒ UNCONDITIONED SPACES

B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection Checklist

01 Location in Building	02 Type/Description of Lighting Control (i.e.: occupancy sensor, automatic time switch, dimmer, automatic daylight, etc...)	03 # of Units	04 §130.1(a)	05 §130.1(b)	06 §130.1(c)	07 §130.1(d)	08 §130.1(e)	09 §140.6(a)2	10 §140.6(d)	11 Watts of Controlled Lighting	12 PAF	13 Control Credit (11 x 12)	14 ✓ if Acceptance Test Required	15 Pass	15 Fail
Restrooms (per RR)	Manual Area	1	☐	☐	☐	☐	☐	☐	☐				✓	☐	☐
Restrooms (per RR)	Occupancy Sensor	1	☐	☐	☒	☐	☐	☐	☐				✓	☐	☐

Control Credit PAGE TOTAL (Sum of Column 13): 0
IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF Control Credit for all pages HERE (Sum of all Column 13): 0
Enter Control Credit total into NRCC-LTI-01-E, Page 1.

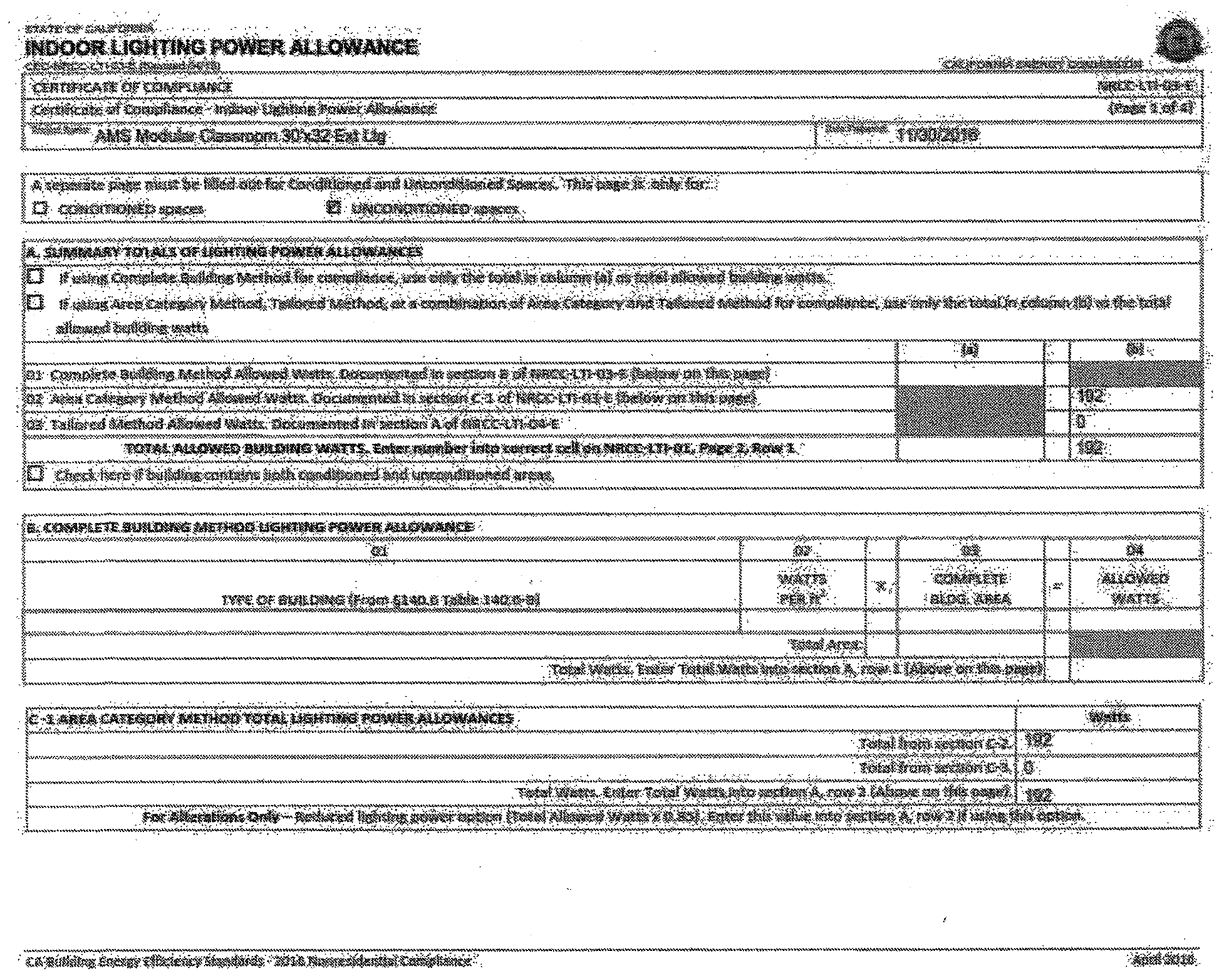
CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — January 2016


STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-LTI-02-E
Indoor Lighting - Lighting Controls — (Page 3 of 3)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg — Date Prepared: 11/30/2016

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
Documentation Author Name: Hans Marsman
Company: Brummitt Energy Associates, Inc
Address: 777 Highway 101, Suite 203
City/State/Zip: Solana Beach, CA 92075
Signature Date: 11/30/2016
Phone: 619.531.1126 ext 105
CABEC — Digitally signed by Hans Marsman

RESPONSIBLE PERSON'S DECLARATION STATEMENT
Responsible Designer Name: Randall P Cavannagh
Company: American Modular Systems | Gen7 Schools
Address: 787 Spreckels Avenue
City/State/Zip: Manteca, CA 95336
Date Signed: 11/30/2016
License: C12631
Phone: 209.825.1921

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — January 2016


STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance — (Page 1 of 4)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg — Date Prepared: 11/30/2016

A separate page must be filled out for Conditioned and Unconditioned Spaces. This page is only for:
☐ CONDITIONED spaces ☒ UNCONDITIONED spaces

A. SUMMARY TOTALS OF LIGHTING POWER ALLOWANCES
☐ If using Complete Building Method for compliance, use only the total in column (a) as total allowed building watts.
☐ If using Area Category Method, Tailored Method, or a combination of Area Category and Tailored Method for compliance, use only the total in column (b) as the total allowed building watts

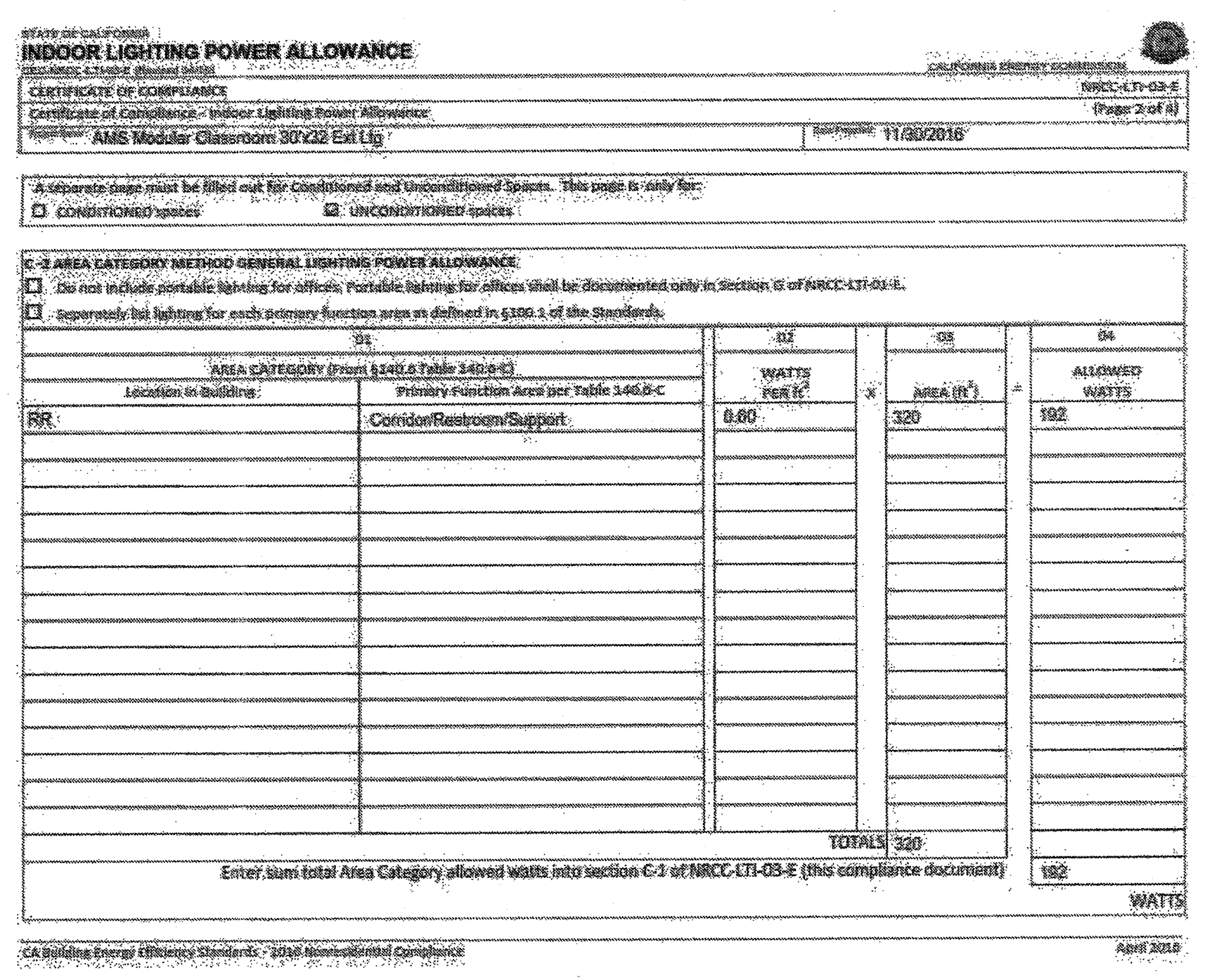
	(a)	(b)
01 Complete Building Method Allowed Watts. Documented in section B of NRCC-LTI-03-E (below on this page)		
02 Area Category Method Allowed Watts. Documented in section C-1 of NRCC-LTI-03-E (below on this page)		192
03 Tailored Method Allowed Watts. Documented in section A of NRCC-LTI-04-E		0
TOTAL ALLOWED BUILDING WATTS. Enter number into correct cell on NRCC-LTI-01, Page 2, Row 1.		192

☐ Check here if building contains both conditioned and unconditioned areas.

B. COMPLETE BUILDING METHOD LIGHTING POWER ALLOWANCE: 01 TYPE OF BUILDING (From §140.6 Table 140.6-B); 02 WATTS PER ft²; 03 COMPLETE BLDG. AREA; 04 ALLOWED WATTS

C-1 AREA CATEGORY METHOD TOTAL LIGHTING POWER ALLOWANCES — Watts
Total from section C-2: 192
Total from section C-3: 0
Total Watts. Enter Total Watts into section A, row 2 (Above on this page): 192

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016


STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CERTIFICATE OF COMPLIANCE — NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance — (Page 2 of 4)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg — Date Prepared: 11/30/2016

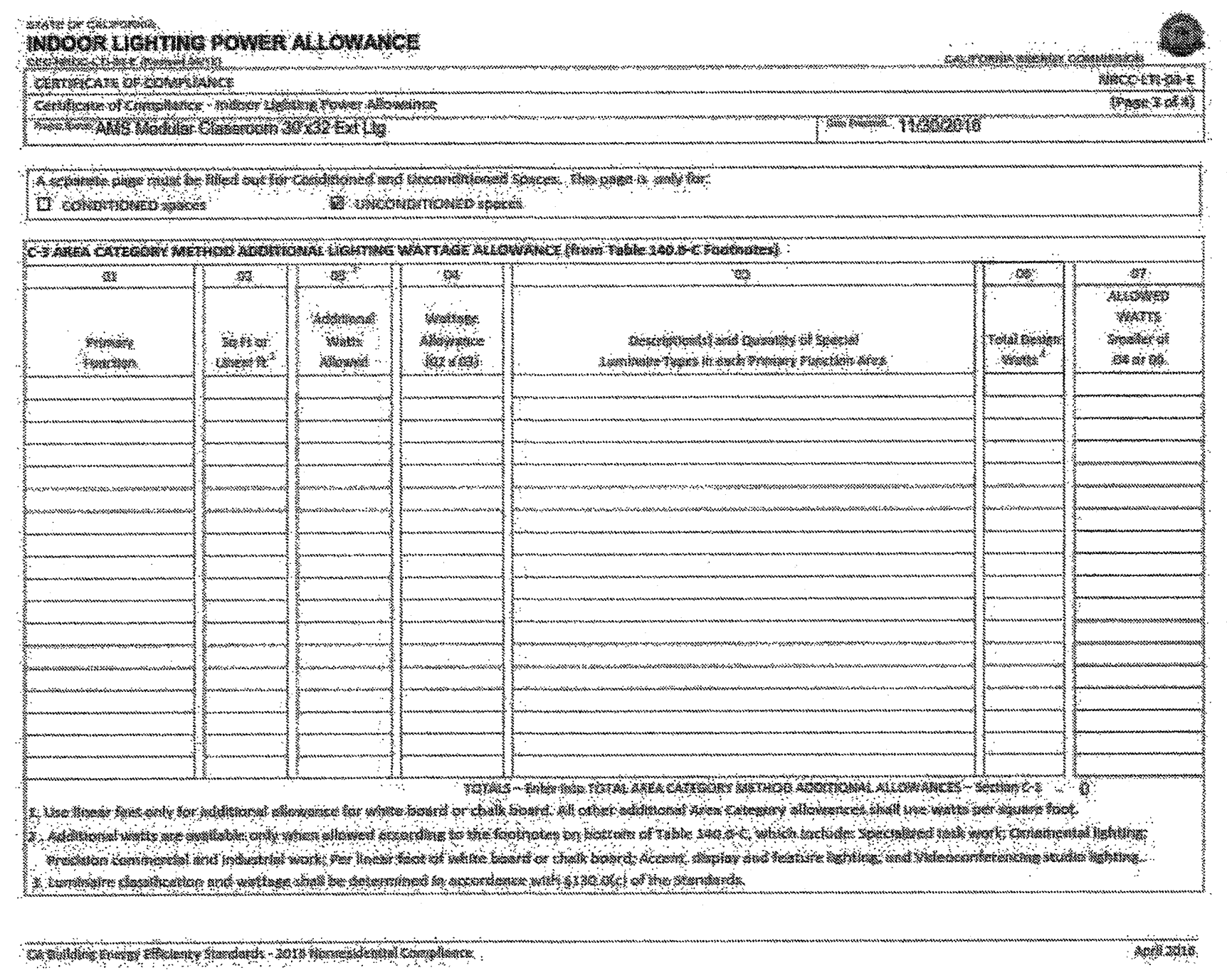
☐ CONDITIONED spaces ☒ UNCONDITIONED spaces

C-2 AREA CATEGORY METHOD GENERAL LIGHTING POWER ALLOWANCE

01 Location in Building	01 Primary Function Area per Table 140.6-C	02 WATTS PER ft²	03 AREA (ft²)	04 ALLOWED WATTS
RR	Corridor/Restroom/Support	0.60	320	192
	TOTALS		320	

Enter sum total Area Category allowed watts into section C-1 of NRCC-LTI-03-E (this compliance document): 192 WATTS

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016

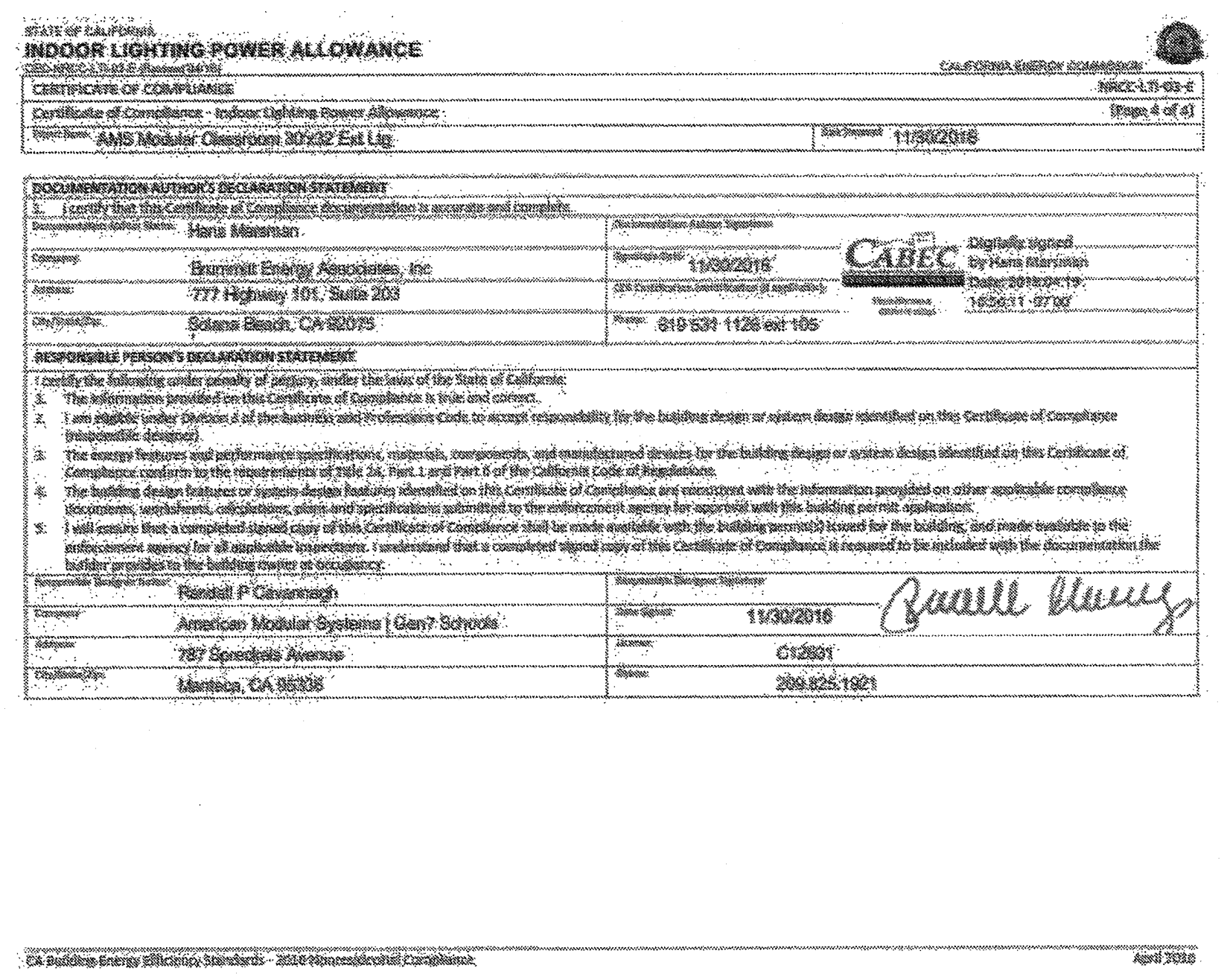

STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CERTIFICATE OF COMPLIANCE — NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance — (Page 3 of 4)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg — Date Prepared: 11/30/2016

☐ CONDITIONED spaces ☒ UNCONDITIONED spaces

C-3 AREA CATEGORY METHOD ADDITIONAL LIGHTING WATTAGE ALLOWANCE (from Table 140.6-C Footnotes)

TOTALS – Enter into TOTAL AREA CATEGORY METHOD ADDITIONAL ALLOWANCES – Section C-1: 0

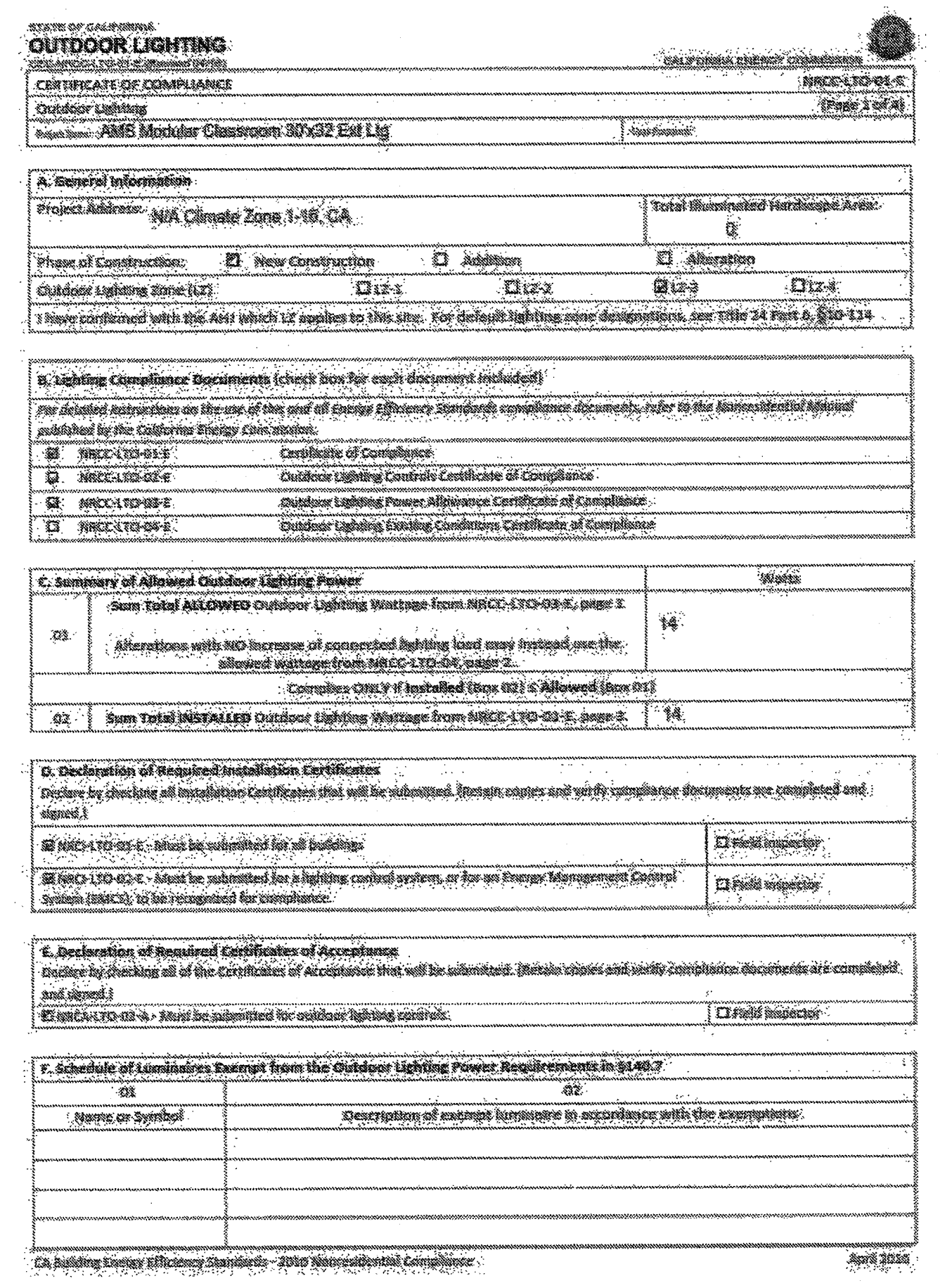
CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016


STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CERTIFICATE OF COMPLIANCE — NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance — (Page 4 of 4)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg — Date Prepared: 11/30/2016

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
Hans Marsman; Brummitt Energy Associates, Inc; 777 Highway 101, Suite 203; Solana Beach, CA 92075; 11/30/2016; 619.531.1126 ext 105

RESPONSIBLE PERSON'S DECLARATION STATEMENT
Randall P Cavannagh; American Modular Systems | Gen7 Schools; 787 Spreckels Avenue; Manteca, CA 95336; 11/30/2016; C12631; 209.825.1921

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016


STATE OF CALIFORNIA
OUTDOOR LIGHTING
CERTIFICATE OF COMPLIANCE — NRCC-LTO-01-E
Outdoor Lighting — (Page 1 of 4)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg

A. General Information
Project Address: N/A Climate Zone 1-16, CA — Total Illuminated Hardscape Area: 0
Phase of Construction: ☒ New Construction ☐ Addition ☐ Alteration
Outdoor Lighting Zone (LZ): ☐ LZ-1 ☐ LZ-2 ☒ LZ-3 ☐ LZ-4

B. Lighting Compliance Documents (check box for each document included)
☒ NRCC-LTO-01-E Certificate of Compliance
☐ NRCC-LTO-02-E Outdoor Lighting Controls Certificate of Compliance
☒ NRCC-LTO-03-E Outdoor Lighting Power Allowance Certificate of Compliance
☐ NRCC-LTO-04-E Outdoor Lighting Existing Conditions Certificate of Compliance

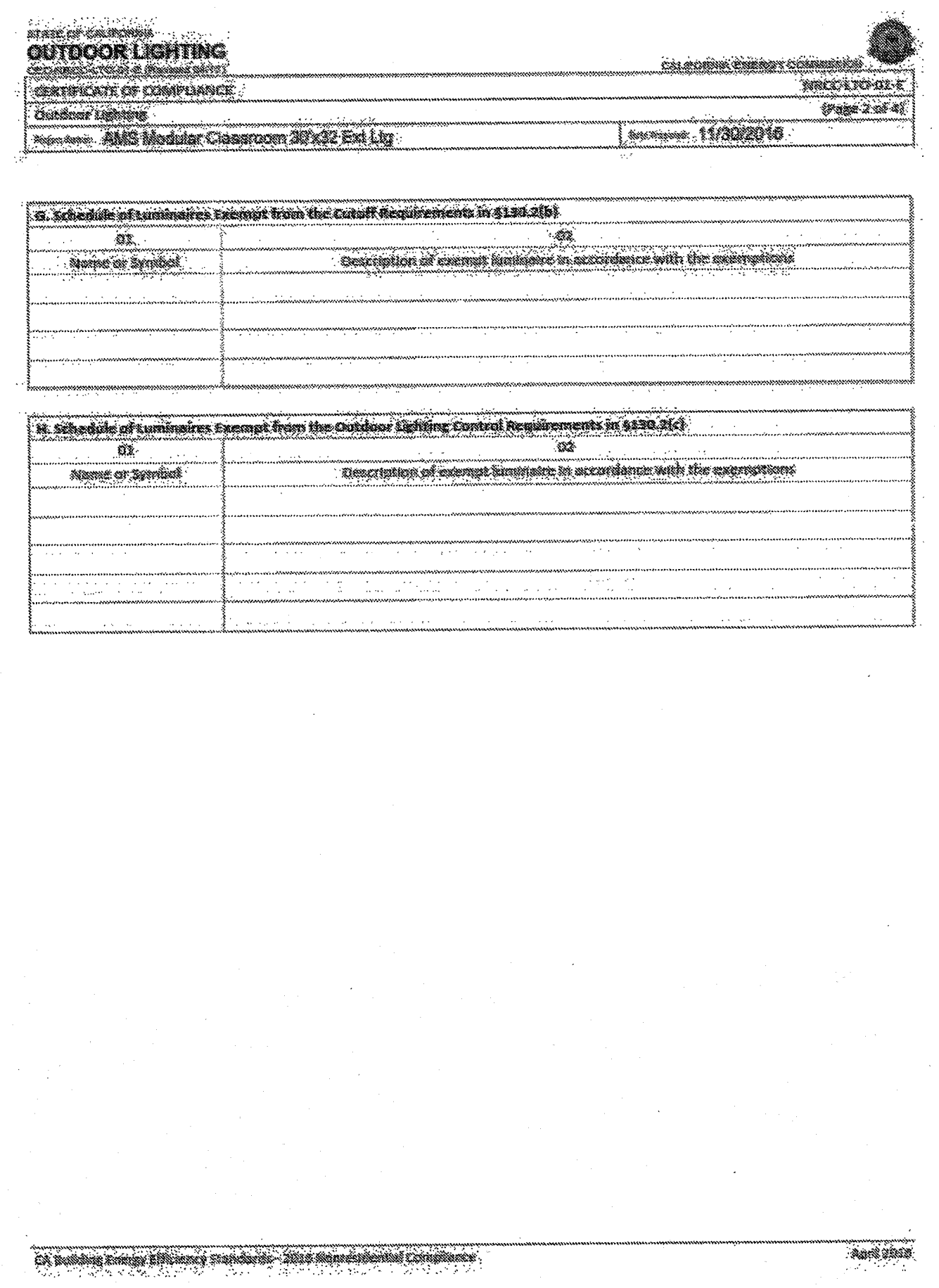
C. Summary of Allowed Outdoor Lighting Power — Watts
01 Sum Total ALLOWED Outdoor Lighting Wattage from NRCC-LTO-03-E, page 1: 14
Complies ONLY if Installed (Box 02) ≤ Allowed (Box 01)
02 Sum Total INSTALLED Outdoor Lighting Wattage from NRCC-LTO-01-E, page 3: 14

D. Declaration of Required Installation Certificates
☒ NRCI-LTO-01-E - Must be submitted for all buildings — ☐ Field Inspector
☒ NRCI-LTO-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance. — ☐ Field Inspector

E. Declaration of Required Certificates of Acceptance
☒ NRCA-LTO-02-A - Must be submitted for outdoor lighting controls. — ☐ Field Inspector

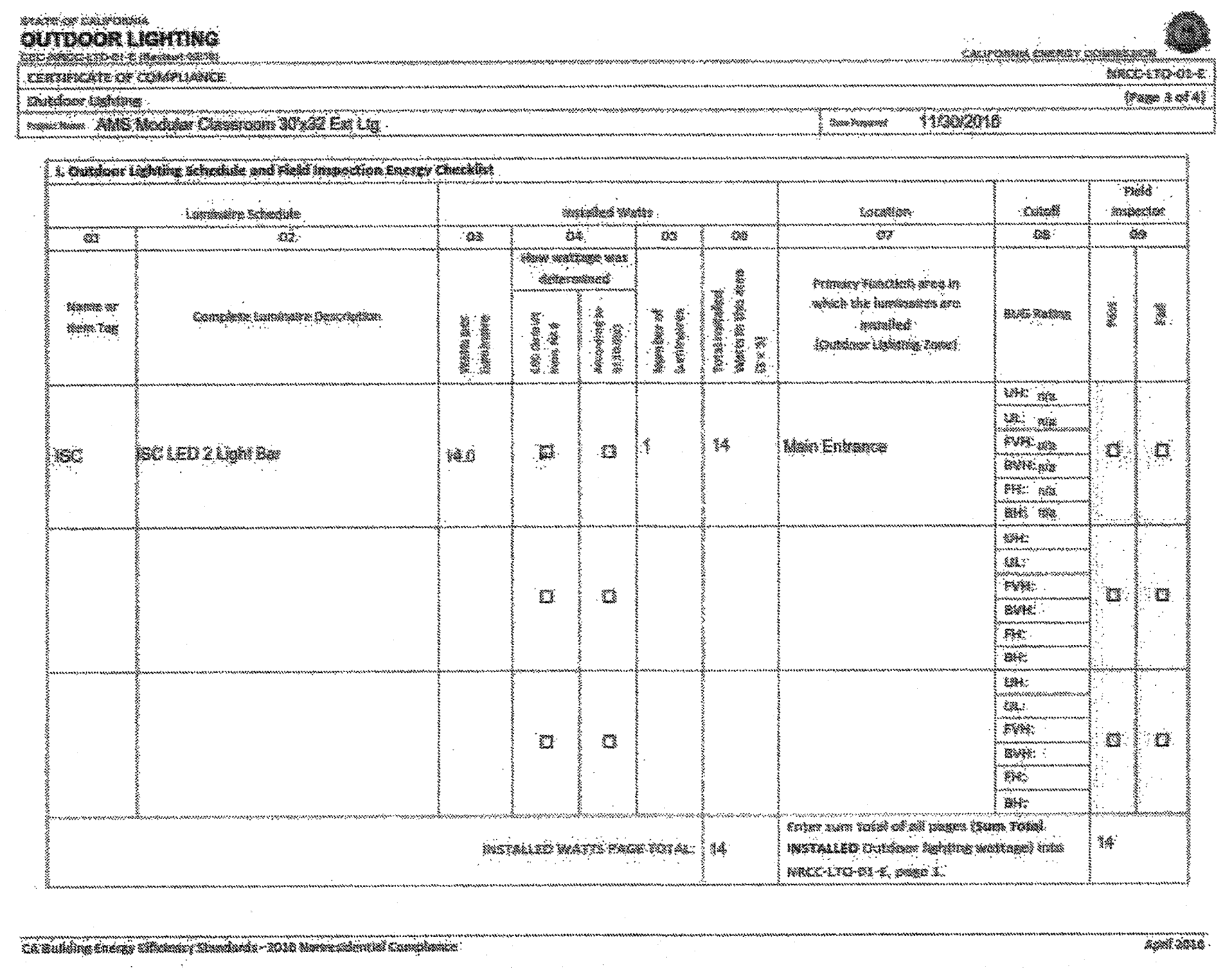
F. Schedule of Luminaires Exempt from the Outdoor Lighting Power Requirements in §140.7

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016


STATE OF CALIFORNIA
OUTDOOR LIGHTING
CERTIFICATE OF COMPLIANCE — NRCC-LTO-01-E
Outdoor Lighting — (Page 2 of 4)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg — Date Prepared: 11/30/2016

G. Schedule of Luminaires Exempt from the Cutoff Requirements in §130.2(b)
H. Schedule of Luminaires Exempt from the Outdoor Lighting Control Requirements in §130.2(c)

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016

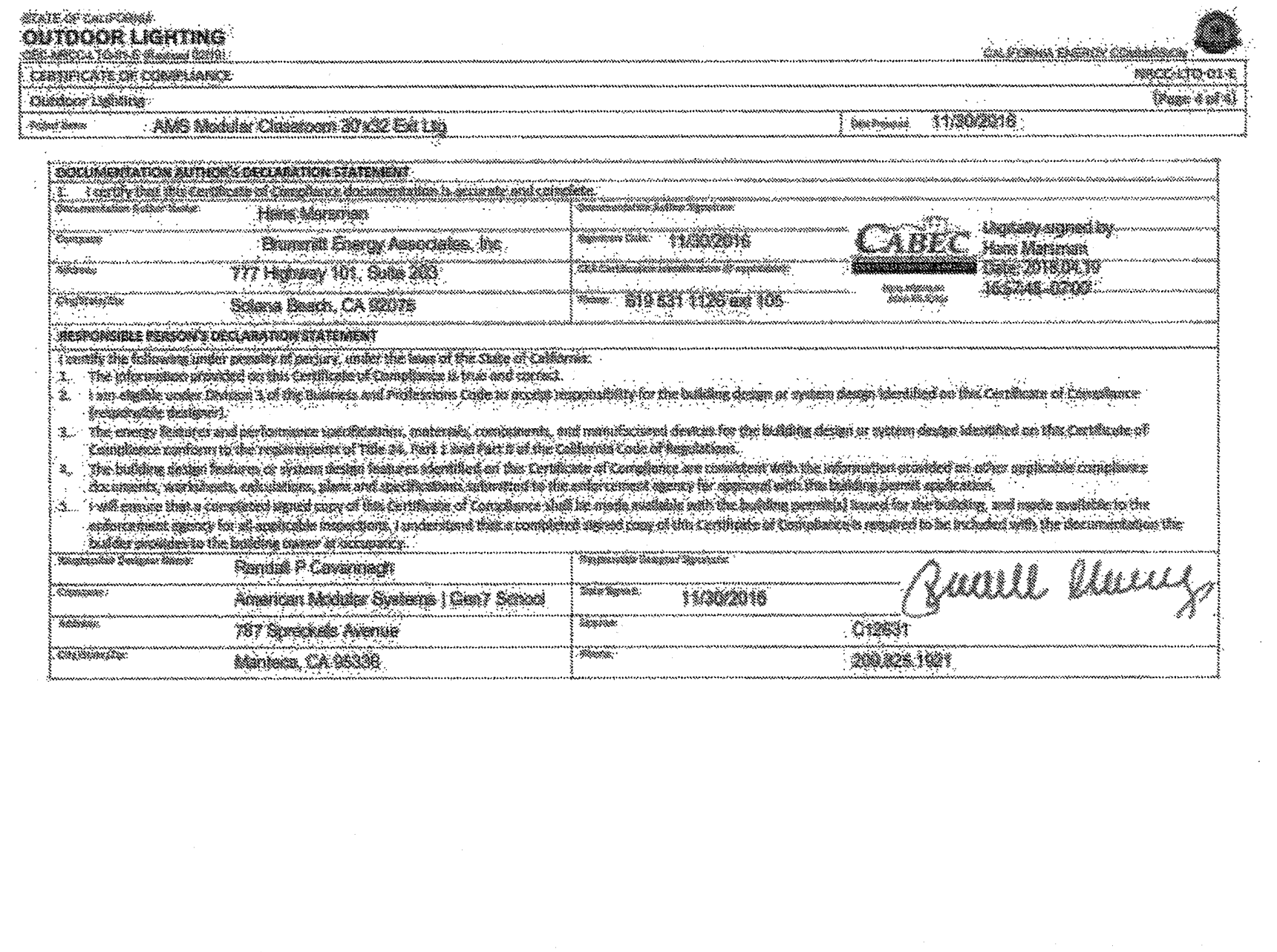

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CERTIFICATE OF COMPLIANCE — NRCC-LTO-01-E
Outdoor Lighting — (Page 3 of 4)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg — Date Prepared: 11/30/2016

I. Outdoor Lighting Schedule and Field Inspection Energy Checklist

01 Name or Item Tag	02 Complete Luminaire Description	03 Watts per Luminaire	04 CEC Default	04 According to §130.0(c)	05 Number of Luminaires	06 Total Installed Watts	07 Location	08 BUG Rating	09 Pass	09 Fail
ISC	ISC LED 2 Light Bar	14.0	☒	☐	1	14	Main Entrance	UH: n/a UL: n/a FVH: n/a BVH: n/a FH: n/a BH: n/a	☐	☐

INSTALLED WATTS PAGE TOTAL: 14
Enter sum total of all pages (Sum Total INSTALLED Outdoor lighting wattage) into NRCC-LTO-01-E, page 1: 14

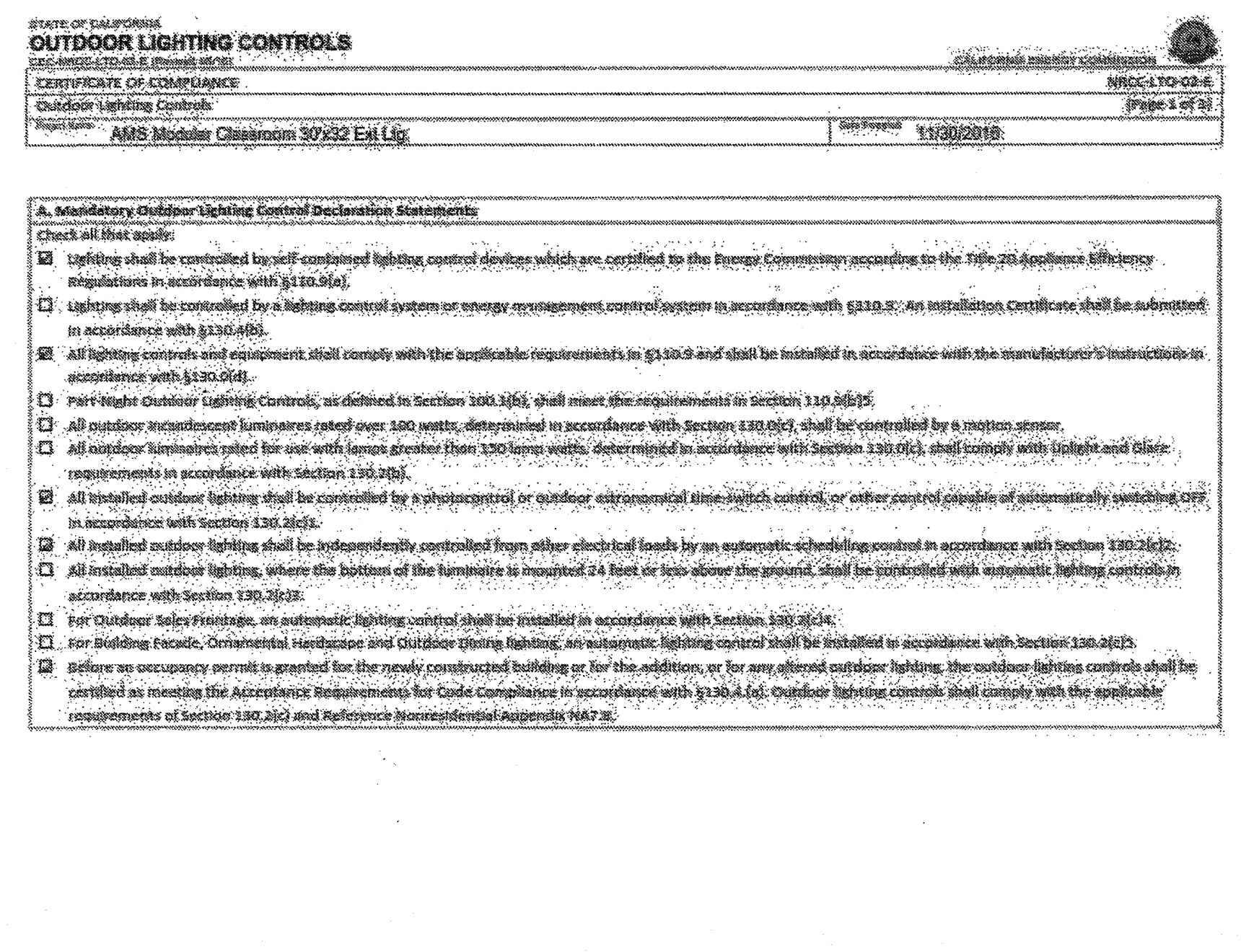
CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016


STATE OF CALIFORNIA
OUTDOOR LIGHTING
CERTIFICATE OF COMPLIANCE — NRCC-LTO-01-E
Outdoor Lighting — (Page 4 of 4)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg — Date Prepared: 11/30/2016

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
Hans Marsman; Brummitt Energy Associates, Inc; 777 Highway 101, Suite 203; Solana Beach, CA 92075; 11/30/2016; 619.531.1126 ext 105

RESPONSIBLE PERSON'S DECLARATION STATEMENT
Randall P Cavannagh; American Modular Systems | Gen7 School; 787 Spreckels Avenue; Manteca, CA 95336; 11/30/2016; C12631; 209.825.1921

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016


STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CERTIFICATE OF COMPLIANCE — NRCC-LTO-02-E
Outdoor Lighting Controls — (Page 1 of 3)
Project Name: AMS Modular Classroom 30'x32 Ext Ltg — Date Prepared: 11/30/2016

A. Mandatory Outdoor Lighting Control Declaration Statements
Check all that apply:
☒ Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with §110.9(a).
☐ Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with §130.4(b).
☒ All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with §130.0(d).
☐ Part-Night Outdoor Lighting Controls, as defined in Section 100.1(b), shall meet the requirements in Section 110.9(b)5.
☐ All outdoor incandescent luminaires rated over 100 watts, determined in accordance with Section 130.0(c), shall be controlled by a motion sensor.
☐ All outdoor luminaires rated for use with lamps greater than 150 lamp watts, determined in accordance with Section 130.0(c), shall comply with Uplight and Glare requirements in accordance with Section 130.2(b).
☒ All installed outdoor lighting shall be controlled by a photocontrol or outdoor astronomical time-switch control, or other control capable of automatically switching OFF in accordance with Section 130.2(c)1.
☒ All installed outdoor lighting shall be independently controlled from other electrical loads by an automatic scheduling control in accordance with Section 130.2(c)2.
☐ All installed outdoor lighting, where the bottom of the luminaire is mounted 24 feet or less above the ground, shall be controlled with automatic lighting controls in accordance with Section 130.2(c)3.
☐ For Outdoor Sales Frontage, an automatic lighting control shall be installed in accordance with Section 130.2(c)4.
☐ For Building Facade, Ornamental Hardscape and Outdoor Dining lighting, an automatic lighting control shall be installed in accordance with Section 130.2(c)5.
☒ Before an occupancy permit is granted for the newly constructed building or for the addition, or for any altered outdoor lighting, the outdoor lighting controls shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with §130.4(a). Outdoor lighting controls shall comply with the applicable requirements of Section 130.2(c) and Reference Nonresidential Appendix NA7.8.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — August 2016

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP.# 02-116071 DATE: 7-10-18

American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

INTELLECTUAL-PROPERTY & PROPRIETARY RIGHTS STATEMENT

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ENERGY CALCULATIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT
RANDALL PATRICK CAVANAGH
No. C12631
Ren. 3-31-19
STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP 03-119722
AC ___ FLS ___ SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

~~IDENTIFICATION STAMP~~
~~DIV. OF THE STATE ARCHITECT~~
~~PC 02-116071~~
~~AC ___ FLS ___ SS Ar~~
~~DATE 7 10 18~~

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS
1 –
2 –
3 –
4 –

DRAWN BY:
SCALE: AS NOTED
DATE:

SHEET NUMBER

EN.8

STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CALIFORNIA ENERGY COMMISSION
(Revised 10/2015)
NRCC-LTO-01-E
CERTIFICATE OF COMPLIANCE
Outdoor Lighting Controls
(Page 3 of 4)
Project Name: AMS Modular Classroom 30'x32' Ext Ltg
Date Prepared: 11/30/2016

B. Mandatory Outdoor Lighting Control Schedule and Field Inspection checklist

Outdoor Lighting Control Schedule			Controls Complying with "A" all that apply, or enter "0" if none/all						# of Luminaires Not Functional	Field Inspector	
01	02	03	04	05	06	07	08	09	10	11	
Location and Application or Luminaires Being Controlled	Brief Description of Lighting Control (ex. outdoor motion sensor, nighttime photocontrol, outdoor astronomical time-switch control, automatic scheduling control, part-night outdoor lighting control)	# of Units	§130.2(b)	§130.2(c)1	§130.2(c)2	§130.2(c)3	§130.2(c)4	§130.2(c)5		Pass	Fail
Wall Mtd LED @ entry	Photocontrol	1		✓						☐	☐
										☐	☐
										☐	☐
										☐	☐
										☐	☐
										☐	☐
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CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
August 2016

STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CALIFORNIA ENERGY COMMISSION
(Revised 10/2015)
NRCC-LTO-01-E
CERTIFICATE OF COMPLIANCE
Outdoor Lighting Controls
(Page 3 of 4)
Project Name: AMS Modular Classroom 30'x32' Ext Ltg
Date Prepared: 11/30/2016

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I, _____ certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Hans Mansteen	Documentation Author Signature:	Digitally signed by Hans Mansteen
Company:	Brunzell Energy Associates, Inc	Signature Date:	11/30/2016
Address:	777 Highway 101, Suite 203	CEA/HERS Certification Identification (If applicable):	Date: 2016.12.01 17:58:13 -08'00'
City/State/Zip:	Solana Beach, CA 92075	Phone:	619.931.1126 ext 105

CABEC Certified

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

Responsible Designer Name:	Randall P Cavanaugh	Responsible Designer Signature:	Digitally signed by Randall P Cavanaugh
Company:	American Modular Systems | Gen7 Sdbs	Date Signed:	11/30/2016
Address:	787 Sprecklels Avenue	License:	C12631
City/State/Zip:	Manteca, CA 95336	Phone:	209.825.1921

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
August 2016

STATE OF CALIFORNIA
OUTDOOR LIGHTING POWER ALLOWANCES
CALIFORNIA ENERGY COMMISSION
(Revised 10/2015)
NRCC-LTO-02-E
CERTIFICATE OF COMPLIANCE
Outdoor Lighting Power Allowances
(Page 1 of 4)
Project Name: AMS Modular Classroom 30'x32' Ext Ltg
Date Prepared: 11/30/2016

A. OUTDOOR LIGHTING POWER ALLOWANCE SUMMARY

1. General Hardscape Lighting Power Allowance (Site Total from Section B of NRCC-LTO-02-E)				1.	0
2. Additional Specific "Use it or lose it" Lighting Power Allowances listed in each of these cells shall be accepted as total allowed watts: determined in Section C-1 to C-4 of NRCC-LTO-02-E.					
	PER APPLICATION (from Section C-1)	PER UNIT LENGTH (LINEAR FRONTAGE) (from Section C-2)	PER HARDSCAPE AREA (ORNAMENTAL LIGHTING) (from Section C-3)	PER SPECIFIC AREA (from Section C-4)	
	14 +	0 +	0 +	0 =	14
3. Sum Total Allowed Outdoor Lighting Wattage (add rows 1 and 2)				3.	14

B. GENERAL HARDSCAPE LIGHTING POWER ALLOWANCE FROM TABLE 140.7-A

Area Wattage Allowance (AWA)				Linear Wattage Allowance (LWA)			Total Wattage Allowance (TWA)	Total General Hardscape Lighting Allowance
01	02	03	04	05	06	07	08	09
Areas of Area	Hardscape Lighting Zone	LPA Per Square Foot	ASSA (05) x (02)	Perimeter Length of General Hardscape	LPA per Linear Foot	LWA (05) x (06)	AWA (04)+(07)	SUM + 200 = SUM
							TOTAL: 0	

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
January 2016

STATE OF CALIFORNIA
OUTDOOR LIGHTING POWER ALLOWANCES
CALIFORNIA ENERGY COMMISSION
(Revised 10/2015)
NRCC-LTO-02-E
CERTIFICATE OF COMPLIANCE
Outdoor Lighting Power Allowances
(Page 1 of 4)
Project Name: AMS Modular Classroom 30'x32' Ext Ltg
Date Prepared: 11/30/2016

C. ADDITIONAL "USE IT OR LOSE IT" OUTDOOR LIGHTING POWER ALLOWANCES FOR SPECIFIC APPLICATIONS
☐ No additional specific outdoor lighting power allowance shall be the smaller of the allowed lighting power on the actual lighting system load.
☐ Use Outdoor Lighting Zone (OLZ) that is determined on page 1 of NRCC-LTO-01-E to calculate the specific wattage allowances.

C-1. WATTAGE ALLOWANCE PER APPLICATION – Table 140.7-B
☐ Available only for qualifying locations, which include Building Entrances or Exits, Primary Entrances to Senior Care Facilities, Police Stations, Hospitals, Fire Stations, and Emergency Vehicle Facilities; Drive-Up Windows; Vehicle Service Stations Uncovered Fuel Dispensers; and Loading Docks.
☐ If more than one luminaire type is used per location, use multiple rows for that location.

02	03	04	05	06	07	08	09	10
	ALLOTED WATTS			DESIGN WATTS				
Name of Location for Which Allowance is Claimed	Number of Qualifying Locations	Wattage Allowance per Qualifying Location	Allotted Watts (02 x 03)	Luminaire Code or Symbol	Luminaire Description	Luminaire Quantity	Watts per Luminaire	Design Watts (07 x 08)	Allowed Watts (smaller of 06 or 09)
Nursing Entry Dor	1	90	90	ISC	ISC LED 2 Light Bar	1	14.0	14	14
							Sum total allowances per application on this plan:		14

C-2. WATTAGE ALLOWANCE PER UNIT LENGTH (Sales Frontage) from Table 140.7-C
☐ If more than one luminaire type is used per location, use multiple rows for that location.

01	02	03	04	05	06	07	08	09	10
	ALLOTED WATTS			DESIGN WATTS					
Name of Location for which Allowance is Claimed	Linear Feet of Sales Frontage	Wattage Allowance per Linear Foot	Allotted Watts (02 x 03)	Luminaire Code or Symbol	Luminaire Description	Luminaire Quantity	Watts per Luminaire	Design Watts (07 x 08)	Allowed Watts (smaller of 06 or 09)
							Sum total allowance for area: Frontage on the site:		0

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
January 2016

STATE OF CALIFORNIA
OUTDOOR LIGHTING POWER ALLOWANCES
CALIFORNIA ENERGY COMMISSION
(Revised 10/2015)
NRCC-LTO-02-E
CERTIFICATE OF COMPLIANCE
Outdoor Lighting Power Allowances
(Page 2 of 4)
Project Name: AMS Modular Classroom 30'x32' Ext Ltg
Date Prepared: 11/30/2016

C-3. WATTAGE ALLOWANCE PER SQUARE FOOT OF HARDSCAPE AREA (Ornamental Lighting) – Table 140.7-B
☐ Allowance for the total site illuminated hardscape area. Luminaires qualifying for this allowance shall be rated for 100 watts or less as determined in accordance with Section 130.0(c), and shall be pedestrian bollards, lanterns, pendant luminaires, or chandeliers.
☐ If more than one luminaire type is used per location, use multiple rows for that location.

01	02	03	04	05	06	07	08	09	10
	ALLOTED WATTS			DESIGN WATTS					
Name of area for which ornamental allowance is claimed	Square Feet of Hardscape	Wattage Allowance per Square Foot	Allotted Watts (02 x 03)	Luminaire Code or Symbol	Luminaire Description	Luminaire Quantity	Watts per Luminaire	Design Watts (07 x 08)	Allowed Watts (smaller of 04 or 08)
							Sum total allowance for ornamental lighting on the site:		0

C-4. WATTAGE ALLOWANCE PER SQUARE FOOT OF SPECIFIC AREA - Table 140.7-B
☐ Allowance for Building Exteriors; Outdoor Sales Lots; Vehicle Service Station Hardscape; Vehicle Service Station Canopies; Open Canopies; Guard Stations; Building Entrances; Building Exits; Loading Docks; Illuminated Entrance Signs; Security Lighting for Retail, Parking and Pedestrian Hardscape.
☐ If more than one luminaire type is used per location, use multiple rows for that location.

01	02	03	04	05	06	07	08	09	10
	ALLOTED WATTS			DESIGN WATTS					
Name of Location for which Allowance is Claimed	Illuminated Area of Application	Wattage Allowance per Square Foot	Allotted Watts (02 x 03)	Luminaire Code or Symbol	Luminaire Description	Luminaire Quantity	Watts per Luminaire	Design Watts (07 x 08)	Allowed Watts (smaller of 04 or 09)
							Sum total allowance for specific area on the site:		0

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
January 2016

STATE OF CALIFORNIA
OUTDOOR LIGHTING POWER ALLOWANCES
CALIFORNIA ENERGY COMMISSION
(Revised 10/2015)
NRCC-LTO-02-E
CERTIFICATE OF COMPLIANCE
Outdoor Lighting Power Allowances
(Page 4 of 4)
Project Name: AMS Modular Classroom 30'x32' Ext Ltg
Date Prepared: 11/30/2016

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I, _____ certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Hans Mansteen	Documentation Author Signature:	Digitally signed by Hans Mansteen
Company:	Brunzell Energy Associates, Inc	Signature Date:	11/30/2016
Address:	777 Highway 101, Suite 203	CEA/HERS Certification Identification (If applicable):	Date: 2016.12.01 17:58:13 -08'00'
City/State/Zip:	Solana Beach, CA 92075	Phone:	619.931.1126 ext 105

CABEC Certified

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

Responsible Designer Name:	Randall P Cavanaugh	Responsible Designer Signature:	Digitally signed by Randall P Cavanaugh
Company:	American Modular Systems | Gen7 Sdbs	Date Signed:	11/30/2016
Address:	787 Sprecklels Avenue	License:	C12631
City/State/Zip:	Manteca, CA 95336	Phone:	209.825.1921

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
January 2016

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION
NRCC-ELC-E (Revised 10/17)
NRCC-ELC-E
CERTIFICATE OF COMPLIANCE
This document is used to demonstrate compliance with mandatory requirements in §130.5 for electrical systems in newly constructed nonresidential, high-rise residential and hotel/motel occupancies. Additions and alterations to electrical service systems in these occupancies will also use this document to demonstrate compliance per §141.0(b) or §141.0(b)2 for alterations.
Project Name: 2016 AMS 30x32
Project Address: N/A (SITE SPECIFIC)
Report Page: Page 1 of 5
Date Prepared: 12/07/2017

A. GENERAL INFORMATION

01 Project Location (city)					02 Occupancy Types Within Project:			
☐ Office	☐ Retail	☐ Warehouse	☐ Hotel/ Motel	☒ School	☐ Support Areas			
☐ Parking Garage	☐ High-Rise Residential	☒ Relocatable	☐ Other (Write-In):					

B. PROJECT SCOPE
Table Instructions: Include any electrical service systems that are within the scope of the permit application.

01	02	03	04	05
				Demand Response Controls
Electrical Service Designation/ Description	Scope of Work	Rating (kVA)	Utility Provided Metering System Exception to §130.5(a)*	Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections §130.5, §130.1 and §130.5 and compliance documents NRCC-ACH, NRCC-LTI and NRCC-LTI will indicate when demand response controls are required.
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	

*FOOTNOTES: Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

C. COMPLIANCE RESULTS
Table Instructions: If this table says "DOES NOT COMPLY" refer to Table D, for guidance and review the Table that indicates "No".

01		02		03		04		05
Service Electrical Metering §130.5(a)	AND	Separation for Monitoring §130.5(b)	AND	Voltage Drop §130.5(c)	AND	Controlled Receptacles §130.5(d)	AND	Compliance Results
(See Table F)	AND	(See Table G)	AND	(See Table H)	AND	(See Table I)		

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards
December 2017

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION
NRCC-ELC-E
CERTIFICATE OF COMPLIANCE
Project Name: 2016 AMS 30x32
Project Address: N/A (SITE SPECIFIC)
Report Page: Page 2 of 5
Date Prepared: 12/07/2017

D. EXCEPTIONAL CONDITIONS
This table is auto-filled with unalterable statements because of selections made or data entered in tables throughout the form.
No exceptional conditions apply to this project.

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

F. SERVICE ELECTRICAL METERING
This Section Does Not Apply

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING
This Section Does Not Apply

H. VOLTAGE DROP
This Section Does Not Apply

I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES
This Section Does Not Apply

J. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E, Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at http://www.energy.ca.gov/title24/2016standards/ACM_405-2015-689/appendices/forms/NRCI

YES	NO	Form/Title	Field Inspector Pass	Field Inspector Fail
☒	☐	NRCI-ELC-01-E - Must be submitted for all buildings.	☐	☐

K. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
There are no Certificates of Acceptance applicable to electrical power distribution requirements.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards
December 2017

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION
NRCC-ELC-E (Revised 10/17)
NRCC-ELC-E
CERTIFICATE OF COMPLIANCE
Project Name: 2016 AMS 30x32
Project Address: N/A (SITE SPECIFIC)
Report Page: Page 3 of 5
Date Prepared: 12/07/2017

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Documentation Author Name:	JACOB P. JONES	Documentation Author Signature:	
Company:	AMERICAN MODULAR SYSTEM	Signature Date:	12/07/2017
Address:	787 SPRECKELS AVE.	CEA/ HERS Certification Identification (If applicable):	
City/State/Zip:	MANTECA, CA 95336	Phone:	(209) 825-1921

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

Responsible Designer Name:	RANDALL P. CAVANAUGH	Responsible Designer Signature:	
Company:	AMERICAN MODULAR SYSTEM	Date Signed:	12/12/2017
Address:	787 SPRECKELS AVE.	License:	C12631
City/State/Zip:	MANTECA, CA 95336	Phone:	(209) 825-1921

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP # 02-116071 DATE 2-5-2019

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards
December 2017

American Modular Systems
787 Sprecklels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7
hostile schools challenged

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ENERGY CALCULATIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT PATRICK CONNAUGHTON No. C12631 Ren. 3-31-19 STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP# 02-119722
AC FLS SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

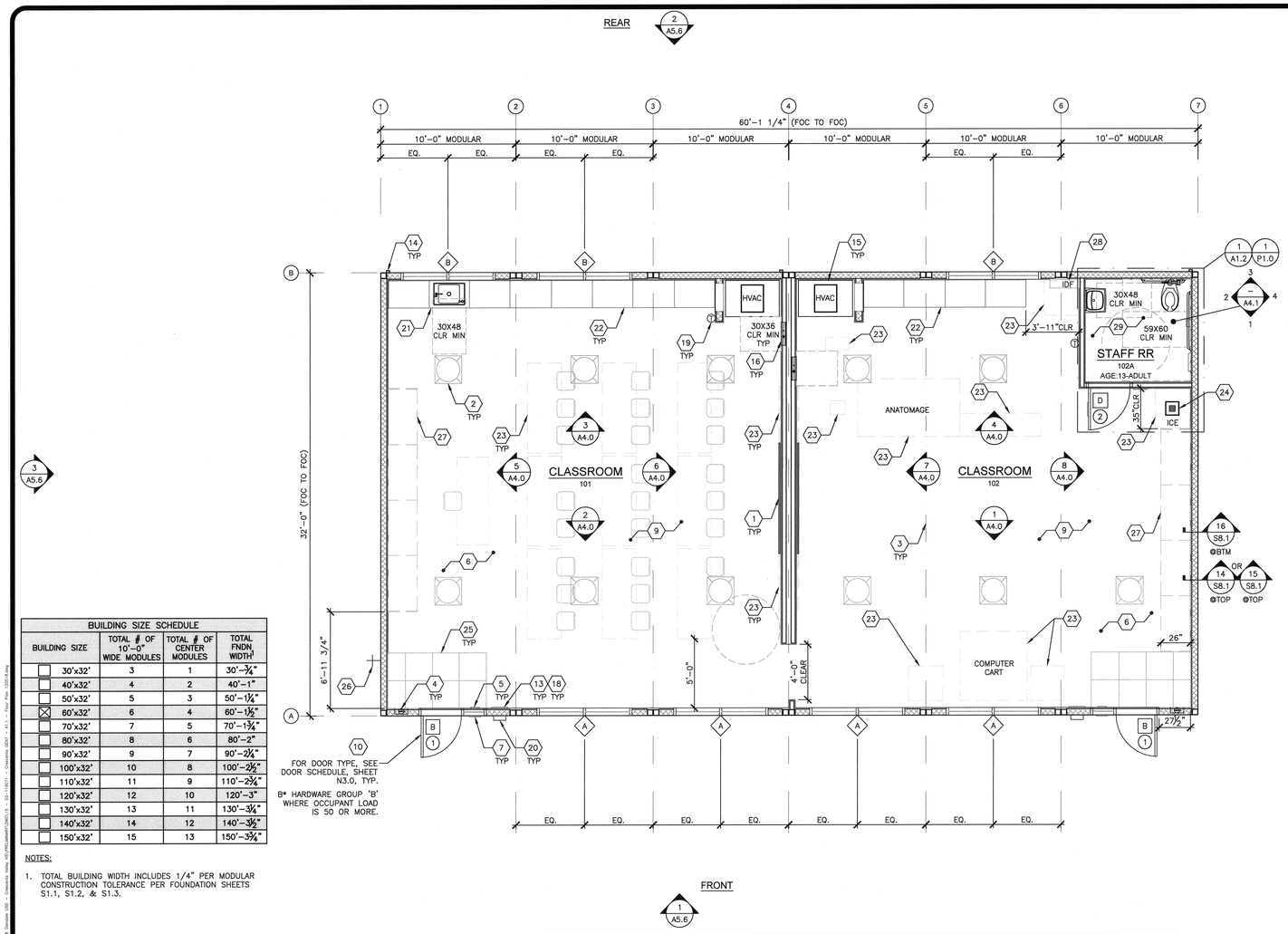
REVISIONS

1	–	–
2	–	–
3	–	–
4	–	–

DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER

EN.9



BUILDING SIZE SCHEDULE				
BUILDING SIZE	TOTAL # OF 10'-0" WIDE MODULES	TOTAL # OF CENTER MODULES	TOTAL FNDN. WIDTH[1]	
30'x32'	3	1	30'-¾"	
40'x32'	4	2	40'-1"	
50'x32'	5	3	50'-1¼"	
60'x32'	6	4	60'-1½"	☒
70'x32'	7	5	70'-1¾"	
80'x32'	8	6	80'-2"	
90'x32'	9	7	90'-2¼"	
100'x32'	10	8	100'-2½"	
110'x32'	11	9	110'-2¾"	
120'x32'	12	10	120'-3"	
130'x32'	13	11	130'-3¼"	
140'x32'	14	12	140'-3½"	
150'x32'	15	13	150'-3¾"	

NOTES:

1. TOTAL BUILDING WIDTH INCLUDES 1/4" PER MODULAR CONSTRUCTION TOLERANCE PER FOUNDATION SHEETS S1.1, S1.2, & S1.3.

1. 8'x5' MARKER BOARDS – SEE SHEET A4.0
2. SOLATUBE ABOVE – SEE SHEET NOTE #7
3. TYP. MOD LINE
4. FIRE EXTINGUISHER – TOP OF HANDLE @ +48" A.F.F. 4" MAX PROTRUSION FROM WALL IF BOTTOM OF FIRE EXTINGUISHER IS ABOVE 27" A.F.F.
5. TACTILE EXIT SIGN PER DETAIL 10/N4.0 (BY OTHERS)
6. EGRESS AREA
7. ROOM SIGNAGE AND I.S.A. PER DETAILS 5&9/N4.0 (BY OTHERS)
8. NOT USED
9. VCT FLOORING
10. EGRESS DOOR
11. NOT USED
12. NOT USED
13. OCCUPANT LOAD SIGN PER DETAIL 11/N4.0 (BY OTHERS)
14. DOWNSPOUT–DISCHARGE TO SPLASH BLOCK U.O.N.(QTY AND LOC. MAY VARY)
15. HVAC – SEE MECHANICAL
16. ELECTRICAL PANEL (LOCATION MAY VARY)
17. NOT USED
18. FLOOR LIVE LOAD & SNOW LOAD SIGN PER 2016 CBC SECTION 106.1 (FLOOR LIVE LOAD SIGN IS REQUIRED ONLY FOR COMMERCIAL OR INSTITUTIONAL BUILDINGS DESIGNED WITH LIVE LOADS EXCEEDING 50 PSF)
19. THERMOSTAT – 48" A.F.F. @ TOP OF BOX
20. EXTERIOR LIGHT
21. CASEWORK W/SINK – REFER TO A7.1 FOR BLOCKING AND 17/–
22. CASEWORK – REFER TO A7.1 FOR BLOCKING
23. EQUIPMENT & FURNITURE (BY OTHERS)
24. FLOOR SINK – REFER TO P1.0
25. WALK OFF MAT
26. HOSE BIBB – REFER TO P1.0
27. TEACHING WALL:16'-1½"Lx26"W (BY OTHERS); AMS TO PROVIDE BLOCKING
28. IDF CABINET (BY OTHERS); AMS TO PROVIDE BLOCKING
29. CERAMIC TILE FLOORING

KEY NOTES

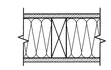
1. REFER TO SHEETS N5.0 AND N5.1 FOR POSSIBLE ADDITIONAL FLOOR PLAN CONFIGURATIONS.
2. INTERIOR WALLS MAY OCCUR THROUGHOUT BUILDING. REFER TO SHEETS S8.1 OR S9.1 FOR ATTACHMENTS.
3. PANIC HARDWARE COMPLYING WITH C.B.C. 1010.1.10 IS REQUIRED TO BE INSTALLED WHEN THE CONFIGURATION OF ANY ROOM PROVIDES AN OCCUPANT LOAD OF 50 OR GREATER.
4. IF OCCUPANCY LOAD EXCEEDS 50, PROVIDE A SECOND EXIT DOOR, PER CBC TABLE 1006.2.1.
5. FOR ROOMS OR SPACES CLASSIFIED AS AN ASSEMBLY OCCUPANCY, PROVIDE AN OCCUPANT LOAD SIGN (BY OTHERS) IN A CONSPICUOUS PLACE, NEAR THE MAIN EXIT. PER C.B.C. SECTION 1004.3.
6. AUTOMATIC DAYLIGHT CONTROLS AS PRESCRIBED ON THIS PLAN ARE ONLY REQUIRED WHEN THE SOLATUBE OPTION IS UTILIZED. REFER TO ENERGY NOTE #2 OF THIS SHEET FOR FURTHER ASSISTANCE.
7. SOLATUBE LOCATIONS SHOWN ON PLAN ARE GENERIC AND ACTUAL LOCATIONS MAY VARY – (4) MAX. PER MOD. FRAMING PER S4.0 & S4.1. INSTALLATION PER DETAILS 1 OR 15/M1.6.
8. WHEN SOLATUBES ARE UTILIZED ABOVE A CLASSROOM, THE ENTIRE CLASSROOM SHALL BE CONSIDERED AS A "DAYLIT" ZONE.
9. ALL PRIMARY EXTERIOR DOOR ENTRIES SHALL BE COVERED TO PREVENT WATER INTRUSION BY USING NONABSORBENT FLOOR AND WALL FINISHES WITHIN AT LEAST 2 FEET AROUND AND PERPENDICULAR TO OPENING, PER CALGREEN, SECTION 5.407.2.2.1.
10. PRIMARY EXTERIOR DOOR ENTRIES SHALL HAVE AT LEAST ONE OF THE FOLLOWING:
    - ROOF OVERHANG AT LEAST 4 FEET IN DEPTH OR
    - OTHER METHODS INDEPENDENT OF THE BUILDING WHICH PROVIDE EQUIVALENT PROTECTION (PROVIDED BY OTHERS).

SITE NOTE

3/16:12 (1%) MINIMUM TO 1/4:12 (2%) MAXIMUM GRADE FROM FACE OF BUILDING MUST BE ADHERED TO FOR WATER RUN–OFF. PONDING MAY OCCUR AROUND THE PERIMETER OF THE BUILDING.

SHEET NOTES

3. IN THE EVENT THAT A PC CLASSROOM IS DESIGNED TO CONNECT TO ANOTHER PC CLASSROOM OR RESTROOM, INTERIOR SOUND TRANSMISSION IN THE INTERIOR ADJOINING WALL AND FLOOR/CEILING SHALL MEET THE MINIMUM REQUIREMENT OF A STC OF 40, PER CALGREEN CODE SECTION 507.4.3. (EXAMPLES OF QUALIFYING ASSEMBLIES SHOWN BELOW).

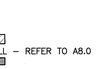


(2) LAYER 5/8" GYPSUM BOARD SECURED TO MIN. 2x4 STUDS @ 24" O.C. MAX. w/ 3½" THK. BATT INSULATION

STC=40
TEST REF.: AUDIO ALLOY L.L.C
TEST NUMBER: OL–05–1003

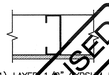
(2) LAYER 5/8" GYPSUM BOARD SECURED TO MIN. 2x4 METAL STUDS @ 24" O.C. MAX. W/3½ THK. BATT INSULATION

STC=40
TEST REF.: AUDIO ALLOY L.L.C
TEST NUMBER OL–92–410



(1) LAYER 1/2" GYPSUM BOARD SECURED TO MIN. 2x4 STUDS @ 16" O.C. MAX.

STC=28
(CATALOG SECTION 1.2.1.5.4.1)
TEST REF.: NATIONAL RESEARCH COUNCIL OF CANADA – NRC #66



(1) LAYER 1/2" GYPSUM BOARD SECURED TO MIN. 2x4 METAL STUDS @ 24" O.C. MAX.

STC=28
(CATALOG SECTION 1.3.2.5.4.1)
TEST REF.: NATIONAL RESEARCH COUNCIL OF CANADA – NRC #66

4. MINIMUM WINDOW & DOOR RATINGS:
ALL WINDOWS AND DOORS SPECIFIED ON THE SCHEDULES FOUND ON SHEET N3.0 OF THIS PACKAGE SHALL MEET A MINIMUM STC RATING OF 27.

TYPICAL FLOOR PLAN

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

SYMBOLS LEGEND

(X/#) = MECHANICAL OR PLUMBING FIXTURE – SEE MECHANICAL OR PLUMBING DRAWINGS

(X) = KEY NOTE – SEE KEY NOTES ABOVE

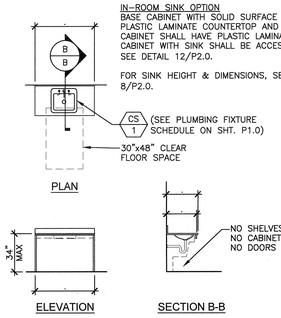
(X) = DOOR TYPE – SEE SCHEDULE, SHEET N3.0

(X) = WINDOW TYPE – SEE SCHEDULE, SHEET N3.0

[X] = DOOR HARDWARE – SEE HARDWARE SCHEDULE, SHEET N3.0

2X4 WALL
2X6 WALL
2X8 WALL
FIRE–RATED WALL – REFER TO A8.0

CLASSROOM SINK



SCALE: 1/4" = 1'-0" | 17

ENERGY NOTES

ENERGY CONTROLS

1. DEMAND RESPONSE CONTROLS:
ONLY REQUIRED IN BUILDINGS LARGER THAN 10,000 S.F., THEREFORE, NOT REQUIRED FOR THIS PC.
2. AUTOMATIC DAYLIGHTING CONTROLS:
NOT REQUIRED IN ROOMS WHERE COMBINED INSTALLED LIGHTING POWER IN COMBINED SKYLIT & PRIMARY DAYLIT ZONES ARE <120 WATTS. INSTALLED WATTAGE IN PRIMARY SIDELIT DAY LIT ZONE IS 80 WATTS (2x 40w, AS SHOWN ON SHEET E1.0). THEREFORE, AUTOMATIC DAYLIGHTING CONTROLS ARE ONLY REQUIRED WHEN "SOLATUBES" ARE INSTALLED. SEE A1.1
3. ENERGY MANAGEMENT CONTROL SYSTEM (EMCS) CONNECTION:
PER TITLE 24 CODE, "AN EMCS MAY BE INSTALLED TO COMPLY WITH THE REQUIREMENTS OF ONE OR MORE LIGHTING CONTROLS IF IT MEETS THE MINIMUM REQUIREMENTS". PC MAY CONTAIN OCCUPANCY SENSORS AND PHOTOCELL CONTROL LIGHTING, IN THAT CASE, AN EMCS IS NOT REQUIRED FOR THIS PC.
4. SOLAR–READY ZONE REQUIREMENTS:
REQUIREMENTS & TABLE CAN BE FOUND ON SHEET A2.0

NOTE: ANT MONITORING EQUIPMENT OR ASSOCIATED SENSORS ARE SITE SPECIFIC AND ARE NOT INCLUDED IN THE BASE PC.

ACOUSTIC NOTES

ACOUSTIC CONTROLS

1. WHEN THE PRE–CHECK (PC) BUILDING IS SITE ADAPTED, THE BUILDING AND SITE FEATURES SHALL COMPLY WITH THE CALGREEN CODE, SECTION 5.507.4, FOR THE SPECIFIC SITE LOCATION.
2. MINIMUM WALL ASSEMBLIES:
WALL ASSEMBLIES SHALL BE CONSTRUCTED PER DETAIL SHEETS A5.1, A5.3, A5.5, A5.7, & A8.0, WITH EITHER 2x4 WOOD STUDS OR 6" STEEL STUDS PER LISTED OPTIONS.
MINIMUM STC RATINGS LISTED BELOW ARE PER THE CATALOG OF STC & IIC RATINGS FOR WALL AND FLOOR/CEILING ASSEMBLIES, PRODUCED BY THE OFFICE OF NOISE CONTROL, CA DEPARTMENT OF HEALTH SERVICES.

American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE

TYPICAL FLOOR PLAN w/ SOLATUBE OPTION

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — WINDAM PATRICK GILLESPIE — No. C-30511 — REN. 3-31-19 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC EIS SS DV
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-116071

PRE–CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

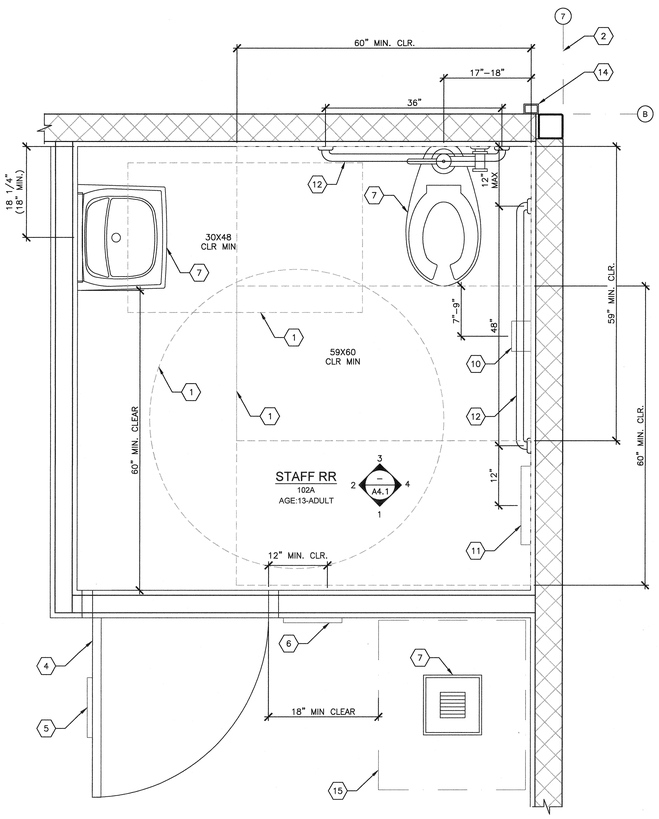
REVISIONS

DRAWN BY:	AS
SCALE:	AS NOTED
DATE:	01/04/19

SHEET NUMBER

A1.1

02-XXXXX – 24x60 4wC BUILDINGS – SHEETS – 1/4/2019 11:24 AM – M:\Projects\1000–1999\1000–1999\1001–1A Glendale USD – Crescenta Valley HS\PLANSHEETS\DWG\1 – 02–116071 – Crescenta (60x7 – A1) – Floor Plan 2018.dwg



1	CLEAR FLOOR SPACE AREA
2	TYP. MOD LINE
3	NOT USED
4	DOOR PER SCHEDULE ON SHEET N3.0, TYP.
5	RESTROOM SIGNAGE (BY OTHERS) PER DETAILS 1–10, SHEET N4.0
6	ROOM AND ISA SIGNAGE (BY OTHERS) PER DETAILS 5&9/N4.0
7	PLUMBING FIXTURE PER P1.0
8	NOT USED
9	NOT USED
10	TOILET TISSUE DISPENSER (BRADLEY MODEL 508–32, OR EQUAL)
11	TOILET SEAT COVER DISPENSER (BOBRICK MODEL B–221, OR EQUAL) (BY OTHERS)
12	GRAB BARS – SEE 6/A7.1
13	NOT USED
14	DOWNSPOUT – DISCHARGE TO SPLASH BLOCK (U.N.O.) (QUANTITY AND LOCATION MAY VARY)
15	ICE MAKER (BY OTHERS)

KEY NOTES

1. DIMENSIONS ARE TO FACE OF FINISH (F.O.F.) UNLESS NOTED OTHERWISE (i.e. F.O.C., ℄)
2. RESTROOM CONFIGURATION MAY VARY PER BUILDING CONFIGURATION.
3. RESTROOM MODULE OCCURS ONLY AT END OF BUILDING. SINGLE RESTROOMS MAY OCCUR IN ANY PART OF A BUILDING.
4. RESTROOM MODULE CANNOT STAND ALONE AND SHALL BE ASSEMBLED TOGETHER WITH AT LEAST ONE OTHER MODULE OF THE SAME SIZE.
5. INTERIOR WALLS MAY OCCUR THROUGHOUT BUILDING. REFER TO SHEET S8.1 OR S9.1 FOR ATTACHMENTS.
6. REFER TO SCHEDULE 7/P2.0 FOR ACCESSIBLE HEIGHTS & DIMENSIONS.
7. REFER TO DETAILS 3, 4 & 5, SHEET A7.1 FOR TOILET PARTITION ANCHORAGE BLOCKING.
8. SEWER AND WATER STUB OUTS SHALL BE LOCATED WITHIN THE ALLOWABLE AREA AS SHOWN ON FLOOR PLAN AND CONNECTIONS SHALL BE EASILY ACCESSIBLE FOR FUTURE RELOCATION. STUB OUT HEIGHT SHALL BE COORDINATED BY THE MANUFACTURER.
9. PIPING MATERIAL
   a. WATER: COPPER TYPE "L", 95/5 SOLDER.
   b. WASTE DRAIN AND VENT: ABS.
10. TOILET COMPARTMENT DOORS LOCATED IN THE FRONT PARTITION SHALL BE 4" MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET, PER C.B.C. SECTION 11B–604.8.1.2.

PLUMBING NOTE

MODULAR MFR. TO STUB THROUGH FLOOR ALL PLUMBING LINES. BUILDING PERIMETER POC'S SHOWN ARE FOR COORDINATION PURPOSES ONLY. ALL UNDER–FLOOR CONNECTIONS ARE BY SITE CONTRACTOR, U.O.N.

SITE NOTE

3/16:12 (1%) MINIMUM TO 1/4:12 (2%) MAXIMUM GRADE FROM FACE OF BUILDING MUST BE ADHERED TO FOR WATER RUN–OFF. PONDING MAY OCCUR AROUND THE PERIMETER OF THE BUILDING.

RESTROOM FLOOR PLAN OPTION | 1

GENERAL NOTES

- = KEY NOTE – SEE KEY NOTES, THIS SHEET
- = DOOR TYPE – SEE SCHEDULE SHEET N3.0
- = WINDOW TYPE – SEE SCHEDULE SHEET N3.0
- = DOOR HARDWARE – SEE HARDWARE SCHEDULE SHEET N3.0
- = 60" DIAMETER CLEAR FLOOR TURNING SPACE
- = 30"x48" CLEAR FLOOR SPACE

2X4 WALL
2X6 WALL
2X8 WALL
FIRE–RATED WALL – REFER TO A8.0

SYMBOLS LEGEND

NOT USED | NOT USED | NOT USED | NOT USED

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PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE

RESTROOM FLOOR PLAN OPTIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — KEVIN PATRICK CARLSON — No. C 32631 — Exp. 3-31-19 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP# 03-119722
FLS SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-116071

PRE–CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS
1
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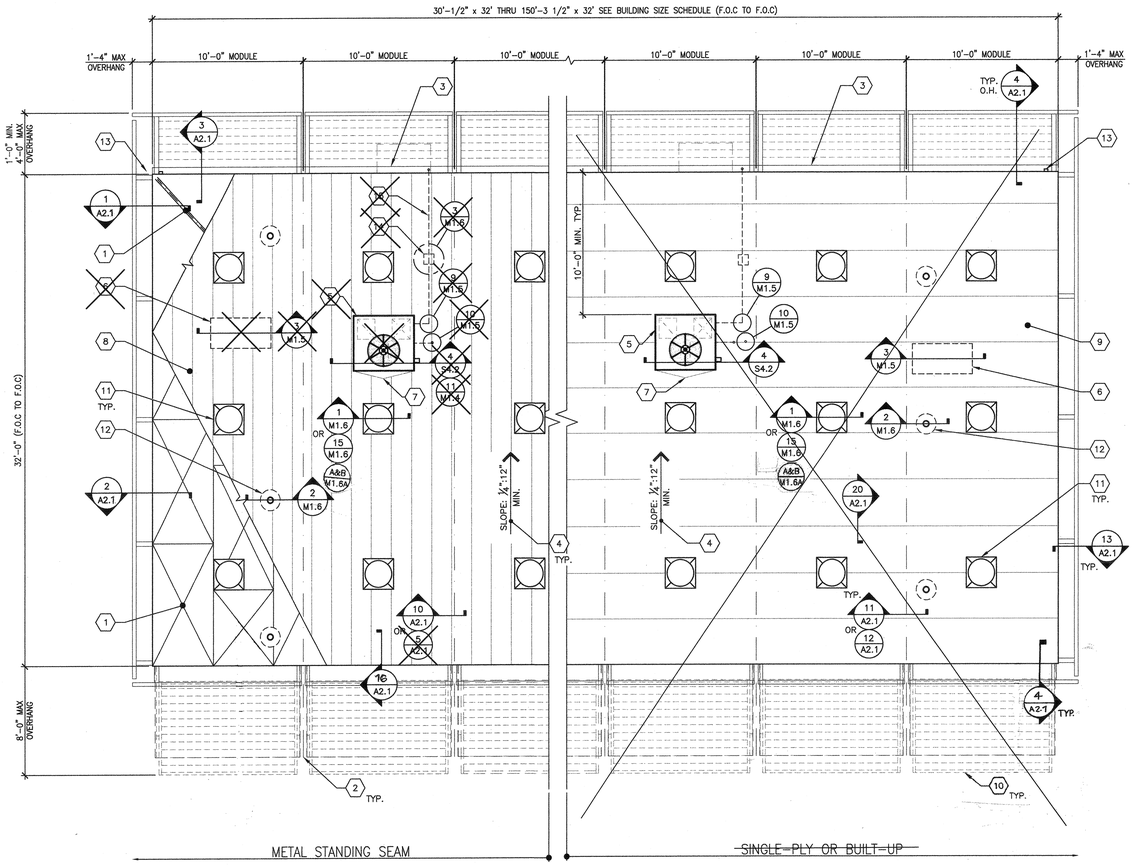
4

DRAWN BY:	AS
SCALE:	AS NOTED
DATE:	01/04/19

SHEET NUMBER

A1.2

REAR



FRONT

TYPICAL ROOF PLAN

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

ROOF DRAIN SCHEDULE

ROOF AREA DRAINS (WITH 5'+2' OVERHANG)			
BUILDING SIZE (NOM.)	ROOF AREA	MINIMUM NO. OF DRAINS	SIZE OF DRAIN
☐ 30'x32'	1170	1	2x3
☐ 40'x32'	1560	1	2x3
☐ 50'x32'	1950	1	2x3
☒ 60'x32'	2340	1	2x3
☐ 70'x32'	2730	1	2x3
☐ 80'x32'	3120	2	2x3
☐ 90'x32'	3510	2	2x3
☐ 100'x32'	3900	2	2x3
☐ 110'x32'	4290	2	2x3
☐ 120'x32'	4680	2	2x3
☐ 130'x32'	5070	2	2x3
☐ 140'x32'	5460	2	2x3
☐ 150'x32'	5850	2	2x3

NOTES:
1. DOWNSPOUTS & LEADERS PER C.P.C. 1106.1 AND TABLE 1101.11.
2. PC DOWNSPOUT SIZING BASED ON ROOF AREA AND MAX RAINFALL RATE OF 3" PER HOUR. SITE SPECIFIC BUILDING MAY UTILIZE LOCAL RAINFALL RATE--PROVIDE SITE RAINFALL RATE TO DETERMINE MINIMUM NUMBER OF DRAINS REQUIRED.

BUILDING SIZE SCHEDULE

BUILDING SIZE	TOTAL # OF 10'-0" WIDE MODULES	TOTAL # OF CENTER MODULES	TOTAL BLDG. WIDTH[1]
☐ 30'x32'	3	1	30'-½"
☐ 40'x32'	4	2	40'-¾"
☐ 50'x32'	5	3	50'-1"
☒ 60'x32'	6	4	60'-1¼"
☐ 70'x32'	7	5	70'-1½"
☐ 80'x32'	8	6	80'-1¾"
☐ 90'x32'	9	7	90'-2"
☐ 100'x32'	10	8	100'-2¼"
☐ 110'x32'	11	9	110'-2½"
☐ 120'x32'	12	10	120'-2¾"
☐ 130'x32'	13	11	130'-3"
☐ 140'x32'	14	12	140'-3¼"
☐ 150'x32'	15	13	150'-3½"

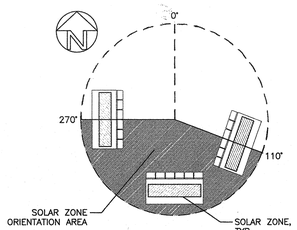
NOTES:
1. TOTAL BUILDING WIDTH INCLUDES 1/4" PER MODULAR CONSTRUCTION TOLERANCE PER FOUNDATION SHEETS S1.0, S1.1, S1.2, & S1.3.

BUILDING SIZE SCHEDULE

NOT USED | 3

SOLAR ORIENTATION | 4

IF THE SOLAR-READY ZONE IS LOCATED ON A SLOPE GREATER THAN 2:12, THEN THE ROOF MUST BE ORIENTATED BETWEEN 110° AND 270° OF TRUE NORTH, IN ORDER TO MAXIMIZE SOLAR EXPOSURE (PER 2016 C.E.C. SECTION 110.1)



SOLAR-READY ZONE REQUIREMENTS

REQUIRED SOLAR-READY ZONE		
BUILDING SIZE	MAX. ROOF AREA (SQ. FT.)	REQ'D ZONE AREA (SQ. FT.)
☐ 30'x32'	960	144
☐ 40'x32'	1280	192
☐ 50'x32'	1600	240
☒ 60'x32'	1920	288
☐ 70'x32'	2240	336
☐ 80'x32'	2560	384
☐ 90'x32'	2880	432
☐ 100'x32'	3200	480
☐ 110'x32'	3520	528
☐ 120'x32'	3840	576
☐ 130'x32'	4160	624
☐ 140'x32'	4480	672
☐ 150'x32'	4800	720

1. ROOF SHEATHING OR STRAP CROSS BRACING PER SHEET S4.0 OR S4.1
2. TYPICAL MOD LINE
3. ~~OPTIONAL~~ GUTTER PER DETAIL 3 OR 4/A2.1
4. TYPICAL ROOF SLOPE
5. ~~OPTIONAL ROOF MOUNTED HVAC PER M1.7~~
6. ~~OPTIONAL ATTIC MOUNTED SPLIT-SYSTEM HVAC PER M1.7~~
7. ~~CRICKET @ OPTIONAL HVAC PER 14 OR 15 /A2.1~~
8. STANDING SEAM METAL ROOF PER 7/S0.0 & DETAILS ON SHEET A2.1
9. ~~SINGLE-PLY OR BUILT-UP ROOFING PER SHEET A2.1~~
10. ~~OPTIONAL~~ FRONT OVERHANG - SEE SHEET A/S5.2
11. ~~OPTIONAL~~ SOLATUBE - SEE SHEET NOTE #1
12. PIPE VENT PER PLUMBING PLANS & 2/M1.4
13. ~~OPTIONAL~~ DOWNSPOUT - SEE ROOF DRAIN SCHEDULE BELOW FOR MIN. # OF DRAINS.
14. ~~ROOF TOP PIPE SUPPORT BLOCK PER DETAIL 3/M1.6~~
15. ~~CONDENSATE LINE PER DETAIL 9/M1.5~~
16. NOT USED

KEY NOTES

1. SOLATUBE LOCATIONS SHOWN ON PLAN ARE GENERIC AND ACTUAL LOCATIONS MAY VARY - (3) MAX. PER MOD. FRAMING PER S4.0 & S4.1. INSTALLATION PER DETAILS 1 OR 15/M1.6.
2. OPTIONAL GUTTERS SHALL BE LOCATED ALONG FRONT, REAR, OR BOTH END-WALLS OF THE BUILDING(S).
2. EITHER ROOF-SHEATHING OR STRAP CROSS BRACING MAY BE USED FOR METAL STANDING SEAM. SINGLE-PLY OR BUILT-UP ROOF SHALL HAVE SHEATHING UNDERNEATH.

SHEET NOTES

SOLAR ZONE REQUIRED, PER TITLE 24 SECTION 110.10: FOR NON-RESIDENTIAL BUILDINGS, 3 STORIES OR LESS, A MINIMUM OF 15% OF ROOF AREA (EXCLUDING SKYLIGHTS) MUST BE SET ASIDE FOR PHOTO-VOLTAICS (PV). THE ROOF MUST HAVE NO ROOF OBSTRUCTIONS.

1. REQUIRED SOLAR-READY ZONE, AREA PER THE CHART BELOW, MUST BE PROVIDED ON BUILDING ROOF.
2. ZONE MUST BE LEFT VOID OF ROOF-MOUNTED HVAC UNITS, SKYLIGHTS OR OTHER OBSTRUCTIONS THAT WOULD HINDER FUTURE INSTALLATION OF SOLAR SYSTEM COMPONENTS, INCLUDING PV PANELS.
3. TOTAL AREA REQUIRED FOR SOLAR-READY ZONE DOES NOT NEED TO BE LOCATED IN ONE AREA BUT CAN BE SPREAD OUT OVER ROOF.
4. SOLAR-READY ZONE SHALL NOT INCLUDE ROOF OVERHANGS, AND SOLAR SYSTEM COMPONENTS MAY NOT BE PLACED THERE.
5. THE ROOF STRUCTURE HAS BEEN DESIGNED PER THE DESIGN LOADS SPECIFIED ON SHEET TS, WHICH DOES INCLUDE LOADS FROM SOLAR EQUIPMENT THAT MIGHT BE INSTALLED AT A LATER DATE.
6. EQUIPMENT SUCH AS SOLAR MODULES, INVERTERS, AND METERING EQUIPMENT DO NOT NEED TO BE INSTALLED, NOR DOES CONDUIT, PIPING, OR PRE-INSTALLED MOUNTING HARDWARE.
7. A STRUCTURAL ENGINEER SHOULD BE CONSULTED PRIOR TO ANY FUTURE SOLAR INSTALLATIONS TO DETERMINE THE ADEQUACY OF THE ROOF FRAMING TO SUSTAIN THE LOADS OF THE INSTALLATION ON THE BUILDING STRUCTURE.
8. A SEPARATE DSA APPLICATION NUMBER IS REQUIRED FOR DESIGN & INSTALLATION OF THE SOLAR PANEL SYSTEM, ITS ANCHORAGE & ROOF SUPPORT STRUCTURE.

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

TYPICAL ROOF PLAN

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — KENNON PATRICK CHUNG — No. C-30531 — Exp. 3-31-19 — STATE OF CALIFORNIA

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PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APPR# 119722
AC FLS SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
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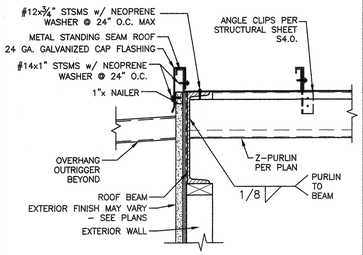
SCALE: AS NOTED
DATE: .

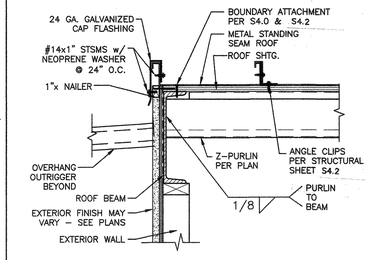
SHEET NUMBER

A2.0



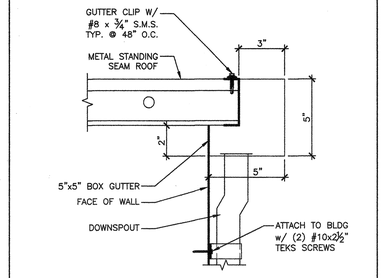
SEE SHEETS A5.0, A5.2, A5.4, & A5.6 FOR EXTERIOR FINISHES.

METAL ROOF w/ STRAPS — SCALE: 1-1/2" = 1'-0" — 1

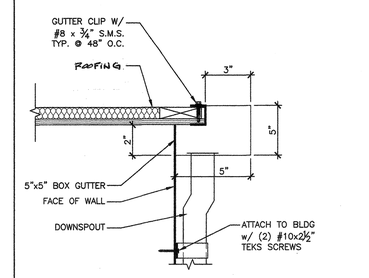


SEE SHEETS A5.0, A5.2, A5.4, & A5.6 FOR EXTERIOR FINISHES.

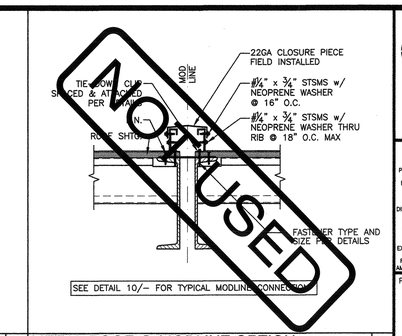
METAL ROOF w/ DECKING — SCALE: 1-1/2" = 1'-0" — 2



TYP. GUTTER ATTACHMENT DETAIL — SCALE: 1-1/2" = 1'-0" — 3

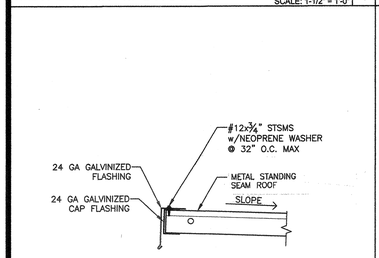


TYP. GUTTER ATTACHMENT DETAIL — SCALE: 1-1/2" = 1'-0" — 4

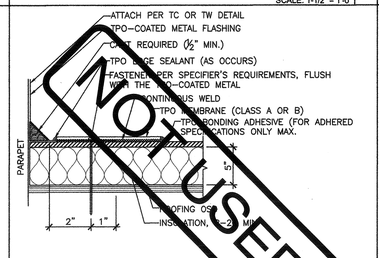


NOT USED

METAL ROOF @ MODLINE OPTION — SCALE: 1-1/2" = 1'-0" — 5



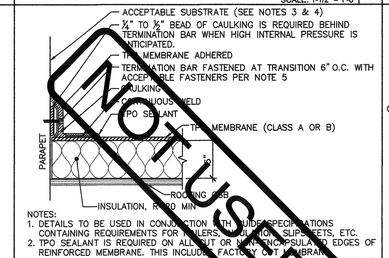
METAL ROOF EDGE @ OVERHANG — SCALE: 1-1/2" = 1'-0" — 6



NOTES:
1. DETAILS TO BE USED IN CONJUNCTION WITH GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, ETC.
2. TPO EDGE SEALANT IS USED TO SEAL THE MEMBRANE EDGES WHERE REINFORCING FABRIC IS CUT AND EXPOSED. EDGE SEALANT IS REQUIRED ON ALL END LAPS, T–JOINTS, AND FIELD CUT EDGES.
3. INSULATION MUST BE COMPATIBLE WITH TPO BONDING ADHESIVE.

NOT USED

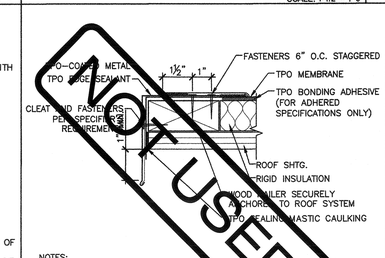
SINGLE PLY METAL FLASHING — SCALE: 1-1/2" = 1'-0" — 7



NOTES:
1. DETAILS TO BE USED IN CONJUNCTION WITH GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIP SHEETS, ETC.
2. TPO SEALANT IS REQUIRED ON ALL CUT OR MACHINE-CUT EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT SELVAGE.
3. IN NEW CONSTRUCTION ACCEPTABLE SUBSTRATES INCLUDE EXTERIOR GRADE OSB, POURED OR PRECAST CONCRETE, CEMENT BLOCK OR MASONRY WALLS.
4. ACCORDING TO PROJECT CONDITIONS, THE SPECIFIER AND/OR APPLICATOR MUST DETERMINE THAT THE VERTICAL SUBSTRATE/STRUCTURE IS ABLE TO RESIST 200 LBS./FT. (298 KGS./METER) MINIMUM IN ALL DIRECTIONS.
5. THE SPECIFIER AND/OR APPLICATOR MUST DETERMINE THAT THE VERTICAL SUBSTRATE/FASTENER COMBINATION WILL PROVIDE AT LEAST THE PULL OUT VALUES IN EXCESS OF 200 LBS./FT. (298 KGS./METER).

NOT USED

SINGLE PLY FLASHING BASE TIE-IN — SCALE: 1-1/2" = 1'-0" — 8



NOTES:
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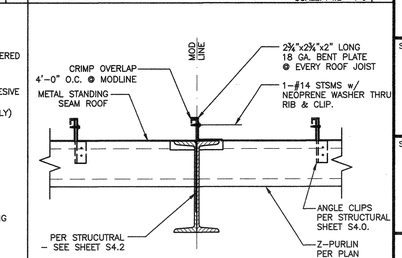
2. TPO EDGE SEALANT IS USED TO SEAL THE MEMBRANE EDGES WHERE REINFORCING FABRIC IS CUT AND EXPOSED. EDGE SEALANT IS REQUIRED ON ALL END LAPS, T–JOINTS, AND FIELD CUT EDGES.
3. INSULATION MUST BE COMPATIBLE WITH TPO BONDING ADHESIVE.

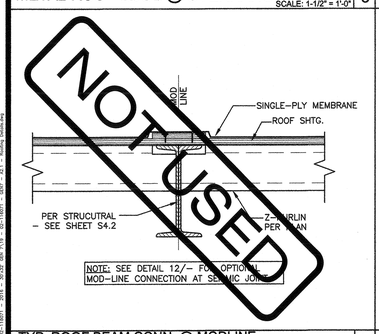
NOT USED

SINGLE PLY ROOF @ DRIP EDGE — SCALE: 1-1/2" = 1'-0" — 9



NOTE: SEE DETAIL 5/– FOR OPTIONAL MOD–LINE CONNECTION AT SEISMIC JOINT.

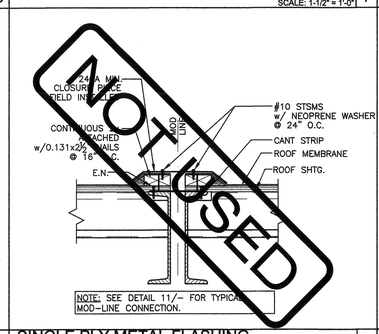
TYP. ROOF BEAM CONN. @ MODLINE (AT METAL ROOF) — SCALE: 1-1/2" = 1'-0" — 10



NOTE: SEE DETAIL 12/– FOR OPTIONAL MOD–LINE CONNECTION AT SEISMIC JOINT.

NOT USED

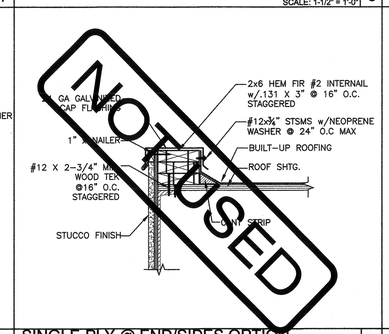
TYP. ROOF BEAM CONN. @ MODLINE (AT SINGLE-PLY/BUILT-UP ROOF) — SCALE: 1-1/2" = 1'-0" — 11



NOTE: SEE DETAIL 11/– FOR TYPICAL MOD–LINE CONNECTION.

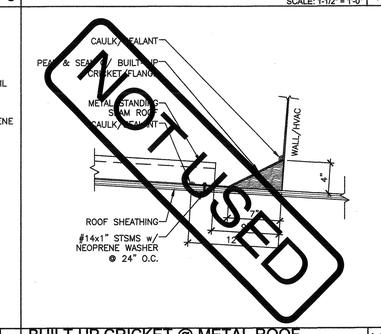
NOT USED

SINGLE PLY METAL FLASHING — SCALE: 1-1/2" = 1'-0" — 12



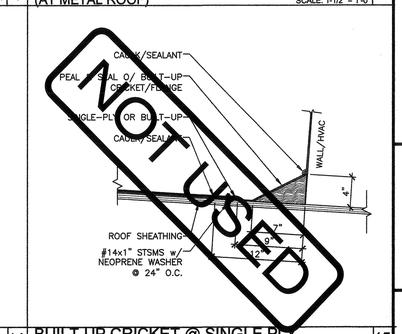
NOT USED

SINGLE-PLY @ END/SIDES OPTION — SCALE: 1-1/2" = 1'-0" — 13



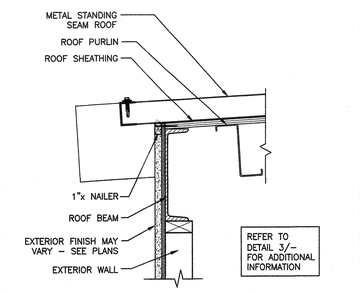
NOT USED

BUILT-UP CRICKET @ METAL ROOF — SCALE: 1-1/2" = 1'-0" — 14



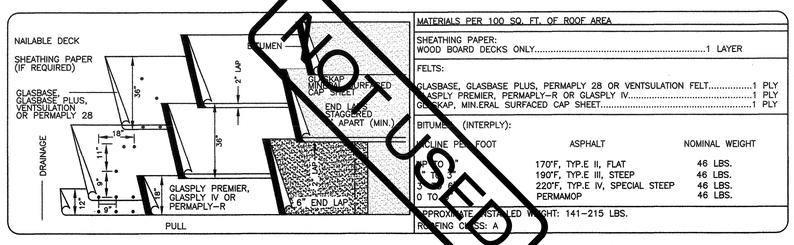
NOT USED

BUILT-UP CRICKET @ SINGLE PLY — SCALE: 1-1/2" = 1'-0" — 15



METAL ROOF @ END WALLS — SCALE: 1-1/2" = 1'-0" — 16

NOT USED — 17



MATERIALS PER 100 SQ. FT. OF ROOF AREA		
SHEATHING PAPER: WOOD BOARD DECKS ONLY		1 LAYER
FELTS:		
GLASBASE, GLASBASE PLUS, PERMAPLY 28 OR VENTSULATION FELT		1 PLY
GLASPLY PREMIER, PERMAPLY–R OR GLASPLY IV		1 PLY
GLASCAP, MIN.ERAL SURFACED CAP SHEET		1 PLY
BITUMEN (INTERPLY):		
PITCH LINE PER FOOT	ASPHALT	NOMINAL WEIGHT
0 TO 1/2	170°F, TYP.E II, FLAT	46 LBS.
1/2 TO 3	190°F, TYP.E III, STEEP	46 LBS.
3 TO 6	220°F, TYP.E IV, SPECIAL STEEP	46 LBS.
0 TO 6	PERMAMOP	46 LBS.
APPROXIMATE INSTALLED WEIGHT: 141–215 LBS.		
ROOFING CLASS: A		

NOT USED

OPTIONAL THREE PLY MINERAL BUILT-UP ROOF ATTACHMENT DETAIL — 20

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PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

TYPICAL ROOF DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — ANDREW PATRICK CALLENDER — No. C-30831 — Exp. 2-31-19 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03-119723
AC KAS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC AB SFLS PC SS AR
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CODE: 2016 CBC
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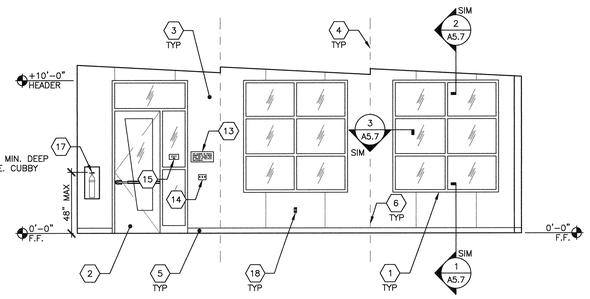
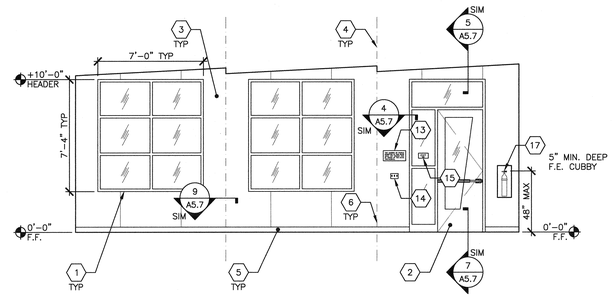
SCALE: AS NOTED
DATE: .

SHEET NUMBER

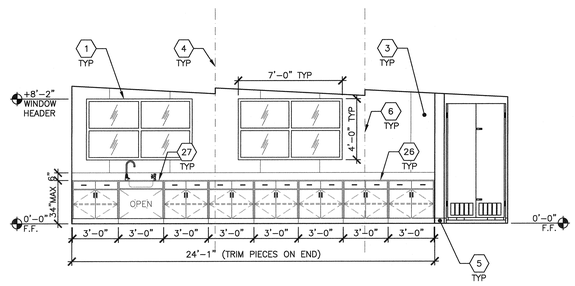
A2.1



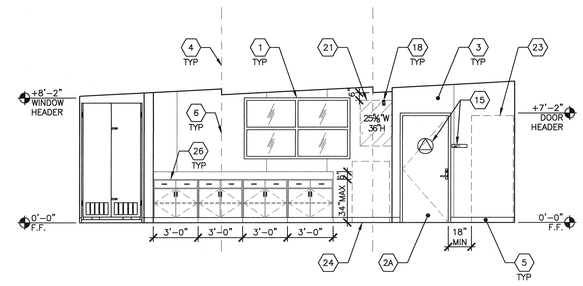
CLASSROOM 102 FRONT END WALL ELEVATION — SCALE : 1/4"=1'-0" — 1



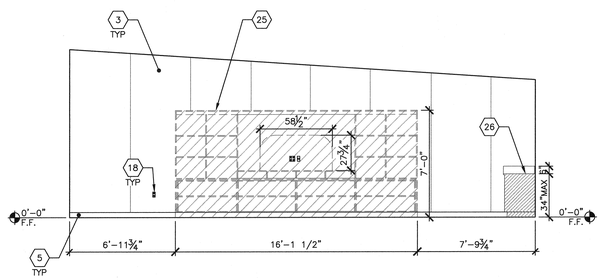
CLASSROOM 101 FRONT END WALL ELEVATION — SCALE : 1/4"=1'-0" — 2



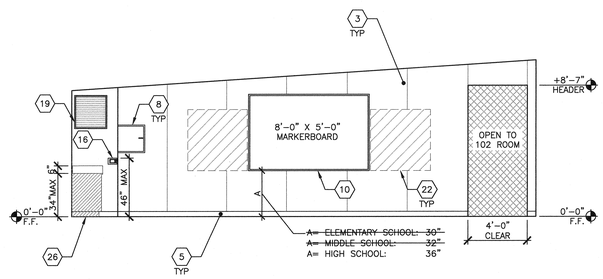
CLASSROOM 101 REAR END WALL ELEVATION — SCALE : 1/4"=1'-0" — 3



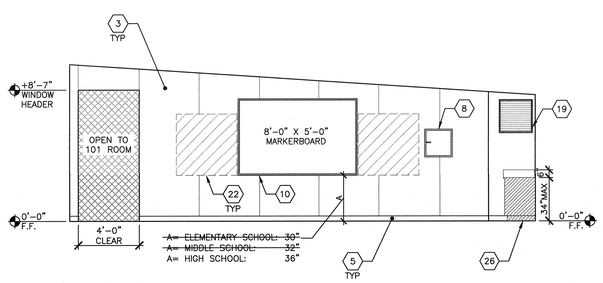
CLASSROOM 102 REAR END WALL ELEVATION — SCALE : 1/4"=1'-0" — 4



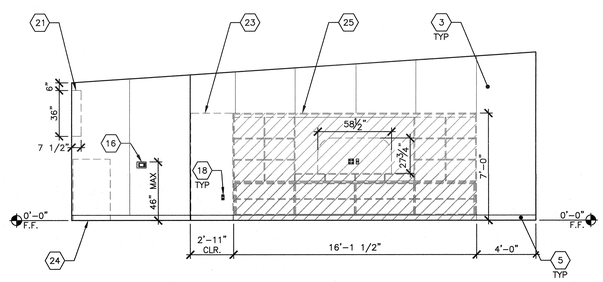
CLASSROOM 101 SIDE WALL ELEVATION — SCALE : 1/4"=1'-0" — 5



CLASSROOM 101 SIDE WALL ELEVATION — SCALE : 1/4"=1'-0" — 6



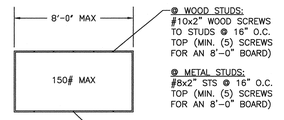
CLASSROOM 102 SIDE WALL ELEVATION — SCALE : 1/4"=1'-0" — 7



CLASSROOM 102 SIDE WALL ELEVATION — SCALE : 1/4"=1'-0" — 8

KEY NOTES

1. WINDOW, SEE SPEC'S
2. TYP. EXTERIOR DOOR
2A. TYP. NTERIOR DOOR
3. VINYL WRAPPED TACKABLE WALLS
4. TYP. MOD LINE
5. TOP SET BASE
6. FULL PANEL CLOSE-UP AT MOD-LINES, TYP.
7. NOT USED
8. ELECTRICAL PANEL – SEE ELECTRICAL SHEETS
9. NOT USED
10. 8'x5' MARKER BOARDS – SEE DETAIL 9/–
11. NOT USED
12. NOT USED
13. OCCUPANT LOAD SIGN PER DETAIL 11/N4.0 (BY OTHERS)
14. LIGHT SWITCH – SEE ELECTRICAL SHEETS
15. TACTILE SIGNS PER DETAILS ON N4.0 (NIC)
16. THERMOSTAT, TOP @ 46" A.F.F. – SEE MECHANICAL SHEETS
17. FIRE EXTINGUISHER TOP OF HANDLE @ +48" MAX. A.F.F. PROTRUSION MAX 4" FROM WALL IF BOTTOM OF FIRE EXTINGUISHER LESS THAN +27" A.F.F
18. TYP DUPLEX OUTLET – SEE ELECTRICAL SHEETS
19. HVAC GRILL
20. NOT USED
21. IDF CABINET –MOUNT 6" BELOW CEILING LINE (BY OTHERS); AMS TO PROVIDE BLOCKING AS NEEDED PER A7.1
22. TACKABLE BOARD (BY OTHERS); AMS TO PROVIDE BLOCKING AS NEEDED PER A7.1
23. ICE MACHINE (BY OTHERS)
24. WEIGHT RACK (BY OTHERS)
25. TEACHING WALL (BY OTHERS); AMS TO PROVIDE BLOCKING AS NEEDED
26. CASEWORK – BLOCKING PER A7.1
27. CASEWORK W/SINK – BLOCKING PER A7.1 AND SINK DETAIL 17/A1.1



@ WOOD STUDS: #10x2" WOOD SCREWS TO STUDS @ 16" O.C. TOP (MIN. (5) SCREWS FOR AN 8'-0" BOARD)

@ METAL STUDS: #8x2" STS @ 16" O.C. TOP (MIN. (5) SCREWS FOR AN 8'-0" BOARD)

@ WOOD STUDS: #12x2" WOOD SCREWS @ 32" O.C. BOT. (MIN. (3) SCREWS FOR AN 8'-0" BOARD)

@ METAL STUDS: #8x2" STS @ 32" O.C. BOT. (MIN. (3) SCREWS FOR AN 8'-0" BOARD)

NOTE:

1. ATTACHMENT IS FOR EACH MARKERBOARD.
2. EACH WHITEBOARD SHALL PROTRUDE 4" MAX HORIZONTALLY INTO THE CIRCULATION PATH, PER CBC SECTION 11B-307.2.
3. EACH WHITEBOARD SHALL HAVE FASTENERS PROVIDED BY MANUFACTURER.

MARKERBOARD ATT. DETAIL — SCALE : 1/4"=1'-0" — 9

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE

TYPICAL CLASSROOM INTERIOR ELEVATIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — KENNETH PATRICK CHRISTIANSEN — No. C-26531 — Exp. 2-31-19 — STATE OF CALIFORNIA

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PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FIS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-116071

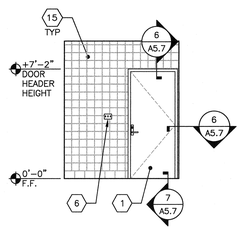
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

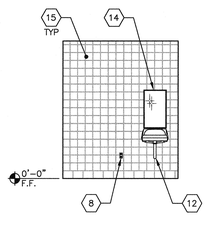
1	
2	
3	
4	
DRAWN BY:	AS
SCALE:	AS NOTED
DATE:	01/04/19

SHEET NUMBER

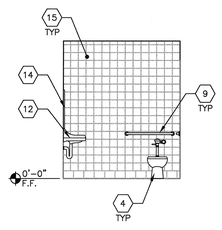
A4.0



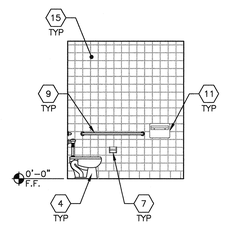
RESTROOM ELEVATION
AGE RANGE: 13-ADULT
SCALE: 1/4" = 1'-0" | 1



RESTROOM ELEVATION
AGE RANGE: 13-ADULT
SCALE: 1/4" = 1'-0" | 2



RESTROOM ELEVATION
AGE RANGE: 13-ADULT
SCALE: 1/4" = 1'-0" | 3



RESTROOM ELEVATION
AGE RANGE: 13-ADULT
SCALE: 1/4" = 1'-0" | 4

NOT USED | NOT USED | NOT USED | NOT USED | KEY NOTES

NOT USED | NOT USED | NOT USED | NOT USED | NOT USED

NOT USED | NOT USED | NOT USED | NOT USED | NOT USED

NOT USED | NOT USED | NOT USED | NOT USED | NOT USED

NOT USED | NOT USED | NOT USED | NOT USED | NOT USED

1. TYPICAL DOOR
2. NOT USED
3. NOT USED
4. ACCESSIBLE TOILET – SEE DETAIL 14/P2.0
5. NOT USED
6. LIGHT SWITCH – SEE ELECTRICAL SHEETS
7. TOILET PAPER DISPENSER (BRADLEY MODEL 508–32, OR EQUAL)
8. TYP. GFCI OUTLET – SEE ELECTRICAL SHEETS
9. GRAB BAR – SEE DETAIL 6/A7.1
10. NOT USED
11. TOILET SEAT COVER DISPENSER N.I.C. (BOBRICK MODEL B–221, OR EQUAL)
12. ACCESSIBLE LAVATORY – SEE DETAIL 17/P2.0
13. NOT USED
14. TYP. MIRROR (19# MAX. WEIGHT) – SEE DETAIL 17/P2.0
15. CERAMIC TILE W/CERAMIC TILE BASE

NOTE: FOR ACCESSIBLE FIXTURES & ACCESSORIES MOUNTING HEIGHT REQUIREMENTS (PER CBC CHAPTER 11B), SEE SHEET P2.0, DETAIL 10.

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE

RESTROOM
INTERIOR ELEVATIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT
ANTHONY PATRICK CRUZ
No. C-30531
Exp. 3-31-19
STATE OF CALIFORNIA

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PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC PLS SS 07
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-116071

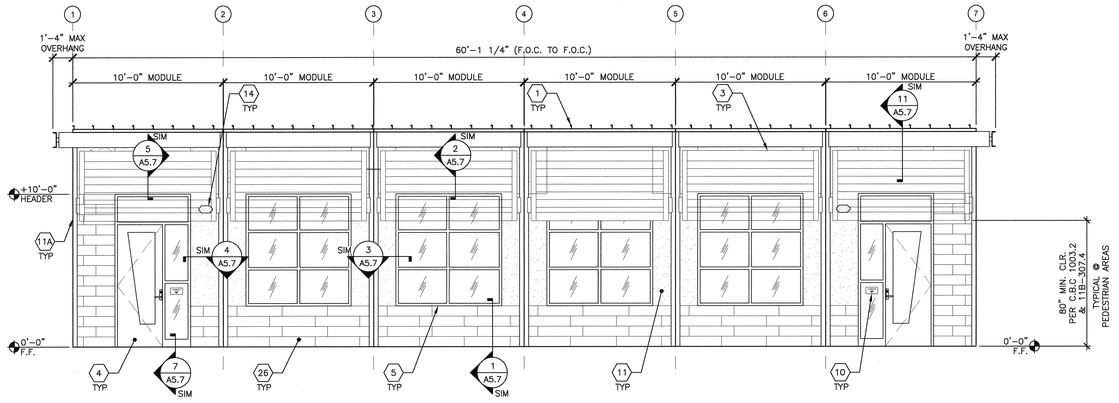
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

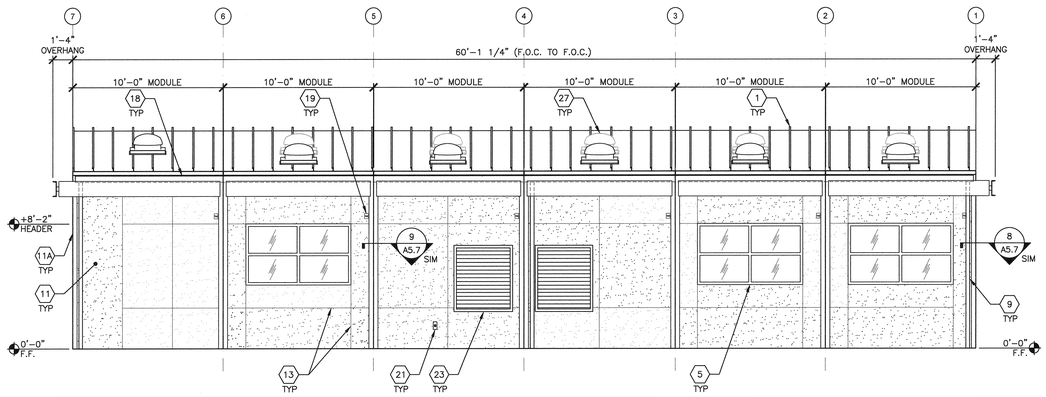
DRAWN BY:	AS
SCALE:	AS NOTED
DATE:	01/04/19

SHEET NUMBER

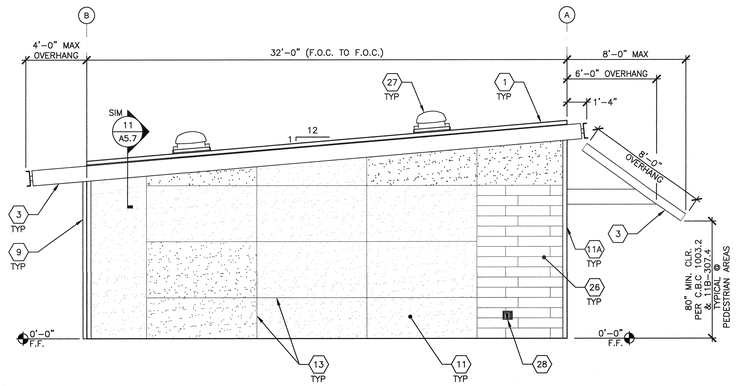
A4.1



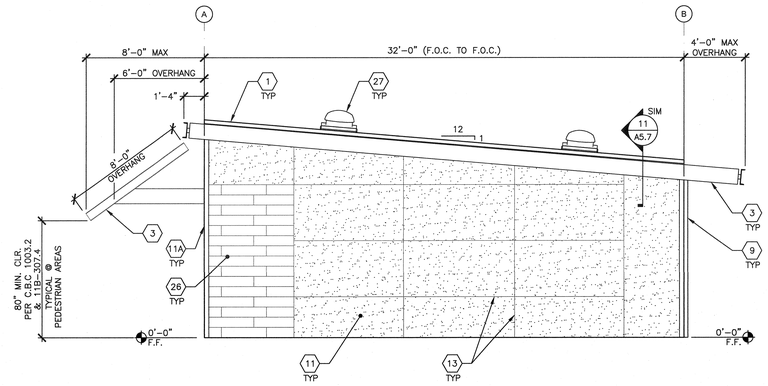
EXTERIOR ELEVATION - FRONT — SCALE: 1/4" = 1'-0" — 1



EXTERIOR ELEVATION - REAR — SCALE: 1/4" = 1'-0" — 2



EXTERIOR ELEVATION - LEFT — SCALE: 1/4" = 1'-0" — 3



EXTERIOR ELEVATION - RIGHT — SCALE: 1/4" = 1'-0" — 4

1. STANDING SEAM METAL ROOFING
2. NOT USED
3. OVERHANG – SEE STRUCTURAL
4. TYP. EXTERIOR DOOR – SEE SCHEDULE SHEET N3.0
5. WINDOW – SEE SCHEDULE SHEET N3.0
6. NOT USED
7. NOT USED
8. NOT USED
9. DOWNSPOUT SEE DETAIL 8/A5.7 FOR ATTACHMENT
10. ROOM ID AND ISA SIGNAGE (BY OTHER) SEE DETAILS 5 & 9/N4.0 – TYP.
11. SYNTHETIC STUCCO FINISH
11A. 18 GA. FLASHING TRIM @ MODLINE & @ CORNERS
11B. NOT USED
12. NOT USED
13. CONTROL JOINT (LOCATION MAY VARY) SIMILAR DETAIL 9/A5.3 @ STUDS
14. EXTERIOR LIGHT – SEE ELECTRICAL
15. NOT USED
16. NOT USED
17. NOT USED
18. GUTTER – SEE ATTACHMENT DETAIL 3/A2.1 AT METAL STANDING SEAM ROOFING
19. MODULAR IDENTIFICATION TAG +90" ABOVE AFF
20. NOT USED
21. WP/G.F.CI. @ HVAC UNITS – REFER TO ELECTRICAL PLANS
22. NOT USED
23. HVAC VENT
24. NOT USED
25. NOT USED
26. TILE WAINSCOT PER A7.0
27. SOLA-TUBE – SEE M1.6
28. HOSE BIBB – SEE 4/P1.0

KEY NOTES

BUILDING SIZE	TOTAL # OF 10'-0" WIDE MODULES	TOTAL # OF CENTER MODULES	TOTAL BLDG WIDTH[1]
☐ 30'x32'	3	1	30'-½"
☐ 40'x32'	4	2	40'-¾"
☐ 50'x32'	5	3	50'-1"
☒ 60'x32'	6	4	60'-1¼"
☐ 70'x32'	7	5	70'-1½"
☐ 80'x32'	8	6	80'-1¾"
☐ 90'x32'	9	7	90'-2"
☐ 100'x32'	10	8	100'-2¼"
☐ 110'x32'	11	9	110'-2½"
☐ 120'x32'	12	10	120'-2¾"
☐ 130'x32'	13	11	130'-3"
☐ 140'x32'	14	12	140'-3¼"
☐ 150'x32'	15	13	150'-3½"

NOTES:

1. TOTAL BUILDING WIDTH INCLUDES 1/4" PER MODULE CONSTRUCTION TOLERANCE PER FOUNDATION SHEETS S1.1, S1.2, & S1.3

BUILDING SIZE SCHEDULE

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE

TYP. EXTERIOR ELEVATIONS - SYNTHETIC STUCCO OPTION

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT PATRICK CAMPBELL 28331 Exp. 3-31-19 STATE OF CALIFORNIA

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PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
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APP# 03 119722
REVIEWED BY: FLS SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-116071

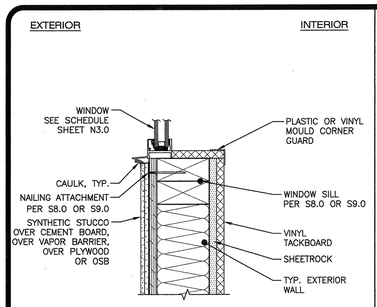
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

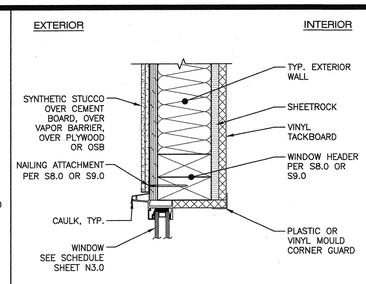
DRAWN BY:	AS
SCALE:	AS NOTED
DATE:	01/04/19

SHEET NUMBER

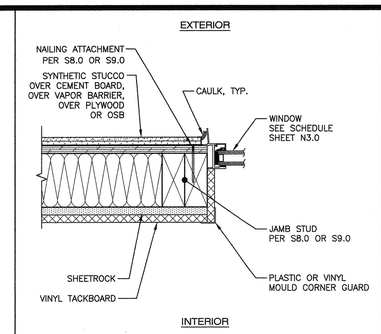
A5.6



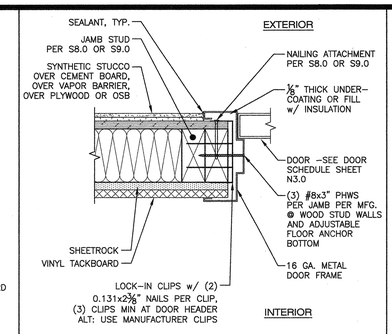
TYPICAL WINDOW SILL — SCALE: 3" = 1'-0" — 1



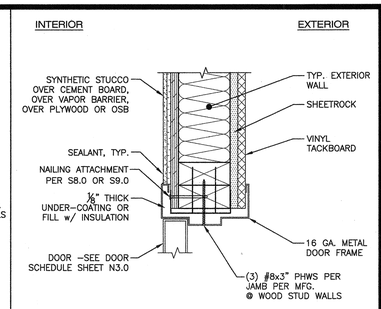
TYPICAL WINDOW HEADER — SCALE: 3" = 1'-0" — 2



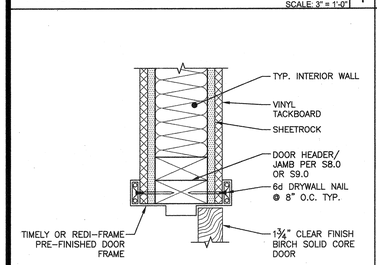
TYPICAL WINDOW JAMB — SCALE: 3" = 1'-0" — 3



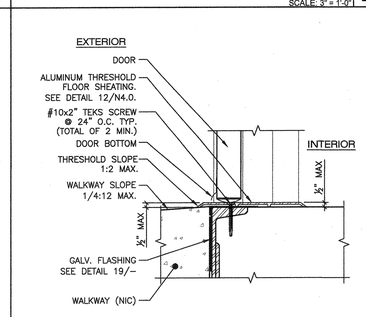
TYPICAL DOOR JAMB — SCALE: 3" = 1'-0" — 4



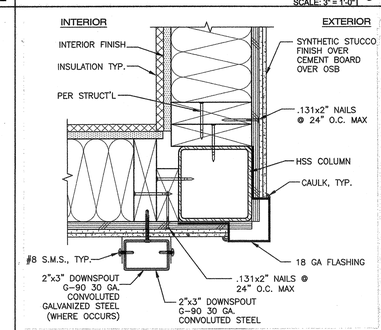
TYPICAL DOOR HEADER — SCALE: 3" = 1'-0" — 5



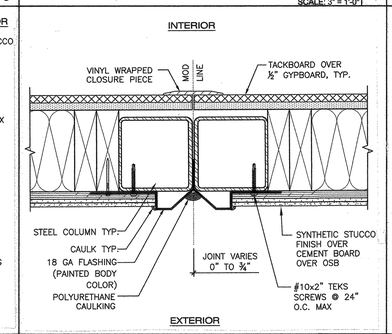
TYP. INTERIOR DOOR HEADER/JAMB — SCALE: 3" = 1'-0" — 6



TYPICAL THRESHOLD DETAIL — SCALE: 3" = 1'-0" — 7

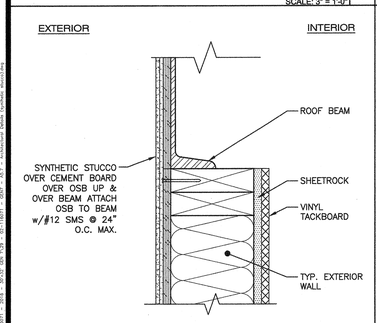


TYP. BLDG CORNER & DOWNSPOUT ATTACHMENT DETAIL — SCALE: 3" = 1'-0" — 8



TYP. MODLINE CLOSURE DETAIL — SCALE: 3" = 1'-0" — 9

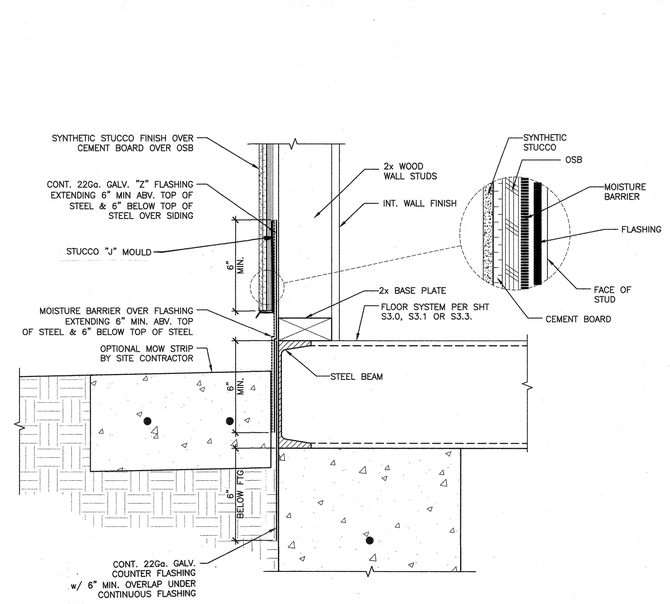
NOT USED — 10



SIDING DETAIL @ ROOF BEAM — SCALE: 3" = 1'-0" — 11

NOT USED — 12

NOT USED — 13

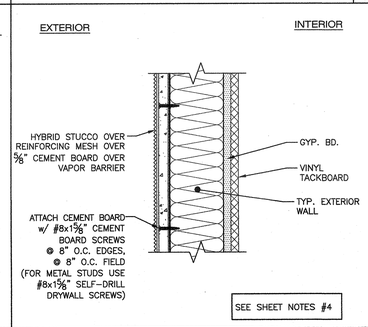


FLASHING DETAIL — SCALE: 3" = 1'-0" — 19

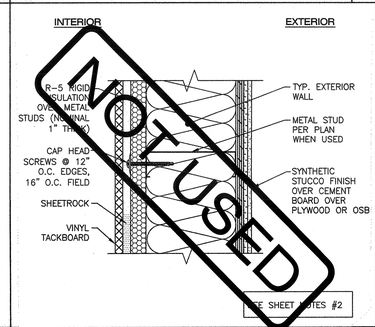
SHEET NOTES

1. ~~FOR OPTIONAL METAL STUD FRAMING, SEE S9.0–S9.2.~~
2. ~~ADDITIONAL R-5 RIGID INSULATION REQUIRED @ METAL STUD WALLS, PER INSULATION SCHEDULE SHEET M1.7 & 18/–.~~
3. FOR FINISH OPTIONS, SEE SHEET A7.0.
4. OPTIONAL HYBRID STUCCO FINISH DOES NOT REQUIRE OSB; SEE DETAIL 17/–.

SHEET NOTES — 17



OPTIONAL HYBRID STUCCO FINISH — SCALE: 3" = 1'-0" — 17



NOT USED

RIGID INSULATION @ METAL STUDS — SCALE: 3" = 1'-0" — 18

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787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

TYP. ARCHITECTURAL DETAILS – SYNTHETIC STUCCO OPTION

MANUFACTURER PROFESSIONAL OF RECORD ON PC

KINGSLEY PATRICK CARLSON — LICENSED ARCHITECT — No. C-10531 — Exp. 3-31-18 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP03 19722
AC FLS SS JY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS JY
DATE 7 10 18

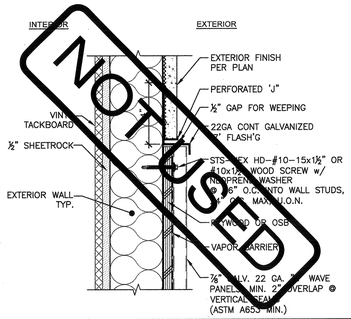
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

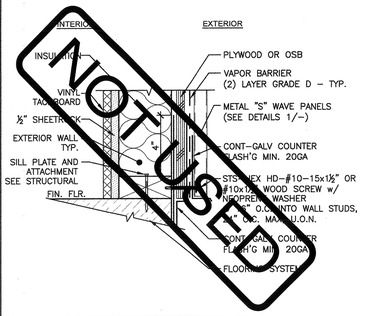
DRAWN BY:	-
SCALE:	AS NOTED
DATE:	-

SHEET NUMBER

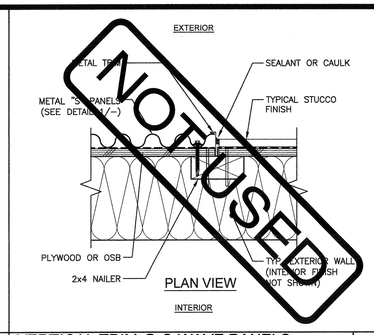
A5.7



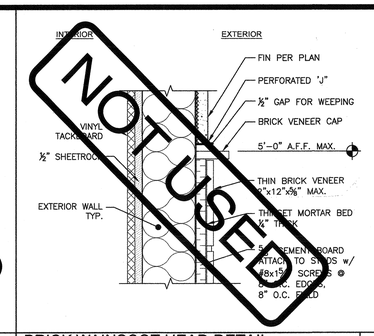
METAL WAINSCOT HEAD DETAIL SCALE: 1-1/2" = 1'-0" | 1



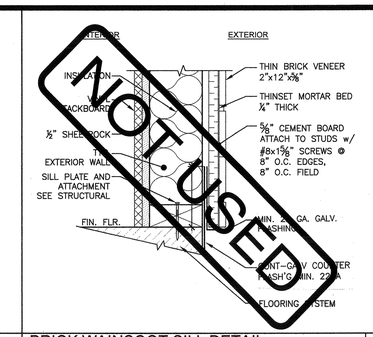
METAL WAINSCOT SILL DETAIL SCALE: 1-1/2" = 1'-0" | 2



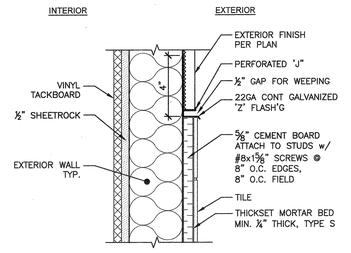
VERTICAL TRIM @ S-WAVE PANELS SCALE: 1-1/2" = 1'-0" | 3



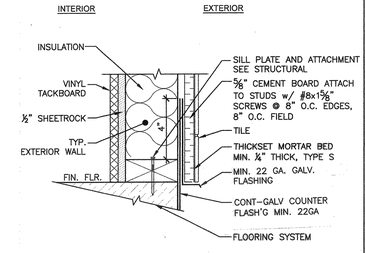
BRICK WAINSCOT HEAD DETAIL SCALE: 1-1/2" = 1'-0" | 4



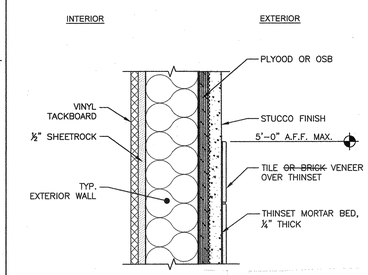
BRICK WAINSCOT SILL DETAIL SCALE: 1-1/2" = 1'-0" | 5



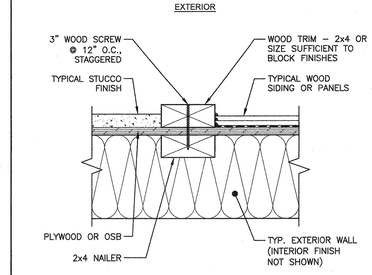
TILE WAINSCOT HEAD DETAIL SCALE: 1-1/2" = 1'-0" | 6



TILE WAINSCOT SILL DETAIL SCALE: 1-1/2" = 1'-0" | 7



ALT. TILE/BRICK WAINSCOT DETAIL SCALE: 1-1/2" = 1'-0" | 8



VERTICAL TRIM @ DISSIMILAR FINISHES SCALE: 1-1/2" = 1'-0" | 9

NOT USED | 10

NOT USED | 11

NOT USED | 12

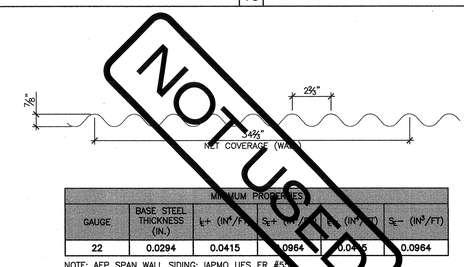
NOT USED | 13

NOT USED | 14

NOT USED | 15

NOT USED | 16

NOT USED | 17



MINIMUM PROPERTIES					
GAUGE	BASE STEEL THICKNESS (IN.)	I_+ (IN^4/FT)	S_+ (IN^3/FT)	I_- (IN^4/FT)	S_- (IN^3/FT)
22	0.0294	0.0415	0.0964	0.0415	0.0964

NOTE: AEP SPAN WALL SIDING: IAPMO UES ER #55

METAL SIDING - "S" WAVE PANEL PROPERTIES AND PROFILE | 19

GENERAL NOTES

NOTES:

1. ~~FOR OPTIONAL METAL STUD FRAMING SEE S9.0–S9.2.~~
2. ~~ADDITIONAL R-5 RIGID INSULATION REQUIRED @ METAL STUD WALLS. SEE INSULATION SCHEDULE SHEET M1.7 AND DETAIL /A5.1.~~
3. THIN BRICK VENEER MAY NOT EXTEND MORE THAN 5'–0" ABOVE FINISHED FLOOR.
4. #8x1⅝" SCREWS FOR CEMENT BOARD ATTACHMENT PER ICC REPORT ESR–1408.
5. VENEER UNITS SHALL NOT EXCEED 2⅔" IN SPECIFIED THICKNESS, 36" IN ANY FACE DIMENSION, NO MORE THAN 5 SQ. FT. IN TOTAL FACE AREA, AND SHALL NOT WEIGHT MORE THAN 15 PSF.

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ARCHITECTURAL EXTERIOR FINISH OPTIONS DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — KEVIN PATRICK GIVENS — No. C-32831 — Exp. 2-31-19 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS 04
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02–116071
AC FLS SS
DATE 7 10 19

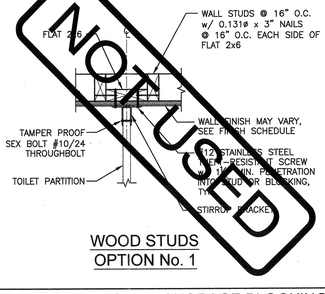
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

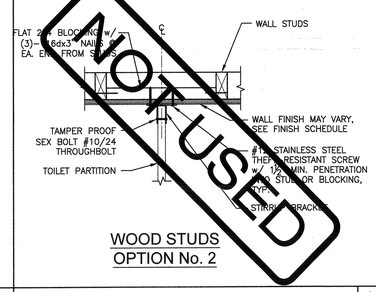
DRAWN BY:	.
SCALE:	AS NOTED
DATE:	.

SHEET NUMBER

A7.0

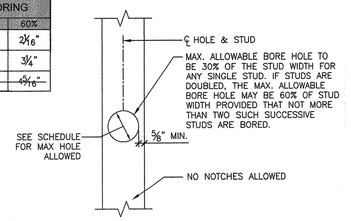


WOOD STUDS
OPTION No. 1

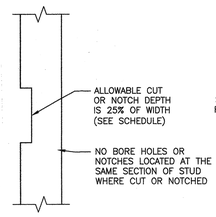


WOOD STUDS
OPTION No. 2

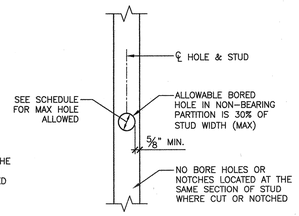
NOTCH & BORING SCHEDULE					
	STUD WIDTH		NOTCHING	BORING	
SIZE	NOMINAL	ACTUAL	25%	30%	60%
2x4	4"	3½"	⅞"	1"	2⅛"
2x6	6"	5½"	1⅜"	1⅝"	3¼"
2x8	8"	7¼"	1 13/16"	2⅛"	4⅜16"



EXTERIOR WALL
BORING



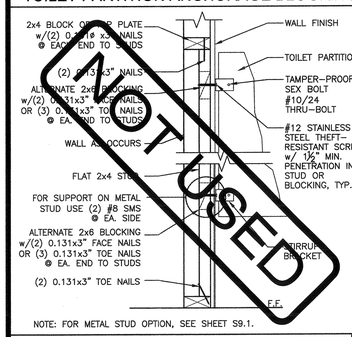
INTERIOR WALL
NOTCHING



INTERIOR WALL
BORING

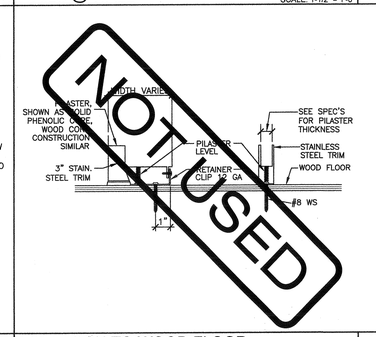
TOILET PARTITION ANCHORAGE BLOCKING DETAILS @ WALL

SCALE: 1-1/2" = 1'-0" | 1

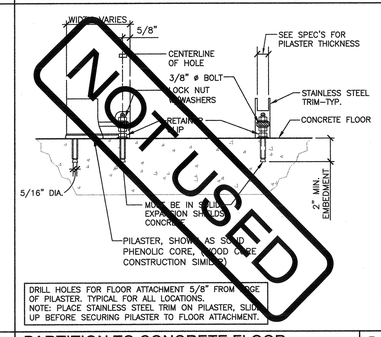


NOTE: FOR METAL STUD OPTION, SEE SHEET S9.1.

TOILET PARTITION WALL BLOCKING
NOT TO SCALE | 3

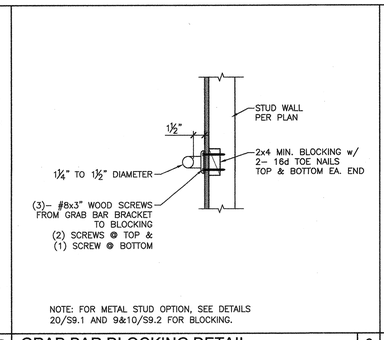


PARTITION TO WOOD FLOOR
NOT TO SCALE | 4



DRILL HOLES FOR FLOOR ATTACHMENT 5/8" FROM FACE OF PILASTER. TYPICAL FOR ALL LOCATIONS.
NOTE: PLACE STAINLESS STEEL TRIM ON PILASTER, SLIDE UP BEFORE SECURING PILASTER TO FLOOR ATTACHMENT.

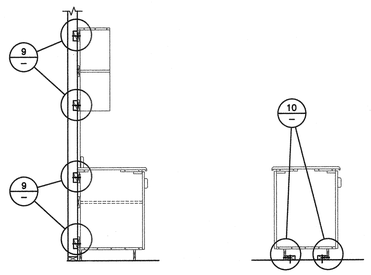
PARTITION TO CONCRETE FLOOR
NOT TO SCALE | 5



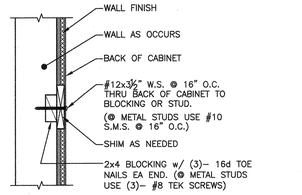
NOTE: FOR METAL STUD OPTION, SEE DETAILS 20/S9.1 AND 9&10/S9.2 FOR BLOCKING.

GRAB BAR BLOCKING DETAIL
SCALE: 1-1/2" = 1'-0" | 6

NOT USED | 7

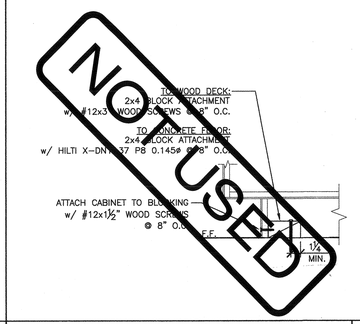


TYP. CABINET BLOCKING
NOT TO SCALE | 8



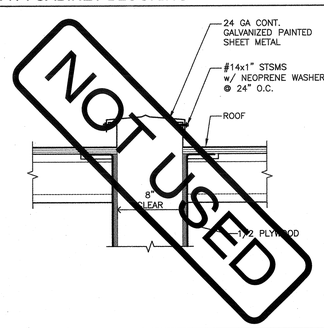
NOTE: BLOCKING IS ONLY REQUIRED IF CABINET DOES NOT CROSS A MIN. OF (2) STUDS.

CABINET BLOCKING IN WALL
SCALE: 1-1/2" = 1'-0" | 9

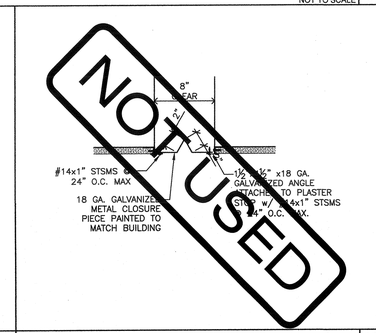


CABINET BLOCKING @ FLOOR
SCALE: 1-1/2" = 1'-0" | 10

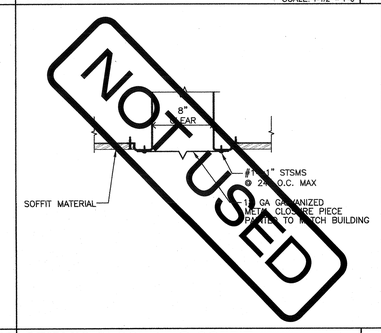
NOT USED | 11



SEISMIC CLOSURE @ ROOF
12



SEISMIC CLOSURE @ WALL
13



SEISMIC CLOSURE @ SOFFIT
14

NOT USED | 15

NOT USED | 16

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PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7
healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

MISCELLANEOUS ARCHITECTURAL DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — RAYMOND PATRICK GRANDE — No. C-26531 — Date: 3-31-18 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 18

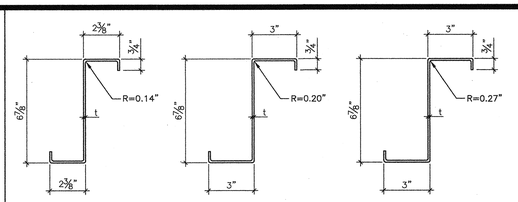
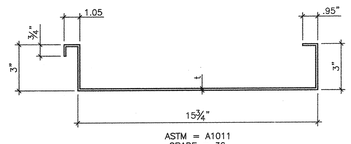
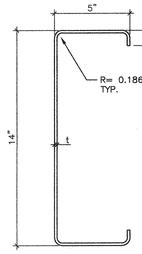
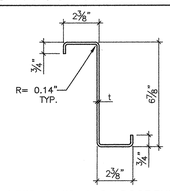
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

DRAWN BY:	-
SCALE:	AS NOTED
DATE:	-

SHEET NUMBER

A7.1

			 6-7/8" x 2-3/8" x 14 GA. FLOOR JOIST ASTM A1011 GRADE 45 F_Y = 45 KSI A = 0.89 IN^2 Sx = 1.85 IN^3 Ix = 6.37 IN^4 t = 0.068 IN. MIN. (0.0713 IN DESIGN) 6-7/8" x 3" x 12 GA. FLOOR JOIST ASTM A1011 GRADE 45 F_Y = 45 KSI A = 1.38 IN^2 Sx = 2.97 IN^3 Ix = 10.20 IN^4 t = 0.097 IN. MIN. (0.1017 IN DESIGN) 6-7/8" x 3" x 10 GA. FLOOR JOIST ASTM A1011 GRADE 45 F_Y = 45 KSI A = 1.65 IN^2 Sx = 3.51 IN^3 Ix = 12.07 IN^4 t = 0.118 IN. MIN. (0.1242 IN DESIGN)
NOT USED 1	NOT USED 2	NOT USED 3	LIGHT GAUGE FLOOR JOIST PROPERTIES 5
(26 GA. MAY BE USED w/PLYWOOD SHEATHING)  ASTM = A1011 GRADE = 36 Fy = 36 KSI w/ GALVANIZATION t=0.0356 IN. MIN. w/O GALVANIZATION t=0.0329 IN. MIN. (0.035 IN DESIGN) $S_x^+(t)$ = 0.364 $IN.^3$ $S_x^-(t)$ = 0.330 $IN.^3$ $S_x^+(b)$ = 1.372 $IN.^3$ $S_x^-(b)$ = 0.305 $IN.^3$ I_x = 0.863 $IN.^4$ R = 0.476 IN. A = 0.840 $IN.^2$		 14" x 5" x 10 GA. ROOF BEAM ASTM A1011 GRADE 50 F_Y = 50 KSI A = 3.11 IN^2 Sx = 13.31 IN^3 Ix = 93.2 IN^4 t = 0.118 IN^4 (0.1242 IN DESIGN)	 6-7/8" x 2-3/8" x 14 GA. ROOF PURLIN ASTM A1011 GRADE 36 F_Y = 36 KSI A = 0.89 IN^2 Sx = 1.85 IN^3 Ix = 6.37 IN^4 t = 0.068 IN. MIN. (0.0713 IN DESIGN)	
20 GA. ROOF PAN PROPERTIES 7		ALTERNATE 10 GA ROOF BEAM PROPERTIES 8	LIGHT GAUGE ROOF PURLIN PROPERTIES 9	NOT USED 10
NOT USED 11	NOT USED 12	NOT USED 13	NOT USED 14	NOT USED 15
				1. THE MATERIAL THICKNESS OF LIGHT GAUGE STRUCTURAL MEMBERS, IN THEIR END-USE, SHALL MEET OR EXCEED THE MINIMUM BASE METAL THICKNESS SPECIFIED ON SHEET S0.0 THE MATERIAL GAGE DESIGNATION IN THE PLAN SHALL BE USED AS REFERENCE ONLY. 2. UNLESS NOTED OTHERWISE, ALL SECTION PROPERTIES ARE GROSS SECTION PROPERTIES. 3. LIGHT GAUGE STRUCTURAL MEMBERS TO BE FABRICATED FROM HOT ROLLED SHEETS WITH RUST INHIBITIVE COATING. SEE SHEET N2.0, "LIGHT GAUGE METAL STUDS & COLD FORMED STEEL", FOR ADDITIONAL INFORMATION.
NOT USED 16	NOT USED 17	NOT USED 18	NOT USED 19	SHEET NOTES

American Modular Systems
787 Sprockels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

LIGHT GAUGE STEEL MEMBER PROPERTIES

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT PATRICK HUNTER No. C-32631 Exp. 2-31-19 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER ROBERT A. JAMES No. 5322 STRUCTURAL STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC — FLS — SS
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

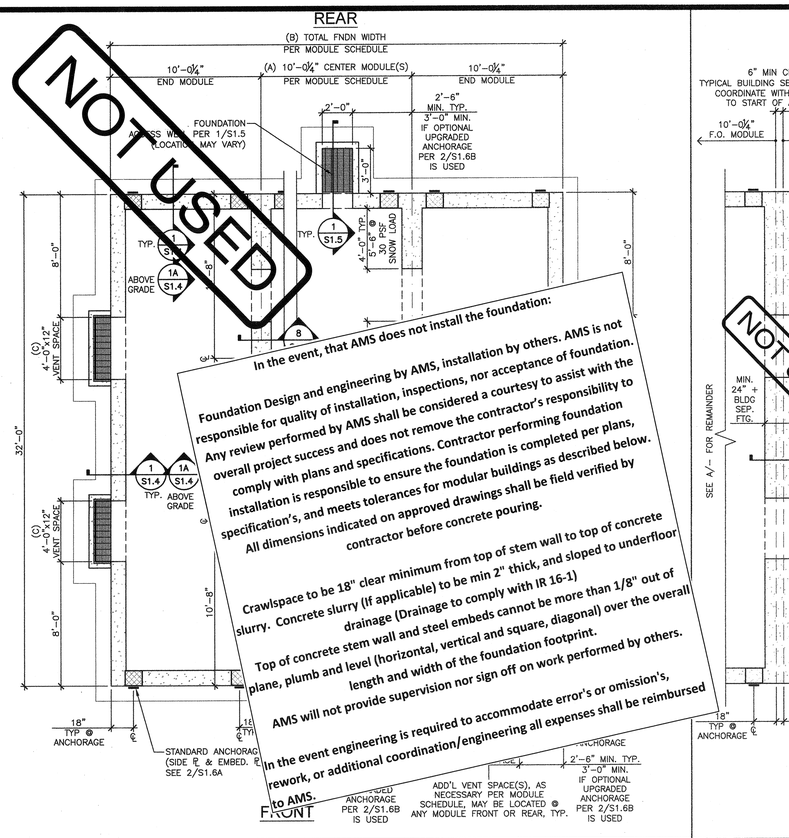
REVISIONS

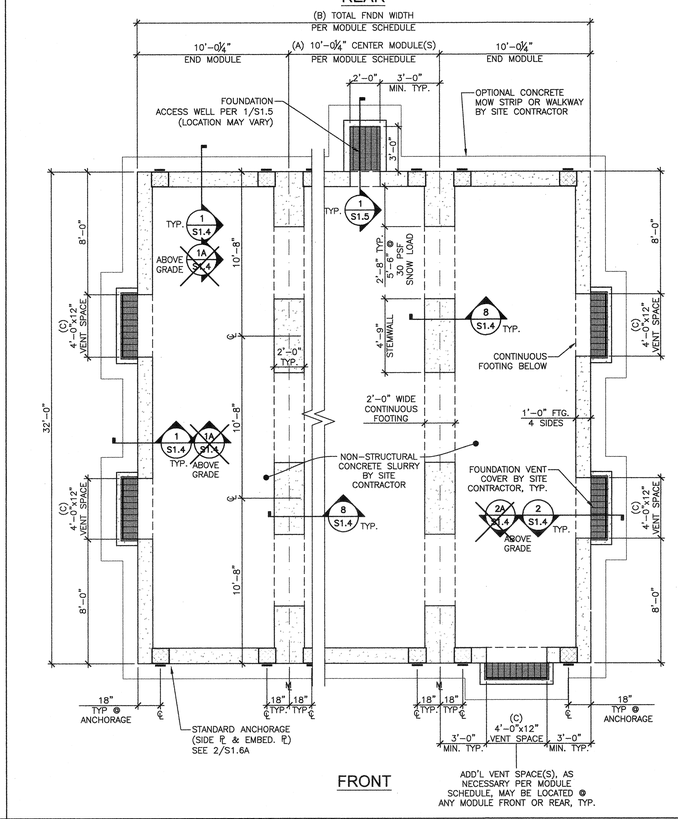
DRAWN BY:	.
SCALE:	AS NOTED
DATE:	.

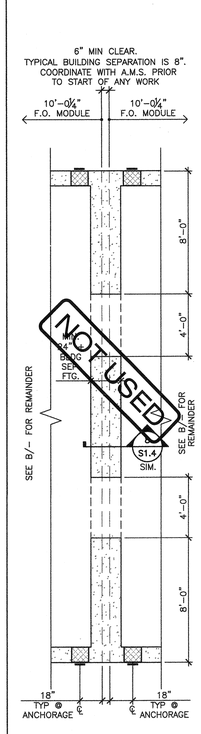
SHEET NUMBER

S0.0

G:\AMS\S - 2445 Gen7 BUILDINGS - SHEETS\ 5/21/2018 1:31:9 PM PLOTTED: 5/17/2018 4:23:3 PM K:\Engineering\JOBS\ Dwg Files\2016 CODE\02-116071 - 2016 - 30'-0" CEN TO CEN - 32'-0 - STEEL MEMBER PROP.dwg







NOT USED

In the event, that AMS does not install the foundation:

Foundation Design and engineering by AMS, installation by others. AMS is not responsible for quality of installation, inspections, nor acceptance of foundation. Any review performed by AMS shall be considered a courtesy to assist with the overall project success and does not remove the contractor's responsibility to comply with plans and specifications. Contractor performing foundation installation is responsible to ensure the foundation is completed per plans, specification's, and meets tolerances for modular buildings as described below. All dimensions indicated on approved drawings shall be field verified by contractor before concrete pouring.

Crawlspace to be 18" clear minimum from top of stem wall to top of concrete slurry. Concrete slurry (If applicable) to be min 2" thick, and sloped to underfloor drainage (Drainage to comply with IR 16-1)

Top of concrete stem wall and steel embeds cannot be more than 1/8" out of plane, plumb and level (horizontal, vertical and square, diagonal) over the overall length and width of the foundation footprint.

AMS will not provide supervision nor sign off on work performed by others.

In the event engineering is required to accommodate error's or omission's, rework, or additional coordination/engineering all expenses shall be reimbursed to AMS.

NOT USED

NOT USED

NOT USED

CONCRETE FOUNDATION PLAN (PLYWOOD FLOOR) 50 PSF LIVE LOAD + 15 PSF PARTITION LOAD

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

1. DO NOT INSTALL BUILDING IN AREAS OF WATER FLOW LINES.
2. CONCRETE MIXTURES:
   A. ULTIMATE 28-DAY CONCRETE COMPRESSIVE STRENGTH (f'c) SHALL BE 3500 PSI MIN. EXCEPT VENTS & ACCESS WELLS MAY BE 3,000 PSI MIN.
   B. PROPORTIONING OF CONCRETE MIXTURES SHALL BE IN ACCORDANCE WITH ACI 318-14, SECTION 26.4.3.
   C. DOCUMENTATION OF CONCRETE MIXTURE CHARACTERISTICS SHALL BE IN ACCORDANCE WITH ACI 318-14, SECTION 26.4.4.
   D. CEMENT SHALL BE CERTIFIED PER TITLE 24, PART 2, SECTION 1910A.1.
3. BUILDINGS MAY BE SET ON CONCRETE FOUNDATIONS THAT HAVE REACHED A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 70% OF THE SPECIFIED DESIGN STRENGTH (f'c) STATED ABOVE IN NOTE #2. PRIOR TO THE SETTING OF THE MODULAR BUILDING ON CONCRETE FOUNDATIONS THAT HAVE NOT YET CURED 28 DAYS POST PLACEMENT OF FOUNDATION CONCRETE, THE FOUNDATION CONTRACTOR SHALL
   A. HAVE THE PROJECT TESTING LAB PERFORM A CONCRETE CYLINDER COMPRESSION TEST OF THE FOUNDATION CONCRETE USED AT THE SITE,
   B. FURNISH THE IOR AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE WITH THE CONCRETE TEST REPORT VERIFYING THAT THE FOUNDATION CONCRETE HAS REACHED THE MINIMUM STRENGTH AS SPECIFIED ABOVE, AND
   C. NOTIFY THE PROJECT IOR AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE OF THEIR INTENT TO SET THE MODULAR BUILDING PRIOR TO 28 DAYS POST PLACEMENT OF FOUNDATION CONCRETE.
4. THE REINFORCING BARS MUST BE TESTED PER TITLE 24, PART 2, SECTION 1910A.2. TEST OF REINFORCING BARS MAY BE WAIVED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE WITH THE APPROVAL OF DSA FOR A ONE-STORY BUILDING, PROVIDED CERTIFIED MILL TEST REPORTS ARE PROVIDED FOR EACH SHIPMENT OF SUCH REINFORCEMENT.
5. REINFORCING STEEL SHALL BE 60,000 PSI MINIMUM, PER ASTM A615.
6. DESIGN SOIL BEARING CAPACITY: 1500 PSF.
   (1/3 INCREASE IN SOIL BEARING CAPACITY NOT PERMITTED UNLESS USING ALTERNATIVE BASIC LOAD COMBINATIONS PER CBC SECTION 1605A.3.2)
7. THE PROJECT ARCHITECT SHALL VERIFY THE NET AREA OF THE UNDER-FLOOR VENTING IS EQUAL TO OR LARGER THAN THE VENT AREA REQUIRED (AS SHOWN ON THE ADJACENT TABLE).

NOTES

FOUNDATION PLAN COMBINED

SCALE: 1/4"=1'-0" A1

NOMINAL BLDG SIZE (FT)	TOTAL # OF 10' WIDE MODULES	"A" TOTAL # OF CENTER MODULES	"B" TOTAL FNDN WIDTH	TOTAL NOMINAL FLOOR AREA (FT²)	"C" MIN. TOTAL # 4'x1' VENTS REQ'D[3]	NET FREE VENT AREA REQ'D[3] (FT²)	NET FREE VENT AREA PROVIDED[3] (FT²)
☐ 30'x32'	3	1	30'-3¾"	960	3	6.4	8.8
☐ 40'x32'	4	2	40'-1"	1280	3	8.5	8.8
☐ 50'x32'	5	3	50'-1¼"	1600	4	10.7	11.7
☐ 60'x32'	6	4	60'-1½"	1920	5	12.8	14.6
☐ 70'x32'	7	5	70'-1¾"	2240	6	14.9	17.5
☐ 80'x32'	8	6	80'-2"	2560	6	17.1	17.5
☐ 90'x32'	9	7	90'-2¼"	2880	7	19.2	20.4
☐ 100'x32'	10	8	100'-2½"	3200	8	21.3	23.4
☐ 110'x32'	11	9	110'-2¾"	3520	9	23.5	26.3
☐ 120'x32'	12	10	120'-3"	3840	9	25.6	26.3
☐ 130'x32'	13	11	130'-3¼"	4160	10	27.7	29.2
☐ 140'x32'	14	12	140'-3½"	4480	11	29.9	32.1
☐ 150'x32'	15	13	150'-3¾"	4800	11	32.0	32.1

ROOF LOAD
☐ TYPICAL: STANDARD 20 PSF LIVE LOAD OR 20 PSF MAX SNOW LOAD
☐ 30 PSF MAX SNOW LOAD

NOTES:

1. TOTAL FOUNDATION WIDTH INCLUDES ¼" PER MODULE CONSTRUCTION TOLERANCE.
2. UNLESS NOTED OTHERWISE, DIMENSIONS ARE FROM FACE OF CONCRETE TO FACE OF CONCRETE (F.O.C. TO F.O.C.)
3. THE NUMBER OF VENTS REQUIRED IS BASED ON THE VENT NET FREE AREA (NFA) PROVIDED BEING GREATER OR EQUAL TO THE VENT NFA REQUIRED. VENT NFA REQUIRED IS BASED ON A 1:150 VENTILATION RATIO OF THE NOMINAL BUILDING FLOOR AREA. VENT NFA PROVIDED IS THE ACTUAL OPEN AREA WITH A VENT GROSS AREA REDUCTION PERCENTAGE OF 73% & NUMBER OF VENTS PROVIDED.

$NFA_{REQUIRED} = A_{FLOOR} / 150$

$A_{VENT,GROSS}$ x 73% x (# OF VENTS) > $NFA_{REQUIRED}$
(12"x4") x 0.73 x (# OF VENTS) > $NFA_{REQUIRED}$
2.92 FT² x (# OF VENTS) > $NFA_{REQUIRED}$

$NFA_{PROVIDED}$ > $NFA_{REQUIRED}$

MODULE SCHEDULE

CONCRETE FOUNDATION PLAN (CONCRETE FLOOR) 50 PSF LIVE LOAD + 15 PSF PARTITION LOAD

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

1. DO NOT INSTALL BUILDING IN AREAS OF WATER FLOW LINES.
2. CONCRETE MIXTURES:
   A. ULTIMATE 28-DAY CONCRETE COMPRESSIVE STRENGTH (f'c) SHALL BE 3500 PSI MIN. EXCEPT VENTS & ACCESS WELLS MAY BE 3,000 PSI MIN.
   B. PROPORTIONING OF CONCRETE MIXTURES SHALL BE IN ACCORDANCE WITH ACI 318-14, SECTION 26.4.3.
   C. DOCUMENTATION OF CONCRETE MIXTURE CHARACTERISTICS SHALL BE IN ACCORDANCE WITH ACI 318-14, SECTION 26.4.4.
   D. CEMENT SHALL BE CERTIFIED PER TITLE 24, PART 2, SECTION 1910A.1.
3. BUILDINGS MAY BE SET ON CONCRETE FOUNDATIONS THAT HAVE REACHED A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 70% OF THE SPECIFIED DESIGN STRENGTH (f'c) STATED ABOVE IN NOTE #2. PRIOR TO THE SETTING OF THE MODULAR BUILDING ON CONCRETE FOUNDATIONS THAT HAVE NOT YET CURED 28 DAYS POST PLACEMENT OF FOUNDATION CONCRETE, THE FOUNDATION CONTRACTOR SHALL
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   B. FURNISH THE IOR AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE WITH THE CONCRETE TEST REPORT VERIFYING THAT THE FOUNDATION CONCRETE HAS REACHED THE MINIMUM STRENGTH AS SPECIFIED ABOVE, AND
   C. NOTIFY THE PROJECT IOR AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE OF THEIR INTENT TO SET THE MODULAR BUILDING PRIOR TO 28 DAYS POST PLACEMENT OF FOUNDATION CONCRETE.
4. THE REINFORCING BARS MUST BE TESTED PER TITLE 24, PART 2, SECTION 1910A.2. TEST OF REINFORCING BARS MAY BE WAIVED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE WITH THE APPROVAL OF DSA FOR A ONE-STORY BUILDING, PROVIDED CERTIFIED MILL TEST REPORTS ARE PROVIDED FOR EACH SHIPMENT OF SUCH REINFORCEMENT.
5. REINFORCING STEEL SHALL BE 60,000 PSI MINIMUM, PER ASTM A615.
6. DESIGN SOIL BEARING CAPACITY: 1500 PSF.
   (1/3 INCREASE IN SOIL BEARING CAPACITY NOT PERMITTED UNLESS USING ALTERNATIVE BASIC LOAD COMBINATIONS PER CBC SECTION 1605A.3.2)
7. THE PROJECT ARCHITECT SHALL VERIFY THE NET AREA OF THE UNDER-FLOOR VENTING IS EQUAL TO OR LARGER THAN THE VENT AREA REQUIRED (AS SHOWN ON THE ADJACENT TABLE).

NOTES

FOUNDATION PLAN COMBINED

SCALE: 1/4"=1'-0" B1

NOMINAL BLDG SIZE (FT)	TOTAL # OF 10' WIDE MODULES	"A" TOTAL # OF CENTER MODULES	"B" TOTAL FNDN WIDTH	TOTAL NOMINAL FLOOR AREA (FT²)	"C" MIN. TOTAL # 4'x1' VENTS REQ'D[3]	NET FREE VENT AREA REQ'D[3] (FT²)	NET FREE VENT AREA PROVIDED[3] (FT²)
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☐ 40'x32'	4	2	40'-1"	1280	3	8.5	8.8
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☒ 60'x32'	6	4	60'-1½"	1920	5	12.8	14.6
☐ 70'x32'	7	5	70'-1¾"	2240	6	14.9	17.5
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☐ 110'x32'	11	9	110'-2¾"	3520	9	23.5	26.3
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ROOF LOAD
☒ TYPICAL: STANDARD 20 PSF LIVE LOAD OR 20 PSF MAX SNOW LOAD
☐ 30 PSF MAX SNOW LOAD

NOTES:

1. TOTAL FOUNDATION WIDTH INCLUDES ¼" PER MODULE CONSTRUCTION TOLERANCE.
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3. THE NUMBER OF VENTS REQUIRED IS BASED ON THE VENT NET FREE AREA (NFA) PROVIDED BEING GREATER OR EQUAL TO THE VENT NFA REQUIRED. VENT NFA REQUIRED IS BASED ON A 1:150 VENTILATION RATIO OF THE NOMINAL BUILDING FLOOR AREA. VENT NFA PROVIDED IS THE ACTUAL OPEN AREA WITH A VENT GROSS AREA REDUCTION PERCENTAGE OF 73% & NUMBER OF VENTS PROVIDED.

$NFA_{REQUIRED} = A_{FLOOR} / 150$

$A_{VENT,GROSS}$ x 73% x (# OF VENTS) > $NFA_{REQUIRED}$
(12"x4") x 0.73 x (# OF VENTS) > $NFA_{REQUIRED}$
2.92 FT² x (# OF VENTS) > $NFA_{REQUIRED}$

$NFA_{PROVIDED}$ > $NFA_{REQUIRED}$

MODULE SCHEDULE

American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

CONCRETE FOUNDATION PLAN (50 PSF LIVE LOAD + 15 PSF MAX FLOOR PARTITION LOAD)

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT PATRICK JAMES MAHONEY No. C-26831 Exp. 3-31-19 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER ROBERT J. STUTZMAN No. 5322 STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC — FLS — SS 19
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC — FLS — SS —
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT

CODE: 2016 CBC

A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

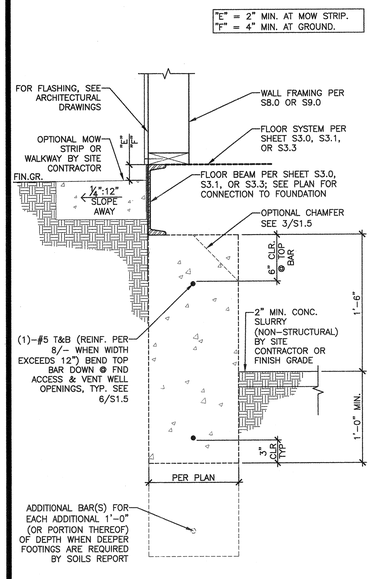
REVISIONS

1 2 3 4

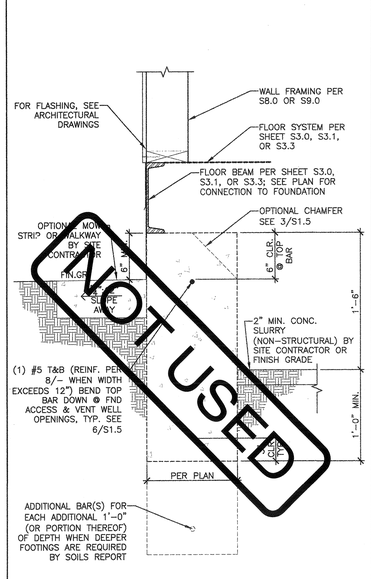
DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER

S1.1



TYP. FOOTING - BELOW GRADE SCALE: 1-1/2" = 1'-0" | 1



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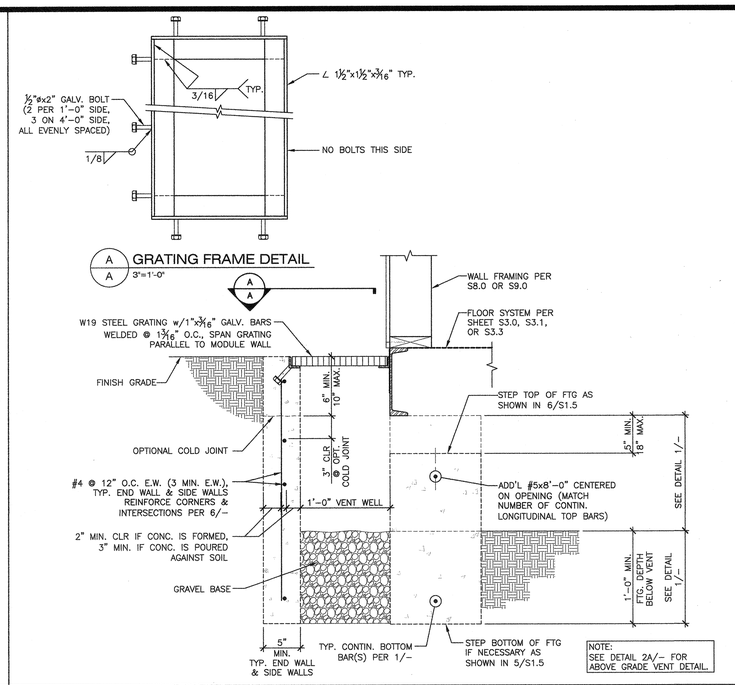
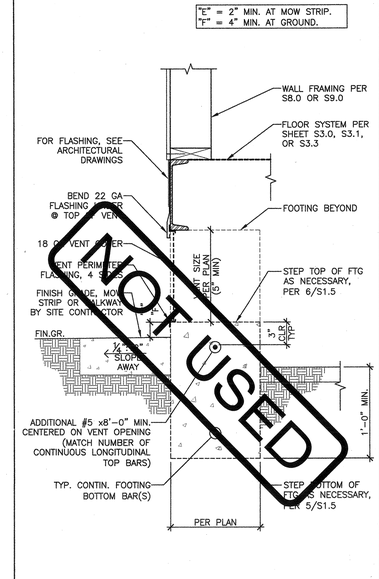
TYP. FOOTING - ABOVE GRADE SCALE: 1-1/2" = 1'-0" | 1A



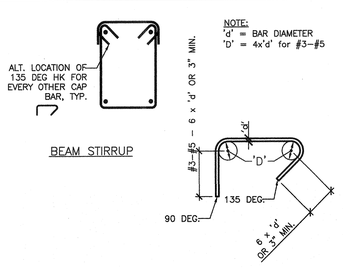
TYP. VENT DETAIL - BELOW GRADE SCALE: 1-1/2" = 1'-0" | 2



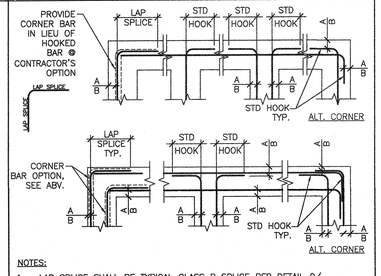
TYP. VENT DETAIL - ABOVE GRADE SCALE: 1-1/2" = 1'-0" | 2A

NOT USED | 3

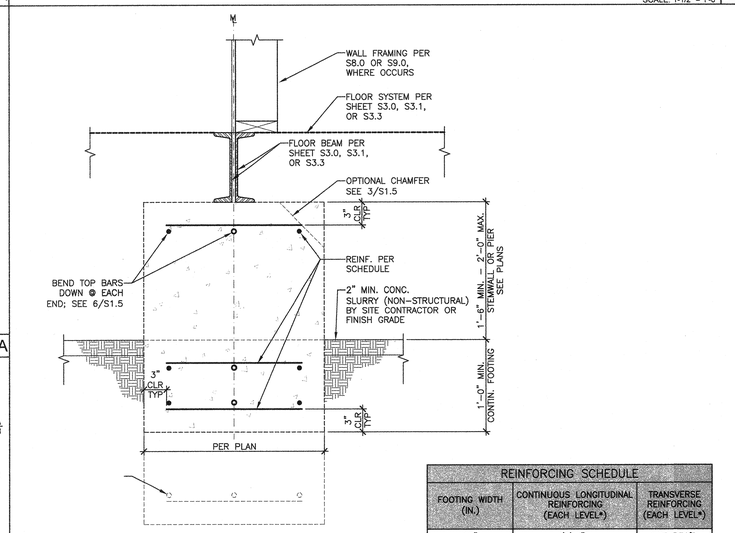
NOT USED | 3A



TYPICAL HOOP-STIRRUP DETAIL SCALE: 1-1/2" = 1'-0" | 5



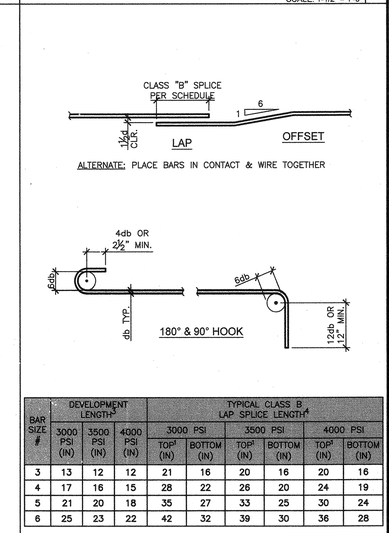
TYPICAL FOOTING REINFORCING SCALE: 1-1/2" = 1'-0" | 6



REINFORCING SCHEDULE		
FOOTING WIDTH (IN.)	CONTINUOUS LONGITUDINAL REINFORCING (EACH LEVEL*)	TRANSVERSE REINFORCING (EACH LEVEL*)
12"	(1) #5	NOT REQ'D
12"< W ≤ 16"	(1) #6	NOT REQ'D
	(2) #5	#4 @ 24" O.C.
16"< W ≤ 24"	(2) #5	#4 @ 24" O.C.
24"< W ≤ 36"	(2) #6 or (3) #5	#4 @ 24" O.C.
36"< W ≤ 48"	(3) #6 or (4) #5	#4 @ 24" O.C.

* – TOP & BOTTOM ONLY @ PERIMETER FOOTINGS PER 1 & 1A/–.

NOT USED | 8



BAR SIZE #	DEVELOPMENT LENGTH[3]			TYPICAL CLASS B LAP SPLICE LENGTH[4]					
				3000 PSI		3500 PSI		4000 PSI	
	3000 PSI (IN)	3500 PSI (IN)	4000 PSI (IN)	TOP[2] (IN)	BOTTOM (IN)	TOP[2] (IN)	BOTTOM (IN)	TOP[2] (IN)	BOTTOM (IN)
3	13	12	12	21	16	20	16	20	16
4	17	16	15	28	22	26	20	24	19
5	21	20	18	35	27	33	25	30	24
6	25	23	22	42	32	39	30	36	28

NOTES:
1. THE ABOVE TABLE IS BASED ON GRADE 60 STEEL
2. TOP BARS ARE ANY BARS WITH MORE THAN 12" OF CONCRETE PLACED BELOW.
3. DEVELOPMENT LENGTH IS CALCULATED FOR TYP. BARS – Ψ_t=1.0
4. LAP SPLICES IN ADJACENT BARS SHALL BE STAGGERED, UNLESS OTHERWISE NOTED.

TYP. REINFORCING LAPS & BENDS SCALE: 1-1/2" = 1'-0" | 9

American Modular Systems
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www.americanmodular.com

PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

CONCRETE FOUNDATION DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — KEVIN PATRICK OWENS — No. C-12631 — Exp. 5-31-19 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — ROBERT D. STEVENS — No. 5322 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC — FLS — SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC — FLS — SS
DATE 7 10 19

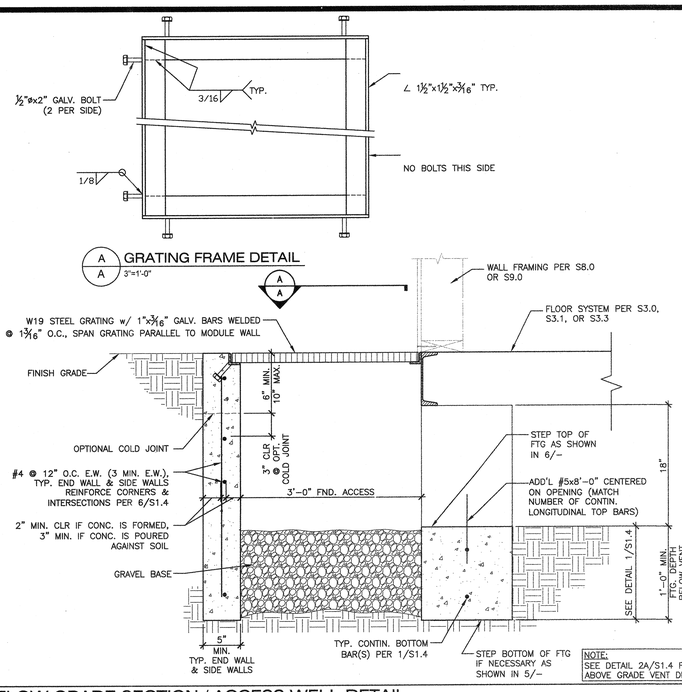
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS
1
2
3
4

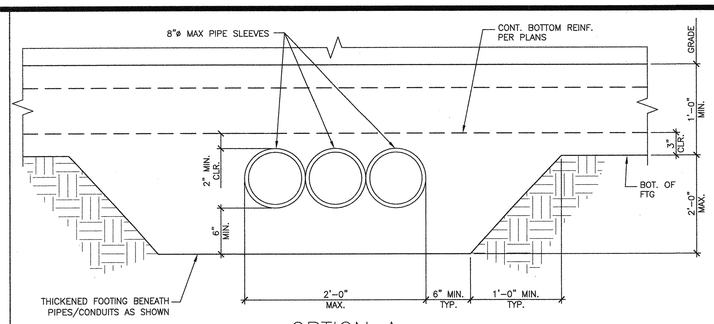
DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER

S1.4

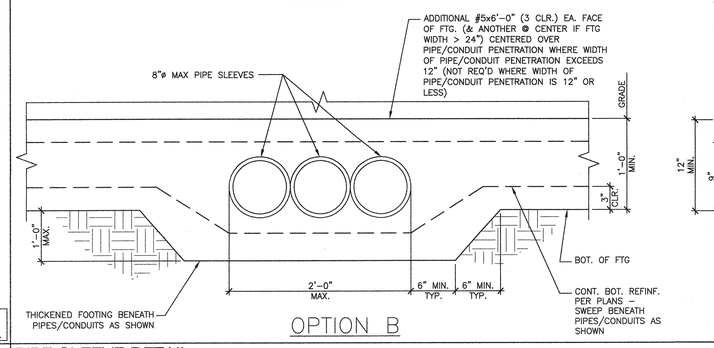


BELOW GRADE SECTION / ACCESS WELL DETAIL — SCALE:1 1/2"=1'-0" — 1



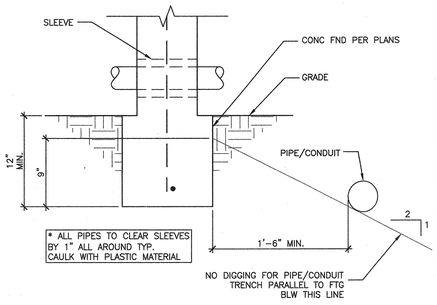
OPTION A

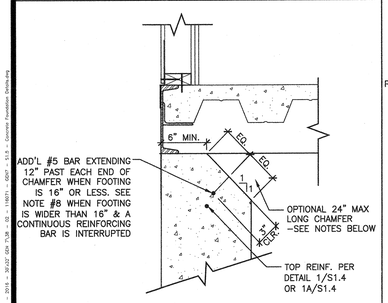
NOTES:
1. AS AN OPTION TO INDIVIDUAL PIPE SLEEVES, THE FOOTING MAY BE BLOCKED OUT FOR MULTIPLE PIPES (10" HIGH x 24" WIDE MAX @ OPTION "A", 8" HIGH x 24" WIDE MAX OPTION "B") OR INDIVIDUAL PROVIDE 1" MIN. CLEARANCE ALL AROUND BETWEEN PIPES/CONDUITS & BLOCKOUT/SLEEVES & FILL w/ CAULK.
2. CONCRETE SHALL BE WELL CONSOLIDATED AROUND & UNDER PIPES, CONDUITS, SLEEVES, BLOCKOUTS TO PREVENT CONCRETE VOIDS.
3. PROVIDE 2" CLEAR MIN BETWEEN BLOCKOUT SLEEVES AND REINFORCEMENT.
4. WHERE TOP OF PIPES/CONDUITS ARE 12" OR MORE BELOW THE BOTTOM OF THE FOOTING, THICKENED FOOTING AROUND PIPES/CONDUITS IS NOT REQUIRED. BACKFILL & COMPACT TO 95% OVER PIPES / CONDUITS PRIOR TO PLACING FOOTING.



OPTION B

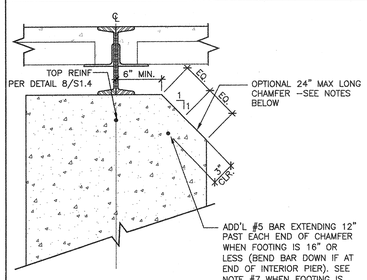
PIPE SLEEVE DETAIL — SCALE: 1-1/2"=1'-0" — 2





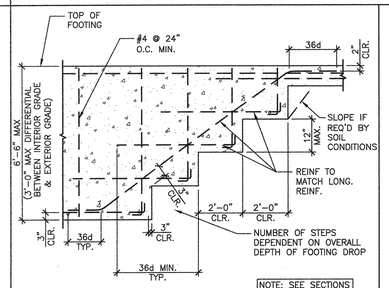
NOTES:
1. CHAMFER MAY BE LOCATED ALONG ALL LOCATIONS OF THE PERIMETER OF THE BUILDING FOUNDATION UNLESS OTHERWISE NOTED ON PLAN OR AS DESCRIBED BELOW.
2. CHAMFER SHALL NOT BE LOCATED WITHIN 3'–6" OF THE CORNERS OF THE BUILDING FOUNDATION.
3. CHAMFER SHALL NOT BE LOCATED WITHIN 1'–6" OF ANCHORAGE EMBED. PLATE LOCATIONS
4. CHAMFERS AT FRONT OR REAR END WALL FOOTINGS SHALL NOT BE LOCATED WITHIN 3'–6" OF A MODULE LINE
5. CHAMFERS SHALL NOT BE LOCATED WITHIN 1'–6" OF UTILITY OPENINGS PER SHEET S1.7
6. CHAMFER MAY OCCUR AT THE ENDS OF VENT OR ACCESS OPENINGS (ALONG THE INTERIOR EDGE OF THE STEMWALL PARALLEL TO THE FLOOR BEAM AS SHOWN ABOVE)
7. BOTTOM OF CHAMFER SHALL NOT BE LOWER THAN FINISHED GRADE
8. WHERE THE FOOTING IS WIDER THAN 16" AND THE CHAMFER INTERRUPTS A CONTINUOUS LONGITUDINAL REINFORCING BAR, PROVIDE AN ADDITIONAL #5 x 6'–0" BAR 3" CLEAR AND CENTERED ON THE CHAMFER
9. FOR ALL ITEMS NOT SHOWN OR NOTED SEE DETAILS 1/S1.4 & 1A/S1.4.

CHAMFER DETAILS @ PERIMETER — SCALE:1 1/2"=1'-0" — 3

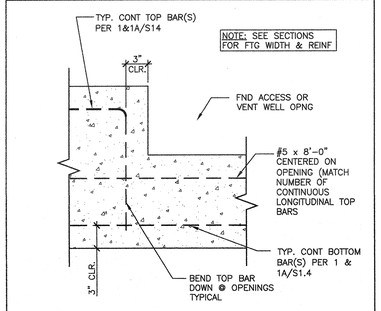


NOTES:
1. CHAMFER MAY BE LOCATED ALONG ALL LOCATIONS OF INTERIOR FOOTING OF THE BUILDING FOUNDATION UNLESS OTHERWISE NOTED ON PLAN OR AS DESCRIBED BELOW.
2. CHAMFER SHALL NOT BE LOCATED WITHIN 2'–6" OF THE ENDS OF THE BUILDING.
3. CHAMFER MAY OCCUR ON BOTH SIDES OF THE FOOTING CONCURRENTLY.
4. CHAMFER SHALL NOT BE LOCATED WITHIN 1'–6" OF UTILITY OPENING PER SHEET S1.7
5. CHAMFER MAY OCCUR AT THE ENDS OF INTERIOR PIERS (ALONG THE SIDE OF THE PIER PARALLEL TO THE FLOOR BEAMS AS SHOWN ABOVE)
6. BOTTOM OF CHAMFER SHALL NOT BE LOWER THAN FINISHED GRADE
7. WHERE THE FOOTING IS WIDER THAN 16" AND THE CHAMFER INTERRUPTS A CONTINUOUS LONGITUDINAL REINFORCING BAR, PROVIDE AN ADDITIONAL #5 x 6'–0" BAR 3" CLEAR AND CENTERED ON THE CHAMFER (BEND BAR DOWN IF AT END OF INTERIOR PIER)
8. FOR ALL ITEMS NOT SHOWN OR NOTED – SEE DETAIL 8/S1.4.

CHAMFER DETAILS @ INTERIOR — SCALE:1 1/2"=1'-0" — 4



TYPICAL STEPPED FOOTING DETAIL — SCALE:1 1/2"=1'-0" — 5



VENT/ACCESS OPENING DETAIL — SCALE:1 1/2"=1'-0" — 6

NOT USED — 7

PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

CONCRETE FOUNDATION DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — RANDALL PATRICK GUNNOE — No. C-26831 — Exp. 3-31-19 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — ROBERT A. STEPHENSON — No. 6322 — CIVIL — STATE OF CALIFORNIA

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PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC — FLS — SS —
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC — FLS — SS —
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
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REVISIONS
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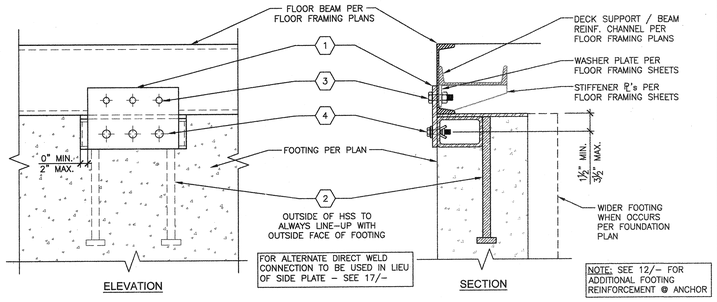
4

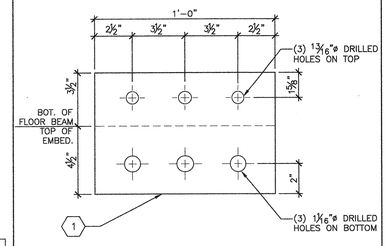
DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER

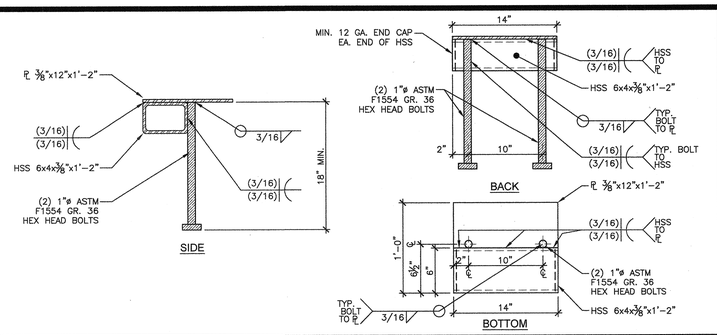
S1.5



STANDARD ANCHORAGE DETAIL — SCALE: 1-1/2" = 1'-0" — 2



SIDE PLATE DETAIL — SCALE: 3" = 1'-0" — 3



EMBEDDED ANCHOR DETAIL — SCALE: 1-1/2" = 1'-0" — 5

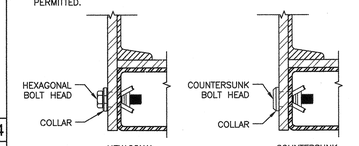
EMBEDDED ANCHOR REINFORCEMENT DETAIL — SCALE: 1-1/2" = 1'-0" — 12

OPT. SHIM @ TOP — SCALE: 1-1/2" = 1'-0" — 8

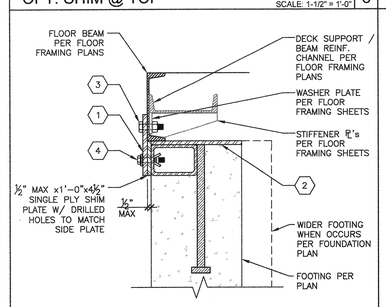
NOT USED — 9

KEY NOTES

1. DETAILS ON THIS SHEET SHALL APPLY WHERE STANDARD ANCHORAGE IS SPECIFIED ON THE FOUNDATION PLANS.
2. EACH ANCHORAGE POINT SPECIFIED ON PLAN SHALL CONSIST OF AN EMBEDDED ANCHOR AND EITHER A BOLTED SIDE PLATE OR ALTERNATE DIRECT WELD AS DETAILED ON DETAIL 2/–.
3. ANCHOR REINFORCEMENT PER DETAIL 12/– SHALL BE PLACED AT ALL EMBEDDED ANCHOR LOCATIONS.
4. EXPANSION BOLTS SHALL BE "HOLLO–BOLTS" BY LINDAPTER OR AN EQUIVALENT ICC ACCEPTED BOLT.
5. "HOLLO–BOLTS" ARE SPECIFIED AND TO BE INSTALLED PER ICC–ES REPORT ESR–3330 WITH AN INSTALLATION TIGHTENING TORQUE OF 140 FT.–LBS & ARE TO BE SUBJECT TO THE MANUFACTURER'S INSPECTION PROCEDURES FOUND ON SHEET D1 OF THESE DRAWINGS.
6. "HOLLO–BOLT" HEADS MAY BE HEXAGONAL OR COUNTERSUNK, AS SHOWN BELOW (NOT TO SCALE). FLUSH FIT "HOLLO–BOLT" OPTION NOT PERMITTED.

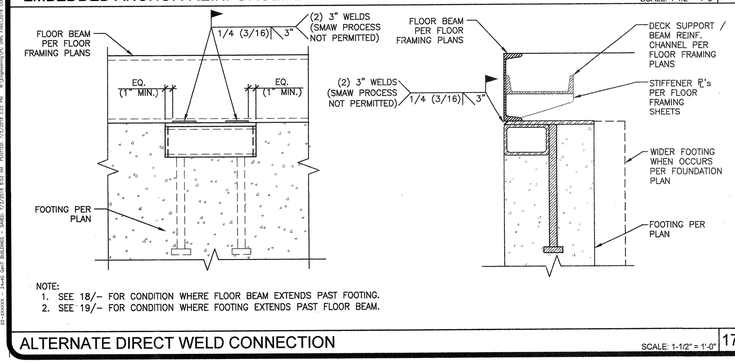


7. UPGRADED ANCHORAGE PER SHEET S1.6B MAY BE USED AS AN ALTERNATIVE TO STANDARD ANCHORAGE WHERE STANDARD ANCHORAGE IS SPECIFIED ON PLANS.



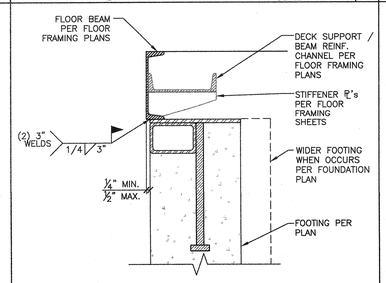
OPT. SHIM @ BOT — SCALE: 1-1/2" = 1'-0" — 13

NOT USED — 14

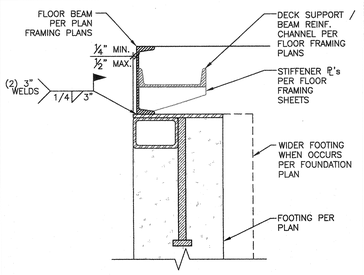


NOTE:
1. SEE 18/– FOR CONDITION WHERE FLOOR BEAM EXTENDS PAST FOOTING.
2. SEE 19/– FOR CONDITION WHERE FOOTING EXTENDS PAST FLOOR BEAM.

ALTERNATE DIRECT WELD CONNECTION — SCALE: 1-1/2" = 1'-0" — 17



ALTERNATE DIRECT WELD @ OFFSET — SCALE: 1-1/2" = 1'-0" — 18



ALTERNATE DIRECT WELD @ OFFSET — SCALE: 1-1/2" = 1'-0" — 19

GENERAL NOTES

1 ½"x8"x1'–0" (36 KSI) OR ⅜"x8"x1'–0" (50 KSI) SIDE PLATE. LOCATION PER PLAN – SEE 3/–

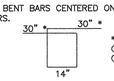
2 EMBEDDED ANCHOR. LOCATION PER PLAN – SEE 5/–

3 (3) ¾"ø M.B. THRU–BOLTED THROUGH SIDE PL & FLOOR BEAM w/ 1¾₁₆"ø HOLES – SEE 8/– FOR OPTIONAL SHIM DETAIL.

4 (3) ⅝"ø LHBM16 "HOLLO–BOLT" EXPANSION BOLTS PER ICC ESR–3330 THROUGH SIDE PL INTO THE HSS OF THE EMBEDDED ANCHOR w/ 1¹⁄₁₆"ø HOLES
– SEE GENERAL NOTES FOR SPECS. & INSTALLATION REQUIREMENTS,
– SEE 13/– FOR OPTIONAL SHIM DETAIL.

5 (3) #4 VERTICAL HOOPS PER 5/S1.4 EVENLY SPACED @ ANCHORS.

6 (2) #4 BENT BARS CENTERED ON ANCHORS – (1) EA. SIDE OF ANCHORS.



* BEND DOWN @ VENTS OR AROUND PERIMETER @ CORNER.

7 #3 HORIZONTAL HOOPS PER 5/S1.4 @ 6" O.C.

8 ADDITIONAL #5x8'–0" CENTERED @ ANCHOR. BEND DOWN @ VENTS OR AROUND PERIMETER @ CORNERS.

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SITE SPECIFIC PROJECT NAME

SHEET TITLE

STANDARD ANCHORAGE FOUNDATION DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — ANDREW PATRICK CAVANAUGH — No. C-28531 — Renl. 2-31-19 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — ROBERT J. STRUNK — No. 5322 — STATE OF CALIFORNIA

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PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC. FLS SS BY
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ORIGINAL PC STATE AGENCY APPROVAL

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DRAWN BY: .
SCALE: AS NOTED
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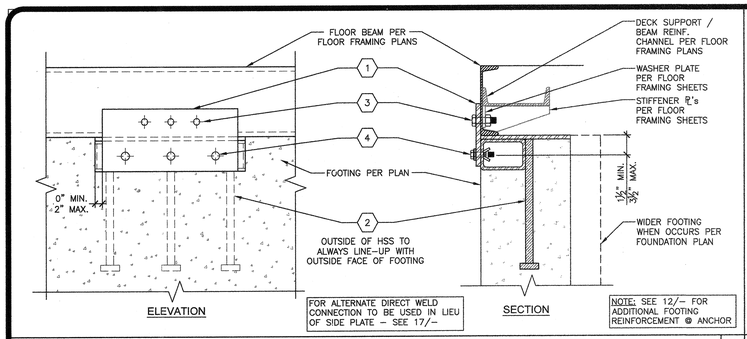
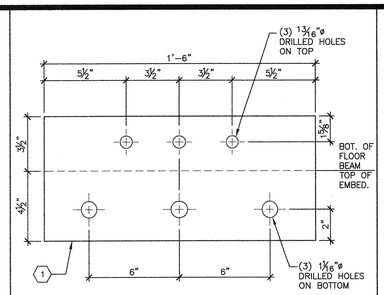
SHEET NUMBER

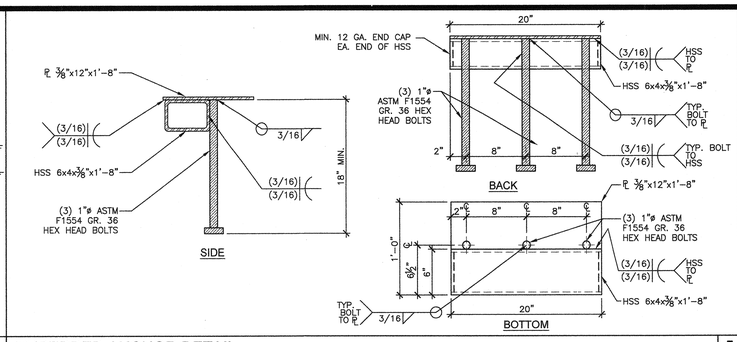
S1.6A



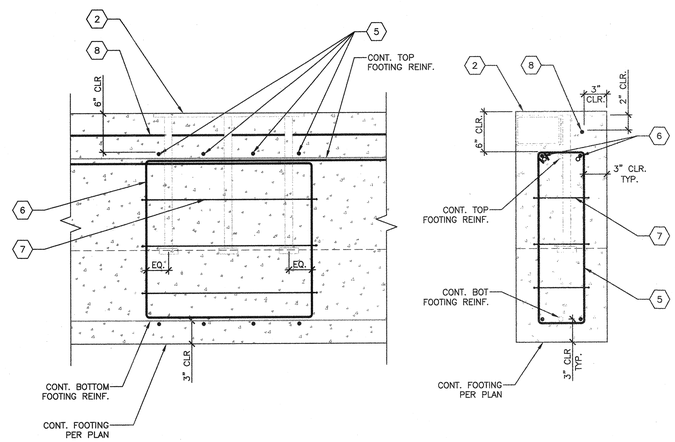
STANDARD ANCHORAGE DETAIL — SCALE: 1-1/2" = 1'-0" — 2



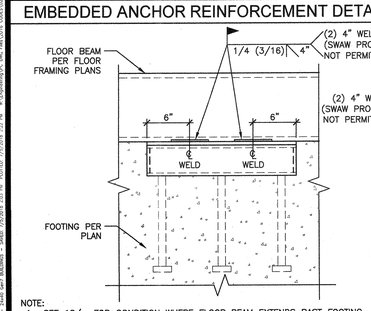
SIDE PLATE DETAIL — SCALE: 3" = 1'-0" — 3



EMBEDDED ANCHOR DETAIL — SCALE: 1-1/2" = 1'-0" — 5



EMBEDDED ANCHOR REINFORCEMENT DETAIL — SCALE: 1-1/2" = 1'-0" — 12



NOTE:
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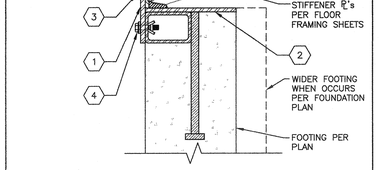
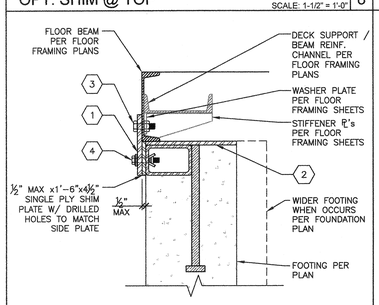
ALTERNATE DIRECT WELD CONNECTION — SCALE: 1-1/2" = 1'-0" — 17



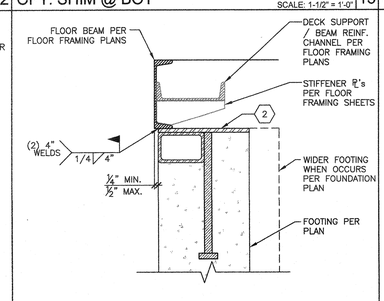
OPT. SHIM @ TOP — SCALE: 1-1/2" = 1'-0" — 8

NOT USED — 9

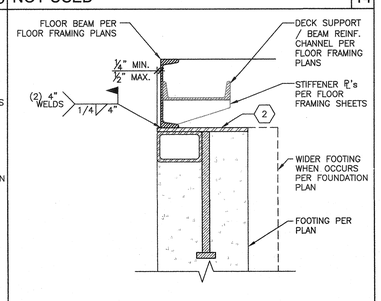


OPT. SHIM @ BOT — SCALE: 1-1/2" = 1'-0" — 13

NOT USED — 14



ALTERNATE DIRECT WELD @ OFFSET — SCALE: 1-1/2" = 1'-0" — 18



ALTERNATE DIRECT WELD @ OFFSET — SCALE: 1-1/2" = 1'-0" — 19

KEY NOTES

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3. ANCHOR REINFORCEMENT PER DETAIL 12/– SHALL BE PLACED AT ALL EMBEDDED ANCHOR LOCATIONS.
4. EXPANSION BOLTS SHALL BE "HOLLO-BOLTS" BY LINDAPTER OR AN EQUIVALENT ICC ACCEPTED BOLT.
5. "HOLLO-BOLTS" ARE SPECIFIED AND TO BE INSTALLED PER ICC-ES REPORT ESR-3330 WITH AN INSTALLATION TIGHTENING TORQUE OF 140 FT.-LBS & ARE TO BE SUBJECT TO THE MANUFACTURER'S INSPECTION PROCEDURES FOUND ON SHEET D1 OF THESE DRAWINGS.
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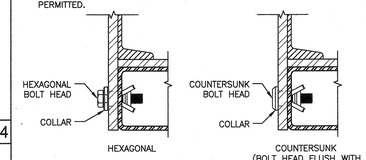

GENERAL NOTES

1. ½"x8"x1'-6" (36 KSI) OR ⅜"x8"x1'-6" (50 KSI) SIDE PLATE. LOCATION PER PLAN – SEE 3/–
2. EMBEDDED ANCHOR. LOCATION PER PLAN – SEE 5/–
3. (3) ¾"ø M.B. THRU-BOLTED THROUGH SIDE PL & FLOOR BEAM w/ 1 3/16"ø HOLES – SEE 8/– FOR OPTIONAL SHIM DETAIL.
4. (3) ⅝"ø LHBM16 "HOLLO-BOLT" EXPANSION BOLTS PER ICC ESR-3330 THROUGH SIDE PL INTO THE HSS OF THE EMBEDDED ANCHOR w/ 1 1/16"ø HOLES
   – SEE GENERAL NOTES FOR SPECS. & INSTALLATION REQUIREMENTS,
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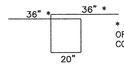

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UPGRADED ANCHORAGE FOUNDATION DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — PATRICK CALVERT — No. C-26231 — Exp. 3-31-19 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — ROBERT A. STRUNK — No. 5322 — STATE OF CALIFORNIA

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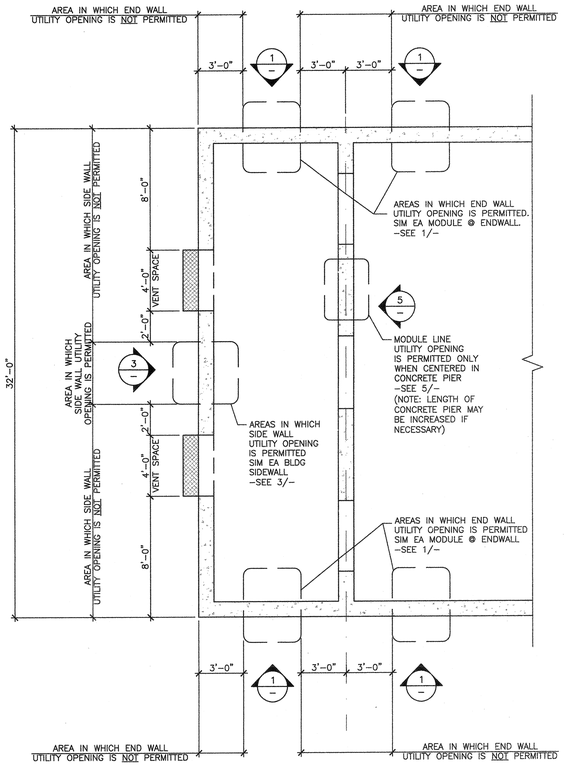
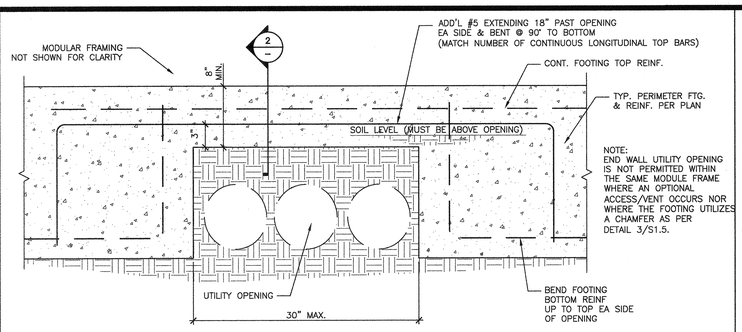
SCALE:	AS NOTED
DATE:	.

SHEET NUMBER

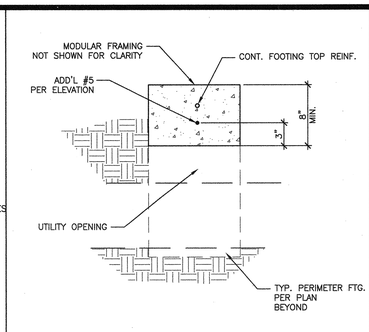
S1.6B



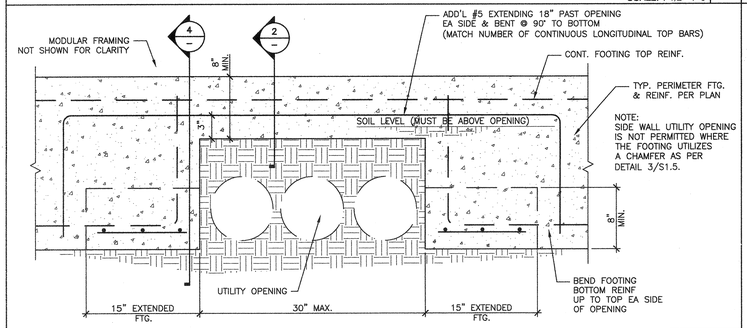
OPTIONAL UTILITY OPENINGS PLAN — SCALE: 1/4"=1'-0" — A



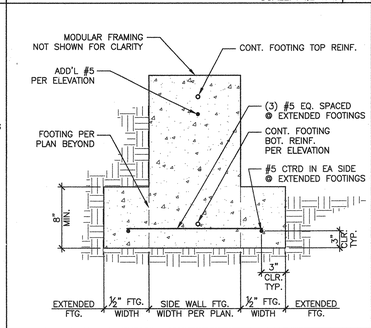
OPTIONAL UTILITY OPENINGS IN END WALL FOOTINGS — SCALE: 1 1/2"=1'-0" — 1



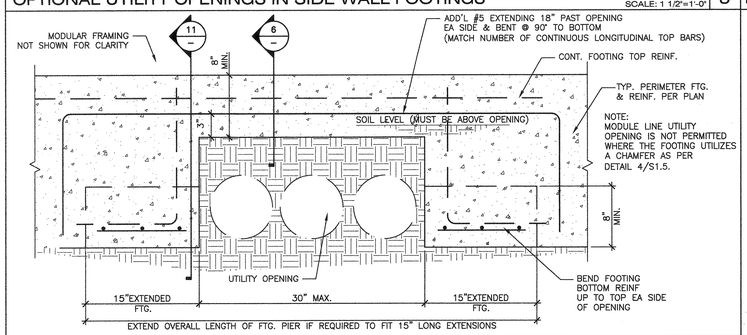
DETAIL — SCALE: 1 1/2"=1'-0" — 2



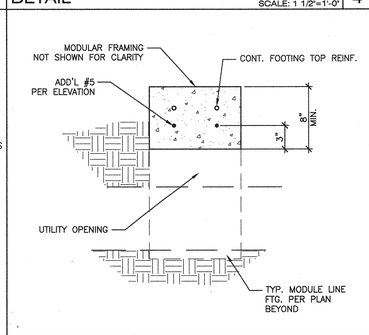
OPTIONAL UTILITY OPENINGS IN SIDE WALL FOOTINGS — SCALE: 1 1/2"=1'-0" — 3



DETAIL — SCALE: 1 1/2"=1'-0" — 4



OPTIONAL UTILITY OPENINGS IN MODULE LINE FOOTINGS — SCALE: 1 1/2"=1'-0" — 5



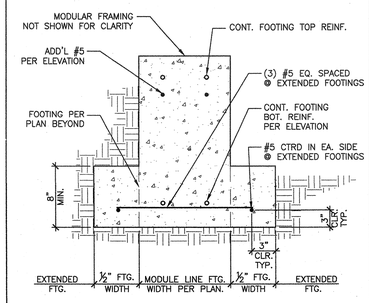
DETAIL — SCALE: 1 1/2"=1'-0" — 6

7

8 NOT USED

9 NOT USED

10 NOT USED



DETAIL — SCALE: 1 1/2"=1'-0" — 11

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CONCRETE FOUNDATION OPTIONAL UTILITY OPENINGS IN FOOTINGS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — PATRICK GIANG — No. C-32831 — Exp. 3-31-19 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — No. 5322 — STATE OF CALIFORNIA

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AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC — FLS — SS
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

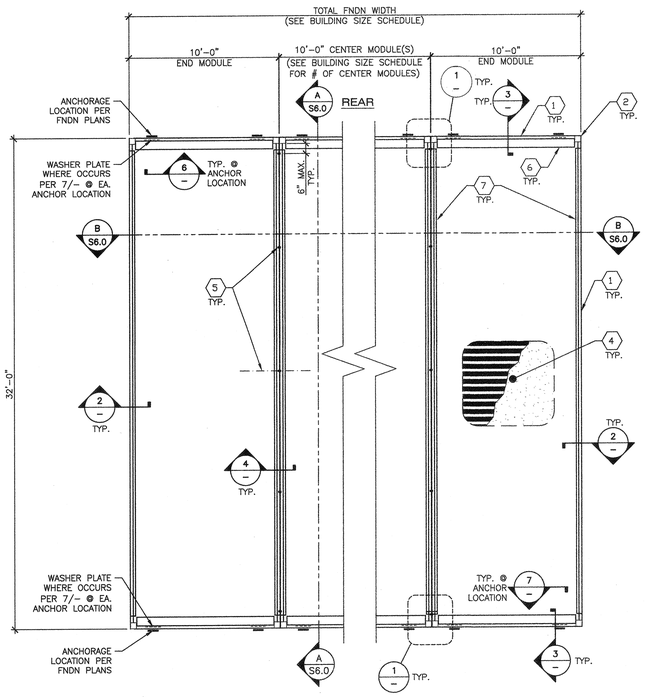
REVISIONS

DRAWN BY:	-
SCALE:	AS NOTED
DATE:	-

SHEET NUMBER

S1.7

20-XXXXX - [Xref] Shell Buildings - SAMPS - 4/29/2018 3:00 PM - K:\Submissions\DC 2016 Files\2018 020\S020-116071 - 2016 - 30'x32' GEN 7 v3 - 02-116071 - CSU - S1.7 - Concrete Foundation Set 100% Drawings to Permit.dwg



FLOOR FRAMING PLAN (CONCRETE FLOOR w/ 3WH-DECK OR 3WxH DECK OPTION) 150 PSF MAX FLOOR LIVE LOAD — SCALE : 1/4"=1'-0" — A

BUILDING SIZE	TOTAL # OF 10'-0" WIDE MODULES	TOTAL # OF CENTER MODULES	TOTAL FNDN WIDTH[1]
☐ 30'x32'	3	1	30'-¾"
☐ 40'x32'	4	2	40'-1"
☐ 50'x32'	5	3	50'-1¼"
☒ 60'x32'	6	4	60'-1½"
☐ 70'x32'	7	5	70'-1¾"
☐ 80'x32'	8	6	80'-2"
☐ 90'x32'	9	7	90'-2¼"
☐ 100'x32'	10	8	100'-2½"
☐ 110'x32'	11	9	110'-2¾"
☐ 120'x32'	12	10	120'-3"
☐ 130'x32'	13	11	130'-3⅛"
☐ 140'x32'	14	12	140'-3⅜"
☐ 150'x32'	15	13	150'-3¾"

NOTES:
1. TOTAL BUILDING WIDTH INCLUDES ¼" PER MODULE CONSTRUCTION TOLERANCE PER FOUNDATION SHEETS S1.1, S1.2, & S1.3.

BUILDING SIZE SCHEDULE

MINIMUM PROPERTIES				
PLAN DESIGNATION	DECK TYPE	S_{gbot} IN³/FT	I_g IN⁴/FT	AVAILABLE DIAPHRAGM SHEAR (LRFD)
	3"–18 GA ASC 3WH GALV DECK (36" WIDE)	0.789	1.233	1610 PLF w/ 2" LWC TOPPING (5" TOTAL SLAB THICKNESS) 2420 PLF w/ ¾" LWC TOPPING (6¼" TOTAL SLAB THICKNESS

DECK PROFILE

NOT USED

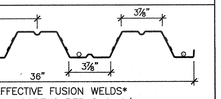
@ = (4) ½"ø EFFECTIVE FUSION WELDS*
OR (4) #12 TEKS SCREWS PER 2 & 4/–
(½"ø EFFECTIVE FUSION WELDS* OR #12 TEK SCREWS @ 12" O.C. MAX PER 3/– @ PARALLEL SUPPORTS)
* ½"ø EFFECTIVE FUSION WELD = 1" VISUAL FUSION WELD

SIDE LAP ATTACHMENT TO BE BOTTON PUNCHED @ 36" O.C.
ASC STEEL DECKING: IAPMO UES ER #0329

3WxH MTL DECK PROPERTIES & PROFILE — N.T.S. — 5

MINIMUM PROPERTIES				
PLAN DESIGNATION	DECK TYPE	S_{gbot} IN³/FT	I_g IN⁴/FT	AVAILABLE DIAPHRAGM SHEAR (LRFD)
	3"–18 GA ASC 3WH GALV DECK (36" WIDE)	0.704	1.113	1602 PLF w/ 2" LWC TOPPING (5" TOTAL SLAB THICKNESS) 2412 PLF w/ ¾" LWC TOPPING (6¼" TOTAL SLAB THICKNESS)

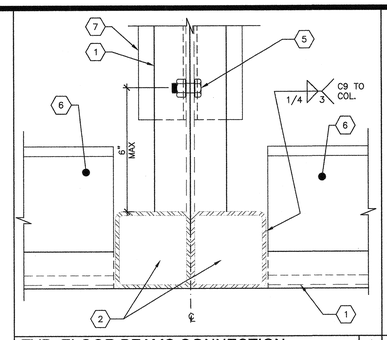
DECK PROFILE



@ = (4) ½"ø EFFECTIVE FUSION WELDS*
OR (4) #12 TEKS SCREWS PER 2 & 4/–
(½"ø EFFECTIVE FUSION WELDS* OR #12 TEKS SCREWS @ 12" O.C. MAX PER 3/– @ PARALLEL SUPPORTS)
* ½"ø EFFECTIVE FUSION WELD = 1"ø VISUAL FUSION WELD

SIDE LAP ATTACHMENT TO BE BOTTON PUNCHED @ 36" O.C.
ASC STEEL DECKING: IAPMO UES ER #0329

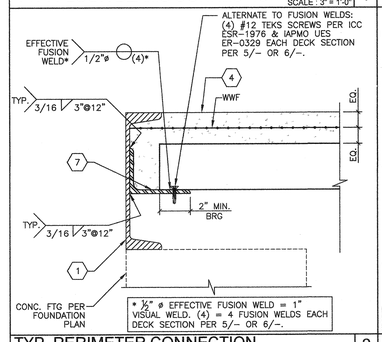
3WH MTL DECK PROPERTIES & PROFILE — N.T.S. — 6



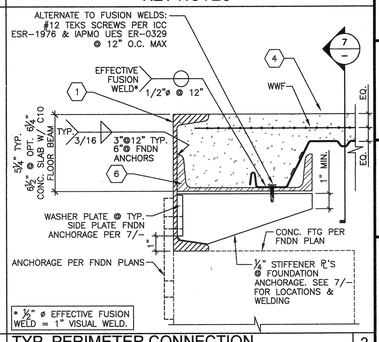
TYP. FLOOR BEAMS CONNECTION — SCALE : 3" = 1'-0" — 1

1. FLOOR BEAM PER SHEET S5.0. USE SINGLE SIZE CHANNEL THROUGHOUT FLOOR SYSTEM. USE C10 OPTION WHEN USING 6¼" THICK CONCRETE SLAB OPTION.
2. HSS COLUMN PER SHEET S5.0.
3. NOT USED
4. 2" MIN. 3¼" MAX. LIGHTWEIGHT CONC. FILL w/ 6x6/W1.4xW1.4 WWF w/ 1'–0" LAP OVER ASC 18 GA. 3WH OR 3WxH GALVANIZED DECK (5" MIN., 6¼" MAX TOTAL THICKNESS) SEE 5 & 6/– FOR DECK PROPERTIES AND ATTACHMENT PATTERN.
5. ⅝"ø MB @ 10'–0" O.C. MAX. 6" MAX FROM INSIDE FACE OF COLUMNS PER DETAILS 1 & 4/–.
   BOLT HOLE THRU FLOOR CHANNELS = BOLT ø + 1/16".
6. C9x13.4" DECK SUPPORT CHANNEL PER DETAIL 3/–.
   C9 MAY HAVE 3"ø MAX HOLES THRU WEB WITHOUT WEB REINFORCEMENT PER THE FOLLOWING:
   1. HOLES MUST BE CENTERED ON WEB.
   2. MULTIPLE HOLES MUST BE SPACED A MIN. OF 24" APART.
   3. HOLES MUST BE 24" MIN. FROM INSIDE FACE OF COLUMNS.
7. ∠4"x3"x5/16" LLH (MIN.) DECK SUPPORT ANGLE PER DETAIL 2 & 4/–

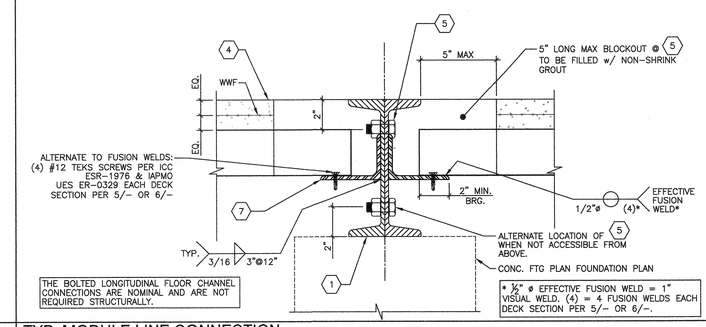
KEY NOTES



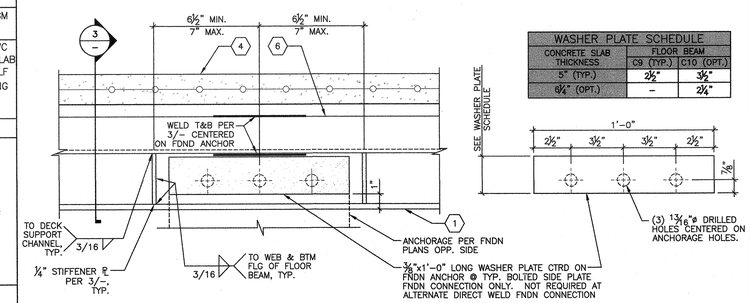
TYP. PERIMETER CONNECTION (@ LONGITUDINAL FLOOR BEAMS) — SCALE : 3" = 1'-0" — 2



TYP. PERIMETER CONNECTION (@ TRANSERVE FLOOR BEAMS) — SCALE : 3" = 1'-0" — 3



TYP. MODULE LINE CONNECTION — SCALE : 3" = 1'-0" — 4



WASHER PLATE SCHEDULE		
CONCRETE SLAB THICKNESS	FLOOR BEAM	
	C9 (TYP.)	C10 (OPT.)
5" (TYP.)	2½"	3½"
6¼" (OPT.)	–	2¼"

TYP. REINFORCED FLOOR FRAMING @ FOUNDATION ANCHORAGE — SCALE : 3" = 1'-0" — 7

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www.americanmodular.com

PRE–CHECKED SET NAME
30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE
FLOOR FRAMING PLAN & DETAILS FOR CONCRETE FLOOR w/ 3WH-DECK OR 3WxH DECK OPTION (150 PSF MAX FLOOR L.L.)

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — RALPH PATRICK GRANDSTAFF — No. C-26631 — Exp. 5-31-19 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — ROBERT JAMES [illegible] — No. 5322 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC. — FLS — SS — by
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

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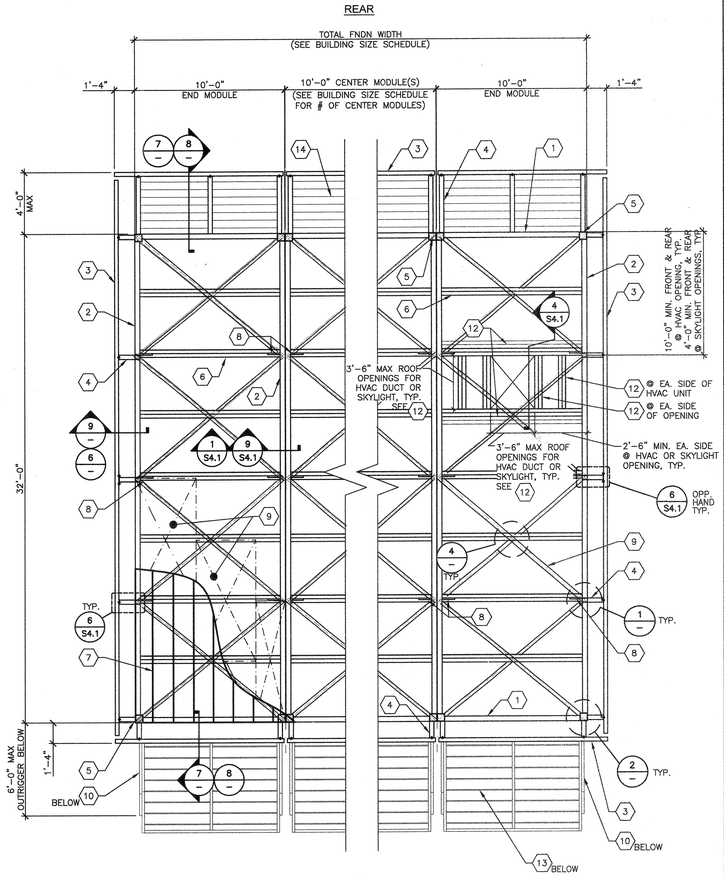
REVISIONS
1
2
3
4

DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER
S3.3



FRONT

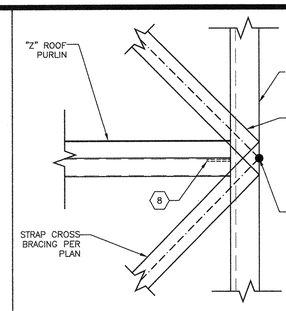
TYPICAL ROOF FRAMING LAYOUT

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

BUILDING SIZE SCHEDULE				
BUILDING SIZE		TOTAL # OF 10'-0" WIDE MODULES	TOTAL # OF CENTER MODULES	TOTAL FNDN WIDTH[1]
☐	30'x32'	3	1	30'-¾"
☐	40'x32'	4	2	40'-1"
☐	50'x32'	5	3	50'-1¼"
☒	60'x32'	6	4	60'-1½"
☐	70'x32'	7	5	70'-1¾"
☐	80'x32'	8	6	80'-2"
☐	90'x32'	9	7	90'-2¼"
☐	100'x32'	10	8	100'-2½"
☐	110'x32'	11	9	110'-2¾"
☐	120'x32'	12	10	120'-3"
☐	130'x32'	13	11	130'-3¼"
☐	140'x32'	14	12	140'-3½"
☐	150'x32'	15	13	150'-3¾"

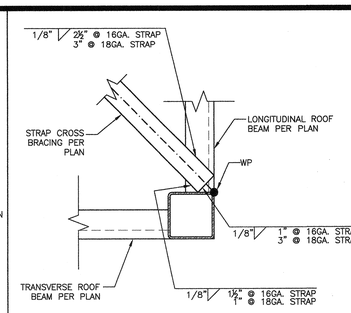
NOTES:
1. TOTAL BUILDING WIDTH INCLUDES 1/4" PER MODULE CONSTRUCTION TOLERANCE PER FOUNDATION SHEETS S1.1, S1.2 & S1.3

BUILDING SIZE SCHEDULE



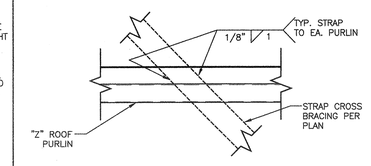
TYP. CROSS BRACING DETAILS

SCALE: 1 1/2"=1'-0" | 1



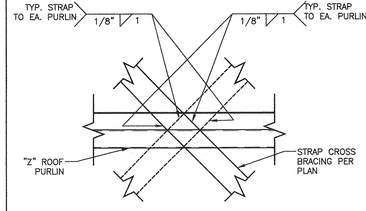
TYP. CROSS BRACING DETAILS

SCALE: 1 1/2"=1'-0" | 2



TYP. CROSS BRACING DETAILS

SCALE: 1 1/2"=1'-0" | 3



TYP. CROSS BRACING DETAILS

SCALE: 1 1/2"=1'-0" | 4

1. THE MATERIAL THICKNESS OF LIGHT GAUGE STRUCTURAL MEMBERS IN THEIR END-USE, SHALL MEET OR EXCEED THE MINIMUM BASE METAL THICKNESS SPECIFIED ON SHEET S0.0. THE MATERIAL GAUGE DESIGNATION IN THE PLAN SHALL BE USED AS REFERENCE ONLY.
2. SEE SHEET S8.0 & S9.0 FOR TYP. SIDE WALL FRAMING.
3. SEE SHEET S8.0 & S9.0 FOR TYP. END WALL FRAMING.
4. ALL FASTENERS THRU METAL ROOF PANEL SHALL BE INSTALLED w/ NEOPRENE WASHERS.

GENERAL NOTES

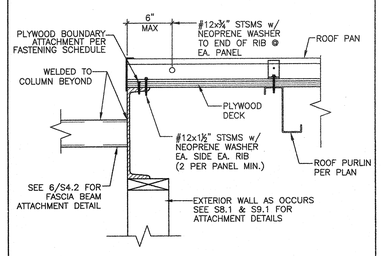
SHEATHING FASTENING SCHEDULE				
NAILING	0.144 PINS SPACING		#10 SMS SPACING	
	TYPICAL	WITHIN 3'-3" OF BUILDING CORNERS	TYPICAL	WITHIN 3'-3" OF BUILDING CORNERS
BOUNDARY	6" O.C.	6" O.C.	6" O.C.	6" O.C.
EDGE	6" O.C.	6" O.C.	6" O.C.	6" O.C.
FIELD	6" O.C.	6" O.C.	12" O.C.	12" O.C.

NOTE: ET&F 0.144 PINS PER IAPMO REPORT UES ER-0335.

FASTENING SPACING SCHEDULE

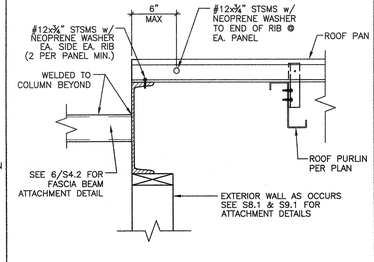
SIDE WALL TO ROOF BEAM DETAIL @ ROOF CHANNEL

SCALE: 1 1/2"=1'-0" | 6



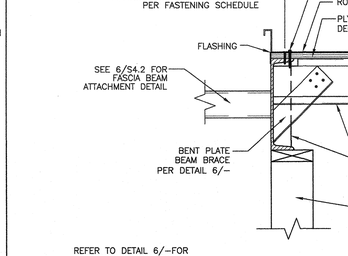
ROOF DETAIL

SCALE: 1 1/2"=1'-0" | 7



ROOF DETAIL

SCALE: 1 1/2"=1'-0" | 8



ROOF DETAIL

SCALE: 1 1/2"=1'-0" | 9

KEY NOTES

1. TRANSVERSE ROOF BEAM PER SHEET S5.0 OR S5.3
2. LONGITUDINAL ROOF BEAM PER SHEET S5.0 OR S5.3
3. C12x20.7 FASCIA BEAM – SEE 6/S4.2
4. 3½x3½x¼ HSS TUBE – SEE 6/S4.2
5. HSS COLUMN PER SHEET S5.0.
6. ROOF PURLINS @ 48" O.C. MAX. –SEE SHEET S0.0
7. METAL ROOF PAN – SEE SHEET S0.0.
8. 3x1x12 GA. BENT PLATE DIAGONAL BRACE TO ROOF BEAM @ 8'-0" O.C. MAX & AT ROOF STRAP CROSS BRACING LOCATIONS PER 1/–. SEE DETAILS 6 & 9/– @ EXTERIOR SIDE WALLS & 1 & 9/S4.2 @ INTERIOR MODLINES.
9. 2"x16 GA. STRAP CROSS BRACING GRADE 50. ALTERNATE: 3"x18 GA. GRADE 50. ALTERNATE TO STRAP CROSS BRACING: ⅜" APA RATED L-P OSB OR ¾" PLYWOOD (ALL OSB OR PLYWOOD SHALL BE EITHER T&G OR EDGE CLIPPED AT UNSUPPORTED EDGES) CONFORMING TO PS 1-09 OR PS 2-10, CD EXPOSURE-1 48/24 SPAN INDEX, 2 SPANS MIN. (EXCEPT CENTER PANEL @ MODULE END BAYS), STAGGERED JOINTS, FACE GRAIN NORMAL TO ROOF PURLINS. ALL BOUNDARY, EDGE & FIELD ATTACHMENTS SHALL BE 1" MIN. FROM EDGE OF OSB OR PLYWOOD & EDGE OF STEEL SUPPORTING MEMBER. REFER TO FASTENING SCHEDULE FOR FASTENING.
10. HSS 12x3½x¼ OUTRIGGER BELOW
11. NOT USED
12. PROVIDE DOUBLE PURLINS AND BLOCKING PER 2-4/S4.2 @ OPTIONAL HVAC UNIT (800# MAX), (1) HVAC UNIT PER MODULE MAX. PROVIDE SINGLE PURLINS AND BLOCKING PER 3/S4.2 @ OPTIONAL SKYLIGHT OPENINGS, (3) SKYLIGHT OPENINGS PER MODULE MAX. LOCATE OPENINGS PER ROOF PLAN & PROVIDE 48" CLEAR MIN. BETWEEN ALL OPENINGS, TYP.

   NOTE: DO NOT HEAD OFF ROOF PURLINS FOR OPENINGS FOR HVAC/SKYLIGHT FRAMING. ALL ROOF PURLINS SHALL BE CONTINUOUS ACROSS MODULE. LAYOUT OF CONTINUOUS ROOF PURLINS MAY BE ADJUSTED TO ACCOMMODATE HVAC/SKYLIGHT LAYOUT AS LONG AS SPACING DOES NOT EXCEED 48" O.C. PLACE HVAC/SKYLIGHT OPENING TO AVOID INTERRUPTION OF STRAP CROSS-BRACING WHERE OSB/PLYWOOD SHEATHING IS NOT UTILIZED. CROSS-BRACING MAY BE INTERRUPTED ONLY IF OSB/PLYWOOD SHEATHING IS USED.
13. SUNSHADE OVERHANG BELOW PER A/S5.2
14. REAR ROOF OVERHANG PER B/S5.2

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ROOF FRAMING PLAN & DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — KEVIN PATRICK GRUNDY — No. C-32631 — Exp. 3-31-19 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — ROBERT J. JAMES — No. 5322 — STATE OF CALIFORNIA

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APP03 119722
AC — FLS — SS — BY
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REVISIONS
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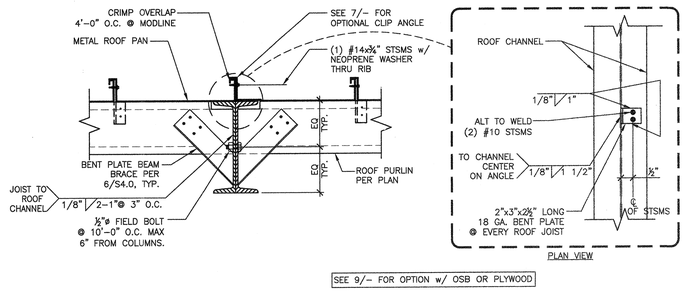
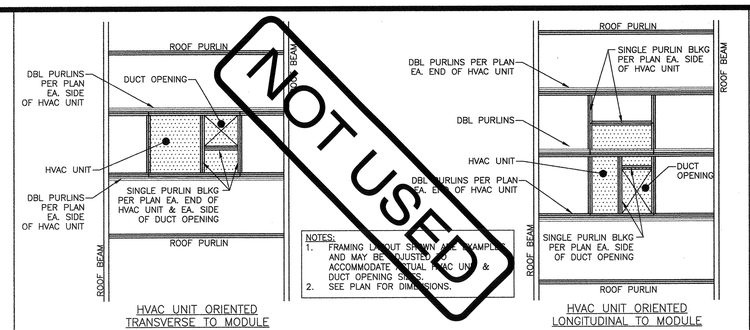
S4.0

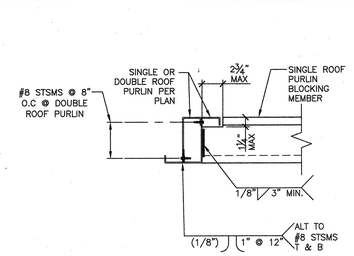


ROOF BEAM CONNECTION DETAIL — SCALE: 1 1/2"=1'-0" | 1



NOT USED

EXAMPLE OF ROOF FRAMING AT ROOFTOP HVAC UNITS — SCALE: 1 1/2"=1'-0" | 2



BLOCKING & DBL PURLIN CONNECTION DETAIL — SCALE: 1 1/2"=1'-0" | 3

PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ROOF FRAMING DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — ANTHONY PATRICK GIANNETTI — No. C-29031 — Exp. 2-31-18 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — ROBERT J. DOYLE — No. 5322 — STRUCTURAL — STATE OF CALIFORNIA

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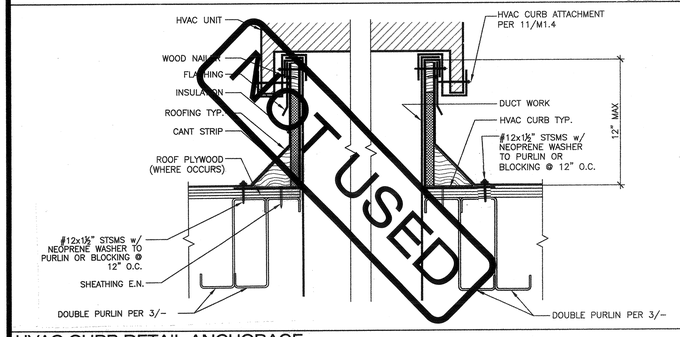
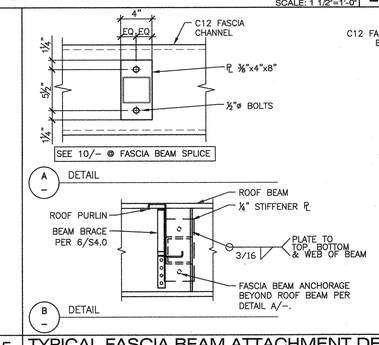
S4.2



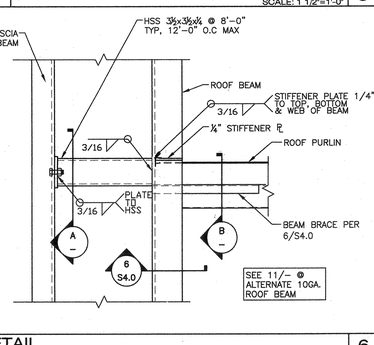
NOT USED

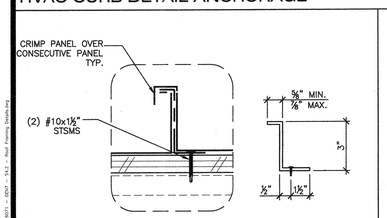
HVAC CURB DETAIL ANCHORAGE — SCALE: 1 1/2"=1'-0" | 4

NOT USED | 5

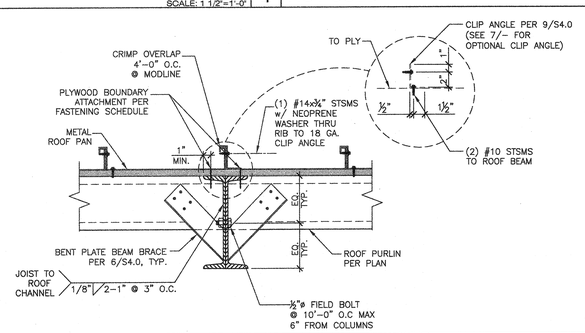


TYPICAL FASCIA BEAM ATTACHMENT DETAIL — SCALE: 1 1/2"=1'-0" | 6

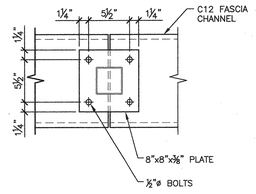




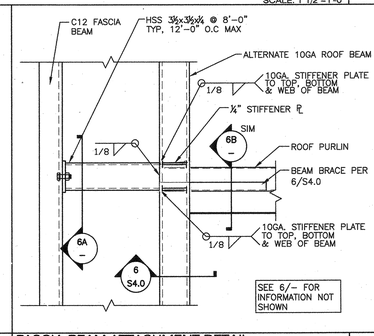
ROOF DETAIL (OPTIONAL ROOF PAN CLIP) — SCALE: 1 1/2"=1'-0" | 7



ROOF BEAM CONNECTION — SCALE: 1 1/2"=1'-0" | 9

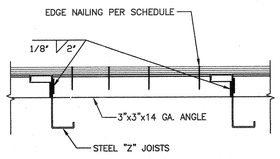


FASCIA BEAM SPLICE ATT. DETAIL — SCALE: 1 1/2"=1'-0" | 10



FASCIA BEAM ATTACHMENT DETAIL @ ALTERNATE 10GA. ROOF BEAM — SCALE: 1 1/2"=1'-0" | 11

1. THE MATERIAL THICKNESS OF LIGHT GAUGE STRUCTURAL MEMBERS, IN THEIR END–USE, SHALL MEET OR EXCEED THE MINIMUM BASE METAL THICKNESS SPECIFIED ON SHEET S0.0 THE MATERIAL GAGE DESIGNATION IN THE PLAN SHALL BE USED AS REFERENCE ONLY.



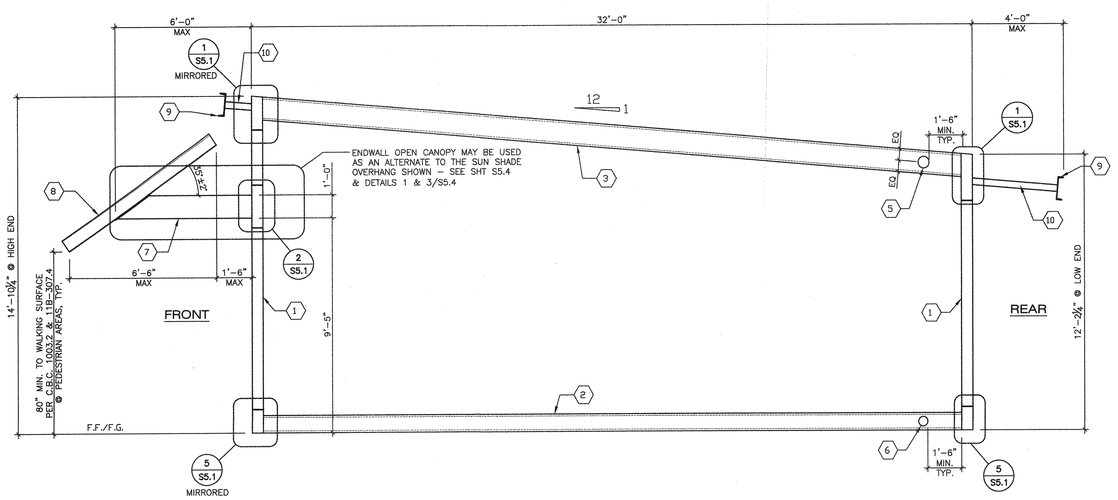
TYP. ANGLE TO Z-PURLIN ATTACHMENT — SCALE: 1 1/2"=1'-0" | 12

NOT USED | 13

NOT USED | 14

NOT USED | 15

GENERAL NOTES



TYPICAL LONGITUDINAL FRAME ELEVATION — SCALE: 3/8"=1'-0" | 1

1 HSS COLUMN – SEE SCHEDULES 3/– BELOW

2 FLOOR BEAM – SEE SCHEDULES 3/– BELOW

3 LONGITUDINAL ROOF BEAM – SEE SCHEDULES 3/– BELOW

4 TRANSVERSE ROOF BEAM – SEE SCHEDULES 3/– BELOW

5 6"ø MAX OPENING IN WEB OF ROOF BEAM WITHOUT WEB REINFORCEMENT. MINIMUM SPACING OF HOLES @ 48" O.C. HOLES MAY OCCUR @ ANY LOCATION ALONG LENGTH OF ROOF BEAM EXCEPT AS NOTED OTHERWISE ON FRAMING ELEVATION. – SEE 6/S5.1
NOTE: IF HOLE IS 3" OR LESS THEY MAY BE SPACED @ 24" O.C. MINIMUM

6 4"ø MAX OPENING IN WEB OF FLOOR BEAM WITHOUT WEB REINFORCEMENT. MINIMUM SPACING OF HOLES @ 48" O.C. HOLES MAY OCCUR @ ANY LOCATION ALONG LENGTH OF FLOOR BEAM WITH DIRECT FOUNDATION SUPPORT BELOW. OPENINGS ARE NOT ALLOWED WHERE BEAMS ARE SPANNING BETWEEN FOUNDATIONS OR ACROSS VENT OPENINGS. – SEE 6/S5.1

NOTE: IF HOLE IS 2" OR LESS THEY MAY BE SPACED @ 24" MINIMUM

7 HSS 12"x3"x¼" SUN SHADE OVERHANG OUTRIGGER SEE SHEET S5.2 & DETAIL 2/S5.1

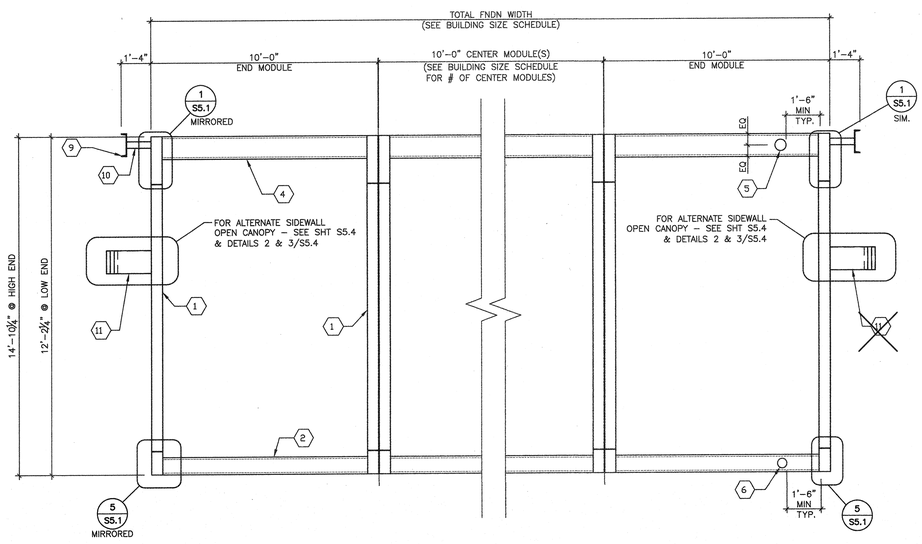
8 SUN SHADE OVERHANG – REFER TO SHEET S5.2 FOR DETAILS

9 C12x20.7 UPPER OVERHANG FASCIA CHANNEL

10 HSS 3½"x3½"x¼"

11 ALTERNATE OPEN CANOPY – REFER TO SHEET S5.4 FOR DETAILS

KEY NOTES



TYPICAL TRANSVERSE FRAME ELEVATION — SCALE: 1 1/2"=1'-0" | 2

FLOOR BEAMS		ALT. FLOOR BEAMS		COLUMNS	LONGITUDINAL ROOF CHANNEL (1)	TRANSVERSE ROOF CHANNEL (1)
PLYWOOD FLOOR	CONCRETE FLOOR	PLYWOOD FLOOR	CONCRETE FLOOR			
~~C9x13.4 (50 KSI)~~	C9x13.4 (50 KSI)	~~C10x15.3 (36 KSI)~~	~~C10x15.3 (36 KSI)~~	HSS 5x5x¼	C12x20.7 (36 KSI)	C12x20.7 (36 KSI)

1. SEE SHEET S0.0 & S5.3 FOR ALTERNATE 10 GAUGE ROOF BEAMS.

FRAME MEMBER SCHEDULE | 3

BUILDING SIZE SCHEDULE			
BUILDING SIZE	TOTAL # OF 10'-0" WIDE MODULES	TOTAL # OF CENTER MODULES	TOTAL FNDN. WIDTH[1]
☐ 30'x32'	3	1	30'-¾"
☐ 40'x32'	4	2	40'-1"
☐ 50'x32'	5	3	50'-1¼"
☒ 60'x32'	6	4	60'-1½"
☐ 70'x32'	7	5	70'-1¾"
☐ 80'x32'	8	6	80'-2"
☐ 90'x32'	9	7	90'-2¼"
☐ 100'x32'	10	8	100'-2½"
☐ 110'x32'	11	9	110'-2¾"
☐ 120'x32'	12	10	120'-3"
☐ 130'x32'	13	11	130'-3¼"
☐ 140'x32'	14	12	140'-3½"
☐ 150'x32'	15	13	150'-3¾"

NOTES:

1. TOTAL BUILDING WIDTH INCLUDES ¼" PER MODULE CONSTRUCTION TOLERANCE PER FOUNDATION SHEETS S1.1, S1.2, & S1.3

BUILDING SIZE SCHEDULE

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

MOMENT FRAME ELEVATIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

REGISTERED ARCHITECT PATRICK COLLINS No. C-26531 Date: 3-31-18 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER ROBERT J. OLMES No. 5322 STRUCTURAL STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC – FLS – SS –
DATE 7 10 18

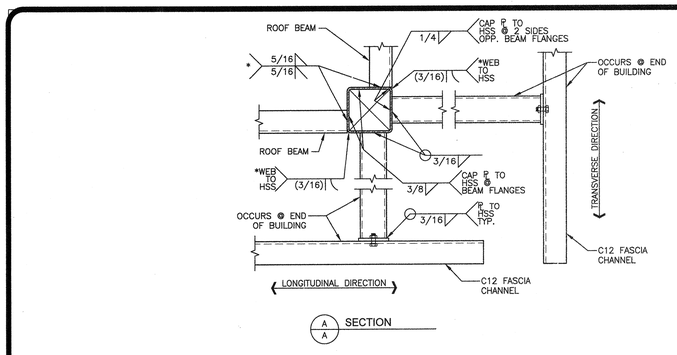
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

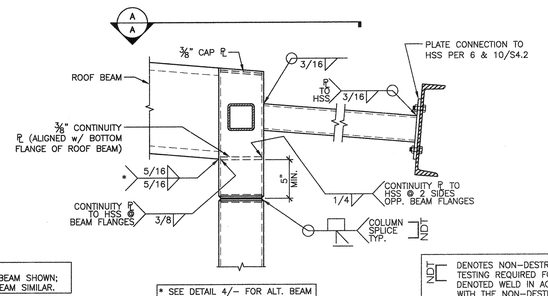
REVISIONS

DRAWN BY:	.
SCALE:	AS NOTED
DATE:	.

SHEET NUMBER

S5.0





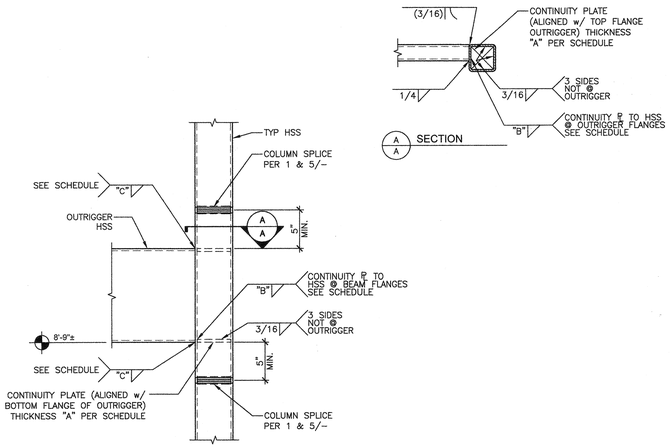
NOTE:
LONGITUDINAL ROOF BEAM SHOWN;
TRANSVERSE ROOF BEAM SIMILAR.

* SEE DETAIL 4/– FOR ALT. BEAM TO COLUMN WELDING DETAILS

NDT DENOTES NON–DESTRUCTIVE TESTING REQUIRED FOR THE DENOTED WELD IN ACCORDANCE WITH THE NON–DESTRUCTIVE TESTING NOTES ON THIS SHEET.

TYPICAL ROOF BEAM TO HSS DETAIL 1

SCALE: 1 1/2"=1'-0"

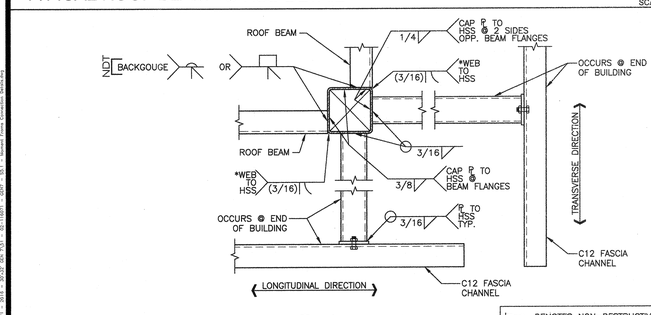


WELDING & CONTINUITY PLATE SCHEDULE			
	"A" CONTINUITY PL THICKNESS (IN)	"B" FILLET WELD SIZE @ CONTINUITY PL TO HSS @ BEAM FLANGES (IN)	"C" FILLET WELD SIZE @ TOP & BOTTOM FLANGES OF OUTRIGGER (IN)
☒ NO SNOW	5/16"	1/4"	1/4"
☐ SNOW (30 PSF MAX*)	3/8"	5/16"	5/16"

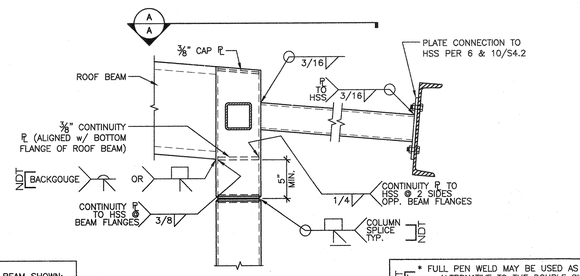
*NOTE: USE REQUIREMENTS FOR SNOW AT SITES THAT HAVE ANY SNOW LOAD UP TO A MAXIMUM OF 30 PSF.

OUTRIGGER SHADE STRUCTURE ATTACHMENT DETAIL 2

SCALE: 1 1/2"=1'-0"



NDT DENOTES NON–DESTRUCTIVE TESTING REQUIRED FOR THE DENOTED WELD IN ACCORDANCE WITH THE NON–DESTRUCTIVE TESTING NOTES ON THIS SHEET.

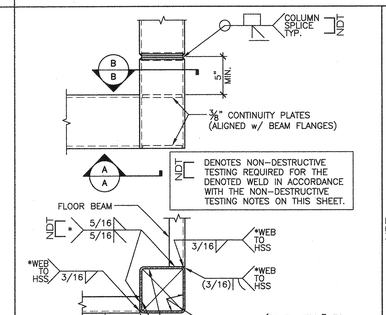


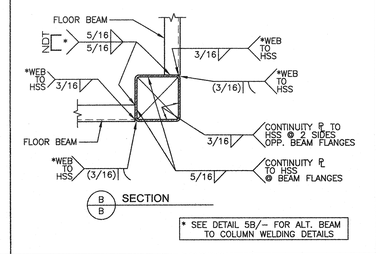
NOTE:
LONGITUDINAL ROOF BEAM SHOWN;
TRANSVERSE ROOF BEAM SIMILAR.

NDT * FULL PEN WELD MAY BE USED AS AN ALTERNATIVE TO THE DOUBLE SIDED BEAM WEB TO COLUMN WELD SHOWN

ALTERNATE ROOF BEAM TO HSS DETAIL 4

SCALE: 1 1/2"=1'-0"

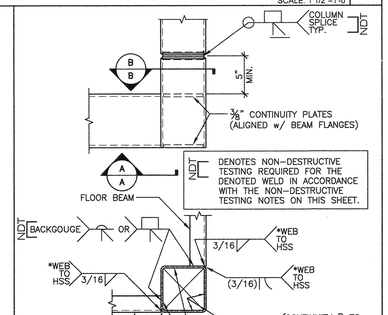


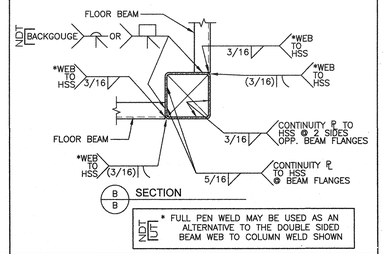


* SEE DETAIL 5B/– FOR ALT. BEAM TO COLUMN WELDING DETAILS

TYP. FLOOR BEAM TO HSS DETAIL 5A

SCALE: 1 1/2"=1'-0"





NDT * FULL PEN WELD MAY BE USED AS AN ALTERNATIVE TO THE DOUBLE SIDED BEAM WEB TO COLUMN WELD SHOWN

ALT. FLOOR BEAM TO HSS DETAIL 5B

SCALE: 1 1/2"=1'-0"

THE WELDING PROCEDURE QUALIFICATION TEST RECORD AND WELDING PROCEDURE SPECIFICATION FOR THIS WELD SHALL BE PREPARED IN ACCORDANCE WITH AWS D1.1–10, D1.3–08, & D1.8–09 SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND SUBMITTAL TO THE D.S.A. TYPICAL ALL DETAILS THIS SHEET. ALL WELDS USED IN PRIMARY MEMBERS AND CONNECTIONS IN THE LATERAL FORCE–RESISTING SYSTEMS SHALL BE MADE WITH FILLER METAL THAT HAS A MINIMUM CHARPY V–NOTCH TOUGHNESS OF 20 FT.–LBS AT ZERO DEGREES F, AS DETERMINED BY AWS CLASSIFICATION.

GENERAL NOTES

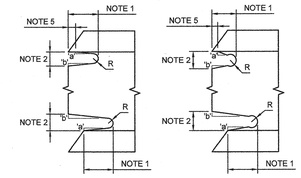
NON–DESTRUCTIVE TESTING OF COMPLETE JOINT PENETRATION GROVE WELDS AT THE MOMENT–RESISTING BEAM–TO–COLUMN CONNECTIONS SHALL COMPLY WITH AISC 341–10 CHAPTER J PER CBC 1705A.2.1.

1. WELDS SUBJECT TO THE REQUIREMENTS OF NON–DESTRUCTIVE TESTING ARE NOTED ON THESE DRAWINGS WITH THE SYMBOL: NDT
2. ALL WELDS DESIGNATED FOR NON–DESTRUCTIVE TESTING REQUIRE MAGNETIC PARTICLE TESTING (MT) TO BE PERFORMED ON 25% OF THOSE WELDS.
3. ULTRASONIC TESTING (UT) IS TO BE PERFORMED ON 100% OF WELDS DENOTED WITH THE SYMBOL NDT UT, AND IS ONLY REQUIRED ON THOSE DESIGNATED WELDS.
4. ULTRASONIC TESTING (UT) IS ONLY REQUIRED WHERE THE THICKNESS OF THE COLUMN IS 5/16" OR GREATER. UT IS NOT REQUIRED WHERE THE COLUMN THICKNESS IS LESS THAN 5/16". MAGNETIC PARTICLE TESTING (MT) IS STILL REQUIRED.
5. ULTRASONIC TESTING (UT) IS NOT REQUIRED ON WELDS FROM STRUCTURAL STEEL CHANNEL BEAM FLANGES TO COLUMNS AS UT TESTING IS NOT APPROPRIATE FOR SECTIONS WITH VARYING DEPTHS. MAGNETIC PARTICLE TESTING (MT) IS STILL REQUIRED.

NON–DESTRUCTIVE TESTING NOTES

1. FILLER METALS SHALL CONFORM TO THE REQUIREMENTS OF THE AISC SEISMIC PROVISIONS.
2. WELDING PROCEDURES SHALL BE IN ACCORDANCE WITH THE AISC SEISMIC PROVISIONS.
3. QUALITY CONTROL AND QUALITY ASSURANCE SHALL BE IN ACCORDANCE WITH THE AISC SEISMIC PROVISIONS.
4. WELD ACCESS HOLES SHALL BE IN ACCORDANCE WITH AISC 360–10, SECTION J1.6, AND SHALL BE CONSTRUCTED PER THE FOLLOWING DETAILS & NOTES.

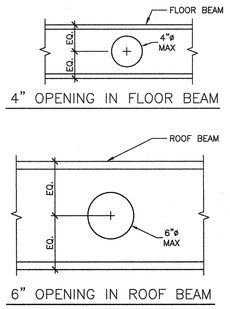
WELD ACCESS HOLE GEOMETRY



NOTES: THESE ARE TYPICAL DETAILS FOR JOINTS WELDED FROM ONE SIDE AGAINST STEEL BACKING WHERE WELD ACCESS HOLES ARE REQUIRED.

1) LENGTH: GREATER OF 1.5tw OR 1–1/2 IN. (38 MM)
2) HEIGHT: GREATER OF 1.0tw OR 3/4 IN. (19 MM) BUT NEED NOT EXCEED 2 IN. (50 MM)
3) R: 3/8 IN. MIN. (10 MM). GRIND THE THERMALLY CUT SURFACES OF WELD ACCESS HOLES IN HEAVY SHAPES AS DEFINED IN SECTIONS A3.1(c) AND (d) OF AISC 360–10.
4) SLOPE 'a' FORMS A TRANSITION FROM THE WEB TO THE FLANGE. SLOPE 'b' MAY BE HORIZONTAL.
5) THE BOTTOM OF THE TOP FLANGE IS TO BE CONTOURED TO PERMIT THE TIGHT FIT OF BACKING BARS WHERE THEY ARE TO BE USED.

REQ. FOR FR. MOMENT CONNECTIONS



OPENING IN BEAMS 6

SCALE: 1 1/2"=1'-0"

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PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

MOMENT FRAME CONNECTION DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT PATRICK J. MAHONEY No. C-22631 Exp. 2-31-19 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER ROBERT D. JAMES No. 5322 STRUCTURAL STATE OF CALIFORNIA

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PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS JV
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 19

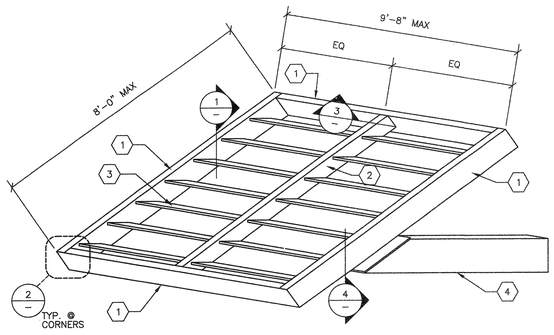
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

1	
2	
3	
4	
DRAWN BY:	.
SCALE:	AS NOTED
DATE:	.

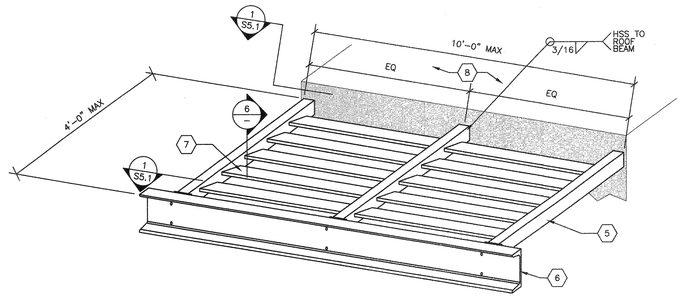
SHEET NUMBER

S5.1



SUN SHADE OVERHANG PLAN

SCALE: 3/4"=1'-0" | A



REAR ROOF OVERHANG PLAN

SCALE: 3/4"=1'-0" | B

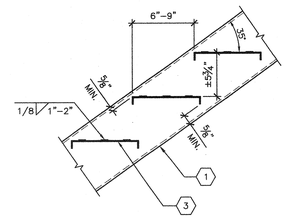
1. HSS 8"x2"x1/4"
2. HSS 6"x2"x1/4"
3. 8" WIDE x 3/4" x 12 GA. CHANNELS TYP. (USE 10 GA x50 KSI STEEL MIN. WHERE SOLAR PANELS ARE ATTACHED) (USE 1/4"x36 KSI OR 3/16" x 50 KSI STEEL @ SITES w/ SNOW LOAD)
4. HSS 12"x3"x1/4" OUTRIGGER REFER TO DETAIL 2/S5.1 FOR ATTACHMENT TO HSS COLUMN
5. HSS 3 1/2" 3 1/2" x 1/4"
6. C12x20.7 FASCIA BEAM
7. 6" WIDE x 3/4" x 12 GA. CHANNELS TYP. (USE 10 GA x 50 KSI STEEL MIN. WHERE SOLAR PANELS ARE ATTACHED) (USE 1/4"x36 KSI OR 3/16" x 50 KSI STEEL @ SITES WITH SNOW LOAD)
8. TYPICAL BUILDING

ROOF LOAD	
☒	NO SNOW
☐	SNOW (30 PSF MAX)

NOTE:
USE REQUIREMENTS FOR SNOW AT SITES THAT HAVE ANY AMOUNT OF SNOW LOAD UP TO A MAXIMUM OF 30 PSF.

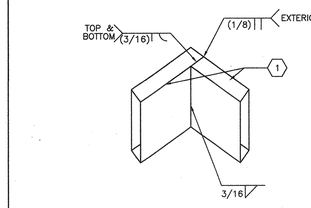
*NOTE:
FOR SECTION PROPERTIES OF LIGHT GAUGE STEEL MEMBERS – SEE SHEET S0.0

KEY NOTES



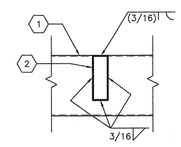
DETAIL @ SIDES OF SUN SHADE OVERHANG

SCALE: 1 1/2"=1'-0" | 1



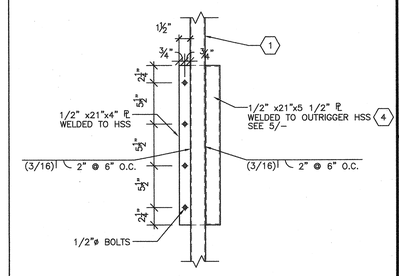
DETAIL @ CORNERS OF SUN SHADE OVERHANG

SCALE: 1 1/2"=1'-0" | 2



DETAIL @ MID - POINT OF SUN SHADE OVERHANG

SCALE: 1 1/2"=1'-0" | 3



SUN SHADE OVERHANG TO OUTRIGGER CONNECTION DETAIL

SCALE: 1 1/2"=1'-0" | 4

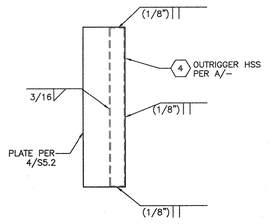
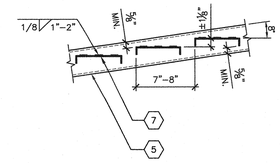


PLATE TO SUN SHADE OUTRIGGER CONNECTION DETAIL

SCALE: 1 1/2"=1'-0" | 5



DETAIL @ SIDES REAR ROOF OVERHANG

SCALE: 1 1/2"=1'-0" | 6

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SITE SPECIFIC PROJECT NAME

SHEET TITLE

SUN SHADE & REAR ROOF OVERHANG PLAN & DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — KENDALL PATRICK CAMPBELL — No. C-26531 — Exp. 3-31-19 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — ROBERT A. STEINER — No. 5322 — STRUCTURAL — STATE OF CALIFORNIA

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PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

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PC 02-116071
AC – FLS – SS –
DATE 7 10 18

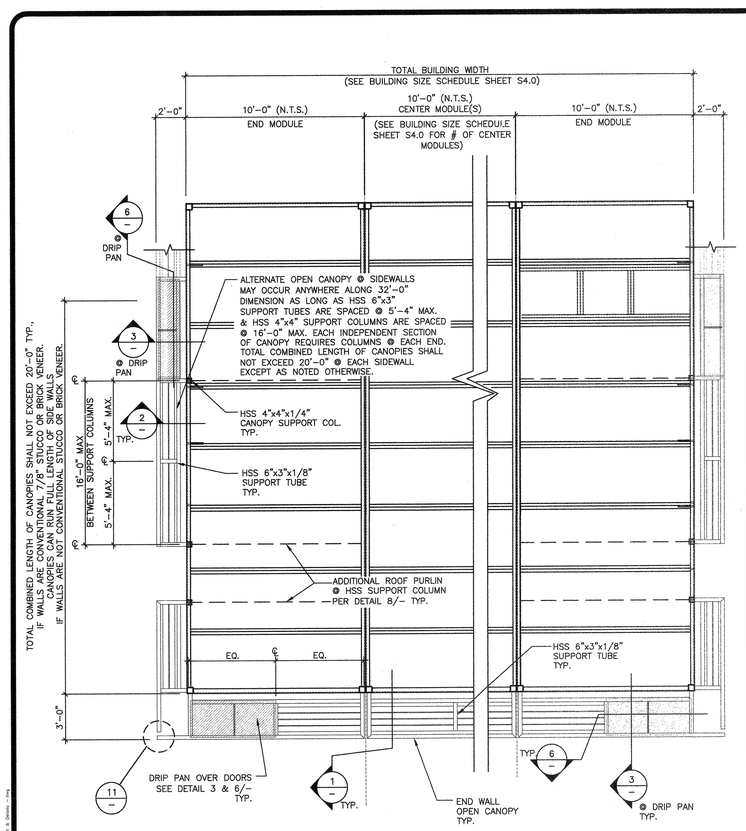
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

DRAWN BY:	-
SCALE:	AS NOTED
DATE:	-

SHEET NUMBER

S5.2



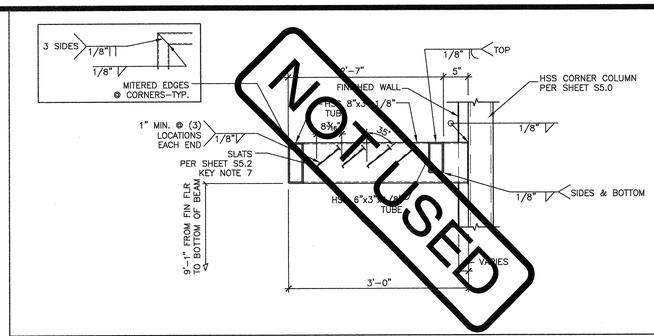
ROOF LOAD
☒ NO SNOW
☐ SNOW (30 PSF MAX)

NOTE: USE REQUIREMENTS FOR SNOW AT SITES THAT HAVE ANY AMOUNT OF SNOW LOAD UP TO A MAXIMUM OF 30 PSF

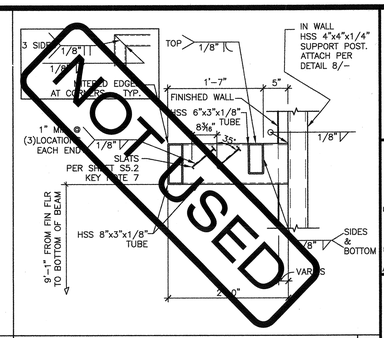
NOTE:
ALL DRIP PANS AND BENT PLATE ANGLE SUPPORTS MUST BE GALVANIZED OR PAINTED.

NOTE:
SEE SHEET S4.0 FOR DECORATIVE ROOF FASCIA & REAR ROOF OVERHANG

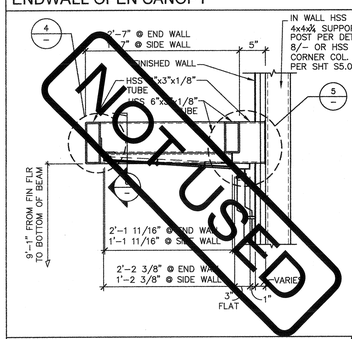
OPEN CANOPY - STRUCTURAL PLAN AT EXTERIOR LOWER AWNINGS — SCALE : 1/4"=1'-0" — A



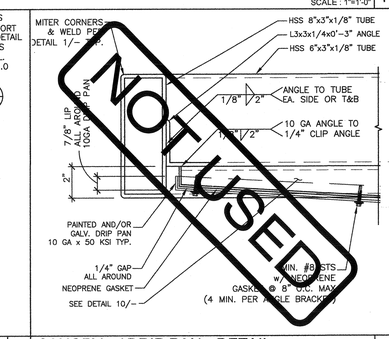
ENDWALL OPEN CANOPY — SCALE : 1"=1'-0" — 1



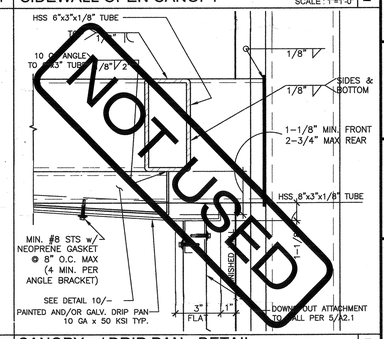
SIDEWALL OPEN CANOPY — SCALE : 1"=1'-0" — 2



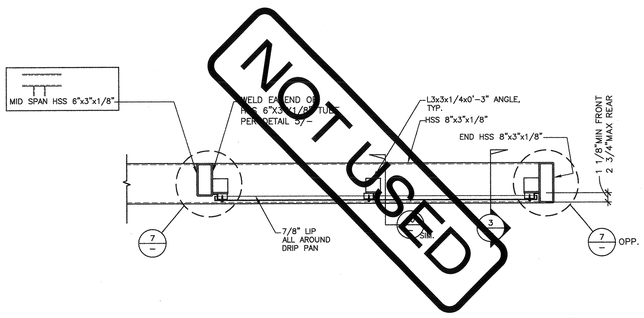
END WALL OPEN CANOPY w/ DRIP PAN — SCALE : 1"=1'-0" — 3



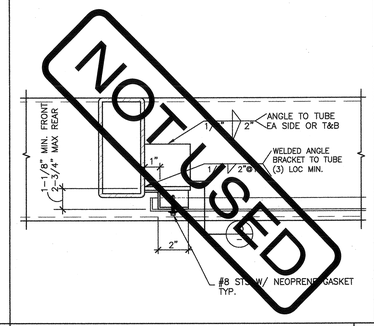
CANOPY w/ DRIP PAN - DETAIL — SCALE : 3"=1'-0" — 4



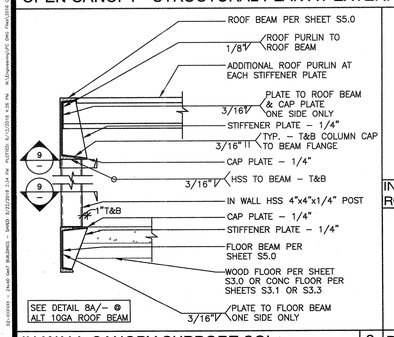
CANOPY w/ DRIP PAN - DETAIL — SCALE : 3"=1'-0" — 5



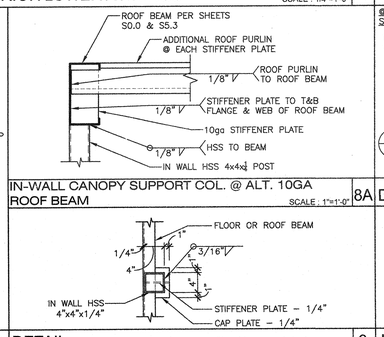
CANOPY - DRIP PAN SUPPORTS — SCALE : 1"=1'-0" — 6



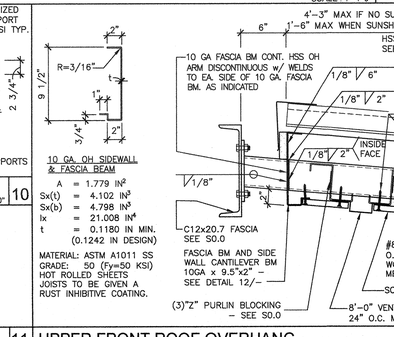
DETAIL — SCALE : 3"=1'-0" — 7



IN-WALL CANOPY SUPPORT COL. — SCALE : 1"=1'-0" — 8

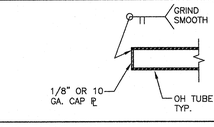


DETAIL — SCALE : 1"=1'-0" — 10



UPPER FRONT ROOF OVERHANG — SCALE : 1"=1'-0" — 12

DETAIL — SCALE : 1"=1'-0" — 9



END CAP DETAIL — SCALE : 1"=1'-0" — 11

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ALTERNATE OPEN CANOPY @ FRONT ROOF OVERHANG PLAN & DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — ANDREW PATRICK CANNON — No. C-26531 — Exp. 3-31-19 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — ROBERT J. JOHNSON — No. 5322 — STATE OF CALIFORNIA

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DATE FEB 05 2019

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REVISIONS

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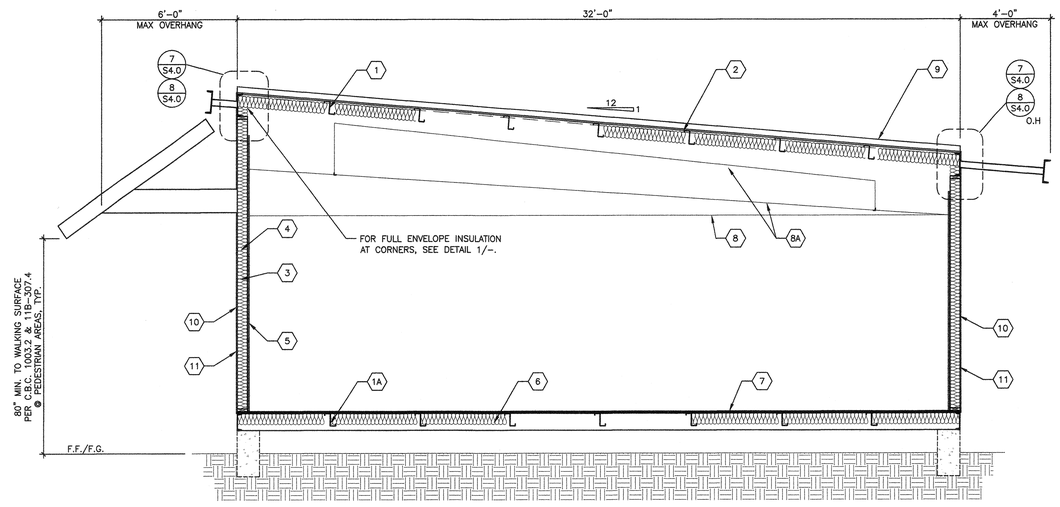
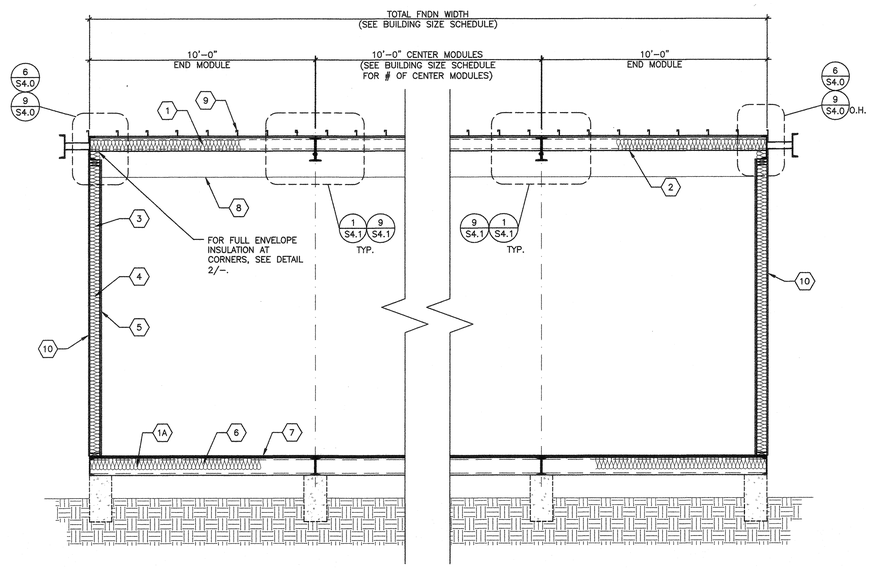
SHEET NUMBER

S5.4



TYP. LONGITUDINAL SECTION-MONO/~~DUAL~~ PITCH

SCALE: 3/8"=1'-0" | A



TYP. TRANSVERSE SECTION-MONO/~~DUAL~~ PITCH

SCALE: 3/8"=1'-0" | B

1. "Z" PURLINS @ 48" O.C. PER ROOF FRAMING PLAN
1A. STEEL "Z" FLOOR JOISTS PER FLOOR FRAMING PLAN
2. R-19 INSULATION w/ 22 GA WIRE @ 16" O.C.
3. INSULATION w/ KRAFT PAPER
4. WALL STUDS PER SHEETS S8.0 & S9.0.
5. VINYL FABRIC OVER TACKABLE BRACING PANELS.
6. INSULATION w/ KRAFT PAPER AND CHICKEN WIRE.
7. PLYWOOD OR CONCRETE FLOOR PER SHEETS S3.0, S3.1, & S3.3
8. SUSPENDED T-BAR CEILING PER M1.0
8A. OPTIONAL SUSPENDED T-BAR CEILING
9. FINISHED ROOFING PER ROOF PLAN & ROOF FRAMING PLAN
10. TYPICAL SHEATHING NAILING .131x2¼" GALV. @ 6" O.C.
PANEL EDGES (ALL EDGES BLOCKED) .131x2¼" GALV. @ 12" O.C. FIELD.
11. EXTERIOR WALL FINISH PER EXTERIOR ELEVATIONS.

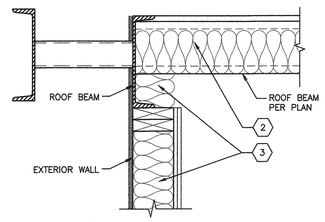
KEY NOTES

BUILDING SIZE SCHEDULE				
	BUILDING SIZE	TOTAL # OF 10'-0" WIDE MODULES	TOTAL # OF CENTER MODULES	TOTAL FNDN. WIDTH[1]
☐	30'x32'	3	1	30'-¾"
☐	40'x32'	4	2	40'-1"
☐	50'x32'	5	3	50'-1¼"
☒	60'x32'	6	4	60'-1½"
☐	70'x32'	7	5	70'-1¾"
☐	80'x32'	8	6	80'-2"
☐	90'x32'	9	7	90'-2¼"
☐	100'x32'	10	8	100'-2½"
☐	110'x32'	11	9	110'-2¾"
☐	120'x32'	12	10	120'-3"
☐	130'x32'	13	11	130'-3¼"
☐	140'x32'	14	12	140'-3½"
☐	150'x32'	15	13	150'-3¾"

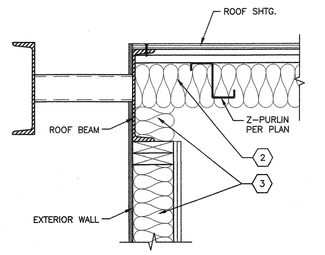
NOTES:

1. TOTAL BUILDING WIDTH INCLUDES 1/4" PER MODULE CONSTRUCTION TOLERANCE PER FOUNDATION SHEETS S1.1, S1.2 & S1.3

BUILDING SIZE SCHEDULE



INSULATION CORNER DET. SCALE: 1-1/2"=1'-0" | 1



INSULATION CORNER DET. SCALE: 1-1/2"=1'-0" | 2

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

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SITE SPECIFIC PROJECT NAME

SHEET TITLE

TYPICAL LONGITUDINAL AND TRANSVERSE FRAME SECTIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — PATRICK CRUZ — No. 31051 — Exp. 2-31-18 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — ROBERT J. HOLMES — No. 5322 — STRUCTURAL — STATE OF CALIFORNIA

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AC ___ FLS ___ SS BY
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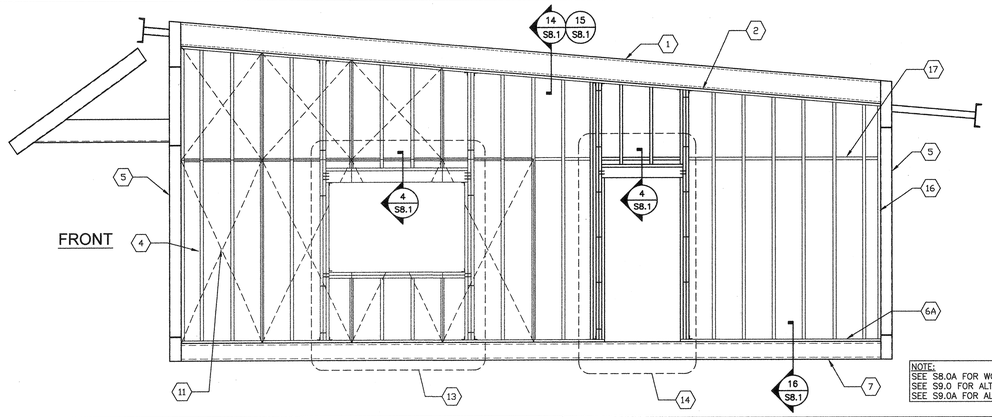
SHEET NUMBER

S6.0



NOTE:
SEE S8.0A FOR WOOD STUD WALL FRAMING AT NANAWALLS.
SEE S9.0 FOR ALTERNATE METAL STUD WALL FRAMING.
SEE S9.0A FOR ALTERNATE METAL STUD FRAMING AT NANAWALLS.

TYPICAL SIDE WALL FRAMING

SCALE: 3/8"=1'-0" A

EXTERIOR WALL SCHEDULE				
FINISH TYPE	WALL FINISH COMMENTS	STUD TYPE	STUD SPACING TYPICAL	STUD SPACING @ CORNERS[2]
~~⅜" PLYWOOD SHEATHING 303 CONFORMING TO PS1-09. VERTICAL GROOVES @ 8" O.C.~~	~~WALL FINISH PER A5.0 & A5.1; JOINT DETAIL PER 12/S8.1; NAILING PER BLDG SECTIONS[2,3]~~	~~HEM FIR #2~~	~~16" O.C. MAX~~	~~16" O.C. MAX~~
		~~DOUG FIR #2~~	~~16" O.C. MAX~~	~~16" O.C. MAX~~
~~5/16" HARDI-BOARD w/ SYNTHETIC STUCCO OR. 5/16" HARDI-LAP SIDING~~	~~WALL FINISH PER A5.5 & A5.7~~	~~HEM FIR #2~~	~~16" O.C. MAX~~	~~16" O.C. MAX~~
		~~DOUG FIR #2~~	~~16" O.C. MAX~~	~~16" O.C. MAX~~
~~½" PLYWOOD SHEATHING CONFORMING TO PS1-09, APA RATED, 5 PLY 32/16", OR ½" OSB PANELS EXPOSURE 1 w/ ⅞" STUCCO~~	~~WALL FINISH PER A5.2 & A5.3; NAILING PER BLDG SECTIONS[2,3]~~	~~HEM FIR #2~~	~~16" O.C. MAX~~	~~16" O.C. MAX~~
		~~DOUG FIR #2~~	~~16" O.C. MAX~~	~~16" O.C. MAX~~

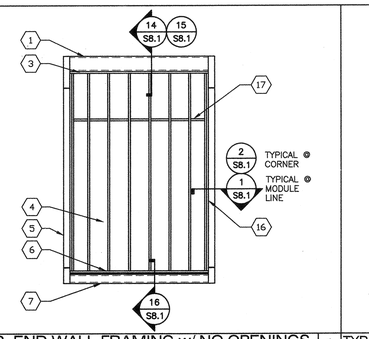
FOOTNOTES
1. ALL NAILS IN EXTERIOR APPLICATIONS SHALL BE GALVANIZED.
2. BUILDING CORNERS ARE DEFINED AS A DISTANCE OF 3'-3" IN BOTH DIRECTIONS FROM EACH CORNER OF THE BUILDING.
3. TYPICAL PLYWOOD NAILING WHERE OCCURS: 0.131"ø x2½" GALV. NAILS @ 6" O.C. E.N. & 12" O.C. F.N. (ALL EDGES BLOCKED).

EXTERIOR WALL FINISH/WALL STUD SCHEDULE

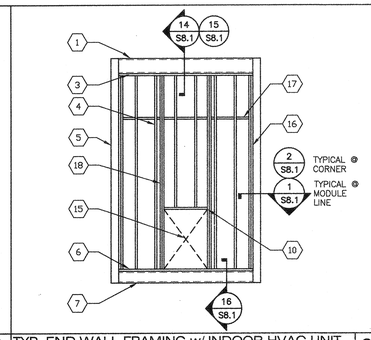
1 ROOF BEAM PER SHEET S5.0 OR S5.3
2 2x6 PLATE
3 2x6 PLATE, NO SPLICE
4 2x6 STUDS SPACED PER SCHEDULE w/ (3) 0.131"øx3" END NAILS OR (4) 0.131øx3" TOE NAILS T&B TO PLATES, TYP.
5 HSS COLUMN PER SHEET S5.0
6 2x6 BOTTOM PLATE, NO SPLICES
2x6 PT AT CONCRETE FLOORS
6A 2x6 BOTTOM PLATE
2X6 PT AT CONCRETE FLOORS
7 PERIMETER FLOOR BEAM PER SHEET S5.0
8 HEADER PER SCHEDULE & DETAIL 4/S8.1
9 WINDOW SILL PER SCHEDULE
10 END NAILS THROUGH KING STUD TO HEADER PER SCHEDULE
10A END NAILS THROUGH KING STUD TO SILL PLATE(S) PER SCHEDULE
11 EXTERIOR WALL FINISH PER SCHEDULE
12 2x6 TRIMMER
13 OPTIONAL WINDOW OPENING FRAMING PER SCHEDULE (REFER TO 4/– FOR DETAILS AND FLOOR PLANS FOR LOCATIONS)
14 OPTIONAL DOOR OPENING FRAMING PER SCHEDULE (REFER TO 5/– FOR DETAILS AND FLOOR PLANS FOR LOCATIONS)
15 HVAC OPENING @ INDOOR UNIT
15A HVAC OPENING @ EXTERIOR WALL HUNG UNIT
16 2x NAILER
17 2x BLKG
18 KINGS STUDS PER SCHEDULE INTERNAIL PER SCHEDULE
19 OPTIONAL FULL WIDTH STOREFRONT OPENING (STOREFRONT BY OTHERS)
20 HEADER @ OPTIONAL FULL WIDTH STOREFRONT OPENING:
OPTION #1: SOLID 5¼"x7" (1.8E) PARALLAM PSL HEADER ATTACHED DIRECTLY TO HSS COLUMNS PER DETAIL 7/–.
OPTION #2: HSS 5x5x¼" MIN. HEADER ATTACHED DIRECTLY TO HSS COLUMNS PER DETAIL 8/–
21 2x PLATE w/ 0.131ø x 3" NAILS @ 16" O.C. TO PARALLAM PSL HEADER & #10x2½" STSDS @ 16" O.C. TO HSS HEADER.

NOTE:
SEE CARPENTRY NOTES SHEET N1.0 SECTION 6 FOR WOOD SPECIES AND GRADE

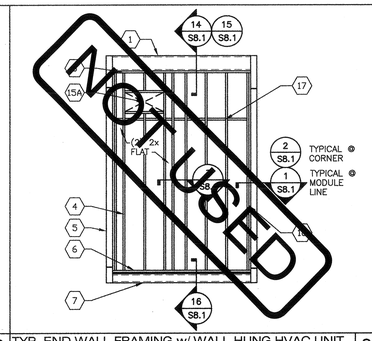
KEY NOTES



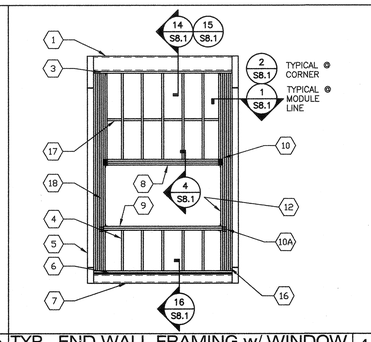
TYP. END WALL FRAMING w/ NO OPENINGS SCALE: 1/4"=1'-0" 1



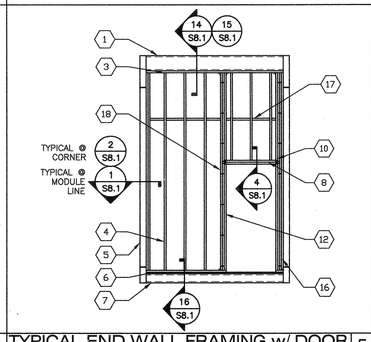
TYP. END WALL FRAMING w/ INDOOR HVAC UNIT (OPTIONAL) SCALE: 1/4"=1'-0" 2



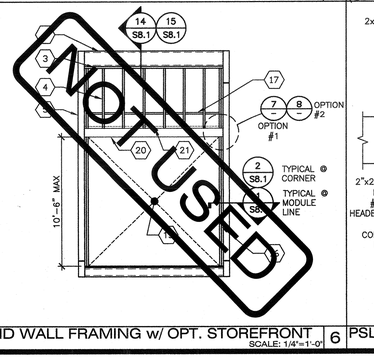
TYP. END WALL FRAMING w/ WALL HUNG HVAC UNIT (OPTIONAL) SCALE: 1/4"=1'-0" 3



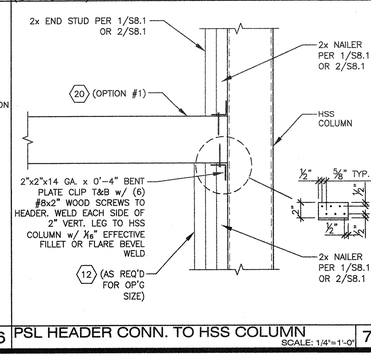
TYP. END WALL FRAMING w/ WINDOW SCALE: 1/4"=1'-0" 4



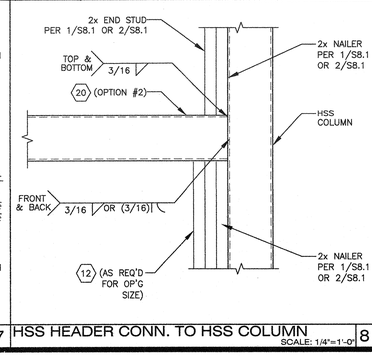
TYPICAL END WALL FRAMING w/ DOOR SCALE: 1/4"=1'-0" 5



END WALL FRAMING w/ OPT. STOREFRONT SCALE: 1/4"=1'-0" 6



PSL HEADER CONN. TO HSS COLUMN SCALE: 1/4"=1'-0" 7



HSS HEADER CONN. TO HSS COLUMN SCALE: 1/4"=1'-0" 8

DOOR/WINDOW OPENING AT TYPICAL WALL (NO STUCCO)								
OPENING SIZE	HEADER	WINDOW SILL[2] (AS APPLICABLE)	KING STUDS[1]		KING STUDS INTERNAILING SPACING w/ 0.131x3" NAILS, STAGGERED	HEADER TO KING STUDS NAILS		WINDOW SILL TO KING STUD NAILS	
			TYP.	@ BLDG. CORNERS[3]		TYP.	@ BLDG. CORNERS[3]	TYP.	@ BLDG. CORNERS[3]
>8'-0" TO 10'-0"	(3) 2x6	(2) 2x6	2	3	18" O.C. MAX	5	6	4	4
>6'-0" TO 8'-0"	(2) 2x6	(1) 2x6	2	2	18" O.C. MAX	4	5	3	4
>3'-0" TO 6'-0"	(2) 2x6	(1) 2x6	2	2	18" O.C. MAX	4	4	3	3
3'-0" OR LESS	(2) 2x6	(1) 2x6	2	2	18" O.C. MAX	3	3	3	3

DOOR/WINDOW OPENING AT STUCCO WALL								
OPENING SIZE	HEADER	WINDOW SILL[2] (AS APPLICABLE)	KING STUDS[1]		KING STUDS INTERNAILING SPACING w/ 0.131x3" NAILS, STAGGERED	HEADER TO KING STUDS NAILS		WINDOW SILL TO KING STUD NAILS	
			TYP.	@ BLDG. CORNERS[3]		TYP.	@ BLDG. CORNERS[3]	TYP.	@ BLDG. CORNERS[3]
>8'-0" TO 10'-0"	(3) 2x6	(2) 2x6	3	4	18" O.C. MAX	7	7	4	4
>6'-0" TO 8'-0"	(2) 2x6	(1) 2x6	3	3	18" O.C. MAX	5	6	3	4
>3'-0" TO 6'-0"	(2) 2x6	(1) 2x6	2	3	18" O.C. MAX	4	5	3	3
3'-0" OR LESS	(2) 2x6	(1) 2x6	2	2	18" O.C. MAX	3	3	3	3

FOOTNOTES
1. PROVIDE (2) SIMPSON A34 T&B OF KING STUDS TO PLATES FOR OPENINGS GREATER THAN 3'-0". PROVIDE (1) SIMPSON A34 T&B OF KING STUDS TO PLATES FOR OPENINGS 3'-0" OR LESS.
2. WHEN MORE THAN A SINGLE SILL PLATE IS REQUIRED, INTERNAIL w/ 0.131"øx3" NAILS @ 12" O.C. STAGGERED.
3. BUILDING CORNERS ARE DEFINED AS A DISTANCE OF 3'-3" IN BOTH DIRECTIONS FROM EACH CORNER OF THE BUILDING.

OPENING SCHEDULE

AMS® American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE-CHECKED SET NAME
30'x32' THRU 150'x32' BUILDINGS
Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE
WALL FRAMING ELEVATIONS WOOD STUDS

MANUFACTURER PROFESSIONAL OF RECORD ON PC
LICENSED ARCHITECT ANDREW PATRICK CHAMBERLAIN No. C-28631 Exp. 3-31-19 STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER ROBERT J. GUMES No. 5322 STRUCTURAL STATE OF CALIFORNIA
THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

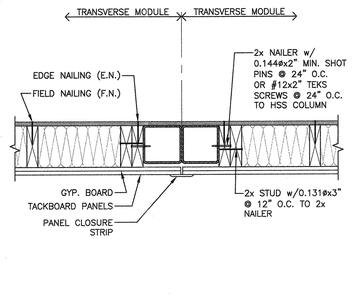
PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 18
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

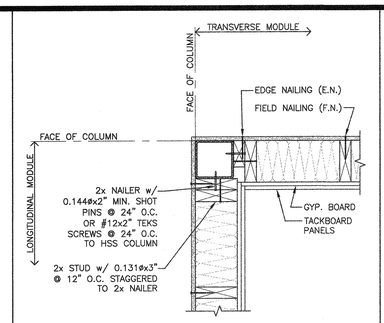
REVISIONS
1
2
3
4

DRAWN BY: -
SCALE: AS NOTED
DATE: -

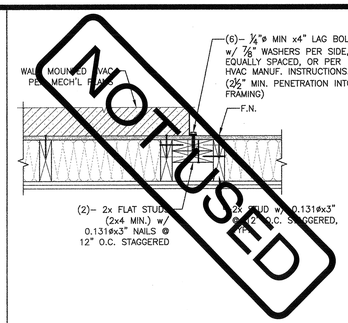
SHEET NUMBER
S8.0



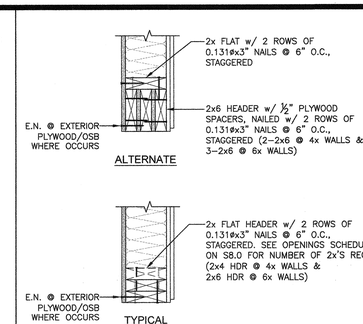
WALL TO COLUMN TYP. DETAIL @ MODLINES 1
FOR COLUMN LOCATION REFER TO ARCH. DETAILS SCALE: 1-1/2" = 1'-0"



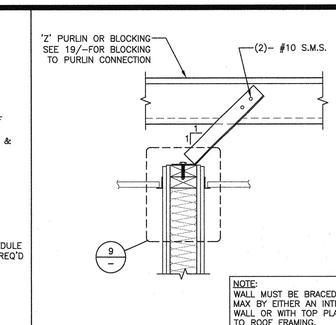
WALL TO COLUMN TYP. DETAIL @ CORNER 2
FOR COLUMN LOCATION REFER TO ARCH. DETAILS SCALE: 1-1/2" = 1'-0"



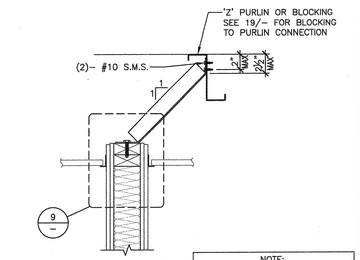
WALL HUNG HVAC ATTACHMENT DETAIL SCALE: 1-1/2" = 1'-0" 3



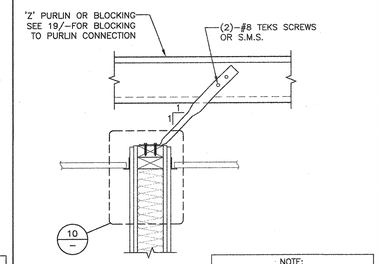
WALL HEADER DETAIL 4
TYPICAL & ALTERNATE SCALE: 1-1/2" = 1'-0"



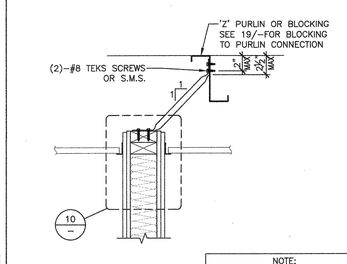
TYP. INTERIOR WALL BRACING 5
BRACE PARALLEL TO PURLINS OR BLOCKING SCALE: 1-1/2" = 1'-0"



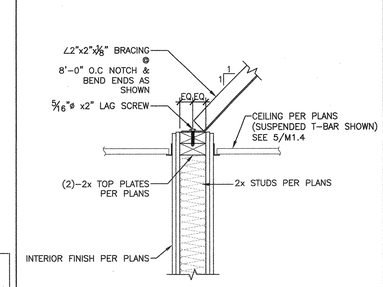
TYP. INTERIOR WALL BRACING 6
BRACE PERPENDICULAR TO PURLINS OR BLOCKING SCALE: 1-1/2" = 1'-0"



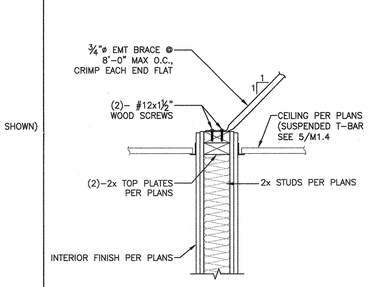
ALT. INTERIOR WALL BRACING w/ EMT BRACE 7
BRACE PARALLEL TO PURLINS OR BLOCKING SCALE: 1-1/2" = 1'-0"



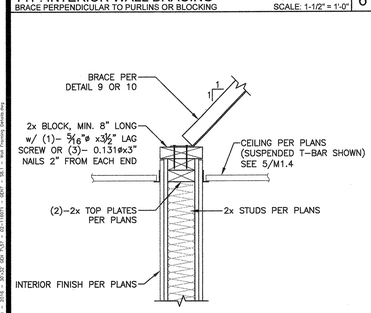
ALT. INTERIOR WALL BRACING w/ EMT BRACE 8
BRACE PERPENDICULAR TO PURLINS OR BLOCKING SCALE: 1-1/2" = 1'-0"



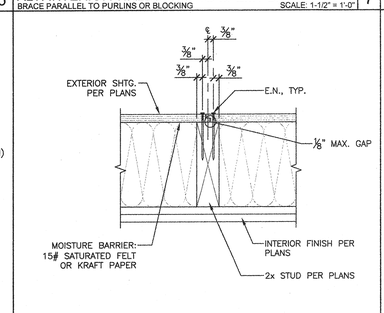
TYP. INTERIOR WALL BRACING 9
INTERIOR PARTITION BRACING SCALE: 1-1/2" = 1'-0"



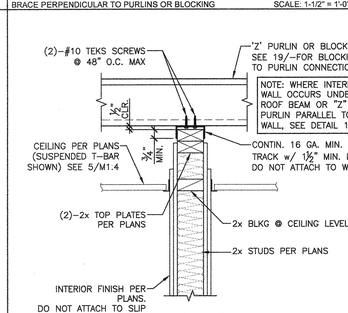
ALT. INTERIOR WALL BRACING 10
INTERIOR PARTITION BRACING w/ EMT BRACE SCALE: 1-1/2" = 1'-0"



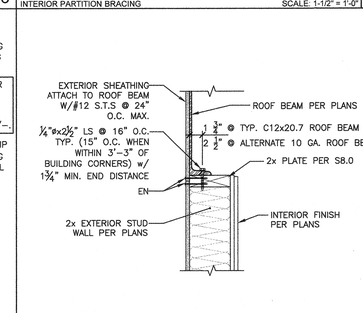
ALT. BLOCKING @ INT. WALL BRACING 11
SCALE: 1-1/2" = 1'-0"



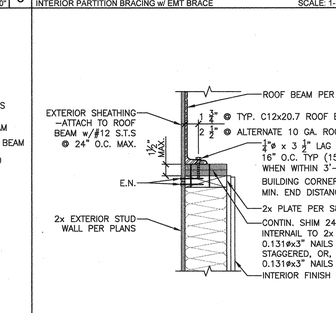
TYP. SHEATHING JOINT 12
SCALE: 1-1/2" = 1'-0"



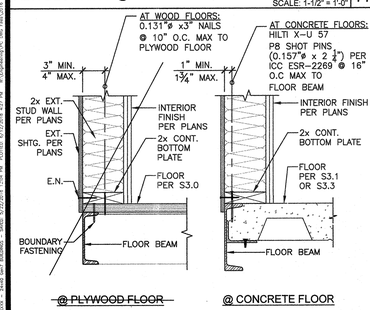
ALT. INTERIOR WALL ATTACHMENT 13
TO PURLINS OR BLOCKING PERPENDICULAR TO WALL SCALE: 1-1/2" = 1'-0"



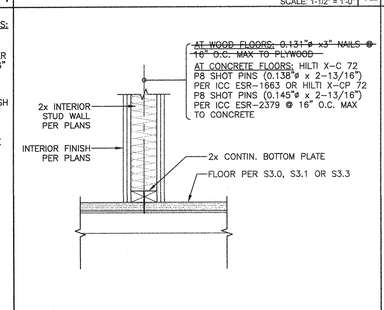
EXTERIOR WALL TO ROOF BEAM DETAIL 14
SCALE: 1-1/2" = 1'-0"



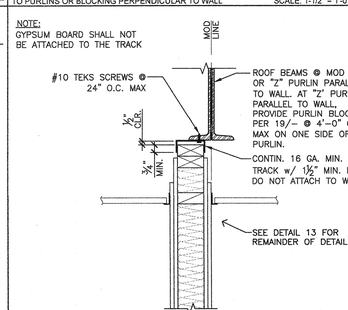
EXTERIOR WALL TO ROOF BEAM DETAIL 15
AT SHIM CONDITION SCALE: 1-1/2" = 1'-0"



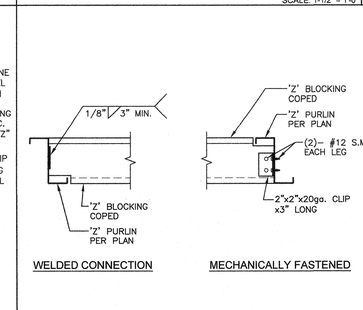
TYP. EXTERIOR WALL TO FLOOR DETAIL 16
SCALE: 1-1/2" = 1'-0"



TYP. INTERIOR NON-BEARING WALL ATTACHMENT 17
SCALE: 1-1/2" = 1'-0"



ALT. INTERIOR WALL ATTACHMENT 18
TO ROOF BEAMS AT MODLINE OR "Z" PURLIN PARALLEL TO WALL SCALE: 1-1/2" = 1'-0"



PURLIN BLOCKING CONNECTIONS 19
SCALE: 1-1/2" = 1'-0"

TYP. INTERIOR NON-BEARING WALL NOTES 20

TYPICAL INTERIOR NON–BEARING PARTITION WALL NOTES:

1. STUD SIZE: 2x4 MIN.
2. STUD SPACING: 16" O.C. MAX
3. WOOD SPECIES & GRADE: PER CARPENTRY NOTES SHEET N1.0 SECTION 6.
4. STUD NAILING TO T&B PLATES: (3)–0.131"ø x 3" END NAILS OR (4)–0.131"ø x 3" TOE NAILS.
5. DOUBLE 2x TOP PLATES: 0.131"ø x 3" NAILS @ 16" O.C. TYP. LAP SPLICE 4'–0" MIN. w/0.131"ø x 3" NAILS @ 4" O.C. & LAP CORNERS w/(4)–0.131"ø x 3" NAILS.
6. INTERSECTIONS: FACE NAIL END STUD TO CROSS WALL (INCLUDING EXTERIOR WALLS) w/0.131"ø x 3" NAILS @ 12" O.C. (ATTACH PER 2/– @ HSS COLUMNS)
7. DOOR, WINDOW, & HVAC OPENINGS: PER REQUIREMENTS FOR EXTERIOR STUCCO WALLS NOT AT BUILDING CORNERS PER SHEET S8.0 EXCEPT FRAMING MAY BE 2x4 MIN. AND HEADER/SILL TO KING STUD NAILING MAY BE PER TYPICAL EXTERIOR WALL (NO STUCCO) NOT AT BUILDING CORNERS.

American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
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www.americanmodular.com

PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

WALL FRAMING DETAILS - WOOD STUDS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — JOSHUA PATRICK CRUZ — No. C-30531 — Exp. 3-31-19 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — ROBERT J. GOMES — No. 5322 — ATTACHMENT ENGINEER — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC — FLS — SS —
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC — FLS — SS —
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS
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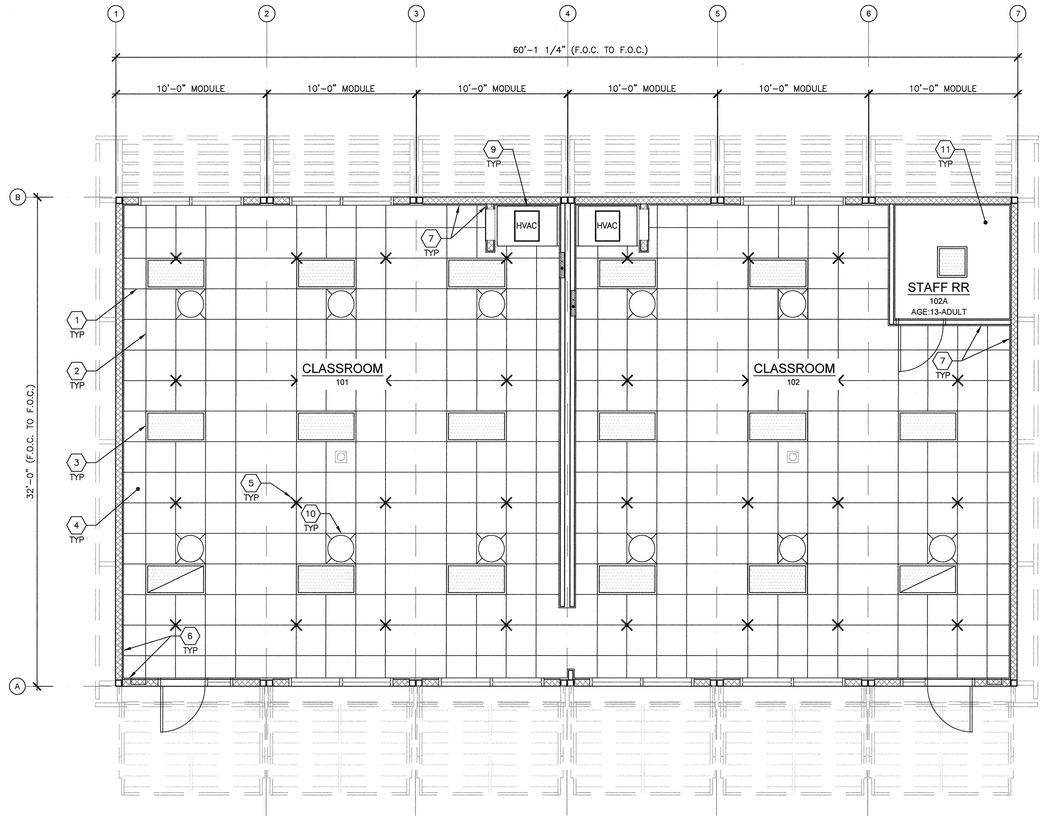
2
3
4

DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER

S8.1



TYPICAL REFLECTED CEILING PLAN

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

NOT USED

NOT USED

NOT USED

BUILDING SIZE	TOTAL # OF 10'–0" WIDE MODULES	TOTAL # OF CENTER MODULES	TOTAL BLDG WIDTH
☐ 30'x32'	3	1	30'–½"
☐ 40'x32'	4	2	40'–¾"
☐ 50'x32'	5	3	50'–1"
☒ 60'x32'	6	4	60'–1¼"
☐ 70'x32'	7	5	70'–1½"
☐ 80'x32'	8	6	80'–1¾"
☐ 90'x32'	9	7	90'–2"
☐ 100'x32'	10	8	100'–2¼"
☐ 110'x32'	11	9	110'–2½"
☐ 120'x32'	12	10	120'–2¾"
☐ 130'x32'	13	11	130'–3"
☐ 140'x32'	14	12	140'–3¼"
☐ 150'x32'	15	13	150'–3½"

NOTES:

1. TOTAL BUILDING WIDTH INCLUDES ¼" PER MODULE CONSTRUCTION TOLERANCE PER FOUNDATION SHEETS S1.1, S1.2, & S1.3

BUILDING SIZE SCHEDULE

1. MAIN TEE RUNNER TYP. PER TABLE A, SHEET M1.7
2. CROSS TEE RUNNER TYP. PER TABLE A, SHEET M1.7
3. INTERIOR LIGHT FIXTURE, REFER TO SHEET SHEET E1.0 FOR SPEC'S ATTACHMENT PER DETAIL 7/M1.4
4. CEILING HEIGHT @ 8'–6" MIN.
5. STRUT/SPLAY WIRE ASSEMBLY, SEE 2/M1.4 FOR DETAILS
6. FIXED CEILING END, SEE DETAIL 5A/M1.4
7. FREE CEILING END, SEE DETAIL 5B/M1.4
8. NOT USED
9. TYP. HVAC UNIT
10. SOLA–TUBE – SEE DETAIL 1/M1.6
11. GYP BOARD CEILING

KEY NOTES

1. WHERE TWO OR MORE HVAC UNITS SERVE A COMMON SPACE, UNITS SHALL BE EQUIPPED WITH A DUCT SMOKE DETECTOR FOR AUTO SHUTDOWN. INTERCONNECT WITH FIRE ALARM SYSTEM.
2. AUTOMATIC SHUT–OFF IS NOT REQUIRED WHEN ALL OCCUPIED ROOMS SERVED BY THE AIR HANDLING EQUIPMENT HAVE DIRECT ACCESS TO THE EXTERIOR AND THE TRAVEL DISTANCE DOES NOT EXCEED 100 FT. PER C.M.C. 608.1 EXCEPTION #2.
3. LIGHT FIXTURES MAY BE INSTALLED ROTATED 90° FROM SHOWN TO MATCH T–GRID.

GENERAL NOTES

MEP COMPONENT ANCHORAGE NOTES

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

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

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

A. COMPONENTS 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.

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

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTES

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2013 CBC, SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25 AND 1616A.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 PRE-APPROVED INSTALLATION GUIDE (E.G., SMACNA OR OSHPD OPM), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

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

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

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

MP☐ MD☐ PP☐ OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA. FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL _____ AND CONNECTION LEVEL ____ FOR THE PROJECT AND CONDITIONS.

MEP COMPONENT ANCHORAGE NOTES

AMS
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www.americanmodular.com

PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE

TYPICAL REFLECTED CEILING PLAN

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — JAMES PATRICK CAMPBELL — No. C-26531 — Exp. 3-31-19 — STATE OF CALIFORNIA

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PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS CY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-116071

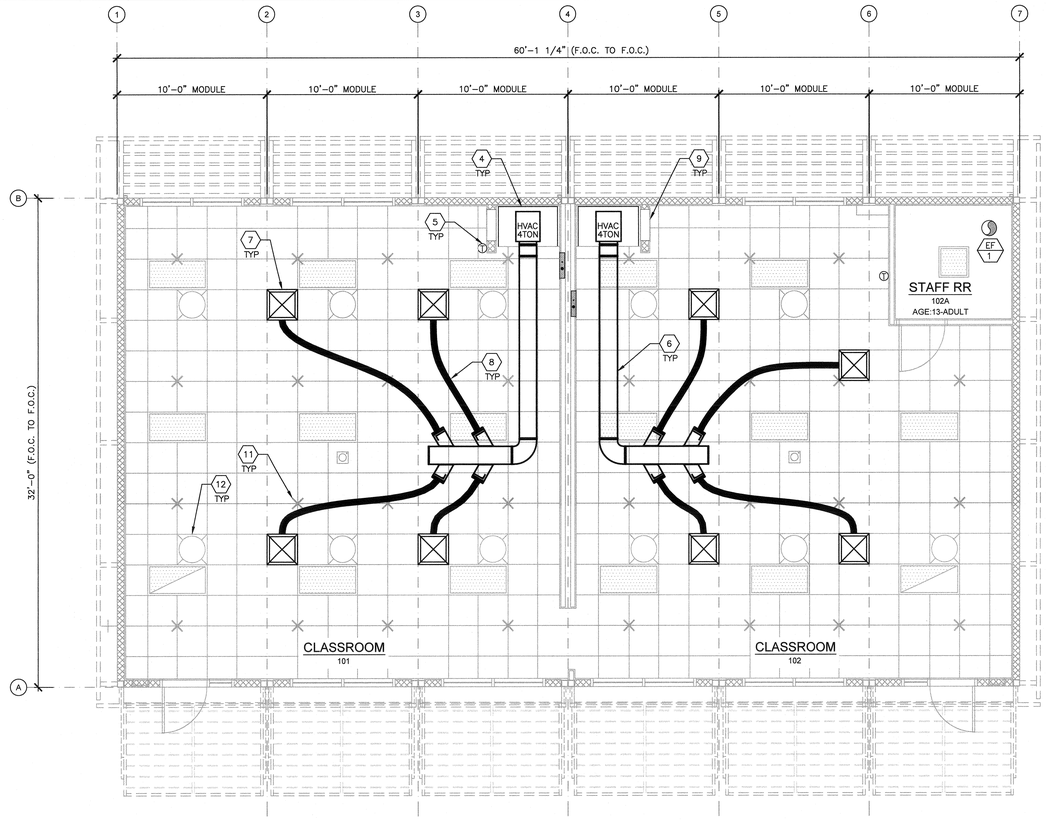
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

DRAWN BY:	AS
SCALE:	AS NOTED
DATE:	01/04/19

SHEET NUMBER

M1.0



WALL HUNG OPTION

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

MARK	DESCRIPTION	CFM	WATTS	S.P.	VOLT/PH	
EF 1	EXHAUST FAN	110	47.3	.10"	120–1ø	NUTONE AN110 CEILING MOUNTED 180W INPUT 10 LBS (OR EQUAL)
EF 2	EXHAUST FAN	210	127	.125	120–1ø	BROAN L200 CEILING MOUNTED 180W INPUT 23 LBS (OR EQUAL)
EF 3	EXHAUST FAN	308	212	.125	120–1ø	BROAN L300 CEILING MOUNTED 180W INPUT 23 LBS (OR EQUAL)

NOTES:
1. VENT EXHAUST FAN THROUGH ROOF.
2. FANS MUST WEIGH LESS THAN 75 LBS.
3. LIGHTING FIXTURES MAY BE INSTALLED ROTATED 90° FROM SHOWN TO MATCH T–GRID LAYOUT.

EXHAUST FAN SCHEDULE | 5

1. WHERE TWO OR MORE HVAC UNITS SERVE A COMMON SPACE, UNITS SHALL BE EQUIPPED WITH A DUCT SMOKE DETECTOR FOR AUTOMATIC SHUTDOWN. INTERCONNECT WITH FIRE ALARM SYSTEM.
2. AIR–MOVING SYSTEMS SUPPLYING AIR IN EXCESS OF 2000 CUBIC FEET PER MINUTE TO ENCLOSED SPACES WITHIN THE BUILDING SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF.
3. AUTOMATIC SHUT–OFF IS NOT REQUIRED WHEN OCCUPIED ROOMS SERVED BY THE AIR HANDLING EQUIPMENT HAVE A DIRECT EXIT TO THE EXTERIOR AND THE TRAVEL DISTANCE DOES NOT EXCEED 100 FT. (PER C.M.C. 608.1 EXCEPTION #2.)
4. LIGHTING FIXTURE MAY BE INSTALLED ROTATED 90° FROM SHOWN TO MATCH T–GRID.
5. FOR T–BAR CEILING SPECIFICATIONS, SEE M1.7.

SHEET NOTES

1. NOT USED
2. NOT USED
3. NOT USED
3A. NOT USED
4. INTERIOR HVAC SYSTEM – SEE 9/M1.4.
5. THERMOSTAT – 46" A.F.F., MAX TO TOP OF BOX
6. CONCEALED SUPPLY AIR DUCT ABOVE T–BAR CEILING – SEE 1/M1.4.
7. TYPICAL 4–WAY SUPPLY AIR REGISTER LOCATION AND SIZE MAY VARY PER CEILING LAYOUT AND BUILDING SIZE – SEE 7/M1.5.
8. FLEX DUCT – NOMINAL 10" MIN. (MAY VARY) – SEE 8/M1.5.
9. RETURN AIR AS PART OF UNIT.
10. NOT USED
11. STRUT/SPLAY WIRE ASSEMBLY, SEE 5/M1.4 FOR DETAILS
12. SOLA–TUBE – SEE DETAIL 1/M1.6

KEY NOTES

BUILDING SIZE (FT)	TOTAL # OF 12' WIDE MODULES	TOTAL # OF CENTER MODULES	OVERALL SIZE[1]
☐ 30'x32'	3	1	30'–½"
☐ 40'x32'	4	2	40'–¾"
☐ 50'x32'	5	3	50'–1"
☒ 60'x32'	6	4	60'–1¼"
☐ 70'x32'	7	5	70'–1½"
☐ 80'x32'	8	6	80'–1¾"
☐ 90'x32'	9	7	90'–2"
☐ 100'x32'	10	8	100'–2¼"
☐ 110'x32'	11	9	110'–2½"
☐ 120'x32'	12	10	120'–2¾"
☐ 130'x32'	13	11	130'–3"
☐ 140'x32'	14	12	140'–3¼"
☐ 150'x32'	15	13	150'–3½"

NOTES:
1. TOTAL BUILDING WIDTH INCLUDES ¼" PER MODULE CONSTRUCTION TOLERANCE PER FOUNDATION SHEETS S1.1, S1.2, & S1.3
2. REFER TO SHEET M1.7 FOR TYPICAL NOTES AND CALL OUTS.

BUILDING SIZE SCHEDULE

American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE–CHECKED SET NAME
30'x32' THRU 150'x32' BUILDINGS
Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME
GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE
TYPICAL MECHANICAL PLAN OPTIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC
LICENSED ARCHITECT JOSEPH PATRICK DIVINCENZO No. 32631 Exp. 2-31-19 STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

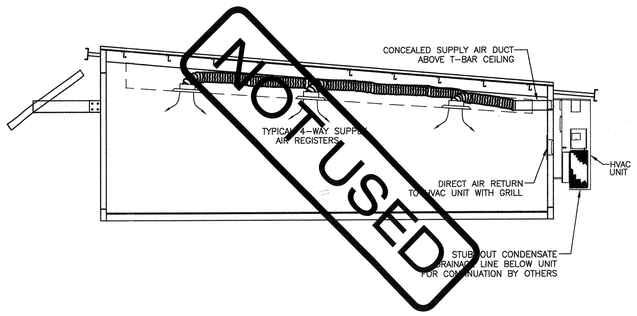
BASED ON PC# 02-116071
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS
1
2
3
4

DRAWN BY:	AS
SCALE:	AS NOTED
DATE:	01/04/19

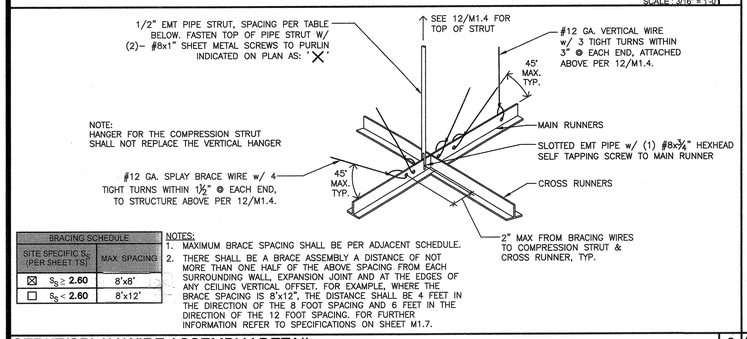
SHEET NUMBER
M1.1

Plotted: 2018-12-19 3:18:39 PM By: Steven Jones Autodesk Docs://2018 Glendale USD/GUSD_CVHS_60x32_M1.1.dwg Xrefs: GUSD_CVHS_60x32_A1.1.dwg, GUSD_CVHS_60x32_A1.2.dwg, GUSD_CVHS_60x32_A1.3.dwg, GUSD_CVHS_60x32_A1.4.dwg, GUSD_CVHS_60x32_A1.5.dwg, GUSD_CVHS_60x32_A1.6.dwg, GUSD_CVHS_60x32_A1.7.dwg, GUSD_CVHS_60x32_A1.8.dwg, GUSD_CVHS_60x32_A1.9.dwg, GUSD_CVHS_60x32_A1.10.dwg, GUSD_CVHS_60x32_A1.11.dwg, GUSD_CVHS_60x32_A1.12.dwg, GUSD_CVHS_60x32_A1.13.dwg, GUSD_CVHS_60x32_A1.14.dwg, GUSD_CVHS_60x32_A1.15.dwg, GUSD_CVHS_60x32_A1.16.dwg, GUSD_CVHS_60x32_A1.17.dwg, GUSD_CVHS_60x32_A1.18.dwg, GUSD_CVHS_60x32_A1.19.dwg, GUSD_CVHS_60x32_A1.20.dwg, GUSD_CVHS_60x32_A1.21.dwg, GUSD_CVHS_60x32_A1.22.dwg, GUSD_CVHS_60x32_A1.23.dwg, GUSD_CVHS_60x32_A1.24.dwg, GUSD_CVHS_60x32_A1.25.dwg, GUSD_CVHS_60x32_A1.26.dwg, GUSD_CVHS_60x32_A1.27.dwg, GUSD_CVHS_60x32_A1.28.dwg, GUSD_CVHS_60x32_A1.29.dwg, GUSD_CVHS_60x32_A1.30.dwg, GUSD_CVHS_60x32_A1.31.dwg, GUSD_CVHS_60x32_A1.32.dwg, GUSD_CVHS_60x32_A1.33.dwg, GUSD_CVHS_60x32_A1.34.dwg, GUSD_CVHS_60x32_A1.35.dwg, GUSD_CVHS_60x32_A1.36.dwg, GUSD_CVHS_60x32_A1.37.dwg, GUSD_CVHS_60x32_A1.38.dwg, GUSD_CVHS_60x32_A1.39.dwg, GUSD_CVHS_60x32_A1.40.dwg, GUSD_CVHS_60x32_A1.41.dwg, GUSD_CVHS_60x32_A1.42.dwg, GUSD_CVHS_60x32_A1.43.dwg, GUSD_CVHS_60x32_A1.44.dwg, GUSD_CVHS_60x32_A1.45.dwg, GUSD_CVHS_60x32_A1.46.dwg, GUSD_CVHS_60x32_A1.47.dwg, GUSD_CVHS_60x32_A1.48.dwg, GUSD_CVHS_60x32_A1.49.dwg,



TYPICAL MECHANICAL DETAIL SECTION 1

SCALE : 3/16" = 1'-0"

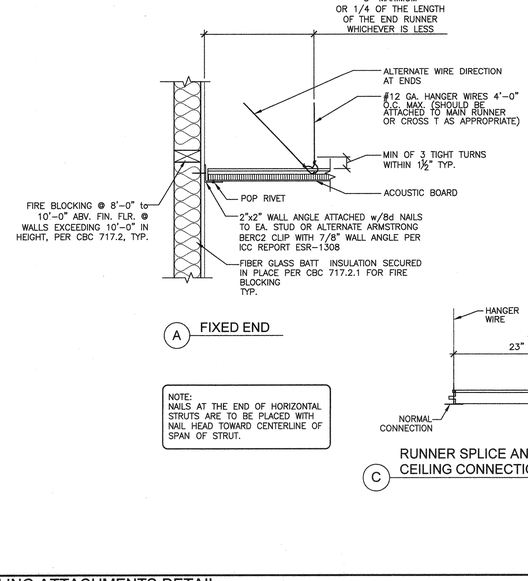


BRACING SCHEDULE	
SITE SPECIFIC S_S (PER SHEET TS)	MAX. SPACING
☒ $S_S \geq 2.60$	8'x8'
☐ $S_S < 2.60$	8'x12'

NOTES:
1. MAXIMUM BRACE SPACING SHALL BE PER ADJACENT SCHEDULE.
2. THERE SHALL BE A BRACE ASSEMBLY A DISTANCE OF NOT MORE THAN ONE HALF OF THE ABOVE SPACING FROM EACH SURROUNDING WALL, EXPANSION JOINT AND AT THE EDGES OF ANY CEILING VERTICAL OFFSET. FOR EXAMPLE, WHERE THE BRACE SPACING IS 8'x12', THE DISTANCE SHALL BE 4 FEET IN THE DIRECTION OF THE 8 FOOT SPACING AND 6 FEET IN THE DIRECTION OF THE 12 FOOT SPACING. FOR FURTHER INFORMATION REFER TO SPECIFICATIONS ON SHEET M1.7.

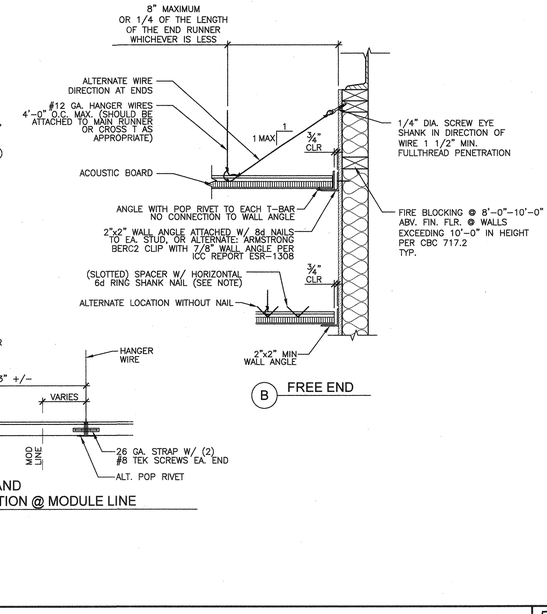
STRUT/SPLAY WIRE ASSEMBLY DETAIL 3

SCALE : N.T.S

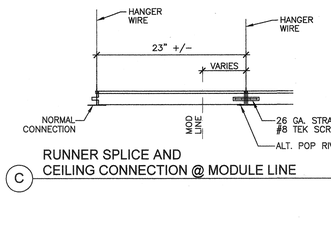


A FIXED END

NOTE: NAILS AT THE END OF HORIZONTAL STRUTS ARE TO BE PLACED WITH NAIL HEAD TOWARD CENTERLINE OF SPAN OF STRUT.



B FREE END

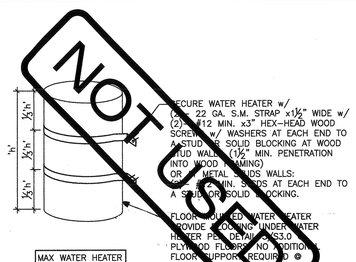


C RUNNER SPLICE AND CEILING CONNECTION @ MODULE LINE

CEILING ATTACHMENTS DETAIL 5

SCALE : 1 1/2" = 1'-0"

NOT USED



MAX WATER HEATER WEIGHT = 400 LBS

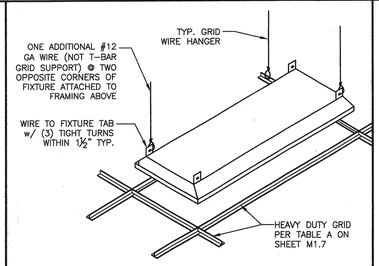
SECURE WATER HEATER w/ (2)- 22 GA. S.M. STRAP x1½" WIDE w/ (2)- #12 MIN. x3" HEX-HEAD WOOD SCREWS w/ WASHERS AT EACH END TO A STUD OR SOLID BLOCKING AT WOOD STUD WALLS (1½" MIN. PENETRATION INTO WOOD FRAMING) OR AT METAL STUDS WALLS: (2)- #8 MIN. STSDS AT EACH END TO A STUD OR SOLID BLOCKING.

FLOOR MOUNTED WATER HEATER PROVIDE BLOCKING UNDER WATER HEATER PER DETAIL 3/GS3.0 PLYWOOD FLOORING NO ADDITIONAL FLOOR SUPPORT REQUIRED @ CONCRETE FLOORS.

NOTE: PRESSURE RELIEF VALVE SHALL BE PLUMBED TO OUTSIDE/EXTERIOR OF BUILDING.

FLOOR MOUNTED WATER HEATER SUPPORT DETAIL 6

SCALE : N.T.S

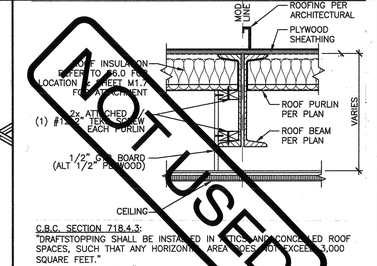


PROVIDE (1) #8x¾" SMS THRU GRID TO LIGHT FIXTURE @ 2 MIN. CORNERS

LIGHT FIXTURE ATTACHMENT DETAIL 7

SCALE : N.T.S

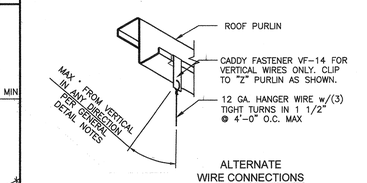
NOT USED



C.B.C. SECTION 718.4.3:
"DRAFTSTOPPING SHALL BE INSTALLED IN ATTICS AND CONCEALED ROOF SPACES, SUCH THAT ANY HORIZONTAL AREA DOES NOT EXCEED 3,000 SQUARE FEET."
NOTE EXCEPTION #2:
IN GROUP A, E, H, I, L OCCUPANCIES WHERE AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 IS INSTALLED, THE AREA BETWEEN DRAFT STOPS MAY BE 9,000 SQUARE FEET AND THE GREATEST HORIZONTAL DISTANCE MAY BE 100 FEET.

DRAFT STOP DETAIL 8

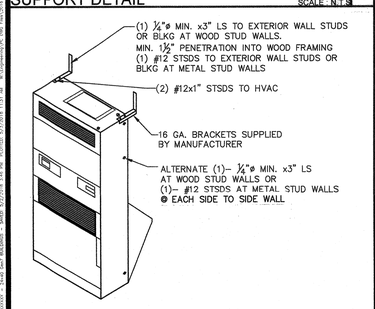
SCALE : 1 1/2" = 1'-0"



GENERAL DETAIL NOTES:
1. TYPICAL HANGER WIRES & VERTICAL STRUTS SHALL BE INSTALLALED AT A MAXIMUM 1:6 ANGLE FROM VERTICAL.
2. TYPICAL SPLAY BRACING WIRES & WIRES FOR SLACK BRACING OF FIXTURES OR REGISTERS SHALL BE INSTALLALED AT A MAXIMUM 45° ANGLE FROM THE SURFACE TO WHICH THEY ARE ATTACHED.

CONNECTION TO PURLINS DETAIL 12

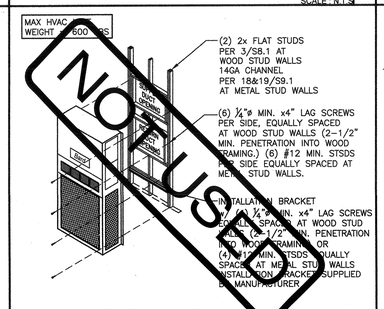
SCALE : 1 1/2" = 1'-0"



INTERIOR HVAC ANCHORAGE 9

SCALE : N.T.S

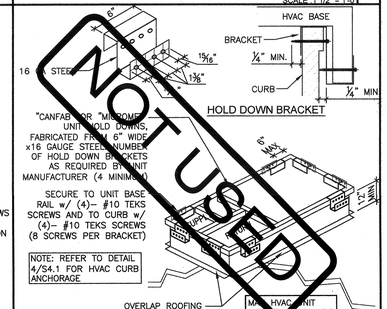
NOT USED



WALL MOUNT HVAC ANCHORAGE 10

SCALE : N.T.S

NOT USED



ROOF CURB ELEVATION-OPTIONAL 11

SCALE : N.T.S

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PRE-CHECKED SET NAME

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Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

MECHANICAL BUILDING SECTIONS & CEILING DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT PATRICK VINCENT LEE M 32631 Exp. 8-31-19 STATE OF CALIFORNIA

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APP03 119722
AC FLS SS 89
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 15

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS
1 PC REVISION - 01.07.16
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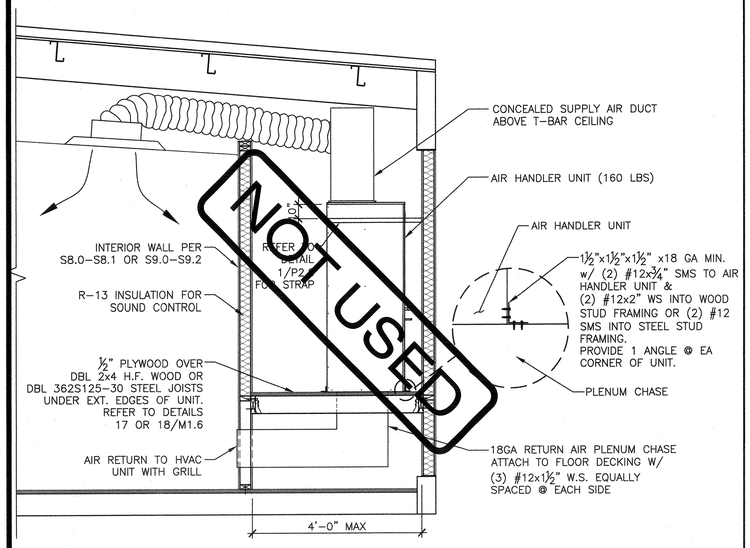
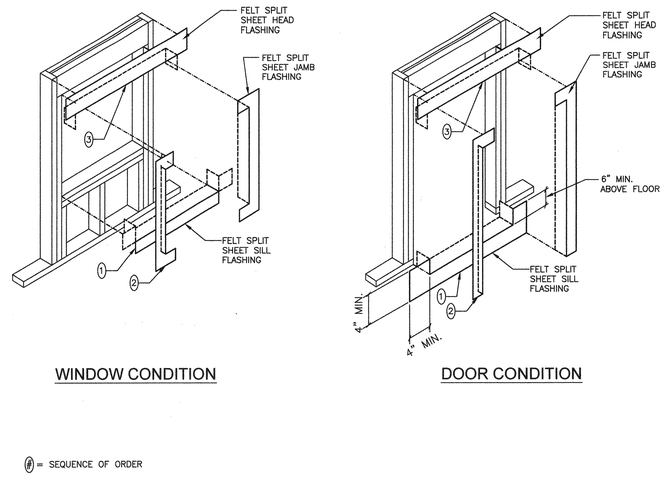
DRAWN BY: .
SCALE: AS NOTED
DATE: .

SHEET NUMBER

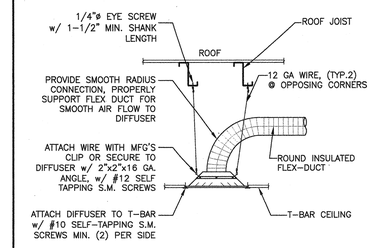
M1.4



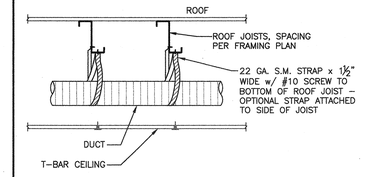
SPLIT SYSTEM CROSS SECTION SCALE: N.T.S. 1



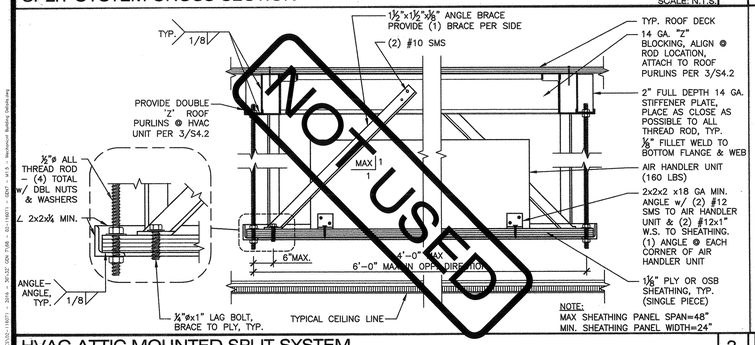
FLASHING @ WALL OPENINGS SCALE: N.T.S. 2



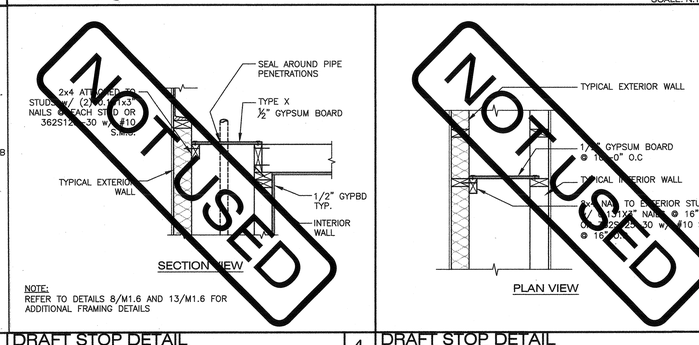
SUPPLY - RETURN DIFFUSER MOUNTING DETAIL SCALE: N.T.S. 7



FLEX DUCTING SUPPORT DETAIL SCALE: N.T.S. 8

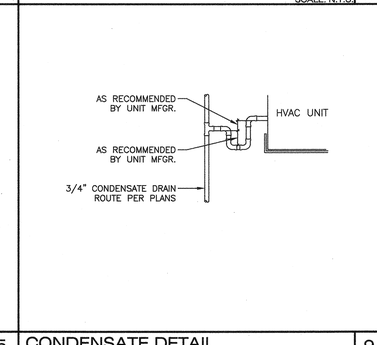


HVAC ATTIC MOUNTED SPLIT SYSTEM SCALE: N.T.S. 3

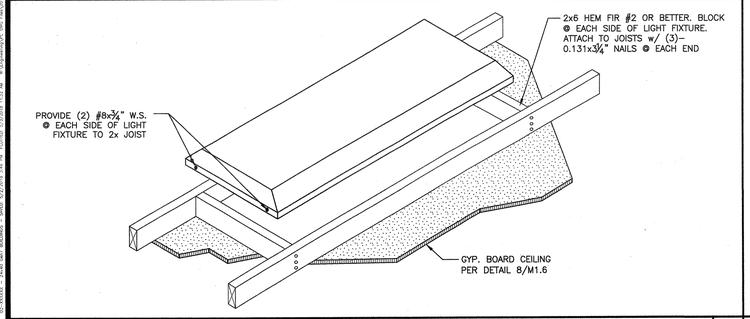


DRAFT STOP DETAIL @ PLUMBING CHASE SCALE: N.T.S. 4

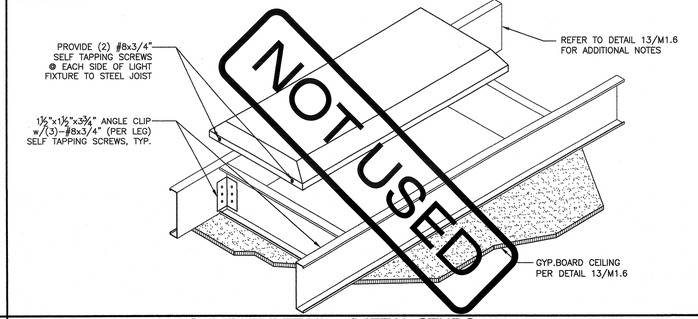
DRAFT STOP DETAIL @ PLUMBING CHASE SCALE: N.T.S. 5



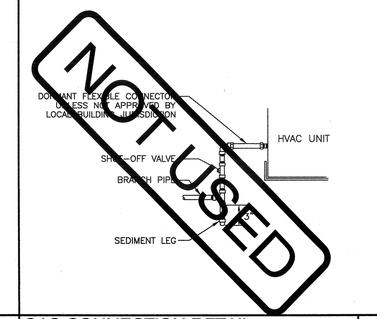
CONDENSATE DETAIL SCALE: N.T.S. 9



LIGHT FIXTURE ATTACHMENT DETAIL GYPSUM BOARD CEILING OPTION SCALE: N.T.S. 6



LIGHT FIXTURE ATTACHMENT DETAIL w/METAL STUDS GYPSUM BOARD CEILING OPTION SCALE: N.T.S. 6A



GAS CONNECTION DETAIL SCALE: N.T.S. 10

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Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE
CEILING & MECHANICAL DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC
LICENSED ARCHITECT MICHAEL PATRICK CARMICHAEL No. 29531 Exp. 2-31-19 STATE OF CALIFORNIA

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DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7-10-18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
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REVISIONS
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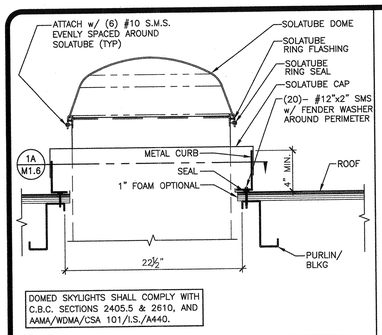
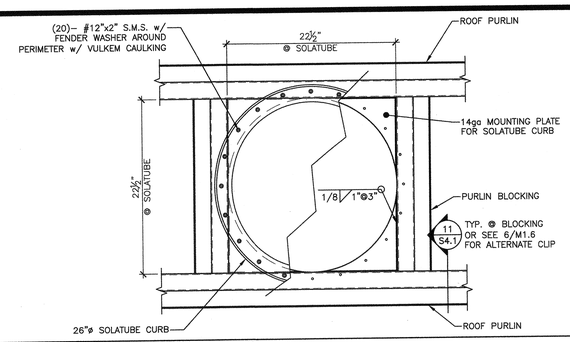
DRAWN BY: .
SCALE: AS NOTED
DATE: .

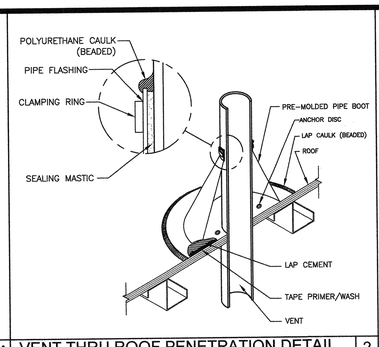
SHEET NUMBER
M1.5



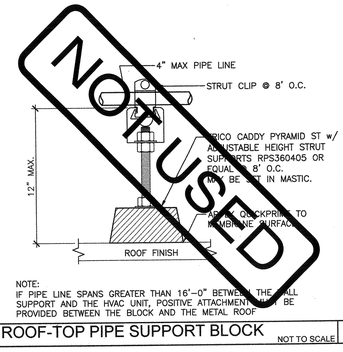
SOLATUBE ATTACHMENT DETAIL SCALE: 1-1/2" = 1'-0" | 1



SOLATUBE CURB ATTACHMENT DETAIL SCALE: 1-1/2" = 1'-0" | 1A

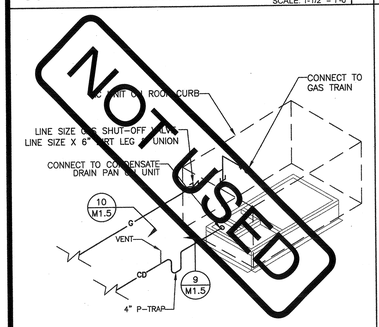


VENT THRU ROOF PENETRATION DETAIL NOT TO SCALE | 2



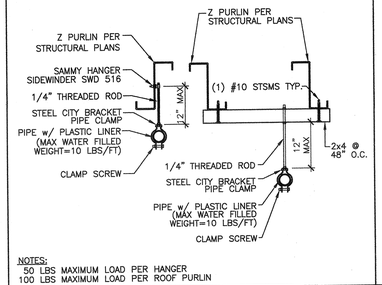
NOT USED

ROOF-TOP PIPE SUPPORT BLOCK NOT TO SCALE | 3

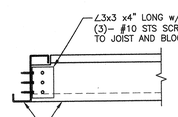


NOT USED

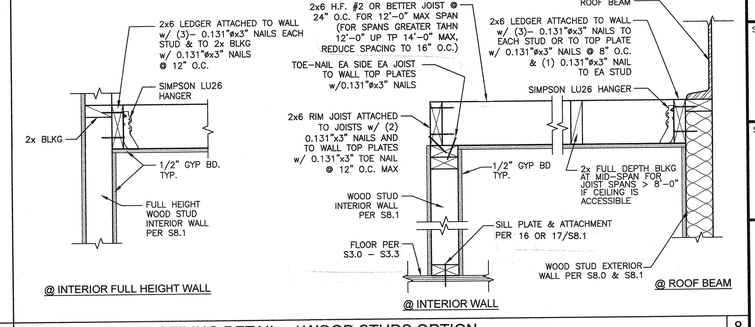
HVAC UNIT PIPING NOT TO SCALE | 4



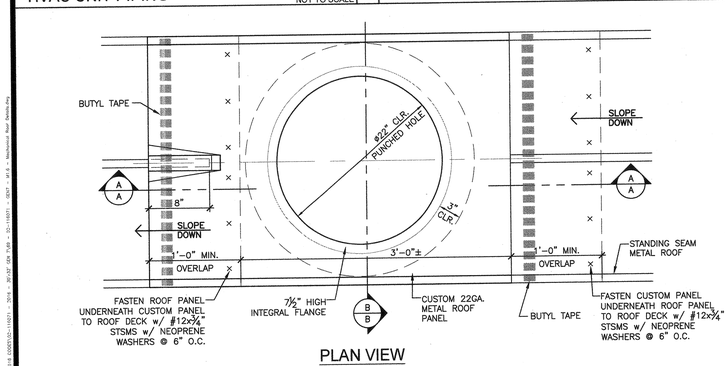
PIPE HANGER DETAIL SCALE: 1-1/2" = 1'-0" | 5



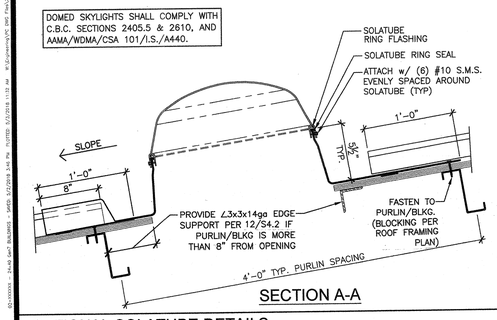
SOLATUBE SECTION (ALT. CLIP) SCALE: 1-1/2" = 1'-0" | 6



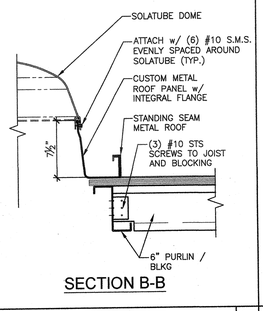
GYPSUM BOARD CEILING DETAIL w/ WOOD STUDS OPTION SCALE: 1-1/2" = 1'-0" | 8



PLAN VIEW

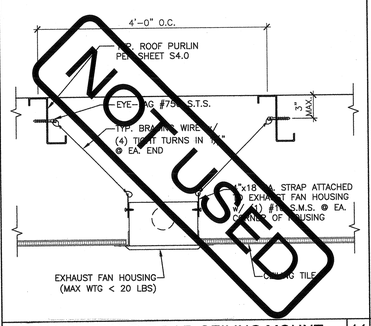


SECTION A-A



SECTION B-B

OPTIONAL SOLATUBE DETAILS SCALE: 1-1/2" = 1'-0" | 15



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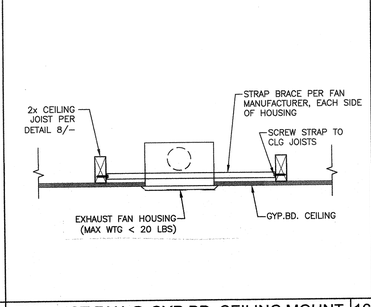
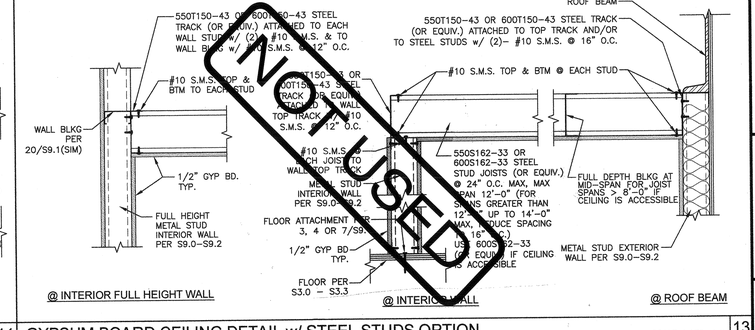
EXHAUST FAN @ T-BAR CEILING MOUNT | 11



EXHAUST FAN @ GYP.BD. CEILING MOUNT | 16



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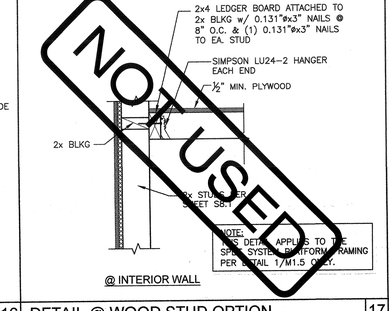
GYPSUM BOARD CEILING DETAIL w/ STEEL STUDS OPTION SCALE: 1-1/2" = 1'-0" | 13



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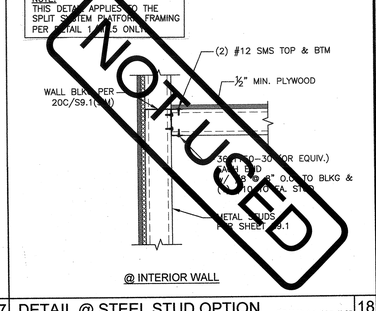
DETAIL @ WOOD STUD OPTION SCALE: 1-1/2" = 1'-0" | 17



NOT USED

DETAIL @ STEEL STUD OPTION SCALE: 1-1/2" = 1'-0" | 18

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PRE–CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

MECHANICAL ROOF DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — KENNETH PATRICK CHRISTIAN — No. C-29251 — Exp. 8-31-19 — STATE OF CALIFORNIA

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DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

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DIV. OF THE STATE ARCHITECT
PC 02-116071
AC ___ FLS 142 SS ___
DATE 7 10 19

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CODE: 2016 CBC
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REVISIONS

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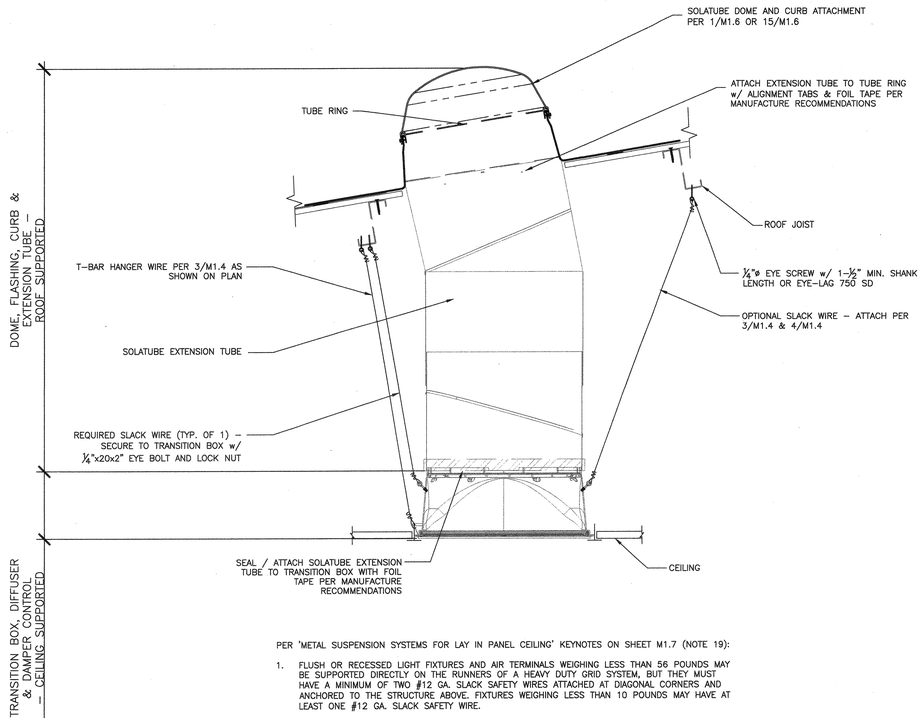
DATE:	

SHEET NUMBER

M1.6



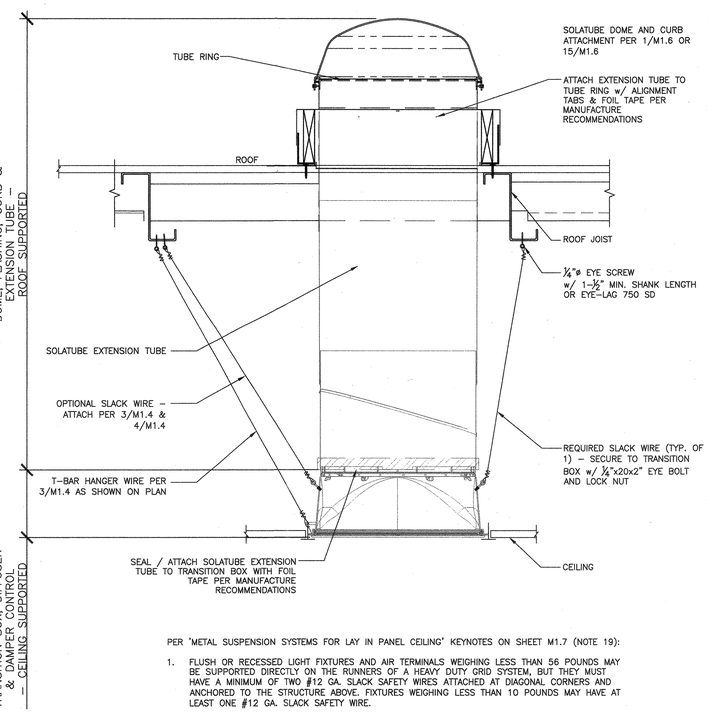
PER 'METAL SUSPENSION SYSTEMS FOR LAY IN PANEL CEILING' KEYNOTES ON SHEET M1.7 (NOTE 19):

1. FLUSH OR RECESSED LIGHT FIXTURES AND AIR TERMINALS WEIGHING LESS THAN 56 POUNDS MAY BE SUPPORTED DIRECTLY ON THE RUNNERS OF A HEAVY DUTY GRID SYSTEM, BUT THEY MUST HAVE A MINIMUM OF TWO #12 GA. SLACK SAFETY WIRES ATTACHED AT DIAGONAL CORNERS AND ANCHORED TO THE STRUCTURE ABOVE. FIXTURES WEIGHING LESS THAN 10 POUNDS MAY HAVE AT LEAST ONE #12 GA. SLACK SAFETY WIRE.

CEILING SUPPORTED SOLATUBE COMPONENTS		ROOF SUPPORTED SOLATUBE COMPONENTS	
DESCRIPTION	WEIGHT	DESCRIPTION	WEIGHT
DIFFUSER:	1.65 LBS	TUBE:	8.10 LBS
DAMPER CONTROL	1.00 LBS	DOME:	6.40 LBS
TRANSITION BOX	5.50 LBS	TOTAL:	14.50 LBS
TOTAL:	8.15 LBS		

SOLATUBE ATTACHMENT ELEVATION - SLOPED

SCALE: 1-1/2"=1'-0" A



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SOLATUBE ATTACHMENT ELEVATION

SCALE: 1-1/2"=1'-0" B

NOT USED 16

NOT USED 17

NOT USED 18

NOT USED 19

NOT USED 20

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SITE SPECIFIC PROJECT NAME

SHEET TITLE

MECHANICAL ROOF DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT RANDALL PATRICK DOWELL No. C 12531 Exp. 3-31-19 STATE OF CALIFORNIA

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APP03 119722
AC FLS SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
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SCALE:	AS NOTED
DATE:	.

SHEET NUMBER

M1.6A

1. CEILING GRID SYSTEMS IN SEISMIC ZONES D, E, F, MUST BE RATED "HEAVY DUTY", AS DEFINED BY ASTM C635. PROVIDE GRID COMPONENTS AS SPECIFIED IN TABLE A BELOW, OR APPROVED EQUAL. GRID METAL FRAMING PIECES SHALL BE DESIGNED TO CARRY A MEAN ULTIMATE TEST LOAD OF NOT LESS THAN 180 LBS. IN COMPRESSION AND TENSION, PER ASTM E580.

2. SUSPENSION WIRE SHALL BE CLASS 1 ZINC-COATED (GALVANIZED) CARBON STEEL CONFORMING TO ASTM A641. WIRE SHALL BE #12 GAGE WITH SOFT TEMPER AND A MINIMUM TENSILE STRENGTH OF 70 KSI.

3. WHEN HANGER AND BRACING WIRES ARE ATTACHED TO CONCRETE ABOVE, TESTS PER D.S.A. IR 25-2.13 SECTION 6.8 MUST BE PERFORMED. POWER ACTUATED FASTENERS IN CONCRETE ARE NOT ALLOWED FOR BRACING WIRE.

4. 12 GA. (MINIMUM) HANGER WIRES MAY BE USED FOR UP TO AND INCLUDING 4'-0" x 4'-0 GRID SPACING, ATTACH TO MAIN RUNNER. SPLICES WILL NOT BE PERMITTED IN ANY HANGER WIRES UNLESS SPECIFICALLY APPROVED BY D.S.A.

5. PROVIDE 12 GA. HANGER WIRES WITHIN 8" OF THE ENDS OF ALL MAIN AND CROSS RUNNERS OR AT 1/4 OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, AT THE PERIMETER OF THE CEILING AREA.

6. PROVIDE TRAPEZE OR OTHER SUPPLEMENTARY SUPPORT MEMBERS AT OBSTRUCTIONS TO MAINTAIN HANGER SPACING. PROVIDE ADDITIONAL HANGERS, STRUTS OR BRACES AS REQUIRED AT ALL CEILING BREAKS, SOFFITS OR DISCONTINUOUS AREAS. HANGER WIRES THAT ARE MORE THAN 1:6 OUT OF PLUMB ARE TO HAVE COUNTER-BRACED WIRES.

7. CEILING GRID MEMBERS SHALL BE ATTACHED TO TWO (2) ADJACENT WALLS. CEILING GRID MEMBERS SHOULD BE AT LEAST 3/4 INCH CLEAR OF OTHER WALLS. IF WALLS RUN DIAGONALLY TO CEILING GRID SYSTEM RUNNERS, ONE END OF MAIN AND CROSS RUNNERS SHOULD BE FREE AND A MINIMUM OF 3/4 INCH CLEAR OF WALL.

8. PERIMETER SUPPORT ANGLES SHALL BE AT LEAST 2 INCHES WIDE, OR USE PROPRIETARY ANGLES & SEISMIC CLIPS THAT HAVE A VALID EVALUATION REPORT.

9. AT THE PERIMETER OF THE CEILING AREA WHERE MAIN OR CROSS RUNNERS ARE NOT CONNECTED TO THE ADJACENT WALL, PROVIDE INTERCONNECTION BETWEEN THE RUNNERS AT THE FREE END TO PREVENT LATERAL SPREADING. A METAL STRUT OR A 16 GA. WIRE WITH A POSITIVE MECHANICAL CONNECTION TO THE RUNNERS MAY BE USED. WHERE THE PERPENDICULAR DISTANCE FROM THE WALL TO THE FIRST PARALLEL RUNNERS IS 8" OR LESS, THIS INTERLOCK IS NOT REQUIRED.

10. CEILING AREAS EXCEEDING 2,500 SQUARE FEET SHALL HAVE A SEISMIC SEPARATION JOINT.

11. EXPANSION JOINTS SHALL BE PROVIDED AT INTERSECTIONS OF CORRIDORS, LOBBIES AND OTHER SIMILAR AREAS.

12. PENETRATIONS THROUGH THE CEILING, SUCH AS FIRE SPRINKLERS, SHALL HAVE A 2 INCH OVERSIZED RING, SLEEVE OR ADAPTER TO ALLOW FREE MOVEMENT INDEPENDENT OF THE CEILING. ALTERNATE: A FLEXIBLE SPRINKLER FITTING THAT ALLOWS 1 INCH OF MOVEMENT CAN BE USED.

13. LATERAL FORCE BRACING IS REQUIRED FOR ALL CEILINGS, EXCEPT CEILING AREAS OF 144 SQUARE FEET OR LESS WITH PERIMETER WALLS THAT ARE DESIGNED TO CARRY THE CEILING LATERAL FORCES. SPACING OF BRACING ASSEMBLIES MUST BE SHOWN ON THE PLANS.

14. LATERAL FORCE BRACING CONSISTS OF A SET OF 1 COMPRESSION STRUT AND FOUR #12 GA. SPLAYED BRACING WIRES, ORIENTED 90 DEGREES FROM EACH OTHER AT THE FOLLOWING SPACING:
    (A) FOR SCHOOL BUILDINGS, PLACE SETS OF SPLAY WIRES AT A SPACING NOT MORE THAN 8 FEET BY 12 FEET ON CENTER.
    (B) PROVIDE SPLAY WIRES AT LOCATIONS NOT MORE THAN 1/2 THE ABOVE SPACING FROM EACH PERIMETER WALL OR AT THE EDGE OF VERTICAL CEILING OFFSETS. THE SLOPE OF THESE WIRES SHOULD NOT EXCEED 45 DEGREES FROM THE PLANE OF THE CEILING AND SHOULD BE TAUT WITHOUT CAUSING THE CEILING TO LIFT. SPLICES IN BRACING WIRES ARE NOT PERMITTED WITHOUT SPECIAL D.S.A. APPROVAL.

15. COMPRESSION STRUTS SHALL BE ABLE TO RESIST THE VERTICAL PULL INDUCED BY BRACING WIRES, AND SHALL NOT BE MORE THAN 1:6 OUT OF PLUMB.

16. FASTEN HANGER WIRES WITH NOT LESS THAN 3 TIGHT TURNS WITHIN A DISTANCE OF 3 INCHES. FASTEN SPLAY WIRES WITH 4 TIGHT TURNS WITHIN A DISTANCE OF 1-1/2 INCHES. HANGER OR BRACING WIRE ANCHORS TO THE STRUCTURE SHOULD BE INSTALLED IN SUCH A MANNER THAT THE DIRECTION OF THE WIRE ALIGNS AS CLOSELY AS POSSIBLE WITH THE DIRECTION OF THE FORCES ACTING ON THE WIRE.

17. SEPARATE ALL CEILING HANGING AND BRACING WIRES AT LEAST 6 INCHES FROM ALL UNBRACED DUCTS, PIPES, CONDUIT ETC.

18. ATTACH ALL LIGHT FIXTURES AND AIR TERMINALS TO THE CEILING GRID RUNNERS WITH SCREWS OR APPROVED FASTENERS AS REQUIRED TO RESIST A HORIZONTAL FORCE EQUAL TO THE FIXTURES' WEIGHT. MINIMUM OF TWO ATTACHMENTS ARE REQUIRED AT EACH LIGHT FIXTURE.

19. FLUSH OR RECESSED LIGHT FIXTURES AND AIR TERMINALS WEIGHING LESS THAN 56 POUNDS MAY BE SUPPORTED DIRECTLY ON THE RUNNERS OF A HEAVY DUTY GRID SYSTEM, BUT THEY MUST HAVE A MINIMUM OF TWO #12 GA. SLACK SAFETY WIRES ATTACHED AT DIAGONAL CORNERS AND ANCHORED TO THE STRUCTURE ABOVE. FIXTURES WEIGHING LESS THAN 10 POUNDS MAY HAVE AT LEAST ONE #12 GA. SLACK SAFETY WIRE.

20. LIGHT FIXTURES AND OTHER CEILING DEVICES WEIGHING MORE THAN 56 POUNDS SHALL BE INDEPENDENTLY SUPPORTED BY NO LESS THAN FOUR (4) TAUT #12 GAGE WIRES, ATTACHED TO THE STRUCTURE ABOVE. WIRES MUST BE ABLE TO SUPPORT FOUR (4) TIMES THE WEIGHT OF THE UNIT.

21. ALL LIGHT-WEIGHT MISCELLANEOUS DEVICES, SUCH AS STROBE LIGHTS, SPEAKERS, ETC., SHALL BE ATTACHED TO THE CEILING GRID PER SECTION 7.3.1 OF D.S.A. IR 25-2.13. IN ADDITION, DEVICES WEIGHING MORE THAN 10 LBS SHALL HAVE A #12 SLACK SAFETY WIRE ANCHORED TO THE STRUCTURE ABOVE PER SECTION 7.2.2 OF D.S.A. IR 25-2.13. DEVICES WEIGHING MORE THAN 20 LBS. SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE PER SECTION 7.3.4 OF D.S.A. IR 25-2.13.

22. PANELS THAT WEIGH MORE THAN 0.5 LBS/SQ.FT. (PSF), OTHER THAN MINERAL FIBER ACOUSTIC TILES, SHALL BE POSITIVELY ATTACHED TO CEILING SUSPENSION RUNNERS.

23. ACOUSTICAL PANELS SHALL BE 5/8" MINIMUM THICK, MINERAL FIBERBOARD OR VINYL-FACED FIBERGLASS, LAY-IN PANELS, SQUARE EDGE, ASTM FLAME SPREAD CLASS T, 24"x48" MODULAR SIZE, LIGHT REFLECTION 75% MINIMUM, NOISE REDUCTION COEFFICIENT OF 0.65 MINIMUM, MAXIMUM SMOKE DENSITY NOT TO EXCEED 450. FLAME SPREAD RATING MAXIMUM OF 200. PANELS ARE NOT ALLOWED TO SUPPORT ANY FIXTURE, TERMINAL OR DEVICE.

TABLE A - HEAVY DUTY GRID COMPONENTS

MANUFACTURER	MAIN TEE	H.D. 4' CROSS TEE	H.D. 2' CROSS TEE	RUNNER SPLICE DETAIL
DONN/USG	DX-26	DX-424	DX-216	N/A
ARMSTRONG	7301	XL7341	XL8320	N/A
CHICAGO/ROCKFON	200.01	1274.01	1202.01	N/A

NOTE: ALL GRID COMPONENTS SHALL BE BY THE SAME MANUFACTURER

METAL SUSPENSION SYSTEMS FOR LAY IN PANEL CEILING

HVAC CFM CHART (NOT USED)

	MODEL #	DESCRIPTION	MAX. CFM	UNIT WEIGHT (LBS)	EER	COP	CLIMATE ZONE(S)
BARD WALL HUNG	W42HA-A	3½ TON HEAT PUMP	1250	471	10.2	3.0	1-16
	W48HA-A	4 TON HEAT PUMP	1400	480	10.0	3.0	1-16
	W60HA-A	5 TON HEAT PUMP	1450	525	10.4	3.0	1-16

HVAC CFM CHART

	MODEL #	DESCRIPTION	MAX. CFM	UNIT WEIGHT (LBS)	EER	COP	CLIMATE ZONE(S)
BARD Q-TEC	~~Q43H3-A~~	~~3½ TON HEAT PUMP~~	~~1200~~	~~615~~	~~10.0~~	~~3.0~~	~~1-16~~
	Q48H3-A	4 TON HEAT PUMP	1400	620	10.0	3.0	1-16
	~~Q60H3-A~~	~~5 TON HEAT PUMP~~	~~1550~~	~~625~~	~~10.0~~	~~3.0~~	~~1-16~~

HVAC CFM CHART (NOT USED)

	MODEL #	DESCRIPTION	MAX. CFM	UNIT WEIGHT (LBS)	EER	SEER	CLIMATE ZONE(S)
CARRIER ROOF MOUNT	50VT-C42---3--TP	3½ TON HEAT PUMP	1600	435	11.5	14.0	1-16
	50VT-C48---3--TP	4 TON HEAT PUMP	1750	456	12.0	14.0	1-16
	50VT-C60---3--TP	5 TON HEAT PUMP	1750	487	11.5	14.0	1-16

HVAC CFM CHART (NOT USED)

	MODEL #	DESCRIPTION	AIR HANDLER MODEL #	MAX. CFM	UNIT WEIGHT (LBS)	EER	SEER	CLIMATE ZONE(S)
CARRIER SPLIT DX SYSTEM	25HCE442A003	3½ TON HEAT PUMP	FX4DNF03	3810	170	11.5	14.0	1-16
	25HCE448A003	4 TON HEAT PUMP	FX4DNF04	4045	170	11.7	14.0	1-16
	25HCE460A003	5 TON HEAT PUMP	FX4DNF06	4045	198	11.7	14.0	1-16

HVAC SCHEDULE

BUILDING SIZE	# OF HVAC: 3½ TON HVAC	4 TON HVAC	5 TON HVAC
☐ 30'x32'	1		
☐ 40'x32'		1	
☐ 50'x32'		2	
☒ 60'x32'	2		
☐ 70'x32'		2	
☐ 80'x32'	3		
☐ 90'x32'	3		
☐ 100'x32'		3	
☐ 110'x32'		3	
☐ 120'x32'		3	
☐ 130'x32'	4		
☐ 140'x32'	4		
☐ 150'x32'		4	

INSULATION SCHEDULE

ZONE	WALL	ROOF: BATTS	ROOF: OTHER	FLOORS (NON-CONCRETE)	CONCRETE FLOORS
1-14, & 15	*R-13	**R-19	***R-1	R-13	-
16	*R-13	**R-19	***R-1	R-13	-

*R-5 RIGID INSULATION TO BE USED OVER METAL FRAMED WALLS
**R-19 w/ 22 GA WIRE @ 16" O.C.
***R-1 MAY BE ACHEIVED w/ POLYSTYRENE OR INSULATION TAPE APPLIED TO TOP FLANGE OF PURLINS, OR EQUAL.

HVAC SCHEDULES

HEATING VENTILATING AND AIR CONDITIONING (HVAC)

1. HEAT PUMP: SINGLE PACKAGE WALL-MOUNTED AIR-TO-AIR ELECTRIC HEAT PUMP UNIT SHALL BE RATED IN ACCORDANCE WITH A.R.I. STANDARD 240-77. MAXIMUM AC SIZE FOR THIS BUILDING WILL BE A 5-TON UNIT. ALL UNITS SHALL BE 230/208 VOLT, 1 PHASE SYSTEM, UL TESTED & APPROVED OR COMPARABLE, AND MEET CURRENT ENERGY STANDARDS.
   A. THE SYSTEM SHALL MAINTAIN AN AUTOMATICALLY CONTROLLED INDOOR CLASSROOM TEMPERATURE OF 78 DEGREES F. WHEN THE OUTDOOR DRY BULB TEMPERATURE VARIES BETWEEN 100 DEGREES F. IN THE SUMMER.
   B. THE SYSTEM MUST MAINTAIN THE ABOVE TEMPERATURE WHEN THE DAMPER IS ADJUSTED TO USE APPROXIMATELY ONE-THIRD FRESH AIR.
2. DUCTWORK
   A. CONSTRUCT ALL DUCTWORK OF GALVANIZED SHEET METAL IN ACCORDANCE WITH C.M.C., ASHRAE GUIDE EQUIPMENT VOLUME, AND SMACNA LOW VELOCITY DUCT CONSTRUCTION MANUAL, LATEST EDITIONS. ALL DUCTWORK SHALL BE INSULATED WITH 1" THICK FIBERGLASS DUCT WRAP WITH VAPOR BARRIER. PROVIDE 1" DUCT ATTENUATION AT ALL DUCTWORK WITHIN 2'-0" OF HVAC UNIT.
   B. NON-METALLIC DUCTWORK OPTION: IN ACCESSIBLE CONCEALED PORTIONS OF DUCT SYSTEM, RIGID 1" FIBERGLASS OR INSULATED FLEX-DUCT WITH VAPOR BARRIER MAY BE SUBSTITUTED FOR SHEET METAL DUCTWORK. ALL DUCTWORK WITHIN 2'-0" OF THE HVAC UNIT AND ALL INTERFACE CONNECTIONS SHALL BE METAL. DUCTWORK AND REINFORCEMENT SHALL BE DESIGNED FOR 2" STATIC PRESSURE. REFERENCE BRANDS: OWENS-CORNING FIBERGLASS DUCTBOARD, 1" THICK, AND MICRO-AIRE TYPE 475. NON-METALLIC DUCTWORK SHALL CONFORM TO NFPA 90-A AND SMACNA CLASS 1 RATING.
3. AIR DUCT INSULATION AND LININGS SHALL COMPLY WITH FLAME SPREAD LESS THAN OR EQUAL TO 25, SMOKE GENERATION LESS THAN OR EQUAL TO 50.
4. SUPPLY AIR DIFFUSERS SHALL BE 675 CFM MAXIMUM, 12" ROUND. 1" FIBERGLASS OR FLEXDUCT DUCTWORK SPECIFICALLY DESIGNED TO PROVIDE AIR THERMAL COOLING SYSTEMS. 24"x8"x1" MICRO-AIRE TYPE #475 OWENS-CORNING, KNAUF, CERTAINTEED, OR EQUAL AND 90-B: UL #131 TEST, CLASS 1 RATING WITH "SMACNA".
5. REGISTERS AND DIFFUSERS: PROVIDE THREE (MINIMUM) 4-WAY THROW AIR DIFFUSERS AS MANUFACTURED BY CARNES, TITUS, HART AND COOLEY, METALAIRE, SHOEMAKER, BARBER-COLEMAN OR KRUEGER COMMERCIAL GRADE GRILLS AND REGISTERS.
6. AIR CONDITIONING CONTROLS: PROVIDE ELECTRONIC PROGRAMMABLE THERMOSTAT. THERMOSTAT SHALL HAVE THE FOLLOWING FUNCTIONS:
   A. 5 AND 2 WEEKDAY/WEEKEND PROGRAMMING DAYS WITH 4 SEPARATE TIME/TEMPERATURE SETTINGS FOR A 24-HOUR PERIOD.
   B. KEY BOARD LOCKOUT SWITCH.
   C. PROGRAMMABLE DISPLAY.
   D. 2-HOUR OVERRIDE MINIMUM.
   E. STATUS INDICATED LED'S.
   F. BATTERY BACK-UP.
   G. PROVIDE LOCKING CLEAR THERMOSTAT COVER WITH THERMOSTAT COVER WITH ACCESS HOLE FOR PROGRAM OVERRIDE. WHITE RODGERS IF92-371. MOUNT TOP OF BOX @ 48" A.F.F. MAX.
7. THERMAL INSULATION
   A. ROOF INSULATION: R-19 WITH 22 GA. WIRE @ 16" O.C. & R-1 TOP OF PURLINS.
   B. WALLS INSULATION: R-13 KRAFT FACED. (R-5 INSULATION OVER METAL FRAMED WALLS)
   C. NON-CONCRETE FLOORS INSULATION: R-13
   D. CONCRETE FLOORS INSULATION: N/A
   E. FLAME SPREAD AND SMOKE DEVELOPMENT SHALL CONFORM TO CALIFORNIA BUILDING CODE SEC. 720.
8. FACTORY-MADE AIR DUCTS
   A. FACTORY-MADE AIR DUCTS SHALL BE APPROVED FOR THE USE INTENDED OR SHALL CONFORM TO THE REQUIREMENTS OF C.M.C. SECTION 601.0.
   B. EACH PORTION OF A FACTORY-MADE AIR DUCT SYSTEM SHALL BE IDENTIFIED BY THE MANUFACTURER WITH A LABEL OR OTHER SUITABLE IDENTIFICATION INDICATING COMPLIANCE WITH C.M.C. SECTION 601.0 AND ITS CLASS DESIGNATION. THESE DUCTS SHALL BE LISTED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF THEIR LISTING AND THE REQUIREMENTS OF C.M.C. SECTION 601.0.
   C. DUCT SUPPORT FLEX DUCT TO BE SUPPORTED WITH 1-1/2" WIDE x26 GA. GALV. STRAP @ MAX 6'-0" O.C. ATTACH TO RAFTER WITH TWO #8 S.M.S. @ EACH END.
   D. SUPPLY AIR PLENUM TO BE SUPPORTED WITH 1-1/2" WIDE x26 GA. GALV. STRAPS MINIMUM 2 PER PLENUM.
   E. SUPPLY AIR BOX AND DIFFUSERS TO BE SUPPORTED WITH (2) 12 GA. HANGER WIRES TO BOX @ OPPOSITE CORNERS.
   F. SUPPLY AIR BOX AND DIFFUSERS TO BE BRACED WITH (2) 12 GA. SLACK WIRES TO BOX @ OPPOSITE CORNERS. ATTACH SUPPLY AIR DIFFUSERS TO CEILING GRID TO RESIST A LATERAL LOAD EQUAL TO THE WEIGHT OF THE DIFFUSER AND SUPPLY AIR BOX WITH TWO #8 S.M.S.
9. FIREBLOCKING SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS:
   A. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES;
   B. AT THE CEILING AND FLOOR LEVELS;
   C. AND AT 10-FOOT (3048mm) INTERVALS BOTH VERTICAL AND HORIZONTAL.
   REFERENCE 2016 CBC SECTION 718.
10. THE INTERIOR ENVIRONMENT SHALL BE ASSEMBLED WITH PRODUCTS THAT CONTRIBUTE TO A HEALTHY INDOOR AIR QUALITY (IAQ). THE FOLLOWING SHALL COMPLY TITLE 24, PART 11 ("CAL-GREEN"), SECTION 5.504.4.
    (SEE SHEET N1.0, SECTION 9C "INTERIOR AIR QUALITY CONTROL"
11. HVAC FILTER
    A. FILTERED SHALL HAVE A "MINIMUM EFFICIENCY REPORTING VALUE" OF 8 (MERV 8) AND SHALL BE INSTALLED PRIOR TO OCCUPANCY AND RECOMMENDATIONS FOR MAINTENANCE WITH FILTERS OF THE SAME VALUE SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL, PER 2016 CEC SECTION 5.504.5.3.
    B. INSTALLED FILTERS SHALL BE CLEARLY LABELED BY THE MANUFACTURER INCLUDING THE MERV RATING, PER 2016 CEC SECTION 5.504.5.3.1.

HVAC NOTES

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

CEILING & MECHANICAL NOTES, SCHEDULES

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT PATRICK KNUDSEN No. C-28531 exp. 3-31-19 STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 18

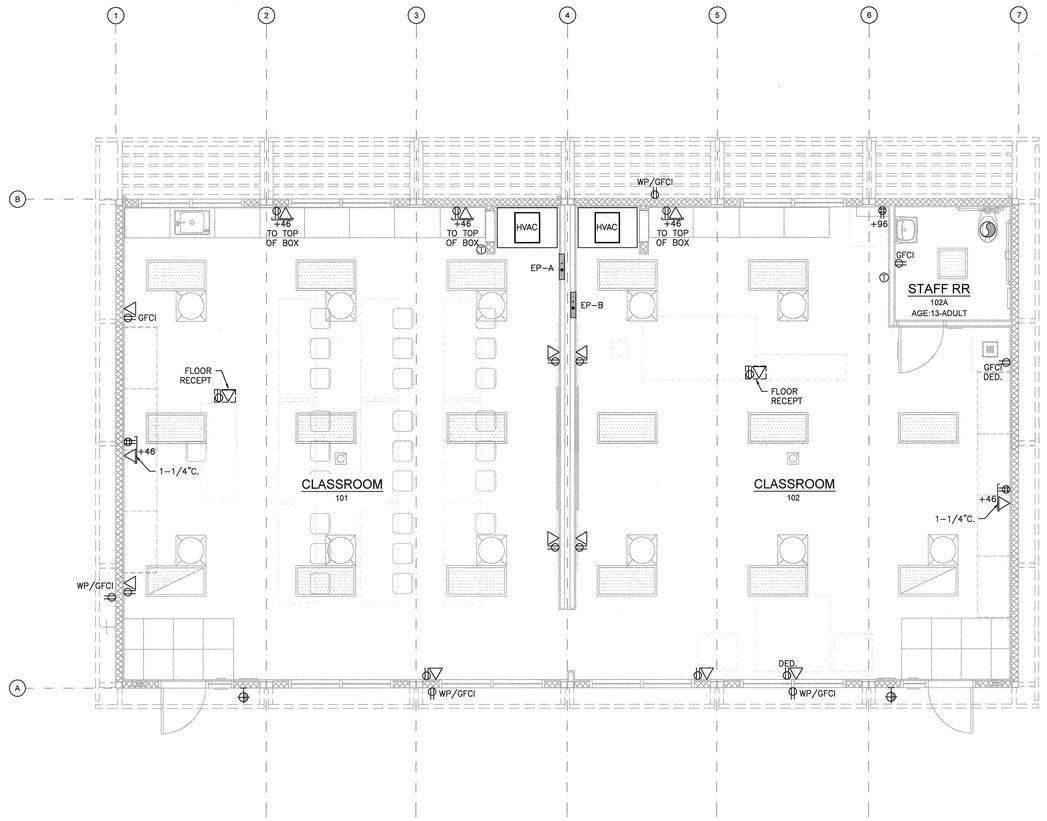
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS
1
2
3
4

DRAWN BY: .
SCALE: AS NOTED
DATE: .

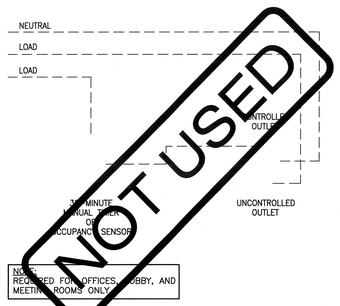
SHEET NUMBER

M1.7



TYPICAL ELECTRICAL PLAN

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



TYP. CONTROLED/UNCONTROLED RECEPTACLE WIRING DIAGRAM N.T.S. | 2

ENERGY CONTROLS

1. AUTOMATIC DAYLIGHTING CONTROLS:
   NOT REQUIRED IN ROOMS WHERE COMBINED INSTALLED LIGHTING POWER IN COMBINED SKYLIT & PRIMARY DAYLIT ZONES ARE <120 WATTS. INSTALLED WATTAGE IN PRIMARY SIDELIT DAY LIT ZONE IS 80 WATTS (2x 35w, AS SHOWN IN THE SHADED AREAS). THEREFORE, AUTOMATIC DAYLIGHTING CONTROLS ARE ONLY REQUIRED WHEN "SOLATUBES" ARE INSTALLED. SEE A1.1
2. ENERGY MANAGEMENT CONTROL SYSTEM (EMCS) CONNECTION:
   PER TITLE 24 CODE, "AN EMCS MAY BE INSTALLED TO COMPLY WITH THE REQUIREMENTS OF ONE OR MORE LIGHTING CONTROLS IF IT MEETS THE MINIMUM REQUIREMENTS". PC MAY CONTAIN OCCUPANCY SENSORS AND PHOTOCELL CONTROL LIGHTING, IN THAT CASE, AN EMCS IS NOT REQUIRED FOR THIS PC.
3. SOLAR-READY ZONE REQUIREMENTS:
   REQUIREMENTS & TABLE CAN BE FOUND ON SHEET A2.0

NOTE: ANT MONITORING EQUIPMENT OR ASSOCIATED SENSORS ARE SITE SPECIFIC AND ARE NOT INCLUDED IN THE BASE PC.

ENERGY NOTES | 3

GENERAL NOTES

1. THE PROJECT ARCHITECT SHALL BE RESPONSIBLE FOR THE PLACEMENT OF HEAT & SMOKE DETECTORS, EVACS AND PULL STATIONS, AND COMPLETE FIRE ALARM SYSTEM WHEN THE SITE SPECIFIC PROJECT IS REQUIRED TO MEET THE PROVISIONS OF SB 575 & CBC 907.2.3.
2. ANY MONITORING EQUIPMENT OR ASSOCIATED SENSORS ARE SITE SPECIFIC AND ARE NOT INCLUDED IN THIS BASE PC.
3. PULL STATIONS ARE REQUIRED AT EVERY EXIT. AT ANY SPACE REQUIRING 2 OR MORE EXITS, PROVIDE EXIT SIGNS (CBC 1013) AND EMERGENCY EXIT ILLUMINATION (CBC 1008).
4. SEE PLANS FOR LOCATIONS OF ALL DEVICES.
5. STUB-OUT LOCATIONS FOR ELECTRICAL PANEL, FIRE ALARM, AND DATA BOXES ARE SHOWN DIAGRAMMATICAL ONLY. EXACT LOCATIONS MAY VARY +/- SEVERAL FEET. PLEASE CONTACT AMERICAN MODULAR SYSTEMS FOR EXACT LOCATIONS. POINT OF CONNECTION WILL BE AT FACE OF BUILDING.
6. STUB-UP ALL FIRE ALARM JUNCTION BOXES TO ACCESSIBLE ATTIC SPACE WITH 1/2" MIN. GALV. THIN WALL TUBING (EMT). DO NOT CONNECT FIRE ALARM CONDUIT WITH ANY OTHER ELECTRICAL CONDUIT.
7. THE LIGHTS FOR EACH ROOM OVER 250 SQ FT SHALL BE CONTROLLED BY ULTRASONIC OCCUPANCY SENSOR: WATT STOPPER W-500A, W-1000A, OR W-2000A (OR EQUAL) BASED ON THE ROOM SIZE, IN CONJUNCTION WITH BI-LEVEL SWITCHING.
8. FIXTURE MOUNTING SHALL COMPLY WITH CALIFORNIA SEISMIC REGULATIONS.
9. LIGHTING FIXTURES MAY BE INSTALLED ROTATED 90° FROM SHOWN TO MATCH T-BAR GRID LAYOUT.

DEMAND RESPONSE CONTROLS

1. DEMAND RESPONSE CONTROLS ARE REQUIRED IN BUILDINGS LARGER THAN 10,000 S.F.
2. DEMAND RESPONSE CONTROLS, WHERE REQUIRED, ARE TO BE PROVIDED BY OTHERS.
3. DEMAND RESPONSE CONTROLS AND EQUIPMENT SHALL BE CAPABLE OF RECEIVING AND AUTOMATICALLY RESPONDING TO AT LEAST ONE STANDARD-BASED MESSAGING PROTOCOL WHICH ENABLES DEMAND RESPONSE AFTER RECEIVING A DEMAND SIGNAL.
4. SITE-SPECIFIC PROJECTS WHICH REQUIRE DEMAND RESPONSE CONTROLS MUST INCLUDE THE SUBMITTAL OF FORM NRCC-ELC-01-E TO DSA (BY OTHERS).

ELECTRICAL SYMBOLS

- ELECTRICAL PANEL – MOUNT FLUSH WITH WALL FINISH, U.O.N.
- INCANDESCENT WALL MOUNTED INTERIOR LIGHT FIXTURE
- EXTERIOR LIGHT FIXTURE @ EACH DOOR, LED OR EQUAL (MAX 35W) – WHERE THERE ARE TWO OR MORE EXITS, A MINIMUM 90 MIN. BATTERY BACK-UP IS REQUIRED
- EXTERIOR SOFFIT MOUNTED LIGHT FIXTURE ENERTRON MODEL 110BSH2X7LED-50 LOW PROFILE CANOPY, LED OR EQUAL (MAX 16W) (AT STAIR LANDINGS, PROVIDE (1) WITH EMERGENCY 90 MINUTE MINIMUM BATTERY BACK-UP.)
- UNCONTROLLED-DUPLEX WALL CONVENIENCE OUTLET – MOUNT @ +18" A.F.F. TO CENTERLINE, U.O.N.
- CONTROLLED-DUPLEX WALL CONVENIENCE OUTLET – MOUNT @ +18" A.F.F. TO CENTERLINE, U.O.N. – TO BE CONTROLLED BY OCCUPANCY SENSOR.
- COMBO-DUPLEX WALL CONVENIENCE OUTLET – MOUNT @ +18" A.F.F. TO CENTERLINE, U.O.N.
- FOURPLEX WALL OUTLET – MOUNT @ +18" A.F.F. TO CENTER LINE – U.O.N.
- WP/GFCI WEATHER-PROOF GROUND FAULT CIRCUIT INTERRUPT OUTLET – MOUNT @ 18" A.F.F. TO CENTERLINE – U.O.N.
- GFCI GROUND FAULT CIRCUIT INTERRUPT OUTLET – MOUNT @ 18" A.F.F. TO CENTERLINE – U.O.N.
- CONTROLLED-SINGLE POLE LIGHT SWITCHES – MOUNT @ +48" A.F.F. MAX TO TOP OF BOX – HUBBELL PREMIUM, BRYANT HEAVY DUTY, OR LEVITON SPECIFICATIONS GRADE.
- SINGLE POLE SOLA-TUBE SWITCH – MOUNT @ +48" A.F.F. MAX TO TOP OF BOX.
- SWITCH SUBSCRIPTS – a=DEVICE CONTROLLED.
- THERMOSTAT – TOP OF BOX MOUNTED @ +46" A.F.F.
- JUNCTION BOX – SIZE / LOCATION A.F.F. / TYPE AS NOTED
- ELECTRICAL CROSSOVER – J-BOX – ABOVE CEILING – #1- 4"x1", #22- 4"x2"
- CLOCK/SPEAKER COMBO – MOUNT @ +90" A.F.F. TO CENTERLINE – U.O.N. – DEVICE BY OTHERS
- SPEAKER – OUTLET ONLY – 4" SQ. BOX WITH SINGLE DEVICE RING AND COVER – MOUNT @ +84" A.F.F. TO CENTERLINE – DEVICE BY OTHERS
- DATA/COMMUNICATION – OUTLET ONLY – 4" SQ BOX WITH SINGLE DEVICE RING AND COVER – MOUNT @ +18" A.F.F. TO CENTERLINE, U.O.N., AND PROVIDE A 3/4" CONDUIT STUBBED ABOVE CEILING – DEVICE BY OTHERS
- CATV CATV OUTLET – OUTLET ONLY – PROVIDE (1) 4" SQ. BOX WITH SINGLE DEVICE RING AND COVER – (1) 3/4" DIA CONDUIT – STUBBED ABOVE CEILING – DEVICES BY OTHERS
- INTERCOM/TELEPHONE – OUTLET ONLY – 4" SQ. BOX WITH SINGLE DEVICE RING AND COVER – MOUNT TOP OF BOX @ +48" A.F.F. U.O.N. AND PROVIDE A 3/4" CONDUIT STUBBED ABOVE CEILING – DEVICE BY OTHERS
- S SECURITY/INTRUSION KEY PAD – OUTLET ONLY – 4" SQ. BOX w/ SINGLE DEVICE RING AND COVER, MOUNT TOP OF BOX @ +48" A.F.F., AND ONE 3/4" CONDUIT STUBBED ABOVE CEILING – DEVICE BY OTHERS
- DC DOOR CONTACT – PROVIDE (1) EMPTY 1/2" DIA EMT THROUGH DOOR HEADER – STUBBED ABOVE CEILING – DEVICE BY OTHERS
- MOTION SENSOR OUTLET – PROVIDE (1) 4" SQ. BOX WITH SINGLE DEVICE RING AND COVER AND ONE 3/4" CONDUIT STUBBED ABOVE CEILING
- ULTRASONIC OCCUPANCY SENSOR – MOUNTED TO FINISH CEILING
- FIRE ALARM PULL STATION – OUTLET ONLY – PROVIDE (1) 4" SQ. BOX WITH SINGLE DEVICE RING AND COVER – TOP OF OPERATING HANDLE MOUNTED BETWEEN +42" TO +48" A.F.F. – DEVICE BY OTHERS
- FIRE ALARM HORN – OUTLET ONLY – 4" SQ. SINGLE GANG J-BOX WITH BLANK WEATHERPROOF COVER – MOUNTED +90" A.F.F. TO CENTERLINE – DEVICE BY OTHERS
- MINI HORN BOX – OUTLET ONLY – SINGLE DEVICE RING AND COVER – MOUNTED +80" A.F.F. TO CENTERLINE BUT NO GREATER THAN +96" – DEVICE BY OTHERS
- VISUAL FIRE ALARM ALARM – OUTLET ONLY – 4" SQ. BOX WITH SINGLE DEVICE RING AND COVER – MOUNT SO THAT LENS IS BETWEEN 80"-96" A.F.F. (CEILING MOUNT PER NFPA72 TABLE 6-4.4.1(b)) DEVICE BY OTHERS.
- 2'x4' LED DROP IN FIXTURE, MODEL: LITHONIA, VTLED 2VTL4, 4000K SP41 – 40 WATTS MAX (60 WATTS ALLOWABLE AT CZN 16) OR EQUAL
- 2'x2' LED DROP IN FIXTURE, MODEL: LITHONIA, VTLED 2VTL2, 4000K SP41 – 40 WATTS MAX (60 WATTS ALLOWABLE AT CZN 16) OR EQUAL
- 24 HOUR EMERGENCY LIGHTING WITH MINIMUM 90-MINUTE BATTERY BACK-UP – WHERE TWO OR MORE EXITS ARE REQUIRED
- E EMERGENCY EXIT LIGHT, – WHERE THERE ARE TWO OR MORE EXITS, AN EXIT SIGN WITH INTEGRAL EMERGENCY LIGHTING W/MINIMUM 90-MINUTE BATTERY BACK-UP IS REQUIRED.
- SOLATUBE REFER TO MECHANICAL SHEETS
- RECESSED FLOOR BOX – AMS TO PROVIDE (1) DUPLEX RECEPTACLE AND (1) 3/4" CONDUIT STUBBED TO ATTIC

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE

TYPICAL ELECTRICAL PLAN & NOTES

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT RAYMOND PATRICK CANNON NO. 26531 Exp. 8.31.19 STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-116071

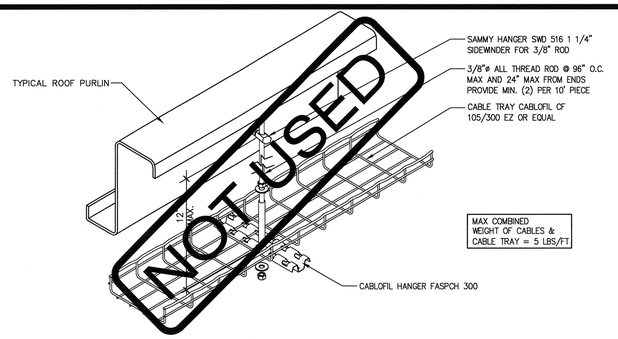
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

DRAWN BY:	AS
SCALE:	AS NOTED
DATE:	01/04/19

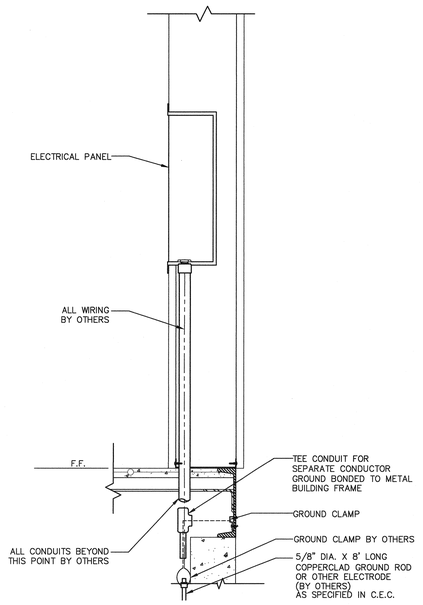
SHEET NUMBER

E1.0



CABLE TRAY DETAIL — SCALE: N.T.S. | 1

NOT USED | 2



1. SIZE OF CONDUCTORS SHALL COMPLY W/ CEC.A
2. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECTRICAL PANEL & METAL BUILDING FRAME (CEC). IN ADDITION TO THE DETAIL SHOWN ABOVE, BOND THE ELECTRICAL GROUND TO METAL WATER PIPE EMBEDDED AT LEAST 10' INTO THE SOIL IF AVAILABLE (CEC).
3. ELECTRICAL BOND MODULES TOGETHER W/ #8 CU @ MODLINE. BY MANUFACTURER. CHECK RESISTANCE TO GROUND. IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND RODS (CEC) AS REQUIRED. GROUNDING DETAIL PER DSA IR E-1. INSPECTOR TO WITNESS GROUNDING TEST.

ELECTRICAL PANEL CONNECTION DETAIL - UNDERFLOOR OPTION — SCALE: 1-1/2" = 1'-0" | 3

PANEL: A / SERIAL NO:	PHASE: 3ø			VOLTS: 120/208			BUSS: 225 Amp			MAIN: 100 Amp				LOCATION: Interior				FEED: Bottom			MOUNTING: Recessed
OBJECT	WATTS	NO.		WATTS					WIRE	CKT	LEG		CKT	WIRE			WATTS				NO.	WATTS	OBJECT
DESCRIPTION	PER	OF	LCL	A	B	C	BRK	POLE	SIZE	NO	A	B	C	NO	SIZE	POLE	BRK	A	B	C	LCL	OF	PER	DESCRIPTION
	5760	1	X	5760						1	X			2	#12	1	20	540				3	180	RECEP -STD/GFCI
ITEC 4TON	5760	1	X		5760		60	3	#8	3		X		4	#12	1	20		720			4	180	RECEP -STD
	5760	1	X			5760				5			X	6	#12	1	20			360		1	360	QUAD-MONITOR
SOLATUBE	240	6		1440			20	1	#12	7	X			8	#12	1	20	180				1	180	RECEP -STD
2X4 LED LIGHTS	55	10	X		550		20	1	#12	9		X		10						0				SPARE
RECEP-WP/GFCI	180	4				720	20	1	#12	11			X	12						0				SPARE
SPARE				0						13	X			14				0						SPARE
SPARE					0					15		X		16					0					SPARE
SPARE						0				17			X	18						0				SPARE
SPARE				0						19	X			20				0						SPARE
SPARE					0					21		X		22					0					SPARE
SPARE						0				23			X	24						0				SPARE
SPARE				0						25	X			26				0						SPARE
SPARE					0					27		X		28					0					SPARE
SPARE						0				29			X	30						0				SPARE
	LEG TOTALS			7200	6310	6480												720	720	360	LEG TOTALS			

LCL=4457.5+21790=26247.5
TOTAL WATTS=26247.5
LEG BALANCE = 7.3%
TOTAL AMPS: 72.94

PANEL: B / SERIAL NO:	PHASE: 3ø			VOLTS: 120/208			BUSS: 225 Amp			MAIN: 100 Amp				LOCATION: Interior				FEED: Bottom			MOUNTING: Recessed
OBJECT	WATTS	NO.		WATTS					WIRE	CKT	LEG		CKT	WIRE			WATTS				NO.	WATTS	OBJECT
DESCRIPTION	PER	OF	LCL	A	B	C	BRK	POLE	SIZE	NO	A	B	C	NO	SIZE	POLE	BRK	A	B	C	LCL	OF	PER	DESCRIPTION
	5760	1	X	5760						1	X			2	#12	1	20	540				3	180	RECEP -STD/GFCI
ITEC 4TON	5760	1	X		5760		60	3	#8	3		X		4	#12	1	20		720			4	180	RECEP -STD
	5760	1	X			5760				5			X	6	#12	1	20			360		1	360	QUAD -MONITOR
SOLATUBE	240	5		1200			20	1	#12	7	X			8	#12	1	20	180				1	180	RECEP -STD
2X4 LED LIGHTS	55	9	X		495		20	1	#12	9		X		10	#12	1	20		180			1	180	RECEP -DED.CART
RECEP-RR GFCI	180	1				180	20	1	#12	11			X	12	#12	1	20			360		1	360	QUAD-IDF
SPARE				0						13	X			14	#12	1	20	180				1	180	RECEP-DED.ICE
SPARE					0					15		X		16					0					SPARE
DX2 AEF 190	264	1				264	20	1	#12	17			X	18						0				SPARE
SPARE				0						19	X			20				0						SPARE
SPARE					0					21		X		22					0					SPARE
SPARE						0				23			X	24						0				SPARE
SPARE				0						25	X			26				0						SPARE
SPARE					0					27		X		28					0					SPARE
SPARE						0				29			X	30						0				SPARE
	LEG TOTALS			6960	6255	6504												900	900	720	LEG TOTALS			

LCL=4443.75+21939=26382.75
TOTAL WATTS=26382.75
LEG BALANCE = 6.3%
TOTAL AMPS: 73.32

NOTE:
FIRE ALARM DEDICATED CIRCUIT SHALL BE IDENTIFIED WITH A RED MARKED DISCONNECT WITH LOCK-ON CAPABILITY (NFPA 72 10.6.5.2)

LOAD PANEL CALCULATIONS

FIRE ALARM SYSTEM

1. THE FIRE ALARM SYSTEM SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE AND THE CALIFORNIA BUILDING CODE.
2. INSTALLATION OF THE FIRE ALARM SYSTEM SHALL NOT BE STARTED UNTIL DETAILED PLANS AND SPECIFICATIONS, INCLUDING CALIFORNIA STATE FIRE MARSHAL LISTINGS FOR EACH COMPONENT OF THE SYSTEM, HAVE BEEN APPROVED BY DSA.
3. UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING AGENCY.
4. JUNCTION BOXES – GALVANIZED SHEET METAL, SQUARE OR RECTANGULAR WITH BLANK COVERS. LOCATE ONE BOX AT REAR OF BUILDING NEAR MAIN ELECTRICAL PANEL @ +18" ABOVE FINISH FLOOR FOR FUTURE CONNECTION.
5. COVERS – INSTALL GASKETED, METAL, WATERPROOF, FINISH COVERS AT EXTERIOR LOCATIONS. INSTALL FINISH COVERS AT INTERIOR LOCATIONS.
6. THE AUTOMATIC ALARM SYSTEM SHALL BE INSTALLED, TESTED, AND MAINTAINED IN ACCORDANCE WITH THE STATE FIRE MARSHALL'S REGULATIONS (CBC SEC. 907.2.3) AND THE 2016 EDITION OF NFPA 72.
7. THE LOCATION OF AUTOMATIC DETECTORS, MANUAL STATIONS AND OTHER FIRE ALARM EQUIPMENT AND DEVICES, AS SHOWN ON PLAN, ARE FOR REFERENCE ONLY AND DO NOT CONSTITUTE SHOP DRAWINGS WHICH ARE REQUIRED FOR REVIEW AND APPROVAL.
8. ALARM-INDICATING DEVICES OF A FIRE ALARM SYSTEM INTENDED TO ALERT ALL OCCUPANTS SHALL CAUSE A LEVEL OF AUDIBILITY OF NOT LESS THAN 15 dBA ABOVE THE AVERAGE AMBIENT NOISE LEVELS OR 5dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF 60 SECONDS, WHICHEVER IS GREATER, MEASURED 5' ABOVE THE FLOOR. AMBIENT NOISE LEVELS MEANS THE LEVEL WHICH CAN NORMALLY BE EXPECTED WHEN THE FACILITY, BUILDING, ROOM, OR AREA IS FUNCTIONING UNDER NORMAL OPERATING OR WORKING CONDITIONS (NFPA 72, SEC. 18.4.1).
9. THE ALARM SYSTEM SHALL ACTIVATE A MEANS OF WARNING THE HEARING IMPAIRED. FLASHING VISUAL WARNINGS SHALL HAVE A FLASH RATE NOT EXCEEDING TWO FLASHES PER SECOND (2 HZ), NOR BE LESS THAN ONE FLASH EVERY SECOND (1 HZ). STROBE SIGNALING DEVICES FOR THE HEARING IMPAIRED SHALL BE STATE FIRE MARSHALL APPROVED AND LISTED (NFPA 72, SEC. 18.5.3). "TWO GROUPS OF VISIBLE NOTIFICATION APPLIANCES, WHERE VISUAL APPLIANCES OF EACH GROUP ARE SYNCHRONIZED, IN THE SAME ROOM OR ADJACENT SPACE WITHIN THE FIELD OF VIEW. THIS SHALL INCLUDE SYNCHRONIZATION STROBES OPERATED BY SEPARATE SYSTEMS.
10. AUTOMATIC FIRE ALARM SYSTEM SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72, CHAPTER 26. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX OR UUJS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY OWNER. IF TESTING RESULTS DETERMINE FIRE ALARM AUDIBILITY DOES NOT MEET 15db OVER AMBIENT NOISE LEVELS, ADDITIONAL FIRE ALARM SIGNALING DEVICES MAY BE REQUIRED BY THE ENFORCING AGENCY.

GENERAL NOTES

1. GROUNDING ELECTRODE CONDUCTOR SIZED PER CEC.
2. PROVIDE BONDS TO BLDG. STEEL & PANEL (#8 CU)
3. PANEL A LISTED FOR USE AS SERVICE EQUIPMENT.
4. ALL PANELS, SWITCHES, DISCONNECTS, BREAKERS, METERS, AND OTHER ELECTRICAL ELEMENTS SHALL BE PLACED ABOVE THE ELEVATION REQUIRED BY ASCE 24-14, SECTION 7.2.

FIXTURE NOTES:

1. ALL FLUORESCENT LIGHT FIXTURES SHALL HAVE ENERGY SAVING LAMPS AND BALLASTS.
2. LUMINARIES/BALLASTS SHALL BE CERTIFIED PER CALIFORNIA BUILDING CODE, TITLE 24.
3. FLUORESCENT LIGHT FIXTURE TYPE "A" SHALL BE CONTROLLED TO PROVIDE TWO LEVELS OF LIGHTING. SWITCH (SA) SHALL CONTROL THE TWO OUTER LAMPS AND SWITCH (SB) SHALL CONTROL THE TWO INNER LAMPS.
4. ELECTRICAL SERVICE DROP AND CONNECTIONS SUPPLIED BY OTHERS.
5. MANUFACTURER TO PROVIDE STUB-OUT FROM BACK OF ELECTRICAL PANEL THROUGH THE EXTERIOR WALL OR TO BELOW FLOOR FOR RECEIVING EITHER UNDERGROUND OR OVERHEAD SERVICE & FITTING FOR GROUNDING CABLE.
6. ELECTRICAL PANEL BOARD SHALL BE RECESS MOUNTED INSIDE THE BUILDING, SIZED TO ACCOMMODATE ALL CONNECTED LOADS INCLUDING SPACES AS SHOWN. OVERCURRENT PROTECTIVE DEVICES IN THE PANEL BOARDS SHALL HAVE ADEQUATE SHORT CIRCUIT INTERRUPTING CAPACITY. ALL BUSES INCLUDING BUS SHALL BE COPPER OR ALUMINUM.
7. 2X4 FLUORESCENT FIXTURES SHALL HAVE A STEEL FRAME, LENS SHALL BE HINGED AND LOCKED IN PLACE BY TWO LOCKING DEVICES. THE LENS DIFFUSERS SHALL BE KHS, INC. #KSH-2, CAROLITE, INC. #C-12 OR PLASKOLITE, INC. #PL21A. MINIMUM LENS THICKNESS SHALL BE 0.125 INCHES.
8. FLUORESCENT BALLAST SHALL BE ENERGY SAVER WHILE MAINTAINING FULL LIGHT OUTPUT, CLASS "P" EQUIPPED WITH THERMAL PROTECTORS, GUARANTEED AGAINST FAILURE FOR (2) YEARS AND BE REPLACEABLE FROM INSIDE THE FIXTURE.
9. CLOCK – 12" DIAL CLOCK ON CLOCK OUTLET.
   A. CLOCK SHALL BE GENERAL ELECTRIC MODEL 2912 129V 60 CYCLE
   B. CLOCK OUTLET SHALL BE BRYANT #2828 OR EQUAL WITH SEPARABLE HANGING CLIP & APP'D RECEPT. THE H.V.A.C. UNIT FEEDER CIRCUIT – PANEL CIRCUIT BREAKER, FEEDER WIRE, UNIT DISCONNECT AND FUSES (WHERE USED) – IS TO BE COORDINATED WITH THE NAME PLATE DATA AT THE TIME OF MANUFACTURE. H.V.A.C. UNITS HAVING KVA RATINGS LARGER THAN THAT INDICATED ON THIS PANEL SCHEDULE WILL NOT BE ALLOWED TO BE INSTALLED ON THIS BUILDING.
   C. IF 60 DEGREES WIRE IS TO BE USED IN THIS INSTALLATION, CALCULATIONS DEMONSTRATING AMPACITY SHALL BE PROVIDED ON THE DRAWING.

GENERAL NOTES

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Phone (209) 825-1921 - Fax (209) 825-7018
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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE

ELECTRICAL NOTES & DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — PATRICK CAVANAUGH — No. C-26531 — Exp. 3-31-19 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 11-9 7 2 2
AC FLS SS
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-116071

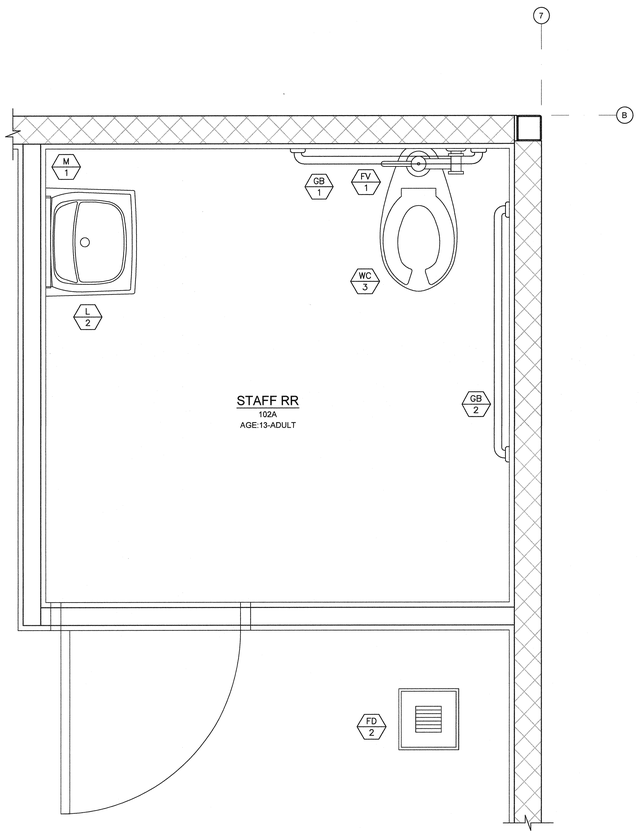
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

DRAWN BY:	INITALS
SCALE:	AS NOTED
DATE:	10/25/18

SHEET NUMBER

E1.2



STAFF R.R. PLAN

SCALE : 1"=1'-0"

1

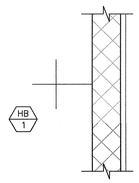
MARK	FIXTURE*	TYPE AT KINDERGARTEN	TYPE AT ELEMENTARY	TYPE AT ADULT	REMARKS
WC 1	WATER CLOSET	WALL MOUNT TYPE KOHLER 'KINGSTON' MODEL K-4325 OR EQUAL	WALL MOUNT TYPE KOHLER 'KINGSTON' MODEL K-4325 OR EQUAL	WALL MOUNT TYPE KOHLER 'KINGSTON' MODEL K-4325 OR EQUAL	FLUSH VALVE ZURN MODEL Z6000AV-HET 1.28gpf OR EQUAL. LOCATE AS SPECIFIED ON FLOOR PLANS. MOUNT ACCESSIBLE FIXTURES PER SCHEDULE 7/P2.0.
WC 2	WATER CLOSET	FLOOR MOUNT TANK TYPE AMERICAN STANDARD #3128.001 FOR BOWL #4019.228 FOR TANK	FLOOR MOUNT TANK TYPE KOHLER 'HIGHLINE' MODEL K-3999 OR EQUAL	FLOOR MOUNT TANK TYPE KOHLER 'HIGHLINE' MODEL K-3999 OR EQUAL	LOCATE AS SPECIFIED ON FLOOR PLANS. MOUNT ACCESSIBLE FIXTURES PER SCHEDULE 7/P2.0
WC 3	WATER CLOSET	FLOOR MOUNT FLUSH VALVE TYPE KOHLER 'PRIMARY' MODEL K-4384 OR EQUAL	FLOOR MOUNT FLUSH VALVE TYPE KOHLER 'WELLWORTH' MODEL K-4406 OR EQUAL	FLOOR MOUNT FLUSH VALVE TYPE KOHLER 'WELLWORTH' MODEL K-4405 OR EQUAL	FLUSH VALVE ZURN MODEL Z6000AV-HET 1.28gpf OR EQUAL. LOCATE AS SPECIFIED ON FLOOR PLANS. MOUNT ACCESSIBLE FIXTURES PER SCHEDULE 7/P2.0.
L 1	LAVATORY	AMERICAN STANDARD MODEL LUCERNE 0356.421 OR EQUAL			AMERICAN STANDARD AUTOMATIC SENSOR CONTROL LAVATORY FAUCET MODEL 6056.104 w/ NON-AERATING SPRAY @ 0.35 G/MIN, OR EQUAL. MOUNT AS SPECIFIED IN FLOOR PLANS. MOUNT ACCESSIBLE FIXTURES PER SCHEDULE 7/P2.0
L 2	LAVATORY	AMERICAN STANDARD MODEL LUCERNE 0355.012 OR EQUAL			AMERICAN STANDARD SINGLE CONTROL LAVATORY FAUCET MODEL 2175.205 w/ CHICAGO FAUCET NON-AERATING SPRAY @ 0.50 G/MIN, MODEL #E2605JKABCP OR EQUAL. MOUNT AS SPECIFIED IN FLOOR PLANS. MOUNT ACCESSIBLE FIXTURES PER SCHEDULE 7/P2.0
UR 1	URINAL	WALL MOUNT TYPE AMERICAN STANDARD MODEL ALLBROOK 6541.132 OR EQUAL			FLUSH VALVE ZURN MODEL Z6003AV OR EQUAL. MOUNT AS SPECIFIED IN FLOOR PLANS. MOUNT ACCESSIBLE FIXTURES PER SCHEDULE 7/P2.0
M 1	MIRROR	WALL MOUNT TYPE BRADLEY MODEL 781-1830 OR EQUAL			MOUNT AS SPECIFIED IN FLOOR PLANS. MOUNT ACCESSIBLE MIRROR PER SCHEDULE 7/P2.0
GB 1	36" GRAB BARS	WALL MOUNT TYPE CREATIVE SPECIALTIES INTERNATIONAL MODEL R7436 (1 1/4" EXPOSED SCREW 36" & 42") OR EQUAL			18 GA. 304 STAINLESS STEEL SATIN FINISH MOUNT AS SPECIFIED IN FLOOR PLANS AND PER SCHEDULE 7/P2.0. (STRUCTURAL STRENGTH OF GRAB BARS 250# MIN.)
GB 2	42" GRAB BARS				
WH 1	WATER HEATER	RHEEMGLAS ENERGY MISER ELECTRIC WATER HEATER RHEEM POINT OF USE MODEL 81VP2S THRU 82VP30-1 OR EQUAL			AVAILABLE IN 2 1/2, 6, 10, 15, 20 AND 30 GALLON MODELS (MAX WATER HEATER WEIGHT=400LBS) PER 6/M1.4 OR 1/P2.0 LOCATION MAY VARY.
FS 1	FLOOR SINK	FLORESTONE FLOOR SINK MOLDED MOP RECEPTORS MODEL MSR-2424 OR EQUAL			ZURN ZR43MIRC OR EQUAL
US 1	UTILITY SINK	WALL MOUNT TYPE ELJER RADFORD SINK MODEL 241-0354 OR EQUAL			AMERICAN STANDARD EXPOSED YOKE WALL MOUNT UTILITY FAUCET MODEL 8344.112 OR EQUAL
FD 1	FLOOR DRAIN	WOOD FLOOR DRAIN SIOUX CHIEF MODEL MODEL 822-2PNRV OR EQUAL			LOCATE AS SPECIFIED ON FLOOR PLANS. SEE 2/P2.0
FD 2	FLOOR DRAIN	CONCRETE FLOOR DRAIN ZURN MODEL Z415 w/ STANDARD GRATE ZURN Z400B OR EQUAL			LOCATE AS SPECIFIED ON FLOOR PLANS. (FLOOR DRAIN TO BE USED ON CONCRETE ONLY.) SEE 2/P2.0
FV 1	FLUSH VALVE	ZURN FLUSH VALVE MODEL EXPOSED Z6000AV-HET FOR WATER CLOSETS OR EQUAL			FLOW OPTIONS: 1.28 G/FLUSH LOW CONSUMPTION FLUSH WATER CLOSET VALVE MOUNT AS SPECIFIED IN FLOOR PLANS. HANDLE AT WIDE SIDE OF WC.
FV 2	FLUSH VALVE	ZURN FLUSH VALVE MODEL EXPOSED Z6003AV FOR URINALS OR EQUAL			FLOW OPTIONS: 0.50 G/FLUSH LOW CONSUMPTION FLUSH 3/4" URINAL VALVE MOUNT AS SPECIFIED IN FLOOR PLANS. HANDLE AT WIDE SIDE OF WC.
CS 1	CLASSROOM SINK	TEKA SINGLE BOWL SINK MODEL America #25.22 OR EQUAL			LOCATE AS SPECIFIED ON FLOOR PLANS. MOUNT ACCESSIBLE FIXTURES PER SCHEDULE 7/P2.0
HB 1	HOSE BIBB	ACORN HOSE BIBB MODEL #8141 SINGLE TEMPERATURE w/ VACUUM BREAKER OR EQUAL			LOCATE AS SPECIFIED ON FLOOR PLANS.

NOTES:
1. ALL WATER FIXTURES MUST MEET REQUIREMENTS OF CAL-GREEN TITLE 24, PART 11, SECTION 5.303.3 "WATER CONSERVING PLUMBING FIXTURES & FITTINGS".
2. FOR OPTIONAL FLOOR-MOUNT WATER CLOSET, SEE PLUMBING SCHEDULE MARK WC/3 (NOT SHOWN ON PLAN).
3. NOT ALL ITEMS LISTED MAY OCCUR IN THIS PROJECT.

PLUMBING FIXTURE SCHEDULE

NOT USED

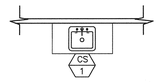
3



HOSE BIBB PLAN

SCALE : 1"=1'-0"

4



CLASSROOM SINK PLAN

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

5

A 1 = PLUMBING FIXTURE I.D. – SEE SCHEDULE ABOVE

SYMBOLS LEGEND

PLUMBING NOTE

MODULAR MFR. TO STUB THROUGH FLOOR ALL PLUMBING LINES. BUILDING PERIMETER POC'S SHOWN ARE FOR COORDINATION PURPOSES ONLY. ALL UNDER-FLOOR CONNECTIONS ARE BY SITE CONTRACTOR, U.O.N.

1. DIMENSIONS ARE TO FACE OF FINISH (F.O.F.) UNLESS NOTED OTHERWISE (i.e. F.O.C., ℄)
2. RESTROOM CONFIGURATION MAY VARY PER BUILDING CONFIGURATION.
3. RESTROOM MODULE OCCURS ONLY AT END OF BUILDING. SINGLE RESTROOMS MAY OCCUR IN ANY PART OF A BUILDING.
4. RESTROOM MODULE CANNOT STAND ALONE AND SHALL BE ASSEMBLED TOGETHER WITH AT LEAST TWO OTHER 10'x32' MODULES.
5. INTERIOR WALLS MAY OCCUR THROUGHOUT BUILDING. REFER TO SHEET S8.1 OR S9.1 FOR ATTACHMENTS.
6. REFER TO SCHEDULE 10/P2.0 FOR ACCESSIBLE HEIGHTS AT TOILETS.
7. REFER TO DETAILS 1, 3, 4, & 5, SHEET A7.1 FOR TOILET PARTITION ANCHORAGE BLOCKING.
8. SEWER AND WATER STUB OUTS SHALL BE LOCATED WITHIN THE ALLOWABLE AREA AS SHOWN ON FLOOR PLAN AND CONNECTIONS SHALL BE EASILY ACCESSIBLE FOR FUTURE RELOCATION. STUB OUT HEIGHT SHALL BE COORDINATED BY THE MANUFACTURER.
9. PIPING MATERIAL
   a. WATER: COPPER TYPE "L", 95/5 SOLDER.
   b. WASTE DRAIN AND VENT: ABS.

GENERAL NOTES

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

GLENDALE USD
CRESCENTA VALLEY HS
(1) 60'x32' BUILDING

SHEET TITLE

RESTROOM OPTIONS
PLUMBING PLAN
FIXTURE SCHEDULE

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — ROBERT PATRICK CRAWFORD — No. C-30531 — Exp. 3-31-19 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-116071

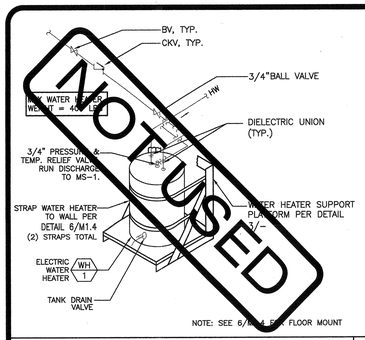
PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

DRAWN BY:	AS
SCALE:	AS NOTED
DATE:	01/04/19

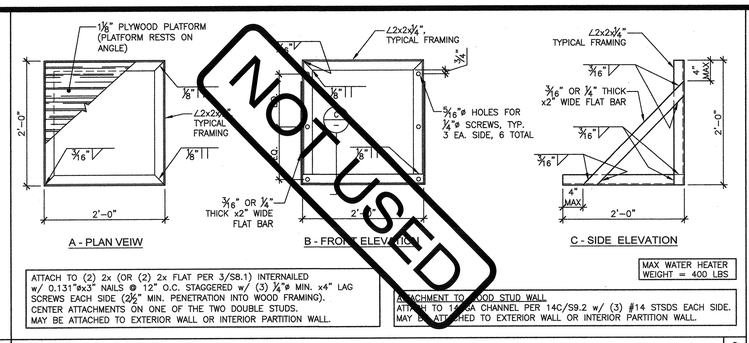
SHEET NUMBER

P1.0



NOTE: SEE 6/M1.4 FOR FLOOR MOUNT

WATER HEATER SUPPORT DETAIL
NOT TO SCALE | 1

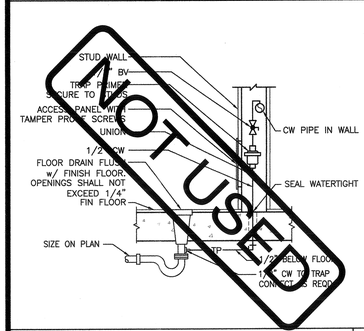


ATTACH TO (2) 2x (OR (2) 2x FLAT PER 3/S8.1) INTERNAILED w/ 0.131"ø x3" NAILS @ 12" O.C. STAGGERED w/ (3) ¼"ø MIN. x4" LAG SCREWS EACH SIDE (2½" MIN. PENETRATION INTO WOOD FRAMING). CENTER ATTACHMENTS ON ONE OF THE TWO DOUBLE STUDS. MAY BE ATTACHED TO EXTERIOR WALL OR INTERIOR PARTITION WALL.

MAX WATER HEATER WEIGHT = 400 LBS

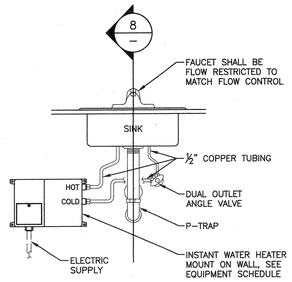
ATTACHMENT TO WOOD STUD WALL
ATTACH TO 14GA CHANNEL PER 14C/S9.2 w/ (3) #14 STSDS EACH SIDE. MAY BE ATTACHED TO EXTERIOR WALL OR INTERIOR PARTITION WALL.

WATER HEATER PLATFORM DETAIL
NOT TO SCALE | 3



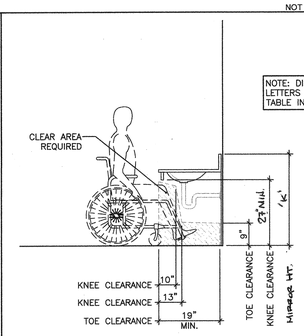
TRAP PRIMER DETAIL
NOT TO SCALE | 6

NOTE:
INSULATE HOT WATER SUPPLY AND DRAIN PIPING AT ACCESSIBLE LAVATORIES WITH "TRUEBRO® LAV GUARD 2" OR "TRUEBRO® SOFT GUARD PLUS" SHIELDS



INSTANT WATER HEATER DETAIL
NOT TO SCALE | 7

NOTE: DIMENSION LETTERS REFER TO TABLE IN DETAIL 10.



ACCESSIBLE CLASSROOM SINK
NOT TO SCALE | 8

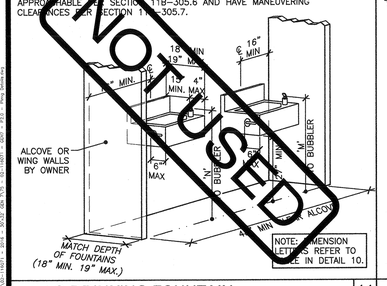
HEIGHTS FOR ACCESSIBLE FEATURES IN TOILET FACILITIES

	FIXTURE & MEASUREMENT POINT	PRIMARY USERS: AGES 3-4	AGES 5-8	AGES 9-12	AGES 13 -ADULT	NOTES
A	TOILET, CENTERLINE FROM FACE OF WALL	12" SUGGESTED	12" TO 15" SUGGESTED	15" TO 18" SUGGESTED	17" MIN. TO 18" MAX.	
B	TOILET, TOP OF SEAT HEIGHT	11" TO 12" SUGGESTED	12" TO 15" SUGGESTED	15" TO 17" SUGGESTED	17" MIN. TO 19" MAX.	
C	TOILET, TOP OF FLUSH CONTROLS	36" MAX.	36" MAX.	36" MAX.	44" MAX.	FLUSH CONTROLS SHALL BE LOCATED ON OPEN SIDE OF TOILET.
D	GRAB BAR, TOP OF BAR	18" TO 20" SUGGESTED	20" TO 25" SUGGESTED	25" TO 27" SUGGESTED	33" MIN. TO 36" MAX.	
E	TOILET PAPER DISPENSER, HEIGHT TO OUTLET	14" SUGGESTED	14" TO 17" SUGGESTED	17" TO 19" SUGGESTED	19" MIN.	CENTERLINE OF DISPENSER OUTLET SHALL BE BETWEEN 7" TO 9" IN FRONT OF THE TOILET. OUTLET OF DISPENSER MUST BE BELOW GRAB BAR. DISPENSER (INCLUDING FULL TOILET PAPER ROLL) MUST NOT ENCROACH INTO REQ'D GRAB BAR CLEARANCE.
F	TOILET SEAT COVER, HEIGHT TO TOP OF OUTLET	24" TO 32" SUGGESTED	30" TO 32" SUGGESTED	32" TO 36" SUGGESTED	40" MAX.	
G	URINAL, LIP HEIGHT	12" TO 13" SUGGESTED	13" TO 15" SUGGESTED	15" TO 17" SUGGESTED	17" MAX.	
H	URINAL, HEIGHT OF FLUSH HANDLE	36" MAX.	36" MAX.	36" MAX.	44" MAX.	
I	LAVATORY, HEIGHT TO HIGHEST POINT AT FRONT OF LAV. OR COUNTER	24" TO 28" SUGGESTED	31" MAX.	31" MAX.	34" MAX.	
J	LAVATORY, VERTICAL KNEE CLEARANCE		24" MIN.	24" MIN.	29"-27" OVER THE 8" DEPTH SHOWN	
K	MIRROR (ABOVE LAVATORY OR COUNTERTOP), LOWEST POINT OF REFLECTIVE SURFACE	24" TO 32" SUGGESTED	30" TO 32" SUGGESTED	32" TO 36" SUGGESTED	40" MAX.	MIRROR NOT LOCATED ABOVE LAVATORY OR COUNTERTOP SHALL BE MOUNTED SO THAT LOWEST EDGE OF REFLECTING SURFACE IS 35" MAX. ABOVE FINISH FLOOR.
L	DISPENSERS, DRYERS, HEIGHT TO TOP OF OUTLET, HANDLE OR OPERATING MECHANISM (WHICHEVER IS HIGHEST)	24" TO 32" SUGGESTED	30" TO 32" SUGGESTED	32" TO 36" SUGGESTED	40" MAX	
M	LO DRINKING FOUNTAIN, HEIGHT TO BUBBLER	24" TO 30" SUGGESTED	30" TO 32" SUGGESTED	32" TO 36" SUGGESTED	36" MAX.	
N	HI DRINKING FOUNTAIN, HEIGHT TO BUBBLER	same as ADULT	same as ADULT	same as ADULT	38" MIN. TO 43" MAX.	

NOTES:
1. THIS TABLE AND RELATED DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF CALIF. TITLE 24 (2013 C.B.C. SECTION 11B-601) AND IS SHOWN HERE ONLY AS AN AID FOR CONSTRUCTION AND INSTALLATION.
2. ACCESSORIES ARE NOT IN MANUFACTURER'S SCOPE OF WORK.
3. DIMENSIONS GIVEN ARE FROM FACE OF FINISH, UNLESS OTHERWISE NOTED.
4. NOT ALL ITEMS LISTED MAY OCCUR IN THE PROJECT.
5. HEIGHTS CHOSEN FOR CHILDREN'S WATER CLOSETS & ACCESSORIES SHALL BE CONSISTENTLY APPLIED FOR THE AGE GROUP.

ACCESSIBLE HEIGHTS TABLE
10

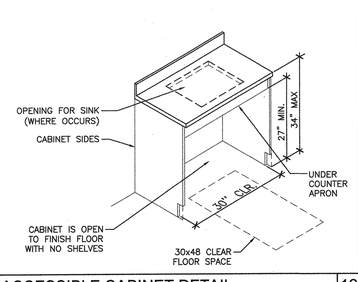
NOTE:
ALL DRINKING FOUNTAINS SHALL BE LOCATED COMPLETELY WITHIN ALCOVES, BETWEEN WING WALLS, OR OTHERWISE POSITIONED SO AS NOT TO ENCROACH INTO PEDESTRIAN WAYS (PER C.B.C. SECTION 11B-602.9), AND SHALL BE APPROACHABLE PER SECTION 11B-305.6 AND HAVE MANEUVERING CLEARANCES PER SECTION 11B-305.7.



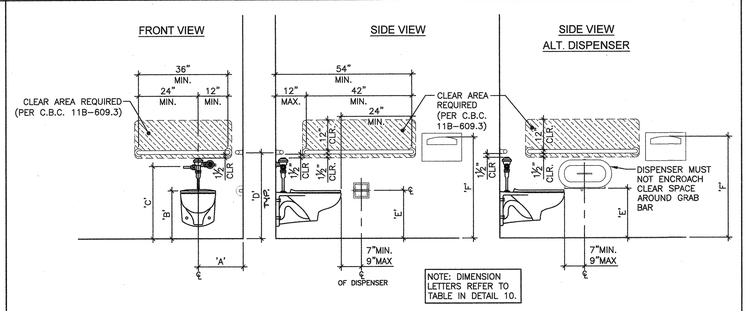
NOTE: DIMENSION LETTERS REFER TO TABLE IN DETAIL 10.

HI-LO DRINKING FOUNTAIN
NOT TO SCALE | 11

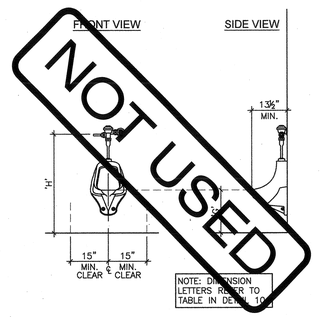
NOTES:
1. MODIFY BASE AS SHOWN FOR ADULT WHEELCHAIR ACCESS.
2. CABINET IS FOR ADULT USE ONLY.
3. ALL EXTERIOR SURFACES TO BE PLASTIC LAMINATE.
4. CABINET DOORS ARE NOT ALLOWED @ SINKS.



ACCESSIBLE CABINET DETAIL
NOT TO SCALE | 12

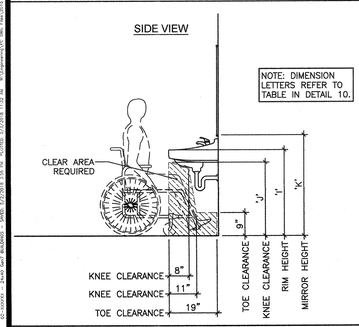


ACCESSIBLE TOILET AND ACCESSORIES
SCALE: 1/2" = 1'-0" | 14

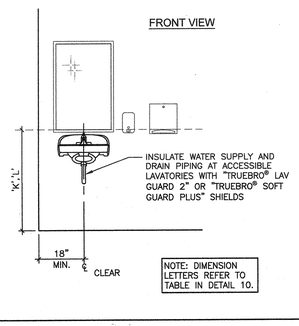


NOTE: DIMENSION LETTERS REFER TO TABLE IN DETAIL 10.

ACCESSIBLE URINAL
SCALE: 1/2" = 1'-0" | 15



LAVATORY & ACCESSORIES
SCALE: 1/2" = 1'-0" | 17



DETAIL
18

DETAIL
19

1. DWV PIPING SHALL BE ABS PLASTIC
2. COLD WATER SUPPLY SHALL BE TYPE L COPPER
3. MIN SLOPE 1/4" PER FOOT MAY SLOPE 4" CI AT 1/8" PER FOOT VENTS SHALL TERMINATE NOT LESS THAN 10 FEET FROM OR AT LEAST 3 FT. ABOVE ANY WINDOW, DOOR, AIR INTAKE OR VENT SHAFT; NOR LESS THAN 3FT. IN EVERY DIRECTION FROM ANY LOT LINE; ALLEY AND STREET EXCEPTED; EXTEND 6" ABOVE THE ROOF

PLUMBING NOTES
20

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PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

PLUMBING DETAILS & ACCESSIBLE DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT — KENNETH PATRICK DONAHUE — No. C-22631 — Exp. 3-31-19 — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS
1
2
3
4

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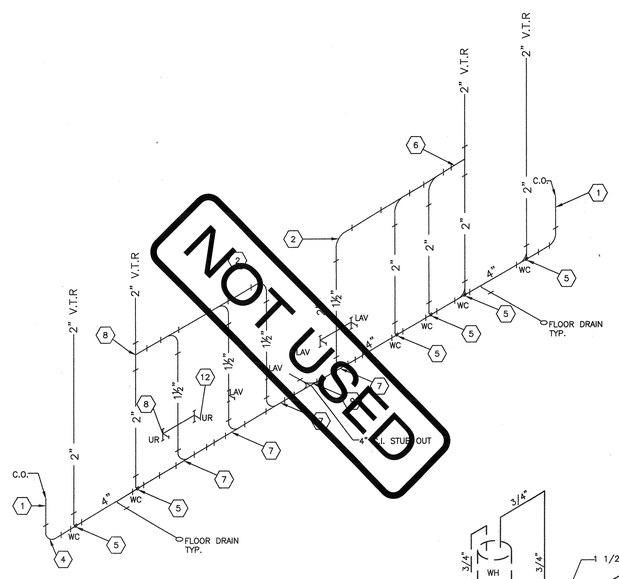
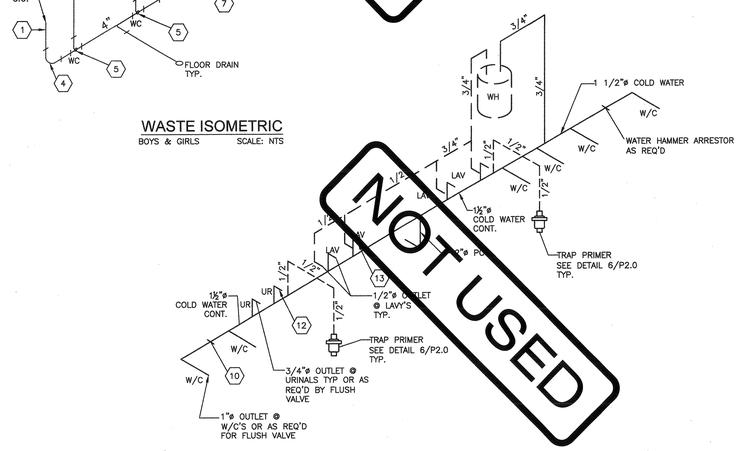
SCALE: AS NOTED
DATE: .

SHEET NUMBER

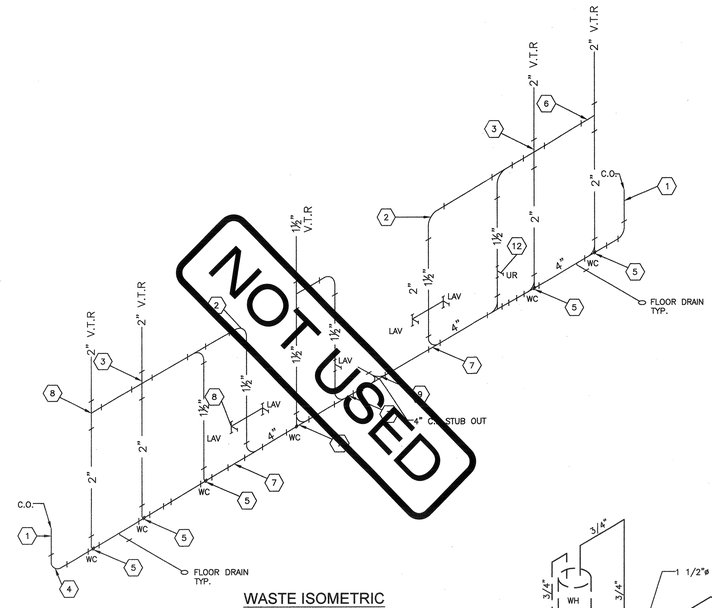
P2.0



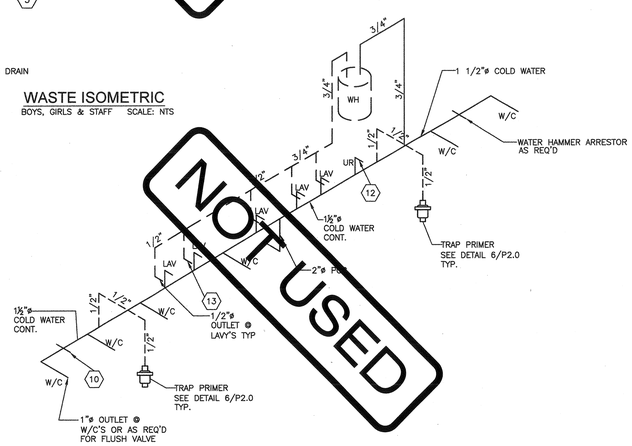
WASTE ISOMETRIC
BOYS & GIRLS SCALE: NTS



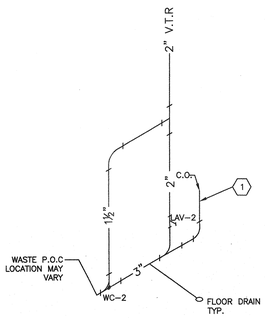
WATER SUPPLY ISOMETRIC
BOYS & GIRLS SCALE: NTS



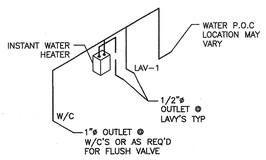
WASTE ISOMETRIC
BOYS, GIRLS & STAFF SCALE: NTS



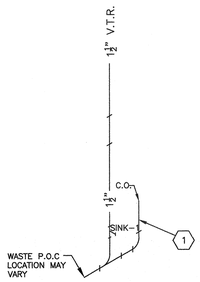
WATER SUPPLY ISOMETRIC
BOYS, GIRLS & STAFF SCALE: NTS



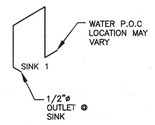
WASTE ISOMETRIC
SINGLE TOILET OPTION SCALE: NTS



WATER SUPPLY ISOMETRIC
SINGLE TOILET OPTION SCALE: NTS



WASTE ISOMETRIC
CLASSROOM SINK OPTION SCALE: NTS



WATER SUPPLY ISOMETRIC
CLASSROOM SINK OPTION SCALE: NTS

KEY NOTES

1	4" CLEAN OUT
2	VENT 90
3	VENT CROSS
4	4" QUARTER BEND
5	SMITH#0600 CARRIER
6	2" SANITARY TAP TEE
7	4x4x2 COMBINATION WYE 1/8 BEND
8	2x2x1 1/2 SANITARY TEE
9	4" DOUBLE COMBINATION
10	WATER HAMMER ARRESTOR
11	1" CW STUB AT WATER CLOSETS
12	3/4" CW STUB AT URINALS
13	1/2 CW STUB AT LAVATORIES

American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

PRE-CHECKED SET NAME

30'x32' THRU 150'x32' BUILDINGS

Gen7 healthy schools, delivered

SITE SPECIFIC PROJECT NAME

SHEET TITLE

PLUMBING ISOMETRICS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT RAYMOND PATRICK CHUNG No. C-30531 Exp. 3-31-19 STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP03 119722
AC FLS SS BY
DATE FEB 05 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-116071
AC FLS SS
DATE 7 10 18

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

DRAWN BY:	.
SCALE:	AS NOTED
DATE:	.

SHEET NUMBER

P3.0